

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

|           |                                                                     |   |        |        |       |      |      |         |
|-----------|---------------------------------------------------------------------|---|--------|--------|-------|------|------|---------|
| 10477-AAE | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)    | X | 9.10   | 82.47  | 17.07 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 100.00 | 111.24 | 25.54 |      | 80.0 |         |
|           |                                                                     | Z | 0.74   | 60.00  | 7.42  |      | 80.0 |         |
| 10478-AAE | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)    | X | 1.93   | 66.47  | 11.14 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 96.81  | 106.44 | 23.40 |      | 80.0 |         |
|           |                                                                     | Z | 0.77   | 60.00  | 6.80  |      | 80.0 |         |
| 10479-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 9.68   | 90.97  | 25.10 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 13.83  | 97.37  | 27.65 |      | 80.0 |         |
|           |                                                                     | Z | 12.23  | 94.71  | 25.17 |      | 80.0 |         |
| 10480-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 11.91  | 88.02  | 22.17 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 19.25  | 95.65  | 25.10 |      | 80.0 |         |
|           |                                                                     | Z | 7.50   | 81.30  | 18.54 |      | 80.0 |         |
| 10481-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 9.15   | 83.59  | 20.38 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 15.12  | 91.18  | 23.39 |      | 80.0 |         |
|           |                                                                     | Z | 4.40   | 74.24  | 15.71 |      | 80.0 |         |
| 10482-AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 4.76   | 79.70  | 20.44 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.53   | 74.74  | 18.45 |      | 80.0 |         |
|           |                                                                     | Z | 2.62   | 71.60  | 16.13 |      | 80.0 |         |
| 10483-AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.87   | 78.17  | 19.16 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 8.24   | 83.44  | 21.55 |      | 80.0 |         |
|           |                                                                     | Z | 2.93   | 69.04  | 14.15 |      | 80.0 |         |
| 10484-AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.35   | 76.61  | 18.60 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 7.24   | 81.28  | 20.83 |      | 80.0 |         |
|           |                                                                     | Z | 2.73   | 67.94  | 13.69 |      | 80.0 |         |
| 10485-AAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 4.47   | 78.87  | 21.04 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.68   | 75.23  | 19.49 |      | 80.0 |         |
|           |                                                                     | Z | 3.15   | 74.27  | 18.50 |      | 80.0 |         |
| 10486-AAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.79   | 72.50  | 18.04 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.38   | 70.29  | 17.05 |      | 80.0 |         |
|           |                                                                     | Z | 2.84   | 69.02  | 15.57 |      | 80.0 |         |
| 10487-AAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.74   | 71.89  | 17.77 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.37   | 69.86  | 16.85 |      | 80.0 |         |
|           |                                                                     | Z | 2.81   | 68.50  | 15.32 |      | 80.0 |         |
| 10488-AAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 4.24   | 75.86  | 20.43 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.83   | 73.65  | 19.40 |      | 80.0 |         |
|           |                                                                     | Z | 3.28   | 72.72  | 18.85 |      | 80.0 |         |
| 10489-AAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.72   | 70.49  | 18.27 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.53   | 69.26  | 17.66 |      | 80.0 |         |
|           |                                                                     | Z | 3.19   | 68.97  | 17.14 |      | 80.0 |         |
| 10490-AAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.79   | 70.18  | 18.14 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.62   | 69.04  | 17.58 |      | 80.0 |         |
|           |                                                                     | Z | 3.27   | 68.77  | 17.05 |      | 80.0 |         |
| 10491-AAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 4.23   | 73.19  | 19.42 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.95   | 71.65  | 18.67 |      | 80.0 |         |
|           |                                                                     | Z | 3.47   | 70.90  | 18.25 |      | 80.0 |         |
| 10492-AAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.97   | 69.24  | 17.95 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.85   | 68.36  | 17.51 |      | 80.0 |         |
|           |                                                                     | Z | 3.50   | 68.04  | 17.11 |      | 80.0 |         |

|           |                                                                      |   |      |       |       |      |      |         |
|-----------|----------------------------------------------------------------------|---|------|-------|-------|------|------|---------|
| 10493-AAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.03 | 69.04 | 17.87 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.92 | 68.21 | 17.46 |      | 80.0 |         |
|           |                                                                      | Z | 3.56 | 67.90 | 17.04 |      | 80.0 |         |
| 10494-AAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 4.79 | 75.46 | 20.14 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.38 | 73.53 | 19.24 |      | 80.0 |         |
|           |                                                                      | Z | 3.78 | 72.48 | 18.78 |      | 80.0 |         |
| 10495-AAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.03 | 69.76 | 18.19 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.90 | 68.85 | 17.73 |      | 80.0 |         |
|           |                                                                      | Z | 3.53 | 68.35 | 17.31 |      | 80.0 |         |
| 10496-AAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.08 | 69.35 | 18.04 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.97 | 68.51 | 17.62 |      | 80.0 |         |
|           |                                                                      | Z | 3.60 | 68.09 | 17.22 |      | 80.0 |         |
| 10497-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 3.72 | 75.87 | 18.08 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.64 | 70.76 | 15.98 |      | 80.0 |         |
|           |                                                                      | Z | 1.51 | 64.60 | 11.77 |      | 80.0 |         |
| 10498-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.30 | 66.27 | 12.99 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.02 | 64.31 | 12.06 |      | 80.0 |         |
|           |                                                                      | Z | 1.20 | 60.00 | 8.21  |      | 80.0 |         |
| 10499-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.18 | 65.35 | 12.41 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.97 | 63.70 | 11.62 |      | 80.0 |         |
|           |                                                                      | Z | 1.22 | 60.00 | 8.05  |      | 80.0 |         |
| 10500-AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 4.19 | 76.87 | 20.53 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.63 | 74.04 | 19.27 |      | 80.0 |         |
|           |                                                                      | Z | 3.15 | 73.35 | 18.54 |      | 80.0 |         |
| 10501-AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.74 | 71.57 | 18.07 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.44 | 69.83 | 17.26 |      | 80.0 |         |
|           |                                                                      | Z | 3.03 | 69.25 | 16.29 |      | 80.0 |         |
| 10502-AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.79 | 71.34 | 17.92 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.50 | 69.66 | 17.14 |      | 80.0 |         |
|           |                                                                      | Z | 3.07 | 69.05 | 16.12 |      | 80.0 |         |
| 10503-AAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 4.18 | 75.62 | 20.32 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.77 | 73.43 | 19.30 |      | 80.0 |         |
|           |                                                                      | Z | 3.23 | 72.50 | 18.74 |      | 80.0 |         |
| 10504-AAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.70 | 70.40 | 18.21 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.52 | 69.18 | 17.61 |      | 80.0 |         |
|           |                                                                      | Z | 3.17 | 68.86 | 17.07 |      | 80.0 |         |
| 10505-AAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.77 | 70.08 | 18.09 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.60 | 68.95 | 17.53 |      | 80.0 |         |
|           |                                                                      | Z | 3.25 | 68.67 | 16.99 |      | 80.0 |         |
| 10506-AAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 4.74 | 75.29 | 20.06 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.34 | 73.37 | 19.17 |      | 80.0 |         |
|           |                                                                      | Z | 3.74 | 72.32 | 18.70 |      | 80.0 |         |
| 10507-AAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.01 | 69.69 | 18.15 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.88 | 68.79 | 17.69 |      | 80.0 |         |
|           |                                                                      | Z | 3.51 | 68.29 | 17.27 |      | 80.0 |         |

|           |                                                                     |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10508-AAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.07 | 69.28 | 18.00 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 3.96 | 68.45 | 17.58 |      | 80.0  |         |
|           |                                                                     | Z | 3.59 | 68.02 | 17.17 |      | 80.0  |         |
| 10509-AAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 4.87 | 73.12 | 19.15 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.57 | 71.69 | 18.46 |      | 80.0  |         |
|           |                                                                     | Z | 4.08 | 70.95 | 18.12 |      | 80.0  |         |
| 10510-AAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.46 | 69.19 | 17.97 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.36 | 68.46 | 17.61 |      | 80.0  |         |
|           |                                                                     | Z | 3.98 | 67.93 | 17.23 |      | 80.0  |         |
| 10511-AAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.49 | 68.83 | 17.85 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.40 | 68.15 | 17.52 |      | 80.0  |         |
|           |                                                                     | Z | 4.03 | 67.70 | 17.16 |      | 80.0  |         |
| 10512-AAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 5.35 | 75.53 | 19.95 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.89 | 73.64 | 19.09 |      | 80.0  |         |
|           |                                                                     | Z | 4.27 | 72.56 | 18.64 |      | 80.0  |         |
| 10513-AAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.37 | 69.62 | 18.15 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.26 | 68.83 | 17.75 |      | 80.0  |         |
|           |                                                                     | Z | 3.86 | 68.15 | 17.33 |      | 80.0  |         |
| 10514-AAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.36 | 69.04 | 17.95 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.26 | 68.32 | 17.60 |      | 80.0  |         |
|           |                                                                     | Z | 3.89 | 67.75 | 17.20 |      | 80.0  |         |
| 10515-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)           | X | 0.98 | 64.01 | 15.52 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.90 | 62.52 | 14.23 |      | 150.0 |         |
|           |                                                                     | Z | 0.95 | 63.71 | 15.08 |      | 150.0 |         |
| 10516-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)         | X | 0.96 | 80.43 | 22.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.52 | 69.16 | 15.73 |      | 150.0 |         |
|           |                                                                     | Z | 0.74 | 75.71 | 19.80 |      | 150.0 |         |
| 10517-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)          | X | 0.87 | 66.95 | 16.73 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.75 | 64.30 | 14.64 |      | 150.0 |         |
|           |                                                                     | Z | 0.81 | 66.10 | 15.98 |      | 150.0 |         |
| 10518-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)           | X | 4.59 | 66.88 | 16.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.55 | 66.43 | 16.12 |      | 150.0 |         |
|           |                                                                     | Z | 4.41 | 66.91 | 16.25 |      | 150.0 |         |
| 10519-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)          | X | 4.79 | 67.13 | 16.49 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.75 | 66.71 | 16.26 |      | 150.0 |         |
|           |                                                                     | Z | 4.57 | 67.10 | 16.35 |      | 150.0 |         |
| 10520-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)          | X | 4.64 | 67.11 | 16.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.60 | 66.67 | 16.18 |      | 150.0 |         |
|           |                                                                     | Z | 4.43 | 67.05 | 16.27 |      | 150.0 |         |
| 10521-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)          | X | 4.57 | 67.12 | 16.42 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.53 | 66.66 | 16.16 |      | 150.0 |         |
|           |                                                                     | Z | 4.36 | 67.04 | 16.26 |      | 150.0 |         |
| 10522-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)          | X | 4.63 | 67.16 | 16.48 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.59 | 66.70 | 16.22 |      | 150.0 |         |
|           |                                                                     | Z | 4.42 | 67.17 | 16.36 |      | 150.0 |         |

|           |                                                            |   |      |       |       |      |       |         |
|-----------|------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10523-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) | X | 4.51 | 67.05 | 16.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.46 | 66.56 | 16.06 |      | 150.0 |         |
|           |                                                            | Z | 4.33 | 67.10 | 16.24 |      | 150.0 |         |
| 10524-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) | X | 4.58 | 67.09 | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.53 | 66.64 | 16.20 |      | 150.0 |         |
|           |                                                            | Z | 4.37 | 67.10 | 16.33 |      | 150.0 |         |
| 10525-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)          | X | 4.55 | 66.14 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.50 | 65.66 | 15.78 |      | 150.0 |         |
|           |                                                            | Z | 4.38 | 66.18 | 15.95 |      | 150.0 |         |
| 10526-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)          | X | 4.74 | 66.53 | 16.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.69 | 66.05 | 15.93 |      | 150.0 |         |
|           |                                                            | Z | 4.52 | 66.50 | 16.07 |      | 150.0 |         |
| 10527-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)          | X | 4.66 | 66.50 | 16.15 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.61 | 66.01 | 15.87 |      | 150.0 |         |
|           |                                                            | Z | 4.45 | 66.47 | 16.02 |      | 150.0 |         |
| 10528-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)          | X | 4.67 | 66.52 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.62 | 66.03 | 15.91 |      | 150.0 |         |
|           |                                                            | Z | 4.47 | 66.48 | 16.05 |      | 150.0 |         |
| 10529-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)          | X | 4.67 | 66.52 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.62 | 66.03 | 15.91 |      | 150.0 |         |
|           |                                                            | Z | 4.47 | 66.48 | 16.05 |      | 150.0 |         |
| 10531-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)          | X | 4.67 | 66.65 | 16.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.63 | 66.16 | 15.93 |      | 150.0 |         |
|           |                                                            | Z | 4.44 | 66.54 | 16.04 |      | 150.0 |         |
| 10532-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)          | X | 4.53 | 66.51 | 16.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.48 | 66.01 | 15.86 |      | 150.0 |         |
|           |                                                            | Z | 4.32 | 66.41 | 15.98 |      | 150.0 |         |
| 10533-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)          | X | 4.68 | 66.56 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.63 | 66.06 | 15.89 |      | 150.0 |         |
|           |                                                            | Z | 4.48 | 66.56 | 16.05 |      | 150.0 |         |
| 10534-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)          | X | 5.19 | 66.60 | 16.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.16 | 66.20 | 15.99 |      | 150.0 |         |
|           |                                                            | Z | 5.01 | 66.50 | 16.09 |      | 150.0 |         |
| 10535-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)          | X | 5.26 | 66.75 | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.22 | 66.35 | 16.06 |      | 150.0 |         |
|           |                                                            | Z | 5.06 | 66.65 | 16.16 |      | 150.0 |         |
| 10536-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)          | X | 5.13 | 66.73 | 16.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.09 | 66.32 | 16.02 |      | 150.0 |         |
|           |                                                            | Z | 4.95 | 66.64 | 16.13 |      | 150.0 |         |
| 10537-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)          | X | 5.19 | 66.69 | 16.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.15 | 66.30 | 16.01 |      | 150.0 |         |
|           |                                                            | Z | 5.00 | 66.59 | 16.11 |      | 150.0 |         |
| 10538-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)          | X | 5.28 | 66.73 | 16.28 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.26 | 66.36 | 16.08 |      | 150.0 |         |
|           |                                                            | Z | 5.08 | 66.58 | 16.14 |      | 150.0 |         |
| 10540-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)          | X | 5.21 | 66.72 | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.17 | 66.33 | 16.08 |      | 150.0 |         |
|           |                                                            | Z | 5.01 | 66.56 | 16.15 |      | 150.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10541-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)  | X | 5.18 | 66.60 | 16.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.14 | 66.20 | 16.01 |      | 150.0 |         |
|           |                                                    | Z | 4.99 | 66.47 | 16.09 |      | 150.0 |         |
| 10542-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)  | X | 5.33 | 66.65 | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.31 | 66.28 | 16.07 |      | 150.0 |         |
|           |                                                    | Z | 5.14 | 66.55 | 16.15 |      | 150.0 |         |
| 10543-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)  | X | 5.41 | 66.68 | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.39 | 66.31 | 16.11 |      | 150.0 |         |
|           |                                                    | Z | 5.20 | 66.56 | 16.18 |      | 150.0 |         |
| 10544-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)  | X | 5.49 | 66.70 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.45 | 66.31 | 15.98 |      | 150.0 |         |
|           |                                                    | Z | 5.34 | 66.58 | 16.07 |      | 150.0 |         |
| 10545-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)  | X | 5.68 | 67.09 | 16.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.66 | 66.76 | 16.15 |      | 150.0 |         |
|           |                                                    | Z | 5.51 | 66.98 | 16.23 |      | 150.0 |         |
| 10546-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)  | X | 5.57 | 66.94 | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.54 | 66.57 | 16.08 |      | 150.0 |         |
|           |                                                    | Z | 5.38 | 66.73 | 16.11 |      | 150.0 |         |
| 10547-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)  | X | 5.64 | 66.98 | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.63 | 66.66 | 16.11 |      | 150.0 |         |
|           |                                                    | Z | 5.45 | 66.79 | 16.14 |      | 150.0 |         |
| 10548-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)  | X | 5.90 | 67.92 | 16.71 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.97 | 67.87 | 16.68 |      | 150.0 |         |
|           |                                                    | Z | 5.63 | 67.50 | 16.47 |      | 150.0 |         |
| 10550-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)  | X | 5.59 | 66.92 | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.55 | 66.54 | 16.07 |      | 150.0 |         |
|           |                                                    | Z | 5.42 | 66.82 | 16.17 |      | 150.0 |         |
| 10551-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)  | X | 5.60 | 66.98 | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.56 | 66.60 | 16.06 |      | 150.0 |         |
|           |                                                    | Z | 5.40 | 66.75 | 16.10 |      | 150.0 |         |
| 10552-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)  | X | 5.51 | 66.77 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.47 | 66.37 | 15.96 |      | 150.0 |         |
|           |                                                    | Z | 5.35 | 66.67 | 16.06 |      | 150.0 |         |
| 10553-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)  | X | 5.60 | 66.81 | 16.21 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.56 | 66.43 | 16.01 |      | 150.0 |         |
|           |                                                    | Z | 5.41 | 66.65 | 16.08 |      | 150.0 |         |
| 10554-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle) | X | 5.89 | 67.05 | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.86 | 66.69 | 16.08 |      | 150.0 |         |
|           |                                                    | Z | 5.75 | 66.91 | 16.14 |      | 150.0 |         |
| 10555-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle) | X | 6.02 | 67.35 | 16.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 6.00 | 67.02 | 16.22 |      | 150.0 |         |
|           |                                                    | Z | 5.86 | 67.17 | 16.25 |      | 150.0 |         |
| 10556-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle) | X | 6.04 | 67.39 | 16.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 6.02 | 67.06 | 16.23 |      | 150.0 |         |
|           |                                                    | Z | 5.88 | 67.24 | 16.28 |      | 150.0 |         |
| 10557-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle) | X | 6.01 | 67.32 | 16.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.99 | 66.98 | 16.22 |      | 150.0 |         |
|           |                                                    | Z | 5.85 | 67.13 | 16.24 |      | 150.0 |         |

|           |                                                                 |   |       |        |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10558-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)              | X | 6.07  | 67.49  | 16.48 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.05  | 67.17  | 16.33 |      | 150.0 |         |
|           |                                                                 | Z | 5.88  | 67.26  | 16.33 |      | 150.0 |         |
| 10560-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)              | X | 6.06  | 67.34  | 16.44 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.04  | 66.99  | 16.28 |      | 150.0 |         |
|           |                                                                 | Z | 5.88  | 67.13  | 16.30 |      | 150.0 |         |
| 10561-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)              | X | 5.98  | 67.30  | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.96  | 66.96  | 16.30 |      | 150.0 |         |
|           |                                                                 | Z | 5.81  | 67.11  | 16.32 |      | 150.0 |         |
| 10562-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)              | X | 6.11  | 67.72  | 16.67 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.12  | 67.46  | 16.55 |      | 150.0 |         |
|           |                                                                 | Z | 5.89  | 67.37  | 16.45 |      | 150.0 |         |
| 10563-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)              | X | 6.43  | 68.23  | 16.87 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.50  | 68.16  | 16.85 |      | 150.0 |         |
|           |                                                                 | Z | 5.96  | 67.23  | 16.35 |      | 150.0 |         |
| 10564-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | X | 4.91  | 66.93  | 16.51 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.88  | 66.54  | 16.31 |      | 150.0 |         |
|           |                                                                 | Z | 4.73  | 66.93  | 16.37 |      | 150.0 |         |
| 10565-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | X | 5.16  | 67.40  | 16.83 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.13  | 67.02  | 16.64 |      | 150.0 |         |
|           |                                                                 | Z | 4.93  | 67.35  | 16.69 |      | 150.0 |         |
| 10566-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | X | 4.99  | 67.26  | 16.66 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.96  | 66.87  | 16.45 |      | 150.0 |         |
|           |                                                                 | Z | 4.77  | 67.18  | 16.50 |      | 150.0 |         |
| 10567-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | X | 5.02  | 67.67  | 17.02 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.98  | 67.25  | 16.79 |      | 150.0 |         |
|           |                                                                 | Z | 4.81  | 67.60  | 16.88 |      | 150.0 |         |
| 10568-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | X | 4.90  | 67.00  | 16.42 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.87  | 66.62  | 16.22 |      | 150.0 |         |
|           |                                                                 | Z | 4.67  | 66.94  | 16.26 |      | 150.0 |         |
| 10569-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | X | 4.97  | 67.73  | 17.07 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.93  | 67.29  | 16.83 |      | 150.0 |         |
|           |                                                                 | Z | 4.78  | 67.78  | 16.99 |      | 150.0 |         |
| 10570-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | X | 5.01  | 67.57  | 17.00 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.97  | 67.15  | 16.77 |      | 150.0 |         |
|           |                                                                 | Z | 4.80  | 67.57  | 16.89 |      | 150.0 |         |
| 10571-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | X | 1.17  | 65.22  | 16.39 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.09  | 63.89  | 15.30 |      | 130.0 |         |
|           |                                                                 | Z | 1.10  | 64.48  | 15.68 |      | 130.0 |         |
| 10572-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | X | 1.19  | 65.91  | 16.81 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.10  | 64.45  | 15.65 |      | 130.0 |         |
|           |                                                                 | Z | 1.12  | 65.08  | 16.07 |      | 130.0 |         |
| 10573-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | X | 11.95 | 118.97 | 33.95 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 2.10  | 86.50  | 22.92 |      | 130.0 |         |
|           |                                                                 | Z | 2.78  | 93.83  | 26.37 |      | 130.0 |         |
| 10574-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | X | 1.42  | 73.69  | 20.72 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.20  | 70.19  | 18.52 |      | 130.0 |         |
|           |                                                                 | Z | 1.24  | 71.54  | 19.44 |      | 130.0 |         |

|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10575-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | X | 4.69 | 66.71 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.67 | 66.34 | 16.38 |      | 130.0 |         |
|           |                                                                 | Z | 4.50 | 66.68 | 16.40 |      | 130.0 |         |
| 10576-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | X | 4.72 | 66.88 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.69 | 66.50 | 16.44 |      | 130.0 |         |
|           |                                                                 | Z | 4.53 | 66.88 | 16.48 |      | 130.0 |         |
| 10577-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | X | 4.94 | 67.20 | 16.81 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.91 | 66.83 | 16.62 |      | 130.0 |         |
|           |                                                                 | Z | 4.71 | 67.13 | 16.63 |      | 130.0 |         |
| 10578-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | X | 4.83 | 67.37 | 16.92 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.81 | 66.98 | 16.72 |      | 130.0 |         |
|           |                                                                 | Z | 4.61 | 67.29 | 16.74 |      | 130.0 |         |
| 10579-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | X | 4.60 | 66.66 | 16.24 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.57 | 66.30 | 16.05 |      | 130.0 |         |
|           |                                                                 | Z | 4.37 | 66.49 | 16.00 |      | 130.0 |         |
| 10580-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | X | 4.64 | 66.67 | 16.25 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.62 | 66.31 | 16.06 |      | 130.0 |         |
|           |                                                                 | Z | 4.41 | 66.55 | 16.03 |      | 130.0 |         |
| 10581-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | X | 4.73 | 67.42 | 16.87 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.70 | 67.02 | 16.65 |      | 130.0 |         |
|           |                                                                 | Z | 4.52 | 67.36 | 16.71 |      | 130.0 |         |
| 10582-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | X | 4.54 | 66.41 | 16.03 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.53 | 66.07 | 15.85 |      | 130.0 |         |
|           |                                                                 | Z | 4.30 | 66.25 | 15.78 |      | 130.0 |         |
| 10583-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | X | 4.69 | 66.71 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.67 | 66.34 | 16.38 |      | 130.0 |         |
|           |                                                                 | Z | 4.50 | 66.68 | 16.40 |      | 130.0 |         |
| 10584-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | X | 4.72 | 66.88 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.69 | 66.50 | 16.44 |      | 130.0 |         |
|           |                                                                 | Z | 4.53 | 66.88 | 16.48 |      | 130.0 |         |
| 10585-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | X | 4.94 | 67.20 | 16.81 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.91 | 66.83 | 16.62 |      | 130.0 |         |
|           |                                                                 | Z | 4.71 | 67.13 | 16.63 |      | 130.0 |         |
| 10586-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | X | 4.83 | 67.37 | 16.92 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.81 | 66.98 | 16.72 |      | 130.0 |         |
|           |                                                                 | Z | 4.61 | 67.29 | 16.74 |      | 130.0 |         |
| 10587-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | X | 4.60 | 66.66 | 16.24 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.57 | 66.30 | 16.05 |      | 130.0 |         |
|           |                                                                 | Z | 4.37 | 66.49 | 16.00 |      | 130.0 |         |
| 10588-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)      | X | 4.64 | 66.67 | 16.25 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.62 | 66.31 | 16.06 |      | 130.0 |         |
|           |                                                                 | Z | 4.41 | 66.55 | 16.03 |      | 130.0 |         |
| 10589-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)      | X | 4.73 | 67.42 | 16.87 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.70 | 67.02 | 16.65 |      | 130.0 |         |
|           |                                                                 | Z | 4.52 | 67.36 | 16.71 |      | 130.0 |         |
| 10590-AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)      | X | 4.54 | 66.41 | 16.03 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.53 | 66.07 | 15.85 |      | 130.0 |         |
|           |                                                                 | Z | 4.30 | 66.25 | 15.78 |      | 130.0 |         |

|           |                                                       |   |      |       |       |      |       |         |
|-----------|-------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10591-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle) | X | 4.84 | 66.77 | 16.66 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.82 | 66.41 | 16.48 |      | 130.0 |         |
|           |                                                       | Z | 4.66 | 66.76 | 16.51 |      | 130.0 |         |
| 10592-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle) | X | 5.01 | 67.12 | 16.79 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.99 | 66.76 | 16.61 |      | 130.0 |         |
|           |                                                       | Z | 4.79 | 67.07 | 16.64 |      | 130.0 |         |
| 10593-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle) | X | 4.93 | 67.04 | 16.68 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.91 | 66.69 | 16.51 |      | 130.0 |         |
|           |                                                       | Z | 4.71 | 66.95 | 16.50 |      | 130.0 |         |
| 10594-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle) | X | 4.98 | 67.20 | 16.83 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.96 | 66.84 | 16.65 |      | 130.0 |         |
|           |                                                       | Z | 4.76 | 67.13 | 16.67 |      | 130.0 |         |
| 10595-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle) | X | 4.95 | 67.16 | 16.73 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.93 | 66.80 | 16.55 |      | 130.0 |         |
|           |                                                       | Z | 4.73 | 67.10 | 16.57 |      | 130.0 |         |
| 10596-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle) | X | 4.89 | 67.16 | 16.74 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.87 | 66.79 | 16.55 |      | 130.0 |         |
|           |                                                       | Z | 4.66 | 67.08 | 16.56 |      | 130.0 |         |
| 10597-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle) | X | 4.84 | 67.08 | 16.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.82 | 66.71 | 16.44 |      | 130.0 |         |
|           |                                                       | Z | 4.61 | 66.96 | 16.43 |      | 130.0 |         |
| 10598-AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle) | X | 4.82 | 67.33 | 16.90 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.80 | 66.95 | 16.70 |      | 130.0 |         |
|           |                                                       | Z | 4.60 | 67.20 | 16.70 |      | 130.0 |         |
| 10599-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle) | X | 5.51 | 67.30 | 16.83 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.50 | 67.04 | 16.72 |      | 130.0 |         |
|           |                                                       | Z | 5.31 | 67.18 | 16.69 |      | 130.0 |         |
| 10600-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle) | X | 5.66 | 67.75 | 17.03 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.70 | 67.66 | 17.00 |      | 130.0 |         |
|           |                                                       | Z | 5.42 | 67.55 | 16.85 |      | 130.0 |         |
| 10601-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle) | X | 5.54 | 67.49 | 16.91 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.55 | 67.29 | 16.83 |      | 130.0 |         |
|           |                                                       | Z | 5.33 | 67.34 | 16.76 |      | 130.0 |         |
| 10602-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle) | X | 5.62 | 67.47 | 16.82 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.64 | 67.27 | 16.74 |      | 130.0 |         |
|           |                                                       | Z | 5.46 | 67.51 | 16.77 |      | 130.0 |         |
| 10603-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle) | X | 5.72 | 67.83 | 17.13 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.72 | 67.56 | 17.01 |      | 130.0 |         |
|           |                                                       | Z | 5.53 | 67.80 | 17.05 |      | 130.0 |         |
| 10604-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle) | X | 5.51 | 67.26 | 16.84 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.51 | 67.00 | 16.72 |      | 130.0 |         |
|           |                                                       | Z | 5.40 | 67.44 | 16.85 |      | 130.0 |         |
| 10605-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle) | X | 5.62 | 67.58 | 16.99 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.63 | 67.37 | 16.91 |      | 130.0 |         |
|           |                                                       | Z | 5.43 | 67.48 | 16.86 |      | 130.0 |         |
| 10606-AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle) | X | 5.39 | 67.04 | 16.59 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.38 | 66.75 | 16.46 |      | 130.0 |         |
|           |                                                       | Z | 5.18 | 66.82 | 16.39 |      | 130.0 |         |

|           |                                                   |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10607-AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle) | X | 4.69 | 66.11 | 16.30 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.65 | 65.70 | 16.09 |      | 130.0 |         |
|           |                                                   | Z | 4.51 | 66.12 | 16.16 |      | 130.0 |         |
| 10608-AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle) | X | 4.89 | 66.54 | 16.47 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.86 | 66.13 | 16.26 |      | 130.0 |         |
|           |                                                   | Z | 4.67 | 66.48 | 16.32 |      | 130.0 |         |
| 10609-AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle) | X | 4.78 | 66.40 | 16.32 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.74 | 65.99 | 16.10 |      | 130.0 |         |
|           |                                                   | Z | 4.56 | 66.32 | 16.14 |      | 130.0 |         |
| 10610-AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle) | X | 4.83 | 66.56 | 16.48 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.80 | 66.15 | 16.27 |      | 130.0 |         |
|           |                                                   | Z | 4.61 | 66.49 | 16.31 |      | 130.0 |         |
| 10611-AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle) | X | 4.74 | 66.37 | 16.33 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.71 | 65.96 | 16.12 |      | 130.0 |         |
|           |                                                   | Z | 4.52 | 66.28 | 16.15 |      | 130.0 |         |
| 10612-AAB | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle) | X | 4.76 | 66.53 | 16.38 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.73 | 66.12 | 16.16 |      | 130.0 |         |
|           |                                                   | Z | 4.52 | 66.43 | 16.20 |      | 130.0 |         |
| 10613-AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle) | X | 4.76 | 66.43 | 16.27 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.74 | 66.03 | 16.06 |      | 130.0 |         |
|           |                                                   | Z | 4.52 | 66.26 | 16.05 |      | 130.0 |         |
| 10614-AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle) | X | 4.70 | 66.62 | 16.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.67 | 66.19 | 16.28 |      | 130.0 |         |
|           |                                                   | Z | 4.48 | 66.49 | 16.31 |      | 130.0 |         |
| 10615-AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle) | X | 4.74 | 66.19 | 16.10 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.72 | 65.79 | 15.90 |      | 130.0 |         |
|           |                                                   | Z | 4.52 | 66.11 | 15.92 |      | 130.0 |         |
| 10616-AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle) | X | 5.34 | 66.61 | 16.47 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.32 | 66.28 | 16.32 |      | 130.0 |         |
|           |                                                   | Z | 5.14 | 66.47 | 16.32 |      | 130.0 |         |
| 10617-AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle) | X | 5.40 | 66.74 | 16.51 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.38 | 66.41 | 16.35 |      | 130.0 |         |
|           |                                                   | Z | 5.21 | 66.65 | 16.39 |      | 130.0 |         |
| 10618-AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle) | X | 5.29 | 66.79 | 16.56 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.27 | 66.46 | 16.39 |      | 130.0 |         |
|           |                                                   | Z | 5.11 | 66.70 | 16.43 |      | 130.0 |         |
| 10619-AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle) | X | 5.31 | 66.61 | 16.40 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.30 | 66.30 | 16.25 |      | 130.0 |         |
|           |                                                   | Z | 5.11 | 66.46 | 16.24 |      | 130.0 |         |
| 10620-AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle) | X | 5.41 | 66.67 | 16.47 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.41 | 66.38 | 16.34 |      | 130.0 |         |
|           |                                                   | Z | 5.19 | 66.48 | 16.30 |      | 130.0 |         |
| 10621-AAB | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle) | X | 5.40 | 66.76 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.38 | 66.43 | 16.48 |      | 130.0 |         |
|           |                                                   | Z | 5.21 | 66.64 | 16.50 |      | 130.0 |         |
| 10622-AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle) | X | 5.41 | 66.91 | 16.70 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.39 | 66.60 | 16.55 |      | 130.0 |         |
|           |                                                   | Z | 5.20 | 66.74 | 16.55 |      | 130.0 |         |

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10623-AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)  | X | 5.29 | 66.45 | 16.36 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.27 | 66.12 | 16.20 |      | 130.0 |         |
|           |                                                    | Z | 5.08 | 66.28 | 16.19 |      | 130.0 |         |
| 10624-AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)  | X | 5.48 | 66.64 | 16.51 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.47 | 66.35 | 16.38 |      | 130.0 |         |
|           |                                                    | Z | 5.28 | 66.51 | 16.36 |      | 130.0 |         |
| 10625-AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)  | X | 5.87 | 67.67 | 17.07 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.92 | 67.56 | 17.03 |      | 130.0 |         |
|           |                                                    | Z | 5.48 | 66.99 | 16.66 |      | 130.0 |         |
| 10626-AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)  | X | 5.62 | 66.65 | 16.41 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.59 | 66.32 | 16.26 |      | 130.0 |         |
|           |                                                    | Z | 5.46 | 66.52 | 16.28 |      | 130.0 |         |
| 10627-AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)  | X | 5.86 | 67.19 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.87 | 66.96 | 16.54 |      | 130.0 |         |
|           |                                                    | Z | 5.68 | 67.07 | 16.52 |      | 130.0 |         |
| 10628-AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)  | X | 5.67 | 66.78 | 16.37 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.65 | 66.49 | 16.24 |      | 130.0 |         |
|           |                                                    | Z | 5.47 | 66.52 | 16.18 |      | 130.0 |         |
| 10629-AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)  | X | 5.76 | 66.87 | 16.41 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.74 | 66.55 | 16.26 |      | 130.0 |         |
|           |                                                    | Z | 5.55 | 66.62 | 16.22 |      | 130.0 |         |
| 10630-AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)  | X | 6.21 | 68.41 | 17.17 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.36 | 68.57 | 17.26 |      | 130.0 |         |
|           |                                                    | Z | 5.84 | 67.72 | 16.78 |      | 130.0 |         |
| 10631-AAB | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)  | X | 6.11 | 68.22 | 17.27 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.15 | 68.07 | 17.21 |      | 130.0 |         |
|           |                                                    | Z | 5.81 | 67.73 | 16.97 |      | 130.0 |         |
| 10632-AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)  | X | 5.83 | 67.26 | 16.81 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.82 | 66.98 | 16.68 |      | 130.0 |         |
|           |                                                    | Z | 5.67 | 67.19 | 16.73 |      | 130.0 |         |
| 10633-AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)  | X | 5.73 | 66.95 | 16.48 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.72 | 66.66 | 16.35 |      | 130.0 |         |
|           |                                                    | Z | 5.54 | 66.74 | 16.32 |      | 130.0 |         |
| 10634-AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)  | X | 5.72 | 66.98 | 16.56 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.70 | 66.65 | 16.41 |      | 130.0 |         |
|           |                                                    | Z | 5.52 | 66.78 | 16.40 |      | 130.0 |         |
| 10635-AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)  | X | 5.60 | 66.32 | 15.97 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.59 | 66.03 | 15.84 |      | 130.0 |         |
|           |                                                    | Z | 5.39 | 66.04 | 15.76 |      | 130.0 |         |
| 10636-AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle) | X | 6.03 | 67.02 | 16.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.02 | 66.74 | 16.37 |      | 130.0 |         |
|           |                                                    | Z | 5.89 | 66.87 | 16.36 |      | 130.0 |         |
| 10637-AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle) | X | 6.19 | 67.40 | 16.66 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.19 | 67.15 | 16.56 |      | 130.0 |         |
|           |                                                    | Z | 6.02 | 67.21 | 16.51 |      | 130.0 |         |
| 10638-AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle) | X | 6.19 | 67.38 | 16.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.19 | 67.12 | 16.52 |      | 130.0 |         |
|           |                                                    | Z | 6.03 | 67.21 | 16.49 |      | 130.0 |         |

|           |                                                        |   |        |        |       |       |       |         |
|-----------|--------------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10639-AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)     | X | 6.18   | 67.36  | 16.66 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.17   | 67.09  | 16.55 |       | 130.0 |         |
|           |                                                        | Z | 6.00   | 67.13  | 16.50 |       | 130.0 |         |
| 10640-AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)     | X | 6.19   | 67.39  | 16.62 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.20   | 67.16  | 16.53 |       | 130.0 |         |
|           |                                                        | Z | 5.99   | 67.11  | 16.43 |       | 130.0 |         |
| 10641-AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)     | X | 6.21   | 67.22  | 16.56 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.20   | 66.94  | 16.44 |       | 130.0 |         |
|           |                                                        | Z | 6.05   | 67.08  | 16.43 |       | 130.0 |         |
| 10642-AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)     | X | 6.27   | 67.52  | 16.87 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.26   | 67.23  | 16.75 |       | 130.0 |         |
|           |                                                        | Z | 6.09   | 67.31  | 16.72 |       | 130.0 |         |
| 10643-AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)     | X | 6.10   | 67.19  | 16.61 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.09   | 66.93  | 16.50 |       | 130.0 |         |
|           |                                                        | Z | 5.93   | 67.00  | 16.46 |       | 130.0 |         |
| 10644-AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)     | X | 6.29   | 67.77  | 16.92 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.32   | 67.61  | 16.86 |       | 130.0 |         |
|           |                                                        | Z | 6.02   | 67.30  | 16.63 |       | 130.0 |         |
| 10645-AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)     | X | 6.72   | 68.61  | 17.29 | 0.46  | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.81   | 68.60  | 17.31 |       | 130.0 |         |
|           |                                                        | Z | 6.13   | 67.29  | 16.58 |       | 130.0 |         |
| 10646-AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)  | X | 26.22  | 119.06 | 40.53 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 23.98  | 116.77 | 40.23 |       | 60.0  |         |
|           |                                                        | Z | 13.39  | 105.96 | 36.68 |       | 60.0  |         |
| 10647-AAE | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7) | X | 21.91  | 115.56 | 39.67 | 9.30  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 20.79  | 114.08 | 39.59 |       | 60.0  |         |
|           |                                                        | Z | 11.12  | 102.25 | 35.63 |       | 60.0  |         |
| 10648-AAA | CDMA2000 (1x Advanced)                                 | X | 0.80   | 65.60  | 12.34 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                        | Y | 0.65   | 62.69  | 10.17 |       | 150.0 |         |
|           |                                                        | Z | 0.58   | 62.96  | 9.61  |       | 150.0 |         |
| 10652-AAC | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)         | X | 3.70   | 67.38  | 17.08 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 3.59   | 66.56  | 16.66 |       | 80.0  |         |
|           |                                                        | Z | 3.39   | 66.83  | 16.41 |       | 80.0  |         |
| 10653-AAC | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)        | X | 4.17   | 66.50  | 17.03 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.11   | 65.95  | 16.76 |       | 80.0  |         |
|           |                                                        | Z | 3.90   | 66.02  | 16.55 |       | 80.0  |         |
| 10654-AAC | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)        | X | 4.13   | 66.12  | 17.00 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.07   | 65.60  | 16.75 |       | 80.0  |         |
|           |                                                        | Z | 3.90   | 65.62  | 16.55 |       | 80.0  |         |
| 10655-AAD | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)        | X | 4.19   | 66.12  | 17.04 | 2.23  | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.13   | 65.62  | 16.79 |       | 80.0  |         |
|           |                                                        | Z | 3.96   | 65.57  | 16.58 |       | 80.0  |         |
| 10658-AAA | Pulse Waveform (200Hz, 10%)                            | X | 100.00 | 111.27 | 26.15 | 10.00 | 50.0  | ± 9.6 % |
|           |                                                        | Y | 100.00 | 112.15 | 26.71 |       | 50.0  |         |
|           |                                                        | Z | 14.35  | 85.50  | 18.40 |       | 50.0  |         |
| 10659-AAA | Pulse Waveform (200Hz, 20%)                            | X | 100.00 | 110.66 | 24.83 | 6.99  | 60.0  | ± 9.6 % |
|           |                                                        | Y | 100.00 | 110.25 | 24.76 |       | 60.0  |         |
|           |                                                        | Z | 100.00 | 105.29 | 22.07 |       | 60.0  |         |

|           |                             |   |        |        |       |      |       |         |
|-----------|-----------------------------|---|--------|--------|-------|------|-------|---------|
| 10660-AAA | Pulse Waveform (200Hz, 40%) | X | 100.00 | 112.93 | 24.53 | 3.98 | 80.0  | ± 9.6 % |
|           |                             | Y | 100.00 | 108.47 | 22.64 |      | 80.0  |         |
|           |                             | Z | 100.00 | 104.83 | 20.58 |      | 80.0  |         |
| 10661-AAA | Pulse Waveform (200Hz, 60%) | X | 100.00 | 118.71 | 25.68 | 2.22 | 100.0 | ± 9.6 % |
|           |                             | Y | 100.00 | 104.33 | 19.70 |      | 100.0 |         |
|           |                             | Z | 100.00 | 104.48 | 19.32 |      | 100.0 |         |
| 10662-AAA | Pulse Waveform (200Hz, 80%) | X | 100.00 | 138.66 | 31.49 | 0.97 | 120.0 | ± 9.6 % |
|           |                             | Y | 0.19   | 60.00  | 4.09  |      | 120.0 |         |
|           |                             | Z | 100.00 | 91.23  | 12.90 |      | 120.0 |         |

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

## APPENDIX D: SAR TISSUE SPECIFICATIONS

Measurement Procedure for Tissue verification:

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

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

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

**Table D-I**  
**Composition of the Tissue Equivalent Matter**

| Frequency (MHz)           | 750          | 750        | 835   | 835   | 1750 | 1750 | 1900  | 1900  | 2450-2600  | 2450-2600 | 5200 - 5800 | 5200 - 5800 |
|---------------------------|--------------|------------|-------|-------|------|------|-------|-------|------------|-----------|-------------|-------------|
| Tissue                    | Head         | Body       | Head  | Body  | Head | Body | Head  | Body  | Head       | Body      | Head        | Body        |
| Ingredients (% by weight) |              |            |       |       |      |      |       |       |            |           |             |             |
| Bactericide               |              |            | 0.1   | 0.1   |      |      |       |       |            |           |             |             |
| DGBE                      |              |            |       |       | 47   | 31   | 44.92 | 29.44 |            | 26.7      |             |             |
| HEC                       | See page 2-3 | See page 2 | 1     | 1     |      |      |       |       | See page 4 | 0.1       | See page 5  | See page 6  |
| NaCl                      |              |            | 1.45  | 0.94  | 0.4  | 0.2  | 0.18  | 0.39  |            |           |             |             |
| Sucrose                   |              |            | 57    | 44.9  |      |      |       |       |            |           |             |             |
| Water                     |              |            | 40.45 | 53.06 | 52.6 | 68.8 | 54.9  | 70.17 |            | 73.2      |             |             |

|                                   |                                                                                     |                       |                                                                                       |                                 |
|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID ZNFV450PM                  |  | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>1/16/19 - 02/13/19 | DUT Type:<br>Portable Handset                                                       |                       |                                                                                       | APPENDIX D:<br>Page 1 of 6      |

## 2 Composition / Information on ingredients

The Item is composed of the following ingredients:

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

Figure D-1

### Composition of 750 MHz Head and Body Tissue Equivalent Matter

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

Schmid & Partner Engineering AG

**s p e a g**

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Phone +41 44 245 9700, Fax +41 44 245 9779  
info@speag.com, http://www.speag.com

#### Measurement Certificate / Material Test

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

#### Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

#### Setup Validation

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

#### Target Parameters

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

#### Test Condition

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

#### Additional Information

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

| f [MHz] | Measured |       |       | Target |       | Diff.to Target [%] |         |
|---------|----------|-------|-------|--------|-------|--------------------|---------|
|         | e'       | e''   | sigma | eps    | sigma | Δ-eps              | Δ-sigma |
| 600     | 57.3     | 25.02 | 0.84  | 56.1   | 0.95  | 2.2                | -12.2   |
| 625     | 57.1     | 24.67 | 0.86  | 56.0   | 0.95  | 1.9                | -10.1   |
| 650     | 56.8     | 24.32 | 0.88  | 55.9   | 0.96  | 1.6                | -8.0    |
| 675     | 56.6     | 24.02 | 0.90  | 55.8   | 0.96  | 1.3                | -5.8    |
| 700     | 56.3     | 23.71 | 0.92  | 55.7   | 0.96  | 1.1                | -3.8    |
| 725     | 56.1     | 23.48 | 0.95  | 55.6   | 0.96  | 0.8                | -1.5    |
| 750     | 55.9     | 23.25 | 0.97  | 55.5   | 0.96  | 0.6                | 0.7     |
| 775     | 55.6     | 23.04 | 0.99  | 55.4   | 0.97  | 0.3                | 2.9     |
| 800     | 55.4     | 22.82 | 1.02  | 55.3   | 0.97  | 0.1                | 5.0     |
| 825     | 55.2     | 22.65 | 1.04  | 55.2   | 0.98  | -0.1               | 6.3     |
| 838     | 55.1     | 22.56 | 1.05  | 55.2   | 0.98  | -0.3               | 6.9     |
| 850     | 54.9     | 22.47 | 1.06  | 55.2   | 0.99  | -0.4               | 7.5     |
| 875     | 54.7     | 22.34 | 1.09  | 55.1   | 1.02  | -0.7               | 6.7     |
| 900     | 54.5     | 22.21 | 1.11  | 55.0   | 1.05  | -0.9               | 5.9     |
| 925     | 54.3     | 22.08 | 1.14  | 55.0   | 1.06  | -1.3               | 6.9     |
| 950     | 54.1     | 21.95 | 1.16  | 54.9   | 1.08  | -1.6               | 7.9     |
| 975     | 53.8     | 21.86 | 1.19  | 54.9   | 1.09  | -1.9               | 9.1     |
| 1000    | 53.6     | 21.76 | 1.21  | 54.8   | 1.10  | -2.2               | 10.2    |

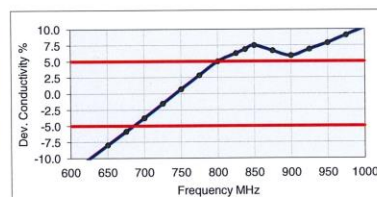
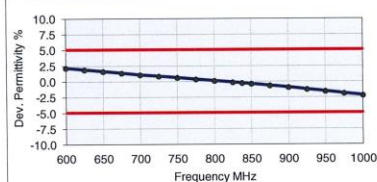


Figure D-2

### 750MHz Body Tissue Equivalent Matter

|                                   |                                                                                     |                       |                                                                                       |                                 |
|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID ZNFV450PM                  |  | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>1/16/19 - 02/13/19 | DUT Type:<br>Portable Handset                                                       |                       |                                                                                       | APPENDIX D:<br>Page 2 of 6      |

**Measurement Certificate / Material Test**

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

**Measurement Method**

TSL dielectric parameters measured using calibrated DAK probe.

**Setup Validation**

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

**Target Parameters**

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

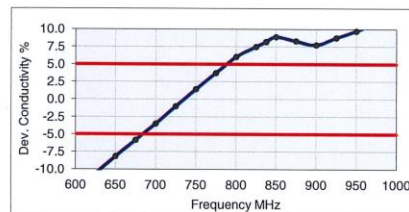
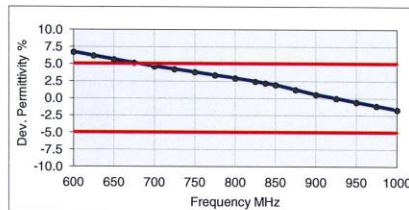
**Test Condition**

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

**Additional Information**

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

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



**Figure D-3**  
**750MHz Head Tissue Equivalent Matter**

|                                   |                                                                                     |                       |                                                                                       |                                 |
|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID ZNFV450PM                  |  | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>1/16/19 - 02/13/19 | DUT Type:<br>Portable Handset                                                       |                       |                                                                                       | APPENDIX D:<br>Page 3 of 6      |

### 3 Composition / Information on ingredients

The Item is composed of the following ingredients:

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

Safety relevant ingredients:

|                    |         |                                                                                                        |
|--------------------|---------|--------------------------------------------------------------------------------------------------------|
| CAS-No. 55965-84-9 | < 0.1 % | aqueous preparation, containing 5-chloro-2-methyl-3(2H)-isothiazolone and 2-methyl-3(2H)-isothiazolone |
| CAS-No. 9005-64-5  | < 50 %  | polyoxyethylenesorbitan monolaurate                                                                    |

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

## Figure D-4 Composition of 2.4-2.6 GHz Head Tissue Equivalent Matter

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

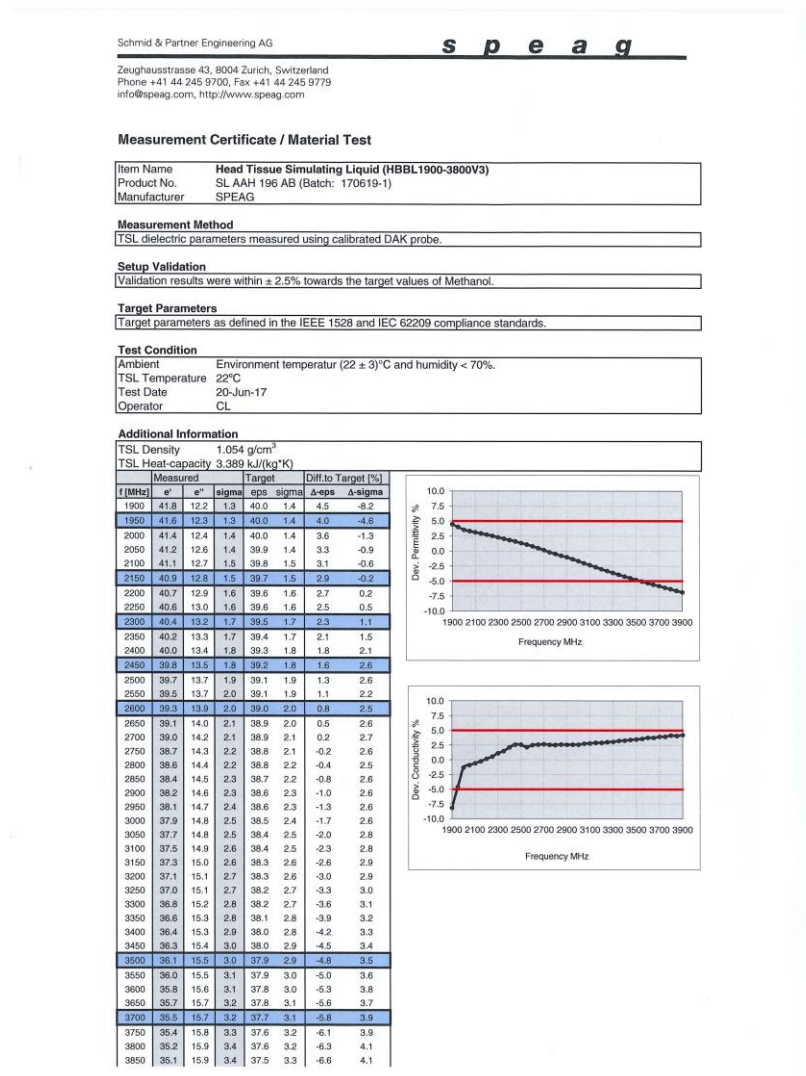


Figure D-5  
2.4-2.6 GHz Head Tissue Equivalent Matter

|                                   |                               |                       |  |                                 |
|-----------------------------------|-------------------------------|-----------------------|--|---------------------------------|
| FCC ID ZNFV450PM                  |                               | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>1/16/19 - 02/13/19 | DUT Type:<br>Portable Handset |                       |  | APPENDIX D:<br>Page 4 of 6      |

## 2 Composition / Information on ingredients

The Item is composed of the following ingredients:

|             |          |
|-------------|----------|
| Water       | 50 – 65% |
| Mineral oil | 10 – 30% |
| Emulsifiers | 8 – 25%  |
| Sodium salt | 0 – 1.5% |

Figure D-6

### Composition of 5 GHz Head Tissue Equivalent Matter

**Note:** 5 GHz head liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.

Schmid & Partner Engineering AG

**s p e a g**

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

#### Measurement Certificate / Material Test

Item Name Head Tissue Simulating Liquid (HBBL3500-5800V5)  
Product No. SL AAH 502 AG (Batch: 170613-1)  
Manufacturer SPEAG

#### Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

#### Setup Validation

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

#### Target Parameters

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

#### Test Condition

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

#### Additional Information

TSL Density  $0.985 \text{ g/cm}^3$   
TSL Heat-capacity  $3.383 \text{ kJ/(kg}^\circ\text{K)}$

| Measured |             |              |       | Target      |       | Diff to Target    |                    |
|----------|-------------|--------------|-------|-------------|-------|-------------------|--------------------|
| f [MHz]  | $\epsilon'$ | $\epsilon''$ | sigma | $\epsilon'$ | sigma | $\Delta\epsilon'$ | $\Delta\epsilon''$ |
| 3400     | 38.6        | 15.03        | 2.84  | 38.0        | 2.81  | 1.5               | 1.1                |
| 3500     | 38.5        | 15.00        | 2.92  | 37.9        | 2.91  | 1.5               | 0.3                |
| 3600     | 38.3        | 14.98        | 3.00  | 37.8        | 3.02  | 1.3               | -0.5               |
| 3700     | 38.2        | 14.96        | 3.08  | 37.7        | 3.12  | 1.3               | -1.2               |
| 3800     | 38.1        | 14.96        | 3.16  | 37.6        | 3.22  | 1.4               | -1.9               |
| 3900     | 38.0        | 14.95        | 3.24  | 37.5        | 3.32  | 1.4               | -2.5               |
| 4000     | 37.9        | 14.95        | 3.33  | 37.4        | 3.43  | 1.5               | -2.8               |
| 4100     | 37.8        | 14.96        | 3.41  | 37.2        | 3.53  | 1.5               | -3.3               |
| 4200     | 37.6        | 15.00        | 3.50  | 37.1        | 3.63  | 1.3               | -3.6               |
| 4300     | 37.5        | 15.05        | 3.60  | 37.0        | 3.73  | 1.3               | -3.5               |
| 4400     | 37.4        | 15.11        | 3.70  | 36.9        | 3.84  | 1.4               | -3.5               |
| 4500     | 37.2        | 15.18        | 3.80  | 36.8        | 3.94  | 1.1               | -3.5               |
| 4600     | 37.1        | 15.24        | 3.90  | 36.7        | 4.04  | 1.2               | -3.5               |
| 4700     | 37.0        | 15.29        | 4.00  | 36.6        | 4.14  | 1.2               | -3.4               |
| 4800     | 36.8        | 15.35        | 4.10  | 36.4        | 4.25  | 1.0               | -3.4               |
| 4900     | 36.7        | 15.38        | 4.19  | 36.3        | 4.35  | 1.0               | -3.6               |
| 4950     | 36.6        | 15.39        | 4.24  | 36.3        | 4.40  | 0.9               | -3.6               |
| 5000     | 36.5        | 15.42        | 4.29  | 36.2        | 4.45  | 0.8               | -3.6               |
| 5050     | 36.5        | 15.43        | 4.34  | 36.2        | 4.50  | 0.9               | -3.6               |
| 5100     | 36.4        | 15.46        | 4.39  | 36.1        | 4.55  | 0.8               | -3.6               |
| 5150     | 36.3        | 15.48        | 4.43  | 36.0        | 4.60  | 0.7               | -3.8               |
| 5200     | 36.2        | 15.50        | 4.48  | 36.0        | 4.66  | 0.6               | -3.8               |
| 5250     | 36.1        | 15.53        | 4.54  | 35.9        | 4.71  | 0.5               | -3.5               |
| 5300     | 36.1        | 15.55        | 4.58  | 35.9        | 4.76  | 0.6               | -3.7               |
| 5350     | 36.0        | 15.56        | 4.63  | 35.8        | 4.81  | 0.5               | -3.7               |
| 5400     | 35.9        | 15.57        | 4.68  | 35.8        | 4.86  | 0.4               | -3.7               |
| 5450     | 35.9        | 15.59        | 4.73  | 35.7        | 4.91  | 0.6               | -3.7               |
| 5500     | 35.8        | 15.61        | 4.78  | 35.6        | 4.96  | 0.4               | -3.7               |
| 5550     | 35.7        | 15.65        | 4.83  | 35.6        | 5.01  | 0.3               | -3.7               |
| 5600     | 35.6        | 15.66        | 4.88  | 35.5        | 5.07  | 0.2               | -3.7               |
| 5650     | 35.6        | 15.70        | 4.93  | 35.5        | 5.12  | 0.4               | -3.6               |
| 5700     | 35.5        | 15.72        | 4.98  | 35.4        | 5.17  | 0.2               | -3.6               |
| 5750     | 35.4        | 15.76        | 5.04  | 35.4        | 5.22  | 0.1               | -3.4               |
| 5800     | 35.4        | 15.78        | 5.09  | 35.3        | 5.27  | 0.3               | -3.4               |
| 5850     | 35.3        | 15.81        | 5.14  | 35.3        | 5.34  | 0.0               | -3.7               |
| 5900     | 35.3        | 15.82        | 5.19  | 35.3        | 5.40  | 0.0               | -3.9               |

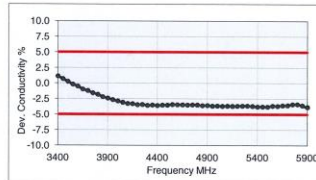
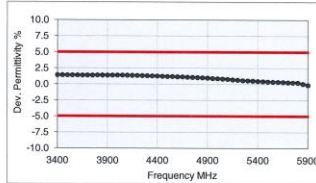


Figure D-7

### 5 GHz Head Tissue Equivalent Matter

|                                   |                                                                                     |                       |                                                                                       |                                 |
|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID ZNFV450PM                  |  | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>1/16/19 - 02/13/19 | DUT Type:<br>Portable Handset                                                       |                       |                                                                                       | APPENDIX D:<br>Page 5 of 6      |

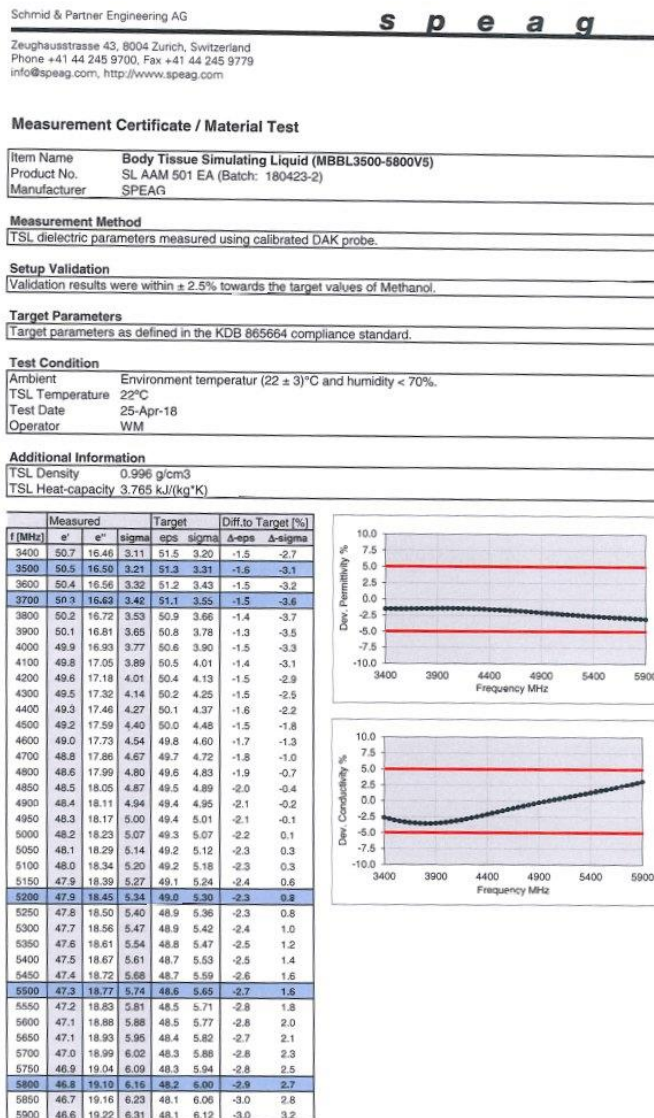
### 3 Composition / Information on ingredients

The Item is composed of the following ingredients:

|                                 |          |
|---------------------------------|----------|
| Water                           | 60 – 80% |
| Esters, Emulsifiers, Inhibitors | 20 – 40% |
| Sodium salt                     | 0 – 1.5% |

**Figure D-8**  
**Composition of 5 GHz Body Tissue Equivalent Matter**

**Note:** 5 GHz Body liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.



**Figure D-9**  
**5 GHz Body Tissue Equivalent Matter**

|                                   |                               |                       |  |                                 |
|-----------------------------------|-------------------------------|-----------------------|--|---------------------------------|
| FCC ID ZNFV450PM                  |                               | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>1/16/19 - 02/13/19 | DUT Type:<br>Portable Handset |                       |  | APPENDIX D:<br>Page 6 of 6      |

## APPENDIX E: SAR SYSTEM VALIDATION

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

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

**Table E-1**  
**SAR System Validation Summary – 1g**

| SAR System | Freq. (MHz) | Date       | Probe SN | Probe Cal Point |      | Cond. ( $\sigma$ ) | Perm. ( $\epsilon_r$ ) | CW VALIDATION |                 |                | MOD. VALIDATION |             |      |
|------------|-------------|------------|----------|-----------------|------|--------------------|------------------------|---------------|-----------------|----------------|-----------------|-------------|------|
|            |             |            |          |                 |      |                    |                        | SENSITIVITY   | PROBE LINEARITY | PROBE ISOTROPY | MOD. TYPE       | DUTY FACTOR | PAR  |
| G          | 750         | 8/9/2018   | 7410     | 750             | Head | 0.898              | 41.769                 | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| G          | 835         | 8/9/2018   | 7410     | 835             | Head | 0.889              | 40.915                 | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| H          | 1750        | 7/16/2018  | 7409     | 1750            | Head | 1.331              | 41.186                 | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| M          | 1900        | 11/5/2018  | 3287     | 1900            | Head | 1.430              | 39.014                 | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| G          | 1900        | 8/9/2018   | 7410     | 1900            | Head | 1.429              | 38.607                 | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| H          | 2450        | 8/8/2018   | 7409     | 2450            | Head | 1.844              | 40.474                 | PASS          | PASS            | PASS           | OFDM/TDD        | PASS        | PASS |
| G          | 2450        | 8/7/2018   | 7410     | 2450            | Head | 1.865              | 39.618                 | PASS          | PASS            | PASS           | OFDM/TDD        | PASS        | PASS |
| H          | 2600        | 8/9/2018   | 7409     | 2600            | Head | 1.914              | 38.662                 | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| H          | 5250        | 7/5/2018   | 7409     | 5250            | Head | 4.492              | 34.994                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| H          | 5600        | 7/5/2018   | 7409     | 5600            | Head | 4.839              | 34.496                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| H          | 5750        | 7/5/2018   | 7409     | 5750            | Head | 4.995              | 34.288                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| E          | 750         | 2/6/2019   | 3589     | 750             | Body | 0.984              | 54.096                 | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| D          | 835         | 8/15/2018  | 7357     | 835             | Body | 1.000              | 53.368                 | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| J          | 1750        | 9/5/2018   | 3347     | 1750            | Body | 1.454              | 53.515                 | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| G          | 1900        | 8/10/2018  | 7410     | 1900            | Body | 1.567              | 52.239                 | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| E          | 1900        | 12/3/2018  | 3332     | 1900            | Body | 1.518              | 51.796                 | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| E          | 1900        | 2/5/2019   | 3589     | 1900            | Body | 1.584              | 54.248                 | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| K          | 2450        | 4/3/2018   | 3319     | 2450            | Body | 2.043              | 51.130                 | PASS          | PASS            | PASS           | OFDM/TDD        | PASS        | PASS |
| K          | 2600        | 4/3/2018   | 3319     | 2600            | Body | 2.225              | 50.665                 | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| L          | 5250        | 10/29/2018 | 7308     | 5250            | Body | 5.511              | 48.770                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| L          | 5600        | 10/29/2018 | 7308     | 5600            | Body | 5.994              | 48.200                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| L          | 5750        | 10/29/2018 | 7308     | 5750            | Body | 6.219              | 47.960                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |

|                                   |                                                                                     |                       |                                                                                       |                                 |
|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID ZNFV450PM                  |  | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>1/16/19 - 02/13/19 | DUT Type:<br>Portable Handset                                                       |                       |                                                                                       | APPENDIX E:<br>Page 1 of 2      |

**Table E-2**  
**SAR System Validation Summary – 10g**

| SAR System | Freq. (MHz) | Date       | Probe SN | Probe Cal Point |      | Cond. (σ) | Perm. (εr) | CW VALIDATION |                 |                | MOD. VALIDATION |             |      |
|------------|-------------|------------|----------|-----------------|------|-----------|------------|---------------|-----------------|----------------|-----------------|-------------|------|
|            |             |            |          |                 |      |           |            | SENSITIVITY   | PROBE LINEARITY | PROBE ISOTROPY | MOD. TYPE       | DUTY FACTOR | PAR  |
| J          | 1750        | 9/5/2018   | 3347     | 1750            | Body | 1.454     | 53.515     | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| G          | 1900        | 8/10/2018  | 7410     | 1900            | Body | 1.567     | 52.239     | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| E          | 1900        | 12/3/2018  | 3332     | 1900            | Body | 1.518     | 51.796     | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| L          | 5250        | 10/29/2018 | 7308     | 5250            | Body | 5.511     | 48.770     | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| L          | 5600        | 10/29/2018 | 7308     | 5600            | Body | 5.994     | 48.200     | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| L          | 5750        | 10/29/2018 | 7308     | 5750            | Body | 6.219     | 47.960     | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |

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

|                                   |                                                                                     |                       |                                                                                       |                                 |
|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID ZNFV450PM                  |  | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>1/16/19 - 02/13/19 | DUT Type:<br>Portable Handset                                                       |                       |                                                                                       | APPENDIX E:<br>Page 2 of 2      |

## APPENDIX G POWER REDUCTION VERIFICATION

Per the May 2017 TCBC Workshop Notes, demonstration of proper functioning of the power reduction mechanisms is required to support the corresponding SAR configurations. The verification process was divided into two parts: (1) evaluation of output power levels for individual or multiple triggering mechanisms and (2) evaluation of the triggering distances for proximity-based sensors.

### G.1 Power Verification Procedure

The power verification was performed according to the following procedure:

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

### G.2 Distance Verification Procedure

The distance verification procedure was performed according to the following procedure:

1. A base station simulator was used to establish an RF connection and to monitor the power levels. The device being tested was placed below the relevant section of the phantom with the relevant side or edge of the device facing toward the phantom.
2. The device was moved toward and away from the phantom to determine the distance at which the mechanism triggers and the output power is reduced, per KDB Publication 616217 D04v01r02 and FCC Guidance. Each applicable test position was evaluated. The distances were confirmed to be the same or larger (more conservative) than the minimum distances provided by the manufacturer.
3. Steps 1 and 2 were repeated for low, mid, and high bands, as appropriate (see note below Table G-2 for more details).
4. Steps 1 through 3 were repeated for all distance-based power reduction mechanisms.

|                                   |                                                                                                                                                                                                 |                                 |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFV450PM                 |  SAR EVALUATION REPORT  | Reviewed by:<br>Quality Manager |
| Test Dates:<br>1/16/19 – 02/13/19 | DUT Type:<br>Portable Handset                                                                                                                                                                   | APPENDIX G:<br>Page 1 of 2      |

### G.3 Main Antenna Verification Summary

**Table G-1**  
**Power Measurement Verification for Main Antenna**

| Mechanism(s) | Mode/Band       | Conducted Power (dBm) |                        |
|--------------|-----------------|-----------------------|------------------------|
| 1st          |                 | Un-triggered (Max)    | Mechanism #1 (Reduced) |
| Grip         | UMTS 1750       | 24.56                 | 23.41                  |
| Grip         | UMTS 1900       | 24.72                 | 23.65                  |
| Grip         | PCS CDMA        | 24.56                 | 23.35                  |
| Grip         | LTE FDD Band 4  | 24.81                 | 23.69                  |
| Grip         | LTE FDD Band 66 | 24.92                 | 23.60                  |
| Grip         | LTE FDD Band 2  | 24.62                 | 23.62                  |
| Grip         | LTE FDD Band 25 | 24.91                 | 23.42                  |

**Table G-2**  
**Distance Measurement Verification for Main Antenna**

| Mechanism(s) | Test Condition        | Band | Distance Measurements (mm) |             | Minimum Distance per Manufacturer (mm) |
|--------------|-----------------------|------|----------------------------|-------------|----------------------------------------|
|              |                       |      | Moving Toward              | Moving Away |                                        |
| Grip         | Phablet - Back Side   | Mid  | 3                          | 4           | 3                                      |
| Grip         | Phablet - Front Side  | Mid  | 2                          | 4           | 2                                      |
| Grip         | Phablet - Bottom Edge | Mid  | 4                          | 6           | 4                                      |

\*Note: Mid band refers to: CDMA BC1, UMTS B2/4, LTE B2/4/25/66

### G.4 WIFI Verification Summary

**Table G-3**  
**Power Measurement Verification WIFI**

| Mechanism(s) | Mode/Band        | Conducted Power (dBm) |                        |
|--------------|------------------|-----------------------|------------------------|
| 1st          |                  | Un-triggered (Max)    | Mechanism #1 (Reduced) |
| Held-to-Ear  | 802.11b          | 19.44                 | 17.22                  |
| Held-to-Ear  | 802.11g          | 18.79                 | 16.89                  |
| Held-to-Ear  | 802.11n (2.4GHz) | 17.63                 | 17.01                  |

\*Note: 2.4 GHz 802.11ac and MIMO WIFI modes were not evaluated due to equipment limitations.

|                                          |                                                                                                                                                                                                        |                                        |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>FCC ID:</b> ZNFV450PM                 |  <b>SAR EVALUATION REPORT</b>  | <b>Reviewed by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>1/16/19 – 02/13/19 | <b>DUT Type:</b><br>Portable Handset                                                                                                                                                                   | <b>APPENDIX G:</b><br>Page 2 of 2      |

# APPENDIX H: DOWNLINK LTE CA RF CONDUCTED POWERS

## 1.1 LTE Downlink Only Carrier Aggregation Test Reduction Methodology

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. Per April 2018 TCBC Workshop Notes, the following test reduction methodology was applied to determine the combinations required for conducted power measurements.

### LTE DLCA Test Reduction Methodology:

- The supported combinations were arranged by the number of component carriers in columns.
- Any limitations on the PCC or SCC for each combination were identified alongside the combination (e.g. CA\_2A-2A-4A-12A, but B12 can only be configured as a SCC).
- Power measurements were performed for "supersets" (LTE CA combinations with multiple components carriers) and any "subsets" (LTE CA combinations with fewer component carriers) that were not completely covered by the supersets.
- Only subsets that have the exact same components as a superset were excluded for measurement.
- When there were certain restrictions on component carriers that existed in the superset that were not applied for the subset, the subset configuration was additionally evaluated.
- Both inter-band and intra-band downlink carrier aggregation scenarios were considered.
- Downlink CA combinations for SISO and 4x4 Downlink MIMO operations were measured independently, per May 2017 TCBC Workshop notes.

Table 1 – Example of Exclusion Table for SISO Configurations

| Index | ACC                                                                             | Supported Channel Bandwidth (MHz) | Restriction | Completely Covered by Measurement Superset |
|-------|---------------------------------------------------------------------------------|-----------------------------------|-------------|--------------------------------------------|
| CC1   | CA_2A                                                                           | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC2   | CA_2A-2A                                                                        | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC3   | CA_2A-2A-4A                                                                     | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC4   | CA_2A-2A-4A-12A                                                                 | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC5   | CA_2A-2A-4A-12A-12A                                                             | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC6   | CA_2A-2A-4A-12A-12A-12A                                                         | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC7   | CA_2A-2A-4A-12A-12A-12A-12A                                                     | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC8   | CA_2A-2A-4A-12A-12A-12A-12A-12A                                                 | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC9   | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A                                             | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC10  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A                                         | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC11  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A                                     | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC12  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A                                 | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC13  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A                             | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC14  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A                         | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC15  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A                     | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC16  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A                 | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC17  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A             | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC18  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A         | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC19  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A     | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC20  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A | 5, 10, 15, 20                     | B20-B4      | No                                         |

Table 2 – Example of Exclusion Table for 4x4 Downlink MIMO Configurations

| Index | ACC                                                                             | Supported Channel Bandwidth (MHz) | Restriction | Completely Covered by Measurement Superset |
|-------|---------------------------------------------------------------------------------|-----------------------------------|-------------|--------------------------------------------|
| CC1   | CA_2A                                                                           | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC2   | CA_2A-2A                                                                        | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC3   | CA_2A-2A-4A                                                                     | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC4   | CA_2A-2A-4A-12A                                                                 | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC5   | CA_2A-2A-4A-12A-12A                                                             | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC6   | CA_2A-2A-4A-12A-12A-12A                                                         | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC7   | CA_2A-2A-4A-12A-12A-12A-12A                                                     | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC8   | CA_2A-2A-4A-12A-12A-12A-12A-12A                                                 | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC9   | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A                                             | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC10  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A                                         | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC11  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A                                     | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC12  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A                                 | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC13  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A                             | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC14  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A                         | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC15  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A                     | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC16  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A                 | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC17  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A             | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC18  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A         | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC19  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A     | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CC20  | CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A | 5, 10, 15, 20                     | B20-B4      | No                                         |

Note: [CC] indicates component carrier with 4x4 DL MIMO antenna configuration

|                                   |                                                                                                           |                                                                                       |                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFV450PM                 |  SAR EVALUATION REPORT |  | Reviewed by:<br>Quality Manager |
| Test Dates:<br>1/16/19 - 02/13/19 | DUT Type:<br>Portable Handset                                                                             |                                                                                       | APPENDIX H:<br>Page 1 of 3      |

## 1.2 LTE Downlink Only Carrier Aggregation Test Selection and Setup

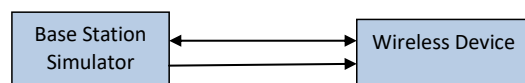
SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number component carriers (CCs) supported by the product implementation. For those configurations required by April 2018 TCBC Workshop Notes, conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

This device supports LAA with downlink carrier aggregation only. It uses carrier aggregation in the downlink to combine LTE in the unlicensed spectrum (i.e. LTE Band 46) with LTE in the licensed band (served as PCC). All uplink communications and acknowledgements on the PCC remain identical to specifications when downlink carrier aggregation is inactive.

Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the maximum average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive. All bands required for SAR testing per FCC KDB procedures were considered. Based on the measured maximum powers below, no additional SAR tests were required for DLCA SAR configurations.

### General PCC and SCC configuration selection procedure

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



**Figure 1**  
**DL CA Power Measurement Setup**

|                                   |                                                                                                                                                                                                        |                                 |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFV450PM                 |  <b>SAR EVALUATION REPORT</b>  | Reviewed by:<br>Quality Manager |
| Test Dates:<br>1/16/19 - 02/13/19 | DUT Type:<br>Portable Handset                                                                                                                                                                          | APPENDIX H:<br>Page 2 of 3      |

## 1.3 Downlink Carrier Aggregation RF Conducted Powers

### 1.3.1 LTE Band 41 as PCC

Table 1  
Maximum Output Powers

| Combination    | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC                  |      |            |                  |                  |                      | SCC 1    |              |                  |                      | SCC 2    |              |                  | SCC 3                |          |              | Power            |                      |                                       |                                   |
|----------------|----------|--------------|--------------|----------------------|------|------------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|
|                |          |              |              | PCC (UL) Freq. [MHz] | Mod. | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA 41A-41A-41A | LTE B41  | 20           | 40620        | 2593                 | QPSK | 1          | 0                | 40620            | 2593                 | LTE B41  | 20           | 41292            | 2660.2               | LTE B41  | 20           | 41490            | 2680                 | -        | -            | -                | -                    | 25.00                                 | 25.08                             |
| CA 41A-41A-41C | LTE B41  | 20           | 40620        | 2593                 | QPSK | 1          | 0                | 40620            | 2593                 | LTE B41  | 20           | 40185            | 2549.5               | LTE B41  | 20           | 41490            | 2680                 | LTE B41  | 20           | 41292            | 2660.2               | 25.02                                 | 25.08                             |

### 1.3.2 LTE Band 41 PC2 as PCC

Table 2  
Maximum Output Powers

| Combination    | PCC Band    | PCC          |              |                      |      |            |                  |                  |                      | SCC 1       |              |                  |                      | SCC 2       |              |                  |                      | SCC 3       |              |                  |                      | Power                                 |                                   |
|----------------|-------------|--------------|--------------|----------------------|------|------------|------------------|------------------|----------------------|-------------|--------------|------------------|----------------------|-------------|--------------|------------------|----------------------|-------------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|
|                |             | PCC BW [MHz] | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod. | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC Band    | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band    | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band    | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA 41A-41A-41A | LTE B41 PC2 | 15           | 40185        | 2549.5               | QPSK | 1          | 36               | 40185            | 2549.5               | LTE B41 PC2 | 20           | 41292            | 2660.2               | LTE B41 PC2 | 20           | 41490            | 2680                 | -           | -            | -                | -                    | 27.53                                 | 27.55                             |
| CA 41A-41A-41C | LTE B41 PC2 | 15           | 40185        | 2549.5               | QPSK | 1          | 36               | 40185            | 2549.5               | LTE B41 PC2 | 20           | 40620            | 2593                 | LTE B41 PC2 | 20           | 41490            | 2680                 | LTE B41 PC2 | 20           | 41292            | 2660.2               | 27.48                                 | 27.55                             |

|                                   |                                                                                                                                   |                            |                                                                                       |                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFV450PM                 |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | SAR EVALUATION REPORT      |  | Reviewed by:<br>Quality Manager |
| Test Dates:<br>1/16/19 - 02/13/19 | DUT Type:<br>Portable Handset                                                                                                     | APPENDIX H:<br>Page 3 of 3 |                                                                                       |                                 |