

|           |                                                                      |   |      |       |       |      |      |         |
|-----------|----------------------------------------------------------------------|---|------|-------|-------|------|------|---------|
| 10493-AAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.54 | 70.14 | 18.11 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.10 | 69.35 | 17.82 |      | 80.0 |         |
|           |                                                                      | Z | 4.12 | 70.46 | 18.58 |      | 80.0 |         |
| 10494-AAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 5.56 | 76.56 | 20.26 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.85 | 75.44 | 19.95 |      | 80.0 |         |
|           |                                                                      | Z | 5.29 | 78.34 | 21.59 |      | 80.0 |         |
| 10495-AAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.56 | 70.89 | 18.43 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.10 | 70.01 | 18.14 |      | 80.0 |         |
|           |                                                                      | Z | 4.13 | 71.16 | 18.96 |      | 80.0 |         |
| 10496-AAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.60 | 70.46 | 18.28 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.15 | 69.62 | 18.00 |      | 80.0 |         |
|           |                                                                      | Z | 4.16 | 70.65 | 18.76 |      | 80.0 |         |
| 10497-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 4.26 | 75.89 | 17.82 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.48 | 69.35 | 14.32 |      | 80.0 |         |
|           |                                                                      | Z | 6.53 | 81.99 | 18.76 |      | 80.0 |         |
| 10498-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.69 | 67.02 | 13.22 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.53 | 61.29 | 9.47  |      | 80.0 |         |
|           |                                                                      | Z | 1.39 | 61.26 | 9.20  |      | 80.0 |         |
| 10499-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.56 | 66.14 | 12.68 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.48 | 60.70 | 9.01  |      | 80.0 |         |
|           |                                                                      | Z | 1.29 | 60.38 | 8.56  |      | 80.0 |         |
| 10500-AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 5.05 | 78.07 | 20.60 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.51 | 77.61 | 20.28 |      | 80.0 |         |
|           |                                                                      | Z | 6.36 | 84.95 | 23.38 |      | 80.0 |         |
| 10501-AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.32 | 72.55 | 18.20 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.81 | 71.62 | 17.54 |      | 80.0 |         |
|           |                                                                      | Z | 4.53 | 75.59 | 19.32 |      | 80.0 |         |
| 10502-AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.36 | 72.29 | 18.04 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.83 | 71.32 | 17.35 |      | 80.0 |         |
|           |                                                                      | Z | 4.52 | 75.09 | 19.04 |      | 80.0 |         |
| 10503-AAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 4.99 | 76.92 | 20.47 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.37 | 76.09 | 20.18 |      | 80.0 |         |
|           |                                                                      | Z | 5.06 | 80.25 | 22.30 |      | 80.0 |         |
| 10504-AAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.25 | 71.56 | 18.43 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.80 | 70.81 | 18.07 |      | 80.0 |         |
|           |                                                                      | Z | 4.03 | 73.00 | 19.29 |      | 80.0 |         |
| 10505-AAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.31 | 71.22 | 18.30 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.86 | 70.49 | 17.95 |      | 80.0 |         |
|           |                                                                      | Z | 4.06 | 72.51 | 19.08 |      | 80.0 |         |
| 10506-AAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 5.51 | 76.38 | 20.18 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.79 | 75.23 | 19.85 |      | 80.0 |         |
|           |                                                                      | Z | 5.22 | 78.11 | 21.48 |      | 80.0 |         |
| 10507-AAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.55 | 70.83 | 18.39 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.08 | 69.93 | 18.09 |      | 80.0 |         |
|           |                                                                      | Z | 4.11 | 71.08 | 18.91 |      | 80.0 |         |

|           |                                                                     |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10508-AAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.59 | 70.39 | 18.24 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.14 | 69.53 | 17.95 |      | 80.0  |         |
|           |                                                                     | Z | 4.15 | 70.56 | 18.70 |      | 80.0  |         |
| 10509-AAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 5.52 | 74.11 | 19.29 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.88 | 72.96 | 18.97 |      | 80.0  |         |
|           |                                                                     | Z | 5.09 | 74.82 | 20.15 |      | 80.0  |         |
| 10510-AAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.98 | 70.24 | 18.20 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.51 | 69.28 | 17.92 |      | 80.0  |         |
|           |                                                                     | Z | 4.47 | 69.99 | 18.52 |      | 80.0  |         |
| 10511-AAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.00 | 69.87 | 18.09 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.54 | 68.96 | 17.82 |      | 80.0  |         |
|           |                                                                     | Z | 4.49 | 69.61 | 18.38 |      | 80.0  |         |
| 10512-AAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 6.10 | 76.46 | 20.04 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.30 | 75.07 | 19.64 |      | 80.0  |         |
|           |                                                                     | Z | 5.72 | 77.59 | 21.09 |      | 80.0  |         |
| 10513-AAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.90 | 70.69 | 18.38 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.42 | 69.65 | 18.07 |      | 80.0  |         |
|           |                                                                     | Z | 4.39 | 70.39 | 18.71 |      | 80.0  |         |
| 10514-AAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.87 | 70.11 | 18.20 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.41 | 69.12 | 17.90 |      | 80.0  |         |
|           |                                                                     | Z | 4.37 | 69.77 | 18.49 |      | 80.0  |         |
| 10515-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)           | X | 0.97 | 63.13 | 14.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.89 | 63.17 | 14.74 |      | 150.0 |         |
|           |                                                                     | Z | 0.99 | 64.89 | 16.18 |      | 150.0 |         |
| 10516-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)         | X | 0.58 | 69.95 | 17.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.68 | 75.18 | 18.65 |      | 150.0 |         |
|           |                                                                     | Z | 2.30 | 98.07 | 28.86 |      | 150.0 |         |
| 10517-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)          | X | 0.82 | 64.99 | 15.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.75 | 65.48 | 15.47 |      | 150.0 |         |
|           |                                                                     | Z | 0.91 | 68.76 | 17.90 |      | 150.0 |         |
| 10518-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)           | X | 4.56 | 66.71 | 16.15 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.44 | 66.66 | 16.22 |      | 150.0 |         |
|           |                                                                     | Z | 4.46 | 67.15 | 16.53 |      | 150.0 |         |
| 10519-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)          | X | 4.75 | 66.96 | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.62 | 66.88 | 16.34 |      | 150.0 |         |
|           |                                                                     | Z | 4.62 | 67.33 | 16.62 |      | 150.0 |         |
| 10520-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)          | X | 4.61 | 66.93 | 16.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.47 | 66.84 | 16.26 |      | 150.0 |         |
|           |                                                                     | Z | 4.47 | 67.30 | 16.56 |      | 150.0 |         |
| 10521-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)          | X | 4.54 | 66.93 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.40 | 66.83 | 16.24 |      | 150.0 |         |
|           |                                                                     | Z | 4.41 | 67.30 | 16.55 |      | 150.0 |         |
| 10522-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)          | X | 4.60 | 66.98 | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.47 | 66.95 | 16.34 |      | 150.0 |         |
|           |                                                                     | Z | 4.47 | 67.43 | 16.65 |      | 150.0 |         |

|           |                                                            |   |      |       |       |      |       |         |
|-----------|------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10523-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) | X | 4.47 | 66.86 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.35 | 66.81 | 16.19 |      | 150.0 |         |
|           |                                                            | Z | 4.38 | 67.37 | 16.54 |      | 150.0 |         |
| 10524-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) | X | 4.54 | 66.91 | 16.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.41 | 66.86 | 16.31 |      | 150.0 |         |
|           |                                                            | Z | 4.41 | 67.36 | 16.63 |      | 150.0 |         |
| 10525-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)          | X | 4.52 | 65.96 | 15.82 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.40 | 65.91 | 15.90 |      | 150.0 |         |
|           |                                                            | Z | 4.43 | 66.44 | 16.24 |      | 150.0 |         |
| 10526-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)          | X | 4.70 | 66.34 | 15.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.57 | 66.26 | 16.04 |      | 150.0 |         |
|           |                                                            | Z | 4.58 | 66.77 | 16.36 |      | 150.0 |         |
| 10527-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)          | X | 4.61 | 66.30 | 15.91 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.49 | 66.22 | 15.98 |      | 150.0 |         |
|           |                                                            | Z | 4.51 | 66.74 | 16.31 |      | 150.0 |         |
| 10528-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)          | X | 4.63 | 66.32 | 15.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.50 | 66.24 | 16.02 |      | 150.0 |         |
|           |                                                            | Z | 4.52 | 66.76 | 16.34 |      | 150.0 |         |
| 10529-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)          | X | 4.63 | 66.32 | 15.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.50 | 66.24 | 16.02 |      | 150.0 |         |
|           |                                                            | Z | 4.52 | 66.76 | 16.34 |      | 150.0 |         |
| 10531-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)          | X | 4.63 | 66.44 | 15.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.49 | 66.33 | 16.02 |      | 150.0 |         |
|           |                                                            | Z | 4.50 | 66.82 | 16.34 |      | 150.0 |         |
| 10532-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)          | X | 4.49 | 66.29 | 15.89 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.35 | 66.19 | 15.95 |      | 150.0 |         |
|           |                                                            | Z | 4.37 | 66.69 | 16.29 |      | 150.0 |         |
| 10533-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)          | X | 4.64 | 66.36 | 15.93 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.51 | 66.30 | 16.01 |      | 150.0 |         |
|           |                                                            | Z | 4.53 | 66.84 | 16.35 |      | 150.0 |         |
| 10534-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)          | X | 5.15 | 66.44 | 15.99 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.05 | 66.32 | 16.08 |      | 150.0 |         |
|           |                                                            | Z | 5.06 | 66.70 | 16.34 |      | 150.0 |         |
| 10535-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)          | X | 5.22 | 66.59 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.12 | 66.52 | 16.17 |      | 150.0 |         |
|           |                                                            | Z | 5.12 | 66.87 | 16.42 |      | 150.0 |         |
| 10536-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)          | X | 5.09 | 66.56 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.99 | 66.46 | 16.12 |      | 150.0 |         |
|           |                                                            | Z | 5.00 | 66.87 | 16.40 |      | 150.0 |         |
| 10537-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)          | X | 5.15 | 66.53 | 16.01 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.04 | 66.42 | 16.10 |      | 150.0 |         |
|           |                                                            | Z | 5.06 | 66.81 | 16.38 |      | 150.0 |         |
| 10538-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)          | X | 5.24 | 66.56 | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.13 | 66.43 | 16.15 |      | 150.0 |         |
|           |                                                            | Z | 5.13 | 66.79 | 16.40 |      | 150.0 |         |
| 10540-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)          | X | 5.16 | 66.55 | 16.08 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.07 | 66.48 | 16.19 |      | 150.0 |         |
|           |                                                            | Z | 5.06 | 66.78 | 16.41 |      | 150.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10541-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)  | X | 5.14 | 66.44 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.04 | 66.32 | 16.10 |      | 150.0 |         |
|           |                                                    | Z | 5.04 | 66.66 | 16.34 |      | 150.0 |         |
| 10542-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)  | X | 5.30 | 66.50 | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.19 | 66.39 | 16.15 |      | 150.0 |         |
|           |                                                    | Z | 5.19 | 66.74 | 16.40 |      | 150.0 |         |
| 10543-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)  | X | 5.37 | 66.53 | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.26 | 66.42 | 16.19 |      | 150.0 |         |
|           |                                                    | Z | 5.25 | 66.75 | 16.42 |      | 150.0 |         |
| 10544-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)  | X | 5.45 | 66.56 | 15.99 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.37 | 66.41 | 16.07 |      | 150.0 |         |
|           |                                                    | Z | 5.39 | 66.75 | 16.30 |      | 150.0 |         |
| 10545-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)  | X | 5.63 | 66.93 | 16.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.57 | 66.88 | 16.25 |      | 150.0 |         |
|           |                                                    | Z | 5.58 | 67.21 | 16.48 |      | 150.0 |         |
| 10546-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)  | X | 5.52 | 66.79 | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.43 | 66.61 | 16.13 |      | 150.0 |         |
|           |                                                    | Z | 5.43 | 66.90 | 16.35 |      | 150.0 |         |
| 10547-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)  | X | 5.60 | 66.83 | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.50 | 66.66 | 16.15 |      | 150.0 |         |
|           |                                                    | Z | 5.51 | 66.98 | 16.38 |      | 150.0 |         |
| 10548-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)  | X | 5.81 | 67.63 | 16.45 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.78 | 67.68 | 16.62 |      | 150.0 |         |
|           |                                                    | Z | 5.71 | 67.79 | 16.75 |      | 150.0 |         |
| 10550-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)  | X | 5.55 | 66.78 | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.47 | 66.68 | 16.17 |      | 150.0 |         |
|           |                                                    | Z | 5.48 | 67.04 | 16.43 |      | 150.0 |         |
| 10551-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)  | X | 5.55 | 66.83 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.46 | 66.68 | 16.13 |      | 150.0 |         |
|           |                                                    | Z | 5.45 | 66.93 | 16.34 |      | 150.0 |         |
| 10552-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)  | X | 5.47 | 66.64 | 15.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.37 | 66.47 | 16.04 |      | 150.0 |         |
|           |                                                    | Z | 5.40 | 66.85 | 16.30 |      | 150.0 |         |
| 10553-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)  | X | 5.56 | 66.69 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.45 | 66.49 | 16.08 |      | 150.0 |         |
|           |                                                    | Z | 5.46 | 66.82 | 16.31 |      | 150.0 |         |
| 10554-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle) | X | 5.85 | 66.92 | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.78 | 66.77 | 16.15 |      | 150.0 |         |
|           |                                                    | Z | 5.81 | 67.07 | 16.36 |      | 150.0 |         |
| 10555-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle) | X | 5.97 | 67.20 | 16.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.92 | 67.09 | 16.29 |      | 150.0 |         |
|           |                                                    | Z | 5.92 | 67.35 | 16.48 |      | 150.0 |         |
| 10556-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle) | X | 5.99 | 67.25 | 16.21 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.94 | 67.14 | 16.31 |      | 150.0 |         |
|           |                                                    | Z | 5.95 | 67.43 | 16.52 |      | 150.0 |         |
| 10557-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle) | X | 5.97 | 67.18 | 16.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.89 | 67.01 | 16.26 |      | 150.0 |         |
|           |                                                    | Z | 5.90 | 67.29 | 16.47 |      | 150.0 |         |

|           |                                                                 |   |        |        |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10558-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)              | X | 6.02   | 67.34  | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.94   | 67.18  | 16.36 |      | 150.0 |         |
|           |                                                                 | Z | 5.94   | 67.43  | 16.55 |      | 150.0 |         |
| 10560-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)              | X | 6.02   | 67.21  | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.93   | 67.01  | 16.32 |      | 150.0 |         |
|           |                                                                 | Z | 5.94   | 67.29  | 16.52 |      | 150.0 |         |
| 10561-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)              | X | 5.94   | 67.16  | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.86   | 67.01  | 16.35 |      | 150.0 |         |
|           |                                                                 | Z | 5.87   | 67.29  | 16.55 |      | 150.0 |         |
| 10562-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)              | X | 6.06   | 67.54  | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.97   | 67.36  | 16.52 |      | 150.0 |         |
|           |                                                                 | Z | 5.95   | 67.53  | 16.68 |      | 150.0 |         |
| 10563-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)              | X | 6.34   | 67.97  | 16.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.12   | 67.42  | 16.52 |      | 150.0 |         |
|           |                                                                 | Z | 6.03   | 67.42  | 16.58 |      | 150.0 |         |
| 10564-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | X | 4.89   | 66.81  | 16.32 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.76   | 66.71  | 16.37 |      | 150.0 |         |
|           |                                                                 | Z | 4.77   | 67.14  | 16.64 |      | 150.0 |         |
| 10565-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | X | 5.13   | 67.26  | 16.64 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.99   | 67.17  | 16.70 |      | 150.0 |         |
|           |                                                                 | Z | 4.98   | 67.57  | 16.96 |      | 150.0 |         |
| 10566-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | X | 4.96   | 67.12  | 16.46 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.82   | 67.01  | 16.51 |      | 150.0 |         |
|           |                                                                 | Z | 4.82   | 67.41  | 16.78 |      | 150.0 |         |
| 10567-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | X | 4.99   | 67.51  | 16.81 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.86   | 67.44  | 16.90 |      | 150.0 |         |
|           |                                                                 | Z | 4.86   | 67.86  | 17.18 |      | 150.0 |         |
| 10568-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | X | 4.88   | 66.89  | 16.24 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.73   | 66.77  | 16.27 |      | 150.0 |         |
|           |                                                                 | Z | 4.72   | 67.17  | 16.54 |      | 150.0 |         |
| 10569-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | X | 4.94   | 67.58  | 16.86 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.83   | 67.58  | 16.99 |      | 150.0 |         |
|           |                                                                 | Z | 4.84   | 68.08  | 17.31 |      | 150.0 |         |
| 10570-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | X | 4.98   | 67.42  | 16.79 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.85   | 67.40  | 16.90 |      | 150.0 |         |
|           |                                                                 | Z | 4.85   | 67.84  | 17.19 |      | 150.0 |         |
| 10571-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | X | 1.24   | 65.24  | 15.95 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.12   | 64.93  | 15.89 |      | 130.0 |         |
|           |                                                                 | Z | 1.20   | 66.28  | 17.14 |      | 130.0 |         |
| 10572-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | X | 1.26   | 65.87  | 16.33 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.14   | 65.65  | 16.33 |      | 130.0 |         |
|           |                                                                 | Z | 1.23   | 67.13  | 17.66 |      | 130.0 |         |
| 10573-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | X | 3.78   | 94.14  | 25.81 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 13.25  | 115.08 | 30.97 |      | 130.0 |         |
|           |                                                                 | Z | 100.00 | 160.59 | 44.22 |      | 130.0 |         |
| 10574-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | X | 1.46   | 72.33  | 19.47 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.41   | 73.82  | 20.27 |      | 130.0 |         |
|           |                                                                 | Z | 1.66   | 77.79  | 22.85 |      | 130.0 |         |

|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10575-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | X | 4.69 | 66.65 | 16.41 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.56 | 66.55 | 16.46 |      | 130.0 |         |
|           |                                                                 | Z | 4.56 | 66.98 | 16.74 |      | 130.0 |         |
| 10576-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | X | 4.72 | 66.81 | 16.47 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.59 | 66.74 | 16.53 |      | 130.0 |         |
|           |                                                                 | Z | 4.60 | 67.19 | 16.83 |      | 130.0 |         |
| 10577-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | X | 4.93 | 67.10 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.78 | 67.02 | 16.70 |      | 130.0 |         |
|           |                                                                 | Z | 4.77 | 67.43 | 16.97 |      | 130.0 |         |
| 10578-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | X | 4.83 | 67.27 | 16.74 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.69 | 67.20 | 16.82 |      | 130.0 |         |
|           |                                                                 | Z | 4.68 | 67.64 | 17.11 |      | 130.0 |         |
| 10579-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | X | 4.59 | 66.59 | 16.08 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.44 | 66.40 | 16.06 |      | 130.0 |         |
|           |                                                                 | Z | 4.43 | 66.80 | 16.34 |      | 130.0 |         |
| 10580-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | X | 4.64 | 66.61 | 16.10 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.49 | 66.45 | 16.09 |      | 130.0 |         |
|           |                                                                 | Z | 4.47 | 66.86 | 16.37 |      | 130.0 |         |
| 10581-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | X | 4.72 | 67.32 | 16.69 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.59 | 67.25 | 16.77 |      | 130.0 |         |
|           |                                                                 | Z | 4.59 | 67.73 | 17.09 |      | 130.0 |         |
| 10582-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | X | 4.54 | 66.35 | 15.87 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.38 | 66.15 | 15.84 |      | 130.0 |         |
|           |                                                                 | Z | 4.36 | 66.53 | 16.11 |      | 130.0 |         |
| 10583-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | X | 4.69 | 66.65 | 16.41 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.56 | 66.55 | 16.46 |      | 130.0 |         |
|           |                                                                 | Z | 4.56 | 66.98 | 16.74 |      | 130.0 |         |
| 10584-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | X | 4.72 | 66.81 | 16.47 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.59 | 66.74 | 16.53 |      | 130.0 |         |
|           |                                                                 | Z | 4.60 | 67.19 | 16.83 |      | 130.0 |         |
| 10585-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | X | 4.93 | 67.10 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.78 | 67.02 | 16.70 |      | 130.0 |         |
|           |                                                                 | Z | 4.77 | 67.43 | 16.97 |      | 130.0 |         |
| 10586-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | X | 4.83 | 67.27 | 16.74 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.69 | 67.20 | 16.82 |      | 130.0 |         |
|           |                                                                 | Z | 4.68 | 67.64 | 17.11 |      | 130.0 |         |
| 10587-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | X | 4.59 | 66.59 | 16.08 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.44 | 66.40 | 16.06 |      | 130.0 |         |
|           |                                                                 | Z | 4.43 | 66.80 | 16.34 |      | 130.0 |         |
| 10588-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)      | X | 4.64 | 66.61 | 16.10 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.49 | 66.45 | 16.09 |      | 130.0 |         |
|           |                                                                 | Z | 4.47 | 66.86 | 16.37 |      | 130.0 |         |
| 10589-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)      | X | 4.72 | 67.32 | 16.69 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.59 | 67.25 | 16.77 |      | 130.0 |         |
|           |                                                                 | Z | 4.59 | 67.73 | 17.09 |      | 130.0 |         |
| 10590-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)      | X | 4.54 | 66.35 | 15.87 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.38 | 66.15 | 15.84 |      | 130.0 |         |
|           |                                                                 | Z | 4.36 | 66.53 | 16.11 |      | 130.0 |         |

|           |                                                       |   |      |       |       |      |       |         |
|-----------|-------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10591-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle) | X | 4.84 | 66.70 | 16.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.71 | 66.62 | 16.56 |      | 130.0 |         |
|           |                                                       | Z | 4.72 | 67.04 | 16.83 |      | 130.0 |         |
| 10592-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle) | X | 5.00 | 67.04 | 16.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.86 | 66.95 | 16.70 |      | 130.0 |         |
|           |                                                       | Z | 4.85 | 67.36 | 16.97 |      | 130.0 |         |
| 10593-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle) | X | 4.92 | 66.97 | 16.52 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.78 | 66.85 | 16.56 |      | 130.0 |         |
|           |                                                       | Z | 4.77 | 67.24 | 16.83 |      | 130.0 |         |
| 10594-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle) | X | 4.98 | 67.13 | 16.67 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.84 | 67.03 | 16.73 |      | 130.0 |         |
|           |                                                       | Z | 4.83 | 67.43 | 17.00 |      | 130.0 |         |
| 10595-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle) | X | 4.95 | 67.08 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.80 | 66.98 | 16.63 |      | 130.0 |         |
|           |                                                       | Z | 4.79 | 67.40 | 16.91 |      | 130.0 |         |
| 10596-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle) | X | 4.89 | 67.08 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.74 | 66.97 | 16.63 |      | 130.0 |         |
|           |                                                       | Z | 4.73 | 67.39 | 16.91 |      | 130.0 |         |
| 10597-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle) | X | 4.84 | 67.00 | 16.47 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.69 | 66.86 | 16.49 |      | 130.0 |         |
|           |                                                       | Z | 4.68 | 67.26 | 16.77 |      | 130.0 |         |
| 10598-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle) | X | 4.82 | 67.24 | 16.73 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.68 | 67.12 | 16.78 |      | 130.0 |         |
|           |                                                       | Z | 4.67 | 67.53 | 17.06 |      | 130.0 |         |
| 10599-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle) | X | 5.49 | 67.22 | 16.68 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.40 | 67.15 | 16.79 |      | 130.0 |         |
|           |                                                       | Z | 5.38 | 67.45 | 17.00 |      | 130.0 |         |
| 10600-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle) | X | 5.62 | 67.60 | 16.84 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.56 | 67.68 | 17.02 |      | 130.0 |         |
|           |                                                       | Z | 5.51 | 67.87 | 17.18 |      | 130.0 |         |
| 10601-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle) | X | 5.52 | 67.38 | 16.75 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.42 | 67.35 | 16.87 |      | 130.0 |         |
|           |                                                       | Z | 5.40 | 67.62 | 17.08 |      | 130.0 |         |
| 10602-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle) | X | 5.60 | 67.37 | 16.66 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.54 | 67.44 | 16.83 |      | 130.0 |         |
|           |                                                       | Z | 5.54 | 67.80 | 17.08 |      | 130.0 |         |
| 10603-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle) | X | 5.70 | 67.72 | 16.96 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.61 | 67.72 | 17.11 |      | 130.0 |         |
|           |                                                       | Z | 5.61 | 68.10 | 17.37 |      | 130.0 |         |
| 10604-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle) | X | 5.50 | 67.18 | 16.68 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.43 | 67.23 | 16.85 |      | 130.0 |         |
|           |                                                       | Z | 5.48 | 67.74 | 17.18 |      | 130.0 |         |
| 10605-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle) | X | 5.59 | 67.46 | 16.82 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.54 | 67.54 | 17.00 |      | 130.0 |         |
|           |                                                       | Z | 5.50 | 67.78 | 17.19 |      | 130.0 |         |
| 10606-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle) | X | 5.38 | 66.95 | 16.43 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.24 | 66.72 | 16.44 |      | 130.0 |         |
|           |                                                       | Z | 5.25 | 67.07 | 16.69 |      | 130.0 |         |

|           |                                                   |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10607-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle) | X | 4.68 | 66.02 | 16.13 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.56 | 65.95 | 16.20 |      | 130.0 |         |
|           |                                                   | Z | 4.58 | 66.45 | 16.52 |      | 130.0 |         |
| 10608-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle) | X | 4.87 | 66.43 | 16.29 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.74 | 66.35 | 16.37 |      | 130.0 |         |
|           |                                                   | Z | 4.74 | 66.82 | 16.67 |      | 130.0 |         |
| 10609-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle) | X | 4.76 | 66.29 | 16.14 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.62 | 66.18 | 16.19 |      | 130.0 |         |
|           |                                                   | Z | 4.63 | 66.66 | 16.50 |      | 130.0 |         |
| 10610-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle) | X | 4.81 | 66.45 | 16.30 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.68 | 66.36 | 16.37 |      | 130.0 |         |
|           |                                                   | Z | 4.68 | 66.84 | 16.68 |      | 130.0 |         |
| 10611-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle) | X | 4.73 | 66.26 | 16.15 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.59 | 66.15 | 16.20 |      | 130.0 |         |
|           |                                                   | Z | 4.60 | 66.63 | 16.52 |      | 130.0 |         |
| 10612-AAB | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle) | X | 4.74 | 66.42 | 16.19 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.60 | 66.31 | 16.25 |      | 130.0 |         |
|           |                                                   | Z | 4.60 | 66.79 | 16.57 |      | 130.0 |         |
| 10613-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle) | X | 4.75 | 66.31 | 16.09 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.60 | 66.16 | 16.11 |      | 130.0 |         |
|           |                                                   | Z | 4.59 | 66.60 | 16.41 |      | 130.0 |         |
| 10614-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle) | X | 4.69 | 66.50 | 16.31 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.55 | 66.39 | 16.38 |      | 130.0 |         |
|           |                                                   | Z | 4.56 | 66.86 | 16.69 |      | 130.0 |         |
| 10615-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle) | X | 4.73 | 66.09 | 15.93 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.59 | 65.96 | 15.96 |      | 130.0 |         |
|           |                                                   | Z | 4.59 | 66.44 | 16.27 |      | 130.0 |         |
| 10616-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle) | X | 5.32 | 66.51 | 16.31 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.21 | 66.40 | 16.39 |      | 130.0 |         |
|           |                                                   | Z | 5.21 | 66.74 | 16.64 |      | 130.0 |         |
| 10617-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle) | X | 5.38 | 66.64 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.29 | 66.62 | 16.48 |      | 130.0 |         |
|           |                                                   | Z | 5.28 | 66.94 | 16.71 |      | 130.0 |         |
| 10618-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle) | X | 5.27 | 66.69 | 16.38 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.17 | 66.62 | 16.49 |      | 130.0 |         |
|           |                                                   | Z | 5.18 | 67.00 | 16.76 |      | 130.0 |         |
| 10619-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle) | X | 5.29 | 66.50 | 16.23 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.18 | 66.39 | 16.31 |      | 130.0 |         |
|           |                                                   | Z | 5.18 | 66.75 | 16.57 |      | 130.0 |         |
| 10620-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle) | X | 5.39 | 66.57 | 16.31 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.27 | 66.43 | 16.38 |      | 130.0 |         |
|           |                                                   | Z | 5.26 | 66.76 | 16.62 |      | 130.0 |         |
| 10621-AAB | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle) | X | 5.38 | 66.67 | 16.47 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.28 | 66.59 | 16.59 |      | 130.0 |         |
|           |                                                   | Z | 5.28 | 66.91 | 16.82 |      | 130.0 |         |
| 10622-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle) | X | 5.38 | 66.79 | 16.53 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.30 | 66.76 | 16.66 |      | 130.0 |         |
|           |                                                   | Z | 5.27 | 67.03 | 16.88 |      | 130.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10623-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)  | X | 5.27 | 66.36 | 16.19 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.16 | 66.24 | 16.27 |      | 130.0 |         |
|           |                                                    | Z | 5.15 | 66.53 | 16.49 |      | 130.0 |         |
| 10624-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)  | X | 5.46 | 66.54 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.36 | 66.45 | 16.44 |      | 130.0 |         |
|           |                                                    | Z | 5.35 | 66.77 | 16.67 |      | 130.0 |         |
| 10625-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)  | X | 5.81 | 67.48 | 16.86 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.70 | 67.38 | 16.96 |      | 130.0 |         |
|           |                                                    | Z | 5.54 | 67.24 | 16.96 |      | 130.0 |         |
| 10626-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)  | X | 5.60 | 66.57 | 16.26 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.52 | 66.43 | 16.34 |      | 130.0 |         |
|           |                                                    | Z | 5.53 | 66.75 | 16.57 |      | 130.0 |         |
| 10627-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)  | X | 5.82 | 67.07 | 16.46 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.78 | 67.09 | 16.63 |      | 130.0 |         |
|           |                                                    | Z | 5.77 | 67.38 | 16.85 |      | 130.0 |         |
| 10628-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)  | X | 5.64 | 66.69 | 16.22 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.54 | 66.50 | 16.27 |      | 130.0 |         |
|           |                                                    | Z | 5.53 | 66.75 | 16.47 |      | 130.0 |         |
| 10629-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)  | X | 5.73 | 66.77 | 16.25 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.62 | 66.56 | 16.29 |      | 130.0 |         |
|           |                                                    | Z | 5.62 | 66.87 | 16.52 |      | 130.0 |         |
| 10630-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)  | X | 6.11 | 68.09 | 16.91 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.11 | 68.23 | 17.11 |      | 130.0 |         |
|           |                                                    | Z | 5.96 | 68.11 | 17.14 |      | 130.0 |         |
| 10631-AAB | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)  | X | 6.05 | 68.02 | 17.06 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.96 | 67.91 | 17.16 |      | 130.0 |         |
|           |                                                    | Z | 5.90 | 68.04 | 17.30 |      | 130.0 |         |
| 10632-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)  | X | 5.80 | 67.15 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.75 | 67.17 | 16.81 |      | 130.0 |         |
|           |                                                    | Z | 5.76 | 67.50 | 17.05 |      | 130.0 |         |
| 10633-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)  | X | 5.71 | 66.86 | 16.33 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.60 | 66.65 | 16.38 |      | 130.0 |         |
|           |                                                    | Z | 5.61 | 66.98 | 16.61 |      | 130.0 |         |
| 10634-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)  | X | 5.70 | 66.89 | 16.40 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.58 | 66.70 | 16.46 |      | 130.0 |         |
|           |                                                    | Z | 5.59 | 67.01 | 16.69 |      | 130.0 |         |
| 10635-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)  | X | 5.58 | 66.25 | 15.83 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.45 | 65.97 | 15.81 |      | 130.0 |         |
|           |                                                    | Z | 5.44 | 66.23 | 16.02 |      | 130.0 |         |
| 10636-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle) | X | 6.00 | 66.94 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.94 | 66.79 | 16.42 |      | 130.0 |         |
|           |                                                    | Z | 5.96 | 67.09 | 16.63 |      | 130.0 |         |
| 10637-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle) | X | 6.15 | 67.29 | 16.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.11 | 67.22 | 16.62 |      | 130.0 |         |
|           |                                                    | Z | 6.10 | 67.45 | 16.80 |      | 130.0 |         |
| 10638-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle) | X | 6.16 | 67.28 | 16.47 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.10 | 67.18 | 16.57 |      | 130.0 |         |
|           |                                                    | Z | 6.10 | 67.44 | 16.77 |      | 130.0 |         |

|           |                                                        |   |        |        |       |       |       |         |
|-----------|--------------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10639-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)     | X | 6.15   | 67.26  | 16.51 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.07   | 67.10  | 16.58 |       | 130.0 |         |
|           |                                                        | Z | 6.07   | 67.35  | 16.77 |       | 130.0 |         |
| 10640-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)     | X | 6.15   | 67.28  | 16.46 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.07   | 67.10  | 16.51 |       | 130.0 |         |
|           |                                                        | Z | 6.06   | 67.33  | 16.70 |       | 130.0 |         |
| 10641-AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)     | X | 6.18   | 67.13  | 16.41 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.13   | 67.05  | 16.51 |       | 130.0 |         |
|           |                                                        | Z | 6.13   | 67.32  | 16.71 |       | 130.0 |         |
| 10642-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)     | X | 6.24   | 67.43  | 16.72 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.16   | 67.28  | 16.80 |       | 130.0 |         |
|           |                                                        | Z | 6.16   | 67.54  | 17.00 |       | 130.0 |         |
| 10643-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)     | X | 6.07   | 67.09  | 16.45 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.00   | 66.97  | 16.54 |       | 130.0 |         |
|           |                                                        | Z | 6.00   | 67.23  | 16.74 |       | 130.0 |         |
| 10644-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)     | X | 6.24   | 67.63  | 16.74 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.14   | 67.40  | 16.77 |       | 130.0 |         |
|           |                                                        | Z | 6.10   | 67.52  | 16.90 |       | 130.0 |         |
| 10645-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)     | X | 6.63   | 68.35  | 17.05 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.36   | 67.69  | 16.88 |       | 130.0 |         |
|           |                                                        | Z | 6.23   | 67.58  | 16.89 |       | 130.0 |         |
| 10646-AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)  | X | 82.12  | 142.28 | 46.35 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 25.22  | 117.43 | 40.12 |       | 60.0  |         |
|           |                                                        | Z | 21.04  | 118.28 | 41.52 |       | 60.0  |         |
| 10647-AAE | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7) | X | 69.07  | 139.25 | 45.78 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 22.12  | 115.16 | 39.62 |       | 60.0  |         |
|           |                                                        | Z | 16.93  | 113.67 | 40.31 |       | 60.0  |         |
| 10648-AAA | CDMA2000 (1x Advanced)                                 | X | 0.72   | 63.76  | 11.19 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                        | Y | 0.55   | 62.24  | 9.11  |       | 150.0 |         |
|           |                                                        | Z | 0.68   | 65.03  | 10.89 |       | 150.0 |         |
| 10652-AAC | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)         | X | 4.03   | 68.12  | 17.20 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 3.73   | 67.65  | 16.95 |       | 80.0  |         |
|           |                                                        | Z | 3.79   | 68.81  | 17.65 |       | 80.0  |         |
| 10653-AAC | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)        | X | 4.50   | 67.26  | 17.19 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.20   | 66.68  | 16.99 |       | 80.0  |         |
|           |                                                        | Z | 4.17   | 67.21  | 17.40 |       | 80.0  |         |
| 10654-AAC | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)        | X | 4.45   | 66.89  | 17.18 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.17   | 66.28  | 16.99 |       | 80.0  |         |
|           |                                                        | Z | 4.14   | 66.69  | 17.35 |       | 80.0  |         |
| 10655-AAD | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)        | X | 4.50   | 66.89  | 17.21 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.23   | 66.23  | 17.01 |       | 80.0  |         |
|           |                                                        | Z | 4.20   | 66.58  | 17.35 |       | 80.0  |         |
| 10658-AAA | Pulse Waveform (200Hz, 10%)                            | X | 100.00 | 116.17 | 29.37 | 10.00 | 50.0  | ± 9.6 % |
|           |                                                        | Y | 79.35  | 110.54 | 27.13 |       | 50.0  |         |
|           |                                                        | Z | 100.00 | 114.06 | 27.64 |       | 50.0  |         |
| 10659-AAA | Pulse Waveform (200Hz, 20%)                            | X | 100.00 | 113.55 | 27.19 | 6.99  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 100.00 | 110.41 | 25.27 |       | 60.0  |         |
|           |                                                        | Z | 100.00 | 114.78 | 26.83 |       | 60.0  |         |

|           |                             |   |        |        |       |      |       |         |
|-----------|-----------------------------|---|--------|--------|-------|------|-------|---------|
| 10660-AAA | Pulse Waveform (200Hz, 40%) | X | 100.00 | 113.06 | 25.69 | 3.98 | 80.0  | ± 9.6 % |
|           |                             | Y | 100.00 | 107.47 | 22.58 |      | 80.0  |         |
|           |                             | Z | 100.00 | 120.01 | 27.65 |      | 80.0  |         |
| 10661-AAA | Pulse Waveform (200Hz, 60%) | X | 100.00 | 115.47 | 25.49 | 2.22 | 100.0 | ± 9.6 % |
|           |                             | Y | 100.00 | 103.45 | 19.63 |      | 100.0 |         |
|           |                             | Z | 100.00 | 132.13 | 31.16 |      | 100.0 |         |
| 10662-AAA | Pulse Waveform (200Hz, 80%) | X | 100.00 | 121.76 | 26.33 | 0.97 | 120.0 | ± 9.6 % |
|           |                             | Y | 0.21   | 60.00  | 4.21  |      | 120.0 |         |
|           |                             | Z | 100.00 | 196.93 | 53.18 |      | 120.0 |         |

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



Accredited by the Swiss Accreditation Service (SAS)  
 The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **PC Test**

Certificate No: **EX3-3589\_Jan19**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3589**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-14.v5, QA CAL-23.v5, QA CAL-25.v7**  
**Calibration procedure for dosimetric E-field probes**

*BN ✓*  
*02-06-2019*

Calibration date: **January 25, 2019**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature ( $22 \pm 3$ )°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-18 (No. 217-02672/02673)   | Apr-19                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-18 (No. 217-02672)         | Apr-19                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-18 (No. 217-02673)         | Apr-19                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 04-Apr-18 (No. 217-02682)         | Apr-19                 |
| DAE4                       | SN: 660          | 19-Dec-18 (No. DAE4-660_Dec18)    | Dec-19                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-18 (No. ES3-3013_Dec18)    | Dec-19                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-18) | In house check: Jun-20 |
| Network Analyzer E8358A    | SN: US41080477   | 31-Mar-14 (in house check Oct-18) | In house check: Oct-19 |

|                                                                                                                 |                               |                                          |                          |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------------------------|--------------------------|
| Calibrated by:                                                                                                  | Name<br><b>Jeton Kastrati</b> | Function<br><b>Laboratory Technician</b> | Signature<br>            |
| Approved by:                                                                                                    | Name<br><b>Katja Pokovic</b>  | Function<br><b>Technical Manager</b>     | Signature<br>            |
|                                                                                                                 |                               |                                          | Issued: January 29, 2019 |
| This calibration certificate shall not be reproduced except in full without written approval of the laboratory. |                               |                                          |                          |



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

### Glossary:

|                          |                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                      | tissue simulating liquid                                                                                                                                |
| NORM <sub>x,y,z</sub>    | sensitivity in free space                                                                                                                               |
| ConvF                    | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                              |
| DCP                      | diode compression point                                                                                                                                 |
| CF                       | crest factor (1/duty_cycle) of the RF signal                                                                                                            |
| A, B, C, D               | modulation dependent linearization parameters                                                                                                           |
| Polarization $\varphi$   | $\varphi$ rotation around probe axis                                                                                                                    |
| Polarization $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor X to the robot coordinate system                                                                  |

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>; A, B, C, D** are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:3589

## Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2) |
|-----------------------------------------------------------|----------|----------|----------|-----------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.44     | 0.40     | 0.39     | ± 10.1 %  |
| DCP (mV) <sup>B</sup>                                     | 104.1    | 102.3    | 101.6    |           |

## Calibration Results for Modulation Response

| UID           | Communication System Name   |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C     | D<br>dB | VR<br>mV | Max<br>dev. | Max<br>Unc <sup>E</sup><br>(k=2) |
|---------------|-----------------------------|---|---------|------------------------------|-------|---------|----------|-------------|----------------------------------|
| 0             | CW                          | X | 0.00    | 0.00                         | 1.00  | 0.00    | 161.0    | ± 2.2 %     | ± 4.7 %                          |
|               |                             | Y | 0.00    | 0.00                         | 1.00  |         | 172.8    |             |                                  |
|               |                             | Z | 0.00    | 0.00                         | 1.00  |         | 161.9    |             |                                  |
| 10352-<br>AAA | Pulse Waveform (200Hz, 10%) | X | 15.00   | 89.05                        | 22.73 | 10.00   | 60.0     | ± 1.8 %     | ± 9.6 %                          |
|               |                             | Y | 15.00   | 87.03                        | 21.09 |         | 60.0     |             |                                  |
|               |                             | Z | 15.00   | 88.89                        | 22.24 |         | 60.0     |             |                                  |
| 10353-<br>AAA | Pulse Waveform (200Hz, 20%) | X | 15.00   | 89.55                        | 21.62 | 6.99    | 80.0     | ± 0.9 %     | ± 9.6 %                          |
|               |                             | Y | 15.00   | 87.28                        | 19.70 |         | 80.0     |             |                                  |
|               |                             | Z | 15.00   | 89.25                        | 21.07 |         | 80.0     |             |                                  |
| 10354-<br>AAA | Pulse Waveform (200Hz, 40%) | X | 15.00   | 91.62                        | 21.02 | 3.98    | 95.0     | ± 0.9 %     | ± 9.6 %                          |
|               |                             | Y | 15.00   | 87.00                        | 17.73 |         | 95.0     |             |                                  |
|               |                             | Z | 15.00   | 91.02                        | 20.33 |         | 95.0     |             |                                  |
| 10355-<br>AAA | Pulse Waveform (200Hz, 60%) | X | 15.00   | 97.72                        | 22.56 | 2.22    | 120.0    | ± 1.3 %     | ± 9.6 %                          |
|               |                             | Y | 15.00   | 85.70                        | 15.52 |         | 120.0    |             |                                  |
|               |                             | Z | 15.00   | 94.39                        | 20.55 |         | 120.0    |             |                                  |
| 10387-<br>AAA | QPSK Waveform, 1 MHz        | X | 0.93    | 64.13                        | 11.59 | 0.00    | 150.0    | ± 3.0 %     | ± 9.6 %                          |
|               |                             | Y | 0.57    | 60.00                        | 7.45  |         | 150.0    |             |                                  |
|               |                             | Z | 0.83    | 63.49                        | 10.36 |         | 150.0    |             |                                  |
| 10388-<br>AAA | QPSK Waveform, 10 MHz       | X | 2.36    | 68.76                        | 16.09 | 0.00    | 150.0    | ± 1.5 %     | ± 9.6 %                          |
|               |                             | Y | 1.95    | 66.09                        | 14.43 |         | 150.0    |             |                                  |
|               |                             | Z | 2.37    | 69.14                        | 16.27 |         | 150.0    |             |                                  |
| 10396-<br>AAA | 64-QAM Waveform, 100 kHz    | X | 3.76    | 72.95                        | 19.72 | 3.01    | 150.0    | ± 0.7 %     | ± 9.6 %                          |
|               |                             | Y | 3.11    | 69.51                        | 18.06 |         | 150.0    |             |                                  |
|               |                             | Z | 4.24    | 75.35                        | 20.59 |         | 150.0    |             |                                  |
| 10399-<br>AAA | 64-QAM Waveform, 40 MHz     | X | 3.57    | 67.40                        | 15.92 | 0.00    | 150.0    | ± 2.7 %     | ± 9.6 %                          |
|               |                             | Y | 3.33    | 66.26                        | 15.18 |         | 150.0    |             |                                  |
|               |                             | Z | 3.47    | 67.09                        | 15.77 |         | 150.0    |             |                                  |
| 10414-<br>AAA | WLAN CCDF, 64-QAM, 40MHz    | X | 4.95    | 65.72                        | 15.56 | 0.00    | 150.0    | ± 4.8 %     | ± 9.6 %                          |
|               |                             | Y | 4.74    | 65.16                        | 15.23 |         | 150.0    |             |                                  |
|               |                             | Z | 4.81    | 65.57                        | 15.48 |         | 150.0    |             |                                  |

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3589

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$V^{-1}$ | T1<br>$ms.V^{-2}$ | T2<br>$ms.V^{-1}$ | T3<br>ms | T4<br>$V^{-2}$ | T5<br>$V^{-1}$ | T6   |
|---|----------|----------|----------------------|-------------------|-------------------|----------|----------------|----------------|------|
| X | 55.3     | 407.97   | 34.85                | 27.50             | 1.34              | 5.10     | 1.23           | 0.50           | 1.01 |
| Y | 46.7     | 357.99   | 37.12                | 21.71             | 1.59              | 5.07     | 0.00           | 0.73           | 1.01 |
| Z | 46.1     | 339.04   | 34.64                | 23.94             | 1.27              | 5.07     | 1.73           | 0.40           | 1.01 |

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | -30.3      |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3589

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 8.67    | 8.67    | 8.67    | 0.70               | 0.80                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 8.39    | 8.39    | 8.39    | 0.63               | 0.81                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 7.31    | 7.31    | 7.31    | 0.40               | 0.80                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 7.08    | 7.08    | 7.08    | 0.39               | 0.80                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 6.77    | 6.77    | 6.77    | 0.31               | 0.85                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 6.46    | 6.46    | 6.46    | 0.30               | 0.85                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 6.25    | 6.25    | 6.25    | 0.40               | 0.83                    | ± 12.0 %  |
| 3500                 | 37.9                               | 2.91                            | 6.16    | 6.16    | 6.16    | 0.26               | 1.20                    | ± 13.1 %  |
| 3700                 | 37.7                               | 3.12                            | 6.02    | 6.02    | 6.02    | 0.26               | 1.20                    | ± 13.1 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3589

### Calibration Parameter Determined in Body Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 55.5                               | 0.96                            | 8.34    | 8.34    | 8.34    | 0.42               | 0.84                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 8.29    | 8.29    | 8.29    | 0.41               | 0.84                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 6.82    | 6.82    | 6.82    | 0.43               | 0.80                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 6.75    | 6.75    | 6.75    | 0.35               | 0.85                    | ± 12.0 %  |
| 2300                 | 52.9                               | 1.81                            | 6.71    | 6.71    | 6.71    | 0.36               | 0.87                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 6.66    | 6.66    | 6.66    | 0.34               | 0.88                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 6.47    | 6.47    | 6.47    | 0.28               | 0.95                    | ± 12.0 %  |
| 3500                 | 51.3                               | 3.31                            | 6.21    | 6.21    | 6.21    | 0.25               | 1.25                    | ± 13.1 %  |
| 3700                 | 51.0                               | 3.55                            | 6.13    | 6.13    | 6.13    | 0.20               | 1.25                    | ± 13.1 %  |

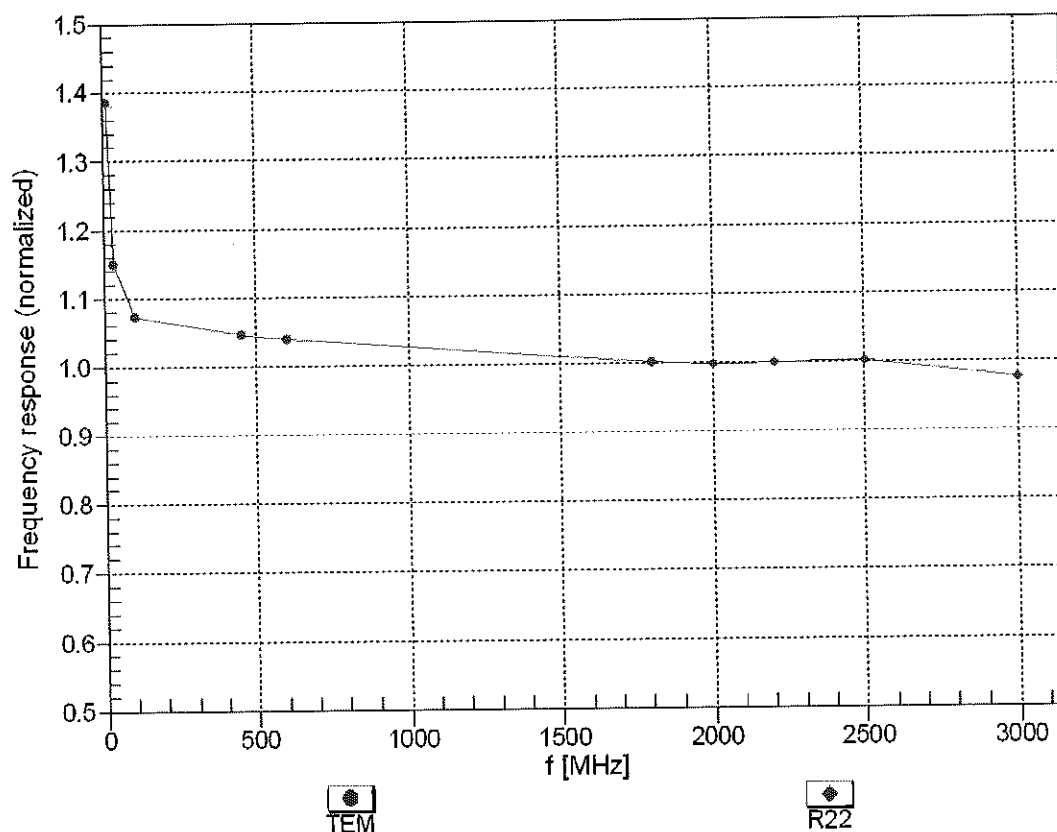
<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## Frequency Response of E-Field

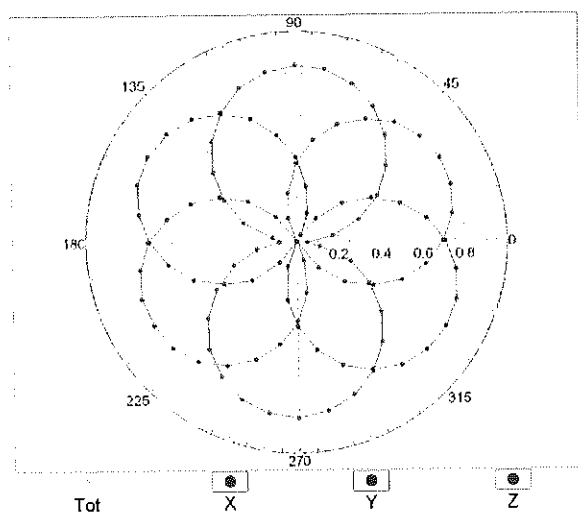
(TEM-Cell:ifi110 EXX, Waveguide: R22)



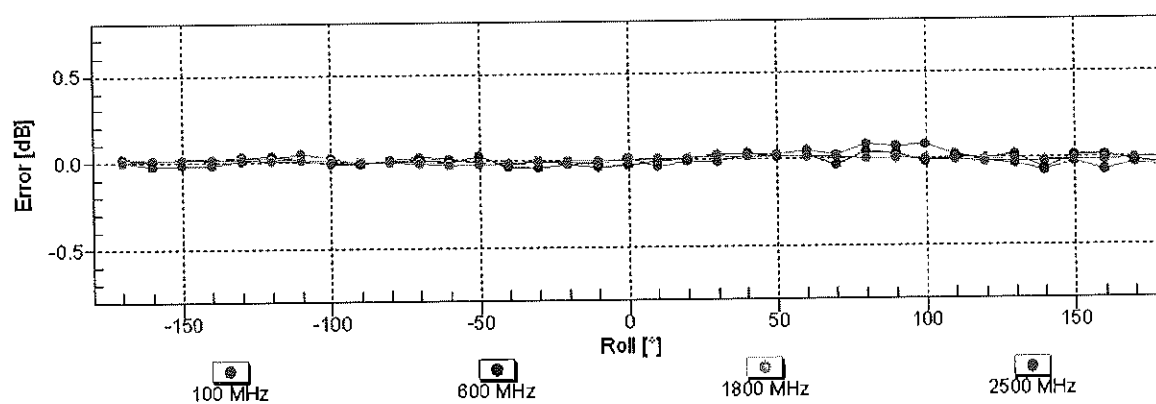
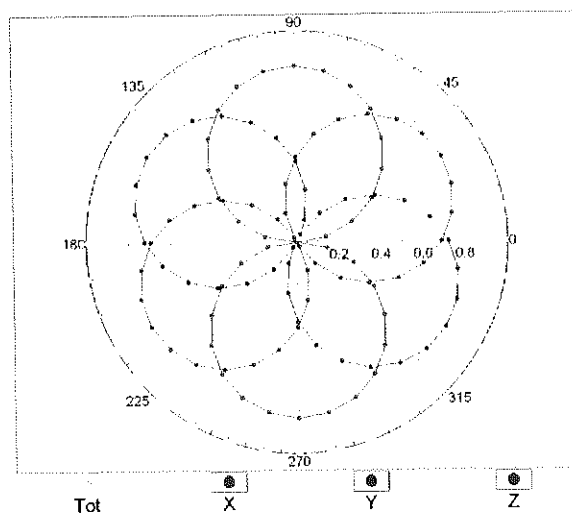
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

## Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

f=600 MHz, TEM

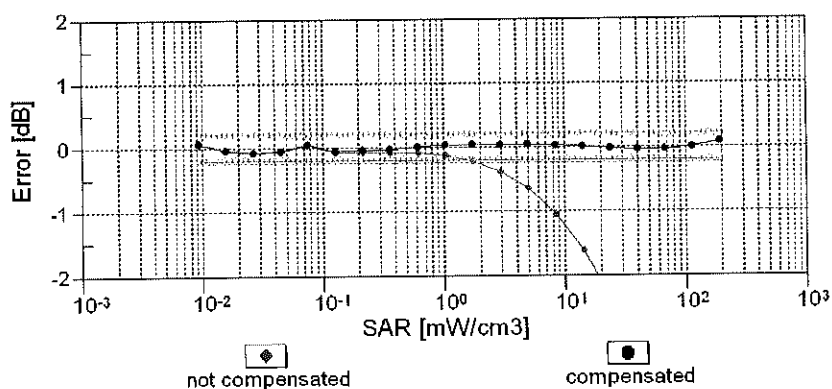
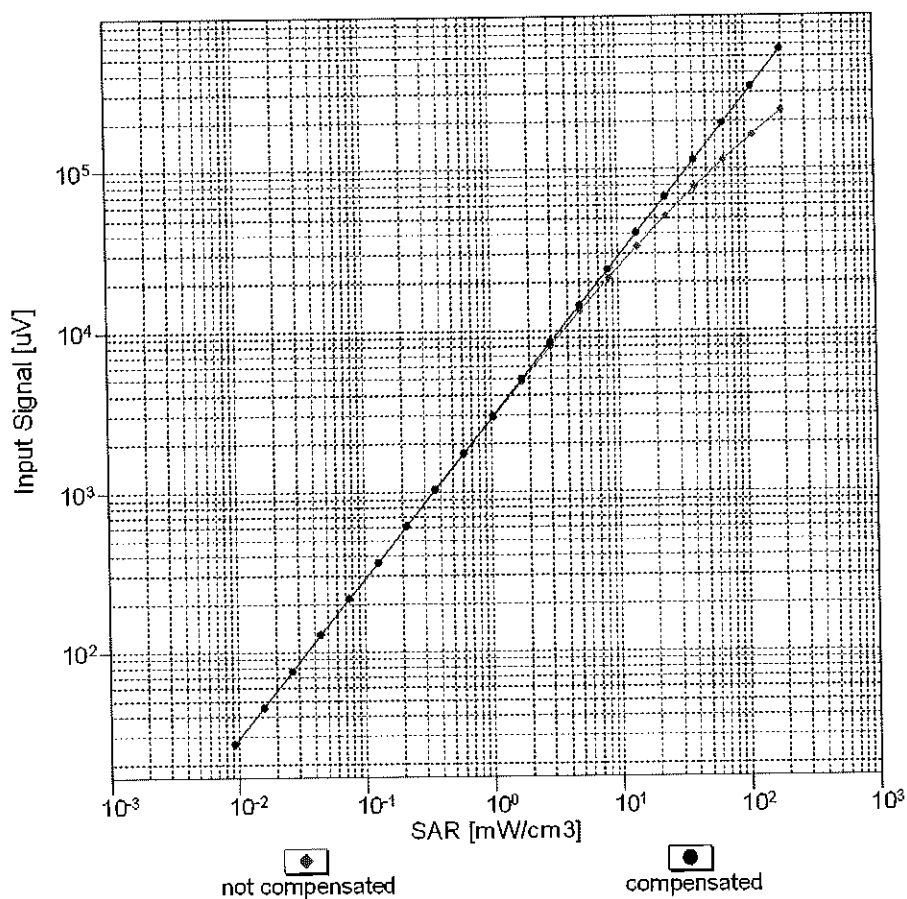


f=1800 MHz, R22



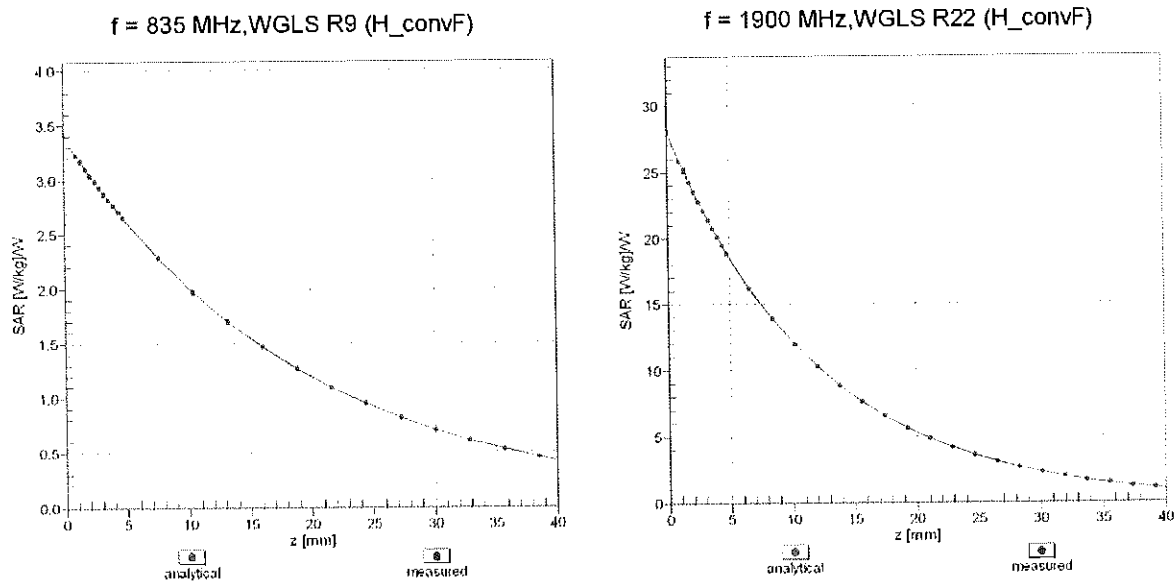
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

## Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell , $f_{\text{eval}} = 1900 \text{ MHz}$ )

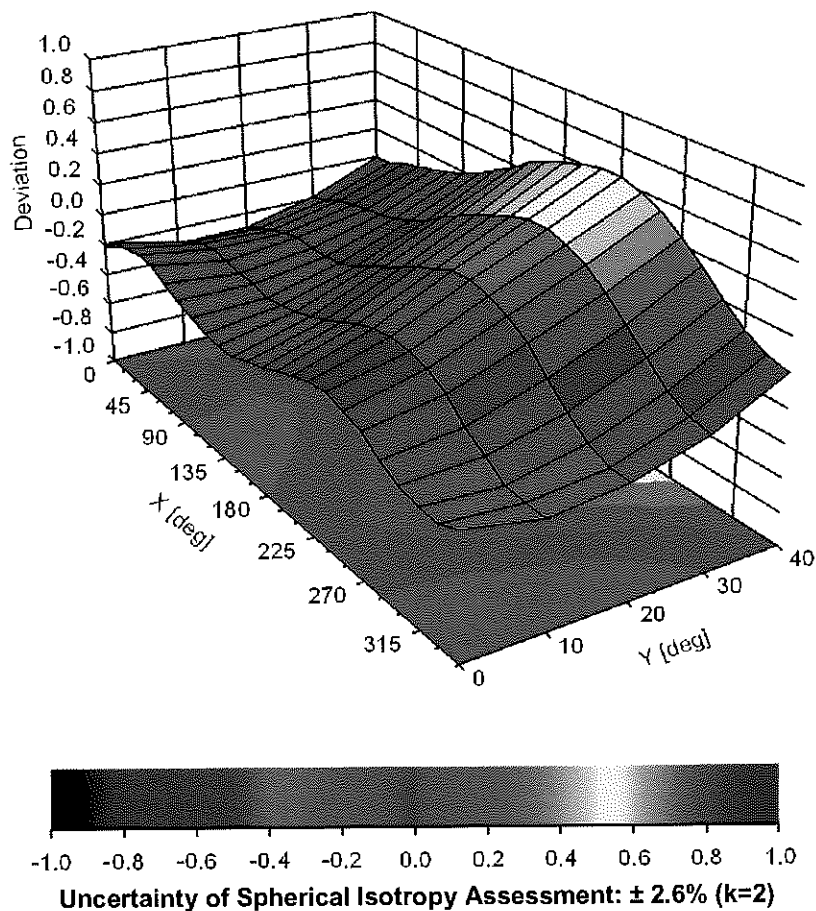


Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

# Conversion Factor Assessment



## Deviation from Isotropy in Liquid Error ( $\phi, \theta$ ), f = 900 MHz



**Appendix: Modulation Calibration Parameters**

| UID   | Rev | Communication System Name                           | Group     | PAR (dB) | Unc <sup>E</sup> (k=2) |
|-------|-----|-----------------------------------------------------|-----------|----------|------------------------|
| 0     |     | CW                                                  | CW        | 0.00     | ± 4.7 %                |
| 10010 | CAA | SAR Validation (Square, 100ms, 10ms)                | Test      | 10.00    | ± 9.6 %                |
| 10011 | CAB | UMTS-FDD (WCDMA)                                    | WCDMA     | 2.91     | ± 9.6 %                |
| 10012 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)            | WLAN      | 1.87     | ± 9.6 %                |
| 10013 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)       | WLAN      | 9.46     | ± 9.6 %                |
| 10021 | DAC | GSM-FDD (TDMA, GMSK)                                | GSM       | 9.39     | ± 9.6 %                |
| 10023 | DAC | GPRS-FDD (TDMA, GMSK, TN 0)                         | GSM       | 9.57     | ± 9.6 %                |
| 10024 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                       | GSM       | 6.56     | ± 9.6 %                |
| 10025 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                         | GSM       | 12.62    | ± 9.6 %                |
| 10026 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                       | GSM       | 9.55     | ± 9.6 %                |
| 10027 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)                     | GSM       | 4.80     | ± 9.6 %                |
| 10028 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)                   | GSM       | 3.55     | ± 9.6 %                |
| 10029 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)                     | GSM       | 7.78     | ± 9.6 %                |
| 10030 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)                 | Bluetooth | 5.30     | ± 9.6 %                |
| 10031 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)                 | Bluetooth | 1.87     | ± 9.6 %                |
| 10032 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | Bluetooth | 1.16     | ± 9.6 %                |
| 10033 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | Bluetooth | 7.74     | ± 9.6 %                |
| 10034 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | Bluetooth | 4.53     | ± 9.6 %                |
| 10035 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | Bluetooth | 3.83     | ± 9.6 %                |
| 10036 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | Bluetooth | 8.01     | ± 9.6 %                |
| 10037 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | Bluetooth | 4.77     | ± 9.6 %                |
| 10038 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | Bluetooth | 4.10     | ± 9.6 %                |
| 10039 | CAB | CDMA2000 (1xRTT, RC1)                               | CDMA2000  | 4.57     | ± 9.6 %                |
| 10042 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | AMPS      | 7.78     | ± 9.6 %                |
| 10044 | CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | AMPS      | 0.00     | ± 9.6 %                |
| 10048 | CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | DECT      | 13.80    | ± 9.6 %                |
| 10049 | CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | DECT      | 10.79    | ± 9.6 %                |
| 10056 | CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | TD-SCDMA  | 11.01    | ± 9.6 %                |
| 10058 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | GSM       | 6.52     | ± 9.6 %                |
| 10059 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | WLAN      | 2.12     | ± 9.6 %                |
| 10060 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | WLAN      | 2.83     | ± 9.6 %                |
| 10061 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)           | WLAN      | 3.60     | ± 9.6 %                |
| 10062 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)            | WLAN      | 8.68     | ± 9.6 %                |
| 10063 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)            | WLAN      | 8.63     | ± 9.6 %                |
| 10064 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)           | WLAN      | 9.09     | ± 9.6 %                |
| 10065 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)           | WLAN      | 9.00     | ± 9.6 %                |
| 10066 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)           | WLAN      | 9.38     | ± 9.6 %                |
| 10067 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)           | WLAN      | 10.12    | ± 9.6 %                |
| 10068 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)           | WLAN      | 10.24    | ± 9.6 %                |
| 10069 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)           | WLAN      | 10.56    | ± 9.6 %                |
| 10071 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)       | WLAN      | 9.83     | ± 9.6 %                |
| 10072 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)      | WLAN      | 9.62     | ± 9.6 %                |
| 10073 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)      | WLAN      | 9.94     | ± 9.6 %                |
| 10074 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)      | WLAN      | 10.30    | ± 9.6 %                |
| 10075 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)      | WLAN      | 10.77    | ± 9.6 %                |
| 10076 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)      | WLAN      | 10.94    | ± 9.6 %                |
| 10077 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)      | WLAN      | 11.00    | ± 9.6 %                |
| 10081 | CAB | CDMA2000 (1xRTT, RC3)                               | CDMA2000  | 3.97     | ± 9.6 %                |
| 10082 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | AMPS      | 4.77     | ± 9.6 %                |
| 10090 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | GSM       | 6.56     | ± 9.6 %                |
| 10097 | CAB | UMTS-FDD (HSDPA)                                    | WCDMA     | 3.98     | ± 9.6 %                |
| 10098 | CAB | UMTS-FDD (HSUPA, Subtest 2)                         | WCDMA     | 3.98     | ± 9.6 %                |
| 10099 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | GSM       | 9.55     | ± 9.6 %                |
| 10100 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-FDD   | 5.67     | ± 9.6 %                |
| 10101 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-FDD   | 6.42     | ± 9.6 %                |
| 10102 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-FDD   | 6.60     | ± 9.6 %                |
| 10103 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-TDD   | 9.29     | ± 9.6 %                |
| 10104 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-TDD   | 9.97     | ± 9.6 %                |
| 10105 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-TDD   | 10.01    | ± 9.6 %                |
| 10108 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | LTE-FDD   | 5.80     | ± 9.6 %                |

|       |     |                                                |         |       |         |
|-------|-----|------------------------------------------------|---------|-------|---------|
| 10109 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)     | LTE-FDD | 6.43  | ± 9.6 % |
| 10110 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10111 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)      | LTE-FDD | 6.44  | ± 9.6 % |
| 10112 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | LTE-FDD | 6.59  | ± 9.6 % |
| 10113 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10114 | CAC | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | WLAN    | 8.10  | ± 9.6 % |
| 10115 | CAC | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | WLAN    | 8.46  | ± 9.6 % |
| 10116 | CAC | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | WLAN    | 8.15  | ± 9.6 % |
| 10117 | CAC | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | WLAN    | 8.07  | ± 9.6 % |
| 10118 | CAC | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | WLAN    | 8.59  | ± 9.6 % |
| 10119 | CAC | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | WLAN    | 8.13  | ± 9.6 % |
| 10140 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | LTE-FDD | 6.49  | ± 9.6 % |
| 10141 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | LTE-FDD | 6.53  | ± 9.6 % |
| 10142 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | LTE-FDD | 5.73  | ± 9.6 % |
| 10143 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | LTE-FDD | 6.35  | ± 9.6 % |
| 10144 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | LTE-FDD | 6.65  | ± 9.6 % |
| 10145 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | LTE-FDD | 5.76  | ± 9.6 % |
| 10146 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | LTE-FDD | 6.41  | ± 9.6 % |
| 10147 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | LTE-FDD | 6.72  | ± 9.6 % |
| 10149 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-FDD | 6.42  | ± 9.6 % |
| 10150 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-FDD | 6.60  | ± 9.6 % |
| 10151 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)        | LTE-TDD | 9.28  | ± 9.6 % |
| 10152 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-TDD | 9.92  | ± 9.6 % |
| 10153 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-TDD | 10.05 | ± 9.6 % |
| 10154 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10155 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10156 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         | LTE-FDD | 5.79  | ± 9.6 % |
| 10157 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)       | LTE-FDD | 6.49  | ± 9.6 % |
| 10158 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10159 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)       | LTE-FDD | 6.56  | ± 9.6 % |
| 10160 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)        | LTE-FDD | 5.82  | ± 9.6 % |
| 10161 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10162 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)      | LTE-FDD | 6.58  | ± 9.6 % |
| 10166 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)       | LTE-FDD | 5.46  | ± 9.6 % |
| 10167 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)     | LTE-FDD | 6.21  | ± 9.6 % |
| 10168 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)     | LTE-FDD | 6.79  | ± 9.6 % |
| 10169 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-FDD | 5.73  | ± 9.6 % |
| 10170 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10171 | AAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-FDD | 6.49  | ± 9.6 % |
| 10172 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-TDD | 9.21  | ± 9.6 % |
| 10173 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 10174 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10175 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)          | LTE-FDD | 5.72  | ± 9.6 % |
| 10176 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10177 | CAI | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)           | LTE-FDD | 5.73  | ± 9.6 % |
| 10178 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)         | LTE-FDD | 6.52  | ± 9.6 % |
| 10179 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10180 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)         | LTE-FDD | 6.50  | ± 9.6 % |
| 10181 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)          | LTE-FDD | 5.72  | ± 9.6 % |
| 10182 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10183 | AAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10184 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)           | LTE-FDD | 5.73  | ± 9.6 % |
| 10185 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)         | LTE-FDD | 6.51  | ± 9.6 % |
| 10186 | AAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)         | LTE-FDD | 6.50  | ± 9.6 % |
| 10187 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)         | LTE-FDD | 5.73  | ± 9.6 % |
| 10188 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)       | LTE-FDD | 6.52  | ± 9.6 % |
| 10189 | AAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)       | LTE-FDD | 6.50  | ± 9.6 % |
| 10193 | CAC | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   | WLAN    | 8.09  | ± 9.6 % |
| 10194 | CAC | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)  | WLAN    | 8.12  | ± 9.6 % |
| 10195 | CAC | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)  | WLAN    | 8.21  | ± 9.6 % |
| 10196 | CAC | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)        | WLAN    | 8.10  | ± 9.6 % |
| 10197 | CAC | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)       | WLAN    | 8.13  | ± 9.6 % |
| 10198 | CAC | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)       | WLAN    | 8.27  | ± 9.6 % |
| 10219 | CAC | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)        | WLAN    | 8.03  | ± 9.6 % |

|       |     |                                             |          |       |         |
|-------|-----|---------------------------------------------|----------|-------|---------|
| 10220 | CAC | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)  | WLAN     | 8.13  | ± 9.6 % |
| 10221 | CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)  | WLAN     | 8.27  | ± 9.6 % |
| 10222 | CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)      | WLAN     | 8.06  | ± 9.6 % |
| 10223 | CAC | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)    | WLAN     | 8.48  | ± 9.6 % |
| 10224 | CAC | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)   | WLAN     | 8.08  | ± 9.6 % |
| 10225 | CAB | UMTS-FDD (HSPA+)                            | WCDMA    | 5.97  | ± 9.6 % |
| 10226 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)    | LTE-TDD  | 9.49  | ± 9.6 % |
| 10227 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)    | LTE-TDD  | 10.26 | ± 9.6 % |
| 10228 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)      | LTE-TDD  | 9.22  | ± 9.6 % |
| 10229 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)      | LTE-TDD  | 9.48  | ± 9.6 % |
| 10230 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)      | LTE-TDD  | 10.25 | ± 9.6 % |
| 10231 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)        | LTE-TDD  | 9.19  | ± 9.6 % |
| 10232 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)      | LTE-TDD  | 9.48  | ± 9.6 % |
| 10233 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)      | LTE-TDD  | 10.25 | ± 9.6 % |
| 10234 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)        | LTE-TDD  | 9.21  | ± 9.6 % |
| 10235 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)     | LTE-TDD  | 9.48  | ± 9.6 % |
| 10236 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)     | LTE-TDD  | 10.25 | ± 9.6 % |
| 10237 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)       | LTE-TDD  | 9.21  | ± 9.6 % |
| 10238 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)     | LTE-TDD  | 9.48  | ± 9.6 % |
| 10239 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)     | LTE-TDD  | 10.25 | ± 9.6 % |
| 10240 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)       | LTE-TDD  | 9.21  | ± 9.6 % |
| 10241 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)  | LTE-TDD  | 9.82  | ± 9.6 % |
| 10242 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)  | LTE-TDD  | 9.86  | ± 9.6 % |
| 10243 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)    | LTE-TDD  | 9.46  | ± 9.6 % |
| 10244 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)    | LTE-TDD  | 10.06 | ± 9.6 % |
| 10245 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)    | LTE-TDD  | 10.06 | ± 9.6 % |
| 10246 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)      | LTE-TDD  | 9.30  | ± 9.6 % |
| 10247 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)    | LTE-TDD  | 9.91  | ± 9.6 % |
| 10248 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)    | LTE-TDD  | 10.09 | ± 9.6 % |
| 10249 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)      | LTE-TDD  | 9.29  | ± 9.6 % |
| 10250 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)   | LTE-TDD  | 9.81  | ± 9.6 % |
| 10251 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)   | LTE-TDD  | 10.17 | ± 9.6 % |
| 10252 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)     | LTE-TDD  | 9.24  | ± 9.6 % |
| 10253 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)   | LTE-TDD  | 9.90  | ± 9.6 % |
| 10254 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)   | LTE-TDD  | 10.14 | ± 9.6 % |
| 10255 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | LTE-TDD  | 9.20  | ± 9.6 % |
| 10256 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | LTE-TDD  | 9.96  | ± 9.6 % |
| 10257 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | LTE-TDD  | 10.08 | ± 9.6 % |
| 10258 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | LTE-TDD  | 9.34  | ± 9.6 % |
| 10259 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | LTE-TDD  | 9.98  | ± 9.6 % |
| 10260 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | LTE-TDD  | 9.97  | ± 9.6 % |
| 10261 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | LTE-TDD  | 9.24  | ± 9.6 % |
| 10262 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | LTE-TDD  | 9.83  | ± 9.6 % |
| 10263 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | LTE-TDD  | 10.16 | ± 9.6 % |
| 10264 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | LTE-TDD  | 9.23  | ± 9.6 % |
| 10265 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | LTE-TDD  | 9.92  | ± 9.6 % |
| 10266 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | LTE-TDD  | 10.07 | ± 9.6 % |
| 10267 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | LTE-TDD  | 9.30  | ± 9.6 % |
| 10268 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | LTE-TDD  | 10.06 | ± 9.6 % |
| 10269 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | LTE-TDD  | 10.13 | ± 9.6 % |
| 10270 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | LTE-TDD  | 9.58  | ± 9.6 % |
| 10274 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)   | WCDMA    | 4.87  | ± 9.6 % |
| 10275 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)    | WCDMA    | 3.96  | ± 9.6 % |
| 10277 | CAA | PHS (QPSK)                                  | PHS      | 11.81 | ± 9.6 % |
| 10278 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)          | PHS      | 11.81 | ± 9.6 % |
| 10279 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)         | PHS      | 12.18 | ± 9.6 % |
| 10290 | AAB | CDMA2000, RC1, SO55, Full Rate              | CDMA2000 | 3.91  | ± 9.6 % |
| 10291 | AAB | CDMA2000, RC3, SO55, Full Rate              | CDMA2000 | 3.46  | ± 9.6 % |
| 10292 | AAB | CDMA2000, RC3, SO32, Full Rate              | CDMA2000 | 3.39  | ± 9.6 % |
| 10293 | AAB | CDMA2000, RC3, SO3, Full Rate               | CDMA2000 | 3.50  | ± 9.6 % |
| 10295 | AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.       | CDMA2000 | 12.49 | ± 9.6 % |
| 10297 | AAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)     | LTE-FDD  | 5.81  | ± 9.6 % |
| 10298 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)      | LTE-FDD  | 5.72  | ± 9.6 % |
| 10299 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)    | LTE-FDD  | 6.39  | ± 9.6 % |

|       |     |                                                                                 |          |       |         |
|-------|-----|---------------------------------------------------------------------------------|----------|-------|---------|
| 10300 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                                        | LTE-FDD  | 6.60  | ± 9.6 % |
| 10301 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                              | WiMAX    | 12.03 | ± 9.6 % |
| 10302 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)              | WiMAX    | 12.57 | ± 9.6 % |
| 10303 | AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                             | WiMAX    | 12.52 | ± 9.6 % |
| 10304 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                             | WiMAX    | 11.86 | ± 9.6 % |
| 10305 | AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)                | WiMAX    | 15.24 | ± 9.6 % |
| 10306 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)                | WiMAX    | 14.67 | ± 9.6 % |
| 10307 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)                 | WiMAX    | 14.49 | ± 9.6 % |
| 10308 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                            | WiMAX    | 14.46 | ± 9.6 % |
| 10309 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)             | WiMAX    | 14.58 | ± 9.6 % |
| 10310 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)              | WiMAX    | 14.57 | ± 9.6 % |
| 10311 | AAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                                        | LTE-FDD  | 6.06  | ± 9.6 % |
| 10313 | AAA | iDEN 1:3                                                                        | iDEN     | 10.51 | ± 9.6 % |
| 10314 | AAA | iDEN 1:6                                                                        | iDEN     | 13.48 | ± 9.6 % |
| 10315 | AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)                       | WLAN     | 1.71  | ± 9.6 % |
| 10316 | AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)                   | WLAN     | 8.36  | ± 9.6 % |
| 10317 | AAC | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)                         | WLAN     | 8.36  | ± 9.6 % |
| 10352 | AAA | Pulse Waveform (200Hz, 10%)                                                     | Generic  | 10.00 | ± 9.6 % |
| 10353 | AAA | Pulse Waveform (200Hz, 20%)                                                     | Generic  | 6.99  | ± 9.6 % |
| 10354 | AAA | Pulse Waveform (200Hz, 40%)                                                     | Generic  | 3.98  | ± 9.6 % |
| 10355 | AAA | Pulse Waveform (200Hz, 60%)                                                     | Generic  | 2.22  | ± 9.6 % |
| 10356 | AAA | Pulse Waveform (200Hz, 80%)                                                     | Generic  | 0.97  | ± 9.6 % |
| 10387 | AAA | QPSK Waveform, 1 MHz                                                            | Generic  | 5.10  | ± 9.6 % |
| 10388 | AAA | QPSK Waveform, 10 MHz                                                           | Generic  | 5.22  | ± 9.6 % |
| 10396 | AAA | 64-QAM Waveform, 100 kHz                                                        | Generic  | 6.27  | ± 9.6 % |
| 10399 | AAA | 64-QAM Waveform, 40 MHz                                                         | Generic  | 6.27  | ± 9.6 % |
| 10400 | AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                             | WLAN     | 8.37  | ± 9.6 % |
| 10401 | AAD | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                             | WLAN     | 8.60  | ± 9.6 % |
| 10402 | AAD | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                             | WLAN     | 8.53  | ± 9.6 % |
| 10403 | AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                      | CDMA2000 | 3.76  | ± 9.6 % |
| 10404 | AAB | CDMA2000 (1xEV-DO, Rev. A)                                                      | CDMA2000 | 3.77  | ± 9.6 % |
| 10406 | AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                            | CDMA2000 | 5.22  | ± 9.6 % |
| 10410 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4) | LTE-TDD  | 7.82  | ± 9.6 % |
| 10414 | AAA | WLAN CCDF, 64-QAM, 40MHz                                                        | Generic  | 8.54  | ± 9.6 % |
| 10415 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                       | WLAN     | 1.54  | ± 9.6 % |
| 10416 | AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                   | WLAN     | 8.23  | ± 9.6 % |
| 10417 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                       | WLAN     | 8.23  | ± 9.6 % |
| 10418 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)   | WLAN     | 8.14  | ± 9.6 % |
| 10419 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)  | WLAN     | 8.19  | ± 9.6 % |
| 10422 | AAB | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                    | WLAN     | 8.32  | ± 9.6 % |
| 10423 | AAB | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                 | WLAN     | 8.47  | ± 9.6 % |
| 10424 | AAB | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                 | WLAN     | 8.40  | ± 9.6 % |
| 10425 | AAB | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                     | WLAN     | 8.41  | ± 9.6 % |
| 10426 | AAB | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                   | WLAN     | 8.45  | ± 9.6 % |
| 10427 | AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                                  | WLAN     | 8.41  | ± 9.6 % |
| 10430 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                                                | LTE-FDD  | 8.28  | ± 9.6 % |
| 10431 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                                               | LTE-FDD  | 8.38  | ± 9.6 % |
| 10432 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                                               | LTE-FDD  | 8.34  | ± 9.6 % |
| 10433 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                                               | LTE-FDD  | 8.34  | ± 9.6 % |
| 10434 | AAA | W-CDMA (BS Test Model 1, 64 DPCH)                                               | WCDMA    | 8.60  | ± 9.6 % |
| 10435 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                  | LTE-TDD  | 7.82  | ± 9.6 % |
| 10447 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                                  | LTE-FDD  | 7.56  | ± 9.6 % |
| 10448 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                                 | LTE-FDD  | 7.53  | ± 9.6 % |
| 10449 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                                 | LTE-FDD  | 7.51  | ± 9.6 % |
| 10450 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                                 | LTE-FDD  | 7.48  | ± 9.6 % |

|       |     |                                                                        |          |      |         |
|-------|-----|------------------------------------------------------------------------|----------|------|---------|
| 10451 | AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                        | WCDMA    | 7.59 | ± 9.6 % |
| 10456 | AAB | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)                   | WLAN     | 8.63 | ± 9.6 % |
| 10457 | AAA | UMTS-FDD (DC-HSDPA)                                                    | WCDMA    | 6.62 | ± 9.6 % |
| 10458 | AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                                 | CDMA2000 | 6.55 | ± 9.6 % |
| 10459 | AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                                 | CDMA2000 | 8.25 | ± 9.6 % |
| 10460 | AAA | UMTS-FDD (WCDMA, AMR)                                                  | WCDMA    | 2.39 | ± 9.6 % |
| 10461 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.82 | ± 9.6 % |
| 10462 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.30 | ± 9.6 % |
| 10463 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.56 | ± 9.6 % |
| 10464 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)       | LTE-TDD  | 7.82 | ± 9.6 % |
| 10465 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.32 | ± 9.6 % |
| 10466 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.57 | ± 9.6 % |
| 10467 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)       | LTE-TDD  | 7.82 | ± 9.6 % |
| 10468 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.32 | ± 9.6 % |
| 10469 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.56 | ± 9.6 % |
| 10470 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)      | LTE-TDD  | 7.82 | ± 9.6 % |
| 10471 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10472 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10473 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)      | LTE-TDD  | 7.82 | ± 9.6 % |
| 10474 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10475 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10477 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10478 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10479 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 7.74 | ± 9.6 % |
| 10480 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9) | LTE-TDD  | 8.18 | ± 9.6 % |
| 10481 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9) | LTE-TDD  | 8.45 | ± 9.6 % |
| 10482 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.71 | ± 9.6 % |
| 10483 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.39 | ± 9.6 % |
| 10484 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.47 | ± 9.6 % |
| 10485 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.59 | ± 9.6 % |
| 10486 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.38 | ± 9.6 % |
| 10487 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.60 | ± 9.6 % |
| 10488 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 7.70 | ± 9.6 % |
| 10489 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)  | LTE-TDD  | 8.31 | ± 9.6 % |
| 10490 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)  | LTE-TDD  | 8.54 | ± 9.6 % |
| 10491 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 7.74 | ± 9.6 % |

|       |     |                                                                      |         |      |         |
|-------|-----|----------------------------------------------------------------------|---------|------|---------|
| 10492 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.41 | ± 9.6 % |
| 10493 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.55 | ± 9.6 % |
| 10494 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.74 | ± 9.6 % |
| 10495 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.37 | ± 9.6 % |
| 10496 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10497 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 7.67 | ± 9.6 % |
| 10498 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | LTE-TDD | 8.40 | ± 9.6 % |
| 10499 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | LTE-TDD | 8.68 | ± 9.6 % |
| 10500 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.67 | ± 9.6 % |
| 10501 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.44 | ± 9.6 % |
| 10502 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.52 | ± 9.6 % |
| 10503 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.72 | ± 9.6 % |
| 10504 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.31 | ± 9.6 % |
| 10505 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10506 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10507 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.36 | ± 9.6 % |
| 10508 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.55 | ± 9.6 % |
| 10509 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.99 | ± 9.6 % |
| 10510 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.49 | ± 9.6 % |
| 10511 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.51 | ± 9.6 % |
| 10512 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10513 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.42 | ± 9.6 % |
| 10514 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.45 | ± 9.6 % |
| 10515 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)            | WLAN    | 1.58 | ± 9.6 % |
| 10516 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)          | WLAN    | 1.57 | ± 9.6 % |
| 10517 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)           | WLAN    | 1.58 | ± 9.6 % |
| 10518 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)            | WLAN    | 8.23 | ± 9.6 % |
| 10519 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)           | WLAN    | 8.39 | ± 9.6 % |
| 10520 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)           | WLAN    | 8.12 | ± 9.6 % |
| 10521 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)           | WLAN    | 7.97 | ± 9.6 % |
| 10522 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)           | WLAN    | 8.45 | ± 9.6 % |
| 10523 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)           | WLAN    | 8.08 | ± 9.6 % |
| 10524 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)           | WLAN    | 8.27 | ± 9.6 % |
| 10525 | AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10526 | AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)                    | WLAN    | 8.42 | ± 9.6 % |
| 10527 | AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)                    | WLAN    | 8.21 | ± 9.6 % |
| 10528 | AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10529 | AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10531 | AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)                    | WLAN    | 8.43 | ± 9.6 % |
| 10532 | AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)                    | WLAN    | 8.29 | ± 9.6 % |
| 10533 | AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)                    | WLAN    | 8.38 | ± 9.6 % |
| 10534 | AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)                    | WLAN    | 8.45 | ± 9.6 % |

|       |     |                                                                 |      |      |         |
|-------|-----|-----------------------------------------------------------------|------|------|---------|
| 10535 | AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)               | WLAN | 8.45 | ± 9.6 % |
| 10536 | AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)               | WLAN | 8.32 | ± 9.6 % |
| 10537 | AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)               | WLAN | 8.44 | ± 9.6 % |
| 10538 | AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)               | WLAN | 8.54 | ± 9.6 % |
| 10540 | AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)               | WLAN | 8.39 | ± 9.6 % |
| 10541 | AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)               | WLAN | 8.46 | ± 9.6 % |
| 10542 | AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)               | WLAN | 8.65 | ± 9.6 % |
| 10543 | AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)               | WLAN | 8.65 | ± 9.6 % |
| 10544 | AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)               | WLAN | 8.47 | ± 9.6 % |
| 10545 | AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)               | WLAN | 8.55 | ± 9.6 % |
| 10546 | AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)               | WLAN | 8.35 | ± 9.6 % |
| 10547 | AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)               | WLAN | 8.49 | ± 9.6 % |
| 10548 | AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)               | WLAN | 8.37 | ± 9.6 % |
| 10550 | AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)               | WLAN | 8.38 | ± 9.6 % |
| 10551 | AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)               | WLAN | 8.50 | ± 9.6 % |
| 10552 | AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)               | WLAN | 8.42 | ± 9.6 % |
| 10553 | AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)               | WLAN | 8.45 | ± 9.6 % |
| 10554 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)              | WLAN | 8.48 | ± 9.6 % |
| 10555 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)              | WLAN | 8.47 | ± 9.6 % |
| 10556 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)              | WLAN | 8.50 | ± 9.6 % |
| 10557 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)              | WLAN | 8.52 | ± 9.6 % |
| 10558 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)              | WLAN | 8.61 | ± 9.6 % |
| 10560 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)              | WLAN | 8.73 | ± 9.6 % |
| 10561 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)              | WLAN | 8.56 | ± 9.6 % |
| 10562 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)              | WLAN | 8.69 | ± 9.6 % |
| 10563 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)              | WLAN | 8.77 | ± 9.6 % |
| 10564 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | WLAN | 8.25 | ± 9.6 % |
| 10565 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | WLAN | 8.45 | ± 9.6 % |
| 10566 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | WLAN | 8.13 | ± 9.6 % |
| 10567 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | WLAN | 8.00 | ± 9.6 % |
| 10568 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | WLAN | 8.37 | ± 9.6 % |
| 10569 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | WLAN | 8.10 | ± 9.6 % |
| 10570 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | WLAN | 8.30 | ± 9.6 % |
| 10571 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | WLAN | 1.99 | ± 9.6 % |
| 10572 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | WLAN | 1.99 | ± 9.6 % |
| 10573 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | WLAN | 1.98 | ± 9.6 % |
| 10574 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | WLAN | 1.98 | ± 9.6 % |
| 10575 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | WLAN | 8.59 | ± 9.6 % |
| 10576 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | WLAN | 8.60 | ± 9.6 % |
| 10577 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | WLAN | 8.70 | ± 9.6 % |
| 10578 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | WLAN | 8.49 | ± 9.6 % |
| 10579 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | WLAN | 8.36 | ± 9.6 % |
| 10580 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | WLAN | 8.76 | ± 9.6 % |
| 10581 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | WLAN | 8.35 | ± 9.6 % |
| 10582 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | WLAN | 8.67 | ± 9.6 % |
| 10583 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | WLAN | 8.59 | ± 9.6 % |
| 10584 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | WLAN | 8.60 | ± 9.6 % |
| 10585 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | WLAN | 8.70 | ± 9.6 % |
| 10586 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | WLAN | 8.49 | ± 9.6 % |
| 10587 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | WLAN | 8.36 | ± 9.6 % |

|       |     |                                                            |          |       |         |
|-------|-----|------------------------------------------------------------|----------|-------|---------|
| 10588 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle) | WLAN     | 8.76  | ± 9.6 % |
| 10589 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle) | WLAN     | 8.35  | ± 9.6 % |
| 10590 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle) | WLAN     | 8.67  | ± 9.6 % |
| 10591 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)      | WLAN     | 8.63  | ± 9.6 % |
| 10592 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)      | WLAN     | 8.79  | ± 9.6 % |
| 10593 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)      | WLAN     | 8.64  | ± 9.6 % |
| 10594 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)      | WLAN     | 8.74  | ± 9.6 % |
| 10595 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)      | WLAN     | 8.74  | ± 9.6 % |
| 10596 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)      | WLAN     | 8.71  | ± 9.6 % |
| 10597 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)      | WLAN     | 8.72  | ± 9.6 % |
| 10598 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)      | WLAN     | 8.50  | ± 9.6 % |
| 10599 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)      | WLAN     | 8.79  | ± 9.6 % |
| 10600 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)      | WLAN     | 8.88  | ± 9.6 % |
| 10601 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)      | WLAN     | 8.82  | ± 9.6 % |
| 10602 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)      | WLAN     | 8.94  | ± 9.6 % |
| 10603 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)      | WLAN     | 9.03  | ± 9.6 % |
| 10604 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)      | WLAN     | 8.76  | ± 9.6 % |
| 10605 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)      | WLAN     | 8.97  | ± 9.6 % |
| 10606 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)      | WLAN     | 8.82  | ± 9.6 % |
| 10607 | AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.64  | ± 9.6 % |
| 10608 | AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.77  | ± 9.6 % |
| 10609 | AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.57  | ± 9.6 % |
| 10610 | AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.78  | ± 9.6 % |
| 10611 | AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.70  | ± 9.6 % |
| 10612 | AAB | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.77  | ± 9.6 % |
| 10613 | AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.94  | ± 9.6 % |
| 10614 | AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.59  | ± 9.6 % |
| 10615 | AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.82  | ± 9.6 % |
| 10616 | AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.82  | ± 9.6 % |
| 10617 | AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.81  | ± 9.6 % |
| 10618 | AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.58  | ± 9.6 % |
| 10619 | AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.86  | ± 9.6 % |
| 10620 | AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.87  | ± 9.6 % |
| 10621 | AAB | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.77  | ± 9.6 % |
| 10622 | AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.68  | ± 9.6 % |
| 10623 | AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.82  | ± 9.6 % |
| 10624 | AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.96  | ± 9.6 % |
| 10625 | AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)          | WLAN     | 8.96  | ± 9.6 % |
| 10626 | AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.83  | ± 9.6 % |
| 10627 | AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.88  | ± 9.6 % |
| 10628 | AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.71  | ± 9.6 % |
| 10629 | AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.85  | ± 9.6 % |
| 10630 | AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.72  | ± 9.6 % |
| 10631 | AAB | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.81  | ± 9.6 % |
| 10632 | AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.74  | ± 9.6 % |
| 10633 | AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.83  | ± 9.6 % |
| 10634 | AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.80  | ± 9.6 % |
| 10635 | AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)          | WLAN     | 8.81  | ± 9.6 % |
| 10636 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)         | WLAN     | 8.83  | ± 9.6 % |
| 10637 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)         | WLAN     | 8.79  | ± 9.6 % |
| 10638 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)         | WLAN     | 8.86  | ± 9.6 % |
| 10639 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)         | WLAN     | 8.85  | ± 9.6 % |
| 10640 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)         | WLAN     | 8.98  | ± 9.6 % |
| 10641 | AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)         | WLAN     | 9.06  | ± 9.6 % |
| 10642 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)         | WLAN     | 9.06  | ± 9.6 % |
| 10643 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)         | WLAN     | 8.89  | ± 9.6 % |
| 10644 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)         | WLAN     | 9.05  | ± 9.6 % |
| 10645 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)         | WLAN     | 9.11  | ± 9.6 % |
| 10646 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)      | LTE-TDD  | 11.96 | ± 9.6 % |
| 10647 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)     | LTE-TDD  | 11.96 | ± 9.6 % |
| 10648 | AAA | CDMA2000 (1x Advanced)                                     | CDMA2000 | 3.45  | ± 9.6 % |
| 10652 | AAD | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)             | LTE-TDD  | 6.91  | ± 9.6 % |
| 10653 | AAD | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)            | LTE-TDD  | 7.42  | ± 9.6 % |
| 10654 | AAD | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)            | LTE-TDD  | 6.96  | ± 9.6 % |

|       |     |                                                 |           |       |         |
|-------|-----|-------------------------------------------------|-----------|-------|---------|
| 10655 | AAE | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%) | LTE-TDD   | 7.21  | ± 9.6 % |
| 10658 | AAA | Pulse Waveform (200Hz, 10%)                     | Test      | 10.00 | ± 9.6 % |
| 10659 | AAA | Pulse Waveform (200Hz, 20%)                     | Test      | 6.99  | ± 9.6 % |
| 10660 | AAA | Pulse Waveform (200Hz, 40%)                     | Test      | 3.98  | ± 9.6 % |
| 10661 | AAA | Pulse Waveform (200Hz, 60%)                     | Test      | 2.22  | ± 9.6 % |
| 10662 | AAA | Pulse Waveform (200Hz, 80%)                     | Test      | 0.97  | ± 9.6 % |
| 10670 | AAA | Bluetooth Low Energy                            | Bluetooth | 2.19  | ± 9.6 % |

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



Accredited by the Swiss Accreditation Service (SAS)  
 The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **PC Test**

Certificate No: **EX3-7357\_Apr18**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:7357**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-12.v9, QA CAL-14.v4, QA CAL-23.v5,  
 QA CAL-25.v6  
 Calibration procedure for dosimetric E-field probes**

Calibration date: **April 18, 2018**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature ( $22 \pm 3$ )°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-18 (No. 217-02672/02673)   | Apr-19                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-18 (No. 217-02672)         | Apr-19                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-18 (No. 217-02673)         | Apr-19                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 04-Apr-18 (No. 217-02682)         | Apr-19                 |
| Reference Probe ES3DV2     | SN: 3013         | 30-Dec-17 (No. ES3-3013_Dec17)    | Dec-18                 |
| DAE4                       | SN: 660          | 21-Dec-17 (No. DAE4-660_Dec17)    | Dec-18                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-16) | In house check: Jun-18 |
| Network Analyzer HP 8753E  | SN: US37390585   | 18-Oct-01 (in house check Oct-17) | In house check: Oct-18 |

Calibrated by: **Name** Claudio Leubler **Function** Laboratory Technician **Signature**

Approved by: **Name** Katja Pokovic **Function** Technical Manager **Signature**

Issued: April 19, 2018

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

## Glossary:

|                          |                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                      | tissue simulating liquid                                                                                                                                |
| NORM <sub>x,y,z</sub>    | sensitivity in free space                                                                                                                               |
| ConvF                    | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                              |
| DCP                      | diode compression point                                                                                                                                 |
| CF                       | crest factor (1/duty_cycle) of the RF signal                                                                                                            |
| A, B, C, D               | modulation dependent linearization parameters                                                                                                           |
| Polarization $\varphi$   | $\varphi$ rotation around probe axis                                                                                                                    |
| Polarization $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor X to the robot coordinate system                                                                  |

## Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

## Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

# Probe EX3DV4

## SN:7357

Manufactured: February 5, 2015  
Calibrated: April 18, 2018

Calibrated for DASY/EASY Systems  
(Note: non-compatible with DASY2 system!)

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7357

### Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2)     |
|-----------------------------------------------------------|----------|----------|----------|---------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.37     | 0.48     | 0.40     | $\pm 10.1 \%$ |
| DCP (mV) <sup>B</sup>                                     | 89.1     | 99.1     | 96.4     |               |

### Modulation Calibration Parameters

| UID | Communication System Name |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C   | D<br>dB | VR<br>mV | Unc <sup>E</sup><br>(k=2) |
|-----|---------------------------|---|---------|------------------------------|-----|---------|----------|---------------------------|
| 0   | CW                        | X | 0.0     | 0.0                          | 1.0 | 0.00    | 151.5    | $\pm 2.7 \%$              |
|     |                           | Y | 0.0     | 0.0                          | 1.0 |         | 139.1    |                           |
|     |                           | Z | 0.0     | 0.0                          | 1.0 |         | 158.4    |                           |

Note: For details on UID parameters see Appendix.

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$\text{V}^{-1}$ | T1<br>$\text{ms}\cdot\text{V}^{-2}$ | T2<br>$\text{ms}\cdot\text{V}^{-1}$ | T3<br>ms | T4<br>$\text{V}^{-2}$ | T5<br>$\text{V}^{-1}$ | T6    |
|---|----------|----------|-----------------------------|-------------------------------------|-------------------------------------|----------|-----------------------|-----------------------|-------|
| X | 37.91    | 303.3    | 40.25                       | 6.413                               | 0.832                               | 4.998    | 0.00                  | 0.454                 | 1.006 |
| Y | 48.33    | 363.1    | 36.01                       | 10.58                               | 0.113                               | 5.100    | 0.00                  | 0.458                 | 1.004 |
| Z | 39.38    | 305.2    | 38.03                       | 5.76                                | 0.610                               | 5.046    | 0.00                  | 0.461                 | 1.008 |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter; uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7357

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 64                   | 54.2                               | 0.75                            | 14.92   | 14.92   | 14.92   | 0.00               | 1.00                    | ± 13.3 %  |
| 150                  | 52.3                               | 0.76                            | 13.49   | 13.49   | 13.49   | 0.00               | 1.00                    | ± 13.3 %  |
| 300                  | 45.3                               | 0.87                            | 12.37   | 12.37   | 12.37   | 0.08               | 1.20                    | ± 13.3 %  |
| 450                  | 43.5                               | 0.87                            | 11.17   | 11.17   | 11.17   | 0.14               | 1.20                    | ± 13.3 %  |
| 750                  | 41.9                               | 0.89                            | 10.50   | 10.50   | 10.50   | 0.45               | 0.85                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 10.11   | 10.11   | 10.11   | 0.37               | 0.93                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 8.80    | 8.80    | 8.80    | 0.38               | 0.86                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 8.47    | 8.47    | 8.47    | 0.18               | 0.83                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 7.83    | 7.83    | 7.83    | 0.33               | 0.86                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 7.43    | 7.43    | 7.43    | 0.37               | 0.89                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 7.13    | 7.13    | 7.13    | 0.27               | 0.98                    | ± 12.0 %  |
| 5250                 | 35.9                               | 4.71                            | 5.62    | 5.62    | 5.62    | 0.35               | 1.80                    | ± 13.1 %  |
| 5600                 | 35.5                               | 5.07                            | 4.93    | 4.93    | 4.93    | 0.40               | 1.80                    | ± 13.1 %  |
| 5750                 | 35.4                               | 5.22                            | 5.23    | 5.23    | 5.23    | 0.40               | 1.80                    | ± 13.1 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7357

### Calibration Parameter Determined in Body Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 150                  | 61.9                               | 0.80                            | 12.99   | 12.99   | 12.99   | 0.00               | 1.00                    | ± 13.3 %  |
| 300                  | 58.2                               | 0.92                            | 12.08   | 12.08   | 12.08   | 0.05               | 1.20                    | ± 13.3 %  |
| 450                  | 56.7                               | 0.94                            | 11.52   | 11.52   | 11.52   | 0.08               | 1.20                    | ± 13.3 %  |
| 750                  | 55.5                               | 0.96                            | 10.37   | 10.37   | 10.37   | 0.47               | 0.85                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 10.17   | 10.17   | 10.17   | 0.37               | 0.93                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 8.43    | 8.43    | 8.43    | 0.37               | 0.86                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 8.08    | 8.08    | 8.08    | 0.36               | 0.83                    | ± 12.0 %  |
| 2300                 | 52.9                               | 1.81                            | 7.74    | 7.74    | 7.74    | 0.38               | 0.85                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 7.60    | 7.60    | 7.60    | 0.35               | 0.88                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 7.44    | 7.44    | 7.44    | 0.33               | 0.93                    | ± 12.0 %  |
| 5250                 | 48.9                               | 5.36                            | 4.78    | 4.78    | 4.78    | 0.50               | 1.80                    | ± 13.1 %  |
| 5600                 | 48.5                               | 5.77                            | 4.20    | 4.20    | 4.20    | 0.50               | 1.80                    | ± 13.1 %  |
| 5750                 | 48.3                               | 5.94                            | 4.21    | 4.21    | 4.21    | 0.50               | 1.80                    | ± 13.1 %  |

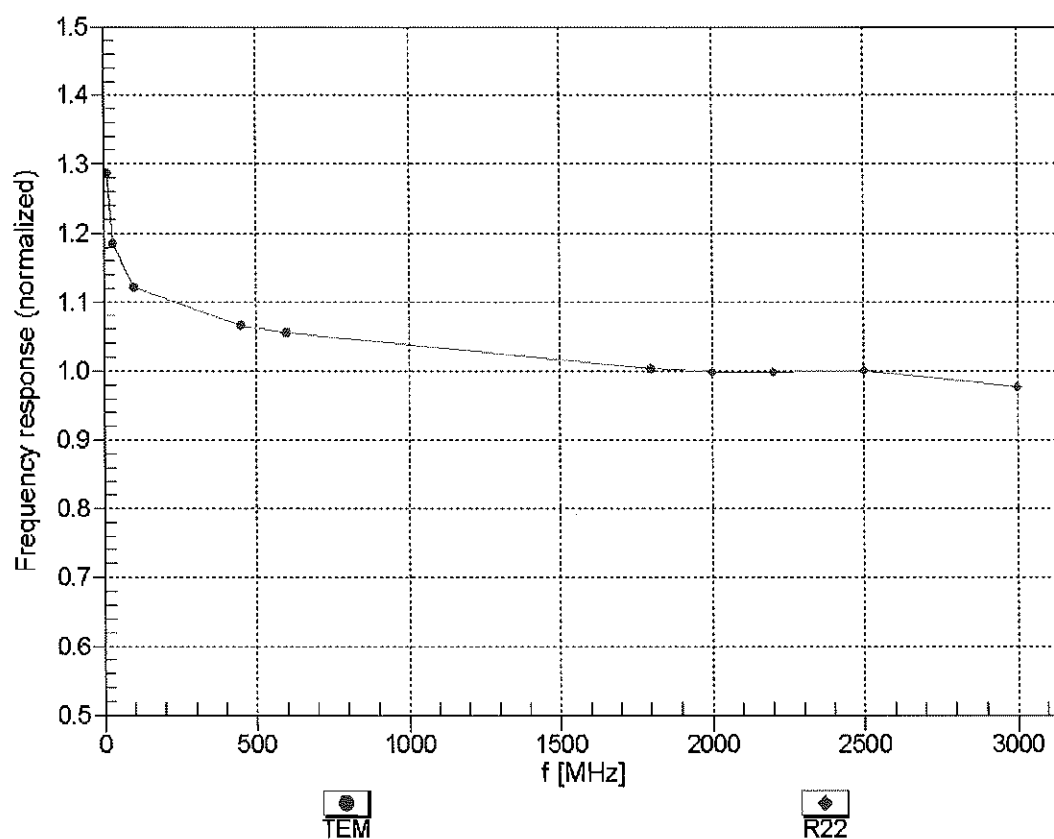
<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide: R22)

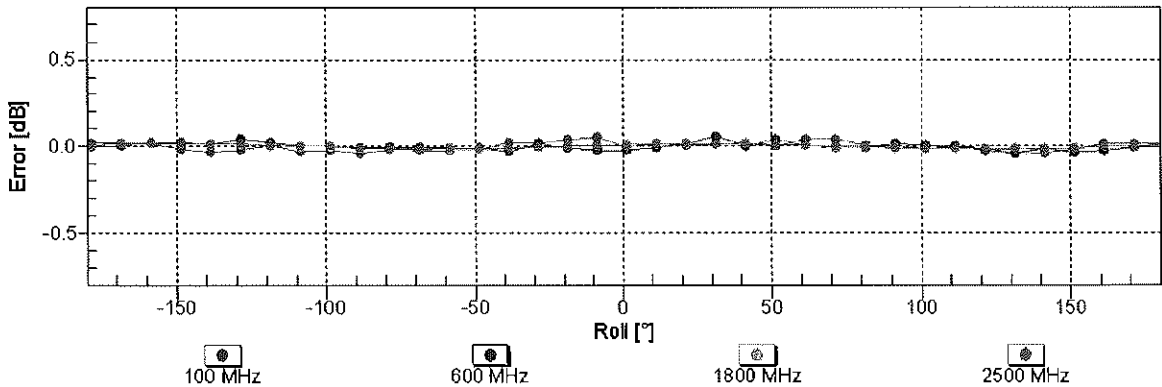
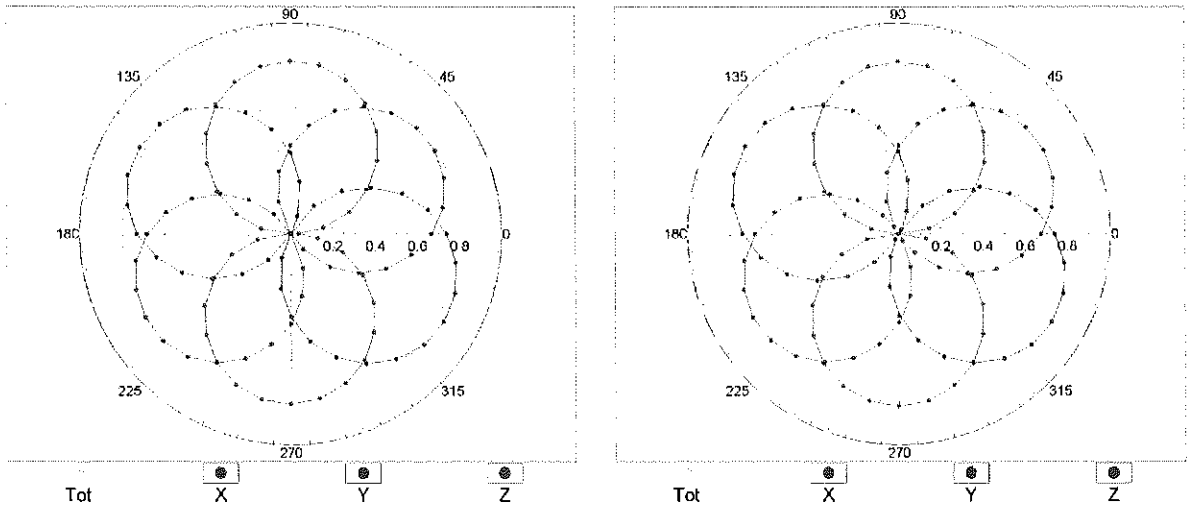


Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

Receiving Pattern ( $\phi$ ),  $\vartheta = 0^\circ$

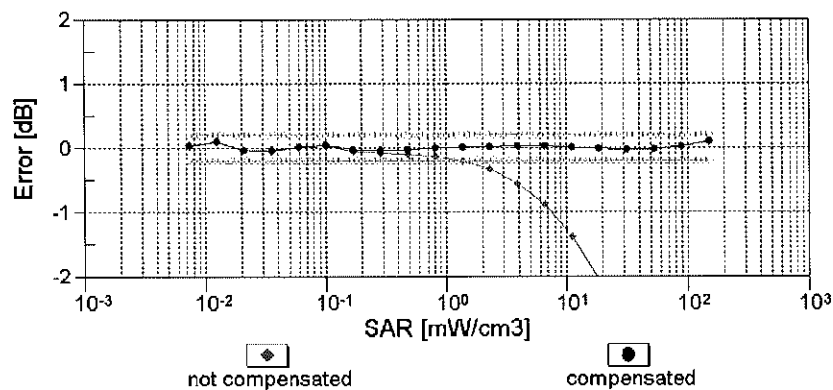
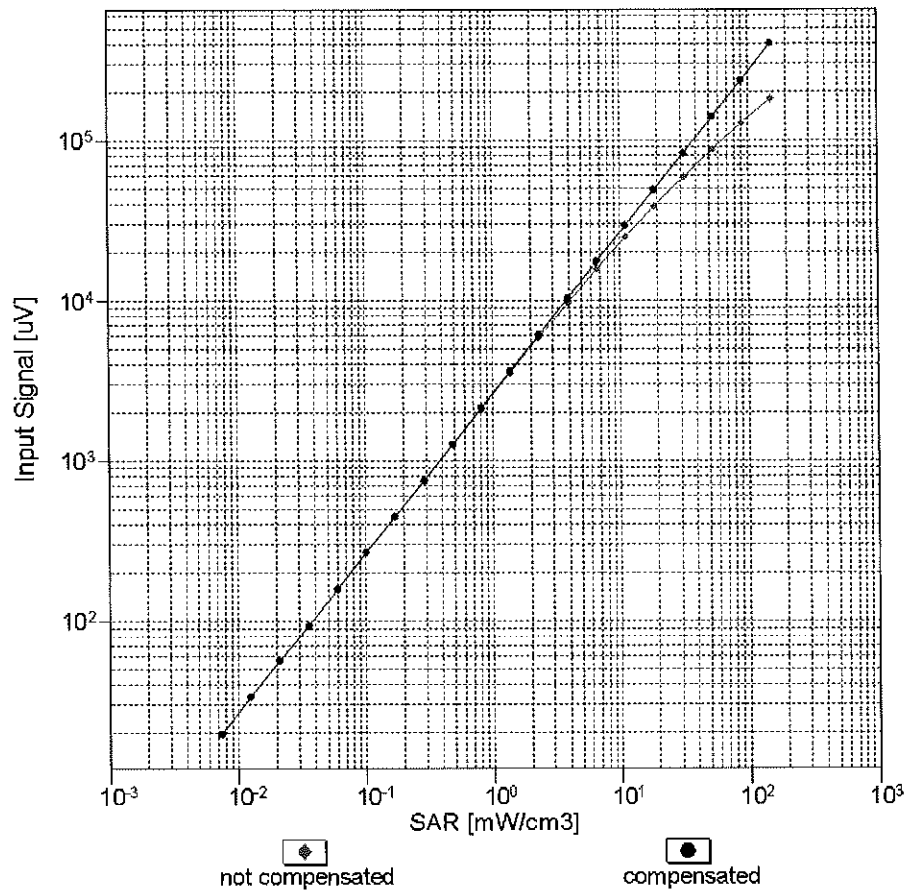
f=600 MHz,TEM

f=1800 MHz,R22



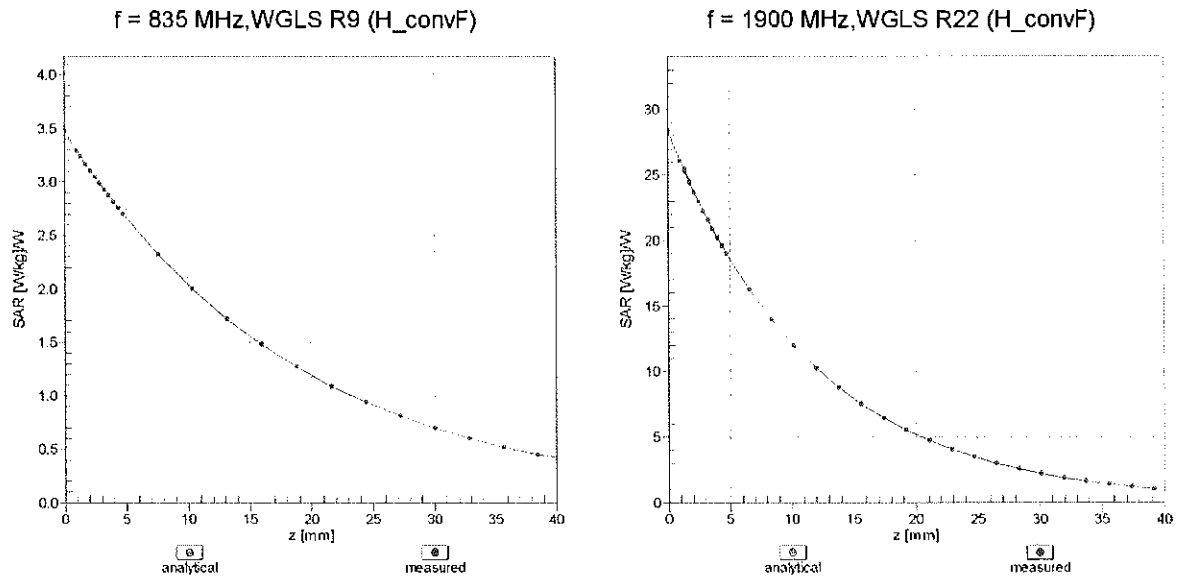
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

## Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell, $f_{\text{eval}} = 1900 \text{ MHz}$ )



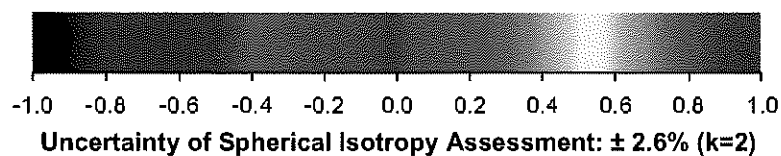
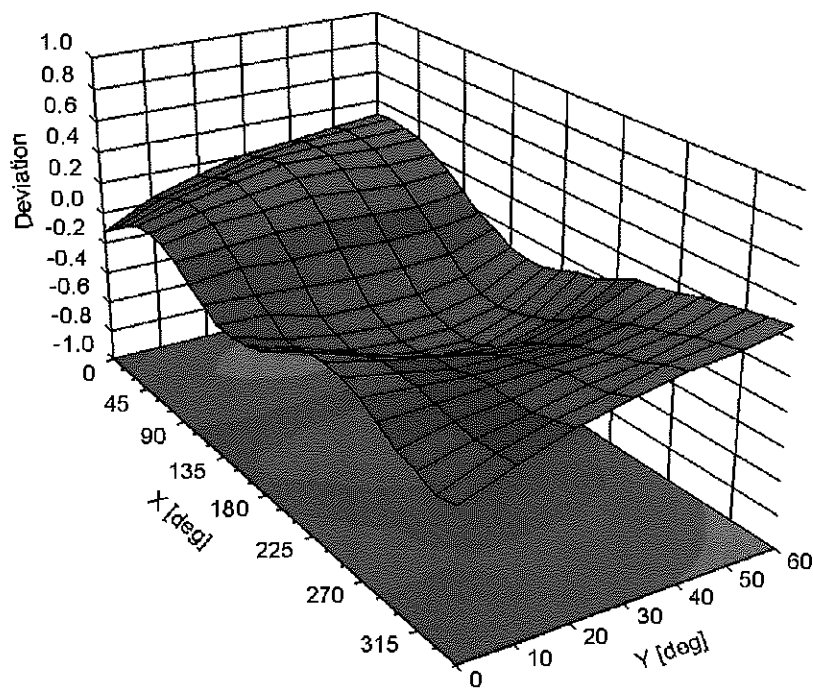
Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi, \theta$ ),  $f = 900 \text{ MHz}$



## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7357

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 11.4       |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

**Appendix: Modulation Calibration Parameters**

| UID           | Communication System Name                     |   | A<br>dB | B<br>dB $\sqrt{\mu V}$ | C     | D<br>dB | VR<br>mV | Max<br>Unc <sup>E</sup><br>(k=2) |
|---------------|-----------------------------------------------|---|---------|------------------------|-------|---------|----------|----------------------------------|
| 0             | CW                                            | X | 0.00    | 0.00                   | 1.00  | 0.00    | 151.5    | $\pm 2.7 \%$                     |
|               |                                               | Y | 0.00    | 0.00                   | 1.00  |         | 139.1    |                                  |
|               |                                               | Z | 0.00    | 0.00                   | 1.00  |         | 158.4    |                                  |
| 10010-<br>CAA | SAR Validation (Square, 100ms, 10ms)          | X | 1.67    | 61.93                  | 7.65  | 10.00   | 20.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 2.82    | 69.17                  | 11.50 |         | 20.0     |                                  |
|               |                                               | Z | 1.68    | 62.20                  | 7.72  |         | 20.0     |                                  |
| 10011-<br>CAB | UMTS-FDD (WCDMA)                              | X | 0.91    | 67.36                  | 14.64 | 0.00    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 1.03    | 67.52                  | 15.32 |         | 150.0    |                                  |
|               |                                               | Z | 0.87    | 67.00                  | 14.33 |         | 150.0    |                                  |
| 10012-<br>CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)      | X | 1.03    | 63.20                  | 14.83 | 0.41    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 1.15    | 63.79                  | 15.34 |         | 150.0    |                                  |
|               |                                               | Z | 1.01    | 63.27                  | 14.81 |         | 150.0    |                                  |
| 10013-<br>CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps) | X | 4.63    | 66.39                  | 16.96 | 1.46    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 4.87    | 66.69                  | 17.19 |         | 150.0    |                                  |
|               |                                               | Z | 4.64    | 66.53                  | 16.99 |         | 150.0    |                                  |
| 10021-<br>DAC | GSM-FDD (TDMA, GMSK)                          | X | 3.67    | 70.27                  | 12.79 | 9.39    | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 116.17                 | 27.83 |         | 50.0     |                                  |
|               |                                               | Z | 17.04   | 87.58                  | 18.77 |         | 50.0     |                                  |
| 10023-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0)                   | X | 3.48    | 69.40                  | 12.45 | 9.57    | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 115.39                 | 27.52 |         | 50.0     |                                  |
|               |                                               | Z | 8.91    | 80.25                  | 16.55 |         | 50.0     |                                  |
| 10024-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                 | X | 1.80    | 66.18                  | 9.84  | 6.56    | 60.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 120.19                 | 28.55 |         | 60.0     |                                  |
|               |                                               | Z | 100.00  | 103.30                 | 20.82 |         | 60.0     |                                  |
| 10025-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                   | X | 3.42    | 64.49                  | 22.34 | 12.57   | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 6.04    | 85.62                  | 35.55 |         | 50.0     |                                  |
|               |                                               | Z | 3.44    | 65.04                  | 22.85 |         | 50.0     |                                  |
| 10026-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                 | X | 6.25    | 83.47                  | 29.08 | 9.56    | 60.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 9.24    | 95.88                  | 35.47 |         | 60.0     |                                  |
|               |                                               | Z | 6.56    | 85.41                  | 30.17 |         | 60.0     |                                  |
| 10027-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)               | X | 0.96    | 63.24                  | 7.67  | 4.80    | 80.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 125.59                 | 30.06 |         | 80.0     |                                  |
|               |                                               | Z | 100.00  | 100.14                 | 18.62 |         | 80.0     |                                  |
| 10028-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)             | X | 0.48    | 60.36                  | 5.50  | 3.55    | 100.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 132.37                 | 32.13 |         | 100.0    |                                  |
|               |                                               | Z | 99.97   | 95.45                  | 15.98 |         | 100.0    |                                  |
| 10029-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)               | X | 4.19    | 75.28                  | 24.64 | 7.80    | 80.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 5.35    | 81.78                  | 28.49 |         | 80.0     |                                  |
|               |                                               | Z | 4.26    | 76.21                  | 25.31 |         | 80.0     |                                  |
| 10030-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)           | X | 1.09    | 63.09                  | 7.76  | 5.30    | 70.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 120.14                 | 28.06 |         | 70.0     |                                  |
|               |                                               | Z | 4.93    | 76.05                  | 12.90 |         | 70.0     |                                  |
| 10031-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)           | X | 0.27    | 60.00                  | 3.17  | 1.88    | 100.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 135.00                 | 31.47 |         | 100.0    |                                  |
|               |                                               | Z | 0.26    | 60.00                  | 3.07  |         | 100.0    |                                  |

|           |                                                     |   |        |        |       |       |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10032-CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | X | 27.08  | 314.20 | 3.36  | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 149.06 | 35.68 |       | 100.0 |         |
|           |                                                     | Z | 1.21   | 330.96 | 55.77 |       | 100.0 |         |
| 10033-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | X | 3.08   | 73.10  | 16.00 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 136.30 | 37.75 |       | 70.0  |         |
|           |                                                     | Z | 7.37   | 86.92  | 21.69 |       | 70.0  |         |
| 10034-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | X | 1.25   | 65.91  | 11.39 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 5.27   | 87.77  | 22.72 |       | 100.0 |         |
|           |                                                     | Z | 1.70   | 70.42  | 13.93 |       | 100.0 |         |
| 10035-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | X | 0.99   | 64.64  | 10.52 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 2.59   | 77.96  | 18.88 |       | 100.0 |         |
|           |                                                     | Z | 1.19   | 67.26  | 12.19 |       | 100.0 |         |
| 10036-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | X | 3.48   | 74.91  | 16.77 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 136.90 | 38.02 |       | 70.0  |         |
|           |                                                     | Z | 11.33  | 93.27  | 23.71 |       | 70.0  |         |
| 10037-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | X | 1.18   | 65.50  | 11.18 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 4.66   | 86.12  | 22.16 |       | 100.0 |         |
|           |                                                     | Z | 1.56   | 69.56  | 13.55 |       | 100.0 |         |
| 10038-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | X | 1.00   | 64.92  | 10.78 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 2.61   | 78.41  | 19.18 |       | 100.0 |         |
|           |                                                     | Z | 1.21   | 67.70  | 12.52 |       | 100.0 |         |
| 10039-CAB | CDMA2000 (1xRTT, RC1)                               | X | 0.95   | 64.99  | 10.40 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.84   | 72.12  | 15.71 |       | 150.0 |         |
|           |                                                     | Z | 1.02   | 65.84  | 10.98 |       | 150.0 |         |
| 10042-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | X | 1.77   | 64.37  | 9.09  | 7.78  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 113.16 | 25.71 |       | 50.0  |         |
|           |                                                     | Z | 2.56   | 68.32  | 10.93 |       | 50.0  |         |
| 10044-CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | X | 0.31   | 133.81 | 11.51 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.00   | 104.03 | 5.27  |       | 150.0 |         |
|           |                                                     | Z | 0.33   | 142.49 | 0.98  |       | 150.0 |         |
| 10048-CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | X | 4.01   | 66.51  | 12.74 | 13.80 | 25.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 110.91 | 26.95 |       | 25.0  |         |
|           |                                                     | Z | 5.44   | 70.40  | 14.40 |       | 25.0  |         |
| 10049-CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | X | 3.70   | 68.56  | 12.33 | 10.79 | 40.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 112.50 | 26.54 |       | 40.0  |         |
|           |                                                     | Z | 5.22   | 72.87  | 14.17 |       | 40.0  |         |
| 10056-CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | X | 6.09   | 76.95  | 17.81 | 9.03  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 128.62 | 35.43 |       | 50.0  |         |
|           |                                                     | Z | 13.22  | 89.10  | 22.41 |       | 50.0  |         |
| 10058-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | X | 3.39   | 71.63  | 22.33 | 6.55  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 4.14   | 76.10  | 25.11 |       | 100.0 |         |
|           |                                                     | Z | 3.42   | 72.27  | 22.83 |       | 100.0 |         |
| 10059-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | X | 1.03   | 63.98  | 15.22 | 0.61  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 1.18   | 64.90  | 16.05 |       | 110.0 |         |
|           |                                                     | Z | 1.02   | 64.18  | 15.34 |       | 110.0 |         |
| 10060-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | X | 5.25   | 93.28  | 23.11 | 1.30  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 145.92 | 38.93 |       | 110.0 |         |
|           |                                                     | Z | 39.44  | 123.36 | 31.22 |       | 110.0 |         |

|           |                                                |   |      |       |       |      |       |         |
|-----------|------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10061-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)      | X | 1.80 | 74.31 | 19.24 | 2.04 | 110.0 | ± 9.6 % |
|           |                                                | Y | 3.02 | 83.93 | 24.56 |      | 110.0 |         |
|           |                                                | Z | 2.14 | 78.36 | 21.37 |      | 110.0 |         |
| 10062-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)       | X | 4.44 | 66.41 | 16.45 | 0.49 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.68 | 66.67 | 16.57 |      | 100.0 |         |
|           |                                                | Z | 4.45 | 66.51 | 16.42 |      | 100.0 |         |
| 10063-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)       | X | 4.45 | 66.48 | 16.52 | 0.72 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.69 | 66.78 | 16.69 |      | 100.0 |         |
|           |                                                | Z | 4.46 | 66.59 | 16.51 |      | 100.0 |         |
| 10064-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)      | X | 4.70 | 66.70 | 16.72 | 0.86 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.99 | 67.05 | 16.93 |      | 100.0 |         |
|           |                                                | Z | 4.72 | 66.83 | 16.73 |      | 100.0 |         |
| 10065-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)      | X | 4.56 | 66.53 | 16.77 | 1.21 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.85 | 66.96 | 17.05 |      | 100.0 |         |
|           |                                                | Z | 4.58 | 66.69 | 16.81 |      | 100.0 |         |
| 10066-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)      | X | 4.57 | 66.51 | 16.90 | 1.46 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.87 | 66.98 | 17.22 |      | 100.0 |         |
|           |                                                | Z | 4.60 | 66.69 | 16.96 |      | 100.0 |         |
| 10067-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)      | X | 4.86 | 66.77 | 17.36 | 2.04 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.15 | 67.13 | 17.68 |      | 100.0 |         |
|           |                                                | Z | 4.89 | 66.94 | 17.44 |      | 100.0 |         |
| 10068-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)      | X | 4.88 | 66.65 | 17.49 | 2.55 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.20 | 67.19 | 17.93 |      | 100.0 |         |
|           |                                                | Z | 4.91 | 66.87 | 17.60 |      | 100.0 |         |
| 10069-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)      | X | 4.95 | 66.72 | 17.70 | 2.67 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.28 | 67.17 | 18.11 |      | 100.0 |         |
|           |                                                | Z | 4.99 | 66.91 | 17.80 |      | 100.0 |         |
| 10071-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)  | X | 4.71 | 66.43 | 17.22 | 1.99 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.96 | 66.77 | 17.51 |      | 100.0 |         |
|           |                                                | Z | 4.73 | 66.59 | 17.28 |      | 100.0 |         |
| 10072-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps) | X | 4.67 | 66.65 | 17.37 | 2.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.94 | 67.10 | 17.75 |      | 100.0 |         |
|           |                                                | Z | 4.69 | 66.85 | 17.47 |      | 100.0 |         |
| 10073-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps) | X | 4.72 | 66.79 | 17.66 | 2.83 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.99 | 67.24 | 18.08 |      | 100.0 |         |
|           |                                                | Z | 4.75 | 67.01 | 17.79 |      | 100.0 |         |
| 10074-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps) | X | 4.72 | 66.70 | 17.78 | 3.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.95 | 67.09 | 18.23 |      | 100.0 |         |
|           |                                                | Z | 4.74 | 66.91 | 17.92 |      | 100.0 |         |
| 10075-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps) | X | 4.74 | 66.71 | 18.01 | 3.82 | 90.0  | ± 9.6 % |
|           |                                                | Y | 4.98 | 67.20 | 18.56 |      | 90.0  |         |
|           |                                                | Z | 4.76 | 66.94 | 18.18 |      | 90.0  |         |
| 10076-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps) | X | 4.77 | 66.58 | 18.17 | 4.15 | 90.0  | ± 9.6 % |
|           |                                                | Y | 4.98 | 66.93 | 18.66 |      | 90.0  |         |
|           |                                                | Z | 4.79 | 66.78 | 18.33 |      | 90.0  |         |
| 10077-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps) | X | 4.80 | 66.66 | 18.27 | 4.30 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.00 | 66.98 | 18.75 |      | 90.0  |         |
|           |                                                | Z | 4.82 | 66.86 | 18.43 |      | 90.0  |         |

|           |                                                     |   |        |        |       |      |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10081-CAB | CDMA2000 (1xRTT, RC3)                               | X | 0.45   | 61.00  | 7.50  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.83   | 65.94  | 12.49 |      | 150.0 |         |
|           |                                                     | Z | 0.46   | 61.34  | 7.83  |      | 150.0 |         |
| 10082-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | X | 0.68   | 60.00  | 3.10  | 4.77 | 80.0  | ± 9.6 % |
|           |                                                     | Y | 0.78   | 61.11  | 4.54  |      | 80.0  |         |
|           |                                                     | Z | 0.72   | 60.00  | 2.85  |      | 80.0  |         |
| 10090-DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | X | 1.84   | 66.30  | 9.91  | 6.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 120.24 | 28.59 |      | 60.0  |         |
|           |                                                     | Z | 100.00 | 103.44 | 20.90 |      | 60.0  |         |
| 10097-CAB | UMTS-FDD (HSDPA)                                    | X | 1.71   | 67.90  | 15.28 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.82   | 67.70  | 15.69 |      | 150.0 |         |
|           |                                                     | Z | 1.68   | 67.71  | 15.15 |      | 150.0 |         |
| 10098-CAB | UMTS-FDD (HSUPA, Subtest 2)                         | X | 1.67   | 67.85  | 15.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.79   | 67.66  | 15.66 |      | 150.0 |         |
|           |                                                     | Z | 1.64   | 67.65  | 15.11 |      | 150.0 |         |
| 10099-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | X | 6.29   | 83.56  | 29.10 | 9.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 9.34   | 96.14  | 35.56 |      | 60.0  |         |
|           |                                                     | Z | 6.61   | 85.53  | 30.21 |      | 60.0  |         |
| 10100-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 2.90   | 69.76  | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.14   | 70.37  | 16.71 |      | 150.0 |         |
|           |                                                     | Z | 2.89   | 69.82  | 16.39 |      | 150.0 |         |
| 10101-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 3.04   | 67.08  | 15.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.24   | 67.51  | 15.94 |      | 150.0 |         |
|           |                                                     | Z | 3.03   | 67.13  | 15.70 |      | 150.0 |         |
| 10102-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 3.15   | 67.10  | 15.95 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.34   | 67.47  | 16.02 |      | 150.0 |         |
|           |                                                     | Z | 3.13   | 67.15  | 15.83 |      | 150.0 |         |
| 10103-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 4.81   | 72.04  | 18.88 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 6.41   | 77.25  | 21.56 |      | 65.0  |         |
|           |                                                     | Z | 5.14   | 73.67  | 19.73 |      | 65.0  |         |
| 10104-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 5.09   | 70.84  | 19.13 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 5.94   | 73.69  | 20.83 |      | 65.0  |         |
|           |                                                     | Z | 5.16   | 71.44  | 19.51 |      | 65.0  |         |
| 10105-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 4.78   | 69.37  | 18.75 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 5.83   | 73.15  | 20.89 |      | 65.0  |         |
|           |                                                     | Z | 4.90   | 70.20  | 19.25 |      | 65.0  |         |
| 10108-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | X | 2.51   | 69.24  | 16.41 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.74   | 69.60  | 16.54 |      | 150.0 |         |
|           |                                                     | Z | 2.49   | 69.21  | 16.24 |      | 150.0 |         |
| 10109-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)          | X | 2.68   | 67.06  | 15.67 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.89   | 67.36  | 15.84 |      | 150.0 |         |
|           |                                                     | Z | 2.67   | 67.07  | 15.55 |      | 150.0 |         |
| 10110-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)             | X | 1.99   | 68.49  | 15.84 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.22   | 68.71  | 16.15 |      | 150.0 |         |
|           |                                                     | Z | 1.98   | 68.38  | 15.68 |      | 150.0 |         |
| 10111-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)           | X | 2.41   | 68.19  | 15.80 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.61   | 68.17  | 16.11 |      | 150.0 |         |
|           |                                                     | Z | 2.40   | 68.17  | 15.74 |      | 150.0 |         |

|           |                                                |   |      |       |       |      |       |         |
|-----------|------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10112-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | X | 2.81 | 67.12 | 15.76 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.02 | 67.35 | 15.89 |      | 150.0 |         |
|           |                                                | Z | 2.80 | 67.12 | 15.64 |      | 150.0 |         |
| 10113-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | X | 2.56 | 68.40 | 15.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.76 | 68.30 | 16.24 |      | 150.0 |         |
|           |                                                | Z | 2.55 | 68.39 | 15.92 |      | 150.0 |         |
| 10114-CAC | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | X | 4.95 | 66.96 | 16.54 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.12 | 67.17 | 16.44 |      | 150.0 |         |
|           |                                                | Z | 4.92 | 66.97 | 16.39 |      | 150.0 |         |
| 10115-CAC | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | X | 5.23 | 67.14 | 16.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.41 | 67.31 | 16.52 |      | 150.0 |         |
|           |                                                | Z | 5.18 | 67.06 | 16.45 |      | 150.0 |         |
| 10116-CAC | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | X | 5.04 | 67.18 | 16.57 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.22 | 67.37 | 16.47 |      | 150.0 |         |
|           |                                                | Z | 5.01 | 67.18 | 16.42 |      | 150.0 |         |
| 10117-CAC | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | X | 4.94 | 66.92 | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.09 | 67.03 | 16.39 |      | 150.0 |         |
|           |                                                | Z | 4.91 | 66.91 | 16.38 |      | 150.0 |         |
| 10118-CAC | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | X | 5.34 | 67.47 | 16.81 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.50 | 67.52 | 16.63 |      | 150.0 |         |
|           |                                                | Z | 5.27 | 67.32 | 16.58 |      | 150.0 |         |
| 10119-CAC | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | X | 5.06 | 67.24 | 16.61 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.20 | 67.31 | 16.45 |      | 150.0 |         |
|           |                                                | Z | 5.01 | 67.18 | 16.43 |      | 150.0 |         |
| 10140-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | X | 3.17 | 67.11 | 15.85 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.38 | 67.48 | 15.94 |      | 150.0 |         |
|           |                                                | Z | 3.16 | 67.15 | 15.73 |      | 150.0 |         |
| 10141-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | X | 3.30 | 67.28 | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.50 | 67.57 | 16.11 |      | 150.0 |         |
|           |                                                | Z | 3.29 | 67.32 | 15.94 |      | 150.0 |         |
| 10142-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | X | 1.73 | 68.17 | 14.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.00 | 68.71 | 15.82 |      | 150.0 |         |
|           |                                                | Z | 1.72 | 68.11 | 14.89 |      | 150.0 |         |
| 10143-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | X | 2.15 | 68.15 | 14.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.47 | 68.91 | 15.82 |      | 150.0 |         |
|           |                                                | Z | 2.17 | 68.32 | 14.76 |      | 150.0 |         |
| 10144-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | X | 1.86 | 65.26 | 12.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.24 | 66.62 | 14.22 |      | 150.0 |         |
|           |                                                | Z | 1.88 | 65.43 | 12.77 |      | 150.0 |         |
| 10145-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | X | 0.67 | 60.16 | 6.91  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.22 | 65.11 | 11.80 |      | 150.0 |         |
|           |                                                | Z | 0.71 | 60.61 | 7.39  |      | 150.0 |         |
| 10146-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | X | 0.95 | 60.06 | 6.44  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.65 | 64.56 | 10.76 |      | 150.0 |         |
|           |                                                | Z | 1.07 | 61.07 | 7.44  |      | 150.0 |         |
| 10147-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | X | 0.99 | 60.33 | 6.68  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.85 | 65.94 | 11.59 |      | 150.0 |         |
|           |                                                | Z | 1.13 | 61.55 | 7.80  |      | 150.0 |         |

|           |                                            |   |      |       |       |      |       |         |
|-----------|--------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10149-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 2.69 | 67.13 | 15.72 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.90 | 67.42 | 15.88 |      | 150.0 |         |
|           |                                            | Z | 2.68 | 67.14 | 15.60 |      | 150.0 |         |
| 10150-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 2.82 | 67.19 | 15.80 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.03 | 67.40 | 15.93 |      | 150.0 |         |
|           |                                            | Z | 2.81 | 67.19 | 15.69 |      | 150.0 |         |
| 10151-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)    | X | 5.01 | 74.56 | 19.93 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 6.65 | 79.71 | 22.70 |      | 65.0  |         |
|           |                                            | Z | 5.36 | 76.27 | 20.86 |      | 65.0  |         |
| 10152-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 4.60 | 70.61 | 18.55 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 5.50 | 73.80 | 20.64 |      | 65.0  |         |
|           |                                            | Z | 4.69 | 71.33 | 19.06 |      | 65.0  |         |
| 10153-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 4.95 | 71.72 | 19.46 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 5.84 | 74.66 | 21.37 |      | 65.0  |         |
|           |                                            | Z | 5.05 | 72.49 | 19.99 |      | 65.0  |         |
| 10154-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 2.04 | 68.92 | 16.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.27 | 69.12 | 16.41 |      | 150.0 |         |
|           |                                            | Z | 2.03 | 68.83 | 15.96 |      | 150.0 |         |
| 10155-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 2.41 | 68.23 | 15.84 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.61 | 68.18 | 16.13 |      | 150.0 |         |
|           |                                            | Z | 2.40 | 68.21 | 15.77 |      | 150.0 |         |
| 10156-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 1.51 | 67.60 | 14.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 1.84 | 68.81 | 15.61 |      | 150.0 |         |
|           |                                            | Z | 1.52 | 67.67 | 14.19 |      | 150.0 |         |
| 10157-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 1.63 | 65.15 | 12.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.08 | 67.20 | 14.25 |      | 150.0 |         |
|           |                                            | Z | 1.66 | 65.43 | 12.31 |      | 150.0 |         |
| 10158-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 2.57 | 68.50 | 16.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.77 | 68.36 | 16.29 |      | 150.0 |         |
|           |                                            | Z | 2.56 | 68.48 | 15.98 |      | 150.0 |         |
| 10159-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 1.70 | 65.38 | 12.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.19 | 67.65 | 14.54 |      | 150.0 |         |
|           |                                            | Z | 1.74 | 65.76 | 12.53 |      | 150.0 |         |
| 10160-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)    | X | 2.62 | 68.99 | 16.41 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.74 | 68.65 | 16.32 |      | 150.0 |         |
|           |                                            | Z | 2.56 | 68.70 | 16.16 |      | 150.0 |         |
| 10161-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 2.71 | 67.15 | 15.66 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.92 | 67.34 | 15.86 |      | 150.0 |         |
|           |                                            | Z | 2.70 | 67.15 | 15.57 |      | 150.0 |         |
| 10162-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 2.82 | 67.38 | 15.82 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.03 | 67.49 | 15.97 |      | 150.0 |         |
|           |                                            | Z | 2.81 | 67.37 | 15.72 |      | 150.0 |         |
| 10166-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 3.14 | 68.82 | 18.96 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.40 | 68.62 | 18.58 |      | 150.0 |         |
|           |                                            | Z | 3.24 | 69.38 | 19.21 |      | 150.0 |         |
| 10167-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 3.68 | 71.26 | 19.14 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.01 | 70.93 | 18.84 |      | 150.0 |         |
|           |                                            | Z | 3.86 | 71.98 | 19.46 |      | 150.0 |         |

|           |                                            |   |       |        |       |      |       |         |
|-----------|--------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10168-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 4.20  | 74.21  | 20.88 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.39  | 72.91  | 20.06 |      | 150.0 |         |
|           |                                            | Z | 4.45  | 75.16  | 21.28 |      | 150.0 |         |
| 10169-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 2.49  | 66.95  | 18.11 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.73  | 67.59  | 18.14 |      | 150.0 |         |
|           |                                            | Z | 2.58  | 67.69  | 18.47 |      | 150.0 |         |
| 10170-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 3.17  | 72.06  | 20.27 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.45  | 72.20  | 20.01 |      | 150.0 |         |
|           |                                            | Z | 3.40  | 73.44  | 20.89 |      | 150.0 |         |
| 10171-AAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 2.61  | 67.98  | 17.29 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.93  | 68.85  | 17.54 |      | 150.0 |         |
|           |                                            | Z | 2.74  | 68.83  | 17.69 |      | 150.0 |         |
| 10172-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 3.59  | 76.79  | 22.90 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 7.70  | 92.12  | 29.64 |      | 65.0  |         |
|           |                                            | Z | 4.50  | 82.04  | 25.61 |      | 65.0  |         |
| 10173-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 5.40  | 81.69  | 22.80 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 14.31 | 100.07 | 30.15 |      | 65.0  |         |
|           |                                            | Z | 8.60  | 91.21  | 26.84 |      | 65.0  |         |
| 10174-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 3.41  | 73.68  | 19.23 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 12.55 | 96.17  | 28.30 |      | 65.0  |         |
|           |                                            | Z | 5.50  | 82.57  | 23.30 |      | 65.0  |         |
| 10175-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)      | X | 2.47  | 66.66  | 17.85 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.70  | 67.34  | 17.92 |      | 150.0 |         |
|           |                                            | Z | 2.55  | 67.36  | 18.19 |      | 150.0 |         |
| 10176-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)    | X | 3.18  | 72.09  | 20.28 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.46  | 72.22  | 20.02 |      | 150.0 |         |
|           |                                            | Z | 3.41  | 73.46  | 20.90 |      | 150.0 |         |
| 10177-CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)       | X | 2.48  | 66.79  | 17.93 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.72  | 67.46  | 18.00 |      | 150.0 |         |
|           |                                            | Z | 2.57  | 67.51  | 18.28 |      | 150.0 |         |
| 10178-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)     | X | 3.15  | 71.92  | 20.18 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.43  | 72.05  | 19.92 |      | 150.0 |         |
|           |                                            | Z | 3.38  | 73.25  | 20.78 |      | 150.0 |         |
| 10179-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)    | X | 2.85  | 69.85  | 18.61 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.17  | 70.44  | 18.65 |      | 150.0 |         |
|           |                                            | Z | 3.03  | 70.94  | 19.12 |      | 150.0 |         |
| 10180-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)     | X | 2.61  | 67.94  | 17.25 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.92  | 68.79  | 17.50 |      | 150.0 |         |
|           |                                            | Z | 2.74  | 68.78  | 17.65 |      | 150.0 |         |
| 10181-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 2.48  | 66.77  | 17.93 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.71  | 67.45  | 18.00 |      | 150.0 |         |
|           |                                            | Z | 2.56  | 67.49  | 18.28 |      | 150.0 |         |
| 10182-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)    | X | 3.15  | 71.89  | 20.17 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.42  | 72.03  | 19.91 |      | 150.0 |         |
|           |                                            | Z | 3.37  | 73.22  | 20.77 |      | 150.0 |         |
| 10183-AAC | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 2.60  | 67.92  | 17.24 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.92  | 68.77  | 17.49 |      | 150.0 |         |
|           |                                            | Z | 2.73  | 68.75  | 17.64 |      | 150.0 |         |

|           |                                               |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10184-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | X | 2.49 | 66.81 | 17.95 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 2.72 | 67.49 | 18.02 |      | 150.0 |         |
|           |                                               | Z | 2.57 | 67.53 | 18.30 |      | 150.0 |         |
| 10185-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | X | 3.16 | 71.97 | 20.21 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.44 | 72.09 | 19.94 |      | 150.0 |         |
|           |                                               | Z | 3.39 | 73.31 | 20.81 |      | 150.0 |         |
| 10186-AAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | X | 2.62 | 67.98 | 17.28 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 2.93 | 68.83 | 17.52 |      | 150.0 |         |
|           |                                               | Z | 2.74 | 68.82 | 17.67 |      | 150.0 |         |
| 10187-CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | X | 2.50 | 66.88 | 18.03 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 2.73 | 67.53 | 18.08 |      | 150.0 |         |
|           |                                               | Z | 2.58 | 67.61 | 18.38 |      | 150.0 |         |
| 10188-CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | X | 3.26 | 72.60 | 20.60 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.53 | 72.62 | 20.27 |      | 150.0 |         |
|           |                                               | Z | 3.51 | 74.04 | 21.24 |      | 150.0 |         |
| 10189-AAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | X | 2.67 | 68.35 | 17.55 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 2.99 | 69.18 | 17.77 |      | 150.0 |         |
|           |                                               | Z | 2.80 | 69.24 | 17.97 |      | 150.0 |         |
| 10193-CAC | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | X | 4.32 | 66.50 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.52 | 66.59 | 16.14 |      | 150.0 |         |
|           |                                               | Z | 4.31 | 66.50 | 16.05 |      | 150.0 |         |
| 10194-CAC | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | X | 4.47 | 66.75 | 16.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.69 | 66.90 | 16.27 |      | 150.0 |         |
|           |                                               | Z | 4.46 | 66.77 | 16.19 |      | 150.0 |         |
| 10195-CAC | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | X | 4.51 | 66.78 | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.73 | 66.93 | 16.28 |      | 150.0 |         |
|           |                                               | Z | 4.50 | 66.80 | 16.21 |      | 150.0 |         |
| 10196-CAC | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | X | 4.31 | 66.51 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.52 | 66.65 | 16.16 |      | 150.0 |         |
|           |                                               | Z | 4.30 | 66.52 | 16.05 |      | 150.0 |         |
| 10197-CAC | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | X | 4.48 | 66.77 | 16.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.70 | 66.92 | 16.28 |      | 150.0 |         |
|           |                                               | Z | 4.47 | 66.78 | 16.20 |      | 150.0 |         |
| 10198-CAC | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | X | 4.50 | 66.79 | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.73 | 66.95 | 16.30 |      | 150.0 |         |
|           |                                               | Z | 4.49 | 66.81 | 16.22 |      | 150.0 |         |
| 10219-CAC | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | X | 4.26 | 66.54 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.47 | 66.66 | 16.12 |      | 150.0 |         |
|           |                                               | Z | 4.25 | 66.55 | 16.01 |      | 150.0 |         |
| 10220-CAC | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | X | 4.47 | 66.73 | 16.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.70 | 66.89 | 16.27 |      | 150.0 |         |
|           |                                               | Z | 4.46 | 66.74 | 16.19 |      | 150.0 |         |
| 10221-CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | X | 4.51 | 66.73 | 16.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.74 | 66.87 | 16.28 |      | 150.0 |         |
|           |                                               | Z | 4.51 | 66.74 | 16.20 |      | 150.0 |         |
| 10222-CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | X | 4.91 | 66.89 | 16.51 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 5.06 | 67.05 | 16.39 |      | 150.0 |         |
|           |                                               | Z | 4.88 | 66.88 | 16.36 |      | 150.0 |         |

|           |                                           |   |       |        |       |      |       |         |
|-----------|-------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10223-CAC | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)  | X | 5.21  | 67.18  | 16.67 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.37  | 67.24  | 16.51 |      | 150.0 |         |
|           |                                           | Z | 5.17  | 67.14  | 16.51 |      | 150.0 |         |
| 10224-CAC | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM) | X | 4.95  | 66.99  | 16.48 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.11  | 67.16  | 16.37 |      | 150.0 |         |
|           |                                           | Z | 4.91  | 66.98  | 16.33 |      | 150.0 |         |
| 10225-CAB | UMTS-FDD (HSPA+)                          | X | 2.57  | 65.87  | 14.82 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 2.79  | 66.10  | 15.32 |      | 150.0 |         |
|           |                                           | Z | 2.57  | 65.89  | 14.81 |      | 150.0 |         |
| 10226-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)  | X | 5.70  | 82.73  | 23.27 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 15.45 | 101.64 | 30.73 |      | 65.0  |         |
|           |                                           | Z | 9.36  | 92.89  | 27.50 |      | 65.0  |         |
| 10227-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)  | X | 5.51  | 81.11  | 22.01 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 15.16 | 99.52  | 29.37 |      | 65.0  |         |
|           |                                           | Z | 9.33  | 91.39  | 26.29 |      | 65.0  |         |
| 10228-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)    | X | 4.37  | 80.87  | 24.58 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 8.06  | 93.39  | 30.16 |      | 65.0  |         |
|           |                                           | Z | 5.51  | 86.54  | 27.40 |      | 65.0  |         |
| 10229-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)    | X | 5.43  | 81.78  | 22.83 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 14.43 | 100.19 | 30.19 |      | 65.0  |         |
|           |                                           | Z | 8.67  | 91.34  | 26.89 |      | 65.0  |         |
| 10230-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)    | X | 5.22  | 80.18  | 21.60 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 14.07 | 98.09  | 28.85 |      | 65.0  |         |
|           |                                           | Z | 8.56  | 89.82  | 25.70 |      | 65.0  |         |
| 10231-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)      | X | 4.21  | 80.08  | 24.19 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 7.72  | 92.42  | 29.75 |      | 65.0  |         |
|           |                                           | Z | 5.25  | 85.50  | 26.93 |      | 65.0  |         |
| 10232-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)    | X | 5.42  | 81.76  | 22.83 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 14.40 | 100.18 | 30.19 |      | 65.0  |         |
|           |                                           | Z | 8.65  | 91.31  | 26.89 |      | 65.0  |         |
| 10233-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)    | X | 5.21  | 80.16  | 21.59 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 14.03 | 98.05  | 28.84 |      | 65.0  |         |
|           |                                           | Z | 8.53  | 89.78  | 25.69 |      | 65.0  |         |
| 10234-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)      | X | 4.09  | 79.41  | 23.80 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 7.46  | 91.57  | 29.34 |      | 65.0  |         |
|           |                                           | Z | 5.06  | 84.64  | 26.49 |      | 65.0  |         |
| 10235-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)   | X | 5.43  | 81.79  | 22.84 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 14.42 | 100.22 | 30.20 |      | 65.0  |         |
|           |                                           | Z | 8.66  | 91.36  | 26.90 |      | 65.0  |         |
| 10236-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)   | X | 5.25  | 80.28  | 21.63 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 14.26 | 98.30  | 28.91 |      | 65.0  |         |
|           |                                           | Z | 8.64  | 89.96  | 25.74 |      | 65.0  |         |
| 10237-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)     | X | 4.21  | 80.11  | 24.20 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 7.73  | 92.49  | 29.78 |      | 65.0  |         |
|           |                                           | Z | 5.25  | 85.54  | 26.95 |      | 65.0  |         |
| 10238-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)   | X | 5.41  | 81.74  | 22.82 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 14.37 | 100.15 | 30.18 |      | 65.0  |         |
|           |                                           | Z | 8.63  | 91.28  | 26.88 |      | 65.0  |         |

|           |                                            |   |       |       |       |      |      |         |
|-----------|--------------------------------------------|---|-------|-------|-------|------|------|---------|
| 10239-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 5.19  | 80.13 | 21.58 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 13.97 | 98.01 | 28.83 |      | 65.0 |         |
|           |                                            | Z | 8.50  | 89.73 | 25.67 |      | 65.0 |         |
| 10240-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 4.20  | 80.08 | 24.19 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.71  | 92.44 | 29.76 |      | 65.0 |         |
|           |                                            | Z | 5.24  | 85.50 | 26.94 |      | 65.0 |         |
| 10241-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 6.28  | 77.75 | 23.74 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.17  | 79.66 | 25.20 |      | 65.0 |         |
|           |                                            | Z | 6.62  | 79.11 | 24.64 |      | 65.0 |         |
| 10242-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 5.61  | 75.51 | 22.71 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.01  | 79.22 | 24.95 |      | 65.0 |         |
|           |                                            | Z | 6.04  | 77.21 | 23.74 |      | 65.0 |         |
| 10243-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 4.77  | 72.80 | 22.43 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.72  | 75.84 | 24.40 |      | 65.0 |         |
|           |                                            | Z | 4.99  | 73.88 | 23.19 |      | 65.0 |         |
| 10244-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   | X | 3.08  | 66.71 | 12.88 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.65  | 76.51 | 19.16 |      | 65.0 |         |
|           |                                            | Z | 3.79  | 70.31 | 15.20 |      | 65.0 |         |
| 10245-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)   | X | 3.05  | 66.35 | 12.65 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.47  | 75.72 | 18.77 |      | 65.0 |         |
|           |                                            | Z | 3.68  | 69.62 | 14.83 |      | 65.0 |         |
| 10246-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)     | X | 2.73  | 68.50 | 14.10 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 6.90  | 84.10 | 22.59 |      | 65.0 |         |
|           |                                            | Z | 3.38  | 72.30 | 16.31 |      | 65.0 |         |
| 10247-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 3.32  | 68.16 | 14.83 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.00  | 75.29 | 19.75 |      | 65.0 |         |
|           |                                            | Z | 3.63  | 70.11 | 16.18 |      | 65.0 |         |
| 10248-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 3.35  | 67.83 | 14.68 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 4.95  | 74.49 | 19.36 |      | 65.0 |         |
|           |                                            | Z | 3.62  | 69.55 | 15.90 |      | 65.0 |         |
| 10249-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 3.90  | 73.79 | 17.79 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.87  | 86.63 | 24.46 |      | 65.0 |         |
|           |                                            | Z | 4.87  | 78.17 | 20.05 |      | 65.0 |         |
| 10250-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 4.46  | 72.43 | 19.10 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.61  | 76.63 | 21.92 |      | 65.0 |         |
|           |                                            | Z | 4.70  | 73.89 | 20.05 |      | 65.0 |         |
| 10251-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 4.27  | 70.46 | 17.79 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.36  | 74.41 | 20.57 |      | 65.0 |         |
|           |                                            | Z | 4.43  | 71.53 | 18.56 |      | 65.0 |         |
| 10252-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 4.80  | 76.28 | 20.36 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.12  | 83.67 | 24.31 |      | 65.0 |         |
|           |                                            | Z | 5.40  | 79.04 | 21.81 |      | 65.0 |         |
| 10253-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 4.54  | 70.25 | 18.29 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.37  | 73.18 | 20.35 |      | 65.0 |         |
|           |                                            | Z | 4.62  | 70.94 | 18.80 |      | 65.0 |         |
| 10254-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 4.85  | 71.22 | 19.07 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.69  | 74.00 | 21.02 |      | 65.0 |         |
|           |                                            | Z | 4.94  | 71.96 | 19.60 |      | 65.0 |         |

|           |                                             |   |      |       |       |      |      |         |
|-----------|---------------------------------------------|---|------|-------|-------|------|------|---------|
| 10255-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | X | 4.83 | 74.07 | 19.88 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.20 | 78.60 | 22.49 |      | 65.0 |         |
|           |                                             | Z | 5.10 | 75.57 | 20.75 |      | 65.0 |         |
| 10256-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | X | 2.29 | 63.25 | 9.85  | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 4.33 | 72.34 | 16.30 |      | 65.0 |         |
|           |                                             | Z | 2.61 | 65.28 | 11.48 |      | 65.0 |         |
| 10257-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | X | 2.28 | 62.96 | 9.60  | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 4.16 | 71.35 | 15.76 |      | 65.0 |         |
|           |                                             | Z | 2.56 | 64.75 | 11.10 |      | 65.0 |         |
| 10258-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | X | 1.96 | 64.07 | 10.75 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 4.97 | 78.32 | 19.50 |      | 65.0 |         |
|           |                                             | Z | 2.22 | 66.21 | 12.33 |      | 65.0 |         |
| 10259-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | X | 3.77 | 69.86 | 16.44 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.26 | 75.82 | 20.54 |      | 65.0 |         |
|           |                                             | Z | 4.07 | 71.70 | 17.67 |      | 65.0 |         |
| 10260-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | X | 3.81 | 69.66 | 16.35 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.26 | 75.42 | 20.36 |      | 65.0 |         |
|           |                                             | Z | 4.10 | 71.41 | 17.53 |      | 65.0 |         |
| 10261-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | X | 4.13 | 74.31 | 18.63 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.91 | 83.89 | 23.89 |      | 65.0 |         |
|           |                                             | Z | 4.85 | 77.73 | 20.46 |      | 65.0 |         |
| 10262-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | X | 4.45 | 72.36 | 19.04 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.60 | 76.58 | 21.88 |      | 65.0 |         |
|           |                                             | Z | 4.68 | 73.81 | 19.99 |      | 65.0 |         |
| 10263-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | X | 4.26 | 70.44 | 17.79 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.34 | 74.38 | 20.56 |      | 65.0 |         |
|           |                                             | Z | 4.42 | 71.51 | 18.55 |      | 65.0 |         |
| 10264-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | X | 4.75 | 76.08 | 20.25 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.04 | 83.44 | 24.20 |      | 65.0 |         |
|           |                                             | Z | 5.33 | 78.79 | 21.68 |      | 65.0 |         |
| 10265-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | X | 4.60 | 70.61 | 18.56 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.50 | 73.80 | 20.64 |      | 65.0 |         |
|           |                                             | Z | 4.69 | 71.34 | 19.07 |      | 65.0 |         |
| 10266-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | X | 4.95 | 71.71 | 19.45 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.83 | 74.64 | 21.36 |      | 65.0 |         |
|           |                                             | Z | 5.05 | 72.48 | 19.97 |      | 65.0 |         |
| 10267-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | X | 5.01 | 74.52 | 19.91 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.63 | 79.66 | 22.68 |      | 65.0 |         |
|           |                                             | Z | 5.35 | 76.22 | 20.84 |      | 65.0 |         |
| 10268-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | X | 5.27 | 70.89 | 19.25 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.07 | 73.43 | 20.81 |      | 65.0 |         |
|           |                                             | Z | 5.33 | 71.43 | 19.60 |      | 65.0 |         |
| 10269-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | X | 5.29 | 70.58 | 19.15 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.04 | 72.94 | 20.64 |      | 65.0 |         |
|           |                                             | Z | 5.34 | 71.06 | 19.47 |      | 65.0 |         |
| 10270-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | X | 5.17 | 72.58 | 19.33 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.28 | 76.09 | 21.29 |      | 65.0 |         |
|           |                                             | Z | 5.35 | 73.62 | 19.93 |      | 65.0 |         |

|           |                                                                    |   |       |       |       |      |       |         |
|-----------|--------------------------------------------------------------------|---|-------|-------|-------|------|-------|---------|
| 10274-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                          | X | 2.41  | 66.43 | 14.82 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.58  | 66.48 | 15.24 |      | 150.0 |         |
|           |                                                                    | Z | 2.39  | 66.38 | 14.76 |      | 150.0 |         |
| 10275-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                           | X | 1.45  | 67.76 | 15.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.61  | 67.98 | 15.58 |      | 150.0 |         |
|           |                                                                    | Z | 1.42  | 67.56 | 14.85 |      | 150.0 |         |
| 10277-CAA | PHS (QPSK)                                                         | X | 1.74  | 59.75 | 5.31  | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 1.81  | 61.19 | 6.71  |      | 50.0  |         |
|           |                                                                    | Z | 1.73  | 59.88 | 5.41  |      | 50.0  |         |
| 10278-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)                                 | X | 2.71  | 64.14 | 10.09 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 10.58 | 86.01 | 20.92 |      | 50.0  |         |
|           |                                                                    | Z | 2.95  | 65.66 | 11.11 |      | 50.0  |         |
| 10279-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)                                | X | 2.77  | 64.34 | 10.25 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 10.86 | 86.33 | 21.10 |      | 50.0  |         |
|           |                                                                    | Z | 3.03  | 65.92 | 11.30 |      | 50.0  |         |
| 10290-AAB | CDMA2000, RC1, SO55, Full Rate                                     | X | 0.78  | 62.91 | 9.04  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.44  | 68.67 | 13.91 |      | 150.0 |         |
|           |                                                                    | Z | 0.82  | 63.50 | 9.52  |      | 150.0 |         |
| 10291-AAB | CDMA2000, RC3, SO55, Full Rate                                     | X | 0.44  | 60.90 | 7.41  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 0.81  | 65.70 | 12.35 |      | 150.0 |         |
|           |                                                                    | Z | 0.46  | 61.22 | 7.73  |      | 150.0 |         |
| 10292-AAB | CDMA2000, RC3, SO32, Full Rate                                     | X | 0.52  | 62.90 | 8.81  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.08  | 70.34 | 14.96 |      | 150.0 |         |
|           |                                                                    | Z | 0.54  | 63.47 | 9.26  |      | 150.0 |         |
| 10293-AAB | CDMA2000, RC3, SO3, Full Rate                                      | X | 0.85  | 67.98 | 11.75 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.81  | 77.73 | 18.47 |      | 150.0 |         |
|           |                                                                    | Z | 0.93  | 69.19 | 12.44 |      | 150.0 |         |
| 10295-AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                              | X | 10.59 | 83.36 | 20.91 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 13.63 | 95.28 | 28.15 |      | 50.0  |         |
|           |                                                                    | Z | 12.33 | 87.48 | 22.99 |      | 50.0  |         |
| 10297-AAC | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                            | X | 2.52  | 69.36 | 16.49 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.75  | 69.70 | 16.61 |      | 150.0 |         |
|           |                                                                    | Z | 2.51  | 69.33 | 16.32 |      | 150.0 |         |
| 10298-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                             | X | 1.02  | 63.71 | 10.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.56  | 67.65 | 14.07 |      | 150.0 |         |
|           |                                                                    | Z | 1.06  | 64.21 | 10.86 |      | 150.0 |         |
| 10299-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                           | X | 1.41  | 63.10 | 9.49  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.20  | 67.48 | 13.20 |      | 150.0 |         |
|           |                                                                    | Z | 1.66  | 65.04 | 10.89 |      | 150.0 |         |
| 10300-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                           | X | 1.19  | 60.99 | 7.64  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.75  | 63.96 | 10.73 |      | 150.0 |         |
|           |                                                                    | Z | 1.30  | 61.89 | 8.49  |      | 150.0 |         |
| 10301-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                 | X | 4.40  | 65.21 | 17.25 | 4.17 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 4.79  | 65.64 | 17.57 |      | 50.0  |         |
|           |                                                                    | Z | 4.51  | 65.62 | 17.36 |      | 50.0  |         |
| 10302-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols) | X | 4.89  | 66.01 | 18.10 | 4.96 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 5.23  | 66.10 | 18.21 |      | 50.0  |         |
|           |                                                                    | Z | 4.90  | 65.76 | 17.79 |      | 50.0  |         |

|           |                                                                     |   |      |       |       |       |       |         |
|-----------|---------------------------------------------------------------------|---|------|-------|-------|-------|-------|---------|
| 10303-AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                 | X | 4.65 | 65.68 | 17.92 | 4.96  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 4.97 | 65.72 | 18.04 |       | 50.0  |         |
|           |                                                                     | Z | 4.66 | 65.38 | 17.59 |       | 50.0  |         |
| 10304-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                 | X | 4.43 | 65.21 | 17.19 | 4.17  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 4.78 | 65.59 | 17.51 |       | 50.0  |         |
|           |                                                                     | Z | 4.47 | 65.30 | 17.12 |       | 50.0  |         |
| 10305-AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)    | X | 4.15 | 67.54 | 18.96 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.30 | 67.06 | 19.45 |       | 35.0  |         |
|           |                                                                     | Z | 4.22 | 67.78 | 19.08 |       | 35.0  |         |
| 10306-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)    | X | 4.43 | 66.43 | 18.72 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.66 | 66.30 | 19.12 |       | 35.0  |         |
|           |                                                                     | Z | 4.49 | 66.64 | 18.78 |       | 35.0  |         |
| 10307-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)     | X | 4.32 | 66.52 | 18.64 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.55 | 66.42 | 19.07 |       | 35.0  |         |
|           |                                                                     | Z | 4.38 | 66.74 | 18.71 |       | 35.0  |         |
| 10308-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                | X | 4.30 | 66.75 | 18.79 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.52 | 66.60 | 19.20 |       | 35.0  |         |
|           |                                                                     | Z | 4.37 | 66.98 | 18.86 |       | 35.0  |         |
| 10309-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols) | X | 4.46 | 66.55 | 18.83 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.72 | 66.54 | 19.28 |       | 35.0  |         |
|           |                                                                     | Z | 4.52 | 66.77 | 18.90 |       | 35.0  |         |
| 10310-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)  | X | 4.39 | 66.51 | 18.71 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.60 | 66.34 | 19.08 |       | 35.0  |         |
|           |                                                                     | Z | 4.45 | 66.72 | 18.77 |       | 35.0  |         |
| 10311-AAC | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                            | X | 2.88 | 68.46 | 16.13 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 3.11 | 68.97 | 16.25 |       | 150.0 |         |
|           |                                                                     | Z | 2.86 | 68.50 | 15.98 |       | 150.0 |         |
| 10313-AAA | iDEN 1:3                                                            | X | 1.87 | 66.02 | 12.37 | 6.99  | 70.0  | ± 9.6 % |
|           |                                                                     | Y | 5.52 | 82.21 | 20.17 |       | 70.0  |         |
|           |                                                                     | Z | 2.06 | 67.90 | 13.38 |       | 70.0  |         |
| 10314-AAA | iDEN 1:6                                                            | X | 2.66 | 70.48 | 16.99 | 10.00 | 30.0  | ± 9.6 % |
|           |                                                                     | Y | 9.77 | 95.91 | 27.98 |       | 30.0  |         |
|           |                                                                     | Z | 4.14 | 77.84 | 20.07 |       | 30.0  |         |
| 10315-AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)           | X | 0.95 | 63.27 | 14.86 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 1.06 | 63.68 | 15.21 |       | 150.0 |         |
|           |                                                                     | Z | 0.93 | 63.28 | 14.78 |       | 150.0 |         |
| 10316-AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)       | X | 4.35 | 66.42 | 16.23 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.58 | 66.66 | 16.32 |       | 150.0 |         |
|           |                                                                     | Z | 4.34 | 66.49 | 16.17 |       | 150.0 |         |
| 10317-AAC | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)             | X | 4.35 | 66.42 | 16.23 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.58 | 66.66 | 16.32 |       | 150.0 |         |
|           |                                                                     | Z | 4.34 | 66.49 | 16.17 |       | 150.0 |         |
| 10400-AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                 | X | 4.44 | 66.78 | 16.30 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.68 | 66.96 | 16.27 |       | 150.0 |         |
|           |                                                                     | Z | 4.43 | 66.80 | 16.17 |       | 150.0 |         |
| 10401-AAD | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                 | X | 5.15 | 66.76 | 16.42 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 5.39 | 67.16 | 16.44 |       | 150.0 |         |
|           |                                                                     | Z | 5.17 | 66.92 | 16.36 |       | 150.0 |         |

|           |                                                                                 |   |        |        |       |      |       |         |
|-----------|---------------------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10402-AAD | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                             | X | 5.46   | 67.17  | 16.51 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.63   | 67.44  | 16.43 |      | 150.0 |         |
|           |                                                                                 | Z | 5.43   | 67.19  | 16.37 |      | 150.0 |         |
| 10403-AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                      | X | 0.78   | 62.91  | 9.04  | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.44   | 68.67  | 13.91 |      | 115.0 |         |
|           |                                                                                 | Z | 0.82   | 63.50  | 9.52  |      | 115.0 |         |
| 10404-AAB | CDMA2000 (1xEV-DO, Rev. A)                                                      | X | 0.78   | 62.91  | 9.04  | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.44   | 68.67  | 13.91 |      | 115.0 |         |
|           |                                                                                 | Z | 0.82   | 63.50  | 9.52  |      | 115.0 |         |
| 10406-AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                            | X | 100.00 | 119.25 | 28.40 | 0.00 | 100.0 | ± 9.6 % |
|           |                                                                                 | Y | 9.50   | 91.59  | 22.98 |      | 100.0 |         |
|           |                                                                                 | Z | 100.00 | 122.00 | 29.77 |      | 100.0 |         |
| 10410-AAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4) | X | 3.12   | 77.42  | 16.90 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                                 | Y | 100.00 | 127.40 | 32.46 |      | 80.0  |         |
|           |                                                                                 | Z | 100.00 | 125.01 | 30.73 |      | 80.0  |         |
| 10415-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                       | X | 0.90   | 62.74  | 14.48 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.00   | 62.96  | 14.62 |      | 150.0 |         |
|           |                                                                                 | Z | 0.88   | 62.66  | 14.28 |      | 150.0 |         |
| 10416-AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                   | X | 4.32   | 66.51  | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.52   | 66.62  | 16.21 |      | 150.0 |         |
|           |                                                                                 | Z | 4.30   | 66.52  | 16.13 |      | 150.0 |         |
| 10417-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                       | X | 4.32   | 66.51  | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.52   | 66.62  | 16.21 |      | 150.0 |         |
|           |                                                                                 | Z | 4.30   | 66.52  | 16.13 |      | 150.0 |         |
| 10418-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)   | X | 4.31   | 66.71  | 16.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.51   | 66.79  | 16.23 |      | 150.0 |         |
|           |                                                                                 | Z | 4.30   | 66.71  | 16.18 |      | 150.0 |         |
| 10419-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)  | X | 4.33   | 66.64  | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.53   | 66.73  | 16.23 |      | 150.0 |         |
|           |                                                                                 | Z | 4.32   | 66.65  | 16.17 |      | 150.0 |         |
| 10422-AAB | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                    | X | 4.44   | 66.62  | 16.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.65   | 66.73  | 16.25 |      | 150.0 |         |
|           |                                                                                 | Z | 4.43   | 66.63  | 16.18 |      | 150.0 |         |
| 10423-AAB | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                 | X | 4.57   | 66.89  | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.81   | 67.05  | 16.36 |      | 150.0 |         |
|           |                                                                                 | Z | 4.56   | 66.90  | 16.28 |      | 150.0 |         |
| 10424-AAB | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                 | X | 4.50   | 66.84  | 16.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.73   | 67.00  | 16.33 |      | 150.0 |         |
|           |                                                                                 | Z | 4.49   | 66.86  | 16.25 |      | 150.0 |         |
| 10425-AAB | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                     | X | 5.17   | 67.18  | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.33   | 67.30  | 16.51 |      | 150.0 |         |
|           |                                                                                 | Z | 5.13   | 67.14  | 16.48 |      | 150.0 |         |
| 10426-AAB | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                   | X | 5.23   | 67.40  | 16.76 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.34   | 67.33  | 16.52 |      | 150.0 |         |
|           |                                                                                 | Z | 5.16   | 67.27  | 16.54 |      | 150.0 |         |

|           |                                                                |   |        |        |       |      |       |         |
|-----------|----------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10427-AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                 | X | 5.16   | 67.07  | 16.58 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.35   | 67.30  | 16.51 |      | 150.0 |         |
|           |                                                                | Z | 5.13   | 67.07  | 16.44 |      | 150.0 |         |
| 10430-AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                               | X | 4.20   | 72.13  | 18.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.22   | 70.70  | 18.10 |      | 150.0 |         |
|           |                                                                | Z | 4.22   | 72.19  | 18.46 |      | 150.0 |         |
| 10431-AAB | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                              | X | 3.93   | 67.10  | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.20   | 67.18  | 16.20 |      | 150.0 |         |
|           |                                                                | Z | 3.93   | 67.10  | 16.01 |      | 150.0 |         |
| 10432-AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                              | X | 4.26   | 66.93  | 16.28 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.50   | 67.05  | 16.28 |      | 150.0 |         |
|           |                                                                | Z | 4.25   | 66.94  | 16.17 |      | 150.0 |         |
| 10433-AAB | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                              | X | 4.52   | 66.87  | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.75   | 67.03  | 16.35 |      | 150.0 |         |
|           |                                                                | Z | 4.51   | 66.89  | 16.27 |      | 150.0 |         |
| 10434-AAA | W-CDMA (BS Test Model 1, 64 DPCH)                              | X | 4.28   | 72.84  | 18.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.33   | 71.56  | 18.07 |      | 150.0 |         |
|           |                                                                | Z | 4.34   | 73.06  | 18.24 |      | 150.0 |         |
| 10435-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) | X | 2.96   | 76.73  | 16.60 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                | Y | 100.00 | 127.17 | 32.36 |      | 80.0  |         |
|           |                                                                | Z | 100.00 | 124.69 | 30.58 |      | 80.0  |         |
| 10447-AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                 | X | 3.15   | 66.77  | 14.81 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.49   | 67.18  | 15.50 |      | 150.0 |         |
|           |                                                                | Z | 3.17   | 66.84  | 14.85 |      | 150.0 |         |
| 10448-AAB | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                | X | 3.79   | 66.88  | 15.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.04   | 66.96  | 16.06 |      | 150.0 |         |
|           |                                                                | Z | 3.79   | 66.88  | 15.87 |      | 150.0 |         |
| 10449-AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                | X | 4.09   | 66.75  | 16.17 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.31   | 66.88  | 16.18 |      | 150.0 |         |
|           |                                                                | Z | 4.08   | 66.77  | 16.07 |      | 150.0 |         |
| 10450-AAB | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                | X | 4.31   | 66.64  | 16.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.51   | 66.80  | 16.21 |      | 150.0 |         |
|           |                                                                | Z | 4.30   | 66.66  | 16.12 |      | 150.0 |         |
| 10451-AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                | X | 2.94   | 66.45  | 13.98 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.38   | 67.33  | 15.10 |      | 150.0 |         |
|           |                                                                | Z | 2.98   | 66.61  | 14.10 |      | 150.0 |         |
| 10456-AAB | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)           | X | 6.17   | 67.89  | 16.91 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 6.20   | 67.84  | 16.66 |      | 150.0 |         |
|           |                                                                | Z | 6.10   | 67.86  | 16.74 |      | 150.0 |         |
| 10457-AAA | UMTS-FDD (DC-HSDPA)                                            | X | 3.65   | 65.21  | 15.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.78   | 65.27  | 15.92 |      | 150.0 |         |
|           |                                                                | Z | 3.63   | 65.21  | 15.85 |      | 150.0 |         |
| 10458-AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                         | X | 3.63   | 70.67  | 16.50 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.97   | 70.83  | 17.45 |      | 150.0 |         |
|           |                                                                | Z | 3.75   | 71.23  | 16.87 |      | 150.0 |         |
| 10459-AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                         | X | 4.91   | 69.28  | 18.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.06   | 68.34  | 18.09 |      | 150.0 |         |
|           |                                                                | Z | 4.97   | 69.44  | 18.31 |      | 150.0 |         |

|           |                                                                   |   |        |        |       |      |       |         |
|-----------|-------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10460-AAA | UMTS-FDD (WCDMA, AMR)                                             | X | 0.82   | 68.91  | 15.77 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                   | Y | 0.90   | 68.29  | 16.15 |      | 150.0 |         |
|           |                                                                   | Z | 0.77   | 68.38  | 15.37 |      | 150.0 |         |
| 10461-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 2.32   | 75.39  | 17.14 | 3.29 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 131.59 | 34.49 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 129.59 | 32.92 |      | 80.0  |         |
| 10462-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 0.76   | 60.00  | 7.09  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 4.63   | 77.57  | 16.00 |      | 80.0  |         |
|           |                                                                   | Z | 0.74   | 60.00  | 7.79  |      | 80.0  |         |
| 10463-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 0.79   | 60.00  | 6.50  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 1.49   | 65.34  | 10.90 |      | 80.0  |         |
|           |                                                                   | Z | 0.76   | 60.00  | 7.16  |      | 80.0  |         |
| 10464-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 1.48   | 69.57  | 14.21 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 128.72 | 32.98 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 125.35 | 30.81 |      | 80.0  |         |
| 10465-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 0.76   | 60.00  | 7.02  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 2.92   | 72.75  | 14.31 |      | 80.0  |         |
|           |                                                                   | Z | 0.74   | 60.00  | 7.72  |      | 80.0  |         |
| 10466-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 0.79   | 60.00  | 6.46  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 1.30   | 63.97  | 10.25 |      | 80.0  |         |
|           |                                                                   | Z | 0.76   | 60.00  | 7.11  |      | 80.0  |         |
| 10467-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 1.57   | 70.35  | 14.56 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 129.06 | 33.13 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 125.82 | 31.02 |      | 80.0  |         |
| 10468-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 0.76   | 60.00  | 7.04  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 3.25   | 73.90  | 14.73 |      | 80.0  |         |
|           |                                                                   | Z | 0.74   | 60.00  | 7.74  |      | 80.0  |         |
| 10469-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 0.79   | 60.00  | 6.46  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 1.30   | 64.00  | 10.26 |      | 80.0  |         |
|           |                                                                   | Z | 0.76   | 60.00  | 7.11  |      | 80.0  |         |
| 10470-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 1.56   | 70.33  | 14.55 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 129.11 | 33.14 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 125.84 | 31.01 |      | 80.0  |         |
| 10471-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 0.76   | 60.00  | 7.03  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 3.21   | 73.75  | 14.66 |      | 80.0  |         |
|           |                                                                   | Z | 0.74   | 60.00  | 7.73  |      | 80.0  |         |
| 10472-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 0.79   | 60.00  | 6.44  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 1.29   | 63.92  | 10.21 |      | 80.0  |         |
|           |                                                                   | Z | 0.76   | 60.00  | 7.09  |      | 80.0  |         |
| 10473-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 1.56   | 70.28  | 14.52 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 129.06 | 33.12 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 125.78 | 30.99 |      | 80.0  |         |
| 10474-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 0.76   | 60.00  | 7.02  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 3.17   | 73.64  | 14.62 |      | 80.0  |         |
|           |                                                                   | Z | 0.74   | 60.00  | 7.73  |      | 80.0  |         |
| 10475-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 0.78   | 60.00  | 6.45  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 1.29   | 63.89  | 10.20 |      | 80.0  |         |
|           |                                                                   | Z | 0.76   | 60.00  | 7.09  |      | 80.0  |         |

|           |                                                                     |   |       |        |       |      |      |         |
|-----------|---------------------------------------------------------------------|---|-------|--------|-------|------|------|---------|
| 10477-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)    | X | 0.76  | 60.00  | 7.00  | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 2.91  | 72.72  | 14.27 |      | 80.0 |         |
|           |                                                                     | Z | 0.74  | 60.00  | 7.70  |      | 80.0 |         |
| 10478-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)    | X | 0.79  | 60.00  | 6.43  | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 1.28  | 63.82  | 10.16 |      | 80.0 |         |
|           |                                                                     | Z | 0.76  | 60.00  | 7.08  |      | 80.0 |         |
| 10479-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 4.36  | 78.87  | 19.25 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 6.72  | 85.93  | 23.37 |      | 80.0 |         |
|           |                                                                     | Z | 31.53 | 108.71 | 28.80 |      | 80.0 |         |
| 10480-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.01  | 65.44  | 11.92 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 7.23  | 81.86  | 20.03 |      | 80.0 |         |
|           |                                                                     | Z | 6.32  | 79.43  | 17.87 |      | 80.0 |         |
| 10481-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 1.64  | 62.93  | 10.36 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.72  | 78.02  | 18.32 |      | 80.0 |         |
|           |                                                                     | Z | 3.41  | 71.49  | 14.62 |      | 80.0 |         |
| 10482-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 1.29  | 62.41  | 10.80 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.64  | 76.21  | 18.93 |      | 80.0 |         |
|           |                                                                     | Z | 1.66  | 65.83  | 12.91 |      | 80.0 |         |
| 10483-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 1.52  | 61.14  | 9.55  | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.09  | 73.43  | 17.03 |      | 80.0 |         |
|           |                                                                     | Z | 2.32  | 66.35  | 12.70 |      | 80.0 |         |
| 10484-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 1.52  | 60.89  | 9.42  | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.80  | 72.18  | 16.53 |      | 80.0 |         |
|           |                                                                     | Z | 2.19  | 65.41  | 12.27 |      | 80.0 |         |
| 10485-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 1.96  | 67.14  | 14.58 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.64  | 76.20  | 19.95 |      | 80.0 |         |
|           |                                                                     | Z | 2.47  | 70.93  | 16.63 |      | 80.0 |         |
| 10486-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 1.93  | 63.65  | 12.21 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.34  | 71.00  | 17.20 |      | 80.0 |         |
|           |                                                                     | Z | 2.25  | 65.99  | 13.71 |      | 80.0 |         |
| 10487-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 1.95  | 63.41  | 12.07 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.31  | 70.45  | 16.94 |      | 80.0 |         |
|           |                                                                     | Z | 2.25  | 65.61  | 13.50 |      | 80.0 |         |
| 10488-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 2.57  | 68.84  | 16.72 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.64  | 73.87  | 19.67 |      | 80.0 |         |
|           |                                                                     | Z | 2.88  | 71.05  | 17.92 |      | 80.0 |         |
| 10489-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 2.71  | 66.42  | 15.54 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.41  | 69.51  | 17.78 |      | 80.0 |         |
|           |                                                                     | Z | 2.89  | 67.77  | 16.40 |      | 80.0 |         |
| 10490-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 2.80  | 66.35  | 15.53 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.50  | 69.28  | 17.68 |      | 80.0 |         |
|           |                                                                     | Z | 2.97  | 67.63  | 16.34 |      | 80.0 |         |
| 10491-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 2.93  | 68.13  | 16.75 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.79  | 71.78  | 18.88 |      | 80.0 |         |
|           |                                                                     | Z | 3.14  | 69.61  | 17.57 |      | 80.0 |         |
| 10492-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.14  | 66.26  | 16.05 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.72  | 68.46  | 17.58 |      | 80.0 |         |
|           |                                                                     | Z | 3.26  | 67.14  | 16.60 |      | 80.0 |         |

|           |                                                                      |   |      |       |       |      |      |         |
|-----------|----------------------------------------------------------------------|---|------|-------|-------|------|------|---------|
| 10493-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.20 | 66.19 | 16.02 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.78 | 68.30 | 17.52 |      | 80.0 |         |
|           |                                                                      | Z | 3.32 | 67.03 | 16.55 |      | 80.0 |         |
| 10494-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 3.09 | 69.16 | 17.09 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.18 | 73.66 | 19.49 |      | 80.0 |         |
|           |                                                                      | Z | 3.38 | 70.96 | 18.01 |      | 80.0 |         |
| 10495-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.16 | 66.52 | 16.26 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.75 | 68.86 | 17.79 |      | 80.0 |         |
|           |                                                                      | Z | 3.28 | 67.44 | 16.81 |      | 80.0 |         |
| 10496-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.25 | 66.39 | 16.25 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.82 | 68.54 | 17.67 |      | 80.0 |         |
|           |                                                                      | Z | 3.36 | 67.23 | 16.76 |      | 80.0 |         |
| 10497-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 0.98 | 60.00 | 8.08  | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.67 | 71.65 | 16.05 |      | 80.0 |         |
|           |                                                                      | Z | 0.96 | 60.00 | 8.56  |      | 80.0 |         |
| 10498-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 1.18 | 60.00 | 7.01  | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.73 | 63.28 | 11.10 |      | 80.0 |         |
|           |                                                                      | Z | 1.15 | 60.00 | 7.42  |      | 80.0 |         |
| 10499-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 1.20 | 60.00 | 6.87  | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.65 | 62.50 | 10.55 |      | 80.0 |         |
|           |                                                                      | Z | 1.17 | 60.00 | 7.27  |      | 80.0 |         |
| 10500-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 2.22 | 67.95 | 15.51 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.54 | 74.72 | 19.65 |      | 80.0 |         |
|           |                                                                      | Z | 2.63 | 70.95 | 17.16 |      | 80.0 |         |
| 10501-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.29 | 65.10 | 13.66 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.38 | 70.39 | 17.41 |      | 80.0 |         |
|           |                                                                      | Z | 2.58 | 67.13 | 14.94 |      | 80.0 |         |
| 10502-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.32 | 64.94 | 13.52 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.43 | 70.21 | 17.27 |      | 80.0 |         |
|           |                                                                      | Z | 2.61 | 66.92 | 14.77 |      | 80.0 |         |
| 10503-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 2.54 | 68.66 | 16.62 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.60 | 73.66 | 19.57 |      | 80.0 |         |
|           |                                                                      | Z | 2.84 | 70.82 | 17.80 |      | 80.0 |         |
| 10504-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.69 | 66.32 | 15.48 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.40 | 69.42 | 17.73 |      | 80.0 |         |
|           |                                                                      | Z | 2.87 | 67.65 | 16.32 |      | 80.0 |         |
| 10505-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.78 | 66.26 | 15.46 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.48 | 69.19 | 17.63 |      | 80.0 |         |
|           |                                                                      | Z | 2.96 | 67.52 | 16.27 |      | 80.0 |         |
| 10506-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 3.07 | 69.03 | 17.01 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.15 | 73.51 | 19.42 |      | 80.0 |         |
|           |                                                                      | Z | 3.35 | 70.80 | 17.93 |      | 80.0 |         |
| 10507-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.15 | 66.46 | 16.22 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.73 | 68.80 | 17.76 |      | 80.0 |         |
|           |                                                                      | Z | 3.26 | 67.37 | 16.77 |      | 80.0 |         |

|           |                                                                     |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10508-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 3.24 | 66.32 | 16.20 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 3.81 | 68.47 | 17.63 |      | 80.0  |         |
|           |                                                                     | Z | 3.35 | 67.15 | 16.71 |      | 80.0  |         |
| 10509-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 3.51 | 68.36 | 16.83 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.41 | 71.84 | 18.68 |      | 80.0  |         |
|           |                                                                     | Z | 3.72 | 69.67 | 17.51 |      | 80.0  |         |
| 10510-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 3.65 | 66.40 | 16.44 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.20 | 68.42 | 17.64 |      | 80.0  |         |
|           |                                                                     | Z | 3.74 | 67.11 | 16.83 |      | 80.0  |         |
| 10511-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 3.72 | 66.27 | 16.42 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.25 | 68.13 | 17.55 |      | 80.0  |         |
|           |                                                                     | Z | 3.81 | 66.92 | 16.79 |      | 80.0  |         |
| 10512-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 3.53 | 69.27 | 17.06 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.71 | 73.81 | 19.35 |      | 80.0  |         |
|           |                                                                     | Z | 3.83 | 70.97 | 17.89 |      | 80.0  |         |
| 10513-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 3.53 | 66.49 | 16.47 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.09 | 68.73 | 17.78 |      | 80.0  |         |
|           |                                                                     | Z | 3.62 | 67.27 | 16.91 |      | 80.0  |         |
| 10514-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 3.58 | 66.23 | 16.41 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.11 | 68.25 | 17.62 |      | 80.0  |         |
|           |                                                                     | Z | 3.67 | 66.92 | 16.81 |      | 80.0  |         |
| 10515-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)           | X | 0.86 | 62.95 | 14.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.96 | 63.14 | 14.68 |      | 150.0 |         |
|           |                                                                     | Z | 0.84 | 62.85 | 14.32 |      | 150.0 |         |
| 10516-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)         | X | 0.68 | 75.09 | 17.93 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.60 | 70.79 | 17.39 |      | 150.0 |         |
|           |                                                                     | Z | 0.59 | 73.58 | 17.02 |      | 150.0 |         |
| 10517-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)          | X | 0.71 | 65.13 | 15.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.81 | 65.08 | 15.31 |      | 150.0 |         |
|           |                                                                     | Z | 0.69 | 64.87 | 14.81 |      | 150.0 |         |
| 10518-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)           | X | 4.31 | 66.61 | 16.23 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.51 | 66.70 | 16.19 |      | 150.0 |         |
|           |                                                                     | Z | 4.30 | 66.61 | 16.12 |      | 150.0 |         |
| 10519-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)          | X | 4.46 | 66.79 | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.69 | 66.93 | 16.31 |      | 150.0 |         |
|           |                                                                     | Z | 4.45 | 66.80 | 16.22 |      | 150.0 |         |
| 10520-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)          | X | 4.32 | 66.72 | 16.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.55 | 66.89 | 16.23 |      | 150.0 |         |
|           |                                                                     | Z | 4.31 | 66.74 | 16.13 |      | 150.0 |         |
| 10521-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)          | X | 4.25 | 66.68 | 16.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.48 | 66.88 | 16.21 |      | 150.0 |         |
|           |                                                                     | Z | 4.24 | 66.71 | 16.11 |      | 150.0 |         |
| 10522-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)          | X | 4.30 | 66.84 | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.54 | 66.98 | 16.30 |      | 150.0 |         |
|           |                                                                     | Z | 4.30 | 66.85 | 16.22 |      | 150.0 |         |

|           |                                                            |   |      |       |       |      |       |         |
|-----------|------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10523-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) | X | 4.22 | 66.79 | 16.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.42 | 66.85 | 16.15 |      | 150.0 |         |
|           |                                                            | Z | 4.21 | 66.79 | 16.10 |      | 150.0 |         |
| 10524-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) | X | 4.25 | 66.78 | 16.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.48 | 66.90 | 16.27 |      | 150.0 |         |
|           |                                                            | Z | 4.24 | 66.79 | 16.19 |      | 150.0 |         |
| 10525-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)          | X | 4.28 | 65.85 | 15.93 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.47 | 65.95 | 15.86 |      | 150.0 |         |
|           |                                                            | Z | 4.27 | 65.86 | 15.81 |      | 150.0 |         |
| 10526-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)          | X | 4.41 | 66.15 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.64 | 66.31 | 16.00 |      | 150.0 |         |
|           |                                                            | Z | 4.40 | 66.17 | 15.93 |      | 150.0 |         |
| 10527-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)          | X | 4.34 | 66.11 | 15.98 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.56 | 66.27 | 15.95 |      | 150.0 |         |
|           |                                                            | Z | 4.33 | 66.13 | 15.87 |      | 150.0 |         |
| 10528-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)          | X | 4.35 | 66.13 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.58 | 66.29 | 15.98 |      | 150.0 |         |
|           |                                                            | Z | 4.34 | 66.15 | 15.90 |      | 150.0 |         |
| 10529-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)          | X | 4.35 | 66.13 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.58 | 66.29 | 15.98 |      | 150.0 |         |
|           |                                                            | Z | 4.34 | 66.15 | 15.90 |      | 150.0 |         |
| 10531-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)          | X | 4.32 | 66.16 | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.57 | 66.39 | 15.99 |      | 150.0 |         |
|           |                                                            | Z | 4.31 | 66.19 | 15.89 |      | 150.0 |         |
| 10532-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)          | X | 4.20 | 66.01 | 15.92 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.43 | 66.24 | 15.92 |      | 150.0 |         |
|           |                                                            | Z | 4.19 | 66.04 | 15.81 |      | 150.0 |         |
| 10533-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)          | X | 4.36 | 66.21 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.59 | 66.34 | 15.97 |      | 150.0 |         |
|           |                                                            | Z | 4.35 | 66.22 | 15.90 |      | 150.0 |         |
| 10534-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)          | X | 4.94 | 66.18 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.11 | 66.38 | 16.03 |      | 150.0 |         |
|           |                                                            | Z | 4.91 | 66.20 | 15.99 |      | 150.0 |         |
| 10535-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)          | X | 4.99 | 66.35 | 16.21 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.18 | 66.56 | 16.12 |      | 150.0 |         |
|           |                                                            | Z | 4.97 | 66.36 | 16.07 |      | 150.0 |         |
| 10536-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)          | X | 4.87 | 66.32 | 16.17 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.05 | 66.51 | 16.07 |      | 150.0 |         |
|           |                                                            | Z | 4.85 | 66.34 | 16.04 |      | 150.0 |         |
| 10537-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)          | X | 4.94 | 66.34 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.10 | 66.48 | 16.06 |      | 150.0 |         |
|           |                                                            | Z | 4.91 | 66.31 | 16.03 |      | 150.0 |         |
| 10538-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)          | X | 5.01 | 66.30 | 16.21 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.19 | 66.49 | 16.11 |      | 150.0 |         |
|           |                                                            | Z | 4.98 | 66.30 | 16.06 |      | 150.0 |         |
| 10540-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)          | X | 4.93 | 66.22 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.13 | 66.52 | 16.13 |      | 150.0 |         |
|           |                                                            | Z | 4.91 | 66.26 | 16.06 |      | 150.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10541-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)  | X | 4.90 | 66.09 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.10 | 66.38 | 16.06 |      | 150.0 |         |
|           |                                                    | Z | 4.88 | 66.13 | 15.98 |      | 150.0 |         |
| 10542-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)  | X | 5.07 | 66.24 | 16.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.25 | 66.45 | 16.11 |      | 150.0 |         |
|           |                                                    | Z | 5.04 | 66.26 | 16.06 |      | 150.0 |         |
| 10543-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)  | X | 5.16 | 66.37 | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.33 | 66.48 | 16.14 |      | 150.0 |         |
|           |                                                    | Z | 5.12 | 66.32 | 16.12 |      | 150.0 |         |
| 10544-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)  | X | 5.28 | 66.21 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.42 | 66.50 | 16.03 |      | 150.0 |         |
|           |                                                    | Z | 5.25 | 66.26 | 15.98 |      | 150.0 |         |
| 10545-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)  | X | 5.51 | 66.84 | 16.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.61 | 66.90 | 16.18 |      | 150.0 |         |
|           |                                                    | Z | 5.45 | 66.77 | 16.19 |      | 150.0 |         |
| 10546-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)  | X | 5.32 | 66.36 | 16.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.48 | 66.70 | 16.10 |      | 150.0 |         |
|           |                                                    | Z | 5.29 | 66.40 | 16.02 |      | 150.0 |         |
| 10547-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)  | X | 5.43 | 66.58 | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.55 | 66.74 | 16.11 |      | 150.0 |         |
|           |                                                    | Z | 5.37 | 66.52 | 16.07 |      | 150.0 |         |
| 10548-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)  | X | 5.67 | 67.49 | 16.67 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.79 | 67.62 | 16.52 |      | 150.0 |         |
|           |                                                    | Z | 5.59 | 67.37 | 16.46 |      | 150.0 |         |
| 10550-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)  | X | 5.44 | 66.73 | 16.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.51 | 66.72 | 16.12 |      | 150.0 |         |
|           |                                                    | Z | 5.36 | 66.62 | 16.14 |      | 150.0 |         |
| 10551-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)  | X | 5.31 | 66.31 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.52 | 66.76 | 16.10 |      | 150.0 |         |
|           |                                                    | Z | 5.30 | 66.41 | 15.99 |      | 150.0 |         |
| 10552-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)  | X | 5.28 | 66.30 | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.44 | 66.57 | 16.01 |      | 150.0 |         |
|           |                                                    | Z | 5.25 | 66.34 | 15.96 |      | 150.0 |         |
| 10553-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)  | X | 5.34 | 66.26 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.52 | 66.60 | 16.06 |      | 150.0 |         |
|           |                                                    | Z | 5.31 | 66.32 | 15.98 |      | 150.0 |         |
| 10554-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle) | X | 5.72 | 66.58 | 16.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.83 | 66.86 | 16.12 |      | 150.0 |         |
|           |                                                    | Z | 5.67 | 66.61 | 16.06 |      | 150.0 |         |
| 10555-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle) | X | 5.84 | 66.90 | 16.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.95 | 67.15 | 16.24 |      | 150.0 |         |
|           |                                                    | Z | 5.79 | 66.90 | 16.19 |      | 150.0 |         |
| 10556-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle) | X | 5.87 | 66.98 | 16.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.98 | 67.20 | 16.26 |      | 150.0 |         |
|           |                                                    | Z | 5.82 | 66.99 | 16.23 |      | 150.0 |         |
| 10557-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle) | X | 5.81 | 66.79 | 16.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.94 | 67.10 | 16.23 |      | 150.0 |         |
|           |                                                    | Z | 5.77 | 66.83 | 16.17 |      | 150.0 |         |

|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10558-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)              | X | 5.82 | 66.86 | 16.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.99 | 67.26 | 16.33 |      | 150.0 |         |
|           |                                                                 | Z | 5.79 | 66.94 | 16.24 |      | 150.0 |         |
| 10560-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)              | X | 5.84 | 66.78 | 16.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.98 | 67.11 | 16.29 |      | 150.0 |         |
|           |                                                                 | Z | 5.80 | 66.82 | 16.22 |      | 150.0 |         |
| 10561-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)              | X | 5.78 | 66.81 | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.91 | 67.08 | 16.31 |      | 150.0 |         |
|           |                                                                 | Z | 5.74 | 66.84 | 16.26 |      | 150.0 |         |
| 10562-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)              | X | 5.83 | 66.94 | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.02 | 67.44 | 16.49 |      | 150.0 |         |
|           |                                                                 | Z | 5.80 | 67.03 | 16.35 |      | 150.0 |         |
| 10563-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)              | X | 5.98 | 67.08 | 16.50 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.21 | 67.62 | 16.54 |      | 150.0 |         |
|           |                                                                 | Z | 5.91 | 67.01 | 16.31 |      | 150.0 |         |
| 10564-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | X | 4.63 | 66.62 | 16.36 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.84 | 66.79 | 16.36 |      | 150.0 |         |
|           |                                                                 | Z | 4.61 | 66.63 | 16.24 |      | 150.0 |         |
| 10565-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | X | 4.83 | 67.05 | 16.69 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.06 | 67.22 | 16.67 |      | 150.0 |         |
|           |                                                                 | Z | 4.82 | 67.07 | 16.58 |      | 150.0 |         |
| 10566-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | X | 4.66 | 66.85 | 16.48 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.90 | 67.07 | 16.49 |      | 150.0 |         |
|           |                                                                 | Z | 4.65 | 66.88 | 16.38 |      | 150.0 |         |
| 10567-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | X | 4.70 | 67.27 | 16.87 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.93 | 67.45 | 16.84 |      | 150.0 |         |
|           |                                                                 | Z | 4.69 | 67.33 | 16.78 |      | 150.0 |         |
| 10568-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | X | 4.56 | 66.58 | 16.20 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.81 | 66.86 | 16.28 |      | 150.0 |         |
|           |                                                                 | Z | 4.55 | 66.62 | 16.10 |      | 150.0 |         |
| 10569-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | X | 4.68 | 67.48 | 17.00 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.88 | 67.55 | 16.91 |      | 150.0 |         |
|           |                                                                 | Z | 4.67 | 67.53 | 16.91 |      | 150.0 |         |
| 10570-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | X | 4.69 | 67.30 | 16.91 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.92 | 67.39 | 16.83 |      | 150.0 |         |
|           |                                                                 | Z | 4.68 | 67.31 | 16.79 |      | 150.0 |         |
| 10571-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | X | 1.00 | 63.45 | 14.91 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.13 | 64.20 | 15.58 |      | 130.0 |         |
|           |                                                                 | Z | 0.98 | 63.57 | 14.96 |      | 130.0 |         |
| 10572-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | X | 1.01 | 64.01 | 15.28 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.14 | 64.75 | 15.94 |      | 130.0 |         |
|           |                                                                 | Z | 0.99 | 64.16 | 15.34 |      | 130.0 |         |
| 10573-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | X | 1.87 | 85.75 | 21.98 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.92 | 86.55 | 24.04 |      | 130.0 |         |
|           |                                                                 | Z | 2.25 | 89.51 | 23.31 |      | 130.0 |         |
| 10574-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | X | 1.08 | 70.06 | 18.36 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.22 | 70.33 | 18.86 |      | 130.0 |         |
|           |                                                                 | Z | 1.09 | 70.58 | 18.62 |      | 130.0 |         |

|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10575-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | X | 4.39 | 66.32 | 16.32 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.62 | 66.58 | 16.43 |      | 130.0 |         |
|           |                                                                 | Z | 4.39 | 66.40 | 16.27 |      | 130.0 |         |
| 10576-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | X | 4.42 | 66.53 | 16.41 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.65 | 66.74 | 16.49 |      | 130.0 |         |
|           |                                                                 | Z | 4.42 | 66.60 | 16.36 |      | 130.0 |         |
| 10577-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | X | 4.59 | 66.78 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.85 | 67.03 | 16.66 |      | 130.0 |         |
|           |                                                                 | Z | 4.59 | 66.86 | 16.52 |      | 130.0 |         |
| 10578-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | X | 4.49 | 66.94 | 16.68 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.74 | 67.18 | 16.75 |      | 130.0 |         |
|           |                                                                 | Z | 4.50 | 67.02 | 16.64 |      | 130.0 |         |
| 10579-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | X | 4.24 | 66.07 | 15.88 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.51 | 66.48 | 16.08 |      | 130.0 |         |
|           |                                                                 | Z | 4.24 | 66.15 | 15.83 |      | 130.0 |         |
| 10580-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | X | 4.28 | 66.14 | 15.91 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.56 | 66.53 | 16.11 |      | 130.0 |         |
|           |                                                                 | Z | 4.29 | 66.22 | 15.86 |      | 130.0 |         |
| 10581-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | X | 4.40 | 66.99 | 16.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.64 | 67.22 | 16.70 |      | 130.0 |         |
|           |                                                                 | Z | 4.40 | 67.08 | 16.59 |      | 130.0 |         |
| 10582-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | X | 4.17 | 65.84 | 15.66 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.45 | 66.25 | 15.88 |      | 130.0 |         |
|           |                                                                 | Z | 4.18 | 65.90 | 15.60 |      | 130.0 |         |
| 10583-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | X | 4.39 | 66.32 | 16.32 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.62 | 66.58 | 16.43 |      | 130.0 |         |
|           |                                                                 | Z | 4.39 | 66.40 | 16.27 |      | 130.0 |         |
| 10584-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | X | 4.42 | 66.53 | 16.41 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.65 | 66.74 | 16.49 |      | 130.0 |         |
|           |                                                                 | Z | 4.42 | 66.60 | 16.36 |      | 130.0 |         |
| 10585-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | X | 4.59 | 66.78 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.85 | 67.03 | 16.66 |      | 130.0 |         |
|           |                                                                 | Z | 4.59 | 66.86 | 16.52 |      | 130.0 |         |
| 10586-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | X | 4.49 | 66.94 | 16.68 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.74 | 67.18 | 16.75 |      | 130.0 |         |
|           |                                                                 | Z | 4.50 | 67.02 | 16.64 |      | 130.0 |         |
| 10587-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | X | 4.24 | 66.07 | 15.88 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.51 | 66.48 | 16.08 |      | 130.0 |         |
|           |                                                                 | Z | 4.24 | 66.15 | 15.83 |      | 130.0 |         |
| 10588-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)      | X | 4.28 | 66.14 | 15.91 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.56 | 66.53 | 16.11 |      | 130.0 |         |
|           |                                                                 | Z | 4.29 | 66.22 | 15.86 |      | 130.0 |         |
| 10589-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)      | X | 4.40 | 66.99 | 16.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.64 | 67.22 | 16.70 |      | 130.0 |         |
|           |                                                                 | Z | 4.40 | 67.08 | 16.59 |      | 130.0 |         |
| 10590-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)      | X | 4.17 | 65.84 | 15.66 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.45 | 66.25 | 15.88 |      | 130.0 |         |
|           |                                                                 | Z | 4.18 | 65.90 | 15.60 |      | 130.0 |         |

|           |                                                       |   |      |       |       |      |       |         |
|-----------|-------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10591-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle) | X | 4.55 | 66.42 | 16.46 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.78 | 66.64 | 16.53 |      | 130.0 |         |
|           |                                                       | Z | 4.55 | 66.49 | 16.40 |      | 130.0 |         |
| 10592-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle) | X | 4.67 | 66.72 | 16.59 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.93 | 66.98 | 16.66 |      | 130.0 |         |
|           |                                                       | Z | 4.68 | 66.80 | 16.53 |      | 130.0 |         |
| 10593-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle) | X | 4.59 | 66.59 | 16.43 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.85 | 66.88 | 16.54 |      | 130.0 |         |
|           |                                                       | Z | 4.59 | 66.67 | 16.38 |      | 130.0 |         |
| 10594-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle) | X | 4.64 | 66.77 | 16.61 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.90 | 67.05 | 16.69 |      | 130.0 |         |
|           |                                                       | Z | 4.65 | 66.86 | 16.56 |      | 130.0 |         |
| 10595-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle) | X | 4.61 | 66.75 | 16.51 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.87 | 67.00 | 16.59 |      | 130.0 |         |
|           |                                                       | Z | 4.61 | 66.82 | 16.45 |      | 130.0 |         |
| 10596-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle) | X | 4.54 | 66.71 | 16.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.80 | 67.00 | 16.60 |      | 130.0 |         |
|           |                                                       | Z | 4.54 | 66.79 | 16.44 |      | 130.0 |         |
| 10597-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle) | X | 4.49 | 66.57 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.75 | 66.90 | 16.48 |      | 130.0 |         |
|           |                                                       | Z | 4.49 | 66.65 | 16.29 |      | 130.0 |         |
| 10598-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle) | X | 4.48 | 66.81 | 16.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.73 | 67.12 | 16.73 |      | 130.0 |         |
|           |                                                       | Z | 4.49 | 66.91 | 16.58 |      | 130.0 |         |
| 10599-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle) | X | 5.31 | 67.13 | 16.85 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.45 | 67.20 | 16.74 |      | 130.0 |         |
|           |                                                       | Z | 5.25 | 67.05 | 16.69 |      | 130.0 |         |
| 10600-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle) | X | 5.48 | 67.76 | 17.14 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.57 | 67.58 | 16.91 |      | 130.0 |         |
|           |                                                       | Z | 5.39 | 67.54 | 16.90 |      | 130.0 |         |
| 10601-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle) | X | 5.31 | 67.28 | 16.91 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.47 | 67.34 | 16.80 |      | 130.0 |         |
|           |                                                       | Z | 5.27 | 67.22 | 16.76 |      | 130.0 |         |
| 10602-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle) | X | 5.43 | 67.41 | 16.89 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.56 | 67.39 | 16.75 |      | 130.0 |         |
|           |                                                       | Z | 5.40 | 67.36 | 16.75 |      | 130.0 |         |
| 10603-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle) | X | 5.54 | 67.82 | 17.25 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.64 | 67.67 | 17.02 |      | 130.0 |         |
|           |                                                       | Z | 5.49 | 67.76 | 17.09 |      | 130.0 |         |
| 10604-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle) | X | 5.42 | 67.47 | 17.05 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.46 | 67.19 | 16.76 |      | 130.0 |         |
|           |                                                       | Z | 5.37 | 67.38 | 16.88 |      | 130.0 |         |
| 10605-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle) | X | 5.43 | 67.47 | 17.04 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.56 | 67.49 | 16.91 |      | 130.0 |         |
|           |                                                       | Z | 5.37 | 67.38 | 16.87 |      | 130.0 |         |
| 10606-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle) | X | 5.17 | 66.77 | 16.54 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.31 | 66.83 | 16.45 |      | 130.0 |         |
|           |                                                       | Z | 5.12 | 66.68 | 16.37 |      | 130.0 |         |

|           |                                                   |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10607-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle) | X | 4.40 | 65.75 | 16.09 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.62 | 65.97 | 16.16 |      | 130.0 |         |
|           |                                                   | Z | 4.40 | 65.83 | 16.04 |      | 130.0 |         |
| 10608-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle) | X | 4.54 | 66.09 | 16.24 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.80 | 66.37 | 16.32 |      | 130.0 |         |
|           |                                                   | Z | 4.55 | 66.18 | 16.20 |      | 130.0 |         |
| 10609-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle) | X | 4.43 | 65.91 | 16.05 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.69 | 66.22 | 16.16 |      | 130.0 |         |
|           |                                                   | Z | 4.44 | 66.00 | 16.00 |      | 130.0 |         |
| 10610-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle) | X | 4.49 | 66.09 | 16.23 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.74 | 66.38 | 16.32 |      | 130.0 |         |
|           |                                                   | Z | 4.49 | 66.18 | 16.19 |      | 130.0 |         |
| 10611-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle) | X | 4.40 | 65.88 | 16.06 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.66 | 66.19 | 16.17 |      | 130.0 |         |
|           |                                                   | Z | 4.40 | 65.97 | 16.02 |      | 130.0 |         |
| 10612-AAB | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle) | X | 4.39 | 66.01 | 16.10 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.66 | 66.35 | 16.22 |      | 130.0 |         |
|           |                                                   | Z | 4.40 | 66.10 | 16.06 |      | 130.0 |         |
| 10613-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle) | X | 4.38 | 65.82 | 15.94 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.67 | 66.22 | 16.10 |      | 130.0 |         |
|           |                                                   | Z | 4.39 | 65.92 | 15.90 |      | 130.0 |         |
| 10614-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle) | X | 4.35 | 66.06 | 16.21 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.61 | 66.40 | 16.32 |      | 130.0 |         |
|           |                                                   | Z | 4.36 | 66.17 | 16.17 |      | 130.0 |         |
| 10615-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle) | X | 4.39 | 65.69 | 15.81 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.66 | 66.03 | 15.96 |      | 130.0 |         |
|           |                                                   | Z | 4.39 | 65.77 | 15.76 |      | 130.0 |         |
| 10616-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle) | X | 5.07 | 66.15 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.27 | 66.44 | 16.35 |      | 130.0 |         |
|           |                                                   | Z | 5.05 | 66.21 | 16.25 |      | 130.0 |         |
| 10617-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle) | X | 5.14 | 66.37 | 16.43 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.34 | 66.62 | 16.41 |      | 130.0 |         |
|           |                                                   | Z | 5.12 | 66.42 | 16.33 |      | 130.0 |         |
| 10618-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle) | X | 5.03 | 66.38 | 16.45 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.22 | 66.62 | 16.43 |      | 130.0 |         |
|           |                                                   | Z | 5.02 | 66.45 | 16.36 |      | 130.0 |         |
| 10619-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle) | X | 5.07 | 66.24 | 16.31 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.24 | 66.43 | 16.27 |      | 130.0 |         |
|           |                                                   | Z | 5.03 | 66.23 | 16.18 |      | 130.0 |         |
| 10620-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle) | X | 5.13 | 66.23 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.33 | 66.47 | 16.34 |      | 130.0 |         |
|           |                                                   | Z | 5.11 | 66.25 | 16.24 |      | 130.0 |         |
| 10621-AAB | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle) | X | 5.12 | 66.28 | 16.51 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.33 | 66.60 | 16.51 |      | 130.0 |         |
|           |                                                   | Z | 5.11 | 66.38 | 16.44 |      | 130.0 |         |
| 10622-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle) | X | 5.11 | 66.38 | 16.55 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.34 | 66.76 | 16.59 |      | 130.0 |         |
|           |                                                   | Z | 5.11 | 66.50 | 16.49 |      | 130.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10623-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)  | X | 4.99 | 65.86 | 16.14 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.22 | 66.30 | 16.24 |      | 130.0 |         |
|           |                                                    | Z | 4.98 | 65.96 | 16.08 |      | 130.0 |         |
| 10624-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)  | X | 5.20 | 66.20 | 16.38 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.41 | 66.49 | 16.39 |      | 130.0 |         |
|           |                                                    | Z | 5.19 | 66.26 | 16.30 |      | 130.0 |         |
| 10625-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)  | X | 5.30 | 66.37 | 16.54 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.75 | 67.41 | 16.90 |      | 130.0 |         |
|           |                                                    | Z | 5.33 | 66.58 | 16.52 |      | 130.0 |         |
| 10626-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)  | X | 5.40 | 66.14 | 16.28 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.57 | 66.51 | 16.31 |      | 130.0 |         |
|           |                                                    | Z | 5.38 | 66.23 | 16.21 |      | 130.0 |         |
| 10627-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)  | X | 5.71 | 67.03 | 16.70 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.80 | 67.06 | 16.54 |      | 130.0 |         |
|           |                                                    | Z | 5.65 | 66.96 | 16.54 |      | 130.0 |         |
| 10628-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)  | X | 5.40 | 66.15 | 16.18 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.60 | 66.59 | 16.25 |      | 130.0 |         |
|           |                                                    | Z | 5.38 | 66.23 | 16.10 |      | 130.0 |         |
| 10629-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)  | X | 5.55 | 66.49 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.67 | 66.64 | 16.26 |      | 130.0 |         |
|           |                                                    | Z | 5.49 | 66.42 | 16.19 |      | 130.0 |         |
| 10630-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)  | X | 5.95 | 67.89 | 17.05 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.08 | 68.07 | 16.98 |      | 130.0 |         |
|           |                                                    | Z | 5.84 | 67.71 | 16.83 |      | 130.0 |         |
| 10631-AAB | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)  | X | 5.77 | 67.48 | 17.05 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.99 | 67.89 | 17.07 |      | 130.0 |         |
|           |                                                    | Z | 5.74 | 67.53 | 16.95 |      | 130.0 |         |
| 10632-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)  | X | 5.72 | 67.25 | 16.96 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.77 | 67.11 | 16.70 |      | 130.0 |         |
|           |                                                    | Z | 5.64 | 67.12 | 16.77 |      | 130.0 |         |
| 10633-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)  | X | 5.44 | 66.28 | 16.29 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.66 | 66.76 | 16.36 |      | 130.0 |         |
|           |                                                    | Z | 5.44 | 66.43 | 16.24 |      | 130.0 |         |
| 10634-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)  | X | 5.44 | 66.38 | 16.39 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.64 | 66.78 | 16.43 |      | 130.0 |         |
|           |                                                    | Z | 5.43 | 66.48 | 16.32 |      | 130.0 |         |
| 10635-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)  | X | 5.30 | 65.61 | 15.72 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.53 | 66.14 | 15.85 |      | 130.0 |         |
|           |                                                    | Z | 5.29 | 65.70 | 15.64 |      | 130.0 |         |
| 10636-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle) | X | 5.86 | 66.55 | 16.40 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.98 | 66.87 | 16.39 |      | 130.0 |         |
|           |                                                    | Z | 5.82 | 66.61 | 16.30 |      | 130.0 |         |
| 10637-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle) | X | 6.02 | 66.98 | 16.61 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.13 | 67.25 | 16.56 |      | 130.0 |         |
|           |                                                    | Z | 5.97 | 67.00 | 16.48 |      | 130.0 |         |
| 10638-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle) | X | 6.03 | 67.01 | 16.60 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.13 | 67.22 | 16.53 |      | 130.0 |         |
|           |                                                    | Z | 5.97 | 67.00 | 16.46 |      | 130.0 |         |

|           |                                                        |   |        |        |       |       |       |         |
|-----------|--------------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10639-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)     | X | 5.96   | 66.80  | 16.53 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.11   | 67.17  | 16.55 |       | 130.0 |         |
|           |                                                        | Z | 5.93   | 66.87  | 16.44 |       | 130.0 |         |
| 10640-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)     | X | 5.92   | 66.70  | 16.42 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.12   | 67.19  | 16.50 |       | 130.0 |         |
|           |                                                        | Z | 5.91   | 66.82  | 16.35 |       | 130.0 |         |
| 10641-AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)     | X | 6.06   | 66.91  | 16.55 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.16   | 67.10  | 16.47 |       | 130.0 |         |
|           |                                                        | Z | 6.01   | 66.89  | 16.41 |       | 130.0 |         |
| 10642-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)     | X | 6.04   | 66.98  | 16.76 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.20   | 67.33  | 16.75 |       | 130.0 |         |
|           |                                                        | Z | 6.02   | 67.07  | 16.68 |       | 130.0 |         |
| 10643-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)     | X | 5.90   | 66.69  | 16.50 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.04   | 67.03  | 16.51 |       | 130.0 |         |
|           |                                                        | Z | 5.87   | 66.78  | 16.42 |       | 130.0 |         |
| 10644-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)     | X | 5.95   | 66.86  | 16.60 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.19   | 67.50  | 16.76 |       | 130.0 |         |
|           |                                                        | Z | 5.94   | 66.99  | 16.54 |       | 130.0 |         |
| 10645-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)     | X | 6.44   | 67.99  | 17.14 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.47   | 67.94  | 16.94 |       | 130.0 |         |
|           |                                                        | Z | 6.16   | 67.33  | 16.68 |       | 130.0 |         |
| 10646-AAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)  | X | 7.50   | 90.48  | 30.44 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 17.43  | 112.38 | 39.34 |       | 60.0  |         |
|           |                                                        | Z | 9.26   | 96.56  | 33.29 |       | 60.0  |         |
| 10647-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7) | X | 6.74   | 88.72  | 29.93 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 14.54  | 108.61 | 38.31 |       | 60.0  |         |
|           |                                                        | Z | 8.10   | 94.14  | 32.60 |       | 60.0  |         |
| 10648-AAA | CDMA2000 (1x Advanced)                                 | X | 0.39   | 60.00  | 6.32  | 0.00  | 150.0 | ± 9.6 % |
|           |                                                        | Y | 0.67   | 63.31  | 10.55 |       | 150.0 |         |
|           |                                                        | Z | 0.38   | 60.00  | 6.43  |       | 150.0 |         |
| 10652-AAB | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)         | X | 3.10   | 65.49  | 15.51 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 3.52   | 66.85  | 16.73 |       | 80.0  |         |
|           |                                                        | Z | 3.18   | 66.07  | 15.91 |       | 80.0  |         |
| 10653-AAB | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)        | X | 3.70   | 65.11  | 16.04 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.03   | 66.07  | 16.78 |       | 80.0  |         |
|           |                                                        | Z | 3.73   | 65.44  | 16.24 |       | 80.0  |         |
| 10654-AAB | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)        | X | 3.73   | 64.77  | 16.12 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.00   | 65.69  | 16.76 |       | 80.0  |         |
|           |                                                        | Z | 3.74   | 65.07  | 16.28 |       | 80.0  |         |
| 10655-AAB | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)        | X | 3.81   | 64.71  | 16.17 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.06   | 65.68  | 16.79 |       | 80.0  |         |
|           |                                                        | Z | 3.81   | 65.01  | 16.32 |       | 80.0  |         |
| 10658-AAA | Pulse Waveform (200Hz, 10%)                            | X | 3.06   | 66.59  | 11.16 | 10.00 | 50.0  | ± 9.6 % |
|           |                                                        | Y | 100.00 | 111.68 | 26.09 |       | 50.0  |         |
|           |                                                        | Z | 3.93   | 69.81  | 12.66 |       | 50.0  |         |
| 10659-AAA | Pulse Waveform (200Hz, 20%)                            | X | 1.63   | 63.81  | 8.65  | 6.99  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 100.00 | 113.13 | 25.67 |       | 60.0  |         |
|           |                                                        | Z | 2.52   | 68.36  | 10.82 |       | 60.0  |         |

|           |                             |   |        |        |        |      |       |         |
|-----------|-----------------------------|---|--------|--------|--------|------|-------|---------|
| 10660-AAA | Pulse Waveform (200Hz, 40%) | X | 0.57   | 60.00  | 5.26   | 3.98 | 80.0  | ± 9.6 % |
|           |                             | Y | 100.00 | 118.24 | 26.52  |      | 80.0  |         |
|           |                             | Z | 0.68   | 61.70  | 6.30   |      | 80.0  |         |
| 10661-AAA | Pulse Waveform (200Hz, 60%) | X | 0.32   | 60.00  | 3.83   | 2.22 | 100.0 | ± 9.6 % |
|           |                             | Y | 100.00 | 125.46 | 28.15  |      | 100.0 |         |
|           |                             | Z | 0.29   | 60.00  | 3.83   |      | 100.0 |         |
| 10662-AAA | Pulse Waveform (200Hz, 80%) | X | 7.43   | 367.15 | 53.93  | 0.97 | 120.0 | ± 9.6 % |
|           |                             | Y | 100.00 | 135.73 | 30.13  |      | 120.0 |         |
|           |                             | Z | 0.00   | 228.51 | 107.76 |      | 120.0 |         |

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



Accredited by the Swiss Accreditation Service (SAS)  
 The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **PC Test**

Certificate No: **ES3-3347\_Mar18**

## CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3347**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v6**  
**Calibration procedure for dosimetric E-field probes**

Calibration date: **March 27, 2018**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature ( $22 \pm 3$ )°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-17 (No. 217-02521/02522)   | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-17 (No. 217-02521)         | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-17 (No. 217-02525)         | Apr-18                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 07-Apr-17 (No. 217-02528)         | Apr-18                 |
| Reference Probe ES3DV2     | SN: 3013         | 30-Dec-17 (No. ES3-3013_Dec17)    | Dec-18                 |
| DAE4                       | SN: 660          | 21-Dec-17 (No. DAE4-660_Dec17)    | Dec-18                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-16) | In house check: Jun-18 |
| Network Analyzer HP 8753E  | SN: US37390585   | 18-Oct-01 (in house check Oct-17) | In house check: Oct-18 |

|                                                                                                                 |                       |                                   |                        |
|-----------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------|------------------------|
| Calibrated by:                                                                                                  | Name<br>Michael Weber | Function<br>Laboratory Technician | Signature<br>          |
| Approved by:                                                                                                    | Katja Pokovic         | Technical Manager                 |                        |
|                                                                                                                 |                       |                                   | Issued: March 27, 2018 |
| This calibration certificate shall not be reproduced except in full without written approval of the laboratory. |                       |                                   |                        |



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

### Glossary:

|                          |                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                      | tissue simulating liquid                                                                                                                                |
| NORM <sub>x,y,z</sub>    | sensitivity in free space                                                                                                                               |
| ConvF                    | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                              |
| DCP                      | diode compression point                                                                                                                                 |
| CF                       | crest factor (1/duty_cycle) of the RF signal                                                                                                            |
| A, B, C, D               | modulation dependent linearization parameters                                                                                                           |
| Polarization $\phi$      | $\phi$ rotation around probe axis                                                                                                                       |
| Polarization $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor X to the robot coordinate system                                                                  |

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the  $E^2$ -field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>; A, B, C, D** are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

# Probe ES3DV3

## SN:3347

|               |                |
|---------------|----------------|
| Manufactured: | March 15, 2012 |
| Repaired:     | March 15, 2018 |
| Calibrated:   | March 27, 2018 |

Calibrated for DASY/EASY Systems  
(Note: non-compatible with DASY2 system!)

## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3347

### Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2)     |
|-----------------------------------------------------------|----------|----------|----------|---------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 1.15     | 1.18     | 1.21     | $\pm 10.1 \%$ |
| DCP (mV) <sup>B</sup>                                     | 101.9    | 105.1    | 102.9    |               |

### Modulation Calibration Parameters

| UID | Communication System Name |   | A<br>dB | B<br>dB/ $\mu\text{V}$ | C   | D<br>dB | VR<br>mV | Unc <sup>E</sup><br>(k=2) |
|-----|---------------------------|---|---------|------------------------|-----|---------|----------|---------------------------|
| 0   | CW                        | X | 0.0     | 0.0                    | 1.0 | 0.00    | 201.8    | $\pm 3.3 \%$              |
|     |                           | Y | 0.0     | 0.0                    | 1.0 |         | 203.9    |                           |
|     |                           | Z | 0.0     | 0.0                    | 1.0 |         | 204.8    |                           |

Note: For details on UID parameters see Appendix.

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$\text{V}^{-1}$ | T1<br>$\text{ms} \cdot \text{V}^{-2}$ | T2<br>$\text{ms} \cdot \text{V}^{-1}$ | T3<br>ms | T4<br>$\text{V}^{-2}$ | T5<br>$\text{V}^{-1}$ | T6    |
|---|----------|----------|-----------------------------|---------------------------------------|---------------------------------------|----------|-----------------------|-----------------------|-------|
| X | 52.41    | 376.6    | 35.43                       | 28.01                                 | 1.852                                 | 5.10     | 0.578                 | 0.488                 | 1.008 |
| Y | 42.65    | 300.9    | 34.31                       | 25.12                                 | 1.310                                 | 5.10     | 1.279                 | 0.204                 | 1.011 |
| Z | 48.12    | 344.8    | 35.26                       | 27.10                                 | 1.587                                 | 5.10     | 0.868                 | 0.385                 | 1.009 |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3347

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 6.77    | 6.77    | 6.77    | 0.65               | 1.32                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 6.41    | 6.41    | 6.41    | 0.40               | 1.64                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 5.58    | 5.58    | 5.58    | 0.54               | 1.42                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 5.36    | 5.36    | 5.36    | 0.80               | 1.16                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 5.11    | 5.11    | 5.11    | 0.74               | 1.29                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 4.81    | 4.81    | 4.81    | 0.80               | 1.24                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 4.66    | 4.66    | 4.66    | 0.75               | 1.25                    | ± 12.0 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3347

### Calibration Parameter Determined in Body Tissue Simulating Media

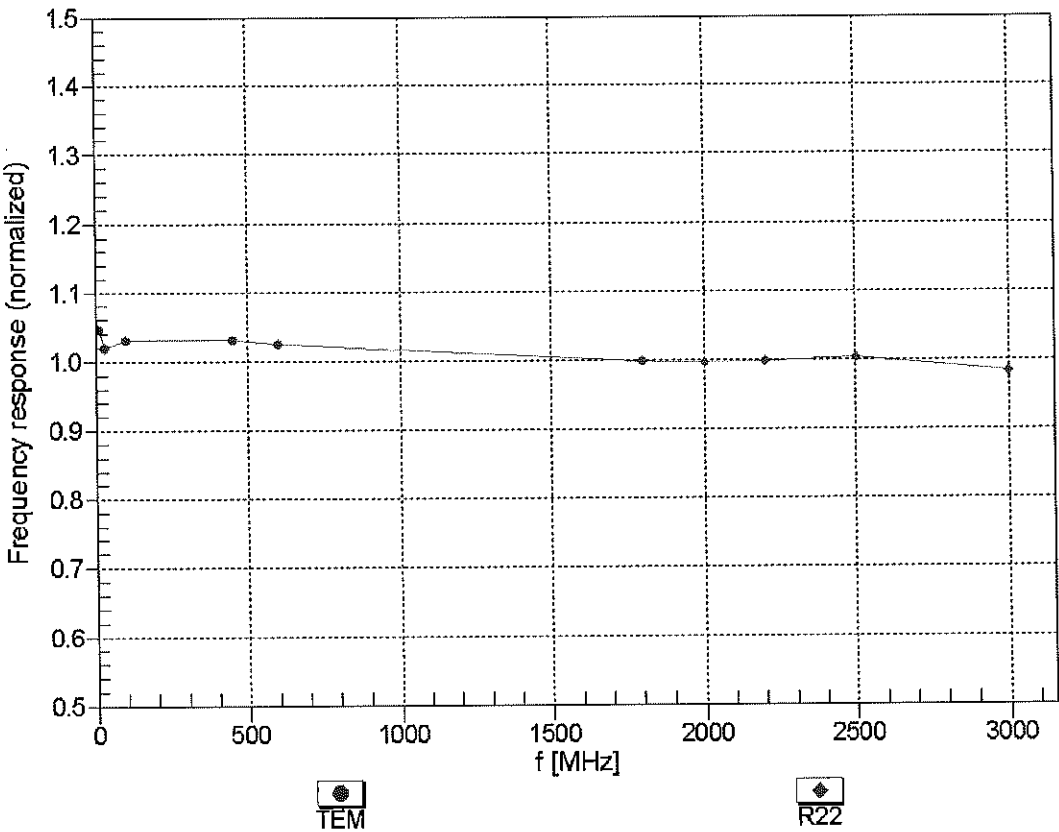
| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 55.5                               | 0.96                            | 6.59    | 6.59    | 6.59    | 0.77               | 1.22                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 6.37    | 6.37    | 6.37    | 0.80               | 1.17                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 5.17    | 5.17    | 5.17    | 0.49               | 1.59                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 4.94    | 4.94    | 4.94    | 0.52               | 1.49                    | ± 12.0 %  |
| 2300                 | 52.9                               | 1.81                            | 4.74    | 4.74    | 4.74    | 0.80               | 1.25                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 4.64    | 4.64    | 4.64    | 0.75               | 1.20                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 4.49    | 4.49    | 4.49    | 0.80               | 1.20                    | ± 12.0 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

**Frequency Response of E-Field**  
(TEM-Cell:ifi110 EXX, Waveguide: R22)

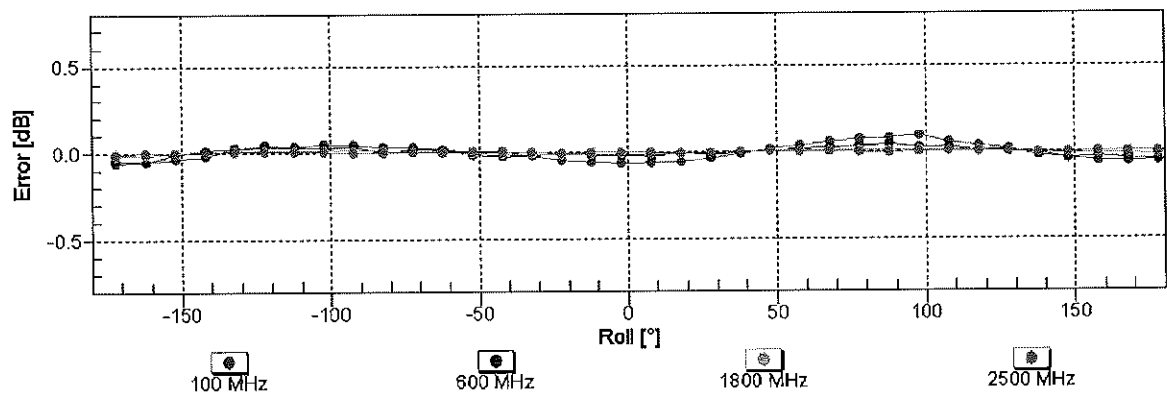
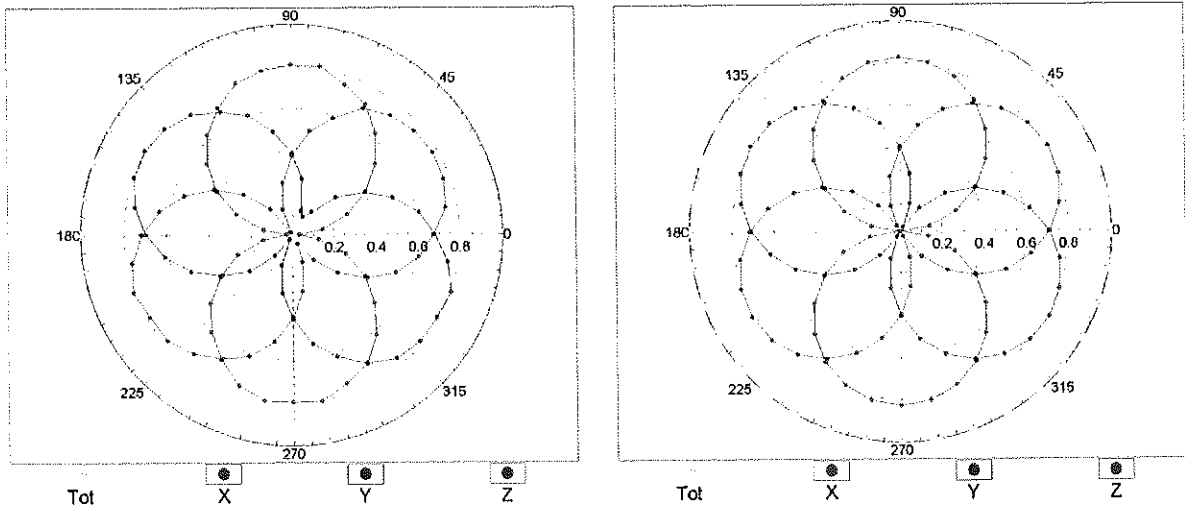


Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

Receiving Pattern ( $\phi$ ),  $\theta = 0^\circ$

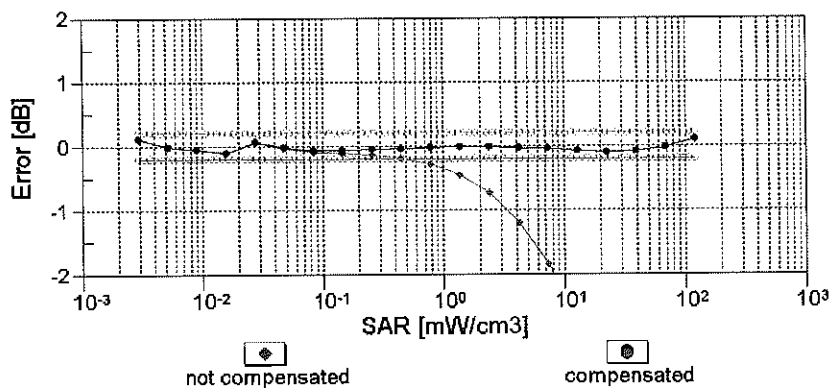
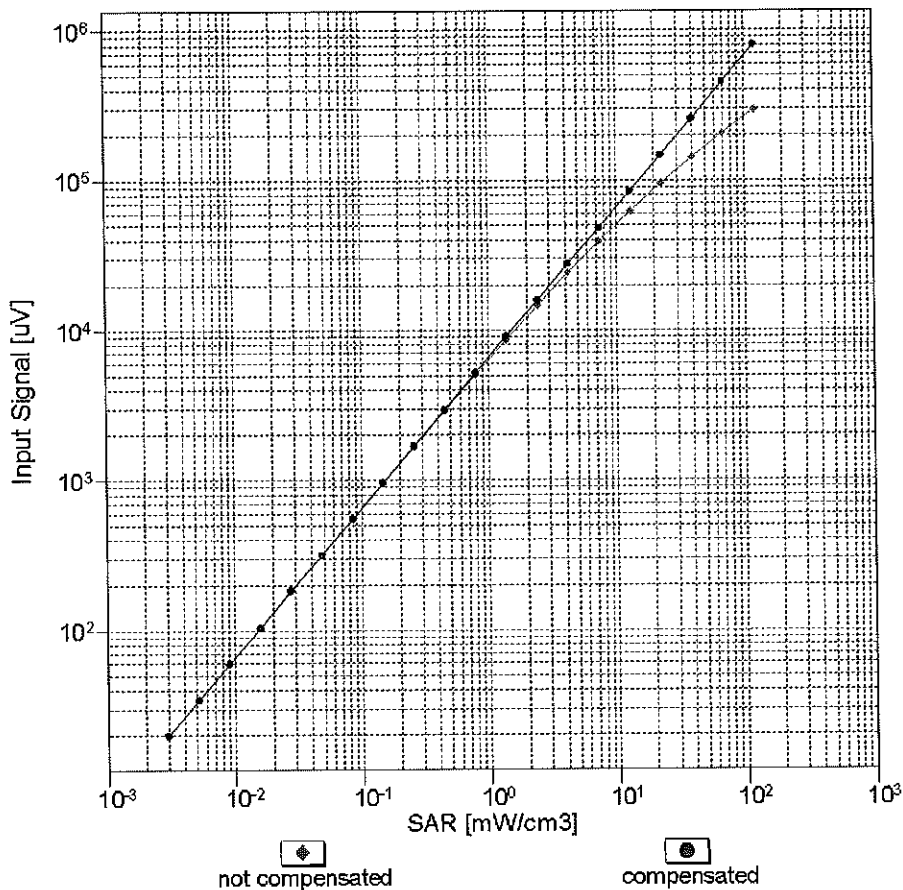
f=600 MHz,TEM

f=1800 MHz,R22



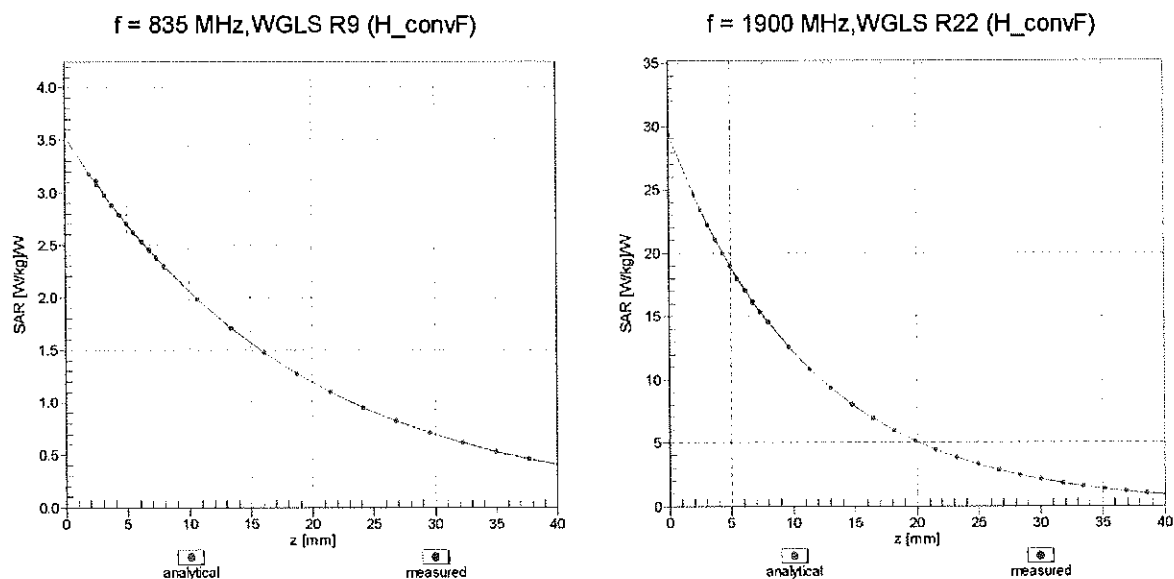
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

Dynamic Range f(SAR<sub>head</sub>)  
(TEM cell , f<sub>eval</sub>= 1900 MHz)



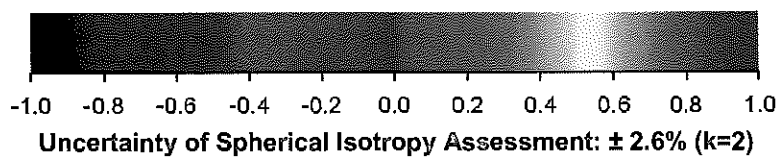
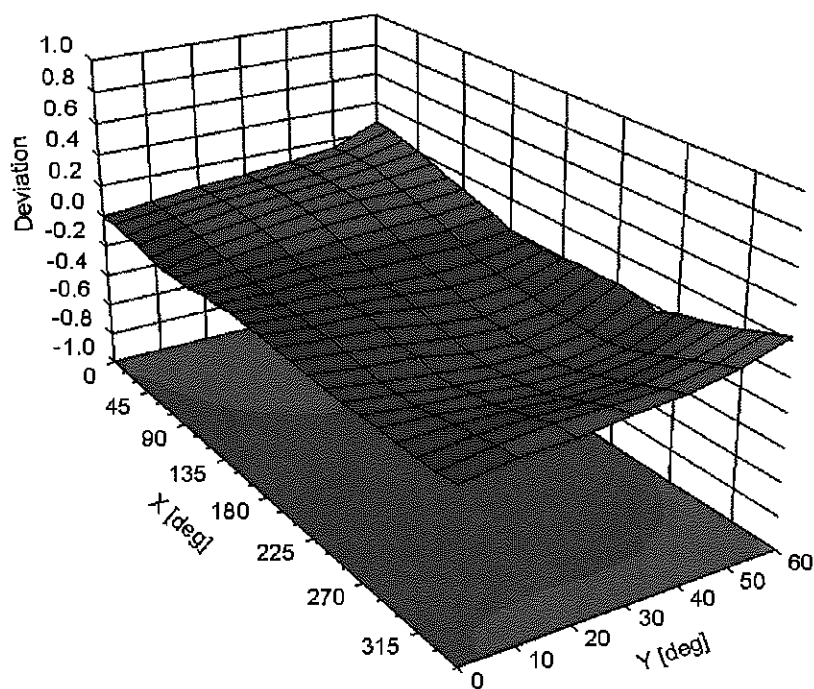
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi, \theta$ ),  $f = 900 \text{ MHz}$



## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3347

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | -16.5      |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 10 mm      |
| Tip Diameter                                  | 4 mm       |
| Probe Tip to Sensor X Calibration Point       | 2 mm       |
| Probe Tip to Sensor Y Calibration Point       | 2 mm       |
| Probe Tip to Sensor Z Calibration Point       | 2 mm       |
| Recommended Measurement Distance from Surface | 3 mm       |

**Appendix: Modulation Calibration Parameters**

| UID           | Communication System Name                     |   | A<br>dB | B<br>dB $\sqrt{\mu V}$ | C     | D<br>dB | VR<br>mV | Max<br>Unc <sup>E</sup><br>(k=2) |
|---------------|-----------------------------------------------|---|---------|------------------------|-------|---------|----------|----------------------------------|
| 0             | CW                                            | X | 0.00    | 0.00                   | 1.00  | 0.00    | 201.8    | $\pm 3.3 \%$                     |
|               |                                               | Y | 0.00    | 0.00                   | 1.00  |         | 203.9    |                                  |
|               |                                               | Z | 0.00    | 0.00                   | 1.00  |         | 204.8    |                                  |
| 10010-<br>CAA | SAR Validation (Square, 100ms, 10ms)          | X | 7.57    | 78.06                  | 17.49 | 10.00   | 25.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 9.85    | 82.39                  | 18.69 |         | 25.0     |                                  |
|               |                                               | Z | 7.35    | 77.81                  | 17.08 |         | 25.0     |                                  |
| 10011-<br>CAB | UMTS-FDD (WCDMA)                              | X | 0.93    | 66.02                  | 14.08 | 0.00    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 0.97    | 66.67                  | 14.52 |         | 150.0    |                                  |
|               |                                               | Z | 0.93    | 66.21                  | 14.17 |         | 150.0    |                                  |
| 10012-<br>CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)      | X | 1.22    | 64.40                  | 15.16 | 0.41    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 1.24    | 64.68                  | 15.35 |         | 150.0    |                                  |
|               |                                               | Z | 1.21    | 64.49                  | 15.23 |         | 150.0    |                                  |
| 10013-<br>CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps) | X | 5.02    | 67.09                  | 17.26 | 1.46    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 4.93    | 67.32                  | 17.31 |         | 150.0    |                                  |
|               |                                               | Z | 4.97    | 67.16                  | 17.27 |         | 150.0    |                                  |
| 10021-<br>DAC | GSM-FDD (TDMA, GMSK)                          | X | 91.36   | 118.07                 | 31.34 | 9.39    | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 119.30                 | 31.14 |         | 50.0     |                                  |
|               |                                               | Z | 100.00  | 118.75                 | 31.10 |         | 50.0     |                                  |
| 10023-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0)                   | X | 58.54   | 111.16                 | 29.65 | 9.57    | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 119.20                 | 31.14 |         | 50.0     |                                  |
|               |                                               | Z | 100.00  | 118.71                 | 31.13 |         | 50.0     |                                  |
| 10024-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                 | X | 100.00  | 115.85                 | 28.82 | 6.56    | 60.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 116.32                 | 28.70 |         | 60.0     |                                  |
|               |                                               | Z | 100.00  | 115.26                 | 28.36 |         | 60.0     |                                  |
| 10025-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                   | X | 19.84   | 109.66                 | 41.73 | 12.57   | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 49.03   | 143.08                 | 53.86 |         | 50.0     |                                  |
|               |                                               | Z | 21.37   | 113.26                 | 43.24 |         | 50.0     |                                  |
| 10026-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                 | X | 21.22   | 106.46                 | 36.65 | 9.56    | 60.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 31.58   | 119.85                 | 41.69 |         | 60.0     |                                  |
|               |                                               | Z | 22.56   | 108.96                 | 37.62 |         | 60.0     |                                  |
| 10027-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)               | X | 100.00  | 114.36                 | 27.28 | 4.80    | 80.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 115.58                 | 27.56 |         | 80.0     |                                  |
|               |                                               | Z | 100.00  | 113.91                 | 26.92 |         | 80.0     |                                  |
| 10028-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)             | X | 100.00  | 113.86                 | 26.30 | 3.55    | 100.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 115.98                 | 27.02 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 113.53                 | 26.01 |         | 100.0    |                                  |
| 10029-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)               | X | 12.94   | 95.02                  | 31.64 | 7.80    | 80.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 14.07   | 99.40                  | 33.81 |         | 80.0     |                                  |
|               |                                               | Z | 12.89   | 95.72                  | 32.02 |         | 80.0     |                                  |
| 10030-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)           | X | 100.00  | 113.99                 | 27.43 | 5.30    | 70.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 114.60                 | 27.41 |         | 70.0     |                                  |
|               |                                               | Z | 100.00  | 113.38                 | 26.98 |         | 70.0     |                                  |
| 10031-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)           | X | 100.00  | 111.77                 | 23.93 | 1.88    | 100.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 115.39                 | 25.33 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 111.26                 | 23.59 |         | 100.0    |                                  |

|           |                                                     |   |        |        |       |       |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10032-CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | X | 100.00 | 111.85 | 22.94 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 118.40 | 25.59 |       | 100.0 |         |
|           |                                                     | Z | 100.00 | 111.34 | 22.62 |       | 100.0 |         |
| 10033-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | X | 23.91  | 101.19 | 27.41 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 36.18  | 107.81 | 28.88 |       | 70.0  |         |
|           |                                                     | Z | 30.63  | 104.89 | 28.18 |       | 70.0  |         |
| 10034-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | X | 6.24   | 84.08  | 20.44 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 7.24   | 85.92  | 20.55 |       | 100.0 |         |
|           |                                                     | Z | 6.85   | 85.19  | 20.50 |       | 100.0 |         |
| 10035-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | X | 3.29   | 76.95  | 17.63 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 3.58   | 78.09  | 17.57 |       | 100.0 |         |
|           |                                                     | Z | 3.42   | 77.43  | 17.51 |       | 100.0 |         |
| 10036-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | X | 32.79  | 106.39 | 28.91 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 55.24  | 114.58 | 30.68 |       | 70.0  |         |
|           |                                                     | Z | 45.73  | 111.34 | 29.95 |       | 70.0  |         |
| 10037-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | X | 5.86   | 83.28  | 20.13 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 6.54   | 84.66  | 20.12 |       | 100.0 |         |
|           |                                                     | Z | 6.31   | 84.13  | 20.12 |       | 100.0 |         |
| 10038-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | X | 3.39   | 77.59  | 17.96 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 3.66   | 78.64  | 17.87 |       | 100.0 |         |
|           |                                                     | Z | 3.53   | 78.11  | 17.85 |       | 100.0 |         |
| 10039-CAB | CDMA2000 (1xRTT, RC1)                               | X | 1.52   | 69.16  | 14.18 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.40   | 68.90  | 13.55 |       | 150.0 |         |
|           |                                                     | Z | 1.46   | 69.03  | 13.83 |       | 150.0 |         |
| 10042-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | X | 100.00 | 114.62 | 28.47 | 7.78  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 114.70 | 28.14 |       | 50.0  |         |
|           |                                                     | Z | 100.00 | 113.88 | 27.92 |       | 50.0  |         |
| 10044-CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | X | 0.01   | 121.88 | 0.68  | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.00   | 97.83  | 1.91  |       | 150.0 |         |
|           |                                                     | Z | 0.01   | 122.55 | 0.35  |       | 150.0 |         |
| 10048-CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | X | 17.94  | 92.17  | 26.06 | 13.80 | 25.0  | ± 9.6 % |
|           |                                                     | Y | 42.19  | 107.21 | 29.95 |       | 25.0  |         |
|           |                                                     | Z | 24.74  | 97.63  | 27.36 |       | 25.0  |         |
| 10049-CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | X | 22.69  | 96.29  | 25.94 | 10.79 | 40.0  | ± 9.6 % |
|           |                                                     | Y | 68.20  | 113.74 | 30.23 |       | 40.0  |         |
|           |                                                     | Z | 32.65  | 101.85 | 27.19 |       | 40.0  |         |
| 10056-CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | X | 16.99  | 92.79  | 25.84 | 9.03  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 27.63  | 101.84 | 28.34 |       | 50.0  |         |
|           |                                                     | Z | 20.13  | 95.81  | 26.57 |       | 50.0  |         |
| 10058-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | X | 9.12   | 87.95  | 28.36 | 6.55  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 8.98   | 89.45  | 29.43 |       | 100.0 |         |
|           |                                                     | Z | 8.90   | 88.06  | 28.51 |       | 100.0 |         |
| 10059-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | X | 1.37   | 66.39  | 16.16 | 0.61  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 1.38   | 66.59  | 16.33 |       | 110.0 |         |
|           |                                                     | Z | 1.36   | 66.49  | 16.23 |       | 110.0 |         |
| 10060-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | X | 100.00 | 128.08 | 31.98 | 1.30  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 131.22 | 33.31 |       | 110.0 |         |
|           |                                                     | Z | 100.00 | 128.65 | 32.15 |       | 110.0 |         |

|           |                                                |   |       |       |       |      |       |         |
|-----------|------------------------------------------------|---|-------|-------|-------|------|-------|---------|
| 10061-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)      | X | 9.25  | 94.71 | 26.12 | 2.04 | 110.0 | ± 9.6 % |
|           |                                                | Y | 9.59  | 96.73 | 27.06 |      | 110.0 |         |
|           |                                                | Z | 10.28 | 96.95 | 26.85 |      | 110.0 |         |
| 10062-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)       | X | 4.74  | 66.85 | 16.53 | 0.49 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.66  | 67.04 | 16.57 |      | 100.0 |         |
|           |                                                | Z | 4.70  | 66.90 | 16.54 |      | 100.0 |         |
| 10063-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)       | X | 4.78  | 67.00 | 16.67 | 0.72 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.69  | 67.19 | 16.70 |      | 100.0 |         |
|           |                                                | Z | 4.73  | 67.05 | 16.68 |      | 100.0 |         |
| 10064-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)      | X | 5.09  | 67.32 | 16.93 | 0.86 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.97  | 67.46 | 16.94 |      | 100.0 |         |
|           |                                                | Z | 5.03  | 67.35 | 16.93 |      | 100.0 |         |
| 10065-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)      | X | 4.99  | 67.34 | 17.10 | 1.21 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.88  | 67.46 | 17.11 |      | 100.0 |         |
|           |                                                | Z | 4.93  | 67.36 | 17.10 |      | 100.0 |         |
| 10066-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)      | X | 5.05  | 67.46 | 17.33 | 1.46 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.92  | 67.57 | 17.33 |      | 100.0 |         |
|           |                                                | Z | 4.98  | 67.48 | 17.32 |      | 100.0 |         |
| 10067-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)      | X | 5.36  | 67.67 | 17.81 | 2.04 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.25  | 67.92 | 17.88 |      | 100.0 |         |
|           |                                                | Z | 5.30  | 67.73 | 17.82 |      | 100.0 |         |
| 10068-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)      | X | 5.48  | 67.95 | 18.15 | 2.55 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.33  | 68.04 | 18.16 |      | 100.0 |         |
|           |                                                | Z | 5.40  | 67.94 | 18.13 |      | 100.0 |         |
| 10069-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)      | X | 5.56  | 67.94 | 18.35 | 2.67 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.42  | 68.11 | 18.40 |      | 100.0 |         |
|           |                                                | Z | 5.49  | 67.96 | 18.34 |      | 100.0 |         |
| 10071-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)  | X | 5.16  | 67.32 | 17.64 | 1.99 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.07  | 67.53 | 17.70 |      | 100.0 |         |
|           |                                                | Z | 5.11  | 67.37 | 17.65 |      | 100.0 |         |
| 10072-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps) | X | 5.20  | 67.83 | 17.95 | 2.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.09  | 67.99 | 18.00 |      | 100.0 |         |
|           |                                                | Z | 5.14  | 67.86 | 17.96 |      | 100.0 |         |
| 10073-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps) | X | 5.32  | 68.17 | 18.37 | 2.83 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.22  | 68.36 | 18.44 |      | 100.0 |         |
|           |                                                | Z | 5.26  | 68.20 | 18.38 |      | 100.0 |         |
| 10074-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps) | X | 5.35  | 68.22 | 18.60 | 3.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.26  | 68.43 | 18.68 |      | 100.0 |         |
|           |                                                | Z | 5.29  | 68.25 | 18.61 |      | 100.0 |         |
| 10075-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps) | X | 5.48  | 68.62 | 19.07 | 3.82 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.35  | 68.73 | 19.11 |      | 90.0  |         |
|           |                                                | Z | 5.40  | 68.60 | 19.05 |      | 90.0  |         |
| 10076-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps) | X | 5.50  | 68.45 | 19.21 | 4.15 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.40  | 68.64 | 19.31 |      | 90.0  |         |
|           |                                                | Z | 5.44  | 68.46 | 19.21 |      | 90.0  |         |
| 10077-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps) | X | 5.54  | 68.54 | 19.31 | 4.30 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.44  | 68.76 | 19.43 |      | 90.0  |         |
|           |                                                | Z | 5.48  | 68.56 | 19.32 |      | 90.0  |         |

|           |                                                     |   |        |        |       |      |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10081-CAB | CDMA2000 (1xRTT, RC3)                               | X | 0.74   | 64.32  | 11.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.70   | 64.20  | 10.81 |      | 150.0 |         |
|           |                                                     | Z | 0.71   | 64.15  | 10.92 |      | 150.0 |         |
| 10082-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | X | 1.69   | 62.26  | 7.32  | 4.77 | 80.0  | ± 9.6 % |
|           |                                                     | Y | 1.49   | 62.02  | 6.99  |      | 80.0  |         |
|           |                                                     | Z | 1.55   | 61.83  | 6.90  |      | 80.0  |         |
| 10090-DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | X | 100.00 | 115.94 | 28.89 | 6.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 116.39 | 28.75 |      | 60.0  |         |
|           |                                                     | Z | 100.00 | 115.35 | 28.42 |      | 60.0  |         |
| 10097-CAB | UMTS-FDD (HSDPA)                                    | X | 1.73   | 66.76  | 14.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.76   | 67.41  | 15.16 |      | 150.0 |         |
|           |                                                     | Z | 1.72   | 67.00  | 15.02 |      | 150.0 |         |
| 10098-CAB | UMTS-FDD (HSUPA, Subtest 2)                         | X | 1.69   | 66.71  | 14.93 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.72   | 67.36  | 15.13 |      | 150.0 |         |
|           |                                                     | Z | 1.69   | 66.94  | 14.98 |      | 150.0 |         |
| 10099-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | X | 21.17  | 106.37 | 36.62 | 9.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 31.53  | 119.75 | 41.66 |      | 60.0  |         |
|           |                                                     | Z | 22.53  | 108.88 | 37.59 |      | 60.0  |         |
| 10100-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 3.02   | 69.66  | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.98   | 69.86  | 16.33 |      | 150.0 |         |
|           |                                                     | Z | 2.99   | 69.71  | 16.19 |      | 150.0 |         |
| 10101-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 3.20   | 67.30  | 15.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.15   | 67.42  | 15.72 |      | 150.0 |         |
|           |                                                     | Z | 3.17   | 67.31  | 15.65 |      | 150.0 |         |
| 10102-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 3.31   | 67.28  | 15.74 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.26   | 67.39  | 15.81 |      | 150.0 |         |
|           |                                                     | Z | 3.27   | 67.30  | 15.76 |      | 150.0 |         |
| 10103-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 8.39   | 78.42  | 21.27 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 8.55   | 79.75  | 21.92 |      | 65.0  |         |
|           |                                                     | Z | 8.43   | 78.92  | 21.50 |      | 65.0  |         |
| 10104-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 8.28   | 76.92  | 21.52 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 8.11   | 77.48  | 21.85 |      | 65.0  |         |
|           |                                                     | Z | 8.18   | 77.09  | 21.61 |      | 65.0  |         |
| 10105-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 7.63   | 75.31  | 21.13 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 7.72   | 76.48  | 21.73 |      | 65.0  |         |
|           |                                                     | Z | 7.57   | 75.55  | 21.26 |      | 65.0  |         |
| 10108-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | X | 2.65   | 68.92  | 15.95 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.59   | 69.14  | 16.15 |      | 150.0 |         |
|           |                                                     | Z | 2.61   | 68.99  | 16.01 |      | 150.0 |         |
| 10109-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)          | X | 2.86   | 67.08  | 15.50 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.80   | 67.24  | 15.55 |      | 150.0 |         |
|           |                                                     | Z | 2.82   | 67.11  | 15.51 |      | 150.0 |         |
| 10110-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)             | X | 2.15   | 67.97  | 15.52 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.09   | 68.27  | 15.68 |      | 150.0 |         |
|           |                                                     | Z | 2.11   | 68.06  | 15.56 |      | 150.0 |         |
| 10111-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)           | X | 2.54   | 67.60  | 15.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.49   | 67.90  | 15.64 |      | 150.0 |         |
|           |                                                     | Z | 2.51   | 67.74  | 15.66 |      | 150.0 |         |

|           |                                                |   |      |       |       |      |       |         |
|-----------|------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10112-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | X | 2.98 | 67.08 | 15.57 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.92 | 67.27 | 15.62 |      | 150.0 |         |
|           |                                                | Z | 2.94 | 67.13 | 15.58 |      | 150.0 |         |
| 10113-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | X | 2.70 | 67.76 | 15.81 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.63 | 68.07 | 15.78 |      | 150.0 |         |
|           |                                                | Z | 2.66 | 67.92 | 15.82 |      | 150.0 |         |
| 10114-CAC | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | X | 5.13 | 67.22 | 16.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.06 | 67.35 | 16.39 |      | 150.0 |         |
|           |                                                | Z | 5.10 | 67.28 | 16.37 |      | 150.0 |         |
| 10115-CAC | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | X | 5.46 | 67.47 | 16.48 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.32 | 67.42 | 16.43 |      | 150.0 |         |
|           |                                                | Z | 5.39 | 67.43 | 16.46 |      | 150.0 |         |
| 10116-CAC | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | X | 5.25 | 67.46 | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.15 | 67.53 | 16.41 |      | 150.0 |         |
|           |                                                | Z | 5.20 | 67.47 | 16.40 |      | 150.0 |         |
| 10117-CAC | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | X | 5.10 | 67.11 | 16.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.03 | 67.22 | 16.34 |      | 150.0 |         |
|           |                                                | Z | 5.06 | 67.11 | 16.31 |      | 150.0 |         |
| 10118-CAC | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | X | 5.56 | 67.71 | 16.61 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.40 | 67.63 | 16.55 |      | 150.0 |         |
|           |                                                | Z | 5.48 | 67.67 | 16.59 |      | 150.0 |         |
| 10119-CAC | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | X | 5.22 | 67.39 | 16.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.13 | 67.49 | 16.40 |      | 150.0 |         |
|           |                                                | Z | 5.18 | 67.42 | 16.38 |      | 150.0 |         |
| 10140-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | X | 3.35 | 67.28 | 15.66 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.29 | 67.41 | 15.73 |      | 150.0 |         |
|           |                                                | Z | 3.31 | 67.30 | 15.68 |      | 150.0 |         |
| 10141-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | X | 3.47 | 67.38 | 15.84 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.41 | 67.52 | 15.90 |      | 150.0 |         |
|           |                                                | Z | 3.43 | 67.42 | 15.86 |      | 150.0 |         |
| 10142-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | X | 1.91 | 67.75 | 15.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.84 | 68.07 | 15.11 |      | 150.0 |         |
|           |                                                | Z | 1.87 | 67.86 | 15.08 |      | 150.0 |         |
| 10143-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | X | 2.37 | 68.04 | 15.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.29 | 68.28 | 15.02 |      | 150.0 |         |
|           |                                                | Z | 2.33 | 68.17 | 15.16 |      | 150.0 |         |
| 10144-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | X | 2.20 | 66.14 | 13.84 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.08 | 66.17 | 13.48 |      | 150.0 |         |
|           |                                                | Z | 2.13 | 66.11 | 13.65 |      | 150.0 |         |
| 10145-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | X | 1.17 | 64.40 | 11.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 0.99 | 63.23 | 9.93  |      | 150.0 |         |
|           |                                                | Z | 1.08 | 63.80 | 10.61 |      | 150.0 |         |
| 10146-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | X | 2.07 | 66.79 | 12.08 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.74 | 65.46 | 10.58 |      | 150.0 |         |
|           |                                                | Z | 1.93 | 66.25 | 11.43 |      | 150.0 |         |
| 10147-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | X | 2.41 | 68.68 | 13.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.02 | 67.13 | 11.50 |      | 150.0 |         |
|           |                                                | Z | 2.26 | 68.13 | 12.45 |      | 150.0 |         |

|           |                                            |   |      |       |       |      |       |         |
|-----------|--------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10149-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 2.87 | 67.13 | 15.54 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.81 | 67.29 | 15.59 |      | 150.0 |         |
|           |                                            | Z | 2.83 | 67.17 | 15.55 |      | 150.0 |         |
| 10150-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 2.99 | 67.13 | 15.61 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.93 | 67.31 | 15.66 |      | 150.0 |         |
|           |                                            | Z | 2.95 | 67.18 | 15.62 |      | 150.0 |         |
| 10151-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)    | X | 9.21 | 81.33 | 22.45 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 9.55 | 83.12 | 23.24 |      | 65.0  |         |
|           |                                            | Z | 9.38 | 82.15 | 22.79 |      | 65.0  |         |
| 10152-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 7.89 | 77.12 | 21.32 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 7.75 | 77.78 | 21.62 |      | 65.0  |         |
|           |                                            | Z | 7.80 | 77.32 | 21.39 |      | 65.0  |         |
| 10153-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 8.33 | 78.05 | 22.06 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 8.20 | 78.76 | 22.36 |      | 65.0  |         |
|           |                                            | Z | 8.27 | 78.34 | 22.17 |      | 65.0  |         |
| 10154-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 2.19 | 68.34 | 15.77 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.13 | 68.58 | 15.88 |      | 150.0 |         |
|           |                                            | Z | 2.15 | 68.43 | 15.80 |      | 150.0 |         |
| 10155-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 2.54 | 67.61 | 15.66 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.49 | 67.93 | 15.66 |      | 150.0 |         |
|           |                                            | Z | 2.51 | 67.76 | 15.67 |      | 150.0 |         |
| 10156-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 1.75 | 67.70 | 14.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 1.67 | 67.86 | 14.67 |      | 150.0 |         |
|           |                                            | Z | 1.70 | 67.75 | 14.73 |      | 150.0 |         |
| 10157-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 2.01 | 66.49 | 13.77 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 1.89 | 66.41 | 13.28 |      | 150.0 |         |
|           |                                            | Z | 1.95 | 66.44 | 13.53 |      | 150.0 |         |
| 10158-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 2.70 | 67.82 | 15.85 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.64 | 68.13 | 15.83 |      | 150.0 |         |
|           |                                            | Z | 2.67 | 67.98 | 15.86 |      | 150.0 |         |
| 10159-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 2.11 | 66.90 | 14.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 1.98 | 66.74 | 13.50 |      | 150.0 |         |
|           |                                            | Z | 2.04 | 66.83 | 13.79 |      | 150.0 |         |
| 10160-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)    | X | 2.69 | 68.21 | 15.87 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.64 | 68.50 | 16.02 |      | 150.0 |         |
|           |                                            | Z | 2.66 | 68.34 | 15.93 |      | 150.0 |         |
| 10161-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 2.88 | 67.04 | 15.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.82 | 67.25 | 15.56 |      | 150.0 |         |
|           |                                            | Z | 2.84 | 67.11 | 15.53 |      | 150.0 |         |
| 10162-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 2.99 | 67.17 | 15.64 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.93 | 67.43 | 15.68 |      | 150.0 |         |
|           |                                            | Z | 2.96 | 67.27 | 15.66 |      | 150.0 |         |
| 10166-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 3.67 | 69.76 | 19.07 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.59 | 70.61 | 19.72 |      | 150.0 |         |
|           |                                            | Z | 3.64 | 70.17 | 19.36 |      | 150.0 |         |
| 10167-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 4.60 | 72.78 | 19.56 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.59 | 74.59 | 20.58 |      | 150.0 |         |
|           |                                            | Z | 4.60 | 73.54 | 19.97 |      | 150.0 |         |

|           |                                            |   |        |        |       |      |       |         |
|-----------|--------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10168-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 5.10   | 75.00  | 20.86 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.17   | 77.15  | 22.00 |      | 150.0 |         |
|           |                                            | Z | 5.18   | 76.08  | 21.41 |      | 150.0 |         |
| 10169-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 3.14   | 69.82  | 19.09 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.99   | 70.11  | 19.57 |      | 150.0 |         |
|           |                                            | Z | 3.08   | 69.99  | 19.30 |      | 150.0 |         |
| 10170-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 4.48   | 76.11  | 21.47 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.42   | 77.92  | 22.61 |      | 150.0 |         |
|           |                                            | Z | 4.51   | 77.09  | 22.03 |      | 150.0 |         |
| 10171-AAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 3.64   | 71.74  | 18.65 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.56   | 73.31  | 19.70 |      | 150.0 |         |
|           |                                            | Z | 3.59   | 72.29  | 19.01 |      | 150.0 |         |
| 10172-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 21.10  | 104.74 | 32.18 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 44.31  | 124.23 | 38.59 |      | 65.0  |         |
|           |                                            | Z | 24.87  | 109.58 | 33.89 |      | 65.0  |         |
| 10173-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 37.36  | 109.91 | 31.76 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 100.00 | 131.53 | 37.83 |      | 65.0  |         |
|           |                                            | Z | 66.45  | 121.49 | 34.95 |      | 65.0  |         |
| 10174-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 28.71  | 103.81 | 29.50 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 93.12  | 128.22 | 36.43 |      | 65.0  |         |
|           |                                            | Z | 36.57  | 109.34 | 31.20 |      | 65.0  |         |
| 10175-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)      | X | 3.10   | 69.50  | 18.83 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.96   | 69.84  | 19.35 |      | 150.0 |         |
|           |                                            | Z | 3.04   | 69.66  | 19.04 |      | 150.0 |         |
| 10176-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)    | X | 4.49   | 76.13  | 21.48 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.43   | 77.95  | 22.63 |      | 150.0 |         |
|           |                                            | Z | 4.52   | 77.11  | 22.04 |      | 150.0 |         |
| 10177-CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)       | X | 3.13   | 69.65  | 18.93 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.98   | 69.97  | 19.42 |      | 150.0 |         |
|           |                                            | Z | 3.07   | 69.81  | 19.14 |      | 150.0 |         |
| 10178-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)     | X | 4.43   | 75.88  | 21.35 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.39   | 77.75  | 22.52 |      | 150.0 |         |
|           |                                            | Z | 4.47   | 76.86  | 21.91 |      | 150.0 |         |
| 10179-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)    | X | 4.01   | 73.75  | 19.90 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.96   | 75.54  | 21.04 |      | 150.0 |         |
|           |                                            | Z | 4.01   | 74.52  | 20.37 |      | 150.0 |         |
| 10180-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)     | X | 3.63   | 71.66  | 18.60 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.55   | 73.25  | 19.66 |      | 150.0 |         |
|           |                                            | Z | 3.59   | 72.21  | 18.96 |      | 150.0 |         |
| 10181-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 3.13   | 69.64  | 18.92 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.98   | 69.95  | 19.42 |      | 150.0 |         |
|           |                                            | Z | 3.06   | 69.80  | 19.13 |      | 150.0 |         |
| 10182-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)    | X | 4.42   | 75.86  | 21.34 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.38   | 77.72  | 22.51 |      | 150.0 |         |
|           |                                            | Z | 4.46   | 76.83  | 21.90 |      | 150.0 |         |
| 10183-AAC | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 3.62   | 71.63  | 18.59 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.55   | 73.22  | 19.65 |      | 150.0 |         |
|           |                                            | Z | 3.58   | 72.19  | 18.94 |      | 150.0 |         |

|           |                                               |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10184-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | X | 3.14 | 69.68 | 18.95 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 2.99 | 69.99 | 19.44 |      | 150.0 |         |
|           |                                               | Z | 3.07 | 69.84 | 19.16 |      | 150.0 |         |
| 10185-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | X | 4.45 | 75.93 | 21.38 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.40 | 77.80 | 22.55 |      | 150.0 |         |
|           |                                               | Z | 4.48 | 76.92 | 21.94 |      | 150.0 |         |
| 10186-AAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | X | 3.64 | 71.70 | 18.62 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.56 | 73.30 | 19.69 |      | 150.0 |         |
|           |                                               | Z | 3.60 | 72.26 | 18.98 |      | 150.0 |         |
| 10187-CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | X | 3.15 | 69.73 | 19.01 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.00 | 70.06 | 19.51 |      | 150.0 |         |
|           |                                               | Z | 3.08 | 69.90 | 19.22 |      | 150.0 |         |
| 10188-CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | X | 4.60 | 76.65 | 21.77 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.55 | 78.49 | 22.93 |      | 150.0 |         |
|           |                                               | Z | 4.65 | 77.69 | 22.36 |      | 150.0 |         |
| 10189-AAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | X | 3.72 | 72.15 | 18.90 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.65 | 73.76 | 19.97 |      | 150.0 |         |
|           |                                               | Z | 3.69 | 72.74 | 19.28 |      | 150.0 |         |
| 10193-CAC | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | X | 4.52 | 66.58 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.45 | 66.79 | 16.05 |      | 150.0 |         |
|           |                                               | Z | 4.48 | 66.63 | 16.03 |      | 150.0 |         |
| 10194-CAC | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | X | 4.70 | 66.91 | 16.15 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.60 | 67.08 | 16.18 |      | 150.0 |         |
|           |                                               | Z | 4.65 | 66.95 | 16.16 |      | 150.0 |         |
| 10195-CAC | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | X | 4.74 | 66.94 | 16.17 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.65 | 67.11 | 16.20 |      | 150.0 |         |
|           |                                               | Z | 4.69 | 66.98 | 16.18 |      | 150.0 |         |
| 10196-CAC | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | X | 4.53 | 66.65 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.44 | 66.83 | 16.06 |      | 150.0 |         |
|           |                                               | Z | 4.48 | 66.69 | 16.05 |      | 150.0 |         |
| 10197-CAC | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | X | 4.72 | 66.93 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.62 | 67.10 | 16.19 |      | 150.0 |         |
|           |                                               | Z | 4.66 | 66.97 | 16.17 |      | 150.0 |         |
| 10198-CAC | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | X | 4.75 | 66.96 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.64 | 67.13 | 16.21 |      | 150.0 |         |
|           |                                               | Z | 4.69 | 67.00 | 16.19 |      | 150.0 |         |
| 10219-CAC | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | X | 4.48 | 66.66 | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.39 | 66.84 | 16.01 |      | 150.0 |         |
|           |                                               | Z | 4.43 | 66.70 | 16.00 |      | 150.0 |         |
| 10220-CAC | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | X | 4.71 | 66.91 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.61 | 67.06 | 16.18 |      | 150.0 |         |
|           |                                               | Z | 4.66 | 66.94 | 16.16 |      | 150.0 |         |
| 10221-CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | X | 4.76 | 66.89 | 16.17 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.65 | 67.06 | 16.20 |      | 150.0 |         |
|           |                                               | Z | 4.70 | 66.93 | 16.18 |      | 150.0 |         |
| 10222-CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | X | 5.08 | 67.11 | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 5.00 | 67.21 | 16.33 |      | 150.0 |         |
|           |                                               | Z | 5.03 | 67.12 | 16.30 |      | 150.0 |         |

|           |                                           |   |        |        |       |      |       |         |
|-----------|-------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10223-CAC | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)  | X | 5.40   | 67.34  | 16.44 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.30   | 67.47  | 16.48 |      | 150.0 |         |
|           |                                           | Z | 5.35   | 67.37  | 16.45 |      | 150.0 |         |
| 10224-CAC | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM) | X | 5.12   | 67.22  | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.04   | 67.32  | 16.31 |      | 150.0 |         |
|           |                                           | Z | 5.08   | 67.23  | 16.28 |      | 150.0 |         |
| 10225-CAB | UMTS-FDD (HSPA+)                          | X | 2.77   | 65.87  | 15.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 2.71   | 66.11  | 14.95 |      | 150.0 |         |
|           |                                           | Z | 2.73   | 65.95  | 15.01 |      | 150.0 |         |
| 10226-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)  | X | 40.90  | 111.69 | 32.33 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 100.00 | 131.74 | 37.97 |      | 65.0  |         |
|           |                                           | Z | 76.08  | 124.13 | 35.71 |      | 65.0  |         |
| 10227-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)  | X | 32.04  | 105.79 | 30.14 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 100.00 | 129.20 | 36.63 |      | 65.0  |         |
|           |                                           | Z | 56.03  | 116.66 | 33.17 |      | 65.0  |         |
| 10228-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)    | X | 32.49  | 113.40 | 34.73 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 63.93  | 131.79 | 40.55 |      | 65.0  |         |
|           |                                           | Z | 42.68  | 120.45 | 36.94 |      | 65.0  |         |
| 10229-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)    | X | 37.48  | 109.96 | 31.78 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 100.00 | 131.51 | 37.84 |      | 65.0  |         |
|           |                                           | Z | 66.68  | 121.54 | 34.97 |      | 65.0  |         |
| 10230-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)    | X | 29.78  | 104.42 | 29.68 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 100.00 | 129.07 | 36.54 |      | 65.0  |         |
|           |                                           | Z | 50.21  | 114.61 | 32.57 |      | 65.0  |         |
| 10231-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)      | X | 30.12  | 111.79 | 34.20 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 57.30  | 129.38 | 39.87 |      | 65.0  |         |
|           |                                           | Z | 38.78  | 118.39 | 36.30 |      | 65.0  |         |
| 10232-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)    | X | 37.48  | 109.97 | 31.78 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 100.00 | 131.53 | 37.84 |      | 65.0  |         |
|           |                                           | Z | 66.72  | 121.56 | 34.98 |      | 65.0  |         |
| 10233-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)    | X | 29.77  | 104.42 | 29.68 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 100.00 | 129.09 | 36.55 |      | 65.0  |         |
|           |                                           | Z | 50.19  | 114.62 | 32.57 |      | 65.0  |         |
| 10234-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)      | X | 28.05  | 110.17 | 33.63 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 51.99  | 127.09 | 39.16 |      | 65.0  |         |
|           |                                           | Z | 35.54  | 116.41 | 35.65 |      | 65.0  |         |
| 10235-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)   | X | 37.64  | 110.05 | 31.80 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 100.00 | 131.54 | 37.84 |      | 65.0  |         |
|           |                                           | Z | 67.18  | 121.70 | 35.01 |      | 65.0  |         |
| 10236-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)   | X | 30.09  | 104.58 | 29.72 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 100.00 | 129.03 | 36.52 |      | 65.0  |         |
|           |                                           | Z | 50.96  | 114.84 | 32.62 |      | 65.0  |         |
| 10237-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)     | X | 30.42  | 112.00 | 34.26 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 58.39  | 129.80 | 39.98 |      | 65.0  |         |
|           |                                           | Z | 39.25  | 118.66 | 36.38 |      | 65.0  |         |
| 10238-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)   | X | 37.48  | 109.98 | 31.78 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 100.00 | 131.54 | 37.84 |      | 65.0  |         |
|           |                                           | Z | 66.77  | 121.59 | 34.98 |      | 65.0  |         |

|           |                                            |   |        |        |       |      |      |         |
|-----------|--------------------------------------------|---|--------|--------|-------|------|------|---------|
| 10239-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 29.75  | 104.43 | 29.68 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 100.00 | 129.11 | 36.55 |      | 65.0 |         |
|           |                                            | Z | 50.17  | 114.63 | 32.57 |      | 65.0 |         |
| 10240-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 30.30  | 111.94 | 34.24 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 58.14  | 129.72 | 39.96 |      | 65.0 |         |
|           |                                            | Z | 39.09  | 118.59 | 36.36 |      | 65.0 |         |
| 10241-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 11.80  | 86.80  | 27.35 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 13.67  | 92.53  | 29.81 |      | 65.0 |         |
|           |                                            | Z | 12.27  | 88.56  | 28.08 |      | 65.0 |         |
| 10242-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 10.15  | 83.59  | 26.03 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 12.26  | 90.20  | 28.90 |      | 65.0 |         |
|           |                                            | Z | 10.49  | 85.23  | 26.75 |      | 65.0 |         |
| 10243-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 8.15   | 80.45  | 25.67 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 9.07   | 85.16  | 28.03 |      | 65.0 |         |
|           |                                            | Z | 8.20   | 81.43  | 26.18 |      | 65.0 |         |
| 10244-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   | X | 8.77   | 79.58  | 20.12 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.68   | 79.98  | 19.73 |      | 65.0 |         |
|           |                                            | Z | 8.93   | 80.10  | 20.07 |      | 65.0 |         |
| 10245-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)   | X | 8.56   | 78.94  | 19.83 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.27   | 79.00  | 19.30 |      | 65.0 |         |
|           |                                            | Z | 8.60   | 79.28  | 19.71 |      | 65.0 |         |
| 10246-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)     | X | 9.05   | 82.96  | 21.42 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.67   | 82.79  | 20.89 |      | 65.0 |         |
|           |                                            | Z | 9.07   | 83.18  | 21.25 |      | 65.0 |         |
| 10247-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 7.31   | 77.47  | 20.01 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 6.88   | 77.10  | 19.42 |      | 65.0 |         |
|           |                                            | Z | 7.16   | 77.42  | 19.78 |      | 65.0 |         |
| 10248-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 7.23   | 76.85  | 19.75 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 6.75   | 76.40  | 19.13 |      | 65.0 |         |
|           |                                            | Z | 7.04   | 76.72  | 19.48 |      | 65.0 |         |
| 10249-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 10.55  | 85.88  | 23.24 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 11.23  | 87.71  | 23.62 |      | 65.0 |         |
|           |                                            | Z | 11.08  | 87.02  | 23.49 |      | 65.0 |         |
| 10250-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 8.37   | 79.97  | 22.44 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.25   | 80.64  | 22.58 |      | 65.0 |         |
|           |                                            | Z | 8.37   | 80.40  | 22.54 |      | 65.0 |         |
| 10251-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 7.79   | 77.55  | 21.17 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.62   | 78.12  | 21.26 |      | 65.0 |         |
|           |                                            | Z | 7.71   | 77.78  | 21.18 |      | 65.0 |         |
| 10252-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 10.26  | 85.03  | 23.77 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 11.07  | 87.53  | 24.67 |      | 65.0 |         |
|           |                                            | Z | 10.72  | 86.30  | 24.20 |      | 65.0 |         |
| 10253-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 7.69   | 76.53  | 21.09 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.57   | 77.22  | 21.35 |      | 65.0 |         |
|           |                                            | Z | 7.61   | 76.75  | 21.15 |      | 65.0 |         |
| 10254-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 8.11   | 77.42  | 21.76 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.99   | 78.11  | 22.01 |      | 65.0 |         |
|           |                                            | Z | 8.04   | 77.70  | 21.84 |      | 65.0 |         |

|           |                                             |   |       |       |       |      |      |         |
|-----------|---------------------------------------------|---|-------|-------|-------|------|------|---------|
| 10255-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | X | 8.87  | 80.90 | 22.51 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 9.18  | 82.66 | 23.26 |      | 65.0 |         |
|           |                                             | Z | 9.01  | 81.69 | 22.82 |      | 65.0 |         |
| 10256-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | X | 7.19  | 76.04 | 17.83 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.37  | 74.72 | 16.60 |      | 65.0 |         |
|           |                                             | Z | 6.91  | 75.63 | 17.34 |      | 65.0 |         |
| 10257-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | X | 6.95  | 75.20 | 17.41 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.01  | 73.59 | 16.03 |      | 65.0 |         |
|           |                                             | Z | 6.60  | 74.62 | 16.84 |      | 65.0 |         |
| 10258-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | X | 7.08  | 78.57 | 19.08 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.96  | 76.36 | 17.58 |      | 65.0 |         |
|           |                                             | Z | 6.63  | 77.70 | 18.41 |      | 65.0 |         |
| 10259-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | X | 7.72  | 78.37 | 20.87 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.43  | 78.48 | 20.58 |      | 65.0 |         |
|           |                                             | Z | 7.64  | 78.54 | 20.77 |      | 65.0 |         |
| 10260-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | X | 7.71  | 78.04 | 20.75 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.37  | 78.04 | 20.41 |      | 65.0 |         |
|           |                                             | Z | 7.60  | 78.14 | 20.63 |      | 65.0 |         |
| 10261-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | X | 9.91  | 84.71 | 23.20 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 10.51 | 86.66 | 23.72 |      | 65.0 |         |
|           |                                             | Z | 10.31 | 85.78 | 23.47 |      | 65.0 |         |
| 10262-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | X | 8.35  | 79.91 | 22.40 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.23  | 80.57 | 22.53 |      | 65.0 |         |
|           |                                             | Z | 8.35  | 80.33 | 22.49 |      | 65.0 |         |
| 10263-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | X | 7.78  | 77.53 | 21.17 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.61  | 78.09 | 21.25 |      | 65.0 |         |
|           |                                             | Z | 7.70  | 77.76 | 21.18 |      | 65.0 |         |
| 10264-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | X | 10.16 | 84.83 | 23.68 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 10.94 | 87.30 | 24.57 |      | 65.0 |         |
|           |                                             | Z | 10.60 | 86.08 | 24.10 |      | 65.0 |         |
| 10265-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | X | 7.89  | 77.12 | 21.33 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.75  | 77.78 | 21.62 |      | 65.0 |         |
|           |                                             | Z | 7.80  | 77.33 | 21.40 |      | 65.0 |         |
| 10266-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | X | 8.32  | 78.04 | 22.05 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.20  | 78.75 | 22.36 |      | 65.0 |         |
|           |                                             | Z | 8.26  | 78.33 | 22.16 |      | 65.0 |         |
| 10267-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | X | 9.19  | 81.29 | 22.44 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 9.53  | 83.07 | 23.22 |      | 65.0 |         |
|           |                                             | Z | 9.36  | 82.10 | 22.77 |      | 65.0 |         |
| 10268-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | X | 8.37  | 76.65 | 21.54 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.20  | 77.22 | 21.85 |      | 65.0 |         |
|           |                                             | Z | 8.27  | 76.83 | 21.63 |      | 65.0 |         |
| 10269-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | X | 8.29  | 76.22 | 21.43 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.13  | 76.76 | 21.72 |      | 65.0 |         |
|           |                                             | Z | 8.20  | 76.38 | 21.51 |      | 65.0 |         |
| 10270-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | X | 8.55  | 78.25 | 21.44 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.58  | 79.32 | 21.98 |      | 65.0 |         |
|           |                                             | Z | 8.56  | 78.72 | 21.66 |      | 65.0 |         |

|           |                                                                    |   |       |       |       |      |       |         |
|-----------|--------------------------------------------------------------------|---|-------|-------|-------|------|-------|---------|
| 10274-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                          | X | 2.53  | 66.08 | 14.88 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.52  | 66.54 | 14.91 |      | 150.0 |         |
|           |                                                                    | Z | 2.51  | 66.24 | 14.87 |      | 150.0 |         |
| 10275-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                           | X | 1.51  | 66.90 | 14.72 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.52  | 67.44 | 14.98 |      | 150.0 |         |
|           |                                                                    | Z | 1.50  | 67.06 | 14.77 |      | 150.0 |         |
| 10277-CAA | PHS (QPSK)                                                         | X | 4.49  | 67.07 | 11.86 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 3.76  | 65.67 | 10.51 |      | 50.0  |         |
|           |                                                                    | Z | 4.09  | 66.15 | 11.03 |      | 50.0  |         |
| 10278-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)                                 | X | 8.37  | 78.55 | 19.37 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 7.19  | 76.56 | 17.89 |      | 50.0  |         |
|           |                                                                    | Z | 7.75  | 77.39 | 18.52 |      | 50.0  |         |
| 10279-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)                                | X | 8.51  | 78.75 | 19.47 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 7.31  | 76.76 | 18.01 |      | 50.0  |         |
|           |                                                                    | Z | 7.88  | 77.58 | 18.63 |      | 50.0  |         |
| 10290-AAB | CDMA2000, RC1, SO55, Full Rate                                     | X | 1.28  | 66.85 | 12.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.15  | 66.36 | 12.07 |      | 150.0 |         |
|           |                                                                    | Z | 1.21  | 66.57 | 12.40 |      | 150.0 |         |
| 10291-AAB | CDMA2000, RC3, SO55, Full Rate                                     | X | 0.73  | 64.15 | 11.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 0.69  | 64.04 | 10.71 |      | 150.0 |         |
|           |                                                                    | Z | 0.69  | 63.98 | 10.82 |      | 150.0 |         |
| 10292-AAB | CDMA2000, RC3, SO32, Full Rate                                     | X | 0.85  | 66.79 | 12.92 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 0.83  | 67.15 | 12.67 |      | 150.0 |         |
|           |                                                                    | Z | 0.82  | 66.81 | 12.63 |      | 150.0 |         |
| 10293-AAB | CDMA2000, RC3, SO3, Full Rate                                      | X | 1.14  | 70.77 | 15.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.22  | 72.07 | 15.35 |      | 150.0 |         |
|           |                                                                    | Z | 1.16  | 71.38 | 15.20 |      | 150.0 |         |
| 10295-AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                              | X | 11.92 | 86.64 | 24.71 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 15.63 | 91.98 | 26.09 |      | 50.0  |         |
|           |                                                                    | Z | 13.21 | 88.61 | 25.13 |      | 50.0  |         |
| 10297-AAC | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                            | X | 2.66  | 69.01 | 16.01 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.60  | 69.22 | 16.21 |      | 150.0 |         |
|           |                                                                    | Z | 2.62  | 69.08 | 16.08 |      | 150.0 |         |
| 10298-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                             | X | 1.46  | 66.51 | 13.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.32  | 65.99 | 12.56 |      | 150.0 |         |
|           |                                                                    | Z | 1.39  | 66.26 | 12.94 |      | 150.0 |         |
| 10299-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                           | X | 2.70  | 69.70 | 14.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.67  | 70.31 | 14.00 |      | 150.0 |         |
|           |                                                                    | Z | 2.72  | 70.11 | 14.27 |      | 150.0 |         |
| 10300-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                           | X | 2.09  | 65.56 | 11.69 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.84  | 65.02 | 10.77 |      | 150.0 |         |
|           |                                                                    | Z | 1.98  | 65.35 | 11.29 |      | 150.0 |         |
| 10301-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                 | X | 5.46  | 67.87 | 18.50 | 4.17 | 80.0  | ± 9.6 % |
|           |                                                                    | Y | 5.32  | 68.03 | 18.43 |      | 80.0  |         |
|           |                                                                    | Z | 5.39  | 67.94 | 18.48 |      | 80.0  |         |
| 10302-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols) | X | 5.85  | 67.98 | 18.95 | 4.96 | 80.0  | ± 9.6 % |
|           |                                                                    | Y | 5.80  | 68.69 | 19.24 |      | 80.0  |         |
|           |                                                                    | Z | 5.75  | 67.96 | 18.88 |      | 80.0  |         |

|           |                                                                     |   |       |       |       |       |       |         |
|-----------|---------------------------------------------------------------------|---|-------|-------|-------|-------|-------|---------|
| 10303-AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                 | X | 5.66  | 67.92 | 18.92 | 4.96  | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.61  | 68.61 | 19.19 |       | 80.0  |         |
|           |                                                                     | Z | 5.56  | 67.86 | 18.83 |       | 80.0  |         |
| 10304-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                 | X | 5.35  | 67.35 | 18.18 | 4.17  | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.30  | 68.04 | 18.43 |       | 80.0  |         |
|           |                                                                     | Z | 5.26  | 67.36 | 18.12 |       | 80.0  |         |
| 10305-AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)    | X | 7.05  | 76.99 | 23.82 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 7.19  | 78.32 | 24.16 |       | 50.0  |         |
|           |                                                                     | Z | 6.80  | 76.50 | 23.43 |       | 50.0  |         |
| 10306-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)    | X | 5.82  | 69.84 | 20.44 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 5.84  | 70.99 | 20.86 |       | 50.0  |         |
|           |                                                                     | Z | 6.02  | 71.90 | 21.62 |       | 50.0  |         |
| 10307-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)     | X | 6.31  | 73.07 | 22.13 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 5.83  | 71.38 | 20.88 |       | 50.0  |         |
|           |                                                                     | Z | 6.11  | 72.72 | 21.84 |       | 50.0  |         |
| 10308-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                | X | 6.39  | 73.64 | 22.41 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 5.90  | 71.88 | 21.13 |       | 50.0  |         |
|           |                                                                     | Z | 6.20  | 73.31 | 22.13 |       | 50.0  |         |
| 10309-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols) | X | 5.91  | 70.12 | 20.60 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 5.91  | 71.23 | 21.02 |       | 50.0  |         |
|           |                                                                     | Z | 6.11  | 72.19 | 21.79 |       | 50.0  |         |
| 10310-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)  | X | 6.22  | 72.50 | 21.95 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 5.84  | 71.19 | 20.88 |       | 50.0  |         |
|           |                                                                     | Z | 6.05  | 72.25 | 21.70 |       | 50.0  |         |
| 10311-AAC | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                            | X | 3.00  | 68.33 | 15.71 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 2.96  | 68.52 | 15.89 |       | 150.0 |         |
|           |                                                                     | Z | 2.97  | 68.38 | 15.77 |       | 150.0 |         |
| 10313-AAA | iDEN 1:3                                                            | X | 6.99  | 77.76 | 18.02 | 6.99  | 70.0  | ± 9.6 % |
|           |                                                                     | Y | 8.29  | 81.34 | 19.42 |       | 70.0  |         |
|           |                                                                     | Z | 7.24  | 78.54 | 18.23 |       | 70.0  |         |
| 10314-AAA | iDEN 1:6                                                            | X | 10.49 | 86.54 | 23.63 | 10.00 | 30.0  | ± 9.6 % |
|           |                                                                     | Y | 12.83 | 91.81 | 25.63 |       | 30.0  |         |
|           |                                                                     | Z | 11.85 | 89.04 | 24.41 |       | 30.0  |         |
| 10315-AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)           | X | 1.08  | 63.85 | 14.84 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 1.11  | 64.19 | 15.04 |       | 150.0 |         |
|           |                                                                     | Z | 1.08  | 63.97 | 14.91 |       | 150.0 |         |
| 10316-AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)       | X | 4.62  | 66.77 | 16.25 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.54  | 66.97 | 16.29 |       | 150.0 |         |
|           |                                                                     | Z | 4.57  | 66.82 | 16.26 |       | 150.0 |         |
| 10317-AAC | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)             | X | 4.62  | 66.77 | 16.25 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.54  | 66.97 | 16.29 |       | 150.0 |         |
|           |                                                                     | Z | 4.57  | 66.82 | 16.26 |       | 150.0 |         |
| 10400-AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                 | X | 4.70  | 66.97 | 16.15 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.59  | 67.15 | 16.19 |       | 150.0 |         |
|           |                                                                     | Z | 4.64  | 67.01 | 16.16 |       | 150.0 |         |
| 10401-AAD | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                 | X | 5.41  | 67.24 | 16.37 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 5.32  | 67.38 | 16.42 |       | 150.0 |         |
|           |                                                                     | Z | 5.38  | 67.33 | 16.41 |       | 150.0 |         |

|           |                                                                                 |   |        |        |       |      |       |         |
|-----------|---------------------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10402-AAD | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                             | X | 5.66   | 67.55  | 16.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.56   | 67.58  | 16.37 |      | 150.0 |         |
|           |                                                                                 | Z | 5.60   | 67.52  | 16.36 |      | 150.0 |         |
| 10403-AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                      | X | 1.28   | 66.85  | 12.83 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.15   | 66.36  | 12.07 |      | 115.0 |         |
|           |                                                                                 | Z | 1.21   | 66.57  | 12.40 |      | 115.0 |         |
| 10404-AAB | CDMA2000 (1xEV-DO, Rev. A)                                                      | X | 1.28   | 66.85  | 12.83 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.15   | 66.36  | 12.07 |      | 115.0 |         |
|           |                                                                                 | Z | 1.21   | 66.57  | 12.40 |      | 115.0 |         |
| 10406-AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                            | X | 31.97  | 105.65 | 26.52 | 0.00 | 100.0 | ± 9.6 % |
|           |                                                                                 | Y | 100.00 | 119.11 | 28.78 |      | 100.0 |         |
|           |                                                                                 | Z | 100.00 | 120.25 | 29.60 |      | 100.0 |         |
| 10410-AAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4) | X | 100.00 | 119.16 | 29.68 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                                 | Y | 100.00 | 122.81 | 30.98 |      | 80.0  |         |
|           |                                                                                 | Z | 100.00 | 120.19 | 29.97 |      | 80.0  |         |
| 10415-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                       | X | 0.96   | 62.46  | 13.98 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 0.99   | 62.90  | 14.23 |      | 150.0 |         |
|           |                                                                                 | Z | 0.95   | 62.59  | 14.06 |      | 150.0 |         |
| 10416-AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                   | X | 4.53   | 66.62  | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.45   | 66.83  | 16.13 |      | 150.0 |         |
|           |                                                                                 | Z | 4.48   | 66.68  | 16.10 |      | 150.0 |         |
| 10417-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                       | X | 4.53   | 66.62  | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.45   | 66.83  | 16.13 |      | 150.0 |         |
|           |                                                                                 | Z | 4.48   | 66.68  | 16.10 |      | 150.0 |         |
| 10418-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)   | X | 4.51   | 66.76  | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.44   | 67.00  | 16.16 |      | 150.0 |         |
|           |                                                                                 | Z | 4.47   | 66.83  | 16.12 |      | 150.0 |         |
| 10419-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)  | X | 4.54   | 66.72  | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.46   | 66.94  | 16.15 |      | 150.0 |         |
|           |                                                                                 | Z | 4.49   | 66.78  | 16.12 |      | 150.0 |         |
| 10422-AAB | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                    | X | 4.66   | 66.73  | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.57   | 66.94  | 16.17 |      | 150.0 |         |
|           |                                                                                 | Z | 4.61   | 66.79  | 16.14 |      | 150.0 |         |
| 10423-AAB | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                 | X | 4.83   | 67.07  | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.72   | 67.22  | 16.28 |      | 150.0 |         |
|           |                                                                                 | Z | 4.77   | 67.10  | 16.25 |      | 150.0 |         |
| 10424-AAB | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                 | X | 4.75   | 67.01  | 16.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.64   | 67.18  | 16.25 |      | 150.0 |         |
|           |                                                                                 | Z | 4.69   | 67.05  | 16.23 |      | 150.0 |         |
| 10425-AAB | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                     | X | 5.37   | 67.43  | 16.45 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.26   | 67.46  | 16.45 |      | 150.0 |         |
|           |                                                                                 | Z | 5.32   | 67.43  | 16.46 |      | 150.0 |         |
| 10426-AAB | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                   | X | 5.37   | 67.44  | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.28   | 67.55  | 16.49 |      | 150.0 |         |
|           |                                                                                 | Z | 5.33   | 67.49  | 16.49 |      | 150.0 |         |

|           |                                                                |   |        |        |       |      |       |         |
|-----------|----------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10427-AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                 | X | 5.38   | 67.41  | 16.44 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.27   | 67.46  | 16.44 |      | 150.0 |         |
|           |                                                                | Z | 5.33   | 67.43  | 16.45 |      | 150.0 |         |
| 10430-AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                               | X | 4.17   | 70.27  | 17.81 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.03   | 70.48  | 17.58 |      | 150.0 |         |
|           |                                                                | Z | 4.14   | 70.57  | 17.85 |      | 150.0 |         |
| 10431-AAB | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                              | X | 4.21   | 67.11  | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.09   | 67.33  | 16.03 |      | 150.0 |         |
|           |                                                                | Z | 4.15   | 67.18  | 16.04 |      | 150.0 |         |
| 10432-AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                              | X | 4.51   | 67.03  | 16.15 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.40   | 67.23  | 16.17 |      | 150.0 |         |
|           |                                                                | Z | 4.46   | 67.08  | 16.15 |      | 150.0 |         |
| 10433-AAB | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                              | X | 4.76   | 67.04  | 16.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.66   | 67.21  | 16.27 |      | 150.0 |         |
|           |                                                                | Z | 4.71   | 67.08  | 16.24 |      | 150.0 |         |
| 10434-AAA | W-CDMA (BS Test Model 1, 64 DPCH)                              | X | 4.23   | 70.97  | 17.72 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.07   | 71.14  | 17.40 |      | 150.0 |         |
|           |                                                                | Z | 4.21   | 71.31  | 17.74 |      | 150.0 |         |
| 10435-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) | X | 100.00 | 118.98 | 29.60 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                | Y | 100.00 | 122.59 | 30.87 |      | 80.0  |         |
|           |                                                                | Z | 100.00 | 119.99 | 29.88 |      | 80.0  |         |
| 10447-AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                 | X | 3.49   | 66.99  | 15.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.34   | 67.16  | 15.09 |      | 150.0 |         |
|           |                                                                | Z | 3.41   | 67.04  | 15.22 |      | 150.0 |         |
| 10448-AAB | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                | X | 4.04   | 66.88  | 15.90 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.94   | 67.12  | 15.89 |      | 150.0 |         |
|           |                                                                | Z | 3.99   | 66.95  | 15.89 |      | 150.0 |         |
| 10449-AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                | X | 4.32   | 66.84  | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.23   | 67.04  | 16.06 |      | 150.0 |         |
|           |                                                                | Z | 4.27   | 66.90  | 16.04 |      | 150.0 |         |
| 10450-AAB | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                | X | 4.51   | 66.79  | 16.08 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.44   | 66.97  | 16.11 |      | 150.0 |         |
|           |                                                                | Z | 4.47   | 66.83  | 16.09 |      | 150.0 |         |
| 10451-AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                | X | 3.37   | 67.12  | 14.92 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.19   | 67.13  | 14.54 |      | 150.0 |         |
|           |                                                                | Z | 3.28   | 67.11  | 14.76 |      | 150.0 |         |
| 10456-AAB | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)           | X | 6.23   | 67.99  | 16.62 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 6.17   | 68.10  | 16.67 |      | 150.0 |         |
|           |                                                                | Z | 6.19   | 67.99  | 16.63 |      | 150.0 |         |
| 10457-AAA | UMTS-FDD (DC-HSDPA)                                            | X | 3.77   | 65.25  | 15.79 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.75   | 65.50  | 15.83 |      | 150.0 |         |
|           |                                                                | Z | 3.75   | 65.32  | 15.80 |      | 150.0 |         |
| 10458-AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                         | X | 3.87   | 70.16  | 17.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.71   | 70.34  | 16.66 |      | 150.0 |         |
|           |                                                                | Z | 3.84   | 70.49  | 17.05 |      | 150.0 |         |
| 10459-AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                         | X | 5.00   | 67.94  | 17.87 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.81   | 68.13  | 17.56 |      | 150.0 |         |
|           |                                                                | Z | 4.96   | 68.23  | 17.89 |      | 150.0 |         |

|           |                                                                   |   |        |        |       |      |       |         |
|-----------|-------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10460-AAA | UMTS-FDD (WCDMA, AMR)                                             | X | 0.79   | 66.34  | 14.61 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                   | Y | 0.84   | 67.16  | 15.15 |      | 150.0 |         |
|           |                                                                   | Z | 0.79   | 66.65  | 14.76 |      | 150.0 |         |
| 10461-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 122.59 | 31.33 | 3.29 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 128.70 | 33.71 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 124.88 | 32.17 |      | 80.0  |         |
| 10462-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 21.46  | 90.49  | 19.92 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 107.87 | 23.85 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 106.49 | 23.49 |      | 80.0  |         |
| 10463-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.25   | 74.65  | 14.70 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 19.71  | 88.51  | 18.38 |      | 80.0  |         |
|           |                                                                   | Z | 7.19   | 78.06  | 15.56 |      | 80.0  |         |
| 10464-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 100.00 | 120.34 | 30.14 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 126.35 | 32.46 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 122.50 | 30.92 |      | 80.0  |         |
| 10465-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 11.73  | 83.97  | 18.05 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 107.24 | 23.55 |      | 80.0  |         |
|           |                                                                   | Z | 41.80  | 97.17  | 21.26 |      | 80.0  |         |
| 10466-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.09   | 72.04  | 13.74 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 8.97   | 80.87  | 16.24 |      | 80.0  |         |
|           |                                                                   | Z | 4.77   | 73.97  | 14.19 |      | 80.0  |         |
| 10467-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 100.00 | 120.57 | 30.24 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 126.64 | 32.58 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 122.76 | 31.03 |      | 80.0  |         |
| 10468-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 13.52  | 85.52  | 18.51 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 107.47 | 23.65 |      | 80.0  |         |
|           |                                                                   | Z | 60.78  | 101.09 | 22.20 |      | 80.0  |         |
| 10469-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.11   | 72.11  | 13.77 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 9.29   | 81.22  | 16.33 |      | 80.0  |         |
|           |                                                                   | Z | 4.83   | 74.11  | 14.24 |      | 80.0  |         |
| 10470-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 120.59 | 30.24 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 126.67 | 32.59 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 122.78 | 31.03 |      | 80.0  |         |
| 10471-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 13.37  | 85.38  | 18.46 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 107.40 | 23.62 |      | 80.0  |         |
|           |                                                                   | Z | 59.33  | 100.79 | 22.11 |      | 80.0  |         |
| 10472-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.08   | 72.03  | 13.72 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 9.15   | 81.05  | 16.27 |      | 80.0  |         |
|           |                                                                   | Z | 4.78   | 73.98  | 14.18 |      | 80.0  |         |
| 10473-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 120.56 | 30.23 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 126.64 | 32.58 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 122.75 | 31.02 |      | 80.0  |         |
| 10474-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 13.19  | 85.24  | 18.42 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 107.40 | 23.61 |      | 80.0  |         |
|           |                                                                   | Z | 57.55  | 100.49 | 22.04 |      | 80.0  |         |
| 10475-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.06   | 71.97  | 13.71 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 8.99   | 80.90  | 16.23 |      | 80.0  |         |
|           |                                                                   | Z | 4.73   | 73.90  | 14.15 |      | 80.0  |         |

|           |                                                                     |   |        |        |       |      |      |         |
|-----------|---------------------------------------------------------------------|---|--------|--------|-------|------|------|---------|
| 10477-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)    | X | 11.86  | 84.06  | 18.05 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 100.00 | 107.19 | 23.51 |      | 80.0 |         |
|           |                                                                     | Z | 43.65  | 97.56  | 21.32 |      | 80.0 |         |
| 10478-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)    | X | 4.02   | 71.87  | 13.66 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 8.76   | 80.61  | 16.13 |      | 80.0 |         |
|           |                                                                     | Z | 4.66   | 73.74  | 14.09 |      | 80.0 |         |
| 10479-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 14.17  | 93.60  | 25.28 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 63.86  | 118.32 | 31.85 |      | 80.0 |         |
|           |                                                                     | Z | 30.71  | 105.97 | 28.68 |      | 80.0 |         |
| 10480-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 12.48  | 86.47  | 21.39 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 53.06  | 106.13 | 26.31 |      | 80.0 |         |
|           |                                                                     | Z | 23.73  | 95.20  | 23.69 |      | 80.0 |         |
| 10481-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 9.79   | 82.49  | 19.78 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 26.62  | 95.88  | 23.20 |      | 80.0 |         |
|           |                                                                     | Z | 15.46  | 88.60  | 21.40 |      | 80.0 |         |
| 10482-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 4.76   | 76.35  | 18.33 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.38   | 75.77  | 17.66 |      | 80.0 |         |
|           |                                                                     | Z | 4.74   | 76.54  | 18.16 |      | 80.0 |         |
| 10483-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 6.86   | 78.09  | 18.71 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 7.58   | 79.80  | 18.72 |      | 80.0 |         |
|           |                                                                     | Z | 7.91   | 80.19  | 19.17 |      | 80.0 |         |
| 10484-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 6.29   | 76.73  | 18.22 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 6.51   | 77.64  | 17.97 |      | 80.0 |         |
|           |                                                                     | Z | 6.95   | 78.27  | 18.51 |      | 80.0 |         |
| 10485-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 5.21   | 77.92  | 19.79 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.14   | 78.56  | 19.82 |      | 80.0 |         |
|           |                                                                     | Z | 5.34   | 78.68  | 19.95 |      | 80.0 |         |
| 10486-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.30   | 72.12  | 17.19 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.02   | 71.85  | 16.65 |      | 80.0 |         |
|           |                                                                     | Z | 4.23   | 72.22  | 17.03 |      | 80.0 |         |
| 10487-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.25   | 71.63  | 16.98 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.95   | 71.26  | 16.39 |      | 80.0 |         |
|           |                                                                     | Z | 4.16   | 71.66  | 16.79 |      | 80.0 |         |
| 10488-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 5.17   | 76.41  | 19.90 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.01   | 76.93  | 20.15 |      | 80.0 |         |
|           |                                                                     | Z | 5.17   | 76.91  | 20.10 |      | 80.0 |         |
| 10489-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.47   | 71.61  | 18.14 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.30   | 71.84  | 18.12 |      | 80.0 |         |
|           |                                                                     | Z | 4.42   | 71.84  | 18.19 |      | 80.0 |         |
| 10490-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.53   | 71.33  | 18.05 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.36   | 71.56  | 18.01 |      | 80.0 |         |
|           |                                                                     | Z | 4.48   | 71.55  | 18.09 |      | 80.0 |         |
| 10491-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 5.06   | 74.04  | 19.16 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.88   | 74.37  | 19.37 |      | 80.0 |         |
|           |                                                                     | Z | 5.01   | 74.33  | 19.30 |      | 80.0 |         |
| 10492-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.71   | 70.55  | 18.02 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.54   | 70.71  | 18.05 |      | 80.0 |         |
|           |                                                                     | Z | 4.64   | 70.68  | 18.06 |      | 80.0 |         |

|           |                                                                      |   |      |       |       |      |      |         |
|-----------|----------------------------------------------------------------------|---|------|-------|-------|------|------|---------|
| 10493-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.76 | 70.36 | 17.96 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.58 | 70.52 | 17.98 |      | 80.0 |         |
|           |                                                                      | Z | 4.69 | 70.49 | 18.00 |      | 80.0 |         |
| 10494-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 5.60 | 75.75 | 19.64 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.37 | 76.02 | 19.87 |      | 80.0 |         |
|           |                                                                      | Z | 5.56 | 76.06 | 19.81 |      | 80.0 |         |
| 10495-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.78 | 71.03 | 18.23 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.59 | 71.11 | 18.27 |      | 80.0 |         |
|           |                                                                      | Z | 4.71 | 71.14 | 18.28 |      | 80.0 |         |
| 10496-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.83 | 70.65 | 18.12 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.64 | 70.74 | 18.15 |      | 80.0 |         |
|           |                                                                      | Z | 4.75 | 70.76 | 18.17 |      | 80.0 |         |
| 10497-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 3.37 | 71.45 | 15.57 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.72 | 69.17 | 13.95 |      | 80.0 |         |
|           |                                                                      | Z | 3.09 | 70.50 | 14.83 |      | 80.0 |         |
| 10498-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.40 | 64.81 | 11.76 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.75 | 62.03 | 9.60  |      | 80.0 |         |
|           |                                                                      | Z | 2.07 | 63.39 | 10.68 |      | 80.0 |         |
| 10499-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.32 | 64.18 | 11.33 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.68 | 61.41 | 9.14  |      | 80.0 |         |
|           |                                                                      | Z | 1.99 | 62.76 | 10.23 |      | 80.0 |         |
| 10500-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 5.05 | 76.85 | 19.69 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.98 | 77.59 | 19.85 |      | 80.0 |         |
|           |                                                                      | Z | 5.12 | 77.53 | 19.88 |      | 80.0 |         |
| 10501-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.38 | 71.91 | 17.55 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.19 | 72.01 | 17.27 |      | 80.0 |         |
|           |                                                                      | Z | 4.33 | 72.13 | 17.50 |      | 80.0 |         |
| 10502-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.41 | 71.66 | 17.40 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.21 | 71.71 | 17.09 |      | 80.0 |         |
|           |                                                                      | Z | 4.36 | 71.85 | 17.33 |      | 80.0 |         |
| 10503-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 5.10 | 76.19 | 19.80 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.94 | 76.71 | 20.05 |      | 80.0 |         |
|           |                                                                      | Z | 5.10 | 76.67 | 19.99 |      | 80.0 |         |
| 10504-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.44 | 71.51 | 18.08 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.28 | 71.74 | 18.06 |      | 80.0 |         |
|           |                                                                      | Z | 4.39 | 71.73 | 18.13 |      | 80.0 |         |
| 10505-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.51 | 71.23 | 18.00 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.34 | 71.46 | 17.96 |      | 80.0 |         |
|           |                                                                      | Z | 4.45 | 71.44 | 18.03 |      | 80.0 |         |
| 10506-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 5.55 | 75.59 | 19.57 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.33 | 75.87 | 19.80 |      | 80.0 |         |
|           |                                                                      | Z | 5.51 | 75.90 | 19.73 |      | 80.0 |         |
| 10507-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.76 | 70.96 | 18.19 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.57 | 71.05 | 18.23 |      | 80.0 |         |
|           |                                                                      | Z | 4.69 | 71.07 | 18.24 |      | 80.0 |         |

|           |                                                                     |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10508-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.81 | 70.58 | 18.08 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.62 | 70.68 | 18.11 |      | 80.0  |         |
|           |                                                                     | Z | 4.73 | 70.68 | 18.12 |      | 80.0  |         |
| 10509-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 5.59 | 73.58 | 18.84 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.39 | 73.76 | 19.02 |      | 80.0  |         |
|           |                                                                     | Z | 5.53 | 73.76 | 18.95 |      | 80.0  |         |
| 10510-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.20 | 70.42 | 18.08 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.99 | 70.43 | 18.12 |      | 80.0  |         |
|           |                                                                     | Z | 5.11 | 70.45 | 18.12 |      | 80.0  |         |
| 10511-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.22 | 70.10 | 18.00 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.03 | 70.13 | 18.04 |      | 80.0  |         |
|           |                                                                     | Z | 5.14 | 70.14 | 18.03 |      | 80.0  |         |
| 10512-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 6.02 | 75.44 | 19.39 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.78 | 75.56 | 19.57 |      | 80.0  |         |
|           |                                                                     | Z | 5.97 | 75.65 | 19.51 |      | 80.0  |         |
| 10513-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.12 | 70.82 | 18.23 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.91 | 70.75 | 18.25 |      | 80.0  |         |
|           |                                                                     | Z | 5.03 | 70.83 | 18.26 |      | 80.0  |         |
| 10514-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.09 | 70.31 | 18.08 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.90 | 70.27 | 18.11 |      | 80.0  |         |
|           |                                                                     | Z | 5.01 | 70.33 | 18.11 |      | 80.0  |         |
| 10515-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)           | X | 0.92 | 62.60 | 13.99 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.95 | 63.05 | 14.27 |      | 150.0 |         |
|           |                                                                     | Z | 0.91 | 62.72 | 14.07 |      | 150.0 |         |
| 10516-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)         | X | 0.48 | 67.26 | 14.71 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.54 | 68.48 | 15.75 |      | 150.0 |         |
|           |                                                                     | Z | 0.49 | 67.82 | 15.05 |      | 150.0 |         |
| 10517-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)          | X | 0.75 | 64.05 | 14.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.79 | 64.60 | 14.65 |      | 150.0 |         |
|           |                                                                     | Z | 0.75 | 64.23 | 14.37 |      | 150.0 |         |
| 10518-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)           | X | 4.52 | 66.69 | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.44 | 66.90 | 16.10 |      | 150.0 |         |
|           |                                                                     | Z | 4.47 | 66.75 | 16.07 |      | 150.0 |         |
| 10519-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)          | X | 4.71 | 66.95 | 16.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.60 | 67.11 | 16.21 |      | 150.0 |         |
|           |                                                                     | Z | 4.65 | 66.98 | 16.20 |      | 150.0 |         |
| 10520-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)          | X | 4.56 | 66.90 | 16.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.46 | 67.05 | 16.12 |      | 150.0 |         |
|           |                                                                     | Z | 4.50 | 66.93 | 16.11 |      | 150.0 |         |
| 10521-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)          | X | 4.49 | 66.89 | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.39 | 67.03 | 16.11 |      | 150.0 |         |
|           |                                                                     | Z | 4.44 | 66.91 | 16.09 |      | 150.0 |         |
| 10522-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)          | X | 4.55 | 66.96 | 16.17 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.45 | 67.16 | 16.21 |      | 150.0 |         |
|           |                                                                     | Z | 4.50 | 67.02 | 16.19 |      | 150.0 |         |

|           |                                                            |   |      |       |       |      |       |         |
|-----------|------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10523-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) | X | 4.43 | 66.81 | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.35 | 67.05 | 16.07 |      | 150.0 |         |
|           |                                                            | Z | 4.38 | 66.88 | 16.02 |      | 150.0 |         |
| 10524-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) | X | 4.50 | 66.89 | 16.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.39 | 67.08 | 16.18 |      | 150.0 |         |
|           |                                                            | Z | 4.44 | 66.94 | 16.15 |      | 150.0 |         |
| 10525-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)          | X | 4.47 | 65.92 | 15.72 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.40 | 66.15 | 15.78 |      | 150.0 |         |
|           |                                                            | Z | 4.43 | 65.98 | 15.74 |      | 150.0 |         |
| 10526-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)          | X | 4.65 | 66.29 | 15.87 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.55 | 66.47 | 15.91 |      | 150.0 |         |
|           |                                                            | Z | 4.59 | 66.34 | 15.88 |      | 150.0 |         |
| 10527-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)          | X | 4.57 | 66.25 | 15.81 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.47 | 66.43 | 15.85 |      | 150.0 |         |
|           |                                                            | Z | 4.52 | 66.29 | 15.82 |      | 150.0 |         |
| 10528-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)          | X | 4.58 | 66.27 | 15.84 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.49 | 66.45 | 15.88 |      | 150.0 |         |
|           |                                                            | Z | 4.53 | 66.31 | 15.85 |      | 150.0 |         |
| 10529-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)          | X | 4.58 | 66.27 | 15.84 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.49 | 66.45 | 15.88 |      | 150.0 |         |
|           |                                                            | Z | 4.53 | 66.31 | 15.85 |      | 150.0 |         |
| 10531-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)          | X | 4.58 | 66.38 | 15.85 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.46 | 66.51 | 15.87 |      | 150.0 |         |
|           |                                                            | Z | 4.52 | 66.40 | 15.86 |      | 150.0 |         |
| 10532-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)          | X | 4.44 | 66.22 | 15.78 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.33 | 66.36 | 15.80 |      | 150.0 |         |
|           |                                                            | Z | 4.38 | 66.25 | 15.78 |      | 150.0 |         |
| 10533-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)          | X | 4.59 | 66.30 | 15.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.49 | 66.51 | 15.88 |      | 150.0 |         |
|           |                                                            | Z | 4.54 | 66.36 | 15.84 |      | 150.0 |         |
| 10534-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)          | X | 5.13 | 66.43 | 15.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.04 | 66.54 | 15.97 |      | 150.0 |         |
|           |                                                            | Z | 5.08 | 66.45 | 15.95 |      | 150.0 |         |
| 10535-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)          | X | 5.20 | 66.61 | 16.01 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.10 | 66.71 | 16.05 |      | 150.0 |         |
|           |                                                            | Z | 5.15 | 66.64 | 16.04 |      | 150.0 |         |
| 10536-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)          | X | 5.06 | 66.54 | 15.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.98 | 66.67 | 16.01 |      | 150.0 |         |
|           |                                                            | Z | 5.01 | 66.57 | 15.98 |      | 150.0 |         |
| 10537-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)          | X | 5.12 | 66.52 | 15.95 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.03 | 66.63 | 15.99 |      | 150.0 |         |
|           |                                                            | Z | 5.07 | 66.54 | 15.97 |      | 150.0 |         |
| 10538-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)          | X | 5.22 | 66.56 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.11 | 66.64 | 16.04 |      | 150.0 |         |
|           |                                                            | Z | 5.16 | 66.56 | 16.02 |      | 150.0 |         |
| 10540-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)          | X | 5.14 | 66.57 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.04 | 66.62 | 16.05 |      | 150.0 |         |
|           |                                                            | Z | 5.10 | 66.60 | 16.05 |      | 150.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10541-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)  | X | 5.11 | 66.43 | 15.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.02 | 66.51 | 15.98 |      | 150.0 |         |
|           |                                                    | Z | 5.07 | 66.45 | 15.97 |      | 150.0 |         |
| 10542-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)  | X | 5.27 | 66.51 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.18 | 66.61 | 16.04 |      | 150.0 |         |
|           |                                                    | Z | 5.22 | 66.53 | 16.03 |      | 150.0 |         |
| 10543-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)  | X | 5.36 | 66.57 | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.24 | 66.63 | 16.08 |      | 150.0 |         |
|           |                                                    | Z | 5.30 | 66.57 | 16.07 |      | 150.0 |         |
| 10544-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)  | X | 5.43 | 66.55 | 15.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.37 | 66.65 | 15.97 |      | 150.0 |         |
|           |                                                    | Z | 5.40 | 66.56 | 15.95 |      | 150.0 |         |
| 10545-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)  | X | 5.64 | 67.00 | 16.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.55 | 67.08 | 16.15 |      | 150.0 |         |
|           |                                                    | Z | 5.60 | 67.02 | 16.13 |      | 150.0 |         |
| 10546-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)  | X | 5.50 | 66.78 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.41 | 66.80 | 16.02 |      | 150.0 |         |
|           |                                                    | Z | 5.46 | 66.76 | 16.01 |      | 150.0 |         |
| 10547-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)  | X | 5.58 | 66.83 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.49 | 66.87 | 16.05 |      | 150.0 |         |
|           |                                                    | Z | 5.53 | 66.81 | 16.03 |      | 150.0 |         |
| 10548-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)  | X | 5.89 | 67.94 | 16.56 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.69 | 67.68 | 16.43 |      | 150.0 |         |
|           |                                                    | Z | 5.80 | 67.83 | 16.51 |      | 150.0 |         |
| 10550-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)  | X | 5.53 | 66.79 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.46 | 66.91 | 16.08 |      | 150.0 |         |
|           |                                                    | Z | 5.49 | 66.81 | 16.05 |      | 150.0 |         |
| 10551-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)  | X | 5.53 | 66.82 | 16.01 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.44 | 66.85 | 16.02 |      | 150.0 |         |
|           |                                                    | Z | 5.49 | 66.83 | 16.02 |      | 150.0 |         |
| 10552-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)  | X | 5.44 | 66.61 | 15.91 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.38 | 66.72 | 15.95 |      | 150.0 |         |
|           |                                                    | Z | 5.40 | 66.62 | 15.92 |      | 150.0 |         |
| 10553-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)  | X | 5.53 | 66.66 | 15.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.45 | 66.72 | 15.99 |      | 150.0 |         |
|           |                                                    | Z | 5.48 | 66.65 | 15.97 |      | 150.0 |         |
| 10554-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle) | X | 5.84 | 66.93 | 16.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.78 | 67.01 | 16.06 |      | 150.0 |         |
|           |                                                    | Z | 5.81 | 66.94 | 16.05 |      | 150.0 |         |
| 10555-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle) | X | 5.98 | 67.25 | 16.17 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.90 | 67.29 | 16.19 |      | 150.0 |         |
|           |                                                    | Z | 5.94 | 67.25 | 16.18 |      | 150.0 |         |
| 10556-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle) | X | 6.00 | 67.29 | 16.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.93 | 67.35 | 16.21 |      | 150.0 |         |
|           |                                                    | Z | 5.96 | 67.30 | 16.20 |      | 150.0 |         |
| 10557-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle) | X | 5.96 | 67.20 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.88 | 67.23 | 16.17 |      | 150.0 |         |
|           |                                                    | Z | 5.92 | 67.18 | 16.16 |      | 150.0 |         |

|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10558-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)              | X | 6.01 | 67.37 | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.92 | 67.38 | 16.26 |      | 150.0 |         |
|           |                                                                 | Z | 5.97 | 67.35 | 16.26 |      | 150.0 |         |
| 10560-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)              | X | 6.01 | 67.21 | 16.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.92 | 67.24 | 16.23 |      | 150.0 |         |
|           |                                                                 | Z | 5.96 | 67.19 | 16.22 |      | 150.0 |         |
| 10561-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)              | X | 5.93 | 67.18 | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.85 | 67.23 | 16.26 |      | 150.0 |         |
|           |                                                                 | Z | 5.89 | 67.18 | 16.25 |      | 150.0 |         |
| 10562-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)              | X | 6.07 | 67.61 | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.94 | 67.50 | 16.40 |      | 150.0 |         |
|           |                                                                 | Z | 6.01 | 67.54 | 16.43 |      | 150.0 |         |
| 10563-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)              | X | 6.39 | 68.16 | 16.69 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.02 | 67.41 | 16.31 |      | 150.0 |         |
|           |                                                                 | Z | 6.19 | 67.71 | 16.48 |      | 150.0 |         |
| 10564-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | X | 4.86 | 66.83 | 16.26 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.78 | 67.03 | 16.31 |      | 150.0 |         |
|           |                                                                 | Z | 4.81 | 66.87 | 16.27 |      | 150.0 |         |
| 10565-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | X | 5.09 | 67.28 | 16.58 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.98 | 67.43 | 16.60 |      | 150.0 |         |
|           |                                                                 | Z | 5.03 | 67.31 | 16.59 |      | 150.0 |         |
| 10566-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | X | 4.93 | 67.13 | 16.40 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.82 | 67.27 | 16.42 |      | 150.0 |         |
|           |                                                                 | Z | 4.87 | 67.15 | 16.40 |      | 150.0 |         |
| 10567-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | X | 4.95 | 67.50 | 16.74 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.84 | 67.61 | 16.74 |      | 150.0 |         |
|           |                                                                 | Z | 4.90 | 67.52 | 16.74 |      | 150.0 |         |
| 10568-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | X | 4.85 | 66.93 | 16.19 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.74 | 67.12 | 16.24 |      | 150.0 |         |
|           |                                                                 | Z | 4.79 | 66.97 | 16.19 |      | 150.0 |         |
| 10569-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | X | 4.91 | 67.57 | 16.79 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.82 | 67.76 | 16.84 |      | 150.0 |         |
|           |                                                                 | Z | 4.86 | 67.64 | 16.82 |      | 150.0 |         |
| 10570-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | X | 4.94 | 67.43 | 16.73 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.84 | 67.60 | 16.77 |      | 150.0 |         |
|           |                                                                 | Z | 4.89 | 67.48 | 16.75 |      | 150.0 |         |
| 10571-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | X | 1.25 | 65.19 | 15.53 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.27 | 65.45 | 15.71 |      | 130.0 |         |
|           |                                                                 | Z | 1.24 | 65.29 | 15.60 |      | 130.0 |         |
| 10572-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | X | 1.27 | 65.79 | 15.87 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.28 | 66.03 | 16.05 |      | 130.0 |         |
|           |                                                                 | Z | 1.26 | 65.90 | 15.96 |      | 130.0 |         |
| 10573-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | X | 2.61 | 85.52 | 21.81 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 2.97 | 88.51 | 23.34 |      | 130.0 |         |
|           |                                                                 | Z | 3.01 | 88.05 | 22.71 |      | 130.0 |         |
| 10574-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | X | 1.44 | 71.64 | 18.59 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.44 | 71.68 | 18.74 |      | 130.0 |         |
|           |                                                                 | Z | 1.45 | 72.00 | 18.80 |      | 130.0 |         |

|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10575-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | X | 4.68 | 66.71 | 16.37 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.59 | 66.91 | 16.41 |      | 130.0 |         |
|           |                                                                 | Z | 4.63 | 66.76 | 16.38 |      | 130.0 |         |
| 10576-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | X | 4.70 | 66.86 | 16.43 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.61 | 67.07 | 16.47 |      | 130.0 |         |
|           |                                                                 | Z | 4.65 | 66.92 | 16.44 |      | 130.0 |         |
| 10577-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | X | 4.91 | 67.16 | 16.60 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.79 | 67.31 | 16.62 |      | 130.0 |         |
|           |                                                                 | Z | 4.85 | 67.20 | 16.60 |      | 130.0 |         |
| 10578-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | X | 4.81 | 67.32 | 16.69 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.69 | 67.44 | 16.70 |      | 130.0 |         |
|           |                                                                 | Z | 4.75 | 67.35 | 16.70 |      | 130.0 |         |
| 10579-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | X | 4.58 | 66.65 | 16.03 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.47 | 66.80 | 16.06 |      | 130.0 |         |
|           |                                                                 | Z | 4.52 | 66.66 | 16.02 |      | 130.0 |         |
| 10580-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | X | 4.63 | 66.68 | 16.05 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.52 | 66.87 | 16.11 |      | 130.0 |         |
|           |                                                                 | Z | 4.57 | 66.71 | 16.05 |      | 130.0 |         |
| 10581-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | X | 4.71 | 67.36 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.60 | 67.52 | 16.66 |      | 130.0 |         |
|           |                                                                 | Z | 4.65 | 67.41 | 16.65 |      | 130.0 |         |
| 10582-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | X | 4.53 | 66.42 | 15.83 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.41 | 66.60 | 15.88 |      | 130.0 |         |
|           |                                                                 | Z | 4.46 | 66.43 | 15.82 |      | 130.0 |         |
| 10583-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | X | 4.68 | 66.71 | 16.37 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.59 | 66.91 | 16.41 |      | 130.0 |         |
|           |                                                                 | Z | 4.63 | 66.76 | 16.38 |      | 130.0 |         |
| 10584-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | X | 4.70 | 66.86 | 16.43 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.61 | 67.07 | 16.47 |      | 130.0 |         |
|           |                                                                 | Z | 4.65 | 66.92 | 16.44 |      | 130.0 |         |
| 10585-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | X | 4.91 | 67.16 | 16.60 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.79 | 67.31 | 16.62 |      | 130.0 |         |
|           |                                                                 | Z | 4.85 | 67.20 | 16.60 |      | 130.0 |         |
| 10586-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | X | 4.81 | 67.32 | 16.69 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.69 | 67.44 | 16.70 |      | 130.0 |         |
|           |                                                                 | Z | 4.75 | 67.35 | 16.70 |      | 130.0 |         |
| 10587-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | X | 4.58 | 66.65 | 16.03 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.47 | 66.80 | 16.06 |      | 130.0 |         |
|           |                                                                 | Z | 4.52 | 66.66 | 16.02 |      | 130.0 |         |
| 10588-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)      | X | 4.63 | 66.68 | 16.05 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.52 | 66.87 | 16.11 |      | 130.0 |         |
|           |                                                                 | Z | 4.57 | 66.71 | 16.05 |      | 130.0 |         |
| 10589-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)      | X | 4.71 | 67.36 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.60 | 67.52 | 16.66 |      | 130.0 |         |
|           |                                                                 | Z | 4.65 | 67.41 | 16.65 |      | 130.0 |         |
| 10590-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)      | X | 4.53 | 66.42 | 15.83 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.41 | 66.60 | 15.88 |      | 130.0 |         |
|           |                                                                 | Z | 4.46 | 66.43 | 15.82 |      | 130.0 |         |

|           |                                                       |   |      |       |       |      |       |         |
|-----------|-------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10591-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle) | X | 4.83 | 66.77 | 16.47 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.74 | 66.96 | 16.50 |      | 130.0 |         |
|           |                                                       | Z | 4.78 | 66.82 | 16.48 |      | 130.0 |         |
| 10592-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle) | X | 4.98 | 67.10 | 16.60 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.87 | 67.27 | 16.63 |      | 130.0 |         |
|           |                                                       | Z | 4.93 | 67.14 | 16.61 |      | 130.0 |         |
| 10593-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle) | X | 4.91 | 67.02 | 16.48 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.80 | 67.17 | 16.51 |      | 130.0 |         |
|           |                                                       | Z | 4.85 | 67.05 | 16.49 |      | 130.0 |         |
| 10594-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle) | X | 4.96 | 67.18 | 16.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.85 | 67.33 | 16.66 |      | 130.0 |         |
|           |                                                       | Z | 4.90 | 67.22 | 16.64 |      | 130.0 |         |
| 10595-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle) | X | 4.93 | 67.14 | 16.53 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.82 | 67.31 | 16.57 |      | 130.0 |         |
|           |                                                       | Z | 4.87 | 67.18 | 16.54 |      | 130.0 |         |
| 10596-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle) | X | 4.87 | 67.14 | 16.54 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.76 | 67.30 | 16.57 |      | 130.0 |         |
|           |                                                       | Z | 4.81 | 67.18 | 16.54 |      | 130.0 |         |
| 10597-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle) | X | 4.82 | 67.05 | 16.42 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.71 | 67.19 | 16.44 |      | 130.0 |         |
|           |                                                       | Z | 4.76 | 67.07 | 16.42 |      | 130.0 |         |
| 10598-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle) | X | 4.80 | 67.28 | 16.68 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.69 | 67.37 | 16.67 |      | 130.0 |         |
|           |                                                       | Z | 4.74 | 67.29 | 16.67 |      | 130.0 |         |
| 10599-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle) | X | 5.50 | 67.33 | 16.69 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.40 | 67.43 | 16.72 |      | 130.0 |         |
|           |                                                       | Z | 5.46 | 67.38 | 16.72 |      | 130.0 |         |
| 10600-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle) | X | 5.67 | 67.87 | 16.93 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.53 | 67.86 | 16.92 |      | 130.0 |         |
|           |                                                       | Z | 5.61 | 67.87 | 16.94 |      | 130.0 |         |
| 10601-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle) | X | 5.54 | 67.56 | 16.79 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.42 | 67.61 | 16.80 |      | 130.0 |         |
|           |                                                       | Z | 5.48 | 67.56 | 16.80 |      | 130.0 |         |
| 10602-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle) | X | 5.63 | 67.58 | 16.72 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.55 | 67.79 | 16.82 |      | 130.0 |         |
|           |                                                       | Z | 5.59 | 67.64 | 16.76 |      | 130.0 |         |
| 10603-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle) | X | 5.71 | 67.86 | 16.99 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.61 | 68.00 | 17.05 |      | 130.0 |         |
|           |                                                       | Z | 5.65 | 67.89 | 17.01 |      | 130.0 |         |
| 10604-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle) | X | 5.50 | 67.29 | 16.70 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.49 | 67.68 | 16.88 |      | 130.0 |         |
|           |                                                       | Z | 5.47 | 67.39 | 16.75 |      | 130.0 |         |
| 10605-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle) | X | 5.63 | 67.69 | 16.90 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.53 | 67.80 | 16.94 |      | 130.0 |         |
|           |                                                       | Z | 5.59 | 67.74 | 16.92 |      | 130.0 |         |
| 10606-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle) | X | 5.39 | 67.07 | 16.45 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.27 | 67.10 | 16.45 |      | 130.0 |         |
|           |                                                       | Z | 5.31 | 66.99 | 16.41 |      | 130.0 |         |

|           |                                                   |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10607-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle) | X | 4.65 | 66.04 | 16.07 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.58 | 66.26 | 16.12 |      | 130.0 |         |
|           |                                                   | Z | 4.61 | 66.10 | 16.08 |      | 130.0 |         |
| 10608-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle) | X | 4.85 | 66.45 | 16.23 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.74 | 66.63 | 16.28 |      | 130.0 |         |
|           |                                                   | Z | 4.79 | 66.50 | 16.25 |      | 130.0 |         |
| 10609-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle) | X | 4.74 | 66.30 | 16.07 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.63 | 66.48 | 16.11 |      | 130.0 |         |
|           |                                                   | Z | 4.68 | 66.35 | 16.08 |      | 130.0 |         |
| 10610-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle) | X | 4.79 | 66.46 | 16.23 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.68 | 66.63 | 16.27 |      | 130.0 |         |
|           |                                                   | Z | 4.73 | 66.50 | 16.25 |      | 130.0 |         |
| 10611-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle) | X | 4.70 | 66.28 | 16.09 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.60 | 66.45 | 16.12 |      | 130.0 |         |
|           |                                                   | Z | 4.65 | 66.31 | 16.10 |      | 130.0 |         |
| 10612-AAB | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle) | X | 4.72 | 66.43 | 16.13 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.60 | 66.61 | 16.18 |      | 130.0 |         |
|           |                                                   | Z | 4.66 | 66.47 | 16.14 |      | 130.0 |         |
| 10613-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle) | X | 4.72 | 66.33 | 16.02 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.60 | 66.47 | 16.05 |      | 130.0 |         |
|           |                                                   | Z | 4.66 | 66.35 | 16.02 |      | 130.0 |         |
| 10614-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle) | X | 4.66 | 66.50 | 16.24 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.55 | 66.62 | 16.25 |      | 130.0 |         |
|           |                                                   | Z | 4.60 | 66.53 | 16.25 |      | 130.0 |         |
| 10615-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle) | X | 4.71 | 66.12 | 15.87 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.60 | 66.33 | 15.93 |      | 130.0 |         |
|           |                                                   | Z | 4.65 | 66.16 | 15.88 |      | 130.0 |         |
| 10616-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle) | X | 5.31 | 66.56 | 16.28 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.21 | 66.65 | 16.31 |      | 130.0 |         |
|           |                                                   | Z | 5.26 | 66.57 | 16.29 |      | 130.0 |         |
| 10617-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle) | X | 5.38 | 66.74 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.29 | 66.86 | 16.39 |      | 130.0 |         |
|           |                                                   | Z | 5.34 | 66.79 | 16.37 |      | 130.0 |         |
| 10618-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle) | X | 5.26 | 66.74 | 16.36 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.18 | 66.87 | 16.40 |      | 130.0 |         |
|           |                                                   | Z | 5.22 | 66.77 | 16.38 |      | 130.0 |         |
| 10619-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle) | X | 5.29 | 66.59 | 16.22 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.19 | 66.67 | 16.25 |      | 130.0 |         |
|           |                                                   | Z | 5.23 | 66.58 | 16.22 |      | 130.0 |         |
| 10620-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle) | X | 5.38 | 66.62 | 16.29 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.27 | 66.70 | 16.31 |      | 130.0 |         |
|           |                                                   | Z | 5.32 | 66.62 | 16.29 |      | 130.0 |         |
| 10621-AAB | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle) | X | 5.37 | 66.71 | 16.45 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.27 | 66.80 | 16.47 |      | 130.0 |         |
|           |                                                   | Z | 5.32 | 66.74 | 16.47 |      | 130.0 |         |
| 10622-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle) | X | 5.39 | 66.89 | 16.53 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.29 | 66.97 | 16.55 |      | 130.0 |         |
|           |                                                   | Z | 5.34 | 66.92 | 16.55 |      | 130.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10623-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)  | X | 5.26 | 66.41 | 16.17 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.16 | 66.51 | 16.20 |      | 130.0 |         |
|           |                                                    | Z | 5.21 | 66.44 | 16.19 |      | 130.0 |         |
| 10624-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)  | X | 5.45 | 66.63 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.35 | 66.71 | 16.36 |      | 130.0 |         |
|           |                                                    | Z | 5.40 | 66.64 | 16.35 |      | 130.0 |         |
| 10625-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)  | X | 5.87 | 67.75 | 16.95 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.59 | 67.32 | 16.72 |      | 130.0 |         |
|           |                                                    | Z | 5.77 | 67.62 | 16.89 |      | 130.0 |         |
| 10626-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)  | X | 5.59 | 66.61 | 16.24 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.53 | 66.71 | 16.27 |      | 130.0 |         |
|           |                                                    | Z | 5.56 | 66.63 | 16.25 |      | 130.0 |         |
| 10627-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)  | X | 5.86 | 67.23 | 16.51 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.77 | 67.31 | 16.54 |      | 130.0 |         |
|           |                                                    | Z | 5.82 | 67.26 | 16.53 |      | 130.0 |         |
| 10628-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)  | X | 5.64 | 66.75 | 16.20 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.54 | 66.76 | 16.20 |      | 130.0 |         |
|           |                                                    | Z | 5.59 | 66.73 | 16.20 |      | 130.0 |         |
| 10629-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)  | X | 5.74 | 66.86 | 16.25 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.63 | 66.85 | 16.25 |      | 130.0 |         |
|           |                                                    | Z | 5.67 | 66.78 | 16.22 |      | 130.0 |         |
| 10630-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)  | X | 6.27 | 68.62 | 17.13 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.98 | 68.12 | 16.89 |      | 130.0 |         |
|           |                                                    | Z | 6.16 | 68.44 | 17.05 |      | 130.0 |         |
| 10631-AAB | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)  | X | 6.08 | 68.18 | 17.10 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.89 | 67.92 | 16.96 |      | 130.0 |         |
|           |                                                    | Z | 6.00 | 68.07 | 17.05 |      | 130.0 |         |
| 10632-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)  | X | 5.81 | 67.25 | 16.65 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.73 | 67.36 | 16.70 |      | 130.0 |         |
|           |                                                    | Z | 5.78 | 67.29 | 16.68 |      | 130.0 |         |
| 10633-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)  | X | 5.70 | 66.88 | 16.30 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.61 | 66.94 | 16.32 |      | 130.0 |         |
|           |                                                    | Z | 5.64 | 66.86 | 16.29 |      | 130.0 |         |
| 10634-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)  | X | 5.68 | 66.90 | 16.36 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.59 | 66.94 | 16.37 |      | 130.0 |         |
|           |                                                    | Z | 5.63 | 66.89 | 16.36 |      | 130.0 |         |
| 10635-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)  | X | 5.57 | 66.28 | 15.80 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.47 | 66.33 | 15.83 |      | 130.0 |         |
|           |                                                    | Z | 5.52 | 66.25 | 15.79 |      | 130.0 |         |
| 10636-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle) | X | 6.01 | 67.00 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.95 | 67.08 | 16.37 |      | 130.0 |         |
|           |                                                    | Z | 5.98 | 67.00 | 16.35 |      | 130.0 |         |
| 10637-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle) | X | 6.18 | 67.41 | 16.53 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.10 | 67.45 | 16.54 |      | 130.0 |         |
|           |                                                    | Z | 6.14 | 67.41 | 16.54 |      | 130.0 |         |
| 10638-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle) | X | 6.18 | 67.38 | 16.49 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.10 | 67.42 | 16.51 |      | 130.0 |         |
|           |                                                    | Z | 6.14 | 67.38 | 16.50 |      | 130.0 |         |

|           |                                                        |   |        |        |       |       |       |         |
|-----------|--------------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10639-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)     | X | 6.15   | 67.32  | 16.51 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.07   | 67.34  | 16.50 |       | 130.0 |         |
|           |                                                        | Z | 6.11   | 67.30  | 16.50 |       | 130.0 |         |
| 10640-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)     | X | 6.17   | 67.36  | 16.47 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.07   | 67.36  | 16.47 |       | 130.0 |         |
|           |                                                        | Z | 6.11   | 67.32  | 16.45 |       | 130.0 |         |
| 10641-AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)     | X | 6.20   | 67.22  | 16.42 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.14   | 67.34  | 16.48 |       | 130.0 |         |
|           |                                                        | Z | 6.17   | 67.26  | 16.44 |       | 130.0 |         |
| 10642-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)     | X | 6.24   | 67.47  | 16.71 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.15   | 67.50  | 16.71 |       | 130.0 |         |
|           |                                                        | Z | 6.19   | 67.46  | 16.71 |       | 130.0 |         |
| 10643-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)     | X | 6.08   | 67.18  | 16.46 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.01   | 67.25  | 16.50 |       | 130.0 |         |
|           |                                                        | Z | 6.04   | 67.18  | 16.47 |       | 130.0 |         |
| 10644-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)     | X | 6.27   | 67.76  | 16.77 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.11   | 67.57  | 16.67 |       | 130.0 |         |
|           |                                                        | Z | 6.19   | 67.64  | 16.72 |       | 130.0 |         |
| 10645-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)     | X | 6.75   | 68.75  | 17.22 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.24   | 67.62  | 16.66 |       | 130.0 |         |
|           |                                                        | Z | 6.47   | 68.11  | 16.92 |       | 130.0 |         |
| 10646-AAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)  | X | 46.96  | 124.69 | 40.77 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 100.00 | 148.37 | 48.20 |       | 60.0  |         |
|           |                                                        | Z | 67.01  | 134.85 | 43.85 |       | 60.0  |         |
| 10647-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7) | X | 46.42  | 125.36 | 41.11 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 100.00 | 149.72 | 48.78 |       | 60.0  |         |
|           |                                                        | Z | 63.71  | 134.73 | 44.00 |       | 60.0  |         |
| 10648-AAA | CDMA2000 (1x Advanced)                                 | X | 0.63   | 62.54  | 9.79  | 0.00  | 150.0 | ± 9.6 % |
|           |                                                        | Y | 0.58   | 62.24  | 9.19  |       | 150.0 |         |
|           |                                                        | Z | 0.59   | 62.30  | 9.35  |       | 150.0 |         |
| 10652-AAB | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)         | X | 4.19   | 68.34  | 17.06 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.08   | 68.62  | 17.03 |       | 80.0  |         |
|           |                                                        | Z | 4.14   | 68.48  | 17.06 |       | 80.0  |         |
| 10653-AAB | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)        | X | 4.68   | 67.61  | 17.18 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.56   | 67.77  | 17.19 |       | 80.0  |         |
|           |                                                        | Z | 4.62   | 67.66  | 17.19 |       | 80.0  |         |
| 10654-AAB | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)        | X | 4.63   | 67.27  | 17.19 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.54   | 67.39  | 17.21 |       | 80.0  |         |
|           |                                                        | Z | 4.58   | 67.31  | 17.20 |       | 80.0  |         |
| 10655-AAB | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)        | X | 4.69   | 67.27  | 17.23 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.60   | 67.35  | 17.25 |       | 80.0  |         |
|           |                                                        | Z | 4.64   | 67.28  | 17.23 |       | 80.0  |         |
| 10658-AAA | Pulse Waveform (200Hz, 10%)                            | X | 19.17  | 92.59  | 24.24 | 10.00 | 50.0  | ± 9.6 % |
|           |                                                        | Y | 41.94  | 104.68 | 27.26 |       | 50.0  |         |
|           |                                                        | Z | 24.50  | 96.17  | 24.98 |       | 50.0  |         |
| 10659-AAA | Pulse Waveform (200Hz, 20%)                            | X | 100.00 | 114.36 | 28.32 | 6.99  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 100.00 | 114.20 | 27.89 |       | 60.0  |         |
|           |                                                        | Z | 100.00 | 113.56 | 27.75 |       | 60.0  |         |

|           |                             |   |        |        |       |      |       |         |
|-----------|-----------------------------|---|--------|--------|-------|------|-------|---------|
| 10660-AAA | Pulse Waveform (200Hz, 40%) | X | 100.00 | 111.43 | 25.50 | 3.98 | 80.0  | ± 9.6 % |
|           |                             | Y | 100.00 | 112.46 | 25.73 |      | 80.0  |         |
|           |                             | Z | 100.00 | 110.79 | 25.07 |      | 80.0  |         |
| 10661-AAA | Pulse Waveform (200Hz, 60%) | X | 100.00 | 110.47 | 23.74 | 2.22 | 100.0 | ± 9.6 % |
|           |                             | Y | 100.00 | 113.22 | 24.78 |      | 100.0 |         |
|           |                             | Z | 100.00 | 109.90 | 23.38 |      | 100.0 |         |
| 10662-AAA | Pulse Waveform (200Hz, 80%) | X | 100.00 | 107.83 | 20.92 | 0.97 | 120.0 | ± 9.6 % |
|           |                             | Y | 100.00 | 115.39 | 23.98 |      | 120.0 |         |
|           |                             | Z | 100.00 | 107.00 | 20.48 |      | 120.0 |         |

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

Client **PC Test**

Certificate No: **EX3-7488\_Jan19**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:7488**

Calibration procedure(s) **QA CAL-01 v9, QA CAL-14 v5, QA CAL-23 v5, QA CAL-25 v7**  
**Calibration procedure for dielectric E-field probes**

11/06/2019

Calibration date: **January 24, 2019**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature  $(22 \pm 3)^\circ\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-18 (No. 217-02672/02673)   | Apr-19                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-18 (No. 217-02672)         | Apr-19                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-18 (No. 217-02673)         | Apr-19                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 04-Apr-18 (No. 217-02682)         | Apr-19                 |
| DAE4                       | SN: 660          | 19-Dec-18 (No. DAE4-660_Dec18)    | Dec-19                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-18 (No. ES3-3013_Dec18)    | Dec-19                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-18) | In house check: Jun-20 |
| Network Analyzer E8358A    | SN: US41080477   | 31-Mar-14 (in house check Oct-18) | In house check: Oct-19 |

|                                                                                                                 |                        |                                   |                          |
|-----------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------|--------------------------|
| Calibrated by:                                                                                                  | Name<br>Jeton Kastrati | Function<br>Laboratory Technician | Signature<br>            |
| Approved by:                                                                                                    | Name<br>Katja Pokovic  | Function<br>Technical Manager     | Signature<br>            |
|                                                                                                                 |                        |                                   | Issued: January 29, 2019 |
| This calibration certificate shall not be reproduced except in full without written approval of the laboratory. |                        |                                   |                          |



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

### Glossary:

|                          |                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                      | tissue simulating liquid                                                                                                                                |
| NORM <sub>x,y,z</sub>    | sensitivity in free space                                                                                                                               |
| ConvF                    | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                              |
| DCP                      | diode compression point                                                                                                                                 |
| CF                       | crest factor (1/duty_cycle) of the RF signal                                                                                                            |
| A, B, C, D               | modulation dependent linearization parameters                                                                                                           |
| Polarization $\phi$      | $\phi$ rotation around probe axis                                                                                                                       |
| Polarization $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor X to the robot coordinate system                                                                  |

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the  $E^2$ -field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>; A, B, C, D** are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:7488

## Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2) |
|-----------------------------------------------------------|----------|----------|----------|-----------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.45     | 0.49     | 0.50     | ± 10.1 %  |
| DCP (mV) <sup>B</sup>                                     | 98.9     | 102.3    | 99.6     |           |

## Calibration Results for Modulation Response

| UID           | Communication System Name   |   | A<br>dB | B<br>dB/μV | C     | D<br>dB | VR<br>mV | Max<br>dev. | Max<br>Unc <sup>E</sup><br>(k=2) |
|---------------|-----------------------------|---|---------|------------|-------|---------|----------|-------------|----------------------------------|
| 0             | CW                          | X | 0.00    | 0.00       | 1.00  | 0.00    | 149.5    | ± 2.7 %     | ± 4.7 %                          |
|               |                             | Y | 0.00    | 0.00       | 1.00  |         | 140.8    |             |                                  |
|               |                             | Z | 0.00    | 0.00       | 1.00  |         | 138.2    |             |                                  |
| 10352-<br>AAA | Pulse Waveform (200Hz, 10%) | X | 10.21   | 80.63      | 15.98 | 10.00   | 60.0     | ± 3.1 %     | ± 9.6 %                          |
|               |                             | Y | 5.90    | 74.67      | 14.18 |         | 60.0     |             |                                  |
|               |                             | Z | 15.00   | 89.30      | 20.53 |         | 60.0     |             |                                  |
| 10353-<br>AAA | Pulse Waveform (200Hz, 20%) | X | 15.00   | 85.88      | 16.55 | 6.99    | 80.0     | ± 2.1 %     | ± 9.6 %                          |
|               |                             | Y | 15.00   | 84.35      | 15.79 |         | 80.0     |             |                                  |
|               |                             | Z | 15.00   | 92.51      | 21.01 |         | 80.0     |             |                                  |
| 10354-<br>AAA | Pulse Waveform (200Hz, 40%) | X | 15.00   | 90.08      | 17.19 | 3.98    | 95.0     | ± 1.3 %     | ± 9.6 %                          |
|               |                             | Y | 15.00   | 83.37      | 13.66 |         | 95.0     |             |                                  |
|               |                             | Z | 15.00   | 104.27     | 25.33 |         | 95.0     |             |                                  |
| 10355-<br>AAA | Pulse Waveform (200Hz, 60%) | X | 15.00   | 97.36      | 19.30 | 2.22    | 120.0    | ± 1.2 %     | ± 9.6 %                          |
|               |                             | Y | 0.26    | 60.00      | 4.43  |         | 120.0    |             |                                  |
|               |                             | Z | 15.00   | 117.38     | 29.81 |         | 120.0    |             |                                  |
| 10387-<br>AAA | QPSK Waveform, 1 MHz        | X | 0.51    | 60.28      | 7.04  | 0.00    | 150.0    | ± 3.3 %     | ± 9.6 %                          |
|               |                             | Y | 0.47    | 60.00      | 5.79  |         | 150.0    |             |                                  |
|               |                             | Z | 0.61    | 61.09      | 8.42  |         | 150.0    |             |                                  |
| 10388-<br>AAA | QPSK Waveform, 10 MHz       | X | 2.29    | 69.54      | 16.64 | 0.00    | 150.0    | ± 1.1 %     | ± 9.6 %                          |
|               |                             | Y | 1.90    | 66.64      | 14.97 |         | 150.0    |             |                                  |
|               |                             | Z | 2.23    | 68.54      | 16.09 |         | 150.0    |             |                                  |
| 10396-<br>AAA | 64-QAM Waveform, 100 kHz    | X | 2.94    | 72.04      | 19.55 | 3.01    | 150.0    | ± 0.7 %     | ± 9.6 %                          |
|               |                             | Y | 2.49    | 68.13      | 17.71 |         | 150.0    |             |                                  |
|               |                             | Z | 3.35    | 73.33      | 20.07 |         | 150.0    |             |                                  |
| 10399-<br>AAA | 64-QAM Waveform, 40 MHz     | X | 3.54    | 67.80      | 16.20 | 0.00    | 150.0    | ± 2.2 %     | ± 9.6 %                          |
|               |                             | Y | 3.42    | 67.12      | 15.74 |         | 150.0    |             |                                  |
|               |                             | Z | 3.49    | 67.32      | 15.92 |         | 150.0    |             |                                  |
| 10414-<br>AAA | WLAN CCDF, 64-QAM, 40MHz    | X | 4.65    | 65.56      | 15.55 | 0.00    | 150.0    | ± 4.0 %     | ± 9.6 %                          |
|               |                             | Y | 4.74    | 65.87      | 15.68 |         | 150.0    |             |                                  |
|               |                             | Z | 4.80    | 65.75      | 15.62 |         | 150.0    |             |                                  |

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7488

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$V^{-1}$ | T1<br>$ms.V^{-2}$ | T2<br>$ms.V^{-1}$ | T3<br>ms | T4<br>$V^{-2}$ | T5<br>$V^{-1}$ | T6   |
|---|----------|----------|----------------------|-------------------|-------------------|----------|----------------|----------------|------|
| X | 35.2     | 259.64   | 34.83                | 7.55              | 0.00              | 5.04     | 1.52           | 0.11           | 1.01 |
| Y | 34.3     | 261.80   | 36.90                | 6.01              | 0.21              | 5.06     | 0.00           | 0.41           | 1.01 |
| Z | 40.7     | 301.53   | 35.10                | 11.37             | 0.14              | 5.09     | 1.94           | 0.15           | 1.01 |

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | -129.2     |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7488

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 10.77   | 10.77   | 10.77   | 0.56               | 0.80                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 10.37   | 10.37   | 10.37   | 0.40               | 0.93                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 8.87    | 8.87    | 8.87    | 0.33               | 0.84                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 8.53    | 8.53    | 8.53    | 0.27               | 0.84                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 8.25    | 8.25    | 8.25    | 0.33               | 0.85                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 7.86    | 7.86    | 7.86    | 0.34               | 0.90                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 7.69    | 7.69    | 7.69    | 0.35               | 0.86                    | ± 12.0 %  |
| 5250                 | 35.9                               | 4.71                            | 5.35    | 5.35    | 5.35    | 0.40               | 1.80                    | ± 13.1 %  |
| 5600                 | 35.5                               | 5.07                            | 4.70    | 4.70    | 4.70    | 0.40               | 1.80                    | ± 13.1 %  |
| 5750                 | 35.4                               | 5.22                            | 5.03    | 5.03    | 5.03    | 0.40               | 1.80                    | ± 13.1 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7488

### Calibration Parameter Determined in Body Tissue Simulating Media

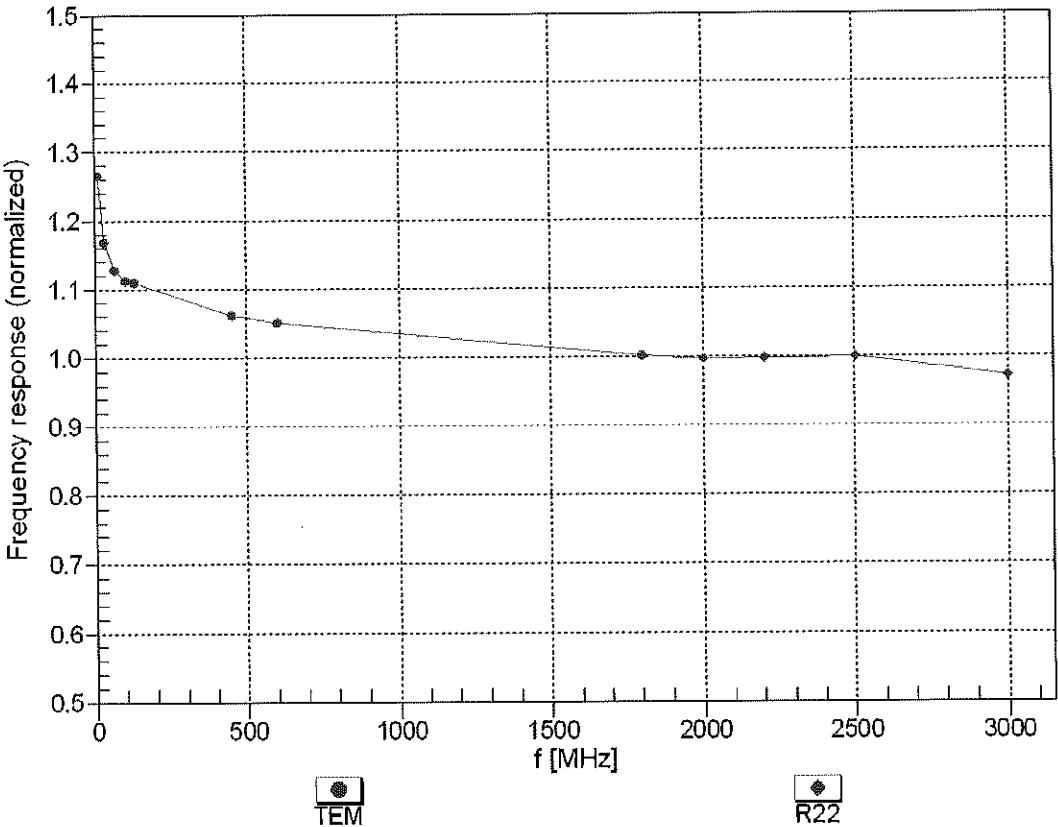
| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 55.5                               | 0.96                            | 11.28   | 11.28   | 11.28   | 0.46               | 0.80                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 11.03   | 11.03   | 11.03   | 0.46               | 0.81                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 8.68    | 8.68    | 8.68    | 0.38               | 0.88                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 8.37    | 8.37    | 8.37    | 0.38               | 0.88                    | ± 12.0 %  |
| 2300                 | 52.9                               | 1.81                            | 8.21    | 8.21    | 8.21    | 0.42               | 0.84                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 8.07    | 8.07    | 8.07    | 0.35               | 0.98                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 7.94    | 7.94    | 7.94    | 0.25               | 0.95                    | ± 12.0 %  |
| 5250                 | 48.9                               | 5.36                            | 4.82    | 4.82    | 4.82    | 0.50               | 1.90                    | ± 13.1 %  |
| 5600                 | 48.5                               | 5.77                            | 4.09    | 4.09    | 4.09    | 0.50               | 1.90                    | ± 13.1 %  |
| 5750                 | 48.3                               | 5.94                            | 4.32    | 4.32    | 4.32    | 0.50               | 1.90                    | ± 13.1 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

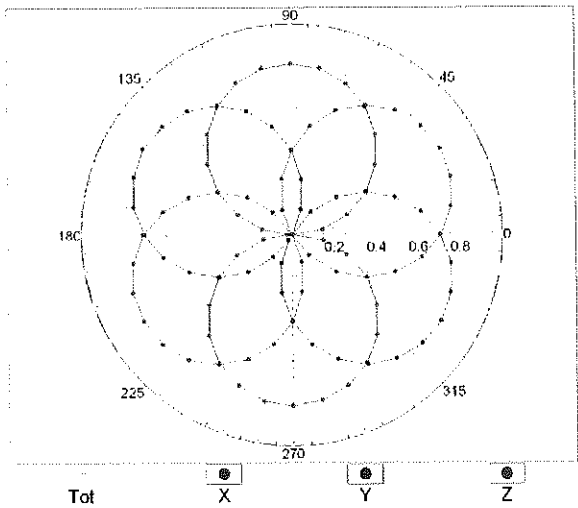
**Frequency Response of E-Field**  
(TEM-Cell:ifi110 EXX, Waveguide: R22)



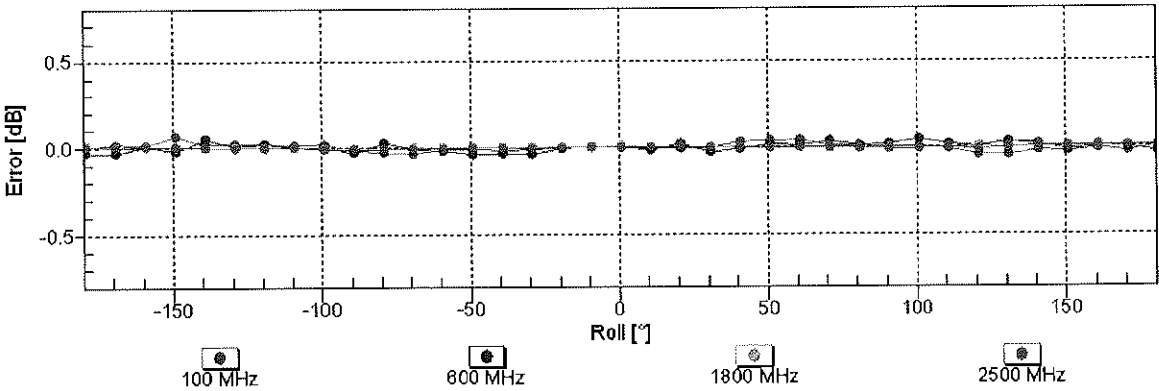
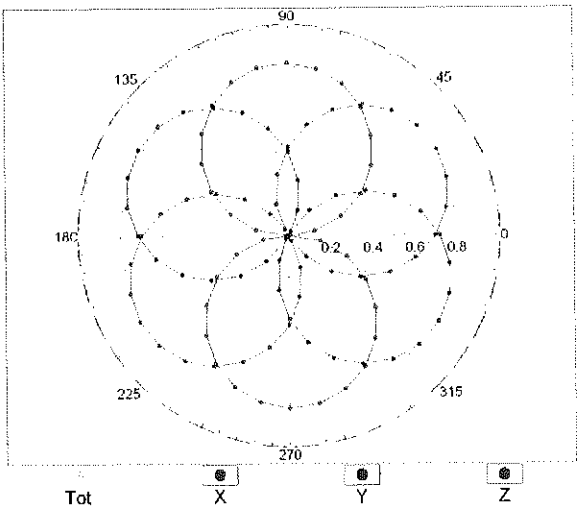
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

Receiving Pattern ( $\phi$ ),  $\theta = 0^\circ$

f=600 MHz,TEM

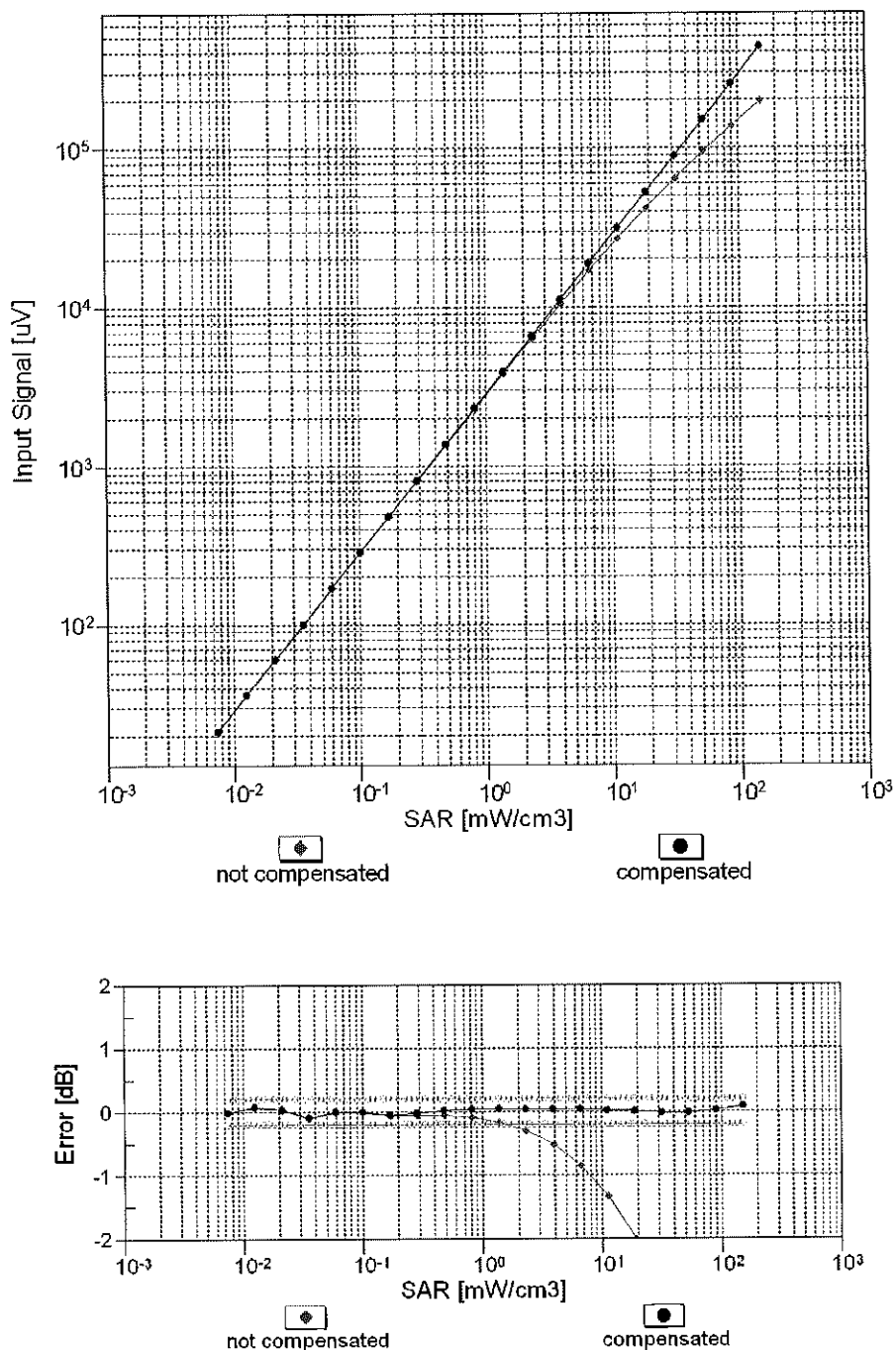


f=1800 MHz,R22



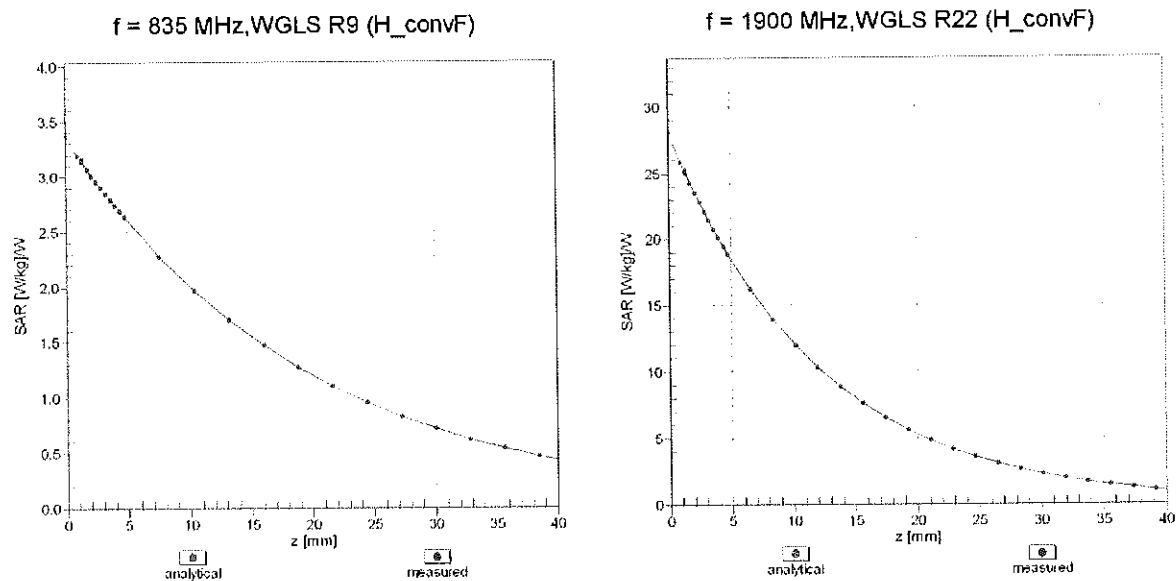
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  (k=2)

## Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell , $f_{\text{eval}} = 1900 \text{ MHz}$ )



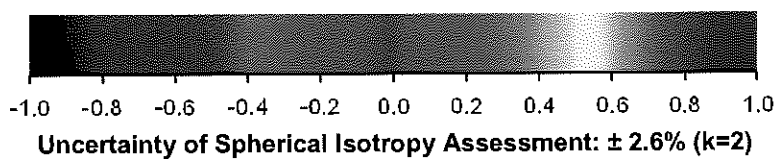
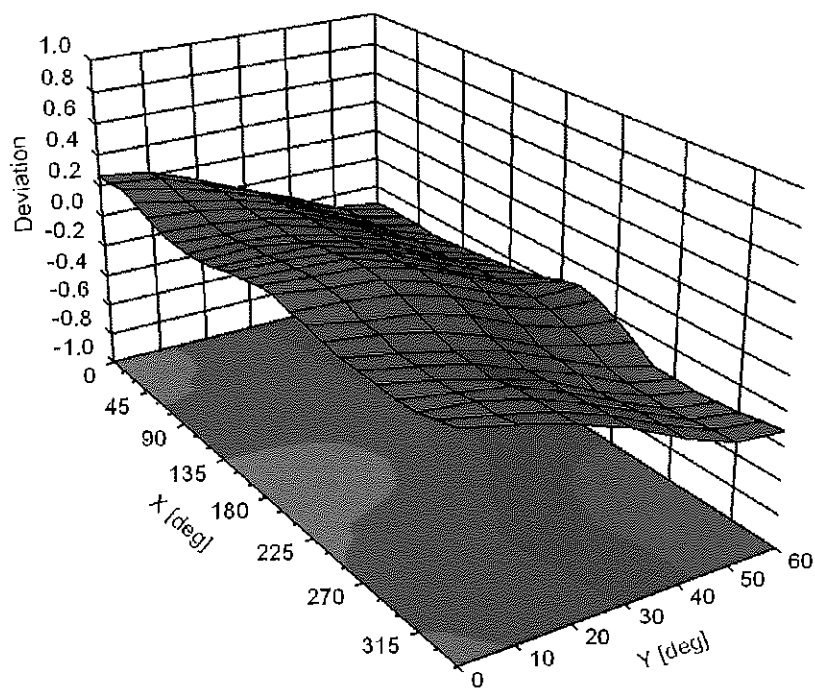
Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi, \theta$ ),  $f = 900 \text{ MHz}$



**Appendix: Modulation Calibration Parameters**

| UID   | Rev | Communication System Name                           | Group     | PAR (dB) | Unc <sup>F</sup> (k=2) |
|-------|-----|-----------------------------------------------------|-----------|----------|------------------------|
| 0     |     | CW                                                  | CW        | 0.00     | ± 4.7 %                |
| 10010 | CAA | SAR Validation (Square, 100ms, 10ms)                | Test      | 10.00    | ± 9.6 %                |
| 10011 | CAB | UMTS-FDD (WCDMA)                                    | WCDMA     | 2.91     | ± 9.6 %                |
| 10012 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)            | WLAN      | 1.87     | ± 9.6 %                |
| 10013 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)       | WLAN      | 9.46     | ± 9.6 %                |
| 10021 | DAC | GSM-FDD (TDMA, GMSK)                                | GSM       | 9.39     | ± 9.6 %                |
| 10023 | DAC | GPRS-FDD (TDMA, GMSK, TN 0)                         | GSM       | 9.57     | ± 9.6 %                |
| 10024 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                       | GSM       | 6.56     | ± 9.6 %                |
| 10025 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                         | GSM       | 12.62    | ± 9.6 %                |
| 10026 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                       | GSM       | 9.55     | ± 9.6 %                |
| 10027 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)                     | GSM       | 4.80     | ± 9.6 %                |
| 10028 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)                   | GSM       | 3.55     | ± 9.6 %                |
| 10029 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)                     | GSM       | 7.78     | ± 9.6 %                |
| 10030 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)                 | Bluetooth | 5.30     | ± 9.6 %                |
| 10031 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)                 | Bluetooth | 1.87     | ± 9.6 %                |
| 10032 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | Bluetooth | 1.16     | ± 9.6 %                |
| 10033 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | Bluetooth | 7.74     | ± 9.6 %                |
| 10034 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | Bluetooth | 4.53     | ± 9.6 %                |
| 10035 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | Bluetooth | 3.83     | ± 9.6 %                |
| 10036 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | Bluetooth | 8.01     | ± 9.6 %                |
| 10037 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | Bluetooth | 4.77     | ± 9.6 %                |
| 10038 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | Bluetooth | 4.10     | ± 9.6 %                |
| 10039 | CAB | CDMA2000 (1xRTT, RC1)                               | CDMA2000  | 4.57     | ± 9.6 %                |
| 10042 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | AMPS      | 7.78     | ± 9.6 %                |
| 10044 | CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | AMPS      | 0.00     | ± 9.6 %                |
| 10048 | CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | DECT      | 13.80    | ± 9.6 %                |
| 10049 | CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | DECT      | 10.79    | ± 9.6 %                |
| 10056 | CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | TD-SCDMA  | 11.01    | ± 9.6 %                |
| 10058 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | GSM       | 6.52     | ± 9.6 %                |
| 10059 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | WLAN      | 2.12     | ± 9.6 %                |
| 10060 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | WLAN      | 2.83     | ± 9.6 %                |
| 10061 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)           | WLAN      | 3.60     | ± 9.6 %                |
| 10062 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)            | WLAN      | 8.68     | ± 9.6 %                |
| 10063 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)            | WLAN      | 8.63     | ± 9.6 %                |
| 10064 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)           | WLAN      | 9.09     | ± 9.6 %                |
| 10065 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)           | WLAN      | 9.00     | ± 9.6 %                |
| 10066 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)           | WLAN      | 9.38     | ± 9.6 %                |
| 10067 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)           | WLAN      | 10.12    | ± 9.6 %                |
| 10068 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)           | WLAN      | 10.24    | ± 9.6 %                |
| 10069 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)           | WLAN      | 10.56    | ± 9.6 %                |
| 10071 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)       | WLAN      | 9.83     | ± 9.6 %                |
| 10072 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)      | WLAN      | 9.62     | ± 9.6 %                |
| 10073 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)      | WLAN      | 9.94     | ± 9.6 %                |
| 10074 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)      | WLAN      | 10.30    | ± 9.6 %                |
| 10075 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)      | WLAN      | 10.77    | ± 9.6 %                |
| 10076 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)      | WLAN      | 10.94    | ± 9.6 %                |
| 10077 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)      | WLAN      | 11.00    | ± 9.6 %                |
| 10081 | CAB | CDMA2000 (1xRTT, RC3)                               | CDMA2000  | 3.97     | ± 9.6 %                |
| 10082 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | AMPS      | 4.77     | ± 9.6 %                |
| 10090 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | GSM       | 6.56     | ± 9.6 %                |
| 10097 | CAB | UMTS-FDD (HSDPA)                                    | WCDMA     | 3.98     | ± 9.6 %                |
| 10098 | CAB | UMTS-FDD (HSUPA, Subtest 2)                         | WCDMA     | 3.98     | ± 9.6 %                |
| 10099 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | GSM       | 9.55     | ± 9.6 %                |
| 10100 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-FDD   | 5.67     | ± 9.6 %                |
| 10101 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-FDD   | 6.42     | ± 9.6 %                |
| 10102 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-FDD   | 6.60     | ± 9.6 %                |
| 10103 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-TDD   | 9.29     | ± 9.6 %                |
| 10104 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-TDD   | 9.97     | ± 9.6 %                |
| 10105 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-TDD   | 10.01    | ± 9.6 %                |
| 10108 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | LTE-FDD   | 5.80     | ± 9.6 %                |

|       |     |                                                |         |       |         |
|-------|-----|------------------------------------------------|---------|-------|---------|
| 10109 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)     | LTE-FDD | 6.43  | ± 9.6 % |
| 10110 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10111 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)      | LTE-FDD | 6.44  | ± 9.6 % |
| 10112 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | LTE-FDD | 6.59  | ± 9.6 % |
| 10113 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10114 | CAC | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | WLAN    | 8.10  | ± 9.6 % |
| 10115 | CAC | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | WLAN    | 8.46  | ± 9.6 % |
| 10116 | CAC | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | WLAN    | 8.15  | ± 9.6 % |
| 10117 | CAC | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | WLAN    | 8.07  | ± 9.6 % |
| 10118 | CAC | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | WLAN    | 8.59  | ± 9.6 % |
| 10119 | CAC | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | WLAN    | 8.13  | ± 9.6 % |
| 10140 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | LTE-FDD | 6.49  | ± 9.6 % |
| 10141 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | LTE-FDD | 6.53  | ± 9.6 % |
| 10142 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | LTE-FDD | 5.73  | ± 9.6 % |
| 10143 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | LTE-FDD | 6.35  | ± 9.6 % |
| 10144 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | LTE-FDD | 6.65  | ± 9.6 % |
| 10145 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | LTE-FDD | 5.76  | ± 9.6 % |
| 10146 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | LTE-FDD | 6.41  | ± 9.6 % |
| 10147 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | LTE-FDD | 6.72  | ± 9.6 % |
| 10149 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-FDD | 6.42  | ± 9.6 % |
| 10150 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-FDD | 6.60  | ± 9.6 % |
| 10151 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)        | LTE-TDD | 9.28  | ± 9.6 % |
| 10152 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-TDD | 9.92  | ± 9.6 % |
| 10153 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-TDD | 10.05 | ± 9.6 % |
| 10154 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10155 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10156 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         | LTE-FDD | 5.79  | ± 9.6 % |
| 10157 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)       | LTE-FDD | 6.49  | ± 9.6 % |
| 10158 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10159 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)       | LTE-FDD | 6.56  | ± 9.6 % |
| 10160 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)        | LTE-FDD | 5.82  | ± 9.6 % |
| 10161 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10162 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)      | LTE-FDD | 6.58  | ± 9.6 % |
| 10166 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)       | LTE-FDD | 5.46  | ± 9.6 % |
| 10167 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)     | LTE-FDD | 6.21  | ± 9.6 % |
| 10168 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)     | LTE-FDD | 6.79  | ± 9.6 % |
| 10169 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-FDD | 5.73  | ± 9.6 % |
| 10170 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10171 | AAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-FDD | 6.49  | ± 9.6 % |
| 10172 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-TDD | 9.21  | ± 9.6 % |
| 10173 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 10174 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10175 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)          | LTE-FDD | 5.72  | ± 9.6 % |
| 10176 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10177 | CAI | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)           | LTE-FDD | 5.73  | ± 9.6 % |
| 10178 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)         | LTE-FDD | 6.52  | ± 9.6 % |
| 10179 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10180 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)         | LTE-FDD | 6.50  | ± 9.6 % |
| 10181 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)          | LTE-FDD | 5.72  | ± 9.6 % |
| 10182 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10183 | AAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10184 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)           | LTE-FDD | 5.73  | ± 9.6 % |
| 10185 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)         | LTE-FDD | 6.51  | ± 9.6 % |
| 10186 | AAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)         | LTE-FDD | 6.50  | ± 9.6 % |
| 10187 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)         | LTE-FDD | 5.73  | ± 9.6 % |
| 10188 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)       | LTE-FDD | 6.52  | ± 9.6 % |
| 10189 | AAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)       | LTE-FDD | 6.50  | ± 9.6 % |
| 10193 | CAC | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   | WLAN    | 8.09  | ± 9.6 % |
| 10194 | CAC | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)  | WLAN    | 8.12  | ± 9.6 % |
| 10195 | CAC | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)  | WLAN    | 8.21  | ± 9.6 % |
| 10196 | CAC | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)        | WLAN    | 8.10  | ± 9.6 % |
| 10197 | CAC | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)       | WLAN    | 8.13  | ± 9.6 % |
| 10198 | CAC | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)       | WLAN    | 8.27  | ± 9.6 % |
| 10219 | CAC | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)        | WLAN    | 8.03  | ± 9.6 % |

|       |     |                                             |          |       |         |
|-------|-----|---------------------------------------------|----------|-------|---------|
| 10220 | CAC | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)  | WLAN     | 8.13  | ± 9.6 % |
| 10221 | CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)  | WLAN     | 8.27  | ± 9.6 % |
| 10222 | CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)      | WLAN     | 8.06  | ± 9.6 % |
| 10223 | CAC | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)    | WLAN     | 8.48  | ± 9.6 % |
| 10224 | CAC | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)   | WLAN     | 8.08  | ± 9.6 % |
| 10225 | CAB | UMTS-FDD (HSPA+)                            | WCDMA    | 5.97  | ± 9.6 % |
| 10226 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)    | LTE-TDD  | 9.49  | ± 9.6 % |
| 10227 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)    | LTE-TDD  | 10.26 | ± 9.6 % |
| 10228 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)      | LTE-TDD  | 9.22  | ± 9.6 % |
| 10229 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)      | LTE-TDD  | 9.48  | ± 9.6 % |
| 10230 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)      | LTE-TDD  | 10.25 | ± 9.6 % |
| 10231 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)        | LTE-TDD  | 9.19  | ± 9.6 % |
| 10232 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)      | LTE-TDD  | 9.48  | ± 9.6 % |
| 10233 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)      | LTE-TDD  | 10.25 | ± 9.6 % |
| 10234 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)        | LTE-TDD  | 9.21  | ± 9.6 % |
| 10235 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)     | LTE-TDD  | 9.48  | ± 9.6 % |
| 10236 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)     | LTE-TDD  | 10.25 | ± 9.6 % |
| 10237 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)       | LTE-TDD  | 9.21  | ± 9.6 % |
| 10238 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)     | LTE-TDD  | 9.48  | ± 9.6 % |
| 10239 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)     | LTE-TDD  | 10.25 | ± 9.6 % |
| 10240 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)       | LTE-TDD  | 9.21  | ± 9.6 % |
| 10241 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)  | LTE-TDD  | 9.82  | ± 9.6 % |
| 10242 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)  | LTE-TDD  | 9.86  | ± 9.6 % |
| 10243 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)    | LTE-TDD  | 9.46  | ± 9.6 % |
| 10244 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)    | LTE-TDD  | 10.06 | ± 9.6 % |
| 10245 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)    | LTE-TDD  | 10.06 | ± 9.6 % |
| 10246 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)      | LTE-TDD  | 9.30  | ± 9.6 % |
| 10247 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)    | LTE-TDD  | 9.91  | ± 9.6 % |
| 10248 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)    | LTE-TDD  | 10.09 | ± 9.6 % |
| 10249 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)      | LTE-TDD  | 9.29  | ± 9.6 % |
| 10250 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)   | LTE-TDD  | 9.81  | ± 9.6 % |
| 10251 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)   | LTE-TDD  | 10.17 | ± 9.6 % |
| 10252 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)     | LTE-TDD  | 9.24  | ± 9.6 % |
| 10253 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)   | LTE-TDD  | 9.90  | ± 9.6 % |
| 10254 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)   | LTE-TDD  | 10.14 | ± 9.6 % |
| 10255 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | LTE-TDD  | 9.20  | ± 9.6 % |
| 10256 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | LTE-TDD  | 9.96  | ± 9.6 % |
| 10257 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | LTE-TDD  | 10.08 | ± 9.6 % |
| 10258 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | LTE-TDD  | 9.34  | ± 9.6 % |
| 10259 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | LTE-TDD  | 9.98  | ± 9.6 % |
| 10260 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | LTE-TDD  | 9.97  | ± 9.6 % |
| 10261 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | LTE-TDD  | 9.24  | ± 9.6 % |
| 10262 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | LTE-TDD  | 9.83  | ± 9.6 % |
| 10263 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | LTE-TDD  | 10.16 | ± 9.6 % |
| 10264 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | LTE-TDD  | 9.23  | ± 9.6 % |
| 10265 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | LTE-TDD  | 9.92  | ± 9.6 % |
| 10266 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | LTE-TDD  | 10.07 | ± 9.6 % |
| 10267 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | LTE-TDD  | 9.30  | ± 9.6 % |
| 10268 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | LTE-TDD  | 10.06 | ± 9.6 % |
| 10269 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | LTE-TDD  | 10.13 | ± 9.6 % |
| 10270 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | LTE-TDD  | 9.58  | ± 9.6 % |
| 10274 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)   | WCDMA    | 4.87  | ± 9.6 % |
| 10275 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)    | WCDMA    | 3.96  | ± 9.6 % |
| 10277 | CAA | PHS (QPSK)                                  | PHS      | 11.81 | ± 9.6 % |
| 10278 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)          | PHS      | 11.81 | ± 9.6 % |
| 10279 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)         | PHS      | 12.18 | ± 9.6 % |
| 10290 | AAB | CDMA2000, RC1, SO55, Full Rate              | CDMA2000 | 3.91  | ± 9.6 % |
| 10291 | AAB | CDMA2000, RC3, SO55, Full Rate              | CDMA2000 | 3.46  | ± 9.6 % |
| 10292 | AAB | CDMA2000, RC3, SO32, Full Rate              | CDMA2000 | 3.39  | ± 9.6 % |
| 10293 | AAB | CDMA2000, RC3, SO3, Full Rate               | CDMA2000 | 3.50  | ± 9.6 % |
| 10295 | AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.       | CDMA2000 | 12.49 | ± 9.6 % |
| 10297 | AAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)     | LTE-FDD  | 5.81  | ± 9.6 % |
| 10298 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)      | LTE-FDD  | 5.72  | ± 9.6 % |
| 10299 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)    | LTE-FDD  | 6.39  | ± 9.6 % |

|       |     |                                                                                |          |       |         |
|-------|-----|--------------------------------------------------------------------------------|----------|-------|---------|
| 10300 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                                       | LTE-FDD  | 6.60  | ± 9.6 % |
| 10301 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                             | WiMAX    | 12.03 | ± 9.6 % |
| 10302 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)             | WiMAX    | 12.57 | ± 9.6 % |
| 10303 | AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                            | WiMAX    | 12.52 | ± 9.6 % |
| 10304 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                            | WiMAX    | 11.86 | ± 9.6 % |
| 10305 | AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)               | WiMAX    | 15.24 | ± 9.6 % |
| 10306 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)               | WiMAX    | 14.67 | ± 9.6 % |
| 10307 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)                | WiMAX    | 14.49 | ± 9.6 % |
| 10308 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                           | WiMAX    | 14.46 | ± 9.6 % |
| 10309 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)            | WiMAX    | 14.58 | ± 9.6 % |
| 10310 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)             | WiMAX    | 14.57 | ± 9.6 % |
| 10311 | AAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                                       | LTE-FDD  | 6.06  | ± 9.6 % |
| 10313 | AAA | IDEN 1:3                                                                       | iDEN     | 10.51 | ± 9.6 % |
| 10314 | AAA | IDEN 1:6                                                                       | iDEN     | 13.48 | ± 9.6 % |
| 10315 | AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)                      | WLAN     | 1.71  | ± 9.6 % |
| 10316 | AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)                  | WLAN     | 8.36  | ± 9.6 % |
| 10317 | AAC | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)                        | WLAN     | 8.36  | ± 9.6 % |
| 10352 | AAA | Pulse Waveform (200Hz, 10%)                                                    | Generic  | 10.00 | ± 9.6 % |
| 10353 | AAA | Pulse Waveform (200Hz, 20%)                                                    | Generic  | 6.99  | ± 9.6 % |
| 10354 | AAA | Pulse Waveform (200Hz, 40%)                                                    | Generic  | 3.98  | ± 9.6 % |
| 10355 | AAA | Pulse Waveform (200Hz, 60%)                                                    | Generic  | 2.22  | ± 9.6 % |
| 10356 | AAA | Pulse Waveform (200Hz, 80%)                                                    | Generic  | 0.97  | ± 9.6 % |
| 10387 | AAA | QPSK Waveform, 1 MHz                                                           | Generic  | 5.10  | ± 9.6 % |
| 10388 | AAA | QPSK Waveform, 10 MHz                                                          | Generic  | 5.22  | ± 9.6 % |
| 10396 | AAA | 64-QAM Waveform, 100 kHz                                                       | Generic  | 6.27  | ± 9.6 % |
| 10399 | AAA | 64-QAM Waveform, 40 MHz                                                        | Generic  | 6.27  | ± 9.6 % |
| 10400 | AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                            | WLAN     | 8.37  | ± 9.6 % |
| 10401 | AAD | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                            | WLAN     | 8.60  | ± 9.6 % |
| 10402 | AAD | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                            | WLAN     | 8.53  | ± 9.6 % |
| 10403 | AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                     | CDMA2000 | 3.76  | ± 9.6 % |
| 10404 | AAB | CDMA2000 (1xEV-DO, Rev. A)                                                     | CDMA2000 | 3.77  | ± 9.6 % |
| 10406 | AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                           | CDMA2000 | 5.22  | ± 9.6 % |
| 10410 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                 | LTE-TDD  | 7.82  | ± 9.6 % |
| 10414 | AAA | WLAN CCDF, 64-QAM, 40MHz                                                       | Generic  | 8.54  | ± 9.6 % |
| 10415 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                      | WLAN     | 1.54  | ± 9.6 % |
| 10416 | AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                  | WLAN     | 8.23  | ± 9.6 % |
| 10417 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                      | WLAN     | 8.23  | ± 9.6 % |
| 10418 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)  | WLAN     | 8.14  | ± 9.6 % |
| 10419 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble) | WLAN     | 8.19  | ± 9.6 % |
| 10422 | AAB | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                   | WLAN     | 8.32  | ± 9.6 % |
| 10423 | AAB | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                | WLAN     | 8.47  | ± 9.6 % |
| 10424 | AAB | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                | WLAN     | 8.40  | ± 9.6 % |
| 10425 | AAB | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                    | WLAN     | 8.41  | ± 9.6 % |
| 10426 | AAB | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                  | WLAN     | 8.45  | ± 9.6 % |
| 10427 | AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                                 | WLAN     | 8.41  | ± 9.6 % |
| 10430 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                                               | LTE-FDD  | 8.28  | ± 9.6 % |
| 10431 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                                              | LTE-FDD  | 8.38  | ± 9.6 % |
| 10432 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                                              | LTE-FDD  | 8.34  | ± 9.6 % |
| 10433 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                                              | LTE-FDD  | 8.34  | ± 9.6 % |
| 10434 | AAA | W-CDMA (BS Test Model 1, 64 DPCH)                                              | WCDMA    | 8.60  | ± 9.6 % |
| 10435 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                 | LTE-TDD  | 7.82  | ± 9.6 % |
| 10447 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                                 | LTE-FDD  | 7.56  | ± 9.6 % |
| 10448 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                                | LTE-FDD  | 7.53  | ± 9.6 % |
| 10449 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                                | LTE-FDD  | 7.51  | ± 9.6 % |
| 10450 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                                | LTE-FDD  | 7.48  | ± 9.6 % |

|       |     |                                                                        |          |      |         |
|-------|-----|------------------------------------------------------------------------|----------|------|---------|
| 10451 | AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                        | WCDMA    | 7.59 | ± 9.6 % |
| 10456 | AAB | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)                   | WLAN     | 8.63 | ± 9.6 % |
| 10457 | AAA | UMTS-FDD (DC-HSDPA)                                                    | WCDMA    | 6.62 | ± 9.6 % |
| 10458 | AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                                 | CDMA2000 | 6.55 | ± 9.6 % |
| 10459 | AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                                 | CDMA2000 | 8.25 | ± 9.6 % |
| 10460 | AAA | UMTS-FDD (WCDMA, AMR)                                                  | WCDMA    | 2.39 | ± 9.6 % |
| 10461 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.82 | ± 9.6 % |
| 10462 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.30 | ± 9.6 % |
| 10463 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.56 | ± 9.6 % |
| 10464 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)       | LTE-TDD  | 7.82 | ± 9.6 % |
| 10465 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.32 | ± 9.6 % |
| 10466 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.57 | ± 9.6 % |
| 10467 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)       | LTE-TDD  | 7.82 | ± 9.6 % |
| 10468 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.32 | ± 9.6 % |
| 10469 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.56 | ± 9.6 % |
| 10470 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)      | LTE-TDD  | 7.82 | ± 9.6 % |
| 10471 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10472 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10473 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)      | LTE-TDD  | 7.82 | ± 9.6 % |
| 10474 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10475 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10477 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10478 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10479 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 7.74 | ± 9.6 % |
| 10480 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9) | LTE-TDD  | 8.18 | ± 9.6 % |
| 10481 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9) | LTE-TDD  | 8.45 | ± 9.6 % |
| 10482 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.71 | ± 9.6 % |
| 10483 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.39 | ± 9.6 % |
| 10484 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.47 | ± 9.6 % |
| 10485 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.59 | ± 9.6 % |
| 10486 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.38 | ± 9.6 % |
| 10487 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.60 | ± 9.6 % |
| 10488 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 7.70 | ± 9.6 % |
| 10489 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)  | LTE-TDD  | 8.31 | ± 9.6 % |
| 10490 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)  | LTE-TDD  | 8.54 | ± 9.6 % |
| 10491 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 7.74 | ± 9.6 % |

|       |     |                                                                      |         |      |         |
|-------|-----|----------------------------------------------------------------------|---------|------|---------|
| 10492 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.41 | ± 9.6 % |
| 10493 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.55 | ± 9.6 % |
| 10494 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.74 | ± 9.6 % |
| 10495 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.37 | ± 9.6 % |
| 10496 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10497 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 7.67 | ± 9.6 % |
| 10498 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | LTE-TDD | 8.40 | ± 9.6 % |
| 10499 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | LTE-TDD | 8.68 | ± 9.6 % |
| 10500 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.67 | ± 9.6 % |
| 10501 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.44 | ± 9.6 % |
| 10502 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.52 | ± 9.6 % |
| 10503 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.72 | ± 9.6 % |
| 10504 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.31 | ± 9.6 % |
| 10505 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10506 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10507 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.36 | ± 9.6 % |
| 10508 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.55 | ± 9.6 % |
| 10509 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.99 | ± 9.6 % |
| 10510 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.49 | ± 9.6 % |
| 10511 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.51 | ± 9.6 % |
| 10512 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10513 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.42 | ± 9.6 % |
| 10514 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.45 | ± 9.6 % |
| 10515 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)            | WLAN    | 1.58 | ± 9.6 % |
| 10516 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)          | WLAN    | 1.57 | ± 9.6 % |
| 10517 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)           | WLAN    | 1.58 | ± 9.6 % |
| 10518 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)            | WLAN    | 8.23 | ± 9.6 % |
| 10519 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)           | WLAN    | 8.39 | ± 9.6 % |
| 10520 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)           | WLAN    | 8.12 | ± 9.6 % |
| 10521 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)           | WLAN    | 7.97 | ± 9.6 % |
| 10522 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)           | WLAN    | 8.45 | ± 9.6 % |
| 10523 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)           | WLAN    | 8.08 | ± 9.6 % |
| 10524 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)           | WLAN    | 8.27 | ± 9.6 % |
| 10525 | AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10526 | AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)                    | WLAN    | 8.42 | ± 9.6 % |
| 10527 | AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)                    | WLAN    | 8.21 | ± 9.6 % |
| 10528 | AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10529 | AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10531 | AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)                    | WLAN    | 8.43 | ± 9.6 % |
| 10532 | AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)                    | WLAN    | 8.29 | ± 9.6 % |
| 10533 | AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)                    | WLAN    | 8.38 | ± 9.6 % |
| 10534 | AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)                    | WLAN    | 8.45 | ± 9.6 % |

|       |     |                                                                 |      |      |         |
|-------|-----|-----------------------------------------------------------------|------|------|---------|
| 10535 | AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)               | WLAN | 8.45 | ± 9.6 % |
| 10536 | AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)               | WLAN | 8.32 | ± 9.6 % |
| 10537 | AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)               | WLAN | 8.44 | ± 9.6 % |
| 10538 | AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)               | WLAN | 8.54 | ± 9.6 % |
| 10540 | AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)               | WLAN | 8.39 | ± 9.6 % |
| 10541 | AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)               | WLAN | 8.46 | ± 9.6 % |
| 10542 | AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)               | WLAN | 8.65 | ± 9.6 % |
| 10543 | AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)               | WLAN | 8.65 | ± 9.6 % |
| 10544 | AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)               | WLAN | 8.47 | ± 9.6 % |
| 10545 | AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)               | WLAN | 8.55 | ± 9.6 % |
| 10546 | AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)               | WLAN | 8.35 | ± 9.6 % |
| 10547 | AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)               | WLAN | 8.49 | ± 9.6 % |
| 10548 | AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)               | WLAN | 8.37 | ± 9.6 % |
| 10550 | AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)               | WLAN | 8.38 | ± 9.6 % |
| 10551 | AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)               | WLAN | 8.50 | ± 9.6 % |
| 10552 | AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)               | WLAN | 8.42 | ± 9.6 % |
| 10553 | AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)               | WLAN | 8.45 | ± 9.6 % |
| 10554 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)              | WLAN | 8.48 | ± 9.6 % |
| 10555 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)              | WLAN | 8.47 | ± 9.6 % |
| 10556 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)              | WLAN | 8.50 | ± 9.6 % |
| 10557 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)              | WLAN | 8.52 | ± 9.6 % |
| 10558 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)              | WLAN | 8.61 | ± 9.6 % |
| 10560 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)              | WLAN | 8.73 | ± 9.6 % |
| 10561 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)              | WLAN | 8.56 | ± 9.6 % |
| 10562 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)              | WLAN | 8.69 | ± 9.6 % |
| 10563 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)              | WLAN | 8.77 | ± 9.6 % |
| 10564 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | WLAN | 8.25 | ± 9.6 % |
| 10565 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | WLAN | 8.45 | ± 9.6 % |
| 10566 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | WLAN | 8.13 | ± 9.6 % |
| 10567 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | WLAN | 8.00 | ± 9.6 % |
| 10568 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | WLAN | 8.37 | ± 9.6 % |
| 10569 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | WLAN | 8.10 | ± 9.6 % |
| 10570 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | WLAN | 8.30 | ± 9.6 % |
| 10571 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | WLAN | 1.99 | ± 9.6 % |
| 10572 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | WLAN | 1.99 | ± 9.6 % |
| 10573 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | WLAN | 1.98 | ± 9.6 % |
| 10574 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | WLAN | 1.98 | ± 9.6 % |
| 10575 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | WLAN | 8.59 | ± 9.6 % |
| 10576 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | WLAN | 8.60 | ± 9.6 % |
| 10577 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | WLAN | 8.70 | ± 9.6 % |
| 10578 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | WLAN | 8.49 | ± 9.6 % |
| 10579 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | WLAN | 8.36 | ± 9.6 % |
| 10580 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | WLAN | 8.76 | ± 9.6 % |
| 10581 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | WLAN | 8.35 | ± 9.6 % |
| 10582 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | WLAN | 8.67 | ± 9.6 % |
| 10583 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | WLAN | 8.59 | ± 9.6 % |
| 10584 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | WLAN | 8.60 | ± 9.6 % |
| 10585 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | WLAN | 8.70 | ± 9.6 % |
| 10586 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | WLAN | 8.49 | ± 9.6 % |
| 10587 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | WLAN | 8.36 | ± 9.6 % |

|       |     |                                                            |          |       |         |
|-------|-----|------------------------------------------------------------|----------|-------|---------|
| 10588 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle) | WLAN     | 8.76  | ± 9.6 % |
| 10589 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle) | WLAN     | 8.35  | ± 9.6 % |
| 10590 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle) | WLAN     | 8.67  | ± 9.6 % |
| 10591 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)      | WLAN     | 8.63  | ± 9.6 % |
| 10592 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)      | WLAN     | 8.79  | ± 9.6 % |
| 10593 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)      | WLAN     | 8.64  | ± 9.6 % |
| 10594 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)      | WLAN     | 8.74  | ± 9.6 % |
| 10595 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)      | WLAN     | 8.74  | ± 9.6 % |
| 10596 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)      | WLAN     | 8.71  | ± 9.6 % |
| 10597 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)      | WLAN     | 8.72  | ± 9.6 % |
| 10598 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)      | WLAN     | 8.50  | ± 9.6 % |
| 10599 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)      | WLAN     | 8.79  | ± 9.6 % |
| 10600 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)      | WLAN     | 8.88  | ± 9.6 % |
| 10601 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)      | WLAN     | 8.82  | ± 9.6 % |
| 10602 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)      | WLAN     | 8.94  | ± 9.6 % |
| 10603 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)      | WLAN     | 9.03  | ± 9.6 % |
| 10604 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)      | WLAN     | 8.76  | ± 9.6 % |
| 10605 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)      | WLAN     | 8.97  | ± 9.6 % |
| 10606 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)      | WLAN     | 8.82  | ± 9.6 % |
| 10607 | AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.64  | ± 9.6 % |
| 10608 | AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.77  | ± 9.6 % |
| 10609 | AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.57  | ± 9.6 % |
| 10610 | AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.78  | ± 9.6 % |
| 10611 | AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.70  | ± 9.6 % |
| 10612 | AAB | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.77  | ± 9.6 % |
| 10613 | AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.94  | ± 9.6 % |
| 10614 | AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.59  | ± 9.6 % |
| 10615 | AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.82  | ± 9.6 % |
| 10616 | AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.82  | ± 9.6 % |
| 10617 | AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.81  | ± 9.6 % |
| 10618 | AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.58  | ± 9.6 % |
| 10619 | AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.86  | ± 9.6 % |
| 10620 | AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.87  | ± 9.6 % |
| 10621 | AAB | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.77  | ± 9.6 % |
| 10622 | AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.68  | ± 9.6 % |
| 10623 | AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.82  | ± 9.6 % |
| 10624 | AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.96  | ± 9.6 % |
| 10625 | AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)          | WLAN     | 8.96  | ± 9.6 % |
| 10626 | AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.83  | ± 9.6 % |
| 10627 | AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.88  | ± 9.6 % |
| 10628 | AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.71  | ± 9.6 % |
| 10629 | AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.85  | ± 9.6 % |
| 10630 | AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.72  | ± 9.6 % |
| 10631 | AAB | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.81  | ± 9.6 % |
| 10632 | AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.74  | ± 9.6 % |
| 10633 | AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.83  | ± 9.6 % |
| 10634 | AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.80  | ± 9.6 % |
| 10635 | AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)          | WLAN     | 8.81  | ± 9.6 % |
| 10636 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)         | WLAN     | 8.83  | ± 9.6 % |
| 10637 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)         | WLAN     | 8.79  | ± 9.6 % |
| 10638 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)         | WLAN     | 8.86  | ± 9.6 % |
| 10639 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)         | WLAN     | 8.85  | ± 9.6 % |
| 10640 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)         | WLAN     | 8.98  | ± 9.6 % |
| 10641 | AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)         | WLAN     | 9.06  | ± 9.6 % |
| 10642 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)         | WLAN     | 9.06  | ± 9.6 % |
| 10643 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)         | WLAN     | 8.89  | ± 9.6 % |
| 10644 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)         | WLAN     | 9.05  | ± 9.6 % |
| 10645 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)         | WLAN     | 9.11  | ± 9.6 % |
| 10646 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)      | LTE-TDD  | 11.96 | ± 9.6 % |
| 10647 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)     | LTE-TDD  | 11.96 | ± 9.6 % |
| 10648 | AAA | CDMA2000 (1x Advanced)                                     | CDMA2000 | 3.45  | ± 9.6 % |
| 10652 | AAD | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)             | LTE-TDD  | 6.91  | ± 9.6 % |
| 10653 | AAD | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)            | LTE-TDD  | 7.42  | ± 9.6 % |
| 10654 | AAD | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)            | LTE-TDD  | 6.96  | ± 9.6 % |

|       |     |                                                 |           |       |         |
|-------|-----|-------------------------------------------------|-----------|-------|---------|
| 10655 | AAE | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%) | LTE-TDD   | 7.21  | ± 9.6 % |
| 10658 | AAA | Pulse Waveform (200Hz, 10%)                     | Test      | 10.00 | ± 9.6 % |
| 10659 | AAA | Pulse Waveform (200Hz, 20%)                     | Test      | 6.99  | ± 9.6 % |
| 10660 | AAA | Pulse Waveform (200Hz, 40%)                     | Test      | 3.98  | ± 9.6 % |
| 10661 | AAA | Pulse Waveform (200Hz, 60%)                     | Test      | 2.22  | ± 9.6 % |
| 10662 | AAA | Pulse Waveform (200Hz, 80%)                     | Test      | 0.97  | ± 9.6 % |
| 10670 | AAA | Bluetooth Low Energy                            | Bluetooth | 2.19  | ± 9.6 % |

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



Accredited by the Swiss Accreditation Service (SAS)  
 The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **PC Test**

Certificate No: **ES3-3319\_Mar18**

## CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3319**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v6**  
**Calibration procedure for dosimetric E-field probes**

BN ✓  
 03/30/2018

Calibration date: **March 13, 2018**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature ( $22 \pm 3$ )°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-17 (No. 217-02521/02522)   | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-17 (No. 217-02521)         | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-17 (No. 217-02525)         | Apr-18                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 07-Apr-17 (No. 217-02528)         | Apr-18                 |
| Reference Probe ES3DV2     | SN: 3013         | 30-Dec-17 (No. ES3-3013_Dec17)    | Dec-18                 |
| DAE4                       | SN: 660          | 21-Dec-17 (No. DAE4-660_Dec17)    | Dec-18                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-16) | In house check: Jun-18 |
| Network Analyzer HP 8753E  | SN: US37390585   | 18-Oct-01 (in house check Oct-17) | In house check: Oct-18 |

|                                                                                                                 |                        |                                   |                        |
|-----------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------|------------------------|
| Calibrated by:                                                                                                  | Name<br>Jeton Kastrati | Function<br>Laboratory Technician | Signature<br>          |
| Approved by:                                                                                                    | Katja Pokovic          | Technical Manager                 |                        |
|                                                                                                                 |                        |                                   | Issued: March 15, 2018 |
| This calibration certificate shall not be reproduced except in full without written approval of the laboratory. |                        |                                   |                        |



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

### Glossary:

|                          |                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                      | tissue simulating liquid                                                                                                                                |
| NORM <sub>x,y,z</sub>    | sensitivity in free space                                                                                                                               |
| ConvF                    | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                              |
| DCP                      | diode compression point                                                                                                                                 |
| CF                       | crest factor (1/duty_cycle) of the RF signal                                                                                                            |
| A, B, C, D               | modulation dependent linearization parameters                                                                                                           |
| Polarization $\phi$      | $\phi$ rotation around probe axis                                                                                                                       |
| Polarization $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor X to the robot coordinate system                                                                  |

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

# Probe ES3DV3

## SN:3319

Manufactured: January 10, 2012  
Calibrated: March 13, 2018

Calibrated for DASY/EASY Systems  
(Note: non-compatible with DASY2 system!)

## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

### Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2)     |
|-----------------------------------------------------------|----------|----------|----------|---------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 1.08     | 1.05     | 1.12     | $\pm 10.1 \%$ |
| DCP (mV) <sup>B</sup>                                     | 104.0    | 103.0    | 104.0    |               |

### Modulation Calibration Parameters

| UID | Communication System Name |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C   | D<br>dB | VR<br>mV | Unc <sup>E</sup><br>(k=2) |
|-----|---------------------------|---|---------|------------------------------|-----|---------|----------|---------------------------|
| 0   | CW                        | X | 0.0     | 0.0                          | 1.0 | 0.00    | 197.9    | $\pm 3.8 \%$              |
|     |                           | Y | 0.0     | 0.0                          | 1.0 |         | 198.2    |                           |
|     |                           | Z | 0.0     | 0.0                          | 1.0 |         | 200.6    |                           |

Note: For details on UID parameters see Appendix.

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$\text{V}^{-1}$ | T1<br>$\text{ms}\cdot\text{V}^{-2}$ | T2<br>$\text{ms}\cdot\text{V}^{-1}$ | T3<br>ms | T4<br>$\text{V}^{-2}$ | T5<br>$\text{V}^{-1}$ | T6    |
|---|----------|----------|-----------------------------|-------------------------------------|-------------------------------------|----------|-----------------------|-----------------------|-------|
| X | 60.52    | 430.8    | 35.08                       | 29.64                               | 3.011                               | 5.10     | 0.615                 | 0.538                 | 1.010 |
| Y | 55.79    | 400.8    | 35.48                       | 29.01                               | 2.492                               | 5.10     | 0.600                 | 0.518                 | 1.009 |
| Z | 63.98    | 455.3    | 34.93                       | 29.72                               | 3.442                               | 5.10     | 0.679                 | 0.571                 | 1.011 |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 6.70    | 6.70    | 6.70    | 0.80               | 1.21                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 6.44    | 6.44    | 6.44    | 0.80               | 1.17                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 5.49    | 5.49    | 5.49    | 0.65               | 1.43                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 5.29    | 5.29    | 5.29    | 0.76               | 1.30                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 5.06    | 5.06    | 5.06    | 0.72               | 1.29                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 4.71    | 4.71    | 4.71    | 0.77               | 1.30                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 4.55    | 4.55    | 4.55    | 0.80               | 1.31                    | ± 12.0 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

### Calibration Parameter Determined in Body Tissue Simulating Media

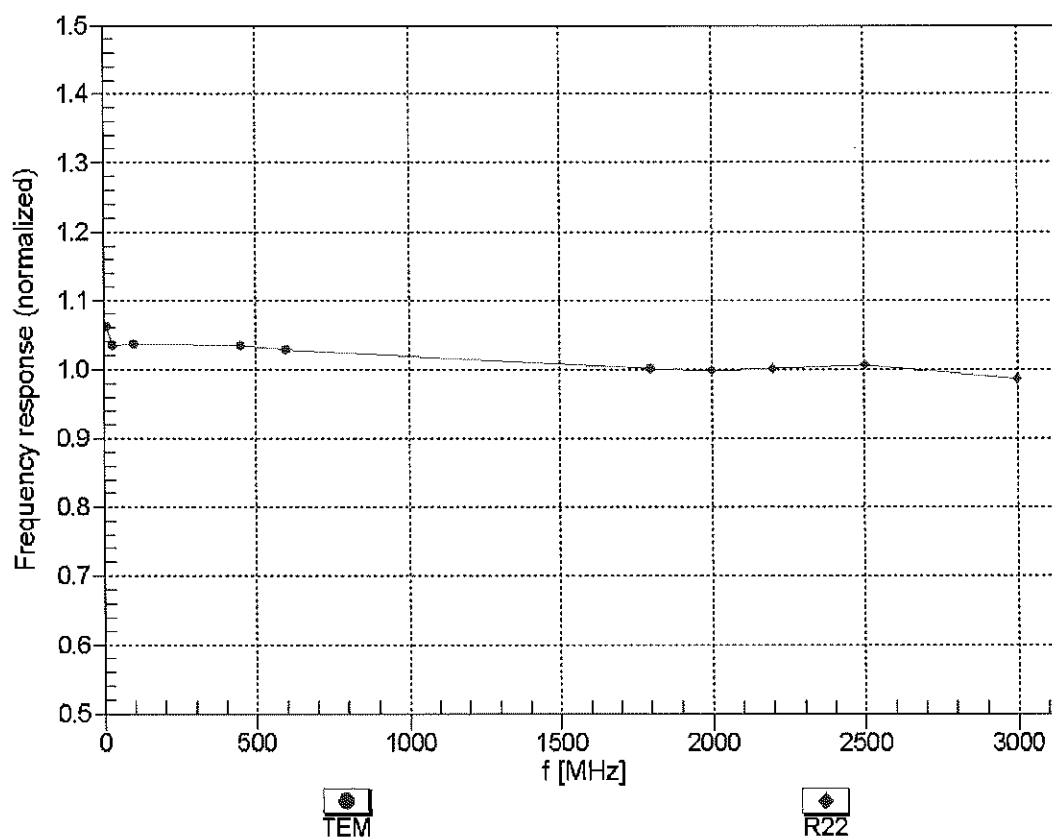
| f (MHz) <sup>c</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 55.5                               | 0.96                            | 6.32    | 6.32    | 6.32    | 0.65               | 1.26                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 6.20    | 6.20    | 6.20    | 0.80               | 1.14                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 5.05    | 5.05    | 5.05    | 0.76               | 1.27                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 4.84    | 4.84    | 4.84    | 0.55               | 1.56                    | ± 12.0 %  |
| 2300                 | 52.9                               | 1.81                            | 4.63    | 4.63    | 4.63    | 0.80               | 1.30                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 4.51    | 4.51    | 4.51    | 0.80               | 1.25                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 4.33    | 4.33    | 4.33    | 0.80               | 1.20                    | ± 12.0 %  |

<sup>c</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

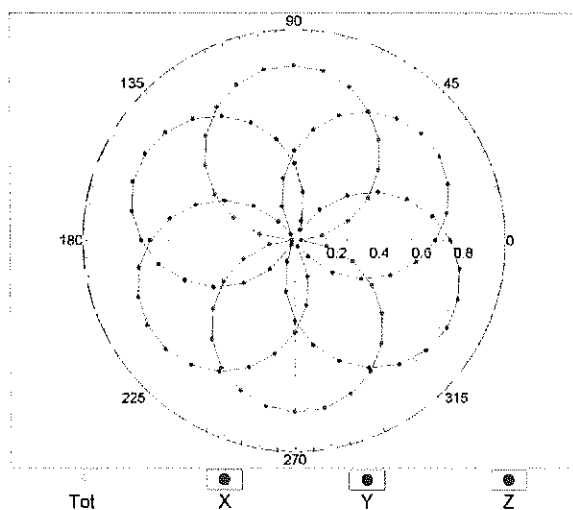
## Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



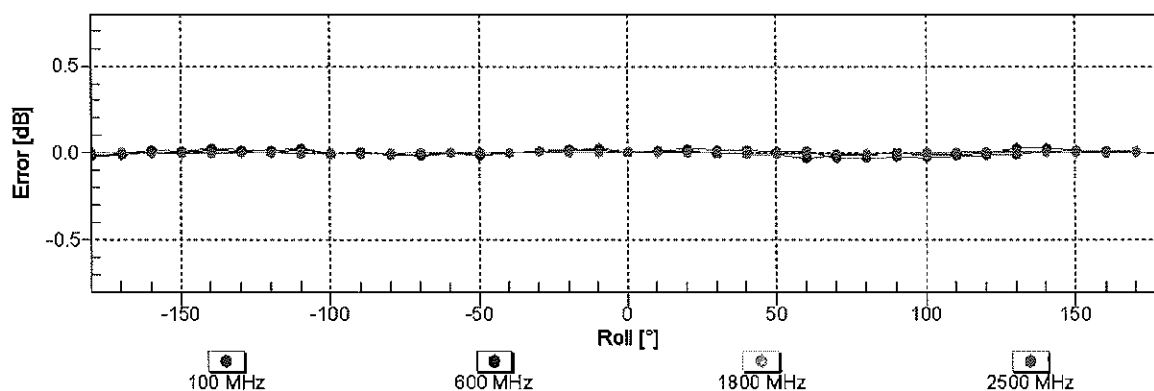
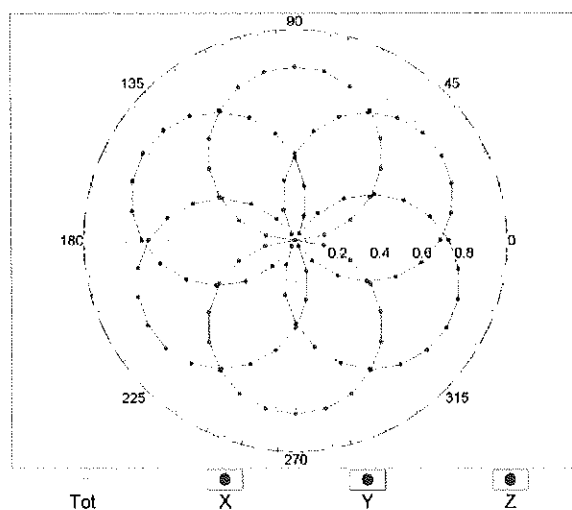
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

## Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

f=600 MHz,TEM

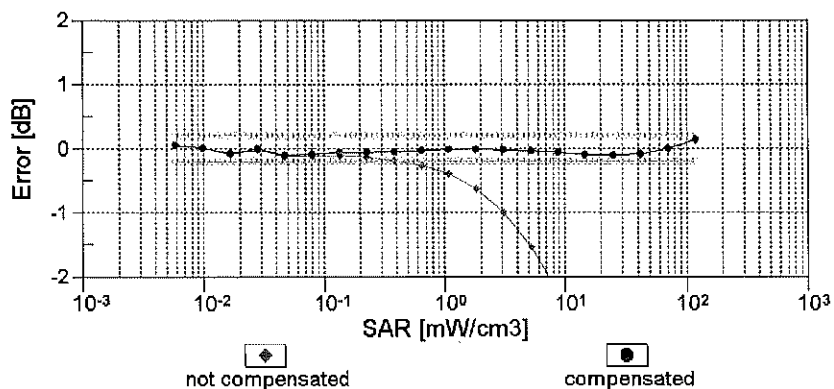
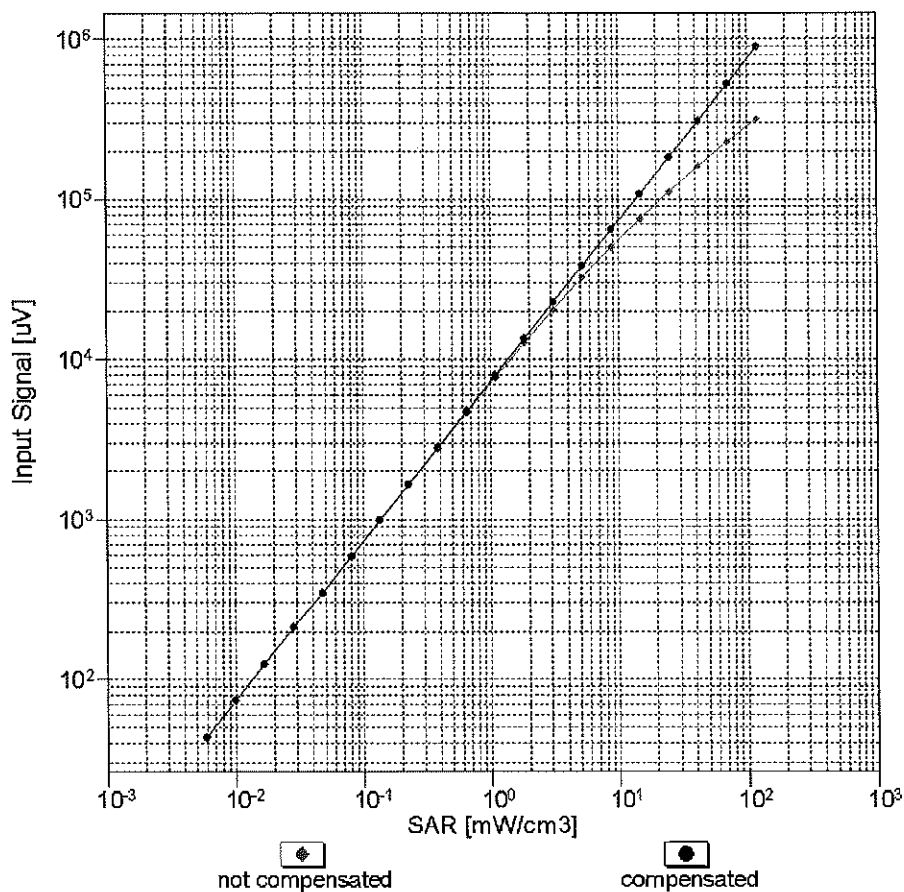


f=1800 MHz,R22



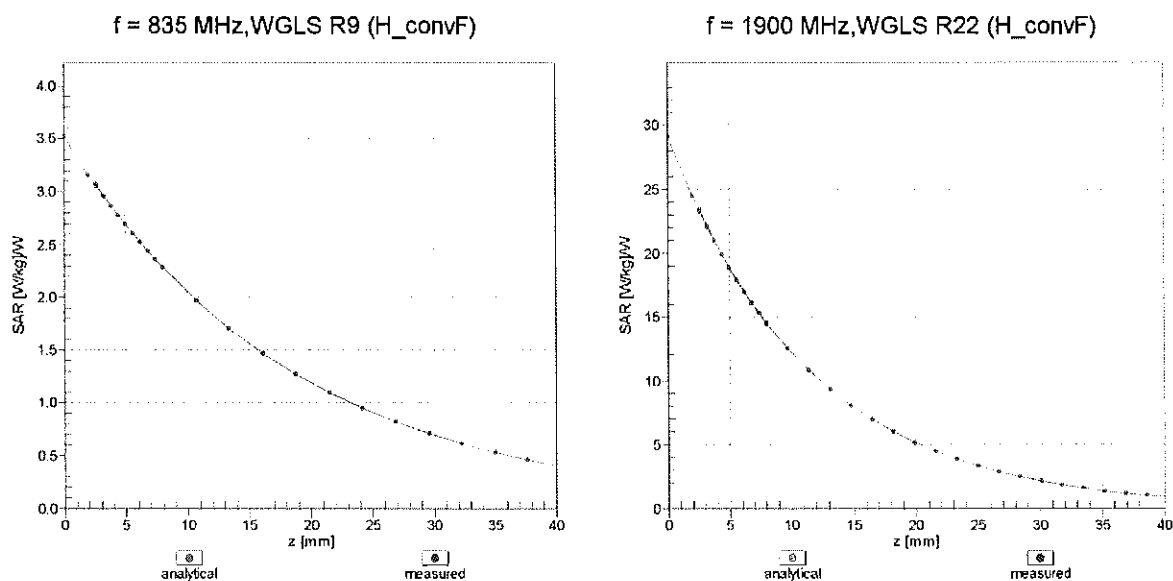
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  (k=2)

# Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell , $f_{\text{eval}} = 1900 \text{ MHz}$ )



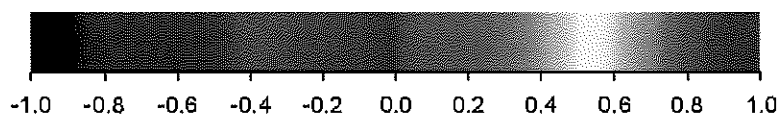
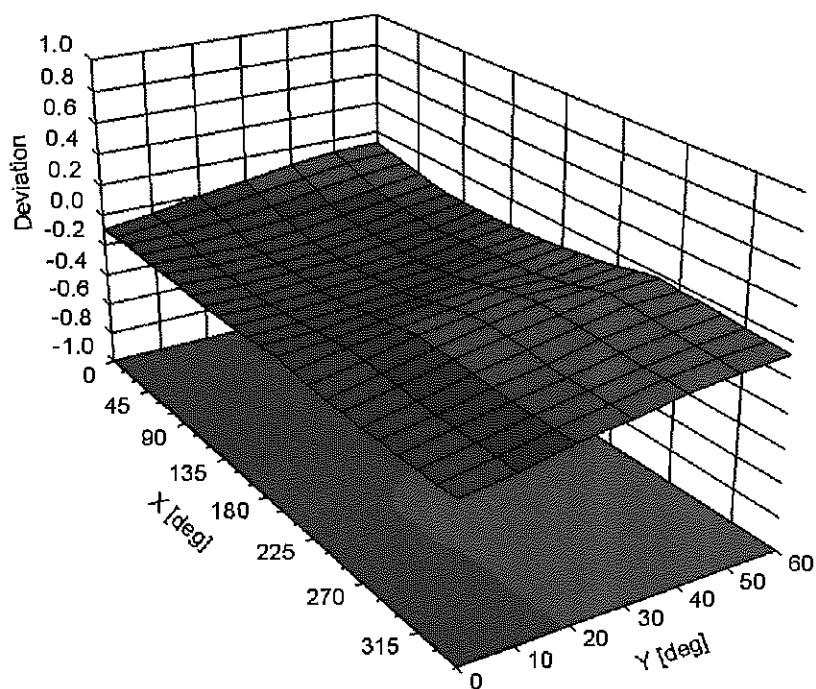
Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi, \theta$ ),  $f = 900 \text{ MHz}$



Uncertainty of Spherical Isotropy Assessment:  $\pm 2.6\%$  ( $k=2$ )

## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 60.4       |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 10 mm      |
| Tip Diameter                                  | 4 mm       |
| Probe Tip to Sensor X Calibration Point       | 2 mm       |
| Probe Tip to Sensor Y Calibration Point       | 2 mm       |
| Probe Tip to Sensor Z Calibration Point       | 2 mm       |
| Recommended Measurement Distance from Surface | 3 mm       |

**Appendix: Modulation Calibration Parameters**

| UID           | Communication System Name                     |   | A<br>dB | B<br>dB $\mu$ V | C     | D<br>dB | VR<br>mV | Max<br>Unc <sup>E</sup><br>(k=2) |
|---------------|-----------------------------------------------|---|---------|-----------------|-------|---------|----------|----------------------------------|
| 0             | CW                                            | X | 0.00    | 0.00            | 1.00  | 0.00    | 197.9    | $\pm 3.8 \%$                     |
|               |                                               | Y | 0.00    | 0.00            | 1.00  |         | 198.2    |                                  |
|               |                                               | Z | 0.00    | 0.00            | 1.00  |         | 200.6    |                                  |
| 10010-<br>CAA | SAR Validation (Square, 100ms, 10ms)          | X | 9.56    | 81.28           | 19.98 | 10.00   | 25.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 8.09    | 78.70           | 18.35 |         | 25.0     |                                  |
|               |                                               | Z | 8.70    | 79.52           | 19.57 |         | 25.0     |                                  |
| 10011-<br>CAB | UMTS-FDD (WCDMA)                              | X | 1.34    | 72.37           | 18.08 | 0.00    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 0.99    | 67.12           | 14.82 |         | 150.0    |                                  |
|               |                                               | Z | 1.12    | 68.87           | 16.00 |         | 150.0    |                                  |
| 10012-<br>CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)      | X | 1.37    | 66.58           | 17.00 | 0.41    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 1.25    | 64.92           | 15.59 |         | 150.0    |                                  |
|               |                                               | Z | 1.32    | 65.58           | 16.11 |         | 150.0    |                                  |
| 10013-<br>CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps) | X | 5.18    | 67.48           | 17.64 | 1.46    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 5.08    | 67.20           | 17.36 |         | 150.0    |                                  |
|               |                                               | Z | 5.20    | 67.32           | 17.47 |         | 150.0    |                                  |
| 10021-<br>DAC | GSM-FDD (TDMA, GMSK)                          | X | 20.40   | 95.52           | 26.57 | 9.39    | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 29.46   | 101.11          | 27.60 |         | 50.0     |                                  |
|               |                                               | Z | 14.66   | 89.52           | 24.83 |         | 50.0     |                                  |
| 10023-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0)                   | X | 18.37   | 93.61           | 26.02 | 9.57    | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 24.41   | 97.95           | 26.72 |         | 50.0     |                                  |
|               |                                               | Z | 13.84   | 88.39           | 24.49 |         | 50.0     |                                  |
| 10024-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                 | X | 100.00  | 119.56          | 31.31 | 6.56    | 60.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 117.39          | 29.93 |         | 60.0     |                                  |
|               |                                               | Z | 47.21   | 108.31          | 28.71 |         | 60.0     |                                  |
| 10025-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                   | X | 21.09   | 108.48          | 41.18 | 12.57   | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 17.11   | 102.80          | 38.82 |         | 50.0     |                                  |
|               |                                               | Z | 18.44   | 103.12          | 38.97 |         | 50.0     |                                  |
| 10026-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                 | X | 21.59   | 105.09          | 36.25 | 9.56    | 60.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 18.95   | 102.20          | 35.03 |         | 60.0     |                                  |
|               |                                               | Z | 18.49   | 100.22          | 34.38 |         | 60.0     |                                  |
| 10027-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)               | X | 100.00  | 118.49          | 29.83 | 4.80    | 80.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 115.83          | 28.28 |         | 80.0     |                                  |
|               |                                               | Z | 100.00  | 118.30          | 29.89 |         | 80.0     |                                  |
| 10028-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)             | X | 100.00  | 118.84          | 29.14 | 3.55    | 100.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 115.36          | 27.25 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 118.10          | 28.92 |         | 100.0    |                                  |
| 10029-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)               | X | 15.08   | 97.16           | 32.49 | 7.80    | 80.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 12.90   | 93.80           | 31.06 |         | 80.0     |                                  |
|               |                                               | Z | 13.60   | 93.82           | 31.09 |         | 80.0     |                                  |
| 10030-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)           | X | 100.00  | 118.11          | 30.01 | 5.30    | 70.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 115.58          | 28.50 |         | 70.0     |                                  |
|               |                                               | Z | 100.00  | 118.16          | 30.20 |         | 70.0     |                                  |
| 10031-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)           | X | 100.00  | 121.01          | 28.44 | 1.88    | 100.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 114.03          | 25.11 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 118.73          | 27.54 |         | 100.0    |                                  |

|           |                                                     |   |        |        |       |       |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10032-CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | X | 100.00 | 127.26 | 29.88 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 114.89 | 24.38 |       | 100.0 |         |
|           |                                                     | Z | 100.00 | 122.11 | 27.79 |       | 100.0 |         |
| 10033-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | X | 21.21  | 99.84  | 27.91 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 19.09  | 97.43  | 26.61 |       | 70.0  |         |
|           |                                                     | Z | 13.98  | 92.26  | 25.56 |       | 70.0  |         |
| 10034-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | X | 14.93  | 98.23  | 25.94 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 7.46   | 86.71  | 21.62 |       | 100.0 |         |
|           |                                                     | Z | 7.45   | 87.10  | 22.42 |       | 100.0 |         |
| 10035-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | X | 7.98   | 90.77  | 23.49 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 3.97   | 79.58  | 18.90 |       | 100.0 |         |
|           |                                                     | Z | 4.48   | 81.52  | 20.27 |       | 100.0 |         |
| 10036-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | X | 26.12  | 103.52 | 29.04 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 24.16  | 101.42 | 27.84 |       | 70.0  |         |
|           |                                                     | Z | 15.99  | 94.67  | 26.38 |       | 70.0  |         |
| 10037-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | X | 14.25  | 97.55  | 25.70 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 7.04   | 85.92  | 21.32 |       | 100.0 |         |
|           |                                                     | Z | 7.24   | 86.72  | 22.25 |       | 100.0 |         |
| 10038-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | X | 8.53   | 92.07  | 23.99 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 4.13   | 80.37  | 19.27 |       | 100.0 |         |
|           |                                                     | Z | 4.65   | 82.31  | 20.62 |       | 100.0 |         |
| 10039-CAB | CDMA2000 (1xRTT, RC1)                               | X | 2.96   | 79.09  | 19.43 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.75   | 71.10  | 15.36 |       | 150.0 |         |
|           |                                                     | Z | 2.10   | 73.23  | 16.92 |       | 150.0 |         |
| 10042-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | X | 53.77  | 109.05 | 28.70 | 7.78  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 79.10  | 112.95 | 28.86 |       | 50.0  |         |
|           |                                                     | Z | 23.46  | 96.42  | 25.41 |       | 50.0  |         |
| 10044-CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | X | 0.00   | 123.18 | 1.26  | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.02   | 127.84 | 0.07  |       | 150.0 |         |
|           |                                                     | Z | 0.00   | 110.77 | 4.52  |       | 150.0 |         |
| 10048-CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | X | 11.41  | 83.11  | 24.20 | 13.80 | 25.0  | ± 9.6 % |
|           |                                                     | Y | 12.66  | 85.48  | 24.49 |       | 25.0  |         |
|           |                                                     | Z | 10.45  | 80.79  | 23.56 |       | 25.0  |         |
| 10049-CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | X | 13.41  | 87.55  | 24.40 | 10.79 | 40.0  | ± 9.6 % |
|           |                                                     | Y | 15.25  | 89.77  | 24.55 |       | 40.0  |         |
|           |                                                     | Z | 11.61  | 84.53  | 23.55 |       | 40.0  |         |
| 10056-CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | X | 13.37  | 87.98  | 25.03 | 9.03  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 13.72  | 88.51  | 24.74 |       | 50.0  |         |
|           |                                                     | Z | 11.72  | 85.02  | 24.05 |       | 50.0  |         |
| 10058-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | X | 11.14  | 91.28  | 29.72 | 6.55  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 9.52   | 87.98  | 28.26 |       | 100.0 |         |
|           |                                                     | Z | 10.41  | 88.91  | 28.62 |       | 100.0 |         |
| 10059-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | X | 1.60   | 69.38  | 18.31 | 0.61  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 1.43   | 67.15  | 16.67 |       | 110.0 |         |
|           |                                                     | Z | 1.53   | 67.97  | 17.25 |       | 110.0 |         |
| 10060-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | X | 100.00 | 133.15 | 34.60 | 1.30  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 128.63 | 32.36 |       | 110.0 |         |
|           |                                                     | Z | 100.00 | 130.16 | 33.31 |       | 110.0 |         |

|           |                                                |   |       |        |       |      |       |         |
|-----------|------------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10061-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)      | X | 24.68 | 111.64 | 31.63 | 2.04 | 110.0 | ± 9.6 % |
|           |                                                | Y | 11.26 | 97.49  | 27.04 |      | 110.0 |         |
|           |                                                | Z | 10.95 | 96.57  | 26.98 |      | 110.0 |         |
| 10062-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)       | X | 4.90  | 67.24  | 16.94 | 0.49 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.79  | 66.94  | 16.63 |      | 100.0 |         |
|           |                                                | Z | 4.90  | 67.05  | 16.74 |      | 100.0 |         |
| 10063-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)       | X | 4.95  | 67.42  | 17.09 | 0.72 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.84  | 67.10  | 16.77 |      | 100.0 |         |
|           |                                                | Z | 4.95  | 67.23  | 16.89 |      | 100.0 |         |
| 10064-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)      | X | 5.28  | 67.75  | 17.35 | 0.86 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.16  | 67.43  | 17.04 |      | 100.0 |         |
|           |                                                | Z | 5.30  | 67.59  | 17.17 |      | 100.0 |         |
| 10065-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)      | X | 5.19  | 67.81  | 17.53 | 1.21 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.07  | 67.47  | 17.22 |      | 100.0 |         |
|           |                                                | Z | 5.21  | 67.65  | 17.35 |      | 100.0 |         |
| 10066-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)      | X | 5.25  | 67.95  | 17.76 | 1.46 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.12  | 67.61  | 17.44 |      | 100.0 |         |
|           |                                                | Z | 5.27  | 67.80  | 17.59 |      | 100.0 |         |
| 10067-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)      | X | 5.57  | 68.10  | 18.21 | 2.04 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.44  | 67.80  | 17.92 |      | 100.0 |         |
|           |                                                | Z | 5.60  | 67.97  | 18.05 |      | 100.0 |         |
| 10068-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)      | X | 5.73  | 68.50  | 18.60 | 2.55 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.58  | 68.13  | 18.28 |      | 100.0 |         |
|           |                                                | Z | 5.77  | 68.41  | 18.46 |      | 100.0 |         |
| 10069-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)      | X | 5.81  | 68.43  | 18.78 | 2.67 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.66  | 68.09  | 18.46 |      | 100.0 |         |
|           |                                                | Z | 5.84  | 68.33  | 18.64 |      | 100.0 |         |
| 10071-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)  | X | 5.34  | 67.73  | 18.04 | 1.99 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.22  | 67.44  | 17.75 |      | 100.0 |         |
|           |                                                | Z | 5.35  | 67.60  | 17.87 |      | 100.0 |         |
| 10072-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps) | X | 5.42  | 68.35  | 18.39 | 2.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.29  | 68.00  | 18.07 |      | 100.0 |         |
|           |                                                | Z | 5.44  | 68.21  | 18.22 |      | 100.0 |         |
| 10073-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps) | X | 5.57  | 68.74  | 18.83 | 2.83 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.42  | 68.36  | 18.50 |      | 100.0 |         |
|           |                                                | Z | 5.60  | 68.62  | 18.66 |      | 100.0 |         |
| 10074-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps) | X | 5.61  | 68.84  | 19.10 | 3.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.46  | 68.44  | 18.75 |      | 100.0 |         |
|           |                                                | Z | 5.65  | 68.74  | 18.95 |      | 100.0 |         |
| 10075-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps) | X | 5.79  | 69.40  | 19.63 | 3.82 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.61  | 68.91  | 19.24 |      | 90.0  |         |
|           |                                                | Z | 5.85  | 69.35  | 19.51 |      | 90.0  |         |
| 10076-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps) | X | 5.80  | 69.20  | 19.75 | 4.15 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.64  | 68.73  | 19.37 |      | 90.0  |         |
|           |                                                | Z | 5.86  | 69.15  | 19.63 |      | 90.0  |         |
| 10077-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps) | X | 5.84  | 69.30  | 19.86 | 4.30 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.68  | 68.82  | 19.47 |      | 90.0  |         |
|           |                                                | Z | 5.90  | 69.25  | 19.74 |      | 90.0  |         |

|           |                                                     |   |        |        |       |      |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10081-CAB | CDMA2000 (1xRTT, RC3)                               | X | 1.29   | 72.14  | 16.36 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.81   | 65.51  | 12.24 |      | 150.0 |         |
|           |                                                     | Z | 0.99   | 67.68  | 14.05 |      | 150.0 |         |
| 10082-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | X | 2.36   | 64.73  | 9.48  | 4.77 | 80.0  | ± 9.6 % |
|           |                                                     | Y | 1.97   | 63.15  | 8.18  |      | 80.0  |         |
|           |                                                     | Z | 2.45   | 64.78  | 9.67  |      | 80.0  |         |
| 10090-DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | X | 100.00 | 119.65 | 31.37 | 6.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 117.49 | 29.99 |      | 60.0  |         |
|           |                                                     | Z | 45.52  | 107.81 | 28.61 |      | 60.0  |         |
| 10097-CAB | UMTS-FDD (HSDPA)                                    | X | 2.00   | 69.44  | 16.95 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.78   | 67.32  | 15.42 |      | 150.0 |         |
|           |                                                     | Z | 1.87   | 67.93  | 15.97 |      | 150.0 |         |
| 10098-CAB | UMTS-FDD (HSUPA, Subtest 2)                         | X | 1.97   | 69.46  | 16.95 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.74   | 67.28  | 15.38 |      | 150.0 |         |
|           |                                                     | Z | 1.84   | 67.91  | 15.95 |      | 150.0 |         |
| 10099-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | X | 21.45  | 104.88 | 36.18 | 9.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 18.89  | 102.07 | 34.98 |      | 60.0  |         |
|           |                                                     | Z | 18.39  | 100.05 | 34.32 |      | 60.0  |         |
| 10100-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 3.55   | 72.46  | 17.74 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.14   | 70.29  | 16.48 |      | 150.0 |         |
|           |                                                     | Z | 3.35   | 71.19  | 16.95 |      | 150.0 |         |
| 10101-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 3.45   | 68.62  | 16.57 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.26   | 67.61  | 15.85 |      | 150.0 |         |
|           |                                                     | Z | 3.39   | 68.08  | 16.14 |      | 150.0 |         |
| 10102-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 3.54   | 68.46  | 16.61 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.37   | 67.56  | 15.95 |      | 150.0 |         |
|           |                                                     | Z | 3.49   | 67.97  | 16.20 |      | 150.0 |         |
| 10103-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 8.98   | 78.82  | 21.57 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 8.50   | 78.15  | 21.17 |      | 65.0  |         |
|           |                                                     | Z | 8.60   | 77.58  | 20.95 |      | 65.0  |         |
| 10104-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 8.85   | 77.44  | 21.89 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 8.45   | 76.83  | 21.49 |      | 65.0  |         |
|           |                                                     | Z | 8.72   | 76.72  | 21.48 |      | 65.0  |         |
| 10105-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 8.33   | 76.23  | 21.66 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 7.79   | 75.22  | 21.09 |      | 65.0  |         |
|           |                                                     | Z | 7.71   | 74.28  | 20.69 |      | 65.0  |         |
| 10108-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | X | 3.11   | 71.64  | 17.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.75   | 69.54  | 16.32 |      | 150.0 |         |
|           |                                                     | Z | 2.95   | 70.37  | 16.78 |      | 150.0 |         |
| 10109-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)          | X | 3.12   | 68.50  | 16.56 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.92   | 67.41  | 15.75 |      | 150.0 |         |
|           |                                                     | Z | 3.06   | 67.87  | 16.07 |      | 150.0 |         |
| 10110-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)             | X | 2.56   | 70.84  | 17.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.24   | 68.61  | 15.94 |      | 150.0 |         |
|           |                                                     | Z | 2.42   | 69.44  | 16.48 |      | 150.0 |         |
| 10111-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)           | X | 2.84   | 69.29  | 16.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.62   | 68.02  | 15.99 |      | 150.0 |         |
|           |                                                     | Z | 2.75   | 68.36  | 16.33 |      | 150.0 |         |

|           |                                                |   |      |       |       |      |       |         |
|-----------|------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10112-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | X | 3.23 | 68.35 | 16.55 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.05 | 67.38 | 15.81 |      | 150.0 |         |
|           |                                                | Z | 3.18 | 67.77 | 16.10 |      | 150.0 |         |
| 10113-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | X | 2.98 | 69.28 | 17.01 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.77 | 68.14 | 16.13 |      | 150.0 |         |
|           |                                                | Z | 2.90 | 68.40 | 16.43 |      | 150.0 |         |
| 10114-CAC | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | X | 5.25 | 67.55 | 16.67 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.16 | 67.27 | 16.41 |      | 150.0 |         |
|           |                                                | Z | 5.23 | 67.36 | 16.47 |      | 150.0 |         |
| 10115-CAC | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | X | 5.62 | 67.87 | 16.84 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.53 | 67.61 | 16.59 |      | 150.0 |         |
|           |                                                | Z | 5.61 | 67.68 | 16.64 |      | 150.0 |         |
| 10116-CAC | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | X | 5.38 | 67.84 | 16.74 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.28 | 67.54 | 16.47 |      | 150.0 |         |
|           |                                                | Z | 5.37 | 67.64 | 16.53 |      | 150.0 |         |
| 10117-CAC | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | X | 5.26 | 67.57 | 16.70 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.15 | 67.22 | 16.40 |      | 150.0 |         |
|           |                                                | Z | 5.24 | 67.39 | 16.51 |      | 150.0 |         |
| 10118-CAC | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | X | 5.70 | 68.05 | 16.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.61 | 67.82 | 16.70 |      | 150.0 |         |
|           |                                                | Z | 5.67 | 67.81 | 16.71 |      | 150.0 |         |
| 10119-CAC | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | X | 5.36 | 67.79 | 16.73 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.26 | 67.48 | 16.45 |      | 150.0 |         |
|           |                                                | Z | 5.34 | 67.59 | 16.52 |      | 150.0 |         |
| 10140-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | X | 3.59 | 68.46 | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.41 | 67.56 | 15.87 |      | 150.0 |         |
|           |                                                | Z | 3.54 | 67.97 | 16.13 |      | 150.0 |         |
| 10141-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | X | 3.70 | 68.46 | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.53 | 67.64 | 16.03 |      | 150.0 |         |
|           |                                                | Z | 3.65 | 67.99 | 16.26 |      | 150.0 |         |
| 10142-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | X | 2.36 | 71.08 | 17.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.01 | 68.49 | 15.62 |      | 150.0 |         |
|           |                                                | Z | 2.20 | 69.37 | 16.30 |      | 150.0 |         |
| 10143-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | X | 2.76 | 70.34 | 17.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.47 | 68.62 | 15.73 |      | 150.0 |         |
|           |                                                | Z | 2.62 | 69.02 | 16.23 |      | 150.0 |         |
| 10144-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | X | 2.54 | 68.16 | 15.50 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.28 | 66.60 | 14.27 |      | 150.0 |         |
|           |                                                | Z | 2.46 | 67.23 | 14.93 |      | 150.0 |         |
| 10145-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | X | 1.75 | 69.86 | 15.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.29 | 65.55 | 12.27 |      | 150.0 |         |
|           |                                                | Z | 1.55 | 67.61 | 14.05 |      | 150.0 |         |
| 10146-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | X | 4.07 | 76.05 | 17.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.52 | 69.20 | 13.62 |      | 150.0 |         |
|           |                                                | Z | 3.50 | 73.50 | 16.33 |      | 150.0 |         |
| 10147-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | X | 5.72 | 80.95 | 19.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.13 | 72.10 | 15.05 |      | 150.0 |         |
|           |                                                | Z | 4.43 | 76.91 | 17.88 |      | 150.0 |         |

|           |                                            |   |      |       |       |      |       |         |
|-----------|--------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10149-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 3.13 | 68.56 | 16.60 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.93 | 67.47 | 15.80 |      | 150.0 |         |
|           |                                            | Z | 3.07 | 67.93 | 16.12 |      | 150.0 |         |
| 10150-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 3.24 | 68.40 | 16.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.05 | 67.43 | 15.85 |      | 150.0 |         |
|           |                                            | Z | 3.18 | 67.82 | 16.13 |      | 150.0 |         |
| 10151-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)    | X | 9.59 | 81.21 | 22.61 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 9.21 | 80.79 | 22.27 |      | 65.0  |         |
|           |                                            | Z | 9.05 | 79.62 | 21.87 |      | 65.0  |         |
| 10152-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 8.53 | 77.77 | 21.82 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 8.07 | 77.03 | 21.32 |      | 65.0  |         |
|           |                                            | Z | 8.36 | 76.93 | 21.37 |      | 65.0  |         |
| 10153-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 8.87 | 78.41 | 22.41 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 8.48 | 77.88 | 22.02 |      | 65.0  |         |
|           |                                            | Z | 8.68 | 77.54 | 21.94 |      | 65.0  |         |
| 10154-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 2.63 | 71.34 | 17.67 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.29 | 69.04 | 16.21 |      | 150.0 |         |
|           |                                            | Z | 2.48 | 69.88 | 16.75 |      | 150.0 |         |
| 10155-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 2.84 | 69.30 | 16.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.62 | 68.03 | 16.00 |      | 150.0 |         |
|           |                                            | Z | 2.75 | 68.36 | 16.34 |      | 150.0 |         |
| 10156-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 2.26 | 71.67 | 17.44 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 1.86 | 68.59 | 15.46 |      | 150.0 |         |
|           |                                            | Z | 2.07 | 69.64 | 16.29 |      | 150.0 |         |
| 10157-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 2.42 | 69.16 | 15.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.11 | 67.12 | 14.31 |      | 150.0 |         |
|           |                                            | Z | 2.30 | 67.87 | 15.10 |      | 150.0 |         |
| 10158-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 2.99 | 69.33 | 17.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.78 | 68.20 | 16.17 |      | 150.0 |         |
|           |                                            | Z | 2.90 | 68.44 | 16.46 |      | 150.0 |         |
| 10159-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 2.55 | 69.60 | 16.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.22 | 67.56 | 14.60 |      | 150.0 |         |
|           |                                            | Z | 2.41 | 68.28 | 15.37 |      | 150.0 |         |
| 10160-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)    | X | 3.02 | 70.16 | 17.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.77 | 68.66 | 16.17 |      | 150.0 |         |
|           |                                            | Z | 2.91 | 69.14 | 16.50 |      | 150.0 |         |
| 10161-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 3.13 | 68.32 | 16.54 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.95 | 67.34 | 15.78 |      | 150.0 |         |
|           |                                            | Z | 3.07 | 67.70 | 16.08 |      | 150.0 |         |
| 10162-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 3.23 | 68.35 | 16.60 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.06 | 67.45 | 15.88 |      | 150.0 |         |
|           |                                            | Z | 3.18 | 67.74 | 16.14 |      | 150.0 |         |
| 10166-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 4.02 | 71.10 | 20.08 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.79 | 70.19 | 19.37 |      | 150.0 |         |
|           |                                            | Z | 4.03 | 70.69 | 19.72 |      | 150.0 |         |
| 10167-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 5.24 | 74.71 | 20.79 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.82 | 73.39 | 19.92 |      | 150.0 |         |
|           |                                            | Z | 5.25 | 74.14 | 20.39 |      | 150.0 |         |

|           |                                            |   |       |        |       |      |       |         |
|-----------|--------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10168-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 5.76  | 76.76  | 21.96 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.36  | 75.66  | 21.24 |      | 150.0 |         |
|           |                                            | Z | 5.73  | 75.99  | 21.47 |      | 150.0 |         |
| 10169-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 3.69  | 72.72  | 20.82 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.33  | 70.78  | 19.63 |      | 150.0 |         |
|           |                                            | Z | 3.78  | 72.61  | 20.53 |      | 150.0 |         |
| 10170-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 5.76  | 80.54  | 23.62 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.94  | 77.74  | 22.22 |      | 150.0 |         |
|           |                                            | Z | 5.83  | 79.90  | 23.09 |      | 150.0 |         |
| 10171-AAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 4.61  | 75.69  | 20.76 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.94  | 72.92  | 19.25 |      | 150.0 |         |
|           |                                            | Z | 4.70  | 75.28  | 20.35 |      | 150.0 |         |
| 10172-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 36.99 | 114.19 | 35.08 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 22.97 | 105.21 | 32.24 |      | 65.0  |         |
|           |                                            | Z | 26.68 | 106.36 | 32.56 |      | 65.0  |         |
| 10173-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 41.01 | 110.69 | 32.32 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 35.83 | 108.35 | 31.36 |      | 65.0  |         |
|           |                                            | Z | 28.00 | 102.66 | 29.85 |      | 65.0  |         |
| 10174-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 30.73 | 104.07 | 29.95 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 27.27 | 102.14 | 29.08 |      | 65.0  |         |
|           |                                            | Z | 22.20 | 97.35  | 27.81 |      | 65.0  |         |
| 10175-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)      | X | 3.64  | 72.35  | 20.56 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.28  | 70.42  | 19.36 |      | 150.0 |         |
|           |                                            | Z | 3.72  | 72.25  | 20.28 |      | 150.0 |         |
| 10176-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)    | X | 5.77  | 80.56  | 23.63 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.95  | 77.76  | 22.23 |      | 150.0 |         |
|           |                                            | Z | 5.84  | 79.92  | 23.10 |      | 150.0 |         |
| 10177-CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)       | X | 3.67  | 72.53  | 20.66 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.31  | 70.60  | 19.46 |      | 150.0 |         |
|           |                                            | Z | 3.76  | 72.42  | 20.38 |      | 150.0 |         |
| 10178-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)     | X | 5.68  | 80.23  | 23.47 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.88  | 77.46  | 22.08 |      | 150.0 |         |
|           |                                            | Z | 5.74  | 79.60  | 22.95 |      | 150.0 |         |
| 10179-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)    | X | 5.14  | 77.96  | 22.04 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.38  | 75.13  | 20.57 |      | 150.0 |         |
|           |                                            | Z | 5.21  | 77.41  | 21.56 |      | 150.0 |         |
| 10180-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)     | X | 4.59  | 75.59  | 20.70 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.92  | 72.83  | 19.19 |      | 150.0 |         |
|           |                                            | Z | 4.68  | 75.18  | 20.29 |      | 150.0 |         |
| 10181-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 3.66  | 72.51  | 20.66 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.30  | 70.58  | 19.46 |      | 150.0 |         |
|           |                                            | Z | 3.75  | 72.41  | 20.37 |      | 150.0 |         |
| 10182-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)    | X | 5.67  | 80.21  | 23.46 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.87  | 77.43  | 22.07 |      | 150.0 |         |
|           |                                            | Z | 5.73  | 79.57  | 22.94 |      | 150.0 |         |
| 10183-AAC | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 4.58  | 75.56  | 20.68 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.92  | 72.80  | 19.18 |      | 150.0 |         |
|           |                                            | Z | 4.67  | 75.15  | 20.27 |      | 150.0 |         |

|           |                                               |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10184-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | X | 3.68 | 72.56 | 20.68 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.32 | 70.63 | 19.48 |      | 150.0 |         |
|           |                                               | Z | 3.77 | 72.45 | 20.39 |      | 150.0 |         |
| 10185-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | X | 5.70 | 80.29 | 23.50 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.90 | 77.51 | 22.11 |      | 150.0 |         |
|           |                                               | Z | 5.76 | 79.65 | 22.97 |      | 150.0 |         |
| 10186-AAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | X | 4.61 | 75.64 | 20.72 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.94 | 72.88 | 19.21 |      | 150.0 |         |
|           |                                               | Z | 4.69 | 75.23 | 20.31 |      | 150.0 |         |
| 10187-CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | X | 3.69 | 72.61 | 20.73 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.33 | 70.68 | 19.54 |      | 150.0 |         |
|           |                                               | Z | 3.77 | 72.50 | 20.44 |      | 150.0 |         |
| 10188-CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | X | 5.93 | 81.11 | 23.91 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 5.09 | 78.33 | 22.53 |      | 150.0 |         |
|           |                                               | Z | 5.99 | 80.44 | 23.37 |      | 150.0 |         |
| 10189-AAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | X | 4.73 | 76.16 | 21.02 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.04 | 73.37 | 19.51 |      | 150.0 |         |
|           |                                               | Z | 4.82 | 75.73 | 20.60 |      | 150.0 |         |
| 10193-CAC | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | X | 4.67 | 66.99 | 16.47 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.56 | 66.66 | 16.13 |      | 150.0 |         |
|           |                                               | Z | 4.66 | 66.78 | 16.26 |      | 150.0 |         |
| 10194-CAC | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | X | 4.87 | 67.36 | 16.58 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.75 | 67.00 | 16.25 |      | 150.0 |         |
|           |                                               | Z | 4.87 | 67.15 | 16.37 |      | 150.0 |         |
| 10195-CAC | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | X | 4.91 | 67.37 | 16.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.79 | 67.03 | 16.27 |      | 150.0 |         |
|           |                                               | Z | 4.91 | 67.16 | 16.38 |      | 150.0 |         |
| 10196-CAC | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | X | 4.69 | 67.10 | 16.51 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.58 | 66.74 | 16.16 |      | 150.0 |         |
|           |                                               | Z | 4.69 | 66.88 | 16.30 |      | 150.0 |         |
| 10197-CAC | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | X | 4.89 | 67.38 | 16.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.77 | 67.03 | 16.26 |      | 150.0 |         |
|           |                                               | Z | 4.88 | 67.17 | 16.38 |      | 150.0 |         |
| 10198-CAC | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | X | 4.92 | 67.39 | 16.60 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.80 | 67.05 | 16.28 |      | 150.0 |         |
|           |                                               | Z | 4.91 | 67.18 | 16.39 |      | 150.0 |         |
| 10219-CAC | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | X | 4.64 | 67.11 | 16.47 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.53 | 66.75 | 16.12 |      | 150.0 |         |
|           |                                               | Z | 4.64 | 66.90 | 16.26 |      | 150.0 |         |
| 10220-CAC | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | X | 4.88 | 67.37 | 16.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.76 | 67.01 | 16.26 |      | 150.0 |         |
|           |                                               | Z | 4.88 | 67.17 | 16.38 |      | 150.0 |         |
| 10221-CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | X | 4.92 | 67.32 | 16.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.80 | 66.98 | 16.27 |      | 150.0 |         |
|           |                                               | Z | 4.92 | 67.11 | 16.38 |      | 150.0 |         |
| 10222-CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | X | 5.23 | 67.59 | 16.70 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 5.12 | 67.23 | 16.39 |      | 150.0 |         |
|           |                                               | Z | 5.22 | 67.42 | 16.51 |      | 150.0 |         |

|           |                                           |   |       |        |       |      |       |         |
|-----------|-------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10223-CAC | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)  | X | 5.61  | 67.92  | 16.89 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.46  | 67.48  | 16.54 |      | 150.0 |         |
|           |                                           | Z | 5.61  | 67.78  | 16.72 |      | 150.0 |         |
| 10224-CAC | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM) | X | 5.28  | 67.68  | 16.67 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.17  | 67.32  | 16.37 |      | 150.0 |         |
|           |                                           | Z | 5.27  | 67.52  | 16.48 |      | 150.0 |         |
| 10225-CAB | UMTS-FDD (HSPA+)                          | X | 2.96  | 66.82  | 16.01 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 2.82  | 66.09  | 15.31 |      | 150.0 |         |
|           |                                           | Z | 2.93  | 66.33  | 15.63 |      | 150.0 |         |
| 10226-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)  | X | 43.59 | 111.94 | 32.75 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 38.77 | 109.92 | 31.88 |      | 65.0  |         |
|           |                                           | Z | 29.30 | 103.58 | 30.20 |      | 65.0  |         |
| 10227-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)  | X | 32.72 | 105.33 | 30.40 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 30.31 | 104.10 | 29.73 |      | 65.0  |         |
|           |                                           | Z | 23.58 | 98.50  | 28.23 |      | 65.0  |         |
| 10228-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)    | X | 45.04 | 118.57 | 36.38 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 33.63 | 112.96 | 34.54 |      | 65.0  |         |
|           |                                           | Z | 30.07 | 109.15 | 33.47 |      | 65.0  |         |
| 10229-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)    | X | 40.99 | 110.67 | 32.33 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 35.91 | 108.38 | 31.38 |      | 65.0  |         |
|           |                                           | Z | 28.02 | 102.65 | 29.86 |      | 65.0  |         |
| 10230-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)    | X | 31.17 | 104.37 | 30.06 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 28.46 | 102.90 | 29.31 |      | 65.0  |         |
|           |                                           | Z | 22.72 | 97.78  | 27.95 |      | 65.0  |         |
| 10231-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)      | X | 42.43 | 117.25 | 35.96 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 31.37 | 111.47 | 34.05 |      | 65.0  |         |
|           |                                           | Z | 28.77 | 108.18 | 33.13 |      | 65.0  |         |
| 10232-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)    | X | 40.99 | 110.68 | 32.33 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 35.90 | 108.38 | 31.38 |      | 65.0  |         |
|           |                                           | Z | 28.01 | 102.65 | 29.86 |      | 65.0  |         |
| 10233-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)    | X | 31.21 | 104.41 | 30.07 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 28.46 | 102.91 | 29.32 |      | 65.0  |         |
|           |                                           | Z | 22.74 | 97.80  | 27.96 |      | 65.0  |         |
| 10234-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)      | X | 39.80 | 115.77 | 35.45 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 29.32 | 109.94 | 33.51 |      | 65.0  |         |
|           |                                           | Z | 27.42 | 107.07 | 32.71 |      | 65.0  |         |
| 10235-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)   | X | 41.16 | 110.77 | 32.35 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 36.04 | 108.46 | 31.40 |      | 65.0  |         |
|           |                                           | Z | 28.08 | 102.71 | 29.87 |      | 65.0  |         |
| 10236-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)   | X | 31.50 | 104.54 | 30.10 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 28.73 | 103.05 | 29.35 |      | 65.0  |         |
|           |                                           | Z | 22.90 | 97.90  | 27.98 |      | 65.0  |         |
| 10237-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)     | X | 42.99 | 117.54 | 36.03 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 31.67 | 111.68 | 34.11 |      | 65.0  |         |
|           |                                           | Z | 29.03 | 108.38 | 33.18 |      | 65.0  |         |
| 10238-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)   | X | 41.04 | 110.71 | 32.33 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 35.91 | 108.40 | 31.38 |      | 65.0  |         |
|           |                                           | Z | 28.02 | 102.67 | 29.86 |      | 65.0  |         |

|           |                                            |   |       |        |       |      |      |         |
|-----------|--------------------------------------------|---|-------|--------|-------|------|------|---------|
| 10239-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 31.24 | 104.44 | 30.08 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 28.46 | 102.92 | 29.32 |      | 65.0 |         |
|           |                                            | Z | 22.74 | 97.82  | 27.96 |      | 65.0 |         |
| 10240-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 42.83 | 117.47 | 36.01 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 31.56 | 111.62 | 34.09 |      | 65.0 |         |
|           |                                            | Z | 28.94 | 108.32 | 33.17 |      | 65.0 |         |
| 10241-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 13.21 | 88.13  | 28.12 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 12.19 | 86.75  | 27.34 |      | 65.0 |         |
|           |                                            | Z | 12.93 | 86.92  | 27.56 |      | 65.0 |         |
| 10242-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 11.82 | 85.64  | 27.08 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 11.88 | 86.18  | 27.05 |      | 65.0 |         |
|           |                                            | Z | 11.71 | 84.70  | 26.62 |      | 65.0 |         |
| 10243-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 9.69  | 83.18  | 27.04 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.48  | 80.58  | 25.71 |      | 65.0 |         |
|           |                                            | Z | 9.71  | 82.55  | 26.66 |      | 65.0 |         |
| 10244-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   | X | 10.16 | 81.71  | 21.73 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 9.31  | 80.28  | 20.70 |      | 65.0 |         |
|           |                                            | Z | 9.66  | 80.44  | 21.31 |      | 65.0 |         |
| 10245-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)   | X | 9.99  | 81.19  | 21.49 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 9.12  | 79.71  | 20.44 |      | 65.0 |         |
|           |                                            | Z | 9.56  | 80.04  | 21.12 |      | 65.0 |         |
| 10246-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)     | X | 10.26 | 84.67  | 22.74 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 9.22  | 82.91  | 21.64 |      | 65.0 |         |
|           |                                            | Z | 9.02  | 82.03  | 21.79 |      | 65.0 |         |
| 10247-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 8.13  | 78.66  | 21.05 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.56  | 77.60  | 20.25 |      | 65.0 |         |
|           |                                            | Z | 7.81  | 77.51  | 20.59 |      | 65.0 |         |
| 10248-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 8.10  | 78.15  | 20.84 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.50  | 77.03  | 20.01 |      | 65.0 |         |
|           |                                            | Z | 7.84  | 77.14  | 20.44 |      | 65.0 |         |
| 10249-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 11.10 | 86.20  | 23.88 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 10.38 | 85.15  | 23.14 |      | 65.0 |         |
|           |                                            | Z | 9.69  | 83.27  | 22.77 |      | 65.0 |         |
| 10250-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 8.90  | 80.26  | 22.85 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.50  | 79.72  | 22.41 |      | 65.0 |         |
|           |                                            | Z | 8.55  | 78.98  | 22.26 |      | 65.0 |         |
| 10251-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 8.43  | 78.18  | 21.77 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.97  | 77.44  | 21.21 |      | 65.0 |         |
|           |                                            | Z | 8.21  | 77.20  | 21.30 |      | 65.0 |         |
| 10252-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 10.55 | 84.69  | 23.95 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 10.10 | 84.18  | 23.52 |      | 65.0 |         |
|           |                                            | Z | 9.56  | 82.30  | 22.95 |      | 65.0 |         |
| 10253-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 8.29  | 77.16  | 21.61 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.87  | 76.45  | 21.11 |      | 65.0 |         |
|           |                                            | Z | 8.15  | 76.38  | 21.20 |      | 65.0 |         |
| 10254-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 8.65  | 77.83  | 22.17 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.27  | 77.28  | 21.75 |      | 65.0 |         |
|           |                                            | Z | 8.49  | 77.01  | 21.74 |      | 65.0 |         |

|           |                                             |   |       |       |       |      |      |         |
|-----------|---------------------------------------------|---|-------|-------|-------|------|------|---------|
| 10255-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | X | 9.28  | 80.86 | 22.71 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.89  | 80.40 | 22.35 |      | 65.0 |         |
|           |                                             | Z | 8.80  | 79.34 | 21.99 |      | 65.0 |         |
| 10256-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | X | 9.13  | 79.62 | 20.18 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.96  | 77.38 | 18.74 |      | 65.0 |         |
|           |                                             | Z | 8.84  | 78.74 | 19.97 |      | 65.0 |         |
| 10257-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | X | 8.90  | 78.86 | 19.81 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.73  | 76.58 | 18.34 |      | 65.0 |         |
|           |                                             | Z | 8.71  | 78.17 | 19.67 |      | 65.0 |         |
| 10258-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | X | 8.90  | 81.94 | 21.19 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.60  | 79.37 | 19.69 |      | 65.0 |         |
|           |                                             | Z | 8.10  | 80.01 | 20.54 |      | 65.0 |         |
| 10259-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | X | 8.43  | 79.20 | 21.67 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.92  | 78.34 | 21.01 |      | 65.0 |         |
|           |                                             | Z | 8.11  | 78.01 | 21.17 |      | 65.0 |         |
| 10260-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | X | 8.43  | 78.91 | 21.57 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.92  | 78.05 | 20.91 |      | 65.0 |         |
|           |                                             | Z | 8.14  | 77.80 | 21.11 |      | 65.0 |         |
| 10261-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | X | 10.44 | 84.93 | 23.72 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 9.81  | 84.03 | 23.07 |      | 65.0 |         |
|           |                                             | Z | 9.35  | 82.40 | 22.71 |      | 65.0 |         |
| 10262-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | X | 8.89  | 80.23 | 22.82 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.49  | 79.67 | 22.37 |      | 65.0 |         |
|           |                                             | Z | 8.55  | 78.95 | 22.23 |      | 65.0 |         |
| 10263-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | X | 8.43  | 78.18 | 21.77 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.96  | 77.43 | 21.21 |      | 65.0 |         |
|           |                                             | Z | 8.21  | 77.20 | 21.30 |      | 65.0 |         |
| 10264-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | X | 10.49 | 84.56 | 23.88 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 10.02 | 84.01 | 23.44 |      | 65.0 |         |
|           |                                             | Z | 9.51  | 82.19 | 22.89 |      | 65.0 |         |
| 10265-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | X | 8.52  | 77.77 | 21.82 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.07  | 77.03 | 21.32 |      | 65.0 |         |
|           |                                             | Z | 8.36  | 76.93 | 21.38 |      | 65.0 |         |
| 10266-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | X | 8.87  | 78.41 | 22.40 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.48  | 77.88 | 22.01 |      | 65.0 |         |
|           |                                             | Z | 8.68  | 77.54 | 21.94 |      | 65.0 |         |
| 10267-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | X | 9.58  | 81.18 | 22.60 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 9.19  | 80.75 | 22.26 |      | 65.0 |         |
|           |                                             | Z | 9.04  | 79.59 | 21.85 |      | 65.0 |         |
| 10268-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | X | 8.91  | 77.09 | 21.88 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.54  | 76.56 | 21.51 |      | 65.0 |         |
|           |                                             | Z | 8.80  | 76.43 | 21.50 |      | 65.0 |         |
| 10269-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | X | 8.82  | 76.67 | 21.78 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.46  | 76.15 | 21.41 |      | 65.0 |         |
|           |                                             | Z | 8.73  | 76.06 | 21.42 |      | 65.0 |         |
| 10270-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | X | 8.97  | 78.33 | 21.62 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.64  | 77.97 | 21.34 |      | 65.0 |         |
|           |                                             | Z | 8.71  | 77.32 | 21.10 |      | 65.0 |         |

|           |                                                                    |   |       |       |       |      |       |         |
|-----------|--------------------------------------------------------------------|---|-------|-------|-------|------|-------|---------|
| 10274-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                          | X | 2.72  | 67.23 | 15.95 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.57  | 66.31 | 15.13 |      | 150.0 |         |
|           |                                                                    | Z | 2.65  | 66.56 | 15.46 |      | 150.0 |         |
| 10275-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                           | X | 1.89  | 70.77 | 17.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.58  | 67.67 | 15.25 |      | 150.0 |         |
|           |                                                                    | Z | 1.72  | 68.75 | 16.01 |      | 150.0 |         |
| 10277-CAA | PHS (QPSK)                                                         | X | 6.00  | 70.47 | 14.76 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 5.21  | 68.57 | 13.21 |      | 50.0  |         |
|           |                                                                    | Z | 6.28  | 70.88 | 15.27 |      | 50.0  |         |
| 10278-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)                                 | X | 9.55  | 80.33 | 21.17 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 8.72  | 78.79 | 19.97 |      | 50.0  |         |
|           |                                                                    | Z | 9.29  | 79.51 | 21.06 |      | 50.0  |         |
| 10279-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)                                | X | 9.72  | 80.54 | 21.26 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 8.86  | 78.97 | 20.05 |      | 50.0  |         |
|           |                                                                    | Z | 9.46  | 79.72 | 21.15 |      | 50.0  |         |
| 10290-AAB | CDMA2000, RC1, SO55, Full Rate                                     | X | 2.18  | 74.40 | 17.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.44  | 68.27 | 13.81 |      | 150.0 |         |
|           |                                                                    | Z | 1.72  | 70.30 | 15.40 |      | 150.0 |         |
| 10291-AAB | CDMA2000, RC3, SO55, Full Rate                                     | X | 1.24  | 71.68 | 16.15 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 0.80  | 65.30 | 12.12 |      | 150.0 |         |
|           |                                                                    | Z | 0.97  | 67.39 | 13.90 |      | 150.0 |         |
| 10292-AAB | CDMA2000, RC3, SO32, Full Rate                                     | X | 2.10  | 80.68 | 20.23 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 0.98  | 68.86 | 14.25 |      | 150.0 |         |
|           |                                                                    | Z | 1.23  | 71.77 | 16.34 |      | 150.0 |         |
| 10293-AAB | CDMA2000, RC3, SO3, Full Rate                                      | X | 4.35  | 92.52 | 24.81 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.43  | 74.29 | 17.12 |      | 150.0 |         |
|           |                                                                    | Z | 1.75  | 77.17 | 19.08 |      | 150.0 |         |
| 10295-AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                              | X | 11.19 | 84.61 | 24.64 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 11.12 | 84.62 | 24.20 |      | 50.0  |         |
|           |                                                                    | Z | 10.33 | 82.52 | 23.91 |      | 50.0  |         |
| 10297-AAC | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                            | X | 3.13  | 71.75 | 17.66 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.77  | 69.64 | 16.38 |      | 150.0 |         |
|           |                                                                    | Z | 2.96  | 70.46 | 16.84 |      | 150.0 |         |
| 10298-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                             | X | 2.07  | 71.56 | 16.68 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.59  | 67.63 | 14.15 |      | 150.0 |         |
|           |                                                                    | Z | 1.84  | 69.13 | 15.41 |      | 150.0 |         |
| 10299-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                           | X | 4.44  | 77.05 | 18.50 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 3.17  | 71.89 | 15.69 |      | 150.0 |         |
|           |                                                                    | Z | 3.89  | 74.52 | 17.46 |      | 150.0 |         |
| 10300-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                           | X | 2.98  | 70.18 | 14.87 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.33  | 66.80 | 12.64 |      | 150.0 |         |
|           |                                                                    | Z | 2.88  | 69.22 | 14.45 |      | 150.0 |         |
| 10301-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                 | X | 5.88  | 68.71 | 19.12 | 4.17 | 80.0  | ± 9.6 % |
|           |                                                                    | Y | 5.67  | 68.35 | 18.79 |      | 80.0  |         |
|           |                                                                    | Z | 5.96  | 68.70 | 19.05 |      | 80.0  |         |
| 10302-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols) | X | 6.49  | 69.93 | 20.23 | 4.96 | 80.0  | ± 9.6 % |
|           |                                                                    | Y | 6.06  | 68.48 | 19.24 |      | 80.0  |         |
|           |                                                                    | Z | 6.58  | 69.96 | 20.17 |      | 80.0  |         |

|           |                                                                     |   |       |       |       |       |       |         |
|-----------|---------------------------------------------------------------------|---|-------|-------|-------|-------|-------|---------|
| 10303-AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                 | X | 6.38  | 70.18 | 20.37 | 4.96  | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.90  | 68.52 | 19.27 |       | 80.0  |         |
|           |                                                                     | Z | 6.49  | 70.27 | 20.35 |       | 80.0  |         |
| 10304-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                 | X | 5.94  | 69.20 | 19.41 | 4.17  | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.55  | 67.84 | 18.48 |       | 80.0  |         |
|           |                                                                     | Z | 6.02  | 69.19 | 19.33 |       | 80.0  |         |
| 10305-AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)    | X | 8.63  | 79.84 | 25.16 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 8.50  | 80.74 | 25.49 |       | 50.0  |         |
|           |                                                                     | Z | 9.07  | 80.51 | 25.38 |       | 50.0  |         |
| 10306-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)    | X | 7.19  | 74.26 | 22.98 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 6.24  | 70.98 | 21.03 |       | 50.0  |         |
|           |                                                                     | Z | 7.44  | 74.65 | 23.11 |       | 50.0  |         |
| 10307-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)     | X | 7.43  | 75.32 | 23.26 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 7.08  | 75.34 | 23.24 |       | 50.0  |         |
|           |                                                                     | Z | 7.71  | 75.76 | 23.39 |       | 50.0  |         |
| 10308-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                | X | 7.56  | 75.95 | 23.55 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 7.22  | 76.07 | 23.58 |       | 50.0  |         |
|           |                                                                     | Z | 7.85  | 76.40 | 23.68 |       | 50.0  |         |
| 10309-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols) | X | 7.34  | 74.67 | 23.20 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 6.34  | 71.28 | 21.21 |       | 50.0  |         |
|           |                                                                     | Z | 7.59  | 75.05 | 23.31 |       | 50.0  |         |
| 10310-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)  | X | 7.26  | 74.63 | 23.05 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 6.24  | 71.19 | 21.04 |       | 50.0  |         |
|           |                                                                     | Z | 7.51  | 75.03 | 23.17 |       | 50.0  |         |
| 10311-AAC | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                            | X | 3.50  | 70.87 | 17.20 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 3.12  | 68.92 | 16.05 |       | 150.0 |         |
|           |                                                                     | Z | 3.32  | 69.72 | 16.47 |       | 150.0 |         |
| 10313-AAA | iDEN 1:3                                                            | X | 8.27  | 79.76 | 19.38 | 6.99  | 70.0  | ± 9.6 % |
|           |                                                                     | Y | 7.09  | 77.48 | 18.12 |       | 70.0  |         |
|           |                                                                     | Z | 7.27  | 77.42 | 18.52 |       | 70.0  |         |
| 10314-AAA | iDEN 1:6                                                            | X | 10.52 | 85.41 | 23.73 | 10.00 | 30.0  | ± 9.6 % |
|           |                                                                     | Y | 9.80  | 84.47 | 23.05 |       | 30.0  |         |
|           |                                                                     | Z | 8.56  | 81.26 | 22.24 |       | 30.0  |         |
| 10315-AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)           | X | 1.21  | 66.04 | 16.76 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 1.11  | 64.36 | 15.28 |       | 150.0 |         |
|           |                                                                     | Z | 1.16  | 64.99 | 15.81 |       | 150.0 |         |
| 10316-AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)       | X | 4.78  | 67.20 | 16.69 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.67  | 66.87 | 16.36 |       | 150.0 |         |
|           |                                                                     | Z | 4.78  | 67.00 | 16.48 |       | 150.0 |         |
| 10317-AAC | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)             | X | 4.78  | 67.20 | 16.69 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.67  | 66.87 | 16.36 |       | 150.0 |         |
|           |                                                                     | Z | 4.78  | 67.00 | 16.48 |       | 150.0 |         |
| 10400-AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                 | X | 4.88  | 67.44 | 16.59 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.75  | 67.07 | 16.25 |       | 150.0 |         |
|           |                                                                     | Z | 4.88  | 67.23 | 16.38 |       | 150.0 |         |
| 10401-AAD | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                 | X | 5.52  | 67.51 | 16.67 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 5.43  | 67.26 | 16.42 |       | 150.0 |         |
|           |                                                                     | Z | 5.50  | 67.29 | 16.46 |       | 150.0 |         |

|           |                                                                                 |   |        |        |       |      |       |         |
|-----------|---------------------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10402-AAD | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                             | X | 5.81   | 67.99  | 16.74 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.71   | 67.67  | 16.46 |      | 150.0 |         |
|           |                                                                                 | Z | 5.80   | 67.83  | 16.56 |      | 150.0 |         |
| 10403-AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                      | X | 2.18   | 74.40  | 17.31 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.44   | 68.27  | 13.81 |      | 115.0 |         |
|           |                                                                                 | Z | 1.72   | 70.30  | 15.40 |      | 115.0 |         |
| 10404-AAB | CDMA2000 (1xEV-DO, Rev. A)                                                      | X | 2.18   | 74.40  | 17.31 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.44   | 68.27  | 13.81 |      | 115.0 |         |
|           |                                                                                 | Z | 1.72   | 70.30  | 15.40 |      | 115.0 |         |
| 10406-AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                            | X | 100.00 | 125.34 | 32.57 | 0.00 | 100.0 | ± 9.6 % |
|           |                                                                                 | Y | 100.00 | 122.30 | 30.90 |      | 100.0 |         |
|           |                                                                                 | Z | 100.00 | 123.59 | 31.86 |      | 100.0 |         |
| 10410-AAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4) | X | 100.00 | 121.08 | 31.14 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                                 | Y | 100.00 | 119.39 | 30.03 |      | 80.0  |         |
|           |                                                                                 | Z | 100.00 | 119.84 | 30.69 |      | 80.0  |         |
| 10415-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                       | X | 1.04   | 64.21  | 15.75 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 0.96   | 62.81  | 14.37 |      | 150.0 |         |
|           |                                                                                 | Z | 1.00   | 63.31  | 14.86 |      | 150.0 |         |
| 10416-AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                   | X | 4.68   | 67.03  | 16.52 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.57   | 66.70  | 16.19 |      | 150.0 |         |
|           |                                                                                 | Z | 4.67   | 66.81  | 16.30 |      | 150.0 |         |
| 10417-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                       | X | 4.68   | 67.03  | 16.52 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.57   | 66.70  | 16.19 |      | 150.0 |         |
|           |                                                                                 | Z | 4.67   | 66.81  | 16.30 |      | 150.0 |         |
| 10418-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)   | X | 4.66   | 67.18  | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.55   | 66.84  | 16.19 |      | 150.0 |         |
|           |                                                                                 | Z | 4.65   | 66.94  | 16.30 |      | 150.0 |         |
| 10419-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)  | X | 4.69   | 67.13  | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.58   | 66.80  | 16.20 |      | 150.0 |         |
|           |                                                                                 | Z | 4.68   | 66.91  | 16.31 |      | 150.0 |         |
| 10422-AAB | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                    | X | 4.81   | 67.13  | 16.54 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.70   | 66.81  | 16.22 |      | 150.0 |         |
|           |                                                                                 | Z | 4.80   | 66.92  | 16.33 |      | 150.0 |         |
| 10423-AAB | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                 | X | 5.01   | 67.51  | 16.68 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.89   | 67.16  | 16.35 |      | 150.0 |         |
|           |                                                                                 | Z | 5.01   | 67.31  | 16.47 |      | 150.0 |         |
| 10424-AAB | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                 | X | 4.92   | 67.45  | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.80   | 67.10  | 16.32 |      | 150.0 |         |
|           |                                                                                 | Z | 4.92   | 67.24  | 16.43 |      | 150.0 |         |
| 10425-AAB | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                     | X | 5.50   | 67.77  | 16.79 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.41   | 67.50  | 16.53 |      | 150.0 |         |
|           |                                                                                 | Z | 5.49   | 67.58  | 16.59 |      | 150.0 |         |
| 10426-AAB | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                   | X | 5.51   | 67.80  | 16.80 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.41   | 67.51  | 16.53 |      | 150.0 |         |
|           |                                                                                 | Z | 5.50   | 67.62  | 16.60 |      | 150.0 |         |

|           |                                                                |   |        |        |       |      |       |         |
|-----------|----------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10427-AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                 | X | 5.53   | 67.79  | 16.79 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.42   | 67.48  | 16.51 |      | 150.0 |         |
|           |                                                                | Z | 5.52   | 67.63  | 16.61 |      | 150.0 |         |
| 10430-AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                               | X | 4.38   | 70.70  | 18.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.25   | 70.46  | 18.05 |      | 150.0 |         |
|           |                                                                | Z | 4.31   | 70.02  | 17.98 |      | 150.0 |         |
| 10431-AAB | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                              | X | 4.42   | 67.67  | 16.62 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.27   | 67.23  | 16.20 |      | 150.0 |         |
|           |                                                                | Z | 4.41   | 67.37  | 16.37 |      | 150.0 |         |
| 10432-AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                              | X | 4.70   | 67.52  | 16.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.57   | 67.13  | 16.26 |      | 150.0 |         |
|           |                                                                | Z | 4.70   | 67.28  | 16.40 |      | 150.0 |         |
| 10433-AAB | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                              | X | 4.94   | 67.50  | 16.67 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.82   | 67.14  | 16.34 |      | 150.0 |         |
|           |                                                                | Z | 4.94   | 67.29  | 16.46 |      | 150.0 |         |
| 10434-AAA | W-CDMA (BS Test Model 1, 64 DPCH)                              | X | 4.49   | 71.52  | 18.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.34   | 71.22  | 18.01 |      | 150.0 |         |
|           |                                                                | Z | 4.39   | 70.68  | 17.96 |      | 150.0 |         |
| 10435-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) | X | 100.00 | 120.92 | 31.06 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                | Y | 100.00 | 119.22 | 29.95 |      | 80.0  |         |
|           |                                                                | Z | 100.00 | 119.70 | 30.62 |      | 80.0  |         |
| 10447-AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                 | X | 3.75   | 67.86  | 16.21 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.56   | 67.20  | 15.57 |      | 150.0 |         |
|           |                                                                | Z | 3.73   | 67.41  | 15.90 |      | 150.0 |         |
| 10448-AAB | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                | X | 4.24   | 67.45  | 16.49 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.10   | 67.00  | 16.05 |      | 150.0 |         |
|           |                                                                | Z | 4.22   | 67.14  | 16.23 |      | 150.0 |         |
| 10449-AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                | X | 4.49   | 67.35  | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.37   | 66.95  | 16.16 |      | 150.0 |         |
|           |                                                                | Z | 4.48   | 67.09  | 16.30 |      | 150.0 |         |
| 10450-AAB | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                | X | 4.67   | 67.26  | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.56   | 66.89  | 16.18 |      | 150.0 |         |
|           |                                                                | Z | 4.66   | 67.04  | 16.31 |      | 150.0 |         |
| 10451-AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                | X | 3.69   | 68.21  | 15.98 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.47   | 67.39  | 15.23 |      | 150.0 |         |
|           |                                                                | Z | 3.66   | 67.69  | 15.67 |      | 150.0 |         |
| 10456-AAB | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)           | X | 6.36   | 68.35  | 16.93 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 6.27   | 68.07  | 16.69 |      | 150.0 |         |
|           |                                                                | Z | 6.35   | 68.21  | 16.77 |      | 150.0 |         |
| 10457-AAA | UMTS-FDD (DC-HSDPA)                                            | X | 3.86   | 65.66  | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.78   | 65.32  | 15.90 |      | 150.0 |         |
|           |                                                                | Z | 3.84   | 65.45  | 16.04 |      | 150.0 |         |
| 10458-AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                         | X | 4.10   | 70.68  | 17.90 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.95   | 70.36  | 17.40 |      | 150.0 |         |
|           |                                                                | Z | 3.98   | 69.73  | 17.40 |      | 150.0 |         |
| 10459-AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                         | X | 5.16   | 67.87  | 18.15 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.08   | 67.96  | 18.01 |      | 150.0 |         |
|           |                                                                | Z | 5.12   | 67.39  | 17.86 |      | 150.0 |         |

|           |                                                                   |   |        |        |       |      |       |         |
|-----------|-------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10460-AAA | UMTS-FDD (WCDMA, AMR)                                             | X | 1.21   | 74.36  | 19.56 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                   | Y | 0.84   | 67.73  | 15.53 |      | 150.0 |         |
|           |                                                                   | Z | 0.96   | 69.69  | 16.87 |      | 150.0 |         |
| 10461-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 124.72 | 32.88 | 3.29 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 122.71 | 31.63 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 122.27 | 31.89 |      | 80.0  |         |
| 10462-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 100.00 | 110.81 | 26.22 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 107.68 | 24.48 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 109.58 | 25.81 |      | 80.0  |         |
| 10463-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 100.00 | 108.02 | 24.88 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 17.57  | 87.04  | 18.79 |      | 80.0  |         |
|           |                                                                   | Z | 57.71  | 101.03 | 23.21 |      | 80.0  |         |
| 10464-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 100.00 | 122.99 | 31.92 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 120.66 | 30.52 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 120.59 | 30.96 |      | 80.0  |         |
| 10465-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 110.36 | 26.00 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 69.93  | 103.37 | 23.39 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 109.17 | 25.60 |      | 80.0  |         |
| 10466-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 107.59 | 24.67 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 10.32  | 81.39  | 17.12 |      | 80.0  |         |
|           |                                                                   | Z | 32.56  | 94.43  | 21.51 |      | 80.0  |         |
| 10467-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 100.00 | 123.18 | 32.01 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 120.88 | 30.62 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 120.77 | 31.04 |      | 80.0  |         |
| 10468-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 110.50 | 26.06 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 95.55  | 106.84 | 24.20 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 109.30 | 25.66 |      | 80.0  |         |
| 10469-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 107.60 | 24.67 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 10.51  | 81.58  | 17.17 |      | 80.0  |         |
|           |                                                                   | Z | 33.51  | 94.76  | 21.58 |      | 80.0  |         |
| 10470-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 123.21 | 32.02 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 120.90 | 30.62 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 120.79 | 31.05 |      | 80.0  |         |
| 10471-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 100.00 | 110.46 | 26.04 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 94.56  | 106.68 | 24.14 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 109.26 | 25.63 |      | 80.0  |         |
| 10472-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 100.00 | 107.56 | 24.64 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 10.43  | 81.48  | 17.13 |      | 80.0  |         |
|           |                                                                   | Z | 33.64  | 94.78  | 21.58 |      | 80.0  |         |
| 10473-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 123.19 | 32.00 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 120.87 | 30.61 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 120.77 | 31.03 |      | 80.0  |         |
| 10474-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 100.00 | 110.47 | 26.04 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 92.06  | 106.40 | 24.08 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 109.26 | 25.64 |      | 80.0  |         |
| 10475-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 100.00 | 107.57 | 24.65 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 10.30  | 81.37  | 17.09 |      | 80.0  |         |
|           |                                                                   | Z | 33.12  | 94.61  | 21.54 |      | 80.0  |         |

|           |                                                                     |   |        |        |       |      |      |         |
|-----------|---------------------------------------------------------------------|---|--------|--------|-------|------|------|---------|
| 10477-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 110.32 | 25.97 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 73.47  | 103.85 | 23.47 |      | 80.0 |         |
|           |                                                                     | Z | 100.00 | 109.13 | 25.57 |      | 80.0 |         |
| 10478-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 107.52 | 24.63 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 10.13  | 81.17  | 17.03 |      | 80.0 |         |
|           |                                                                     | Z | 32.56  | 94.40  | 21.47 |      | 80.0 |         |
| 10479-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 23.24  | 102.02 | 28.60 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 17.72  | 96.96  | 26.53 |      | 80.0 |         |
|           |                                                                     | Z | 12.62  | 91.31  | 25.32 |      | 80.0 |         |
| 10480-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 23.79  | 96.38  | 25.31 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 16.50  | 90.35  | 22.90 |      | 80.0 |         |
|           |                                                                     | Z | 13.56  | 87.65  | 22.71 |      | 80.0 |         |
| 10481-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 19.64  | 92.74  | 23.93 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 13.10  | 86.39  | 21.35 |      | 80.0 |         |
|           |                                                                     | Z | 12.05  | 85.29  | 21.66 |      | 80.0 |         |
| 10482-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 8.49   | 84.69  | 22.05 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.66   | 78.52  | 19.36 |      | 80.0 |         |
|           |                                                                     | Z | 6.07   | 79.11  | 20.05 |      | 80.0 |         |
| 10483-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 11.70  | 86.22  | 22.45 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 8.73   | 81.47  | 20.24 |      | 80.0 |         |
|           |                                                                     | Z | 8.71   | 81.39  | 20.85 |      | 80.0 |         |
| 10484-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 10.50  | 84.41  | 21.86 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 7.92   | 79.90  | 19.71 |      | 80.0 |         |
|           |                                                                     | Z | 8.18   | 80.26  | 20.46 |      | 80.0 |         |
| 10485-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 8.12   | 84.44  | 22.68 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.95   | 79.56  | 20.54 |      | 80.0 |         |
|           |                                                                     | Z | 6.24   | 79.61  | 20.83 |      | 80.0 |         |
| 10486-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.60   | 75.72  | 19.25 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.71   | 73.16  | 17.81 |      | 80.0 |         |
|           |                                                                     | Z | 5.00   | 73.46  | 18.29 |      | 80.0 |         |
| 10487-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.48   | 75.06  | 18.99 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.65   | 72.64  | 17.60 |      | 80.0 |         |
|           |                                                                     | Z | 4.96   | 73.01  | 18.11 |      | 80.0 |         |
| 10488-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 7.06   | 80.88  | 21.92 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.70   | 77.55  | 20.40 |      | 80.0 |         |
|           |                                                                     | Z | 6.08   | 77.77  | 20.57 |      | 80.0 |         |
| 10489-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 5.31   | 73.88  | 19.45 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.75   | 72.25  | 18.50 |      | 80.0 |         |
|           |                                                                     | Z | 5.02   | 72.44  | 18.71 |      | 80.0 |         |
| 10490-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 5.32   | 73.40  | 19.28 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.80   | 71.92  | 18.39 |      | 80.0 |         |
|           |                                                                     | Z | 5.07   | 72.08  | 18.60 |      | 80.0 |         |
| 10491-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 6.29   | 77.08  | 20.62 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.44   | 74.84  | 19.51 |      | 80.0 |         |
|           |                                                                     | Z | 5.78   | 75.12  | 19.66 |      | 80.0 |         |
| 10492-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 5.38   | 72.26  | 19.03 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.95   | 71.03  | 18.29 |      | 80.0 |         |
|           |                                                                     | Z | 5.22   | 71.29  | 18.47 |      | 80.0 |         |

|           |                                                                      |   |      |       |       |      |      |         |
|-----------|----------------------------------------------------------------------|---|------|-------|-------|------|------|---------|
| 10493-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.41 | 71.97 | 18.93 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.99 | 70.82 | 18.22 |      | 80.0 |         |
|           |                                                                      | Z | 5.27 | 71.06 | 18.40 |      | 80.0 |         |
| 10494-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 7.26 | 79.46 | 21.31 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 6.08 | 76.70 | 20.04 |      | 80.0 |         |
|           |                                                                      | Z | 6.47 | 77.03 | 20.19 |      | 80.0 |         |
| 10495-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.52 | 72.92 | 19.28 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.04 | 71.57 | 18.51 |      | 80.0 |         |
|           |                                                                      | Z | 5.33 | 71.88 | 18.69 |      | 80.0 |         |
| 10496-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.51 | 72.36 | 19.10 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.07 | 71.15 | 18.38 |      | 80.0 |         |
|           |                                                                      | Z | 5.35 | 71.43 | 18.55 |      | 80.0 |         |
| 10497-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 6.84 | 81.16 | 20.14 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.18 | 74.07 | 16.91 |      | 80.0 |         |
|           |                                                                      | Z | 4.97 | 76.21 | 18.38 |      | 80.0 |         |
| 10498-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.23 | 71.63 | 15.72 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.88 | 66.72 | 12.99 |      | 80.0 |         |
|           |                                                                      | Z | 3.81 | 69.89 | 15.10 |      | 80.0 |         |
| 10499-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.07 | 70.79 | 15.25 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.78 | 66.03 | 12.55 |      | 80.0 |         |
|           |                                                                      | Z | 3.73 | 69.33 | 14.75 |      | 80.0 |         |
| 10500-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 7.25 | 82.07 | 22.09 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.64 | 78.16 | 20.30 |      | 80.0 |         |
|           |                                                                      | Z | 5.95 | 78.24 | 20.53 |      | 80.0 |         |
| 10501-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.43 | 74.78 | 19.24 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.72 | 72.72 | 18.04 |      | 80.0 |         |
|           |                                                                      | Z | 4.99 | 72.91 | 18.39 |      | 80.0 |         |
| 10502-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.43 | 74.40 | 19.05 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.75 | 72.45 | 17.89 |      | 80.0 |         |
|           |                                                                      | Z | 5.01 | 72.63 | 18.25 |      | 80.0 |         |
| 10503-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 6.96 | 80.64 | 21.82 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.62 | 77.31 | 20.29 |      | 80.0 |         |
|           |                                                                      | Z | 6.00 | 77.58 | 20.48 |      | 80.0 |         |
| 10504-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.28 | 73.79 | 19.40 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.72 | 72.15 | 18.44 |      | 80.0 |         |
|           |                                                                      | Z | 5.00 | 72.37 | 18.67 |      | 80.0 |         |
| 10505-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.30 | 73.31 | 19.23 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.78 | 71.81 | 18.34 |      | 80.0 |         |
|           |                                                                      | Z | 5.05 | 72.00 | 18.55 |      | 80.0 |         |
| 10506-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 7.19 | 79.29 | 21.23 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 6.02 | 76.53 | 19.97 |      | 80.0 |         |
|           |                                                                      | Z | 6.42 | 76.89 | 20.13 |      | 80.0 |         |
| 10507-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 5.49 | 72.85 | 19.25 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.02 | 71.50 | 18.47 |      | 80.0 |         |
|           |                                                                      | Z | 5.31 | 71.82 | 18.66 |      | 80.0 |         |

|           |                                                                     |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10508-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.49 | 72.29 | 19.06 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.05 | 71.07 | 18.34 |      | 80.0  |         |
|           |                                                                     | Z | 5.33 | 71.37 | 18.52 |      | 80.0  |         |
| 10509-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 6.71 | 76.12 | 20.06 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.94 | 74.25 | 19.13 |      | 80.0  |         |
|           |                                                                     | Z | 6.28 | 74.57 | 19.27 |      | 80.0  |         |
| 10510-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.84 | 71.95 | 18.94 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.42 | 70.86 | 18.30 |      | 80.0  |         |
|           |                                                                     | Z | 5.71 | 71.20 | 18.47 |      | 80.0  |         |
| 10511-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.82 | 71.51 | 18.81 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.44 | 70.51 | 18.21 |      | 80.0  |         |
|           |                                                                     | Z | 5.71 | 70.83 | 18.37 |      | 80.0  |         |
| 10512-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 7.61 | 78.80 | 20.90 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 6.48 | 76.29 | 19.75 |      | 80.0  |         |
|           |                                                                     | Z | 6.88 | 76.71 | 19.92 |      | 80.0  |         |
| 10513-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.82 | 72.58 | 19.18 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.36 | 71.33 | 18.47 |      | 80.0  |         |
|           |                                                                     | Z | 5.67 | 71.74 | 18.66 |      | 80.0  |         |
| 10514-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.73 | 71.89 | 18.96 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.32 | 70.77 | 18.31 |      | 80.0  |         |
|           |                                                                     | Z | 5.61 | 71.15 | 18.49 |      | 80.0  |         |
| 10515-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)           | X | 1.00 | 64.53 | 15.90 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.92 | 62.98 | 14.41 |      | 150.0 |         |
|           |                                                                     | Z | 0.96 | 63.54 | 14.94 |      | 150.0 |         |
| 10516-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)         | X | 1.68 | 91.06 | 26.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.55 | 69.99 | 16.34 |      | 150.0 |         |
|           |                                                                     | Z | 0.73 | 74.56 | 19.01 |      | 150.0 |         |
| 10517-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)          | X | 0.92 | 68.12 | 17.45 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.77 | 64.83 | 14.89 |      | 150.0 |         |
|           |                                                                     | Z | 0.84 | 65.95 | 15.79 |      | 150.0 |         |
| 10518-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)           | X | 4.67 | 67.12 | 16.50 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.56 | 66.77 | 16.17 |      | 150.0 |         |
|           |                                                                     | Z | 4.66 | 66.89 | 16.28 |      | 150.0 |         |
| 10519-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)          | X | 4.89 | 67.40 | 16.64 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.77 | 67.04 | 16.30 |      | 150.0 |         |
|           |                                                                     | Z | 4.89 | 67.19 | 16.43 |      | 150.0 |         |
| 10520-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)          | X | 4.74 | 67.39 | 16.57 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.61 | 67.01 | 16.22 |      | 150.0 |         |
|           |                                                                     | Z | 4.74 | 67.17 | 16.35 |      | 150.0 |         |
| 10521-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)          | X | 4.67 | 67.41 | 16.56 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.55 | 67.00 | 16.20 |      | 150.0 |         |
|           |                                                                     | Z | 4.67 | 67.18 | 16.34 |      | 150.0 |         |
| 10522-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)          | X | 4.72 | 67.39 | 16.60 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.60 | 67.04 | 16.27 |      | 150.0 |         |
|           |                                                                     | Z | 4.71 | 67.14 | 16.36 |      | 150.0 |         |

|           |                                                            |   |      |       |       |      |       |         |
|-----------|------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10523-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) | X | 4.59 | 67.29 | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.47 | 66.91 | 16.11 |      | 150.0 |         |
|           |                                                            | Z | 4.58 | 67.04 | 16.22 |      | 150.0 |         |
| 10524-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) | X | 4.67 | 67.35 | 16.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.55 | 66.98 | 16.24 |      | 150.0 |         |
|           |                                                            | Z | 4.67 | 67.11 | 16.36 |      | 150.0 |         |
| 10525-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)          | X | 4.63 | 66.37 | 16.17 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.52 | 66.01 | 15.83 |      | 150.0 |         |
|           |                                                            | Z | 4.62 | 66.13 | 15.94 |      | 150.0 |         |
| 10526-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)          | X | 4.83 | 66.78 | 16.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.70 | 66.40 | 15.97 |      | 150.0 |         |
|           |                                                            | Z | 4.82 | 66.54 | 16.09 |      | 150.0 |         |
| 10527-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)          | X | 4.75 | 66.76 | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.62 | 66.36 | 15.92 |      | 150.0 |         |
|           |                                                            | Z | 4.74 | 66.51 | 16.04 |      | 150.0 |         |
| 10528-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)          | X | 4.77 | 66.78 | 16.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.64 | 66.38 | 15.95 |      | 150.0 |         |
|           |                                                            | Z | 4.76 | 66.54 | 16.08 |      | 150.0 |         |
| 10529-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)          | X | 4.77 | 66.78 | 16.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.64 | 66.38 | 15.95 |      | 150.0 |         |
|           |                                                            | Z | 4.76 | 66.54 | 16.08 |      | 150.0 |         |
| 10531-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)          | X | 4.78 | 66.93 | 16.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.64 | 66.50 | 15.97 |      | 150.0 |         |
|           |                                                            | Z | 4.77 | 66.69 | 16.10 |      | 150.0 |         |
| 10532-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)          | X | 4.63 | 66.80 | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.49 | 66.35 | 15.90 |      | 150.0 |         |
|           |                                                            | Z | 4.62 | 66.56 | 16.05 |      | 150.0 |         |
| 10533-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)          | X | 4.78 | 66.80 | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.65 | 66.41 | 15.94 |      | 150.0 |         |
|           |                                                            | Z | 4.77 | 66.55 | 16.05 |      | 150.0 |         |
| 10534-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)          | X | 5.28 | 66.88 | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.17 | 66.53 | 16.03 |      | 150.0 |         |
|           |                                                            | Z | 5.27 | 66.70 | 16.13 |      | 150.0 |         |
| 10535-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)          | X | 5.35 | 67.03 | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.24 | 66.69 | 16.10 |      | 150.0 |         |
|           |                                                            | Z | 5.34 | 66.84 | 16.18 |      | 150.0 |         |
| 10536-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)          | X | 5.22 | 67.03 | 16.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.10 | 66.65 | 16.06 |      | 150.0 |         |
|           |                                                            | Z | 5.21 | 66.83 | 16.16 |      | 150.0 |         |
| 10537-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)          | X | 5.29 | 67.00 | 16.36 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.17 | 66.63 | 16.05 |      | 150.0 |         |
|           |                                                            | Z | 5.27 | 66.80 | 16.15 |      | 150.0 |         |
| 10538-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)          | X | 5.40 | 67.06 | 16.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.27 | 66.69 | 16.12 |      | 150.0 |         |
|           |                                                            | Z | 5.39 | 66.88 | 16.23 |      | 150.0 |         |
| 10540-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)          | X | 5.30 | 67.01 | 16.42 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.19 | 66.66 | 16.12 |      | 150.0 |         |
|           |                                                            | Z | 5.29 | 66.82 | 16.22 |      | 150.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10541-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)  | X | 5.28 | 66.90 | 16.36 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.16 | 66.53 | 16.05 |      | 150.0 |         |
|           |                                                    | Z | 5.27 | 66.74 | 16.17 |      | 150.0 |         |
| 10542-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)  | X | 5.43 | 66.95 | 16.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.32 | 66.61 | 16.11 |      | 150.0 |         |
|           |                                                    | Z | 5.42 | 66.77 | 16.20 |      | 150.0 |         |
| 10543-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)  | X | 5.51 | 66.95 | 16.41 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.40 | 66.65 | 16.14 |      | 150.0 |         |
|           |                                                    | Z | 5.51 | 66.78 | 16.22 |      | 150.0 |         |
| 10544-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)  | X | 5.56 | 66.97 | 16.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.46 | 66.64 | 16.02 |      | 150.0 |         |
|           |                                                    | Z | 5.54 | 66.80 | 16.11 |      | 150.0 |         |
| 10545-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)  | X | 5.78 | 67.41 | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.68 | 67.09 | 16.19 |      | 150.0 |         |
|           |                                                    | Z | 5.76 | 67.21 | 16.25 |      | 150.0 |         |
| 10546-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)  | X | 5.66 | 67.27 | 16.41 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.55 | 66.90 | 16.11 |      | 150.0 |         |
|           |                                                    | Z | 5.65 | 67.10 | 16.22 |      | 150.0 |         |
| 10547-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)  | X | 5.75 | 67.34 | 16.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.64 | 66.99 | 16.14 |      | 150.0 |         |
|           |                                                    | Z | 5.73 | 67.16 | 16.24 |      | 150.0 |         |
| 10548-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)  | X | 6.10 | 68.57 | 17.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.97 | 68.15 | 16.70 |      | 150.0 |         |
|           |                                                    | Z | 6.06 | 68.30 | 16.78 |      | 150.0 |         |
| 10550-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)  | X | 5.68 | 67.21 | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.57 | 66.88 | 16.11 |      | 150.0 |         |
|           |                                                    | Z | 5.66 | 67.04 | 16.20 |      | 150.0 |         |
| 10551-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)  | X | 5.70 | 67.30 | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.58 | 66.93 | 16.09 |      | 150.0 |         |
|           |                                                    | Z | 5.68 | 67.15 | 16.21 |      | 150.0 |         |
| 10552-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)  | X | 5.59 | 67.05 | 16.28 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.48 | 66.70 | 15.99 |      | 150.0 |         |
|           |                                                    | Z | 5.58 | 66.90 | 16.10 |      | 150.0 |         |
| 10553-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)  | X | 5.69 | 67.10 | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.57 | 66.76 | 16.05 |      | 150.0 |         |
|           |                                                    | Z | 5.67 | 66.95 | 16.15 |      | 150.0 |         |
| 10554-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle) | X | 5.97 | 67.34 | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.87 | 67.02 | 16.12 |      | 150.0 |         |
|           |                                                    | Z | 5.94 | 67.19 | 16.21 |      | 150.0 |         |
| 10555-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle) | X | 6.12 | 67.69 | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 6.01 | 67.35 | 16.26 |      | 150.0 |         |
|           |                                                    | Z | 6.10 | 67.54 | 16.36 |      | 150.0 |         |
| 10556-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle) | X | 6.13 | 67.71 | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 6.03 | 67.38 | 16.27 |      | 150.0 |         |
|           |                                                    | Z | 6.11 | 67.54 | 16.35 |      | 150.0 |         |
| 10557-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle) | X | 6.12 | 67.66 | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 6.00 | 67.31 | 16.25 |      | 150.0 |         |
|           |                                                    | Z | 6.10 | 67.52 | 16.36 |      | 150.0 |         |

|           |                                                                 |   |        |        |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10558-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)              | X | 6.18   | 67.86  | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.06   | 67.49  | 16.36 |      | 150.0 |         |
|           |                                                                 | Z | 6.16   | 67.71  | 16.47 |      | 150.0 |         |
| 10560-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)              | X | 6.16   | 67.67  | 16.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.05   | 67.32  | 16.31 |      | 150.0 |         |
|           |                                                                 | Z | 6.15   | 67.54  | 16.42 |      | 150.0 |         |
| 10561-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)              | X | 6.08   | 67.64  | 16.61 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.97   | 67.29  | 16.33 |      | 150.0 |         |
|           |                                                                 | Z | 6.06   | 67.49  | 16.44 |      | 150.0 |         |
| 10562-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)              | X | 6.25   | 68.16  | 16.88 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.13   | 67.77  | 16.57 |      | 150.0 |         |
|           |                                                                 | Z | 6.23   | 68.01  | 16.70 |      | 150.0 |         |
| 10563-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)              | X | 6.60   | 68.73  | 17.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.50   | 68.45  | 16.86 |      | 150.0 |         |
|           |                                                                 | Z | 6.53   | 68.43  | 16.86 |      | 150.0 |         |
| 10564-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | X | 5.01   | 67.24  | 16.68 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.90   | 66.90  | 16.36 |      | 150.0 |         |
|           |                                                                 | Z | 5.01   | 67.05  | 16.49 |      | 150.0 |         |
| 10565-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | X | 5.27   | 67.70  | 16.99 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.15   | 67.37  | 16.68 |      | 150.0 |         |
|           |                                                                 | Z | 5.27   | 67.52  | 16.80 |      | 150.0 |         |
| 10566-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | X | 5.11   | 67.60  | 16.84 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.98   | 67.23  | 16.50 |      | 150.0 |         |
|           |                                                                 | Z | 5.11   | 67.41  | 16.64 |      | 150.0 |         |
| 10567-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | X | 5.13   | 67.96  | 17.16 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.01   | 67.61  | 16.84 |      | 150.0 |         |
|           |                                                                 | Z | 5.13   | 67.75  | 16.95 |      | 150.0 |         |
| 10568-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | X | 5.02   | 67.36  | 16.62 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.90   | 67.01  | 16.28 |      | 150.0 |         |
|           |                                                                 | Z | 5.02   | 67.16  | 16.41 |      | 150.0 |         |
| 10569-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | X | 5.07   | 67.97  | 17.18 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.96   | 67.67  | 16.89 |      | 150.0 |         |
|           |                                                                 | Z | 5.06   | 67.76  | 16.96 |      | 150.0 |         |
| 10570-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | X | 5.11   | 67.83  | 17.12 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.00   | 67.52  | 16.83 |      | 150.0 |         |
|           |                                                                 | Z | 5.11   | 67.61  | 16.91 |      | 150.0 |         |
| 10571-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | X | 1.43   | 67.78  | 17.55 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.29   | 65.83  | 16.01 |      | 130.0 |         |
|           |                                                                 | Z | 1.37   | 66.57  | 16.56 |      | 130.0 |         |
| 10572-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | X | 1.47   | 68.62  | 18.01 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.32   | 66.50  | 16.39 |      | 130.0 |         |
|           |                                                                 | Z | 1.40   | 67.26  | 16.95 |      | 130.0 |         |
| 10573-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | X | 100.00 | 147.77 | 39.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 5.11   | 95.86  | 25.26 |      | 130.0 |         |
|           |                                                                 | Z | 11.46  | 108.94 | 29.46 |      | 130.0 |         |
| 10574-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | X | 2.11   | 79.07  | 22.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.59   | 73.49  | 19.59 |      | 130.0 |         |
|           |                                                                 | Z | 1.75   | 74.78  | 20.34 |      | 130.0 |         |

|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10575-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | X | 4.84 | 67.12 | 16.79 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.72 | 66.80 | 16.47 |      | 130.0 |         |
|           |                                                                 | Z | 4.83 | 66.93 | 16.59 |      | 130.0 |         |
| 10576-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | X | 4.86 | 67.28 | 16.85 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.75 | 66.95 | 16.53 |      | 130.0 |         |
|           |                                                                 | Z | 4.86 | 67.08 | 16.65 |      | 130.0 |         |
| 10577-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | X | 5.09 | 67.60 | 17.02 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.97 | 67.26 | 16.71 |      | 130.0 |         |
|           |                                                                 | Z | 5.10 | 67.41 | 16.83 |      | 130.0 |         |
| 10578-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | X | 4.99 | 67.77 | 17.12 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.86 | 67.43 | 16.80 |      | 130.0 |         |
|           |                                                                 | Z | 4.99 | 67.57 | 16.91 |      | 130.0 |         |
| 10579-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | X | 4.77 | 67.19 | 16.53 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.64 | 66.77 | 16.15 |      | 130.0 |         |
|           |                                                                 | Z | 4.78 | 67.01 | 16.33 |      | 130.0 |         |
| 10580-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | X | 4.81 | 67.17 | 16.53 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.68 | 66.78 | 16.16 |      | 130.0 |         |
|           |                                                                 | Z | 4.82 | 66.97 | 16.32 |      | 130.0 |         |
| 10581-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | X | 4.90 | 67.87 | 17.09 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.77 | 67.49 | 16.75 |      | 130.0 |         |
|           |                                                                 | Z | 4.90 | 67.66 | 16.87 |      | 130.0 |         |
| 10582-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | X | 4.73 | 66.96 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.59 | 66.53 | 15.94 |      | 130.0 |         |
|           |                                                                 | Z | 4.73 | 66.78 | 16.14 |      | 130.0 |         |
| 10583-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | X | 4.84 | 67.12 | 16.79 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.72 | 66.80 | 16.47 |      | 130.0 |         |
|           |                                                                 | Z | 4.83 | 66.93 | 16.59 |      | 130.0 |         |
| 10584-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | X | 4.86 | 67.28 | 16.85 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.75 | 66.95 | 16.53 |      | 130.0 |         |
|           |                                                                 | Z | 4.86 | 67.08 | 16.65 |      | 130.0 |         |
| 10585-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | X | 5.09 | 67.60 | 17.02 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.97 | 67.26 | 16.71 |      | 130.0 |         |
|           |                                                                 | Z | 5.10 | 67.41 | 16.83 |      | 130.0 |         |
| 10586-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | X | 4.99 | 67.77 | 17.12 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.86 | 67.43 | 16.80 |      | 130.0 |         |
|           |                                                                 | Z | 4.99 | 67.57 | 16.91 |      | 130.0 |         |
| 10587-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | X | 4.77 | 67.19 | 16.53 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.64 | 66.77 | 16.15 |      | 130.0 |         |
|           |                                                                 | Z | 4.78 | 67.01 | 16.33 |      | 130.0 |         |
| 10588-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)      | X | 4.81 | 67.17 | 16.53 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.68 | 66.78 | 16.16 |      | 130.0 |         |
|           |                                                                 | Z | 4.82 | 66.97 | 16.32 |      | 130.0 |         |
| 10589-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)      | X | 4.90 | 67.87 | 17.09 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.77 | 67.49 | 16.75 |      | 130.0 |         |
|           |                                                                 | Z | 4.90 | 67.66 | 16.87 |      | 130.0 |         |
| 10590-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)      | X | 4.73 | 66.96 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.59 | 66.53 | 15.94 |      | 130.0 |         |
|           |                                                                 | Z | 4.73 | 66.78 | 16.14 |      | 130.0 |         |

|           |                                                       |   |      |       |       |      |       |         |
|-----------|-------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10591-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle) | X | 4.98 | 67.15 | 16.87 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.87 | 66.85 | 16.57 |      | 130.0 |         |
|           |                                                       | Z | 4.98 | 66.97 | 16.68 |      | 130.0 |         |
| 10592-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle) | X | 5.15 | 67.50 | 16.99 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.04 | 67.19 | 16.69 |      | 130.0 |         |
|           |                                                       | Z | 5.16 | 67.32 | 16.80 |      | 130.0 |         |
| 10593-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle) | X | 5.09 | 67.46 | 16.91 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.96 | 67.12 | 16.59 |      | 130.0 |         |
|           |                                                       | Z | 5.09 | 67.29 | 16.72 |      | 130.0 |         |
| 10594-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle) | X | 5.14 | 67.60 | 17.04 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.02 | 67.28 | 16.73 |      | 130.0 |         |
|           |                                                       | Z | 5.14 | 67.42 | 16.84 |      | 130.0 |         |
| 10595-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle) | X | 5.11 | 67.58 | 16.95 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.99 | 67.24 | 16.64 |      | 130.0 |         |
|           |                                                       | Z | 5.12 | 67.40 | 16.76 |      | 130.0 |         |
| 10596-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle) | X | 5.05 | 67.59 | 16.96 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.93 | 67.24 | 16.64 |      | 130.0 |         |
|           |                                                       | Z | 5.06 | 67.40 | 16.76 |      | 130.0 |         |
| 10597-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle) | X | 5.00 | 67.53 | 16.87 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.88 | 67.16 | 16.53 |      | 130.0 |         |
|           |                                                       | Z | 5.01 | 67.35 | 16.68 |      | 130.0 |         |
| 10598-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle) | X | 4.98 | 67.77 | 17.12 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.86 | 67.40 | 16.79 |      | 130.0 |         |
|           |                                                       | Z | 4.99 | 67.58 | 16.92 |      | 130.0 |         |
| 10599-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle) | X | 5.65 | 67.74 | 17.05 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.54 | 67.42 | 16.77 |      | 130.0 |         |
|           |                                                       | Z | 5.65 | 67.58 | 16.87 |      | 130.0 |         |
| 10600-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle) | X | 5.86 | 68.37 | 17.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.74 | 68.03 | 17.05 |      | 130.0 |         |
|           |                                                       | Z | 5.87 | 68.25 | 17.19 |      | 130.0 |         |
| 10601-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle) | X | 5.71 | 67.99 | 17.17 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.59 | 67.67 | 16.88 |      | 130.0 |         |
|           |                                                       | Z | 5.71 | 67.84 | 16.99 |      | 130.0 |         |
| 10602-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle) | X | 5.80 | 67.99 | 17.09 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.68 | 67.66 | 16.80 |      | 130.0 |         |
|           |                                                       | Z | 5.80 | 67.87 | 16.93 |      | 130.0 |         |
| 10603-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle) | X | 5.88 | 68.27 | 17.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.76 | 67.95 | 17.07 |      | 130.0 |         |
|           |                                                       | Z | 5.91 | 68.22 | 17.22 |      | 130.0 |         |
| 10604-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle) | X | 5.65 | 67.69 | 17.05 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.55 | 67.38 | 16.78 |      | 130.0 |         |
|           |                                                       | Z | 5.65 | 67.55 | 16.88 |      | 130.0 |         |
| 10605-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle) | X | 5.77 | 68.03 | 17.23 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.67 | 67.75 | 16.97 |      | 130.0 |         |
|           |                                                       | Z | 5.76 | 67.86 | 17.04 |      | 130.0 |         |
| 10606-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle) | X | 5.54 | 67.48 | 16.82 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.42 | 67.14 | 16.52 |      | 130.0 |         |
|           |                                                       | Z | 5.54 | 67.37 | 16.67 |      | 130.0 |         |

|           |                                                   |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10607-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle) | X | 4.81 | 66.46 | 16.48 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.70 | 66.13 | 16.17 |      | 130.0 |         |
|           |                                                   | Z | 4.81 | 66.25 | 16.27 |      | 130.0 |         |
| 10608-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle) | X | 5.03 | 66.90 | 16.65 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.90 | 66.55 | 16.34 |      | 130.0 |         |
|           |                                                   | Z | 5.02 | 66.68 | 16.44 |      | 130.0 |         |
| 10609-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle) | X | 4.92 | 66.79 | 16.52 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.79 | 66.41 | 16.18 |      | 130.0 |         |
|           |                                                   | Z | 4.92 | 66.57 | 16.31 |      | 130.0 |         |
| 10610-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle) | X | 4.97 | 66.94 | 16.67 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.84 | 66.57 | 16.34 |      | 130.0 |         |
|           |                                                   | Z | 4.97 | 66.72 | 16.46 |      | 130.0 |         |
| 10611-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle) | X | 4.89 | 66.78 | 16.54 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.76 | 66.39 | 16.20 |      | 130.0 |         |
|           |                                                   | Z | 4.89 | 66.57 | 16.33 |      | 130.0 |         |
| 10612-AAB | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle) | X | 4.92 | 66.95 | 16.59 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.78 | 66.55 | 16.24 |      | 130.0 |         |
|           |                                                   | Z | 4.91 | 66.73 | 16.37 |      | 130.0 |         |
| 10613-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle) | X | 4.93 | 66.87 | 16.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.79 | 66.46 | 16.14 |      | 130.0 |         |
|           |                                                   | Z | 4.93 | 66.66 | 16.28 |      | 130.0 |         |
| 10614-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle) | X | 4.85 | 67.03 | 16.71 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.72 | 66.63 | 16.36 |      | 130.0 |         |
|           |                                                   | Z | 4.85 | 66.82 | 16.49 |      | 130.0 |         |
| 10615-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle) | X | 4.90 | 66.61 | 16.33 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.76 | 66.22 | 15.98 |      | 130.0 |         |
|           |                                                   | Z | 4.90 | 66.40 | 16.12 |      | 130.0 |         |
| 10616-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle) | X | 5.47 | 66.98 | 16.66 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.36 | 66.66 | 16.38 |      | 130.0 |         |
|           |                                                   | Z | 5.46 | 66.82 | 16.47 |      | 130.0 |         |
| 10617-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle) | X | 5.52 | 67.09 | 16.68 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.42 | 66.80 | 16.41 |      | 130.0 |         |
|           |                                                   | Z | 5.52 | 66.93 | 16.49 |      | 130.0 |         |
| 10618-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle) | X | 5.42 | 67.18 | 16.74 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.31 | 66.84 | 16.45 |      | 130.0 |         |
|           |                                                   | Z | 5.41 | 67.00 | 16.54 |      | 130.0 |         |
| 10619-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle) | X | 5.45 | 67.00 | 16.59 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.34 | 66.68 | 16.31 |      | 130.0 |         |
|           |                                                   | Z | 5.44 | 66.82 | 16.40 |      | 130.0 |         |
| 10620-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle) | X | 5.56 | 67.11 | 16.69 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.44 | 66.75 | 16.39 |      | 130.0 |         |
|           |                                                   | Z | 5.56 | 66.95 | 16.51 |      | 130.0 |         |
| 10621-AAB | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle) | X | 5.53 | 67.13 | 16.81 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.42 | 66.81 | 16.54 |      | 130.0 |         |
|           |                                                   | Z | 5.53 | 66.98 | 16.63 |      | 130.0 |         |
| 10622-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle) | X | 5.53 | 67.27 | 16.87 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.43 | 66.97 | 16.61 |      | 130.0 |         |
|           |                                                   | Z | 5.52 | 67.09 | 16.67 |      | 130.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10623-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)  | X | 5.42 | 66.86 | 16.56 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.30 | 66.51 | 16.26 |      | 130.0 |         |
|           |                                                    | Z | 5.42 | 66.73 | 16.39 |      | 130.0 |         |
| 10624-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)  | X | 5.61 | 67.03 | 16.70 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.50 | 66.72 | 16.43 |      | 130.0 |         |
|           |                                                    | Z | 5.60 | 66.86 | 16.51 |      | 130.0 |         |
| 10625-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)  | X | 6.05 | 68.19 | 17.33 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.94 | 67.90 | 17.07 |      | 130.0 |         |
|           |                                                    | Z | 6.01 | 67.90 | 17.08 |      | 130.0 |         |
| 10626-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)  | X | 5.72 | 66.99 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.63 | 66.69 | 16.31 |      | 130.0 |         |
|           |                                                    | Z | 5.71 | 66.84 | 16.40 |      | 130.0 |         |
| 10627-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)  | X | 5.99 | 67.59 | 16.82 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.90 | 67.32 | 16.58 |      | 130.0 |         |
|           |                                                    | Z | 5.97 | 67.39 | 16.62 |      | 130.0 |         |
| 10628-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)  | X | 5.80 | 67.20 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.69 | 66.85 | 16.29 |      | 130.0 |         |
|           |                                                    | Z | 5.79 | 67.05 | 16.40 |      | 130.0 |         |
| 10629-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)  | X | 5.88 | 67.25 | 16.59 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.77 | 66.92 | 16.31 |      | 130.0 |         |
|           |                                                    | Z | 5.87 | 67.12 | 16.43 |      | 130.0 |         |
| 10630-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)  | X | 6.51 | 69.31 | 17.62 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.37 | 68.86 | 17.28 |      | 130.0 |         |
|           |                                                    | Z | 6.46 | 69.04 | 17.39 |      | 130.0 |         |
| 10631-AAB | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)  | X | 6.31 | 68.81 | 17.54 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.17 | 68.39 | 17.24 |      | 130.0 |         |
|           |                                                    | Z | 6.30 | 68.62 | 17.35 |      | 130.0 |         |
| 10632-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)  | X | 5.95 | 67.61 | 16.96 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.85 | 67.34 | 16.73 |      | 130.0 |         |
|           |                                                    | Z | 5.94 | 67.45 | 16.78 |      | 130.0 |         |
| 10633-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)  | X | 5.89 | 67.42 | 16.71 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.75 | 67.01 | 16.39 |      | 130.0 |         |
|           |                                                    | Z | 5.89 | 67.32 | 16.56 |      | 130.0 |         |
| 10634-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)  | X | 5.85 | 67.37 | 16.74 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.73 | 67.02 | 16.46 |      | 130.0 |         |
|           |                                                    | Z | 5.86 | 67.27 | 16.59 |      | 130.0 |         |
| 10635-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)  | X | 5.75 | 66.78 | 16.20 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.62 | 66.39 | 15.89 |      | 130.0 |         |
|           |                                                    | Z | 5.75 | 66.67 | 16.05 |      | 130.0 |         |
| 10636-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle) | X | 6.13 | 67.38 | 16.66 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.05 | 67.09 | 16.42 |      | 130.0 |         |
|           |                                                    | Z | 6.12 | 67.24 | 16.50 |      | 130.0 |         |
| 10637-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle) | X | 6.31 | 67.79 | 16.85 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.21 | 67.50 | 16.60 |      | 130.0 |         |
|           |                                                    | Z | 6.29 | 67.65 | 16.68 |      | 130.0 |         |
| 10638-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle) | X | 6.31 | 67.76 | 16.81 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.21 | 67.47 | 16.56 |      | 130.0 |         |
|           |                                                    | Z | 6.29 | 67.60 | 16.64 |      | 130.0 |         |

|           |                                                        |   |       |        |       |       |       |         |
|-----------|--------------------------------------------------------|---|-------|--------|-------|-------|-------|---------|
| 10639-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)     | X | 6.30  | 67.76  | 16.86 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.20  | 67.43  | 16.59 |       | 130.0 |         |
|           |                                                        | Z | 6.29  | 67.63  | 16.70 |       | 130.0 |         |
| 10640-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)     | X | 6.34  | 67.87  | 16.86 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.22  | 67.50  | 16.57 |       | 130.0 |         |
|           |                                                        | Z | 6.33  | 67.75  | 16.70 |       | 130.0 |         |
| 10641-AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)     | X | 6.33  | 67.58  | 16.73 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.23  | 67.29  | 16.48 |       | 130.0 |         |
|           |                                                        | Z | 6.31  | 67.45  | 16.57 |       | 130.0 |         |
| 10642-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)     | X | 6.39  | 67.88  | 17.04 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.28  | 67.58  | 16.79 |       | 130.0 |         |
|           |                                                        | Z | 6.38  | 67.76  | 16.88 |       | 130.0 |         |
| 10643-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)     | X | 6.22  | 67.60  | 16.81 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.12  | 67.28  | 16.54 |       | 130.0 |         |
|           |                                                        | Z | 6.21  | 67.48  | 16.65 |       | 130.0 |         |
| 10644-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)     | X | 6.47  | 68.34  | 17.21 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.34  | 67.93  | 16.89 |       | 130.0 |         |
|           |                                                        | Z | 6.46  | 68.22  | 17.05 |       | 130.0 |         |
| 10645-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)     | X | 6.86  | 69.01  | 17.48 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.84  | 68.95  | 17.35 |       | 130.0 |         |
|           |                                                        | Z | 6.77  | 68.66  | 17.21 |       | 130.0 |         |
| 10646-AAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)  | X | 39.97 | 118.78 | 39.16 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 36.64 | 117.33 | 38.51 |       | 60.0  |         |
|           |                                                        | Z | 28.19 | 109.42 | 36.13 |       | 60.0  |         |
| 10647-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7) | X | 43.22 | 121.45 | 40.07 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 37.61 | 118.78 | 39.06 |       | 60.0  |         |
|           |                                                        | Z | 29.77 | 111.44 | 36.87 |       | 60.0  |         |
| 10648-AAA | CDMA2000 (1x Advanced)                                 | X | 0.92  | 67.44  | 13.60 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                        | Y | 0.67  | 63.31  | 10.51 |       | 150.0 |         |
|           |                                                        | Z | 0.80  | 64.88  | 12.09 |       | 150.0 |         |
| 10652-AAB | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)         | X | 4.65  | 69.66  | 17.99 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.35  | 68.72  | 17.32 |       | 80.0  |         |
|           |                                                        | Z | 4.56  | 68.93  | 17.55 |       | 80.0  |         |
| 10653-AAB | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)        | X | 5.05  | 68.61  | 17.89 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.81  | 67.90  | 17.37 |       | 80.0  |         |
|           |                                                        | Z | 5.01  | 68.17  | 17.57 |       | 80.0  |         |
| 10654-AAB | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)        | X | 4.97  | 68.24  | 17.87 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.75  | 67.55  | 17.37 |       | 80.0  |         |
|           |                                                        | Z | 4.94  | 67.85  | 17.56 |       | 80.0  |         |
| 10655-AAB | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)        | X | 5.03  | 68.27  | 17.91 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.81  | 67.56  | 17.41 |       | 80.0  |         |
|           |                                                        | Z | 4.99  | 67.90  | 17.61 |       | 80.0  |         |
| 10658-AAA | Pulse Waveform (200Hz, 10%)                            | X | 13.25 | 86.83  | 23.62 | 10.00 | 50.0  | ± 9.6 % |
|           |                                                        | Y | 14.38 | 88.09  | 23.44 |       | 50.0  |         |
|           |                                                        | Z | 11.47 | 83.98  | 22.82 |       | 50.0  |         |
| 10659-AAA | Pulse Waveform (200Hz, 20%)                            | X | 55.89 | 109.63 | 28.77 | 6.99  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 73.21 | 111.71 | 28.47 |       | 60.0  |         |
|           |                                                        | Z | 23.49 | 96.54  | 25.38 |       | 60.0  |         |

|           |                             |   |        |        |       |      |       |         |
|-----------|-----------------------------|---|--------|--------|-------|------|-------|---------|
| 10660-AAA | Pulse Waveform (200Hz, 40%) | X | 100.00 | 116.44 | 28.38 | 3.98 | 80.0  | ± 9.6 % |
|           |                             | Y | 100.00 | 113.18 | 26.58 |      | 80.0  |         |
|           |                             | Z | 100.00 | 116.19 | 28.39 |      | 80.0  |         |
| 10661-AAA | Pulse Waveform (200Hz, 60%) | X | 100.00 | 118.35 | 27.71 | 2.22 | 100.0 | ± 9.6 % |
|           |                             | Y | 100.00 | 112.59 | 24.89 |      | 100.0 |         |
|           |                             | Z | 100.00 | 116.83 | 27.13 |      | 100.0 |         |
| 10662-AAA | Pulse Waveform (200Hz, 80%) | X | 100.00 | 126.67 | 29.16 | 0.97 | 120.0 | ± 9.6 % |
|           |                             | Y | 100.00 | 111.31 | 22.51 |      | 120.0 |         |
|           |                             | Z | 100.00 | 120.40 | 26.63 |      | 120.0 |         |

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **PC Test**

Certificate No: **EX3-3914\_Feb18**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3914**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-12.v9, QA CAL-14.v4, QA CAL-23.v5,  
QA CAL-25.v6  
Calibration procedure for dosimetric E-field probes**

*BN  
02-23-2018*

Calibration date: **February 14, 2018**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature  $(22 \pm 3)^\circ\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-17 (No. 217-02521/02522)   | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-17 (No. 217-02521)         | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-17 (No. 217-02525)         | Apr-18                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 07-Apr-17 (No. 217-02528)         | Apr-18                 |
| Reference Probe ES3DV2     | SN: 3013         | 30-Dec-17 (No. ES3-3013_Dec17)    | Dec-18                 |
| DAE4                       | SN: 660          | 21-Dec-17 (No. DAE4-660_Dec17)    | Dec-18                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-16) | In house check: Jun-18 |
| Network Analyzer HP 8753E  | SN: US37390585   | 18-Oct-01 (in house check Oct-17) | In house check: Oct-18 |

|                |                               |                                   |               |
|----------------|-------------------------------|-----------------------------------|---------------|
| Calibrated by: | Name<br><b>Jeton Kastrati</b> | Function<br>Laboratory Technician | Signature<br> |
| Approved by:   | Name<br><b>Katja Pokovic</b>  | Technical Manager                 |               |

Issued: February 14, 2018

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

## Glossary:

|                          |                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                      | tissue simulating liquid                                                                                                                                |
| NORM <sub>x,y,z</sub>    | sensitivity in free space                                                                                                                               |
| ConvF                    | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                              |
| DCP                      | diode compression point                                                                                                                                 |
| CF                       | crest factor (1/duty_cycle) of the RF signal                                                                                                            |
| A, B, C, D               | modulation dependent linearization parameters                                                                                                           |
| Polarization $\varphi$   | $\varphi$ rotation around probe axis                                                                                                                    |
| Polarization $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor X to the robot coordinate system                                                                  |

## Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

## Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

# Probe EX3DV4

## SN:3914

Manufactured: December 18, 2012  
Calibrated: February 14, 2018

Calibrated for DASY/EASY Systems  
(Note: non-compatible with DASY2 system!)

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3914

### Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2)     |
|-----------------------------------------------------------|----------|----------|----------|---------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.47     | 0.41     | 0.44     | $\pm 10.1 \%$ |
| DCP (mV) <sup>B</sup>                                     | 98.1     | 103.5    | 99.1     |               |

### Modulation Calibration Parameters

| UID | Communication System Name |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C   | D<br>dB | VR<br>mV | Unc <sup>E</sup><br>(k=2) |
|-----|---------------------------|---|---------|------------------------------|-----|---------|----------|---------------------------|
| 0   | CW                        | X | 0.0     | 0.0                          | 1.0 | 0.00    | 157.3    | $\pm 3.5 \%$              |
|     |                           | Y | 0.0     | 0.0                          | 1.0 |         | 143.4    |                           |
|     |                           | Z | 0.0     | 0.0                          | 1.0 |         | 153.1    |                           |

Note: For details on UID parameters see Appendix.

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$\text{V}^{-1}$ | T1<br>$\text{ms} \cdot \text{V}^{-2}$ | T2<br>$\text{ms} \cdot \text{V}^{-1}$ | T3<br>ms | T4<br>$\text{V}^{-2}$ | T5<br>$\text{V}^{-1}$ | T6    |
|---|----------|----------|-----------------------------|---------------------------------------|---------------------------------------|----------|-----------------------|-----------------------|-------|
| X | 44.52    | 338.7    | 36.78                       | 11.30                                 | 0.699                                 | 5.054    | 0.000                 | 0.544                 | 1.006 |
| Y | 43.63    | 317.9    | 34.18                       | 13.04                                 | 0.623                                 | 5.031    | 2.000                 | 0.164                 | 1.007 |
| Z | 41.48    | 314.2    | 36.51                       | 10.96                                 | 0.847                                 | 5.054    | 0.251                 | 0.494                 | 1.008 |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3914

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 6                    | 55.5                               | 0.75                            | 21.06   | 21.06   | 21.06   | 0.00               | 1.00                    | ± 13.3 %  |
| 13                   | 55.5                               | 0.75                            | 17.97   | 17.97   | 17.97   | 0.00               | 1.00                    | ± 13.3 %  |
| 750                  | 41.9                               | 0.89                            | 10.18   | 10.18   | 10.18   | 0.58               | 0.80                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 9.70    | 9.70    | 9.70    | 0.52               | 0.80                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 8.34    | 8.34    | 8.34    | 0.40               | 0.80                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 7.98    | 7.98    | 7.98    | 0.41               | 0.84                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 7.58    | 7.58    | 7.58    | 0.37               | 0.87                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 7.26    | 7.26    | 7.26    | 0.43               | 0.84                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 7.04    | 7.04    | 7.04    | 0.29               | 0.86                    | ± 12.0 %  |
| 3500                 | 37.9                               | 2.91                            | 6.99    | 6.99    | 6.99    | 0.25               | 1.20                    | ± 13.1 %  |
| 3700                 | 37.7                               | 3.12                            | 6.72    | 6.72    | 6.72    | 0.23               | 1.20                    | ± 13.1 %  |
| 5250                 | 35.9                               | 4.71                            | 5.41    | 5.41    | 5.41    | 0.30               | 1.80                    | ± 13.1 %  |
| 5600                 | 35.5                               | 5.07                            | 4.79    | 4.79    | 4.79    | 0.40               | 1.80                    | ± 13.1 %  |
| 5750                 | 35.4                               | 5.22                            | 4.78    | 4.78    | 4.78    | 0.40               | 1.80                    | ± 13.1 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3914

### Calibration Parameter Determined in Body Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 55.5                               | 0.96                            | 9.75    | 9.75    | 9.75    | 0.47               | 0.80                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 9.57    | 9.57    | 9.57    | 0.44               | 0.89                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 7.91    | 7.91    | 7.91    | 0.37               | 0.80                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 7.62    | 7.62    | 7.62    | 0.29               | 1.01                    | ± 12.0 %  |
| 2300                 | 52.9                               | 1.81                            | 7.46    | 7.46    | 7.46    | 0.40               | 0.88                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 7.39    | 7.39    | 7.39    | 0.39               | 0.86                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 7.05    | 7.05    | 7.05    | 0.28               | 1.05                    | ± 12.0 %  |
| 3500                 | 51.3                               | 3.31                            | 6.81    | 6.81    | 6.81    | 0.30               | 1.25                    | ± 13.1 %  |
| 3700                 | 51.0                               | 3.55                            | 6.64    | 6.64    | 6.64    | 0.30               | 1.25                    | ± 13.1 %  |
| 5250                 | 48.9                               | 5.36                            | 4.81    | 4.81    | 4.81    | 0.35               | 1.90                    | ± 13.1 %  |
| 5600                 | 48.5                               | 5.77                            | 4.09    | 4.09    | 4.09    | 0.40               | 1.90                    | ± 13.1 %  |
| 5750                 | 48.3                               | 5.94                            | 4.22    | 4.22    | 4.22    | 0.40               | 1.90                    | ± 13.1 %  |

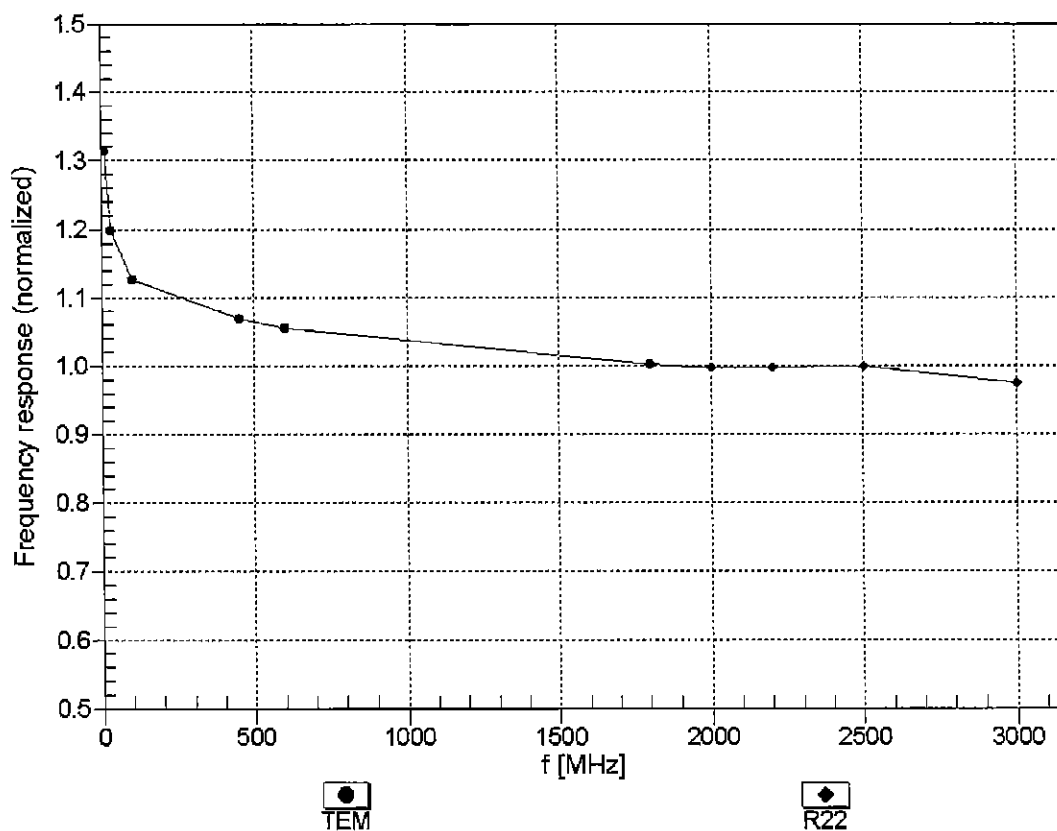
<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## Frequency Response of E-Field

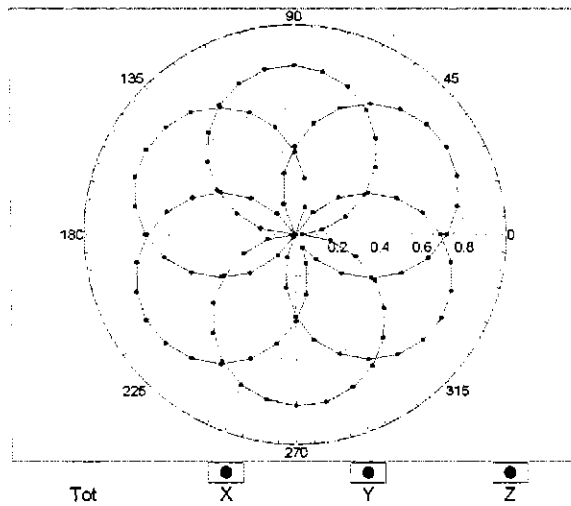
(TEM-Cell:ifi110 EXX, Waveguide: R22)



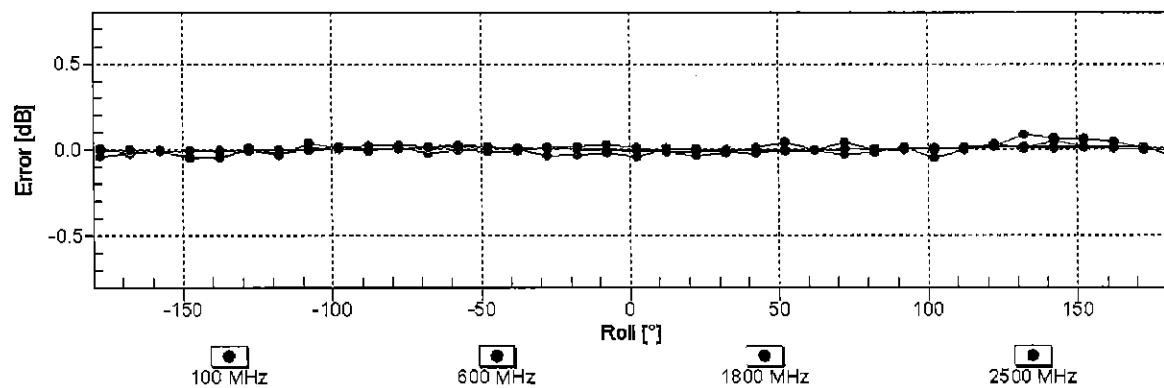
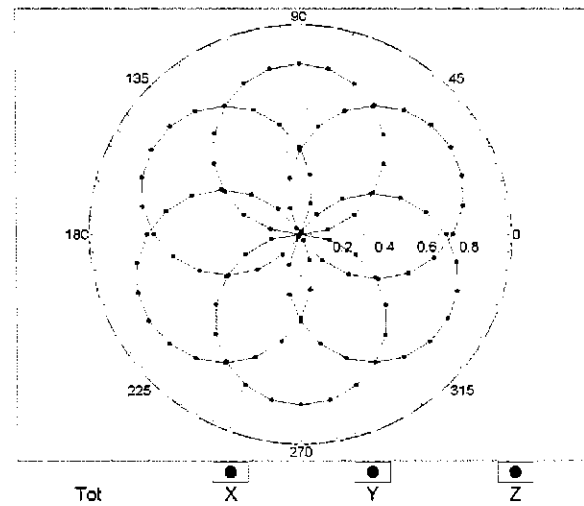
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

## Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

f=600 MHz,TEM

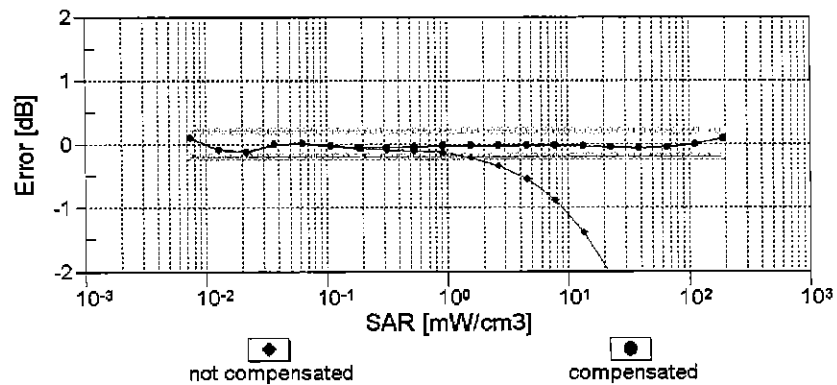
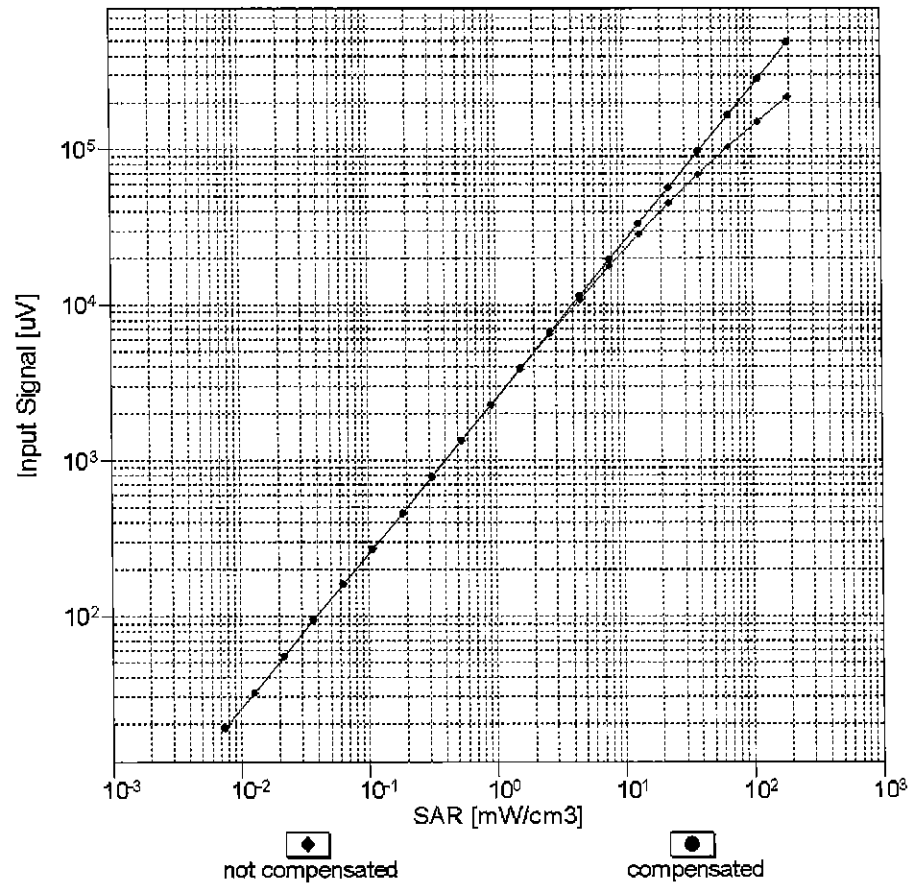


f=1800 MHz,R22



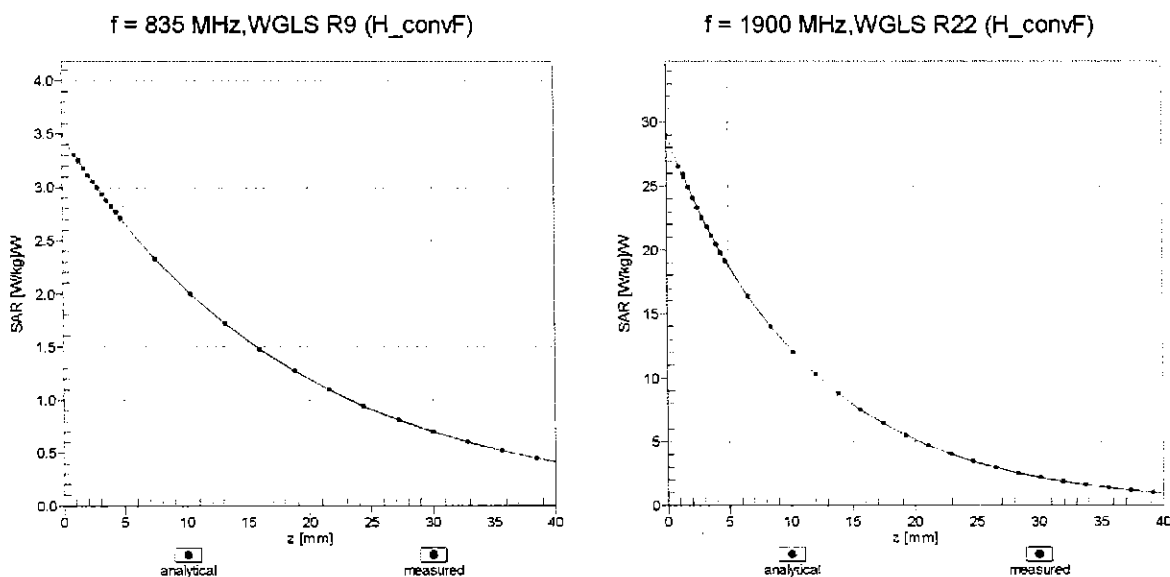
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  (k=2)

# **Dynamic Range $f(\text{SAR}_{\text{head}})$** (TEM cell , $f_{\text{eval}} = 1900 \text{ MHz}$ )



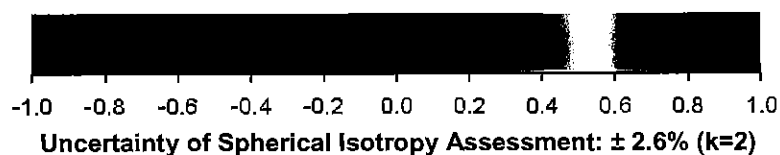
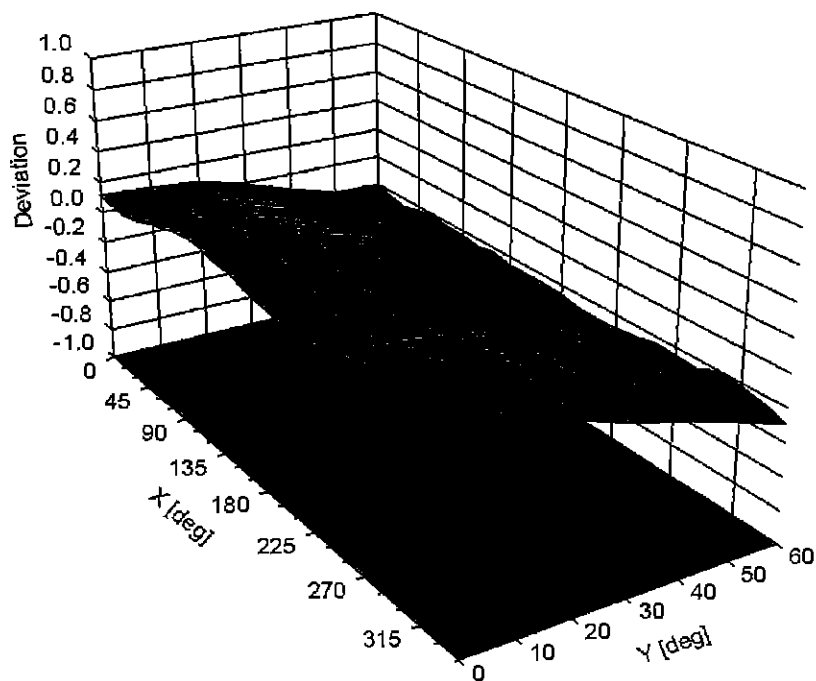
Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi$ ,  $\theta$ ),  $f = 900 \text{ MHz}$



## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3914

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 132.3      |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

**Appendix: Modulation Calibration Parameters**

| UID           | Communication System Name                     |   | A<br>dB | B<br>dB $\mu$ V | C     | D<br>dB | VR<br>mV | Max<br>Unc <sup>E</sup><br>(k=2) |
|---------------|-----------------------------------------------|---|---------|-----------------|-------|---------|----------|----------------------------------|
| 0             | CW                                            | X | 0.00    | 0.00            | 1.00  | 0.00    | 157.3    | $\pm 3.5 \%$                     |
|               |                                               | Y | 0.00    | 0.00            | 1.00  |         | 143.4    |                                  |
|               |                                               | Z | 0.00    | 0.00            | 1.00  |         | 153.1    |                                  |
| 10010-<br>CAA | SAR Validation (Square, 100ms, 10ms)          | X | 2.02    | 63.97           | 9.10  | 10.00   | 20.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 2.59    | 66.85           | 10.84 |         | 20.0     |                                  |
|               |                                               | Z | 2.31    | 65.14           | 9.98  |         | 20.0     |                                  |
| 10011-<br>CAB | UMTS-FDD (WCDMA)                              | X | 0.89    | 66.39           | 14.20 | 0.00    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 1.06    | 68.74           | 16.01 |         | 150.0    |                                  |
|               |                                               | Z | 0.90    | 66.80           | 14.44 |         | 150.0    |                                  |
| 10012-<br>CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)      | X | 1.06    | 63.38           | 14.79 | 0.41    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 1.17    | 64.37           | 15.54 |         | 150.0    |                                  |
|               |                                               | Z | 1.07    | 63.61           | 14.94 |         | 150.0    |                                  |
| 10013-<br>CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps) | X | 4.75    | 66.53           | 16.97 | 1.46    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 4.80    | 66.78           | 17.02 |         | 150.0    |                                  |
|               |                                               | Z | 4.73    | 66.65           | 17.01 |         | 150.0    |                                  |
| 10021-<br>DAC | GSM-FDD (TDMA, GMSK)                          | X | 100.00  | 110.09          | 25.45 | 9.39    | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 112.00          | 26.43 |         | 50.0     |                                  |
|               |                                               | Z | 100.00  | 111.93          | 26.50 |         | 50.0     |                                  |
| 10023-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0)                   | X | 100.00  | 109.83          | 25.39 | 9.57    | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 111.69          | 26.33 |         | 50.0     |                                  |
|               |                                               | Z | 100.00  | 111.63          | 26.42 |         | 50.0     |                                  |
| 10024-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                 | X | 100.00  | 107.43          | 23.14 | 6.56    | 60.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 110.61          | 24.77 |         | 60.0     |                                  |
|               |                                               | Z | 100.00  | 109.57          | 24.26 |         | 60.0     |                                  |
| 10025-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                   | X | 4.03    | 68.96           | 25.05 | 12.57   | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 5.30    | 77.15           | 29.41 |         | 50.0     |                                  |
|               |                                               | Z | 4.06    | 68.52           | 24.65 |         | 50.0     |                                  |
| 10026-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                 | X | 8.87    | 91.28           | 32.17 | 9.56    | 60.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 10.08   | 94.25           | 33.27 |         | 60.0     |                                  |
|               |                                               | Z | 8.65    | 90.32           | 31.77 |         | 60.0     |                                  |
| 10027-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)               | X | 100.00  | 105.82          | 21.66 | 4.80    | 80.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 111.09          | 24.24 |         | 80.0     |                                  |
|               |                                               | Z | 100.00  | 108.42          | 22.93 |         | 80.0     |                                  |
| 10028-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)             | X | 100.00  | 104.11          | 20.26 | 3.55    | 100.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 112.84          | 24.34 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 107.37          | 21.76 |         | 100.0    |                                  |
| 10029-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)               | X | 5.57    | 80.93           | 27.02 | 7.80    | 80.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 6.11    | 82.68           | 27.69 |         | 80.0     |                                  |
|               |                                               | Z | 5.53    | 80.55           | 26.85 |         | 80.0     |                                  |
| 10030-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)           | X | 100.00  | 104.99          | 21.59 | 5.30    | 70.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 109.04          | 23.62 |         | 70.0     |                                  |
|               |                                               | Z | 100.00  | 107.17          | 22.68 |         | 70.0     |                                  |
| 10031-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)           | X | 0.46    | 62.47           | 6.17  | 1.88    | 100.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 111.97          | 22.67 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 95.35           | 15.52 |         | 100.0    |                                  |

|           |                                                     |   |        |        |       |       |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10032-CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | X | 0.19   | 60.00  | 3.78  | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 120.03 | 24.95 |       | 100.0 |         |
|           |                                                     | Z | 0.19   | 60.00  | 4.15  |       | 100.0 |         |
| 10033-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | X | 13.55  | 95.45  | 24.90 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 18.76  | 100.49 | 26.60 |       | 70.0  |         |
|           |                                                     | Z | 13.36  | 94.67  | 24.55 |       | 70.0  |         |
| 10034-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | X | 2.70   | 75.51  | 16.71 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 4.49   | 82.47  | 19.70 |       | 100.0 |         |
|           |                                                     | Z | 2.90   | 76.09  | 16.70 |       | 100.0 |         |
| 10035-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | X | 1.71   | 70.85  | 14.56 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 2.70   | 76.95  | 17.56 |       | 100.0 |         |
|           |                                                     | Z | 1.78   | 71.24  | 14.48 |       | 100.0 |         |
| 10036-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | X | 22.62  | 103.29 | 27.18 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 32.35  | 108.98 | 28.96 |       | 70.0  |         |
|           |                                                     | Z | 21.86  | 102.15 | 26.73 |       | 70.0  |         |
| 10037-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | X | 2.48   | 74.51  | 16.30 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 3.96   | 80.90  | 19.14 |       | 100.0 |         |
|           |                                                     | Z | 2.61   | 74.90  | 16.23 |       | 100.0 |         |
| 10038-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | X | 1.74   | 71.34  | 14.88 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 2.75   | 77.52  | 17.90 |       | 100.0 |         |
|           |                                                     | Z | 1.82   | 71.77  | 14.82 |       | 100.0 |         |
| 10039-CAB | CDMA2000 (1xRTT, RC1)                               | X | 1.34   | 68.49  | 13.13 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.27   | 75.66  | 16.89 |       | 150.0 |         |
|           |                                                     | Z | 1.29   | 68.35  | 12.80 |       | 150.0 |         |
| 10042-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | X | 34.99  | 94.66  | 19.93 | 7.78  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 108.11 | 23.89 |       | 50.0  |         |
|           |                                                     | Z | 100.00 | 107.01 | 23.40 |       | 50.0  |         |
| 10044-CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | X | 0.17   | 126.30 | 3.13  | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.00   | 107.81 | 5.46  |       | 150.0 |         |
|           |                                                     | Z | 0.15   | 126.17 | 2.27  |       | 150.0 |         |
| 10048-CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | X | 10.11  | 79.88  | 18.52 | 13.80 | 25.0  | ± 9.6 % |
|           |                                                     | Y | 23.48  | 91.75  | 22.45 |       | 25.0  |         |
|           |                                                     | Z | 12.25  | 82.71  | 19.92 |       | 25.0  |         |
| 10049-CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | X | 11.72  | 83.69  | 18.67 | 10.79 | 40.0  | ± 9.6 % |
|           |                                                     | Y | 40.84  | 100.05 | 23.71 |       | 40.0  |         |
|           |                                                     | Z | 15.78  | 87.97  | 20.48 |       | 40.0  |         |
| 10056-CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | X | 18.86  | 95.31  | 25.05 | 9.03  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 26.98  | 101.35 | 27.04 |       | 50.0  |         |
|           |                                                     | Z | 17.19  | 93.67  | 24.60 |       | 50.0  |         |
| 10058-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | X | 4.30   | 76.01  | 24.21 | 6.55  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 4.66   | 77.31  | 24.71 |       | 100.0 |         |
|           |                                                     | Z | 4.30   | 75.85  | 24.15 |       | 100.0 |         |
| 10059-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | X | 1.10   | 64.51  | 15.41 | 0.61  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 1.22   | 65.59  | 16.19 |       | 110.0 |         |
|           |                                                     | Z | 1.11   | 64.78  | 15.58 |       | 110.0 |         |
| 10060-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | X | 40.70  | 121.16 | 30.62 | 1.30  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 138.01 | 35.59 |       | 110.0 |         |
|           |                                                     | Z | 76.47  | 130.66 | 32.92 |       | 110.0 |         |

|           |                                                |   |      |       |       |      |       |         |
|-----------|------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10061-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)      | X | 2.97 | 81.68 | 22.34 | 2.04 | 110.0 | ± 9.6 % |
|           |                                                | Y | 3.52 | 84.01 | 23.42 |      | 110.0 |         |
|           |                                                | Z | 3.16 | 82.63 | 22.73 |      | 110.0 |         |
| 10062-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)       | X | 4.54 | 66.50 | 16.38 | 0.49 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.60 | 66.81 | 16.49 |      | 100.0 |         |
|           |                                                | Z | 4.51 | 66.59 | 16.41 |      | 100.0 |         |
| 10063-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)       | X | 4.56 | 66.59 | 16.48 | 0.72 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.62 | 66.89 | 16.58 |      | 100.0 |         |
|           |                                                | Z | 4.53 | 66.70 | 16.52 |      | 100.0 |         |
| 10064-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)      | X | 4.84 | 66.85 | 16.71 | 0.86 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.89 | 67.12 | 16.79 |      | 100.0 |         |
|           |                                                | Z | 4.80 | 66.93 | 16.74 |      | 100.0 |         |
| 10065-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)      | X | 4.71 | 66.74 | 16.80 | 1.21 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.76 | 67.01 | 16.87 |      | 100.0 |         |
|           |                                                | Z | 4.67 | 66.83 | 16.83 |      | 100.0 |         |
| 10066-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)      | X | 4.72 | 66.77 | 16.97 | 1.46 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.77 | 67.02 | 17.03 |      | 100.0 |         |
|           |                                                | Z | 4.69 | 66.86 | 17.00 |      | 100.0 |         |
| 10067-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)      | X | 5.02 | 66.97 | 17.43 | 2.04 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.06 | 67.18 | 17.45 |      | 100.0 |         |
|           |                                                | Z | 4.99 | 67.10 | 17.47 |      | 100.0 |         |
| 10068-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)      | X | 5.06 | 66.99 | 17.64 | 2.55 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.10 | 67.19 | 17.65 |      | 100.0 |         |
|           |                                                | Z | 5.03 | 67.09 | 17.67 |      | 100.0 |         |
| 10069-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)      | X | 5.14 | 67.01 | 17.83 | 2.67 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.18 | 67.19 | 17.83 |      | 100.0 |         |
|           |                                                | Z | 5.11 | 67.11 | 17.86 |      | 100.0 |         |
| 10071-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)  | X | 4.84 | 66.62 | 17.27 | 1.99 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.89 | 66.85 | 17.31 |      | 100.0 |         |
|           |                                                | Z | 4.83 | 66.75 | 17.32 |      | 100.0 |         |
| 10072-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps) | X | 4.82 | 66.93 | 17.48 | 2.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.86 | 67.16 | 17.51 |      | 100.0 |         |
|           |                                                | Z | 4.80 | 67.06 | 17.53 |      | 100.0 |         |
| 10073-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps) | X | 4.88 | 67.11 | 17.81 | 2.83 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.92 | 67.32 | 17.83 |      | 100.0 |         |
|           |                                                | Z | 4.87 | 67.25 | 17.87 |      | 100.0 |         |
| 10074-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps) | X | 4.87 | 67.01 | 17.95 | 3.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.91 | 67.22 | 17.97 |      | 100.0 |         |
|           |                                                | Z | 4.87 | 67.19 | 18.02 |      | 100.0 |         |
| 10075-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps) | X | 4.90 | 67.11 | 18.25 | 3.82 | 90.0  | ± 9.6 % |
|           |                                                | Y | 4.95 | 67.32 | 18.26 |      | 90.0  |         |
|           |                                                | Z | 4.91 | 67.27 | 18.31 |      | 90.0  |         |
| 10076-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps) | X | 4.92 | 66.92 | 18.38 | 4.15 | 90.0  | ± 9.6 % |
|           |                                                | Y | 4.97 | 67.13 | 18.38 |      | 90.0  |         |
|           |                                                | Z | 4.94 | 67.11 | 18.46 |      | 90.0  |         |
| 10077-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps) | X | 4.95 | 66.99 | 18.48 | 4.30 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.00 | 67.21 | 18.49 |      | 90.0  |         |
|           |                                                | Z | 4.97 | 67.20 | 18.56 |      | 90.0  |         |

|           |                                                     |   |        |        |       |      |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10081-CAB | CDMA2000 (1xRTT, RC3)                               | X | 0.61   | 63.26  | 9.90  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.87   | 67.43  | 13.01 |      | 150.0 |         |
|           |                                                     | Z | 0.58   | 63.10  | 9.56  |      | 150.0 |         |
| 10082-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | X | 2.50   | 65.17  | 5.97  | 4.77 | 80.0  | ± 9.6 % |
|           |                                                     | Y | 0.75   | 60.00  | 4.55  |      | 80.0  |         |
|           |                                                     | Z | 0.72   | 60.00  | 4.31  |      | 80.0  |         |
| 10090-DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | X | 100.00 | 107.54 | 23.21 | 6.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 110.64 | 24.80 |      | 60.0  |         |
|           |                                                     | Z | 100.00 | 109.67 | 24.33 |      | 60.0  |         |
| 10097-CAB | UMTS-FDD (HSDPA)                                    | X | 1.69   | 67.19  | 15.08 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.88   | 68.79  | 16.18 |      | 150.0 |         |
|           |                                                     | Z | 1.71   | 67.59  | 15.23 |      | 150.0 |         |
| 10098-CAB | UMTS-FDD (HSUPA, Subtest 2)                         | X | 1.65   | 67.13  | 15.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.84   | 68.75  | 16.15 |      | 150.0 |         |
|           |                                                     | Z | 1.67   | 67.53  | 15.19 |      | 150.0 |         |
| 10099-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | X | 8.93   | 91.41  | 32.21 | 9.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 10.16  | 94.39  | 33.31 |      | 60.0  |         |
|           |                                                     | Z | 8.70   | 90.44  | 31.80 |      | 60.0  |         |
| 10100-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 2.94   | 69.72  | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.18   | 71.08  | 17.07 |      | 150.0 |         |
|           |                                                     | Z | 2.94   | 69.89  | 16.39 |      | 150.0 |         |
| 10101-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 3.09   | 67.13  | 15.64 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.21   | 67.85  | 16.08 |      | 150.0 |         |
|           |                                                     | Z | 3.07   | 67.21  | 15.70 |      | 150.0 |         |
| 10102-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 3.20   | 67.14  | 15.76 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.32   | 67.82  | 16.17 |      | 150.0 |         |
|           |                                                     | Z | 3.18   | 67.23  | 15.82 |      | 150.0 |         |
| 10103-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 5.93   | 75.11  | 20.17 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 6.63   | 76.82  | 20.78 |      | 65.0  |         |
|           |                                                     | Z | 5.91   | 75.14  | 20.21 |      | 65.0  |         |
| 10104-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 5.89   | 73.03  | 20.08 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 6.25   | 73.91  | 20.36 |      | 65.0  |         |
|           |                                                     | Z | 5.90   | 73.09  | 20.11 |      | 65.0  |         |
| 10105-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 5.51   | 71.58  | 19.75 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 6.10   | 73.31  | 20.41 |      | 65.0  |         |
|           |                                                     | Z | 5.86   | 72.81  | 20.30 |      | 65.0  |         |
| 10108-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | X | 2.55   | 69.01  | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.75   | 70.30  | 16.89 |      | 150.0 |         |
|           |                                                     | Z | 2.54   | 69.20  | 16.22 |      | 150.0 |         |
| 10109-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)          | X | 2.74   | 66.99  | 15.50 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.87   | 67.79  | 16.01 |      | 150.0 |         |
|           |                                                     | Z | 2.72   | 67.11  | 15.56 |      | 150.0 |         |
| 10110-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)             | X | 2.04   | 68.09  | 15.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.23   | 69.47  | 16.51 |      | 150.0 |         |
|           |                                                     | Z | 2.03   | 68.32  | 15.72 |      | 150.0 |         |
| 10111-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)           | X | 2.46   | 67.87  | 15.72 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.64   | 69.03  | 16.47 |      | 150.0 |         |
|           |                                                     | Z | 2.45   | 68.15  | 15.81 |      | 150.0 |         |

|           |                                                |   |      |       |       |      |       |         |
|-----------|------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10112-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | X | 2.87 | 67.02 | 15.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.00 | 67.79 | 16.07 |      | 150.0 |         |
|           |                                                | Z | 2.85 | 67.16 | 15.65 |      | 150.0 |         |
| 10113-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | X | 2.61 | 68.07 | 15.89 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.79 | 69.17 | 16.59 |      | 150.0 |         |
|           |                                                | Z | 2.61 | 68.36 | 15.98 |      | 150.0 |         |
| 10114-CAC | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | X | 5.01 | 67.03 | 16.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.06 | 67.33 | 16.45 |      | 150.0 |         |
|           |                                                | Z | 4.97 | 67.05 | 16.35 |      | 150.0 |         |
| 10115-CAC | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | X | 5.27 | 67.10 | 16.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.32 | 67.38 | 16.48 |      | 150.0 |         |
|           |                                                | Z | 5.22 | 67.11 | 16.39 |      | 150.0 |         |
| 10116-CAC | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | X | 5.09 | 67.20 | 16.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.14 | 67.50 | 16.46 |      | 150.0 |         |
|           |                                                | Z | 5.06 | 67.23 | 16.37 |      | 150.0 |         |
| 10117-CAC | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | X | 4.97 | 66.87 | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.03 | 67.20 | 16.40 |      | 150.0 |         |
|           |                                                | Z | 4.94 | 66.93 | 16.31 |      | 150.0 |         |
| 10118-CAC | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | X | 5.35 | 67.31 | 16.50 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.39 | 67.55 | 16.57 |      | 150.0 |         |
|           |                                                | Z | 5.30 | 67.32 | 16.50 |      | 150.0 |         |
| 10119-CAC | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | X | 5.08 | 67.16 | 16.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.12 | 67.45 | 16.45 |      | 150.0 |         |
|           |                                                | Z | 5.04 | 67.20 | 16.36 |      | 150.0 |         |
| 10140-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | X | 3.23 | 67.13 | 15.67 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.35 | 67.82 | 16.08 |      | 150.0 |         |
|           |                                                | Z | 3.21 | 67.22 | 15.73 |      | 150.0 |         |
| 10141-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | X | 3.36 | 67.28 | 15.87 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.48 | 67.94 | 16.26 |      | 150.0 |         |
|           |                                                | Z | 3.34 | 67.38 | 15.93 |      | 150.0 |         |
| 10142-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | X | 1.80 | 67.92 | 15.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.02 | 69.71 | 16.23 |      | 150.0 |         |
|           |                                                | Z | 1.78 | 68.19 | 15.11 |      | 150.0 |         |
| 10143-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | X | 2.28 | 68.33 | 15.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.56 | 70.16 | 16.27 |      | 150.0 |         |
|           |                                                | Z | 2.27 | 68.61 | 15.13 |      | 150.0 |         |
| 10144-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | X | 2.03 | 65.81 | 13.36 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.22 | 67.14 | 14.29 |      | 150.0 |         |
|           |                                                | Z | 1.98 | 65.83 | 13.22 |      | 150.0 |         |
| 10145-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | X | 0.92 | 62.55 | 9.46  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.17 | 65.32 | 11.54 |      | 150.0 |         |
|           |                                                | Z | 0.84 | 61.98 | 8.80  |      | 150.0 |         |
| 10146-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | X | 1.39 | 62.93 | 9.23  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.99 | 66.57 | 11.19 |      | 150.0 |         |
|           |                                                | Z | 1.31 | 62.53 | 8.72  |      | 150.0 |         |
| 10147-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | X | 1.52 | 63.83 | 9.83  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.52 | 69.22 | 12.51 |      | 150.0 |         |
|           |                                                | Z | 1.42 | 63.36 | 9.28  |      | 150.0 |         |

|           |                                            |   |      |       |       |      |       |         |
|-----------|--------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10149-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 2.75 | 67.05 | 15.55 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.88 | 67.86 | 16.07 |      | 150.0 |         |
|           |                                            | Z | 2.73 | 67.18 | 15.62 |      | 150.0 |         |
| 10150-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 2.88 | 67.08 | 15.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.01 | 67.85 | 16.12 |      | 150.0 |         |
|           |                                            | Z | 2.86 | 67.22 | 15.70 |      | 150.0 |         |
| 10151-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)    | X | 6.32 | 77.90 | 21.36 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 6.91 | 79.14 | 21.77 |      | 65.0  |         |
|           |                                            | Z | 6.41 | 78.22 | 21.50 |      | 65.0  |         |
| 10152-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 5.42 | 72.95 | 19.71 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 5.78 | 73.88 | 20.03 |      | 65.0  |         |
|           |                                            | Z | 5.43 | 73.04 | 19.72 |      | 65.0  |         |
| 10153-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 5.81 | 74.06 | 20.59 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 6.20 | 74.97 | 20.87 |      | 65.0  |         |
|           |                                            | Z | 5.84 | 74.21 | 20.62 |      | 65.0  |         |
| 10154-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 2.09 | 68.53 | 15.87 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.29 | 69.96 | 16.81 |      | 150.0 |         |
|           |                                            | Z | 2.08 | 68.78 | 15.99 |      | 150.0 |         |
| 10155-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 2.46 | 67.89 | 15.74 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.64 | 69.05 | 16.49 |      | 150.0 |         |
|           |                                            | Z | 2.46 | 68.18 | 15.84 |      | 150.0 |         |
| 10156-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 1.63 | 67.76 | 14.61 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 1.89 | 69.98 | 16.07 |      | 150.0 |         |
|           |                                            | Z | 1.61 | 67.98 | 14.81 |      | 150.0 |         |
| 10157-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 1.84 | 66.10 | 13.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.08 | 67.93 | 14.40 |      | 150.0 |         |
|           |                                            | Z | 1.79 | 66.07 | 12.96 |      | 150.0 |         |
| 10158-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 2.62 | 68.14 | 15.95 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.80 | 69.25 | 16.65 |      | 150.0 |         |
|           |                                            | Z | 2.62 | 68.44 | 16.04 |      | 150.0 |         |
| 10159-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 1.94 | 66.53 | 13.44 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.21 | 68.50 | 14.73 |      | 150.0 |         |
|           |                                            | Z | 1.88 | 66.49 | 13.23 |      | 150.0 |         |
| 10160-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)    | X | 2.59 | 68.31 | 15.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.73 | 69.19 | 16.57 |      | 150.0 |         |
|           |                                            | Z | 2.58 | 68.51 | 16.08 |      | 150.0 |         |
| 10161-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 2.77 | 67.03 | 15.54 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.91 | 67.84 | 16.05 |      | 150.0 |         |
|           |                                            | Z | 2.75 | 67.18 | 15.60 |      | 150.0 |         |
| 10162-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 2.88 | 67.21 | 15.67 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.02 | 68.01 | 16.17 |      | 150.0 |         |
|           |                                            | Z | 2.86 | 67.38 | 15.74 |      | 150.0 |         |
| 10166-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 3.37 | 69.04 | 18.77 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.72 | 71.09 | 19.82 |      | 150.0 |         |
|           |                                            | Z | 3.38 | 69.53 | 19.11 |      | 150.0 |         |
| 10167-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 4.04 | 71.49 | 19.00 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.05 | 75.77 | 20.88 |      | 150.0 |         |
|           |                                            | Z | 4.12 | 72.30 | 19.44 |      | 150.0 |         |

|           |                                            |   |       |        |       |      |       |         |
|-----------|--------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10168-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 4.56  | 74.09  | 20.53 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.99  | 79.40  | 22.74 |      | 150.0 |         |
|           |                                            | Z | 4.72  | 75.27  | 21.13 |      | 150.0 |         |
| 10169-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 2.74  | 67.94  | 18.26 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.25  | 71.55  | 20.05 |      | 150.0 |         |
|           |                                            | Z | 2.77  | 68.38  | 18.59 |      | 150.0 |         |
| 10170-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 3.65  | 73.29  | 20.42 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 6.00  | 83.03  | 24.31 |      | 150.0 |         |
|           |                                            | Z | 3.81  | 74.44  | 21.04 |      | 150.0 |         |
| 10171-AAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 2.98  | 69.09  | 17.51 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.17  | 75.40  | 20.24 |      | 150.0 |         |
|           |                                            | Z | 3.05  | 69.77  | 17.92 |      | 150.0 |         |
| 10172-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 6.26  | 85.95  | 26.48 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 13.49 | 101.43 | 31.66 |      | 65.0  |         |
|           |                                            | Z | 6.07  | 85.72  | 26.58 |      | 65.0  |         |
| 10173-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 11.36 | 93.09  | 26.93 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 61.90 | 122.46 | 34.86 |      | 65.0  |         |
|           |                                            | Z | 13.00 | 96.00  | 28.02 |      | 65.0  |         |
| 10174-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 8.36  | 86.77  | 24.30 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 35.10 | 110.72 | 31.17 |      | 65.0  |         |
|           |                                            | Z | 8.86  | 88.32  | 24.99 |      | 65.0  |         |
| 10175-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)      | X | 2.71  | 67.63  | 18.00 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.19  | 71.11  | 19.75 |      | 150.0 |         |
|           |                                            | Z | 2.74  | 68.04  | 18.32 |      | 150.0 |         |
| 10176-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)    | X | 3.66  | 73.32  | 20.43 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 6.01  | 83.07  | 24.33 |      | 150.0 |         |
|           |                                            | Z | 3.81  | 74.46  | 21.05 |      | 150.0 |         |
| 10177-CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)       | X | 2.73  | 67.78  | 18.10 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.23  | 71.31  | 19.86 |      | 150.0 |         |
|           |                                            | Z | 2.76  | 68.20  | 18.41 |      | 150.0 |         |
| 10178-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)     | X | 3.63  | 73.10  | 20.31 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.90  | 82.67  | 24.15 |      | 150.0 |         |
|           |                                            | Z | 3.78  | 74.24  | 20.93 |      | 150.0 |         |
| 10179-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)    | X | 3.28  | 71.01  | 18.80 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.94  | 78.87  | 22.07 |      | 150.0 |         |
|           |                                            | Z | 3.38  | 71.91  | 19.31 |      | 150.0 |         |
| 10180-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)     | X | 2.98  | 69.03  | 17.47 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.15  | 75.28  | 20.17 |      | 150.0 |         |
|           |                                            | Z | 3.04  | 69.71  | 17.88 |      | 150.0 |         |
| 10181-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 2.73  | 67.76  | 18.09 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.22  | 71.29  | 19.85 |      | 150.0 |         |
|           |                                            | Z | 2.75  | 68.18  | 18.41 |      | 150.0 |         |
| 10182-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)    | X | 3.62  | 73.08  | 20.30 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.88  | 82.63  | 24.13 |      | 150.0 |         |
|           |                                            | Z | 3.77  | 74.21  | 20.92 |      | 150.0 |         |
| 10183-AAC | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 2.97  | 69.01  | 17.46 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.14  | 75.24  | 20.16 |      | 150.0 |         |
|           |                                            | Z | 3.04  | 69.68  | 17.87 |      | 150.0 |         |

|           |                                               |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10184-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | X | 2.74 | 67.80 | 18.11 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.24 | 71.35 | 19.88 |      | 150.0 |         |
|           |                                               | Z | 2.77 | 68.22 | 18.43 |      | 150.0 |         |
| 10185-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | X | 3.64 | 73.15 | 20.34 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 5.93 | 82.75 | 24.19 |      | 150.0 |         |
|           |                                               | Z | 3.79 | 74.29 | 20.96 |      | 150.0 |         |
| 10186-AAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | X | 2.99 | 69.07 | 17.49 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.16 | 75.34 | 20.20 |      | 150.0 |         |
|           |                                               | Z | 3.05 | 69.75 | 17.90 |      | 150.0 |         |
| 10187-CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | X | 2.75 | 67.86 | 18.18 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.25 | 71.43 | 19.96 |      | 150.0 |         |
|           |                                               | Z | 2.78 | 68.29 | 18.51 |      | 150.0 |         |
| 10188-CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | X | 3.76 | 73.83 | 20.74 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 6.30 | 84.02 | 24.77 |      | 150.0 |         |
|           |                                               | Z | 3.92 | 75.04 | 21.38 |      | 150.0 |         |
| 10189-AAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | X | 3.05 | 69.47 | 17.77 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.32 | 76.05 | 20.59 |      | 150.0 |         |
|           |                                               | Z | 3.12 | 70.18 | 18.19 |      | 150.0 |         |
| 10193-CAC | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | X | 4.39 | 66.44 | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.46 | 66.83 | 16.18 |      | 150.0 |         |
|           |                                               | Z | 4.36 | 66.53 | 16.02 |      | 150.0 |         |
| 10194-CAC | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | X | 4.55 | 66.74 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.63 | 67.12 | 16.30 |      | 150.0 |         |
|           |                                               | Z | 4.51 | 66.81 | 16.16 |      | 150.0 |         |
| 10195-CAC | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | X | 4.59 | 66.77 | 16.15 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.67 | 67.15 | 16.32 |      | 150.0 |         |
|           |                                               | Z | 4.55 | 66.84 | 16.18 |      | 150.0 |         |
| 10196-CAC | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | X | 4.39 | 66.48 | 16.01 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.46 | 66.87 | 16.19 |      | 150.0 |         |
|           |                                               | Z | 4.35 | 66.57 | 16.03 |      | 150.0 |         |
| 10197-CAC | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | X | 4.56 | 66.75 | 16.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.64 | 67.14 | 16.31 |      | 150.0 |         |
|           |                                               | Z | 4.53 | 66.83 | 16.17 |      | 150.0 |         |
| 10198-CAC | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | X | 4.59 | 66.78 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.67 | 67.16 | 16.33 |      | 150.0 |         |
|           |                                               | Z | 4.55 | 66.85 | 16.19 |      | 150.0 |         |
| 10219-CAC | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | X | 4.34 | 66.50 | 15.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.41 | 66.90 | 16.15 |      | 150.0 |         |
|           |                                               | Z | 4.30 | 66.59 | 15.99 |      | 150.0 |         |
| 10220-CAC | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | X | 4.56 | 66.72 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.63 | 67.10 | 16.30 |      | 150.0 |         |
|           |                                               | Z | 4.52 | 66.79 | 16.15 |      | 150.0 |         |
| 10221-CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | X | 4.60 | 66.71 | 16.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.67 | 67.09 | 16.31 |      | 150.0 |         |
|           |                                               | Z | 4.56 | 66.79 | 16.17 |      | 150.0 |         |
| 10222-CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | X | 4.94 | 66.87 | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 5.00 | 67.20 | 16.40 |      | 150.0 |         |
|           |                                               | Z | 4.91 | 66.93 | 16.30 |      | 150.0 |         |

|           |                                           |   |       |        |       |      |       |         |
|-----------|-------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10223-CAC | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)  | X | 5.26  | 67.15  | 16.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.29  | 67.39  | 16.51 |      | 150.0 |         |
|           |                                           | Z | 5.21  | 67.16  | 16.44 |      | 150.0 |         |
| 10224-CAC | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM) | X | 4.98  | 66.98  | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.05  | 67.32  | 16.38 |      | 150.0 |         |
|           |                                           | Z | 4.95  | 67.03  | 16.28 |      | 150.0 |         |
| 10225-CAB | UMTS-FDD (HSPA+)                          | X | 2.65  | 65.82  | 14.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 2.77  | 66.54  | 15.42 |      | 150.0 |         |
|           |                                           | Z | 2.63  | 65.96  | 14.93 |      | 150.0 |         |
| 10226-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)  | X | 12.29 | 94.61  | 27.52 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 76.74 | 126.49 | 35.96 |      | 65.0  |         |
|           |                                           | Z | 14.23 | 97.75  | 28.67 |      | 65.0  |         |
| 10227-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)  | X | 11.60 | 92.16  | 26.09 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 58.51 | 119.10 | 33.33 |      | 65.0  |         |
|           |                                           | Z | 13.58 | 95.42  | 27.28 |      | 65.0  |         |
| 10228-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)    | X | 8.07  | 91.29  | 28.44 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 14.98 | 103.75 | 32.45 |      | 65.0  |         |
|           |                                           | Z | 8.37  | 92.43  | 29.01 |      | 65.0  |         |
| 10229-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)    | X | 11.46 | 93.21  | 26.98 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 62.74 | 122.68 | 34.92 |      | 65.0  |         |
|           |                                           | Z | 13.11 | 96.13  | 28.07 |      | 65.0  |         |
| 10230-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)    | X | 10.78 | 90.84  | 25.59 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 48.68 | 115.84 | 32.42 |      | 65.0  |         |
|           |                                           | Z | 12.46 | 93.85  | 26.71 |      | 65.0  |         |
| 10231-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)      | X | 7.66  | 90.18  | 27.97 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 13.86 | 102.08 | 31.86 |      | 65.0  |         |
|           |                                           | Z | 7.92  | 91.24  | 28.52 |      | 65.0  |         |
| 10232-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)    | X | 11.44 | 93.19  | 26.97 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 62.67 | 122.68 | 34.92 |      | 65.0  |         |
|           |                                           | Z | 13.08 | 96.11  | 28.07 |      | 65.0  |         |
| 10233-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)    | X | 10.75 | 90.81  | 25.58 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 48.50 | 115.79 | 32.41 |      | 65.0  |         |
|           |                                           | Z | 12.42 | 93.82  | 26.70 |      | 65.0  |         |
| 10234-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)      | X | 7.34  | 89.19  | 27.51 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 12.98 | 100.59 | 31.27 |      | 65.0  |         |
|           |                                           | Z | 7.57  | 90.21  | 28.04 |      | 65.0  |         |
| 10235-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)   | X | 11.45 | 93.23  | 26.99 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 63.03 | 122.79 | 34.95 |      | 65.0  |         |
|           |                                           | Z | 13.11 | 96.15  | 28.08 |      | 65.0  |         |
| 10236-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)   | X | 10.87 | 90.96  | 25.62 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 49.65 | 116.13 | 32.49 |      | 65.0  |         |
|           |                                           | Z | 12.57 | 93.99  | 26.75 |      | 65.0  |         |
| 10237-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)     | X | 7.67  | 90.24  | 28.00 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 13.91 | 102.19 | 31.90 |      | 65.0  |         |
|           |                                           | Z | 7.93  | 91.30  | 28.54 |      | 65.0  |         |
| 10238-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)   | X | 11.41 | 93.16  | 26.96 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 62.56 | 122.66 | 34.91 |      | 65.0  |         |
|           |                                           | Z | 13.06 | 96.08  | 28.06 |      | 65.0  |         |

|           |                                            |   |       |        |       |      |      |         |
|-----------|--------------------------------------------|---|-------|--------|-------|------|------|---------|
| 10239-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 10.72 | 90.78  | 25.57 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 48.29 | 115.74 | 32.40 |      | 65.0 |         |
|           |                                            | Z | 12.38 | 93.78  | 26.69 |      | 65.0 |         |
| 10240-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 7.65  | 90.20  | 27.98 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 13.86 | 102.14 | 31.88 |      | 65.0 |         |
|           |                                            | Z | 7.91  | 91.26  | 28.53 |      | 65.0 |         |
| 10241-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 7.49  | 79.94  | 24.73 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 9.15  | 84.52  | 26.53 |      | 65.0 |         |
|           |                                            | Z | 7.78  | 81.10  | 25.24 |      | 65.0 |         |
| 10242-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 6.76  | 77.82  | 23.76 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.56  | 83.16  | 25.93 |      | 65.0 |         |
|           |                                            | Z | 7.57  | 80.56  | 24.94 |      | 65.0 |         |
| 10243-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 5.55  | 74.73  | 23.33 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 6.44  | 78.27  | 24.91 |      | 65.0 |         |
|           |                                            | Z | 5.56  | 75.03  | 23.50 |      | 65.0 |         |
| 10244-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   | X | 4.91  | 73.06  | 16.84 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 6.23  | 76.34  | 18.14 |      | 65.0 |         |
|           |                                            | Z | 4.96  | 73.17  | 16.71 |      | 65.0 |         |
| 10245-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)   | X | 4.78  | 72.39  | 16.50 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.96  | 75.43  | 17.72 |      | 65.0 |         |
|           |                                            | Z | 4.79  | 72.41  | 16.32 |      | 65.0 |         |
| 10246-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)     | X | 4.86  | 76.58  | 18.54 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.74  | 78.81  | 19.49 |      | 65.0 |         |
|           |                                            | Z | 4.75  | 76.10  | 18.16 |      | 65.0 |         |
| 10247-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 4.54  | 72.63  | 17.68 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.00  | 73.89  | 18.23 |      | 65.0 |         |
|           |                                            | Z | 4.50  | 72.44  | 17.41 |      | 65.0 |         |
| 10248-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 4.51  | 72.01  | 17.39 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 4.93  | 73.18  | 17.90 |      | 65.0 |         |
|           |                                            | Z | 4.45  | 71.77  | 17.09 |      | 65.0 |         |
| 10249-CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 6.38  | 81.20  | 21.41 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.34  | 83.11  | 22.13 |      | 65.0 |         |
|           |                                            | Z | 6.46  | 81.34  | 21.34 |      | 65.0 |         |
| 10250-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 5.54  | 75.67  | 20.83 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.99  | 76.71  | 21.17 |      | 65.0 |         |
|           |                                            | Z | 5.60  | 75.87  | 20.83 |      | 65.0 |         |
| 10251-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 5.22  | 73.28  | 19.41 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.60  | 74.26  | 19.76 |      | 65.0 |         |
|           |                                            | Z | 5.22  | 73.35  | 19.34 |      | 65.0 |         |
| 10252-CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 6.60  | 81.03  | 22.49 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.35  | 82.49  | 22.99 |      | 65.0 |         |
|           |                                            | Z | 6.74  | 81.46  | 22.63 |      | 65.0 |         |
| 10253-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 5.32  | 72.45  | 19.46 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.67  | 73.38  | 19.78 |      | 65.0 |         |
|           |                                            | Z | 5.34  | 72.58  | 19.46 |      | 65.0 |         |
| 10254-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 5.67  | 73.46  | 20.23 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 6.04  | 74.36  | 20.52 |      | 65.0 |         |
|           |                                            | Z | 5.70  | 73.62  | 20.25 |      | 65.0 |         |

|           |                                             |   |      |       |       |      |      |         |
|-----------|---------------------------------------------|---|------|-------|-------|------|------|---------|
| 10255-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | X | 6.00 | 77.17 | 21.28 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.54 | 78.36 | 21.67 |      | 65.0 |         |
|           |                                             | Z | 6.09 | 77.51 | 21.41 |      | 65.0 |         |
| 10256-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | X | 3.55 | 68.31 | 13.56 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 4.31 | 70.70 | 14.63 |      | 65.0 |         |
|           |                                             | Z | 3.47 | 67.95 | 13.18 |      | 65.0 |         |
| 10257-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | X | 3.46 | 67.65 | 13.15 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 4.12 | 69.78 | 14.12 |      | 65.0 |         |
|           |                                             | Z | 3.37 | 67.24 | 12.73 |      | 65.0 |         |
| 10258-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | X | 3.31 | 70.56 | 15.03 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 3.93 | 72.68 | 16.08 |      | 65.0 |         |
|           |                                             | Z | 3.14 | 69.68 | 14.40 |      | 65.0 |         |
| 10259-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | X | 4.95 | 73.85 | 18.86 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.40 | 75.01 | 19.32 |      | 65.0 |         |
|           |                                             | Z | 4.95 | 73.84 | 18.70 |      | 65.0 |         |
| 10260-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | X | 4.97 | 73.54 | 18.73 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.40 | 74.66 | 19.18 |      | 65.0 |         |
|           |                                             | Z | 4.96 | 73.50 | 18.55 |      | 65.0 |         |
| 10261-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | X | 6.09 | 80.15 | 21.50 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.88 | 81.79 | 22.11 |      | 65.0 |         |
|           |                                             | Z | 6.20 | 80.42 | 21.51 |      | 65.0 |         |
| 10262-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | X | 5.53 | 75.60 | 20.77 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.97 | 76.64 | 21.12 |      | 65.0 |         |
|           |                                             | Z | 5.58 | 75.79 | 20.77 |      | 65.0 |         |
| 10263-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | X | 5.21 | 73.26 | 19.40 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.59 | 74.24 | 19.76 |      | 65.0 |         |
|           |                                             | Z | 5.21 | 73.32 | 19.33 |      | 65.0 |         |
| 10264-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | X | 6.52 | 80.79 | 22.38 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.26 | 82.25 | 22.87 |      | 65.0 |         |
|           |                                             | Z | 6.65 | 81.20 | 22.51 |      | 65.0 |         |
| 10265-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | X | 5.42 | 72.95 | 19.72 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.78 | 73.89 | 20.03 |      | 65.0 |         |
|           |                                             | Z | 5.43 | 73.04 | 19.72 |      | 65.0 |         |
| 10266-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | X | 5.81 | 74.04 | 20.57 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.19 | 74.96 | 20.86 |      | 65.0 |         |
|           |                                             | Z | 5.84 | 74.19 | 20.60 |      | 65.0 |         |
| 10267-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | X | 6.31 | 77.85 | 21.33 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.90 | 79.09 | 21.75 |      | 65.0 |         |
|           |                                             | Z | 6.39 | 78.16 | 21.48 |      | 65.0 |         |
| 10268-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | X | 6.05 | 72.91 | 20.14 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.40 | 73.76 | 20.40 |      | 65.0 |         |
|           |                                             | Z | 6.06 | 73.00 | 20.17 |      | 65.0 |         |
| 10269-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | X | 6.03 | 72.50 | 20.01 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.37 | 73.34 | 20.27 |      | 65.0 |         |
|           |                                             | Z | 6.05 | 72.60 | 20.04 |      | 65.0 |         |
| 10270-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | X | 6.14 | 75.03 | 20.36 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.59 | 76.06 | 20.69 |      | 65.0 |         |
|           |                                             | Z | 6.19 | 75.26 | 20.47 |      | 65.0 |         |

|           |                                                                    |   |       |       |       |      |       |         |
|-----------|--------------------------------------------------------------------|---|-------|-------|-------|------|-------|---------|
| 10274-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                          | X | 2.45  | 66.18 | 14.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.58  | 67.05 | 15.42 |      | 150.0 |         |
|           |                                                                    | Z | 2.44  | 66.39 | 14.86 |      | 150.0 |         |
| 10275-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                           | X | 1.45  | 67.15 | 14.79 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.65  | 68.98 | 16.07 |      | 150.0 |         |
|           |                                                                    | Z | 1.46  | 67.49 | 14.94 |      | 150.0 |         |
| 10277-CAA | PHS (QPSK)                                                         | X | 2.05  | 60.99 | 6.61  | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 2.14  | 61.42 | 6.98  |      | 50.0  |         |
|           |                                                                    | Z | 2.15  | 61.21 | 6.84  |      | 50.0  |         |
| 10278-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)                                 | X | 3.88  | 69.24 | 13.58 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 4.38  | 71.00 | 14.54 |      | 50.0  |         |
|           |                                                                    | Z | 3.84  | 68.69 | 13.30 |      | 50.0  |         |
| 10279-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)                                | X | 4.00  | 69.55 | 13.78 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 4.51  | 71.31 | 14.73 |      | 50.0  |         |
|           |                                                                    | Z | 3.94  | 68.96 | 13.47 |      | 50.0  |         |
| 10290-AAB | CDMA2000, RC1, SO55, Full Rate                                     | X | 1.07  | 65.69 | 11.52 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.53  | 70.26 | 14.37 |      | 150.0 |         |
|           |                                                                    | Z | 1.01  | 65.37 | 11.10 |      | 150.0 |         |
| 10291-AAB | CDMA2000, RC3, SO55, Full Rate                                     | X | 0.60  | 63.10 | 9.79  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 0.85  | 67.12 | 12.84 |      | 150.0 |         |
|           |                                                                    | Z | 0.57  | 62.93 | 9.45  |      | 150.0 |         |
| 10292-AAB | CDMA2000, RC3, SO32, Full Rate                                     | X | 0.74  | 66.24 | 11.75 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.46  | 75.17 | 16.76 |      | 150.0 |         |
|           |                                                                    | Z | 0.73  | 66.36 | 11.54 |      | 150.0 |         |
| 10293-AAB | CDMA2000, RC3, SO3, Full Rate                                      | X | 1.24  | 72.67 | 15.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 5.17  | 93.05 | 23.35 |      | 150.0 |         |
|           |                                                                    | Z | 1.42  | 74.33 | 15.45 |      | 150.0 |         |
| 10295-AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                              | X | 9.92  | 85.20 | 23.12 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 9.50  | 84.91 | 23.23 |      | 50.0  |         |
|           |                                                                    | Z | 10.83 | 86.02 | 23.20 |      | 50.0  |         |
| 10297-AAC | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                            | X | 2.57  | 69.12 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.77  | 70.42 | 16.97 |      | 150.0 |         |
|           |                                                                    | Z | 2.55  | 69.32 | 16.30 |      | 150.0 |         |
| 10298-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                             | X | 1.27  | 65.66 | 12.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.58  | 68.64 | 14.32 |      | 150.0 |         |
|           |                                                                    | Z | 1.21  | 65.43 | 11.98 |      | 150.0 |         |
| 10299-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                           | X | 2.00  | 66.49 | 12.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 3.31  | 72.57 | 14.96 |      | 150.0 |         |
|           |                                                                    | Z | 1.99  | 66.70 | 12.06 |      | 150.0 |         |
| 10300-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                           | X | 1.58  | 63.09 | 9.74  | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.99  | 65.54 | 11.08 |      | 150.0 |         |
|           |                                                                    | Z | 1.51  | 62.92 | 9.42  |      | 150.0 |         |
| 10301-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                 | X | 4.69  | 65.76 | 17.48 | 4.17 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 4.64  | 65.55 | 17.37 |      | 50.0  |         |
|           |                                                                    | Z | 4.67  | 65.93 | 17.49 |      | 50.0  |         |
| 10302-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols) | X | 5.09  | 65.93 | 17.93 | 4.96 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 5.12  | 66.18 | 18.09 |      | 50.0  |         |
|           |                                                                    | Z | 5.09  | 66.17 | 17.98 |      | 50.0  |         |

|           |                                                                     |   |      |       |       |       |       |         |
|-----------|---------------------------------------------------------------------|---|------|-------|-------|-------|-------|---------|
| 10303-AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                 | X | 4.84 | 65.58 | 17.76 | 4.96  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 4.88 | 65.83 | 17.92 |       | 50.0  |         |
|           |                                                                     | Z | 4.85 | 65.84 | 17.81 |       | 50.0  |         |
| 10304-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                 | X | 4.65 | 65.44 | 17.26 | 4.17  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 4.69 | 65.73 | 17.44 |       | 50.0  |         |
|           |                                                                     | Z | 4.65 | 65.69 | 17.31 |       | 50.0  |         |
| 10305-AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)    | X | 4.44 | 68.14 | 19.56 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.41 | 68.01 | 19.60 |       | 35.0  |         |
|           |                                                                     | Z | 4.62 | 69.17 | 19.86 |       | 35.0  |         |
| 10306-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)    | X | 4.68 | 66.85 | 19.08 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.67 | 66.81 | 19.12 |       | 35.0  |         |
|           |                                                                     | Z | 4.77 | 67.53 | 19.30 |       | 35.0  |         |
| 10307-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)     | X | 4.59 | 67.04 | 19.05 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.58 | 66.99 | 19.09 |       | 35.0  |         |
|           |                                                                     | Z | 4.69 | 67.75 | 19.27 |       | 35.0  |         |
| 10308-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                | X | 4.57 | 67.28 | 19.21 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.56 | 67.23 | 19.25 |       | 35.0  |         |
|           |                                                                     | Z | 4.69 | 68.04 | 19.45 |       | 35.0  |         |
| 10309-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols) | X | 4.73 | 67.04 | 19.22 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.72 | 66.99 | 19.24 |       | 35.0  |         |
|           |                                                                     | Z | 4.82 | 67.69 | 19.42 |       | 35.0  |         |
| 10310-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)  | X | 4.63 | 66.94 | 19.07 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.63 | 66.90 | 19.11 |       | 35.0  |         |
|           |                                                                     | Z | 4.74 | 67.65 | 19.30 |       | 35.0  |         |
| 10311-AAC | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                            | X | 2.92 | 68.38 | 15.85 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 3.14 | 69.67 | 16.60 |       | 150.0 |         |
|           |                                                                     | Z | 2.91 | 68.56 | 15.97 |       | 150.0 |         |
| 10313-AAA | IDEN 1:3                                                            | X | 2.95 | 70.69 | 14.66 | 6.99  | 70.0  | ± 9.6 % |
|           |                                                                     | Y | 3.98 | 74.43 | 16.48 |       | 70.0  |         |
|           |                                                                     | Z | 3.15 | 71.48 | 15.14 |       | 70.0  |         |
| 10314-AAA | IDEN 1:6                                                            | X | 5.04 | 79.92 | 21.00 | 10.00 | 30.0  | ± 9.6 % |
|           |                                                                     | Y | 6.78 | 84.92 | 23.16 |       | 30.0  |         |
|           |                                                                     | Z | 5.73 | 81.64 | 21.73 |       | 30.0  |         |
| 10315-AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)           | X | 0.97 | 63.25 | 14.68 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 1.08 | 64.33 | 15.52 |       | 150.0 |         |
|           |                                                                     | Z | 0.98 | 63.49 | 14.85 |       | 150.0 |         |
| 10316-AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)       | X | 4.44 | 66.48 | 16.13 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.51 | 66.82 | 16.27 |       | 150.0 |         |
|           |                                                                     | Z | 4.41 | 66.56 | 16.16 |       | 150.0 |         |
| 10317-AAC | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)             | X | 4.44 | 66.48 | 16.13 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.51 | 66.82 | 16.27 |       | 150.0 |         |
|           |                                                                     | Z | 4.41 | 66.56 | 16.16 |       | 150.0 |         |
| 10400-AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                 | X | 4.53 | 66.78 | 16.11 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.61 | 67.15 | 16.28 |       | 150.0 |         |
|           |                                                                     | Z | 4.49 | 66.84 | 16.14 |       | 150.0 |         |
| 10401-AAD | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                 | X | 5.27 | 67.03 | 16.34 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 5.28 | 67.17 | 16.36 |       | 150.0 |         |
|           |                                                                     | Z | 5.22 | 67.01 | 16.33 |       | 150.0 |         |

|           |                                                                                 |   |        |        |       |      |       |         |
|-----------|---------------------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10402-AAD | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                             | X | 5.50   | 67.24  | 16.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.56   | 67.57  | 16.43 |      | 150.0 |         |
|           |                                                                                 | Z | 5.47   | 67.27  | 16.33 |      | 150.0 |         |
| 10403-AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                      | X | 1.07   | 65.69  | 11.52 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.53   | 70.26  | 14.37 |      | 115.0 |         |
|           |                                                                                 | Z | 1.01   | 65.37  | 11.10 |      | 115.0 |         |
| 10404-AAB | CDMA2000 (1xEV-DO, Rev. A)                                                      | X | 1.07   | 65.69  | 11.52 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.53   | 70.26  | 14.37 |      | 115.0 |         |
|           |                                                                                 | Z | 1.01   | 65.37  | 11.10 |      | 115.0 |         |
| 10406-AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                            | X | 23.46  | 102.23 | 25.39 | 0.00 | 100.0 | ± 9.6 % |
|           |                                                                                 | Y | 100.00 | 115.29 | 27.21 |      | 100.0 |         |
|           |                                                                                 | Z | 100.00 | 120.73 | 29.57 |      | 100.0 |         |
| 10410-AAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4) | X | 55.06  | 113.36 | 27.76 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                                 | Y | 100.00 | 120.25 | 29.20 |      | 80.0  |         |
|           |                                                                                 | Z | 100.00 | 122.59 | 30.17 |      | 80.0  |         |
| 10415-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                       | X | 0.91   | 62.47  | 14.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.00   | 63.52  | 14.99 |      | 150.0 |         |
|           |                                                                                 | Z | 0.91   | 62.68  | 14.27 |      | 150.0 |         |
| 10416-AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                   | X | 4.39   | 66.47  | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.46   | 66.85  | 16.24 |      | 150.0 |         |
|           |                                                                                 | Z | 4.36   | 66.56  | 16.10 |      | 150.0 |         |
| 10417-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                       | X | 4.39   | 66.47  | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.46   | 66.85  | 16.24 |      | 150.0 |         |
|           |                                                                                 | Z | 4.36   | 66.56  | 16.10 |      | 150.0 |         |
| 10418-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)   | X | 4.38   | 66.64  | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.46   | 67.04  | 16.28 |      | 150.0 |         |
|           |                                                                                 | Z | 4.35   | 66.74  | 16.14 |      | 150.0 |         |
| 10419-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)  | X | 4.40   | 66.59  | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.48   | 66.98  | 16.27 |      | 150.0 |         |
|           |                                                                                 | Z | 4.37   | 66.68  | 16.13 |      | 150.0 |         |
| 10422-AAB | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                    | X | 4.51   | 66.58  | 16.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.59   | 66.96  | 16.28 |      | 150.0 |         |
|           |                                                                                 | Z | 4.48   | 66.67  | 16.14 |      | 150.0 |         |
| 10423-AAB | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                 | X | 4.67   | 66.88  | 16.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.74   | 67.25  | 16.38 |      | 150.0 |         |
|           |                                                                                 | Z | 4.62   | 66.95  | 16.24 |      | 150.0 |         |
| 10424-AAB | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                 | X | 4.59   | 66.83  | 16.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.67   | 67.21  | 16.36 |      | 150.0 |         |
|           |                                                                                 | Z | 4.55   | 66.90  | 16.22 |      | 150.0 |         |
| 10425-AAB | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                     | X | 5.20   | 67.12  | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.25   | 67.39  | 16.48 |      | 150.0 |         |
|           |                                                                                 | Z | 5.17   | 67.16  | 16.41 |      | 150.0 |         |
| 10426-AAB | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                   | X | 5.23   | 67.21  | 16.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.26   | 67.44  | 16.50 |      | 150.0 |         |
|           |                                                                                 | Z | 5.19   | 67.25  | 16.45 |      | 150.0 |         |

|           |                                                                |   |        |        |       |      |       |         |
|-----------|----------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10427-AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                 | X | 5.23   | 67.14  | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.27   | 67.40  | 16.48 |      | 150.0 |         |
|           |                                                                | Z | 5.18   | 67.14  | 16.40 |      | 150.0 |         |
| 10430-AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                               | X | 4.20   | 71.33  | 18.23 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.38   | 72.12  | 18.67 |      | 150.0 |         |
|           |                                                                | Z | 4.24   | 71.88  | 18.40 |      | 150.0 |         |
| 10431-AAB | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                              | X | 4.04   | 67.01  | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.14   | 67.47  | 16.25 |      | 150.0 |         |
|           |                                                                | Z | 4.00   | 67.12  | 16.01 |      | 150.0 |         |
| 10432-AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                              | X | 4.35   | 66.89  | 16.12 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.44   | 67.29  | 16.32 |      | 150.0 |         |
|           |                                                                | Z | 4.31   | 66.97  | 16.15 |      | 150.0 |         |
| 10433-AAB | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                              | X | 4.61   | 66.86  | 16.21 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.68   | 67.24  | 16.38 |      | 150.0 |         |
|           |                                                                | Z | 4.57   | 66.94  | 16.24 |      | 150.0 |         |
| 10434-AAA | W-CDMA (BS Test Model 1, 64 DPCH)                              | X | 4.31   | 72.22  | 18.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.57   | 73.29  | 18.72 |      | 150.0 |         |
|           |                                                                | Z | 4.37   | 72.83  | 18.28 |      | 150.0 |         |
| 10435-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) | X | 46.38  | 110.94 | 27.14 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                | Y | 100.00 | 119.98 | 29.08 |      | 80.0  |         |
|           |                                                                | Z | 100.00 | 122.32 | 30.05 |      | 80.0  |         |
| 10447-AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                 | X | 3.31   | 66.87  | 15.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.44   | 67.57  | 15.54 |      | 150.0 |         |
|           |                                                                | Z | 3.26   | 66.97  | 15.03 |      | 150.0 |         |
| 10448-AAB | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                | X | 3.89   | 66.79  | 15.86 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.98   | 67.27  | 16.12 |      | 150.0 |         |
|           |                                                                | Z | 3.85   | 66.90  | 15.88 |      | 150.0 |         |
| 10449-AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                | X | 4.17   | 66.71  | 16.01 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.26   | 67.14  | 16.23 |      | 150.0 |         |
|           |                                                                | Z | 4.14   | 66.80  | 16.04 |      | 150.0 |         |
| 10450-AAB | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                | X | 4.38   | 66.63  | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.46   | 67.03  | 16.25 |      | 150.0 |         |
|           |                                                                | Z | 4.35   | 66.71  | 16.09 |      | 150.0 |         |
| 10451-AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                | X | 3.16   | 66.87  | 14.55 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.31   | 67.71  | 15.09 |      | 150.0 |         |
|           |                                                                | Z | 3.09   | 66.88  | 14.41 |      | 150.0 |         |
| 10456-AAB | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)           | X | 6.10   | 67.71  | 16.58 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 6.13   | 67.95  | 16.63 |      | 150.0 |         |
|           |                                                                | Z | 6.10   | 67.81  | 16.63 |      | 150.0 |         |
| 10457-AAA | UMTS-FDD (DC-HSDPA)                                            | X | 3.68   | 65.12  | 15.78 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.75   | 65.52  | 15.96 |      | 150.0 |         |
|           |                                                                | Z | 3.67   | 65.23  | 15.81 |      | 150.0 |         |
| 10458-AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                         | X | 3.88   | 71.11  | 17.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.15   | 72.36  | 17.96 |      | 150.0 |         |
|           |                                                                | Z | 3.88   | 71.47  | 17.22 |      | 150.0 |         |
| 10459-AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                         | X | 5.03   | 68.93  | 18.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.12   | 69.27  | 18.40 |      | 150.0 |         |
|           |                                                                | Z | 5.02   | 69.28  | 18.31 |      | 150.0 |         |

|           |                                                                   |   |        |        |       |      |       |         |
|-----------|-------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10460-AAA | UMTS-FDD (WCDMA, AMR)                                             | X | 0.76   | 67.21  | 14.98 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                   | Y | 0.95   | 70.10  | 17.17 |      | 150.0 |         |
|           |                                                                   | Z | 0.78   | 67.84  | 15.35 |      | 150.0 |         |
| 10461-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 124.22 | 31.05 | 3.29 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 126.59 | 32.12 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 126.67 | 32.13 |      | 80.0  |         |
| 10462-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 1.13   | 62.20  | 9.29  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 1.76   | 66.14  | 10.65 |      | 80.0  |         |
|           |                                                                   | Z | 1.32   | 63.88  | 10.13 |      | 80.0  |         |
| 10463-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 0.91   | 60.00  | 7.67  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 0.95   | 60.52  | 7.63  |      | 80.0  |         |
|           |                                                                   | Z | 0.89   | 60.00  | 7.73  |      | 80.0  |         |
| 10464-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 47.59  | 111.65 | 27.34 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 123.29 | 30.45 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 123.26 | 30.40 |      | 80.0  |         |
| 10465-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 1.05   | 61.52  | 8.89  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 1.46   | 64.47  | 9.90  |      | 80.0  |         |
|           |                                                                   | Z | 1.18   | 62.83  | 9.59  |      | 80.0  |         |
| 10466-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 0.91   | 60.00  | 7.62  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 0.90   | 60.08  | 7.36  |      | 80.0  |         |
|           |                                                                   | Z | 0.89   | 60.00  | 7.68  |      | 80.0  |         |
| 10467-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 72.09  | 117.06 | 28.59 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 123.66 | 30.60 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 123.63 | 30.56 |      | 80.0  |         |
| 10468-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 1.07   | 61.70  | 9.00  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 1.53   | 64.89  | 10.09 |      | 80.0  |         |
|           |                                                                   | Z | 1.22   | 63.12  | 9.74  |      | 80.0  |         |
| 10469-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 0.91   | 60.00  | 7.62  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 0.90   | 60.09  | 7.36  |      | 80.0  |         |
|           |                                                                   | Z | 0.89   | 60.00  | 7.68  |      | 80.0  |         |
| 10470-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 74.02  | 117.39 | 28.66 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 123.68 | 30.61 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 123.65 | 30.56 |      | 80.0  |         |
| 10471-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 1.07   | 61.65  | 8.96  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 1.51   | 64.78  | 10.03 |      | 80.0  |         |
|           |                                                                   | Z | 1.21   | 63.05  | 9.70  |      | 80.0  |         |
| 10472-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 0.91   | 60.00  | 7.61  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 0.89   | 60.04  | 7.32  |      | 80.0  |         |
|           |                                                                   | Z | 0.89   | 60.00  | 7.66  |      | 80.0  |         |
| 10473-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 72.58  | 117.11 | 28.59 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 123.64 | 30.59 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 123.61 | 30.54 |      | 80.0  |         |
| 10474-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 1.06   | 61.62  | 8.95  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 1.50   | 64.73  | 10.01 |      | 80.0  |         |
|           |                                                                   | Z | 1.20   | 63.02  | 9.68  |      | 80.0  |         |
| 10475-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 0.91   | 60.00  | 7.61  | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 0.89   | 60.02  | 7.32  |      | 80.0  |         |
|           |                                                                   | Z | 0.89   | 60.00  | 7.66  |      | 80.0  |         |

|           |                                                                     |   |       |        |       |      |      |         |
|-----------|---------------------------------------------------------------------|---|-------|--------|-------|------|------|---------|
| 10477-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)    | X | 1.04  | 61.46  | 8.85  | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 1.44  | 64.36  | 9.83  |      | 80.0 |         |
|           |                                                                     | Z | 1.17  | 62.77  | 9.54  |      | 80.0 |         |
| 10478-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)    | X | 0.91  | 60.00  | 7.60  | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 0.89  | 60.00  | 7.29  |      | 80.0 |         |
|           |                                                                     | Z | 0.89  | 60.00  | 7.65  |      | 80.0 |         |
| 10479-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 8.21  | 87.49  | 22.94 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 20.18 | 101.14 | 27.13 |      | 80.0 |         |
|           |                                                                     | Z | 18.46 | 99.74  | 26.54 |      | 80.0 |         |
| 10480-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.14  | 76.02  | 17.14 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 17.56 | 91.22  | 21.83 |      | 80.0 |         |
|           |                                                                     | Z | 8.18  | 81.93  | 19.01 |      | 80.0 |         |
| 10481-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 3.78  | 71.70  | 15.15 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 9.36  | 82.53  | 18.82 |      | 80.0 |         |
|           |                                                                     | Z | 4.98  | 75.18  | 16.32 |      | 80.0 |         |
| 10482-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 2.35  | 69.25  | 15.02 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.01  | 72.46  | 16.59 |      | 80.0 |         |
|           |                                                                     | Z | 2.33  | 69.25  | 14.80 |      | 80.0 |         |
| 10483-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.09  | 69.06  | 14.42 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.90  | 74.92  | 16.84 |      | 80.0 |         |
|           |                                                                     | Z | 3.31  | 69.99  | 14.61 |      | 80.0 |         |
| 10484-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.93  | 68.12  | 14.03 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.36  | 73.23  | 16.22 |      | 80.0 |         |
|           |                                                                     | Z | 3.05  | 68.75  | 14.10 |      | 80.0 |         |
| 10485-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 2.95  | 72.33  | 17.49 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.47  | 74.53  | 18.53 |      | 80.0 |         |
|           |                                                                     | Z | 3.08  | 73.09  | 17.68 |      | 80.0 |         |
| 10486-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.76  | 67.89  | 15.02 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.16  | 69.70  | 15.94 |      | 80.0 |         |
|           |                                                                     | Z | 2.75  | 68.00  | 14.88 |      | 80.0 |         |
| 10487-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.75  | 67.50  | 14.83 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.13  | 69.21  | 15.71 |      | 80.0 |         |
|           |                                                                     | Z | 2.74  | 67.55  | 14.66 |      | 80.0 |         |
| 10488-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 3.27  | 71.87  | 18.23 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.61  | 73.22  | 18.84 |      | 80.0 |         |
|           |                                                                     | Z | 3.35  | 72.44  | 18.47 |      | 80.0 |         |
| 10489-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.21  | 68.44  | 16.77 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.45  | 69.44  | 17.24 |      | 80.0 |         |
|           |                                                                     | Z | 3.25  | 68.82  | 16.89 |      | 80.0 |         |
| 10490-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.29  | 68.29  | 16.72 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.53  | 69.24  | 17.16 |      | 80.0 |         |
|           |                                                                     | Z | 3.33  | 68.65  | 16.82 |      | 80.0 |         |
| 10491-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 3.51  | 70.39  | 17.81 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.78  | 71.45  | 18.28 |      | 80.0 |         |
|           |                                                                     | Z | 3.55  | 70.76  | 17.99 |      | 80.0 |         |
| 10492-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.56  | 67.76  | 16.86 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.76  | 68.54  | 17.20 |      | 80.0 |         |
|           |                                                                     | Z | 3.58  | 68.03  | 16.97 |      | 80.0 |         |

|           |                                                                      |   |      |       |       |      |      |         |
|-----------|----------------------------------------------------------------------|---|------|-------|-------|------|------|---------|
| 10493-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.62 | 67.64 | 16.82 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.82 | 68.40 | 17.14 |      | 80.0 |         |
|           |                                                                      | Z | 3.64 | 67.90 | 16.91 |      | 80.0 |         |
| 10494-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 3.79 | 71.83 | 18.26 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.13 | 73.06 | 18.79 |      | 80.0 |         |
|           |                                                                      | Z | 3.85 | 72.23 | 18.46 |      | 80.0 |         |
| 10495-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.59 | 68.11 | 17.06 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.79 | 68.91 | 17.40 |      | 80.0 |         |
|           |                                                                      | Z | 3.61 | 68.36 | 17.17 |      | 80.0 |         |
| 10496-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.67 | 67.87 | 17.00 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.86 | 68.62 | 17.31 |      | 80.0 |         |
|           |                                                                      | Z | 3.69 | 68.11 | 17.10 |      | 80.0 |         |
| 10497-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 1.45 | 63.41 | 11.17 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.92 | 66.56 | 12.95 |      | 80.0 |         |
|           |                                                                      | Z | 1.35 | 62.71 | 10.54 |      | 80.0 |         |
| 10498-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 1.28 | 60.00 | 8.33  | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.38 | 60.59 | 8.91  |      | 80.0 |         |
|           |                                                                      | Z | 1.25 | 60.00 | 8.01  |      | 80.0 |         |
| 10499-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 1.30 | 60.00 | 8.19  | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.33 | 60.08 | 8.49  |      | 80.0 |         |
|           |                                                                      | Z | 1.27 | 60.00 | 7.87  |      | 80.0 |         |
| 10500-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 3.04 | 71.93 | 17.72 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.46 | 73.67 | 18.54 |      | 80.0 |         |
|           |                                                                      | Z | 3.15 | 72.64 | 17.94 |      | 80.0 |         |
| 10501-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.98 | 68.33 | 15.79 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.31 | 69.74 | 16.50 |      | 80.0 |         |
|           |                                                                      | Z | 3.01 | 68.63 | 15.79 |      | 80.0 |         |
| 10502-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.03 | 68.16 | 15.65 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.36 | 69.55 | 16.35 |      | 80.0 |         |
|           |                                                                      | Z | 3.05 | 68.42 | 15.63 |      | 80.0 |         |
| 10503-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 3.23 | 71.65 | 18.12 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.56 | 73.00 | 18.74 |      | 80.0 |         |
|           |                                                                      | Z | 3.30 | 72.21 | 18.35 |      | 80.0 |         |
| 10504-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.19 | 68.33 | 16.71 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.43 | 69.33 | 17.17 |      | 80.0 |         |
|           |                                                                      | Z | 3.23 | 68.71 | 16.82 |      | 80.0 |         |
| 10505-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.27 | 68.19 | 16.66 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.51 | 69.14 | 17.10 |      | 80.0 |         |
|           |                                                                      | Z | 3.31 | 68.54 | 16.75 |      | 80.0 |         |
| 10506-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 3.76 | 71.67 | 18.18 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.10 | 72.90 | 18.71 |      | 80.0 |         |
|           |                                                                      | Z | 3.81 | 72.07 | 18.38 |      | 80.0 |         |
| 10507-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.57 | 68.04 | 17.02 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.78 | 68.84 | 17.36 |      | 80.0 |         |
|           |                                                                      | Z | 3.59 | 68.29 | 17.13 |      | 80.0 |         |

|           |                                                                     |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10508-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 3.65 | 67.79 | 16.95 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 3.85 | 68.55 | 17.26 |      | 80.0  |         |
|           |                                                                     | Z | 3.67 | 68.04 | 17.05 |      | 80.0  |         |
| 10509-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 4.11 | 70.47 | 17.71 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.41 | 71.52 | 18.16 |      | 80.0  |         |
|           |                                                                     | Z | 4.14 | 70.76 | 17.87 |      | 80.0  |         |
| 10510-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.05 | 67.79 | 17.05 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.24 | 68.50 | 17.33 |      | 80.0  |         |
|           |                                                                     | Z | 4.06 | 67.96 | 17.14 |      | 80.0  |         |
| 10511-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.11 | 67.57 | 17.00 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.30 | 68.25 | 17.26 |      | 80.0  |         |
|           |                                                                     | Z | 4.12 | 67.74 | 17.08 |      | 80.0  |         |
| 10512-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 4.27 | 71.92 | 18.15 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.64 | 73.17 | 18.68 |      | 80.0  |         |
|           |                                                                     | Z | 4.32 | 72.22 | 18.32 |      | 80.0  |         |
| 10513-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 3.94 | 68.01 | 17.14 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.13 | 68.75 | 17.43 |      | 80.0  |         |
|           |                                                                     | Z | 3.95 | 68.18 | 17.23 |      | 80.0  |         |
| 10514-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 3.97 | 67.63 | 17.03 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.15 | 68.33 | 17.30 |      | 80.0  |         |
|           |                                                                     | Z | 3.98 | 67.79 | 17.12 |      | 80.0  |         |
| 10515-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)           | X | 0.87 | 62.63 | 14.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.97 | 63.74 | 15.08 |      | 150.0 |         |
|           |                                                                     | Z | 0.87 | 62.85 | 14.30 |      | 150.0 |         |
| 10516-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)         | X | 0.49 | 69.66 | 15.70 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.68 | 73.95 | 19.23 |      | 150.0 |         |
|           |                                                                     | Z | 0.52 | 70.86 | 16.45 |      | 150.0 |         |
| 10517-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)          | X | 0.71 | 64.33 | 14.51 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.83 | 66.01 | 15.95 |      | 150.0 |         |
|           |                                                                     | Z | 0.72 | 64.67 | 14.76 |      | 150.0 |         |
| 10518-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)           | X | 4.38 | 66.55 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.46 | 66.94 | 16.23 |      | 150.0 |         |
|           |                                                                     | Z | 4.35 | 66.64 | 16.08 |      | 150.0 |         |
| 10519-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)          | X | 4.55 | 66.77 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.62 | 67.14 | 16.33 |      | 150.0 |         |
|           |                                                                     | Z | 4.51 | 66.84 | 16.19 |      | 150.0 |         |
| 10520-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)          | X | 4.40 | 66.71 | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.48 | 67.10 | 16.26 |      | 150.0 |         |
|           |                                                                     | Z | 4.37 | 66.78 | 16.10 |      | 150.0 |         |
| 10521-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)          | X | 4.34 | 66.70 | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.42 | 67.10 | 16.25 |      | 150.0 |         |
|           |                                                                     | Z | 4.30 | 66.76 | 16.08 |      | 150.0 |         |
| 10522-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)          | X | 4.40 | 66.82 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.48 | 67.21 | 16.34 |      | 150.0 |         |
|           |                                                                     | Z | 4.36 | 66.90 | 16.19 |      | 150.0 |         |

|           |                                                            |   |      |       |       |      |       |         |
|-----------|------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10523-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) | X | 4.29 | 66.70 | 16.01 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.37 | 67.12 | 16.22 |      | 150.0 |         |
|           |                                                            | Z | 4.26 | 66.81 | 16.06 |      | 150.0 |         |
| 10524-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) | X | 4.34 | 66.74 | 16.12 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.42 | 67.13 | 16.31 |      | 150.0 |         |
|           |                                                            | Z | 4.30 | 66.82 | 16.16 |      | 150.0 |         |
| 10525-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)          | X | 4.34 | 65.80 | 15.73 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.43 | 66.22 | 15.92 |      | 150.0 |         |
|           |                                                            | Z | 4.32 | 65.90 | 15.77 |      | 150.0 |         |
| 10526-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)          | X | 4.50 | 66.14 | 15.86 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.58 | 66.55 | 16.05 |      | 150.0 |         |
|           |                                                            | Z | 4.46 | 66.22 | 15.90 |      | 150.0 |         |
| 10527-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)          | X | 4.42 | 66.09 | 15.80 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.50 | 66.52 | 16.00 |      | 150.0 |         |
|           |                                                            | Z | 4.38 | 66.18 | 15.84 |      | 150.0 |         |
| 10528-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)          | X | 4.44 | 66.11 | 15.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.52 | 66.53 | 16.03 |      | 150.0 |         |
|           |                                                            | Z | 4.40 | 66.19 | 15.87 |      | 150.0 |         |
| 10529-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)          | X | 4.44 | 66.11 | 15.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.52 | 66.53 | 16.03 |      | 150.0 |         |
|           |                                                            | Z | 4.40 | 66.19 | 15.87 |      | 150.0 |         |
| 10531-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)          | X | 4.42 | 66.18 | 15.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.50 | 66.61 | 16.03 |      | 150.0 |         |
|           |                                                            | Z | 4.37 | 66.25 | 15.86 |      | 150.0 |         |
| 10532-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)          | X | 4.29 | 66.04 | 15.76 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.37 | 66.48 | 15.97 |      | 150.0 |         |
|           |                                                            | Z | 4.25 | 66.11 | 15.79 |      | 150.0 |         |
| 10533-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)          | X | 4.44 | 66.17 | 15.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.53 | 66.60 | 16.03 |      | 150.0 |         |
|           |                                                            | Z | 4.41 | 66.26 | 15.87 |      | 150.0 |         |
| 10534-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)          | X | 4.98 | 66.20 | 15.91 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.05 | 66.57 | 16.06 |      | 150.0 |         |
|           |                                                            | Z | 4.95 | 66.26 | 15.95 |      | 150.0 |         |
| 10535-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)          | X | 5.05 | 66.39 | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.11 | 66.72 | 16.13 |      | 150.0 |         |
|           |                                                            | Z | 5.01 | 66.43 | 16.03 |      | 150.0 |         |
| 10536-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)          | X | 4.92 | 66.34 | 15.95 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.99 | 66.70 | 16.10 |      | 150.0 |         |
|           |                                                            | Z | 4.89 | 66.40 | 15.99 |      | 150.0 |         |
| 10537-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)          | X | 4.98 | 66.30 | 15.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.04 | 66.66 | 16.08 |      | 150.0 |         |
|           |                                                            | Z | 4.95 | 66.35 | 15.97 |      | 150.0 |         |
| 10538-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)          | X | 5.06 | 66.31 | 15.98 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.12 | 66.65 | 16.12 |      | 150.0 |         |
|           |                                                            | Z | 5.02 | 66.35 | 16.01 |      | 150.0 |         |
| 10540-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)          | X | 4.99 | 66.30 | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.05 | 66.64 | 16.13 |      | 150.0 |         |
|           |                                                            | Z | 4.95 | 66.33 | 16.02 |      | 150.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10541-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)  | X | 4.97 | 66.19 | 15.93 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.03 | 66.55 | 16.07 |      | 150.0 |         |
|           |                                                    | Z | 4.93 | 66.22 | 15.95 |      | 150.0 |         |
| 10542-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)  | X | 5.12 | 66.28 | 15.99 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.19 | 66.62 | 16.12 |      | 150.0 |         |
|           |                                                    | Z | 5.09 | 66.32 | 16.02 |      | 150.0 |         |
| 10543-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)  | X | 5.19 | 66.29 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.25 | 66.63 | 16.15 |      | 150.0 |         |
|           |                                                    | Z | 5.15 | 66.34 | 16.05 |      | 150.0 |         |
| 10544-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)  | X | 5.31 | 66.31 | 15.91 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.37 | 66.66 | 16.05 |      | 150.0 |         |
|           |                                                    | Z | 5.28 | 66.35 | 15.94 |      | 150.0 |         |
| 10545-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)  | X | 5.50 | 66.75 | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.54 | 67.02 | 16.18 |      | 150.0 |         |
|           |                                                    | Z | 5.47 | 66.79 | 16.11 |      | 150.0 |         |
| 10546-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)  | X | 5.36 | 66.48 | 15.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.42 | 66.83 | 16.10 |      | 150.0 |         |
|           |                                                    | Z | 5.33 | 66.50 | 15.98 |      | 150.0 |         |
| 10547-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)  | X | 5.43 | 66.54 | 15.99 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.49 | 66.87 | 16.11 |      | 150.0 |         |
|           |                                                    | Z | 5.40 | 66.57 | 16.01 |      | 150.0 |         |
| 10548-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)  | X | 5.66 | 67.42 | 16.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.65 | 67.55 | 16.42 |      | 150.0 |         |
|           |                                                    | Z | 5.60 | 67.37 | 16.38 |      | 150.0 |         |
| 10550-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)  | X | 5.40 | 66.56 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.45 | 66.87 | 16.13 |      | 150.0 |         |
|           |                                                    | Z | 5.37 | 66.62 | 16.05 |      | 150.0 |         |
| 10551-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)  | X | 5.39 | 66.55 | 15.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.45 | 66.88 | 16.09 |      | 150.0 |         |
|           |                                                    | Z | 5.35 | 66.53 | 15.97 |      | 150.0 |         |
| 10552-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)  | X | 5.32 | 66.38 | 15.89 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.38 | 66.76 | 16.04 |      | 150.0 |         |
|           |                                                    | Z | 5.29 | 66.43 | 15.92 |      | 150.0 |         |
| 10553-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)  | X | 5.39 | 66.39 | 15.93 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.45 | 66.75 | 16.07 |      | 150.0 |         |
|           |                                                    | Z | 5.36 | 66.42 | 15.95 |      | 150.0 |         |
| 10554-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle) | X | 5.72 | 66.67 | 16.01 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.77 | 67.00 | 16.12 |      | 150.0 |         |
|           |                                                    | Z | 5.70 | 66.69 | 16.02 |      | 150.0 |         |
| 10555-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle) | X | 5.84 | 66.96 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.88 | 67.25 | 16.23 |      | 150.0 |         |
|           |                                                    | Z | 5.81 | 66.97 | 16.14 |      | 150.0 |         |
| 10556-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle) | X | 5.87 | 67.02 | 16.15 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.91 | 67.31 | 16.25 |      | 150.0 |         |
|           |                                                    | Z | 5.84 | 67.04 | 16.17 |      | 150.0 |         |
| 10557-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle) | X | 5.83 | 66.90 | 16.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.87 | 67.22 | 16.22 |      | 150.0 |         |
|           |                                                    | Z | 5.80 | 66.91 | 16.13 |      | 150.0 |         |

|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10558-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)              | X | 5.87 | 67.06 | 16.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.91 | 67.36 | 16.31 |      | 150.0 |         |
|           |                                                                 | Z | 5.83 | 67.06 | 16.21 |      | 150.0 |         |
| 10560-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)              | X | 5.86 | 66.91 | 16.17 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.92 | 67.23 | 16.28 |      | 150.0 |         |
|           |                                                                 | Z | 5.83 | 66.92 | 16.18 |      | 150.0 |         |
| 10561-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)              | X | 5.80 | 66.89 | 16.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.84 | 67.19 | 16.30 |      | 150.0 |         |
|           |                                                                 | Z | 5.77 | 66.91 | 16.21 |      | 150.0 |         |
| 10562-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)              | X | 5.89 | 67.20 | 16.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.93 | 67.48 | 16.44 |      | 150.0 |         |
|           |                                                                 | Z | 5.84 | 67.16 | 16.34 |      | 150.0 |         |
| 10563-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)              | X | 6.00 | 67.15 | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.02 | 67.38 | 16.35 |      | 150.0 |         |
|           |                                                                 | Z | 5.93 | 67.06 | 16.25 |      | 150.0 |         |
| 10564-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | X | 4.70 | 66.60 | 16.19 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.77 | 66.96 | 16.34 |      | 150.0 |         |
|           |                                                                 | Z | 4.67 | 66.68 | 16.22 |      | 150.0 |         |
| 10565-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | X | 4.92 | 67.06 | 16.53 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.99 | 67.39 | 16.67 |      | 150.0 |         |
|           |                                                                 | Z | 4.88 | 67.12 | 16.55 |      | 150.0 |         |
| 10566-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | X | 4.75 | 66.88 | 16.33 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.82 | 67.22 | 16.47 |      | 150.0 |         |
|           |                                                                 | Z | 4.71 | 66.94 | 16.35 |      | 150.0 |         |
| 10567-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | X | 4.79 | 67.31 | 16.72 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.86 | 67.67 | 16.87 |      | 150.0 |         |
|           |                                                                 | Z | 4.75 | 67.38 | 16.75 |      | 150.0 |         |
| 10568-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | X | 4.66 | 66.64 | 16.08 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.73 | 66.98 | 16.23 |      | 150.0 |         |
|           |                                                                 | Z | 4.62 | 66.69 | 16.09 |      | 150.0 |         |
| 10569-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | X | 4.76 | 67.45 | 16.81 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.83 | 67.82 | 16.96 |      | 150.0 |         |
|           |                                                                 | Z | 4.73 | 67.57 | 16.86 |      | 150.0 |         |
| 10570-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | X | 4.78 | 67.26 | 16.71 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.85 | 67.62 | 16.86 |      | 150.0 |         |
|           |                                                                 | Z | 4.74 | 67.35 | 16.75 |      | 150.0 |         |
| 10571-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | X | 1.05 | 63.78 | 14.98 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.16 | 64.84 | 15.77 |      | 130.0 |         |
|           |                                                                 | Z | 1.06 | 64.03 | 15.14 |      | 130.0 |         |
| 10572-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | X | 1.06 | 64.35 | 15.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.17 | 65.47 | 16.16 |      | 130.0 |         |
|           |                                                                 | Z | 1.07 | 64.63 | 15.52 |      | 130.0 |         |
| 10573-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | X | 1.81 | 84.33 | 21.65 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 2.93 | 92.85 | 25.80 |      | 130.0 |         |
|           |                                                                 | Z | 2.19 | 87.52 | 22.91 |      | 130.0 |         |
| 10574-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | X | 1.15 | 70.21 | 18.29 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.33 | 72.12 | 19.55 |      | 130.0 |         |
|           |                                                                 | Z | 1.19 | 70.90 | 18.68 |      | 130.0 |         |

|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10575-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | X | 4.49 | 66.39 | 16.24 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.55 | 66.72 | 16.36 |      | 130.0 |         |
|           |                                                                 | Z | 4.46 | 66.48 | 16.26 |      | 130.0 |         |
| 10576-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | X | 4.51 | 66.57 | 16.31 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.58 | 66.91 | 16.44 |      | 130.0 |         |
|           |                                                                 | Z | 4.48 | 66.67 | 16.34 |      | 130.0 |         |
| 10577-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | X | 4.70 | 66.85 | 16.48 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.77 | 67.17 | 16.60 |      | 130.0 |         |
|           |                                                                 | Z | 4.67 | 66.93 | 16.51 |      | 130.0 |         |
| 10578-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | X | 4.60 | 67.01 | 16.59 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.67 | 67.35 | 16.72 |      | 130.0 |         |
|           |                                                                 | Z | 4.57 | 67.10 | 16.62 |      | 130.0 |         |
| 10579-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | X | 4.36 | 66.21 | 15.83 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.42 | 66.54 | 15.97 |      | 130.0 |         |
|           |                                                                 | Z | 4.32 | 66.26 | 15.84 |      | 130.0 |         |
| 10580-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | X | 4.40 | 66.27 | 15.86 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.46 | 66.59 | 16.00 |      | 130.0 |         |
|           |                                                                 | Z | 4.36 | 66.33 | 15.88 |      | 130.0 |         |
| 10581-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | X | 4.50 | 67.05 | 16.53 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.57 | 67.39 | 16.67 |      | 130.0 |         |
|           |                                                                 | Z | 4.47 | 67.15 | 16.57 |      | 130.0 |         |
| 10582-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | X | 4.29 | 65.96 | 15.60 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.35 | 66.28 | 15.74 |      | 130.0 |         |
|           |                                                                 | Z | 4.25 | 66.00 | 15.61 |      | 130.0 |         |
| 10583-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | X | 4.49 | 66.39 | 16.24 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.55 | 66.72 | 16.36 |      | 130.0 |         |
|           |                                                                 | Z | 4.46 | 66.48 | 16.26 |      | 130.0 |         |
| 10584-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | X | 4.51 | 66.57 | 16.31 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.58 | 66.91 | 16.44 |      | 130.0 |         |
|           |                                                                 | Z | 4.48 | 66.67 | 16.34 |      | 130.0 |         |
| 10585-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | X | 4.70 | 66.85 | 16.48 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.77 | 67.17 | 16.60 |      | 130.0 |         |
|           |                                                                 | Z | 4.67 | 66.93 | 16.51 |      | 130.0 |         |
| 10586-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | X | 4.60 | 67.01 | 16.59 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.67 | 67.35 | 16.72 |      | 130.0 |         |
|           |                                                                 | Z | 4.57 | 67.10 | 16.62 |      | 130.0 |         |
| 10587-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | X | 4.36 | 66.21 | 15.83 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.42 | 66.54 | 15.97 |      | 130.0 |         |
|           |                                                                 | Z | 4.32 | 66.26 | 15.84 |      | 130.0 |         |
| 10588-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)      | X | 4.40 | 66.27 | 15.86 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.46 | 66.59 | 16.00 |      | 130.0 |         |
|           |                                                                 | Z | 4.36 | 66.33 | 15.88 |      | 130.0 |         |
| 10589-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)      | X | 4.50 | 67.05 | 16.53 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.57 | 67.39 | 16.67 |      | 130.0 |         |
|           |                                                                 | Z | 4.47 | 67.15 | 16.57 |      | 130.0 |         |
| 10590-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)      | X | 4.29 | 65.96 | 15.60 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.35 | 66.28 | 15.74 |      | 130.0 |         |
|           |                                                                 | Z | 4.25 | 66.00 | 15.61 |      | 130.0 |         |

|           |                                                       |   |      |       |       |      |       |         |
|-----------|-------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10591-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle) | X | 4.64 | 66.47 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.70 | 66.79 | 16.47 |      | 130.0 |         |
|           |                                                       | Z | 4.61 | 66.56 | 16.38 |      | 130.0 |         |
| 10592-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle) | X | 4.78 | 66.80 | 16.49 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.84 | 67.11 | 16.60 |      | 130.0 |         |
|           |                                                       | Z | 4.75 | 66.87 | 16.51 |      | 130.0 |         |
| 10593-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle) | X | 4.70 | 66.68 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.76 | 67.00 | 16.47 |      | 130.0 |         |
|           |                                                       | Z | 4.66 | 66.75 | 16.37 |      | 130.0 |         |
| 10594-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle) | X | 4.76 | 66.86 | 16.52 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.82 | 67.18 | 16.63 |      | 130.0 |         |
|           |                                                       | Z | 4.72 | 66.94 | 16.54 |      | 130.0 |         |
| 10595-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle) | X | 4.72 | 66.81 | 16.41 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.78 | 67.13 | 16.53 |      | 130.0 |         |
|           |                                                       | Z | 4.68 | 66.89 | 16.44 |      | 130.0 |         |
| 10596-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle) | X | 4.66 | 66.80 | 16.40 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.72 | 67.12 | 16.53 |      | 130.0 |         |
|           |                                                       | Z | 4.62 | 66.87 | 16.43 |      | 130.0 |         |
| 10597-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle) | X | 4.60 | 66.68 | 16.27 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.67 | 67.01 | 16.40 |      | 130.0 |         |
|           |                                                       | Z | 4.57 | 66.74 | 16.29 |      | 130.0 |         |
| 10598-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle) | X | 4.59 | 66.93 | 16.55 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.66 | 67.26 | 16.68 |      | 130.0 |         |
|           |                                                       | Z | 4.56 | 67.00 | 16.58 |      | 130.0 |         |
| 10599-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle) | X | 5.32 | 67.00 | 16.59 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.34 | 67.19 | 16.62 |      | 130.0 |         |
|           |                                                       | Z | 5.28 | 67.04 | 16.61 |      | 130.0 |         |
| 10600-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle) | X | 5.45 | 67.42 | 16.77 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.44 | 67.51 | 16.75 |      | 130.0 |         |
|           |                                                       | Z | 5.41 | 67.45 | 16.79 |      | 130.0 |         |
| 10601-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle) | X | 5.34 | 67.16 | 16.66 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.36 | 67.35 | 16.69 |      | 130.0 |         |
|           |                                                       | Z | 5.30 | 67.21 | 16.68 |      | 130.0 |         |
| 10602-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle) | X | 5.45 | 67.27 | 16.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.48 | 67.47 | 16.67 |      | 130.0 |         |
|           |                                                       | Z | 5.43 | 67.37 | 16.68 |      | 130.0 |         |
| 10603-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle) | X | 5.52 | 67.55 | 16.90 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.54 | 67.72 | 16.93 |      | 130.0 |         |
|           |                                                       | Z | 5.50 | 67.66 | 16.96 |      | 130.0 |         |
| 10604-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle) | X | 5.38 | 67.16 | 16.70 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.41 | 67.36 | 16.73 |      | 130.0 |         |
|           |                                                       | Z | 5.38 | 67.32 | 16.78 |      | 130.0 |         |
| 10605-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle) | X | 5.44 | 67.34 | 16.78 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.45 | 67.47 | 16.78 |      | 130.0 |         |
|           |                                                       | Z | 5.41 | 67.37 | 16.80 |      | 130.0 |         |
| 10606-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle) | X | 5.17 | 66.57 | 16.25 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.21 | 66.82 | 16.32 |      | 130.0 |         |
|           |                                                       | Z | 5.14 | 66.65 | 16.29 |      | 130.0 |         |

|           |                                                   |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10607-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle) | X | 4.48 | 65.79 | 15.98 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.55 | 66.14 | 16.12 |      | 130.0 |         |
|           |                                                   | Z | 4.46 | 65.89 | 16.02 |      | 130.0 |         |
| 10608-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle) | X | 4.65 | 66.17 | 16.14 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.72 | 66.52 | 16.28 |      | 130.0 |         |
|           |                                                   | Z | 4.61 | 66.26 | 16.18 |      | 130.0 |         |
| 10609-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle) | X | 4.54 | 66.00 | 15.96 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.61 | 66.36 | 16.11 |      | 130.0 |         |
|           |                                                   | Z | 4.51 | 66.08 | 15.99 |      | 130.0 |         |
| 10610-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle) | X | 4.59 | 66.17 | 16.14 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.66 | 66.53 | 16.28 |      | 130.0 |         |
|           |                                                   | Z | 4.56 | 66.26 | 16.17 |      | 130.0 |         |
| 10611-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle) | X | 4.51 | 65.97 | 15.97 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.57 | 66.32 | 16.12 |      | 130.0 |         |
|           |                                                   | Z | 4.47 | 66.05 | 16.01 |      | 130.0 |         |
| 10612-AAB | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle) | X | 4.51 | 66.11 | 16.01 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.58 | 66.46 | 16.16 |      | 130.0 |         |
|           |                                                   | Z | 4.47 | 66.19 | 16.05 |      | 130.0 |         |
| 10613-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle) | X | 4.51 | 65.96 | 15.88 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.57 | 66.31 | 16.02 |      | 130.0 |         |
|           |                                                   | Z | 4.46 | 66.02 | 15.90 |      | 130.0 |         |
| 10614-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle) | X | 4.46 | 66.18 | 16.13 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.53 | 66.55 | 16.29 |      | 130.0 |         |
|           |                                                   | Z | 4.43 | 66.26 | 16.17 |      | 130.0 |         |
| 10615-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle) | X | 4.50 | 65.78 | 15.73 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.57 | 66.13 | 15.88 |      | 130.0 |         |
|           |                                                   | Z | 4.46 | 65.86 | 15.76 |      | 130.0 |         |
| 10616-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle) | X | 5.13 | 66.23 | 16.19 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.18 | 66.52 | 16.28 |      | 130.0 |         |
|           |                                                   | Z | 5.10 | 66.28 | 16.22 |      | 130.0 |         |
| 10617-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle) | X | 5.21 | 66.44 | 16.26 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.24 | 66.68 | 16.33 |      | 130.0 |         |
|           |                                                   | Z | 5.17 | 66.48 | 16.29 |      | 130.0 |         |
| 10618-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle) | X | 5.09 | 66.44 | 16.28 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.14 | 66.73 | 16.37 |      | 130.0 |         |
|           |                                                   | Z | 5.07 | 66.51 | 16.32 |      | 130.0 |         |
| 10619-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle) | X | 5.10 | 66.22 | 16.10 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.14 | 66.49 | 16.19 |      | 130.0 |         |
|           |                                                   | Z | 5.07 | 66.27 | 16.13 |      | 130.0 |         |
| 10620-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle) | X | 5.19 | 66.25 | 16.17 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.23 | 66.52 | 16.25 |      | 130.0 |         |
|           |                                                   | Z | 5.15 | 66.30 | 16.20 |      | 130.0 |         |
| 10621-AAB | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle) | X | 5.20 | 66.42 | 16.38 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.25 | 66.70 | 16.46 |      | 130.0 |         |
|           |                                                   | Z | 5.17 | 66.46 | 16.41 |      | 130.0 |         |
| 10622-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle) | X | 5.21 | 66.59 | 16.46 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.25 | 66.84 | 16.53 |      | 130.0 |         |
|           |                                                   | Z | 5.16 | 66.58 | 16.46 |      | 130.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10623-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)  | X | 5.08 | 66.07 | 16.06 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.13 | 66.35 | 16.15 |      | 130.0 |         |
|           |                                                    | Z | 5.04 | 66.08 | 16.07 |      | 130.0 |         |
| 10624-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)  | X | 5.27 | 66.29 | 16.24 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.32 | 66.55 | 16.31 |      | 130.0 |         |
|           |                                                    | Z | 5.24 | 66.33 | 16.26 |      | 130.0 |         |
| 10625-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)  | X | 5.56 | 67.05 | 16.67 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.57 | 67.20 | 16.69 |      | 130.0 |         |
|           |                                                    | Z | 5.45 | 66.85 | 16.58 |      | 130.0 |         |
| 10626-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)  | X | 5.45 | 66.29 | 16.15 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.49 | 66.58 | 16.24 |      | 130.0 |         |
|           |                                                    | Z | 5.42 | 66.33 | 16.18 |      | 130.0 |         |
| 10627-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)  | X | 5.69 | 66.90 | 16.42 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.70 | 67.08 | 16.45 |      | 130.0 |         |
|           |                                                    | Z | 5.66 | 66.94 | 16.45 |      | 130.0 |         |
| 10628-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)  | X | 5.46 | 66.33 | 16.07 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.50 | 66.60 | 16.14 |      | 130.0 |         |
|           |                                                    | Z | 5.42 | 66.33 | 16.07 |      | 130.0 |         |
| 10629-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)  | X | 5.54 | 66.41 | 16.10 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.57 | 66.66 | 16.17 |      | 130.0 |         |
|           |                                                    | Z | 5.51 | 66.44 | 16.12 |      | 130.0 |         |
| 10630-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)  | X | 5.93 | 67.80 | 16.79 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.86 | 67.72 | 16.70 |      | 130.0 |         |
|           |                                                    | Z | 5.85 | 67.67 | 16.74 |      | 130.0 |         |
| 10631-AAB | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)  | X | 5.84 | 67.65 | 16.92 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.86 | 67.82 | 16.94 |      | 130.0 |         |
|           |                                                    | Z | 5.79 | 67.61 | 16.91 |      | 130.0 |         |
| 10632-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)  | X | 5.66 | 66.99 | 16.61 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.68 | 67.19 | 16.65 |      | 130.0 |         |
|           |                                                    | Z | 5.64 | 67.07 | 16.66 |      | 130.0 |         |
| 10633-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)  | X | 5.53 | 66.52 | 16.20 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.57 | 66.82 | 16.28 |      | 130.0 |         |
|           |                                                    | Z | 5.50 | 66.56 | 16.22 |      | 130.0 |         |
| 10634-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)  | X | 5.51 | 66.55 | 16.27 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.56 | 66.86 | 16.37 |      | 130.0 |         |
|           |                                                    | Z | 5.48 | 66.58 | 16.29 |      | 130.0 |         |
| 10635-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)  | X | 5.38 | 65.83 | 15.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.42 | 66.12 | 15.72 |      | 130.0 |         |
|           |                                                    | Z | 5.34 | 65.82 | 15.63 |      | 130.0 |         |
| 10636-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle) | X | 5.87 | 66.66 | 16.24 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.90 | 66.93 | 16.31 |      | 130.0 |         |
|           |                                                    | Z | 5.85 | 66.69 | 16.27 |      | 130.0 |         |
| 10637-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle) | X | 6.02 | 67.05 | 16.42 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.04 | 67.25 | 16.46 |      | 130.0 |         |
|           |                                                    | Z | 5.99 | 67.06 | 16.43 |      | 130.0 |         |
| 10638-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle) | X | 6.02 | 67.01 | 16.38 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.04 | 67.26 | 16.44 |      | 130.0 |         |
|           |                                                    | Z | 5.99 | 67.04 | 16.40 |      | 130.0 |         |

|           |                                                        |   |        |        |       |       |       |         |
|-----------|--------------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10639-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)     | X | 5.99   | 66.94  | 16.39 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.02   | 67.20  | 16.45 |       | 130.0 |         |
|           |                                                        | Z | 5.96   | 66.96  | 16.40 |       | 130.0 |         |
| 10640-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)     | X | 5.99   | 66.93  | 16.32 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.01   | 67.17  | 16.38 |       | 130.0 |         |
|           |                                                        | Z | 5.95   | 66.93  | 16.33 |       | 130.0 |         |
| 10641-AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)     | X | 6.05   | 66.90  | 16.33 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.06   | 67.10  | 16.36 |       | 130.0 |         |
|           |                                                        | Z | 6.02   | 66.93  | 16.35 |       | 130.0 |         |
| 10642-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)     | X | 6.08   | 67.13  | 16.62 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.11   | 67.39  | 16.68 |       | 130.0 |         |
|           |                                                        | Z | 6.05   | 67.15  | 16.64 |       | 130.0 |         |
| 10643-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)     | X | 5.92   | 66.82  | 16.35 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 5.94   | 67.04  | 16.40 |       | 130.0 |         |
|           |                                                        | Z | 5.89   | 66.84  | 16.37 |       | 130.0 |         |
| 10644-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)     | X | 6.04   | 67.19  | 16.56 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.06   | 67.41  | 16.60 |       | 130.0 |         |
|           |                                                        | Z | 5.99   | 67.13  | 16.53 |       | 130.0 |         |
| 10645-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)     | X | 6.20   | 67.30  | 16.58 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.18   | 67.42  | 16.57 |       | 130.0 |         |
|           |                                                        | Z | 6.12   | 67.19  | 16.53 |       | 130.0 |         |
| 10646-AAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)  | X | 13.97  | 103.27 | 34.96 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 20.81  | 112.89 | 38.12 |       | 60.0  |         |
|           |                                                        | Z | 13.67  | 103.09 | 35.06 |       | 60.0  |         |
| 10647-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7) | X | 12.30  | 101.10 | 34.41 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 17.37  | 109.51 | 37.26 |       | 60.0  |         |
|           |                                                        | Z | 12.00  | 100.85 | 34.49 |       | 60.0  |         |
| 10648-AAA | CDMA2000 (1x Advanced)                                 | X | 0.49   | 61.28  | 8.20  | 0.00  | 150.0 | ± 9.6 % |
|           |                                                        | Y | 0.65   | 63.85  | 10.60 |       | 150.0 |         |
|           |                                                        | Z | 0.46   | 61.03  | 7.80  |       | 150.0 |         |
| 10652-AAB | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)         | X | 3.40   | 66.41  | 16.15 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 3.58   | 67.18  | 16.52 |       | 80.0  |         |
|           |                                                        | Z | 3.42   | 66.69  | 16.22 |       | 80.0  |         |
| 10653-AAB | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)        | X | 3.94   | 65.81  | 16.40 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.08   | 66.40  | 16.64 |       | 80.0  |         |
|           |                                                        | Z | 3.94   | 66.00  | 16.46 |       | 80.0  |         |
| 10654-AAB | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)        | X | 3.93   | 65.47  | 16.42 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.06   | 66.03  | 16.64 |       | 80.0  |         |
|           |                                                        | Z | 3.94   | 65.63  | 16.48 |       | 80.0  |         |
| 10655-AAB | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)        | X | 3.99   | 65.43  | 16.46 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.13   | 65.99  | 16.67 |       | 80.0  |         |
|           |                                                        | Z | 4.01   | 65.58  | 16.52 |       | 80.0  |         |
| 10658-AAA | Pulse Waveform (200Hz, 10%)                            | X | 7.13   | 77.36  | 16.21 | 10.00 | 50.0  | ± 9.6 % |
|           |                                                        | Y | 16.32  | 87.94  | 19.95 |       | 50.0  |         |
|           |                                                        | Z | 9.11   | 80.61  | 17.72 |       | 50.0  |         |
| 10659-AAA | Pulse Waveform (200Hz, 20%)                            | X | 35.68  | 94.53  | 19.76 | 6.99  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 100.00 | 107.23 | 23.45 |       | 60.0  |         |
|           |                                                        | Z | 100.00 | 106.51 | 23.11 |       | 60.0  |         |

|           |                             |   |        |        |       |      |       |         |
|-----------|-----------------------------|---|--------|--------|-------|------|-------|---------|
| 10660-AAA | Pulse Waveform (200Hz, 40%) | X | 100.00 | 100.10 | 18.83 | 3.98 | 80.0  | ± 9.6 % |
|           |                             | Y | 100.00 | 106.47 | 21.86 |      | 80.0  |         |
|           |                             | Z | 100.00 | 102.58 | 20.01 |      | 80.0  |         |
| 10661-AAA | Pulse Waveform (200Hz, 60%) | X | 1.25   | 67.33  | 8.37  | 2.22 | 100.0 | ± 9.6 % |
|           |                             | Y | 100.00 | 108.17 | 21.47 |      | 100.0 |         |
|           |                             | Z | 100.00 | 96.28  | 16.23 |      | 100.0 |         |
| 10662-AAA | Pulse Waveform (200Hz, 80%) | X | 0.30   | 60.00  | 2.55  | 0.97 | 120.0 | ± 9.6 % |
|           |                             | Y | 100.00 | 113.09 | 21.91 |      | 120.0 |         |
|           |                             | Z | 0.20   | 60.00  | 3.18  |      | 120.0 |         |

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



Accredited by the Swiss Accreditation Service (SAS)  
 The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **PC-Test**

Certificate No: **EX3-7308\_Aug18**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:7308**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-14.v4, QA CAL-23.v5, QA CAL-25.v6**  
**Calibration procedure for dosimetric E-field probes**

Calibration date: **August 23, 2018**

*BN ✓*  
*09-06-2018*

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature ( $22 \pm 3$ )°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-18 (No. 217-02672/02673)   | Apr-19                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-18 (No. 217-02672)         | Apr-19                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-18 (No. 217-02673)         | Apr-19                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 04-Apr-18 (No. 217-02682)         | Apr-19                 |
| Reference Probe ES3DV2     | SN: 3013         | 30-Dec-17 (No. ES3-3013_Dec17)    | Dec-18                 |
| DAE4                       | SN: 660          | 21-Dec-17 (No. DAE4-660_Dec17)    | Dec-18                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-18) | In house check: Jun-20 |
| Network Analyzer E8358A    | SN: US41080477   | 31-Mar-14 (in house check Oct-17) | In house check: Oct-18 |

|                |                               |                                          |               |
|----------------|-------------------------------|------------------------------------------|---------------|
| Calibrated by: | Name<br><b>Jeton Kastrati</b> | Function<br><b>Laboratory Technician</b> | Signature<br> |
| Approved by:   | Name<br><b>Katja Pokovic</b>  | Function<br><b>Technical Manager</b>     | Signature<br> |

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Issued: August 24, 2018



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

### Glossary:

|                          |                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                      | tissue simulating liquid                                                                                                                                |
| NORM <sub>x,y,z</sub>    | sensitivity in free space                                                                                                                               |
| ConvF                    | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                              |
| DCP                      | diode compression point                                                                                                                                 |
| CF                       | crest factor (1/duty_cycle) of the RF signal                                                                                                            |
| A, B, C, D               | modulation dependent linearization parameters                                                                                                           |
| Polarization $\phi$      | $\phi$ rotation around probe axis                                                                                                                       |
| Polarization $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor X to the robot coordinate system                                                                  |

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

# Probe EX3DV4

## SN:7308

Manufactured: March 11, 2014  
Calibrated: August 23, 2018

Calibrated for DASY/EASY Systems  
(Note: non-compatible with DASY2 system!)

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7308

### Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2)     |
|-----------------------------------------------------------|----------|----------|----------|---------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.49     | 0.60     | 0.44     | $\pm 10.1 \%$ |
| DCP (mV) <sup>B</sup>                                     | 99.6     | 97.1     | 102.5    |               |

### Modulation Calibration Parameters

| UID | Communication System Name |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C   | D<br>dB | VR<br>mV | Unc <sup>E</sup><br>(k=2) |
|-----|---------------------------|---|---------|------------------------------|-----|---------|----------|---------------------------|
| 0   | CW                        | X | 0.0     | 0.0                          | 1.0 | 0.00    | 177.2    | $\pm 3.5 \%$              |
|     |                           | Y | 0.0     | 0.0                          | 1.0 |         | 165.4    |                           |
|     |                           | Z | 0.0     | 0.0                          | 1.0 |         | 159.6    |                           |

Note: For details on UID parameters see Appendix.

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$\text{V}^{-1}$ | T1<br>$\text{ms}\cdot\text{V}^{-2}$ | T2<br>$\text{ms}\cdot\text{V}^{-1}$ | T3<br>ms | T4<br>$\text{V}^{-2}$ | T5<br>$\text{V}^{-1}$ | T6    |
|---|----------|----------|-----------------------------|-------------------------------------|-------------------------------------|----------|-----------------------|-----------------------|-------|
| X | 53.71    | 401.2    | 35.76                       | 12.80                               | 0.351                               | 5.077    | 0.717                 | 0.413                 | 1.005 |
| Y | 56.67    | 439.8    | 38.08                       | 13.44                               | 0.524                               | 5.100    | 0.000                 | 0.597                 | 1.012 |
| Z | 40.98    | 304.1    | 35.29                       | 8.573                               | 0.334                               | 5.045    | 1.531                 | 0.174                 | 1.005 |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7308

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 10.23   | 10.23   | 10.23   | 0.57               | 0.81                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 9.96    | 9.96    | 9.96    | 0.58               | 0.81                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 8.66    | 8.66    | 8.66    | 0.36               | 0.80                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 8.26    | 8.26    | 8.26    | 0.29               | 0.85                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 7.81    | 7.81    | 7.81    | 0.29               | 0.85                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 7.45    | 7.45    | 7.45    | 0.35               | 0.91                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 7.30    | 7.30    | 7.30    | 0.35               | 0.87                    | ± 12.0 %  |
| 5250                 | 35.9                               | 4.71                            | 5.10    | 5.10    | 5.10    | 0.40               | 1.80                    | ± 13.1 %  |
| 5600                 | 35.5                               | 5.07                            | 4.85    | 4.85    | 4.85    | 0.40               | 1.80                    | ± 13.1 %  |
| 5750                 | 35.4                               | 5.22                            | 5.04    | 5.04    | 5.04    | 0.40               | 1.80                    | ± 13.1 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7308

### Calibration Parameter Determined in Body Tissue Simulating Media

| f (MHz) <sup>c</sup> | Relative Permittivity <sup>f</sup> | Conductivity (S/m) <sup>f</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>g</sup> | Depth <sup>g</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 55.5                               | 0.96                            | 10.38   | 10.38   | 10.38   | 0.36               | 0.99                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 10.19   | 10.19   | 10.19   | 0.50               | 0.82                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 8.13    | 8.13    | 8.13    | 0.27               | 1.04                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 7.79    | 7.79    | 7.79    | 0.38               | 0.85                    | ± 12.0 %  |
| 2300                 | 52.9                               | 1.81                            | 7.73    | 7.73    | 7.73    | 0.37               | 0.80                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 7.57    | 7.57    | 7.57    | 0.34               | 0.88                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 7.40    | 7.40    | 7.40    | 0.29               | 0.95                    | ± 12.0 %  |
| 5250                 | 48.9                               | 5.36                            | 4.48    | 4.48    | 4.48    | 0.50               | 1.90                    | ± 13.1 %  |
| 5600                 | 48.5                               | 5.77                            | 4.00    | 4.00    | 4.00    | 0.50               | 1.90                    | ± 13.1 %  |
| 5750                 | 48.3                               | 5.94                            | 4.18    | 4.18    | 4.18    | 0.50               | 1.90                    | ± 13.1 %  |

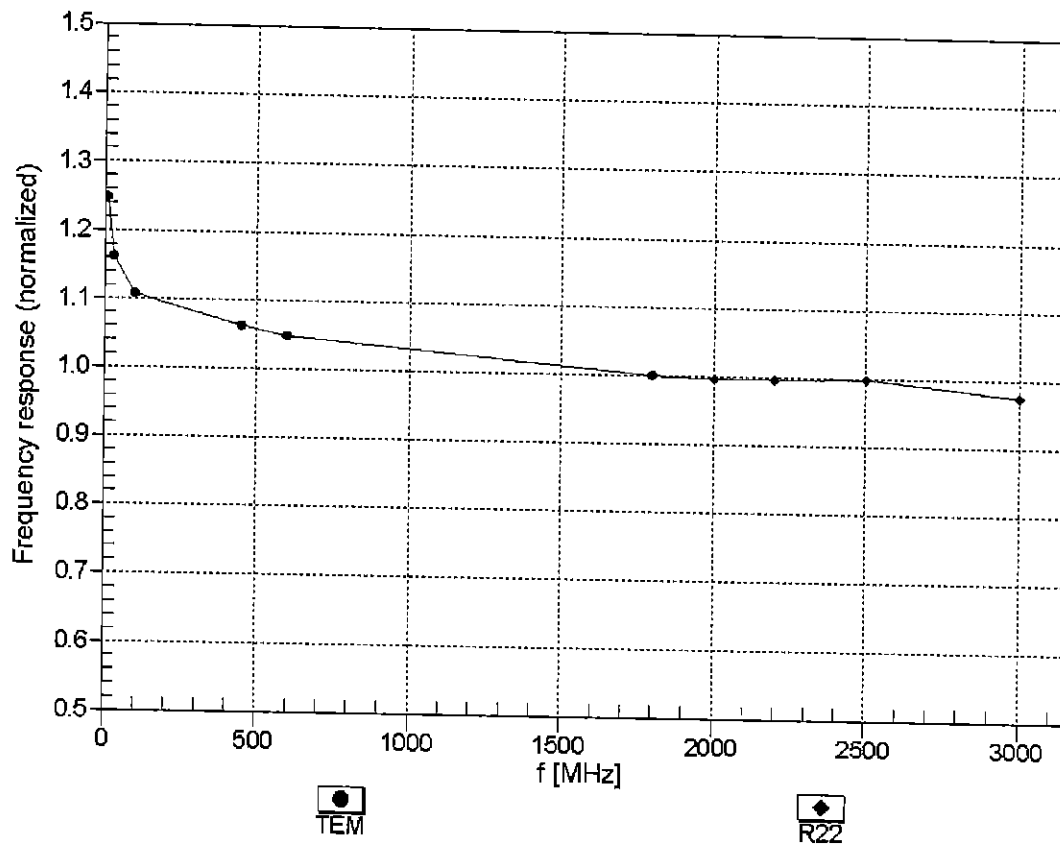
<sup>c</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>f</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>g</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## Frequency Response of E-Field

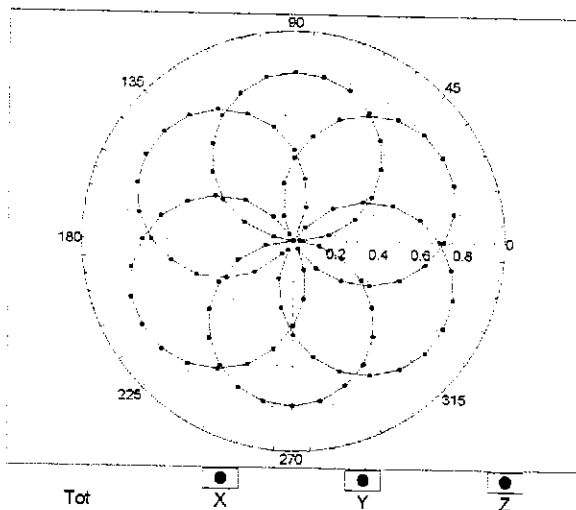
(TEM-Cell:ifi110 EXX, Waveguide: R22)



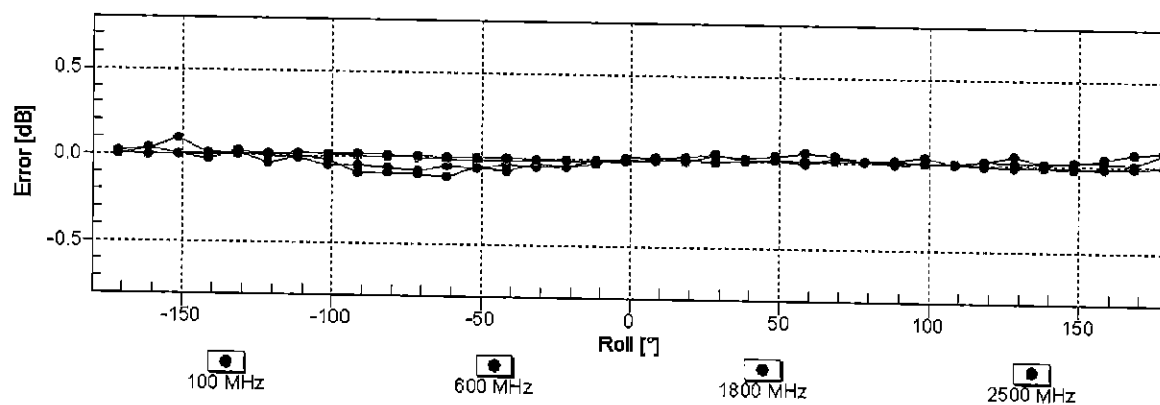
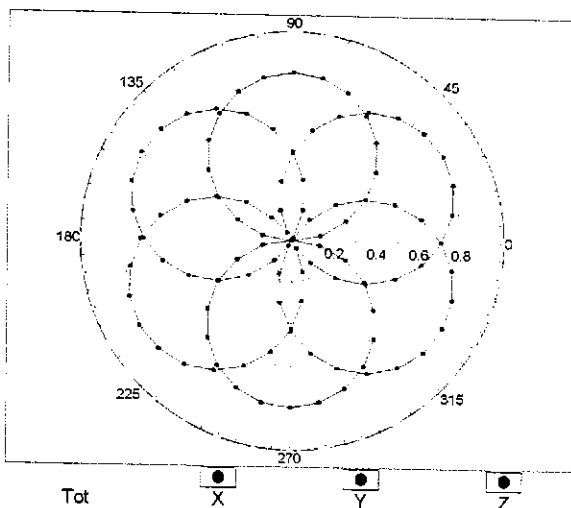
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

## Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

f=600 MHz, TEM

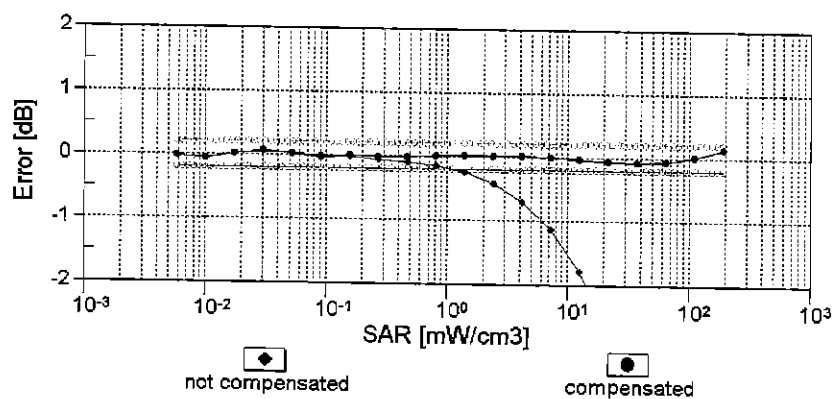
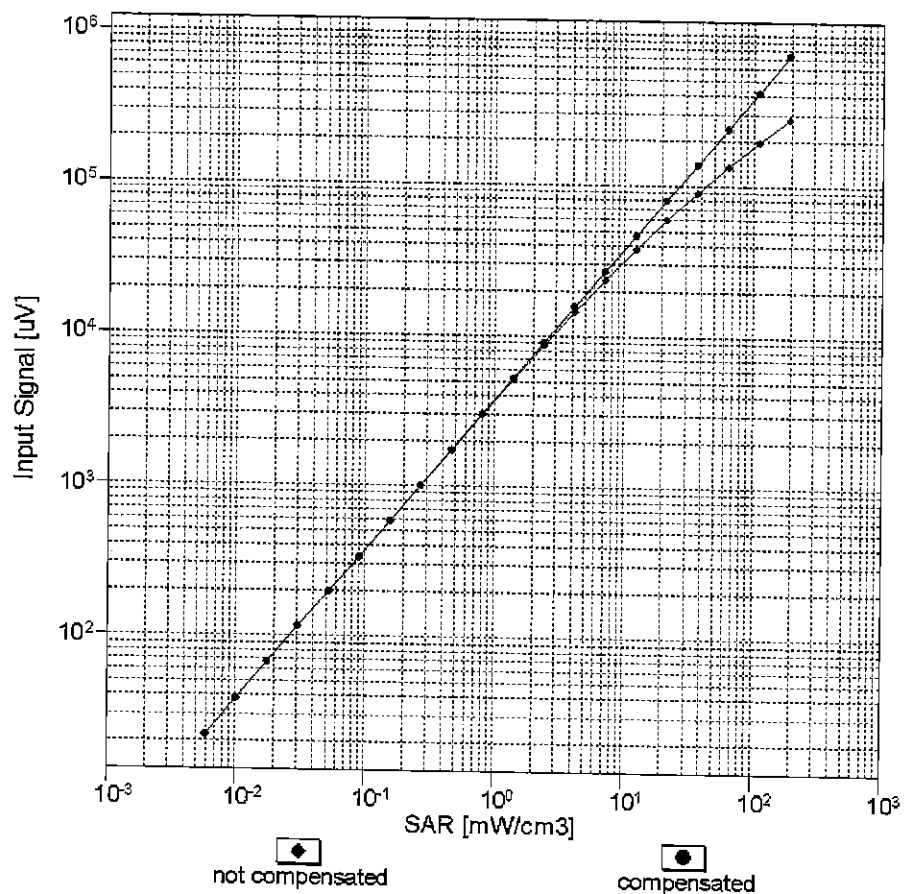


f=1800 MHz, R22



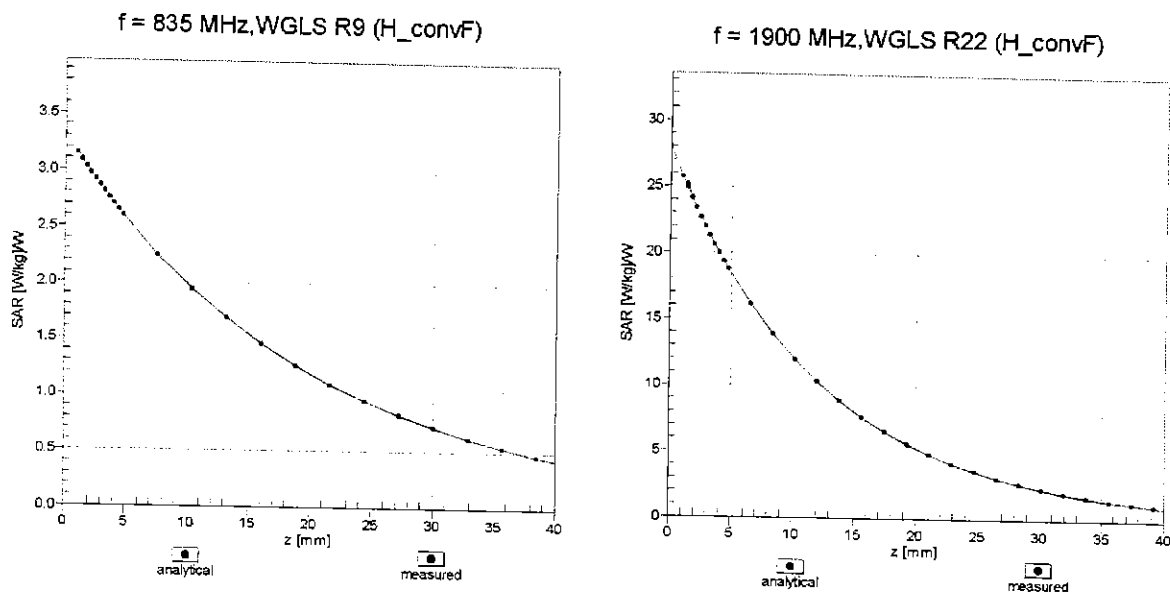
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

# Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell , $f_{\text{eval}} = 1900 \text{ MHz}$ )



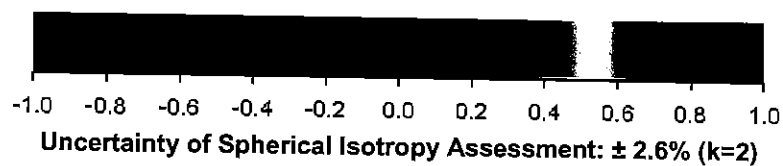
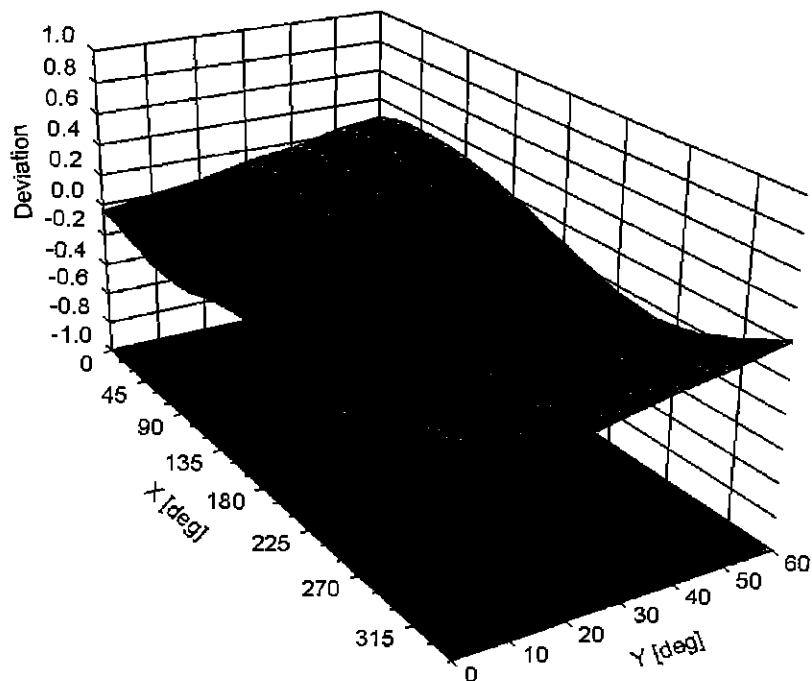
Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi, \theta$ ),  $f = 900 \text{ MHz}$



## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7308

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 108.5      |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

**Appendix: Modulation Calibration Parameters**

| UID           | Communication System Name                     |   | A<br>dB | B<br>dB $\sqrt{\mu V}$ | C     | D<br>dB | VR<br>mV | Max<br>Unc <sup>E</sup><br>(k=2) |
|---------------|-----------------------------------------------|---|---------|------------------------|-------|---------|----------|----------------------------------|
| 0             | CW                                            | X | 0.00    | 0.00                   | 1.00  | 0.00    | 177.2    | $\pm 3.5\%$                      |
|               |                                               | Y | 0.00    | 0.00                   | 1.00  |         | 165.4    |                                  |
|               |                                               | Z | 0.00    | 0.00                   | 1.00  |         | 159.6    |                                  |
| 10010-<br>CAA | SAR Validation (Square, 100ms, 10ms)          | X | 2.71    | 68.17                  | 11.26 | 10.00   | 20.0     | $\pm 9.6\%$                      |
|               |                                               | Y | 2.39    | 66.64                  | 10.67 |         | 20.0     |                                  |
|               |                                               | Z | 1.90    | 64.26                  | 9.03  |         | 20.0     |                                  |
| 10011-<br>CAB | UMTS-FDD (WCDMA)                              | X | 1.19    | 70.37                  | 17.06 | 0.00    | 150.0    | $\pm 9.6\%$                      |
|               |                                               | Y | 0.96    | 66.50                  | 14.51 |         | 150.0    |                                  |
|               |                                               | Z | 1.05    | 68.92                  | 16.00 |         | 150.0    |                                  |
| 10012-<br>CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)      | X | 1.18    | 64.67                  | 16.08 | 0.41    | 150.0    | $\pm 9.6\%$                      |
|               |                                               | Y | 1.11    | 63.43                  | 15.04 |         | 150.0    |                                  |
|               |                                               | Z | 1.13    | 64.11                  | 15.48 |         | 150.0    |                                  |
| 10013-<br>CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps) | X | 4.93    | 66.75                  | 17.26 | 1.46    | 150.0    | $\pm 9.6\%$                      |
|               |                                               | Y | 4.92    | 66.47                  | 17.15 |         | 150.0    |                                  |
|               |                                               | Z | 4.74    | 66.75                  | 17.08 |         | 150.0    |                                  |
| 10021-<br>DAC | GSM-FDD (TDMA, GMSK)                          | X | 100.00  | 114.38                 | 27.28 | 9.39    | 50.0     | $\pm 9.6\%$                      |
|               |                                               | Y | 100.00  | 114.83                 | 27.64 |         | 50.0     |                                  |
|               |                                               | Z | 100.00  | 109.69                 | 24.90 |         | 50.0     |                                  |
| 10023-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0)                   | X | 100.00  | 113.94                 | 27.13 | 9.57    | 50.0     | $\pm 9.6\%$                      |
|               |                                               | Y | 100.00  | 114.49                 | 27.54 |         | 50.0     |                                  |
|               |                                               | Z | 100.00  | 109.21                 | 24.74 |         | 50.0     |                                  |
| 10024-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                 | X | 100.00  | 115.48                 | 26.77 | 6.56    | 60.0     | $\pm 9.6\%$                      |
|               |                                               | Y | 100.00  | 114.18                 | 26.29 |         | 60.0     |                                  |
|               |                                               | Z | 100.00  | 109.85                 | 23.86 |         | 60.0     |                                  |
| 10025-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                   | X | 6.22    | 84.66                  | 34.29 | 12.57   | 50.0     | $\pm 9.6\%$                      |
|               |                                               | Y | 4.94    | 76.24                  | 29.94 |         | 50.0     |                                  |
|               |                                               | Z | 5.36    | 79.88                  | 31.57 |         | 50.0     |                                  |
| 10026-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                 | X | 11.81   | 100.22                 | 36.35 | 9.56    | 60.0     | $\pm 9.6\%$                      |
|               |                                               | Y | 11.10   | 97.75                  | 35.30 |         | 60.0     |                                  |
|               |                                               | Z | 7.89    | 90.81                  | 32.78 |         | 60.0     |                                  |
| 10027-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)               | X | 100.00  | 118.27                 | 27.22 | 4.80    | 80.0     | $\pm 9.6\%$                      |
|               |                                               | Y | 100.00  | 114.44                 | 25.61 |         | 80.0     |                                  |
|               |                                               | Z | 100.00  | 111.67                 | 23.86 |         | 80.0     |                                  |
| 10028-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)             | X | 100.00  | 122.72                 | 28.40 | 3.55    | 100.0    | $\pm 9.6\%$                      |
|               |                                               | Y | 100.00  | 114.80                 | 25.04 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 114.83                 | 24.49 |         | 100.0    |                                  |
| 10029-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)               | X | 6.56    | 85.50                  | 29.56 | 7.80    | 80.0     | $\pm 9.6\%$                      |
|               |                                               | Y | 6.53    | 84.80                  | 29.16 |         | 80.0     |                                  |
|               |                                               | Z | 4.80    | 79.03                  | 26.78 |         | 80.0     |                                  |
| 10030-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)           | X | 100.00  | 114.96                 | 26.10 | 5.30    | 70.0     | $\pm 9.6\%$                      |
|               |                                               | Y | 100.00  | 112.69                 | 25.18 |         | 70.0     |                                  |
|               |                                               | Z | 100.00  | 108.37                 | 22.73 |         | 70.0     |                                  |
| 10031-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)           | X | 100.00  | 126.84                 | 28.53 | 1.88    | 100.0    | $\pm 9.6\%$                      |
|               |                                               | Y | 100.00  | 105.21                 | 19.68 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 108.61                 | 20.59 |         | 100.0    |                                  |

|           |                                                     |   |        |        |       |       |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10032-CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | X | 100.00 | 146.53 | 35.02 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 95.65  | 15.05 |       | 100.0 |         |
|           |                                                     | Z | 100.00 | 112.23 | 21.08 |       | 100.0 |         |
| 10033-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | X | 100.00 | 133.98 | 36.90 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 94.91  | 132.14 | 36.35 |       | 70.0  |         |
|           |                                                     | Z | 24.70  | 106.96 | 28.52 |       | 70.0  |         |
| 10034-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | X | 8.70   | 95.28  | 25.33 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 4.18   | 83.23  | 21.11 |       | 100.0 |         |
|           |                                                     | Z | 3.97   | 82.01  | 19.44 |       | 100.0 |         |
| 10035-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | X | 3.83   | 83.82  | 21.38 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 2.23   | 74.99  | 17.69 |       | 100.0 |         |
|           |                                                     | Z | 2.33   | 75.94  | 16.98 |       | 100.0 |         |
| 10036-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | X | 100.00 | 134.50 | 37.14 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 133.48 | 36.76 |       | 70.0  |         |
|           |                                                     | Z | 56.60  | 119.91 | 31.85 |       | 70.0  |         |
| 10037-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | X | 7.69   | 93.53  | 24.78 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 3.89   | 82.31  | 20.76 |       | 100.0 |         |
|           |                                                     | Z | 3.40   | 80.12  | 18.77 |       | 100.0 |         |
| 10038-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | X | 3.93   | 84.59  | 21.78 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 2.28   | 75.57  | 18.03 |       | 100.0 |         |
|           |                                                     | Z | 2.38   | 76.51  | 17.34 |       | 100.0 |         |
| 10039-CAB | CDMA2000 (1xRTT, RC1)                               | X | 2.78   | 78.14  | 18.71 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.67   | 70.12  | 14.94 |       | 150.0 |         |
|           |                                                     | Z | 2.00   | 74.01  | 15.76 |       | 150.0 |         |
| 10042-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | X | 100.00 | 110.92 | 24.96 | 7.78  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 110.22 | 24.75 |       | 50.0  |         |
|           |                                                     | Z | 100.00 | 106.01 | 22.46 |       | 50.0  |         |
| 10044-CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | X | 0.00   | 112.58 | 4.43  | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.07   | 121.95 | 9.84  |       | 150.0 |         |
|           |                                                     | Z | 0.01   | 118.94 | 9.83  |       | 150.0 |         |
| 10048-CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | X | 100.00 | 111.48 | 27.44 | 13.80 | 25.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 112.85 | 28.28 |       | 25.0  |         |
|           |                                                     | Z | 18.65  | 86.54  | 19.90 |       | 25.0  |         |
| 10049-CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | X | 100.00 | 112.40 | 26.75 | 10.79 | 40.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 113.42 | 27.38 |       | 40.0  |         |
|           |                                                     | Z | 46.23  | 99.19  | 22.45 |       | 40.0  |         |
| 10056-CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | X | 100.00 | 126.85 | 34.82 | 9.03  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 126.84 | 34.96 |       | 50.0  |         |
|           |                                                     | Z | 73.14  | 116.99 | 30.84 |       | 50.0  |         |
| 10058-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | X | 4.87   | 79.06  | 26.07 | 6.55  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 4.89   | 78.72  | 25.82 |       | 100.0 |         |
|           |                                                     | Z | 3.78   | 74.24  | 23.87 |       | 100.0 |         |
| 10059-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | X | 1.24   | 66.08  | 16.89 | 0.61  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 1.15   | 64.70  | 15.80 |       | 110.0 |         |
|           |                                                     | Z | 1.15   | 65.12  | 16.08 |       | 110.0 |         |
| 10060-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | X | 100.00 | 145.11 | 38.67 | 1.30  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 138.14 | 35.54 |       | 110.0 |         |
|           |                                                     | Z | 100.00 | 143.13 | 37.45 |       | 110.0 |         |

|           |                                                |   |      |       |       |      |       |         |
|-----------|------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10061-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)      | X | 5.01 | 92.44 | 27.34 | 2.04 | 110.0 | ± 9.6 % |
|           |                                                | Y | 3.88 | 86.79 | 24.94 |      | 110.0 |         |
|           |                                                | Z | 2.64 | 81.37 | 23.02 |      | 110.0 |         |
| 10062-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)       | X | 4.74 | 66.80 | 16.70 | 0.49 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.72 | 66.44 | 16.52 |      | 100.0 |         |
|           |                                                | Z | 4.55 | 66.78 | 16.53 |      | 100.0 |         |
| 10063-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)       | X | 4.76 | 66.90 | 16.81 | 0.72 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.74 | 66.55 | 16.64 |      | 100.0 |         |
|           |                                                | Z | 4.57 | 66.86 | 16.62 |      | 100.0 |         |
| 10064-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)      | X | 5.07 | 67.18 | 17.05 | 0.86 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.06 | 66.88 | 16.91 |      | 100.0 |         |
|           |                                                | Z | 4.83 | 67.08 | 16.83 |      | 100.0 |         |
| 10065-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)      | X | 4.93 | 67.08 | 17.15 | 1.21 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.92 | 66.80 | 17.03 |      | 100.0 |         |
|           |                                                | Z | 4.69 | 66.95 | 16.91 |      | 100.0 |         |
| 10066-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)      | X | 4.95 | 67.11 | 17.33 | 1.46 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.94 | 66.84 | 17.22 |      | 100.0 |         |
|           |                                                | Z | 4.70 | 66.94 | 17.07 |      | 100.0 |         |
| 10067-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)      | X | 5.22 | 67.17 | 17.72 | 2.04 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.23 | 66.94 | 17.65 |      | 100.0 |         |
|           |                                                | Z | 4.99 | 67.15 | 17.52 |      | 100.0 |         |
| 10068-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)      | X | 5.28 | 67.31 | 17.99 | 2.55 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.30 | 67.12 | 17.95 |      | 100.0 |         |
|           |                                                | Z | 5.01 | 67.08 | 17.69 |      | 100.0 |         |
| 10069-CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)      | X | 5.36 | 67.24 | 18.15 | 2.67 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.38 | 67.05 | 18.11 |      | 100.0 |         |
|           |                                                | Z | 5.09 | 67.11 | 17.88 |      | 100.0 |         |
| 10071-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)  | X | 5.01 | 66.83 | 17.56 | 1.99 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.01 | 66.58 | 17.48 |      | 100.0 |         |
|           |                                                | Z | 4.83 | 66.80 | 17.36 |      | 100.0 |         |
| 10072-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps) | X | 5.00 | 67.20 | 17.81 | 2.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.01 | 66.96 | 17.73 |      | 100.0 |         |
|           |                                                | Z | 4.79 | 67.07 | 17.56 |      | 100.0 |         |
| 10073-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps) | X | 5.05 | 67.32 | 18.13 | 2.83 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.06 | 67.11 | 18.07 |      | 100.0 |         |
|           |                                                | Z | 4.84 | 67.21 | 17.87 |      | 100.0 |         |
| 10074-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps) | X | 5.01 | 67.17 | 18.27 | 3.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.03 | 66.98 | 18.23 |      | 100.0 |         |
|           |                                                | Z | 4.82 | 67.10 | 18.01 |      | 100.0 |         |
| 10075-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps) | X | 5.05 | 67.33 | 18.61 | 3.82 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.08 | 67.18 | 18.60 |      | 90.0  |         |
|           |                                                | Z | 4.84 | 67.13 | 18.28 |      | 90.0  |         |
| 10076-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps) | X | 5.04 | 67.01 | 18.67 | 4.15 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.06 | 66.85 | 18.66 |      | 90.0  |         |
|           |                                                | Z | 4.86 | 66.95 | 18.41 |      | 90.0  |         |
| 10077-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps) | X | 5.05 | 67.06 | 18.76 | 4.30 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.07 | 66.89 | 18.74 |      | 90.0  |         |
|           |                                                | Z | 4.89 | 67.03 | 18.52 |      | 90.0  |         |

|           |                                                     |   |        |        |       |      |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10081-CAB | CDMA2000 (1xRTT, RC3)                               | X | 1.10   | 69.87  | 14.99 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.78   | 64.74  | 11.83 |      | 150.0 |         |
|           |                                                     | Z | 0.78   | 66.34  | 11.97 |      | 150.0 |         |
| 10082-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | X | 0.69   | 60.00  | 4.39  | 4.77 | 80.0  | ± 9.6 % |
|           |                                                     | Y | 0.71   | 60.00  | 4.39  |      | 80.0  |         |
|           |                                                     | Z | 7.97   | 68.50  | 6.36  |      | 80.0  |         |
| 10090-DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | X | 100.00 | 115.53 | 26.81 | 6.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 114.29 | 26.36 |      | 60.0  |         |
|           |                                                     | Z | 100.00 | 109.90 | 23.90 |      | 60.0  |         |
| 10097-CAB | UMTS-FDD (HSDPA)                                    | X | 1.95   | 68.97  | 16.62 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.75   | 66.81  | 15.24 |      | 150.0 |         |
|           |                                                     | Z | 1.87   | 68.90  | 16.13 |      | 150.0 |         |
| 10098-CAB | UMTS-FDD (HSUPA, Subtest 2)                         | X | 1.91   | 68.95  | 16.60 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.71   | 66.77  | 15.20 |      | 150.0 |         |
|           |                                                     | Z | 1.83   | 68.86  | 16.11 |      | 150.0 |         |
| 10099-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | X | 11.93  | 100.45 | 36.42 | 9.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 11.20  | 97.95  | 35.37 |      | 60.0  |         |
|           |                                                     | Z | 7.96   | 90.99  | 32.84 |      | 60.0  |         |
| 10100-CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 3.40   | 71.76  | 17.45 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.10   | 69.82  | 16.33 |      | 150.0 |         |
|           |                                                     | Z | 3.12   | 70.91  | 17.03 |      | 150.0 |         |
| 10101-CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 3.36   | 68.15  | 16.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.24   | 67.23  | 15.77 |      | 150.0 |         |
|           |                                                     | Z | 3.17   | 67.74  | 16.07 |      | 150.0 |         |
| 10102-CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 3.45   | 68.05  | 16.42 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.34   | 67.19  | 15.87 |      | 150.0 |         |
|           |                                                     | Z | 3.28   | 67.71  | 16.16 |      | 150.0 |         |
| 10103-CAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 6.86   | 77.75  | 21.56 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 6.56   | 76.62  | 21.10 |      | 65.0  |         |
|           |                                                     | Z | 5.69   | 75.27  | 20.45 |      | 65.0  |         |
| 10104-CAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 6.41   | 74.58  | 21.07 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 6.33   | 74.04  | 20.86 |      | 65.0  |         |
|           |                                                     | Z | 5.58   | 72.74  | 20.11 |      | 65.0  |         |
| 10105-CAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 6.09   | 73.43  | 20.88 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 6.03   | 72.95  | 20.69 |      | 65.0  |         |
|           |                                                     | Z | 5.24   | 71.29  | 19.75 |      | 65.0  |         |
| 10108-CAF | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | X | 2.97   | 70.94  | 17.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.72   | 69.08  | 16.17 |      | 150.0 |         |
|           |                                                     | Z | 2.70   | 70.20  | 16.88 |      | 150.0 |         |
| 10109-CAF | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)          | X | 3.02   | 68.05  | 16.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.90   | 67.02  | 15.66 |      | 150.0 |         |
|           |                                                     | Z | 2.83   | 67.71  | 15.99 |      | 150.0 |         |
| 10110-CAF | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)             | X | 2.42   | 70.09  | 17.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.21   | 68.14  | 15.78 |      | 150.0 |         |
|           |                                                     | Z | 2.18   | 69.46  | 16.49 |      | 150.0 |         |
| 10111-CAF | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)           | X | 2.76   | 69.06  | 16.78 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.59   | 67.59  | 15.88 |      | 150.0 |         |
|           |                                                     | Z | 2.59   | 68.99  | 16.39 |      | 150.0 |         |

|           |                                                |   |      |       |       |      |       |         |
|-----------|------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10112-CAF | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | X | 3.14 | 67.97 | 16.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.03 | 67.00 | 15.72 |      | 150.0 |         |
|           |                                                | Z | 2.95 | 67.72 | 16.05 |      | 150.0 |         |
| 10113-CAF | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | X | 2.92 | 69.11 | 16.87 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.75 | 67.72 | 16.02 |      | 150.0 |         |
|           |                                                | Z | 2.74 | 69.14 | 16.51 |      | 150.0 |         |
| 10114-CAC | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | X | 5.18 | 67.31 | 16.57 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.14 | 66.93 | 16.36 |      | 150.0 |         |
|           |                                                | Z | 5.02 | 67.26 | 16.48 |      | 150.0 |         |
| 10115-CAC | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | X | 5.52 | 67.57 | 16.70 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.51 | 67.29 | 16.56 |      | 150.0 |         |
|           |                                                | Z | 5.27 | 67.30 | 16.50 |      | 150.0 |         |
| 10116-CAC | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | X | 5.29 | 67.56 | 16.61 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.27 | 67.21 | 16.43 |      | 150.0 |         |
|           |                                                | Z | 5.10 | 67.44 | 16.50 |      | 150.0 |         |
| 10117-CAC | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | X | 5.16 | 67.25 | 16.55 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.13 | 66.89 | 16.36 |      | 150.0 |         |
|           |                                                | Z | 4.99 | 67.15 | 16.44 |      | 150.0 |         |
| 10118-CAC | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | X | 5.59 | 67.74 | 16.79 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.60 | 67.49 | 16.67 |      | 150.0 |         |
|           |                                                | Z | 5.34 | 67.49 | 16.60 |      | 150.0 |         |
| 10119-CAC | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | X | 5.26 | 67.49 | 16.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.24 | 67.15 | 16.41 |      | 150.0 |         |
|           |                                                | Z | 5.09 | 67.40 | 16.49 |      | 150.0 |         |
| 10140-CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | X | 3.50 | 68.05 | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.39 | 67.19 | 15.79 |      | 150.0 |         |
|           |                                                | Z | 3.30 | 67.72 | 16.07 |      | 150.0 |         |
| 10141-CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | X | 3.62 | 68.10 | 16.48 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.51 | 67.27 | 15.96 |      | 150.0 |         |
|           |                                                | Z | 3.43 | 67.85 | 16.25 |      | 150.0 |         |
| 10142-CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | X | 2.22 | 70.35 | 16.88 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.98 | 67.98 | 15.45 |      | 150.0 |         |
|           |                                                | Z | 1.97 | 69.67 | 16.10 |      | 150.0 |         |
| 10143-CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | X | 2.70 | 70.21 | 16.79 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.44 | 68.12 | 15.58 |      | 150.0 |         |
|           |                                                | Z | 2.48 | 69.97 | 16.00 |      | 150.0 |         |
| 10144-CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | X | 2.42 | 67.64 | 15.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.26 | 66.15 | 14.15 |      | 150.0 |         |
|           |                                                | Z | 2.13 | 66.86 | 13.96 |      | 150.0 |         |
| 10145-CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | X | 1.54 | 68.23 | 14.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.25 | 64.93 | 12.03 |      | 150.0 |         |
|           |                                                | Z | 1.00 | 63.72 | 10.21 |      | 150.0 |         |
| 10146-CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | X | 2.38 | 68.67 | 13.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.63 | 70.03 | 14.41 |      | 150.0 |         |
|           |                                                | Z | 1.37 | 62.94 | 8.80  |      | 150.0 |         |
| 10147-CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | X | 3.01 | 71.74 | 14.81 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.44 | 73.73 | 16.16 |      | 150.0 |         |
|           |                                                | Z | 1.50 | 63.86 | 9.38  |      | 150.0 |         |

|           |                                            |   |      |       |       |      |       |         |
|-----------|--------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10149-CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 3.03 | 68.12 | 16.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.91 | 67.08 | 15.71 |      | 150.0 |         |
|           |                                            | Z | 2.84 | 67.78 | 16.04 |      | 150.0 |         |
| 10150-CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 3.15 | 68.03 | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.03 | 67.05 | 15.76 |      | 150.0 |         |
|           |                                            | Z | 2.96 | 67.78 | 16.09 |      | 150.0 |         |
| 10151-CAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)    | X | 7.33 | 80.62 | 22.85 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 6.93 | 79.21 | 22.28 |      | 65.0  |         |
|           |                                            | Z | 6.07 | 78.22 | 21.74 |      | 65.0  |         |
| 10152-CAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 5.98 | 74.73 | 20.92 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 5.89 | 74.12 | 20.68 |      | 65.0  |         |
|           |                                            | Z | 5.12 | 72.74 | 19.78 |      | 65.0  |         |
| 10153-CAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 6.33 | 75.57 | 21.65 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 6.23 | 74.94 | 21.41 |      | 65.0  |         |
|           |                                            | Z | 5.49 | 73.78 | 20.61 |      | 65.0  |         |
| 10154-CAF | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 2.49 | 70.63 | 17.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.26 | 68.57 | 16.06 |      | 150.0 |         |
|           |                                            | Z | 2.24 | 69.92 | 16.77 |      | 150.0 |         |
| 10155-CAF | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 2.77 | 69.07 | 16.79 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.59 | 67.59 | 15.89 |      | 150.0 |         |
|           |                                            | Z | 2.59 | 69.02 | 16.41 |      | 150.0 |         |
| 10156-CAF | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 2.11 | 70.85 | 16.93 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 1.83 | 68.04 | 15.26 |      | 150.0 |         |
|           |                                            | Z | 1.82 | 69.80 | 15.80 |      | 150.0 |         |
| 10157-CAF | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 2.31 | 68.61 | 15.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.08 | 66.62 | 14.16 |      | 150.0 |         |
|           |                                            | Z | 1.98 | 67.47 | 13.92 |      | 150.0 |         |
| 10158-CAF | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 2.92 | 69.17 | 16.92 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.75 | 67.77 | 16.06 |      | 150.0 |         |
|           |                                            | Z | 2.75 | 69.22 | 16.57 |      | 150.0 |         |
| 10159-CAF | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 2.44 | 69.17 | 15.69 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.19 | 67.06 | 14.45 |      | 150.0 |         |
|           |                                            | Z | 2.09 | 67.96 | 14.21 |      | 150.0 |         |
| 10160-CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)    | X | 2.90 | 69.57 | 16.90 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.74 | 68.24 | 16.05 |      | 150.0 |         |
|           |                                            | Z | 2.70 | 69.25 | 16.60 |      | 150.0 |         |
| 10161-CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 3.05 | 67.98 | 16.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.93 | 66.95 | 15.69 |      | 150.0 |         |
|           |                                            | Z | 2.86 | 67.77 | 16.01 |      | 150.0 |         |
| 10162-CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 3.15 | 68.06 | 16.42 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.03 | 67.06 | 15.79 |      | 150.0 |         |
|           |                                            | Z | 2.97 | 67.96 | 16.14 |      | 150.0 |         |
| 10166-CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 3.67 | 69.77 | 19.22 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.71 | 69.61 | 19.37 |      | 150.0 |         |
|           |                                            | Z | 3.45 | 70.11 | 19.35 |      | 150.0 |         |
| 10167-CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 4.61 | 72.92 | 19.78 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.57 | 72.37 | 19.78 |      | 150.0 |         |
|           |                                            | Z | 4.42 | 74.02 | 20.14 |      | 150.0 |         |

|           |                                            |   |       |        |       |      |       |         |
|-----------|--------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10168-CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 5.13  | 75.25  | 21.12 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.05  | 74.54  | 21.07 |      | 150.0 |         |
|           |                                            | Z | 5.13  | 77.22  | 21.87 |      | 150.0 |         |
| 10169-CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 3.12  | 70.03  | 19.37 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.15  | 69.73  | 19.46 |      | 150.0 |         |
|           |                                            | Z | 2.86  | 69.57  | 19.15 |      | 150.0 |         |
| 10170-CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 4.58  | 77.10  | 22.08 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.39  | 75.79  | 21.81 |      | 150.0 |         |
|           |                                            | Z | 4.44  | 78.23  | 22.53 |      | 150.0 |         |
| 10171-AAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 3.64  | 72.24  | 19.05 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.59  | 71.47  | 18.98 |      | 150.0 |         |
|           |                                            | Z | 3.36  | 72.39  | 19.02 |      | 150.0 |         |
| 10172-CAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 12.64 | 100.34 | 31.84 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 12.97 | 100.68 | 32.37 |      | 65.0  |         |
|           |                                            | Z | 5.77  | 87.24  | 27.51 |      | 65.0  |         |
| 10173-CAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 36.96 | 114.71 | 33.67 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 30.92 | 112.16 | 33.64 |      | 65.0  |         |
|           |                                            | Z | 22.36 | 108.00 | 31.61 |      | 65.0  |         |
| 10174-CAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 22.92 | 104.35 | 30.17 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 21.96 | 104.04 | 30.70 |      | 65.0  |         |
|           |                                            | Z | 11.65 | 95.24  | 27.25 |      | 65.0  |         |
| 10175-CAF | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)      | X | 3.08  | 69.68  | 19.10 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.11  | 69.39  | 19.20 |      | 150.0 |         |
|           |                                            | Z | 2.82  | 69.22  | 18.88 |      | 150.0 |         |
| 10176-CAF | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)    | X | 4.59  | 77.13  | 22.09 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.40  | 75.82  | 21.82 |      | 150.0 |         |
|           |                                            | Z | 4.45  | 78.26  | 22.55 |      | 150.0 |         |
| 10177-CAH | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)       | X | 3.11  | 69.85  | 19.21 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.14  | 69.56  | 19.30 |      | 150.0 |         |
|           |                                            | Z | 2.84  | 69.38  | 18.97 |      | 150.0 |         |
| 10178-CAF | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)     | X | 4.53  | 76.83  | 21.94 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.34  | 75.53  | 21.68 |      | 150.0 |         |
|           |                                            | Z | 4.39  | 77.99  | 22.42 |      | 150.0 |         |
| 10179-CAF | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)    | X | 4.06  | 74.50  | 20.40 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.95  | 73.49  | 20.26 |      | 150.0 |         |
|           |                                            | Z | 3.83  | 75.09  | 20.61 |      | 150.0 |         |
| 10180-CAF | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)     | X | 3.62  | 72.15  | 18.99 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.58  | 71.38  | 18.93 |      | 150.0 |         |
|           |                                            | Z | 3.35  | 72.32  | 18.97 |      | 150.0 |         |
| 10181-CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 3.10  | 69.83  | 19.20 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.13  | 69.54  | 19.29 |      | 150.0 |         |
|           |                                            | Z | 2.84  | 69.36  | 18.97 |      | 150.0 |         |
| 10182-CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)    | X | 4.52  | 76.80  | 21.93 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.33  | 75.51  | 21.66 |      | 150.0 |         |
|           |                                            | Z | 4.38  | 77.96  | 22.40 |      | 150.0 |         |
| 10183-AAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 3.62  | 72.12  | 18.97 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.57  | 71.35  | 18.91 |      | 150.0 |         |
|           |                                            | Z | 3.34  | 72.29  | 18.96 |      | 150.0 |         |

|           |                                               |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10184-CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | X | 3.11 | 69.88 | 19.22 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.14 | 69.58 | 19.32 |      | 150.0 |         |
|           |                                               | Z | 2.85 | 69.41 | 18.99 |      | 150.0 |         |
| 10185-CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | X | 4.54 | 76.88 | 21.97 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.35 | 75.59 | 21.70 |      | 150.0 |         |
|           |                                               | Z | 4.41 | 78.06 | 22.45 |      | 150.0 |         |
| 10186-AAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | X | 3.64 | 72.20 | 19.01 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.59 | 71.42 | 18.95 |      | 150.0 |         |
|           |                                               | Z | 3.36 | 72.37 | 19.00 |      | 150.0 |         |
| 10187-CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | X | 3.12 | 69.93 | 19.28 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.15 | 69.63 | 19.37 |      | 150.0 |         |
|           |                                               | Z | 2.86 | 69.48 | 19.07 |      | 150.0 |         |
| 10188-CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | X | 4.72 | 77.70 | 22.40 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.51 | 76.33 | 22.11 |      | 150.0 |         |
|           |                                               | Z | 4.61 | 78.98 | 22.92 |      | 150.0 |         |
| 10189-AAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | X | 3.73 | 72.70 | 19.32 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.67 | 71.88 | 19.24 |      | 150.0 |         |
|           |                                               | Z | 3.46 | 72.92 | 19.33 |      | 150.0 |         |
| 10193-CAC | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | X | 4.59 | 66.76 | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.55 | 66.31 | 16.09 |      | 150.0 |         |
|           |                                               | Z | 4.42 | 66.80 | 16.19 |      | 150.0 |         |
| 10194-CAC | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | X | 4.77 | 67.10 | 16.45 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.74 | 66.66 | 16.21 |      | 150.0 |         |
|           |                                               | Z | 4.58 | 67.08 | 16.32 |      | 150.0 |         |
| 10195-CAC | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | X | 4.82 | 67.12 | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.78 | 66.69 | 16.22 |      | 150.0 |         |
|           |                                               | Z | 4.62 | 67.10 | 16.34 |      | 150.0 |         |
| 10196-CAC | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | X | 4.60 | 66.84 | 16.36 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.56 | 66.40 | 16.12 |      | 150.0 |         |
|           |                                               | Z | 4.41 | 66.83 | 16.20 |      | 150.0 |         |
| 10197-CAC | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | X | 4.79 | 67.12 | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.75 | 66.69 | 16.22 |      | 150.0 |         |
|           |                                               | Z | 4.59 | 67.09 | 16.33 |      | 150.0 |         |
| 10198-CAC | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | X | 4.82 | 67.14 | 16.47 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.78 | 66.71 | 16.24 |      | 150.0 |         |
|           |                                               | Z | 4.61 | 67.11 | 16.35 |      | 150.0 |         |
| 10219-CAC | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | X | 4.55 | 66.86 | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.51 | 66.41 | 16.08 |      | 150.0 |         |
|           |                                               | Z | 4.37 | 66.86 | 16.17 |      | 150.0 |         |
| 10220-CAC | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | X | 4.79 | 67.10 | 16.45 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.75 | 66.67 | 16.22 |      | 150.0 |         |
|           |                                               | Z | 4.58 | 67.05 | 16.32 |      | 150.0 |         |
| 10221-CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | X | 4.83 | 67.06 | 16.45 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.79 | 66.64 | 16.23 |      | 150.0 |         |
|           |                                               | Z | 4.62 | 67.04 | 16.33 |      | 150.0 |         |
| 10222-CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | X | 5.14 | 67.26 | 16.55 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 5.11 | 66.90 | 16.36 |      | 150.0 |         |
|           |                                               | Z | 4.97 | 67.15 | 16.43 |      | 150.0 |         |

|           |                                           |   |       |        |       |      |       |         |
|-----------|-------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10223-CAC | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)  | X | 5.45  | 67.43  | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.45  | 67.18  | 16.52 |      | 150.0 |         |
|           |                                           | Z | 5.25  | 67.35  | 16.55 |      | 150.0 |         |
| 10224-CAC | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM) | X | 5.19  | 67.37  | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.15  | 66.99  | 16.33 |      | 150.0 |         |
|           |                                           | Z | 5.01  | 67.26  | 16.42 |      | 150.0 |         |
| 10225-CAB | UMTS-FDD (HSPA+)                          | X | 2.89  | 66.55  | 15.78 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 2.80  | 65.71  | 15.24 |      | 150.0 |         |
|           |                                           | Z | 2.72  | 66.49  | 15.32 |      | 150.0 |         |
| 10226-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)  | X | 42.12 | 117.30 | 34.47 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 34.39 | 114.35 | 34.35 |      | 65.0  |         |
|           |                                           | Z | 25.78 | 110.75 | 32.49 |      | 65.0  |         |
| 10227-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)  | X | 33.34 | 110.83 | 32.01 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 29.14 | 109.23 | 32.25 |      | 65.0  |         |
|           |                                           | Z | 23.91 | 107.08 | 30.63 |      | 65.0  |         |
| 10228-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)    | X | 15.66 | 105.06 | 33.38 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 15.84 | 105.37 | 33.95 |      | 65.0  |         |
|           |                                           | Z | 7.75  | 93.33  | 29.68 |      | 65.0  |         |
| 10229-CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)    | X | 37.28 | 114.84 | 33.72 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 31.13 | 112.26 | 33.67 |      | 65.0  |         |
|           |                                           | Z | 22.62 | 108.17 | 31.67 |      | 65.0  |         |
| 10230-CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)    | X | 29.88 | 108.76 | 31.36 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 26.58 | 107.43 | 31.66 |      | 65.0  |         |
|           |                                           | Z | 20.85 | 104.61 | 29.86 |      | 65.0  |         |
| 10231-CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)      | X | 14.65 | 103.59 | 32.85 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 14.88 | 103.95 | 33.43 |      | 65.0  |         |
|           |                                           | Z | 7.34  | 92.15  | 29.19 |      | 65.0  |         |
| 10232-CAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)    | X | 37.25 | 114.84 | 33.71 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 31.10 | 112.26 | 33.67 |      | 65.0  |         |
|           |                                           | Z | 22.58 | 108.16 | 31.67 |      | 65.0  |         |
| 10233-CAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)    | X | 29.82 | 108.74 | 31.35 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 26.53 | 107.41 | 31.66 |      | 65.0  |         |
|           |                                           | Z | 20.76 | 104.56 | 29.85 |      | 65.0  |         |
| 10234-CAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)      | X | 13.83 | 102.21 | 32.30 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 14.10 | 102.64 | 32.91 |      | 65.0  |         |
|           |                                           | Z | 7.03  | 91.14  | 28.71 |      | 65.0  |         |
| 10235-CAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)   | X | 37.39 | 114.93 | 33.74 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 31.21 | 112.34 | 33.70 |      | 65.0  |         |
|           |                                           | Z | 22.65 | 108.24 | 31.69 |      | 65.0  |         |
| 10236-CAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)   | X | 30.43 | 109.05 | 31.43 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 27.03 | 107.71 | 31.73 |      | 65.0  |         |
|           |                                           | Z | 21.22 | 104.87 | 29.93 |      | 65.0  |         |
| 10237-CAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)     | X | 14.73 | 103.74 | 32.90 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 14.96 | 104.11 | 33.48 |      | 65.0  |         |
|           |                                           | Z | 7.35  | 92.21  | 29.22 |      | 65.0  |         |
| 10238-CAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)   | X | 37.20 | 114.83 | 33.71 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 31.07 | 112.26 | 33.67 |      | 65.0  |         |
|           |                                           | Z | 22.51 | 108.13 | 31.66 |      | 65.0  |         |

|           |                                            |   |       |        |       |      |      |         |
|-----------|--------------------------------------------|---|-------|--------|-------|------|------|---------|
| 10239-CAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 29.73 | 108.72 | 31.35 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 26.48 | 107.40 | 31.66 |      | 65.0 |         |
|           |                                            | Z | 20.66 | 104.50 | 29.83 |      | 65.0 |         |
| 10240-CAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 14.67 | 103.66 | 32.88 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 14.89 | 104.03 | 33.46 |      | 65.0 |         |
|           |                                            | Z | 7.33  | 92.17  | 29.20 |      | 65.0 |         |
| 10241-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 8.22  | 81.62  | 25.84 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.21  | 81.11  | 25.93 |      | 65.0 |         |
|           |                                            | Z | 7.55  | 81.89  | 25.74 |      | 65.0 |         |
| 10242-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 7.60  | 79.92  | 25.06 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.70  | 79.68  | 25.24 |      | 65.0 |         |
|           |                                            | Z | 6.63  | 79.21  | 24.57 |      | 65.0 |         |
| 10243-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 6.06  | 76.28  | 24.43 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 6.20  | 76.29  | 24.69 |      | 65.0 |         |
|           |                                            | Z | 5.27  | 75.02  | 23.70 |      | 65.0 |         |
| 10244-CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   | X | 6.94  | 79.13  | 20.40 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.61  | 80.93  | 21.65 |      | 65.0 |         |
|           |                                            | Z | 4.63  | 73.01  | 16.54 |      | 65.0 |         |
| 10245-CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)   | X | 6.74  | 78.35  | 20.03 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.38  | 80.11  | 21.28 |      | 65.0 |         |
|           |                                            | Z | 4.46  | 72.20  | 16.14 |      | 65.0 |         |
| 10246-CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)     | X | 8.26  | 86.16  | 23.38 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.07  | 83.23  | 22.34 |      | 65.0 |         |
|           |                                            | Z | 4.76  | 77.46  | 19.00 |      | 65.0 |         |
| 10247-CAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 5.60  | 76.50  | 20.35 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.37  | 75.45  | 19.96 |      | 65.0 |         |
|           |                                            | Z | 4.29  | 72.64  | 17.71 |      | 65.0 |         |
| 10248-CAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 5.54  | 75.70  | 19.98 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.35  | 74.79  | 19.65 |      | 65.0 |         |
|           |                                            | Z | 4.24  | 71.91  | 17.36 |      | 65.0 |         |
| 10249-CAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 9.19  | 88.24  | 24.95 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.96  | 85.32  | 23.90 |      | 65.0 |         |
|           |                                            | Z | 6.28  | 82.28  | 22.02 |      | 65.0 |         |
| 10250-CAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 6.20  | 77.76  | 22.32 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 6.01  | 76.85  | 21.97 |      | 65.0 |         |
|           |                                            | Z | 5.20  | 75.42  | 20.86 |      | 65.0 |         |
| 10251-CAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 5.85  | 75.32  | 20.92 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.73  | 74.58  | 20.63 |      | 65.0 |         |
|           |                                            | Z | 4.92  | 73.12  | 19.45 |      | 65.0 |         |
| 10252-CAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 8.09  | 84.95  | 24.58 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.42  | 82.94  | 23.81 |      | 65.0 |         |
|           |                                            | Z | 6.31  | 81.52  | 22.96 |      | 65.0 |         |
| 10253-CAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 5.80  | 74.00  | 20.63 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 5.72  | 73.40  | 20.39 |      | 65.0 |         |
|           |                                            | Z | 5.04  | 72.28  | 19.52 |      | 65.0 |         |
| 10254-CAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 6.14  | 74.84  | 21.30 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 6.05  | 74.22  | 21.07 |      | 65.0 |         |
|           |                                            | Z | 5.36  | 73.21  | 20.25 |      | 65.0 |         |

|           |                                             |   |      |       |       |      |      |         |
|-----------|---------------------------------------------|---|------|-------|-------|------|------|---------|
| 10255-CAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | X | 6.81 | 79.50 | 22.67 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.50 | 78.25 | 22.16 |      | 65.0 |         |
|           |                                             | Z | 5.72 | 77.37 | 21.59 |      | 65.0 |         |
| 10256-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | X | 5.54 | 75.38 | 17.88 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.45 | 78.02 | 19.55 |      | 65.0 |         |
|           |                                             | Z | 3.15 | 67.52 | 12.83 |      | 65.0 |         |
| 10257-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | X | 5.31 | 74.31 | 17.34 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.14 | 76.80 | 18.96 |      | 65.0 |         |
|           |                                             | Z | 3.05 | 66.79 | 12.37 |      | 65.0 |         |
| 10258-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | X | 6.24 | 81.13 | 20.76 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.52 | 78.91 | 19.97 |      | 65.0 |         |
|           |                                             | Z | 3.09 | 70.62 | 15.05 |      | 65.0 |         |
| 10259-CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | X | 5.84 | 76.93 | 21.04 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.63 | 75.94 | 20.66 |      | 65.0 |         |
|           |                                             | Z | 4.68 | 73.82 | 18.92 |      | 65.0 |         |
| 10260-CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | X | 5.84 | 76.54 | 20.88 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.65 | 75.62 | 20.54 |      | 65.0 |         |
|           |                                             | Z | 4.68 | 73.47 | 18.76 |      | 65.0 |         |
| 10261-CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | X | 7.94 | 85.32 | 24.30 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.17 | 83.07 | 23.45 |      | 65.0 |         |
|           |                                             | Z | 5.90 | 80.89 | 22.01 |      | 65.0 |         |
| 10262-CAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | X | 6.19 | 77.72 | 22.28 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.00 | 76.81 | 21.93 |      | 65.0 |         |
|           |                                             | Z | 5.19 | 75.36 | 20.81 |      | 65.0 |         |
| 10263-CAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | X | 5.84 | 75.30 | 20.91 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.72 | 74.57 | 20.63 |      | 65.0 |         |
|           |                                             | Z | 4.91 | 73.09 | 19.44 |      | 65.0 |         |
| 10264-CAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | X | 8.00 | 84.72 | 24.48 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.34 | 82.73 | 23.71 |      | 65.0 |         |
|           |                                             | Z | 6.24 | 81.28 | 22.84 |      | 65.0 |         |
| 10265-CAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | X | 5.98 | 74.73 | 20.93 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.89 | 74.12 | 20.69 |      | 65.0 |         |
|           |                                             | Z | 5.12 | 72.74 | 19.78 |      | 65.0 |         |
| 10266-CAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | X | 6.33 | 75.56 | 21.64 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.22 | 74.93 | 21.40 |      | 65.0 |         |
|           |                                             | Z | 5.49 | 73.76 | 20.60 |      | 65.0 |         |
| 10267-CAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | X | 7.32 | 80.56 | 22.82 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.92 | 79.16 | 22.26 |      | 65.0 |         |
|           |                                             | Z | 6.05 | 78.17 | 21.72 |      | 65.0 |         |
| 10268-CAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | X | 6.52 | 74.24 | 21.04 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.45 | 73.73 | 20.85 |      | 65.0 |         |
|           |                                             | Z | 5.74 | 72.63 | 20.16 |      | 65.0 |         |
| 10269-CAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | X | 6.46 | 73.71 | 20.87 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.39 | 73.22 | 20.69 |      | 65.0 |         |
|           |                                             | Z | 5.73 | 72.22 | 20.02 |      | 65.0 |         |
| 10270-CAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | X | 6.79 | 76.82 | 21.42 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.57 | 75.90 | 21.04 |      | 65.0 |         |
|           |                                             | Z | 5.88 | 75.11 | 20.59 |      | 65.0 |         |

|           |                                                                    |   |       |       |       |      |       |         |
|-----------|--------------------------------------------------------------------|---|-------|-------|-------|------|-------|---------|
| 10274-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                          | X | 2.66  | 66.98 | 15.73 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.54  | 65.90 | 15.04 |      | 150.0 |         |
|           |                                                                    | Z | 2.55  | 67.07 | 15.35 |      | 150.0 |         |
| 10275-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                           | X | 1.78  | 69.77 | 16.72 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.55  | 67.13 | 15.03 |      | 150.0 |         |
|           |                                                                    | Z | 1.62  | 69.04 | 16.02 |      | 150.0 |         |
| 10277-CAA | PHS (QPSK)                                                         | X | 2.12  | 61.97 | 7.55  | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 2.25  | 62.30 | 7.96  |      | 50.0  |         |
|           |                                                                    | Z | 1.72  | 60.31 | 5.78  |      | 50.0  |         |
| 10278-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)                                 | X | 10.93 | 86.19 | 21.29 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 9.64  | 84.41 | 20.95 |      | 50.0  |         |
|           |                                                                    | Z | 3.57  | 69.00 | 13.15 |      | 50.0  |         |
| 10279-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)                                | X | 11.22 | 86.49 | 21.46 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 9.91  | 84.71 | 21.11 |      | 50.0  |         |
|           |                                                                    | Z | 3.69  | 69.35 | 13.38 |      | 50.0  |         |
| 10290-AAB | CDMA2000, RC1, SO55, Full Rate                                     | X | 1.95  | 72.86 | 16.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.38  | 67.46 | 13.46 |      | 150.0 |         |
|           |                                                                    | Z | 1.34  | 68.81 | 13.27 |      | 150.0 |         |
| 10291-AAB | CDMA2000, RC3, SO55, Full Rate                                     | X | 1.06  | 69.47 | 14.79 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 0.76  | 64.53 | 11.71 |      | 150.0 |         |
|           |                                                                    | Z | 0.76  | 66.05 | 11.81 |      | 150.0 |         |
| 10292-AAB | CDMA2000, RC3, SO32, Full Rate                                     | X | 1.83  | 78.35 | 18.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 0.91  | 67.73 | 13.68 |      | 150.0 |         |
|           |                                                                    | Z | 1.34  | 73.93 | 15.68 |      | 150.0 |         |
| 10293-AAB | CDMA2000, RC3, SO3, Full Rate                                      | X | 4.73  | 93.04 | 24.47 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.31  | 72.72 | 16.40 |      | 150.0 |         |
|           |                                                                    | Z | 6.43  | 94.81 | 23.11 |      | 150.0 |         |
| 10295-AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                              | X | 10.60 | 89.87 | 26.40 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 10.25 | 88.78 | 26.08 |      | 50.0  |         |
|           |                                                                    | Z | 12.25 | 89.80 | 24.68 |      | 50.0  |         |
| 10297-AAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                            | X | 2.99  | 71.06 | 17.36 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.73  | 69.18 | 16.24 |      | 150.0 |         |
|           |                                                                    | Z | 2.72  | 70.32 | 16.96 |      | 150.0 |         |
| 10298-AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                             | X | 1.90  | 70.47 | 15.90 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.56  | 67.01 | 13.91 |      | 150.0 |         |
|           |                                                                    | Z | 1.44  | 67.67 | 13.50 |      | 150.0 |         |
| 10299-AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                           | X | 3.07  | 71.64 | 15.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 3.23  | 72.42 | 16.33 |      | 150.0 |         |
|           |                                                                    | Z | 2.17  | 67.61 | 12.32 |      | 150.0 |         |
| 10300-AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                           | X | 2.19  | 66.26 | 12.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.31  | 66.80 | 13.02 |      | 150.0 |         |
|           |                                                                    | Z | 1.57  | 63.33 | 9.50  |      | 150.0 |         |
| 10301-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                 | X | 4.82  | 65.43 | 17.57 | 4.17 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 4.87  | 65.32 | 17.50 |      | 50.0  |         |
|           |                                                                    | Z | 4.60  | 65.72 | 17.49 |      | 50.0  |         |
| 10302-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols) | X | 5.31  | 66.17 | 18.35 | 4.96 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 5.36  | 66.00 | 18.25 |      | 50.0  |         |
|           |                                                                    | Z | 5.00  | 66.00 | 18.02 |      | 50.0  |         |

|           |                                                                     |   |       |       |       |       |       |         |
|-----------|---------------------------------------------------------------------|---|-------|-------|-------|-------|-------|---------|
| 10303-AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                 | X | 5.06  | 65.83 | 18.21 | 4.96  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 5.11  | 65.70 | 18.12 |       | 50.0  |         |
|           |                                                                     | Z | 4.75  | 65.61 | 17.82 |       | 50.0  |         |
| 10304-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                 | X | 4.87  | 65.69 | 17.69 | 4.17  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 4.90  | 65.47 | 17.55 |       | 50.0  |         |
|           |                                                                     | Z | 4.58  | 65.56 | 17.35 |       | 50.0  |         |
| 10305-AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)    | X | 4.43  | 67.35 | 19.83 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.56  | 67.70 | 19.98 |       | 35.0  |         |
|           |                                                                     | Z | 4.15  | 67.17 | 19.10 |       | 35.0  |         |
| 10306-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)    | X | 4.77  | 66.43 | 19.36 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.86  | 66.61 | 19.45 |       | 35.0  |         |
|           |                                                                     | Z | 4.49  | 66.31 | 18.82 |       | 35.0  |         |
| 10307-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)     | X | 4.67  | 66.65 | 19.36 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.78  | 66.88 | 19.46 |       | 35.0  |         |
|           |                                                                     | Z | 4.37  | 66.39 | 18.75 |       | 35.0  |         |
| 10308-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                | X | 4.64  | 66.81 | 19.48 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.74  | 67.03 | 19.58 |       | 35.0  |         |
|           |                                                                     | Z | 4.35  | 66.60 | 18.90 |       | 35.0  |         |
| 10309-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols) | X | 4.84  | 66.72 | 19.54 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.94  | 66.92 | 19.63 |       | 35.0  |         |
|           |                                                                     | Z | 4.52  | 66.47 | 18.95 |       | 35.0  |         |
| 10310-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)  | X | 4.71  | 66.49 | 19.33 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.81  | 66.68 | 19.42 |       | 35.0  |         |
|           |                                                                     | Z | 4.43  | 66.37 | 18.80 |       | 35.0  |         |
| 10311-AAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                            | X | 3.36  | 70.26 | 16.95 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 3.08  | 68.46 | 15.91 |       | 150.0 |         |
|           |                                                                     | Z | 3.08  | 69.51 | 16.57 |       | 150.0 |         |
| 10313-AAA | IDEN 1:3                                                            | X | 5.95  | 81.40 | 19.48 | 6.99  | 70.0  | ± 9.6 % |
|           |                                                                     | Y | 4.30  | 76.35 | 17.48 |       | 70.0  |         |
|           |                                                                     | Z | 3.21  | 73.80 | 16.43 |       | 70.0  |         |
| 10314-AAA | IDEN 1:6                                                            | X | 12.17 | 97.07 | 27.72 | 10.00 | 30.0  | ± 9.6 % |
|           |                                                                     | Y | 7.44  | 87.94 | 24.60 |       | 30.0  |         |
|           |                                                                     | Z | 6.18  | 85.76 | 23.72 |       | 30.0  |         |
| 10315-AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)           | X | 1.10  | 64.61 | 16.02 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 1.01  | 63.21 | 14.85 |       | 150.0 |         |
|           |                                                                     | Z | 1.05  | 64.14 | 15.48 |       | 150.0 |         |
| 10316-AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)       | X | 4.65  | 66.81 | 16.47 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.62  | 66.42 | 16.27 |       | 150.0 |         |
|           |                                                                     | Z | 4.46  | 66.78 | 16.31 |       | 150.0 |         |
| 10317-AAC | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)             | X | 4.65  | 66.81 | 16.47 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.62  | 66.42 | 16.27 |       | 150.0 |         |
|           |                                                                     | Z | 4.46  | 66.78 | 16.31 |       | 150.0 |         |
| 10400-AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                 | X | 4.78  | 67.16 | 16.44 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.74  | 66.73 | 16.21 |       | 150.0 |         |
|           |                                                                     | Z | 4.55  | 67.11 | 16.31 |       | 150.0 |         |
| 10401-AAD | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                 | X | 5.43  | 67.23 | 16.53 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 5.42  | 66.92 | 16.38 |       | 150.0 |         |
|           |                                                                     | Z | 5.24  | 67.11 | 16.40 |       | 150.0 |         |

|           |                                                                                 |   |        |        |       |      |       |         |
|-----------|---------------------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10402-AAD | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                             | X | 5.71   | 67.66  | 16.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.70   | 67.34  | 16.43 |      | 150.0 |         |
|           |                                                                                 | Z | 5.52   | 67.48  | 16.45 |      | 150.0 |         |
| 10403-AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                      | X | 1.95   | 72.86  | 16.32 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.38   | 67.46  | 13.46 |      | 115.0 |         |
|           |                                                                                 | Z | 1.34   | 68.81  | 13.27 |      | 115.0 |         |
| 10404-AAB | CDMA2000 (1xEV-DO, Rev. A)                                                      | X | 1.95   | 72.86  | 16.32 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                 | Y | 1.38   | 67.46  | 13.46 |      | 115.0 |         |
|           |                                                                                 | Z | 1.34   | 68.81  | 13.27 |      | 115.0 |         |
| 10406-AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                            | X | 100.00 | 122.38 | 30.73 | 0.00 | 100.0 | ± 9.6 % |
|           |                                                                                 | Y | 81.48  | 123.67 | 32.28 |      | 100.0 |         |
|           |                                                                                 | Z | 100.00 | 114.83 | 26.66 |      | 100.0 |         |
| 10410-AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4) | X | 100.00 | 123.65 | 31.04 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                                 | Y | 100.00 | 127.30 | 33.02 |      | 80.0  |         |
|           |                                                                                 | Z | 100.00 | 122.18 | 29.60 |      | 80.0  |         |
| 10415-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                       | X | 1.02   | 63.74  | 15.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 0.94   | 62.36  | 14.20 |      | 150.0 |         |
|           |                                                                                 | Z | 0.99   | 63.49  | 14.99 |      | 150.0 |         |
| 10416-AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                   | X | 4.59   | 66.79  | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.55   | 66.36  | 16.15 |      | 150.0 |         |
|           |                                                                                 | Z | 4.42   | 66.82  | 16.27 |      | 150.0 |         |
| 10417-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                       | X | 4.59   | 66.79  | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.55   | 66.36  | 16.15 |      | 150.0 |         |
|           |                                                                                 | Z | 4.42   | 66.82  | 16.27 |      | 150.0 |         |
| 10418-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)   | X | 4.58   | 66.96  | 16.41 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.54   | 66.49  | 16.15 |      | 150.0 |         |
|           |                                                                                 | Z | 4.42   | 67.01  | 16.31 |      | 150.0 |         |
| 10419-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)  | X | 4.61   | 66.90  | 16.41 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.56   | 66.45  | 16.16 |      | 150.0 |         |
|           |                                                                                 | Z | 4.43   | 66.95  | 16.30 |      | 150.0 |         |
| 10422-AAB | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                    | X | 4.73   | 66.90  | 16.41 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.69   | 66.47  | 16.18 |      | 150.0 |         |
|           |                                                                                 | Z | 4.54   | 66.92  | 16.31 |      | 150.0 |         |
| 10423-AAB | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                 | X | 4.91   | 67.24  | 16.54 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.87   | 66.82  | 16.31 |      | 150.0 |         |
|           |                                                                                 | Z | 4.68   | 67.21  | 16.40 |      | 150.0 |         |
| 10424-AAB | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                 | X | 4.82   | 67.19  | 16.51 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 4.79   | 66.76  | 16.28 |      | 150.0 |         |
|           |                                                                                 | Z | 4.61   | 67.16  | 16.38 |      | 150.0 |         |
| 10425-AAB | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                     | X | 5.41   | 67.47  | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.40   | 67.17  | 16.50 |      | 150.0 |         |
|           |                                                                                 | Z | 5.21   | 67.35  | 16.53 |      | 150.0 |         |
| 10426-AAB | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                   | X | 5.41   | 67.47  | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                 | Y | 5.40   | 67.19  | 16.50 |      | 150.0 |         |
|           |                                                                                 | Z | 5.23   | 67.42  | 16.56 |      | 150.0 |         |

|           |                                                                |   |        |        |       |      |       |         |
|-----------|----------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10427-AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                 | X | 5.42   | 67.47  | 16.64 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.41   | 67.16  | 16.48 |      | 150.0 |         |
|           |                                                                | Z | 5.22   | 67.32  | 16.51 |      | 150.0 |         |
| 10430-AAC | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                               | X | 4.40   | 71.17  | 18.58 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.23   | 70.08  | 17.99 |      | 150.0 |         |
|           |                                                                | Z | 4.30   | 72.10  | 18.56 |      | 150.0 |         |
| 10431-AAC | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                              | X | 4.31   | 67.42  | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.26   | 66.88  | 16.15 |      | 150.0 |         |
|           |                                                                | Z | 4.07   | 67.45  | 16.24 |      | 150.0 |         |
| 10432-AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                              | X | 4.60   | 67.26  | 16.49 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.56   | 66.79  | 16.22 |      | 150.0 |         |
|           |                                                                | Z | 4.38   | 67.26  | 16.33 |      | 150.0 |         |
| 10433-AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                              | X | 4.84   | 67.23  | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.80   | 66.80  | 16.30 |      | 150.0 |         |
|           |                                                                | Z | 4.63   | 67.20  | 16.40 |      | 150.0 |         |
| 10434-AAA | W-CDMA (BS Test Model 1, 64 DPCH)                              | X | 4.54   | 72.17  | 18.64 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.31   | 70.81  | 17.94 |      | 150.0 |         |
|           |                                                                | Z | 4.47   | 73.20  | 18.53 |      | 150.0 |         |
| 10435-AAE | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) | X | 100.00 | 123.43 | 30.93 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                | Y | 100.00 | 127.09 | 32.93 |      | 80.0  |         |
|           |                                                                | Z | 100.00 | 121.88 | 29.46 |      | 80.0  |         |
| 10447-AAC | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                 | X | 3.63   | 67.60  | 15.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.55   | 66.82  | 15.51 |      | 150.0 |         |
|           |                                                                | Z | 3.36   | 67.49  | 15.39 |      | 150.0 |         |
| 10448-AAC | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                | X | 4.14   | 67.21  | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.08   | 66.64  | 16.00 |      | 150.0 |         |
|           |                                                                | Z | 3.93   | 67.24  | 16.11 |      | 150.0 |         |
| 10449-AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                | X | 4.40   | 67.10  | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.35   | 66.60  | 16.11 |      | 150.0 |         |
|           |                                                                | Z | 4.21   | 67.10  | 16.24 |      | 150.0 |         |
| 10450-AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                | X | 4.59   | 67.00  | 16.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.54   | 66.54  | 16.14 |      | 150.0 |         |
|           |                                                                | Z | 4.41   | 66.98  | 16.27 |      | 150.0 |         |
| 10451-AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                | X | 3.56   | 67.91  | 15.68 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.45   | 67.01  | 15.16 |      | 150.0 |         |
|           |                                                                | Z | 3.21   | 67.51  | 14.85 |      | 150.0 |         |
| 10456-AAB | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)           | X | 6.26   | 68.01  | 16.78 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 6.26   | 67.75  | 16.66 |      | 150.0 |         |
|           |                                                                | Z | 6.13   | 67.97  | 16.72 |      | 150.0 |         |
| 10457-AAA | UMTS-FDD (DC-HSDPA)                                            | X | 3.81   | 65.42  | 16.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.77   | 64.98  | 15.86 |      | 150.0 |         |
|           |                                                                | Z | 3.73   | 65.50  | 15.98 |      | 150.0 |         |
| 10458-AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                         | X | 4.16   | 71.37  | 18.08 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.92   | 69.91  | 17.32 |      | 150.0 |         |
|           |                                                                | Z | 4.02   | 72.11  | 17.63 |      | 150.0 |         |
| 10459-AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                         | X | 5.19   | 68.40  | 18.36 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.10   | 67.75  | 18.06 |      | 150.0 |         |
|           |                                                                | Z | 5.01   | 69.18  | 18.25 |      | 150.0 |         |

|           |                                                                   |   |        |        |       |      |       |         |
|-----------|-------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10460-AAA | UMTS-FDD (WCDMA, AMR)                                             | X | 1.07   | 72.05  | 18.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                   | Y | 0.81   | 67.05  | 15.17 |      | 150.0 |         |
|           |                                                                   | Z | 0.95   | 70.49  | 17.24 |      | 150.0 |         |
| 10461-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 129.11 | 33.59 | 3.29 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 132.68 | 35.56 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 128.17 | 32.38 |      | 80.0  |         |
| 10462-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 29.76  | 94.39  | 20.32 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 112.07 | 25.94 |      | 80.0  |         |
|           |                                                                   | Z | 0.79   | 60.49  | 7.76  |      | 80.0  |         |
| 10463-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.50   | 68.97  | 12.20 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 107.58 | 23.85 |      | 80.0  |         |
|           |                                                                   | Z | 0.77   | 60.00  | 6.89  |      | 80.0  |         |
| 10464-AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 100.00 | 126.29 | 32.12 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 130.29 | 34.26 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 124.25 | 30.42 |      | 80.0  |         |
| 10465-AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 9.13   | 82.53  | 17.12 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 111.30 | 25.58 |      | 80.0  |         |
|           |                                                                   | Z | 0.75   | 60.00  | 7.44  |      | 80.0  |         |
| 10466-AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 1.98   | 66.71  | 11.27 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 99.88  | 106.88 | 23.53 |      | 80.0  |         |
|           |                                                                   | Z | 0.78   | 60.00  | 6.83  |      | 80.0  |         |
| 10467-AAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 100.00 | 126.60 | 32.25 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 130.59 | 34.40 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 124.67 | 30.60 |      | 80.0  |         |
| 10468-AAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 11.66  | 85.00  | 17.83 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 111.53 | 25.68 |      | 80.0  |         |
|           |                                                                   | Z | 0.75   | 60.09  | 7.51  |      | 80.0  |         |
| 10469-AAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 1.98   | 66.75  | 11.28 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 106.90 | 23.54 |      | 80.0  |         |
|           |                                                                   | Z | 0.77   | 60.00  | 6.83  |      | 80.0  |         |
| 10470-AAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 126.64 | 32.26 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 130.65 | 34.41 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 124.69 | 30.60 |      | 80.0  |         |
| 10471-AAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 11.32  | 84.67  | 17.72 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 111.46 | 25.64 |      | 80.0  |         |
|           |                                                                   | Z | 0.75   | 60.04  | 7.47  |      | 80.0  |         |
| 10472-AAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 1.96   | 66.63  | 11.22 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 106.82 | 23.49 |      | 80.0  |         |
|           |                                                                   | Z | 0.77   | 60.00  | 6.81  |      | 80.0  |         |
| 10473-AAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 126.60 | 32.24 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 130.61 | 34.39 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 124.64 | 30.58 |      | 80.0  |         |
| 10474-AAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 11.06  | 84.45  | 17.66 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 111.47 | 25.64 |      | 80.0  |         |
|           |                                                                   | Z | 0.74   | 60.02  | 7.45  |      | 80.0  |         |
| 10475-AAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 1.95   | 66.59  | 11.20 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 99.99  | 106.84 | 23.50 |      | 80.0  |         |
|           |                                                                   | Z | 0.77   | 60.00  | 6.81  |      | 80.0  |         |