

| LTE B66 (1700MHz) / Setup Path Loss = 5.4 (TS9) | | | | | | |
|---|------------|--------------|-------|------------|-------|-------|
| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
| 5 MHz | 131997 | 1712.5 | 1 | 1 | 21.78 | 20.95 |
| | | | | 12 | 21.90 | 21.11 |
| | | | | 24 | 21.89 | 21.08 |
| | | | 12 | 1 | 21.13 | 20.08 |
| | | | | 7 | 21.15 | 20.11 |
| | | | | 13 | 20.99 | 20.02 |
| | | | 25 | 0 | 20.96 | 20.02 |
| | 132422 | 1755.0 | 1 | 1 | 21.27 | 21.50 |
| | | | | 12 | 21.43 | 21.54 |
| | | | | 24 | 21.42 | 21.49 |
| | | | 12 | 1 | 21.51 | 20.49 |
| | | | | 7 | 21.49 | 20.47 |
| | | | | 13 | 21.26 | 20.36 |
| | | | 25 | 0 | 21.35 | 20.37 |
| | 132646 | 1777.4 | 1 | 1 | 21.77 | 21.03 |
| | | | | 12 | 21.77 | 21.08 |
| | | | | 24 | 21.54 | 20.81 |
| | | | 12 | 1 | 22.21 | 20.18 |
| | | | | 7 | 22.10 | 20.14 |
| | | | | 13 | 21.84 | 19.89 |
| | | | 25 | 0 | 21.99 | 20.04 |

| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
|-----------|------------|--------------|-------|------------|-------|-------|
| 10 MHz | 132033 | 1716.1 | 1 | 1 | 21.25 | 20.55 |
| | | | | 24 | 21.62 | 20.93 |
| | | | | 49 | 21.52 | 20.87 |
| | | | 25 | 1 | 20.86 | 19.88 |
| | | | | 13 | 20.79 | 19.78 |
| | | | | 25 | 20.63 | 19.69 |
| | | | 50 | 0 | 20.69 | 19.80 |
| | 132422 | 1755.0 | 1 | 1 | 22.16 | 21.27 |
| | | | | 24 | 22.37 | 21.50 |
| | | | | 49 | 22.27 | 21.25 |
| | | | 25 | 1 | 22.45 | 20.48 |
| | | | | 13 | 22.32 | 20.34 |
| | | | | 25 | 22.10 | 20.16 |
| | | | 50 | 0 | 22.26 | 20.36 |
| | 132621 | 1774.9 | 1 | 1 | 21.95 | 21.28 |
| | | | | 24 | 22.06 | 21.44 |
| | | | | 49 | 21.56 | 21.03 |
| | | | 25 | 1 | 21.41 | 20.52 |
| | | | | 13 | 21.25 | 20.31 |
| | | | | 25 | 20.88 | 19.99 |
| | | | 50 | 0 | 21.10 | 20.26 |

| LTE B66 (1700MHz) / Setup Path Loss = 5.4 (TS9) | | | | | | |
|---|------------|--------------|-------|------------|-------|-------|
| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
| 15 MHz | 132047 | 1717.5 | 1 | 1 | 21.53 | 20.67 |
| | | | | 37 | 21.62 | 20.80 |
| | | | | 75 | 21.43 | 20.75 |
| | | | 37 | 1 | 21.03 | 20.46 |
| | | | | 19 | 21.08 | 20.59 |
| | | | | 38 | 21.00 | 20.43 |
| | | | 75 | 0 | 20.58 | 19.60 |
| | 132422 | 1755.0 | 1 | 1 | 22.26 | 21.59 |
| | | | | 37 | 22.10 | 21.40 |
| | | | | 75 | 22.13 | 21.36 |
| | | | 37 | 1 | 21.59 | 20.89 |
| | | | | 19 | 21.41 | 20.97 |
| | | | | 38 | 21.37 | 20.92 |
| | | | 75 | 0 | 21.09 | 20.38 |
| | 132596 | 1772.4 | 1 | 1 | 22.50 | 22.03 |
| | | | | 37 | 21.88 | 21.40 |
| | | | | 75 | 21.94 | 21.46 |
| | | | 37 | 1 | 21.85 | 20.99 |
| | | | | 19 | 21.93 | 22.05 |
| | | | | 38 | 21.46 | 22.01 |
| | | | 75 | 0 | 21.16 | 20.32 |

| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
|-----------|------------|--------------|-------|------------|-------|-------|
| 20 MHz | 132072 | 1720.0 | 1 | 1 | 21.05 | 20.75 |
| | | | | 49 | 21.24 | 20.97 |
| | | | | 99 | 21.90 | 21.53 |
| | | | 50 | 1 | 20.69 | 19.83 |
| | | | | 24 | 20.64 | 19.74 |
| | | | | 50 | 20.81 | 19.82 |
| | | | 100 | 0 | 20.73 | 19.70 |
| | 132422 | 1755.0 | 1 | 1 | 22.27 | 21.65 |
| | | | | 49 | 21.95 | 21.42 |
| | | | | 99 | 22.06 | 21.46 |
| | | | 50 | 1 | 21.42 | 20.65 |
| | | | | 24 | 21.27 | 20.41 |
| | | | | 50 | 21.11 | 20.20 |
| | | | 100 | 0 | 21.27 | 20.31 |
| | 132571 | 1769.9 | 1 | 1 | 22.71 | 21.81 |
| | | | | 49 | 22.08 | 21.22 |
| | | | | 99 | 21.66 | 20.79 |
| | | | 50 | 1 | 22.33 | 20.45 |
| | | | | 24 | 22.47 | 20.59 |
| | | | | 50 | 22.13 | 20.27 |
| | | | 100 | 0 | 22.22 | 20.33 |

| LTE B2 (1900MHz) / Setup Path Loss = 5.5 (TS9) | | | | | | |
|--|------------|--------------|-------|------------|-------|-------|
| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
| 1.4 MHz | 18607 | 1850.7 | 1 | 1 | 22.05 | 21.41 |
| | | | | 3 | 22.04 | 21.45 |
| | | | | 5 | 21.94 | 21.29 |
| | | | 3 | 1 | 22.06 | 21.22 |
| | | | | 2 | 22.07 | 21.20 |
| | | | | 3 | 22.02 | 21.14 |
| | | | 6 | 0 | 21.01 | 20.38 |
| | 18900 | 1880.0 | 1 | 1 | 22.11 | 21.33 |
| | | | | 3 | 22.08 | 21.26 |
| | | | | 5 | 21.84 | 21.10 |
| | | | 3 | 1 | 22.09 | 21.08 |
| | | | | 2 | 22.11 | 20.14 |
| | | | | 3 | 22.04 | 20.07 |
| | | | 6 | 0 | 22.10 | 19.97 |
| | 19193 | 1909.3 | 1 | 1 | 21.86 | 21.18 |
| | | | | 3 | 21.82 | 21.13 |
| | | | | 5 | 21.64 | 20.96 |
| | | | 3 | 1 | 21.86 | 20.95 |
| | | | | 2 | 21.85 | 20.96 |
| | | | | 3 | 21.76 | 20.85 |
| | | | 6 | 0 | 20.85 | 20.10 |

| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
|-----------|------------|--------------|-------|------------|-------|-------|
| 3 MHz | 18615 | 1851.5 | 1 | 1 | 22.46 | 21.74 |
| | | | | 7 | 22.44 | 21.71 |
| | | | | 14 | 22.14 | 21.44 |
| | | | 7 | 1 | 21.56 | 20.79 |
| | | | | 4 | 21.69 | 20.86 |
| | | | | 8 | 21.44 | 20.91 |
| | | | 15 | 0 | 21.26 | 20.44 |
| | 18900 | 1880.0 | 1 | 1 | 22.27 | 21.58 |
| | | | | 7 | 22.23 | 21.54 |
| | | | | 14 | 21.94 | 21.28 |
| | | | 7 | 1 | 21.48 | 20.88 |
| | | | | 4 | 21.43 | 20.83 |
| | | | | 8 | 21.29 | 20.71 |
| | | | 15 | 0 | 21.25 | 20.4 |
| | 19185 | 1908.5 | 1 | 1 | 21.97 | 21.11 |
| | | | | 7 | 21.96 | 21.12 |
| | | | | 14 | 21.66 | 20.86 |
| | | | 7 | 1 | 21.16 | 20.68 |
| | | | | 4 | 21.18 | 20.72 |
| | | | | 8 | 21.02 | 20.59 |
| | | | 15 | 0 | 20.93 | 20.12 |

| LTE B2 (1900MHz) / Setup Path Loss = 5.5 (TS9) | | | | | | |
|--|------------|--------------|-------|------------|-------|-------|
| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
| 5 MHz | 18625 | 1852.5 | 1 | 1 | 21.91 | 21.25 |
| | | | | 12 | 22.03 | 21.34 |
| | | | | 24 | 21.68 | 20.98 |
| | | | 12 | 1 | 21.31 | 20.13 |
| | | | | 7 | 21.33 | 20.32 |
| | | | | 13 | 21.19 | 20.22 |
| | | | 25 | 0 | 21.17 | 20.19 |
| | 18900 | 1880.0 | 1 | 1 | 22.16 | 21.51 |
| | | | | 12 | 22.14 | 21.53 |
| | | | | 24 | 21.74 | 21.07 |
| | | | 12 | 1 | 21.35 | 20.33 |
| | | | | 7 | 21.38 | 20.37 |
| | | | | 13 | 21.34 | 20.28 |
| | | | 25 | 0 | 21.25 | 20.25 |
| | 19175 | 1907.5 | 1 | 1 | 21.87 | 21.12 |
| | | | | 12 | 21.86 | 21.09 |
| | | | | 24 | 21.50 | 20.71 |
| | | | 12 | 1 | 21.00 | 19.98 |
| | | | | 7 | 21.06 | 19.93 |
| | | | | 13 | 20.83 | 19.89 |
| | | | 25 | 0 | 20.90 | 19.95 |

| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
|-----------|------------|--------------|-------|------------|-------|-------|
| 10 MHz | 18650 | 1855.0 | 1 | 1 | 22.06 | 21.18 |
| | | | | 24 | 21.97 | 21.17 |
| | | | | 49 | 21.91 | 21.08 |
| | | | 25 | 1 | 21.10 | 20.10 |
| | | | | 13 | 21.20 | 20.17 |
| | | | | 25 | 21.19 | 20.33 |
| | | | 50 | 0 | 21.13 | 20.25 |
| | 18900 | 1880.0 | 1 | 1 | 22.51 | 21.73 |
| | | | | 24 | 22.16 | 21.38 |
| | | | | 49 | 21.63 | 20.89 |
| | | | 25 | 1 | 21.32 | 20.32 |
| | | | | 13 | 21.27 | 20.25 |
| | | | | 25 | 21.14 | 20.24 |
| | | | 50 | 0 | 21.21 | 20.32 |
| | 19150 | 1905.0 | 1 | 1 | 22.32 | 21.36 |
| | | | | 24 | 21.96 | 21.09 |
| | | | | 49 | 21.43 | 20.55 |
| | | | 25 | 1 | 21.15 | 20.19 |
| | | | | 13 | 21.05 | 20.05 |
| | | | | 25 | 20.83 | 19.92 |
| | | | 50 | 0 | 20.96 | 20.06 |

| LTE B2 (1900MHz) / Setup Path Loss = 5.5 (TS9) | | | | | | |
|--|------------|--------------|-------|------------|-------|-------|
| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
| 15 MHz | 18675 | 1857.5 | 1 | 1 | 22.11 | 21.57 |
| | | | | 37 | 21.77 | 21.25 |
| | | | | 75 | 21.86 | 21.42 |
| | | | 37 | 1 | 21.46 | 20.98 |
| | | | | 19 | 21.15 | 20.73 |
| | | | | 38 | 21.36 | 20.81 |
| | | | 75 | 0 | 21.07 | 20.17 |
| | 18900 | 1880.0 | 1 | 1 | 22.78 | 22.02 |
| | | | | 37 | 21.97 | 21.46 |
| | | | | 75 | 22.43 | 21.97 |
| | | | 37 | 1 | 21.85 | 21.16 |
| | | | | 19 | 21.26 | 20.73 |
| | | | | 38 | 21.68 | 20.95 |
| | | | 75 | 0 | 21.07 | 20.22 |
| | 19125 | 1902.5 | 1 | 1 | 22.64 | 22.09 |
| | | | | 37 | 21.82 | 21.17 |
| | | | | 75 | 22.15 | 21.84 |
| | | | 37 | 1 | 21.93 | 21.29 |
| | | | | 19 | 21.04 | 20.88 |
| | | | | 38 | 21.63 | 21.03 |
| | | | 75 | 0 | 21.04 | 20.14 |

| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
|-----------|------------|--------------|-------|------------|-------|-------|
| 20 MHz | 18700 | 1860.0 | 1 | 1 | 22.23 | 21.46 |
| | | | | 49 | 21.99 | 21.26 |
| | | | | 99 | 23.04 | 22.17 |
| | | | 50 | 1 | 21.05 | 20.23 |
| | | | | 24 | 21.38 | 20.50 |
| | | | | 50 | 21.60 | 20.74 |
| | | | 100 | 0 | 21.33 | 20.41 |
| | 18900 | 1880.0 | 1 | 1 | 23.15 | 22.21 |
| | | | | 49 | 22.12 | 21.18 |
| | | | | 99 | 21.96 | 21.04 |
| | | | 50 | 1 | 22.25 | 20.49 |
| | | | | 24 | 22.19 | 20.28 |
| | | | | 50 | 22.09 | 20.20 |
| | | | 100 | 0 | 22.16 | 20.31 |
| | 19100 | 1900.0 | 1 | 1 | 22.10 | 21.41 |
| | | | | 49 | 22.06 | 21.35 |
| | | | | 99 | 21.35 | 20.65 |
| | | | 50 | 1 | 21.13 | 20.25 |
| | | | | 24 | 21.21 | 20.28 |
| | | | | 50 | 20.96 | 20.17 |
| | | | 100 | 0 | 20.96 | 20.10 |

| LTE B7 (2600MHz) / Setup Path Loss = 6.2 (Murata) | | | | | | |
|---|------------|--------------|-------|------------|-------|-------|
| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
| 5 MHz | 20775 | 2502.5 | 1 | 1 | 22.79 | 22.12 |
| | | | | 12 | 22.87 | 22.17 |
| | | | | 24 | 22.74 | 21.99 |
| | | | 12 | 1 | 21.88 | 20.92 |
| | | | | 7 | 21.93 | 20.98 |
| | | | | 13 | 21.80 | 20.84 |
| | | | 25 | 0 | 21.91 | 20.93 |
| | 21100 | 2535.0 | 1 | 1 | 22.96 | 22.31 |
| | | | | 12 | 22.97 | 22.31 |
| | | | | 24 | 22.95 | 22.19 |
| | | | 12 | 1 | 22.08 | 21.12 |
| | | | | 7 | 22.12 | 21.16 |
| | | | | 13 | 22.10 | 21.13 |
| | | | 25 | 0 | 22.08 | 21.12 |
| | 21425 | 2567.5 | 1 | 1 | 22.13 | 21.36 |
| | | | | 12 | 21.94 | 21.20 |
| | | | | 24 | 21.56 | 20.80 |
| | | | 12 | 1 | 22.10 | 21.14 |
| | | | | 7 | 22.01 | 21.08 |
| | | | | 13 | 21.84 | 20.89 |
| | | | 25 | 0 | 21.97 | 21.02 |

| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
|-----------|------------|--------------|-------|------------|-------|-------|
| 10 MHz | 20800 | 2505.0 | 1 | 1 | 23.00 | 22.29 |
| | | | | 24 | 22.89 | 22.16 |
| | | | | 49 | 22.36 | 21.68 |
| | | | 25 | 1 | 22.02 | 21.04 |
| | | | | 13 | 21.97 | 20.97 |
| | | | | 25 | 22.01 | 21.04 |
| | | | 50 | 0 | 21.98 | 20.97 |
| | 21100 | 2535.0 | 1 | 1 | 23.21 | 22.49 |
| | | | | 24 | 23.03 | 23.39 |
| | | | | 49 | 22.91 | 22.30 |
| | | | 25 | 1 | 22.24 | 21.25 |
| | | | | 13 | 22.16 | 21.17 |
| | | | | 25 | 22.18 | 21.18 |
| | | | 50 | 0 | 22.13 | 21.16 |
| | 21400 | 2565.0 | 1 | 1 | 22.55 | 21.80 |
| | | | | 24 | 22.19 | 21.47 |
| | | | | 49 | 21.36 | 20.00 |
| | | | 25 | 1 | 22.42 | 21.38 |
| | | | | 13 | 22.22 | 21.28 |
| | | | | 25 | 21.88 | 20.93 |
| | | | 50 | 0 | 22.13 | 21.19 |

| LTE B7 (2600MHz) / Setup Path Loss = 6.2 (Murata) | | | | | | |
|---|------------|--------------|-------|------------|-------|-------|
| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
| 15 MHz | 20825 | 2507.5 | 1 | 1 | 23.20 | 22.43 |
| | | | | 37 | 22.85 | 22.19 |
| | | | | 75 | 22.92 | 22.31 |
| | | | 37 | 1 | 22.30 | 21.73 |
| | | | | 19 | 22.13 | 21.61 |
| | | | | 38 | 22.26 | 21.77 |
| | | | 75 | 0 | 22.07 | 21.03 |
| | 21100 | 2535.0 | 1 | 1 | 23.35 | 22.59 |
| | | | | 37 | 23.23 | 22.25 |
| | | | | 75 | 23.15 | 22.16 |
| | | | 37 | 1 | 22.42 | 21.87 |
| | | | | 19 | 22.36 | 21.75 |
| | | | | 38 | 22.03 | 21.79 |
| | | | 75 | 0 | 22.20 | 21.17 |
| | 21424 | 2562.5 | 1 | 1 | 23.14 | 22.63 |
| | | | | 37 | 22.87 | 22.28 |
| | | | | 75 | 23.04 | 22.46 |
| | | | 37 | 1 | 22.58 | 22.04 |
| | | | | 19 | 22.37 | 21.85 |
| | | | | 38 | 22.31 | 21.79 |
| | | | 75 | 0 | 22.01 | 21.54 |

| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
|-----------|------------|--------------|-------|------------|-------|-------|
| 20 MHz | 20850 | 2510.0 | 1 | 1 | 23.37 | 22.54 |
| | | | | 49 | 22.95 | 22.19 |
| | | | | 99 | 22.99 | 22.19 |
| | | | 50 | 1 | 22.10 | 21.13 |
| | | | | 24 | 22.13 | 21.18 |
| | | | | 50 | 22.09 | 21.09 |
| | | | 100 | 0 | 22.16 | 21.15 |
| | 21100 | 2535.0 | 1 | 1 | 23.43 | 22.78 |
| | | | | 49 | 23.00 | 22.35 |
| | | | | 99 | 23.10 | 22.45 |
| | | | 50 | 1 | 22.29 | 21.35 |
| | | | | 24 | 22.17 | 21.21 |
| | | | | 50 | 22.27 | 21.28 |
| | | | 100 | 0 | 22.24 | 21.23 |
| | 21349 | 2560.0 | 1 | 1 | 23.44 | 22.76 |
| | | | | 49 | 23.03 | 22.39 |
| | | | | 99 | 23.13 | 22.52 |
| | | | 50 | 1 | 22.29 | 21.35 |
| | | | | 24 | 22.18 | 21.21 |
| | | | | 50 | 22.27 | 21.27 |
| | | | 100 | 0 | 22.23 | 21.26 |

| LTE B12 (750MHz) / Setup Path Loss = 4.7 (TS9) | | | | | | |
|--|------------|--------------|-------|------------|-------|-------|
| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
| 1.4 MHz | 23017 | 699.7 | 1 | 1 | 22.27 | 21.75 |
| | | | | 3 | 22.39 | 21.83 |
| | | | | 5 | 22.27 | 21.73 |
| | | | 3 | 1 | 22.38 | 21.60 |
| | | | | 2 | 22.40 | 21.61 |
| | | | | 3 | 22.34 | 21.53 |
| | | | 6 | 0 | 21.33 | 20.54 |
| | 23095 | 707.5 | 1 | 1 | 21.59 | 21.70 |
| | | | | 3 | 21.63 | 21.78 |
| | | | | 5 | 21.43 | 21.59 |
| | | | 3 | 1 | 21.66 | 21.56 |
| | | | | 2 | 21.65 | 21.55 |
| | | | | 3 | 21.62 | 21.52 |
| | | | 6 | 0 | 21.46 | 20.62 |
| | 23172 | 715.3 | 1 | 1 | 21.23 | 21.15 |
| | | | | 3 | 21.17 | 21.13 |
| | | | | 5 | 20.90 | 20.85 |
| | | | 3 | 1 | 21.21 | 20.92 |
| | | | | 2 | 21.19 | 20.89 |
| | | | | 3 | 21.02 | 20.70 |
| | | | 6 | 0 | 20.67 | 19.94 |

| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
|-----------|------------|--------------|-------|------------|-------|-------|
| 3 MHz | 23025 | 700.5 | 1 | 1 | 21.66 | 21.87 |
| | | | | 7 | 21.75 | 22.08 |
| | | | | 14 | 21.87 | 21.96 |
| | | | 7 | 1 | 21.53 | 21.42 |
| | | | | 4 | 21.59 | 21.46 |
| | | | | 8 | 21.46 | 21.35 |
| | | | 15 | 0 | 21.62 | 20.81 |
| | 23095 | 707.5 | 1 | 1 | 22.55 | 21.79 |
| | | | | 7 | 22.61 | 21.86 |
| | | | | 14 | 22.57 | 21.77 |
| | | | 7 | 1 | 22.12 | 22.06 |
| | | | | 4 | 22.19 | 22.14 |
| | | | | 8 | 22.04 | 22.01 |
| | | | 15 | 0 | 21.59 | 20.77 |
| | 23164 | 714.5 | 1 | 1 | 21.69 | 21.68 |
| | | | | 7 | 21.35 | 21.43 |
| | | | | 14 | 21.07 | 21.13 |
| | | | 7 | 1 | 21.35 | 21.06 |
| | | | | 4 | 21.42 | 21.11 |
| | | | | 8 | 21.21 | 20.98 |
| | | | 15 | 0 | 21.03 | 20.24 |

| LTE B12 (750MHz) / Setup Path Loss = 4.7 (TS9) | | | | | | |
|--|------------|--------------|-------|------------|-------|-------|
| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
| 5 MHz | 23035 | 701.5 | 1 | 1 | 22.33 | 21.59 |
| | | | | 12 | 22.56 | 21.83 |
| | | | | 24 | 22.43 | 21.68 |
| | | | 12 | 1 | 21.69 | 20.64 |
| | | | | 7 | 21.71 | 20.79 |
| | | | | 13 | 21.76 | 20.81 |
| | | | 25 | 0 | 21.69 | 20.76 |
| | 23095 | 707.5 | 1 | 1 | 21.74 | 21.74 |
| | | | | 12 | 21.61 | 21.73 |
| | | | | 24 | 21.59 | 21.67 |
| | | | 12 | 1 | 21.51 | 20.51 |
| | | | | 7 | 21.56 | 20.67 |
| | | | | 13 | 21.68 | 20.72 |
| | | | 25 | 0 | 21.55 | 20.66 |
| | 23154 | 713.5 | 1 | 1 | 22.76 | 22.11 |
| | | | | 12 | 22.16 | 21.74 |
| | | | | 24 | 21.75 | 21.21 |
| | | | 12 | 1 | 21.69 | 20.77 |
| | | | | 7 | 21.32 | 20.45 |
| | | | | 13 | 20.90 | 20.03 |
| | | | 25 | 0 | 21.32 | 20.47 |

| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
|-----------|------------|--------------|-------|------------|-------|-------|
| 10 MHz | 23060 | 704.0 | 1 | 1 | 21.89 | 22.00 |
| | | | | 24 | 21.72 | 21.90 |
| | | | | 49 | 21.09 | 21.38 |
| | | | 25 | 1 | 21.69 | 20.00 |
| | | | | 13 | 21.78 | 20.81 |
| | | | | 25 | 21.58 | 20.65 |
| | | | 50 | 0 | 21.59 | 20.73 |
| | 23095 | 707.5 | 1 | 1 | 22.74 | 22.06 |
| | | | | 24 | 22.48 | 21.77 |
| | | | | 49 | 22.69 | 21.95 |
| | | | 25 | 1 | 21.45 | 20.53 |
| | | | | 13 | 21.62 | 20.65 |
| | | | | 25 | 21.72 | 20.87 |
| | | | 50 | 0 | 21.65 | 20.70 |
| | 23129 | 711.0 | 1 | 1 | 21.95 | 21.93 |
| | | | | 24 | 21.66 | 21.83 |
| | | | | 49 | 20.93 | 21.06 |
| | | | 25 | 1 | 21.97 | 21.04 |
| | | | | 13 | 21.89 | 20.98 |
| | | | | 25 | 21.27 | 20.40 |
| | | | 50 | 0 | 21.52 | 20.79 |

| LTE B17 (750MHz) / Setup Path Loss = 4.7 (TS9) | | | | | | |
|--|------------|--------------|-------|------------|-------|-------|
| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
| 5 MHz | 23035 | 701.5 | 1 | 1 | 22.33 | 21.59 |
| | | | | 12 | 22.56 | 21.83 |
| | | | | 24 | 22.43 | 21.68 |
| | | | 12 | 1 | 21.69 | 20.64 |
| | | | | 7 | 21.71 | 20.79 |
| | | | | 13 | 21.76 | 20.81 |
| | | | 25 | 0 | 21.69 | 20.76 |
| | 23095 | 707.5 | 1 | 1 | 21.74 | 21.74 |
| | | | | 12 | 21.61 | 21.73 |
| | | | | 24 | 21.59 | 21.67 |
| | | | 12 | 1 | 21.51 | 20.51 |
| | | | | 7 | 21.56 | 20.67 |
| | | | | 13 | 21.68 | 20.72 |
| | | | 25 | 0 | 21.55 | 20.66 |
| | 23154 | 713.5 | 1 | 1 | 22.76 | 22.11 |
| | | | | 12 | 22.16 | 21.74 |
| | | | | 24 | 21.75 | 21.21 |
| | | | 12 | 1 | 21.69 | 20.77 |
| | | | | 7 | 21.32 | 20.45 |
| | | | | 13 | 20.90 | 20.03 |
| | | | 25 | 0 | 21.32 | 20.47 |

| Bandwidth | UL Channel | UL Freq. MHz | # RBs | Offset RBs | QPSK | 16QAM |
|-----------|------------|--------------|-------|------------|-------|-------|
| 10 MHz | 23060 | 704.0 | 1 | 1 | 21.89 | 22.00 |
| | | | | 24 | 21.72 | 21.90 |
| | | | | 49 | 21.09 | 21.38 |
| | | | 25 | 1 | 21.69 | 20.00 |
| | | | | 13 | 21.78 | 20.81 |
| | | | | 25 | 21.58 | 20.65 |
| | | | 50 | 0 | 21.59 | 20.73 |
| | 23095 | 707.5 | 1 | 1 | 22.74 | 22.06 |
| | | | | 24 | 22.48 | 21.77 |
| | | | | 49 | 22.69 | 21.95 |
| | | | 25 | 1 | 21.45 | 20.53 |
| | | | | 13 | 21.62 | 20.65 |
| | | | | 25 | 21.72 | 20.87 |
| | | | 50 | 0 | 21.65 | 20.70 |
| | 23129 | 711.0 | 1 | 1 | 21.95 | 21.93 |
| | | | | 24 | 21.66 | 21.83 |
| | | | | 49 | 20.93 | 21.06 |
| | | | 25 | 1 | 21.97 | 21.04 |
| | | | | 13 | 21.89 | 20.98 |
| | | | | 25 | 21.27 | 20.40 |
| | | | 50 | 0 | 21.52 | 20.79 |

Table 10.5.2 Test Reduction Table – LTE

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|--------------------------|------|--|-----------|------------|------------------|--------------|----------------------|
| Band 2 1850-1910 MHz | A | 18700 | 20 MHz | QPSK | 50 | 0 | Tested |
| | | 18900 | | | | | Tested |
| | | 19100 | | | | | Tested |
| | | 18700 | | | 100 | 0 | Reduced ¹ |
| | | 18900 | | | | | Reduced ¹ |
| | | 19100 | | | | | Reduced ¹ |
| | | 18700 | | | 1 | 49 | Tested |
| | | 18900 | | | | | Tested |
| | | 19100 | | | | | Tested |
| | | 18700 | | | | 99 | Reduced ² |
| | | 18900 | | | | | Reduced ² |
| | | 19100 | | | | | Reduced ² |
| | | 18700 | | 16QAM | 50 | 25 | Reduced ³ |
| | | 18900 | | | | | Reduced ³ |
| | | 19100 | | | | | Reduced ³ |
| | | 18700 | | | 100 | 0 | Reduced ¹ |
| | | 18900 | | | | | Reduced ¹ |
| | | 19100 | | | | | Reduced ¹ |
| | | 18700 | | | 1 | 49 | Reduced ⁴ |
| | | 18900 | | | | | Reduced ⁴ |
| | | 19100 | | | | | Reduced ⁴ |
| | | 18700 | | | | 99 | Reduced ⁴ |
| | | 18900 | | | | | Reduced ⁴ |
| | | 19100 | | | | | Reduced ⁴ |
| | | All lower bandwidths (15 MHz, 10 MHz, 5 MHz, 3 MHz, 1.4 MHz) | | | | | Reduced ⁵ |
| | B | 18700 | 20 MHz | QPSK | 50 | 25 | Reduced ⁶ |
| | | 18900 | | | | | Tested |
| | | 19100 | | | | | Reduced ⁶ |
| | | 18700 | | | 100 | 0 | Reduced ¹ |
| | | 18900 | | | | | Reduced ¹ |
| | | 19100 | | | | | Reduced ¹ |
| | | 18700 | | | 1 | 49 | Reduced ² |
| | | 18900 | | | | | Tested |
| | | 19100 | | | | | Reduced ² |
| | | 18700 | | | | 99 | Reduced ² |
| | | 18900 | | | | | Reduced ² |
| | | 19100 | | | | | Reduced ² |
| | | 18700 | | 16QAM | 50 | 25 | Reduced ³ |
| | | 18900 | | | | | Reduced ³ |
| | | 19100 | | | | | Reduced ³ |
| | | 18700 | | | 100 | 0 | Reduced ¹ |
| | | 18900 | | | | | Reduced ¹ |
| | | 19100 | | | | | Reduced ¹ |
| | | 18700 | | | 1 | 49 | Reduced ⁴ |
| | | 18900 | | | | | Reduced ⁴ |
| | | 19100 | | | | | Reduced ⁴ |
| | | 18700 | | | | 99 | Reduced ⁴ |
| | | 18900 | | | | | Reduced ⁴ |
| | | 19100 | | | | | Reduced ⁴ |
| | | All lower bandwidths (15 MHz, 10 MHz, 5 MHz, 3 MHz, 1.4 MHz) | | | | | Reduced ⁵ |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced | |
|--------------------------|------|--|--|------------|------------------|----------------------|----------------------|--|
| Band 2 1850-1910 MHz | C | 18700 | 20 MHz | QPSK | 50 | 25 | Reduced ⁶ | |
| | | 18900 | | | | | Tested | |
| | | 19100 | | | | | Reduced ⁶ | |
| | | 18700 | | | 100 | 0 | Reduced ¹ | |
| | | 18900 | | | | | Reduced ¹ | |
| | | 19100 | | | | | Reduced ¹ | |
| | | 18700 | | | 1 | 49 | Reduced ⁶ | |
| | | 18900 | | | | | Tested | |
| | | 19100 | | | | | Reduced ⁶ | |
| | | 18700 | | | | 99 | Reduced ² | |
| | | 18900 | | | | | Reduced ² | |
| | | 19100 | | | | | Reduced ² | |
| | | 18700 | | 16QAM | 50 | 25 | Reduced ³ | |
| | | 18900 | | | | | Reduced ³ | |
| | | 19100 | | | | | Reduced ³ | |
| | | 18700 | | | 100 | 0 | Reduced ¹ | |
| | | 18900 | | | | | Reduced ¹ | |
| | | 19100 | | | | | Reduced ¹ | |
| | | 18700 | | | 1 | 49 | Reduced ⁴ | |
| | | 18900 | | | | | Reduced ⁴ | |
| | | 19100 | | | | | Reduced ⁴ | |
| | | 18700 | | | | 99 | Reduced ⁴ | |
| | | 18900 | | | | | Reduced ⁴ | |
| | | 19100 | | | | | Reduced ⁴ | |
| | | All lower bandwidths (15 MHz, 10 MHz, 5 MHz, 3 MHz, 1.4 MHz) | | | | | | |
| | D | 20 MHz | QPSK | 50 | 25 | Reduced ⁶ | | |
| | | | | | | 18900 | Tested | |
| | | | | | | 19100 | Reduced ⁶ | |
| | | | | 18700 | 100 | 0 | Reduced ¹ | |
| | | | | 18900 | | | Reduced ¹ | |
| | | | | 19100 | | | Reduced ¹ | |
| | | | | 18700 | 1 | 49 | Reduced ⁶ | |
| | | | | 18900 | | | Tested | |
| | | | | 19100 | | | Reduced ⁶ | |
| | | | | 18700 | | 99 | Reduced ² | |
| | | | | 18900 | | | Reduced ² | |
| | | | | 19100 | | | Reduced ² | |
| | | | 18700 | 16QAM | 50 | 25 | Reduced ³ | |
| | | | 18900 | | | | Reduced ³ | |
| | | | 19100 | | | | Reduced ³ | |
| | | | 18700 | | 100 | 0 | Reduced ¹ | |
| | | | 18900 | | | | Reduced ¹ | |
| | | | 19100 | | | | Reduced ¹ | |
| | | | 18700 | | 1 | 49 | Reduced ⁴ | |
| | | | 18900 | | | | Reduced ⁴ | |
| | | | 19100 | | | | Reduced ⁴ | |
| | | | 18700 | | | 99 | Reduced ⁴ | |
| | | | 18900 | | | | Reduced ⁴ | |
| | | | 19100 | | | | Reduced ⁴ | |
| | | | All lower bandwidths (15 MHz, 10 MHz, 5 MHz, 3 MHz, 1.4 MHz) | | | | | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|--|----------------------|--------------------------|-----------|----------------------|------------------|----------------------|----------------------|
| Band 2 1850-1910 MHz | E | 18700 | 20 MHz | QPSK | 50 | 25 | Reduced ⁶ |
| | | 18900 | | | | | Tested |
| | | 19100 | | | | | Reduced ⁶ |
| | | 18700 | | | 100 | 0 | Reduced ¹ |
| | | 18900 | | | | | Reduced ¹ |
| | | 19100 | | | | | Reduced ¹ |
| | | 18700 | | | 1 | 49 | Reduced ⁶ |
| | | 18900 | | | | | Tested |
| | | 19100 | | | | | Reduced ⁶ |
| | | 18700 | | | | 99 | Reduced ² |
| | | 18900 | | | | | Reduced ² |
| | | 19100 | | | | | Reduced ² |
| | | 18700 | | Reduced ³ | | | |
| | | 18900 | | 50 | 25 | Reduced ³ | |
| | | 19100 | | | | Reduced ³ | |
| | | 18700 | | 100 | 0 | Reduced ¹ | |
| | | 18900 | | | | Reduced ¹ | |
| | | 19100 | | | | Reduced ¹ | |
| | | 18700 | | 1 | 49 | Reduced ⁴ | |
| | | 18900 | | | | Reduced ⁴ | |
| | | 19100 | | | | Reduced ⁴ | |
| | | 18700 | | | 99 | Reduced ⁴ | |
| | | 18900 | | | | Reduced ⁴ | |
| | | 19100 | | | | Reduced ⁴ | |
| | | 18700 | | | | Reduced ⁴ | |
| | | 18900 | | | | Reduced ⁴ | |
| 19100 | Reduced ⁴ | | | | | | |
| All lower bandwidths (15 MHz, 10 MHz, 5 MHz, 3 MHz, 1.4 MHz) | | | | | | | Reduced ⁵ |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ±0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ±0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

Side F Reduced based on distance in KDB 447498 D01 v06 (See below calculations).

Maximum power: 223.9 mW

Closest Distance to Side F: 110.0 mm

$\left[\left[\frac{(3.0)}{(\sqrt{1.91})}\right]*50\text{ mm}\right]+\left[(110-50\text{ mm})*10\right]=708\text{ mW}$ which is greater than 223.9 mW

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced | |
|--------------------------|--|--------------------------|-----------|------------|------------------|--------------|----------------------|----------------------|
| Band 4 1710-1755 MHz | A | 20050 | 20 MHz | QPSK | 50 | 25 | Tested | |
| | | 20175 | | | | | Tested | |
| | | 20300 | | | | | Tested | |
| | | 20050 | | | 100 | 0 | Reduced ¹ | |
| | | 20175 | | | | | Reduced ¹ | |
| | | 20300 | | | | | Reduced ¹ | |
| | | 20050 | | | 1 | 49 | Tested | |
| | | 20175 | | | | | Tested | |
| | | 20300 | | | | | Tested | |
| | | 20050 | | | | 99 | Reduced ² | |
| | | 20175 | | | | | Reduced ² | |
| | | 20300 | | | | | Reduced ² | |
| | | 20050 | | 16QAM | 50 | 25 | Reduced ³ | |
| | | 20175 | | | | | Reduced ³ | |
| | | 20300 | | | | | Reduced ³ | |
| | | 20050 | | | 100 | 0 | Reduced ¹ | |
| | | 20175 | | | | | Reduced ¹ | |
| | | 20300 | | | | | Reduced ¹ | |
| | | 20050 | | | 1 | 49 | Reduced ⁴ | |
| | | 20175 | | | | | Reduced ⁴ | |
| | | 20300 | | | | | Reduced ⁴ | |
| | | 20050 | | | | 99 | Reduced ⁴ | |
| | | 20175 | | | | | Reduced ⁴ | |
| | | 20300 | | | | | Reduced ⁴ | |
| | All lower bandwidths (15 MHz, 10 MHz, 5 MHz, 3 MHz, 1.4 MHz) | | | | | | | Reduced ⁵ |
| | B | 20050 | 20 MHz | QPSK | 50 | 25 | Reduced ⁶ | |
| | | 20175 | | | | | Tested | |
| | | 20300 | | | | | Reduced ⁶ | |
| | | 20050 | | | 100 | 0 | Reduced ¹ | |
| | | 20175 | | | | | Reduced ¹ | |
| | | 20300 | | | | | Reduced ¹ | |
| | | 20050 | | | 1 | 49 | Reduced ⁶ | |
| | | 20175 | | | | | Tested | |
| | | 20300 | | | | | Reduced ⁶ | |
| | | 20050 | | | | 99 | Reduced ² | |
| | | 20175 | | | | | Reduced ² | |
| | | 20300 | | | | | Reduced ² | |
| | | 20050 | | 16QAM | 50 | 25 | Reduced ³ | |
| | | 20175 | | | | | Reduced ³ | |
| | | 20300 | | | | | Reduced ³ | |
| | | 20050 | | | 100 | 0 | Reduced ¹ | |
| | | 20175 | | | | | Reduced ¹ | |
| | | 20300 | | | | | Reduced ¹ | |
| | | 20050 | | | 1 | 49 | Reduced ⁴ | |
| | | 20175 | | | | | Reduced ⁴ | |
| | | 20300 | | | | | Reduced ⁴ | |
| | | 20050 | | | | 99 | Reduced ⁴ | |
| | | 20175 | | | | | Reduced ⁴ | |
| | | 20300 | | | | | Reduced ⁴ | |
| | All lower bandwidths (15 MHz, 10 MHz, 5 MHz, 3 MHz, 1.4 MHz) | | | | | | | Reduced ⁵ |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced | |
|--------------------------|------|--|-----------|------------|------------------|--------------|----------------------|--|
| Band 4 1710-1755 MHz | C | 20050 | 20 MHz | QPSK | 50 | 25 | Tested | |
| | | 20175 | | | | | Tested | |
| | | 20300 | | | | | Tested | |
| | | 20050 | | | 100 | 0 | Reduced ¹ | |
| | | 20175 | | | | | Reduced ¹ | |
| | | 20300 | | | | | Reduced ¹ | |
| | | 20050 | | | 1 | 49 | Tested | |
| | | 20175 | | | | | Tested | |
| | | 20300 | | | | | Tested | |
| | | 20050 | | | | 99 | Reduced ² | |
| | | 20175 | | | | | Reduced ² | |
| | | 20300 | | | | | Reduced ² | |
| | | 20050 | | 16QAM | 50 | 25 | Reduced ³ | |
| | | 20175 | | | | | Reduced ³ | |
| | | 20300 | | | | | Reduced ³ | |
| | | 20050 | | | 100 | 0 | Reduced ¹ | |
| | | 20175 | | | | | Reduced ¹ | |
| | | 20300 | | | | | Reduced ¹ | |
| | | 20050 | | | 1 | 49 | Reduced ⁴ | |
| | | 20175 | | | | | Reduced ⁴ | |
| | | 20300 | | | | | Reduced ⁴ | |
| | | 20050 | | | | 99 | Reduced ⁴ | |
| | | 20175 | | | | | Reduced ⁴ | |
| | | 20300 | | | | | Reduced ⁴ | |
| | | All lower bandwidths (15 MHz, 10 MHz, 5 MHz, 3 MHz, 1.4 MHz) | | | | | | |
| | D | 20050 | 20 MHz | QPSK | 50 | 25 | Reduced ⁶ | |
| | | 20175 | | | | | Tested | |
| | | 20300 | | | | | Reduced ⁶ | |
| | | 20050 | | | 100 | 0 | Reduced ¹ | |
| | | 20175 | | | | | Reduced ¹ | |
| | | 20300 | | | | | Reduced ¹ | |
| | | 20050 | | | 1 | 49 | Reduced ⁶ | |
| | | 20175 | | | | | Tested | |
| | | 20300 | | | | | Reduced ⁶ | |
| | | 20050 | | | | 99 | Reduced ² | |
| | | 20175 | | | | | Reduced ² | |
| | | 20300 | | | | | Reduced ² | |
| | | 20050 | | 16QAM | 50 | 25 | Reduced ³ | |
| | | 20175 | | | | | Reduced ³ | |
| | | 20300 | | | | | Reduced ³ | |
| | | 20050 | | | 100 | 0 | Reduced ¹ | |
| | | 20175 | | | | | Reduced ¹ | |
| | | 20300 | | | | | Reduced ¹ | |
| | | 20050 | | | 1 | 49 | Reduced ⁴ | |
| | | 20175 | | | | | Reduced ⁴ | |
| | | 20300 | | | | | Reduced ⁴ | |
| | | 20050 | | | | 99 | Reduced ⁴ | |
| | | 20175 | | | | | Reduced ⁴ | |
| | | 20300 | | | | | Reduced ⁴ | |
| | | All lower bandwidths (15 MHz, 10 MHz, 5 MHz, 3 MHz, 1.4 MHz) | | | | | | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|--------------------------|------|--|-----------|------------|------------------|--------------|----------------------|
| Band 4 1710-1755 MHz | E | 20050 | 20 MHz | QPSK | 50 | 25 | Reduced ⁶ |
| | | 20175 | | | | | Tested |
| | | 20300 | | | | | Reduced ⁶ |
| | | 20050 | | | 100 | 0 | Reduced ¹ |
| | | 20175 | | | | | Reduced ¹ |
| | | 20300 | | | | | Reduced ¹ |
| | | 20050 | | | 1 | 49 | Reduced ⁶ |
| | | 20175 | | | | | Tested |
| | | 20300 | | | | | Reduced ⁶ |
| | | 20050 | | | | 99 | Reduced ² |
| | | 20175 | | | | | Reduced ² |
| | | 20300 | | | | | Reduced ² |
| | | 20050 | | 16QAM | 50 | 25 | Reduced ³ |
| | | 20175 | | | | | Reduced ³ |
| | | 20300 | | | | | Reduced ³ |
| | | 20050 | | | 100 | 0 | Reduced ¹ |
| | | 20175 | | | | | Reduced ¹ |
| | | 20300 | | | | | Reduced ¹ |
| | | 20050 | | | 1 | 49 | Reduced ⁴ |
| | | 20175 | | | | | Reduced ⁴ |
| | | 20300 | | | | | Reduced ⁴ |
| | | 20050 | | | | 99 | Reduced ⁴ |
| | | 20175 | | | | | Reduced ⁴ |
| | | 20300 | | | | | Reduced ⁴ |
| | | All lower bandwidths (15 MHz, 10 MHz, 5 MHz, 3 MHz, 1.4 MHz) | | | | | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3) A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3) B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4) A) I) page 4.

Reduced⁴ - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4) B) I) page 5.

Reduced⁵ - If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶ - If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

Side F Reduced based on distance in KDB 447498 D01 v06 (See below calculations).

Maximum power: 223.9 mW

Closest Distance to Side F: 110.0 mm

$(((3.0)/(\sqrt{1.755})) * 50 \text{ mm}) + [(110 - 50 \text{ mm}) * 10] = 685 \text{ mW}$ which is greater than 223.9 mW

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|------------------------------|------------------------------|--------------------------|-----------|------------|------------------|----------------------|----------------------|
| Band 5 824-849 MHz | A | 20450 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ |
| | | 20525 | | | | | Tested |
| | | 20600 | | | | | Reduced ⁶ |
| | | 20450 | | | 50 | 0 | Reduced ¹ |
| | | 20525 | | | | | Reduced ¹ |
| | | 20600 | | | | | Reduced ¹ |
| | | 20450 | | | 1 | 12 | Reduced ⁶ |
| | | 20525 | | | | | Tested |
| | | 20600 | | | | 24 | Reduced ⁶ |
| | | 20450 | | | | | Reduced ² |
| | | 20525 | | 16QAM | 25 | 12 | Reduced ² |
| | | 20600 | | | | | Reduced ³ |
| | | 20450 | | | | | Reduced ³ |
| | | 20525 | | | 50 | 0 | Reduced ³ |
| | | 20600 | | | | | Reduced ¹ |
| | | 20450 | | | | | Reduced ¹ |
| | | 20525 | | | 1 | 12 | Reduced ¹ |
| | | 20600 | | | | | Reduced ⁴ |
| | | 20450 | | | | 24 | Reduced ⁴ |
| | | 20525 | | | | | Reduced ⁴ |
| | | 20600 | | | | | Reduced ⁴ |
| | | 20450 | | | | | Reduced ⁴ |
| | All lower bandwidths (5 MHz) | | | | | | Reduced ⁵ |
| | B | 20450 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ |
| | | 20525 | | | | | Tested |
| | | 20600 | | | | | Reduced ⁶ |
| | | 20450 | | | 50 | 0 | Reduced ¹ |
| | | 20525 | | | | | Reduced ¹ |
| | | 20600 | | | | | Reduced ¹ |
| | | 20450 | | | 1 | 12 | Reduced ⁶ |
| | | 20525 | | | | | Tested |
| | | 20600 | | | | 24 | Reduced ⁶ |
| | | 20450 | | | | | Reduced ² |
| | | 20525 | | 16QAM | 25 | 12 | Reduced ² |
| | | 20600 | | | | | Reduced ³ |
| | | 20450 | | | | | Reduced ³ |
| | | 20525 | | | 50 | 0 | Reduced ³ |
| | | 20600 | | | | | Reduced ¹ |
| | | 20450 | | | | | Reduced ¹ |
| | | 20525 | | | 1 | 12 | Reduced ¹ |
| | | 20600 | | | | | Reduced ⁴ |
| | | 20450 | | | | 24 | Reduced ⁴ |
| | | 20525 | | | | | Reduced ⁴ |
| | | 20600 | | | | | Reduced ⁴ |
| 20450 | | Reduced ⁴ | | | | | |
| All lower bandwidths (5 MHz) | | | | | | Reduced ⁵ | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced | | | |
|--------------------------|------------------------------|------------------------------|----------------------|----------------------|------------------|--------------|----------------------|----------------------|----------------------|--|
| Band 5 824-849 MHz | C | 20450 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ | | | |
| | | 20525 | | | | | Tested | | | |
| | | 20600 | | | | | Reduced ⁶ | | | |
| | | 20450 | | | 50 | 0 | Reduced ¹ | | | |
| | | 20525 | | | | | Reduced ¹ | | | |
| | | 20600 | | | | | Reduced ¹ | | | |
| | | 20450 | | | 1 | 12 | Reduced ⁶ | | | |
| | | 20525 | | | | | Tested | | | |
| | | 20600 | | | | 24 | Reduced ⁶ | | | |
| | | 20450 | | | | | Reduced ² | | | |
| | | 20525 | | Reduced ² | | | | | | |
| | | 20600 | | Reduced ² | | | | | | |
| | | 20450 | | 16QAM | 25 | 12 | Reduced ³ | | | |
| | | 20525 | | | | | Reduced ³ | | | |
| | | 20600 | | | | | Reduced ³ | | | |
| | | 20450 | | | 50 | 0 | Reduced ¹ | | | |
| | | 20525 | | | | | Reduced ¹ | | | |
| | | 20600 | | | | | Reduced ¹ | | | |
| | | 20450 | | | 1 | 12 | Reduced ⁴ | | | |
| | | 20525 | | | | | Reduced ⁴ | | | |
| | | 20600 | | | | 24 | Reduced ⁴ | | | |
| | | 20450 | | | | | Reduced ⁴ | | | |
| | | 20525 | | Reduced ⁴ | | | | | | |
| | | 20600 | | Reduced ⁴ | | | | | | |
| | | All lower bandwidths (5 MHz) | | | | | | | Reduced ⁵ | |
| | | D | | 10 MHz | 20450 | QPSK | 25 | 12 | Reduced ⁶ | |
| | 20525 | | Tested | | | | | | | |
| | 20600 | | Reduced ⁶ | | | | | | | |
| | 20450 | | 50 | | 0 | | Reduced ¹ | | | |
| | 20525 | | | | | | Reduced ¹ | | | |
| | 20600 | | | | | | Reduced ¹ | | | |
| | 20450 | | 1 | | 12 | | Reduced ⁶ | | | |
| | 20525 | | | | | | Tested | | | |
| | 20600 | | | | 24 | | Reduced ⁶ | | | |
| | 20450 | | | | | | Reduced ² | | | |
| | 20525 | | Reduced ² | | | | | | | |
| | 20600 | | Reduced ² | | | | | | | |
| | 20450 | | 16QAM | | 25 | 12 | Reduced ³ | | | |
| | 20525 | | | | | | Reduced ³ | | | |
| | 20600 | | | | | | Reduced ³ | | | |
| | 20450 | | | | 50 | 0 | Reduced ¹ | | | |
| | 20525 | | | | | | Reduced ¹ | | | |
| | 20600 | | | | | | Reduced ¹ | | | |
| | 20450 | | | | 1 | 12 | Reduced ⁴ | | | |
| | 20525 | | | | | | Reduced ⁴ | | | |
| | 20600 | | | | | 24 | Reduced ⁴ | | | |
| | 20450 | | | | | | Reduced ⁴ | | | |
| | 20525 | | Reduced ⁴ | | | | | | | |
| | 20600 | | Reduced ⁴ | | | | | | | |
| | All lower bandwidths (5 MHz) | | | | | | | Reduced ⁵ | | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|------------------------------|----------------------|--------------------------|-----------|------------|------------------|--------------|----------------------|
| Band 5 824-849 MHz | E | 20450 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ |
| | | 20525 | | | | | Tested |
| | | 20600 | | | | | Reduced ⁶ |
| | | 20450 | | | 50 | 0 | Reduced ¹ |
| | | 20525 | | | | | Reduced ¹ |
| | | 20600 | | | | | Reduced ¹ |
| | | 20450 | | | 1 | 12 | Reduced ⁶ |
| | | 20525 | | | | | Tested |
| | | 20600 | | | | 24 | Reduced ⁶ |
| | | 20450 | | | | | Reduced ² |
| | | 20525 | | | | | Reduced ² |
| | | 20600 | | | | | Reduced ² |
| | | 20450 | | 16QAM | 25 | 12 | Reduced ³ |
| | | 20525 | | | | | Reduced ³ |
| | | 20600 | | | 50 | 0 | Reduced ³ |
| | | 20450 | | | | | Reduced ¹ |
| | | 20525 | | | | | Reduced ¹ |
| | | 20600 | | | | | Reduced ¹ |
| | | 20450 | | | 1 | 12 | Reduced ⁴ |
| | | 20525 | | | | | Reduced ⁴ |
| | | 20600 | | | | 24 | Reduced ⁴ |
| | | 20450 | | | | | Reduced ⁴ |
| | | 20525 | | | | | Reduced ⁴ |
| | | 20600 | | | | | Reduced ⁴ |
| 20450 | Reduced ⁴ | | | | | | |
| All lower bandwidths (5 MHz) | | | | | | | Reduced ⁵ |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)
A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)
B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)
A) I) page 4.

Reduced⁴ - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)
B) I) page 5.

Reduced⁵ - If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶ - If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

Side F Reduced based on distance in KDB 447498 D01 v06 (See below calculations).

Maximum power: 251.2 mW

Closest Distance to Side F: 110.0 mm

$(((3.0)/(\sqrt{0.849})) * 50 \text{ mm}) + [(110 - 50 \text{ mm}) * 10] = 762 \text{ mW}$ which is greater than 251.2 mW

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced | | | | | |
|--------------------------|--|--|----------------------|------------|----------------------|----------------------|----------------------|----------------------|------|----|----|----------------------|
| Band 7 2500-2570 MHz | A | 20850 | 20 MHz | QPSK | 50 | 25 | Tested | | | | | |
| | | 21100 | | | | | Tested | | | | | |
| | | 21350 | | | | | Tested | | | | | |
| | | 20850 | | | 100 | 0 | Reduced ¹ | | | | | |
| | | 21100 | | | | | Reduced ¹ | | | | | |
| | | 21350 | | | | | Reduced ¹ | | | | | |
| | | 20850 | | | 1 | 49 | Tested | | | | | |
| | | 21100 | | | | | Tested | | | | | |
| | | 21350 | | | | | Tested | | | | | |
| | | 20850 | | | | 99 | Reduced ¹ | | | | | |
| | | 21100 | | | | | Reduced ¹ | | | | | |
| | | 21350 | | | | | Reduced ¹ | | | | | |
| | | 20850 | | 16QAM | 50 | 25 | Reduced ³ | | | | | |
| | | 21100 | | | | | Reduced ³ | | | | | |
| | | 21350 | | | | | Reduced ³ | | | | | |
| | | 20850 | | | 100 | 0 | Reduced ¹ | | | | | |
| | | 21100 | | | | | Reduced ¹ | | | | | |
| | | 21350 | | | | | Reduced ¹ | | | | | |
| | | 20850 | | | 1 | 49 | Reduced ⁴ | | | | | |
| | | 21100 | | | | | Reduced ⁴ | | | | | |
| | | 21350 | | | | | Reduced ⁴ | | | | | |
| | | 20850 | | | | 99 | Reduced ⁴ | | | | | |
| | | 21100 | | | | | Reduced ⁴ | | | | | |
| | | 21350 | | | | | Reduced ⁴ | | | | | |
| | | All lower bandwidths (15 MHz, 10 MHz, 5 MHz) | | | | | | Reduced ⁵ | | | | |
| | | B | | | | | 20850 | 20 MHz | QPSK | 50 | 25 | Reduced ⁶ |
| | 21100 | | Tested | | | | | | | | | |
| | 21350 | | Reduced ⁶ | | | | | | | | | |
| | 20850 | | 100 | 0 | Reduced ¹ | | | | | | | |
| | 21100 | | | | Reduced ¹ | | | | | | | |
| | 21350 | | | | Reduced ¹ | | | | | | | |
| | 20850 | | 1 | 49 | Reduced ² | | | | | | | |
| | 21100 | | | | Reduced ² | | | | | | | |
| | 21350 | | | | Reduced ² | | | | | | | |
| | 20850 | | | 99 | Reduced ⁶ | | | | | | | |
| | 21100 | | | | Tested | | | | | | | |
| | 21350 | | | | Reduced ⁶ | | | | | | | |
| | 20850 | | 16QAM | 50 | 25 | Reduced ³ | | | | | | |
| | 21100 | | | | | Reduced ³ | | | | | | |
| | 21350 | | | | | Reduced ³ | | | | | | |
| | 20850 | | | 100 | 0 | Reduced ¹ | | | | | | |
| | 21100 | | | | | Reduced ¹ | | | | | | |
| | 21350 | | | | | Reduced ¹ | | | | | | |
| | 20850 | | | 1 | 49 | Reduced ⁴ | | | | | | |
| | 21100 | | | | | Reduced ⁴ | | | | | | |
| | 21350 | | | | | Reduced ⁴ | | | | | | |
| | 20850 | | | | 99 | Reduced ⁴ | | | | | | |
| | 21100 | | | | | Reduced ⁴ | | | | | | |
| | 21350 | | | | | Reduced ⁴ | | | | | | |
| | All lower bandwidths (15 MHz, 10 MHz, 5 MHz) | | | | | | Reduced ⁵ | | | | | |
| | | | | | | 20850 | | | | | | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced | | | |
|--------------------------|------|--|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|----|--------|
| Band 7 2500-2570 MHz | C | 20850 | 20 MHz | QPSK | 50 | 25 | Reduced ⁶ | | | |
| | | 21100 | | | | | Tested | | | |
| | | 21350 | | | | | Reduced ⁶ | | | |
| | | 20850 | | | 100 | 0 | Reduced ¹ | | | |
| | | 21100 | | | | | Reduced ¹ | | | |
| | | 21350 | | | | | Reduced ¹ | | | |
| | | 20850 | | | 1 | 49 | Reduced ⁶ | | | |
| | | 21100 | | | | | Tested | | | |
| | | 21350 | | | | | Reduced ⁶ | | | |
| | | 20850 | | | | 99 | Reduced ⁶ | | | |
| | | 21100 | | | | | Reduced ⁶ | | | |
| | | 21350 | | Reduced ⁶ | | | | | | |
| | | 20850 | | 16QAM | 50 | 25 | Reduced ³ | | | |
| | | 21100 | | | | | Reduced ³ | | | |
| | | 21350 | | | | | Reduced ³ | | | |
| | | 20850 | | | 100 | 0 | Reduced ¹ | | | |
| | | 21100 | | | | | Reduced ¹ | | | |
| | | 21350 | | | | | Reduced ¹ | | | |
| | | 20850 | | | 1 | 49 | Reduced ⁴ | | | |
| | | 21100 | | | | | Reduced ⁴ | | | |
| | | 21350 | | | | 99 | Reduced ⁴ | | | |
| | | 20850 | | | | | Reduced ⁴ | | | |
| | | 21100 | | | | | Reduced ⁴ | | | |
| | | 21350 | | | | | Reduced ⁴ | | | |
| | | All lower bandwidths (15 MHz, 10 MHz, 5 MHz) | | | | | | Reduced ⁵ | | |
| | D | 20850 | 20 MHz | | | | QPSK | 50 | 25 | Tested |
| | | 21100 | | Tested | | | | | | |
| | | 21350 | | Tested | | | | | | |
| | | 20850 | | 100 | 0 | Reduced ¹ | | | | |
| | | 21100 | | | | Reduced ¹ | | | | |
| | | 21350 | | | | Reduced ¹ | | | | |
| | | 20850 | | | | Reduced ² | | | | |
| | | 21100 | | 49 | Reduced ² | | | | | |
| | | 21350 | | | Reduced ² | | | | | |
| | | 20850 | | | Tested | | | | | |
| | | 21100 | | 99 | Tested | | | | | |
| | | 21350 | | | Tested | | | | | |
| | | 20850 | | | 16QAM | 50 | 25 | Reduced ³ | | |
| | | 21100 | | Reduced ³ | | | | | | |
| | | 21350 | | Reduced ³ | | | | | | |
| | | 20850 | | 100 | | 0 | Reduced ¹ | | | |
| | | 21100 | | | | | Reduced ¹ | | | |
| | | 21350 | | | | | Reduced ¹ | | | |
| | | 20850 | | 1 | | 49 | Reduced ⁴ | | | |
| | | 21100 | | | | | Reduced ⁴ | | | |
| | | 21350 | | | | 99 | Reduced ⁴ | | | |
| | | 20850 | | | | | Reduced ⁴ | | | |
| | | 21100 | | | | | Reduced ⁴ | | | |
| | | 21350 | | | | | Reduced ⁴ | | | |
| | | All lower bandwidths (15 MHz, 10 MHz, 5 MHz) | | | | | | Reduced ⁵ | | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced | | | | |
|--------------------------|------|--------------------------|-----------|--|----------------------|--------------|----------------------|----------------------|----------------------|----------------------|--|
| Band 7 2500-2570 MHz | E | 20850 | 20 MHz | QPSK | 50 | 25 | Reduced ⁶ | | | | |
| | | 21100 | | | | | Tested | | | | |
| | | 21350 | | | | | 100 | 0 | Reduced ⁶ | | |
| | | 20850 | | | Reduced ¹ | | | | | | |
| | | 21100 | | | Reduced ¹ | | | | | | |
| | | 21350 | | | 1 | 49 | Reduced ¹ | | | | |
| | | 20850 | | | | | Reduced ² | | | | |
| | | 21100 | | | | | Reduced ² | | | | |
| | | 21350 | | | | 99 | Reduced ² | | | | |
| | | 20850 | | | | | Reduced ⁶ | | | | |
| | | 21100 | | | | | Tested | | | | |
| | | 21350 | | | 16QAM | 50 | 25 | Reduced ⁶ | | | |
| | | 20850 | | Reduced ³ | | | | | | | |
| | | 21100 | | Reduced ³ | | | | | | | |
| | | 21350 | | 100 | | 0 | Reduced ³ | | | | |
| | | 20850 | | | | | Reduced ¹ | | | | |
| | | 21100 | | | | | Reduced ¹ | | | | |
| | | 21350 | | 1 | | 49 | Reduced ¹ | | | | |
| | | 20850 | | | | | Reduced ⁴ | | | | |
| | | 21100 | | | | | Reduced ⁴ | | | | |
| | | 21350 | | | | 99 | Reduced ⁴ | | | | |
| | | 20850 | | | | | Reduced ⁴ | | | | |
| | | 21100 | | | | | Reduced ⁴ | | | | |
| | | 21350 | | All lower bandwidths (15 MHz, 10 MHz, 5 MHz) | | | | | | Reduced ⁴ | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)
A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)
B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4) A) I) page 4.

Reduced⁴ - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4) B) I) page 5.

Reduced⁵ - If the conducted power is within ±0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶ - If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ±0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

Side F Reduced based on distance in KDB 447498 D01 v06 (See below calculations).

Maximum power: 223.9 mW

Closest Distance to Side F: 110.0 mm

$[(3.0/(\sqrt{2.70})) * 50 \text{ mm}] + [(70 - 50 \text{ mm}) * 10] = 291 \text{ mW}$ which is greater than 223.9 mW

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|--------------------------|------|------------------------------|-----------|------------|------------------|--------------|----------------------|
| Band 13 777-787 MHz | A | 23230 | 10 MHz | QPSK | 25 | 12 | Tested |
| | | 23230 | | | 50 | 0 | Reduced ¹ |
| | | 23230 | | | 1 | 12 | Tested |
| | | 23230 | | | | 24 | Reduced ² |
| | | 23230 | | 16QAM | 25 | 12 | Reduced ³ |
| | | 23230 | | | 50 | 0 | Reduced ¹ |
| | | 23230 | | | 1 | 12 | Reduced ⁴ |
| | | 23230 | | | | 24 | Reduced ⁴ |
| | | All lower bandwidths (5 MHz) | | | | | |
| | B | 23230 | 10 MHz | QPSK | 25 | 12 | Tested |
| | | 23230 | | | 50 | 0 | Reduced ¹ |
| | | 23230 | | | 1 | 12 | Tested |
| | | 23230 | | | | 24 | Reduced ² |
| | | 23230 | | 16QAM | 25 | 12 | Reduced ³ |
| | | 23230 | | | 50 | 0 | Reduced ¹ |
| | | 23230 | | | 1 | 12 | Reduced ⁴ |
| | | 23230 | | | | 24 | Reduced ⁴ |
| | | All lower bandwidths (5 MHz) | | | | | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|--------------------------|------|------------------------------|-----------|------------|------------------|--------------|----------------------|
| Band 13 777-787 MHz | C | 23230 | 10 MHz | QPSK | 25 | 12 | Tested |
| | | 23230 | | | 50 | 0 | Reduced ¹ |
| | | 23230 | | | 1 | 12 | Tested |
| | | 23230 | | | | 24 | Reduced ² |
| | | 23230 | | 16QAM | 25 | 12 | Reduced ³ |
| | | 23230 | | | 50 | 0 | Reduced ¹ |
| | | 23230 | | | 1 | 12 | Reduced ⁴ |
| | | 23230 | | | | 24 | Reduced ⁴ |
| | | All lower bandwidths (5 MHz) | | | | | |
| | D | 23230 | 10 MHz | QPSK | 25 | 12 | Tested |
| | | 23230 | | | 50 | 0 | Reduced ¹ |
| | | 23230 | | | 1 | 12 | Tested |
| | | 23230 | | | | 24 | Reduced ² |
| | | 23230 | | 16QAM | 25 | 12 | Reduced ³ |
| | | 23230 | | | 50 | 0 | Reduced ¹ |
| | | 23230 | | | 1 | 12 | Reduced ⁴ |
| | | 23230 | | | | 24 | Reduced ⁴ |
| | | All lower bandwidths (5 MHz) | | | | | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|--------------------------|------|------------------------------|-----------|------------|------------------|--------------|----------------------|
| Band 13 777-787 MHz | E | 23230 | 10 MHz | QPSK | 25 | 12 | Tested |
| | | 23230 | | | 50 | 0 | Reduced ¹ |
| | | 23230 | | | 1 | 12 | Tested |
| | | 23230 | | 16QAM | 25 | 12 | Reduced ² |
| | | 23230 | | | 50 | 0 | Reduced ³ |
| | | 23230 | | | 1 | 12 | Reduced ¹ |
| | | 23230 | | | 1 | 12 | Reduced ⁴ |
| | | 23230 | | | 1 | 24 | Reduced ⁴ |
| | | All lower bandwidths (5 MHz) | | | | | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

Side F Reduced based on distance in KDB 447498 D01 v06 (See below calculations).

Maximum power: 223.9 mW

Closest Distance to Side F: 110.0 mm

$[(3.0/(\sqrt{0.787})) * 50 \text{ mm}] + [(110 - 50 \text{ mm}) * 10] = 769 \text{ mW}$ which is greater than 223.9 mW

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|--------------------------|------|------------------------------|-----------|------------|------------------|--------------|----------------------|
| Band 12 699-716 MHz | A | 23060 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ |
| | | 23095 | | | | | Tested |
| | | 23129 | | | | | Reduced ⁶ |
| | | 23060 | | | 50 | 0 | Reduced ¹ |
| | | 23095 | | | | | Reduced ¹ |
| | | 23129 | | | | | Reduced ¹ |
| | | 23060 | | | 1 | 12 | Reduced ⁶ |
| | | 23095 | | | | | Tested |
| | | 23129 | | | | | Reduced ⁶ |
| | | 23060 | | | | 24 | Reduced ² |
| | | 23095 | | | | | Reduced ² |
| | | 23129 | | | | | Reduced ² |
| | | 23060 | | 16QAM | 25 | 12 | Reduced ³ |
| | | 23095 | | | | | Reduced ³ |
| | | 23129 | | | | | Reduced ³ |
| | | 23060 | | | 50 | 0 | Reduced ¹ |
| | | 23095 | | | | | Reduced ¹ |
| | | 23129 | | | | | Reduced ¹ |
| | | 23060 | | | 1 | 12 | Reduced ⁴ |
| | | 23095 | | | | | Reduced ⁴ |
| | | 23129 | | | | | Reduced ⁴ |
| | | 23060 | | | | 24 | Reduced ⁴ |
| | | 23095 | | | | | Reduced ⁴ |
| | | 23129 | | | | | Reduced ⁴ |
| | | All lower bandwidths (5 MHz) | | | | | Reduced ⁵ |
| | B | 23060 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ |
| | | 23095 | | | | | Tested |
| | | 23129 | | | | | Reduced ⁶ |
| | | 23060 | | | 50 | 0 | Reduced ¹ |
| | | 23095 | | | | | Reduced ¹ |
| | | 23129 | | | | | Reduced ¹ |
| | | 23060 | | | 1 | 12 | Reduced ⁶ |
| | | 23095 | | | | | Tested |
| | | 23129 | | | | | Reduced ⁶ |
| | | 23060 | | | | 24 | Reduced ² |
| | | 23095 | | | | | Reduced ² |
| | | 23129 | | | | | Reduced ² |
| | | 23060 | | 16QAM | 25 | 12 | Reduced ³ |
| | | 23095 | | | | | Reduced ³ |
| | | 23129 | | | | | Reduced ³ |
| | | 23060 | | | 50 | 0 | Reduced ¹ |
| | | 23095 | | | | | Reduced ¹ |
| | | 23129 | | | | | Reduced ¹ |
| | | 23060 | | | 1 | 12 | Reduced ⁴ |
| | | 23095 | | | | | Reduced ⁴ |
| | | 23129 | | | | | Reduced ⁴ |
| | | 23060 | | | | 24 | Reduced ⁴ |
| | | 23095 | | | | | Reduced ⁴ |
| | | 23129 | | | | | Reduced ⁴ |
| | | All lower bandwidths (5 MHz) | | | | | Reduced ⁵ |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3) A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3) B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4) B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|--------------------------|------|------------------------------|-----------|------------|------------------|--------------|----------------------|
| Band 12 699-716 MHz | C | 23060 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ |
| | | 23095 | | | | | Tested |
| | | 23129 | | | | | Reduced ⁶ |
| | | 23060 | | | 50 | 0 | Reduced ¹ |
| | | 23095 | | | | | Reduced ¹ |
| | | 23129 | | | | | Reduced ¹ |
| | | 23060 | | | 1 | 12 | Reduced ⁶ |
| | | 23095 | | | | | Tested |
| | | 23129 | | | | | Reduced ⁶ |
| | | 23060 | | | | 24 | Reduced ² |
| | | 23095 | | | | | Reduced ² |
| | | 23129 | | | | | Reduced ² |
| | | 23060 | | 16QAM | 25 | 12 | Reduced ³ |
| | | 23095 | | | | | Reduced ³ |
| | | 23129 | | | | | Reduced ³ |
| | | 23060 | | | 50 | 0 | Reduced ¹ |
| | | 23095 | | | | | Reduced ¹ |
| | | 23129 | | | | | Reduced ¹ |
| | | 23060 | | | 1 | 12 | Reduced ⁴ |
| | | 23095 | | | | | Reduced ⁴ |
| | | 23129 | | | | | Reduced ⁴ |
| | | 23060 | | | | 24 | Reduced ⁴ |
| | | 23095 | | | | | Reduced ⁴ |
| | | 23129 | | | | | Reduced ⁴ |
| | | All lower bandwidths (5 MHz) | | | | | Reduced ⁵ |
| | D | 23060 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ |
| | | 23095 | | | | | Tested |
| | | 23129 | | | | | Reduced ⁶ |
| | | 23060 | | | 50 | 0 | Reduced ¹ |
| | | 23095 | | | | | Reduced ¹ |
| | | 23129 | | | | | Reduced ¹ |
| | | 23060 | | | 1 | 12 | Reduced ⁶ |
| | | 23095 | | | | | Tested |
| | | 23129 | | | | | Reduced ⁶ |
| | | 23060 | | | | 24 | Reduced ² |
| | | 23095 | | | | | Reduced ² |
| | | 23129 | | | | | Reduced ² |
| | | 23060 | | 16QAM | 25 | 12 | Reduced ³ |
| | | 23095 | | | | | Reduced ³ |
| | | 23129 | | | | | Reduced ³ |
| | | 23060 | | | 50 | 0 | Reduced ¹ |
| | | 23095 | | | | | Reduced ¹ |
| | | 23129 | | | | | Reduced ¹ |
| | | 23060 | | | 1 | 12 | Reduced ⁴ |
| | | 23095 | | | | | Reduced ⁴ |
| | | 23129 | | | | | Reduced ⁴ |
| | | 23060 | | | | 24 | Reduced ⁴ |
| | | 23095 | | | | | Reduced ⁴ |
| | | 23129 | | | | | Reduced ⁴ |
| | | All lower bandwidths (5 MHz) | | | | | Reduced ⁵ |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|------------------------------|------|--------------------------|-----------|------------|------------------|--------------|----------------------|
| Band 12 699-716 MHz | E | 23060 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ |
| | | 23095 | | | | | Tested |
| | | 23129 | | | | | Reduced ⁶ |
| | | 23060 | | | 50 | 0 | Reduced ¹ |
| | | 23095 | | | | | Reduced ¹ |
| | | 23129 | | | | | Reduced ¹ |
| | | 23060 | | | 1 | 12 | Reduced ⁶ |
| | | 23095 | | | | | Tested |
| | | 23129 | | | | 24 | Reduced ⁶ |
| | | 23060 | | | | | Reduced ² |
| | | 23095 | | | | | Reduced ² |
| | | 23129 | | | | | Reduced ² |
| | | 23060 | | 16QAM | 25 | 12 | Reduced ³ |
| | | 23095 | | | | | Reduced ³ |
| | | 23129 | | | 50 | 0 | Reduced ³ |
| | | 23060 | | | | | Reduced ¹ |
| | | 23095 | | | | | Reduced ¹ |
| | | 23129 | | | | | Reduced ¹ |
| | | 23060 | | | 1 | 12 | Reduced ⁴ |
| | | 23095 | | | | | Reduced ⁴ |
| | | 23129 | | | | 24 | Reduced ⁴ |
| | | 23060 | | | | | Reduced ⁴ |
| | | 23095 | | | | | Reduced ⁴ |
| | | 23129 | | | | | Reduced ⁴ |
| All lower bandwidths (5 MHz) | | | | | | | Reduced ⁵ |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)
A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)
B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)
A) I) page 4.

Reduced⁴ - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)
B) I) page 5.

Reduced⁵ - If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶ - If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

Side F Reduced based on distance in KDB 447498 D01 v06 (See below calculations).

Maximum power: 251.2 mW

Closest Distance to Side F: 110.0 mm

$$[[(3.0)/(\sqrt{0.849})]*50 \text{ mm}]+[(110-50 \text{ mm})*10]=762 \text{ mW which is greater than 251.2 mW}$$

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced | | |
|------------------------------|----------------------|------------------------------|----------------------|----------------------|------------------|----------------------|----------------------|----------------------|----------------------|
| Band 17 704-716 MHz | A | 23780 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ | | |
| | | 23790 | | | | | Tested | | |
| | | 23800 | | | | | Reduced ⁶ | | |
| | | 23780 | | | 50 | 0 | Reduced ¹ | | |
| | | 23790 | | | | | Reduced ¹ | | |
| | | 23800 | | | | | Reduced ¹ | | |
| | | 23780 | | | 1 | 12 | Reduced ⁶ | | |
| | | 23790 | | | | | Tested | | |
| | | 23800 | | | | | Reduced ⁶ | | |
| | | 23780 | | | | 24 | Reduced ² | | |
| | | 23790 | | | | | Reduced ² | | |
| | | 23800 | | | | | Reduced ² | | |
| | | 23780 | | 16QAM | 25 | 12 | Reduced ³ | | |
| | | 23790 | | | | | Reduced ³ | | |
| | | 23800 | | | | | Reduced ³ | | |
| | | 23780 | | | 50 | 0 | Reduced ¹ | | |
| | | 23790 | | | | | Reduced ¹ | | |
| | | 23800 | | | | | Reduced ¹ | | |
| | | 23780 | | | 1 | 12 | Reduced ⁴ | | |
| | | 23790 | | | | | Reduced ⁴ | | |
| | | 23800 | | | | | Reduced ⁴ | | |
| | | 23780 | | | | 24 | Reduced ⁴ | | |
| | | 23790 | | | | | Reduced ⁴ | | |
| | | 23800 | | | | | Reduced ⁴ | | |
| | | 23800 | | Reduced ⁴ | | | | | |
| | | All lower bandwidths (5 MHz) | | | | | | Reduced ⁵ | |
| | | B | | 23780 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ |
| | | | | 23790 | | | | | Tested |
| | 23800 | | Reduced ⁶ | | | | | | |
| | 23780 | | 50 | 0 | | | Reduced ¹ | | |
| | 23790 | | | | | | Reduced ¹ | | |
| | 23800 | | | | | | Reduced ¹ | | |
| | 23780 | | 1 | 12 | | | Reduced ⁶ | | |
| | 23790 | | | | | | Tested | | |
| | 23800 | | | | | | Reduced ⁶ | | |
| | 23780 | | | 24 | | | Reduced ² | | |
| | 23790 | | | | | | Reduced ² | | |
| | 23800 | | | | | | Reduced ² | | |
| | 23780 | | 16QAM | 25 | | 12 | Reduced ³ | | |
| | 23790 | | | | | | Reduced ³ | | |
| | 23800 | | | | | | Reduced ³ | | |
| | 23780 | | | 50 | | 0 | Reduced ¹ | | |
| | 23790 | | | | | | Reduced ¹ | | |
| | 23800 | | | | | | Reduced ¹ | | |
| | 23780 | | | 1 | | 12 | Reduced ⁴ | | |
| | 23790 | | | | | | Reduced ⁴ | | |
| | 23800 | | | | | | Reduced ⁴ | | |
| | 23780 | | | | | 24 | Reduced ⁴ | | |
| | 23790 | | | | | | Reduced ⁴ | | |
| | 23800 | | | | | | Reduced ⁴ | | |
| 23800 | Reduced ⁴ | | | | | | | | |
| All lower bandwidths (5 MHz) | | | | | | Reduced ⁵ | | | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3) A) I) page 4.

Reduced² – If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3) B) I) page 4.

Reduced³ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4) A) I) page 4.

Reduced⁴ – If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4) B) I) page 5.

Reduced⁵ – If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶ – If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced | | | | | |
|--------------------------|------|------------------------------|-----------|------------|------------------|--------------|----------------------|----------------------|--|--|--|--|
| Band 17 704-716 MHz | C | 23780 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ | | | | | |
| | | 23790 | | | | | Tested | | | | | |
| | | 23800 | | | | 0 | Reduced ⁶ | | | | | |
| | | 23780 | | | | | Reduced ¹ | | | | | |
| | | 23790 | | | 50 | 0 | Reduced ¹ | | | | | |
| | | 23800 | | | | | Reduced ¹ | | | | | |
| | | 23780 | | | 1 | 12 | Reduced ⁶ | | | | | |
| | | 23790 | | | | | Tested | | | | | |
| | | 23800 | | | | 24 | Reduced ⁶ | | | | | |
| | | 23780 | | | | | Reduced ² | | | | | |
| | | 23790 | | | | | Reduced ² | | | | | |
| | | 23800 | | | | | Reduced ² | | | | | |
| | | 23780 | | 16QAM | 25 | 12 | Reduced ³ | | | | | |
| | | 23790 | | | | | Reduced ³ | | | | | |
| | | 23800 | | | 50 | 0 | Reduced ¹ | | | | | |
| | | 23780 | | | | | Reduced ¹ | | | | | |
| | | 23790 | | | | | Reduced ¹ | | | | | |
| | | 23800 | | | | | Reduced ⁴ | | | | | |
| | | 23780 | | | 1 | 12 | Reduced ⁴ | | | | | |
| | | 23790 | | | | | Reduced ⁴ | | | | | |
| | | 23800 | | | | 24 | Reduced ⁴ | | | | | |
| | | 23780 | | | | | Reduced ⁴ | | | | | |
| | | 23790 | | | | | Reduced ⁴ | | | | | |
| | | 23800 | | | | | Reduced ⁴ | | | | | |
| | | All lower bandwidths (5 MHz) | | | | | | Reduced ⁵ | | | | |
| | D | 23780 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ | | | | | |
| | | 23790 | | | | | Tested | | | | | |
| | | 23800 | | | | 0 | Reduced ⁶ | | | | | |
| | | 23780 | | | | | Reduced ¹ | | | | | |
| | | 23790 | | | 50 | 0 | Reduced ¹ | | | | | |
| | | 23800 | | | | | Reduced ¹ | | | | | |
| | | 23780 | | | 1 | 12 | Reduced ⁶ | | | | | |
| | | 23790 | | | | | Tested | | | | | |
| | | 23800 | | | | 24 | Reduced ⁶ | | | | | |
| | | 23780 | | | | | Reduced ² | | | | | |
| | | 23790 | | | | | Reduced ² | | | | | |
| | | 23800 | | | | | Reduced ² | | | | | |
| | | 23780 | | 16QAM | 25 | 12 | Reduced ³ | | | | | |
| | | 23790 | | | | | Reduced ³ | | | | | |
| | | 23800 | | | 50 | 0 | Reduced ³ | | | | | |
| | | 23780 | | | | | Reduced ¹ | | | | | |
| | | 23790 | | | | | Reduced ¹ | | | | | |
| | | 23800 | | | | | Reduced ¹ | | | | | |
| | | 23780 | | | 1 | 12 | Reduced ⁴ | | | | | |
| | | 23790 | | | | | Reduced ⁴ | | | | | |
| | | 23800 | | | | 24 | Reduced ⁴ | | | | | |
| | | 23780 | | | | | Reduced ⁴ | | | | | |
| | | 23790 | | | | | Reduced ⁴ | | | | | |
| | | 23800 | | | | | Reduced ⁴ | | | | | |
| | | All lower bandwidths (5 MHz) | | | | | | Reduced ⁵ | | | | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3)

A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3)

B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05

4) A) I) page 4.

Reduced⁴- If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4)

B) I) page 5.

Reduced⁵- If the conducted power is within ± 0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶- If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ± 0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

| Band/ Frequency (MHz) | Side | Required Test Channel | Bandwidth | Modulation | RB Allocation | RB Offset | Tested/ Reduced |
|--------------------------|------------------------------|--------------------------|-----------|------------|------------------|----------------------|----------------------|
| Band 17 704-716 MHz | E | 23780 | 10 MHz | QPSK | 25 | 12 | Reduced ⁶ |
| | | 23790 | | | | | Tested |
| | | 23800 | | | | | Reduced ⁶ |
| | | 23780 | | | 50 | 0 | Reduced ¹ |
| | | 23790 | | | | | Reduced ¹ |
| | | 23800 | | | | | Reduced ¹ |
| | | 23780 | | | 1 | 12 | Reduced ⁶ |
| | | 23790 | | | | | Tested |
| | | 23800 | | | | | Reduced ⁶ |
| | | 23780 | | | | 24 | Reduced ² |
| | | 23790 | | | | | Reduced ² |
| | | 23800 | | | | | Reduced ² |
| | | 23780 | | 16QAM | 25 | 12 | Reduced ³ |
| | | 23790 | | | | | Reduced ³ |
| | | 23800 | | | | | Reduced ³ |
| | | 23780 | | | 50 | 0 | Reduced ¹ |
| | | 23790 | | | | | Reduced ¹ |
| | | 23800 | | | | | Reduced ¹ |
| | | 23780 | | | 1 | 12 | Reduced ⁴ |
| | | 23790 | | | | | Reduced ⁴ |
| | | 23800 | | | | | Reduced ⁴ |
| | | 23780 | | | | 24 | Reduced ⁴ |
| | | 23790 | | | | | Reduced ⁴ |
| | | 23800 | | | | | Reduced ⁴ |
| | | 23780 | | | | | Reduced ⁴ |
| | | 23790 | | | | | Reduced ⁴ |
| 23800 | All lower bandwidths (5 MHz) | | | | | Reduced ⁵ | |

Reduced¹ – If the SAR value in the 50% RB testing is less than 1.45 W/kg, the 100% RB testing is reduced per KDB941225 D05 3) A) I) page 4.

Reduced² - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 3) B) I) page 4.

Reduced³ - If the SAR value in the 50% RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4) A) I) page 4.

Reduced⁴ - If the SAR value in the 1 RB testing is less than 1.45 W/kg, the remaining channels are reduced per KDB941225 D05 4) B) I) page 5.

Reduced⁵ - If the conducted power is within ±0.5 dB, all testing where the SAR value is less than 1.45 W/kg is reduced per KDB941225 D05 5) B) I) page 5.

Reduced⁶ - If the SAR value measured on the middle channel is less than 0.8 W/kg and the conducted power is within ±0.5 dB, the remaining channels are reduced per KDB941225 D05 page 4 footnote 2.

Side F Reduced based on distance in KDB 447498 D01 v06 (See below calculations).

Maximum power: 251.2 mW

Closest Distance to Side F: 110.0 mm

$[\{(3.0)/(\sqrt{0.849})\} * 50 \text{ mm}] + \{110 - 50 \text{ mm}\} * 10 = 762 \text{ mW}$ which is greater than 251.2 mW

SAR Data Summary – 750 MHz Body – LTE Band 12

| MEASUREMENT RESULTS | | | | | | | | | | | |
|---------------------|-------|----------|-----------|-------|-------------------|------------|---|---------------|--------------|------------------------|------------------------|
| Gap | Plot | Position | Frequency | | BW/ Modulation | RB Size | RB Offset | MPR Target | End Power | Measured SAR (W/kg) | Reported SAR (W/kg) |
| | | | MHz | Ch. | | | | | (dBm) | | |
| 10 mm | 1 | Side A | 707.5 | 23095 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.558 | 0.71 |
| | ----- | | 707.5 | 23095 | 10 MHz/QPSK | 25 | 12 | 1 | 21.78 | 0.445 | 0.53 |
| | ----- | Side B | 707.5 | 23095 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.171 | 0.22 |
| | ----- | | 707.5 | 23095 | 10 MHz/QPSK | 25 | 12 | 1 | 21.78 | 0.142 | 0.17 |
| | ----- | Side C | 707.5 | 23095 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.537 | 0.68 |
| | ----- | | 707.5 | 23095 | 10 MHz/QPSK | 25 | 12 | 1 | 21.78 | 0.461 | 0.54 |
| | ----- | Side D | 707.5 | 23095 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.337 | 0.43 |
| | ----- | | 707.5 | 23095 | 10 MHz/QPSK | 25 | 12 | 1 | 21.78 | 0.251 | 0.30 |
| | ----- | Side E | 707.5 | 23095 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.0412 | 0.05 |
| | ----- | | 707.5 | 23095 | 10 MHz/QPSK | 25 | 12 | 1 | 21.78 | 0.0343 | 0.04 |
| | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | |

- Battery is fully charged for all tests.

Power Measured

☒ Conducted

☐ ERP

☐ EIRP

- SAR Measurement

Phantom Configuration

☐ Left Head

☒ Eli4

☐ Right Head

SAR Configuration

☐ Head

☒ Body

- Test Signal Call Mode

☒ Test Code

☐ Base Station Simulator

- Test Configuration

☐ With Belt Clip

☐ Without Belt Clip ☒ N/A

- Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 750 MHz Body – LTE Band 13

| MEASUREMENT RESULTS | | | | | | | | | | | |
|---------------------|-------|----------|-----------|-------|-------------------|------------|---|---------------|--------------|------------------------|------------------------|
| Gap | Plot | Position | Frequency | | BW/ Modulation | RB Size | RB Offset | MPR Target | End Power | Measured SAR (W/kg) | Reported SAR (W/kg) |
| | | | MHz | Ch. | | | | | (dBm) | | |
| 10 mm | 2 | Side A | 782.0 | 23230 | 10 MHz/QPSK | 1 | 24 | 0 | 22.56 | 0.497 | 0.62 |
| | ----- | | 782.0 | 23230 | 10 MHz/QPSK | 25 | 12 | 1 | 21.73 | 0.401 | 0.48 |
| | ----- | Side B | 782.0 | 23230 | 10 MHz/QPSK | 1 | 24 | 0 | 22.56 | 0.164 | 0.20 |
| | ----- | | 782.0 | 23230 | 10 MHz/QPSK | 25 | 12 | 1 | 21.73 | 0.132 | 0.16 |
| | ----- | Side C | 782.0 | 23230 | 10 MHz/QPSK | 1 | 24 | 0 | 22.56 | 0.439 | 0.55 |
| | ----- | | 782.0 | 23230 | 10 MHz/QPSK | 25 | 12 | 1 | 21.73 | 0.354 | 0.42 |
| | ----- | Side D | 782.0 | 23230 | 10 MHz/QPSK | 1 | 24 | 0 | 22.56 | 0.248 | 0.31 |
| | ----- | | 782.0 | 23230 | 10 MHz/QPSK | 25 | 12 | 1 | 21.73 | 0.196 | 0.23 |
| | ----- | Side E | 782.0 | 23230 | 10 MHz/QPSK | 1 | 24 | 0 | 22.56 | 0.0404 | 0.05 |
| | ----- | | 782.0 | 23230 | 10 MHz/QPSK | 25 | 12 | 1 | 21.73 | 0.0312 | 0.04 |
| | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | |

1. Battery is fully charged for all tests.

Power Measured

☒ Conducted

☐ ERP

☐ EIRP

2. SAR Measurement

Phantom Configuration

☐ Left Head

☒ Eli4

☐ Right Head

SAR Configuration

☐ Head

☒ Body

3. Test Signal Call Mode

☒ Test Code

☐ Base Station Simulator

4. Test Configuration

☐ With Belt Clip

☐ Without Belt Clip ☒ N/A

5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 750 MHz Body – LTE Band 17

| MEASUREMENT RESULTS | | | | | | | | | | | |
|---------------------|-------|----------|-----------|-------|-------------------|------------|---|---------------|--------------|------------------------|------------------------|
| Gap | Plot | Position | Frequency | | BW/ Modulation | RB Size | RB Offset | MPR Target | End Power | Measured SAR (W/kg) | Reported SAR (W/kg) |
| | | | MHz | Ch. | | | | | (dBm) | | |
| 10 mm | 3 | Side A | 710.0 | 23790 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.570 | 0.72 |
| | ----- | | 710.0 | 23790 | 10 MHz/QPSK | 25 | 12 | 1 | 21.78 | 0.465 | 0.55 |
| | ----- | Side B | 710.0 | 23790 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.143 | 0.18 |
| | ----- | | 710.0 | 23790 | 10 MHz/QPSK | 25 | 12 | 1 | 21.78 | 0.111 | 0.13 |
| | ----- | Side C | 710.0 | 23790 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.475 | 0.60 |
| | ----- | | 710.0 | 23790 | 10 MHz/QPSK | 25 | 12 | 1 | 21.78 | 0.382 | 0.45 |
| | ----- | Side D | 710.0 | 23790 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.312 | 0.40 |
| | ----- | | 710.0 | 23790 | 10 MHz/QPSK | 25 | 12 | 1 | 21.78 | 0.207 | 0.24 |
| | ----- | Side E | 710.0 | 23790 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.0435 | 0.06 |
| | ----- | | 710.0 | 23790 | 10 MHz/QPSK | 25 | 12 | 1 | 21.78 | 0.032 | 0.04 |
| | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | |

1. Battery is fully charged for all tests.

Power Measured

☒ Conducted

☐ ERP

☐ EIRP

2. SAR Measurement

Phantom Configuration

☐ Left Head

☒ Eli4

☐ Right Head

SAR Configuration

☐ Head

☒ Body

3. Test Signal Call Mode

☒ Test Code

☐ Base Station Simulator

4. Test Configuration

☐ With Belt Clip

☐ Without Belt Clip ☒ N/A

5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 835 MHz Body - WCDMA

MEASUREMENT RESULTS

| Gap | Plot | Frequency | | Modulation | Position | End Power | RMC | Test Set Up | Measured SAR (W/kg) | Reported SAR (W/kg) |
|-------|------|-----------|------|------------|----------|-----------|-----------|-------------|---------------------|---------------------|
| | | MHz | Ch. | | | (dBm) | | | | |
| 10 mm | 4 | 836.6 | 4183 | WCDMA | Side A | 23.13 | 12.2 kbps | Test Loop 1 | 0.433 | 0.47 |
| | ---- | 836.6 | 4183 | WCDMA | Side B | 23.13 | 12.2 kbps | Test Loop 1 | 0.122 | 0.13 |
| | ---- | 836.6 | 4183 | WCDMA | Side C | 23.13 | 12.2 kbps | Test Loop 1 | 0.371 | 0.40 |
| | ---- | 836.6 | 4183 | WCDMA | Side D | 23.13 | 12.2 kbps | Test Loop 1 | 0.160 | 0.17 |
| | ---- | 836.6 | 4183 | WCDMA | Side E | 23.13 | 12.2 kbps | Test Loop 1 | 0.0493 | 0.05 |

1. Battery is fully charged for all tests.

Power Measured

☒ Conducted

☐ ERP

☐ EIRP

2. SAR Measurement

Phantom Configuration

☐ Left Head

☒ Eli4

☐ Right Head

SAR Configuration

☐ Head

☒ Body

3. Test Signal Call Mode

☒ Test Code

☐ Base Station Simulator

4. Test Configuration

☐ With Belt Clip

☐ Without Belt Clip ☒ N/A

5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 835 MHz Body - GPRS

MEASUREMENT RESULTS

| Gap | Plot | Frequency | | Rev Level/ Modulation | Position | End Power (dBm) | TX Level | Multislot Configuration | Measured SAR (W/kg) | Reported SAR (W/kg) |
|----------|------|-----------|-----|--------------------------|----------|-----------------------|-------------|----------------------------|---------------------------|---------------------------|
| | | MHz | Ch. | | | | | | | |
| 10 mm | 5 | 836.6 | 190 | GMSK | Side A | 32.15 | 5 | 2 Slot | 0.390 | 0.60 |
| | ---- | 836.6 | 190 | GMSK | Side B | 32.15 | 5 | 2 Slot | 0.120 | 0.18 |
| | ---- | 836.6 | 190 | GMSK | Side C | 32.15 | 5 | 2 Slot | 0.332 | 0.51 |
| | ---- | 836.6 | 190 | GMSK | Side D | 32.15 | 5 | 2 Slot | 0.160 | 0.25 |
| | ---- | 836.6 | 190 | GMSK | Side E | 32.15 | 5 | 2 Slot | 0.0419 | 0.06 |

Body
1.6 W/kg (mW/g)
averaged over 1 gram

- Battery is fully charged for all tests.
Power Measured ☒ Conducted ☐ ERP ☐ EIRP
- SAR Measurement
Phantom Configuration ☐ Left Head ☒ Eli4 ☐ Right Head
SAR Configuration ☐ Head ☒ Body
- Test Signal Call Mode ☒ Test Code ☐ Base Station Simulator
- Test Configuration ☐ With Belt Clip ☐ Without Belt Clip ☒ N/A
- Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 835 MHz Body – LTE Band 5

| MEASUREMENT RESULTS | | | | | | | | | | | |
|---------------------|-------|----------|-----------|-------|-------------------|------------|--------------|---------------|--------------------|---------------------------|---------------------------|
| Gap | Plot | Position | Frequency | | BW/ Modulation | RB Size | RB Offset | MPR Target | End Power (dBm) | Measured SAR (W/kg) | Reported SAR (W/kg) |
| | | | MHz | Ch. | | | | | | | |
| 10 mm | ----- | Side A | 829.0 | 20450 | 10 MHz/QPSK | 1 | 24 | 0 | 21.72 | 0.521 | 0.88 |
| | 5 | | 836.5 | 20525 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.660 | 0.94 |
| | ----- | | 844.0 | 20599 | 10 MHz/QPSK | 1 | 24 | 0 | 21.66 | 0.509 | 0.87 |
| | ----- | | 836.5 | 20525 | 10 MHz/QPSK | 25 | 12 | 1 | 21.62 | 0.530 | 0.73 |
| | ----- | Side B | 836.5 | 20525 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.205 | 0.29 |
| | ----- | | 836.5 | 20525 | 10 MHz/QPSK | 25 | 12 | 1 | 21.62 | 0.163 | 0.22 |
| | ----- | Side C | 836.5 | 20525 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.536 | 0.76 |
| | ----- | | 836.5 | 20525 | 10 MHz/QPSK | 25 | 12 | 1 | 21.62 | 0.433 | 0.60 |
| | ----- | Side D | 836.5 | 20525 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.314 | 0.45 |
| | ----- | | 836.5 | 20525 | 10 MHz/QPSK | 25 | 12 | 1 | 21.62 | 0.259 | 0.36 |
| | ----- | Side E | 836.5 | 20525 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.056 | 0.08 |
| | ----- | | 836.5 | 20525 | 10 MHz/QPSK | 25 | 12 | 1 | 21.62 | 0.0474 | 0.07 |
| | ----- | Repeat | 836.5 | 20525 | 10 MHz/QPSK | 1 | 24 | 0 | 22.48 | 0.651 | 0.92 |

1. Battery is fully charged for all tests.

Power Measured

☒ Conducted

☐ ERP

☐ EIRP

2. SAR Measurement

Phantom Configuration

☐ Left Head

☒ Eli4

☐ Right Head

SAR Configuration

☐ Head

☒ Body

3. Test Signal Call Mode

☒ Test Code

☐ Base Station Simulator

4. Test Configuration

☐ With Belt Clip

☐ Without Belt Clip ☒ N/A

5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 1750 MHz Body – LTE Band 4

| MEASUREMENT RESULTS | | | | | | | | | | | |
|---------------------|-------|----------|-----------|-------|-------------------|------------|--------------|---------------|-----------------------|------------------------|------------------------|
| Gap | Plot | Position | Frequency | | BW/ Modulation | RB Size | RB Offset | MPR Target | End Power (dBm) | Measured SAR (W/kg) | Reported SAR (W/kg) |
| | | | MHz | Ch. | | | | | | | |
| 10 mm | ----- | Side A | 1720.0 | 20050 | 20 MHz/QPSK | 1 | 49 | 0 | 22.74 | 0.991 | 1.18 |
| | ----- | | 1732.5 | 20175 | 20 MHz/QPSK | 1 | 49 | 0 | 22.69 | 1.06 | 1.28 |
| | ----- | | 1745.0 | 20300 | 20 MHz/QPSK | 1 | 49 | 0 | 22.84 | 1.03 | 1.20 |
| | ----- | | 1720.0 | 20050 | 20 MHz/QPSK | 50 | 24 | 1 | 21.34 | 0.775 | 1.01 |
| | ----- | | 1732.5 | 20175 | 20 MHz/QPSK | 50 | 24 | 1 | 22.12 | 0.853 | 0.93 |
| | ----- | Side B | 1745.0 | 20300 | 20 MHz/QPSK | 50 | 24 | 1 | 21.98 | 0.912 | 1.03 |
| | ----- | | 1732.5 | 20175 | 20 MHz/QPSK | 1 | 49 | 0 | 22.69 | 0.358 | 0.43 |
| | ----- | | 1732.5 | 20175 | 20 MHz/QPSK | 50 | 24 | 1 | 22.12 | 0.298 | 0.33 |
| | ----- | Side C | 1720.0 | 20050 | 20 MHz/QPSK | 1 | 49 | 0 | 22.74 | 0.910 | 1.08 |
| | ----- | | 1732.5 | 20175 | 20 MHz/QPSK | 1 | 49 | 0 | 22.69 | 1.01 | 1.22 |
| | ----- | | 1745.0 | 20300 | 20 MHz/QPSK | 1 | 49 | 0 | 22.84 | 1.11 | 1.29 |
| | ----- | | 1720.0 | 20050 | 20 MHz/QPSK | 50 | 24 | 1 | 21.34 | 0.733 | 0.96 |
| | ----- | | 1732.5 | 20175 | 20 MHz/QPSK | 50 | 24 | 1 | 22.12 | 0.869 | 0.95 |
| | ----- | Side D | 1745.0 | 20300 | 20 MHz/QPSK | 50 | 24 | 1 | 21.98 | 0.936 | 1.06 |
| | ----- | | 1732.5 | 20175 | 20 MHz/QPSK | 1 | 49 | 0 | 22.69 | 0.360 | 0.43 |
| | ----- | | 1732.5 | 20175 | 20 MHz/QPSK | 50 | 24 | 1 | 22.12 | 0.305 | 0.33 |
| | ----- | Side E | 1732.5 | 20175 | 20 MHz/QPSK | 1 | 49 | 0 | 22.69 | 0.249 | 0.30 |
| | ----- | | 1732.5 | 20175 | 20 MHz/QPSK | 50 | 24 | 1 | 22.12 | 0.206 | 0.23 |
| | ----- | Repeat | 1720.0 | 20050 | 20 MHz/QPSK | 1 | 49 | 0 | 22.84 | 1.09 | 1.27 |

Body
1.6 W/kg (mW/g)
averaged over 1 gram

- Battery is fully charged for all tests.

Power Measured

☒ Conducted

☐ ERP

☐ EIRP

- SAR Measurement

Phantom Configuration

☐ Left Head

☒ Eli4

☐ Right Head

SAR Configuration

☐ Head

☒ Body

- Test Signal Call Mode

☒ Test Code

☐ Base Station Simulator

- Test Configuration

☐ With Belt Clip

☐ Without Belt Clip ☒ N/A

- Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 1900 MHz Body - WCDMA

MEASUREMENT RESULTS

| Gap | Plot | Frequency | | Rev Level/ Modulation | Position | End Power | RMC | Test Set Up | Measured SAR (W/kg) | Reported SAR (W/kg) |
|----------|------|-----------|------|--------------------------|----------|--------------|-----------|-------------|---------------------------|---------------------------|
| | | MHz | Ch. | | | (dBm) | | | | |
| 10 mm | ---- | 1852.4 | 9262 | WCDMA | Side A | 23.05 | 12.2 kbps | Test Loop 1 | 1.07 | 1.19 |
| | 8 | 1880.0 | 9400 | WCDMA | | 23.32 | 12.2 kbps | Test Loop 1 | 1.36 | 1.42 |
| | ---- | 1907.6 | 9538 | WCDMA | | 23.38 | 12.2 kbps | Test Loop 1 | 1.20 | 1.23 |
| | ---- | 1852.4 | 9262 | WCDMA | Side B | 23.02 | 12.2 kbps | Test Loop 1 | 0.352 | 0.39 |
| | ---- | 1880.0 | 9400 | WCDMA | Side C | 23.02 | 12.2 kbps | Test Loop 1 | 0.615 | 0.69 |
| | ---- | 1852.4 | 9262 | WCDMA | Side D | 23.02 | 12.2 kbps | Test Loop 1 | 0.419 | 0.47 |
| | ---- | 1852.4 | 9262 | WCDMA | Side E | 23.02 | 12.2 kbps | Test Loop 1 | 0.348 | 0.39 |
| | ---- | 1907.6 | 9538 | WCDMA | Repeat | 23.32 | 12.2 kbps | Test Loop 1 | 1.32 | 1.38 |

Body
1.6 W/kg (mW/g)
averaged over 1 gram

- Battery is fully charged for all tests.
Power Measured ☒ Conducted ☐ ERP ☐ EIRP
- SAR Measurement
Phantom Configuration ☐ Left Head ☒ Eli4 ☐ Right Head
SAR Configuration ☐ Head ☒ Body
- Test Signal Call Mode ☒ Test Code ☐ Base Station Simulator
- Test Configuration ☐ With Belt Clip ☐ Without Belt Clip ☒ N/A
- Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 1900 MHz Body - GPRS

MEASUREMENT RESULTS

| Gap | Plot | Frequency | | Rev Level/ Modulation | Position | End Power (dBm) | TX Level | Multislot Configuration | Measured SAR (W/kg) | Reported SAR (W/kg) |
|----------|------|-----------|-----|--------------------------|----------|-----------------------|-------------|----------------------------|---------------------------|---------------------------|
| | | MHz | Ch. | | | | | | | |
| 10 mm | ---- | 1850.2 | 512 | GMSK | Side A | 26.64 | 0 | 2 Slot | 0.598 | 0.82 |
| | 9 | 1880.0 | 661 | GMSK | | 26.72 | 0 | 2 Slot | 0.667 | 0.90 |
| | ---- | 1909.8 | 810 | GMSK | | 26.47 | 0 | 2 Slot | 0.567 | 0.81 |
| | ---- | 1880.0 | 661 | GMSK | Side B | 26.72 | 0 | 2 Slot | 0.172 | 0.23 |
| | ---- | 1880.0 | 661 | GMSK | Side C | 26.72 | 0 | 2 Slot | 0.285 | 0.38 |
| | ---- | 1880.0 | 661 | GMSK | Side D | 26.72 | 0 | 2 Slot | 0.174 | 0.23 |
| | ---- | 1880.0 | 661 | GMSK | Side E | 26.72 | 0 | 2 Slot | 0.167 | 0.22 |
| | ---- | Repeated | | GMSK | Side A | 26.72 | 0 | 2 Slot | 0.651 | 0.87 |

Body
1.6 W/kg (mW/g)
averaged over 1 gram

- Battery is fully charged for all tests.
Power Measured ☒ Conducted ☐ ERP ☐ EIRP
- SAR Measurement
Phantom Configuration ☐ Left Head ☒ Eli4 ☐ Right Head
SAR Configuration ☐ Head ☒ Body
- Test Signal Call Mode ☒ Test Code ☐ Base Station Simulator
- Test Configuration ☐ With Belt Clip ☐ Without Belt Clip ☒ N/A
- Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 1900 MHz Body – LTE Band 2

| MEASUREMENT RESULTS | | | | | | | | | | | |
|---------------------|-------|----------|-----------|-------|-------------------|------------|--------------|---------------|--------------------|---------------------------|---------------------------|
| Gap | Plot | Position | Frequency | | BW/ Modulation | RB Size | RB Offset | MPR Target | End Power (dBm) | Measured SAR (W/kg) | Reported SAR (W/kg) |
| | | | MHz | Ch. | | | | | | | |
| 10 mm | 10 | Side A | 1860.0 | 18700 | 20 MHz/QPSK | 1 | 49 | 0 | 22.99 | 1.15 | 1.29 |
| | ----- | | 1880.0 | 18900 | 20 MHz/QPSK | 1 | 49 | 0 | 22.82 | 1.14 | 1.33 |
| | ----- | | 1900.0 | 19100 | 20 MHz/QPSK | 1 | 49 | 0 | 22.06 | 0.948 | 1.32 |
| | ----- | | 1860.0 | 18700 | 20 MHz/QPSK | 50 | 24 | 1 | 22.38 | 0.986 | 1.28 |
| | ----- | | 1880.0 | 18900 | 20 MHz/QPSK | 50 | 4 | 1 | 22.59 | 1.09 | 1.34 |
| | ----- | | 1900.0 | 19100 | 20 MHz/QPSK | 50 | 24 | 1 | 22.61 | 1.06 | 1.30 |
| | ----- | Side B | 1880.0 | 18900 | 20 MHz/QPSK | 1 | 49 | 0 | 22.82 | 0.431 | 0.50 |
| | ----- | | 1880.0 | 18900 | 20 MHz/QPSK | 50 | 24 | 1 | 22.59 | 0.349 | 0.43 |
| | ----- | Side C | 1880.0 | 18900 | 20 MHz/QPSK | 1 | 49 | 0 | 22.82 | 0.626 | 0.73 |
| | ----- | | 1880.0 | 18900 | 20 MHz/QPSK | 50 | 24 | 1 | 22.59 | 0.527 | 0.65 |
| | ----- | Side D | 1880.0 | 18900 | 20 MHz/QPSK | 1 | 49 | 0 | 22.82 | 0.442 | 0.52 |
| | ----- | | 1880.0 | 18900 | 20 MHz/QPSK | 50 | 24 | 1 | 22.59 | 0.369 | 0.46 |
| | ----- | Side E | 1880.0 | 18900 | 20 MHz/QPSK | 1 | 49 | 0 | 22.82 | 0.347 | 0.41 |
| | ----- | | 1880.0 | 18900 | 20 MHz/QPSK | 50 | 24 | 1 | 22.59 | 0.272 | 0.34 |
| | ----- | Repeat | 1860.0 | 18700 | 20 MHz/QPSK | 1 | 49 | 0 | 22.99 | 1.13 | 1.27 |

Body
1.6 W/kg (mW/g)
 averaged over 1 gram

1. Battery is fully charged for all tests.

Power Measured

☒ Conducted

☐ ERP

☐ EIRP

2. SAR Measurement

Phantom Configuration

☐ Left Head

☒ Eli4

☐ Right Head

SAR Configuration

☐ Head

☒ Body

3. Test Signal Call Mode

☒ Test Code

☐ Base Station Simulator

4. Test Configuration

☐ With Belt Clip

☐ Without Belt Clip ☒ N/A

5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 2550 MHz Body – LTE Band 7

| MEASUREMENT RESULTS | | | | | | | | | | | |
|---|-------|----------|-----------|-------|-------------------|------------|--------------|---------------|-----------------------|------------------------|------------------------|
| Gap | Plot | Position | Frequency | | BW/ Modulation | RB Size | RB Offset | MPR Target | End Power (dBm) | Measured SAR (W/kg) | Reported SAR (W/kg) |
| | | | MHz | Ch. | | | | | | | |
| 10 mm | ----- | Side A | 2507.5 | 20850 | 20 MHz/QPSK | 1 | 49 | 0 | 23.24 | 1.02 | 1.08 |
| | ----- | | 2535.0 | 21100 | 20 MHz/QPSK | 1 | 49 | 0 | 23.36 | 1.16 | 1.20 |
| | ----- | | 2562.5 | 21350 | 20 MHz/QPSK | 1 | 49 | 0 | 23.33 | 1.26 | 1.31 |
| | ----- | | 2507.5 | 20850 | 20 MHz/QPSK | 50 | 24 | 1 | 22.13 | 0.983 | 1.07 |
| | ----- | | 2535.0 | 21100 | 20 MHz/QPSK | 50 | 24 | 1 | 22.17 | 1.03 | 1.11 |
| | ----- | Side B | 2562.5 | 21350 | 20 MHz/QPSK | 50 | 24 | 1 | 22.18 | 1.14 | 1.23 |
| | ----- | | 2535.0 | 21100 | 20 MHz/QPSK | 1 | 49 | 0 | 23.36 | 0.0455 | 0.05 |
| | ----- | | 2535.0 | 21100 | 20 MHz/QPSK | 50 | 24 | 1 | 22.17 | 0.0365 | 0.04 |
| | ----- | Side C | 2535.0 | 21100 | 20 MHz/QPSK | 1 | 49 | 0 | 23.36 | 0.504 | 0.52 |
| | ----- | | 2535.0 | 21100 | 20 MHz/QPSK | 50 | 24 | 1 | 22.17 | 0.416 | 0.45 |
| | ----- | Side D | 2507.5 | 20850 | 20 MHz/QPSK | 1 | 49 | 0 | 23.24 | 1.16 | 1.23 |
| | 12 | | 2535.0 | 21100 | 20 MHz/QPSK | 1 | 49 | 0 | 23.36 | 1.35 | 1.39 |
| | ----- | | 2562.5 | 21350 | 20 MHz/QPSK | 1 | 49 | 0 | 23.33 | 1.32 | 1.37 |
| | ----- | | 2507.5 | 20850 | 20 MHz/QPSK | 50 | 24 | 1 | 22.13 | 0.991 | 1.08 |
| | ----- | | 2535.0 | 21100 | 20 MHz/QPSK | 50 | 24 | 1 | 22.17 | 1.11 | 1.20 |
| | ----- | | 2562.5 | 21350 | 20 MHz/QPSK | 50 | 24 | 1 | 22.18 | 1.22 | 1.31 |
| | ----- | Side E | 2535.0 | 21100 | 20 MHz/QPSK | 1 | 49 | 0 | 23.36 | 0.122 | 0.13 |
| | ----- | | 2535.0 | 21100 | 20 MHz/QPSK | 50 | 24 | 1 | 22.17 | 0.100 | 0.11 |
| | ----- | Repeat | 2535.0 | 21100 | 20 MHz/QPSK | 1 | 49 | 0 | 23.36 | 1.32 | 1.36 |
| <div> <div>Body</div> <div>1.6 W/kg (mW/g)</div> <div>averaged over 1 gram</div> </div> | | | | | | | | | | | |

1. Battery is fully charged for all tests.

Power Measured

☒ Conducted

☐ ERP

☐ EIRP

2. SAR Measurement

Phantom Configuration

☐ Left Head

☒ Eli4

☐ Right Head

SAR Configuration

☐ Head

☒ Body

3. Test Signal Call Mode

☒ Test Code

☐ Base Station Simulator

4. Test Configuration

☐ With Belt Clip

☐ Without Belt Clip ☒ N/A

5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 2450 MHz Body 802.11b

MEASUREMENT RESULTS

| Gap | Plot | Position | Frequency | | Modulation | Antenna | End Power | Measured SAR (W/kg) | Reported SAR (W/kg) |
|-------|-------|----------|-----------|-----|------------|---|-----------|------------------------|------------------------|
| | | | MHz | Ch. | | | (dBm) | | |
| 10 mm | 12 | Side A | 2437 | 6 | DSSS | Chain 0 | 18.0 | 0.413 | 0.41 |
| | ----- | | 2462 | 11 | DSSS | | 17.9 | 0.387 | 0.40 |
| | ----- | Side B | 2437 | 6 | DSSS | | 18.0 | 0.0138 | 0.01 |
| | ----- | Side C | 2437 | 6 | DSSS | | 18.0 | 0.145 | 0.15 |
| | ----- | Side A | 2437 | 6 | DSSS | Chain 1 | 18.0 | 0.235 | 0.24 |
| | ----- | Side C | 2437 | 6 | DSSS | | 18.0 | 0.031 | 0.03 |
| | ----- | Side D | 2437 | 6 | DSSS | | 18.0 | 0.0121 | 0.01 |
| | | | | | | | | | |
| | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | |

- Battery is fully charged for all tests.

Power Measured

☒ Conducted

☐ ERP

☐ EIRP

- SAR Measurement

Phantom Configuration

☐ Left Head

☒ Eli4

☐ Right Head

SAR Configuration

☐ Head

☒ Body

- Test Signal Call Mode

☒ Test Code

☐ Base Station Simulator

- Test Configuration

☐ With Belt Clip

☐ Without Belt Clip ☒ N/A

- Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 5200 MHz Body 802.11a

MEASUREMENT RESULTS

| Gap | Plot | Position | Frequency | | Modulation | Antenna | End Power | Measured SAR (W/kg) | Reported SAR (W/kg) |
|-------|-------|----------|-----------|-----|------------|---------|-----------|------------------------|------------------------|
| | | | MHz | Ch. | | | (dBm) | | |
| 10 mm | 13 | Side A | 5220 | 44 | OFDM | Chain 0 | 9.3 | 0.249 | 0.29 |
| | ----- | Side B | 5220 | 44 | OFDM | | 9.3 | 0.0128 | 0.02 |
| | ----- | Side C | 5220 | 44 | OFDM | | 9.3 | 0.0785 | 0.09 |
| | ----- | Side A | 5220 | 44 | OFDM | Chain 1 | 11.9 | 0.118 | 0.12 |
| | ----- | Side C | 5220 | 44 | OFDM | | 11.9 | 0.138 | 0.14 |
| | ----- | Side D | 5220 | 44 | OFDM | | 11.9 | 0.0112 | 0.01 |

Body
1.6 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.

Power Measured

☒ Conducted

☐ ERP

☐ EIRP

2. SAR Measurement

Phantom Configuration

☐ Left Head

☒ Eli4

☐ Right Head

SAR Configuration

☐ Head

☒ Body

3. Test Signal Call Mode

☒ Test Code

☐ Base Station Simulator

4. Test Configuration

☐ With Belt Clip

☐ Without Belt Clip ☒ N/A

5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – 5800 MHz Body 802.11a

MEASUREMENT RESULTS

| Gap | Plot | Position | Frequency | | Modulation | Antenna | End Power | Measured SAR (W/kg) | Reported SAR (W/kg) |
|-------|-------|----------|-----------|-----|------------|---------|-----------|------------------------|------------------------|
| | | | MHz | Ch. | | | (dBm) | | |
| 10 mm | ----- | Side A | 5785 | 157 | OFDM | Chain 0 | 19.4 | 0.335 | 0.34 |
| | ----- | Side B | 5785 | 157 | OFDM | | 19.4 | 0.0172 | 0.02 |
| | 14 | Side C | 5785 | 157 | OFDM | | 19.4 | 0.131 | 0.13 |
| | ----- | Side A | 5785 | 157 | OFDM | Chain 1 | 19.4 | 0.216 | 0.22 |
| | ----- | Side C | 5785 | 157 | OFDM | | 19.4 | 0.0649 | 0.07 |
| | ----- | Side D | 5785 | 157 | OFDM | | 19.4 | 0.136 | 0.14 |

Body
1.6 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.

Power Measured

☒ Conducted

☐ ERP

☐ EIRP

2. SAR Measurement

Phantom Configuration

☐ Left Head

☒ Eli4

☐ Right Head

SAR Configuration

☐ Head

☒ Body

3. Test Signal Call Mode

☒ Test Code

☐ Base Station Simulator

4. Test Configuration

☐ With Belt Clip

☐ Without Belt Clip ☒ N/A

5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

SAR Data Summary – Simultaneous Transmit (Worst Case)

| MEASUREMENT RESULTS | | | | | | | | |
|---------------------|------------------|-----|------------------|------|-----------------|---|-----------------|------------------|
| Plot | Frequency (WLAN) | | Frequency (WWAN) | | WWAN Technology | SAR (W/kg) WLAN | SAR (W/kg) WWAN | Total SAR (W/kg) |
| | MHz | Ch. | MHz | Ch. | | | | |
| ----- | 2437 | 6 | 1880.0 | 9400 | WCDMA Band 2 | 0.41 | 1.42 | 1.83 |
| | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | |

The worst case condition is in the 2.4 GHz band. The WWAN and WLAN antennas are a minimum of 55 mm apart. Using the highest reported SAR to calculate the simultaneous Tx using peak separation ratio, the highest ratio would be 0.04 which meets the requirements of KDB 447498 section 4.3.2 3) on page 13. The calculation is shown below.

Simultaneous Separation Ratio Calculation

$$(SAR_1 + SAR_2)^{1.5}/R_i \leq 0.04 \text{ rounded to two digits}$$

$$(0.41 + 1.42)^{1.5}/55 = 0.04$$

SAR Data Summary – Simultaneous Transmit (WLAN MIMO)

| MEASUREMENT RESULTS | | | | | | | |
|---------------------|------------------|-----|------------------|-----|-----------------|---|------------------|
| Plot | Frequency (WLAN) | | Frequency (WLAN) | | SAR (W/kg) WLAN | SAR (W/kg) WWAN | Total SAR (W/kg) |
| | MHz | Ch. | MHz | Ch. | | | |
| ----- | 2437 | 6 | 2462 | 11 | 0.41 | 0.40 | 0.81 |
| | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | |

The sum of the two transmitters is less than the limit; therefore, the simultaneous transmission meets the requirements of KDB447498 D01 v06 section 4.3.2 page 11.

11. Test Equipment List

Table 11.1 Equipment Specifications

| Type | Calibration Due Date | Calibration Done Date | Serial Number |
|---|----------------------|-----------------------|-----------------|
| Staubli Robot TX60L | N/A | N/A | F07/55M6A1/A/01 |
| Measurement Controller CS8c | N/A | N/A | 1012 |
| ELI4 Flat Phantom | N/A | N/A | 1251 |
| Device Holder | N/A | N/A | N/A |
| Data Acquisition Electronics 4 | 01/14/2017 | 01/14/2016 | 1321 |
| SPEAG E-Field Probe EX3DV4 | 02/16/2017 | 02/16/2016 | 3311 |
| SPEAG E-Field Probe EX3DV4 | 01/27/2017 | 01/27/2016 | 3833 |
| Speag Validation Dipole D750V2 | 08/10/2017 | 08/10/2016 | 1053 |
| Speag Validation Dipole D835V2 | 08/10/2017 | 08/10/2016 | 4d131 |
| Speag Validation Dipole D1750V2 | 08/13/2017 | 08/13/2016 | 1061 |
| Speag Validation Dipole D1900V2 | 08/13/2017 | 08/13/2016 | 5d147 |
| Speag Validation Dipole D2450V2 | 08/10/2017 | 08/10/2016 | 881 |
| Speag Validation Dipole D2550V2 | 08/10/2017 | 08/10/2016 | 1003 |
| Speag Validation Dipole D5GHzV2 | 08/11/2017 | 08/11/2016 | 1119 |
| Agilent N1911A Power Meter | 05/20/2017 | 05/20/2015 | GB45100254 |
| Agilent N1922A Power Sensor | 06/25/2017 | 06/25/2015 | MY45240464 |
| Advantest R3261A Spectrum Analyzer | 03/26/2017 | 03/26/2015 | 31720068 |
| Agilent (HP) 8350B Signal Generator | 03/26/2017 | 03/26/2015 | 2749A10226 |
| Agilent (HP) 83525A RF Plug-In | 03/26/2017 | 03/26/2015 | 2647A01172 |
| Agilent (HP) 8753C Vector Network Analyzer | 03/26/2017 | 03/26/2015 | 3135A01724 |
| Agilent (HP) 85047A S-Parameter Test Set | 03/26/2017 | 03/26/2015 | 2904A00595 |
| Agilent (HP) 8960 Base Station Sim. | 03/31/2017 | 03/31/2015 | MY48360364 |
| Anritsu MT8820C | 07/28/2017 | 07/28/2015 | 6201176199 |
| Agilent 778D Dual Directional Coupler | N/A | N/A | MY48220184 |
| MiniCircuits BW-N20W5+ Fixed 20 dB Attenuator | N/A | N/A | N/A |
| MiniCircuits SPL-10.7+ Low Pass Filter | N/A | N/A | R8979513746 |
| Apriel Dielectric Probe Assembly | N/A | N/A | 0011 |
| Body Equivalent Matter (750 MHz) | N/A | N/A | N/A |
| Body Equivalent Matter (835 MHz) | N/A | N/A | N/A |
| Body Equivalent Matter (1750 MHz) | N/A | N/A | N/A |
| Body Equivalent Matter (1900 MHz) | N/A | N/A | N/A |
| Body Equivalent Matter (2450 MHz) | N/A | N/A | N/A |
| Body Equivalent Matter (2550 MHz) | N/A | N/A | N/A |
| Body Equivalent Matter (5 Ghz) | N/A | N/A | N/A |

12. Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the FCC/IC. These measurements are taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The tested device complies with the requirements in respect to all parameters subject to the test. The test results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body is a very complex phenomena that depends on the mass, shape, and size of the body; the orientation of the body with respect to the field vectors; and, the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because innumerable factors may interact to determine the specific biological outcome of an exposure to electromagnetic fields, any protection guide shall consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

13. References

- [1] Federal Communications Commission, ET Docket 93-62, Guidelines for Evaluating the Environmental Effects of Radio Frequency Radiation, August 1996
- [2] ANSI/IEEE C95.1 – 1992, American National Standard Safety Levels with respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300kHz to 100GHz, New York: IEEE, 1992.
- [3] ANSI/IEEE C95.3 – 2002, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave, New York: IEEE, 2002.
- [4] International Electrotechnical Commission, IEC 62209-2 (Edition 1.0), Human Exposure to radio frequency fields from hand-held and body mounted wireless communication devices – Human models, instrumentation, and procedures – Part 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.
- [5] IEEE Standard 1528 – 2013, IEEE Recommended Practice for Determining the Peak-Spatial Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communication Devices: Measurement Techniques, June 2013.
- [6] Industry Canada, RSS – 102 Issue 5, Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands), March 2015.
- [7] Health Canada, Safety Code 6, Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3kHz to 300 GHz, 2009.

Appendix A – System Validation Plots and Data

Test Result for UIM Dielectric Parameter

Thu 01/Dec/2016

Freq Frequency (GHz)

FCC_eH Limits for Head Epsilon

FCC_sH Limits for Head Sigma

FCC_eB Limits for Body Epsilon

FCC_sB Limits for Body Sigma

Test_e Epsilon of UIM

Test_s Sigma of UIM

| Freq | FCC_eB | FCC_sB | Test_e | Test_s |
|--------|--------|--------|--------|--------|
| 0.7000 | 55.73 | 0.96 | 55.59 | 0.95 |
| 0.7040 | 55.714 | 0.96 | 55.574 | 0.954* |
| 0.7075 | 55.70 | 0.96 | 55.56 | 0.958* |
| 0.7090 | 55.694 | 0.96 | 55.554 | 0.959* |
| 0.7100 | 55.69 | 0.96 | 55.55 | 0.96 |
| 0.7110 | 55.686 | 0.96 | 55.546 | 0.96* |
| 0.7200 | 55.65 | 0.96 | 55.51 | 0.96 |
| 0.7300 | 55.61 | 0.96 | 55.46 | 0.97 |
| 0.7400 | 55.57 | 0.96 | 55.42 | 0.97 |
| 0.7500 | 55.53 | 0.96 | 55.38 | 0.98 |
| 0.7600 | 55.49 | 0.96 | 55.33 | 0.98 |
| 0.7700 | 55.45 | 0.96 | 55.29 | 0.99 |
| 0.7800 | 55.41 | 0.97 | 55.25 | 0.99 |
| 0.7820 | 55.404 | 0.97 | 55.24 | 0.992* |
| 0.7900 | 55.38 | 0.97 | 55.20 | 1.00 |
| 0.8000 | 55.34 | 0.97 | 55.16 | 1.00 |

* value interpolated

Test Result for UIM Dielectric Parameter

Fri 02/Dec/2016

Freq Frequency (GHz)

FCC_eH Limits for Head Epsilon

FCC_sH Limits for Head Sigma

FCC_eB Limits for Body Epsilon

FCC_sB Limits for Body Sigma

Test_e Epsilon of UIM

Test_s Sigma of UIM

| Freq | FCC_eB | FCC_sB | Test_e | Test_s |
|--------|--------|--------|--------|--------|
| 0.8050 | 55.32 | 0.97 | 56.05 | 0.96 |
| 0.8150 | 55.28 | 0.97 | 56.00 | 0.98 |
| 0.8242 | 55.243 | 0.97 | 55.954 | 0.98* |
| 0.8250 | 55.24 | 0.97 | 55.95 | 0.98 |
| 0.8264 | 55.234 | 0.97 | 55.944 | 0.981* |
| 0.8290 | 55.224 | 0.97 | 55.934 | 0.984* |
| 0.8350 | 55.20 | 0.97 | 55.91 | 0.99 |
| 0.8365 | 55.196 | 0.972 | 55.903 | 0.99* |
| 0.8366 | 55.195 | 0.972 | 55.902 | 0.99* |
| 0.8440 | 55.173 | 0.979 | 55.865 | 0.99* |
| 0.8450 | 55.17 | 0.98 | 55.86 | 0.99 |
| 0.8466 | 55.165 | 0.982 | 55.857 | 0.992* |
| 0.8488 | 55.159 | 0.984 | 55.852 | 0.994* |
| 0.8550 | 55.14 | 0.99 | 55.84 | 1.00 |
| 0.8650 | 55.11 | 1.01 | 55.80 | 1.01 |
| 0.8750 | 55.08 | 1.02 | 55.78 | 1.03 |
| 0.8850 | 55.05 | 1.03 | 55.73 | 1.03 |
| 0.8950 | 55.02 | 1.04 | 55.70 | 1.04 |

* value interpolated

Test Result for UIM Dielectric Parameter

Thu 01/Dec/2016

Freq Frequency (GHz)

FCC_eH Limits for Head Epsilon

FCC_sH Limits for Head Sigma

FCC_eB Limits for Body Epsilon

FCC_sB Limits for Body Sigma

Test_e Epsilon of UIM

Test_s Sigma of UIM

| Freq | FCC_eB | FCC_sB | Test_e | Test_s |
|--------|--------|--------|--------|--------|
| 1.7100 | 53.53 | 1.47 | 53.39 | 1.47 |
| 1.7200 | 53.51 | 1.47 | 53.36 | 1.48 |
| 1.7300 | 53.48 | 1.48 | 53.32 | 1.49 |
| 1.7325 | 53.475 | 1.48 | 53.313 | 1.493* |
| 1.7400 | 53.46 | 1.48 | 53.29 | 1.50 |
| 1.7450 | 53.445 | 1.485 | 53.28 | 1.505* |
| 1.7500 | 53.43 | 1.49 | 53.27 | 1.51 |
| 1.7600 | 53.41 | 1.49 | 53.25 | 1.52 |
| 1.7700 | 53.38 | 1.50 | 53.22 | 1.53 |
| 1.7800 | 53.35 | 1.51 | 53.20 | 1.54 |

* value interpolated

Test Result for UIM Dielectric Parameter

Fri 02/Dec/2016

Freq Frequency (GHz)

FCC_eH Limits for Head Epsilon

FCC_sH Limits for Head Sigma

FCC_eB Limits for Body Epsilon

FCC_sB Limits for Body Sigma

Test_e Epsilon of UIM

Test_s Sigma of UIM

| Freq | FCC_eB | FCC_sB | Test_e | Test_s |
|--------|--------|--------|--------|--------|
| 1.8400 | 53.30 | 1.52 | 52.61 | 1.51 |
| 1.8500 | 53.30 | 1.52 | 52.59 | 1.52 |
| 1.8502 | 53.30 | 1.52 | 52.59 | 1.52* |
| 1.8524 | 53.30 | 1.52 | 52.585 | 1.522* |
| 1.8600 | 53.30 | 1.52 | 52.57 | 1.53 |
| 1.8700 | 53.30 | 1.52 | 52.54 | 1.53 |
| 1.8800 | 53.30 | 1.52 | 52.52 | 1.54 |
| 1.8900 | 53.30 | 1.52 | 52.50 | 1.55 |
| 1.9000 | 53.30 | 1.52 | 52.48 | 1.55 |
| 1.9076 | 53.30 | 1.52 | 52.465 | 1.558* |
| 1.9088 | 53.30 | 1.52 | 52.462 | 1.559* |
| 1.9100 | 53.30 | 1.52 | 52.46 | 1.56 |
| 1.9200 | 53.30 | 1.52 | 52.43 | 1.57 |

* value interpolated

Test Result for UIM Dielectric Parameter

Sat 03/Dec/2016

Freq Frequency (GHz)

FCC_eH Limits for Head Epsilon

FCC_sH Limits for Head Sigma

FCC_eB Limits for Body Epsilon

FCC_sB Limits for Body Sigma

Test_e Epsilon of UIM

Test_s Sigma of UIM

| Freq | FCC_eB | FCC_sB | Test_e | Test_s |
|--------|--------|--------|--------|--------|
| 2.4900 | 52.65 | 2.01 | 52.52 | 2.03 |
| 2.5000 | 52.64 | 2.02 | 52.50 | 2.04 |
| 2.5100 | 52.62 | 2.04 | 52.48 | 2.05 |
| 2.5200 | 52.61 | 2.05 | 52.46 | 2.06 |
| 2.5300 | 52.60 | 2.06 | 52.44 | 2.08 |
| 2.5350 | 52.595 | 2.07 | 52.43 | 2.09* |
| 2.5400 | 52.59 | 2.08 | 52.42 | 2.10 |
| 2.5500 | 52.57 | 2.09 | 52.40 | 2.11 |
| 2.5600 | 52.56 | 2.11 | 52.38 | 2.12 |
| 2.5700 | 52.55 | 2.12 | 52.36 | 2.14 |
| 2.5800 | 52.53 | 2.13 | 52.34 | 2.15 |
| 2.5900 | 52.52 | 2.15 | 52.32 | 2.17 |

* value interpolated

Test Result for UIM Dielectric Parameter

Sat 03/Dec/2016

Freq Frequency (GHz)

FCC_eH Limits for Head Epsilon

FCC_sH Limits for Head Sigma

FCC_eB Limits for Body Epsilon

FCC_sB Limits for Body Sigma

Test_e Epsilon of UIM

Test_s Sigma of UIM

| Freq | FCC_eB | FCC_sB | Test_e | Test_s |
|--------|--------|--------|--------|--------|
| 2.4100 | 52.75 | 1.91 | 52.59 | 1.91 |
| 2.4120 | 52.748 | 1.912 | 52.586 | 1.912* |
| 2.4200 | 52.74 | 1.92 | 52.57 | 1.92 |
| 2.4300 | 52.73 | 1.93 | 52.55 | 1.93 |
| 2.4370 | 52.716 | 1.937 | 52.536 | 1.944* |
| 2.4400 | 52.71 | 1.94 | 52.53 | 1.95 |
| 2.4500 | 52.70 | 1.95 | 52.51 | 1.96 |
| 2.4600 | 52.69 | 1.96 | 52.49 | 1.97 |
| 2.4620 | 52.686 | 1.964 | 52.486 | 1.972* |
| 2.4700 | 52.67 | 1.98 | 52.47 | 1.98 |
| 2.4800 | 52.66 | 1.99 | 52.45 | 2.00 |

* value interpolated

Test Result for UIM Dielectric Parameter

Mon 05/Dec/2016

Freq Frequency (GHz)

FCC_eH Limits for Head Epsilon

FCC_sH Limits for Head Sigma

FCC_eB Limits for Body Epsilon

FCC_sB Limits for Body Sigma

Test_e Epsilon of UIM

Test_s Sigma of UIM

| Freq | FCC_eB | FCC_sB | Test_e | Test_s |
|--------|--------|--------|--------|--------|
| 5.1000 | 49.15 | 5.18 | 49.02 | 5.17 |
| 5.1200 | 49.12 | 5.21 | 48.99 | 5.20 |
| 5.1400 | 49.10 | 5.23 | 48.96 | 5.22 |
| 5.1600 | 49.07 | 5.25 | 48.93 | 5.24 |
| 5.1800 | 49.04 | 5.28 | 48.91 | 5.27 |
| 5.2000 | 49.01 | 5.30 | 48.88 | 5.30 |
| 5.2100 | 49.00 | 5.31 | 48.87 | 5.31* |
| 5.2200 | 48.99 | 5.32 | 48.86 | 5.32 |
| 5.2400 | 48.96 | 5.35 | 48.83 | 5.34 |
| 5.2600 | 48.93 | 5.37 | 48.80 | 5.36 |
| 5.2800 | 48.91 | 5.39 | 48.77 | 5.38 |
| 5.2900 | 48.895 | 5.405 | 48.755 | 5.39* |
| 5.3000 | 48.88 | 5.42 | 48.74 | 5.40 |
| 5.3200 | 48.85 | 5.44 | 48.72 | 5.43 |
| 5.3400 | 48.82 | 5.46 | 48.69 | 5.45 |
| 5.3600 | 48.80 | 5.49 | 48.66 | 5.47 |
| 5.3800 | 48.77 | 5.51 | 48.63 | 5.50 |
| 5.4000 | 48.74 | 5.53 | 48.61 | 5.53 |
| 5.4200 | 48.72 | 5.56 | 48.59 | 5.56 |
| 5.4400 | 48.69 | 5.58 | 48.56 | 5.59 |
| 5.4600 | 48.66 | 5.60 | 48.53 | 5.62 |
| 5.4800 | 48.63 | 5.63 | 48.50 | 5.64 |
| 5.5000 | 48.61 | 5.65 | 48.48 | 5.67 |
| 5.5200 | 48.58 | 5.67 | 48.45 | 5.69 |
| 5.5400 | 48.55 | 5.70 | 48.42 | 5.72 |
| 5.5600 | 48.53 | 5.72 | 48.39 | 5.74 |
| 5.5800 | 48.50 | 5.74 | 48.37 | 5.76 |
| 5.6000 | 48.47 | 5.77 | 48.34 | 5.79 |
| 5.6200 | 48.44 | 5.79 | 48.31 | 5.81 |
| 5.6400 | 48.42 | 5.81 | 48.28 | 5.83 |
| 5.6600 | 48.39 | 5.84 | 48.25 | 5.85 |
| 5.6800 | 48.36 | 5.86 | 48.22 | 5.88 |
| 5.7000 | 48.34 | 5.88 | 48.19 | 5.90 |
| 5.7200 | 48.31 | 5.91 | 48.16 | 5.93 |
| 5.7400 | 48.28 | 5.93 | 48.13 | 5.95 |
| 5.7450 | 48.273 | 5.935 | 48.125 | 5.958* |
| 5.7600 | 48.25 | 5.95 | 48.11 | 5.98 |
| 5.7750 | 48.235 | 5.973 | 48.088 | 5.995* |
| 5.7800 | 48.23 | 5.98 | 48.08 | 6.00 |
| 5.7850 | 48.223 | 5.985 | 48.073 | 6.008* |
| 5.8000 | 48.20 | 6.00 | 48.05 | 6.03 |
| 5.8200 | 48.17 | 6.02 | 48.02 | 6.05 |
| 5.8250 | 48.165 | 6.028 | 48.013 | 6.055* |
| 5.8400 | 48.15 | 6.05 | 47.99 | 6.07 |

* value interpolated

RF Exposure Lab

Plot 1

DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN:1053

Communication System: CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: MSL750; Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.98 \text{ S/m}$; $\epsilon_r = 55.38$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Test Date: Date: 12/4/2016; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN3833; ConvF(9.23, 9.23, 9.23); Calibrated: 1/27/2016;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1321; Calibrated: 1/14/2016

Phantom: ELI v5.0; Type: QDOVA001BB; Serial: 1251

Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Procedure Notes:

750 MHz/Verification/Area Scan (5x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.09 W/kg

750 MHz/Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

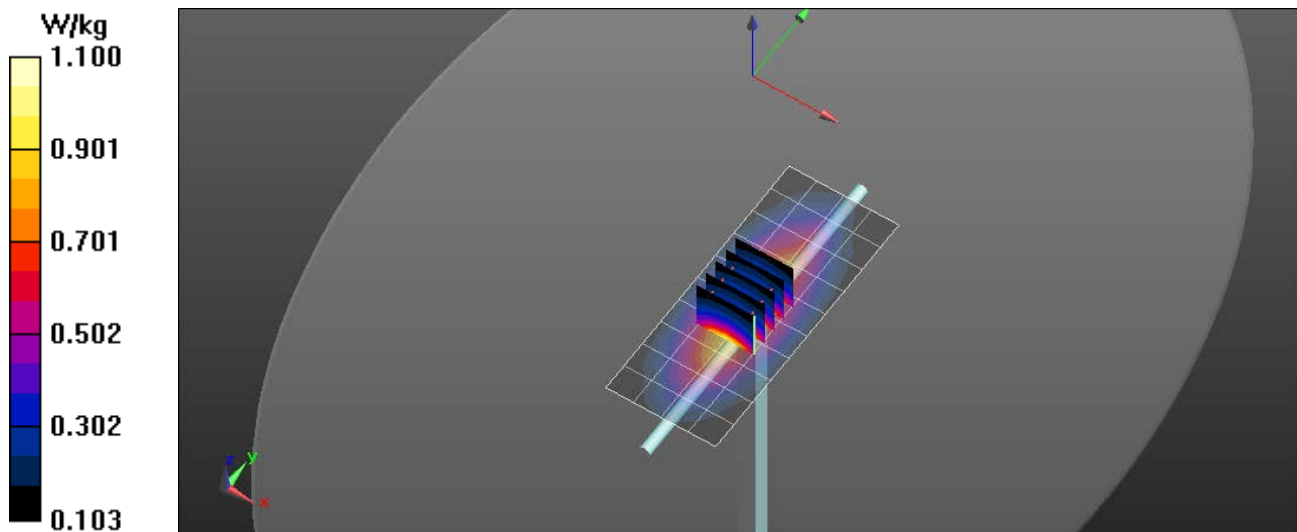
Reference Value = 31.143 V/m; Power Drift = 0.01 dB

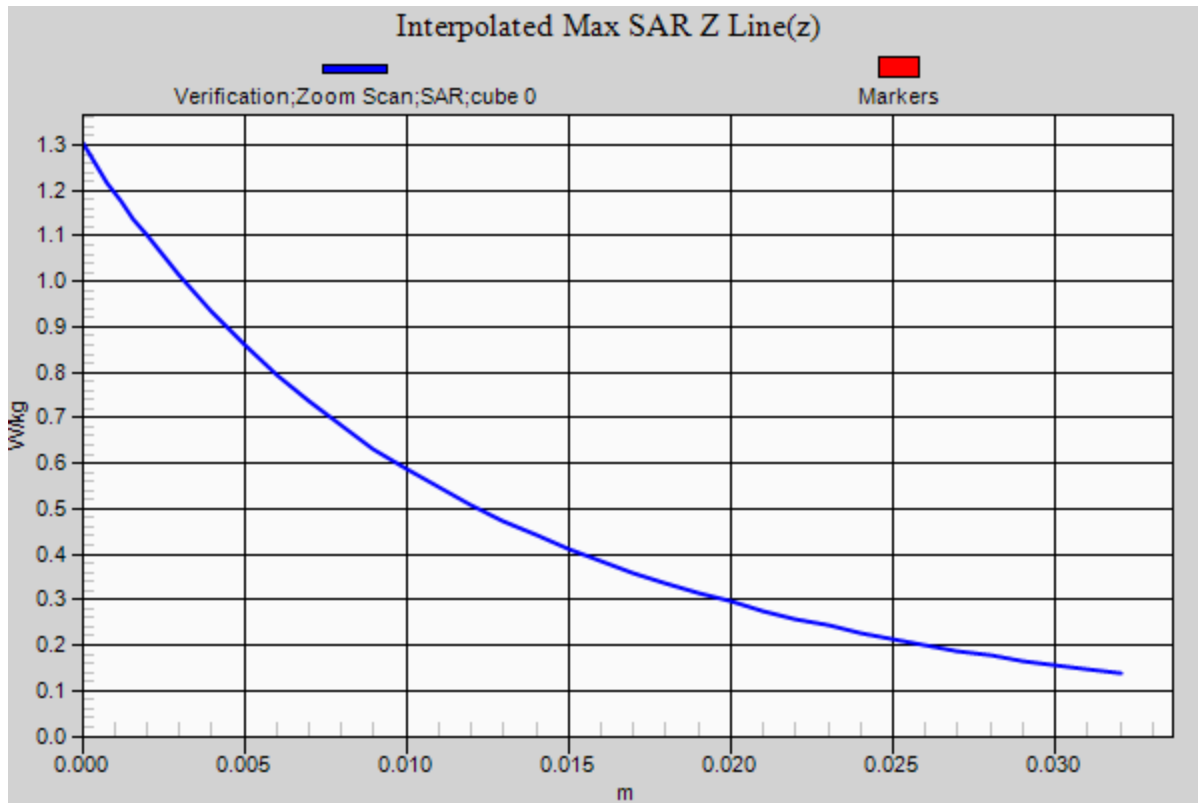
Peak SAR (extrapolated) = 1.31 W/kg

$P_{in} = 100 \text{ mW}$

SAR(1 g) = 0.852 W/kg; SAR(10 g) = 0.551 W/kg

Maximum value of SAR (measured) = 1.10 W/kg





RF Exposure Lab

Plot 2

DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:4d131

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL835; Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.99 \text{ S/m}$; $\epsilon_r = 55.91$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Test Date: Date: 12/2/2016; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN3833; ConvF(8.73, 8.73, 8.73); Calibrated: 1/27/2016;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1321; Calibrated: 1/14/2016

Phantom: ELI v5.0; Type: QDOVA001BB; Serial: 1251

Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Procedure Notes:

835 MHz Body/Verification/Area Scan (81x161x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$

Maximum value of SAR (interpolated) = 1.27 W/kg

835 MHz Body/Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

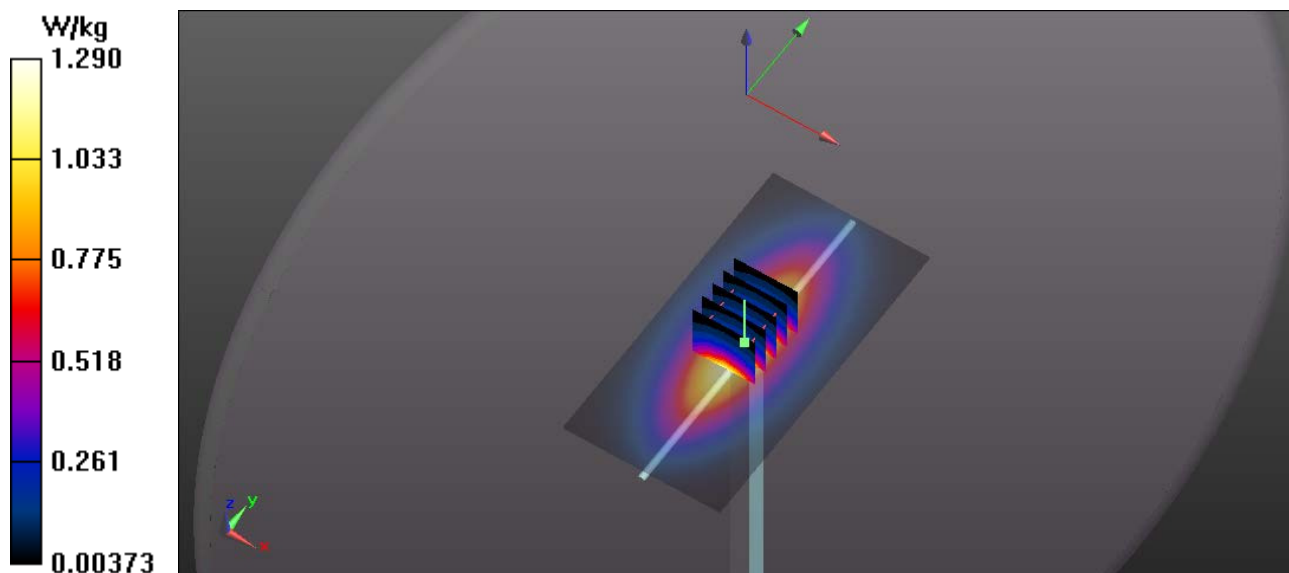
Reference Value = 52.435 V/m; Power Drift = -0.03 dB

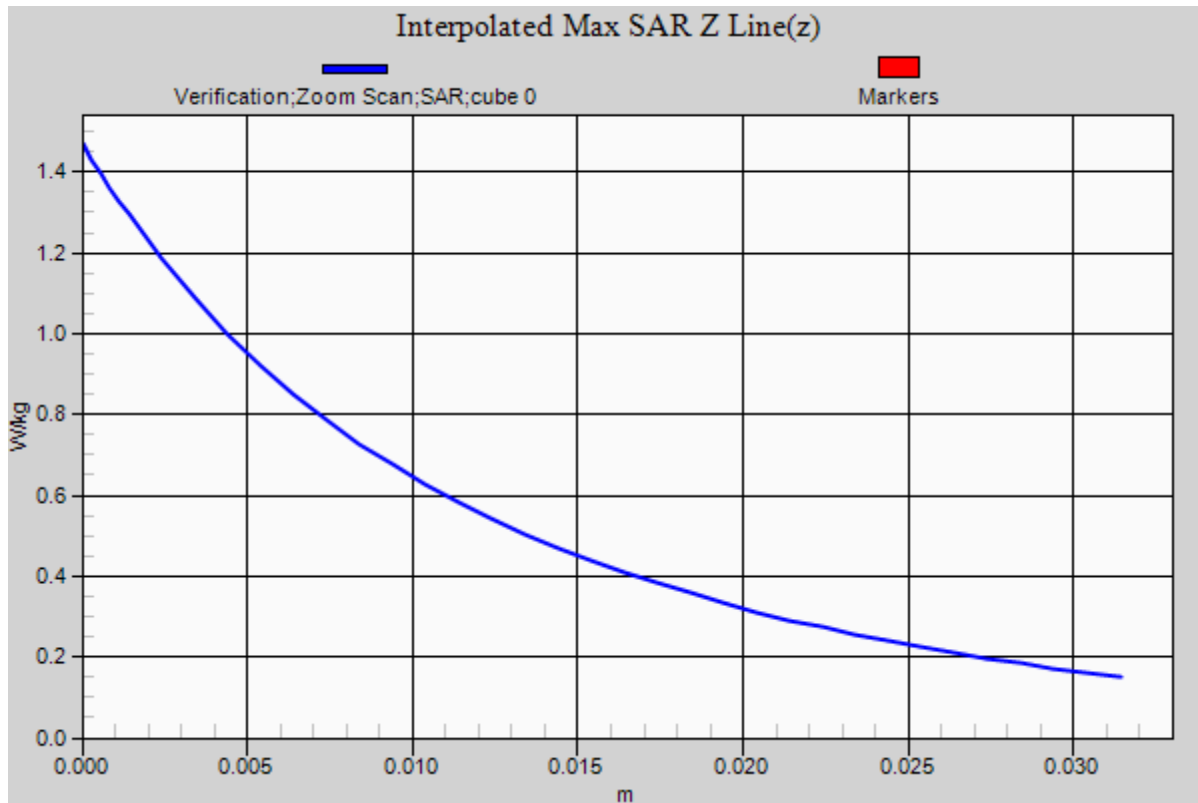
Peak SAR (extrapolated) = 1.42 W/kg

$P_{in} = 100 \text{ mW}$

SAR(1 g) = 0.947 W/kg; SAR(10 g) = 0.625 W/kg

Maximum value of SAR (measured) = 1.28 W/kg





RF Exposure Lab

Plot 3

DUT: Dipole 1750 MHz D1750V2; Type: D1750V2; Serial: D1750V2 - SN:1061

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: MSL1750; Medium parameters used: $f = 1750$ MHz; $\sigma = 1.51$ S/m; $\epsilon_r = 53.27$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

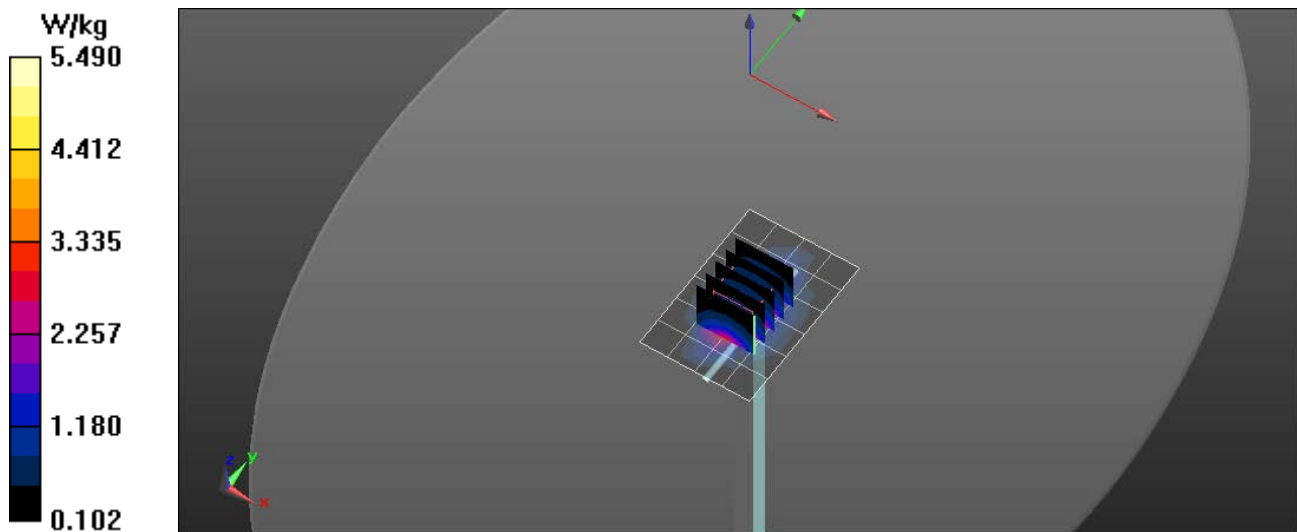
Test Date: Date: 12/1/2016; Ambient Temp: 23 °C; Tissue Temp: 21 °C

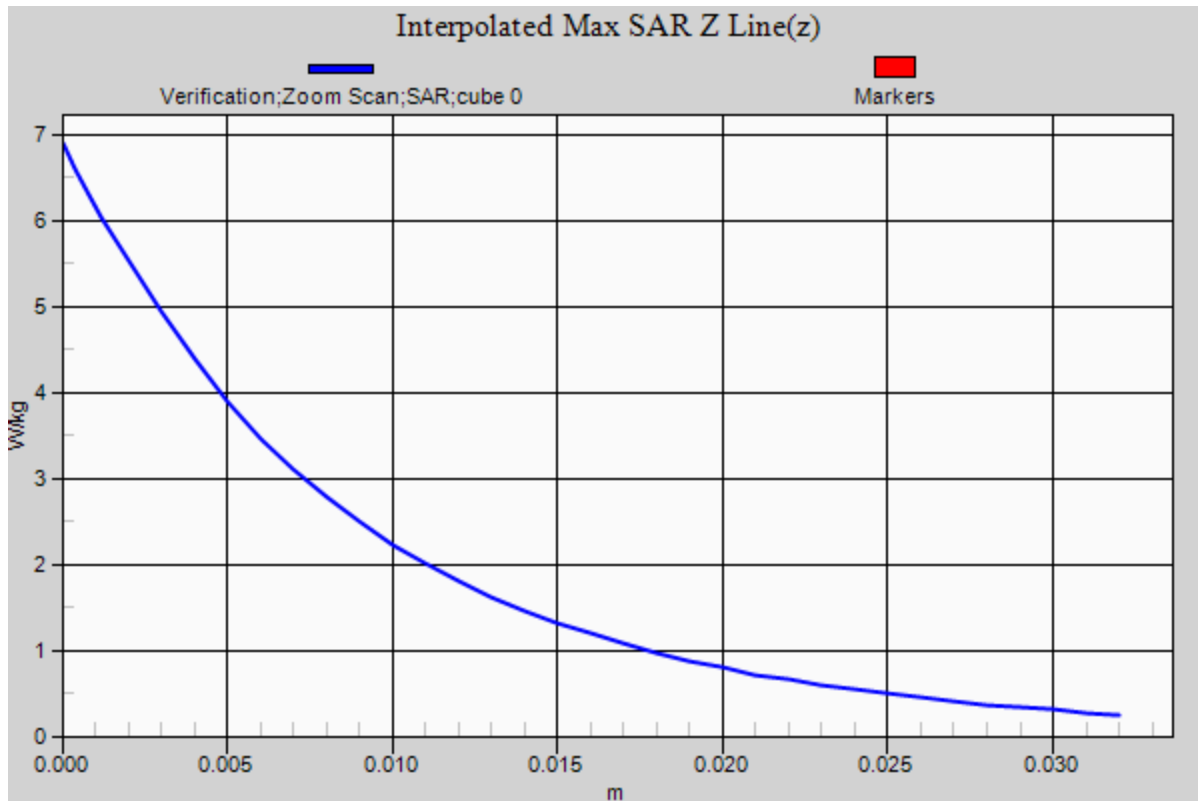
Probe: EX3DV4 - SN3833; ConvF(7.32, 7.32, 7.32); Calibrated: 1/27/2016;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1321; Calibrated: 1/14/2016
Phantom: ELI v5.0; Type: QDOVA001BB; Serial: 1251
Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Procedure Notes:

1750 MHz/Verification/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 5.31 W/kg

1750 MHz/Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.489 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 6.92 W/kg
 $P_{in} = 100$ mW
SAR(1 g) = 3.81 W/kg; SAR(10 g) = 2 W/kg
Maximum value of SAR (measured) = 5.47 W/kg





RF Exposure Lab

Plot 4

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d147

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium parameters used: $f = 1900$ MHz; $\sigma = 1.55$ S/m; $\epsilon_r = 52.48$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Test Date: Date: 12/2/2016; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN3833; ConvF(7.13, 7.13, 7.13); Calibrated: 1/27/2016;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1321; Calibrated: 1/14/2016

Phantom: ELI v5.0; Type: QDOVA001BB; Serial: 1251

Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Procedure Notes:

1900 MHz Body/Verification/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 5.59 W/kg

1900 MHz Body/Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

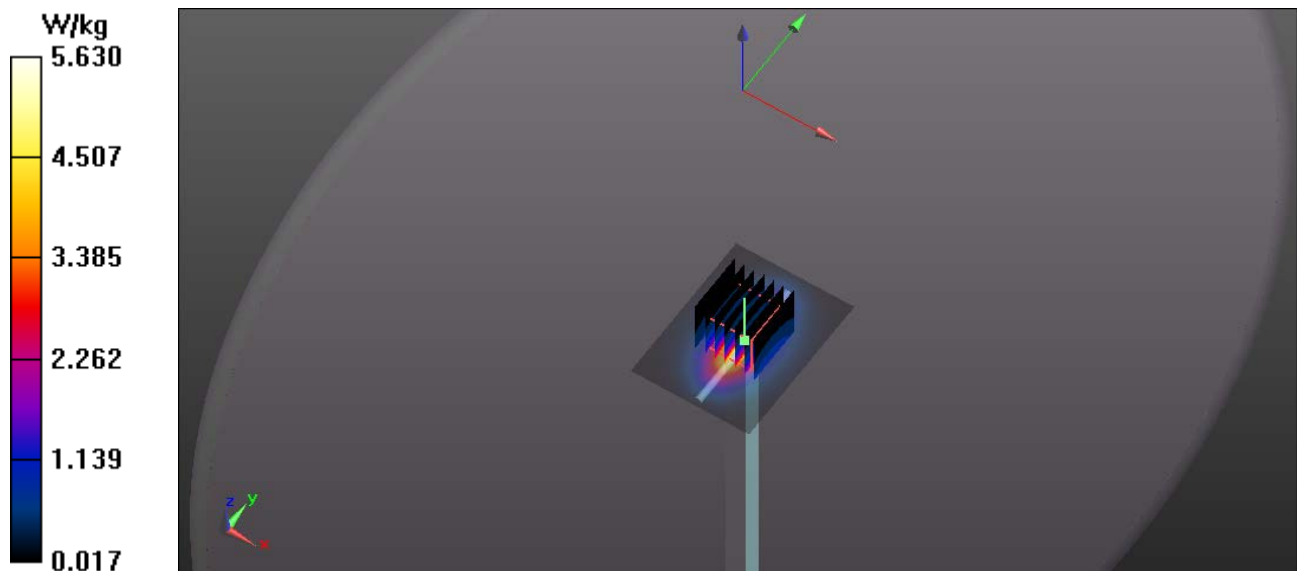
Reference Value = 52.559 V/m; Power Drift = -0.01 dB

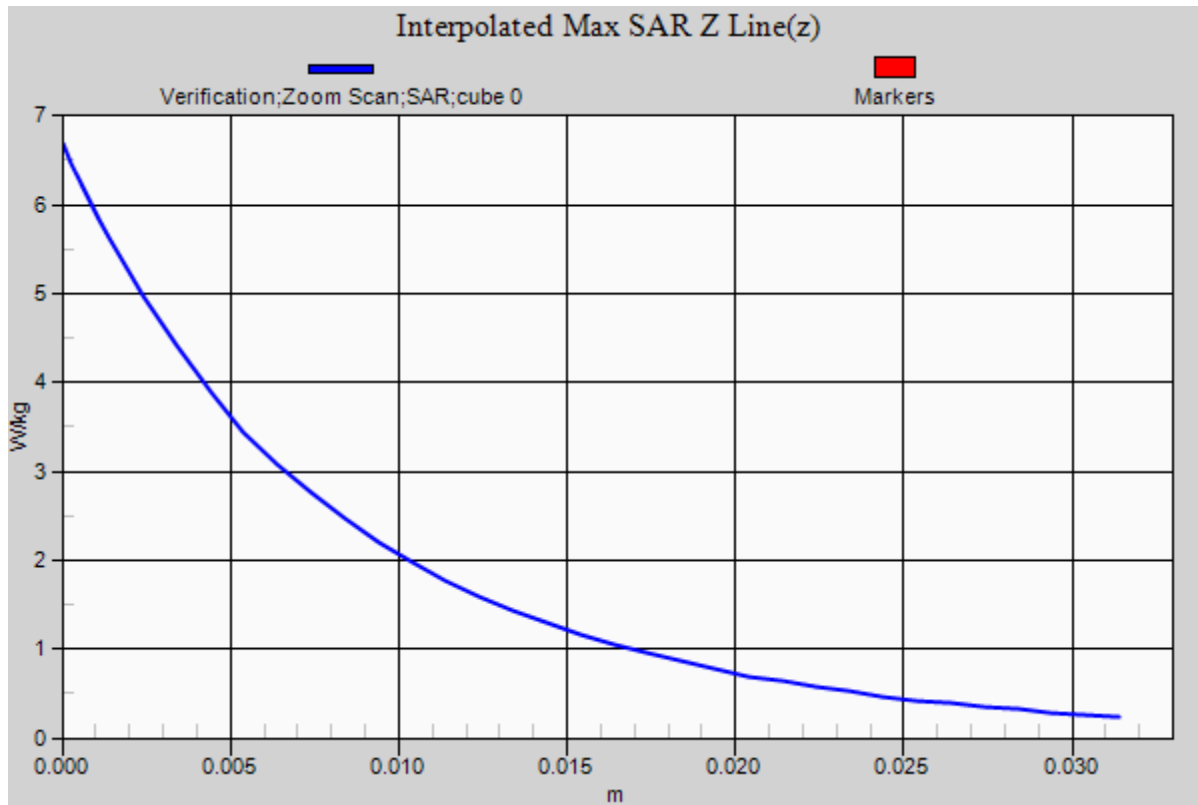
Peak SAR (extrapolated) = 6.67 W/kg

$P_{in} = 100$ mW

SAR(1 g) = 4.01 W/kg; SAR(10 g) = 2.06 W/kg

Maximum value of SAR (measured) = 5.62 W/kg





RF Exposure Lab

Plot 5

DUT: Dipole 2550 MHz D2550V2; Type: D2550V2; Serial: D2550V2 - SN:1003

Communication System: CW; Frequency: 2550 MHz; Duty Cycle: 1:1

Medium: MSL2600; Medium parameters used: $f = 2550$ MHz; $\sigma = 2.11$ S/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Test Date: Date: 12/3/2016; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN3311; ConvF(4.17, 4.17, 4.17); Calibrated: 2/16/2016;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1321; Calibrated: 1/14/2016

Phantom: ELI v5.0; Type: QDOVA001BB; Serial: 1251

Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Procedure Notes:

2550 MHz Body/Verification/Area Scan (61x81x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 9.17 W/kg

2550 MHz Body/Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

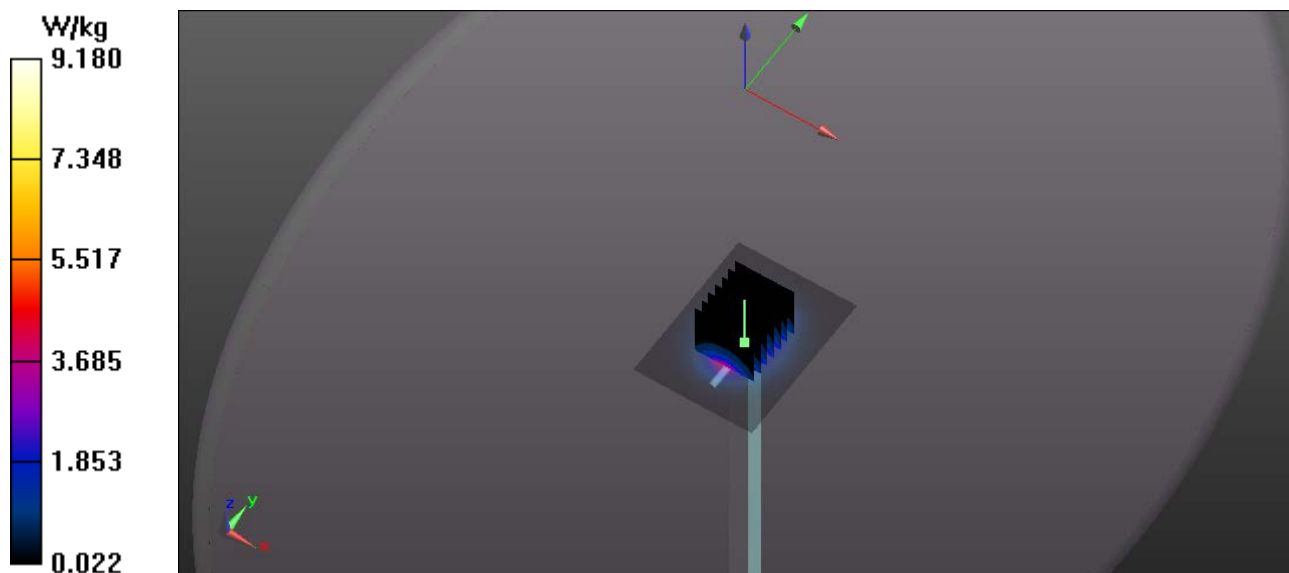
Reference Value = 54.222 V/m; Power Drift = -0.01 dB

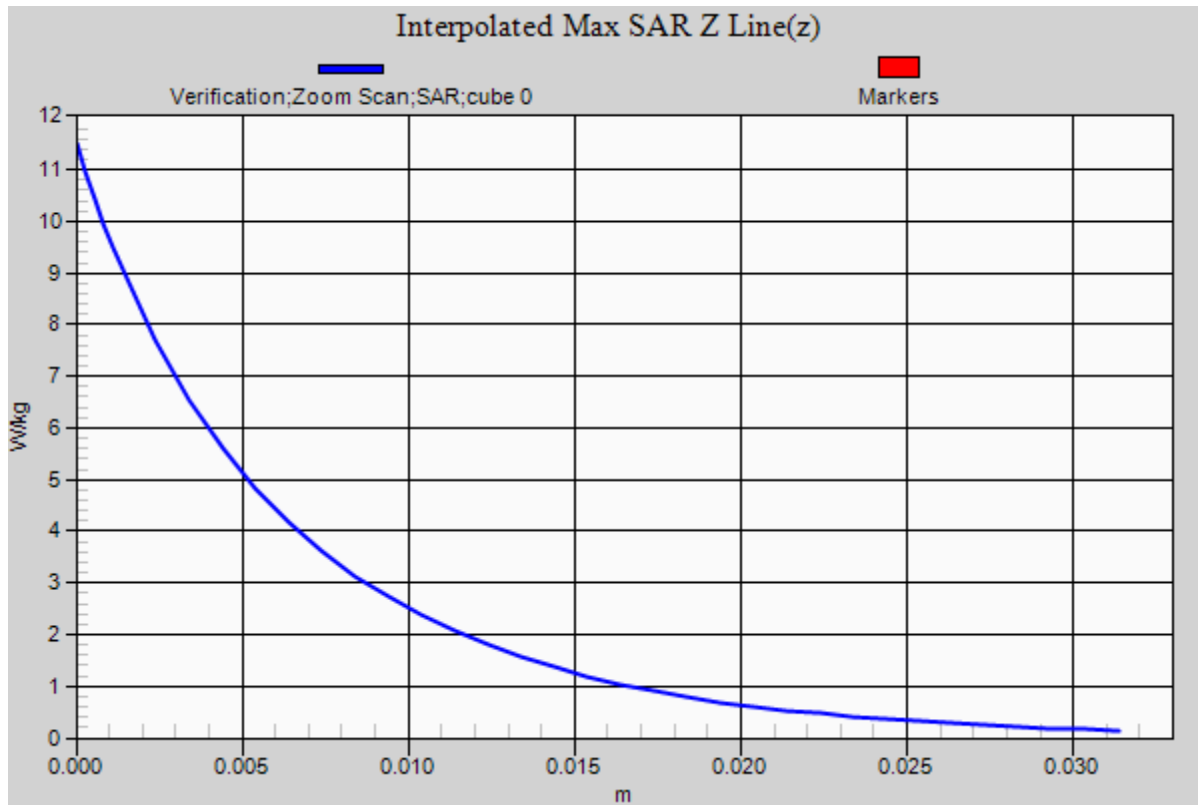
Peak SAR (extrapolated) = 11.4 W/kg

$P_{in} = 100$ mW

SAR(1 g) = 5.4 W/kg; SAR(10 g) = 2.43 W/kg

Maximum value of SAR (measured) = 8.99 W/kg





RF Exposure Lab

Plot 6

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN: 881

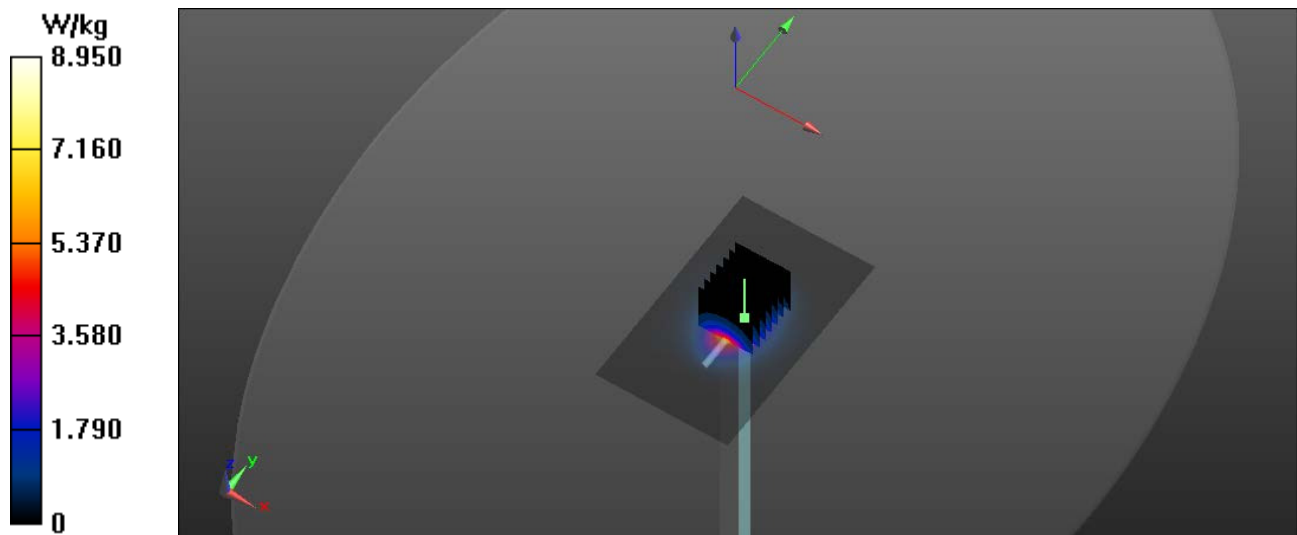
Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: MSL2450; Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.96 \text{ S/m}$; $\epsilon_r = 52.51$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

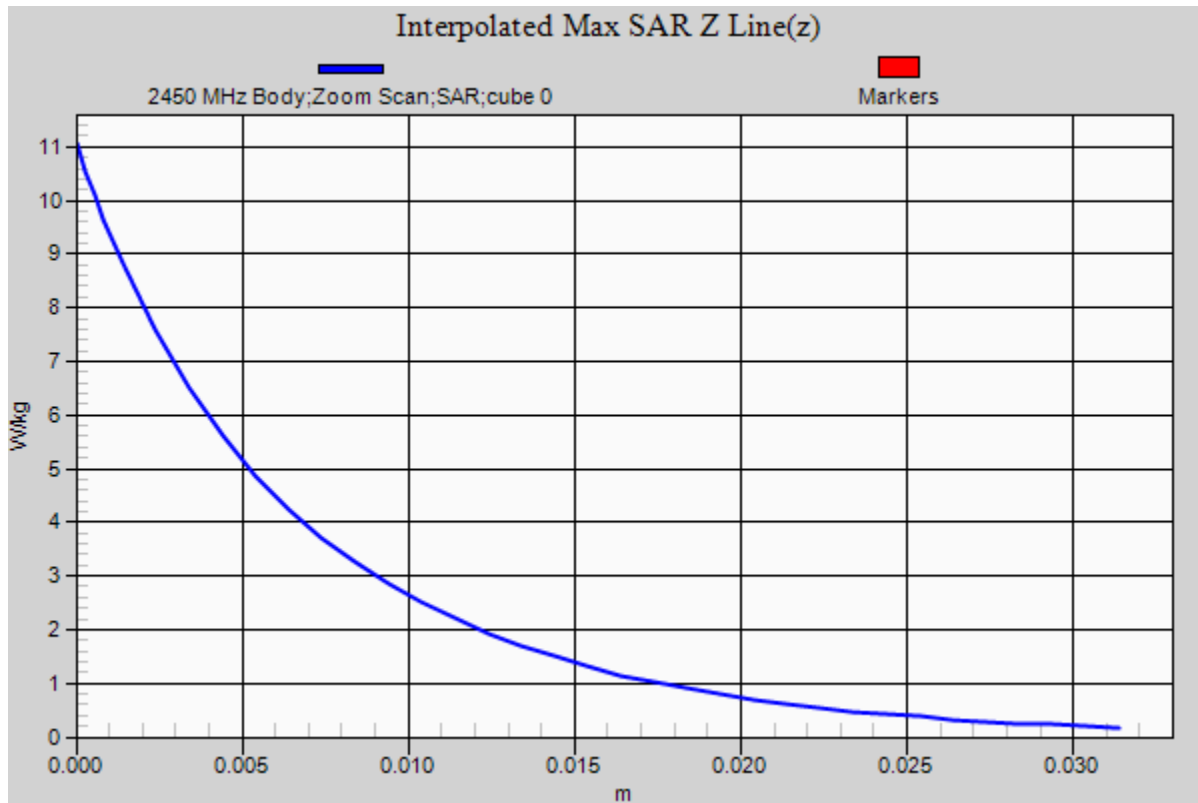
Test Date: Date: 12/3/2016; Ambient Temp: 23 °C; Tissue Temp: 21 °C
Probe: EX3DV4 - SN3833; ConvF(6.87, 6.87, 6.87); Calibrated: 1/27/2016;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1321; Calibrated: 1/14/2016
Phantom: ELI v5.0; Type: QDOVA001BB; Serial: 1251
Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Procedure Notes:

Body Verification/2450 MHz/Area Scan (61x101x1): Interpolated grid: $dx=1.200 \text{ mm}$, $dy=1.200 \text{ mm}$
Maximum value of SAR (interpolated) = 8.87 W/kg

Body Verification/2450 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 53.517 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 11.13 W/kg
 $P_{in} = 100 \text{ mW}$
SAR(1 g) = 5.19 W/kg; SAR(10 g) = 2.43 W/kg
Maximum value of SAR (measured) = 8.92 W/kg





RF Exposure Lab

Plot 7

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN: 1119

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: MSL 3-6 GHz; Medium parameters used: $f = 5200$ MHz; $\sigma = 5.3$ S/m; $\epsilon_r = 48.88$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Test Date: Date: 12/5/2016; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN3833; ConvF(4.03, 4.03, 4.03); Calibrated: 1/27/2016;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1321; Calibrated: 1/14/2016

Phantom: ELI v5.0; Type: QDOVA001BB; Serial: 1251

Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Procedure Notes:

Body Verification/5200 MHz/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.88 W/kg

Body Verification/5200 MHz/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

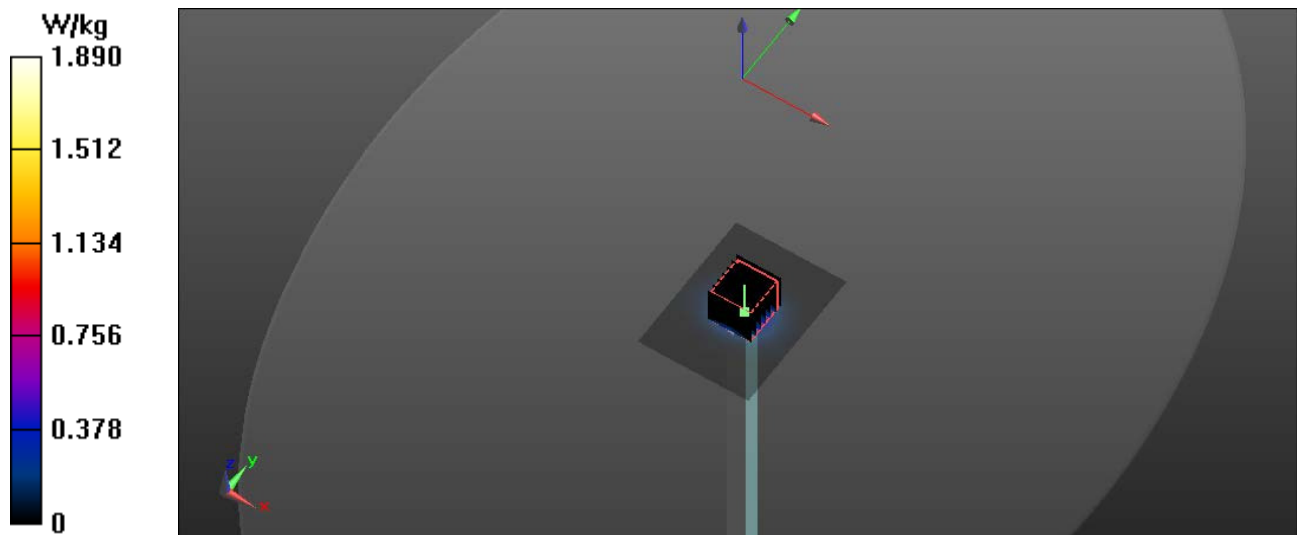
Reference Value = 12.256 V/m; Power Drift = 0.03 dB

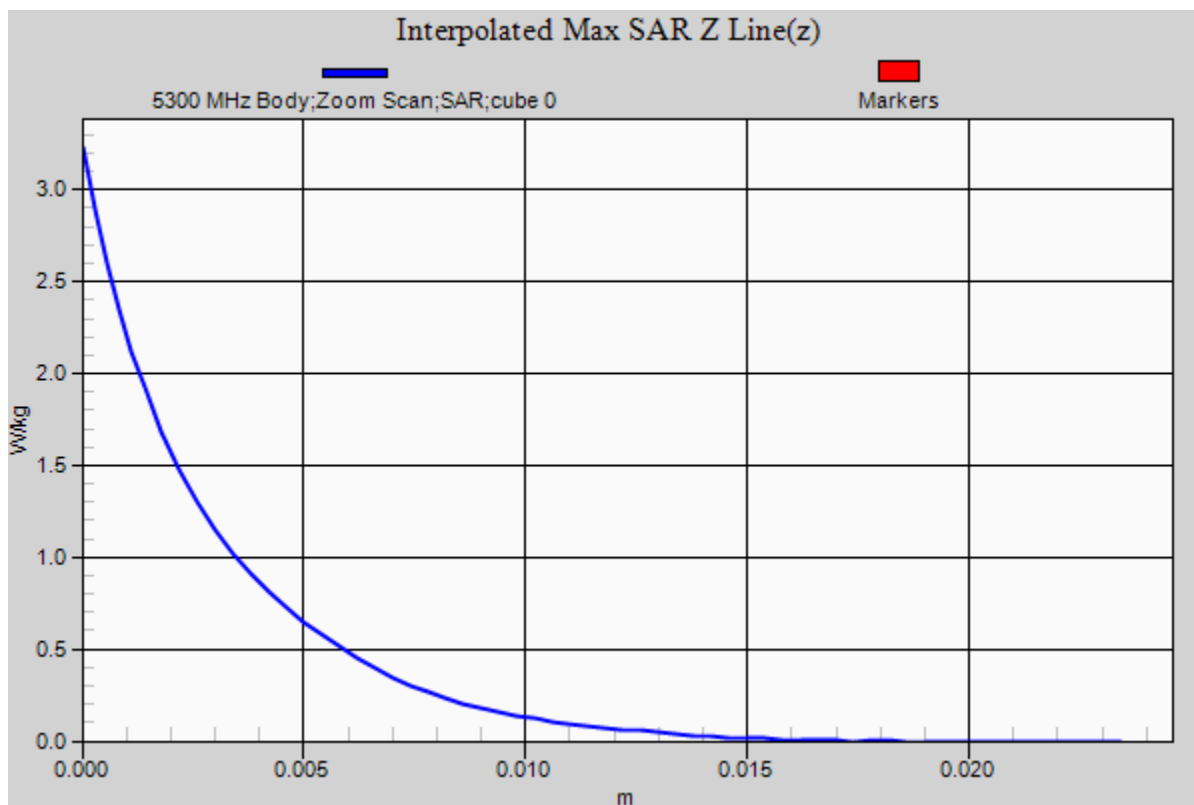
Peak SAR (extrapolated) = 3.2 W/kg

Pin=10 mW

SAR(1 g) = 0.78 W/kg; SAR(10 g) = 0.213 W/kg

Maximum value of SAR (measured) = 1.9 W/kg





RF Exposure Lab

Plot 8

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN: 1119

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1
Medium: MSL 3-6 GHz; Medium parameters used: $f = 5800$ MHz; $\sigma = 6.03$ S/m; $\epsilon_r = 48.05$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

Test Date: Date: 12/5/2016; Ambient Temp: 23 °C; Tissue Temp: 21 °C
Probe: EX3DV4 - SN3833; ConvF(3.49, 3.49, 3.49); Calibrated: 1/27/2016;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1321; Calibrated: 1/14/2016
Phantom: ELI v5.0; Type: QDOVA001BB; Serial: 1251
Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Procedure Notes:

Body Verification/5800 MHz/Area Scan (61x81x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 1.78 W/kg

Body Verification/5800 MHz/Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 12.689 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.91 W/kg

$P_{in}=10$ mW

SAR(1 g) = 0.791 W/kg; SAR(10 g) = 0.214 W/kg

Maximum value of SAR (measured) = 1.77 W/kg

