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|-----------|--|---|--------|--------|-------|------|-------|---------|
| 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 | |

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|-----------|---|---|--------|--------|-------|------|-------|---------|
| 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 | |

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|-----------|---|---|--------|--------|-------|------|------|---------|
| 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 | |

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|-----------|--|---|------|-------|-------|------|------|---------|
| 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 | |

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|-----------|---|---|------|-------|-------|------|-------|---------|
| 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 | |

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

APPENDIX D: SAR TISSUE SPECIFICATIONS

Measurement Procedure for Tissue verification:



- 1) The network analyzer and probe system was configured and calibrated.
- 2) The probe was immersed in the tissue. The tissue was placed in a nonmetallic container. Trapped air bubbles beneath the flange were minimized by placing the probe at a slight angle.
- 3) The complex admittance with respect to the probe aperture was measured
- 4) The complex relative permittivity ϵ' can be calculated from the below equation (Pournaropoulos and Misra):

$$Y = \frac{j2\omega\epsilon_r\epsilon_0}{[\ln(b/a)]^2} \int_a^b \int_a^b \int_0^\pi \cos\phi' \frac{\exp[-j\omega r(\mu_0\epsilon_r'\epsilon_0)^{1/2}]}{r} d\phi' d\rho' d\rho$$

where Y is the admittance of the probe in contact with the sample, the primed and unprimed coordinates refer to source and observation points, respectively, $r^2 = \rho^2 + \rho'^2 - 2\rho\rho' \cos \phi'$, ω is the angular frequency, and $j = \sqrt{-1}$.

Table D-I
Composition of the Tissue Equivalent Matter

| Frequency (MHz) | 750 | 750 | 835 | 835 | 1750 | 1750 | 1900 | 1900 | 2450 - 2600 | 2450- 2600 |
|---------------------------|--------------|------------|-------|-------|------|------|-------|-------|-------------|------------|
| Tissue | Head | Body | Head | Body | Head | Body | Head | Body | Head | Body |
| Ingredients (% by weight) | | | | | | | | | | |
| Bactericide | See page 2-3 | See page 2 | 0.1 | 0.1 | | | | | See page 4 | |
| DGBE | | | | | 47 | 31 | 44.92 | 29.44 | | 26.7 |
| HEC | | | 1 | 1 | | | | | | |
| NaCl | | | 1.45 | 0.94 | 0.4 | 0.2 | 0.18 | 0.39 | | 0.1 |
| Sucrose | | | 57 | 44.9 | | | | | | |
| Water | | | 40.45 | 53.06 | 52.6 | 68.8 | 54.9 | 70.17 | | 73.2 |

| | | | | |
|------------------------------------|---|-----------------------|---|---------------------------------|
| FCC ID: ZNFX220PM |  | SAR EVALUATION REPORT |  | Approved by: Quality Manager |
| Test Dates: 09/24/18 - 10/10/18 | DUT Type: Portable Handset | | | APPENDIX D: Page 1 of 4 |

2 Composition / Information on ingredients

The Item is composed of the following ingredients:

| | |
|--|---|
| H ₂ O | Water, 35 – 58% |
| Sucrose | Sugar, white, refined, 40 – 60% |
| NaCl | Sodium Chloride, 0 – 6% |
| Hydroxyethyl-cellulose | Medium Viscosity (CAS# 9004-62-0), <0.3% |
| Preventol-D7 | Preservative: aqueous preparation, (CAS# 55965-84-9), containing 5-chloro-2-methyl-3(2H)-isothiazolone and 2-methyl-3(2H)-isothiazolone, 0.1 – 0.7% |
| Relevant for safety; Refer to the respective Safety Data Sheet*. | |

Figure D-1
Composition of 750 MHz Head and Body Tissue Equivalent Matter

Note: 750MHz liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.

Schmid & Partner Engineering AG

s p e a g

Zeughausstrasse 43, 8004 Zurich, Switzerland
Phone +41 44 245 9700, Fax +41 44 245 9779
info@speag.com, http://www.speag.com

Measurement Certificate / Material Test

| | |
|--------------|--|
| Item Name | Body Tissue Simulating Liquid (MSL750V2) |
| Product No. | SL AAM 075 AA (Batch: 170608-1) |
| Manufacturer | SPEAG |

Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

Setup Validation

Validation results were within $\pm 2.5\%$ towards the target values of Methanol.

Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

Test Condition

| | |
|-----------------|---|
| Ambient | Environment temperatur (22 ± 3)°C and humidity < 70%. |
| TSL Temperature | 22°C |
| Test Date | 20-Jun-17 |
| Operator | CL |

Additional Information

| | |
|-------------------|-------------------------|
| TSL Density | 1.212 g/cm ³ |
| TSL Heat-capacity | 3.006 kJ/(kg·K) |

| f [MHz] | Measured | | | Target | | | Diff. to Target [%] | |
|---------|----------|-------|-------|--------|-------|-----------|---------------------|--|
| | e' | e'' | sigma | eps | sigma | delta-eps | delta-sigma | |
| 600 | 57.3 | 26.02 | 0.84 | 66.1 | 0.95 | 2.2 | -12.2 | |
| 625 | 57.1 | 24.67 | 0.86 | 56.0 | 0.95 | 1.9 | -10.1 | |
| 650 | 56.8 | 24.32 | 0.88 | 55.9 | 0.96 | 1.6 | -8.0 | |
| 675 | 56.6 | 24.02 | 0.90 | 55.8 | 0.96 | 1.3 | -5.8 | |
| 700 | 56.3 | 23.71 | 0.92 | 55.7 | 0.96 | 1.1 | -3.8 | |
| 725 | 56.1 | 23.48 | 0.95 | 55.6 | 0.96 | 0.8 | -1.5 | |
| 750 | 55.9 | 23.25 | 0.97 | 55.5 | 0.96 | 0.6 | 0.7 | |
| 775 | 55.6 | 23.04 | 0.99 | 55.4 | 0.97 | 0.3 | 2.9 | |
| 800 | 55.4 | 22.82 | 1.02 | 55.3 | 0.97 | 0.1 | 5.0 | |
| 825 | 55.2 | 22.65 | 1.04 | 55.2 | 0.98 | -0.1 | 6.3 | |
| 838 | 55.1 | 22.56 | 1.05 | 55.2 | 0.98 | -0.3 | 6.9 | |
| 850 | 54.9 | 22.47 | 1.08 | 55.2 | 0.99 | -0.4 | 7.5 | |
| 875 | 54.7 | 22.34 | 1.09 | 55.1 | 1.02 | -0.7 | 6.7 | |
| 900 | 54.5 | 22.21 | 1.11 | 55.0 | 1.05 | -0.9 | 5.9 | |
| 925 | 54.3 | 22.08 | 1.14 | 55.0 | 1.06 | -1.3 | 6.9 | |
| 950 | 54.1 | 21.95 | 1.16 | 54.9 | 1.08 | -1.6 | 7.9 | |
| 975 | 53.8 | 21.86 | 1.19 | 54.9 | 1.09 | -1.9 | 9.1 | |
| 1000 | 53.6 | 21.76 | 1.21 | 54.8 | 1.10 | -2.2 | 10.2 | |

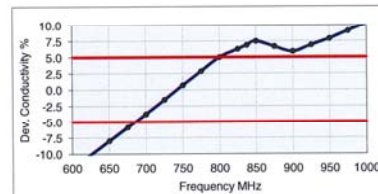
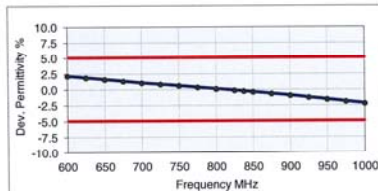




Figure D-2
750MHz Body Tissue Equivalent Matter

| | | | | |
|------------------------------------|---|-----------------------|---|---------------------------------|
| FCC ID: ZNFX220PM |  | SAR EVALUATION REPORT |  | Approved by: Quality Manager |
| Test Dates: 09/24/18 - 10/10/18 | DUT Type: Portable Handset | | | APPENDIX D: Page 2 of 4 |

Measurement Certificate / Material Test

Item Name **Head Tissue Simulating Liquid (HSL750V2)**
 Product No. SL AAH 075 AA (Batch: 170612-4)
 Manufacturer **SPEAG**

Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

Setup Validation

Validation results were within $\pm 2.5\%$ towards the target values of Methanol.

Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

Test Condition

Ambient Environment temperatur ($22 \pm 3^\circ\text{C}$ and humidity $< 70\%$).
 TSL Temperature 22°C
 Test Date 20-Jun-17
 Operator CL

Additional Information

TSL Density 1.284 g/cm^3
 TSL Heat-capacity $2.701 \text{ kJ/(kg}^\circ\text{K)}$

| f [MHz] | Measured | | | Target | | Diff. to Target [%] | |
|---------|----------|-------|-------|--------|-------|---------------------|-----------------------|
| | e' | e'' | sigma | eps | sigma | $\Delta\text{-eps}$ | $\Delta\text{-sigma}$ |
| 600 | 45.6 | 22.97 | 0.77 | 42.7 | 0.88 | 6.7 | -13.1 |
| 625 | 45.2 | 22.73 | 0.79 | 42.6 | 0.88 | 6.2 | -10.6 |
| 650 | 44.9 | 22.49 | 0.81 | 42.5 | 0.89 | 5.6 | -8.2 |
| 675 | 44.5 | 22.27 | 0.84 | 42.3 | 0.89 | 5.1 | -5.8 |
| 700 | 44.2 | 22.05 | 0.86 | 42.2 | 0.89 | 4.6 | -3.5 |
| 725 | 43.8 | 21.88 | 0.88 | 42.1 | 0.89 | 4.2 | -1.0 |
| 750 | 43.5 | 21.72 | 0.91 | 41.9 | 0.89 | 3.8 | 1.4 |
| 775 | 43.2 | 21.55 | 0.93 | 41.8 | 0.90 | 3.4 | 3.7 |
| 800 | 42.9 | 21.38 | 0.95 | 41.7 | 0.90 | 2.9 | 6.0 |
| 825 | 42.6 | 21.24 | 0.97 | 41.6 | 0.91 | 2.4 | 7.5 |
| 838 | 42.5 | 21.17 | 0.99 | 41.5 | 0.91 | 2.2 | 8.2 |
| 850 | 42.3 | 21.09 | 1.00 | 41.5 | 0.92 | 2.0 | 8.9 |
| 875 | 42.0 | 20.98 | 1.02 | 41.5 | 0.94 | 1.2 | 8.3 |
| 900 | 41.7 | 20.87 | 1.05 | 41.5 | 0.97 | 0.5 | 7.7 |
| 925 | 41.5 | 20.76 | 1.07 | 41.5 | 0.98 | 0.0 | 8.7 |
| 950 | 41.2 | 20.64 | 1.09 | 41.4 | 0.99 | -0.6 | 9.7 |
| 975 | 40.9 | 20.55 | 1.11 | 41.4 | 1.00 | -1.1 | 10.9 |
| 1000 | 40.6 | 20.46 | 1.14 | 41.3 | 1.01 | -1.7 | 12.1 |

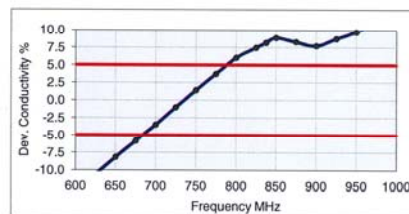
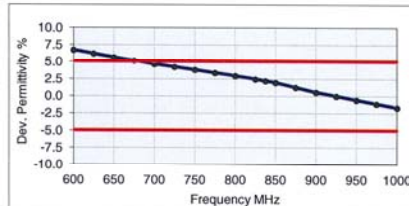




Figure D-3
750MHz Head Tissue Equivalent Matter

| | | | | |
|------------------------------------|---|-----------------------|---|---------------------------------|
| FCC ID: ZNFX220PM |  | SAR EVALUATION REPORT |  | Approved by: Quality Manager |
| Test Dates: 09/24/18 - 10/10/18 | DUT Type: Portable Handset | | | APPENDIX D: Page 3 of 4 |

3 Composition / Information on ingredients

The Item is composed of the following ingredients:

| | | |
|----------------------|-------------|-------------------------------------|
| Water | 50 – 73 % | |
| Non-ionic detergents | 25 – 50 % | polyoxyethylenesorbitan monolaurate |
| NaCl | 0 – 2 % | |
| Preservative | 0.05 – 0.1% | Preventol-D7 |

Safety relevant ingredients:

| | | |
|--------------------|---------|--|
| CAS-No. 55965-84-9 | < 0.1 % | aqueous preparation, containing 5-chloro-2-methyl-3(2H)-isothiazolone and 2-methyl-3(2H)-isothiazolone |
|--------------------|---------|--|

| | | |
|-------------------|-------|-------------------------------------|
| CAS-No. 9005-64-5 | <50 % | polyoxyethylenesorbitan monolaurate |
|-------------------|-------|-------------------------------------|

According to international guidelines, the product is not a dangerous mixture and therefore not required to be marked by symbols.

Figure D-4
Composition of 2.4 GHz Head Tissue Equivalent Matter

Note: 2.4 GHz head liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.

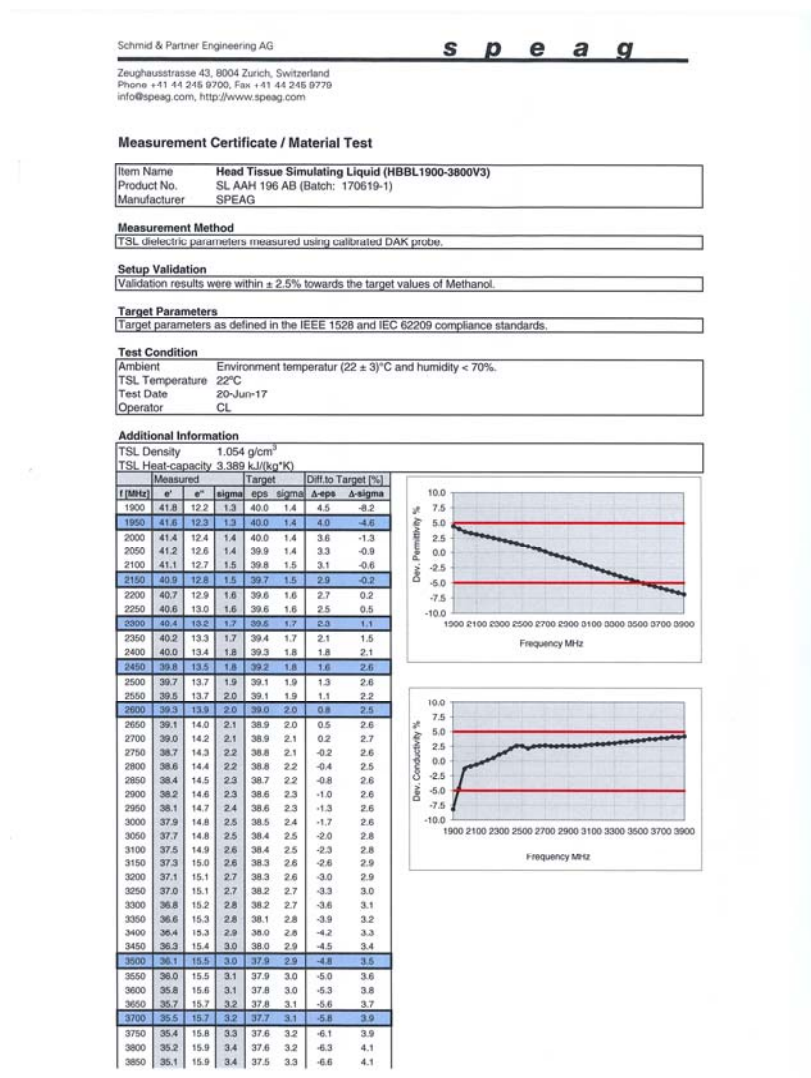


Figure D-5
2.4 GHz Head Tissue Equivalent Matter

| | | | | |
|------------------------------------|-------------------------------|-----------------------|--|---------------------------------|
| FCC ID: ZNFX220PM | | SAR EVALUATION REPORT | | Approved by: Quality Manager |
| Test Dates: 09/24/18 - 10/10/18 | DUT Type: Portable Handset | | | APPENDIX D: Page 4 of 4 |

APPENDIX E: SAR SYSTEM VALIDATION



Per FCC KDB Publication 865664 D02v01r02, SAR system validation status should be documented to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

Table E-1
SAR System Validation Summary

| SAR SYSTEM # | FREQ. [MHz] | DATE | PROBE SN | PROBE TYPE | PROBE CAL. POINT | | COND. | PERM. | CW VALIDATION | | | MOD. VALIDATION | | |
|--------------|-------------|-----------|----------|------------|------------------|------|-------|--------|---------------|-----------------|----------------|-----------------|-------------|------|
| | | | | | | | (σ) | (εr) | SENSITIVITY | PROBE LINEARITY | PROBE ISOTROPY | MOD. TYPE | DUTY FACTOR | PAR |
| G | 750 | 8/9/2018 | 7410 | EX3DV4 | 750 | Head | 0.898 | 41.769 | PASS | PASS | PASS | N/A | N/A | N/A |
| E | 835 | 3/5/2018 | 3213 | ES3DV3 | 835 | Head | 0.925 | 43.335 | PASS | PASS | PASS | GMSK | PASS | N/A |
| G | 1750 | 8/10/2018 | 7410 | EX3DV4 | 1750 | Head | 1.403 | 39.617 | PASS | PASS | PASS | N/A | N/A | N/A |
| H | 1900 | 7/16/2018 | 7409 | EX3DV4 | 1900 | Head | 1.425 | 40.935 | PASS | PASS | PASS | GMSK | PASS | N/A |
| G | 1900 | 8/9/2018 | 7410 | EX3DV4 | 1900 | Head | 1.429 | 38.607 | PASS | PASS | PASS | GMSK | PASS | N/A |
| E | 2450 | 8/8/2018 | 3213 | ES3DV3 | 2450 | Head | 1.836 | 39.076 | PASS | PASS | PASS | OFDM/TDD | PASS | PASS |
| E | 2600 | 8/7/2018 | 3213 | ES3DV3 | 2600 | Head | 1.955 | 38.813 | PASS | PASS | PASS | TDD | PASS | N/A |
| H | 750 | 7/11/2018 | 7409 | EX3DV4 | 750 | Body | 0.965 | 54.140 | PASS | PASS | PASS | N/A | N/A | N/A |
| J | 835 | 9/11/2018 | 3347 | ES3DV3 | 835 | Body | 0.984 | 54.197 | PASS | PASS | PASS | GMSK | PASS | N/A |
| H | 1750 | 8/17/2018 | 7409 | EX3DV4 | 1750 | Body | 1.505 | 52.002 | PASS | PASS | PASS | N/A | N/A | N/A |
| H | 1900 | 9/25/2018 | 7409 | EX3DV4 | 1900 | Body | 1.541 | 50.669 | PASS | PASS | PASS | GMSK | PASS | N/A |
| G | 1900 | 8/10/2018 | 7410 | EX3DV4 | 1900 | Body | 1.567 | 52.239 | PASS | PASS | PASS | GMSK | PASS | N/A |
| K | 2450 | 4/3/2018 | 3319 | ES3DV3 | 2450 | Body | 2.043 | 51.130 | PASS | PASS | PASS | OFDM/TDD | PASS | PASS |
| K | 2600 | 4/3/2018 | 3319 | ES3DV3 | 2600 | Body | 2.225 | 50.665 | PASS | PASS | PASS | TDD | PASS | N/A |

NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to FCC KDB Publication 865664 D01v01r04.

| | | | | |
|------------------------------------|---|-----------------------|---|---------------------------------|
| FCC ID: ZNFX220PM |  | SAR EVALUATION REPORT |  | Approved by: Quality Manager |
| Test Dates: 09/24/18 - 10/10/18 | DUT Type: Portable Handset | | | APPENDIX E: Page 1 of 1 |

APPENDIX G: POWER REDUCTION VERIFICATION

Per the May 2017 TCBC Workshop Notes, demonstration of proper functioning of the power reduction mechanisms is required to support the corresponding SAR configurations. The verification process included (1) evaluation of output power levels for individual or multiple triggering

G.1 Power Verification Procedure


The power verification was performed according to the following procedure:

1. A base station simulator was used to establish a conducted RF connection and the output power was monitored. The power measurements were confirmed to be within expected tolerances for all states before and after a power reduction mechanism was triggered.
2. Step 1 was repeated for all relevant modes and frequency bands for the mechanism being investigated.
3. Steps 1 and 2 were repeated for all individual power reduction mechanisms and combinations thereof. For the combination cases, one mechanism was switched to a 'triggered' state at a time; powers were confirmed to be within tolerances after each additional mechanism was activated.

G.2 WIFI Verification Summary

Table 0-1
Power Measurement Verification WIFI

| Mechanism(s) | Mode/Band | Conducted Power (dBm) | |
|--------------|------------------|-----------------------|------------------------|
| | | Un-triggered (Max) | Mechanism #1 (Reduced) |
| Held-to-Ear | 802.11b | 16.15 | 13.24 |
| Held-to-Ear | 802.11g | 15.18 | 13.32 |
| Held-to-Ear | 802.11n (2.4GHz) | 15.47 | 13.35 |

| | | |
|---|--|--|
| FCC ID: ZNFX220PM |  SAR EVALUATION REPORT | Reviewed by: Quality Manager |
| Test Dates: 09/24/18 - 10/10/18 | DUT Type: Portable Handset | APPENDIX G: Page 1 of 1 |

- PCC uplink channel, channel bandwidth, modulation and RB configurations were selected based on section C)3)b)ii) of KBD 941225 D05 V01r02. The downlink PCC channel was paired with the selected PCC uplink channel according to normal configurations without carrier aggregation.
- To maximize aggregated bandwidth, highest channel bandwidth available for that CA combination was selected for SCC. For inter-band CA, the SCC downlink channels were selected near the middle of their transmission bands. For contiguous intra-band CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing defined in section 5.4.1A of 3GPP TS 36.521. For non-contiguous intra-band CA, the downlink channel spacing between the component carriers was set to be larger than the nominal channel spacing and provided maximum separation between the component carriers.
- All selected PCC and SCC(s) remained fully within the uplink/downlink transmission band of the respective component carrier.
- When a device supports LTE capabilities with overlapping transmission frequency ranges, the standalone powers from the band with a larger transmission frequency range can be used to select measurement configurations for the band with the fully covered transmission frequency range.

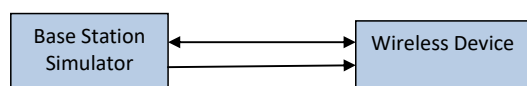


Figure 1
DL CA Power Measurement Setup

1.3 Downlink Carrier Aggregation RF Conducted Powers

1.3.1 LTE Band 25 as PCC

Table 1
Maximum Output Powers

| Combination | PCC | | | | | | | | | SCC | | | | Power | |
|----------------|----------|--------------|------------------|----------------------|------------|------------|------------------|--------------|----------------------|----------|--------------|--------------|----------------------|---------------------------------------|-----------------------------------|
| | PCC Band | PCC BW [MHz] | PCC (UL) Channel | PCC (UL) Freq. [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Ch. | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA_25A-26A | LTE B25 | 15 | 26115 | 1857.5 | QPSK | 1 | 0 | 8115 | 1937.5 | LTE B26 | 15 | 8865 | 876.5 | 24.33 | 24.30 |
| CA_25A-25A (1) | LTE B25 | 15 | 26115 | 1857.5 | QPSK | 1 | 0 | 8115 | 1937.5 | LTE B25 | 20 | 8590 | 1985 | 24.38 | 24.30 |

1.3.2 LTE Band 26 as PCC

Table 2
Maximum Output Powers

| Combination | PCC | | | | | | | | | SCC | | | | Power | |
|-------------|----------|--------------|------------------|----------------------|------------|------------|------------------|--------------|----------------------|----------|--------------|--------------|----------------------|---------------------------------------|-----------------------------------|
| | PCC Band | PCC BW [MHz] | PCC (UL) Channel | PCC (UL) Freq. [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Ch. | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA_25A-26A | LTE B26 | 15 | 26865 | 831.5 | QPSK | 1 | 0 | 8865 | 876.5 | LTE B25 | 20 | 8365 | 1962.5 | 24.69 | 24.70 |

1.3.3 LTE Band 41 PC3 as PCC

Table 3
Maximum Output Powers


| Combination | PCC | | | | | | | | | SCC | | | | Power | |
|-------------|----------|--------------|------------------|----------------------|------------|------------|------------------|--------------|----------------------|----------|--------------|--------------|----------------------|---------------------------------------|-----------------------------------|
| | PCC Band | PCC BW [MHz] | PCC (UL) Channel | PCC (UL) Freq. [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Ch. | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA_41C (1) | LTE B41 | 20 | 40185 | 2549.5 | QPSK | 1 | 0 | 40185 | 2549.5 | LTE B41 | 20 | 40383 | 2569.3 | 24.70 | 24.70 |

| | | |
|------------------------------------|--|---------------------------------|
| FCC ID: ZNFX220PM |  SAR EVALUATION REPORT | Reviewed by: Quality Manager |
| Test Dates: 09/24/18 – 10/08/18 | DUT Type: Portable Handset | APPENDIX H: Page 2 of 3 |

1.3.4 LTE Band 41 PC2 as PCC

Table 4
Maximum Output Powers

| | PCC | | | | | | | | | SCC | | | | Power | |
|-------------|-------------|--------------|------------------|----------------------|------------|------------|------------------|--------------|----------------------|-------------|--------------|--------------|----------------------|---------------------------------------|-----------------------------------|
| Combination | PCC Band | PCC BW [MHz] | PCC (UL) Channel | PCC (UL) Freq. [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Ch. | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA_41C (1) | LTE B41 PC2 | 20 | 40185 | 2549.5 | QPSK | 1 | 0 | 40185 | 2549.5 | LTE B41 PC2 | 20 | 40383 | 2569.3 | 27.67 | 27.70 |

| | | | |
|---|---|------------------------------|--|
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