

| Channel         |       |    |    | 18650  | 18900 | 19150  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 1855   | 1880  | 1905   |                        |             |
| 10              | QPSK  | 1  | 0  | 20.83  | 20.66 | 20.46  | 22.5                   | 0           |
| 10              | QPSK  | 1  | 25 | 20.56  | 20.42 | 20.40  |                        |             |
| 10              | QPSK  | 1  | 49 | 20.62  | 20.56 | 20.35  |                        |             |
| 10              | QPSK  | 25 | 0  | 20.67  | 20.49 | 20.47  | 22.5                   | 0           |
| 10              | QPSK  | 25 | 12 | 20.64  | 20.47 | 20.43  |                        |             |
| 10              | QPSK  | 25 | 25 | 20.50  | 20.42 | 20.42  |                        |             |
| 10              | QPSK  | 50 | 0  | 20.50  | 20.45 | 20.44  |                        |             |
| 10              | 16QAM | 1  | 0  | 20.78  | 20.69 | 20.78  | 22.5                   | 0           |
| 10              | 16QAM | 1  | 25 | 20.68  | 20.74 | 20.68  |                        |             |
| 10              | 16QAM | 1  | 49 | 20.61  | 20.65 | 20.72  |                        |             |
| 10              | 16QAM | 25 | 0  | 20.68  | 20.51 | 20.50  | 22.5                   | 0           |
| 10              | 16QAM | 25 | 12 | 20.66  | 20.48 | 20.44  |                        |             |
| 10              | 16QAM | 25 | 25 | 20.51  | 20.46 | 20.42  |                        |             |
| 10              | 16QAM | 50 | 0  | 20.53  | 20.48 | 20.46  |                        |             |
| 10              | 64QAM | 1  | 0  | 20.74  | 20.60 | 20.68  | 22.5                   | 0           |
| 10              | 64QAM | 1  | 25 | 20.76  | 20.59 | 20.57  |                        |             |
| 10              | 64QAM | 1  | 49 | 20.82  | 20.78 | 20.53  |                        |             |
| 10              | 64QAM | 25 | 0  | 19.67  | 19.52 | 19.53  | 22.5                   | 0           |
| 10              | 64QAM | 25 | 12 | 19.64  | 19.51 | 19.51  |                        |             |
| 10              | 64QAM | 25 | 25 | 19.52  | 19.51 | 19.50  |                        |             |
| 10              | 64QAM | 50 | 0  | 19.54  | 19.52 | 19.51  |                        |             |
| Channel         |       |    |    | 18625  | 18900 | 19175  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1852.5 | 1880  | 1907.5 |                        |             |
| 5               | QPSK  | 1  | 0  | 20.73  | 20.59 | 20.51  | 22.5                   | 0           |
| 5               | QPSK  | 1  | 12 | 20.57  | 20.41 | 20.38  |                        |             |
| 5               | QPSK  | 1  | 24 | 20.58  | 20.40 | 20.38  |                        |             |
| 5               | QPSK  | 12 | 0  | 20.64  | 20.46 | 20.45  | 22.5                   | 0           |
| 5               | QPSK  | 12 | 7  | 20.62  | 20.45 | 20.45  |                        |             |
| 5               | QPSK  | 12 | 13 | 20.59  | 20.43 | 20.41  |                        |             |
| 5               | QPSK  | 25 | 0  | 20.62  | 20.42 | 20.42  |                        |             |
| 5               | 16QAM | 1  | 0  | 20.71  | 20.70 | 20.67  | 22.5                   | 0           |
| 5               | 16QAM | 1  | 12 | 20.68  | 20.65 | 20.64  |                        |             |
| 5               | 16QAM | 1  | 24 | 20.67  | 20.72 | 20.63  |                        |             |
| 5               | 16QAM | 12 | 0  | 20.67  | 20.50 | 20.45  | 22.5                   | 0           |
| 5               | 16QAM | 12 | 7  | 20.63  | 20.46 | 20.45  |                        |             |
| 5               | 16QAM | 12 | 13 | 20.59  | 20.46 | 20.42  |                        |             |
| 5               | 16QAM | 25 | 0  | 20.61  | 20.46 | 20.44  |                        |             |
| 5               | 64QAM | 1  | 0  | 20.63  | 20.64 | 20.65  | 22.5                   | 0           |
| 5               | 64QAM | 1  | 12 | 20.72  | 20.61 | 20.58  |                        |             |
| 5               | 64QAM | 1  | 24 | 20.65  | 20.60 | 20.54  |                        |             |
| 5               | 64QAM | 12 | 0  | 19.69  | 19.56 | 19.52  | 22.5                   | 0           |
| 5               | 64QAM | 12 | 7  | 19.67  | 19.50 | 19.50  |                        |             |
| 5               | 64QAM | 12 | 13 | 19.63  | 19.52 | 19.50  |                        |             |
| 5               | 64QAM | 25 | 0  | 19.63  | 19.51 | 19.50  |                        |             |

| Channel         |       |    |    | 18615  | 18900 | 19185  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 1851.5 | 1880  | 1908.5 |                        |             |
| 3               | QPSK  | 1  | 0  | 20.78  | 20.59 | 20.49  | 22.5                   | 0           |
| 3               | QPSK  | 1  | 8  | 20.58  | 20.42 | 20.39  |                        |             |
| 3               | QPSK  | 1  | 14 | 20.54  | 20.42 | 20.38  |                        |             |
| 3               | QPSK  | 8  | 0  | 20.62  | 20.46 | 20.41  | 22.5                   | 0           |
| 3               | QPSK  | 8  | 4  | 20.66  | 20.48 | 20.45  |                        |             |
| 3               | QPSK  | 8  | 7  | 20.61  | 20.44 | 20.44  |                        |             |
| 3               | QPSK  | 15 | 0  | 20.58  | 20.43 | 20.43  |                        |             |
| 3               | 16QAM | 1  | 0  | 20.73  | 20.77 | 20.68  | 22.5                   | 0           |
| 3               | 16QAM | 1  | 8  | 20.74  | 20.77 | 20.76  |                        |             |
| 3               | 16QAM | 1  | 14 | 20.70  | 20.72 | 20.73  |                        |             |
| 3               | 16QAM | 8  | 0  | 20.68  | 20.53 | 20.49  | 22.5                   | 0           |
| 3               | 16QAM | 8  | 4  | 20.67  | 20.52 | 20.50  |                        |             |
| 3               | 16QAM | 8  | 7  | 20.64  | 20.48 | 20.49  |                        |             |
| 3               | 16QAM | 15 | 0  | 20.62  | 20.46 | 20.44  |                        |             |
| 3               | 64QAM | 1  | 0  | 20.77  | 20.61 | 20.60  | 22.5                   | 0           |
| 3               | 64QAM | 1  | 8  | 20.77  | 20.62 | 20.57  |                        |             |
| 3               | 64QAM | 1  | 14 | 20.73  | 20.59 | 20.55  |                        |             |
| 3               | 64QAM | 8  | 0  | 19.68  | 19.52 | 19.51  | 22.5                   | 0           |
| 3               | 64QAM | 8  | 4  | 19.67  | 19.54 | 19.52  |                        |             |
| 3               | 64QAM | 8  | 7  | 19.65  | 19.54 | 19.52  |                        |             |
| 3               | 64QAM | 15 | 0  | 19.66  | 19.55 | 19.52  |                        |             |
| Channel         |       |    |    | 18607  | 18900 | 19193  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1850.7 | 1880  | 1909.3 |                        |             |
| 1.4             | QPSK  | 1  | 0  | 20.71  | 20.56 | 20.52  | 22.5                   | 0           |
| 1.4             | QPSK  | 1  | 3  | 20.58  | 20.42 | 20.40  |                        |             |
| 1.4             | QPSK  | 1  | 5  | 20.52  | 20.37 | 20.32  |                        |             |
| 1.4             | QPSK  | 3  | 0  | 20.54  | 20.37 | 20.36  |                        |             |
| 1.4             | QPSK  | 3  | 1  | 20.57  | 20.44 | 20.39  |                        |             |
| 1.4             | QPSK  | 3  | 3  | 16.57  | 20.39 | 20.34  |                        |             |
| 1.4             | QPSK  | 6  | 0  | 20.54  | 20.38 | 20.35  | 22.5                   | 0           |
| 1.4             | 16QAM | 1  | 0  | 20.58  | 20.51 | 20.69  | 22.5                   | 0           |
| 1.4             | 16QAM | 1  | 3  | 20.57  | 20.58 | 20.57  |                        |             |
| 1.4             | 16QAM | 1  | 5  | 20.53  | 20.69 | 20.69  |                        |             |
| 1.4             | 16QAM | 3  | 0  | 20.51  | 20.48 | 20.47  |                        |             |
| 1.4             | 16QAM | 3  | 1  | 20.61  | 20.53 | 20.51  |                        |             |
| 1.4             | 16QAM | 3  | 3  | 20.68  | 20.48 | 20.46  |                        |             |
| 1.4             | 16QAM | 6  | 0  | 20.52  | 20.45 | 20.45  | 22.5                   | 0           |
| 1.4             | 64QAM | 1  | 0  | 20.65  | 20.55 | 20.48  | 22.5                   | 0           |
| 1.4             | 64QAM | 1  | 3  | 20.51  | 20.58 | 20.55  |                        |             |
| 1.4             | 64QAM | 1  | 5  | 20.62  | 20.56 | 20.47  |                        |             |
| 1.4             | 64QAM | 3  | 0  | 20.58  | 20.54 | 20.50  |                        |             |
| 1.4             | 64QAM | 3  | 1  | 20.59  | 20.57 | 20.53  |                        |             |
| 1.4             | 64QAM | 3  | 3  | 20.61  | 20.53 | 20.52  |                        |             |
| 1.4             | 64QAM | 6  | 0  | 19.64  | 19.54 | 19.50  | 22.5                   | 0           |

**<LTE Band 4>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 20050                 | 20175                    | 20300                  | 23                  | 0        |
| Frequency (MHz) |            |         |           | 1720                  | 1732.5                   | 1745                   |                     |          |
| 20              | QPSK       | 1       | 0         | 22.02                 | 21.99                    | 21.94                  |                     |          |
| 20              | QPSK       | 1       | 49        | 21.82                 | 21.79                    | 21.82                  | 22                  | 1        |
| 20              | QPSK       | 1       | 99        | 21.72                 | 21.69                    | 21.73                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.47                 | 21.45                    | 21.37                  |                     |          |
| 20              | QPSK       | 50      | 24        | 21.38                 | 21.38                    | 21.31                  | 22                  | 1        |
| 20              | QPSK       | 50      | 50        | 21.34                 | 21.31                    | 21.33                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.40                 | 21.35                    | 21.28                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 21.81                 | 21.85                    | 21.79                  | 22                  | 1        |
| 20              | 16QAM      | 1       | 49        | 21.66                 | 21.65                    | 21.69                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 21.59                 | 21.54                    | 21.53                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 20.55                 | 20.53                    | 20.50                  | 21                  | 2        |
| 20              | 16QAM      | 50      | 24        | 20.51                 | 20.45                    | 20.43                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.40                 | 20.38                    | 20.42                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 20.49                 | 20.45                    | 20.41                  | 21                  | 2        |
| 20              | 64QAM      | 1       | 0         | 20.75                 | 20.78                    | 20.70                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.59                 | 20.56                    | 20.62                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 20.50                 | 20.46                    | 20.46                  | 20                  | 3        |
| 20              | 64QAM      | 50      | 0         | 19.58                 | 19.56                    | 19.50                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.52                 | 19.48                    | 19.41                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 19.44                 | 19.40                    | 19.46                  | 20                  | 3        |
| 20              | 64QAM      | 100     | 0         | 19.51                 | 19.48                    | 19.43                  |                     |          |
| Channel         |            |         |           | 20025                 | 20175                    | 20325                  | 23                  | 0        |
| Frequency (MHz) |            |         |           | 1717.5                | 1732.5                   | 1747.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 21.99                 | 21.97                    | 21.90                  |                     |          |
| 15              | QPSK       | 1       | 37        | 21.79                 | 21.77                    | 21.81                  | 22                  | 1        |
| 15              | QPSK       | 1       | 74        | 21.80                 | 21.72                    | 21.76                  |                     |          |
| 15              | QPSK       | 36      | 0         | 21.47                 | 21.37                    | 21.33                  |                     |          |
| 15              | QPSK       | 36      | 20        | 21.40                 | 21.32                    | 21.36                  | 22                  | 1        |
| 15              | QPSK       | 36      | 39        | 21.34                 | 21.26                    | 21.28                  |                     |          |
| 15              | QPSK       | 75      | 0         | 21.39                 | 21.32                    | 21.27                  |                     |          |
| 15              | 16QAM      | 1       | 0         | 21.80                 | 21.82                    | 21.75                  | 22                  | 1        |
| 15              | 16QAM      | 1       | 37        | 21.63                 | 21.63                    | 21.58                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 21.66                 | 21.59                    | 21.55                  |                     |          |
| 15              | 16QAM      | 36      | 0         | 20.54                 | 20.49                    | 20.44                  | 21                  | 2        |
| 15              | 16QAM      | 36      | 20        | 20.46                 | 20.46                    | 20.49                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 20.43                 | 20.39                    | 20.39                  |                     |          |
| 15              | 16QAM      | 75      | 0         | 20.46                 | 20.47                    | 20.39                  | 21                  | 2        |
| 15              | 64QAM      | 1       | 0         | 20.73                 | 20.74                    | 20.70                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 20.58                 | 20.57                    | 20.58                  |                     |          |
| 15              | 64QAM      | 1       | 74        | 20.56                 | 20.50                    | 20.49                  | 20                  | 3        |
| 15              | 64QAM      | 36      | 0         | 19.59                 | 19.54                    | 19.48                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 19.53                 | 19.50                    | 19.52                  |                     |          |
| 15              | 64QAM      | 36      | 39        | 19.47                 | 19.42                    | 19.45                  | 20                  | 3        |
| 15              | 64QAM      | 75      | 0         | 19.47                 | 19.46                    | 19.39                  |                     |          |

| Channel         |       |    |    | 20000  | 20175  | 20350  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 1715   | 1732.5 | 1750   |                        |             |
| 10              | QPSK  | 1  | 0  | 21.90  | 21.86  | 21.90  | 23                     | 0           |
| 10              | QPSK  | 1  | 25 | 21.83  | 21.75  | 21.79  |                        |             |
| 10              | QPSK  | 1  | 49 | 21.77  | 21.70  | 21.72  |                        |             |
| 10              | QPSK  | 25 | 0  | 21.38  | 21.35  | 21.36  | 22                     | 1           |
| 10              | QPSK  | 25 | 12 | 21.40  | 21.31  | 21.35  |                        |             |
| 10              | QPSK  | 25 | 25 | 21.33  | 21.29  | 21.31  |                        |             |
| 10              | QPSK  | 50 | 0  | 21.36  | 21.34  | 21.37  | 22                     | 1           |
| 10              | 16QAM | 1  | 0  | 21.69  | 21.69  | 21.73  |                        |             |
| 10              | 16QAM | 1  | 25 | 21.64  | 21.63  | 21.56  |                        |             |
| 10              | 16QAM | 1  | 49 | 21.62  | 21.57  | 21.50  | 21                     | 2           |
| 10              | 16QAM | 25 | 0  | 20.47  | 20.48  | 20.47  |                        |             |
| 10              | 16QAM | 25 | 12 | 20.50  | 20.43  | 20.42  |                        |             |
| 10              | 16QAM | 25 | 25 | 20.44  | 20.39  | 20.38  | 21                     | 2           |
| 10              | 16QAM | 50 | 0  | 20.48  | 20.40  | 20.45  |                        |             |
| 10              | 64QAM | 1  | 0  | 20.61  | 20.61  | 20.66  |                        |             |
| 10              | 64QAM | 1  | 25 | 20.52  | 20.55  | 20.51  | 21                     | 2           |
| 10              | 64QAM | 1  | 49 | 20.55  | 20.48  | 20.46  |                        |             |
| 10              | 64QAM | 25 | 0  | 19.50  | 19.47  | 19.50  |                        |             |
| 10              | 64QAM | 25 | 12 | 19.51  | 19.44  | 19.48  | 20                     | 3           |
| 10              | 64QAM | 25 | 25 | 19.42  | 19.38  | 19.42  |                        |             |
| 10              | 64QAM | 50 | 0  | 19.48  | 19.45  | 19.49  |                        |             |
| Channel         |       |    |    | 19975  | 20175  | 20375  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1712.5 | 1732.5 | 1752.5 |                        |             |
| 5               | QPSK  | 1  | 0  | 21.87  | 21.83  | 21.83  | 23                     | 0           |
| 5               | QPSK  | 1  | 12 | 21.80  | 21.76  | 21.76  |                        |             |
| 5               | QPSK  | 1  | 24 | 21.82  | 21.74  | 21.76  |                        |             |
| 5               | QPSK  | 12 | 0  | 21.36  | 21.32  | 21.33  | 22                     | 1           |
| 5               | QPSK  | 12 | 7  | 21.36  | 21.33  | 21.32  |                        |             |
| 5               | QPSK  | 12 | 13 | 21.34  | 21.25  | 21.28  |                        |             |
| 5               | QPSK  | 25 | 0  | 21.33  | 21.32  | 21.30  | 22                     | 1           |
| 5               | 16QAM | 1  | 0  | 21.63  | 21.65  | 21.59  |                        |             |
| 5               | 16QAM | 1  | 12 | 21.58  | 21.62  | 21.55  |                        |             |
| 5               | 16QAM | 1  | 24 | 21.57  | 21.59  | 21.52  | 21                     | 2           |
| 5               | 16QAM | 12 | 0  | 20.47  | 20.45  | 20.45  |                        |             |
| 5               | 16QAM | 12 | 7  | 20.45  | 20.46  | 20.42  |                        |             |
| 5               | 16QAM | 12 | 13 | 20.45  | 20.39  | 20.40  | 21                     | 2           |
| 5               | 16QAM | 25 | 0  | 20.45  | 20.38  | 20.38  |                        |             |
| 5               | 64QAM | 1  | 0  | 20.61  | 20.62  | 20.57  |                        |             |
| 5               | 64QAM | 1  | 12 | 20.55  | 20.54  | 20.52  | 21                     | 2           |
| 5               | 64QAM | 1  | 24 | 20.52  | 20.51  | 20.48  |                        |             |
| 5               | 64QAM | 12 | 0  | 19.50  | 19.47  | 19.49  |                        |             |
| 5               | 64QAM | 12 | 7  | 19.49  | 19.48  | 19.47  | 20                     | 3           |
| 5               | 64QAM | 12 | 13 | 19.50  | 19.44  | 19.41  |                        |             |
| 5               | 64QAM | 25 | 0  | 19.47  | 19.40  | 19.39  |                        |             |

| Channel         |       |    |    | 19965  | 20175  | 20385  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 1711.5 | 1732.5 | 1753.5 |                        |             |
| 3               | QPSK  | 1  | 0  | 21.82  | 21.79  | 21.72  | 23                     | 0           |
| 3               | QPSK  | 1  | 8  | 21.79  | 21.76  | 21.71  |                        |             |
| 3               | QPSK  | 1  | 14 | 21.81  | 21.73  | 21.67  |                        |             |
| 3               | QPSK  | 8  | 0  | 21.34  | 21.28  | 21.32  | 22                     | 1           |
| 3               | QPSK  | 8  | 4  | 21.37  | 21.31  | 21.31  |                        |             |
| 3               | QPSK  | 8  | 7  | 21.33  | 21.28  | 21.26  |                        |             |
| 3               | QPSK  | 15 | 0  | 21.35  | 21.29  | 21.28  |                        |             |
| 3               | 16QAM | 1  | 0  | 21.58  | 21.61  | 21.58  | 22                     | 1           |
| 3               | 16QAM | 1  | 8  | 21.59  | 21.51  | 21.51  |                        |             |
| 3               | 16QAM | 1  | 14 | 21.56  | 21.42  | 21.43  |                        |             |
| 3               | 16QAM | 8  | 0  | 20.49  | 21.32  | 20.35  | 21                     | 2           |
| 3               | 16QAM | 8  | 4  | 20.51  | 20.39  | 20.35  |                        |             |
| 3               | 16QAM | 8  | 7  | 20.44  | 20.31  | 20.32  |                        |             |
| 3               | 16QAM | 15 | 0  | 20.46  | 20.30  | 20.36  |                        |             |
| 3               | 64QAM | 1  | 0  | 20.54  | 20.51  | 20.56  | 21                     | 2           |
| 3               | 64QAM | 1  | 8  | 20.54  | 20.42  | 20.48  |                        |             |
| 3               | 64QAM | 1  | 14 | 20.53  | 20.43  | 20.46  |                        |             |
| 3               | 64QAM | 8  | 0  | 19.48  | 19.38  | 19.41  | 20                     | 3           |
| 3               | 64QAM | 8  | 4  | 19.51  | 19.36  | 19.42  |                        |             |
| 3               | 64QAM | 8  | 7  | 19.45  | 19.32  | 19.38  |                        |             |
| 3               | 64QAM | 15 | 0  | 19.46  | 19.30  | 19.31  |                        |             |
| Channel         |       |    |    | 19957  | 20175  | 20393  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1710.7 | 1732.5 | 1754.3 |                        |             |
| 1.4             | QPSK  | 1  | 0  | 21.73  | 21.68  | 21.69  | 23                     | 0           |
| 1.4             | QPSK  | 1  | 3  | 21.81  | 21.76  | 21.75  |                        |             |
| 1.4             | QPSK  | 1  | 5  | 21.73  | 21.67  | 21.66  |                        |             |
| 1.4             | QPSK  | 3  | 0  | 21.79  | 21.75  | 21.72  |                        |             |
| 1.4             | QPSK  | 3  | 1  | 21.81  | 21.75  | 21.76  |                        |             |
| 1.4             | QPSK  | 3  | 3  | 21.79  | 21.75  | 21.73  |                        |             |
| 1.4             | QPSK  | 6  | 0  | 21.28  | 21.23  | 21.24  | 22                     | 1           |
| 1.4             | 16QAM | 1  | 0  | 21.50  | 21.51  | 21.47  | 22                     | 1           |
| 1.4             | 16QAM | 1  | 3  | 21.58  | 21.61  | 21.54  |                        |             |
| 1.4             | 16QAM | 1  | 5  | 21.50  | 21.53  | 21.46  |                        |             |
| 1.4             | 16QAM | 3  | 0  | 21.32  | 21.34  | 21.30  |                        |             |
| 1.4             | 16QAM | 3  | 1  | 21.36  | 21.38  | 21.33  |                        |             |
| 1.4             | 16QAM | 3  | 3  | 21.32  | 21.32  | 21.27  |                        |             |
| 1.4             | 16QAM | 6  | 0  | 20.44  | 20.39  | 20.38  | 21                     | 2           |
| 1.4             | 64QAM | 1  | 0  | 20.48  | 20.48  | 20.44  | 21                     | 2           |
| 1.4             | 64QAM | 1  | 3  | 20.55  | 20.53  | 20.48  |                        |             |
| 1.4             | 64QAM | 1  | 5  | 20.46  | 20.47  | 20.40  |                        |             |
| 1.4             | 64QAM | 3  | 0  | 20.50  | 20.45  | 20.45  |                        |             |
| 1.4             | 64QAM | 3  | 1  | 20.52  | 20.50  | 20.49  |                        |             |
| 1.4             | 64QAM | 3  | 3  | 20.46  | 20.47  | 20.45  |                        |             |
| 1.4             | 64QAM | 6  | 0  | 19.39  | 19.33  | 19.31  | 20                     | 3           |

**<LTE Band 5>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 20450                 | 20525                    | 20600                  |                     |          |
| Frequency (MHz) |            |         |           | 829                   | 836.5                    | 844                    |                     |          |
| 10              | QPSK       | 1       | 0         | 21.97                 | 22.04                    | 21.86                  | 23.5                | 0        |
| 10              | QPSK       | 1       | 25        | 21.87                 | 21.82                    | 21.75                  |                     |          |
| 10              | QPSK       | 1       | 49        | 21.80                 | 21.73                    | 21.66                  |                     |          |
| 10              | QPSK       | 25      | 0         | 21.91                 | 21.93                    | 21.79                  | 23.5                | 0        |
| 10              | QPSK       | 25      | 12        | 21.89                 | 21.85                    | 21.77                  |                     |          |
| 10              | QPSK       | 25      | 25        | 21.86                 | 21.83                    | 21.73                  |                     |          |
| 10              | QPSK       | 50      | 0         | 21.90                 | 21.86                    | 21.78                  | 23.5                | 0        |
| 10              | 16QAM      | 1       | 0         | 21.86                 | 21.78                    | 21.66                  |                     |          |
| 10              | 16QAM      | 1       | 25        | 21.72                 | 21.69                    | 21.64                  |                     |          |
| 10              | 16QAM      | 1       | 49        | 21.69                 | 21.57                    | 21.54                  | 22.5                | 1        |
| 10              | 16QAM      | 25      | 0         | 20.56                 | 20.50                    | 20.51                  |                     |          |
| 10              | 16QAM      | 25      | 12        | 20.58                 | 20.51                    | 20.52                  |                     |          |
| 10              | 16QAM      | 25      | 25        | 20.50                 | 20.52                    | 20.53                  | 22.5                | 1        |
| 10              | 16QAM      | 50      | 0         | 21.01                 | 20.94                    | 20.87                  |                     |          |
| 10              | 64QAM      | 1       | 0         | 21.12                 | 21.00                    | 20.96                  |                     |          |
| 10              | 64QAM      | 1       | 25        | 21.05                 | 20.96                    | 20.90                  | 22.5                | 1        |
| 10              | 64QAM      | 1       | 49        | 21.00                 | 20.93                    | 20.84                  |                     |          |
| 10              | 64QAM      | 25      | 0         | 20.96                 | 20.84                    | 20.80                  |                     |          |
| 10              | 64QAM      | 25      | 12        | 20.89                 | 20.80                    | 20.74                  | 22.5                | 1        |
| 10              | 64QAM      | 25      | 25        | 20.84                 | 20.77                    | 20.68                  |                     |          |
| 10              | 64QAM      | 50      | 0         | 20.80                 | 20.68                    | 20.64                  |                     |          |
| Channel         |            |         |           | 20425                 | 20525                    | 20625                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |            |         |           | 826.5                 | 836.5                    | 846.5                  |                     |          |
| 5               | QPSK       | 1       | 0         | 21.99                 | 21.85                    | 21.76                  | 23.5                | 0        |
| 5               | QPSK       | 1       | 12        | 21.92                 | 21.80                    | 21.72                  |                     |          |
| 5               | QPSK       | 1       | 24        | 21.87                 | 21.75                    | 21.69                  |                     |          |
| 5               | QPSK       | 12      | 0         | 21.95                 | 21.84                    | 21.78                  | 23.5                | 0        |
| 5               | QPSK       | 12      | 7         | 21.97                 | 21.85                    | 21.78                  |                     |          |
| 5               | QPSK       | 12      | 13        | 21.91                 | 21.80                    | 21.72                  |                     |          |
| 5               | QPSK       | 25      | 0         | 21.96                 | 21.86                    | 21.72                  | 23.5                | 0        |
| 5               | 16QAM      | 1       | 0         | 21.68                 | 21.54                    | 21.48                  |                     |          |
| 5               | 16QAM      | 1       | 12        | 21.76                 | 21.59                    | 21.45                  |                     |          |
| 5               | 16QAM      | 1       | 24        | 21.65                 | 21.60                    | 21.42                  | 22.5                | 1        |
| 5               | 16QAM      | 12      | 0         | 21.48                 | 21.40                    | 21.21                  |                     |          |
| 5               | 16QAM      | 12      | 7         | 21.52                 | 21.37                    | 21.25                  |                     |          |
| 5               | 16QAM      | 12      | 13        | 21.45                 | 21.32                    | 21.23                  | 22.5                | 1        |
| 5               | 16QAM      | 25      | 0         | 20.55                 | 20.45                    | 20.32                  |                     |          |
| 5               | 64QAM      | 1       | 0         | 21.10                 | 20.98                    | 20.94                  |                     |          |
| 5               | 64QAM      | 1       | 12        | 21.03                 | 20.94                    | 20.88                  | 22.5                | 1        |
| 5               | 64QAM      | 1       | 24        | 20.98                 | 20.91                    | 20.82                  |                     |          |
| 5               | 64QAM      | 12      | 0         | 20.94                 | 20.82                    | 20.78                  |                     |          |
| 5               | 64QAM      | 12      | 7         | 20.87                 | 20.78                    | 20.72                  | 22.5                | 1        |
| 5               | 64QAM      | 12      | 13        | 20.82                 | 20.75                    | 20.66                  |                     |          |
| 5               | 64QAM      | 25      | 0         | 20.78                 | 20.66                    | 20.62                  |                     |          |

| Channel         |       |    |    | 20415 | 20525 | 20635 | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|-------|-------|-------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 825.5 | 836.5 | 847.5 |                        |             |
| 3               | QPSK  | 1  | 0  | 21.96 | 21.80 | 21.74 | 23.5                   | 0           |
| 3               | QPSK  | 1  | 8  | 21.93 | 21.78 | 21.69 |                        |             |
| 3               | QPSK  | 1  | 14 | 21.91 | 21.76 | 21.68 |                        |             |
| 3               | QPSK  | 8  | 0  | 21.95 | 21.83 | 21.70 | 23.5                   | 0           |
| 3               | QPSK  | 8  | 4  | 21.96 | 21.87 | 21.75 |                        |             |
| 3               | QPSK  | 8  | 7  | 21.96 | 21.80 | 21.71 |                        |             |
| 3               | QPSK  | 15 | 0  | 21.95 | 21.80 | 21.72 |                        |             |
| 3               | 16QAM | 1  | 0  | 21.83 | 21.67 | 21.59 | 23.5                   | 0           |
| 3               | 16QAM | 1  | 8  | 21.76 | 21.69 | 21.53 |                        |             |
| 3               | 16QAM | 1  | 14 | 21.79 | 21.60 | 21.47 |                        |             |
| 3               | 16QAM | 8  | 0  | 20.63 | 20.50 | 20.40 | 22.5                   | 1           |
| 3               | 16QAM | 8  | 4  | 20.63 | 20.50 | 20.40 |                        |             |
| 3               | 16QAM | 8  | 7  | 20.58 | 20.49 | 20.41 |                        |             |
| 3               | 16QAM | 15 | 0  | 20.59 | 20.44 | 20.37 |                        |             |
| 3               | 64QAM | 1  | 0  | 21.16 | 21.04 | 21.00 | 22.5                   | 1           |
| 3               | 64QAM | 1  | 8  | 21.09 | 21.00 | 20.94 |                        |             |
| 3               | 64QAM | 1  | 14 | 21.04 | 20.97 | 20.88 |                        |             |
| 3               | 64QAM | 8  | 0  | 21.00 | 20.88 | 20.84 | 22.5                   | 1           |
| 3               | 64QAM | 8  | 4  | 20.93 | 20.84 | 20.78 |                        |             |
| 3               | 64QAM | 8  | 7  | 20.88 | 20.81 | 20.72 |                        |             |
| 3               | 64QAM | 15 | 0  | 20.84 | 20.72 | 20.68 |                        |             |
| Channel         |       |    |    | 20407 | 20525 | 20643 | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 824.7 | 836.5 | 848.3 |                        |             |
| 1.4             | QPSK  | 1  | 0  | 21.83 | 21.73 | 21.62 | 23.5                   | 0           |
| 1.4             | QPSK  | 1  | 3  | 21.91 | 21.79 | 21.67 |                        |             |
| 1.4             | QPSK  | 1  | 5  | 21.83 | 21.69 | 21.60 |                        |             |
| 1.4             | QPSK  | 3  | 0  | 21.89 | 21.74 | 21.67 |                        |             |
| 1.4             | QPSK  | 3  | 1  | 21.91 | 21.77 | 21.66 |                        |             |
| 1.4             | QPSK  | 3  | 3  | 21.89 | 21.73 | 21.62 |                        |             |
| 1.4             | QPSK  | 6  | 0  | 21.89 | 21.75 | 21.64 | 23.5                   | 0           |
| 1.4             | 16QAM | 1  | 0  | 21.79 | 21.65 | 21.59 | 23.5                   | 0           |
| 1.4             | 16QAM | 1  | 3  | 21.87 | 21.70 | 21.56 |                        |             |
| 1.4             | 16QAM | 1  | 5  | 21.76 | 21.71 | 21.53 |                        |             |
| 1.4             | 16QAM | 3  | 0  | 21.59 | 21.51 | 21.32 |                        |             |
| 1.4             | 16QAM | 3  | 1  | 21.63 | 21.48 | 21.36 |                        |             |
| 1.4             | 16QAM | 3  | 3  | 21.56 | 21.43 | 21.34 |                        |             |
| 1.4             | 16QAM | 6  | 0  | 21.05 | 20.95 | 20.82 | 22.5                   | 1           |
| 1.4             | 64QAM | 1  | 0  | 21.14 | 21.02 | 20.98 | 22.5                   | 1           |
| 1.4             | 64QAM | 1  | 3  | 21.07 | 20.98 | 20.92 |                        |             |
| 1.4             | 64QAM | 1  | 5  | 21.02 | 20.95 | 20.86 |                        |             |
| 1.4             | 64QAM | 3  | 0  | 20.98 | 20.86 | 20.82 |                        |             |
| 1.4             | 64QAM | 3  | 1  | 20.91 | 20.82 | 20.76 |                        |             |
| 1.4             | 64QAM | 3  | 3  | 20.86 | 20.79 | 20.70 |                        |             |
| 1.4             | 64QAM | 6  | 0  | 20.82 | 20.70 | 20.66 | 22.5                   | 1           |

**<LTE Band 7>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|------------------------|-------------|
| Channel         |            |         |           | 20850                    | 21100                       | 21350                     |                        |             |
| Frequency (MHz) |            |         |           | 2510                     | 2535                        | 2560                      |                        |             |
| 20              | QPSK       | 1       | 0         | 20.77                    | 20.69                       | 20.65                     | 21.5                   | 0           |
| 20              | QPSK       | 1       | 49        | 20.88                    | 20.84                       | 20.99                     |                        |             |
| 20              | QPSK       | 1       | 99        | 20.81                    | 20.83                       | 20.96                     |                        |             |
| 20              | QPSK       | 50      | 0         | 20.83                    | 20.81                       | 20.87                     | 21.5                   | 0           |
| 20              | QPSK       | 50      | 24        | 20.91                    | 20.94                       | 20.94                     |                        |             |
| 20              | QPSK       | 50      | 50        | 20.85                    | 20.96                       | 20.90                     |                        |             |
| 20              | QPSK       | 100     | 0         | 20.88                    | 20.85                       | 20.97                     |                        |             |
| 20              | 16QAM      | 1       | 0         | 20.10                    | 20.08                       | 19.99                     | 21.5                   | 0           |
| 20              | 16QAM      | 1       | 49        | 20.20                    | 20.19                       | 20.29                     |                        |             |
| 20              | 16QAM      | 1       | 99        | 20.19                    | 20.16                       | 20.33                     |                        |             |
| 20              | 16QAM      | 50      | 0         | 20.28                    | 20.24                       | 20.34                     | 21.5                   | 0           |
| 20              | 16QAM      | 50      | 24        | 20.41                    | 20.40                       | 20.50                     |                        |             |
| 20              | 16QAM      | 50      | 50        | 20.36                    | 20.41                       | 20.56                     |                        |             |
| 20              | 16QAM      | 100     | 0         | 20.36                    | 20.33                       | 20.42                     |                        |             |
| 20              | 64QAM      | 1       | 0         | 20.36                    | 20.33                       | 20.29                     | 21.5                   | 0           |
| 20              | 64QAM      | 1       | 49        | 20.49                    | 20.47                       | 20.62                     |                        |             |
| 20              | 64QAM      | 1       | 99        | 20.46                    | 20.47                       | 20.65                     |                        |             |
| 20              | 64QAM      | 50      | 0         | 19.31                    | 19.29                       | 19.34                     | 20.5                   | 1           |
| 20              | 64QAM      | 50      | 24        | 19.40                    | 19.41                       | 19.51                     |                        |             |
| 20              | 64QAM      | 50      | 50        | 19.33                    | 19.42                       | 19.58                     |                        |             |
| 20              | 64QAM      | 100     | 0         | 19.34                    | 19.33                       | 19.46                     |                        |             |
| Channel         |            |         |           | 20825                    | 21100                       | 21375                     |                        |             |
| Frequency (MHz) |            |         |           | 2507.5                   | 2535                        | 2562.5                    |                        |             |
| 15              | QPSK       | 1       | 0         | 20.82                    | 20.76                       | 20.80                     | 21.5                   | 0           |
| 15              | QPSK       | 1       | 37        | 20.87                    | 20.84                       | 20.92                     |                        |             |
| 15              | QPSK       | 1       | 74        | 20.92                    | 20.81                       | 20.96                     |                        |             |
| 15              | QPSK       | 36      | 0         | 20.80                    | 20.81                       | 20.92                     | 21.5                   | 0           |
| 15              | QPSK       | 36      | 20        | 20.93                    | 20.94                       | 20.95                     |                        |             |
| 15              | QPSK       | 36      | 39        | 20.91                    | 20.94                       | 20.92                     |                        |             |
| 15              | QPSK       | 75      | 0         | 20.87                    | 20.85                       | 20.93                     | 21.5                   | 0           |
| 15              | 16QAM      | 1       | 0         | 20.16                    | 20.12                       | 20.08                     |                        |             |
| 15              | 16QAM      | 1       | 37        | 20.19                    | 20.07                       | 20.22                     |                        |             |
| 15              | 16QAM      | 1       | 74        | 20.28                    | 20.12                       | 20.30                     | 21.5                   | 0           |
| 15              | 16QAM      | 36      | 0         | 20.29                    | 20.29                       | 20.40                     |                        |             |
| 15              | 16QAM      | 36      | 20        | 20.37                    | 20.36                       | 20.53                     |                        |             |
| 15              | 16QAM      | 36      | 39        | 20.38                    | 20.37                       | 20.44                     | 21.5                   | 0           |
| 15              | 16QAM      | 75      | 0         | 20.37                    | 20.32                       | 20.46                     |                        |             |
| 15              | 64QAM      | 1       | 0         | 20.46                    | 20.44                       | 20.45                     |                        |             |
| 15              | 64QAM      | 1       | 37        | 20.50                    | 20.51                       | 20.59                     | 21.5                   | 0           |
| 15              | 64QAM      | 1       | 74        | 20.55                    | 20.46                       | 20.64                     |                        |             |
| 15              | 64QAM      | 36      | 0         | 19.30                    | 19.29                       | 19.40                     |                        |             |
| 15              | 64QAM      | 36      | 20        | 19.46                    | 19.44                       | 19.55                     | 20.5                   | 1           |
| 15              | 64QAM      | 36      | 39        | 19.44                    | 19.44                       | 19.49                     |                        |             |
| 15              | 64QAM      | 75      | 0         | 19.34                    | 19.35                       | 19.48                     |                        |             |

| Channel         |       |    |    | 20800  | 21100 | 21400  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 2505   | 2535  | 2565   |                        |             |
| 10              | QPSK  | 1  | 0  | 20.82  | 20.71 | 20.85  | 21.5                   | 0           |
| 10              | QPSK  | 1  | 25 | 20.95  | 20.83 | 20.92  |                        |             |
| 10              | QPSK  | 1  | 49 | 20.84  | 20.83 | 20.94  |                        |             |
| 10              | QPSK  | 25 | 0  | 20.90  | 20.78 | 20.98  | 21.5                   | 0           |
| 10              | QPSK  | 25 | 12 | 20.91  | 20.85 | 20.95  |                        |             |
| 10              | QPSK  | 25 | 25 | 20.88  | 20.89 | 20.92  |                        |             |
| 10              | QPSK  | 50 | 0  | 20.82  | 20.87 | 20.96  | 21.5                   | 0           |
| 10              | 16QAM | 1  | 0  | 20.17  | 20.06 | 20.18  |                        |             |
| 10              | 16QAM | 1  | 25 | 20.25  | 20.15 | 20.23  |                        |             |
| 10              | 16QAM | 1  | 49 | 20.19  | 20.18 | 20.26  | 21.5                   | 0           |
| 10              | 16QAM | 25 | 0  | 20.39  | 20.30 | 20.45  |                        |             |
| 10              | 16QAM | 25 | 12 | 20.34  | 20.33 | 20.43  |                        |             |
| 10              | 16QAM | 25 | 25 | 20.37  | 20.33 | 20.46  | 21.5                   | 0           |
| 10              | 16QAM | 50 | 0  | 20.34  | 20.30 | 20.50  |                        |             |
| 10              | 64QAM | 1  | 0  | 20.45  | 20.35 | 20.52  |                        |             |
| 10              | 64QAM | 1  | 25 | 20.58  | 20.48 | 20.59  | 21.5                   | 0           |
| 10              | 64QAM | 1  | 49 | 20.48  | 20.52 | 20.61  |                        |             |
| 10              | 64QAM | 25 | 0  | 19.38  | 19.28 | 19.47  |                        |             |
| 10              | 64QAM | 25 | 12 | 19.33  | 19.36 | 19.44  | 20.5                   | 1           |
| 10              | 64QAM | 25 | 25 | 19.36  | 19.39 | 19.46  |                        |             |
| 10              | 64QAM | 50 | 0  | 19.33  | 19.33 | 19.53  |                        |             |
| Channel         |       |    |    | 20775  | 21100 | 21425  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2502.5 | 2535  | 2567.5 |                        |             |
| 5               | QPSK  | 1  | 0  | 20.83  | 20.73 | 20.85  | 21.5                   | 0           |
| 5               | QPSK  | 1  | 12 | 20.88  | 20.80 | 20.94  |                        |             |
| 5               | QPSK  | 1  | 24 | 20.90  | 20.81 | 20.94  |                        |             |
| 5               | QPSK  | 12 | 0  | 20.89  | 20.81 | 20.93  | 21.5                   | 0           |
| 5               | QPSK  | 12 | 7  | 20.98  | 20.89 | 20.97  |                        |             |
| 5               | QPSK  | 12 | 13 | 20.98  | 20.87 | 20.92  |                        |             |
| 5               | QPSK  | 25 | 0  | 20.94  | 20.85 | 20.96  | 21.5                   | 0           |
| 5               | 16QAM | 1  | 0  | 20.16  | 20.06 | 20.16  |                        |             |
| 5               | 16QAM | 1  | 12 | 20.24  | 20.15 | 20.25  |                        |             |
| 5               | 16QAM | 1  | 24 | 20.23  | 20.15 | 20.29  | 21.5                   | 0           |
| 5               | 16QAM | 12 | 0  | 20.37  | 20.29 | 20.38  |                        |             |
| 5               | 16QAM | 12 | 7  | 20.43  | 20.36 | 20.44  |                        |             |
| 5               | 16QAM | 12 | 13 | 20.42  | 20.35 | 20.47  | 21.5                   | 0           |
| 5               | 16QAM | 25 | 0  | 20.41  | 20.30 | 20.42  |                        |             |
| 5               | 64QAM | 1  | 0  | 20.46  | 20.40 | 20.52  |                        |             |
| 5               | 64QAM | 1  | 12 | 20.52  | 20.45 | 20.58  | 21.5                   | 0           |
| 5               | 64QAM | 1  | 24 | 20.53  | 20.50 | 20.60  |                        |             |
| 5               | 64QAM | 12 | 0  | 19.38  | 19.31 | 19.45  |                        |             |
| 5               | 64QAM | 12 | 7  | 19.49  | 19.38 | 19.51  | 20.5                   | 1           |
| 5               | 64QAM | 12 | 13 | 19.48  | 19.37 | 19.51  |                        |             |
| 5               | 64QAM | 25 | 0  | 19.39  | 19.31 | 19.43  |                        |             |

**<LTE Band 14>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|------------------------|-------------|
| Channel         |            |         |           | 23330                    |                             |                           |                        |             |
| Frequency (MHz) |            |         |           | 793                      |                             |                           |                        |             |
| 10              | QPSK       | 1       | 0         | 22.34                    |                             |                           | 23                     | 0           |
| 10              | QPSK       | 1       | 25        | 22.13                    |                             |                           |                        |             |
| 10              | QPSK       | 1       | 49        | 22.02                    |                             |                           |                        |             |
| 10              | QPSK       | 25      | 0         | 21.74                    |                             |                           | 23                     | 0           |
| 10              | QPSK       | 25      | 12        | 21.70                    |                             |                           |                        |             |
| 10              | QPSK       | 25      | 25        | 21.65                    |                             |                           |                        |             |
| 10              | QPSK       | 50      | 0         | 21.66                    |                             |                           | 23                     | 0           |
| 10              | 16QAM      | 1       | 0         | 22.18                    |                             |                           |                        |             |
| 10              | 16QAM      | 1       | 25        | 21.95                    |                             |                           |                        |             |
| 10              | 16QAM      | 1       | 49        | 21.87                    |                             |                           | 22                     | 1           |
| 10              | 16QAM      | 25      | 0         | 20.84                    |                             |                           |                        |             |
| 10              | 16QAM      | 25      | 12        | 20.83                    |                             |                           |                        |             |
| 10              | 16QAM      | 25      | 25        | 20.74                    |                             |                           | 22                     | 1           |
| 10              | 16QAM      | 50      | 0         | 20.77                    |                             |                           |                        |             |
| 10              | 64QAM      | 1       | 0         | 20.83                    |                             |                           |                        |             |
| 10              | 64QAM      | 1       | 25        | 20.82                    |                             |                           | 22                     | 1           |
| 10              | 64QAM      | 1       | 49        | 20.73                    |                             |                           |                        |             |
| 10              | 64QAM      | 25      | 0         | 20.76                    |                             |                           |                        |             |
| 10              | 64QAM      | 25      | 12        | 20.82                    |                             |                           | 22                     | 1           |
| 10              | 64QAM      | 25      | 25        | 20.81                    |                             |                           |                        |             |
| 10              | 64QAM      | 50      | 0         | 20.72                    |                             |                           |                        |             |
| Channel         |            |         |           | 23305                    | 23330                       | 23355                     | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |            |         |           | 790.5                    | 793                         | 795.5                     |                        |             |
| 5               | QPSK       | 1       | 0         | 22.33                    | 22.17                       | 22.18                     | 23                     | 0           |
| 5               | QPSK       | 1       | 12        | 22.19                    | 22.14                       | 22.10                     |                        |             |
| 5               | QPSK       | 1       | 24        | 22.14                    | 22.12                       | 22.08                     |                        |             |
| 5               | QPSK       | 12      | 0         | 21.86                    | 21.73                       | 21.65                     | 23                     | 0           |
| 5               | QPSK       | 12      | 7         | 21.76                    | 21.68                       | 21.66                     |                        |             |
| 5               | QPSK       | 12      | 13        | 21.71                    | 21.64                       | 21.60                     |                        |             |
| 5               | QPSK       | 25      | 0         | 21.71                    | 21.64                       | 21.67                     | 23                     | 0           |
| 5               | 16QAM      | 1       | 0         | 22.05                    | 21.99                       | 22.06                     |                        |             |
| 5               | 16QAM      | 1       | 12        | 21.97                    | 21.96                       | 21.90                     |                        |             |
| 5               | 16QAM      | 1       | 24        | 21.97                    | 21.91                       | 21.85                     | 22                     | 1           |
| 5               | 16QAM      | 12      | 0         | 20.96                    | 20.82                       | 20.80                     |                        |             |
| 5               | 16QAM      | 12      | 7         | 20.84                    | 20.79                       | 20.80                     |                        |             |
| 5               | 16QAM      | 12      | 13        | 20.81                    | 20.75                       | 20.75                     | 22                     | 1           |
| 5               | 16QAM      | 25      | 0         | 20.82                    | 20.76                       | 20.74                     |                        |             |
| 5               | 64QAM      | 1       | 0         | 20.97                    | 20.86                       | 20.80                     |                        |             |
| 5               | 64QAM      | 1       | 12        | 20.81                    | 20.79                       | 20.74                     | 22                     | 1           |
| 5               | 64QAM      | 1       | 24        | 20.80                    | 20.76                       | 20.70                     |                        |             |
| 5               | 64QAM      | 12      | 0         | 20.75                    | 20.61                       | 20.59                     |                        |             |
| 5               | 64QAM      | 12      | 7         | 20.63                    | 20.58                       | 20.59                     | 22                     | 1           |
| 5               | 64QAM      | 12      | 13        | 20.60                    | 20.54                       | 20.54                     |                        |             |
| 5               | 64QAM      | 25      | 0         | 20.61                    | 20.55                       | 20.53                     |                        |             |

**<LTE Band 25>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|------------------------|-------------|
| Channel         |            |         |           | 26140                    | 26340                       | 26590                     |                        |             |
| Frequency (MHz) |            |         |           | 1860                     | 1880                        | 1905                      |                        |             |
| 20              | QPSK       | 1       | 0         | 20.90                    | 20.81                       | 20.68                     | 22.5                   | 0           |
| 20              | QPSK       | 1       | 49        | 20.58                    | 20.50                       | 20.48                     |                        |             |
| 20              | QPSK       | 1       | 99        | 20.56                    | 20.60                       | 20.47                     |                        |             |
| 20              | QPSK       | 50      | 0         | 20.71                    | 20.66                       | 20.62                     | 22.5                   | 0           |
| 20              | QPSK       | 50      | 24        | 20.58                    | 20.59                       | 20.55                     |                        |             |
| 20              | QPSK       | 50      | 50        | 20.49                    | 20.51                       | 20.53                     |                        |             |
| 20              | QPSK       | 100     | 0         | 20.58                    | 20.59                       | 20.56                     | 22.5                   | 0           |
| 20              | 16QAM      | 1       | 0         | 20.78                    | 20.72                       | 20.73                     |                        |             |
| 20              | 16QAM      | 1       | 49        | 20.86                    | 20.82                       | 20.80                     |                        |             |
| 20              | 16QAM      | 1       | 99        | 20.87                    | 20.76                       | 20.82                     | 22.5                   | 0           |
| 20              | 16QAM      | 50      | 0         | 20.68                    | 20.62                       | 20.60                     |                        |             |
| 20              | 16QAM      | 50      | 24        | 20.54                    | 20.58                       | 20.56                     |                        |             |
| 20              | 16QAM      | 50      | 50        | 20.49                    | 20.52                       | 20.52                     | 22.5                   | 0           |
| 20              | 16QAM      | 100     | 0         | 20.58                    | 20.58                       | 20.57                     |                        |             |
| 20              | 64QAM      | 1       | 0         | 20.70                    | 20.63                       | 20.64                     | 21.5                   | 1           |
| 20              | 64QAM      | 1       | 49        | 20.79                    | 20.74                       | 20.72                     |                        |             |
| 20              | 64QAM      | 1       | 99        | 20.80                    | 20.86                       | 20.71                     |                        |             |
| 20              | 64QAM      | 50      | 0         | 20.68                    | 20.63                       | 20.60                     | 21.5                   | 1           |
| 20              | 64QAM      | 50      | 24        | 20.52                    | 20.57                       | 20.52                     |                        |             |
| 20              | 64QAM      | 50      | 50        | 20.48                    | 20.50                       | 20.49                     |                        |             |
| 20              | 64QAM      | 100     | 0         | 20.58                    | 20.59                       | 20.57                     |                        |             |
| Channel         |            |         |           | 26115                    | 26340                       | 26615                     |                        |             |
| Frequency (MHz) |            |         |           | 1857.5                   | 1880                        | 1907.5                    |                        |             |
| 15              | QPSK       | 1       | 0         | 20.74                    | 20.66                       | 20.66                     | 22.5                   | 0           |
| 15              | QPSK       | 1       | 37        | 20.59                    | 20.51                       | 20.50                     |                        |             |
| 15              | QPSK       | 1       | 74        | 20.48                    | 20.52                       | 20.53                     |                        |             |
| 15              | QPSK       | 36      | 0         | 20.71                    | 20.63                       | 20.62                     | 22.5                   | 0           |
| 15              | QPSK       | 36      | 20        | 20.70                    | 20.58                       | 20.58                     |                        |             |
| 15              | QPSK       | 36      | 39        | 20.52                    | 20.54                       | 20.55                     |                        |             |
| 15              | QPSK       | 75      | 0         | 20.55                    | 20.59                       | 20.57                     | 22.5                   | 0           |
| 15              | 16QAM      | 1       | 0         | 20.64                    | 20.58                       | 20.63                     |                        |             |
| 15              | 16QAM      | 1       | 37        | 20.69                    | 20.63                       | 20.62                     |                        |             |
| 15              | 16QAM      | 1       | 74        | 20.59                    | 20.64                       | 20.68                     | 22.5                   | 0           |
| 15              | 16QAM      | 36      | 0         | 20.71                    | 20.64                       | 20.61                     |                        |             |
| 15              | 16QAM      | 36      | 20        | 20.70                    | 20.59                       | 20.57                     |                        |             |
| 15              | 16QAM      | 36      | 39        | 20.54                    | 20.57                       | 20.55                     | 21.5                   | 1           |
| 15              | 16QAM      | 75      | 0         | 20.58                    | 20.61                       | 20.57                     |                        |             |
| 15              | 64QAM      | 1       | 0         | 20.71                    | 20.62                       | 20.61                     |                        |             |
| 15              | 64QAM      | 1       | 37        | 20.72                    | 20.68                       | 20.60                     | 21.5                   | 1           |
| 15              | 64QAM      | 1       | 74        | 20.63                    | 20.64                       | 20.66                     |                        |             |
| 15              | 64QAM      | 36      | 0         | 19.71                    | 19.65                       | 19.64                     |                        |             |
| 15              | 64QAM      | 36      | 20        | 19.71                    | 19.65                       | 19.60                     | 21.5                   | 1           |
| 15              | 64QAM      | 36      | 39        | 19.55                    | 19.56                       | 19.58                     |                        |             |
| 15              | 64QAM      | 75      | 0         | 19.58                    | 19.61                       | 19.59                     |                        |             |

| Channel         |       |    |    | 26090  | 26340 | 26640  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 1855   | 1880  | 1910   |                        |             |
| 10              | QPSK  | 1  | 0  | 20.85  | 20.80 | 20.57  | 22.5                   | 0           |
| 10              | QPSK  | 1  | 25 | 20.59  | 20.53 | 20.51  |                        |             |
| 10              | QPSK  | 1  | 49 | 20.74  | 20.67 | 20.49  |                        |             |
| 10              | QPSK  | 25 | 0  | 20.68  | 20.59 | 20.60  | 22.5                   | 0           |
| 10              | QPSK  | 25 | 12 | 20.68  | 20.58 | 20.56  |                        |             |
| 10              | QPSK  | 25 | 25 | 20.62  | 20.54 | 20.55  |                        |             |
| 10              | QPSK  | 50 | 0  | 20.64  | 20.59 | 20.57  | 22.5                   | 0           |
| 10              | 16QAM | 1  | 0  | 20.76  | 20.71 | 20.63  |                        |             |
| 10              | 16QAM | 1  | 25 | 20.60  | 20.56 | 20.56  |                        |             |
| 10              | 16QAM | 1  | 49 | 20.74  | 20.68 | 20.58  | 22.5                   | 0           |
| 10              | 16QAM | 25 | 0  | 20.67  | 20.62 | 20.59  |                        |             |
| 10              | 16QAM | 25 | 12 | 20.65  | 20.59 | 20.55  |                        |             |
| 10              | 16QAM | 25 | 25 | 20.60  | 20.57 | 20.54  | 22.5                   | 0           |
| 10              | 16QAM | 50 | 0  | 20.63  | 20.57 | 20.54  |                        |             |
| 10              | 64QAM | 1  | 0  | 20.71  | 20.68 | 20.71  |                        |             |
| 10              | 64QAM | 1  | 25 | 20.74  | 20.69 | 20.62  | 21.5                   | 1           |
| 10              | 64QAM | 1  | 49 | 20.62  | 20.84 | 20.63  |                        |             |
| 10              | 64QAM | 25 | 0  | 19.68  | 19.63 | 19.58  |                        |             |
| 10              | 64QAM | 25 | 12 | 19.66  | 19.61 | 19.58  | 21.5                   | 1           |
| 10              | 64QAM | 25 | 25 | 19.62  | 19.56 | 19.57  |                        |             |
| 10              | 64QAM | 50 | 0  | 19.64  | 19.58 | 19.59  |                        |             |
| Channel         |       |    |    | 26065  | 26340 | 26665  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1852.5 | 1880  | 1912.5 |                        |             |
| 5               | QPSK  | 1  | 0  | 20.84  | 20.76 | 20.66  | 22.5                   | 0           |
| 5               | QPSK  | 1  | 12 | 20.59  | 20.52 | 20.53  |                        |             |
| 5               | QPSK  | 1  | 24 | 20.56  | 20.53 | 20.51  |                        |             |
| 5               | QPSK  | 12 | 0  | 20.63  | 20.61 | 20.56  | 22.5                   | 0           |
| 5               | QPSK  | 12 | 7  | 20.65  | 20.57 | 20.56  |                        |             |
| 5               | QPSK  | 12 | 13 | 20.60  | 20.57 | 20.55  |                        |             |
| 5               | QPSK  | 25 | 0  | 20.60  | 20.53 | 20.55  | 22.5                   | 0           |
| 5               | 16QAM | 1  | 0  | 20.80  | 20.79 | 20.78  |                        |             |
| 5               | 16QAM | 1  | 12 | 20.75  | 20.74 | 20.76  |                        |             |
| 5               | 16QAM | 1  | 24 | 20.76  | 20.83 | 20.77  | 22.5                   | 0           |
| 5               | 16QAM | 12 | 0  | 20.67  | 20.58 | 20.53  |                        |             |
| 5               | 16QAM | 12 | 7  | 20.62  | 20.55 | 20.57  |                        |             |
| 5               | 16QAM | 12 | 13 | 20.64  | 20.57 | 20.55  | 22.5                   | 0           |
| 5               | 16QAM | 25 | 0  | 20.59  | 20.57 | 20.53  |                        |             |
| 5               | 64QAM | 1  | 0  | 20.81  | 20.73 | 20.68  | 21.5                   | 1           |
| 5               | 64QAM | 1  | 12 | 20.73  | 20.67 | 20.69  |                        |             |
| 5               | 64QAM | 1  | 24 | 20.72  | 20.69 | 20.65  |                        |             |
| 5               | 64QAM | 12 | 0  | 19.70  | 19.63 | 19.59  | 21.5                   | 1           |
| 5               | 64QAM | 12 | 7  | 19.71  | 19.61 | 19.62  |                        |             |
| 5               | 64QAM | 12 | 13 | 19.62  | 19.57 | 19.57  |                        |             |
| 5               | 64QAM | 25 | 0  | 19.60  | 19.56 | 19.54  | 21.5                   | 1           |



| Channel         |       |    |    | 26055  | 26340 | 26675  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 1851.5 | 1880  | 1913.5 |                        |             |
| 3               | QPSK  | 1  | 0  | 20.82  | 20.78 | 20.75  | 22.5                   | 0           |
| 3               | QPSK  | 1  | 8  | 20.59  | 20.53 | 20.53  |                        |             |
| 3               | QPSK  | 1  | 14 | 20.55  | 20.50 | 20.52  |                        |             |
| 3               | QPSK  | 8  | 0  | 20.62  | 20.58 | 20.55  | 22.5                   | 0           |
| 3               | QPSK  | 8  | 4  | 20.68  | 20.63 | 20.61  |                        |             |
| 3               | QPSK  | 8  | 7  | 20.61  | 20.55 | 20.59  |                        |             |
| 3               | QPSK  | 15 | 0  | 20.62  | 20.54 | 20.56  |                        |             |
| 3               | 16QAM | 1  | 0  | 20.71  | 20.68 | 20.66  | 22.5                   | 0           |
| 3               | 16QAM | 1  | 8  | 20.72  | 20.68 | 20.70  |                        |             |
| 3               | 16QAM | 1  | 14 | 20.72  | 20.61 | 20.68  |                        |             |
| 3               | 16QAM | 8  | 0  | 20.66  | 20.60 | 20.58  | 22.5                   | 0           |
| 3               | 16QAM | 8  | 4  | 20.68  | 20.63 | 20.62  |                        |             |
| 3               | 16QAM | 8  | 7  | 20.67  | 20.62 | 20.60  |                        |             |
| 3               | 16QAM | 15 | 0  | 20.63  | 20.57 | 20.56  |                        |             |
| 3               | 64QAM | 1  | 0  | 20.77  | 20.67 | 20.68  | 21.5                   | 1           |
| 3               | 64QAM | 1  | 8  | 20.75  | 20.68 | 20.67  |                        |             |
| 3               | 64QAM | 1  | 14 | 20.75  | 20.70 | 20.67  |                        |             |
| 3               | 64QAM | 8  | 0  | 19.70  | 19.62 | 19.60  | 21.5                   | 1           |
| 3               | 64QAM | 8  | 4  | 19.70  | 19.65 | 19.64  |                        |             |
| 3               | 64QAM | 8  | 7  | 19.66  | 19.59 | 19.60  |                        |             |
| 3               | 64QAM | 15 | 0  | 19.61  | 19.59 | 19.60  |                        |             |
| Channel         |       |    |    | 26047  | 26340 | 26683  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1850.7 | 1880  | 1914.3 |                        |             |
| 1.4             | QPSK  | 1  | 0  | 20.53  | 20.46 | 20.44  | 22.5                   | 0           |
| 1.4             | QPSK  | 1  | 3  | 20.61  | 20.53 | 20.53  |                        |             |
| 1.4             | QPSK  | 1  | 5  | 20.51  | 20.44 | 20.46  |                        |             |
| 1.4             | QPSK  | 3  | 0  | 20.56  | 20.50 | 20.50  |                        |             |
| 1.4             | QPSK  | 3  | 1  | 20.59  | 20.53 | 20.53  |                        |             |
| 1.4             | QPSK  | 3  | 3  | 20.54  | 20.51 | 20.51  |                        |             |
| 1.4             | QPSK  | 6  | 0  | 20.54  | 20.47 | 20.51  | 22.5                   | 0           |
| 1.4             | 16QAM | 1  | 0  | 20.78  | 20.71 | 20.73  | 22.5                   | 0           |
| 1.4             | 16QAM | 1  | 3  | 20.74  | 20.78 | 20.70  |                        |             |
| 1.4             | 16QAM | 1  | 5  | 20.76  | 20.79 | 20.75  |                        |             |
| 1.4             | 16QAM | 3  | 0  | 20.66  | 20.59 | 20.61  |                        |             |
| 1.4             | 16QAM | 3  | 1  | 20.69  | 20.63 | 20.64  |                        |             |
| 1.4             | 16QAM | 3  | 3  | 20.63  | 20.57 | 20.61  |                        |             |
| 1.4             | 16QAM | 6  | 0  | 20.62  | 20.56 | 20.56  | 22.5                   | 0           |
| 1.4             | 64QAM | 1  | 0  | 20.66  | 20.60 | 20.60  | 21.5                   | 1           |
| 1.4             | 64QAM | 1  | 3  | 20.72  | 20.69 | 20.67  |                        |             |
| 1.4             | 64QAM | 1  | 5  | 20.66  | 20.66 | 20.59  |                        |             |
| 1.4             | 64QAM | 3  | 0  | 20.66  | 20.58 | 20.58  |                        |             |
| 1.4             | 64QAM | 3  | 1  | 20.72  | 20.65 | 20.63  |                        |             |
| 1.4             | 64QAM | 3  | 3  | 20.65  | 20.62 | 20.60  |                        |             |
| 1.4             | 64QAM | 6  | 0  | 19.56  | 19.51 | 19.50  | 19.5                   | 3           |

**<LTE Band 26>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|------------------------|-------------|
| Channel         |            |         |           | 26765                    | 26865                       | 26965                     |                        |             |
| Frequency (MHz) |            |         |           | 821.5                    | 831.5                       | 841.5                     |                        |             |
| 15              | QPSK       | 1       | 0         | 21.92                    | 21.99                       | 21.87                     | 23                     | 0           |
| 15              | QPSK       | 1       | 37        | 21.90                    | 21.86                       | 21.80                     |                        |             |
| 15              | QPSK       | 1       | 74        | 21.86                    | 21.77                       | 21.68                     |                        |             |
| 15              | QPSK       | 36      | 0         | 21.97                    | 21.98                       | 21.87                     | 23                     | 0           |
| 15              | QPSK       | 36      | 20        | 21.97                    | 21.92                       | 21.86                     |                        |             |
| 15              | QPSK       | 36      | 39        | 21.97                    | 21.87                       | 21.77                     |                        |             |
| 15              | QPSK       | 75      | 0         | 21.91                    | 21.92                       | 21.84                     |                        |             |
| 15              | 16QAM      | 1       | 0         | 21.79                    | 21.73                       | 21.69                     | 23                     | 0           |
| 15              | 16QAM      | 1       | 37        | 21.66                    | 21.74                       | 21.67                     |                        |             |
| 15              | 16QAM      | 1       | 74        | 21.73                    | 21.60                       | 21.52                     |                        |             |
| 15              | 16QAM      | 36      | 0         | 21.41                    | 21.40                       | 21.26                     | 23                     | 0           |
| 15              | 16QAM      | 36      | 20        | 21.44                    | 21.45                       | 21.32                     |                        |             |
| 15              | 16QAM      | 36      | 39        | 21.38                    | 21.39                       | 21.28                     |                        |             |
| 15              | 16QAM      | 75      | 0         | 21.01                    | 21.11                       | 21.09                     |                        |             |
| 15              | 64QAM      | 1       | 0         | 21.39                    | 21.38                       | 21.24                     | 23                     | 0           |
| 15              | 64QAM      | 1       | 37        | 21.38                    | 21.34                       | 21.28                     |                        |             |
| 15              | 64QAM      | 1       | 74        | 21.34                    | 21.25                       | 21.16                     |                        |             |
| 15              | 64QAM      | 36      | 0         | 21.47                    | 21.46                       | 21.34                     | 23                     | 0           |
| 15              | 64QAM      | 36      | 20        | 21.45                    | 21.40                       | 21.34                     |                        |             |
| 15              | 64QAM      | 36      | 39        | 21.45                    | 21.35                       | 21.25                     |                        |             |
| 15              | 64QAM      | 75      | 0         | 21.39                    | 21.37                       | 21.32                     |                        |             |
| Channel         |            |         |           | 26740                    | 26865                       | 26990                     | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |            |         |           | 819                      | 831.5                       | 844                       |                        |             |
| 10              | QPSK       | 1       | 0         | 21.88                    | 21.83                       | 21.79                     | 23                     | 0           |
| 10              | QPSK       | 1       | 25        | 21.89                    | 21.86                       | 21.74                     |                        |             |
| 10              | QPSK       | 1       | 49        | 21.78                    | 21.77                       | 21.66                     |                        |             |
| 10              | QPSK       | 25      | 0         | 21.95                    | 21.93                       | 21.81                     | 23                     | 0           |
| 10              | QPSK       | 25      | 12        | 21.95                    | 21.91                       | 21.78                     |                        |             |
| 10              | QPSK       | 25      | 25        | 21.88                    | 21.86                       | 21.73                     |                        |             |
| 10              | QPSK       | 50      | 0         | 21.95                    | 21.91                       | 21.79                     |                        |             |
| 10              | 16QAM      | 1       | 0         | 21.64                    | 21.70                       | 21.65                     | 23                     | 0           |
| 10              | 16QAM      | 1       | 25        | 21.70                    | 21.69                       | 21.56                     |                        |             |
| 10              | 16QAM      | 1       | 49        | 21.65                    | 21.58                       | 21.53                     |                        |             |
| 10              | 16QAM      | 25      | 0         | 21.42                    | 21.40                       | 21.29                     | 23                     | 0           |
| 10              | 16QAM      | 25      | 12        | 21.44                    | 21.45                       | 21.32                     |                        |             |
| 10              | 16QAM      | 25      | 25        | 21.38                    | 21.39                       | 21.28                     |                        |             |
| 10              | 16QAM      | 50      | 0         | 21.01                    | 21.11                       | 21.19                     |                        |             |
| 10              | 64QAM      | 1       | 0         | 21.38                    | 21.34                       | 21.33                     | 23                     | 0           |
| 10              | 64QAM      | 1       | 25        | 21.36                    | 21.32                       | 21.26                     |                        |             |
| 10              | 64QAM      | 1       | 49        | 21.32                    | 21.23                       | 21.14                     |                        |             |
| 10              | 64QAM      | 25      | 0         | 21.45                    | 21.44                       | 21.32                     | 23                     | 0           |
| 10              | 64QAM      | 25      | 12        | 21.43                    | 21.38                       | 21.32                     |                        |             |
| 10              | 64QAM      | 25      | 25        | 21.43                    | 21.33                       | 21.23                     |                        |             |
| 10              | 64QAM      | 50      | 0         | 21.37                    | 21.35                       | 21.30                     |                        |             |

| Channel         |       |    |    | 26715 | 26865 | 27015 | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|-------|-------|-------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 816.5 | 831.5 | 846.5 |                        |             |
| 5               | QPSK  | 1  | 0  | 21.92 | 21.92 | 21.77 | 23                     | 0           |
| 5               | QPSK  | 1  | 12 | 21.83 | 21.83 | 21.73 |                        |             |
| 5               | QPSK  | 1  | 24 | 21.90 | 21.84 | 21.69 |                        |             |
| 5               | QPSK  | 12 | 0  | 21.91 | 21.92 | 21.76 | 23                     | 0           |
| 5               | QPSK  | 12 | 7  | 21.91 | 21.88 | 21.77 |                        |             |
| 5               | QPSK  | 12 | 13 | 21.95 | 21.87 | 21.71 |                        |             |
| 5               | QPSK  | 25 | 0  | 21.97 | 21.91 | 21.73 |                        |             |
| 5               | 16QAM | 1  | 0  | 21.74 | 21.74 | 21.65 | 23                     | 0           |
| 5               | 16QAM | 1  | 12 | 21.67 | 21.70 | 21.61 |                        |             |
| 5               | 16QAM | 1  | 24 | 21.77 | 21.70 | 21.54 |                        |             |
| 5               | 16QAM | 12 | 0  | 21.46 | 21.45 | 21.31 | 23                     | 0           |
| 5               | 16QAM | 12 | 7  | 21.49 | 21.50 | 21.37 |                        |             |
| 5               | 16QAM | 12 | 13 | 21.43 | 21.44 | 21.33 |                        |             |
| 5               | 16QAM | 25 | 0  | 21.06 | 21.01 | 21.04 |                        |             |
| 5               | 64QAM | 1  | 0  | 21.41 | 21.37 | 21.36 | 23                     | 0           |
| 5               | 64QAM | 1  | 12 | 21.39 | 21.35 | 21.29 |                        |             |
| 5               | 64QAM | 1  | 24 | 21.35 | 21.26 | 21.17 |                        |             |
| 5               | 64QAM | 12 | 0  | 21.48 | 21.47 | 21.35 | 23                     | 0           |
| 5               | 64QAM | 12 | 7  | 21.46 | 21.41 | 21.35 |                        |             |
| 5               | 64QAM | 12 | 13 | 21.46 | 21.36 | 21.26 |                        |             |
| 5               | 64QAM | 25 | 0  | 21.40 | 21.38 | 21.33 |                        |             |
| Channel         |       |    |    | 26705 | 26865 | 27025 | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 815.5 | 831.5 | 847.5 |                        |             |
| 3               | QPSK  | 1  | 0  | 21.90 | 21.85 | 21.74 | 23                     | 0           |
| 3               | QPSK  | 1  | 8  | 21.86 | 21.83 | 21.68 |                        |             |
| 3               | QPSK  | 1  | 14 | 21.83 | 21.86 | 21.69 |                        |             |
| 3               | QPSK  | 8  | 0  | 21.92 | 21.90 | 21.70 | 23                     | 0           |
| 3               | QPSK  | 8  | 4  | 21.90 | 21.91 | 21.75 |                        |             |
| 3               | QPSK  | 8  | 7  | 21.86 | 21.88 | 21.73 |                        |             |
| 3               | QPSK  | 15 | 0  | 21.88 | 21.87 | 21.72 |                        |             |
| 3               | 16QAM | 1  | 0  | 21.74 | 21.76 | 21.60 | 23                     | 0           |
| 3               | 16QAM | 1  | 8  | 21.65 | 21.72 | 21.58 |                        |             |
| 3               | 16QAM | 1  | 14 | 21.61 | 21.67 | 21.52 |                        |             |
| 3               | 16QAM | 8  | 0  | 21.44 | 21.41 | 21.29 | 23                     | 0           |
| 3               | 16QAM | 8  | 4  | 21.49 | 21.50 | 21.37 |                        |             |
| 3               | 16QAM | 8  | 7  | 21.43 | 21.44 | 21.33 |                        |             |
| 3               | 16QAM | 15 | 0  | 21.06 | 21.01 | 21.13 |                        |             |
| 3               | 64QAM | 1  | 0  | 21.37 | 21.33 | 21.32 | 23                     | 0           |
| 3               | 64QAM | 1  | 8  | 21.35 | 21.31 | 21.25 |                        |             |
| 3               | 64QAM | 1  | 14 | 21.31 | 21.22 | 21.13 |                        |             |
| 3               | 64QAM | 8  | 0  | 21.44 | 21.43 | 21.31 | 23                     | 0           |
| 3               | 64QAM | 8  | 4  | 21.42 | 21.37 | 21.31 |                        |             |
| 3               | 64QAM | 8  | 7  | 21.42 | 21.32 | 21.22 |                        |             |
| 3               | 64QAM | 15 | 0  | 21.36 | 21.34 | 21.29 |                        |             |



# Exhibit 11

Report No. : FA811821

| Channel         |       |   |   | 26697 | 26865 | 27033 | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|---|---|-------|-------|-------|------------------------|-------------|
| Frequency (MHz) |       |   |   | 814.7 | 831.5 | 848.3 |                        |             |
| 1.4             | QPSK  | 1 | 0 | 21.78 | 21.75 | 21.63 | 23                     | 0           |
| 1.4             | QPSK  | 1 | 3 | 21.87 | 21.86 | 21.66 |                        |             |
| 1.4             | QPSK  | 1 | 5 | 21.77 | 21.75 | 21.59 |                        |             |
| 1.4             | QPSK  | 3 | 0 | 21.86 | 21.83 | 21.64 |                        |             |
| 1.4             | QPSK  | 3 | 1 | 21.88 | 21.86 | 21.67 |                        |             |
| 1.4             | QPSK  | 3 | 3 | 21.84 | 21.83 | 21.66 | 23                     | 0           |
| 1.4             | QPSK  | 6 | 0 | 21.80 | 21.82 | 21.66 |                        |             |
| 1.4             | 16QAM | 1 | 0 | 21.64 | 21.67 | 21.49 |                        |             |
| 1.4             | 16QAM | 1 | 3 | 21.71 | 21.69 | 21.51 |                        |             |
| 1.4             | 16QAM | 1 | 5 | 21.59 | 21.61 | 21.51 |                        |             |
| 1.4             | 16QAM | 3 | 0 | 21.43 | 21.42 | 21.28 | 23                     | 0           |
| 1.4             | 16QAM | 3 | 1 | 21.46 | 21.47 | 21.34 |                        |             |
| 1.4             | 16QAM | 3 | 3 | 21.40 | 21.41 | 21.30 |                        |             |
| 1.4             | 16QAM | 6 | 0 | 21.03 | 21.08 | 21.01 |                        |             |
| 1.4             | 64QAM | 1 | 0 | 21.36 | 21.32 | 21.31 |                        |             |
| 1.4             | 64QAM | 1 | 3 | 21.34 | 21.30 | 21.24 | 23                     | 0           |
| 1.4             | 64QAM | 1 | 5 | 21.30 | 21.21 | 21.12 |                        |             |
| 1.4             | 64QAM | 3 | 0 | 21.43 | 21.42 | 21.30 |                        |             |
| 1.4             | 64QAM | 3 | 1 | 21.41 | 21.36 | 21.30 |                        |             |
| 1.4             | 64QAM | 3 | 3 | 21.41 | 21.31 | 21.21 |                        |             |
| 1.4             | 64QAM | 6 | 0 | 21.35 | 21.33 | 21.28 | 23                     | 0           |

**<LTE Band 30>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|------------------------|-------------|
| Channel         |            |         |           | 27710                    |                             |                           |                        |             |
| Frequency (MHz) |            |         |           | 2310                     |                             |                           |                        |             |
| 10              | QPSK       | 1       | 0         | 22.66                    |                             |                           | 23.5                   | 0           |
| 10              | QPSK       | 1       | 25        | 22.62                    |                             |                           |                        |             |
| 10              | QPSK       | 1       | 49        | 22.62                    |                             |                           |                        |             |
| 10              | QPSK       | 25      | 0         | 21.67                    |                             |                           | 22.5                   | 1           |
| 10              | QPSK       | 25      | 12        | 21.70                    |                             |                           |                        |             |
| 10              | QPSK       | 25      | 25        | 21.69                    |                             |                           |                        |             |
| 10              | QPSK       | 50      | 0         | 21.76                    |                             |                           | 22.5                   | 1           |
| 10              | 16QAM      | 1       | 0         | 22.00                    |                             |                           |                        |             |
| 10              | 16QAM      | 1       | 25        | 21.87                    |                             |                           |                        |             |
| 10              | 16QAM      | 1       | 49        | 21.91                    |                             |                           | 21.5                   | 2           |
| 10              | 16QAM      | 25      | 0         | 20.80                    |                             |                           |                        |             |
| 10              | 16QAM      | 25      | 12        | 20.80                    |                             |                           |                        |             |
| 10              | 16QAM      | 25      | 25        | 20.79                    |                             |                           | 21.5                   | 2           |
| 10              | 16QAM      | 50      | 0         | 20.73                    |                             |                           |                        |             |
| 10              | 64QAM      | 1       | 0         | 20.89                    |                             |                           |                        |             |
| 10              | 64QAM      | 1       | 25        | 20.80                    |                             |                           | 21.5                   | 2           |
| 10              | 64QAM      | 1       | 49        | 20.80                    |                             |                           |                        |             |
| 10              | 64QAM      | 25      | 0         | 19.73                    |                             |                           |                        |             |
| 10              | 64QAM      | 25      | 12        | 19.75                    |                             |                           | 20.5                   | 3           |
| 10              | 64QAM      | 25      | 25        | 19.81                    |                             |                           |                        |             |
| 10              | 64QAM      | 50      | 0         | 19.79                    |                             |                           |                        |             |
| Channel         |            |         |           | 27685                    | 27710                       | 27735                     | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |            |         |           | 2307.5                   | 2310                        | 2312.5                    |                        |             |
| 5               | QPSK       | 1       | 0         | 22.63                    | 22.60                       | 22.64                     | 23.5                   | 0           |
| 5               | QPSK       | 1       | 12        | 22.53                    | 22.60                       | 22.56                     |                        |             |
| 5               | QPSK       | 1       | 24        | 22.58                    | 22.54                       | 22.62                     |                        |             |
| 5               | QPSK       | 12      | 0         | 21.66                    | 21.63                       | 21.78                     | 22.5                   | 1           |
| 5               | QPSK       | 12      | 7         | 21.60                    | 21.69                       | 21.72                     |                        |             |
| 5               | QPSK       | 12      | 13        | 21.60                    | 21.66                       | 21.59                     |                        |             |
| 5               | QPSK       | 25      | 0         | 21.58                    | 21.67                       | 21.68                     | 22.5                   | 1           |
| 5               | 16QAM      | 1       | 0         | 21.93                    | 21.85                       | 21.88                     |                        |             |
| 5               | 16QAM      | 1       | 12        | 21.80                    | 21.89                       | 21.80                     |                        |             |
| 5               | 16QAM      | 1       | 24        | 21.90                    | 21.81                       | 21.90                     | 21.5                   | 2           |
| 5               | 16QAM      | 12      | 0         | 20.71                    | 20.72                       | 20.83                     |                        |             |
| 5               | 16QAM      | 12      | 7         | 20.69                    | 20.76                       | 20.78                     |                        |             |
| 5               | 16QAM      | 12      | 13        | 20.65                    | 20.73                       | 20.68                     | 21.5                   | 2           |
| 5               | 16QAM      | 25      | 0         | 20.66                    | 20.74                       | 20.77                     |                        |             |
| 5               | 64QAM      | 1       | 0         | 20.85                    | 20.80                       | 20.84                     |                        |             |
| 5               | 64QAM      | 1       | 12        | 20.72                    | 20.79                       | 20.74                     | 21.5                   | 2           |
| 5               | 64QAM      | 1       | 24        | 20.78                    | 20.73                       | 20.78                     |                        |             |
| 5               | 64QAM      | 12      | 0         | 19.78                    | 19.77                       | 19.81                     |                        |             |
| 5               | 64QAM      | 12      | 7         | 19.71                    | 19.81                       | 19.82                     | 20.5                   | 3           |
| 5               | 64QAM      | 12      | 13        | 19.71                    | 19.79                       | 19.74                     |                        |             |
| 5               | 64QAM      | 25      | 0         | 19.67                    | 19.72                       | 19.77                     |                        |             |

**<LTE Band 66>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|------------------------|-------------|
| Channel         |            |         |           | 132072                   | 132322                      | 132572                    |                        |             |
| Frequency (MHz) |            |         |           | 1720                     | 1745                        | 1770                      |                        |             |
| 20              | QPSK       | 1       | 0         | 22.09                    | 22.20                       | 22.28                     | 23                     | 0           |
| 20              | QPSK       | 1       | 49        | 21.77                    | 21.88                       | 21.91                     |                        |             |
| 20              | QPSK       | 1       | 99        | 21.80                    | 21.77                       | 21.84                     |                        |             |
| 20              | QPSK       | 50      | 0         | 21.41                    | 21.55                       | 21.59                     | 22                     | 1           |
| 20              | QPSK       | 50      | 24        | 21.45                    | 21.49                       | 21.48                     |                        |             |
| 20              | QPSK       | 50      | 50        | 21.39                    | 21.36                       | 21.42                     |                        |             |
| 20              | QPSK       | 100     | 0         | 21.44                    | 21.49                       | 21.52                     |                        |             |
| 20              | 16QAM      | 1       | 0         | 21.75                    | 21.84                       | 21.90                     | 22                     | 1           |
| 20              | 16QAM      | 1       | 49        | 21.55                    | 21.66                       | 21.74                     |                        |             |
| 20              | 16QAM      | 1       | 99        | 21.63                    | 21.58                       | 21.69                     |                        |             |
| 20              | 16QAM      | 50      | 0         | 20.53                    | 20.63                       | 20.66                     | 21                     | 2           |
| 20              | 16QAM      | 50      | 24        | 20.52                    | 20.55                       | 20.59                     |                        |             |
| 20              | 16QAM      | 50      | 50        | 20.46                    | 20.47                       | 20.49                     |                        |             |
| 20              | 16QAM      | 100     | 0         | 20.55                    | 20.55                       | 20.59                     |                        |             |
| 20              | 64QAM      | 1       | 0         | 20.70                    | 20.77                       | 20.88                     | 21                     | 2           |
| 20              | 64QAM      | 1       | 49        | 20.50                    | 20.64                       | 20.70                     |                        |             |
| 20              | 64QAM      | 1       | 99        | 20.56                    | 20.52                       | 20.63                     |                        |             |
| 20              | 64QAM      | 50      | 0         | 19.49                    | 19.65                       | 19.68                     | 20                     | 3           |
| 20              | 64QAM      | 50      | 24        | 19.55                    | 19.59                       | 19.60                     |                        |             |
| 20              | 64QAM      | 50      | 50        | 19.49                    | 19.49                       | 19.53                     |                        |             |
| 20              | 64QAM      | 100     | 0         | 19.56                    | 19.58                       | 19.61                     |                        |             |
| Channel         |            |         |           | 132047                   | 132322                      | 132597                    |                        |             |
| Frequency (MHz) |            |         |           | 1717.5                   | 1745                        | 1772.5                    |                        |             |
| 15              | QPSK       | 1       | 0         | 21.94                    | 22.05                       | 22.08                     | 23                     | 0           |
| 15              | QPSK       | 1       | 37        | 21.76                    | 21.86                       | 21.88                     |                        |             |
| 15              | QPSK       | 1       | 74        | 21.82                    | 21.82                       | 21.86                     |                        |             |
| 15              | QPSK       | 36      | 0         | 21.39                    | 21.47                       | 21.52                     | 22                     | 1           |
| 15              | QPSK       | 36      | 20        | 21.34                    | 21.45                       | 21.48                     |                        |             |
| 15              | QPSK       | 36      | 39        | 21.37                    | 21.37                       | 21.44                     |                        |             |
| 15              | QPSK       | 75      | 0         | 21.42                    | 21.44                       | 21.47                     |                        |             |
| 15              | 16QAM      | 1       | 0         | 21.73                    | 21.91                       | 21.83                     | 22                     | 1           |
| 15              | 16QAM      | 1       | 37        | 21.55                    | 21.66                       | 21.72                     |                        |             |
| 15              | 16QAM      | 1       | 74        | 21.69                    | 21.63                       | 21.70                     |                        |             |
| 15              | 16QAM      | 36      | 0         | 20.48                    | 20.60                       | 20.63                     | 21                     | 2           |
| 15              | 16QAM      | 36      | 20        | 20.43                    | 20.53                       | 20.55                     |                        |             |
| 15              | 16QAM      | 36      | 39        | 20.44                    | 20.46                       | 20.55                     |                        |             |
| 15              | 16QAM      | 75      | 0         | 20.52                    | 20.53                       | 20.58                     |                        |             |
| 15              | 64QAM      | 1       | 0         | 20.68                    | 20.84                       | 20.82                     | 21                     | 2           |
| 15              | 64QAM      | 1       | 37        | 20.49                    | 20.63                       | 20.65                     |                        |             |
| 15              | 64QAM      | 1       | 74        | 20.59                    | 20.56                       | 20.64                     |                        |             |
| 15              | 64QAM      | 36      | 0         | 19.50                    | 19.65                       | 19.67                     | 20                     | 3           |
| 15              | 64QAM      | 36      | 20        | 19.44                    | 19.57                       | 19.62                     |                        |             |
| 15              | 64QAM      | 36      | 39        | 19.52                    | 19.50                       | 19.53                     |                        |             |
| 15              | 64QAM      | 75      | 0         | 19.51                    | 19.53                       | 19.60                     |                        |             |



| Channel         |       |    |    | 132022 | 132322 | 132622 | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 1715   | 1745   | 1775   |                        |             |
| 10              | QPSK  | 1  | 0  | 21.87  | 21.94  | 21.99  | 23                     | 0           |
| 10              | QPSK  | 1  | 25 | 21.80  | 21.87  | 21.88  |                        |             |
| 10              | QPSK  | 1  | 49 | 21.72  | 21.80  | 21.84  |                        |             |
| 10              | QPSK  | 25 | 0  | 21.32  | 21.46  | 21.49  | 22                     | 1           |
| 10              | QPSK  | 25 | 12 | 21.31  | 21.44  | 21.48  |                        |             |
| 10              | QPSK  | 25 | 25 | 21.30  | 21.41  | 21.39  |                        |             |
| 10              | QPSK  | 50 | 0  | 21.32  | 21.43  | 21.47  | 22                     | 1           |
| 10              | 16QAM | 1  | 0  | 21.68  | 21.83  | 21.83  |                        |             |
| 10              | 16QAM | 1  | 25 | 21.58  | 21.64  | 21.73  |                        |             |
| 10              | 16QAM | 1  | 49 | 21.48  | 21.59  | 21.69  | 21                     | 2           |
| 10              | 16QAM | 25 | 0  | 20.47  | 20.57  | 20.60  |                        |             |
| 10              | 16QAM | 25 | 12 | 20.42  | 20.52  | 20.54  |                        |             |
| 10              | 16QAM | 25 | 25 | 20.35  | 20.44  | 20.50  | 21                     | 2           |
| 10              | 16QAM | 50 | 0  | 20.40  | 20.49  | 20.58  |                        |             |
| 10              | 64QAM | 1  | 0  | 20.61  | 20.76  | 20.72  |                        |             |
| 10              | 64QAM | 1  | 25 | 20.52  | 20.61  | 20.64  | 21                     | 2           |
| 10              | 64QAM | 1  | 49 | 20.48  | 20.54  | 20.62  |                        |             |
| 10              | 64QAM | 25 | 0  | 19.49  | 19.55  | 19.56  |                        |             |
| 10              | 64QAM | 25 | 12 | 19.43  | 19.52  | 19.56  | 20                     | 3           |
| 10              | 64QAM | 25 | 25 | 19.35  | 19.50  | 19.53  |                        |             |
| 10              | 64QAM | 50 | 0  | 19.46  | 19.55  | 19.54  |                        |             |
| Channel         |       |    |    | 131997 | 132322 | 132647 | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1712.5 | 1745   | 1777.5 |                        |             |
| 5               | QPSK  | 1  | 0  | 21.82  | 21.89  | 21.93  | 23                     | 0           |
| 5               | QPSK  | 1  | 12 | 21.76  | 21.85  | 21.88  |                        |             |
| 5               | QPSK  | 1  | 24 | 21.75  | 21.82  | 21.87  |                        |             |
| 5               | QPSK  | 12 | 0  | 21.32  | 21.43  | 21.47  | 22                     | 1           |
| 5               | QPSK  | 12 | 7  | 21.29  | 21.44  | 21.47  |                        |             |
| 5               | QPSK  | 12 | 13 | 21.27  | 21.36  | 21.38  |                        |             |
| 5               | QPSK  | 25 | 0  | 21.32  | 21.42  | 21.45  | 22                     | 1           |
| 5               | 16QAM | 1  | 0  | 21.62  | 21.65  | 21.74  |                        |             |
| 5               | 16QAM | 1  | 12 | 21.58  | 21.63  | 21.73  |                        |             |
| 5               | 16QAM | 1  | 24 | 21.59  | 21.60  | 21.73  | 21                     | 2           |
| 5               | 16QAM | 12 | 0  | 20.38  | 20.50  | 20.56  |                        |             |
| 5               | 16QAM | 12 | 7  | 20.42  | 20.49  | 20.57  |                        |             |
| 5               | 16QAM | 12 | 13 | 20.36  | 20.50  | 20.51  | 21                     | 2           |
| 5               | 16QAM | 25 | 0  | 20.39  | 20.49  | 20.52  |                        |             |
| 5               | 64QAM | 1  | 0  | 20.56  | 20.63  | 20.70  |                        |             |
| 5               | 64QAM | 1  | 12 | 20.51  | 20.59  | 20.66  | 21                     | 2           |
| 5               | 64QAM | 1  | 24 | 20.49  | 20.55  | 20.66  |                        |             |
| 5               | 64QAM | 12 | 0  | 19.45  | 19.54  | 19.57  |                        |             |
| 5               | 64QAM | 12 | 7  | 19.47  | 19.56  | 19.58  | 20                     | 3           |
| 5               | 64QAM | 12 | 13 | 19.39  | 19.53  | 19.54  |                        |             |
| 5               | 64QAM | 25 | 0  | 19.41  | 19.51  | 19.51  |                        |             |

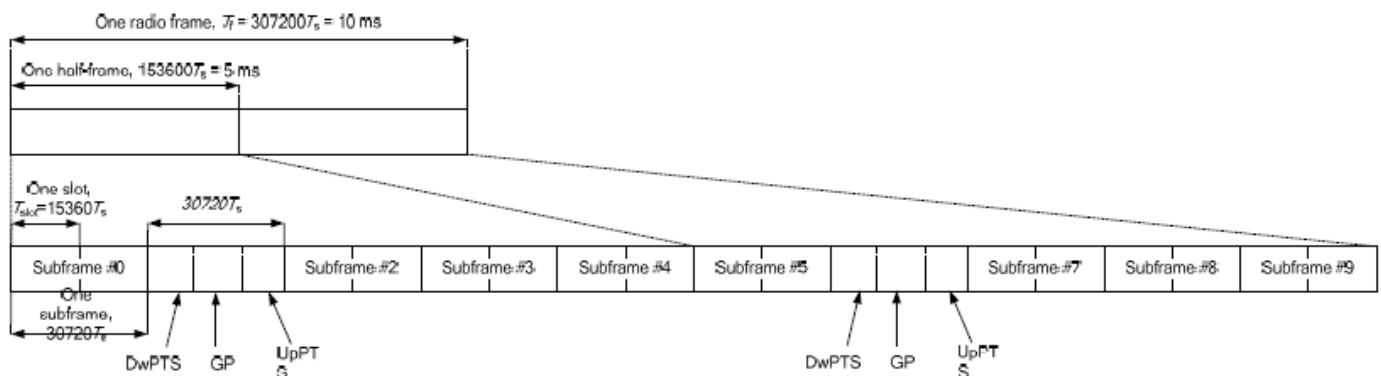
| Channel         |       |    |    | 131987 | 132322 | 132657 | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 1711.5 | 1745   | 1778.5 |                        |             |
| 3               | QPSK  | 1  | 0  | 21.72  | 21.81  | 21.89  | 23                     | 0           |
| 3               | QPSK  | 1  | 8  | 21.71  | 21.78  | 21.85  |                        |             |
| 3               | QPSK  | 1  | 14 | 21.70  | 21.75  | 21.81  |                        |             |
| 3               | QPSK  | 8  | 0  | 21.28  | 21.38  | 21.45  | 22                     | 1           |
| 3               | QPSK  | 8  | 4  | 21.26  | 21.41  | 21.43  |                        |             |
| 3               | QPSK  | 8  | 7  | 21.21  | 21.30  | 21.34  |                        |             |
| 3               | QPSK  | 15 | 0  | 21.26  | 21.39  | 21.42  |                        |             |
| 3               | 16QAM | 1  | 0  | 21.52  | 21.61  | 21.71  | 22                     | 1           |
| 3               | 16QAM | 1  | 8  | 21.52  | 21.56  | 21.68  |                        |             |
| 3               | 16QAM | 1  | 14 | 21.43  | 21.54  | 21.65  |                        |             |
| 3               | 16QAM | 8  | 0  | 20.36  | 20.46  | 20.52  | 21                     | 2           |
| 3               | 16QAM | 8  | 4  | 20.38  | 20.42  | 20.51  |                        |             |
| 3               | 16QAM | 8  | 7  | 20.32  | 20.39  | 20.44  |                        |             |
| 3               | 16QAM | 15 | 0  | 20.36  | 20.43  | 20.43  |                        |             |
| 3               | 64QAM | 1  | 0  | 20.51  | 20.67  | 20.62  | 21                     | 2           |
| 3               | 64QAM | 1  | 8  | 20.48  | 20.58  | 20.58  |                        |             |
| 3               | 64QAM | 1  | 14 | 20.43  | 20.52  | 20.55  |                        |             |
| 3               | 64QAM | 8  | 0  | 19.41  | 19.48  | 19.48  | 20                     | 3           |
| 3               | 64QAM | 8  | 4  | 19.43  | 19.51  | 19.45  |                        |             |
| 3               | 64QAM | 8  | 7  | 19.34  | 19.44  | 19.42  |                        |             |
| 3               | 64QAM | 15 | 0  | 19.35  | 19.45  | 19.40  |                        |             |
| Channel         |       |    |    | 131979 | 132322 | 132665 | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1710.7 | 1745   | 1779.3 |                        |             |
| 1.4             | QPSK  | 1  | 0  | 21.69  | 21.78  | 21.80  | 23                     | 0           |
| 1.4             | QPSK  | 1  | 3  | 21.77  | 21.85  | 21.88  |                        |             |
| 1.4             | QPSK  | 1  | 5  | 21.68  | 21.76  | 21.79  |                        |             |
| 1.4             | QPSK  | 3  | 0  | 21.76  | 21.84  | 21.83  |                        |             |
| 1.4             | QPSK  | 3  | 1  | 21.76  | 21.86  | 21.88  |                        |             |
| 1.4             | QPSK  | 3  | 3  | 21.75  | 21.83  | 21.86  |                        |             |
| 1.4             | QPSK  | 6  | 0  | 21.23  | 21.32  | 21.36  | 22                     | 1           |
| 1.4             | 16QAM | 1  | 0  | 21.50  | 21.57  | 21.68  | 22                     | 1           |
| 1.4             | 16QAM | 1  | 3  | 21.58  | 21.63  | 21.73  |                        |             |
| 1.4             | 16QAM | 1  | 5  | 21.50  | 21.56  | 21.68  |                        |             |
| 1.4             | 16QAM | 3  | 0  | 21.30  | 21.36  | 21.46  |                        |             |
| 1.4             | 16QAM | 3  | 1  | 21.35  | 21.40  | 21.49  |                        |             |
| 1.4             | 16QAM | 3  | 3  | 21.29  | 21.35  | 21.45  |                        |             |
| 1.4             | 16QAM | 6  | 0  | 20.39  | 20.47  | 20.52  | 21                     | 2           |
| 1.4             | 64QAM | 1  | 0  | 20.44  | 20.49  | 20.59  | 21                     | 2           |
| 1.4             | 64QAM | 1  | 3  | 20.50  | 20.58  | 20.66  |                        |             |
| 1.4             | 64QAM | 1  | 5  | 20.42  | 20.48  | 20.58  |                        |             |
| 1.4             | 64QAM | 3  | 0  | 20.45  | 20.53  | 20.57  |                        |             |
| 1.4             | 64QAM | 3  | 1  | 20.48  | 20.54  | 20.63  |                        |             |
| 1.4             | 64QAM | 3  | 3  | 20.44  | 20.48  | 20.57  |                        |             |
| 1.4             | 64QAM | 6  | 0  | 19.31  | 19.42  | 19.45  | 20                     | 3           |

### <TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

SAR was tested with a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by 3GPP.

- 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- “special subframe S” contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS
- Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.



**Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).**

**Table 4.2-2: Uplink-downlink configurations.**

| Uplink-downlink configuration | Downlink-to-Uplink Switch-point periodicity | Subframe number |   |   |   |   |   |   |   |   |   |
|-------------------------------|---------------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|
|                               |                                             | 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 0                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | U |
| 1                             | 5 ms                                        | D               | S | U | U | D | D | S | U | U | D |
| 2                             | 5 ms                                        | D               | S | U | D | D | D | S | U | D | D |
| 3                             | 10 ms                                       | D               | S | U | U | U | D | D | D | D | D |
| 4                             | 10 ms                                       | D               | S | U | U | D | D | D | D | D | D |
| 5                             | 10 ms                                       | D               | S | U | D | D | D | D | D | D | D |
| 6                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | D |

**Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).**

| Special subframe configuration | Normal cyclic prefix in downlink |                                |                                  | Extended cyclic prefix in downlink |                                |                                  |
|--------------------------------|----------------------------------|--------------------------------|----------------------------------|------------------------------------|--------------------------------|----------------------------------|
|                                | DwPTS                            | UpPTS                          |                                  | DwPTS                              | UpPTS                          |                                  |
|                                |                                  | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |                                    | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |
| 0                              | $6592 \cdot T_s$                 | $2192 \cdot T_s$               | $2560 \cdot T_s$                 | $7680 \cdot T_s$                   | $2192 \cdot T_s$               | $2560 \cdot T_s$                 |
| 1                              | $19760 \cdot T_s$                |                                |                                  | $20480 \cdot T_s$                  |                                |                                  |
| 2                              | $21952 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 3                              | $24144 \cdot T_s$                |                                |                                  | $25600 \cdot T_s$                  |                                |                                  |
| 4                              | $26336 \cdot T_s$                | $4384 \cdot T_s$               | $5120 \cdot T_s$                 | $7680 \cdot T_s$                   | $4384 \cdot T_s$               | $5120 \cdot T_s$                 |
| 5                              | $6592 \cdot T_s$                 |                                |                                  | $20480 \cdot T_s$                  |                                |                                  |
| 6                              | $19760 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 7                              | $21952 \cdot T_s$                |                                |                                  | $12800 \cdot T_s$                  |                                |                                  |
| 8                              | $24144 \cdot T_s$                |                                |                                  | -                                  | -                              | -                                |
| 9                              | $13168 \cdot T_s$                |                                |                                  | -                                  | -                              | -                                |

| Special subframe (30720·T <sub>s</sub> ): Normal cyclic prefix in downlink (UpPTS) |                                |                                |                                  |
|------------------------------------------------------------------------------------|--------------------------------|--------------------------------|----------------------------------|
|                                                                                    | Special subframe configuration | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |
| Uplink duty factor in one special subframe                                         | 0~4                            | 7.13%                          | 8.33%                            |
|                                                                                    | 5~9                            | 14.3%                          | 16.7%                            |

| Special subframe(30720·T <sub>s</sub> ): Extended cyclic prefix in downlink (UpPTS) |                                |                                |                                  |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|----------------------------------|
|                                                                                     | Special subframe configuration | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |
| Uplink duty factor in one special subframe                                          | 0~3                            | 7.13%                          | 8.33%                            |
|                                                                                     | 4~7                            | 14.3%                          | 16.7%                            |

The highest duty factor is resulted from:

- Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  $(3+0.167)/5 = 63.3\%$
- for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  $(3+0.143)/5 = 62.9\%$
- For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix  $63.3\%/62.9\% = 1.006$  is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.
- The device supports Power Class 2 uplink-downlink configurations 0 and 6, and Power Class 3 uplink-downlink configurations 1 to 5 operations for LTE Band 41.
- The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1, for Power Class 3 operation is 63.3% using UL-DL configuration 0. Per FCC Guidance, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR among all exposure condition. Please see Section 14.6 for linearity results.

**<Default Power Mode>**
**<LTE Band 38>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|------------------------|-------------|
| Channel         |            |         |           | 37850                    | 38000                       | 38150                     |                        |             |
| Frequency (MHz) |            |         |           | 2580                     | 2595                        | 2610                      |                        |             |
| 20              | QPSK       | 1       | 0         | 22.89                    | 22.80                       | 22.92                     | 24                     | 0           |
| 20              | QPSK       | 1       | 49        | 22.74                    | 22.76                       | 22.89                     |                        |             |
| 20              | QPSK       | 1       | 99        | 22.65                    | 22.71                       | 22.88                     |                        |             |
| 20              | QPSK       | 50      | 0         | 21.84                    | 21.77                       | 21.94                     | 23                     | 1           |
| 20              | QPSK       | 50      | 24        | 21.78                    | 21.77                       | 21.95                     |                        |             |
| 20              | QPSK       | 50      | 50        | 21.66                    | 21.74                       | 21.96                     |                        |             |
| 20              | QPSK       | 100     | 0         | 21.76                    | 21.76                       | 21.92                     | 23                     | 1           |
| 20              | 16QAM      | 1       | 0         | 22.05                    | 21.96                       | 22.08                     |                        |             |
| 20              | 16QAM      | 1       | 49        | 21.90                    | 21.91                       | 22.15                     |                        |             |
| 20              | 16QAM      | 1       | 99        | 21.81                    | 21.84                       | 22.01                     | 22                     | 2           |
| 20              | 16QAM      | 50      | 0         | 20.95                    | 20.88                       | 21.06                     |                        |             |
| 20              | 16QAM      | 50      | 24        | 20.90                    | 20.90                       | 21.04                     |                        |             |
| 20              | 16QAM      | 50      | 50        | 20.79                    | 20.88                       | 21.10                     | 22                     | 2           |
| 20              | 16QAM      | 100     | 0         | 20.87                    | 20.88                       | 21.03                     |                        |             |
| 20              | 64QAM      | 1       | 0         | 20.66                    | 20.57                       | 20.68                     |                        |             |
| 20              | 64QAM      | 1       | 49        | 20.52                    | 20.52                       | 20.76                     | 22                     | 2           |
| 20              | 64QAM      | 1       | 99        | 20.40                    | 20.46                       | 20.64                     |                        |             |
| 20              | 64QAM      | 50      | 0         | 19.95                    | 19.87                       | 20.06                     |                        |             |
| 20              | 64QAM      | 50      | 24        | 19.88                    | 19.88                       | 20.06                     | 21                     | 3           |
| 20              | 64QAM      | 50      | 50        | 19.78                    | 19.86                       | 20.07                     |                        |             |
| 20              | 64QAM      | 100     | 0         | 19.85                    | 19.87                       | 20.02                     |                        |             |
| Channel         |            |         |           | 37825                    | 38000                       | 38175                     |                        |             |
| Frequency (MHz) |            |         |           | 2577.5                   | 2595                        | 2612.5                    |                        |             |
| 15              | QPSK       | 1       | 0         | 22.87                    | 22.84                       | 22.86                     | 24                     | 0           |
| 15              | QPSK       | 1       | 37        | 22.84                    | 22.77                       | 22.83                     |                        |             |
| 15              | QPSK       | 1       | 74        | 22.74                    | 22.75                       | 22.84                     |                        |             |
| 15              | QPSK       | 36      | 0         | 21.77                    | 21.73                       | 21.93                     | 23                     | 1           |
| 15              | QPSK       | 36      | 20        | 21.71                    | 21.79                       | 22.03                     |                        |             |
| 15              | QPSK       | 36      | 39        | 21.73                    | 21.73                       | 21.97                     |                        |             |
| 15              | QPSK       | 75      | 0         | 21.70                    | 21.76                       | 21.91                     | 23                     | 1           |
| 15              | 16QAM      | 1       | 0         | 22.02                    | 21.97                       | 22.10                     |                        |             |
| 15              | 16QAM      | 1       | 37        | 21.97                    | 21.90                       | 22.16                     |                        |             |
| 15              | 16QAM      | 1       | 74        | 21.85                    | 21.85                       | 22.08                     | 22                     | 2           |
| 15              | 16QAM      | 36      | 0         | 20.83                    | 20.81                       | 20.99                     |                        |             |
| 15              | 16QAM      | 36      | 20        | 20.81                    | 20.86                       | 21.12                     |                        |             |
| 15              | 16QAM      | 36      | 39        | 20.79                    | 20.81                       | 21.04                     | 22                     | 2           |
| 15              | 16QAM      | 75      | 0         | 20.82                    | 20.85                       | 21.03                     |                        |             |
| 15              | 64QAM      | 1       | 0         | 20.63                    | 20.60                       | 20.69                     |                        |             |
| 15              | 64QAM      | 1       | 37        | 20.59                    | 20.51                       | 20.79                     | 22                     | 2           |
| 15              | 64QAM      | 1       | 74        | 20.48                    | 20.48                       | 20.68                     |                        |             |
| 15              | 64QAM      | 36      | 0         | 19.89                    | 19.86                       | 20.04                     |                        |             |
| 15              | 64QAM      | 36      | 20        | 19.84                    | 19.89                       | 20.15                     | 21                     | 3           |
| 15              | 64QAM      | 36      | 39        | 19.82                    | 19.85                       | 20.07                     |                        |             |
| 15              | 64QAM      | 75      | 0         | 19.80                    | 19.87                       | 20.06                     |                        |             |

| Channel         |       |    |    | 37800  | 38000 | 38200  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 2575   | 2595  | 2615   |                        |             |
| 10              | QPSK  | 1  | 0  | 22.81  | 22.69 | 22.89  | 24                     | 0           |
| 10              | QPSK  | 1  | 25 | 22.74  | 22.70 | 22.88  |                        |             |
| 10              | QPSK  | 1  | 49 | 22.65  | 22.70 | 22.83  |                        |             |
| 10              | QPSK  | 25 | 0  | 21.70  | 21.71 | 21.98  | 23                     | 1           |
| 10              | QPSK  | 25 | 12 | 21.77  | 21.74 | 22.02  |                        |             |
| 10              | QPSK  | 25 | 25 | 21.64  | 21.71 | 21.96  |                        |             |
| 10              | QPSK  | 50 | 0  | 21.74  | 21.73 | 22.03  | 23                     | 1           |
| 10              | 16QAM | 1  | 0  | 21.96  | 21.85 | 22.15  |                        |             |
| 10              | 16QAM | 1  | 25 | 21.90  | 21.87 | 22.11  |                        |             |
| 10              | 16QAM | 1  | 49 | 21.76  | 21.84 | 22.04  | 22                     | 2           |
| 10              | 16QAM | 25 | 0  | 20.83  | 20.82 | 21.12  |                        |             |
| 10              | 16QAM | 25 | 12 | 20.87  | 20.85 | 21.09  |                        |             |
| 10              | 16QAM | 25 | 25 | 20.73  | 20.82 | 21.07  | 22                     | 2           |
| 10              | 16QAM | 50 | 0  | 20.85  | 20.87 | 21.14  |                        |             |
| 10              | 64QAM | 1  | 0  | 20.58  | 20.48 | 20.78  |                        |             |
| 10              | 64QAM | 1  | 25 | 20.52  | 20.48 | 20.75  | 22                     | 2           |
| 10              | 64QAM | 1  | 49 | 20.39  | 20.46 | 20.67  |                        |             |
| 10              | 64QAM | 25 | 0  | 19.88  | 19.89 | 20.17  |                        |             |
| 10              | 64QAM | 25 | 12 | 19.91  | 19.92 | 20.17  | 21                     | 3           |
| 10              | 64QAM | 25 | 25 | 19.81  | 19.90 | 20.12  |                        |             |
| 10              | 64QAM | 50 | 0  | 19.86  | 19.85 | 20.13  |                        |             |
| Channel         |       |    |    | 37775  | 38000 | 38225  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2572.5 | 2595  | 2617.5 |                        |             |
| 5               | QPSK  | 1  | 0  | 22.85  | 22.83 | 22.85  | 24                     | 0           |
| 5               | QPSK  | 1  | 12 | 22.84  | 22.83 | 22.88  |                        |             |
| 5               | QPSK  | 1  | 24 | 22.89  | 22.83 | 22.85  |                        |             |
| 5               | QPSK  | 12 | 0  | 21.96  | 21.92 | 21.97  | 23                     | 1           |
| 5               | QPSK  | 12 | 7  | 21.90  | 21.99 | 21.99  |                        |             |
| 5               | QPSK  | 12 | 13 | 21.90  | 21.94 | 21.89  |                        |             |
| 5               | QPSK  | 25 | 0  | 21.90  | 21.96 | 21.94  | 23                     | 1           |
| 5               | 16QAM | 1  | 0  | 22.18  | 22.10 | 22.24  |                        |             |
| 5               | 16QAM | 1  | 12 | 22.09  | 22.14 | 22.09  |                        |             |
| 5               | 16QAM | 1  | 24 | 22.04  | 22.05 | 22.12  | 22                     | 2           |
| 5               | 16QAM | 12 | 0  | 21.06  | 21.00 | 21.03  |                        |             |
| 5               | 16QAM | 12 | 7  | 21.00  | 21.03 | 21.05  |                        |             |
| 5               | 16QAM | 12 | 13 | 21.00  | 21.04 | 20.91  | 22                     | 2           |
| 5               | 16QAM | 25 | 0  | 20.96  | 21.04 | 21.05  |                        |             |
| 5               | 64QAM | 1  | 0  | 21.15  | 21.09 | 21.16  |                        |             |
| 5               | 64QAM | 1  | 12 | 21.00  | 21.08 | 21.04  | 22                     | 2           |
| 5               | 64QAM | 1  | 24 | 21.11  | 21.05 | 21.06  |                        |             |
| 5               | 64QAM | 12 | 0  | 20.06  | 20.05 | 20.08  |                        |             |
| 5               | 64QAM | 12 | 7  | 20.03  | 20.09 | 20.09  | 21                     | 3           |
| 5               | 64QAM | 12 | 13 | 20.01  | 20.06 | 19.99  |                        |             |
| 5               | 64QAM | 25 | 0  | 19.95  | 20.04 | 20.05  |                        |             |

**<LTE Band 41(Power Class 2)>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 25.91                 | 25.85                        | 25.84                    | 25.77                         | 26.11                  | 27                  | 0        |
| 20              | QPSK       | 1       | 49        | 25.98                 | 26.04                        | 26.12                    | 26.00                         | 26.04                  |                     |          |
| 20              | QPSK       | 1       | 99        | 26.00                 | 26.05                        | 26.18                    | 26.02                         | 26.14                  |                     |          |
| 20              | QPSK       | 50      | 0         | 24.44                 | 24.54                        | 24.63                    | 24.51                         | 24.56                  | 26                  | 1        |
| 20              | QPSK       | 50      | 24        | 24.49                 | 24.58                        | 24.76                    | 24.62                         | 24.69                  |                     |          |
| 20              | QPSK       | 50      | 50        | 24.63                 | 24.63                        | 24.80                    | 24.64                         | 24.69                  |                     |          |
| 20              | QPSK       | 100     | 0         | 24.48                 | 24.53                        | 24.72                    | 24.60                         | 24.63                  | 26                  | 1        |
| 20              | 16QAM      | 1       | 0         | 25.09                 | 25.19                        | 25.21                    | 25.15                         | 25.40                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 25.37                 | 25.38                        | 25.47                    | 25.35                         | 25.40                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 25.36                 | 25.36                        | 25.52                    | 25.39                         | 25.46                  | 25                  | 2        |
| 20              | 16QAM      | 50      | 0         | 23.59                 | 23.65                        | 23.76                    | 23.61                         | 23.66                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 23.66                 | 23.67                        | 23.88                    | 23.73                         | 23.80                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 23.69                 | 23.71                        | 23.90                    | 23.75                         | 23.79                  | 25                  | 2        |
| 20              | 16QAM      | 100     | 0         | 23.52                 | 23.62                        | 23.79                    | 23.67                         | 23.71                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 24.09                 | 24.09                        | 24.11                    | 24.03                         | 24.38                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 24.19                 | 24.29                        | 24.36                    | 24.26                         | 24.30                  | 25                  | 2        |
| 20              | 64QAM      | 1       | 99        | 24.21                 | 24.29                        | 24.38                    | 24.28                         | 24.36                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 22.56                 | 22.64                        | 22.75                    | 22.61                         | 22.69                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 22.59                 | 22.67                        | 22.87                    | 22.74                         | 22.81                  | 24                  | 3        |
| 20              | 64QAM      | 50      | 50        | 22.66                 | 22.73                        | 22.90                    | 22.74                         | 22.82                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 22.52                 | 22.62                        | 22.81                    | 22.69                         | 22.74                  |                     |          |
| Channel         |            |         |           | 39725                 | 40173                        | 40620                    | 41068                         | 41515                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |            |         |           | 2503.5                | 2548.3                       | 2593                     | 2637.8                        | 2682.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 26.01                 | 25.98                        | 25.99                    | 25.90                         | 25.82                  | 27                  | 0        |
| 15              | QPSK       | 1       | 37        | 26.08                 | 26.11                        | 26.16                    | 26.05                         | 26.07                  |                     |          |
| 15              | QPSK       | 1       | 74        | 26.01                 | 26.05                        | 26.14                    | 26.09                         | 26.11                  |                     |          |
| 15              | QPSK       | 36      | 0         | 24.50                 | 24.54                        | 24.54                    | 24.53                         | 24.59                  | 26                  | 1        |
| 15              | QPSK       | 36      | 20        | 24.64                 | 24.67                        | 24.68                    | 24.63                         | 24.70                  |                     |          |
| 15              | QPSK       | 36      | 39        | 24.56                 | 24.59                        | 24.66                    | 24.64                         | 24.72                  |                     |          |
| 15              | QPSK       | 75      | 0         | 24.56                 | 24.60                        | 24.66                    | 24.59                         | 24.68                  | 26                  | 1        |
| 15              | 16QAM      | 1       | 0         | 25.28                 | 25.27                        | 25.22                    | 25.22                         | 25.09                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 25.36                 | 25.39                        | 25.36                    | 25.36                         | 25.36                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 25.28                 | 25.36                        | 25.45                    | 25.40                         | 25.40                  | 25                  | 2        |
| 15              | 16QAM      | 36      | 0         | 23.60                 | 23.60                        | 23.63                    | 23.60                         | 23.66                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 23.69                 | 23.73                        | 23.83                    | 23.70                         | 23.78                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 23.59                 | 23.64                        | 23.83                    | 23.70                         | 23.82                  | 25                  | 2        |
| 15              | 16QAM      | 75      | 0         | 23.67                 | 23.72                        | 23.83                    | 23.68                         | 23.75                  |                     |          |
| 15              | 64QAM      | 1       | 0         | 24.17                 | 24.16                        | 24.17                    | 24.10                         | 24.01                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 24.23                 | 24.27                        | 24.37                    | 24.26                         | 24.27                  | 25                  | 2        |
| 15              | 64QAM      | 1       | 74        | 24.19                 | 24.27                        | 24.41                    | 24.28                         | 24.29                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 22.64                 | 22.65                        | 22.77                    | 22.64                         | 22.72                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 22.75                 | 22.75                        | 22.87                    | 22.72                         | 22.81                  | 24                  | 3        |
| 15              | 64QAM      | 36      | 39        | 22.63                 | 22.67                        | 22.89                    | 22.75                         | 22.84                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 22.69                 | 22.70                        | 22.82                    | 22.69                         | 22.76                  |                     |          |



| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080   | 41540  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639    | 2685   |                           |             |
| 10              | QPSK  | 1  | 0  | 25.96  | 25.90  | 25.95 | 25.88   | 26.00  | 27                        | 0           |
| 10              | QPSK  | 1  | 25 | 25.96  | 25.97  | 26.11 | 26.00   | 26.05  |                           |             |
| 10              | QPSK  | 1  | 49 | 26.04  | 26.04  | 26.12 | 26.04   | 26.00  |                           |             |
| 10              | QPSK  | 25 | 0  | 24.53  | 24.53  | 24.69 | 24.55   | 24.85  | 26                        | 1           |
| 10              | QPSK  | 25 | 12 | 24.61  | 24.64  | 24.74 | 24.64   | 24.72  |                           |             |
| 10              | QPSK  | 25 | 25 | 24.55  | 24.62  | 24.73 | 24.61   | 24.91  |                           |             |
| 10              | QPSK  | 50 | 0  | 24.57  | 24.59  | 24.73 | 24.62   | 24.90  |                           |             |
| 10              | 16QAM | 1  | 0  | 25.27  | 25.29  | 25.32 | 25.28   | 25.84  | 26                        | 1           |
| 10              | 16QAM | 1  | 25 | 25.27  | 25.34  | 25.46 | 25.38   | 25.40  |                           |             |
| 10              | 16QAM | 1  | 49 | 25.34  | 25.36  | 25.49 | 25.39   | 25.95  |                           |             |
| 10              | 16QAM | 25 | 0  | 23.63  | 23.68  | 23.81 | 23.71   | 23.96  | 25                        | 2           |
| 10              | 16QAM | 25 | 12 | 23.74  | 23.76  | 23.88 | 23.76   | 23.91  |                           |             |
| 10              | 16QAM | 25 | 25 | 23.65  | 23.74  | 23.85 | 23.75   | 24.01  |                           |             |
| 10              | 16QAM | 50 | 0  | 23.65  | 23.72  | 23.84 | 23.74   | 23.99  |                           |             |
| 10              | 64QAM | 1  | 0  | 24.08  | 24.18  | 24.23 | 24.14   | 24.78  | 25                        | 2           |
| 10              | 64QAM | 1  | 25 | 24.23  | 24.23  | 24.34 | 24.27   | 24.32  |                           |             |
| 10              | 64QAM | 1  | 49 | 24.20  | 24.22  | 24.36 | 24.26   | 24.86  |                           |             |
| 10              | 64QAM | 25 | 0  | 22.60  | 22.68  | 22.85 | 22.75   | 23.03  | 24                        | 3           |
| 10              | 64QAM | 25 | 12 | 22.70  | 22.78  | 22.92 | 22.80   | 22.95  |                           |             |
| 10              | 64QAM | 25 | 25 | 22.80  | 22.80  | 22.92 | 22.80   | 23.08  |                           |             |
| 10              | 64QAM | 50 | 0  | 22.66  | 22.69  | 22.83 | 22.73   | 23.03  |                           |             |
| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 26.01  | 26.02  | 26.04 | 25.93   | 26.08  | 27                        | 0           |
| 5               | QPSK  | 1  | 12 | 26.07  | 26.07  | 26.09 | 26.01   | 26.10  |                           |             |
| 5               | QPSK  | 1  | 24 | 26.05  | 25.97  | 26.08 | 26.00   | 26.10  |                           |             |
| 5               | QPSK  | 12 | 0  | 24.61  | 24.67  | 24.72 | 24.59   | 24.69  | 26                        | 1           |
| 5               | QPSK  | 12 | 7  | 24.65  | 24.64  | 24.76 | 24.64   | 24.78  |                           |             |
| 5               | QPSK  | 12 | 13 | 24.66  | 24.62  | 24.76 | 24.65   | 24.74  |                           |             |
| 5               | QPSK  | 25 | 0  | 24.64  | 24.59  | 24.70 | 24.60   | 24.71  |                           |             |
| 5               | 16QAM | 1  | 0  | 25.31  | 25.34  | 25.38 | 25.31   | 25.38  | 26                        | 1           |
| 5               | 16QAM | 1  | 12 | 25.39  | 25.42  | 25.46 | 25.36   | 25.43  |                           |             |
| 5               | 16QAM | 1  | 24 | 25.39  | 25.33  | 25.46 | 25.36   | 25.44  |                           |             |
| 5               | 16QAM | 12 | 0  | 23.71  | 23.76  | 23.81 | 23.71   | 23.80  | 25                        | 2           |
| 5               | 16QAM | 12 | 7  | 23.76  | 23.75  | 23.89 | 23.76   | 23.89  |                           |             |
| 5               | 16QAM | 12 | 13 | 23.80  | 23.76  | 23.88 | 23.74   | 23.87  |                           |             |
| 5               | 16QAM | 25 | 0  | 23.76  | 23.72  | 23.86 | 23.72   | 23.86  |                           |             |
| 5               | 64QAM | 1  | 0  | 24.21  | 24.23  | 24.28 | 24.20   | 24.29  | 25                        | 2           |
| 5               | 64QAM | 1  | 12 | 24.29  | 24.31  | 24.32 | 24.27   | 24.33  |                           |             |
| 5               | 64QAM | 1  | 24 | 24.29  | 24.24  | 24.39 | 24.27   | 24.37  |                           |             |
| 5               | 64QAM | 12 | 0  | 22.75  | 22.78  | 22.85 | 22.73   | 22.85  | 24                        | 3           |
| 5               | 64QAM | 12 | 7  | 22.79  | 22.76  | 22.91 | 22.78   | 22.91  |                           |             |
| 5               | 64QAM | 12 | 13 | 22.78  | 22.75  | 22.90 | 22.78   | 22.89  |                           |             |
| 5               | 64QAM | 25 | 0  | 22.79  | 22.72  | 22.88 | 22.78   | 22.89  |                           |             |

**<LTE Band 41(Power Class 3)>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 22.96                 | 22.95                        | 22.96                    | 22.89                         | 23.92                  | 24                  | 0        |
| 20              | QPSK       | 1       | 49        | 23.14                 | 23.14                        | 23.21                    | 23.10                         | 23.13                  |                     |          |
| 20              | QPSK       | 1       | 99        | 23.03                 | 23.15                        | 23.26                    | 23.14                         | 23.26                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.56                 | 21.55                        | 21.65                    | 21.55                         | 21.57                  | 23                  | 1        |
| 20              | QPSK       | 50      | 24        | 21.58                 | 21.57                        | 21.75                    | 21.64                         | 21.66                  |                     |          |
| 20              | QPSK       | 50      | 50        | 21.63                 | 21.63                        | 21.79                    | 21.66                         | 21.67                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.54                 | 21.53                        | 21.70                    | 21.61                         | 21.60                  | 23                  | 1        |
| 20              | 16QAM      | 1       | 0         | 22.08                 | 22.09                        | 22.09                    | 22.04                         | 23.00                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 22.24                 | 22.26                        | 22.32                    | 22.25                         | 22.24                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 22.12                 | 22.24                        | 22.36                    | 22.27                         | 22.38                  | 22                  | 2        |
| 20              | 16QAM      | 50      | 0         | 20.67                 | 20.65                        | 20.75                    | 20.64                         | 20.64                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 20.70                 | 20.69                        | 20.87                    | 20.76                         | 20.75                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.72                 | 20.74                        | 20.87                    | 20.78                         | 20.75                  | 22                  | 2        |
| 20              | 16QAM      | 100     | 0         | 20.61                 | 20.64                        | 20.80                    | 20.70                         | 20.71                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 20.82                 | 20.82                        | 20.82                    | 20.78                         | 21.83                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 21.00                 | 21.01                        | 21.08                    | 20.98                         | 21.00                  | 22                  | 2        |
| 20              | 64QAM      | 1       | 99        | 20.88                 | 21.00                        | 21.12                    | 21.01                         | 21.10                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 19.67                 | 19.63                        | 19.73                    | 19.66                         | 19.63                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.65                 | 19.66                        | 19.82                    | 19.75                         | 19.77                  | 21                  | 3        |
| 20              | 64QAM      | 50      | 50        | 19.70                 | 19.74                        | 19.88                    | 19.76                         | 19.76                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.63                 | 19.65                        | 19.79                    | 19.73                         | 19.73                  |                     |          |
| Channel         |            |         |           | 39725                 | 40173                        | 40620                    | 41068                         | 41515                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |            |         |           | 2503.5                | 2548.3                       | 2593                     | 2637.8                        | 2682.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 23.03                 | 23.03                        | 23.05                    | 22.96                         | 22.89                  | 24                  | 0        |
| 15              | QPSK       | 1       | 37        | 23.09                 | 23.13                        | 23.21                    | 23.11                         | 23.15                  |                     |          |
| 15              | QPSK       | 1       | 74        | 23.09                 | 23.10                        | 23.28                    | 23.13                         | 23.15                  |                     |          |
| 15              | QPSK       | 36      | 0         | 21.55                 | 21.55                        | 21.63                    | 21.56                         | 21.57                  | 23                  | 1        |
| 15              | QPSK       | 36      | 20        | 21.67                 | 21.68                        | 21.74                    | 21.68                         | 21.69                  |                     |          |
| 15              | QPSK       | 36      | 39        | 21.57                 | 21.60                        | 21.75                    | 21.66                         | 21.70                  |                     |          |
| 15              | QPSK       | 75      | 0         | 21.61                 | 21.63                        | 21.70                    | 21.61                         | 21.68                  | 23                  | 1        |
| 15              | 16QAM      | 1       | 0         | 22.12                 | 22.17                        | 22.17                    | 22.10                         | 22.00                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 22.21                 | 22.26                        | 22.34                    | 22.23                         | 22.25                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 22.19                 | 22.24                        | 22.41                    | 22.27                         | 22.28                  | 22                  | 2        |
| 15              | 16QAM      | 36      | 0         | 20.61                 | 20.60                        | 20.73                    | 20.63                         | 20.64                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 20.75                 | 20.70                        | 20.82                    | 20.71                         | 20.75                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 20.63                 | 20.64                        | 20.81                    | 20.68                         | 20.78                  | 22                  | 2        |
| 15              | 16QAM      | 75      | 0         | 20.73                 | 20.70                        | 20.78                    | 20.71                         | 20.76                  |                     |          |
| 15              | 64QAM      | 1       | 0         | 20.87                 | 20.90                        | 20.90                    | 20.83                         | 20.75                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 20.98                 | 21.00                        | 21.09                    | 21.01                         | 21.02                  | 22                  | 2        |
| 15              | 64QAM      | 1       | 74        | 20.92                 | 21.00                        | 21.12                    | 21.05                         | 21.02                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 19.64                 | 19.62                        | 19.76                    | 19.62                         | 19.66                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 19.75                 | 19.71                        | 19.84                    | 19.76                         | 19.77                  | 21                  | 3        |
| 15              | 64QAM      | 36      | 39        | 19.69                 | 19.65                        | 19.83                    | 19.72                         | 19.82                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 19.71                 | 19.71                        | 19.80                    | 19.71                         | 19.73                  |                     |          |



| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080   | 41540  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639    | 2685   |                           |             |
| 10              | QPSK  | 1  | 0  | 23.04  | 23.04  | 23.07 | 22.99   | 23.68  | 24                        | 0           |
| 10              | QPSK  | 1  | 25 | 23.17  | 23.09  | 23.20 | 23.12   | 23.19  |                           |             |
| 10              | QPSK  | 1  | 49 | 23.10  | 23.16  | 23.24 | 23.16   | 23.78  |                           |             |
| 10              | QPSK  | 25 | 0  | 21.65  | 21.52  | 21.65 | 21.57   | 21.79  | 23                        | 1           |
| 10              | QPSK  | 25 | 12 | 21.62  | 21.65  | 21.74 | 21.65   | 21.74  |                           |             |
| 10              | QPSK  | 25 | 25 | 21.64  | 21.62  | 21.73 | 21.63   | 21.89  |                           |             |
| 10              | QPSK  | 50 | 0  | 21.62  | 21.61  | 21.73 | 21.64   | 21.87  |                           |             |
| 10              | 16QAM | 1  | 0  | 22.15  | 22.17  | 22.25 | 22.15   | 22.84  | 23                        | 1           |
| 10              | 16QAM | 1  | 25 | 22.27  | 22.22  | 22.35 | 22.24   | 22.33  |                           |             |
| 10              | 16QAM | 1  | 49 | 22.19  | 22.26  | 22.36 | 22.25   | 22.91  |                           |             |
| 10              | 16QAM | 25 | 0  | 20.74  | 20.64  | 20.78 | 20.68   | 20.95  | 22                        | 2           |
| 10              | 16QAM | 25 | 12 | 20.73  | 20.75  | 20.86 | 20.80   | 20.86  |                           |             |
| 10              | 16QAM | 25 | 25 | 20.73  | 20.72  | 20.84 | 20.74   | 21.01  |                           |             |
| 10              | 16QAM | 50 | 0  | 20.71  | 20.73  | 20.83 | 20.74   | 20.96  |                           |             |
| 10              | 64QAM | 1  | 0  | 20.92  | 20.95  | 20.98 | 20.90   | 21.57  | 22                        | 2           |
| 10              | 64QAM | 1  | 25 | 21.05  | 20.97  | 21.11 | 21.01   | 21.06  |                           |             |
| 10              | 64QAM | 1  | 49 | 20.95  | 20.99  | 21.09 | 21.00   | 21.67  |                           |             |
| 10              | 64QAM | 25 | 0  | 19.76  | 19.67  | 19.82 | 19.75   | 19.96  | 21                        | 3           |
| 10              | 64QAM | 25 | 12 | 19.80  | 19.74  | 19.91 | 19.82   | 19.91  |                           |             |
| 10              | 64QAM | 25 | 25 | 19.79  | 19.78  | 19.90 | 19.78   | 20.03  |                           |             |
| 10              | 64QAM | 50 | 0  | 19.73  | 19.68  | 19.82 | 19.77   | 19.99  |                           |             |
| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 23.06  | 23.09  | 23.13 | 23.06   | 23.16  | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 23.12  | 23.16  | 23.19 | 23.13   | 23.19  |                           |             |
| 5               | QPSK  | 1  | 24 | 23.11  | 23.05  | 23.17 | 23.11   | 23.18  |                           |             |
| 5               | QPSK  | 12 | 0  | 21.63  | 21.70  | 21.72 | 21.60   | 21.69  | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 21.70  | 21.61  | 21.73 | 21.69   | 21.75  |                           |             |
| 5               | QPSK  | 12 | 13 | 21.71  | 21.65  | 21.75 | 21.65   | 21.72  |                           |             |
| 5               | QPSK  | 25 | 0  | 21.66  | 21.59  | 21.72 | 21.67   | 21.70  |                           |             |
| 5               | 16QAM | 1  | 0  | 22.16  | 22.21  | 22.24 | 22.16   | 22.25  | 23                        | 1           |
| 5               | 16QAM | 1  | 12 | 22.23  | 22.29  | 22.32 | 22.25   | 22.29  |                           |             |
| 5               | 16QAM | 1  | 24 | 22.25  | 22.21  | 22.34 | 22.27   | 22.30  |                           |             |
| 5               | 16QAM | 12 | 0  | 20.68  | 20.73  | 20.76 | 20.68   | 20.72  | 22                        | 2           |
| 5               | 16QAM | 12 | 7  | 20.76  | 20.68  | 20.81 | 20.71   | 20.81  |                           |             |
| 5               | 16QAM | 12 | 13 | 20.75  | 20.69  | 20.83 | 20.74   | 20.80  |                           |             |
| 5               | 16QAM | 25 | 0  | 20.79  | 20.69  | 20.85 | 20.76   | 20.82  |                           |             |
| 5               | 64QAM | 1  | 0  | 20.94  | 20.98  | 21.04 | 20.96   | 21.01  | 22                        | 2           |
| 5               | 64QAM | 1  | 12 | 21.00  | 21.05  | 21.07 | 21.00   | 21.08  |                           |             |
| 5               | 64QAM | 1  | 24 | 21.02  | 20.96  | 21.12 | 21.02   | 21.09  |                           |             |
| 5               | 64QAM | 12 | 0  | 19.77  | 19.79  | 19.81 | 19.77   | 19.79  | 21                        | 3           |
| 5               | 64QAM | 12 | 7  | 19.82  | 19.72  | 19.89 | 19.77   | 19.85  |                           |             |
| 5               | 64QAM | 12 | 13 | 19.82  | 19.70  | 19.83 | 19.79   | 19.88  |                           |             |
| 5               | 64QAM | 25 | 0  | 19.81  | 19.70  | 19.84 | 19.78   | 19.88  |                           |             |

**<Near-Body and Hotspot Power Mode>**
**<LTE Band 38>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|------------------------|-------------|
| Channel         |            |         |           | 37850                    | 38000                       | 38150                     |                        |             |
| Frequency (MHz) |            |         |           | 2580                     | 2595                        | 2610                      |                        |             |
| 20              | QPSK       | 1       | 0         | 19.73                    | 19.60                       | 19.60                     | 20                     | 0           |
| 20              | QPSK       | 1       | 49        | 19.85                    | 19.62                       | 19.75                     |                        |             |
| 20              | QPSK       | 1       | 99        | 19.63                    | 19.59                       | 19.71                     |                        |             |
| 20              | QPSK       | 50      | 0         | 19.79                    | 19.61                       | 19.74                     | 20                     | 0           |
| 20              | QPSK       | 50      | 24        | 19.76                    | 19.60                       | 19.68                     |                        |             |
| 20              | QPSK       | 50      | 50        | 19.63                    | 19.57                       | 19.63                     |                        |             |
| 20              | QPSK       | 100     | 0         | 19.72                    | 19.59                       | 19.65                     |                        |             |
| 20              | 16QAM      | 1       | 0         | 19.76                    | 19.74                       | 19.70                     | 20                     | 0           |
| 20              | 16QAM      | 1       | 49        | 19.75                    | 19.72                       | 19.78                     |                        |             |
| 20              | 16QAM      | 1       | 99        | 19.73                    | 19.68                       | 19.75                     |                        |             |
| 20              | 16QAM      | 50      | 0         | 19.38                    | 19.17                       | 19.22                     | 20                     | 0           |
| 20              | 16QAM      | 50      | 24        | 19.34                    | 19.23                       | 19.26                     |                        |             |
| 20              | 16QAM      | 50      | 50        | 19.22                    | 19.21                       | 19.36                     |                        |             |
| 20              | 16QAM      | 100     | 0         | 19.28                    | 19.16                       | 19.25                     |                        |             |
| 20              | 64QAM      | 1       | 0         | 19.19                    | 18.97                       | 18.94                     | 20                     | 0           |
| 20              | 64QAM      | 1       | 49        | 19.09                    | 18.97                       | 19.11                     |                        |             |
| 20              | 64QAM      | 1       | 99        | 18.96                    | 18.93                       | 19.06                     |                        |             |
| 20              | 64QAM      | 50      | 0         | 18.38                    | 18.16                       | 18.24                     | 20                     | 0           |
| 20              | 64QAM      | 50      | 24        | 18.34                    | 18.20                       | 18.28                     |                        |             |
| 20              | 64QAM      | 50      | 50        | 18.23                    | 18.18                       | 18.34                     |                        |             |
| 20              | 64QAM      | 100     | 0         | 18.30                    | 18.18                       | 18.22                     |                        |             |
| Channel         |            |         |           | 37825                    | 38000                       | 38175                     | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |            |         |           | 2577.5                   | 2595                        | 2612.5                    |                        |             |
| 15              | QPSK       | 1       | 0         | 19.84                    | 19.64                       | 19.62                     | 20                     | 0           |
| 15              | QPSK       | 1       | 37        | 19.83                    | 19.62                       | 19.75                     |                        |             |
| 15              | QPSK       | 1       | 74        | 19.74                    | 19.60                       | 19.75                     |                        |             |
| 15              | QPSK       | 36      | 0         | 19.77                    | 19.56                       | 19.63                     | 20                     | 0           |
| 15              | QPSK       | 36      | 20        | 19.77                    | 19.63                       | 19.77                     |                        |             |
| 15              | QPSK       | 36      | 39        | 19.72                    | 19.57                       | 19.74                     |                        |             |
| 15              | QPSK       | 75      | 0         | 19.70                    | 19.59                       | 19.67                     |                        |             |
| 15              | 16QAM      | 1       | 0         | 19.78                    | 19.77                       | 19.75                     | 20                     | 0           |
| 15              | 16QAM      | 1       | 37        | 19.74                    | 19.72                       | 19.78                     |                        |             |
| 15              | 16QAM      | 1       | 74        | 19.84                    | 19.72                       | 19.76                     |                        |             |
| 15              | 16QAM      | 36      | 0         | 19.33                    | 19.12                       | 19.19                     | 20                     | 0           |
| 15              | 16QAM      | 36      | 20        | 19.30                    | 19.16                       | 19.34                     |                        |             |
| 15              | 16QAM      | 36      | 39        | 19.28                    | 19.12                       | 19.32                     |                        |             |
| 15              | 16QAM      | 75      | 0         | 19.26                    | 19.17                       | 19.24                     |                        |             |
| 15              | 64QAM      | 1       | 0         | 19.20                    | 18.98                       | 18.97                     | 20                     | 0           |
| 15              | 64QAM      | 1       | 37        | 19.20                    | 18.96                       | 19.12                     |                        |             |
| 15              | 64QAM      | 1       | 74        | 19.07                    | 18.95                       | 19.12                     |                        |             |
| 15              | 64QAM      | 36      | 0         | 18.35                    | 18.15                       | 18.22                     | 20                     | 0           |
| 15              | 64QAM      | 36      | 20        | 18.33                    | 18.21                       | 18.37                     |                        |             |
| 15              | 64QAM      | 36      | 39        | 18.29                    | 18.16                       | 18.36                     |                        |             |
| 15              | 64QAM      | 75      | 0         | 18.27                    | 18.17                       | 18.25                     |                        |             |

| Channel         |       |    |    | 37800  | 38000 | 38200  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 2575   | 2595  | 2615   |                        |             |
| 10              | QPSK  | 1  | 0  | 19.81  | 19.54 | 19.72  | 20                     | 0           |
| 10              | QPSK  | 1  | 25 | 19.77  | 19.59 | 19.74  |                        |             |
| 10              | QPSK  | 1  | 49 | 19.69  | 19.59 | 19.76  |                        |             |
| 10              | QPSK  | 25 | 0  | 19.75  | 19.54 | 19.70  | 20                     | 0           |
| 10              | QPSK  | 25 | 12 | 19.77  | 19.57 | 19.76  |                        |             |
| 10              | QPSK  | 25 | 25 | 19.66  | 19.56 | 19.74  |                        |             |
| 10              | QPSK  | 50 | 0  | 19.77  | 19.56 | 19.75  |                        |             |
| 10              | 16QAM | 1  | 0  | 19.74  | 19.65 | 19.84  | 20                     | 0           |
| 10              | 16QAM | 1  | 25 | 19.78  | 19.68 | 19.70  |                        |             |
| 10              | 16QAM | 1  | 49 | 19.77  | 19.66 | 19.84  |                        |             |
| 10              | 16QAM | 25 | 0  | 19.35  | 19.18 | 19.33  | 20                     | 0           |
| 10              | 16QAM | 25 | 12 | 19.38  | 19.20 | 19.36  |                        |             |
| 10              | 16QAM | 25 | 25 | 19.27  | 19.18 | 19.36  |                        |             |
| 10              | 16QAM | 50 | 0  | 19.35  | 19.16 | 19.36  |                        |             |
| 10              | 64QAM | 1  | 0  | 19.19  | 18.89 | 19.07  | 20                     | 0           |
| 10              | 64QAM | 1  | 25 | 19.14  | 18.92 | 19.11  |                        |             |
| 10              | 64QAM | 1  | 49 | 19.01  | 18.91 | 19.08  |                        |             |
| 10              | 64QAM | 25 | 0  | 18.37  | 18.20 | 18.39  | 20                     | 0           |
| 10              | 64QAM | 25 | 12 | 18.40  | 18.24 | 18.41  |                        |             |
| 10              | 64QAM | 25 | 25 | 18.31  | 18.21 | 18.40  |                        |             |
| 10              | 64QAM | 50 | 0  | 18.36  | 18.19 | 18.37  |                        |             |
| Channel         |       |    |    | 37775  | 38000 | 38225  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2572.5 | 2595  | 2617.5 |                        |             |
| 5               | QPSK  | 1  | 0  | 19.81  | 19.58 | 19.76  | 20                     | 0           |
| 5               | QPSK  | 1  | 12 | 19.84  | 19.56 | 19.73  |                        |             |
| 5               | QPSK  | 1  | 24 | 19.73  | 19.55 | 19.72  |                        |             |
| 5               | QPSK  | 12 | 0  | 19.82  | 19.61 | 19.76  | 20                     | 0           |
| 5               | QPSK  | 12 | 7  | 19.76  | 19.61 | 19.77  |                        |             |
| 5               | QPSK  | 12 | 13 | 19.74  | 19.60 | 19.75  |                        |             |
| 5               | QPSK  | 25 | 0  | 19.72  | 19.57 | 19.75  |                        |             |
| 5               | 16QAM | 1  | 0  | 19.74  | 19.64 | 19.83  | 20                     | 0           |
| 5               | 16QAM | 1  | 12 | 19.77  | 19.66 | 19.84  |                        |             |
| 5               | 16QAM | 1  | 24 | 19.78  | 19.67 | 19.75  |                        |             |
| 5               | 16QAM | 12 | 0  | 19.39  | 19.12 | 19.29  | 20                     | 0           |
| 5               | 16QAM | 12 | 7  | 19.31  | 19.14 | 19.31  |                        |             |
| 5               | 16QAM | 12 | 13 | 19.30  | 19.12 | 19.34  |                        |             |
| 5               | 16QAM | 25 | 0  | 19.33  | 19.19 | 19.36  |                        |             |
| 5               | 64QAM | 1  | 0  | 19.21  | 18.91 | 19.09  | 20                     | 0           |
| 5               | 64QAM | 1  | 12 | 19.22  | 18.91 | 19.08  |                        |             |
| 5               | 64QAM | 1  | 24 | 19.15  | 18.94 | 19.13  |                        |             |
| 5               | 64QAM | 12 | 0  | 18.44  | 18.16 | 18.34  | 20                     | 0           |
| 5               | 64QAM | 12 | 7  | 18.36  | 18.19 | 18.38  |                        |             |
| 5               | 64QAM | 12 | 13 | 18.35  | 18.18 | 18.37  |                        |             |
| 5               | 64QAM | 25 | 0  | 18.38  | 18.19 | 18.38  |                        |             |

**<LTE Band 41(Power Class 2)>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 19.75                 | 19.76                        | 19.77                    | 19.75                         | 20.53                  | 21                  | 0        |
| 20              | QPSK       | 1       | 49        | 19.70                 | 19.75                        | 19.76                    | 19.70                         | 19.81                  |                     |          |
| 20              | QPSK       | 1       | 99        | 19.66                 | 19.74                        | 19.76                    | 19.73                         | 19.92                  |                     |          |
| 20              | QPSK       | 50      | 0         | 19.82                 | 19.81                        | 19.88                    | 19.80                         | 20.00                  | 21                  | 0        |
| 20              | QPSK       | 50      | 24        | 19.69                 | 19.90                        | 19.87                    | 19.79                         | 19.89                  |                     |          |
| 20              | QPSK       | 50      | 50        | 19.73                 | 19.87                        | 19.76                    | 19.78                         | 19.93                  |                     |          |
| 20              | QPSK       | 100     | 0         | 19.71                 | 19.83                        | 19.79                    | 19.70                         | 20.03                  | 21                  | 0        |
| 20              | 16QAM      | 1       | 0         | 19.91                 | 20.06                        | 19.84                    | 19.77                         | 20.49                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 20.03                 | 20.21                        | 20.09                    | 19.97                         | 20.09                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 19.96                 | 20.17                        | 20.08                    | 20.03                         | 20.22                  | 21                  | 0        |
| 20              | 16QAM      | 50      | 0         | 19.79                 | 19.93                        | 19.85                    | 19.80                         | 19.89                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 19.92                 | 19.96                        | 19.96                    | 19.88                         | 19.97                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 19.84                 | 19.99                        | 19.95                    | 19.91                         | 19.97                  | 21                  | 0        |
| 20              | 16QAM      | 100     | 0         | 19.85                 | 19.93                        | 19.89                    | 19.82                         | 19.92                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 19.76                 | 19.93                        | 19.74                    | 19.67                         | 20.47                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 19.94                 | 20.09                        | 19.96                    | 19.85                         | 20.11                  | 21                  | 0        |
| 20              | 64QAM      | 1       | 99        | 19.87                 | 20.05                        | 19.95                    | 19.89                         | 20.12                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 19.80                 | 19.91                        | 19.78                    | 19.71                         | 19.89                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.87                 | 19.96                        | 19.89                    | 19.82                         | 20.01                  | 21                  | 0        |
| 20              | 64QAM      | 50      | 50        | 19.83                 | 20.00                        | 19.89                    | 19.84                         | 19.97                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.85                 | 19.92                        | 19.84                    | 19.80                         | 19.94                  |                     |          |
| Channel         |            |         |           | 39725                 | 40173                        | 40620                    | 41068                         | 41515                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |            |         |           | 2503.5                | 2548.3                       | 2593                     | 2637.8                        | 2682.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 19.40                 | 19.54                        | 19.45                    | 19.40                         | 19.98                  | 21                  | 0        |
| 15              | QPSK       | 1       | 37        | 19.45                 | 19.63                        | 19.63                    | 19.53                         | 19.68                  |                     |          |
| 15              | QPSK       | 1       | 74        | 19.49                 | 19.62                        | 19.64                    | 19.58                         | 19.71                  |                     |          |
| 15              | QPSK       | 36      | 0         | 19.55                 | 19.59                        | 19.58                    | 19.50                         | 19.92                  | 21                  | 0        |
| 15              | QPSK       | 36      | 20        | 19.51                 | 19.72                        | 19.68                    | 19.60                         | 19.73                  |                     |          |
| 15              | QPSK       | 36      | 39        | 19.49                 | 19.61                        | 19.67                    | 19.58                         | 19.77                  |                     |          |
| 15              | QPSK       | 75      | 0         | 19.41                 | 19.52                        | 19.58                    | 19.50                         | 19.68                  | 21                  | 0        |
| 15              | 16QAM      | 1       | 0         | 19.65                 | 19.83                        | 19.70                    | 19.63                         | 19.95                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 19.67                 | 19.90                        | 19.86                    | 19.75                         | 19.92                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 19.71                 | 19.86                        | 19.86                    | 19.83                         | 19.96                  | 21                  | 0        |
| 15              | 16QAM      | 36      | 0         | 19.53                 | 19.58                        | 19.58                    | 19.55                         | 19.82                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 19.56                 | 19.75                        | 19.69                    | 19.67                         | 19.76                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 19.57                 | 19.67                        | 19.71                    | 19.62                         | 19.83                  | 21                  | 0        |
| 15              | 16QAM      | 75      | 0         | 19.56                 | 19.65                        | 19.72                    | 19.66                         | 19.75                  |                     |          |
| 15              | 64QAM      | 1       | 0         | 19.54                 | 19.70                        | 19.59                    | 19.53                         | 19.73                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 19.59                 | 19.76                        | 19.72                    | 19.67                         | 19.79                  | 21                  | 0        |
| 15              | 64QAM      | 1       | 74        | 19.66                 | 19.79                        | 19.77                    | 19.70                         | 19.83                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 19.56                 | 19.61                        | 19.59                    | 19.51                         | 19.81                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 19.57                 | 19.77                        | 19.70                    | 19.61                         | 19.79                  | 21                  | 0        |
| 15              | 64QAM      | 36      | 39        | 19.61                 | 19.69                        | 19.67                    | 19.65                         | 19.89                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 19.54                 | 19.62                        | 19.68                    | 19.61                         | 19.78                  |                     |          |



| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080   | 41540  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639    | 2685   |                           |             |
| 10              | QPSK  | 1  | 0  | 19.38  | 19.49  | 19.43 | 19.38   | 20.02  | 21                        | 0           |
| 10              | QPSK  | 1  | 25 | 19.48  | 19.56  | 19.57 | 19.49   | 19.57  |                           |             |
| 10              | QPSK  | 1  | 49 | 19.40  | 19.63  | 19.56 | 19.53   | 20.19  |                           |             |
| 10              | QPSK  | 25 | 0  | 19.51  | 19.62  | 19.61 | 19.55   | 19.77  | 21                        | 0           |
| 10              | QPSK  | 25 | 12 | 19.62  | 19.68  | 19.67 | 19.60   | 19.72  |                           |             |
| 10              | QPSK  | 25 | 25 | 19.47  | 19.69  | 19.68 | 19.59   | 19.85  |                           |             |
| 10              | QPSK  | 50 | 0  | 19.42  | 19.63  | 19.64 | 19.57   | 19.81  | 21                        | 0           |
| 10              | 16QAM | 1  | 0  | 19.72  | 19.21  | 19.78 | 19.70   | 20.19  |                           |             |
| 10              | 16QAM | 1  | 25 | 19.74  | 19.63  | 19.85 | 19.85   | 19.86  |                           |             |
| 10              | 16QAM | 1  | 49 | 19.71  | 19.80  | 19.86 | 19.88   | 20.12  | 21                        | 0           |
| 10              | 16QAM | 25 | 0  | 19.60  | 19.69  | 19.69 | 19.67   | 19.83  |                           |             |
| 10              | 16QAM | 25 | 12 | 19.67  | 19.75  | 19.75 | 19.74   | 19.77  |                           |             |
| 10              | 16QAM | 25 | 25 | 19.60  | 19.78  | 19.74 | 19.72   | 19.91  | 21                        | 0           |
| 10              | 16QAM | 50 | 0  | 19.53  | 19.72  | 19.74 | 19.69   | 19.91  |                           |             |
| 10              | 64QAM | 1  | 0  | 19.58  | 19.76  | 19.67 | 19.58   | 20.25  |                           |             |
| 10              | 64QAM | 1  | 25 | 19.67  | 19.76  | 19.74 | 19.69   | 19.74  | 21                        | 0           |
| 10              | 64QAM | 1  | 49 | 19.62  | 19.78  | 19.76 | 19.66   | 20.14  |                           |             |
| 10              | 64QAM | 25 | 0  | 19.63  | 19.71  | 19.73 | 19.65   | 19.90  |                           |             |
| 10              | 64QAM | 25 | 12 | 19.69  | 19.79  | 19.75 | 19.71   | 19.84  | 21                        | 0           |
| 10              | 64QAM | 25 | 25 | 19.61  | 19.80  | 19.78 | 19.68   | 19.97  |                           |             |
| 10              | 64QAM | 50 | 0  | 19.54  | 19.71  | 19.67 | 19.61   | 19.91  |                           |             |
| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 19.42  | 19.48  | 19.45 | 19.29   | 19.89  | 21                        | 0           |
| 5               | QPSK  | 1  | 12 | 19.45  | 19.52  | 19.49 | 19.33   | 19.66  |                           |             |
| 5               | QPSK  | 1  | 24 | 19.46  | 19.54  | 19.50 | 19.33   | 19.65  |                           |             |
| 5               | QPSK  | 12 | 0  | 19.53  | 19.62  | 19.57 | 19.43   | 19.71  | 21                        | 0           |
| 5               | QPSK  | 12 | 7  | 19.60  | 19.66  | 19.63 | 19.46   | 19.78  |                           |             |
| 5               | QPSK  | 12 | 13 | 19.58  | 19.63  | 19.63 | 19.45   | 19.79  |                           |             |
| 5               | QPSK  | 25 | 0  | 19.54  | 19.58  | 19.57 | 19.41   | 19.70  | 21                        | 0           |
| 5               | 16QAM | 1  | 0  | 19.61  | 19.78  | 19.74 | 19.55   | 19.88  |                           |             |
| 5               | 16QAM | 1  | 12 | 19.76  | 19.86  | 19.80 | 19.59   | 19.96  |                           |             |
| 5               | 16QAM | 1  | 24 | 19.70  | 19.85  | 19.79 | 19.61   | 19.97  | 21                        | 0           |
| 5               | 16QAM | 12 | 0  | 19.58  | 19.66  | 19.70 | 19.48   | 19.79  |                           |             |
| 5               | 16QAM | 12 | 7  | 19.62  | 19.76  | 19.72 | 19.52   | 19.81  |                           |             |
| 5               | 16QAM | 12 | 13 | 19.63  | 19.76  | 19.73 | 19.50   | 19.85  | 21                        | 0           |
| 5               | 16QAM | 25 | 0  | 19.60  | 19.73  | 19.68 | 19.53   | 19.82  |                           |             |
| 5               | 64QAM | 1  | 0  | 19.58  | 19.66  | 19.61 | 19.49   | 19.79  |                           |             |
| 5               | 64QAM | 1  | 12 | 19.63  | 19.72  | 19.69 | 19.52   | 19.86  | 21                        | 0           |
| 5               | 64QAM | 1  | 24 | 19.65  | 19.74  | 19.67 | 19.56   | 19.86  |                           |             |
| 5               | 64QAM | 12 | 0  | 19.57  | 19.67  | 19.64 | 19.51   | 19.81  |                           |             |
| 5               | 64QAM | 12 | 7  | 19.63  | 19.73  | 19.69 | 19.54   | 19.89  | 21                        | 0           |
| 5               | 64QAM | 12 | 13 | 19.64  | 19.71  | 19.67 | 19.52   | 19.87  |                           |             |
| 5               | 64QAM | 25 | 0  | 19.61  | 19.70  | 19.70 | 19.51   | 19.86  |                           |             |

**<LTE Band 41(Power Class 3)>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 19.26                 | 19.35                        | 19.26                    | 19.24                         | 19.92                  | 20                  | 0        |
| 20              | QPSK       | 1       | 49        | 19.14                 | 19.32                        | 19.25                    | 19.19                         | 19.23                  |                     |          |
| 20              | QPSK       | 1       | 99        | 19.10                 | 19.28                        | 19.25                    | 19.22                         | 19.34                  |                     |          |
| 20              | QPSK       | 50      | 0         | 19.27                 | 19.37                        | 19.37                    | 19.29                         | 19.42                  | 20                  | 0        |
| 20              | QPSK       | 50      | 24        | 19.13                 | 19.34                        | 19.36                    | 19.28                         | 19.31                  |                     |          |
| 20              | QPSK       | 50      | 50        | 19.17                 | 19.31                        | 19.25                    | 19.27                         | 19.35                  |                     |          |
| 20              | QPSK       | 100     | 0         | 19.15                 | 19.27                        | 19.28                    | 19.19                         | 19.45                  | 20                  | 0        |
| 20              | 16QAM      | 1       | 0         | 19.35                 | 19.50                        | 19.33                    | 19.26                         | 19.91                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 19.47                 | 19.65                        | 19.58                    | 19.46                         | 19.51                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 19.40                 | 19.61                        | 19.57                    | 19.52                         | 19.64                  | 20                  | 0        |
| 20              | 16QAM      | 50      | 0         | 19.23                 | 19.37                        | 19.34                    | 19.29                         | 19.31                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 19.36                 | 19.40                        | 19.45                    | 19.37                         | 19.39                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 19.28                 | 19.43                        | 19.44                    | 19.40                         | 19.39                  | 20                  | 0        |
| 20              | 16QAM      | 100     | 0         | 19.29                 | 19.37                        | 19.38                    | 19.31                         | 19.34                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 19.20                 | 19.37                        | 19.23                    | 19.16                         | 19.89                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 19.38                 | 19.53                        | 19.45                    | 19.34                         | 19.53                  | 20                  | 0        |
| 20              | 64QAM      | 1       | 99        | 19.31                 | 19.49                        | 19.44                    | 19.38                         | 19.54                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 19.24                 | 19.35                        | 19.27                    | 19.20                         | 19.31                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.31                 | 19.40                        | 19.38                    | 19.31                         | 19.43                  | 20                  | 0        |
| 20              | 64QAM      | 50      | 50        | 19.27                 | 19.44                        | 19.38                    | 19.33                         | 19.39                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.29                 | 19.36                        | 19.33                    | 19.29                         | 19.36                  |                     |          |
| Channel         |            |         |           | 39725                 | 40173                        | 40620                    | 41068                         | 41515                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |            |         |           | 2503.5                | 2548.3                       | 2593                     | 2637.8                        | 2682.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 18.92                 | 19.06                        | 18.93                    | 18.88                         | 19.40                  | 20                  | 0        |
| 15              | QPSK       | 1       | 37        | 18.97                 | 19.15                        | 19.11                    | 19.01                         | 19.10                  |                     |          |
| 15              | QPSK       | 1       | 74        | 19.01                 | 19.14                        | 19.12                    | 19.06                         | 19.13                  |                     |          |
| 15              | QPSK       | 36      | 0         | 19.07                 | 19.11                        | 19.06                    | 18.98                         | 19.34                  | 20                  | 0        |
| 15              | QPSK       | 36      | 20        | 19.03                 | 19.24                        | 19.16                    | 19.08                         | 19.15                  |                     |          |
| 15              | QPSK       | 36      | 39        | 19.01                 | 19.13                        | 19.15                    | 19.06                         | 19.19                  |                     |          |
| 15              | QPSK       | 75      | 0         | 18.93                 | 19.04                        | 19.06                    | 18.98                         | 19.10                  | 20                  | 0        |
| 15              | 16QAM      | 1       | 0         | 19.17                 | 19.35                        | 19.18                    | 19.11                         | 19.37                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 19.19                 | 19.42                        | 19.34                    | 19.23                         | 19.34                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 19.23                 | 19.38                        | 19.34                    | 19.31                         | 19.38                  | 20                  | 0        |
| 15              | 16QAM      | 36      | 0         | 19.05                 | 19.10                        | 19.06                    | 19.03                         | 19.24                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 19.08                 | 19.27                        | 19.17                    | 19.15                         | 19.18                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 19.09                 | 19.19                        | 19.19                    | 19.10                         | 19.25                  | 20                  | 0        |
| 15              | 16QAM      | 75      | 0         | 19.08                 | 19.17                        | 19.20                    | 19.14                         | 19.17                  |                     |          |
| 15              | 64QAM      | 1       | 0         | 19.06                 | 19.22                        | 19.07                    | 19.01                         | 19.15                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 19.11                 | 19.28                        | 19.20                    | 19.15                         | 19.21                  | 20                  | 0        |
| 15              | 64QAM      | 1       | 74        | 19.18                 | 19.31                        | 19.25                    | 19.18                         | 19.25                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 19.08                 | 19.13                        | 19.07                    | 18.99                         | 19.23                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 19.09                 | 19.29                        | 19.18                    | 19.09                         | 19.21                  | 20                  | 0        |
| 15              | 64QAM      | 36      | 39        | 19.13                 | 19.21                        | 19.15                    | 19.13                         | 19.31                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 19.06                 | 19.14                        | 19.16                    | 19.09                         | 19.20                  |                     |          |



| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080   | 41540  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639    | 2685   |                           |             |
| 10              | QPSK  | 1  | 0  | 18.87  | 18.98  | 18.89 | 18.84   | 19.54  | 20                        | 0           |
| 10              | QPSK  | 1  | 25 | 18.97  | 19.05  | 19.03 | 18.95   | 19.09  |                           |             |
| 10              | QPSK  | 1  | 49 | 18.89  | 19.12  | 19.02 | 18.99   | 19.71  |                           |             |
| 10              | QPSK  | 25 | 0  | 19.00  | 19.11  | 19.07 | 19.01   | 19.29  | 20                        | 0           |
| 10              | QPSK  | 25 | 12 | 19.11  | 19.17  | 19.13 | 19.06   | 19.24  |                           |             |
| 10              | QPSK  | 25 | 25 | 18.96  | 19.18  | 19.14 | 19.05   | 19.37  |                           |             |
| 10              | QPSK  | 50 | 0  | 18.91  | 19.12  | 19.10 | 19.03   | 19.33  | 20                        | 0           |
| 10              | 16QAM | 1  | 0  | 19.21  | 18.70  | 19.24 | 19.16   | 19.71  |                           |             |
| 10              | 16QAM | 1  | 25 | 19.23  | 19.12  | 19.31 | 19.31   | 19.38  |                           |             |
| 10              | 16QAM | 1  | 49 | 19.20  | 19.29  | 19.32 | 19.34   | 19.64  | 20                        | 0           |
| 10              | 16QAM | 25 | 0  | 19.09  | 19.18  | 19.15 | 19.13   | 19.35  |                           |             |
| 10              | 16QAM | 25 | 12 | 19.16  | 19.24  | 19.21 | 19.20   | 19.29  |                           |             |
| 10              | 16QAM | 25 | 25 | 19.09  | 19.27  | 19.20 | 19.18   | 19.43  | 20                        | 0           |
| 10              | 16QAM | 50 | 0  | 19.02  | 19.21  | 19.20 | 19.15   | 19.43  |                           |             |
| 10              | 64QAM | 1  | 0  | 19.07  | 19.25  | 19.13 | 19.04   | 19.77  |                           |             |
| 10              | 64QAM | 1  | 25 | 19.16  | 19.25  | 19.20 | 19.15   | 19.26  | 20                        | 0           |
| 10              | 64QAM | 1  | 49 | 19.11  | 19.27  | 19.22 | 19.12   | 19.66  |                           |             |
| 10              | 64QAM | 25 | 0  | 19.12  | 19.20  | 19.19 | 19.11   | 19.42  |                           |             |
| 10              | 64QAM | 25 | 12 | 19.18  | 19.28  | 19.21 | 19.17   | 19.36  | 20                        | 0           |
| 10              | 64QAM | 25 | 25 | 19.10  | 19.29  | 19.24 | 19.14   | 19.49  |                           |             |
| 10              | 64QAM | 50 | 0  | 19.03  | 19.20  | 19.13 | 19.07   | 19.43  |                           |             |
| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 18.93  | 18.99  | 18.96 | 18.80   | 19.34  | 20                        | 0           |
| 5               | QPSK  | 1  | 12 | 18.96  | 19.03  | 19.00 | 18.84   | 19.11  |                           |             |
| 5               | QPSK  | 1  | 24 | 18.97  | 19.05  | 19.01 | 18.84   | 19.10  |                           |             |
| 5               | QPSK  | 12 | 0  | 19.04  | 19.13  | 19.08 | 18.94   | 19.16  | 20                        | 0           |
| 5               | QPSK  | 12 | 7  | 19.11  | 19.17  | 19.14 | 18.97   | 19.23  |                           |             |
| 5               | QPSK  | 12 | 13 | 19.09  | 19.14  | 19.14 | 18.96   | 19.24  |                           |             |
| 5               | QPSK  | 25 | 0  | 19.05  | 19.09  | 19.08 | 18.92   | 19.15  | 20                        | 0           |
| 5               | 16QAM | 1  | 0  | 19.12  | 19.29  | 19.25 | 19.06   | 19.33  |                           |             |
| 5               | 16QAM | 1  | 12 | 19.27  | 19.37  | 19.31 | 19.10   | 19.41  |                           |             |
| 5               | 16QAM | 1  | 24 | 19.21  | 19.36  | 19.30 | 19.12   | 19.42  | 20                        | 0           |
| 5               | 16QAM | 12 | 0  | 19.09  | 19.17  | 19.21 | 18.99   | 19.24  |                           |             |
| 5               | 16QAM | 12 | 7  | 19.13  | 19.27  | 19.23 | 19.03   | 19.26  |                           |             |
| 5               | 16QAM | 12 | 13 | 19.14  | 19.27  | 19.24 | 19.01   | 19.30  | 20                        | 0           |
| 5               | 16QAM | 25 | 0  | 19.11  | 19.24  | 19.19 | 19.04   | 19.27  |                           |             |
| 5               | 64QAM | 1  | 0  | 19.09  | 19.17  | 19.12 | 19.00   | 19.24  |                           |             |
| 5               | 64QAM | 1  | 12 | 19.14  | 19.23  | 19.20 | 19.03   | 19.31  | 20                        | 0           |
| 5               | 64QAM | 1  | 24 | 19.16  | 19.25  | 19.18 | 19.07   | 19.31  |                           |             |
| 5               | 64QAM | 12 | 0  | 19.08  | 19.18  | 19.15 | 19.02   | 19.26  |                           |             |
| 5               | 64QAM | 12 | 7  | 19.14  | 19.24  | 19.20 | 19.05   | 19.34  | 20                        | 0           |
| 5               | 64QAM | 12 | 13 | 19.15  | 19.22  | 19.18 | 19.03   | 19.32  |                           |             |
| 5               | 64QAM | 25 | 0  | 19.12  | 19.21  | 19.21 | 19.02   | 19.31  |                           |             |

**<Product Specific Power Mode>**
**<LTE Band 38>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|------------------------|-------------|
| Channel         |            |         |           | 37850                    | 38000                       | 38150                     |                        |             |
| Frequency (MHz) |            |         |           | 2580                     | 2595                        | 2610                      |                        |             |
| 20              | QPSK       | 1       | 0         | 22.02                    | 21.93                       | 22.05                     | 23.5                   | 0           |
| 20              | QPSK       | 1       | 49        | 21.87                    | 21.89                       | 22.02                     |                        |             |
| 20              | QPSK       | 1       | 99        | 21.78                    | 21.84                       | 22.01                     |                        |             |
| 20              | QPSK       | 50      | 0         | 20.97                    | 20.90                       | 21.07                     | 22.5                   | 1           |
| 20              | QPSK       | 50      | 24        | 20.91                    | 20.90                       | 21.08                     |                        |             |
| 20              | QPSK       | 50      | 50        | 20.79                    | 20.87                       | 21.09                     |                        |             |
| 20              | QPSK       | 100     | 0         | 20.89                    | 20.89                       | 21.05                     | 22.5                   | 1           |
| 20              | 16QAM      | 1       | 0         | 21.18                    | 21.09                       | 21.21                     |                        |             |
| 20              | 16QAM      | 1       | 49        | 21.03                    | 21.04                       | 21.28                     |                        |             |
| 20              | 16QAM      | 1       | 99        | 20.94                    | 20.97                       | 21.14                     | 21.5                   | 2           |
| 20              | 16QAM      | 50      | 0         | 20.08                    | 20.01                       | 20.19                     |                        |             |
| 20              | 16QAM      | 50      | 24        | 20.03                    | 20.03                       | 20.17                     |                        |             |
| 20              | 16QAM      | 50      | 50        | 19.92                    | 20.01                       | 20.23                     | 21.5                   | 2           |
| 20              | 16QAM      | 100     | 0         | 20.00                    | 20.01                       | 20.16                     |                        |             |
| 20              | 64QAM      | 1       | 0         | 19.79                    | 19.70                       | 19.81                     |                        |             |
| 20              | 64QAM      | 1       | 49        | 19.65                    | 19.65                       | 19.89                     | 21.5                   | 2           |
| 20              | 64QAM      | 1       | 99        | 19.53                    | 19.59                       | 19.77                     |                        |             |
| 20              | 64QAM      | 50      | 0         | 19.08                    | 19.00                       | 19.19                     |                        |             |
| 20              | 64QAM      | 50      | 24        | 19.01                    | 19.01                       | 19.19                     | 20.5                   | 3           |
| 20              | 64QAM      | 50      | 50        | 18.91                    | 18.99                       | 19.20                     |                        |             |
| 20              | 64QAM      | 100     | 0         | 18.98                    | 19.00                       | 19.15                     |                        |             |
| Channel         |            |         |           | 37825                    | 38000                       | 38175                     | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |            |         |           | 2577.5                   | 2595                        | 2612.5                    |                        |             |
| 15              | QPSK       | 1       | 0         | 22.00                    | 21.97                       | 21.99                     | 23.5                   | 0           |
| 15              | QPSK       | 1       | 37        | 21.97                    | 21.90                       | 21.96                     |                        |             |
| 15              | QPSK       | 1       | 74        | 21.87                    | 21.88                       | 21.97                     |                        |             |
| 15              | QPSK       | 36      | 0         | 20.90                    | 20.86                       | 21.06                     | 22.5                   | 1           |
| 15              | QPSK       | 36      | 20        | 20.84                    | 20.92                       | 21.16                     |                        |             |
| 15              | QPSK       | 36      | 39        | 20.86                    | 20.86                       | 21.10                     |                        |             |
| 15              | QPSK       | 75      | 0         | 20.83                    | 20.89                       | 21.04                     | 22.5                   | 1           |
| 15              | 16QAM      | 1       | 0         | 21.15                    | 21.10                       | 21.23                     |                        |             |
| 15              | 16QAM      | 1       | 37        | 21.10                    | 21.03                       | 21.29                     |                        |             |
| 15              | 16QAM      | 1       | 74        | 20.98                    | 20.98                       | 21.21                     | 21.5                   | 2           |
| 15              | 16QAM      | 36      | 0         | 19.96                    | 19.94                       | 20.12                     |                        |             |
| 15              | 16QAM      | 36      | 20        | 19.94                    | 19.99                       | 20.25                     |                        |             |
| 15              | 16QAM      | 36      | 39        | 19.92                    | 19.94                       | 20.17                     | 21.5                   | 2           |
| 15              | 16QAM      | 75      | 0         | 19.95                    | 19.98                       | 20.16                     |                        |             |
| 15              | 64QAM      | 1       | 0         | 19.76                    | 19.73                       | 19.82                     |                        |             |
| 15              | 64QAM      | 1       | 37        | 19.72                    | 19.64                       | 19.92                     | 20.5                   | 3           |
| 15              | 64QAM      | 1       | 74        | 19.61                    | 19.61                       | 19.81                     |                        |             |
| 15              | 64QAM      | 36      | 0         | 19.02                    | 18.99                       | 19.17                     |                        |             |
| 15              | 64QAM      | 36      | 20        | 18.97                    | 19.02                       | 19.28                     | 20.5                   | 3           |
| 15              | 64QAM      | 36      | 39        | 18.95                    | 18.98                       | 19.20                     |                        |             |
| 15              | 64QAM      | 75      | 0         | 18.93                    | 19.00                       | 19.19                     |                        |             |

| Channel         |       |    |    | 37800  | 38000 | 38200  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|------------------------|-------------|
| Frequency (MHz) |       |    |    | 2575   | 2595  | 2615   |                        |             |
| 10              | QPSK  | 1  | 0  | 21.94  | 21.82 | 22.02  | 23.5                   | 0           |
| 10              | QPSK  | 1  | 25 | 21.87  | 21.83 | 22.01  |                        |             |
| 10              | QPSK  | 1  | 49 | 21.78  | 21.83 | 21.96  |                        |             |
| 10              | QPSK  | 25 | 0  | 20.83  | 20.84 | 21.11  | 22.5                   | 1           |
| 10              | QPSK  | 25 | 12 | 20.90  | 20.87 | 21.15  |                        |             |
| 10              | QPSK  | 25 | 25 | 20.77  | 20.84 | 21.09  |                        |             |
| 10              | QPSK  | 50 | 0  | 20.87  | 20.86 | 21.16  | 22.5                   | 1           |
| 10              | 16QAM | 1  | 0  | 21.09  | 20.98 | 21.28  |                        |             |
| 10              | 16QAM | 1  | 25 | 21.03  | 21.00 | 21.24  |                        |             |
| 10              | 16QAM | 1  | 49 | 20.89  | 20.97 | 21.17  | 21.5                   | 2           |
| 10              | 16QAM | 25 | 0  | 19.96  | 19.95 | 20.25  |                        |             |
| 10              | 16QAM | 25 | 12 | 20.00  | 19.98 | 20.22  |                        |             |
| 10              | 16QAM | 25 | 25 | 19.86  | 19.95 | 20.20  | 21.5                   | 2           |
| 10              | 16QAM | 50 | 0  | 19.98  | 20.00 | 20.27  |                        |             |
| 10              | 64QAM | 1  | 0  | 19.71  | 19.61 | 19.91  |                        |             |
| 10              | 64QAM | 1  | 25 | 19.65  | 19.61 | 19.88  | 21.5                   | 2           |
| 10              | 64QAM | 1  | 49 | 19.52  | 19.59 | 19.80  |                        |             |
| 10              | 64QAM | 25 | 0  | 19.01  | 19.02 | 19.30  |                        |             |
| 10              | 64QAM | 25 | 12 | 19.04  | 19.05 | 19.30  | 20.5                   | 3           |
| 10              | 64QAM | 25 | 25 | 18.94  | 19.03 | 19.25  |                        |             |
| 10              | 64QAM | 50 | 0  | 18.99  | 18.98 | 19.26  |                        |             |
| Channel         |       |    |    | 37775  | 38000 | 38225  | Tune-up limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2572.5 | 2595  | 2617.5 |                        |             |
| 5               | QPSK  | 1  | 0  | 21.98  | 21.96 | 21.98  | 23.5                   | 0           |
| 5               | QPSK  | 1  | 12 | 21.97  | 21.96 | 22.01  |                        |             |
| 5               | QPSK  | 1  | 24 | 22.02  | 21.96 | 21.98  |                        |             |
| 5               | QPSK  | 12 | 0  | 21.09  | 21.05 | 21.10  | 22.5                   | 1           |
| 5               | QPSK  | 12 | 7  | 21.03  | 21.12 | 21.12  |                        |             |
| 5               | QPSK  | 12 | 13 | 21.03  | 21.07 | 21.02  |                        |             |
| 5               | QPSK  | 25 | 0  | 21.03  | 21.09 | 21.07  | 22.5                   | 1           |
| 5               | 16QAM | 1  | 0  | 21.31  | 21.23 | 21.37  |                        |             |
| 5               | 16QAM | 1  | 12 | 21.22  | 21.27 | 21.22  |                        |             |
| 5               | 16QAM | 1  | 24 | 21.17  | 21.18 | 21.25  | 21.5                   | 2           |
| 5               | 16QAM | 12 | 0  | 20.19  | 20.13 | 20.16  |                        |             |
| 5               | 16QAM | 12 | 7  | 20.13  | 20.16 | 20.18  |                        |             |
| 5               | 16QAM | 12 | 13 | 20.13  | 20.17 | 20.04  | 21.5                   | 2           |
| 5               | 16QAM | 25 | 0  | 20.09  | 20.17 | 20.18  |                        |             |
| 5               | 64QAM | 1  | 0  | 20.28  | 20.22 | 20.29  |                        |             |
| 5               | 64QAM | 1  | 12 | 20.13  | 20.21 | 20.17  | 21.5                   | 2           |
| 5               | 64QAM | 1  | 24 | 20.24  | 20.18 | 20.19  |                        |             |
| 5               | 64QAM | 12 | 0  | 19.19  | 19.18 | 19.21  |                        |             |
| 5               | 64QAM | 12 | 7  | 19.16  | 19.22 | 19.22  | 20.5                   | 3           |
| 5               | 64QAM | 12 | 13 | 19.14  | 19.19 | 19.12  |                        |             |
| 5               | 64QAM | 25 | 0  | 19.08  | 19.17 | 19.18  |                        |             |



**<LTE Band 41(Power Class 3)>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 23.75                 | 23.70                        | 23.56                    | 23.52                         | 24.60                  | 25.5                | 0        |
| 20              | QPSK       | 1       | 49        | 23.90                 | 23.88                        | 23.81                    | 23.76                         | 23.81                  |                     |          |
| 20              | QPSK       | 1       | 99        | 23.79                 | 23.83                        | 23.84                    | 23.77                         | 23.90                  |                     |          |
| 20              | QPSK       | 50      | 0         | 23.93                 | 23.87                        | 23.82                    | 23.76                         | 23.83                  | 25.5                | 0        |
| 20              | QPSK       | 50      | 24        | 23.95                 | 23.85                        | 23.91                    | 23.85                         | 23.92                  |                     |          |
| 20              | QPSK       | 50      | 50        | 23.94                 | 23.90                        | 23.95                    | 23.86                         | 23.93                  |                     |          |
| 20              | QPSK       | 100     | 0         | 23.89                 | 23.80                        | 23.90                    | 23.83                         | 23.87                  | 25.5                | 0        |
| 20              | 16QAM      | 1       | 0         | 24.07                 | 24.02                        | 23.92                    | 23.94                         | 24.59                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 24.27                 | 24.24                        | 24.19                    | 24.14                         | 24.16                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 24.10                 | 24.20                        | 24.21                    | 24.14                         | 24.24                  | 25.5                | 0        |
| 20              | 16QAM      | 50      | 0         | 23.72                 | 23.66                        | 23.66                    | 23.56                         | 23.52                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 23.73                 | 23.71                        | 23.74                    | 23.68                         | 23.64                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 23.73                 | 23.73                        | 23.75                    | 23.68                         | 23.62                  | 25.5                | 0        |
| 20              | 16QAM      | 100     | 0         | 23.65                 | 23.63                        | 23.68                    | 23.59                         | 23.57                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 23.98                 | 23.91                        | 23.78                    | 23.78                         | 24.25                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 24.15                 | 24.12                        | 24.06                    | 24.00                         | 24.04                  | 25.5                | 0        |
| 20              | 64QAM      | 1       | 99        | 23.98                 | 24.09                        | 24.08                    | 23.99                         | 24.12                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 22.69                 | 22.67                        | 22.64                    | 22.56                         | 22.56                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 22.70                 | 22.70                        | 22.75                    | 22.65                         | 22.64                  | 24.5                | 1        |
| 20              | 64QAM      | 50      | 50        | 22.74                 | 22.72                        | 22.77                    | 22.69                         | 22.66                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 22.67                 | 22.65                        | 22.71                    | 22.61                         | 22.61                  |                     |          |
| Channel         |            |         |           | 39725                 | 40173                        | 40620                    | 41068                         | 41515                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |            |         |           | 2503.5                | 2548.3                       | 2593                     | 2637.8                        | 2682.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 23.69                 | 23.69                        | 23.71                    | 23.62                         | 23.55                  | 25.5                | 0        |
| 15              | QPSK       | 1       | 37        | 23.75                 | 23.79                        | 23.87                    | 23.77                         | 23.81                  |                     |          |
| 15              | QPSK       | 1       | 74        | 23.75                 | 23.76                        | 23.94                    | 23.79                         | 23.81                  |                     |          |
| 15              | QPSK       | 36      | 0         | 22.21                 | 22.21                        | 22.29                    | 22.22                         | 22.23                  | 25.5                | 0        |
| 15              | QPSK       | 36      | 20        | 22.33                 | 22.34                        | 22.40                    | 22.34                         | 22.35                  |                     |          |
| 15              | QPSK       | 36      | 39        | 22.23                 | 22.26                        | 22.41                    | 22.32                         | 22.36                  |                     |          |
| 15              | QPSK       | 75      | 0         | 22.27                 | 22.29                        | 22.36                    | 22.27                         | 22.34                  | 25.5                | 0        |
| 15              | 16QAM      | 1       | 0         | 22.78                 | 22.83                        | 22.83                    | 22.76                         | 22.66                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 22.87                 | 22.92                        | 23.00                    | 22.89                         | 22.91                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 22.85                 | 22.90                        | 23.07                    | 22.93                         | 22.94                  | 25.5                | 0        |
| 15              | 16QAM      | 36      | 0         | 21.27                 | 21.26                        | 21.39                    | 21.29                         | 21.30                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 21.41                 | 21.36                        | 21.48                    | 21.37                         | 21.41                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 21.29                 | 21.30                        | 21.47                    | 21.34                         | 21.44                  | 25.5                | 0        |
| 15              | 16QAM      | 75      | 0         | 21.39                 | 21.36                        | 21.44                    | 21.37                         | 21.42                  |                     |          |
| 15              | 64QAM      | 1       | 0         | 21.53                 | 21.56                        | 21.56                    | 21.49                         | 21.41                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 21.64                 | 21.66                        | 21.75                    | 21.67                         | 21.68                  | 25.5                | 0        |
| 15              | 64QAM      | 1       | 74        | 21.58                 | 21.66                        | 21.78                    | 21.71                         | 21.68                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 20.30                 | 20.28                        | 20.42                    | 20.28                         | 20.32                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 20.41                 | 20.37                        | 20.50                    | 20.42                         | 20.43                  | 24.5                | 1        |
| 15              | 64QAM      | 36      | 39        | 20.35                 | 20.31                        | 20.49                    | 20.38                         | 20.48                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 20.37                 | 20.37                        | 20.46                    | 20.37                         | 20.39                  |                     |          |



| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080   | 41540  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639    | 2685   |                           |             |
| 10              | QPSK  | 1  | 0  | 23.75  | 23.75  | 23.78 | 23.70   | 24.39  | 25.5                      | 0           |
| 10              | QPSK  | 1  | 25 | 23.88  | 23.80  | 23.91 | 23.83   | 23.90  |                           |             |
| 10              | QPSK  | 1  | 49 | 23.81  | 23.87  | 23.95 | 23.87   | 24.49  |                           |             |
| 10              | QPSK  | 25 | 0  | 22.36  | 22.23  | 22.36 | 22.28   | 22.50  | 25.5                      | 0           |
| 10              | QPSK  | 25 | 12 | 22.33  | 22.36  | 22.45 | 22.36   | 22.45  |                           |             |
| 10              | QPSK  | 25 | 25 | 22.35  | 22.33  | 22.44 | 22.34   | 22.60  |                           |             |
| 10              | QPSK  | 50 | 0  | 22.33  | 22.32  | 22.44 | 22.35   | 22.58  | 25.5                      | 0           |
| 10              | 16QAM | 1  | 0  | 22.86  | 22.88  | 22.96 | 22.86   | 23.55  |                           |             |
| 10              | 16QAM | 1  | 25 | 22.98  | 22.93  | 23.06 | 22.95   | 23.04  |                           |             |
| 10              | 16QAM | 1  | 49 | 22.90  | 22.97  | 23.07 | 22.96   | 23.62  | 25.5                      | 0           |
| 10              | 16QAM | 25 | 0  | 21.45  | 21.35  | 21.49 | 21.39   | 21.66  |                           |             |
| 10              | 16QAM | 25 | 12 | 21.44  | 21.46  | 21.57 | 21.51   | 21.57  |                           |             |
| 10              | 16QAM | 25 | 25 | 21.44  | 21.43  | 21.55 | 21.45   | 21.72  | 25.5                      | 0           |
| 10              | 16QAM | 50 | 0  | 21.42  | 21.44  | 21.54 | 21.45   | 21.67  |                           |             |
| 10              | 64QAM | 1  | 0  | 21.63  | 21.66  | 21.69 | 21.61   | 22.28  |                           |             |
| 10              | 64QAM | 1  | 25 | 21.76  | 21.68  | 21.82 | 21.72   | 21.77  | 25.5                      | 0           |
| 10              | 64QAM | 1  | 49 | 21.66  | 21.70  | 21.80 | 21.71   | 22.38  |                           |             |
| 10              | 64QAM | 25 | 0  | 20.47  | 20.38  | 20.53 | 20.46   | 20.67  |                           |             |
| 10              | 64QAM | 25 | 12 | 20.51  | 20.45  | 20.62 | 20.53   | 20.62  | 24.5                      | 1           |
| 10              | 64QAM | 25 | 25 | 20.50  | 20.49  | 20.61 | 20.49   | 20.74  |                           |             |
| 10              | 64QAM | 50 | 0  | 20.44  | 20.39  | 20.53 | 20.48   | 20.70  |                           |             |
| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 23.68  | 23.71  | 23.75 | 23.68   | 23.78  | 25.5                      | 0           |
| 5               | QPSK  | 1  | 12 | 23.74  | 23.78  | 23.81 | 23.75   | 23.81  |                           |             |
| 5               | QPSK  | 1  | 24 | 23.73  | 23.67  | 23.79 | 23.73   | 23.80  |                           |             |
| 5               | QPSK  | 12 | 0  | 22.25  | 22.32  | 22.34 | 22.22   | 22.31  | 25.5                      | 0           |
| 5               | QPSK  | 12 | 7  | 22.32  | 22.23  | 22.35 | 22.31   | 22.37  |                           |             |
| 5               | QPSK  | 12 | 13 | 22.33  | 22.27  | 22.37 | 22.27   | 22.34  |                           |             |
| 5               | QPSK  | 25 | 0  | 22.28  | 22.21  | 22.34 | 22.29   | 22.32  | 25.5                      | 0           |
| 5               | 16QAM | 1  | 0  | 22.78  | 22.83  | 22.86 | 22.78   | 22.87  |                           |             |
| 5               | 16QAM | 1  | 12 | 22.85  | 22.91  | 22.94 | 22.87   | 22.91  |                           |             |
| 5               | 16QAM | 1  | 24 | 22.87  | 22.83  | 22.96 | 22.89   | 22.92  | 25.5                      | 0           |
| 5               | 16QAM | 12 | 0  | 21.30  | 21.35  | 21.38 | 21.30   | 21.34  |                           |             |
| 5               | 16QAM | 12 | 7  | 21.38  | 21.30  | 21.43 | 21.33   | 21.43  |                           |             |
| 5               | 16QAM | 12 | 13 | 21.37  | 21.31  | 21.45 | 21.36   | 21.42  | 25.5                      | 0           |
| 5               | 16QAM | 25 | 0  | 21.41  | 21.31  | 21.47 | 21.38   | 21.44  |                           |             |
| 5               | 64QAM | 1  | 0  | 21.56  | 21.60  | 21.66 | 21.58   | 21.63  |                           |             |
| 5               | 64QAM | 1  | 12 | 21.62  | 21.67  | 21.69 | 21.62   | 21.70  | 25.5                      | 0           |
| 5               | 64QAM | 1  | 24 | 21.64  | 21.58  | 21.74 | 21.64   | 21.71  |                           |             |
| 5               | 64QAM | 12 | 0  | 20.39  | 20.41  | 20.43 | 20.39   | 20.41  |                           |             |
| 5               | 64QAM | 12 | 7  | 20.44  | 20.34  | 20.51 | 20.39   | 20.47  | 24.5                      | 1           |
| 5               | 64QAM | 12 | 13 | 20.44  | 20.32  | 20.45 | 20.41   | 20.50  |                           |             |
| 5               | 64QAM | 25 | 0  | 20.43  | 20.32  | 20.46 | 20.40   | 20.50  |                           |             |



**<LTE Band 41(Power Class 3)>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 22.96                 | 22.95                        | 22.96                    | 22.89                         | 23.92                  | 24                  | 0        |
| 20              | QPSK       | 1       | 49        | 23.14                 | 23.14                        | 23.21                    | 23.10                         | 23.13                  |                     |          |
| 20              | QPSK       | 1       | 99        | 23.03                 | 23.15                        | 23.26                    | 23.14                         | 23.26                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.56                 | 21.55                        | 21.65                    | 21.55                         | 21.57                  | 23                  | 1        |
| 20              | QPSK       | 50      | 24        | 21.58                 | 21.57                        | 21.75                    | 21.64                         | 21.68                  |                     |          |
| 20              | QPSK       | 50      | 50        | 21.63                 | 21.63                        | 21.79                    | 21.66                         | 21.67                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.54                 | 21.53                        | 21.70                    | 21.61                         | 21.60                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 22.08                 | 22.09                        | 22.09                    | 22.04                         | 23.00                  | 23                  | 1        |
| 20              | 16QAM      | 1       | 49        | 22.24                 | 22.26                        | 22.32                    | 22.25                         | 22.24                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 22.12                 | 22.24                        | 22.36                    | 22.27                         | 22.38                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 20.67                 | 20.65                        | 20.75                    | 20.64                         | 20.64                  | 22                  | 2        |
| 20              | 16QAM      | 50      | 24        | 20.70                 | 20.69                        | 20.87                    | 20.76                         | 20.75                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.72                 | 20.74                        | 20.87                    | 20.78                         | 20.75                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 20.61                 | 20.64                        | 20.80                    | 20.70                         | 20.71                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 20.82                 | 20.82                        | 20.82                    | 20.78                         | 21.83                  | 22                  | 2        |
| 20              | 64QAM      | 1       | 49        | 21.00                 | 21.01                        | 21.08                    | 20.98                         | 21.00                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 20.88                 | 21.00                        | 21.12                    | 21.01                         | 21.10                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 19.67                 | 19.63                        | 19.73                    | 19.66                         | 19.63                  | 21                  | 3        |
| 20              | 64QAM      | 50      | 24        | 19.65                 | 19.66                        | 19.82                    | 19.75                         | 19.77                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 19.70                 | 19.74                        | 19.88                    | 19.76                         | 19.76                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.63                 | 19.65                        | 19.79                    | 19.73                         | 19.73                  |                     |          |
| Channel         |            |         |           | 39725                 | 40173                        | 40620                    | 41068                         | 41515                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |            |         |           | 2503.5                | 2548.3                       | 2593                     | 2637.8                        | 2682.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 23.03                 | 23.03                        | 23.05                    | 22.96                         | 22.89                  | 24                  | 0        |
| 15              | QPSK       | 1       | 37        | 23.09                 | 23.13                        | 23.21                    | 23.11                         | 23.15                  |                     |          |
| 15              | QPSK       | 1       | 74        | 23.09                 | 23.10                        | 23.28                    | 23.13                         | 23.15                  |                     |          |
| 15              | QPSK       | 36      | 0         | 21.55                 | 21.55                        | 21.63                    | 21.56                         | 21.57                  | 23                  | 1        |
| 15              | QPSK       | 36      | 20        | 21.67                 | 21.68                        | 21.74                    | 21.68                         | 21.69                  |                     |          |
| 15              | QPSK       | 36      | 39        | 21.57                 | 21.60                        | 21.75                    | 21.66                         | 21.70                  |                     |          |
| 15              | QPSK       | 75      | 0         | 21.61                 | 21.63                        | 21.70                    | 21.61                         | 21.68                  |                     |          |
| 15              | 16QAM      | 1       | 0         | 22.12                 | 22.17                        | 22.17                    | 22.10                         | 22.00                  | 23                  | 1        |
| 15              | 16QAM      | 1       | 37        | 22.21                 | 22.26                        | 22.34                    | 22.23                         | 22.25                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 22.19                 | 22.24                        | 22.41                    | 22.27                         | 22.28                  |                     |          |
| 15              | 16QAM      | 36      | 0         | 20.61                 | 20.60                        | 20.73                    | 20.63                         | 20.64                  | 22                  | 2        |
| 15              | 16QAM      | 36      | 20        | 20.75                 | 20.70                        | 20.82                    | 20.71                         | 20.75                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 20.63                 | 20.64                        | 20.81                    | 20.68                         | 20.78                  |                     |          |
| 15              | 16QAM      | 75      | 0         | 20.73                 | 20.70                        | 20.78                    | 20.71                         | 20.76                  |                     |          |
| 15              | 64QAM      | 1       | 0         | 20.87                 | 20.90                        | 20.90                    | 20.83                         | 20.75                  | 22                  | 2        |
| 15              | 64QAM      | 1       | 37        | 20.98                 | 21.00                        | 21.09                    | 21.01                         | 21.02                  |                     |          |
| 15              | 64QAM      | 1       | 74        | 20.92                 | 21.00                        | 21.12                    | 21.05                         | 21.02                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 19.64                 | 19.62                        | 19.76                    | 19.62                         | 19.66                  | 21                  | 3        |
| 15              | 64QAM      | 36      | 20        | 19.75                 | 19.71                        | 19.84                    | 19.76                         | 19.77                  |                     |          |
| 15              | 64QAM      | 36      | 39        | 19.69                 | 19.65                        | 19.83                    | 19.72                         | 19.82                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 19.71                 | 19.71                        | 19.80                    | 19.71                         | 19.73                  |                     |          |



| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080   | 41540  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639    | 2685   |                           |             |
| 10              | QPSK  | 1  | 0  | 23.04  | 23.04  | 23.07 | 22.99   | 23.68  | 24                        | 0           |
| 10              | QPSK  | 1  | 25 | 23.17  | 23.09  | 23.20 | 23.12   | 23.19  |                           |             |
| 10              | QPSK  | 1  | 49 | 23.10  | 23.16  | 23.24 | 23.16   | 23.78  |                           |             |
| 10              | QPSK  | 25 | 0  | 21.65  | 21.52  | 21.65 | 21.57   | 21.79  | 23                        | 1           |
| 10              | QPSK  | 25 | 12 | 21.62  | 21.65  | 21.74 | 21.65   | 21.74  |                           |             |
| 10              | QPSK  | 25 | 25 | 21.64  | 21.62  | 21.73 | 21.63   | 21.89  |                           |             |
| 10              | QPSK  | 50 | 0  | 21.62  | 21.61  | 21.73 | 21.64   | 21.87  |                           |             |
| 10              | 16QAM | 1  | 0  | 22.15  | 22.17  | 22.25 | 22.15   | 22.84  | 23                        | 1           |
| 10              | 16QAM | 1  | 25 | 22.27  | 22.22  | 22.35 | 22.24   | 22.33  |                           |             |
| 10              | 16QAM | 1  | 49 | 22.19  | 22.26  | 22.36 | 22.25   | 22.91  |                           |             |
| 10              | 16QAM | 25 | 0  | 20.74  | 20.64  | 20.78 | 20.68   | 20.95  | 22                        | 2           |
| 10              | 16QAM | 25 | 12 | 20.73  | 20.75  | 20.86 | 20.80   | 20.86  |                           |             |
| 10              | 16QAM | 25 | 25 | 20.73  | 20.72  | 20.84 | 20.74   | 21.01  |                           |             |
| 10              | 16QAM | 50 | 0  | 20.71  | 20.73  | 20.83 | 20.74   | 20.96  |                           |             |
| 10              | 64QAM | 1  | 0  | 20.92  | 20.95  | 20.98 | 20.90   | 21.57  | 22                        | 2           |
| 10              | 64QAM | 1  | 25 | 21.05  | 20.97  | 21.11 | 21.01   | 21.06  |                           |             |
| 10              | 64QAM | 1  | 49 | 20.95  | 20.99  | 21.09 | 21.00   | 21.67  |                           |             |
| 10              | 64QAM | 25 | 0  | 19.76  | 19.67  | 19.82 | 19.75   | 19.96  | 21                        | 3           |
| 10              | 64QAM | 25 | 12 | 19.80  | 19.74  | 19.91 | 19.82   | 19.91  |                           |             |
| 10              | 64QAM | 25 | 25 | 19.79  | 19.78  | 19.90 | 19.78   | 20.03  |                           |             |
| 10              | 64QAM | 50 | 0  | 19.73  | 19.68  | 19.82 | 19.77   | 19.99  |                           |             |
| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 23.06  | 23.09  | 23.13 | 23.06   | 23.16  | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 23.12  | 23.16  | 23.19 | 23.13   | 23.19  |                           |             |
| 5               | QPSK  | 1  | 24 | 23.11  | 23.05  | 23.17 | 23.11   | 23.18  |                           |             |
| 5               | QPSK  | 12 | 0  | 21.63  | 21.70  | 21.72 | 21.60   | 21.69  | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 21.70  | 21.61  | 21.73 | 21.69   | 21.75  |                           |             |
| 5               | QPSK  | 12 | 13 | 21.71  | 21.65  | 21.75 | 21.65   | 21.72  |                           |             |
| 5               | QPSK  | 25 | 0  | 21.66  | 21.59  | 21.72 | 21.67   | 21.70  |                           |             |
| 5               | 16QAM | 1  | 0  | 22.16  | 22.21  | 22.24 | 22.16   | 22.25  | 23                        | 1           |
| 5               | 16QAM | 1  | 12 | 22.23  | 22.29  | 22.32 | 22.25   | 22.29  |                           |             |
| 5               | 16QAM | 1  | 24 | 22.25  | 22.21  | 22.34 | 22.27   | 22.30  |                           |             |
| 5               | 16QAM | 12 | 0  | 20.68  | 20.73  | 20.76 | 20.68   | 20.72  | 22                        | 2           |
| 5               | 16QAM | 12 | 7  | 20.76  | 20.68  | 20.81 | 20.71   | 20.81  |                           |             |
| 5               | 16QAM | 12 | 13 | 20.75  | 20.69  | 20.83 | 20.74   | 20.80  |                           |             |
| 5               | 16QAM | 25 | 0  | 20.79  | 20.69  | 20.85 | 20.76   | 20.82  |                           |             |
| 5               | 64QAM | 1  | 0  | 20.94  | 20.98  | 21.04 | 20.96   | 21.01  | 22                        | 2           |
| 5               | 64QAM | 1  | 12 | 21.00  | 21.05  | 21.07 | 21.00   | 21.08  |                           |             |
| 5               | 64QAM | 1  | 24 | 21.02  | 20.96  | 21.12 | 21.02   | 21.09  |                           |             |
| 5               | 64QAM | 12 | 0  | 19.77  | 19.79  | 19.81 | 19.77   | 19.79  | 21                        | 3           |
| 5               | 64QAM | 12 | 7  | 19.82  | 19.72  | 19.89 | 19.77   | 19.85  |                           |             |
| 5               | 64QAM | 12 | 13 | 19.82  | 19.70  | 19.83 | 19.79   | 19.88  |                           |             |
| 5               | 64QAM | 25 | 0  | 19.81  | 19.70  | 19.84 | 19.78   | 19.88  |                           |             |

**<LTE Carrier Aggregation>**
**General Note:**

1. This device supports Carrier Aggregation on downlink for inter and intra band, on uplink for intra band. For the device supports bands and bandwidths and configurations are provided as follow table was according to 3GPP.
2. In applying the existing power measurement procedure of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of the frequency band and CCs in each row need consideration, and that configurations require power measurement should be highlighted in the below table.

| 2 bands / 2 CC | 2 bands / 3 CC | 3 bands / 3 CC |
|----------------|----------------|----------------|
| CA_2A-4A       | CA_2A-4A-4A    | CA_2A-4A-5A    |
|                | CA_2A-2A-5A    |                |
| CA_2A_7A       | CA_2A-7A-7A    | CA_2A-4A-7A    |
|                |                | CA_2A-4A-12A   |
| CA_4A_13A      | CA_4A_4A_13A   | CA_2A-4A-13A   |
| CA_2A-13A      | CA_2A-2A-13A   |                |
| CA_2A-29A      |                | CA_2A-4A-29A   |
| CA_4A_30A      |                | CA_2A-4A-30A   |
| CA_4A-71A      |                | CA_2A-4A-71A   |
| CA_2A-71A      |                |                |
| CA_2A-5A       | CA_2A-2A-5A    | CA_2A-5A-30A   |
| CA_5A_30A      |                |                |
| CA_5A_66A      | CA_5A_66A_66A  | CA_2A-5A-66A   |
|                | CA_5A_66B      |                |
|                | CA_5A_66C      |                |
| CA_7A_12A      |                | CA_2A-7A-12A   |
| CA_2A-12A      | CA_2A-2A-12A   | CA_2A-12A-30A  |
| CA_12A_30A     |                |                |
|                | CA_2A_12B      |                |
| CA_12A_66A     | CA_12A_66A_66A | CA_2A_12A_66A  |
|                | CA_12A_66C     |                |
| CA_13A_66A     | CA_13A_66A_66A | CA_2A_13A_66A  |
|                | CA_13A_66B     |                |
|                | CA_13A_66C     |                |
| CA_2A-30A      | CA_2A-2A-30A   | CA_2A_29A_30A  |
| CA_2A-66A      | CA_2A-2A-66A   | CA_2A-66A-71A  |
|                | CA_2A-66A-66A  |                |
|                | CA_2A_66C      |                |
| CA_4A_5A       | CA_4A_4A_5A    | CA_4A_5A_30A   |
| CA_4A_7A       |                | CA_4A-7A-12A   |
| CA_4A_12A      | CA_4A_4A_12A   | CA_4A-12A-30A  |
|                | CA_4A_12B      |                |
| CA_4A_29A      | CA_4A_4A_29A   | CA_4A-29A-30A  |
| CA_30A_66A     |                | CA_5A_30A_66A  |
| CA_25A-26A     |                |                |
| CA_25A-41A     | CA_25A-41C     |                |
| CA_26A-41A     | CA_26A-41C     |                |

|         | Intra-Band Contiguous | Intra-Band non-Contiguous |
|---------|-----------------------|---------------------------|
| Band 2  | CA_2C                 | CA_2A_2A                  |
| Band 4  |                       | CA_4A_4A                  |
| Band 5  | CA_5B                 | CA_5A_5A                  |
| Band 7  |                       | CA_7A_7A                  |
| Band 12 | CA_12B                |                           |
| Band 25 |                       | CA_25A_25A                |
| Band 41 | CA_41C                | CA_41A_41A                |
|         | CA_41D                | CA_41C_41A                |
|         |                       |                           |
| Band 66 | CA_66B                | CA_66A_66A                |
|         | CA_66C                |                           |

### <Power verification when LTE Carrier Aggregation Active>

#### General Note:

- According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.
- Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
- The device supports downlink two carrier aggregation. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
- Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.
- For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.
- The device supports uplink carrier aggregation for LTE B41C with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the above 3GPP requirement.
- According TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- Uplink CA is only operating with power class 3 for LTE B41, and additional SAR measurement for TLE UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA\_41C active.
- For inter-band CA, the SCC selected highest bandwidth and near the middle of its transmission band.
- For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

$$\text{Nominal channel spacing} = \left\lceil \frac{BW_{\text{Channel}(1)} + BW_{\text{Channel}(2)} - 0.1|BW_{\text{Channel}(1)} - BW_{\text{Channel}(2)}|}{0.6} \right\rceil 0.3 \text{ [MHz]}$$

**<Two Carrier power verification>**

| Configure  |                | CA Configuration (BCS) | PCC      |          |                |            |      |        | SCC          |          |          |                | Power      |                        |                       |
|------------|----------------|------------------------|----------|----------|----------------|------------|------|--------|--------------|----------|----------|----------------|------------|------------------------|-----------------------|
|            |                |                        | LTE Band | BW (MHz) | UL Freq. (MHz) | UL Channel | Mod. | UL# RB | UL RB Offset | LTE Band | BW (MHz) | DL Freq. (MHz) | DL Channel | With CA Tx.Power (dBm) | W/O CA Tx.Power (dBm) |
| Inter-Band |                | CA_25A-26A             | 25       | 20       | 1860           | 26140      | QPSK | 1      | 0            | 26       | 15       | 876.5          | 8865       | 23.24                  | 23.26                 |
|            |                |                        | 26       | 15       | 831.5          | 26865      | QPSK | 1      | 37           | 25       | 20       | 1960           | 8340       | 22.72                  | 22.73                 |
| Intra-Band | Non-Contiguous | CA_2A-2A               | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 2        | 5        | 1987.5         | 1175       | 23.26                  | 23.25                 |
|            |                | CA_4A-4A               | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 4        | 5        | 2152.5         | 2375       | 22.83                  | 22.84                 |
|            |                | CA_5A-5A               | 5        | 10       | 829            | 20450      | QPSK | 1      | 0            | 5        | 5        | 891.5          | 2625       | 22.84                  | 22.84                 |
|            |                | CA_7A-7A               | 7        | 20       | 2560           | 21350      | QPSK | 1      | 99           | 7        | 5        | 2622.5         | 2775       | 22.81                  | 22.83                 |
|            |                | CA_25A-25A             | 25       | 20       | 1860           | 26140      | QPSK | 1      | 0            | 25       | 5        | 1992.5         | 8665       | 23.24                  | 23.26                 |
|            |                | CA_41A-41A             | 41       | 20       | 2680           | 41490      | QPSK | 1      | 0            | 41       | 5        | 2545.8         | 40148      | 23.91                  | 23.92                 |
|            |                | CA_66A-66A             | 66       | 20       | 1770           | 132572     | QPSK | 1      | 0            | 66       | 5        | 2112.5         | 66461      | 22.92                  | 22.93                 |
|            | Contiguous     | CA_2C                  | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 2        | 20       | 1959.8         | 898        | 23.26                  | 23.25                 |
|            |                | CA_5B                  | 5        | 10       | 829            | 20450      | QPSK | 1      | 0            | 5        | 10       | 883.9          | 2549       | 22.84                  | 22.84                 |
|            |                | CA_12B                 | 12       | 10       | 711            | 23130      | QPSK | 1      | 49           | 12       | 5        | 733.8          | 5058       | 22.79                  | 22.78                 |
|            |                | CA_41C                 | 41       | 20       | 2680           | 41490      | QPSK | 1      | 0            | 41       | 20       | 2660.2         | 41292      | 23.91                  | 23.92                 |
|            |                | CA_66B                 | 66       | 15       | 1745           | 132322     | QPSK | 1      | 0            | 66       | 5        | 2154.3         | 66879      | 22.92                  | 22.92                 |
|            |                | CA_66C                 | 66       | 20       | 1770           | 132572     | QPSK | 1      | 0            | 66       | 20       | 2170.2         | 67038      | 22.92                  | 22.93                 |

**<Three Carrier power verification>**

| Configure  | CA Configuration (BCS) | PCC      |          |                |            |      |        |              | SCC      |          |                |            | SCC2     |          |                |            | Power                  |                       |
|------------|------------------------|----------|----------|----------------|------------|------|--------|--------------|----------|----------|----------------|------------|----------|----------|----------------|------------|------------------------|-----------------------|
|            |                        | LTE Band | BW (MHz) | UL Freq. (MHz) | UL Channel | Mod. | UL# RB | UL RB Offset | LTE Band | BW (MHz) | DL Freq. (MHz) | DL Channel | LTE Band | BW (MHz) | DL Freq. (MHz) | DL Channel | With CA Tx.Power (dBm) | W/O CA Tx.Power (dBm) |
| Inter-Band | CA_2A-12B              | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 12       | 10       | 740            | 5120       | 12       | 5        | 732.8          | 5048       | 23.26                  | 23.25                 |
|            |                        | 12       | 10       | 711            | 23130      | QPSK | 1      | 49           | 12       | 5        | 733.8          | 5058       | 2        | 20       | 1960           | 900        | 22.79                  | 22.78                 |
|            | CA_2A-66C              | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 66       | 20       | 2155           | 66886      | 66       | 20       | 2174.8         | 67084      | 23.26                  | 23.25                 |
|            |                        | 66       | 20       | 1770           | 132572     | QPSK | 1      | 0            | 66       | 20       | 2170.2         | 67038      | 2        | 20       | 1960           | 900        | 22.92                  | 22.93                 |
|            | CA_5A-66B              | 5        | 10       | 829            | 20450      | QPSK | 1      | 0            | 66       | 15       | 2155           | 66886      | 66       | 5        | 2154.3         | 66879      | 22.84                  | 22.84                 |
|            |                        | 66       | 15       | 1745           | 132322     | QPSK | 1      | 0            | 66       | 5        | 2154.3         | 66879      | 5        | 10       | 881.5          | 2525       | 22.92                  | 22.92                 |
|            | CA_5A-66C              | 5        | 10       | 829            | 20450      | QPSK | 1      | 0            | 66       | 20       | 2155           | 66886      | 66       | 20       | 2174.8         | 67084      | 22.84                  | 22.84                 |
|            |                        | 66       | 20       | 1770           | 132572     | QPSK | 1      | 0            | 66       | 20       | 2170.2         | 67038      | 5        | 10       | 881.5          | 2525       | 22.92                  | 22.93                 |
|            | CA_12A-66C             | 12       | 10       | 711            | 23130      | QPSK | 1      | 49           | 66       | 20       | 2155           | 66886      | 66       | 20       | 2174.8         | 67084      | 22.79                  | 22.78                 |
|            |                        | 66       | 20       | 1770           | 132572     | QPSK | 1      | 0            | 66       | 20       | 2170.2         | 67038      | 12       | 10       | 737.5          | 5095       | 22.92                  | 22.93                 |
|            | CA_13A-66B             | 13       | 10       | 782            | 23230      | QPSK | 1      | 0            | 66       | 15       | 2155           | 66886      | 66       | 5        | 2154.3         | 66879      | 22.74                  | 22.72                 |
|            |                        | 66       | 15       | 1745           | 132322     | QPSK | 1      | 0            | 66       | 5        | 2154.3         | 66879      | 13       | 10       | 751            | 5230       | 22.92                  | 22.92                 |
|            | CA_13A-66C             | 13       | 10       | 782            | 23230      | QPSK | 1      | 0            | 66       | 20       | 2155           | 66886      | 66       | 20       | 2174.8         | 67084      | 22.74                  | 22.72                 |
|            |                        | 66       | 20       | 1770           | 132572     | QPSK | 1      | 0            | 66       | 20       | 2170.2         | 67038      | 13       | 10       | 751            | 5230       | 22.92                  | 22.93                 |
|            | CA_25A-41C             | 25       | 20       | 1860           | 26140      | QPSK | 1      | 0            | 41       | 20       | 2593           | 40620      | 41       | 20       | 2593           | 40620      | 23.24                  | 23.26                 |
|            |                        | 41       | 20       | 2680           | 41490      | QPSK | 1      | 0            | 41       | 20       | 2593           | 40620      | 25       | 20       | 1960           | 8340       | 23.91                  | 23.92                 |
|            | CA_26A-41C             | 26       | 15       | 831.5          | 26865      | QPSK | 1      | 37           | 41       | 20       | 2593           | 40620      | 41       | 20       | 2593           | 40620      | 22.72                  | 22.73                 |
|            |                        | 41       | 20       | 2680           | 41490      | QPSK | 1      | 0            | 41       | 20       | 2593           | 40620      | 26       | 15       | 876.5          | 8865       | 23.91                  | 23.92                 |
|            | CA_2A-4A-5A            | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 4        | 20       | 2132.5         | 2175       | 5        | 10       | 881.5          | 2525       | 23.26                  | 23.25                 |
|            |                        | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 5        | 10       | 881.5          | 2525       | 22.83                  | 22.84                 |
|            |                        | 5        | 10       | 829            | 20450      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 4        | 20       | 2132.5         | 2175       | 22.84                  | 22.84                 |
|            | CA_2A-4A-7A            | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 4        | 20       | 2132.5         | 2175       | 7        | 20       | 2655           | 3100       | 23.26                  | 23.25                 |
|            |                        | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 7        | 20       | 2655           | 3100       | 22.83                  | 22.84                 |
|            |                        | 7        | 20       | 2560           | 21350      | QPSK | 1      | 99           | 2        | 20       | 1960           | 900        | 4        | 20       | 2132.5         | 2175       | 22.81                  | 22.83                 |
|            | CA_2A-4A-12A           | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 4        | 20       | 2132.5         | 2175       | 12       | 10       | 737.5          | 5095       | 23.26                  | 23.25                 |
|            |                        | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 12       | 10       | 737.5          | 5095       | 22.83                  | 22.84                 |
|            |                        | 12       | 10       | 711            | 23130      | QPSK | 1      | 49           | 2        | 20       | 1960           | 900        | 4        | 20       | 2132.5         | 2175       | 22.79                  | 22.78                 |



| Configure  |            |        | CA Configuration (BCS) | PCC      |          |                |            |      | SCC    |              |          |          | SCC2           |            |          |          | Power          |            |                        |                       |
|------------|------------|--------|------------------------|----------|----------|----------------|------------|------|--------|--------------|----------|----------|----------------|------------|----------|----------|----------------|------------|------------------------|-----------------------|
|            |            |        |                        | LTE Band | BW (MHz) | UL Freq. (MHz) | UL Channel | Mod. | UL# RB | UL RB Offset | LTE Band | BW (MHz) | DL Freq. (MHz) | DL Channel | LTE Band | BW (MHz) | DL Freq. (MHz) | DL Channel | With CA Tx.Power (dBm) | W/O CA Tx.Power (dBm) |
| Inter-Band |            |        | CA_2A-4A-13A           | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 4        | 20       | 2132.5         | 2175       | 13       | 10       | 751            | 5230       | 23.26                  | 23.25                 |
|            |            |        |                        | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 13       | 10       | 751            | 5230       | 22.83                  | 22.84                 |
|            |            |        |                        | 13       | 10       | 782            | 23230      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 4        | 20       | 2132.5         | 2175       | 22.74                  | 22.72                 |
|            |            |        | CA_2A-4A-29A           | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 4        | 20       | 2132.5         | 2175       | 29       | 10       | 722.5          | 9715       | 23.26                  | 23.25                 |
|            |            |        |                        | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 29       | 10       | 722.5          | 9715       | 22.83                  | 22.84                 |
|            |            |        | CA_2A-4A-30A           | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 4        | 20       | 2132.5         | 2175       | 30       | 10       | 2355           | 9820       | 23.26                  | 23.25                 |
|            |            |        |                        | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 30       | 10       | 2355           | 9820       | 22.83                  | 22.84                 |
|            |            |        |                        | 30       | 10       | 2310           | 27710      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 4        | 20       | 2132.5         | 2175       | 22.73                  | 22.71                 |
|            |            |        | CA_2A-4A-71A           | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 4        | 20       | 2132.5         | 2175       | 71       | 20       | 637            | 68786      | 23.26                  | 23.25                 |
|            |            |        |                        | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 71       | 20       | 637            | 68786      | 22.83                  | 22.84                 |
|            |            |        |                        | 71       | 20       | 683            | 133322     | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 4        | 20       | 2132.5         | 2175       | 23.19                  | 23.18                 |
|            |            |        | CA_2A-5A-30A           | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 5        | 10       | 881.5          | 2525       | 30       | 10       | 2355           | 9820       | 23.26                  | 23.25                 |
|            |            |        |                        | 5        | 10       | 829            | 20450      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 30       | 10       | 2355           | 9820       | 22.84                  | 22.84                 |
|            |            |        |                        | 30       | 10       | 2310           | 27710      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 5        | 10       | 881.5          | 2525       | 22.73                  | 22.71                 |
|            |            |        | CA_2A-5A-66A           | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 5        | 10       | 881.5          | 2525       | 66       | 20       | 2155           | 66886      | 23.26                  | 23.25                 |
|            |            |        |                        | 5        | 10       | 829            | 20450      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 66       | 20       | 2155           | 66886      | 22.84                  | 22.84                 |
|            |            |        |                        | 66       | 20       | 1770           | 132572     | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 5        | 10       | 881.5          | 2525       | 22.92                  | 22.92                 |
|            |            |        | CA_2A-7A-12A           | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 7        | 20       | 2655           | 3100       | 12       | 10       | 737.5          | 5095       | 23.26                  | 23.25                 |
|            |            |        |                        | 7        | 20       | 2560           | 21350      | QPSK | 1      | 99           | 2        | 20       | 1960           | 900        | 12       | 10       | 737.5          | 5095       | 22.81                  | 22.83                 |
|            |            |        |                        | 12       | 10       | 711            | 23130      | QPSK | 1      | 49           | 2        | 20       | 1960           | 900        | 7        | 20       | 2655           | 3100       | 22.79                  | 22.78                 |
|            |            |        | CA_2A-12A-30A          | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 12       | 10       | 737.5          | 5095       | 30       | 10       | 2355           | 9820       | 23.26                  | 23.25                 |
|            |            |        |                        | 12       | 10       | 711            | 23130      | QPSK | 1      | 49           | 2        | 20       | 1960           | 900        | 30       | 10       | 2355           | 9820       | 22.79                  | 22.78                 |
|            |            |        |                        | 30       | 10       | 2310           | 27710      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 12       | 10       | 737.5          | 5095       | 22.73                  | 22.71                 |
|            |            |        | CA_2A-12A-66A          | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 12       | 10       | 737.5          | 5095       | 66       | 20       | 2155           | 66886      | 23.26                  | 23.25                 |
|            |            |        |                        | 12       | 10       | 711            | 23130      | QPSK | 1      | 49           | 2        | 20       | 1960           | 900        | 66       | 20       | 2155           | 66886      | 22.79                  | 22.78                 |
|            |            |        |                        | 66       | 20       | 1770           | 132572     | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 12       | 10       | 737.5          | 5095       | 22.92                  | 22.92                 |
|            |            |        | CA_2A-13A-66A          | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 13       | 10       | 751            | 5230       | 66       | 20       | 2155           | 66886      | 23.26                  | 23.25                 |
|            |            |        |                        | 13       | 10       | 782            | 23230      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 66       | 20       | 2155           | 66886      | 22.74                  | 22.72                 |
|            |            |        |                        | 66       | 20       | 1770           | 132572     | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 13       | 10       | 751            | 5230       | 22.92                  | 22.92                 |
|            |            |        | CA_2A-29A-30A          | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 29       | 10       | 722.5          | 9715       | 30       | 10       | 2355           | 9820       | 23.26                  | 23.25                 |
|            |            |        |                        | 30       | 10       | 2310           | 27710      | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 29       | 10       | 722.5          | 9715       | 22.73                  | 22.71                 |
|            |            |        | CA_2A-66A-71A          | 2        | 20       | 1860           | 18700      | QPSK | 1      | 0            | 66       | 20       | 2155           | 66886      | 71       | 20       | 637            | 68786      | 23.26                  | 23.25                 |
|            |            |        |                        | 66       | 20       | 1770           | 132572     | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 71       | 20       | 637            | 68786      | 22.92                  | 22.92                 |
|            |            |        |                        | 71       | 20       | 683            | 133322     | QPSK | 1      | 0            | 2        | 20       | 1960           | 900        | 66       | 20       | 2155           | 66886      | 23.19                  | 23.18                 |
|            |            |        | CA_4A-5A-30A           | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 5        | 10       | 881.5          | 2525       | 30       | 10       | 2355           | 9820       | 22.83                  | 22.84                 |
|            |            |        |                        | 5        | 10       | 829            | 20450      | QPSK | 1      | 0            | 4        | 20       | 2132.5         | 2175       | 30       | 10       | 2355           | 9820       | 22.84                  | 22.84                 |
|            |            |        |                        | 30       | 10       | 2310           | 27710      | QPSK | 1      | 0            | 4        | 20       | 2132.5         | 2175       | 5        | 10       | 881.5          | 2525       | 22.73                  | 22.71                 |
|            |            |        | CA_4A-7A-12A           | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 7        | 20       | 2655           | 3100       | 12       | 10       | 737.5          | 5095       | 22.83                  | 22.84                 |
|            |            |        |                        | 7        | 20       | 2560           | 21350      | QPSK | 1      | 99           | 4        | 20       | 2132.5         | 2175       | 12       | 10       | 737.5          | 5095       | 22.81                  | 22.83                 |
|            |            |        |                        | 12       | 10       | 711            | 23130      | QPSK | 1      | 49           | 4        | 20       | 2132.5         | 2175       | 7        | 20       | 2655           | 3100       | 22.79                  | 22.78                 |
|            |            |        | CA_4A-12A-30A          | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 12       | 10       | 737.5          | 5095       | 30       | 10       | 2355           | 9820       | 22.83                  | 22.84                 |
|            |            |        |                        | 12       | 10       | 711            | 23130      | QPSK | 1      | 49           | 4        | 20       | 2132.5         | 2175       | 30       | 10       | 2355           | 9820       | 22.79                  | 22.78                 |
|            |            |        |                        | 30       | 10       | 2310           | 27710      | QPSK | 1      | 0            | 4        | 20       | 2132.5         | 2175       | 12       | 10       | 737.5          | 5095       | 22.73                  | 22.71                 |
|            |            |        | CA_4A-29A-30A          | 4        | 20       | 1732.5         | 20175      | QPSK | 1      | 0            | 29       | 10       | 722.5          | 9715       | 30       | 10       | 2355           | 9820       | 22.83                  | 22.84                 |
|            |            |        |                        | 30       | 10       | 2310           | 27710      | QPSK | 1      | 0            | 4        | 20       | 2132.5         | 2175       | 4        | 20       | 2132.5         | 2175       | 22.73                  | 22.71                 |
|            |            |        | CA_5A-30A-66A          | 5        | 10       | 836.5          | 20525      | QPSK | 1      | 0            | 30       | 10       | 2355           | 9820       | 66       | 20       | 2155           | 66886      | 22.84                  | 22.84                 |
|            |            |        |                        | 30       | 10       | 2310           | 27710      | QPSK | 1      | 0            | 5        | 10       | 881.5          | 2525       | 66       | 20       | 2155           | 66886      | 22.73                  | 22.71                 |
|            |            |        |                        | 66       | 20       | 1770           | 132572     | QPSK | 1      | 0            | 5        | 10       | 881.5          | 2525       | 30       | 10       | 2355           | 9820       | 22.92                  | 22.92                 |
| Intra-Band | Contiguous | CA_41D | 41                     | 20       | 2680     | 41490          | QPSK       | 1    | 0      | 41           | 20       | 2593     | 40620          | 41         | 20       | 2593     | 40620          | 23.91      | 23.92                  |                       |

**<Uplink carrier aggregation power measurement>**

| CA_41C Full Power                     |             |            |         |           |         |           |               |                       |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                      |                     |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 23.04                | 24                  |
| 40185                                 | 39987       | QPSK       | 1       | 0         | 1       | 99        | 2             | 0                     | 23.14                | 24                  |
| 40620                                 | 40422       | QPSK       | 1       | 0         | 1       | 99        | 2             | 0                     | 22.99                | 24                  |
| 41055                                 | 40857       | QPSK       | 1       | 0         | 1       | 99        | 2             | 0                     | 23.13                | 24                  |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 1       | 99        | 2             | 0                     | 23.1                 | 24                  |

| CA_41C Reduced Power                  |             |            |         |           |         |           |               |                       |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                      |                     |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 19.53                | 20                  |
| 40185                                 | 39987       | QPSK       | 1       | 0         | 1       | 99        | 2             | 0                     | 19.64                | 20                  |
| 40620                                 | 40422       | QPSK       | 1       | 0         | 1       | 99        | 2             | 0                     | 19.33                | 20                  |
| 41055                                 | 40857       | QPSK       | 1       | 0         | 1       | 99        | 2             | 0                     | 19.39                | 20                  |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 1       | 99        | 2             | 0                     | 19.6                 | 20                  |

**<WLAN Conducted Power>****General Note:**

3. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
4. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
5. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
6. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.<sup>18</sup> The initial test position procedure is described in the following:
  - a. When the reported SAR of the initial test position is  $\leq 0.4$  W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
  - b. When the reported SAR of the test position is  $> 0.4$  W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is  $\leq 0.8$  W/kg or all required test position are tested.
  - c. For all positions/configurations, when the reported SAR is  $> 0.8$  W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is  $\leq 1.2$  W/kg or all required channels are tested.

**<Default Power Mode>**
**<2.4GHz WLAN>**

|             | Mode              | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|-------------------|---------|-----------------|---------------------|---------------|--------------|
| 2.4GHz WLAN | 802.11b 1Mbps     | 1       | 2412            | 20.81               | 21.00         | 99.42        |
|             |                   | 6       | 2437            | 19.74               | 21.00         |              |
|             |                   | 11      | 2462            | 20.70               | 21.00         |              |
|             | 802.11g 6Mbps     | 1       | 2412            | 18.70               | 19.00         | 94.95        |
|             |                   | 6       | 2437            | 18.80               | 19.00         |              |
|             |                   | 11      | 2462            | 18.60               | 19.00         |              |
|             | 802.11n-HT20 MCS0 | 1       | 2412            | 18.96               | 19.00         | 95.89        |
|             |                   | 6       | 2437            | 18.62               | 19.00         |              |
|             |                   | 11      | 2462            | 18.88               | 19.00         |              |

**<5GHz WLAN>**

|             | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
| 5.2GHz WLAN | 802.11a 6Mbps       | 36      | 5180            | 19.99               | 20.00         | 93.64        |
|             |                     | 40      | 5200            | 19.90               | 20.00         |              |
|             |                     | 44      | 5220            | 19.87               | 20.00         |              |
|             |                     | 48      | 5240            | 19.97               | 20.00         |              |
|             | 802.11n-HT20 MCS0   | 36      | 5180            | 19.93               | 20.00         | 96.33        |
|             |                     | 40      | 5200            | 19.77               | 20.00         |              |
|             |                     | 44      | 5220            | 19.72               | 20.00         |              |
|             |                     | 48      | 5240            | 19.74               | 20.00         |              |
|             | 802.11n-HT40 MCS0   | 38      | 5190            | 18.95               | 19.00         | 93.90        |
|             |                     | 46      | 5230            | 18.71               | 19.00         |              |
|             | 802.11ac-VHT20 MCS0 | 36      | 5180            | 19.84               | 20.00         | 96.33        |
|             |                     | 40      | 5200            | 19.75               | 20.00         |              |
|             |                     | 44      | 5220            | 19.71               | 20.00         |              |
|             |                     | 48      | 5240            | 19.72               | 20.00         |              |
|             | 802.11ac-VHT40 MCS0 | 38      | 5190            | 18.94               | 19.00         | 93.90        |
|             |                     | 46      | 5230            | 18.69               | 19.00         |              |
|             | 802.11ac-VHT80 MCS0 | 42      | 5210            | 17.83               | 18.00         | 87.06        |

| 5.3GHz WLAN | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
|             | 802.11a 6Mbps       | 52      | 5260            | 19.95               | 20.00         | 93.64        |
|             |                     | 56      | 5280            | 19.80               | 20.00         |              |
|             |                     | 60      | 5300            | 19.97               | 20.00         |              |
|             |                     | 64      | 5320            | 19.98               | 20.00         |              |
|             | 802.11n-HT20 MCS0   | 52      | 5260            | 19.74               | 20.00         | 96.33        |
|             |                     | 56      | 5280            | 19.71               | 20.00         |              |
|             |                     | 60      | 5300            | 19.68               | 20.00         |              |
|             |                     | 64      | 5320            | 19.80               | 20.00         |              |
|             | 802.11n-HT40 MCS0   | 54      | 5270            | 18.82               | 19.00         | 93.90        |
|             |                     | 62      | 5310            | 18.84               | 19.00         |              |
|             | 802.11ac-VHT20 MCS0 | 52      | 5260            | 19.73               | 20.00         | 96.33        |
|             |                     | 56      | 5280            | 19.65               | 20.00         |              |
|             |                     | 60      | 5300            | 19.66               | 20.00         |              |
|             |                     | 64      | 5320            | 19.79               | 20.00         |              |
|             | 802.11ac-VHT40 MCS0 | 54      | 5270            | 18.81               | 19.00         | 93.90        |
|             |                     | 62      | 5310            | 18.82               | 19.00         |              |
|             | 802.11ac-VHT80 MCS0 | 58      | 5290            | 17.93               | 18.00         | 87.06        |

| 5.5GHz WLAN | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
|             | 802.11a 6Mbps       | 100     | 5500            | 19.96               | 20.00         | 93.64        |
|             |                     | 116     | 5580            | 19.75               | 20.00         |              |
|             |                     | 132     | 5660            | 19.61               | 20.00         |              |
|             |                     | 144     | 5720            | 19.95               | 20.00         |              |
|             | 802.11n-HT20 MCS0   | 100     | 5500            | 19.77               | 20.00         | 96.33        |
|             |                     | 116     | 5580            | 19.97               | 20.00         |              |
|             |                     | 132     | 5660            | 19.91               | 20.00         |              |
|             |                     | 144     | 5720            | 19.96               | 20.00         |              |
|             | 802.11n-HT40 MCS0   | 102     | 5510            | 18.97               | 19.00         | 93.90        |
|             |                     | 110     | 5550            | 18.99               | 19.00         |              |
|             |                     | 134     | 5670            | 18.99               | 19.00         |              |
|             |                     | 142     | 5710            | 18.97               | 19.00         |              |
|             | 802.11ac-VHT20 MCS0 | 100     | 5500            | 19.73               | 20.00         | 96.33        |
|             |                     | 116     | 5580            | 19.91               | 20.00         |              |
|             |                     | 132     | 5660            | 19.90               | 20.00         |              |
|             |                     | 144     | 5720            | 19.93               | 20.00         |              |
|             | 802.11ac-VHT40 MCS0 | 102     | 5510            | 18.96               | 19.00         | 93.90        |
|             |                     | 110     | 5550            | 18.93               | 19.00         |              |
|             |                     | 134     | 5670            | 18.71               | 19.00         |              |
|             |                     | 142     | 5710            | 18.96               | 19.00         |              |
|             | 802.11ac-VHT80 MCS0 | 106     | 5530            | 17.72               | 18.00         | 87.06        |
|             |                     | 138     | 5690            | 17.80               | 18.00         |              |

| 5.8GHz WLAN | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
|             | 802.11a MCS0        | 149     | 5745            | 19.89               | 20.00         | 93.64        |
|             |                     | 157     | 5785            | 19.99               | 20.00         |              |
|             |                     | 165     | 5825            | 19.98               | 20.00         |              |
|             | 802.11n-HT20 MCS0   | 149     | 5745            | 19.99               | 20.00         | 96.33        |
|             |                     | 157     | 5785            | 19.81               | 20.00         |              |
|             |                     | 165     | 5825            | 19.77               | 20.00         |              |
|             | 802.11n-HT40 MCS0   | 151     | 5755            | 18.76               | 19.00         | 93.90        |
|             |                     | 159     | 5795            | 18.98               | 19.00         |              |
|             | 802.11ac-VHT20 MCS0 | 149     | 5745            | 19.66               | 20.00         | 96.33        |
|             |                     | 157     | 5785            | 19.78               | 20.00         |              |
|             |                     | 165     | 5825            | 19.73               | 20.00         |              |
|             | 802.11ac-VHT40 MCS0 | 151     | 5755            | 18.71               | 19.00         | 93.90        |
|             |                     | 159     | 5795            | 18.87               | 19.00         |              |
|             | 802.11ac-VHT80 MCS0 | 155     | 5775            | 17.89               | 18.00         | 87.06        |

**<At-Head Power Mode>**
**<2.4GHz WLAN>**

|             | Mode              | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|-------------------|---------|-----------------|---------------------|---------------|--------------|
| 2.4GHz WLAN | 802.11b 1Mbps     | 1       | 2412            | 16.48               | 18.00         | 99.42        |
|             |                   | 6       | 2437            | 16.49               | 18.00         |              |
|             |                   | 11      | 2462            | 16.49               | 18.00         |              |
|             | 802.11g 6Mbps     | 1       | 2412            | 16.14               | 18.00         | 94.95        |
|             |                   | 6       | 2437            | 16.09               | 18.00         |              |
|             |                   | 11      | 2462            | 16.13               | 18.00         |              |
|             | 802.11n-HT20 MCS0 | 1       | 2412            | 16.41               | 18.00         | 95.89        |
|             |                   | 6       | 2437            | 16.39               | 18.00         |              |
|             |                   | 11      | 2462            | 16.36               | 18.00         |              |

**<5GHz WLAN>**

|             | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
| 5.2GHz WLAN | 802.11a 6Mbps       | 36      | 5180            | 15.70               | 16.00         | 93.64        |
|             |                     | 40      | 5200            | 15.69               | 16.00         |              |
|             |                     | 44      | 5220            | 15.67               | 16.00         |              |
|             |                     | 48      | 5240            | 15.64               | 16.00         |              |
|             | 802.11n-HT20 MCS0   | 36      | 5180            | 15.98               | 16.00         | 96.33        |
|             |                     | 40      | 5200            | 15.91               | 16.00         |              |
|             |                     | 44      | 5220            | 15.89               | 16.00         |              |
|             |                     | 48      | 5240            | 15.82               | 16.00         |              |
|             | 802.11n-HT40 MCS0   | 38      | 5190            | 15.79               | 16.00         | 93.90        |
|             |                     | 46      | 5230            | 15.71               | 16.00         |              |
|             | 802.11ac-VHT20 MCS0 | 36      | 5180            | 15.93               | 16.00         | 96.33        |
|             |                     | 40      | 5200            | 15.88               | 16.00         |              |
|             |                     | 44      | 5220            | 15.82               | 16.00         |              |
|             |                     | 48      | 5240            | 15.73               | 16.00         |              |
|             | 802.11ac-VHT40 MCS0 | 38      | 5190            | 15.76               | 16.00         | 93.90        |
|             |                     | 46      | 5230            | 15.69               | 16.00         |              |
|             | 802.11ac-VHT80 MCS0 | 42      | 5210            | 15.99               | 16.00         | 87.06        |

| 5.3GHz WLAN | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
|             | 802.11a 6Mbps       | 52      | 5260            | 15.80               | 16.00         | 93.64        |
|             |                     | 56      | 5280            | 15.70               | 16.00         |              |
|             |                     | 60      | 5300            | 15.71               | 16.00         |              |
|             |                     | 64      | 5320            | 15.73               | 16.00         |              |
|             | 802.11n-HT20 MCS0   | 52      | 5260            | 15.91               | 16.00         | 96.33        |
|             |                     | 56      | 5280            | 15.86               | 16.00         |              |
|             |                     | 60      | 5300            | 15.87               | 16.00         |              |
|             |                     | 64      | 5320            | 15.88               | 16.00         |              |
|             | 802.11n-HT40 MCS0   | 54      | 5270            | 15.75               | 16.00         | 93.90        |
|             |                     | 62      | 5310            | 15.91               | 16.00         |              |
|             | 802.11ac-VHT20 MCS0 | 52      | 5260            | 15.82               | 16.00         | 96.33        |
|             |                     | 56      | 5280            | 15.77               | 16.00         |              |
|             |                     | 60      | 5300            | 15.79               | 16.00         |              |
|             |                     | 64      | 5320            | 15.80               | 16.00         |              |
|             | 802.11ac-VHT40 MCS0 | 54      | 5270            | 15.72               | 16.00         | 93.90        |
|             |                     | 62      | 5310            | 15.89               | 16.00         |              |
|             | 802.11ac-VHT80 MCS0 | 58      | 5290            | 15.70               | 16.00         | 87.06        |

| 5.5GHz WLAN | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
|             | 802.11a 6Mbps       | 100     | 5500            | 15.85               | 16.00         | 93.64        |
|             |                     | 116     | 5580            | 15.91               | 16.00         |              |
|             |                     | 132     | 5660            | 15.87               | 16.00         |              |
|             |                     | 144     | 5720            | 15.97               | 16.00         |              |
|             | 802.11n-HT20 MCS0   | 100     | 5500            | 15.89               | 16.00         | 96.33        |
|             |                     | 116     | 5580            | 15.67               | 16.00         |              |
|             |                     | 132     | 5660            | 15.75               | 16.00         |              |
|             |                     | 144     | 5720            | 15.68               | 16.00         |              |
|             | 802.11n-HT40 MCS0   | 102     | 5510            | 15.75               | 16.00         | 93.90        |
|             |                     | 110     | 5550            | 15.93               | 16.00         |              |
|             |                     | 134     | 5670            | 15.82               | 16.00         |              |
|             |                     | 142     | 5710            | 15.75               | 16.00         |              |
|             | 802.11ac-VHT20 MCS0 | 100     | 5500            | 15.78               | 16.00         | 96.33        |
|             |                     | 116     | 5580            | 15.61               | 16.00         |              |
|             |                     | 132     | 5660            | 15.63               | 16.00         |              |
|             |                     | 144     | 5720            | 15.60               | 16.00         |              |
|             | 802.11ac-VHT40 MCS0 | 102     | 5510            | 15.73               | 16.00         | 93.90        |
|             |                     | 110     | 5550            | 15.92               | 16.00         |              |
|             |                     | 134     | 5670            | 15.80               | 16.00         |              |
|             |                     | 142     | 5710            | 15.73               | 16.00         |              |
|             | 802.11ac-VHT80 MCS0 | 106     | 5530            | 15.60               | 16.00         | 87.06        |
|             |                     | 138     | 5690            | 15.81               | 16.00         |              |

| 5.8GHz WLAN | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
|             | 802.11a MCS0        | 149     | 5745            | 15.75               | 16.00         | 93.64        |
|             |                     | 157     | 5785            | 15.95               | 16.00         |              |
|             |                     | 165     | 5825            | 15.81               | 16.00         |              |
|             | 802.11n-HT20 MCS0   | 149     | 5745            | 15.88               | 16.00         | 96.33        |
|             |                     | 157     | 5785            | 15.67               | 16.00         |              |
|             |                     | 165     | 5825            | 15.59               | 16.00         |              |
|             | 802.11n-HT40 MCS0   | 151     | 5755            | 15.73               | 16.00         | 93.90        |
|             |                     | 159     | 5795            | 15.65               | 16.00         |              |
|             | 802.11ac-VHT20 MCS0 | 149     | 5745            | 15.85               | 16.00         | 96.33        |
|             |                     | 157     | 5785            | 15.61               | 16.00         |              |
|             |                     | 165     | 5825            | 15.57               | 16.00         |              |
|             | 802.11ac-VHT40 MCS0 | 151     | 5755            | 15.71               | 16.00         | 93.90        |
|             |                     | 159     | 5795            | 15.64               | 16.00         |              |
|             | 802.11ac-VHT80 MCS0 | 155     | 5775            | 15.95               | 16.00         | 87.06        |

### <Hotspot Power Mode>

#### <2.4GHz WLAN>

| 2.4GHz WLAN | Mode              | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|-------------------|---------|-----------------|---------------------|---------------|--------------|
|             | 802.11b 1Mbps     | 1       | 2412            | 18.85               | 20.50         | 99.42        |
|             |                   | 6       | 2437            | 18.87               | 20.50         |              |
|             |                   | 11      | 2462            | 18.96               | 20.50         |              |
|             | 802.11g 6Mbps     | 1       | 2412            | 18.66               | 19.00         | 94.95        |
|             |                   | 6       | 2437            | 18.74               | 19.00         |              |
|             |                   | 11      | 2462            | 18.61               | 19.00         |              |
|             | 802.11n-HT20 MCS0 | 1       | 2412            | 18.54               | 19.00         | 95.89        |
|             |                   | 6       | 2437            | 18.52               | 19.00         |              |
|             |                   | 11      | 2462            | 18.51               | 19.00         |              |

**<5GHz WLAN>**

|             | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
| 5.2GHz WLAN | 802.11a 6Mbps       | 36      | 5180            | 14.60               | 15.00         | 93.64        |
|             |                     | 40      | 5200            | 14.54               | 15.00         |              |
|             |                     | 44      | 5220            | 14.58               | 15.00         |              |
|             |                     | 48      | 5240            | 14.53               | 15.00         |              |
|             | 802.11n-HT20 MCS0   | 36      | 5180            | 14.67               | 15.00         | 96.33        |
|             |                     | 40      | 5200            | 14.69               | 15.00         |              |
|             |                     | 44      | 5220            | 14.70               | 15.00         |              |
|             |                     | 48      | 5240            | 14.62               | 15.00         |              |
|             | 802.11n-HT40 MCS0   | 38      | 5190            | 14.85               | 15.00         | 93.90        |
|             |                     | 46      | 5230            | 14.56               | 15.00         |              |
|             | 802.11ac-VHT20 MCS0 | 36      | 5180            | 14.65               | 15.00         | 96.33        |
|             |                     | 40      | 5200            | 14.67               | 15.00         |              |
|             |                     | 44      | 5220            | 14.64               | 15.00         |              |
|             |                     | 48      | 5240            | 14.59               | 15.00         |              |
|             | 802.11ac-VHT40 MCS0 | 38      | 5190            | 14.82               | 15.00         | 93.90        |
|             |                     | 46      | 5230            | 14.52               | 15.00         |              |
|             | 802.11ac-VHT80 MCS0 | 42      | 5210            | 14.99               | 15.00         | 87.06        |

|             | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
| 5.8GHz WLAN | 802.11a MCS0        | 149     | 5745            | 14.60               | 15.00         | 93.64        |
|             |                     | 157     | 5785            | 14.90               | 15.00         |              |
|             |                     | 165     | 5825            | 14.81               | 15.00         |              |
|             | 802.11n-HT20 MCS0   | 149     | 5745            | 14.89               | 15.00         | 96.33        |
|             |                     | 157     | 5785            | 14.61               | 15.00         |              |
|             |                     | 165     | 5825            | 14.82               | 15.00         |              |
|             | 802.11n-HT40 MCS0   | 151     | 5755            | 14.69               | 15.00         | 93.90        |
|             |                     | 159     | 5795            | 14.65               | 15.00         |              |
|             | 802.11ac-VHT20 MCS0 | 149     | 5745            | 14.85               | 15.00         | 96.33        |
|             |                     | 157     | 5785            | 14.56               | 15.00         |              |
|             |                     | 165     | 5825            | 14.78               | 15.00         |              |
|             | 802.11ac-VHT40 MCS0 | 151     | 5755            | 14.66               | 15.00         | 93.90        |
|             |                     | 159     | 5795            | 14.62               | 15.00         |              |
|             | 802.11ac-VHT80 MCS0 | 155     | 5775            | 14.88               | 15.00         | 87.06        |

**<Near-body Power Mode>**
**<2.4GHz WLAN>**

|             | Mode              | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|-------------------|---------|-----------------|---------------------|---------------|--------------|
| 2.4GHz WLAN | 802.11b 1Mbps     | 1       | 2412            | 18.85               | 20.50         | 99.42        |
|             |                   | 6       | 2437            | 18.87               | 20.50         |              |
|             |                   | 11      | 2462            | 18.96               | 20.50         |              |
|             | 802.11g 6Mbps     | 1       | 2412            | 18.66               | 19.00         | 94.95        |
|             |                   | 6       | 2437            | 18.74               | 19.00         |              |
|             |                   | 11      | 2462            | 18.61               | 19.00         |              |
|             | 802.11n-HT20 MCS0 | 1       | 2412            | 18.54               | 19.00         | 95.89        |
|             |                   | 6       | 2437            | 18.52               | 19.00         |              |
|             |                   | 11      | 2462            | 18.51               | 19.00         |              |

**<5GHz WLAN>**

|             | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
| 5.2GHz WLAN | 802.11a 6Mbps       | 36      | 5180            | 17.37               | 17.50         | 93.64        |
|             |                     | 40      | 5200            | 17.35               | 17.50         |              |
|             |                     | 44      | 5220            | 17.33               | 17.50         |              |
|             |                     | 48      | 5240            | 17.28               | 17.50         |              |
|             | 802.11n-HT20 MCS0   | 36      | 5180            | 17.44               | 17.50         | 96.33        |
|             |                     | 40      | 5200            | 17.42               | 17.50         |              |
|             |                     | 44      | 5220            | 17.41               | 17.50         |              |
|             |                     | 48      | 5240            | 17.39               | 17.50         |              |
|             | 802.11n-HT40 MCS0   | 38      | 5190            | 17.30               | 17.50         | 93.90        |
|             |                     | 46      | 5230            | 17.25               | 17.50         |              |
|             | 802.11ac-VHT20 MCS0 | 36      | 5180            | 17.42               | 17.50         | 96.33        |
|             |                     | 40      | 5200            | 17.41               | 17.50         |              |
|             |                     | 44      | 5220            | 17.38               | 17.50         |              |
|             |                     | 48      | 5240            | 17.37               | 17.50         |              |
|             | 802.11ac-VHT40 MCS0 | 38      | 5190            | 17.26               | 17.50         | 93.90        |
|             |                     | 46      | 5230            | 17.22               | 17.50         |              |
|             | 802.11ac-VHT80 MCS0 | 42      | 5210            | 17.20               | 17.50         | 87.06        |

| 5.3GHz WLAN | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
|             | 802.11a 6Mbps       | 52      | 5260            | 17.35               | 17.50         | 93.64        |
|             |                     | 56      | 5280            | 17.26               | 17.50         |              |
|             |                     | 60      | 5300            | 17.23               | 17.50         |              |
|             |                     | 64      | 5320            | 17.32               | 17.50         |              |
|             | 802.11n-HT20 MCS0   | 52      | 5260            | 17.43               | 17.50         | 96.33        |
|             |                     | 56      | 5280            | 17.36               | 17.50         |              |
|             |                     | 60      | 5300            | 17.27               | 17.50         |              |
|             |                     | 64      | 5320            | 17.43               | 17.50         |              |
|             | 802.11n-HT40 MCS0   | 54      | 5270            | 17.48               | 17.50         | 93.90        |
|             |                     | 62      | 5310            | 17.28               | 17.50         |              |
|             | 802.11ac-VHT20 MCS0 | 52      | 5260            | 17.41               | 17.50         | 96.33        |
|             |                     | 56      | 5280            | 17.34               | 17.50         |              |
|             |                     | 60      | 5300            | 17.26               | 17.50         |              |
|             |                     | 64      | 5320            | 17.39               | 17.50         |              |
|             | 802.11ac-VHT40 MCS0 | 54      | 5270            | 17.45               | 17.50         | 93.90        |
|             |                     | 62      | 5310            | 17.25               | 17.50         |              |
|             | 802.11ac-VHT80 MCS0 | 58      | 5290            | 17.32               | 17.50         | 87.06        |

| 5.5GHz WLAN | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
|             | 802.11a 6Mbps       | 100     | 5500            | 17.35               | 17.50         | 93.64        |
|             |                     | 116     | 5580            | 17.42               | 17.50         |              |
|             |                     | 132     | 5660            | 17.32               | 17.50         |              |
|             |                     | 144     | 5720            | 17.44               | 17.50         |              |
|             | 802.11n-HT20 MCS0   | 100     | 5500            | 17.41               | 17.50         | 96.33        |
|             |                     | 116     | 5580            | 17.19               | 17.50         |              |
|             |                     | 132     | 5660            | 17.37               | 17.50         |              |
|             |                     | 144     | 5720            | 17.14               | 17.50         |              |
|             | 802.11n-HT40 MCS0   | 102     | 5510            | 17.45               | 17.50         | 93.90        |
|             |                     | 110     | 5550            | 17.20               | 17.50         |              |
|             |                     | 134     | 5670            | 17.45               | 17.50         |              |
|             |                     | 142     | 5710            | 17.31               | 17.50         |              |
|             | 802.11ac-VHT20 MCS0 | 100     | 5500            | 17.38               | 17.50         | 96.33        |
|             |                     | 116     | 5580            | 17.15               | 17.50         |              |
|             |                     | 132     | 5660            | 17.34               | 17.50         |              |
|             |                     | 144     | 5720            | 17.12               | 17.50         |              |
|             | 802.11ac-VHT40 MCS0 | 102     | 5510            | 17.42               | 17.50         | 93.90        |
|             |                     | 110     | 5550            | 17.19               | 17.50         |              |
|             |                     | 134     | 5670            | 17.42               | 17.50         |              |
|             |                     | 142     | 5710            | 17.29               | 17.50         |              |
|             | 802.11ac-VHT80 MCS0 | 106     | 5530            | 17.40               | 17.50         | 87.06        |
|             |                     | 138     | 5690            | 17.44               | 17.50         |              |

| 5.8GHz WLAN | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
|-------------|---------------------|---------|-----------------|---------------------|---------------|--------------|
|             | 802.11a MCS0        | 149     | 5745            | 17.11               | 17.50         | 93.64        |
|             |                     | 157     | 5785            | 17.31               | 17.50         |              |
|             |                     | 165     | 5825            | 17.27               | 17.50         |              |
|             | 802.11n-HT20 MCS0   | 149     | 5745            | 17.27               | 17.50         | 96.33        |
|             |                     | 157     | 5785            | 17.09               | 17.50         |              |
|             |                     | 165     | 5825            | 17.42               | 17.50         |              |
|             | 802.11n-HT40 MCS0   | 151     | 5755            | 17.15               | 17.50         | 93.90        |
|             |                     | 159     | 5795            | 17.39               | 17.50         |              |
|             | 802.11ac-VHT20 MCS0 | 149     | 5745            | 17.25               | 17.50         | 96.33        |
|             |                     | 157     | 5785            | 17.07               | 17.50         |              |
|             |                     | 165     | 5825            | 17.38               | 17.50         |              |
|             | 802.11ac-VHT40 MCS0 | 151     | 5755            | 17.09               | 17.50         | 93.90        |
|             |                     | 159     | 5795            | 17.36               | 17.50         |              |
|             | 802.11ac-VHT80 MCS0 | 155     | 5775            | 17.49               | 17.50         | 87.06        |

### <2.4GHz Bluetooth>

| Mode          | Channel | Frequency (MHz) | Average power (dBm) |       |       |
|---------------|---------|-----------------|---------------------|-------|-------|
|               |         |                 | 1Mbps               | 2Mbps | 3Mbps |
| BR / EDR      | CH 00   | 2402            | 9.76                | 7.60  | 7.62  |
|               | CH 39   | 2441            | 8.86                | 6.12  | 6.14  |
|               | CH 78   | 2480            | 8.28                | 6.11  | 6.11  |
| Tune-up Limit |         |                 | 10                  | 10    | 10    |

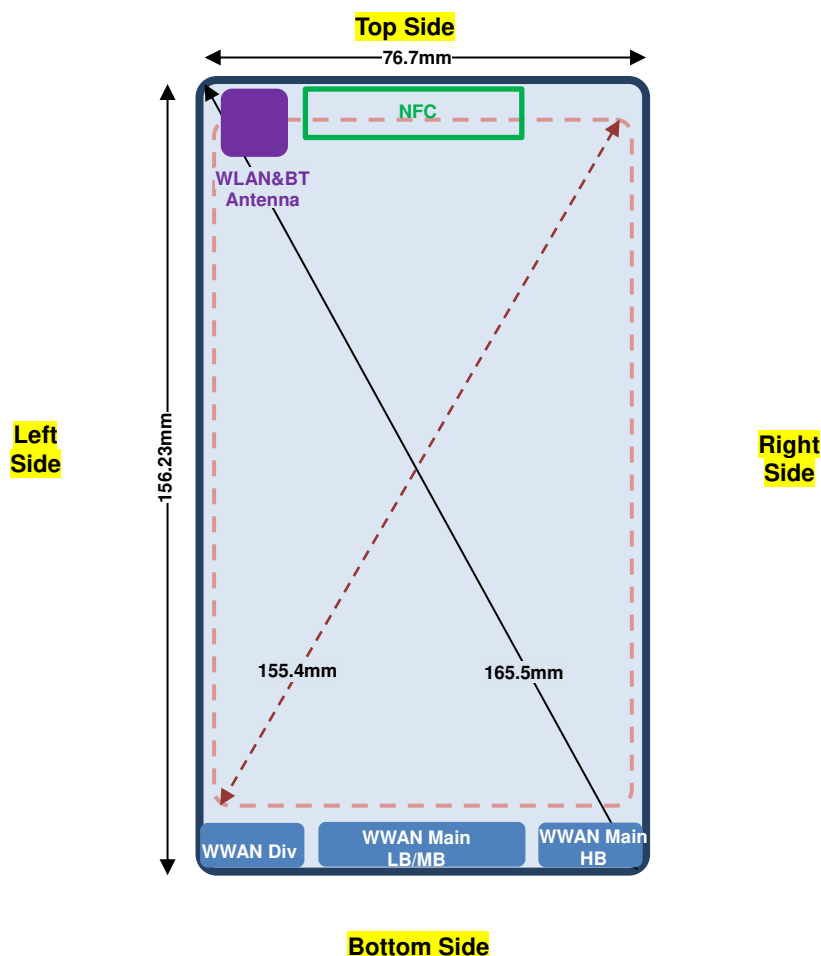
| Mode          | Channel | Frequency (MHz) | Average power (dBm) |       |
|---------------|---------|-----------------|---------------------|-------|
|               |         |                 | 1Mbps               | 2Mbps |
| LE            | CH 00   | 2402            | 9.36                | 9.33  |
|               | CH 19   | 2440            | 8.33                | 8.27  |
|               | CH 39   | 2480            | 7.89                | 7.84  |
| Tune-up Limit |         |                 | 10                  | 10    |

#### General Note:

- For 2.4GHz Bluetooth SAR testing was selected 1Mbps due to its highest average power and duty cycle is 77.13% considered in SAR testing.

### 13. Antenna Location

<Mobile Phone>



**Front View**

| Distance of the Antenna to the EUT surface/edge |        |        |          |             |            |           |
|-------------------------------------------------|--------|--------|----------|-------------|------------|-----------|
| Antennas                                        | Back   | Front  | Top Side | Bottom Side | Right Side | Left Side |
| WWAN Main_LB/MB                                 | ≤ 25mm | ≤ 25mm | >25mm    | ≤ 25mm      | ≤ 25mm     | ≤ 25mm    |
| WWAN Main_HB                                    | ≤ 25mm | ≤ 25mm | >25mm    | ≤ 25mm      | >25mm      | ≤ 25mm    |
| WWAN Div                                        | ≤ 25mm | ≤ 25mm | >25mm    | ≤ 25mm      | ≤ 25mm     | >25mm     |
| BT&WLAN                                         | ≤ 25mm | ≤ 25mm | ≤ 25mm   | >25mm       | >25mm      | ≤ 25mm    |

| Positions for SAR tests; Hotspot mode |      |       |          |             |            |           |
|---------------------------------------|------|-------|----------|-------------|------------|-----------|
| Antennas                              | Back | Front | Top Side | Bottom Side | Right Side | Left Side |
| WWAN Main_LB/MB                       | Yes  | Yes   | No       | Yes         | Yes        | Yes       |
| WWAN Main_HB                          | Yes  | Yes   | No       | Yes         | No         | Yes       |
| WWAN Div                              | Yes  | Yes   | No       | Yes         | Yes        | No        |
| BT&WLAN                               | Yes  | Yes   | Yes      | No          | No         | Yes       |

**General Note:**

- Referring to KDB 941225 D06 v02r01, when the overall device length and width are < 9cm\*5cm, the test distance is 5 mm. SAR must be measured for all sides and surfaces.
- The WWAN Div antenna only supports LTE B7/B30/B38/B41.
- LB: Low Band as 1GHz below, MB: middle band as 2GHz below, HB: high band as 2GHz above.

## **14. SAR Test Results**

### **General Note:**

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
  - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
  - b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
  - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)\*Tune-up Scaling Factor
  - d. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)\* Duty Cycle scaling factor \* Tune-up scaling factor
  - e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix  $63.3\%/62.9\% = 1.006$  is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8$  W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\leq 100$  MHz
  - $\leq 0.6$  W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
  - $\leq 0.4$  W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\geq 200$  MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is  $\geq 0.8$  W/kg.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is  $> 1.2$  W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.
5. While the device operating in near-body condition by end user, the device will limit different maximum output powers on the GSM1900, WCDMA B2 / B4 / B5, CDMA BC0 / BC1 / BC10 and LTE B2 / B4 / B5 / B7 / B14 / B25 / B26 / B30 / B66 / B38 / B41 transmitter and detail descriptions of the power reduction mechanism are included in the operational description.
6. While the device operating in mobile hotspot session, the device will reduced output powers on the GSM1900, WCDMA B2 / B4 / B5, CDMA BC0 / BC1 / BC10 and LTE B2 / B4 / B5 / B7 / B14 / B25 / B26 / B30 / B66 / B38 / B41 transmitter and detail descriptions of the power reduction mechanism are included in the operational description.
7. While the device operating in handheld condition, the device will limit different maximum output powers on the WCDMA B2 / B4, CDMA BC1 and LTE B2 / B4 / B5 / B7 / B14 / B25 / B26 / B30 / B66 transmitter and detail descriptions of the power reduction mechanism are included in the operational description.
8. While the device operating in Held to head, near-body and mobile hotspot session, the device will limit different maximum output powers on the WLAN transmitter and detail descriptions of the power reduction mechanism are included in the operational description.
9. Per KDB 648474 D04v01r03, for smart phones with a display diagonal dimension  $> 15.0$  cm or an overall diagonal dimension  $> 16.0$  cm, when hotspot mode applies, 10-g product specific SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR  $> 1.2$  W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
10. For 5.3GHz / 5.5GHz WLAN product specific SAR is necessary too, due to an overall diagonal dimension is  $> 16$ cm.

### **GSM Note:**

1. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (2Tx slots) for GSM850 and GPRS (3Tx slots) for GSM1900 are considered as the primary mode.
2. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq 1/4$  dB higher than the primary mode, SAR measurement is not required for the secondary mode.

**UMTS Note:**

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is  $\leq \frac{1}{4}$  dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSUPA, HSDPA, DC-HSDPA) are less than  $\frac{1}{4}$  dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

**CDMA Note:**

1. Per KDB 941225 D01v03r01, SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55.
2. Per KDB 941225 D01v03r01, in Hotspot mode EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps) as the primary mode.
3. Per KDB 941225 D01v03r01, for Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCH), with FCH only as the primary mode.

**LTE Note:**

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are  $\leq 0.8$  W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is  $> 1.45$  W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B12 / B26 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE band 2 / 4 / 5 / 17 / 38 SAR test was covered by Band 12 / 25 / 26 / 41 / 66; according to TCB workshop, SAR test for overlapping LTE bands can be reduced if
  - a. The maximum output power, including tolerance, for the smaller band is  $\leq$  the larger band to qualify for the SAR test exclusion.
  - b. The channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band.

**WLAN Note:**

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is  $\leq 1.2$  W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is  $> 0.4$  W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is  $\leq 0.8$  W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is  $> 0.8$  W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is  $\leq 1.2$  W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.



## 14.1 Head SAR

### <GSM SAR>

| Plot No. | Band    | Mode              | Test Position | Gap (mm) | Power Reduction | Ch. | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|---------|-------------------|---------------|----------|-----------------|-----|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | GSM850  | GPRS (2 Tx slots) | Right Cheek   | 0mm      | OFF             | 251 | 848.8       | 31.55               | 32.00               | 1.109                  | -0.19            | 0.075                  | 0.083                  |
|          | GSM850  | GPRS (2 Tx slots) | Right Tilted  | 0mm      | OFF             | 251 | 848.8       | 31.55               | 32.00               | 1.109                  | 0.01             | 0.033                  | 0.037                  |
|          | GSM850  | GPRS (2 Tx slots) | Left Cheek    | 0mm      | OFF             | 251 | 848.8       | 31.55               | 32.00               | 1.109                  | 0.16             | 0.102                  | 0.113                  |
| 1        | GSM850  | GPRS (2 Tx slots) | Left Cheek    | 0mm      | OFF             | 128 | 824.2       | 30.31               | 32.00               | 1.476                  | 0.03             | 0.123                  | 0.182                  |
|          | GSM850  | GPRS (2 Tx slots) | Left Cheek    | 0mm      | OFF             | 189 | 836.4       | 31.04               | 32.00               | 1.247                  | -0.03            | 0.125                  | 0.156                  |
|          | GSM850  | GPRS (2 Tx slots) | Left Tilted   | 0mm      | OFF             | 251 | 848.8       | 31.55               | 32.00               | 1.109                  | 0.02             | 0.039                  | 0.043                  |
| 2        | GSM1900 | GPRS (3 Tx slots) | Right Cheek   | 0mm      | OFF             | 810 | 1909.8      | 26.87               | 28.00               | 1.297                  | 0                | 0.099                  | 0.128                  |
|          | GSM1900 | GPRS (3 Tx slots) | Right Cheek   | 0mm      | OFF             | 512 | 1850.2      | 26.74               | 28.00               | 1.337                  | -0.13            | 0.093                  | 0.124                  |
|          | GSM1900 | GPRS (3 Tx slots) | Right Cheek   | 0mm      | OFF             | 661 | 1880        | 26.82               | 28.00               | 1.312                  | 0                | 0.096                  | 0.126                  |
|          | GSM1900 | GPRS (3 Tx slots) | Right Tilted  | 0mm      | OFF             | 810 | 1909.8      | 26.87               | 28.00               | 1.297                  | -0.17            | 0.025                  | 0.032                  |
|          | GSM1900 | GPRS (3 Tx slots) | Left Cheek    | 0mm      | OFF             | 810 | 1909.8      | 26.87               | 28.00               | 1.297                  | 0.01             | 0.050                  | 0.065                  |
|          | GSM1900 | GPRS (3 Tx slots) | Left Tilted   | 0mm      | OFF             | 810 | 1909.8      | 26.87               | 28.00               | 1.297                  | -0.08            | 0.039                  | 0.051                  |

### <WCDMA SAR>

| Plot No. | Band     | Mode         | Test Position | Gap (mm) | Power Reduction | Ch.  | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|----------|--------------|---------------|----------|-----------------|------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | WCDMA II | RMC 12.2Kbps | Right Cheek   | 0mm      | OFF             | 9262 | 1852.4      | 22.76               | 23.50               | 1.186                  | -0.15            | 0.218                  | 0.258                  |
|          | WCDMA II | RMC 12.2Kbps | Right Cheek   | 0mm      | OFF             | 9400 | 1880        | 22.71               | 23.50               | 1.199                  | 0.16             | 0.212                  | 0.254                  |
| 3        | WCDMA II | RMC 12.2Kbps | Right Cheek   | 0mm      | OFF             | 9538 | 1907.6      | 22.73               | 23.50               | 1.194                  | 0.04             | 0.233                  | 0.278                  |
|          | WCDMA II | RMC 12.2Kbps | Right Tilted  | 0mm      | OFF             | 9262 | 1852.4      | 22.76               | 23.50               | 1.186                  | -0.11            | 0.074                  | 0.088                  |
|          | WCDMA II | RMC 12.2Kbps | Left Cheek    | 0mm      | OFF             | 9262 | 1852.4      | 22.76               | 23.50               | 1.186                  | 0.01             | 0.095                  | 0.113                  |
|          | WCDMA II | RMC 12.2Kbps | Left Tilted   | 0mm      | OFF             | 9262 | 1852.4      | 22.76               | 23.50               | 1.186                  | -0.15            | 0.102                  | 0.121                  |
|          | WCDMA IV | RMC 12.2Kbps | Right Cheek   | 0mm      | OFF             | 1513 | 1752.6      | 22.74               | 23.50               | 1.191                  | 0.03             | 0.225                  | 0.268                  |
| 4        | WCDMA IV | RMC 12.2Kbps | Right Cheek   | 0mm      | OFF             | 1312 | 1712.4      | 22.62               | 23.50               | 1.225                  | 0.1              | 0.251                  | 0.307                  |
|          | WCDMA IV | RMC 12.2Kbps | Right Cheek   | 0mm      | OFF             | 1413 | 1732.6      | 22.60               | 23.50               | 1.230                  | 0.05             | 0.229                  | 0.282                  |
|          | WCDMA IV | RMC 12.2Kbps | Right Tilted  | 0mm      | OFF             | 1513 | 1752.6      | 22.74               | 23.50               | 1.191                  | -0.12            | 0.077                  | 0.092                  |
|          | WCDMA IV | RMC 12.2Kbps | Left Cheek    | 0mm      | OFF             | 1513 | 1752.6      | 22.74               | 23.50               | 1.191                  | -0.16            | 0.120                  | 0.143                  |
|          | WCDMA IV | RMC 12.2Kbps | Left Tilted   | 0mm      | OFF             | 1513 | 1752.6      | 22.74               | 23.50               | 1.191                  | 0.09             | 0.076                  | 0.091                  |
|          | WCDMA V  | RMC 12.2Kbps | Right Cheek   | 0mm      | OFF             | 4182 | 836.4       | 22.76               | 24.00               | 1.330                  | -0.13            | 0.232                  | 0.309                  |
|          | WCDMA V  | RMC 12.2Kbps | Right Tilted  | 0mm      | OFF             | 4182 | 836.4       | 22.76               | 24.00               | 1.330                  | -0.03            | 0.103                  | 0.137                  |
|          | WCDMA V  | RMC 12.2Kbps | Left Cheek    | 0mm      | OFF             | 4182 | 836.4       | 22.76               | 24.00               | 1.330                  | 0.01             | 0.288                  | 0.383                  |
| 5        | WCDMA V  | RMC 12.2Kbps | Left Cheek    | 0mm      | OFF             | 4132 | 826.4       | 22.64               | 24.00               | 1.368                  | -0.02            | 0.298                  | 0.408                  |
|          | WCDMA V  | RMC 12.2Kbps | Left Cheek    | 0mm      | OFF             | 4233 | 846.6       | 22.60               | 24.00               | 1.380                  | -0.02            | 0.292                  | 0.403                  |
|          | WCDMA V  | RMC 12.2Kbps | Left Tilted   | 0mm      | OFF             | 4182 | 836.4       | 22.76               | 24.00               | 1.330                  | 0.01             | 0.110                  | 0.146                  |

**<CDMA SAR>**

| Plot No. | Band      | Mode           | Test Position | Gap (mm) | Power Reduction | Ch.  | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-----------|----------------|---------------|----------|-----------------|------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
| 6        | CDMA BC0  | RC3 SO55       | Right Cheek   | 0mm      | OFF             | 777  | 848.31      | 23.99               | 25.00               | 1.262                  | -0.14            | 0.213                  | 0.269                  |
|          | CDMA BC0  | RC3 SO55       | Right Cheek   | 0mm      | OFF             | 1013 | 824.7       | 23.86               | 25.00               | 1.300                  | -0.02            | 0.229                  | 0.298                  |
|          | CDMA BC0  | RC3 SO55       | Right Cheek   | 0mm      | OFF             | 384  | 836.52      | 23.96               | 25.00               | 1.271                  | -0.01            | 0.227                  | 0.288                  |
|          | CDMA BC0  | RC3 SO55       | Right Tilted  | 0mm      | OFF             | 777  | 848.31      | 23.99               | 25.00               | 1.262                  | -0.08            | 0.082                  | 0.103                  |
|          | CDMA BC0  | RC3 SO55       | Left Cheek    | 0mm      | OFF             | 777  | 848.31      | 23.99               | 25.00               | 1.262                  | -0.15            | 0.170                  | 0.215                  |
|          | CDMA BC0  | RC3 SO55       | Left Tilted   | 0mm      | OFF             | 777  | 848.31      | 23.99               | 25.00               | 1.262                  | 0.11             | 0.091                  | 0.115                  |
| 7        | CDMA BC1  | 1xRTT RC3 SO55 | Right Cheek   | 0mm      | OFF             | 25   | 1851.25     | 23.75               | 25.00               | 1.334                  | 0.04             | 0.202                  | 0.269                  |
|          | CDMA BC1  | 1xRTT RC3 SO55 | Right Cheek   | 0mm      | OFF             | 600  | 1880        | 23.63               | 25.00               | 1.371                  | 0.06             | 0.221                  | 0.303                  |
|          | CDMA BC1  | 1xRTT RC3 SO55 | Right Cheek   | 0mm      | OFF             | 1175 | 1908.75     | 23.52               | 25.00               | 1.406                  | 0.04             | 0.248                  | 0.349                  |
|          | CDMA BC1  | 1xRTT RC3 SO55 | Right Tilted  | 0mm      | OFF             | 25   | 1851.25     | 23.75               | 25.00               | 1.334                  | -0.07            | 0.057                  | 0.076                  |
|          | CDMA BC1  | 1xRTT RC3 SO55 | Left Cheek    | 0mm      | OFF             | 25   | 1851.25     | 23.75               | 25.00               | 1.334                  | -0.04            | 0.164                  | 0.219                  |
|          | CDMA BC1  | 1xRTT RC3 SO55 | Left Tilted   | 0mm      | OFF             | 25   | 1851.25     | 23.75               | 25.00               | 1.334                  | 0.04             | 0.134                  | 0.179                  |
| 8        | CDMA BC10 | RC3 SO55       | Right Cheek   | 0mm      | OFF             | 580  | 820.5       | 23.83               | 25.00               | 1.309                  | 0.04             | 0.196                  | 0.257                  |
|          | CDMA BC10 | RC3 SO55       | Right Tilted  | 0mm      | OFF             | 580  | 820.5       | 23.83               | 25.00               | 1.309                  | 0.09             | 0.065                  | 0.085                  |
|          | CDMA BC10 | RC3 SO55       | Left Cheek    | 0mm      | OFF             | 580  | 820.5       | 23.83               | 25.00               | 1.309                  | -0.03            | 0.276                  | 0.361                  |
|          | CDMA BC10 | RC3 SO55       | Left Cheek    | 0mm      | OFF             | 476  | 817.9       | 23.74               | 25.00               | 1.337                  | -0.03            | 0.243                  | 0.325                  |
|          | CDMA BC10 | RC3 SO55       | Left Cheek    | 0mm      | OFF             | 684  | 823.1       | 23.81               | 25.00               | 1.315                  | -0.18            | 0.270                  | 0.355                  |
|          | CDMA BC10 | RC3 SO55       | Left Tilted   | 0mm      | OFF             | 580  | 820.5       | 23.83               | 25.00               | 1.309                  | 0.06             | 0.088                  | 0.115                  |

**<FDD LTE SAR>**

| Plot No. | Band            | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.   | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-----------------|----------|------------|---------|-----------|---------------|----------|-----------------|-------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
| 9        | LTE Band 7_Main | 20M      | QPSK       | 1       | 99        | Right Cheek   | 0mm      | OFF             | 21350 | 2560        | 22.83               | 24.00               | 1.309                  | -0.15            | 0.610                  | 0.799                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 99        | Right Cheek   | 0mm      | OFF             | 20850 | 2510        | 22.66               | 24.00               | 1.361                  | -0.12            | 0.552                  | 0.752                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 99        | Right Cheek   | 0mm      | OFF             | 21100 | 2535        | 22.70               | 24.00               | 1.349                  | -0.15            | 0.590                  | 0.796                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Right Cheek   | 0mm      | OFF             | 21350 | 2560        | 21.77               | 23.00               | 1.327                  | -0.11            | 0.357                  | 0.474                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 99        | Right Tilted  | 0mm      | OFF             | 21350 | 2560        | 22.83               | 24.00               | 1.309                  | -0.12            | 0.297                  | 0.389                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Right Tilted  | 0mm      | OFF             | 21350 | 2560        | 21.77               | 23.00               | 1.327                  | -0.07            | 0.167                  | 0.222                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 99        | Left Cheek    | 0mm      | OFF             | 21350 | 2560        | 22.83               | 24.00               | 1.309                  | 0.06             | 0.266                  | 0.348                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Left Cheek    | 0mm      | OFF             | 21350 | 2560        | 21.77               | 23.00               | 1.327                  | 0                | 0.186                  | 0.247                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 99        | Left Tilted   | 0mm      | OFF             | 21350 | 2560        | 22.83               | 24.00               | 1.309                  | 0.04             | 0.323                  | 0.423                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Left Tilted   | 0mm      | OFF             | 21350 | 2560        | 21.77               | 23.00               | 1.327                  | 0.17             | 0.190                  | 0.252                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 99        | Right Cheek   | 0mm      | OFF             | 21350 | 2560        | 22.83               | 24.00               | 1.309                  | -0.01            | 0.274                  | 0.359                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Right Cheek   | 0mm      | OFF             | 21350 | 2560        | 21.77               | 23.00               | 1.327                  | 0.01             | 0.153                  | 0.203                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 99        | Right Tilted  | 0mm      | OFF             | 21350 | 2560        | 22.83               | 24.00               | 1.309                  | -0.12            | 0.202                  | 0.264                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Right Tilted  | 0mm      | OFF             | 21350 | 2560        | 21.77               | 23.00               | 1.327                  | 0.12             | 0.116                  | 0.154                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 99        | Left Cheek    | 0mm      | OFF             | 21350 | 2560        | 22.83               | 24.00               | 1.309                  | -0.01            | 0.491                  | 0.643                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 99        | Left Cheek    | 0mm      | OFF             | 20850 | 2510        | 22.66               | 24.00               | 1.361                  | -0.09            | 0.431                  | 0.587                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 99        | Left Cheek    | 0mm      | OFF             | 21100 | 2535        | 22.70               | 24.00               | 1.349                  | -0.07            | 0.474                  | 0.639                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Left Cheek    | 0mm      | OFF             | 21350 | 2560        | 21.77               | 23.00               | 1.327                  | -0.03            | 0.305                  | 0.405                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 99        | Left Tilted   | 0mm      | OFF             | 21350 | 2560        | 22.83               | 24.00               | 1.309                  | -0.09            | 0.150                  | 0.196                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Left Tilted   | 0mm      | OFF             | 21350 | 2560        | 21.77               | 23.00               | 1.327                  | 0.1              | 0.091                  | 0.121                  |



| Plot No. | Band        | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.   | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-------------|----------|------------|---------|-----------|---------------|----------|-----------------|-------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | LTE Band 12 | 10M      | QPSK       | 1       | 49        | Right Cheek   | 0mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  | -0.01            | 0.188                  | 0.250                  |
|          | LTE Band 12 | 10M      | QPSK       | 25      | 0         | Right Cheek   | 0mm      | OFF             | 23095 | 707.5       | 21.65               | 23.00               | 1.365                  | 0.01             | 0.123                  | 0.168                  |
|          | LTE Band 12 | 10M      | QPSK       | 1       | 49        | Right Tilted  | 0mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  | -0.12            | 0.087                  | 0.115                  |
|          | LTE Band 12 | 10M      | QPSK       | 25      | 0         | Right Tilted  | 0mm      | OFF             | 23095 | 707.5       | 21.65               | 23.00               | 1.365                  | 0.08             | 0.068                  | 0.093                  |
| 10       | LTE Band 12 | 10M      | QPSK       | 1       | 49        | Left Cheek    | 0mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  | 0.05             | 0.239                  | 0.317                  |
|          | LTE Band 12 | 10M      | QPSK       | 25      | 0         | Left Cheek    | 0mm      | OFF             | 23095 | 707.5       | 21.65               | 23.00               | 1.365                  | -0.09            | 0.140                  | 0.191                  |
|          | LTE Band 12 | 10M      | QPSK       | 1       | 49        | Left Tilted   | 0mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  | 0.05             | 0.107                  | 0.142                  |
|          | LTE Band 12 | 10M      | QPSK       | 25      | 0         | Left Tilted   | 0mm      | OFF             | 23095 | 707.5       | 21.65               | 23.00               | 1.365                  | 0.08             | 0.058                  | 0.079                  |
|          | LTE Band 13 | 10M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 23230 | 782         | 22.72               | 24.00               | 1.343                  | 0.01             | 0.152                  | 0.204                  |
|          | LTE Band 13 | 10M      | QPSK       | 25      | 0         | Right Cheek   | 0mm      | OFF             | 23230 | 782         | 21.73               | 23.00               | 1.340                  | 0.04             | 0.114                  | 0.153                  |
|          | LTE Band 13 | 10M      | QPSK       | 1       | 0         | Right Tilted  | 0mm      | OFF             | 23230 | 782         | 22.72               | 24.00               | 1.343                  | -0.12            | 0.076                  | 0.102                  |
|          | LTE Band 13 | 10M      | QPSK       | 25      | 0         | Right Tilted  | 0mm      | OFF             | 23230 | 782         | 21.73               | 23.00               | 1.340                  | 0                | 0.060                  | 0.080                  |
| 11       | LTE Band 13 | 10M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 23230 | 782         | 22.72               | 24.00               | 1.343                  | 0                | 0.178                  | 0.239                  |
|          | LTE Band 13 | 10M      | QPSK       | 25      | 0         | Left Cheek    | 0mm      | OFF             | 23230 | 782         | 21.73               | 23.00               | 1.340                  | 0.06             | 0.136                  | 0.182                  |
|          | LTE Band 13 | 10M      | QPSK       | 1       | 0         | Left Tilted   | 0mm      | OFF             | 23230 | 782         | 22.72               | 24.00               | 1.343                  | -0.03            | 0.064                  | 0.086                  |
|          | LTE Band 13 | 10M      | QPSK       | 25      | 0         | Left Tilted   | 0mm      | OFF             | 23230 | 782         | 21.73               | 23.00               | 1.340                  | 0.05             | 0.053                  | 0.071                  |
|          | LTE Band 14 | 10M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 23330 | 793         | 22.71               | 24.00               | 1.346                  | 0                | 0.211                  | 0.284                  |
|          | LTE Band 14 | 10M      | QPSK       | 25      | 0         | Right Cheek   | 0mm      | OFF             | 23330 | 793         | 21.67               | 23.00               | 1.358                  | 0.1              | 0.119                  | 0.162                  |
|          | LTE Band 14 | 10M      | QPSK       | 1       | 0         | Right Tilted  | 0mm      | OFF             | 23330 | 793         | 22.71               | 24.00               | 1.346                  | 0.04             | 0.131                  | 0.176                  |
|          | LTE Band 14 | 10M      | QPSK       | 25      | 0         | Right Tilted  | 0mm      | OFF             | 23330 | 793         | 21.67               | 23.00               | 1.358                  | 0.06             | 0.076                  | 0.103                  |
| 12       | LTE Band 14 | 10M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 23330 | 793         | 22.71               | 24.00               | 1.346                  | 0.04             | 0.268                  | 0.361                  |
|          | LTE Band 14 | 10M      | QPSK       | 25      | 0         | Left Cheek    | 0mm      | OFF             | 23330 | 793         | 21.67               | 23.00               | 1.358                  | 0.02             | 0.152                  | 0.206                  |
|          | LTE Band 14 | 10M      | QPSK       | 1       | 0         | Left Tilted   | 0mm      | OFF             | 23330 | 793         | 22.71               | 24.00               | 1.346                  | 0.02             | 0.107                  | 0.144                  |
|          | LTE Band 14 | 10M      | QPSK       | 25      | 0         | Left Tilted   | 0mm      | OFF             | 23330 | 793         | 21.67               | 23.00               | 1.358                  | 0.09             | 0.062                  | 0.084                  |
| 13       | LTE Band 25 | 20M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 26140 | 1860        | 23.26               | 23.50               | 1.057                  | -0.19            | 0.245                  | 0.259                  |
|          | LTE Band 25 | 20M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 26340 | 1880        | 23.15               | 23.50               | 1.084                  | -0.09            | 0.206                  | 0.223                  |
|          | LTE Band 25 | 20M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 26590 | 1905        | 22.99               | 23.50               | 1.125                  | -0.03            | 0.202                  | 0.227                  |
|          | LTE Band 25 | 20M      | QPSK       | 50      | 0         | Right Cheek   | 0mm      | OFF             | 26140 | 1860        | 22.07               | 22.50               | 1.104                  | -0.16            | 0.141                  | 0.156                  |
|          | LTE Band 25 | 20M      | QPSK       | 1       | 0         | Right Tilted  | 0mm      | OFF             | 26140 | 1860        | 23.26               | 23.50               | 1.057                  | -0.03            | 0.066                  | 0.070                  |
|          | LTE Band 25 | 20M      | QPSK       | 50      | 0         | Right Tilted  | 0mm      | OFF             | 26140 | 1860        | 22.07               | 22.50               | 1.104                  | -0.1             | 0.037                  | 0.041                  |
|          | LTE Band 25 | 20M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 26140 | 1860        | 23.26               | 23.50               | 1.057                  | -0.06            | 0.128                  | 0.135                  |
|          | LTE Band 25 | 20M      | QPSK       | 50      | 0         | Left Cheek    | 0mm      | OFF             | 26140 | 1860        | 22.07               | 22.50               | 1.104                  | -0.03            | 0.070                  | 0.077                  |
|          | LTE Band 25 | 20M      | QPSK       | 1       | 0         | Left Tilted   | 0mm      | OFF             | 26140 | 1860        | 23.26               | 23.50               | 1.057                  | -0.12            | 0.087                  | 0.092                  |
|          | LTE Band 25 | 20M      | QPSK       | 50      | 0         | Left Tilted   | 0mm      | OFF             | 26140 | 1860        | 22.07               | 22.50               | 1.104                  | -0.18            | 0.047                  | 0.052                  |
|          | LTE Band 26 | 15M      | QPSK       | 1       | 37        | Right Cheek   | 0mm      | OFF             | 26865 | 831.5       | 22.73               | 24.00               | 1.340                  | -0.12            | 0.216                  | 0.289                  |
|          | LTE Band 26 | 15M      | QPSK       | 36      | 0         | Right Cheek   | 0mm      | OFF             | 26865 | 831.5       | 21.64               | 23.00               | 1.368                  | 0.02             | 0.119                  | 0.163                  |
|          | LTE Band 26 | 15M      | QPSK       | 1       | 37        | Right Tilted  | 0mm      | OFF             | 26865 | 831.5       | 22.73               | 24.00               | 1.340                  | -0.04            | 0.091                  | 0.122                  |
|          | LTE Band 26 | 15M      | QPSK       | 36      | 0         | Right Tilted  | 0mm      | OFF             | 26865 | 831.5       | 21.64               | 23.00               | 1.368                  | 0.05             | 0.053                  | 0.072                  |
| 14       | LTE Band 26 | 15M      | QPSK       | 1       | 37        | Left Cheek    | 0mm      | OFF             | 26865 | 831.5       | 22.73               | 24.00               | 1.340                  | -0.03            | 0.269                  | 0.360                  |
|          | LTE Band 26 | 15M      | QPSK       | 36      | 0         | Left Cheek    | 0mm      | OFF             | 26865 | 831.5       | 21.64               | 23.00               | 1.368                  | 0.01             | 0.150                  | 0.205                  |
|          | LTE Band 26 | 15M      | QPSK       | 1       | 37        | Left Tilted   | 0mm      | OFF             | 26865 | 831.5       | 22.73               | 24.00               | 1.340                  | -0.06            | 0.121                  | 0.162                  |
|          | LTE Band 26 | 15M      | QPSK       | 36      | 0         | Left Tilted   | 0mm      | OFF             | 26865 | 831.5       | 21.64               | 23.00               | 1.368                  | -0.01            | 0.068                  | 0.093                  |



| Plot No. | Band             | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.    | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|------------------|----------|------------|---------|-----------|---------------|----------|-----------------|--------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
| 15       | LTE Band 30_Main | 10M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 27710  | 2310        | 22.71               | 24.00               | 1.346                  | 0.03             | 0.255                  | 0.343                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 25      | 0         | Right Cheek   | 0mm      | OFF             | 27710  | 2310        | 21.77               | 23.00               | 1.327                  | 0.11             | 0.193                  | 0.256                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 1       | 0         | Right Tilted  | 0mm      | OFF             | 27710  | 2310        | 22.71               | 24.00               | 1.346                  | -0.16            | 0.124                  | 0.167                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 25      | 0         | Right Tilted  | 0mm      | OFF             | 27710  | 2310        | 21.77               | 23.00               | 1.327                  | 0.04             | 0.097                  | 0.129                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 27710  | 2310        | 22.71               | 24.00               | 1.346                  | 0.07             | 0.129                  | 0.174                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 25      | 0         | Left Cheek    | 0mm      | OFF             | 27710  | 2310        | 21.77               | 23.00               | 1.327                  | 0.11             | 0.094                  | 0.125                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 1       | 0         | Left Tilted   | 0mm      | OFF             | 27710  | 2310        | 22.71               | 24.00               | 1.346                  | -0.08            | 0.139                  | 0.187                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 25      | 0         | Left Tilted   | 0mm      | OFF             | 27710  | 2310        | 21.77               | 23.00               | 1.327                  | 0.06             | 0.091                  | 0.121                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 27710  | 2310        | 22.71               | 24.00               | 1.346                  | -0.17            | 0.095                  | 0.128                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 25      | 0         | Right Cheek   | 0mm      | OFF             | 27710  | 2310        | 21.77               | 23.00               | 1.327                  | 0.11             | 0.055                  | 0.073                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 1       | 0         | Right Tilted  | 0mm      | OFF             | 27710  | 2310        | 22.71               | 24.00               | 1.346                  | -0.18            | 0.124                  | 0.167                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 25      | 0         | Right Tilted  | 0mm      | OFF             | 27710  | 2310        | 21.77               | 23.00               | 1.327                  | 0.13             | 0.072                  | 0.096                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 27710  | 2310        | 22.71               | 24.00               | 1.346                  | 0                | 0.147                  | 0.198                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 25      | 0         | Left Cheek    | 0mm      | OFF             | 27710  | 2310        | 21.77               | 23.00               | 1.327                  | 0.01             | 0.111                  | 0.147                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 1       | 0         | Left Tilted   | 0mm      | OFF             | 27710  | 2310        | 22.71               | 24.00               | 1.346                  | -0.11            | 0.086                  | 0.116                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 25      | 0         | Left Tilted   | 0mm      | OFF             | 27710  | 2310        | 21.77               | 23.00               | 1.327                  | 0.05             | 0.048                  | 0.064                  |
|          | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 132572 | 1770        | 22.93               | 23.50               | 1.140                  | 0.03             | 0.110                  | 0.125                  |
|          | LTE Band 66      | 20M      | QPSK       | 50      | 0         | Right Cheek   | 0mm      | OFF             | 132572 | 1770        | 21.85               | 22.50               | 1.161                  | 0                | 0.089                  | 0.103                  |
|          | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Right Tilted  | 0mm      | OFF             | 132572 | 1770        | 22.93               | 23.50               | 1.140                  | 0.02             | 0.067                  | 0.076                  |
|          | LTE Band 66      | 20M      | QPSK       | 50      | 0         | Right Tilted  | 0mm      | OFF             | 132572 | 1770        | 21.85               | 22.50               | 1.161                  | 0.07             | 0.036                  | 0.042                  |
|          | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 132572 | 1770        | 22.93               | 23.50               | 1.140                  | -0.03            | 0.155                  | 0.177                  |
| 16       | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 132072 | 1720        | 22.83               | 23.50               | 1.167                  | -0.03            | 0.213                  | 0.249                  |
|          | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 132322 | 1745        | 22.87               | 23.50               | 1.156                  | -0.05            | 0.086                  | 0.099                  |
|          | LTE Band 66      | 20M      | QPSK       | 50      | 0         | Left Cheek    | 0mm      | OFF             | 132572 | 1770        | 21.85               | 22.50               | 1.161                  | 0.15             | 0.080                  | 0.093                  |
|          | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Left Tilted   | 0mm      | OFF             | 132572 | 1770        | 22.93               | 23.50               | 1.140                  | -0.02            | 0.057                  | 0.065                  |
|          | LTE Band 66      | 20M      | QPSK       | 50      | 0         | Left Tilted   | 0mm      | OFF             | 132572 | 1770        | 21.85               | 22.50               | 1.161                  | 0.18             | 0.032                  | 0.037                  |
|          | LTE Band 71      | 20M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 133322 | 683         | 23.18               | 24.00               | 1.208                  | -0.03            | 0.145                  | 0.175                  |
|          | LTE Band 71      | 20M      | QPSK       | 50      | 0         | Right Cheek   | 0mm      | OFF             | 133322 | 683         | 22.10               | 23.00               | 1.230                  | 0.06             | 0.086                  | 0.106                  |
|          | LTE Band 71      | 20M      | QPSK       | 1       | 0         | Right Tilted  | 0mm      | OFF             | 133322 | 683         | 23.18               | 24.00               | 1.208                  | 0.03             | 0.074                  | 0.089                  |
|          | LTE Band 71      | 20M      | QPSK       | 50      | 0         | Right Tilted  | 0mm      | OFF             | 133322 | 683         | 22.10               | 23.00               | 1.230                  | -0.02            | 0.027                  | 0.033                  |
| 17       | LTE Band 71      | 20M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 133322 | 683         | 23.18               | 24.00               | 1.208                  | 0                | 0.167                  | 0.202                  |
|          | LTE Band 71      | 20M      | QPSK       | 50      | 0         | Left Cheek    | 0mm      | OFF             | 133322 | 683         | 22.10               | 23.00               | 1.230                  | 0.03             | 0.099                  | 0.122                  |
|          | LTE Band 71      | 20M      | QPSK       | 1       | 0         | Left Tilted   | 0mm      | OFF             | 133322 | 683         | 23.18               | 24.00               | 1.208                  | 0.02             | 0.088                  | 0.106                  |
|          | LTE Band 71      | 20M      | QPSK       | 50      | 0         | Left Tilted   | 0mm      | OFF             | 133322 | 683         | 22.10               | 23.00               | 1.230                  | 0.02             | 0.054                  | 0.066                  |



## &lt;TDD LTE SAR&gt;

| Plot No. | Band                   | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.         | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Duty Cycle % | Duty Cycle Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|------------------------|----------|------------|---------|-----------|---------------|----------|-----------------|-------------|-------------|---------------------|---------------------|------------------------|--------------|---------------------------|------------------|------------------------|------------------------|
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 41490       | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | -0.08            | 0.489                  | 0.501                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 49        | Right Cheek   | 0mm      | OFF             | 39750       | 2506        | 23.14               | 24.00               | 1.219                  | 62.90        | 1.006                     | -0.06            | 0.259                  | 0.318                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 99        | Right Cheek   | 0mm      | OFF             | 40185       | 2549.5      | 23.15               | 24.00               | 1.216                  | 62.90        | 1.006                     | -0.03            | 0.299                  | 0.366                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 99        | Right Cheek   | 0mm      | OFF             | 40620       | 2593        | 23.26               | 24.00               | 1.186                  | 62.90        | 1.006                     | -0.02            | 0.366                  | 0.437                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 99        | Right Cheek   | 0mm      | OFF             | 41055       | 2636.5      | 23.14               | 24.00               | 1.219                  | 62.90        | 1.006                     | -0.11            | 0.381                  | 0.467                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 50        | Right Cheek   | 0mm      | OFF             | 40620       | 2593        | 21.79               | 23.00               | 1.321                  | 62.90        | 1.006                     | -0.16            | 0.256                  | 0.340                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Tilted  | 0mm      | OFF             | 41490       | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | 0.01             | 0.197                  | 0.202                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 50        | Right Tilted  | 0mm      | OFF             | 40620       | 2593        | 21.79               | 23.00               | 1.321                  | 62.90        | 1.006                     | -0.16            | 0.106                  | 0.141                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 41490       | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | 0.04             | 0.209                  | 0.214                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 50        | Left Cheek    | 0mm      | OFF             | 40620       | 2593        | 21.79               | 23.00               | 1.321                  | 62.90        | 1.006                     | -0.03            | 0.110                  | 0.146                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Left Tilted   | 0mm      | OFF             | 41490       | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | 0.01             | 0.254                  | 0.260                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 50        | Left Tilted   | 0mm      | OFF             | 40620       | 2593        | 21.79               | 23.00               | 1.321                  | 62.90        | 1.006                     | 0.07             | 0.136                  | 0.181                  |
| 18       | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 99        | Right Cheek   | 0mm      | OFF             | 40620       | 2593        | 26.18               | 27.00               | 1.208                  | 42.90        | 1.009                     | -0.04            | 0.507                  | 0.618                  |
|          | LTE Band 41_UL CA_Main | 20M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 40185+39987 | 2680        | 23.14               | 24.00               | 1.219                  | 62.90        | 1.006                     | -0.11            | 0.274                  | 0.336                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Right Cheek   | 0mm      | OFF             | 41490       | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | -0.11            | 0.152                  | 0.156                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 50        | Right Cheek   | 0mm      | OFF             | 40620       | 2593        | 21.79               | 23.00               | 1.321                  | 62.90        | 1.006                     | 0.06             | 0.078                  | 0.104                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Right Tilted  | 0mm      | OFF             | 41490       | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | -0.02            | 0.095                  | 0.097                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 50        | Right Tilted  | 0mm      | OFF             | 40620       | 2593        | 21.79               | 23.00               | 1.321                  | 62.90        | 1.006                     | -0.02            | 0.050                  | 0.066                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 41490       | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | -0.09            | 0.275                  | 0.282                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 49        | Left Cheek    | 0mm      | OFF             | 39750       | 2506        | 23.14               | 24.00               | 1.219                  | 62.90        | 1.006                     | -0.07            | 0.201                  | 0.246                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 99        | Left Cheek    | 0mm      | OFF             | 40185       | 2549.5      | 23.15               | 24.00               | 1.216                  | 62.90        | 1.006                     | 0.06             | 0.238                  | 0.291                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 99        | Left Cheek    | 0mm      | OFF             | 40620       | 2593        | 23.26               | 24.00               | 1.186                  | 62.90        | 1.006                     | 0.04             | 0.230                  | 0.274                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 99        | Left Cheek    | 0mm      | OFF             | 41055       | 2636.5      | 23.14               | 24.00               | 1.219                  | 62.90        | 1.006                     | -0.02            | 0.239                  | 0.293                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 50        | Left Cheek    | 0mm      | OFF             | 40620       | 2593        | 21.79               | 23.00               | 1.321                  | 62.90        | 1.006                     | -0.12            | 0.142                  | 0.189                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Tilted   | 0mm      | OFF             | 41490       | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | -0.16            | 0.064                  | 0.066                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 50        | Left Tilted   | 0mm      | OFF             | 40620       | 2593        | 21.79               | 23.00               | 1.321                  | 62.90        | 1.006                     | -0.11            | 0.059                  | 0.078                  |
|          | LTE Band 41_PC2_Aux    | 20M      | QPSK       | 1       | 99        | Left Cheek    | 0mm      | OFF             | 40620       | 2593        | 26.18               | 27.00               | 1.208                  | 42.90        | 1.009                     | -0.02            | 0.323                  | 0.394                  |
|          | LTE Band 41_UL CA_Aux  | 20M      | QPSK       | 1       | 0         | Left Cheek    | 0mm      | OFF             | 40185+39987 | 2549.5      | 23.14               | 24.00               | 1.219                  | 62.90        | 1.006                     | -0.03            | 0.235                  | 0.288                  |

**< Bluetooth SAR >**

| Plot No. | Band      | Mode  | Test Position | Gap (mm) | Ch. | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-----------|-------|---------------|----------|-----|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | Bluetooth | 1Mbps | Right Cheek   | 0mm      | 0   | 2402        | 9.76                | 10.00               | 1.057                  | 0.01             | 0.114                  | 0.120                  |
| 19       | Bluetooth | 1Mbps | Right Cheek   | 0mm      | 39  | 2441        | 8.86                | 10.00               | 1.300                  | -0.06            | 0.110                  | 0.143                  |
|          | Bluetooth | 1Mbps | Right Cheek   | 0mm      | 78  | 2480        | 8.28                | 10.00               | 1.486                  | 0.06             | 0.078                  | 0.116                  |
|          | Bluetooth | 1Mbps | Right Tilted  | 0mm      | 0   | 2402        | 9.76                | 10.00               | 1.057                  | 0.09             | 0.062                  | 0.066                  |
|          | Bluetooth | 1Mbps | Left Cheek    | 0mm      | 0   | 2402        | 9.76                | 10.00               | 1.057                  | 0.15             | 0.032                  | 0.034                  |
|          | Bluetooth | 1Mbps | Left Tilted   | 0mm      | 0   | 2402        | 9.76                | 10.00               | 1.057                  | 0.02             | 0.032                  | 0.034                  |

**< WLAN SAR >**

| Plot No. | Band       | Mode                | Test Position | Gap (mm) | Power Reduction | Ch. | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Duty Cycle % | Duty Cycle Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|------------|---------------------|---------------|----------|-----------------|-----|-------------|---------------------|---------------------|------------------------|--------------|---------------------------|------------------|------------------------|------------------------|
|          | WLAN2.4GHz | 802.11b 1Mbps       | Right Cheek   | 0mm      | ON              | 11  | 2462        | 16.49               | 18.00               | 1.416                  | 99.42        | 1.006                     | 0.13             | 0.789                  | 1.124                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Right Cheek   | 0mm      | ON              | 1   | 2412        | 16.48               | 18.00               | 1.419                  | 99.42        | 1.006                     | 0.14             | 0.728                  | 1.039                  |
| 20       | WLAN2.4GHz | 802.11b 1Mbps       | Right Cheek   | 0mm      | ON              | 6   | 2437        | 16.49               | 18.00               | 1.416                  | 99.42        | 1.006                     | 0.04             | 0.796                  | 1.134                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Right Tilted  | 0mm      | ON              | 11  | 2462        | 16.49               | 18.00               | 1.416                  | 99.42        | 1.006                     | -0.11            | 0.516                  | 0.735                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Left Cheek    | 0mm      | ON              | 11  | 2462        | 16.49               | 18.00               | 1.416                  | 99.42        | 1.006                     | -0.07            | 0.277                  | 0.395                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Left Tilted   | 0mm      | ON              | 11  | 2462        | 16.49               | 18.00               | 1.416                  | 99.42        | 1.006                     | -0.02            | 0.231                  | 0.329                  |
| 21       | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Right Cheek   | 0mm      | ON              | 58  | 5290        | 15.70               | 16.00               | 1.071                  | 87.06        | 1.149                     | 0.1              | 0.847                  | 1.042                  |
|          | WLAN5GHz   | 802.11n-HT40 MCS0   | Right Cheek   | 0mm      | ON              | 62  | 5310        | 15.91               | 16.00               | 1.020                  | 93.90        | 1.065                     | 0.17             | 0.829                  | 0.901                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Right Tilted  | 0mm      | ON              | 58  | 5290        | 15.70               | 16.00               | 1.071                  | 87.06        | 1.149                     | 0.12             | 0.556                  | 0.684                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Left Cheek    | 0mm      | ON              | 58  | 5290        | 15.70               | 16.00               | 1.071                  | 87.06        | 1.149                     | -0.16            | 0.190                  | 0.234                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Left Tilted   | 0mm      | ON              | 58  | 5290        | 15.70               | 16.00               | 1.071                  | 87.06        | 1.149                     | -0.18            | 0.184                  | 0.226                  |
| 22       | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Right Cheek   | 0mm      | ON              | 138 | 5690        | 15.81               | 16.00               | 1.044                  | 87.06        | 1.149                     | 0.09             | 0.980                  | 1.176                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Right Cheek   | 0mm      | ON              | 106 | 5530        | 15.60               | 16.00               | 1.096                  | 87.06        | 1.149                     | 0.18             | 0.901                  | 1.135                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Right Tilted  | 0mm      | ON              | 138 | 5690        | 15.81               | 16.00               | 1.044                  | 87.06        | 1.149                     | 0.17             | 0.632                  | 0.758                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Left Cheek    | 0mm      | ON              | 138 | 5690        | 15.81               | 16.00               | 1.044                  | 87.06        | 1.149                     | -0.11            | 0.325                  | 0.390                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Left Tilted   | 0mm      | ON              | 138 | 5690        | 15.81               | 16.00               | 1.044                  | 87.06        | 1.149                     | 0.13             | 0.336                  | 0.403                  |
| 23       | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Right Cheek   | 0mm      | ON              | 155 | 5775        | 15.95               | 16.00               | 1.011                  | 87.06        | 1.149                     | 0.13             | 0.863                  | 1.003                  |
|          | WLAN5GHz   | 802.11n-HT40 MCS0   | Right Cheek   | 0mm      | ON              | 151 | 5755        | 15.73               | 16.00               | 1.063                  | 93.90        | 1.065                     | 0.14             | 0.884                  | 1.001                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Right Tilted  | 0mm      | ON              | 155 | 5775        | 15.95               | 16.00               | 1.011                  | 87.06        | 1.149                     | 0.12             | 0.558                  | 0.648                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Left Cheek    | 0mm      | ON              | 155 | 5775        | 15.95               | 16.00               | 1.011                  | 87.06        | 1.149                     | 0.07             | 0.270                  | 0.314                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Left Tilted   | 0mm      | ON              | 155 | 5775        | 15.95               | 16.00               | 1.011                  | 87.06        | 1.149                     | -0.1             | 0.281                  | 0.326                  |

## 14.2 Hotspot SAR

### <GSM SAR>

| Plot No. | Band    | Mode              | Test Position | Gap (mm) | Power Reduction | Ch. | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|---------|-------------------|---------------|----------|-----------------|-----|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | GSM850  | GPRS (2 Tx slots) | Front         | 5mm      | OFF             | 251 | 848.8       | 31.55               | 32.00               | 1.109                  | 0.18             | 0.324                  | 0.359                  |
|          | GSM850  | GPRS (2 Tx slots) | Back          | 5mm      | OFF             | 251 | 848.8       | 31.55               | 32.00               | 1.109                  | 0.09             | 0.421                  | 0.467                  |
| 24       | GSM850  | GPRS (2 Tx slots) | Back          | 5mm      | OFF             | 128 | 824.2       | 30.31               | 32.00               | 1.476                  | -0.15            | 0.460                  | 0.679                  |
|          | GSM850  | GPRS (2 Tx slots) | Back          | 5mm      | OFF             | 189 | 836.4       | 31.04               | 32.00               | 1.247                  | -0.14            | 0.429                  | 0.535                  |
|          | GSM850  | GPRS (2 Tx slots) | Left Side     | 5mm      | OFF             | 251 | 848.8       | 31.55               | 32.00               | 1.109                  | 0                | 0.220                  | 0.244                  |
|          | GSM850  | GPRS (2 Tx slots) | Right Side    | 5mm      | OFF             | 251 | 848.8       | 31.55               | 32.00               | 1.109                  | -0.02            | 0.131                  | 0.145                  |
|          | GSM850  | GPRS (2 Tx slots) | Bottom Side   | 5mm      | OFF             | 251 | 848.8       | 31.55               | 32.00               | 1.109                  | 0.13             | 0.183                  | 0.203                  |
|          | GSM1900 | GPRS (3 Tx slots) | Front         | 5mm      | ON              | 810 | 1909.8      | 19.68               | 20.50               | 1.208                  | 0.02             | 0.640                  | 0.773                  |
|          | GSM1900 | GPRS (3 Tx slots) | Back          | 5mm      | ON              | 810 | 1909.8      | 19.68               | 20.50               | 1.208                  | 0.1              | 0.621                  | 0.750                  |
|          | GSM1900 | GPRS (3 Tx slots) | Left Side     | 5mm      | ON              | 810 | 1909.8      | 19.68               | 20.50               | 1.208                  | -0.04            | 0.022                  | 0.027                  |
|          | GSM1900 | GPRS (3 Tx slots) | Right Side    | 5mm      | ON              | 810 | 1909.8      | 19.68               | 20.50               | 1.208                  | 0.06             | 0.062                  | 0.075                  |
| 25       | GSM1900 | GPRS (3 Tx slots) | Bottom Side   | 5mm      | ON              | 810 | 1909.8      | 19.68               | 20.50               | 1.208                  | 0.07             | 0.944                  | 1.140                  |
|          | GSM1900 | GPRS (3 Tx slots) | Bottom Side   | 5mm      | ON              | 512 | 1850.2      | 19.58               | 20.50               | 1.236                  | 0.16             | 0.911                  | 1.126                  |
|          | GSM1900 | GPRS (3 Tx slots) | Bottom Side   | 5mm      | ON              | 661 | 1880        | 19.60               | 20.50               | 1.230                  | 0.06             | 0.926                  | 1.139                  |

### <WCDMA SAR>

| Plot No. | Band     | Mode         | Test Position | Gap (mm) | Power Reduction | Ch.  | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|----------|--------------|---------------|----------|-----------------|------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | WCDMA II | RMC 12.2Kbps | Front         | 5mm      | ON              | 9262 | 1852.4      | 13.95               | 15.50               | 1.429                  | 0.12             | 0.556                  | 0.794                  |
|          | WCDMA II | RMC 12.2Kbps | Back          | 5mm      | ON              | 9262 | 1852.4      | 13.95               | 15.50               | 1.429                  | 0.11             | 0.467                  | 0.667                  |
|          | WCDMA II | RMC 12.2Kbps | Left Side     | 5mm      | ON              | 9262 | 1852.4      | 13.95               | 15.50               | 1.429                  | -0.02            | 0.017                  | 0.024                  |
|          | WCDMA II | RMC 12.2Kbps | Right Side    | 5mm      | ON              | 9262 | 1852.4      | 13.95               | 15.50               | 1.429                  | -0.01            | 0.051                  | 0.073                  |
| 26       | WCDMA II | RMC 12.2Kbps | Bottom Side   | 5mm      | ON              | 9262 | 1852.4      | 13.95               | 15.50               | 1.429                  | 0.07             | 0.786                  | 1.123                  |
|          | WCDMA II | RMC 12.2Kbps | Bottom Side   | 5mm      | ON              | 9400 | 1880        | 13.83               | 15.50               | 1.469                  | 0.02             | 0.735                  | 1.080                  |
|          | WCDMA II | RMC 12.2Kbps | Bottom Side   | 5mm      | ON              | 9538 | 1907.6      | 13.79               | 15.50               | 1.483                  | -0.02            | 0.698                  | 1.035                  |
|          | WCDMA IV | RMC 12.2Kbps | Front         | 5mm      | ON              | 1513 | 1752.6      | 15.53               | 16.50               | 1.250                  | -0.1             | 0.704                  | 0.880                  |
|          | WCDMA IV | RMC 12.2Kbps | Front         | 5mm      | ON              | 1312 | 1712.4      | 15.45               | 16.50               | 1.274                  | -0.03            | 0.631                  | 0.804                  |
|          | WCDMA IV | RMC 12.2Kbps | Front         | 5mm      | ON              | 1413 | 1732.6      | 15.44               | 16.50               | 1.276                  | -0.04            | 0.650                  | 0.830                  |
|          | WCDMA IV | RMC 12.2Kbps | Back          | 5mm      | ON              | 1513 | 1752.6      | 15.53               | 16.50               | 1.250                  | 0.14             | 0.653                  | 0.816                  |
|          | WCDMA IV | RMC 12.2Kbps | Back          | 5mm      | ON              | 1312 | 1712.4      | 15.45               | 16.50               | 1.274                  | -0.05            | 0.596                  | 0.759                  |
|          | WCDMA IV | RMC 12.2Kbps | Back          | 5mm      | ON              | 1413 | 1732.6      | 15.44               | 16.50               | 1.276                  | -0.05            | 0.606                  | 0.774                  |
|          | WCDMA IV | RMC 12.2Kbps | Left Side     | 5mm      | ON              | 1513 | 1752.6      | 15.53               | 16.50               | 1.250                  | 0.05             | 0.038                  | 0.048                  |
|          | WCDMA IV | RMC 12.2Kbps | Right Side    | 5mm      | ON              | 1513 | 1752.6      | 15.53               | 16.50               | 1.250                  | -0.01            | 0.070                  | 0.088                  |
| 27       | WCDMA IV | RMC 12.2Kbps | Bottom Side   | 5mm      | ON              | 1513 | 1752.6      | 15.53               | 16.50               | 1.250                  | 0.17             | 0.940                  | 1.175                  |
|          | WCDMA IV | RMC 12.2Kbps | Bottom Side   | 5mm      | ON              | 1312 | 1712.4      | 15.45               | 16.50               | 1.274                  | 0.17             | 0.790                  | 1.006                  |
|          | WCDMA IV | RMC 12.2Kbps | Bottom Side   | 5mm      | ON              | 1413 | 1732.6      | 15.44               | 16.50               | 1.276                  | 0.15             | 0.843                  | 1.076                  |
|          | WCDMA V  | RMC 12.2Kbps | Front         | 5mm      | ON              | 4182 | 836.4       | 22.26               | 23.50               | 1.330                  | -0.05            | 0.527                  | 0.701                  |
|          | WCDMA V  | RMC 12.2Kbps | Back          | 5mm      | ON              | 4182 | 836.4       | 22.26               | 23.50               | 1.330                  | -0.06            | 0.665                  | 0.885                  |
|          | WCDMA V  | RMC 12.2Kbps | Back          | 5mm      | ON              | 4132 | 826.4       | 22.20               | 23.50               | 1.349                  | -0.08            | 0.619                  | 0.835                  |
| 28       | WCDMA V  | RMC 12.2Kbps | Back          | 5mm      | ON              | 4233 | 846.6       | 22.15               | 23.50               | 1.365                  | -0.08            | 0.658                  | 0.898                  |
|          | WCDMA V  | RMC 12.2Kbps | Left Side     | 5mm      | ON              | 4182 | 836.4       | 22.26               | 23.50               | 1.330                  | 0.03             | 0.331                  | 0.440                  |
|          | WCDMA V  | RMC 12.2Kbps | Right Side    | 5mm      | ON              | 4182 | 836.4       | 22.26               | 23.50               | 1.330                  | 0.04             | 0.215                  | 0.286                  |
|          | WCDMA V  | RMC 12.2Kbps | Bottom Side   | 5mm      | ON              | 4182 | 836.4       | 22.26               | 23.50               | 1.330                  | 0.16             | 0.290                  | 0.386                  |

**<CDMA SAR>**

| Plot No. | Band      | Mode           | Test Position | Gap (mm) | Power Reduction | Ch.  | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-----------|----------------|---------------|----------|-----------------|------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | CDMA BC0  | RTAP 153.6Kbps | Front         | 5mm      | ON              | 777  | 848.31      | 22.78               | 23.50               | 1.180                  | -0.13            | 0.553                  | 0.653                  |
| 29       | CDMA BC0  | RTAP 153.6Kbps | Back          | 5mm      | ON              | 777  | 848.31      | 22.78               | 23.50               | 1.180                  | 0.19             | 0.831                  | 0.981                  |
|          | CDMA BC0  | RTAP 153.6Kbps | Back          | 5mm      | ON              | 1013 | 824.7       | 22.71               | 23.50               | 1.199                  | -0.06            | 0.755                  | 0.906                  |
|          | CDMA BC0  | RTAP 153.6Kbps | Back          | 5mm      | ON              | 384  | 836.52      | 22.77               | 23.50               | 1.183                  | -0.15            | 0.774                  | 0.916                  |
|          | CDMA BC0  | RTAP 153.6Kbps | Left Side     | 5mm      | ON              | 777  | 848.31      | 22.78               | 23.50               | 1.180                  | 0.18             | 0.278                  | 0.328                  |
|          | CDMA BC0  | RTAP 153.6Kbps | Right Side    | 5mm      | ON              | 777  | 848.31      | 22.78               | 23.50               | 1.180                  | 0.01             | 0.133                  | 0.157                  |
|          | CDMA BC0  | RTAP 153.6Kbps | Bottom Side   | 5mm      | ON              | 777  | 848.31      | 22.78               | 23.50               | 1.180                  | -0.18            | 0.441                  | 0.521                  |
|          | CDMA BC1  | RTAP 153.6Kbps | Front         | 5mm      | ON              | 25   | 1851.25     | 14.65               | 15.50               | 1.216                  | -0.11            | 0.484                  | 0.589                  |
|          | CDMA BC1  | RTAP 153.6Kbps | Back          | 5mm      | ON              | 25   | 1851.25     | 14.65               | 15.50               | 1.216                  | -0.06            | 0.494                  | 0.601                  |
|          | CDMA BC1  | RTAP 153.6Kbps | Left Side     | 5mm      | ON              | 25   | 1851.25     | 14.65               | 15.50               | 1.216                  | 0.13             | 0.019                  | 0.023                  |
|          | CDMA BC1  | RTAP 153.6Kbps | Right Side    | 5mm      | ON              | 25   | 1851.25     | 14.65               | 15.50               | 1.216                  | 0.12             | 0.058                  | 0.071                  |
|          | CDMA BC1  | RTAP 153.6Kbps | Bottom Side   | 5mm      | ON              | 25   | 1851.25     | 14.65               | 15.50               | 1.216                  | 0.08             | 0.705                  | 0.857                  |
|          | CDMA BC1  | RTAP 153.6Kbps | Bottom Side   | 5mm      | ON              | 600  | 1880        | 14.65               | 15.50               | 1.216                  | 0.09             | 0.769                  | 0.935                  |
| 30       | CDMA BC1  | RTAP 153.6Kbps | Bottom Side   | 5mm      | ON              | 1175 | 1908.75     | 14.63               | 15.50               | 1.222                  | 0.1              | 0.820                  | 1.002                  |
|          | CDMA BC10 | RTAP 153.6Kbps | Front         | 5mm      | ON              | 580  | 820.5       | 22.62               | 23.50               | 1.225                  | -0.11            | 0.607                  | 0.743                  |
| 31       | CDMA BC10 | RTAP 153.6Kbps | Back          | 5mm      | ON              | 580  | 820.5       | 22.62               | 23.50               | 1.225                  | -0.1             | 0.793                  | 0.971                  |
|          | CDMA BC10 | RTAP 153.6Kbps | Left Side     | 5mm      | ON              | 580  | 820.5       | 22.62               | 23.50               | 1.225                  | 0.13             | 0.339                  | 0.415                  |
|          | CDMA BC10 | RTAP 153.6Kbps | Right Side    | 5mm      | ON              | 580  | 820.5       | 22.62               | 23.50               | 1.225                  | 0.14             | 0.243                  | 0.298                  |
|          | CDMA BC10 | RTAP 153.6Kbps | Bottom Side   | 5mm      | ON              | 580  | 820.5       | 22.62               | 23.50               | 1.225                  | -0.12            | 0.382                  | 0.468                  |



**<FDD LTE SAR>**

| Plot No. | Band            | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.   | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-----------------|----------|------------|---------|-----------|---------------|----------|-----------------|-------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Front         | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | 0.1              | 0.482                  | 0.628                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Front         | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | 0.13             | 0.489                  | 0.642                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | 0.11             | 0.785                  | 1.023                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 20850 | 2510        | 16.81               | 18.00               | 1.315                  | 0.18             | 0.809                  | 1.064                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 21100 | 2535        | 16.83               | 18.00               | 1.309                  | 0.17             | 0.791                  | 1.036                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | 0.11             | 0.801                  | 1.051                  |
| 32       | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 20850 | 2510        | 16.66               | 18.00               | 1.361                  | 0.11             | 0.804                  | 1.095                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 21100 | 2535        | 16.81               | 18.00               | 1.315                  | 0.13             | 0.759                  | 0.998                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 100     | 0         | Back          | 5mm      | ON              | 21350 | 2560        | 16.71               | 18.00               | 1.346                  | 0.14             | 0.729                  | 0.981                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Right Side    | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | -0.13            | 0.647                  | 0.843                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Right Side    | 5mm      | ON              | 20850 | 2510        | 16.81               | 18.00               | 1.315                  | 0.02             | 0.599                  | 0.788                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Right Side    | 5mm      | ON              | 21100 | 2535        | 16.83               | 18.00               | 1.309                  | 0.05             | 0.625                  | 0.818                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Right Side    | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | -0.14            | 0.655                  | 0.859                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Right Side    | 5mm      | ON              | 20850 | 2510        | 16.66               | 18.00               | 1.361                  | 0                | 0.600                  | 0.817                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Right Side    | 5mm      | ON              | 21100 | 2535        | 16.81               | 18.00               | 1.315                  | 0                | 0.641                  | 0.843                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 100     | 0         | Right Side    | 5mm      | ON              | 21350 | 2560        | 16.71               | 18.00               | 1.346                  | 0.03             | 0.674                  | 0.907                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Bottom Side   | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | -0.13            | 0.203                  | 0.265                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Bottom Side   | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | -0.15            | 0.202                  | 0.265                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 49        | Front         | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | 0.14             | 0.382                  | 0.498                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Front         | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | 0.16             | 0.390                  | 0.512                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | -0.18            | 0.663                  | 0.864                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 20850 | 2510        | 16.81               | 18.00               | 1.315                  | -0.11            | 0.523                  | 0.688                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 21100 | 2535        | 16.83               | 18.00               | 1.309                  | -0.16            | 0.625                  | 0.818                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | -0.1             | 0.610                  | 0.800                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 20850 | 2510        | 16.66               | 18.00               | 1.361                  | -0.18            | 0.582                  | 0.792                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 21100 | 2535        | 16.81               | 18.00               | 1.315                  | -0.11            | 0.631                  | 0.830                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 100     | 0         | Back          | 5mm      | ON              | 21350 | 2560        | 16.71               | 18.00               | 1.346                  | -0.18            | 0.641                  | 0.863                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 49        | Left Side     | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | -0.05            | 0.430                  | 0.560                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Left Side     | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | -0.11            | 0.434                  | 0.569                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 49        | Bottom Side   | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | 0.12             | 0.072                  | 0.094                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Bottom Side   | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | 0.06             | 0.075                  | 0.098                  |



| Plot No. | Band        | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.   | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-------------|----------|------------|---------|-----------|---------------|----------|-----------------|-------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | LTE Band 12 | 10M      | QPSK       | 1       | 49        | Front         | 5mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  | -0.02            | 0.666                  | 0.884                  |
|          | LTE Band 12 | 10M      | QPSK       | 25      | 0         | Front         | 5mm      | OFF             | 23095 | 707.5       | 21.65               | 23.00               | 1.365                  | -0.15            | 0.384                  | 0.524                  |
|          | LTE Band 12 | 10M      | QPSK       | 50      | 0         | Front         | 5mm      | OFF             | 23095 | 707.5       | 21.64               | 23.00               | 1.368                  | -0.02            | 0.374                  | 0.512                  |
| 33       | LTE Band 12 | 10M      | QPSK       | 1       | 49        | Back          | 5mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  | 0.1              | 0.872                  | 1.157                  |
|          | LTE Band 12 | 10M      | QPSK       | 25      | 0         | Back          | 5mm      | OFF             | 23095 | 707.5       | 21.65               | 23.00               | 1.365                  | 0.12             | 0.512                  | 0.699                  |
|          | LTE Band 12 | 10M      | QPSK       | 50      | 0         | Back          | 5mm      | OFF             | 23095 | 707.5       | 21.64               | 23.00               | 1.368                  | 0.11             | 0.515                  | 0.704                  |
|          | LTE Band 12 | 10M      | QPSK       | 1       | 49        | Left Side     | 5mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  | -0.01            | 0.430                  | 0.571                  |
|          | LTE Band 12 | 10M      | QPSK       | 25      | 0         | Left Side     | 5mm      | OFF             | 23095 | 707.5       | 21.65               | 23.00               | 1.365                  | 0.04             | 0.257                  | 0.351                  |
|          | LTE Band 12 | 10M      | QPSK       | 1       | 49        | Right Side    | 5mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  | -0.02            | 0.368                  | 0.488                  |
|          | LTE Band 12 | 10M      | QPSK       | 25      | 0         | Right Side    | 5mm      | OFF             | 23095 | 707.5       | 21.65               | 23.00               | 1.365                  | 0                | 0.214                  | 0.292                  |
|          | LTE Band 12 | 10M      | QPSK       | 1       | 49        | Bottom Side   | 5mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  | 0.03             | 0.318                  | 0.422                  |
|          | LTE Band 12 | 10M      | QPSK       | 25      | 0         | Bottom Side   | 5mm      | OFF             | 23095 | 707.5       | 21.65               | 23.00               | 1.365                  | -0.09            | 0.184                  | 0.251                  |
|          | LTE Band 13 | 10M      | QPSK       | 1       | 0         | Front         | 5mm      | OFF             | 23230 | 782         | 22.72               | 24.00               | 1.343                  | -0.03            | 0.734                  | 0.986                  |
|          | LTE Band 13 | 10M      | QPSK       | 25      | 0         | Front         | 5mm      | OFF             | 23230 | 782         | 21.73               | 23.00               | 1.340                  | -0.15            | 0.423                  | 0.567                  |
|          | LTE Band 13 | 10M      | QPSK       | 50      | 0         | Front         | 5mm      | OFF             | 23230 | 782         | 21.71               | 23.00               | 1.346                  | -0.07            | 0.412                  | 0.554                  |
| 34       | LTE Band 13 | 10M      | QPSK       | 1       | 0         | Back          | 5mm      | OFF             | 23230 | 782         | 22.72               | 24.00               | 1.343                  | -0.13            | 0.846                  | 1.136                  |
|          | LTE Band 13 | 10M      | QPSK       | 25      | 0         | Back          | 5mm      | OFF             | 23230 | 782         | 21.73               | 23.00               | 1.340                  | 0.12             | 0.564                  | 0.756                  |
|          | LTE Band 13 | 10M      | QPSK       | 50      | 0         | Back          | 5mm      | OFF             | 23230 | 782         | 21.71               | 23.00               | 1.346                  | 0.12             | 0.567                  | 0.763                  |
|          | LTE Band 13 | 10M      | QPSK       | 1       | 0         | Left Side     | 5mm      | OFF             | 23230 | 782         | 22.72               | 24.00               | 1.343                  | 0                | 0.344                  | 0.462                  |
|          | LTE Band 13 | 10M      | QPSK       | 25      | 0         | Left Side     | 5mm      | OFF             | 23230 | 782         | 21.73               | 23.00               | 1.340                  | 0.04             | 0.283                  | 0.379                  |
|          | LTE Band 13 | 10M      | QPSK       | 1       | 0         | Right Side    | 5mm      | OFF             | 23230 | 782         | 22.72               | 24.00               | 1.343                  | -0.08            | 0.406                  | 0.545                  |
|          | LTE Band 13 | 10M      | QPSK       | 25      | 0         | Right Side    | 5mm      | OFF             | 23230 | 782         | 21.73               | 23.00               | 1.340                  | -0.02            | 0.236                  | 0.316                  |
|          | LTE Band 13 | 10M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | OFF             | 23230 | 782         | 22.72               | 24.00               | 1.343                  | 0.03             | 0.351                  | 0.471                  |
|          | LTE Band 13 | 10M      | QPSK       | 25      | 0         | Bottom Side   | 5mm      | OFF             | 23230 | 782         | 21.73               | 23.00               | 1.340                  | -0.09            | 0.203                  | 0.272                  |
|          | LTE Band 14 | 10M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 23330 | 793         | 22.34               | 23.50               | 1.306                  | -0.05            | 0.574                  | 0.750                  |
|          | LTE Band 14 | 10M      | QPSK       | 25      | 0         | Front         | 5mm      | ON              | 23330 | 793         | 21.74               | 23.50               | 1.500                  | -0.1             | 0.516                  | 0.774                  |
|          | LTE Band 14 | 10M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 23330 | 793         | 22.34               | 23.50               | 1.306                  | 0.09             | 0.760                  | 0.993                  |
|          | LTE Band 14 | 10M      | QPSK       | 25      | 0         | Back          | 5mm      | ON              | 23330 | 793         | 21.74               | 23.50               | 1.500                  | 0.13             | 0.703                  | 1.054                  |
| 35       | LTE Band 14 | 10M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 23330 | 793         | 21.66               | 23.50               | 1.528                  | 0.13             | 0.700                  | 1.069                  |
|          | LTE Band 14 | 10M      | QPSK       | 1       | 0         | Left Side     | 5mm      | ON              | 23330 | 793         | 22.34               | 23.50               | 1.306                  | 0                | 0.349                  | 0.456                  |
|          | LTE Band 14 | 10M      | QPSK       | 25      | 0         | Left Side     | 5mm      | ON              | 23330 | 793         | 21.74               | 23.50               | 1.500                  | 0.04             | 0.287                  | 0.430                  |
|          | LTE Band 14 | 10M      | QPSK       | 1       | 0         | Right Side    | 5mm      | ON              | 23330 | 793         | 22.34               | 23.50               | 1.306                  | -0.02            | 0.411                  | 0.537                  |
|          | LTE Band 14 | 10M      | QPSK       | 25      | 0         | Right Side    | 5mm      | ON              | 23330 | 793         | 21.74               | 23.50               | 1.500                  | 0                | 0.240                  | 0.360                  |
|          | LTE Band 14 | 10M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 23330 | 793         | 22.34               | 23.50               | 1.306                  | -0.15            | 0.308                  | 0.402                  |
|          | LTE Band 14 | 10M      | QPSK       | 25      | 0         | Bottom Side   | 5mm      | ON              | 23330 | 793         | 21.74               | 23.50               | 1.500                  | -0.11            | 0.274                  | 0.411                  |



| Plot No. | Band             | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.   | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|------------------|----------|------------|---------|-----------|---------------|----------|-----------------|-------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 26140 | 1860        | 16.05               | 16.50               | 1.109                  | 0.19             | 0.801                  | 0.888                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 26340 | 1880        | 15.87               | 16.50               | 1.156                  | 0.15             | 0.869                  | 1.005                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 26590 | 1905        | 15.71               | 16.50               | 1.199                  | 0.14             | 0.879                  | 1.054                  |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 26140 | 1860        | 15.75               | 16.50               | 1.189                  | 0.15             | 0.833                  | 0.990                  |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 26340 | 1880        | 15.58               | 16.50               | 1.236                  | 0.15             | 0.857                  | 1.059                  |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 26590 | 1905        | 15.60               | 16.50               | 1.230                  | 0.14             | 0.879                  | 1.081                  |
|          | LTE Band 25      | 20M      | QPSK       | 100     | 0         | Front         | 5mm      | ON              | 26140 | 1860        | 15.56               | 16.50               | 1.242                  | 0.15             | 0.811                  | 1.007                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 26140 | 1860        | 16.05               | 16.50               | 1.109                  | 0.12             | 0.657                  | 0.729                  |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 26140 | 1860        | 15.75               | 16.50               | 1.189                  | 0.1              | 0.623                  | 0.740                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Left Side     | 5mm      | ON              | 26140 | 1860        | 16.05               | 16.50               | 1.109                  | 0                | 0.018                  | 0.020                  |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Left Side     | 5mm      | ON              | 26140 | 1860        | 15.75               | 16.50               | 1.189                  | 0.05             | 0.019                  | 0.023                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Right Side    | 5mm      | ON              | 26140 | 1860        | 16.05               | 16.50               | 1.109                  | -0.04            | 0.037                  | 0.041                  |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Right Side    | 5mm      | ON              | 26140 | 1860        | 15.75               | 16.50               | 1.189                  | 0.01             | 0.038                  | 0.045                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 26140 | 1860        | 16.05               | 16.50               | 1.109                  | 0.03             | 0.915                  | 1.015                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 26340 | 1880        | 15.87               | 16.50               | 1.156                  | -0.09            | 0.960                  | 1.110                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 26590 | 1905        | 15.71               | 16.50               | 1.199                  | 0.01             | 0.942                  | 1.130                  |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Bottom Side   | 5mm      | ON              | 26140 | 1860        | 15.75               | 16.50               | 1.189                  | 0.06             | 0.857                  | 1.019                  |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Bottom Side   | 5mm      | ON              | 26340 | 1880        | 15.58               | 16.50               | 1.236                  | 0.02             | 0.905                  | 1.119                  |
| 36       | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Bottom Side   | 5mm      | ON              | 26590 | 1905        | 15.60               | 16.50               | 1.230                  | 0                | 0.934                  | 1.149                  |
|          | LTE Band 25      | 20M      | QPSK       | 100     | 0         | Bottom Side   | 5mm      | ON              | 26140 | 1860        | 15.56               | 16.50               | 1.242                  | 0.01             | 0.860                  | 1.068                  |
|          | LTE Band 26      | 15M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 26865 | 831.5       | 21.99               | 23.50               | 1.416                  | -0.09            | 0.524                  | 0.742                  |
|          | LTE Band 26      | 15M      | QPSK       | 36      | 0         | Front         | 5mm      | ON              | 26865 | 831.5       | 21.98               | 23.50               | 1.419                  | -0.09            | 0.541                  | 0.768                  |
|          | LTE Band 26      | 15M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 26865 | 831.5       | 21.99               | 23.50               | 1.416                  | -0.01            | 0.627                  | 0.888                  |
| 37       | LTE Band 26      | 15M      | QPSK       | 36      | 0         | Back          | 5mm      | ON              | 26865 | 831.5       | 21.98               | 23.50               | 1.419                  | -0.02            | 0.646                  | 0.917                  |
|          | LTE Band 26      | 15M      | QPSK       | 75      | 0         | Back          | 5mm      | ON              | 26865 | 831.5       | 21.92               | 23.50               | 1.439                  | -0.03            | 0.630                  | 0.906                  |
|          | LTE Band 26      | 15M      | QPSK       | 1       | 0         | Left Side     | 5mm      | ON              | 26865 | 831.5       | 21.99               | 23.50               | 1.416                  | 0.03             | 0.316                  | 0.447                  |
|          | LTE Band 26      | 15M      | QPSK       | 36      | 0         | Left Side     | 5mm      | ON              | 26865 | 831.5       | 21.98               | 23.50               | 1.419                  | -0.04            | 0.308                  | 0.437                  |
|          | LTE Band 26      | 15M      | QPSK       | 1       | 0         | Right Side    | 5mm      | ON              | 26865 | 831.5       | 21.99               | 23.50               | 1.416                  | 0.04             | 0.219                  | 0.310                  |
|          | LTE Band 26      | 15M      | QPSK       | 36      | 0         | Right Side    | 5mm      | ON              | 26865 | 831.5       | 21.98               | 23.50               | 1.419                  | -0.01            | 0.215                  | 0.305                  |
|          | LTE Band 26      | 15M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 26865 | 831.5       | 21.99               | 23.50               | 1.416                  | 0.11             | 0.295                  | 0.418                  |
|          | LTE Band 26      | 15M      | QPSK       | 36      | 0         | Bottom Side   | 5mm      | ON              | 26865 | 831.5       | 21.98               | 23.50               | 1.419                  | 0.03             | 0.299                  | 0.424                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 27710 | 2310        | 20.33               | 21.00               | 1.167                  | 0.02             | 0.537                  | 0.627                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 25      | 0         | Front         | 5mm      | ON              | 27710 | 2310        | 20.11               | 21.00               | 1.227                  | -0.04            | 0.549                  | 0.674                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 27710 | 2310        | 20.33               | 21.00               | 1.167                  | 0.11             | 0.849                  | 0.991                  |
| 38       | LTE Band 30_Main | 10M      | QPSK       | 25      | 0         | Back          | 5mm      | ON              | 27710 | 2310        | 20.11               | 21.00               | 1.227                  | 0.06             | 0.869                  | 1.067                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 27710 | 2310        | 20.03               | 21.00               | 1.250                  | 0.07             | 0.839                  | 1.049                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 1       | 0         | Right Side    | 5mm      | ON              | 27710 | 2310        | 20.33               | 21.00               | 1.167                  | 0.01             | 0.554                  | 0.646                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 25      | 0         | Right Side    | 5mm      | ON              | 27710 | 2310        | 20.11               | 21.00               | 1.227                  | -0.02            | 0.566                  | 0.695                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 27710 | 2310        | 20.33               | 21.00               | 1.167                  | 0.03             | 0.343                  | 0.400                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 25      | 0         | Bottom Side   | 5mm      | ON              | 27710 | 2310        | 20.11               | 21.00               | 1.227                  | 0.13             | 0.359                  | 0.441                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 27710 | 2310        | 20.33               | 21.00               | 1.167                  | 0.16             | 0.367                  | 0.428                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 25      | 0         | Front         | 5mm      | ON              | 27710 | 2310        | 20.11               | 21.00               | 1.227                  | 0.01             | 0.374                  | 0.459                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 27710 | 2310        | 20.33               | 21.00               | 1.167                  | -0.08            | 0.765                  | 0.893                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 25      | 0         | Back          | 5mm      | ON              | 27710 | 2310        | 20.11               | 21.00               | 1.227                  | -0.06            | 0.757                  | 0.929                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 27710 | 2310        | 20.03               | 21.00               | 1.250                  | -0.03            | 0.781                  | 0.976                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 1       | 0         | Left Side     | 5mm      | ON              | 27710 | 2310        | 20.33               | 21.00               | 1.167                  | -0.15            | 0.342                  | 0.399                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 25      | 0         | Left Side     | 5mm      | ON              | 27710 | 2310        | 20.11               | 21.00               | 1.227                  | -0.16            | 0.344                  | 0.422                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 27710 | 2310        | 20.33               | 21.00               | 1.167                  | -0.17            | 0.119                  | 0.139                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 25      | 0         | Bottom Side   | 5mm      | ON              | 27710 | 2310        | 20.11               | 21.00               | 1.227                  | -0.15            | 0.117                  | 0.144                  |



| Plot No. | Band        | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.    | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-------------|----------|------------|---------|-----------|---------------|----------|-----------------|--------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | LTE Band 66 | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 132572 | 1770        | 15.70               | 16.50               | 1.202                  | 0.18             | 0.517                  | 0.622                  |
|          | LTE Band 66 | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 132572 | 1770        | 15.40               | 16.50               | 1.288                  | 0.07             | 0.394                  | 0.508                  |
|          | LTE Band 66 | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 132572 | 1770        | 15.70               | 16.50               | 1.202                  | -0.1             | 0.489                  | 0.588                  |
|          | LTE Band 66 | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 132572 | 1770        | 15.40               | 16.50               | 1.288                  | 0.04             | 0.413                  | 0.532                  |
|          | LTE Band 66 | 20M      | QPSK       | 1       | 0         | Left Side     | 5mm      | ON              | 132572 | 1770        | 15.70               | 16.50               | 1.202                  | 0.12             | 0.037                  | 0.044                  |
|          | LTE Band 66 | 20M      | QPSK       | 50      | 0         | Left Side     | 5mm      | ON              | 132572 | 1770        | 15.40               | 16.50               | 1.288                  | 0.01             | 0.035                  | 0.045                  |
|          | LTE Band 66 | 20M      | QPSK       | 1       | 0         | Right Side    | 5mm      | ON              | 132072 | 1770        | 15.70               | 16.50               | 1.202                  | 0.17             | 0.091                  | 0.109                  |
|          | LTE Band 66 | 20M      | QPSK       | 50      | 0         | Right Side    | 5mm      | ON              | 132572 | 1770        | 15.40               | 16.50               | 1.288                  | -0.05            | 0.086                  | 0.111                  |
|          | LTE Band 66 | 20M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 132572 | 1770        | 15.70               | 16.50               | 1.202                  | 0.16             | 0.857                  | 1.030                  |
|          | LTE Band 66 | 20M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 132072 | 1720        | 15.58               | 16.50               | 1.236                  | -0.05            | 0.753                  | 0.931                  |
|          | LTE Band 66 | 20M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 132322 | 1745        | 15.69               | 16.50               | 1.205                  | 0.06             | 0.467                  | 0.563                  |
|          | LTE Band 66 | 20M      | QPSK       | 50      | 0         | Bottom Side   | 5mm      | ON              | 132572 | 1770        | 15.40               | 16.50               | 1.288                  | 0.17             | 0.820                  | 1.056                  |
|          | LTE Band 66 | 20M      | QPSK       | 50      | 0         | Bottom Side   | 5mm      | ON              | 132072 | 1720        | 15.38               | 16.50               | 1.294                  | -0.05            | 0.753                  | 0.975                  |
|          | LTE Band 66 | 20M      | QPSK       | 50      | 0         | Bottom Side   | 5mm      | ON              | 132322 | 1745        | 15.39               | 16.50               | 1.291                  | 0.12             | 0.661                  | 0.853                  |
| 39       | LTE Band 66 | 20M      | QPSK       | 100     | 0         | Bottom Side   | 5mm      | ON              | 132572 | 1770        | 15.37               | 16.50               | 1.297                  | 0.17             | 0.819                  | 1.062                  |
|          | LTE Band 71 | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | OFF             | 133322 | 683         | 23.18               | 24.00               | 1.208                  | -0.02            | 0.645                  | 0.779                  |
|          | LTE Band 71 | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | OFF             | 133322 | 683         | 22.10               | 23.00               | 1.230                  | -0.07            | 0.343                  | 0.422                  |
| 40       | LTE Band 71 | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | OFF             | 133322 | 683         | 23.18               | 24.00               | 1.208                  | 0.04             | 0.716                  | 0.865                  |
|          | LTE Band 71 | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | OFF             | 133322 | 683         | 22.10               | 23.00               | 1.230                  | 0.12             | 0.496                  | 0.610                  |
|          | LTE Band 71 | 20M      | QPSK       | 100     | 0         | Back          | 5mm      | OFF             | 133322 | 683         | 22.01               | 23.00               | 1.256                  | 0.12             | 0.469                  | 0.589                  |
|          | LTE Band 71 | 20M      | QPSK       | 1       | 0         | Left Side     | 5mm      | OFF             | 133322 | 683         | 23.18               | 24.00               | 1.208                  | 0                | 0.302                  | 0.365                  |
|          | LTE Band 71 | 20M      | QPSK       | 50      | 0         | Left Side     | 5mm      | OFF             | 133322 | 683         | 22.10               | 23.00               | 1.230                  | 0.04             | 0.249                  | 0.306                  |
|          | LTE Band 71 | 20M      | QPSK       | 1       | 0         | Right Side    | 5mm      | OFF             | 133322 | 683         | 23.18               | 24.00               | 1.208                  | 0                | 0.278                  | 0.336                  |
|          | LTE Band 71 | 20M      | QPSK       | 50      | 0         | Right Side    | 5mm      | OFF             | 133322 | 683         | 22.10               | 23.00               | 1.230                  | 0.01             | 0.176                  | 0.217                  |
|          | LTE Band 71 | 20M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | OFF             | 133322 | 683         | 23.18               | 24.00               | 1.208                  | -0.17            | 0.224                  | 0.271                  |
|          | LTE Band 71 | 20M      | QPSK       | 50      | 0         | Bottom Side   | 5mm      | OFF             | 133322 | 683         | 22.10               | 23.00               | 1.230                  | -0.13            | 0.139                  | 0.171                  |



## &lt;TDD LTE SAR&gt;

| Plot No. | Band                   | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.         | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Duty Cycle % | Duty Cycle Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|------------------------|----------|------------|---------|-----------|---------------|----------|-----------------|-------------|-------------|---------------------|---------------------|------------------------|--------------|---------------------------|------------------|------------------------|------------------------|
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | 0.02             | 0.551                  | 0.565                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | 0.11             | 0.439                  | 0.505                  |
| 41       | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | 0.07             | 1.090                  | 1.117                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 39750       | 2506        | 19.26               | 20.00               | 1.186                  | 62.90        | 1.006                     | 0.09             | 0.756                  | 0.902                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40185       | 2549.5      | 19.35               | 20.00               | 1.161                  | 62.90        | 1.006                     | 0.12             | 0.719                  | 0.840                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40620       | 2593        | 19.26               | 20.00               | 1.186                  | 62.90        | 1.006                     | 0.12             | 0.749                  | 0.893                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41055       | 2636.5      | 19.24               | 20.00               | 1.191                  | 62.90        | 1.006                     | 0.11             | 0.733                  | 0.878                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | -0.02            | 0.520                  | 0.598                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 100     | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.45               | 20.00               | 1.135                  | 62.90        | 1.006                     | 0.04             | 0.521                  | 0.595                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Side    | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | -0.08            | 0.821                  | 0.841                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Side    | 5mm      | ON              | 39750       | 2506        | 19.26               | 20.00               | 1.186                  | 62.90        | 1.006                     | 0.17             | 0.597                  | 0.712                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Side    | 5mm      | ON              | 40185       | 2549.5      | 19.35               | 20.00               | 1.161                  | 62.90        | 1.006                     | -0.11            | 0.650                  | 0.759                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Side    | 5mm      | ON              | 40620       | 2593        | 19.26               | 20.00               | 1.186                  | 62.90        | 1.006                     | -0.15            | 0.671                  | 0.800                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Side    | 5mm      | ON              | 41055       | 2636.5      | 19.24               | 20.00               | 1.191                  | 62.90        | 1.006                     | -0.13            | 0.731                  | 0.876                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 0         | Right Side    | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | 0.11             | 0.843                  | 0.969                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 0         | Right Side    | 5mm      | ON              | 39750       | 2506        | 19.27               | 20.00               | 1.183                  | 62.90        | 1.006                     | -0.02            | 0.702                  | 0.835                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 0         | Right Side    | 5mm      | ON              | 40185       | 2549.5      | 19.37               | 20.00               | 1.156                  | 62.90        | 1.006                     | -0.03            | 0.777                  | 0.904                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 0         | Right Side    | 5mm      | ON              | 40620       | 2593        | 19.37               | 20.00               | 1.156                  | 62.90        | 1.006                     | -0.04            | 0.838                  | 0.975                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 0         | Right Side    | 5mm      | ON              | 41055       | 2636.5      | 19.29               | 20.00               | 1.178                  | 62.90        | 1.006                     | -0.12            | 0.821                  | 0.973                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 100     | 0         | Right Side    | 5mm      | ON              | 41490       | 2680        | 19.45               | 20.00               | 1.135                  | 62.90        | 1.006                     | -0.19            | 0.494                  | 0.564                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | -0.11            | 0.201                  | 0.206                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 0         | Bottom Side   | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | -0.06            | 0.159                  | 0.183                  |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 20.53               | 21.00               | 1.114                  | 42.90        | 1.009                     | 0.13             | 0.724                  | 0.814                  |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 39750       | 2506        | 19.75               | 21.00               | 1.334                  | 42.90        | 1.009                     | 0.13             | 0.612                  | 0.823                  |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40185       | 2549.5      | 19.76               | 21.00               | 1.330                  | 42.90        | 1.009                     | 0.11             | 0.609                  | 0.818                  |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40620       | 2593        | 19.77               | 21.00               | 1.327                  | 42.90        | 1.009                     | 0.05             | 0.654                  | 0.876                  |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41055       | 2636.5      | 19.75               | 21.00               | 1.334                  | 42.90        | 1.009                     | 0.13             | 0.638                  | 0.858                  |
|          | LTE Band 41_UL_CA_Main | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40185+39987 | 2549.5      | 19.64               | 20.00               | 1.086                  | 62.90        | 1.006                     | 0.08             | 0.725                  | 0.792                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | 0.1              | 0.506                  | 0.518                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | -0.11            | 0.402                  | 0.462                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | -0.05            | 0.788                  | 0.807                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 39750       | 2506        | 19.26               | 20.00               | 1.186                  | 62.90        | 1.006                     | -0.17            | 0.734                  | 0.876                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40185       | 2549.5      | 19.35               | 20.00               | 1.161                  | 62.90        | 1.006                     | -0.18            | 0.721                  | 0.842                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40620       | 2593        | 19.26               | 20.00               | 1.186                  | 62.90        | 1.006                     | -0.1             | 0.739                  | 0.882                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41055       | 2636.5      | 19.24               | 20.00               | 1.191                  | 62.90        | 1.006                     | -0.12            | 0.704                  | 0.844                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | -0.12            | 0.662                  | 0.761                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 39750       | 2506        | 19.27               | 20.00               | 1.183                  | 62.90        | 1.006                     | -0.14            | 0.731                  | 0.870                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 40185       | 2549.5      | 19.37               | 20.00               | 1.156                  | 62.90        | 1.006                     | -0.19            | 0.707                  | 0.822                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 40620       | 2593        | 19.37               | 20.00               | 1.156                  | 62.90        | 1.006                     | -0.14            | 0.672                  | 0.782                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 41055       | 2636.5      | 19.29               | 20.00               | 1.178                  | 62.90        | 1.006                     | -0.13            | 0.689                  | 0.816                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 100     | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.45               | 20.00               | 1.135                  | 62.90        | 1.006                     | -0.1             | 0.632                  | 0.722                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Side     | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | 0.03             | 0.564                  | 0.578                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Left Side     | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | -0.01            | 0.459                  | 0.528                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Bottom Side   | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | 0.01             | 0.137                  | 0.140                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Bottom Side   | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | 0.01             | 0.111                  | 0.128                  |
|          | LTE Band 41_PC2_Aux    | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 20.53               | 21.00               | 1.114                  | 42.90        | 1.009                     | 0.07             | 0.433                  | 0.487                  |
|          | LTE Band 41_UL_CA_Aux  | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40185+39987 | 2549.5      | 19.64               | 20.00               | 1.086                  | 62.90        | 1.006                     | -0.19            | 0.631                  | 0.690                  |

**<Bluetooth SAR>**

| Plot No. | Band      | Mode  | Test Position | Gap (mm) | Power Reduction | Ch. | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-----------|-------|---------------|----------|-----------------|-----|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | Bluetooth | 1Mbps | Front         | 5mm      | ON              | 0   | 2402        | 9.76                | 10.00               | 1.057                  | -0.02            | 0.033                  | 0.035                  |
|          | Bluetooth | 1Mbps | Back          | 5mm      | ON              | 0   | 2402        | 9.76                | 10.00               | 1.057                  | -0.01            | 0.043                  | 0.045                  |
|          | Bluetooth | 1Mbps | Left Side     | 5mm      | ON              | 0   | 2402        | 9.76                | 10.00               | 1.057                  | 0.03             | 0.067                  | 0.071                  |
| 42       | Bluetooth | 1Mbps | Left Side     | 5mm      | ON              | 39  | 2441        | 8.86                | 10.00               | 1.300                  | 0.06             | 0.062                  | 0.081                  |
|          | Bluetooth | 1Mbps | Left Side     | 5mm      | ON              | 78  | 2480        | 8.28                | 10.00               | 1.486                  | 0.09             | 0.044                  | 0.065                  |
|          | Bluetooth | 1Mbps | Top Side      | 5mm      | ON              | 0   | 2402        | 9.76                | 10.00               | 1.057                  | 0.17             | 0.011                  | 0.012                  |

**<WLAN SAR>**

| Plot No. | Band       | Mode                | Test Position | Gap (mm) | Power Reduction | Ch. | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Duty Cycle % | Duty Cycle Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|------------|---------------------|---------------|----------|-----------------|-----|-------------|---------------------|---------------------|------------------------|--------------|---------------------------|------------------|------------------------|------------------------|
|          | WLAN2.4GHz | 802.11b 1Mbps       | Front         | 5mm      | ON              | 11  | 2462        | 18.96               | 20.50               | 1.426                  | 99.42        | 1.006                     | 0.12             | 0.583                  | 0.836                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Front         | 5mm      | ON              | 1   | 2412        | 18.85               | 20.50               | 1.462                  | 99.42        | 1.006                     | 0.09             | 0.533                  | 0.784                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Front         | 5mm      | ON              | 6   | 2437        | 18.87               | 20.50               | 1.455                  | 99.42        | 1.006                     | 0.07             | 0.589                  | 0.862                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Back          | 5mm      | ON              | 11  | 2462        | 18.96               | 20.50               | 1.426                  | 99.42        | 1.006                     | -0.12            | 0.661                  | 0.948                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Back          | 5mm      | ON              | 1   | 2412        | 18.85               | 20.50               | 1.462                  | 99.42        | 1.006                     | 0.04             | 0.644                  | 0.947                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Back          | 5mm      | ON              | 6   | 2437        | 18.87               | 20.50               | 1.455                  | 99.42        | 1.006                     | -0.18            | 0.689                  | 1.009                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Left Side     | 5mm      | ON              | 11  | 2462        | 18.96               | 20.50               | 1.426                  | 99.42        | 1.006                     | -0.17            | 0.736                  | 1.056                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Left Side     | 5mm      | ON              | 1   | 2412        | 18.85               | 20.50               | 1.462                  | 99.42        | 1.006                     | -0.16            | 0.708                  | 1.041                  |
| 43       | WLAN2.4GHz | 802.11b 1Mbps       | Left Side     | 5mm      | ON              | 6   | 2437        | 18.87               | 20.50               | 1.455                  | 99.42        | 1.006                     | -0.16            | 0.816                  | 1.195                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Top Side      | 5mm      | ON              | 11  | 2462        | 18.96               | 20.50               | 1.426                  | 99.42        | 1.006                     | -0.17            | 0.192                  | 0.275                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Front         | 5mm      | ON              | 42  | 5210        | 14.99               | 15.00               | 1.002                  | 87.06        | 1.149                     | -0.19            | 0.369                  | 0.425                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Back          | 5mm      | ON              | 42  | 5210        | 14.99               | 15.00               | 1.002                  | 87.06        | 1.149                     | 0.13             | 0.451                  | 0.519                  |
| 44       | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Left Side     | 5mm      | ON              | 42  | 5210        | 14.99               | 15.00               | 1.002                  | 87.06        | 1.149                     | -0.15            | 0.565                  | 0.650                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Top Side      | 5mm      | ON              | 42  | 5210        | 14.99               | 15.00               | 1.002                  | 87.06        | 1.149                     | 0.03             | 0.116                  | 0.134                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Front         | 5mm      | ON              | 155 | 5775        | 14.88               | 15.00               | 1.028                  | 87.06        | 1.149                     | -0.19            | 0.403                  | 0.476                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Back          | 5mm      | ON              | 155 | 5775        | 14.88               | 15.00               | 1.028                  | 87.06        | 1.149                     | 0.18             | 0.482                  | 0.569                  |
| 45       | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Left Side     | 5mm      | ON              | 155 | 5775        | 14.88               | 15.00               | 1.028                  | 87.06        | 1.149                     | 0.01             | 0.619                  | 0.731                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Top Side      | 5mm      | ON              | 155 | 5775        | 14.88               | 15.00               | 1.028                  | 87.06        | 1.149                     | -0.02            | 0.096                  | 0.113                  |



### 14.3 Product Specific SAR

#### <GSM SAR>

| Plot No. | Band    | Mode              | Test Position | Gap (mm) | Power Reduction | Ch. | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 10g SAR (W/kg) | Reported 10g SAR (W/kg) |
|----------|---------|-------------------|---------------|----------|-----------------|-----|-------------|---------------------|---------------------|------------------------|------------------|-------------------------|-------------------------|
| 46       | GSM1900 | GPRS (3 Tx slots) | Bottom Side   | 0mm      | OFF             | 810 | 1909.8      | 26.87               | 28.00               | 1.297                  | 0.02             | 1.060                   | 1.375                   |

#### <WCDMA SAR>

| Plot No. | Band     | Mode         | Test Position | Gap (mm) | Power Reduction | Ch.  | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 10g SAR (W/kg) | Reported 10g SAR (W/kg) |
|----------|----------|--------------|---------------|----------|-----------------|------|-------------|---------------------|---------------------|------------------------|------------------|-------------------------|-------------------------|
|          | WCDMA II | RMC 12.2Kbps | Bottom Side   | 0mm      | ON              | 9538 | 1907.6      | 22.31               | 23.00               | 1.172                  | -0.14            | 2.440                   | 2.860                   |
| 47       | WCDMA II | RMC 12.2Kbps | Bottom Side   | 0mm      | ON              | 9262 | 1852.4      | 22.23               | 23.00               | 1.194                  | -0.17            | 2.530                   | 3.021                   |
|          | WCDMA II | RMC 12.2Kbps | Bottom Side   | 0mm      | ON              | 9400 | 1880        | 22.21               | 23.00               | 1.199                  | -0.15            | 2.470                   | 2.963                   |
|          | WCDMA IV | RMC 12.2Kbps | Bottom Side   | 0mm      | ON              | 1513 | 1752.6      | 22.00               | 22.00               | 1.000                  | -0.03            | 3.030                   | 3.030                   |
| 48       | WCDMA IV | RMC 12.2Kbps | Bottom Side   | 0mm      | ON              | 1312 | 1712.4      | 21.87               | 22.00               | 1.030                  | -0.03            | 3.060                   | 3.153                   |
|          | WCDMA IV | RMC 12.2Kbps | Bottom Side   | 0mm      | ON              | 1413 | 1732.6      | 21.82               | 22.00               | 1.042                  | -0.07            | 2.830                   | 2.950                   |

#### <CDMA SAR>

| Plot No. | Band     | Mode           | Test Position | Gap (mm) | Power Reduction | Ch.  | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 10g SAR (W/kg) | Reported 10g SAR (W/kg) |
|----------|----------|----------------|---------------|----------|-----------------|------|-------------|---------------------|---------------------|------------------------|------------------|-------------------------|-------------------------|
|          | CDMA BC1 | RTAP 153.6Kbps | Bottom Side   | 0mm      | ON              | 25   | 1851.25     | 21.22               | 23.00               | 1.507                  | 0.16             | 1.810                   | 2.727                   |
| 49       | CDMA BC1 | RTAP 153.6Kbps | Bottom Side   | 0mm      | ON              | 600  | 1880        | 21.17               | 23.00               | 1.524                  | 0.06             | 1.840                   | 2.804                   |
|          | CDMA BC1 | RTAP 153.6Kbps | Bottom Side   | 0mm      | ON              | 1175 | 1908.75     | 21.19               | 23.00               | 1.517                  | 0.04             | 1.830                   | 2.776                   |

#### <FDD LTE SAR>

| Plot No. | Band             | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.    | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 10g SAR (W/kg) | Reported 10g SAR (W/kg) |
|----------|------------------|----------|------------|---------|-----------|---------------|----------|-----------------|--------|-------------|---------------------|---------------------|------------------------|------------------|-------------------------|-------------------------|
|          | LTE Band 7_Main  | 20M      | QPSK       | 1       | 49        | Right Side    | 0mm      | ON              | 21350  | 2560        | 20.99               | 21.50               | 1.125                  | -0.07            | 2.810                   | 3.160                   |
|          | LTE Band 7_Main  | 20M      | QPSK       | 1       | 49        | Right Side    | 0mm      | ON              | 20850  | 2510        | 20.88               | 21.50               | 1.153                  | 0.02             | 2.680                   | 3.091                   |
| 50       | LTE Band 7_Main  | 20M      | QPSK       | 1       | 49        | Right Side    | 0mm      | ON              | 21100  | 2535        | 20.84               | 21.50               | 1.164                  | -0.11            | 2.740                   | 3.190                   |
|          | LTE Band 7_Aux   | 20M      | QPSK       | 1       | 49        | Left Side     | 0mm      | ON              | 21350  | 2560        | 20.99               | 21.50               | 1.125                  | -0.05            | 2.420                   | 2.722                   |
|          | LTE Band 7_Aux   | 20M      | QPSK       | 1       | 49        | Left Side     | 0mm      | ON              | 20850  | 2510        | 20.88               | 21.50               | 1.153                  | -0.09            | 2.250                   | 2.595                   |
|          | LTE Band 7_Aux   | 20M      | QPSK       | 1       | 49        | Left Side     | 0mm      | ON              | 21100  | 2535        | 20.84               | 21.50               | 1.164                  | -0.08            | 2.270                   | 2.643                   |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Bottom Side   | 0mm      | ON              | 26140  | 1860        | 20.71               | 22.50               | 1.510                  | -0.12            | 1.720                   | 2.597                   |
| 51       | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Bottom Side   | 0mm      | ON              | 26340  | 1880        | 20.66               | 22.50               | 1.528                  | -0.17            | 1.720                   | 2.627                   |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Bottom Side   | 0mm      | ON              | 26590  | 1905        | 20.62               | 22.50               | 1.542                  | -0.19            | 1.680                   | 2.590                   |
| 52       | LTE Band 30_Main | 10M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 27710  | 2310        | 22.66               | 23.50               | 1.213                  | 0.05             | 2.520                   | 3.058                   |
| 53       | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Bottom Side   | 0mm      | ON              | 132572 | 1770        | 22.28               | 23.00               | 1.180                  | -0.11            | 2.660                   | 3.140                   |
|          | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Bottom Side   | 0mm      | ON              | 132072 | 1720        | 22.09               | 23.00               | 1.233                  | 0.14             | 2.530                   | 3.120                   |
|          | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Bottom Side   | 0mm      | ON              | 132322 | 1745        | 22.20               | 23.00               | 1.202                  | 0.12             | 2.600                   | 3.126                   |



**<TDD LTE SAR>**

| Plot No. | Band                   | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.         | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Duty Cycle % | Duty Cycle Scaling Factor | Power Drift (dB) | Measured 10g SAR (W/kg) | Reported 10g SAR (W/kg) |
|----------|------------------------|----------|------------|---------|-----------|---------------|----------|-----------------|-------------|-------------|---------------------|---------------------|------------------------|--------------|---------------------------|------------------|-------------------------|-------------------------|
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 41490       | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | -0.08            | 3.100                   | 3.177                   |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 39750       | 2506        | 22.96               | 24.00               | 1.271                  | 62.90        | 1.006                     | 0.05             | 2.230                   | 2.850                   |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 40185       | 2549.5      | 22.95               | 24.00               | 1.274                  | 62.90        | 1.006                     | 0.03             | 2.260                   | 2.895                   |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 40620       | 2593        | 22.96               | 24.00               | 1.271                  | 62.90        | 1.006                     | 0.06             | 2.350                   | 3.004                   |
| 54       | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 41055       | 2636.5      | 22.89               | 24.00               | 1.291                  | 62.90        | 1.006                     | -0.05            | 2.460                   | 3.195                   |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 41490       | 2680        | 24.60               | 25.50               | 1.230                  | 42.90        | 1.009                     | -0.04            | 2.210                   | 2.743                   |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 39750       | 2506        | 23.75               | 25.50               | 1.496                  | 42.90        | 1.009                     | -0.07            | 1.790                   | 2.702                   |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 40185       | 2549.5      | 23.70               | 25.50               | 1.514                  | 42.90        | 1.009                     | -0.06            | 1.720                   | 2.627                   |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 40620       | 2593        | 23.56               | 25.50               | 1.563                  | 42.90        | 1.009                     | -0.07            | 1.810                   | 2.855                   |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 41055       | 2636.5      | 23.52               | 25.50               | 1.578                  | 42.90        | 1.009                     | -0.02            | 1.780                   | 2.833                   |
|          | LTE Band 41_UL CA_Main | 20M      | QPSK       | 1       | 0         | Right Side    | 0mm      | ON              | 40185+39987 | 2549.5      | 23.14               | 24.00               | 1.219                  | 62.90        | 1.006                     | 0.13             | 2.250                   | 2.759                   |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Side     | 0mm      | ON              | 41490       | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | -0.1             | 2.550                   | 2.613                   |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Side     | 0mm      | ON              | 39750       | 2506        | 22.96               | 24.00               | 1.271                  | 62.90        | 1.006                     | -0.16            | 1.770                   | 2.262                   |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Side     | 0mm      | ON              | 40185       | 2549.5      | 22.95               | 24.00               | 1.274                  | 62.90        | 1.006                     | -0.1             | 1.950                   | 2.498                   |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Side     | 0mm      | ON              | 40620       | 2593        | 22.96               | 24.00               | 1.271                  | 62.90        | 1.006                     | -0.03            | 2.020                   | 2.582                   |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Side     | 0mm      | ON              | 41055       | 2636.5      | 22.89               | 24.00               | 1.291                  | 62.90        | 1.006                     | -0.05            | 2.100                   | 2.728                   |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Side     | 0mm      | ON              | 41490       | 2680        | 24.60               | 25.50               | 1.230                  | 42.90        | 1.009                     | -0.04            | 1.800                   | 2.234                   |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Side     | 0mm      | ON              | 39750       | 2506        | 23.75               | 25.50               | 1.496                  | 42.90        | 1.009                     | -0.19            | 1.480                   | 2.234                   |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Side     | 0mm      | ON              | 40185       | 2549.5      | 23.70               | 25.50               | 1.514                  | 42.90        | 1.009                     | -0.09            | 1.400                   | 2.138                   |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Left Side     | 0mm      | ON              | 40620       | 2593        | 23.56               | 25.50               | 1.563                  | 42.90        | 1.009                     | 0.02             | 1.550                   | 2.445                   |
|          | LTE Band 41_PC2_Aux    | 20M      | QPSK       | 1       | 0         | Left Side     | 0mm      | ON              | 41055       | 2636.5      | 23.52               | 25.50               | 1.578                  | 42.90        | 1.009                     | 0.1              | 1.520                   | 2.420                   |
|          | LTE Band 41_UL CA_Aux  | 20M      | QPSK       | 1       | 0         | Left Side     | 0mm      | ON              | 40185+39987 | 2549.5      | 23.14               | 24.00               | 1.219                  | 62.90        | 1.006                     | 0.02             | 1.880                   | 2.305                   |

**<WLAN SAR>**

| Plot No. | Band       | Mode                | Test Position | Gap (mm) | Power Reduction | Ch. | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Duty Cycle % | Duty Cycle Scaling Factor | Power Drift (dB) | Measured 10g SAR (W/kg) | Reported 10g SAR (W/kg) |
|----------|------------|---------------------|---------------|----------|-----------------|-----|-------------|---------------------|---------------------|------------------------|--------------|---------------------------|------------------|-------------------------|-------------------------|
| 55       | WLAN2.4GHz | 802.11b 1Mbps       | Left Side     | 0mm      | OFF             | 6   | 2437        | 19.74               | 21.00               | 1.337                  | 99.42        | 1.006                     | 0.02             | 1.100                   | 1.479                   |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Front         | 0mm      | ON              | 58  | 5290        | 17.20               | 17.50               | 1.071                  | 87.06        | 1.149                     | -0.13            | 0.947                   | 1.165                   |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Back          | 0mm      | ON              | 58  | 5290        | 17.20               | 17.50               | 1.071                  | 87.06        | 1.149                     | 0.15             | 0.433                   | 0.533                   |
|          | WLAN5GHz   | 802.11a 6Mbps       | Top Side      | 0mm      | OFF             | 64  | 5320        | 19.98               | 20.00               | 1.005                  | 93.64        | 1.068                     | -0.05            | 0.276                   | 0.296                   |
| 56       | WLAN5GHz   | 802.11a 6Mbps       | Left Side     | 0mm      | OFF             | 64  | 5320        | 19.98               | 20.00               | 1.005                  | 93.64        | 1.068                     | 0.12             | 2.670                   | 2.865                   |
|          | WLAN5GHz   | 802.11a 6Mbps       | Left Side     | 0mm      | OFF             | 60  | 5300        | 19.97               | 20.00               | 1.007                  | 93.64        | 1.068                     | -0.11            | 2.520                   | 2.710                   |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Front         | 0mm      | ON              | 138 | 5690        | 17.44               | 17.50               | 1.014                  | 87.06        | 1.149                     | -0.18            | 0.763                   | 0.889                   |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Back          | 0mm      | ON              | 138 | 5690        | 17.44               | 17.50               | 1.014                  | 87.06        | 1.149                     | 0.11             | 0.555                   | 0.647                   |
|          | WLAN5GHz   | 802.11a 6Mbps       | Top Side      | 0mm      | OFF             | 100 | 5500        | 19.96               | 20.00               | 1.009                  | 93.64        | 1.068                     | -0.09            | 0.246                   | 0.265                   |
|          | WLAN5GHz   | 802.11a 6Mbps       | Left Side     | 0mm      | OFF             | 100 | 5500        | 19.96               | 20.00               | 1.009                  | 93.64        | 1.068                     | -0.15            | 1.580                   | 1.703                   |
| 57       | WLAN5GHz   | 802.11a 6Mbps       | Left Side     | 0mm      | OFF             | 144 | 5720        | 19.95               | 20.00               | 1.012                  | 93.64        | 1.068                     | -0.11            | 2.290                   | 2.474                   |
|          | WLAN5GHz   | 802.11a 6Mbps       | Left Side     | 0mm      | OFF             | 157 | 5785        | 19.99               | 20.00               | 1.002                  | 93.64        | 1.068                     | -0.18            | 2.000                   | 2.141                   |
| 58       | WLAN5GHz   | 802.11a 6Mbps       | Left Side     | 0mm      | OFF             | 165 | 5825        | 19.98               | 20.00               | 1.005                  | 93.64        | 1.068                     | -0.11            | 2.520                   | 2.704                   |

**14.4 Body Worn Accessory SAR**
**<GSM SAR>**

| Plot No. | Band    | Mode              | Test Position | Gap (mm) | Power Reduction | Ch. | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|---------|-------------------|---------------|----------|-----------------|-----|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | GSM850  | GPRS (2 Tx slots) | Front         | 5mm      | OFF             | 251 | 848.8       | 31.55               | 32.00               | 1.109                  | 0.18             | 0.324                  | 0.359                  |
|          | GSM850  | GPRS (2 Tx slots) | Back          | 5mm      | OFF             | 251 | 848.8       | 31.55               | 32.00               | 1.109                  | 0.09             | 0.421                  | 0.467                  |
| 59       | GSM850  | GPRS (2 Tx slots) | Back          | 5mm      | OFF             | 128 | 824.2       | 30.31               | 32.00               | 1.476                  | -0.15            | 0.460                  | 0.679                  |
|          | GSM850  | GPRS (2 Tx slots) | Back          | 5mm      | OFF             | 189 | 836.4       | 31.04               | 32.00               | 1.247                  | -0.14            | 0.429                  | 0.535                  |
|          | GSM1900 | GPRS (3 Tx slots) | Front         | 5mm      | ON              | 810 | 1909.8      | 21.05               | 21.50               | 1.109                  | -0.09            | 0.963                  | 1.068                  |
|          | GSM1900 | GPRS (3 Tx slots) | Front         | 5mm      | ON              | 512 | 1850.2      | 20.93               | 21.50               | 1.140                  | -0.12            | 0.903                  | 1.030                  |
|          | GSM1900 | GPRS (3 Tx slots) | Front         | 5mm      | ON              | 661 | 1880        | 20.95               | 21.50               | 1.135                  | 0.11             | 0.934                  | 1.060                  |
| 60       | GSM1900 | GPRS (3 Tx slots) | Back          | 5mm      | ON              | 810 | 1909.8      | 21.05               | 21.50               | 1.109                  | -0.04            | 1.040                  | 1.154                  |
|          | GSM1900 | GPRS (3 Tx slots) | Back          | 5mm      | ON              | 512 | 1850.2      | 20.93               | 21.50               | 1.140                  | -0.01            | 0.944                  | 1.076                  |
|          | GSM1900 | GPRS (3 Tx slots) | Back          | 5mm      | ON              | 661 | 1880        | 20.95               | 21.50               | 1.135                  | -0.02            | 0.993                  | 1.127                  |

**<WCDMA SAR>**

| Plot No. | Band     | Mode         | Test Position | Gap (mm) | Power Reduction | Ch.  | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|----------|--------------|---------------|----------|-----------------|------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | WCDMA II | RMC 12.2Kbps | Front         | 5mm      | ON              | 9262 | 1852.4      | 16.46               | 17.50               | 1.271                  | 0.18             | 0.806                  | 1.024                  |
| 61       | WCDMA II | RMC 12.2Kbps | Front         | 5mm      | ON              | 9400 | 1880        | 16.33               | 17.50               | 1.309                  | 0.17             | 0.899                  | 1.177                  |
|          | WCDMA II | RMC 12.2Kbps | Front         | 5mm      | ON              | 9538 | 1907.6      | 16.30               | 17.50               | 1.318                  | 0.12             | 0.789                  | 1.040                  |
|          | WCDMA II | RMC 12.2Kbps | Back          | 5mm      | ON              | 9262 | 1852.4      | 16.46               | 17.50               | 1.271                  | 0.14             | 0.734                  | 0.933                  |
|          | WCDMA II | RMC 12.2Kbps | Back          | 5mm      | ON              | 9400 | 1880        | 16.33               | 17.50               | 1.309                  | 0.03             | 0.706                  | 0.924                  |
|          | WCDMA II | RMC 12.2Kbps | Back          | 5mm      | ON              | 9538 | 1907.6      | 16.30               | 17.50               | 1.318                  | 0.1              | 0.764                  | 1.007                  |
| 62       | WCDMA IV | RMC 12.2Kbps | Front         | 5mm      | ON              | 1513 | 1752.6      | 15.53               | 17.00               | 1.403                  | -0.1             | 0.704                  | 0.988                  |
|          | WCDMA IV | RMC 12.2Kbps | Front         | 5mm      | ON              | 1312 | 1712.4      | 15.45               | 17.00               | 1.429                  | -0.03            | 0.631                  | 0.902                  |
|          | WCDMA IV | RMC 12.2Kbps | Front         | 5mm      | ON              | 1413 | 1732.6      | 15.44               | 17.00               | 1.432                  | -0.04            | 0.650                  | 0.931                  |
|          | WCDMA IV | RMC 12.2Kbps | Back          | 5mm      | ON              | 1513 | 1752.6      | 15.53               | 17.00               | 1.403                  | 0.14             | 0.653                  | 0.916                  |
|          | WCDMA IV | RMC 12.2Kbps | Back          | 5mm      | ON              | 1312 | 1712.4      | 15.45               | 17.00               | 1.429                  | -0.05            | 0.596                  | 0.852                  |
|          | WCDMA IV | RMC 12.2Kbps | Back          | 5mm      | ON              | 1413 | 1732.6      | 15.44               | 17.00               | 1.432                  | -0.05            | 0.606                  | 0.868                  |
|          | WCDMA V  | RMC 12.2Kbps | Front         | 5mm      | ON              | 4182 | 836.4       | 22.26               | 23.50               | 1.330                  | -0.05            | 0.527                  | 0.701                  |
|          | WCDMA V  | RMC 12.2Kbps | Back          | 5mm      | ON              | 4182 | 836.4       | 22.26               | 23.50               | 1.330                  | -0.06            | 0.665                  | 0.885                  |
|          | WCDMA V  | RMC 12.2Kbps | Back          | 5mm      | ON              | 4132 | 826.4       | 22.20               | 23.50               | 1.349                  | -0.08            | 0.619                  | 0.835                  |
| 63       | WCDMA V  | RMC 12.2Kbps | Back          | 5mm      | ON              | 4233 | 846.6       | 22.15               | 23.50               | 1.365                  | -0.08            | 0.658                  | 0.898                  |

**<CDMA SAR>**

| Plot No. | Band      | Mode           | Test Position | Gap (mm) | Power Reduction | Ch.  | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-----------|----------------|---------------|----------|-----------------|------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | CDMA BC0  | 1xRTT RC3 SO32 | Front         | 5mm      | ON              | 777  | 848.31      | 22.87               | 23.50               | 1.156                  | -0.15            | 0.670                  | 0.775                  |
| 64       | CDMA BC0  | 1xRTT RC3 SO32 | Back          | 5mm      | ON              | 777  | 848.31      | 22.87               | 23.50               | 1.156                  | -0.18            | 0.890                  | 1.029                  |
|          | CDMA BC0  | 1xRTT RC3 SO32 | Back          | 5mm      | ON              | 1013 | 824.7       | 22.68               | 23.50               | 1.208                  | -0.13            | 0.775                  | 0.936                  |
|          | CDMA BC0  | 1xRTT RC3 SO32 | Back          | 5mm      | ON              | 384  | 836.52      | 22.79               | 23.50               | 1.178                  | -0.12            | 0.792                  | 0.933                  |
|          | CDMA BC1  | 1xRTT RC3 SO32 | Front         | 5mm      | ON              | 25   | 1851.25     | 16.67               | 18.00               | 1.358                  | -0.07            | 0.718                  | 0.975                  |
|          | CDMA BC1  | 1xRTT RC3 SO32 | Front         | 5mm      | ON              | 600  | 1880        | 16.65               | 18.00               | 1.365                  | 0.14             | 0.708                  | 0.966                  |
|          | CDMA BC1  | 1xRTT RC3 SO32 | Front         | 5mm      | ON              | 1175 | 1908.75     | 16.63               | 18.00               | 1.371                  | 0.01             | 0.710                  | 0.973                  |
| 65       | CDMA BC1  | 1xRTT RC3 SO32 | Back          | 5mm      | ON              | 25   | 1851.25     | 16.67               | 18.00               | 1.358                  | 0.03             | 0.789                  | 1.072                  |
|          | CDMA BC1  | 1xRTT RC3 SO32 | Back          | 5mm      | ON              | 600  | 1880        | 16.65               | 18.00               | 1.365                  | -0.11            | 0.661                  | 0.902                  |
|          | CDMA BC1  | 1xRTT RC3 SO32 | Back          | 5mm      | ON              | 1175 | 1908.75     | 16.63               | 18.00               | 1.371                  | -0.16            | 0.776                  | 1.064                  |
|          | CDMA BC10 | 1xRTT RC3 SO32 | Front         | 5mm      | ON              | 580  | 820.5       | 22.67               | 23.50               | 1.211                  | -0.11            | 0.576                  | 0.697                  |
|          | CDMA BC10 | 1xRTT RC3 SO32 | Back          | 5mm      | ON              | 580  | 820.5       | 22.67               | 23.50               | 1.211                  | -0.07            | 0.767                  | 0.929                  |
| 66       | CDMA BC10 | 1xRTT RC3 SO32 | Back          | 5mm      | ON              | 476  | 817.9       | 22.60               | 23.50               | 1.230                  | -0.12            | 0.785                  | 0.966                  |
|          | CDMA BC10 | 1xRTT RC3 SO32 | Back          | 5mm      | ON              | 684  | 823.1       | 22.64               | 23.50               | 1.219                  | -0.1             | 0.741                  | 0.903                  |



**<FDD LTE SAR>**

| Plot No. | Band            | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.   | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-----------------|----------|------------|---------|-----------|---------------|----------|-----------------|-------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Front         | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | 0.1              | 0.482                  | 0.628                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Front         | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | 0.13             | 0.489                  | 0.642                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | 0.11             | 0.785                  | 1.023                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 20850 | 2510        | 16.81               | 18.00               | 1.315                  | 0.18             | 0.809                  | 1.064                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 21100 | 2535        | 16.83               | 18.00               | 1.309                  | 0.17             | 0.791                  | 1.036                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | 0.11             | 0.801                  | 1.051                  |
| 67       | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 20850 | 2510        | 16.66               | 18.00               | 1.361                  | 0.11             | 0.804                  | 1.095                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 21100 | 2535        | 16.73               | 18.00               | 1.340                  | 0.13             | 0.759                  | 1.017                  |
|          | LTE Band 7_Main | 20M      | QPSK       | 100     | 0         | Back          | 5mm      | ON              | 21350 | 2560        | 16.71               | 18.00               | 1.346                  | 0.14             | 0.729                  | 0.981                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 49        | Front         | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | 0.14             | 0.382                  | 0.498                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Front         | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | 0.16             | 0.390                  | 0.512                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 21350 | 2560        | 16.85               | 18.00               | 1.303                  | -0.18            | 0.663                  | 0.864                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 20850 | 2510        | 16.81               | 18.00               | 1.315                  | -0.11            | 0.523                  | 0.688                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 1       | 49        | Back          | 5mm      | ON              | 21100 | 2535        | 16.83               | 18.00               | 1.309                  | -0.16            | 0.625                  | 0.818                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 21350 | 2560        | 16.82               | 18.00               | 1.312                  | -0.1             | 0.610                  | 0.800                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 20850 | 2510        | 16.66               | 18.00               | 1.361                  | -0.18            | 0.582                  | 0.792                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 50      | 50        | Back          | 5mm      | ON              | 21100 | 2535        | 16.73               | 18.00               | 1.340                  | -0.11            | 0.631                  | 0.845                  |
|          | LTE Band 7_Aux  | 20M      | QPSK       | 100     | 0         | Back          | 5mm      | ON              | 21350 | 2560        | 16.71               | 18.00               | 1.346                  | -0.18            | 0.641                  | 0.863                  |
|          | LTE Band 12     | 10M      | QPSK       | 1       | 49        | Front         | 5mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  | -0.02            | 0.666                  | 0.884                  |
|          | LTE Band 12     | 10M      | QPSK       | 25      | 0         | Front         | 5mm      | OFF             | 23095 | 707.5       | 21.65               | 23.00               | 1.365                  | -0.15            | 0.384                  | 0.524                  |
|          | LTE Band 12     | 10M      | QPSK       | 50      | 0         | Front         | 5mm      | OFF             | 23095 | 707.5       | 21.64               | 23.00               | 1.368                  | -0.02            | 0.374                  | 0.512                  |
| 68       | LTE Band 12     | 10M      | QPSK       | 1       | 49        | Back          | 5mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  | 0.1              | 0.872                  | 1.157                  |
|          | LTE Band 12     | 10M      | QPSK       | 25      | 0         | Back          | 5mm      | OFF             | 23095 | 707.5       | 21.65               | 23.00               | 1.365                  | 0.12             | 0.512                  | 0.699                  |
|          | LTE Band 12     | 10M      | QPSK       | 50      | 0         | Back          | 5mm      | OFF             | 23095 | 707.5       | 21.64               | 23.00               | 1.368                  | 0.11             | 0.515                  | 0.704                  |



| Plot No. | Band             | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.    | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|------------------|----------|------------|---------|-----------|---------------|----------|-----------------|--------|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | LTE Band 13      | 10M      | QPSK       | 1       | 0         | Front         | 5mm      | OFF             | 23230  | 782         | 22.72               | 24.00               | 1.343                  | -0.03            | 0.734                  | 0.986                  |
|          | LTE Band 13      | 10M      | QPSK       | 25      | 0         | Front         | 5mm      | OFF             | 23230  | 782         | 21.73               | 23.00               | 1.340                  | -0.15            | 0.423                  | 0.567                  |
|          | LTE Band 13      | 10M      | QPSK       | 50      | 0         | Front         | 5mm      | OFF             | 23230  | 782         | 21.71               | 23.00               | 1.346                  | -0.07            | 0.412                  | 0.554                  |
| 69       | LTE Band 13      | 10M      | QPSK       | 1       | 0         | Back          | 5mm      | OFF             | 23230  | 782         | 22.72               | 24.00               | 1.343                  | -0.13            | 0.846                  | 1.136                  |
|          | LTE Band 13      | 10M      | QPSK       | 25      | 0         | Back          | 5mm      | OFF             | 23230  | 782         | 21.73               | 23.00               | 1.340                  | 0.12             | 0.564                  | 0.756                  |
|          | LTE Band 13      | 10M      | QPSK       | 50      | 0         | Back          | 5mm      | OFF             | 23230  | 782         | 21.71               | 23.00               | 1.346                  | 0.12             | 0.567                  | 0.763                  |
|          | LTE Band 14      | 10M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 23330  | 793         | 22.34               | 23.50               | 1.306                  | -0.05            | 0.574                  | 0.750                  |
|          | LTE Band 14      | 10M      | QPSK       | 25      | 0         | Front         | 5mm      | ON              | 23330  | 793         | 21.74               | 23.50               | 1.500                  | -0.1             | 0.516                  | 0.774                  |
|          | LTE Band 14      | 10M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 23330  | 793         | 22.34               | 23.50               | 1.306                  | 0.09             | 0.760                  | 0.993                  |
|          | LTE Band 14      | 10M      | QPSK       | 25      | 0         | Back          | 5mm      | ON              | 23330  | 793         | 21.74               | 23.50               | 1.500                  | 0.13             | 0.703                  | 1.054                  |
| 70       | LTE Band 14      | 10M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 23330  | 793         | 21.66               | 23.50               | 1.528                  | 0.13             | 0.700                  | 1.069                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 26140  | 1860        | 16.05               | 16.50               | 1.109                  | 0.19             | 0.801                  | 0.888                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 26340  | 1880        | 15.87               | 16.50               | 1.156                  | 0.15             | 0.869                  | 1.005                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 26590  | 1905        | 15.71               | 16.50               | 1.199                  | 0.14             | 0.879                  | 1.054                  |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 26140  | 1860        | 15.75               | 16.50               | 1.189                  | 0.15             | 0.833                  | 0.990                  |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 26340  | 1880        | 15.58               | 16.50               | 1.236                  | 0.15             | 0.857                  | 1.059                  |
| 71       | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 26590  | 1905        | 15.60               | 16.50               | 1.230                  | 0.14             | 0.879                  | 1.081                  |
|          | LTE Band 25      | 20M      | QPSK       | 100     | 0         | Front         | 5mm      | ON              | 26140  | 1860        | 15.56               | 16.50               | 1.242                  | 0.15             | 0.811                  | 1.007                  |
|          | LTE Band 25      | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 26140  | 1860        | 16.05               | 16.50               | 1.109                  | 0.12             | 0.657                  | 0.729                  |
|          | LTE Band 25      | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 26140  | 1860        | 15.75               | 16.50               | 1.189                  | 0.1              | 0.623                  | 0.740                  |
|          | LTE Band 26      | 15M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 26865  | 831.5       | 21.99               | 23.50               | 1.416                  | -0.09            | 0.524                  | 0.742                  |
|          | LTE Band 26      | 15M      | QPSK       | 36      | 0         | Front         | 5mm      | ON              | 26865  | 831.5       | 21.98               | 23.50               | 1.419                  | -0.09            | 0.541                  | 0.768                  |
|          | LTE Band 26      | 15M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 26865  | 831.5       | 21.99               | 23.50               | 1.416                  | -0.01            | 0.627                  | 0.888                  |
| 72       | LTE Band 26      | 15M      | QPSK       | 36      | 0         | Back          | 5mm      | ON              | 26865  | 831.5       | 21.98               | 23.50               | 1.419                  | -0.02            | 0.646                  | 0.917                  |
|          | LTE Band 26      | 15M      | QPSK       | 75      | 0         | Back          | 5mm      | ON              | 26865  | 831.5       | 21.92               | 23.50               | 1.439                  | -0.03            | 0.630                  | 0.906                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 27710  | 2310        | 20.33               | 21.00               | 1.167                  | 0.02             | 0.537                  | 0.627                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 25      | 0         | Front         | 5mm      | ON              | 27710  | 2310        | 20.11               | 21.00               | 1.227                  | -0.04            | 0.549                  | 0.674                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 27710  | 2310        | 20.33               | 21.00               | 1.167                  | 0.11             | 0.849                  | 0.991                  |
| 73       | LTE Band 30_Main | 10M      | QPSK       | 25      | 0         | Back          | 5mm      | ON              | 27710  | 2310        | 20.11               | 21.00               | 1.227                  | 0.06             | 0.869                  | 1.067                  |
|          | LTE Band 30_Main | 10M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 27710  | 2310        | 20.03               | 21.00               | 1.250                  | 0.07             | 0.839                  | 1.049                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 27710  | 2310        | 20.33               | 21.00               | 1.167                  | 0.16             | 0.367                  | 0.428                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 25      | 0         | Front         | 5mm      | ON              | 27710  | 2310        | 20.11               | 21.00               | 1.227                  | 0.01             | 0.374                  | 0.459                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 27710  | 2310        | 20.33               | 21.00               | 1.167                  | -0.08            | 0.765                  | 0.893                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 25      | 0         | Back          | 5mm      | ON              | 27710  | 2310        | 20.11               | 21.00               | 1.227                  | -0.06            | 0.757                  | 0.929                  |
|          | LTE Band 30_Aux  | 10M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 27710  | 2310        | 20.03               | 21.00               | 1.250                  | -0.03            | 0.781                  | 0.976                  |
| 74       | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 132572 | 1770        | 15.70               | 17.00               | 1.349                  | -0.02            | 0.523                  | 0.706                  |
|          | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 132072 | 1720        | 15.58               | 17.00               | 1.387                  | -0.01            | 0.359                  | 0.498                  |
|          | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 132322 | 1745        | 15.69               | 17.00               | 1.352                  | 0.09             | 0.372                  | 0.503                  |
|          | LTE Band 66      | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 132572 | 1770        | 15.40               | 17.00               | 1.445                  | 0.07             | 0.394                  | 0.570                  |
|          | LTE Band 66      | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 132572 | 1770        | 15.70               | 17.00               | 1.349                  | -0.1             | 0.489                  | 0.660                  |
|          | LTE Band 66      | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 132572 | 1770        | 15.40               | 17.00               | 1.445                  | 0.04             | 0.413                  | 0.597                  |
|          | LTE Band 71      | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | OFF             | 133322 | 683         | 23.18               | 24.00               | 1.208                  | -0.02            | 0.645                  | 0.779                  |
|          | LTE Band 71      | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | OFF             | 133322 | 683         | 22.10               | 23.00               | 1.230                  | -0.07            | 0.343                  | 0.422                  |
| 75       | LTE Band 71      | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | OFF             | 133322 | 683         | 23.18               | 24.00               | 1.208                  | 0.04             | 0.716                  | 0.865                  |
|          | LTE Band 71      | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | OFF             | 133322 | 683         | 22.10               | 23.00               | 1.230                  | 0.12             | 0.496                  | 0.610                  |
|          | LTE Band 71      | 20M      | QPSK       | 100     | 0         | Back          | 5mm      | OFF             | 133322 | 683         | 22.01               | 23.00               | 1.256                  | 0.12             | 0.469                  | 0.589                  |



**<TDD LTE SAR>**

| Plot No. | Band                   | BW (MHz) | Modulation | RB Size | RB offset | Test Position | Gap (mm) | Power Reduction | Ch.         | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Duty Cycle % | Duty Cycle Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|------------------------|----------|------------|---------|-----------|---------------|----------|-----------------|-------------|-------------|---------------------|---------------------|------------------------|--------------|---------------------------|------------------|------------------------|------------------------|
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | 0.02             | 0.551                  | 0.565                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | 0.11             | 0.439                  | 0.505                  |
| 76       | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | 0.07             | 1.090                  | 1.117                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 39750       | 2506        | 19.26               | 20.00               | 1.186                  | 62.90        | 1.006                     | 0.09             | 0.756                  | 0.902                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40185       | 2549.5      | 19.35               | 20.00               | 1.161                  | 62.90        | 1.006                     | 0.12             | 0.719                  | 0.840                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40620       | 2593        | 19.26               | 20.00               | 1.186                  | 62.90        | 1.006                     | 0.12             | 0.749                  | 0.893                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41055       | 2636.5      | 19.24               | 20.00               | 1.191                  | 62.90        | 1.006                     | 0.11             | 0.733                  | 0.878                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | -0.02            | 0.520                  | 0.598                  |
|          | LTE Band 41_Main       | 20M      | QPSK       | 100     | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.45               | 20.00               | 1.135                  | 62.90        | 1.006                     | 0.04             | 0.521                  | 0.595                  |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 20.53               | 21.00               | 1.114                  | 42.90        | 1.009                     | 0.13             | 0.724                  | 0.814                  |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 39750       | 2506        | 19.75               | 21.00               | 1.334                  | 42.90        | 1.009                     | 0.13             | 0.612                  | 0.823                  |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40185       | 2549.5      | 19.76               | 21.00               | 1.330                  | 42.90        | 1.009                     | 0.11             | 0.609                  | 0.818                  |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40620       | 2593        | 19.77               | 21.00               | 1.327                  | 42.90        | 1.009                     | 0.05             | 0.654                  | 0.876                  |
|          | LTE Band 41_PC2_Main   | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41055       | 2636.5      | 19.75               | 21.00               | 1.334                  | 42.90        | 1.009                     | 0.13             | 0.638                  | 0.858                  |
|          | LTE Band 41_UL CA_Main | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40185+39987 | 2549.5      | 19.64               | 20.00               | 1.086                  | 62.90        | 1.006                     | 0.08             | 0.725                  | 0.792                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Front         | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | 0.1              | 0.506                  | 0.518                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Front         | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | -0.11            | 0.402                  | 0.462                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | -0.05            | 0.788                  | 0.807                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 39750       | 2506        | 19.26               | 20.00               | 1.186                  | 62.90        | 1.006                     | -0.17            | 0.734                  | 0.876                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40185       | 2549.5      | 19.35               | 20.00               | 1.161                  | 62.90        | 1.006                     | -0.18            | 0.721                  | 0.842                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40620       | 2593        | 19.26               | 20.00               | 1.186                  | 62.90        | 1.006                     | -0.1             | 0.739                  | 0.882                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41055       | 2636.5      | 19.24               | 20.00               | 1.191                  | 62.90        | 1.006                     | -0.12            | 0.704                  | 0.844                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.42               | 20.00               | 1.143                  | 62.90        | 1.006                     | -0.12            | 0.662                  | 0.761                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 39750       | 2506        | 19.27               | 20.00               | 1.183                  | 62.90        | 1.006                     | -0.14            | 0.731                  | 0.870                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 40185       | 2549.5      | 19.37               | 20.00               | 1.156                  | 62.90        | 1.006                     | -0.19            | 0.707                  | 0.822                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 40620       | 2593        | 19.37               | 20.00               | 1.156                  | 62.90        | 1.006                     | -0.14            | 0.672                  | 0.782                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 50      | 0         | Back          | 5mm      | ON              | 41055       | 2636.5      | 19.29               | 20.00               | 1.178                  | 62.90        | 1.006                     | -0.13            | 0.689                  | 0.816                  |
|          | LTE Band 41_Aux        | 20M      | QPSK       | 100     | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 19.45               | 20.00               | 1.135                  | 62.90        | 1.006                     | -0.1             | 0.632                  | 0.722                  |
|          | LTE Band 41_PC2_Aux    | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 41490       | 2680        | 20.53               | 21.00               | 1.114                  | 42.90        | 1.009                     | 0.07             | 0.433                  | 0.487                  |
|          | LTE Band 41_UL CA_Aux  | 20M      | QPSK       | 1       | 0         | Back          | 5mm      | ON              | 40185+39987 | 2549.5      | 19.64               | 20.00               | 1.086                  | 62.90        | 1.006                     | -0.19            | 0.631                  | 0.690                  |

**<Bluetooth SAR>**

| Plot No. | Band      | Mode  | Test Position | Gap (mm) | Ch. | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|-----------|-------|---------------|----------|-----|-------------|---------------------|---------------------|------------------------|------------------|------------------------|------------------------|
|          | Bluetooth | 1Mbps | Front         | 5mm      | 0   | 2402        | 9.76                | 10.00               | 1.057                  | -0.02            | 0.033                  | 0.035                  |
|          | Bluetooth | 1Mbps | Back          | 5mm      | 0   | 2402        | 9.76                | 10.00               | 1.057                  | -0.01            | 0.043                  | 0.045                  |
| 77       | Bluetooth | 1Mbps | Back          | 5mm      | 39  | 2441        | 8.86                | 10.00               | 1.300                  | -0.05            | 0.042                  | 0.055                  |
|          | Bluetooth | 1Mbps | Back          | 5mm      | 78  | 2480        | 8.28                | 10.00               | 1.486                  | -0.12            | 0.031                  | 0.046                  |

**<WLAN SAR>**

| Plot No. | Band       | Mode                | Test Position | Gap (mm) | Power Reduction | Ch. | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Duty Cycle % | Duty Cycle Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |
|----------|------------|---------------------|---------------|----------|-----------------|-----|-------------|---------------------|---------------------|------------------------|--------------|---------------------------|------------------|------------------------|------------------------|
|          | WLAN2.4GHz | 802.11b 1Mbps       | Front         | 5mm      | ON              | 11  | 2462        | 18.96               | 20.50               | 1.426                  | 99.42        | 1.006                     | 0.12             | 0.583                  | 0.836                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Front         | 5mm      | ON              | 1   | 2412        | 18.85               | 20.50               | 1.462                  | 99.42        | 1.006                     | 0.09             | 0.533                  | 0.784                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Front         | 5mm      | ON              | 6   | 2437        | 18.87               | 20.50               | 1.455                  | 99.42        | 1.006                     | 0.07             | 0.589                  | 0.862                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Back          | 5mm      | ON              | 11  | 2462        | 18.96               | 20.50               | 1.426                  | 99.42        | 1.006                     | -0.12            | 0.661                  | 0.948                  |
|          | WLAN2.4GHz | 802.11b 1Mbps       | Back          | 5mm      | ON              | 1   | 2412        | 18.85               | 20.50               | 1.462                  | 99.42        | 1.006                     | 0.04             | 0.644                  | 0.947                  |
| 78       | WLAN2.4GHz | 802.11b 1Mbps       | Back          | 5mm      | ON              | 6   | 2437        | 18.87               | 20.50               | 1.455                  | 99.42        | 1.006                     | -0.18            | 0.689                  | 1.009                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Front         | 5mm      | ON              | 58  | 5290        | 17.32               | 17.50               | 1.042                  | 87.06        | 1.149                     | -0.16            | 0.570                  | 0.682                  |
| 79       | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Back          | 5mm      | ON              | 58  | 5290        | 17.32               | 17.50               | 1.042                  | 87.06        | 1.149                     | 0.03             | 0.846                  | 1.013                  |
|          | WLAN5GHz   | 802.11n-HT40 MCS0   | Back          | 5mm      | ON              | 54  | 5270        | 17.48               | 17.50               | 1.004                  | 93.90        | 1.065                     | 0.13             | 0.810                  | 0.866                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Front         | 5mm      | ON              | 138 | 5690        | 17.44               | 17.50               | 1.013                  | 87.06        | 1.149                     | -0.11            | 0.651                  | 0.758                  |
| 80       | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Back          | 5mm      | ON              | 138 | 5690        | 17.44               | 17.50               | 1.013                  | 87.06        | 1.149                     | 0.18             | 0.772                  | 0.899                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Back          | 5mm      | ON              | 106 | 5530        | 17.40               | 17.50               | 1.023                  | 87.06        | 1.149                     | 0.02             | 0.667                  | 0.784                  |
|          | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Front         | 5mm      | ON              | 155 | 5775        | 17.49               | 17.50               | 1.002                  | 87.06        | 1.149                     | -0.11            | 0.565                  | 0.650                  |
| 81       | WLAN5GHz   | 802.11ac-VHT80 MCS0 | Back          | 5mm      | ON              | 155 | 5775        | 17.49               | 17.50               | 1.002                  | 87.06        | 1.149                     | 0.11             | 0.882                  | 1.015                  |
|          | WLAN5GHz   | 802.11n-HT40 MCS0   | Back          | 5mm      | ON              | 159 | 5795        | 17.39               | 17.50               | 1.025                  | 93.90        | 1.065                     | 0.13             | 0.815                  | 0.890                  |



### 14.5 Repeated SAR Measurement

| No. | Band             | Mode                | Test Position | Gap (mm) | Power Reduction | Ch.   | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Duty Cycle % | Duty Cycle Scaling Factor | Power Drift (dB) | Measured 1g SAR (W/kg) | Ratio | Reported 1g SAR (W/kg) |
|-----|------------------|---------------------|---------------|----------|-----------------|-------|-------------|---------------------|---------------------|------------------------|--------------|---------------------------|------------------|------------------------|-------|------------------------|
| 1st | GSM1900          | GPRS (3 Tx slots)   | Back          | 5mm      | ON              | 810   | 1909.8      | 21.05               | 21.50               | 1.109                  |              | 1.000                     | -0.04            | 1.040                  | -     | 1.154                  |
| 2nd | GSM1900          | GPRS (3 Tx slots)   | Back          | 5mm      | ON              | 810   | 1909.8      | 21.05               | 21.50               | 1.109                  |              | 1.000                     | -0.06            | 0.970                  | 1.07  | 1.076                  |
| 1st | WCDMA IV         | RMC 12.2Kbps        | Bottom Side   | 5mm      | ON              | 1513  | 1752.6      | 15.53               | 16.50               | 1.250                  |              | 1.000                     | 0.17             | 0.940                  | -     | 1.175                  |
| 2nd | WCDMA IV         | RMC 12.2Kbps        | Bottom Side   | 5mm      | ON              | 1513  | 1752.6      | 15.53               | 16.50               | 1.250                  |              | 1.000                     | 0.12             | 0.926                  | 1.02  | 1.158                  |
| 1st | CDMA BC0         | 1xRTT RC3 SO32      | Back          | 5mm      | ON              | 777   | 848.31      | 22.87               | 23.50               | 1.156                  |              | 1.000                     | -0.18            | 0.890                  | -     | 1.029                  |
| 2nd | CDMA BC0         | 1xRTT RC3 SO32      | Back          | 5mm      | ON              | 777   | 848.31      | 22.87               | 23.50               | 1.156                  |              | 1.000                     | -0.11            | 0.887                  | 1.00  | 1.025                  |
| 1st | LTE Band 12      | 10M_QPSK_1_49       | Back          | 5mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  |              | 1.000                     | 0.1              | 0.872                  | -     | 1.157                  |
| 2nd | LTE Band 12      | 10M_QPSK_1_49       | Back          | 5mm      | OFF             | 23095 | 707.5       | 22.77               | 24.00               | 1.327                  |              | 1.000                     | 0.09             | 0.865                  | 1.00  | 1.148                  |
| 1st | LTE Band 30_Main | 10M_QPSK_25_0       | Back          | 5mm      | ON              | 27710 | 2310        | 20.11               | 21.00               | 1.227                  |              | 1.000                     | 0.06             | 0.869                  | -     | 1.067                  |
| 2nd | LTE Band 30_Main | 10M_QPSK_25_0       | Back          | 5mm      | ON              | 27710 | 2310        | 20.11               | 21.00               | 1.227                  |              | 1.000                     | 0.1              | 0.846                  | 1.03  | 1.038                  |
| 1st | LTE Band 41_Main | 20M_QPSK_1_0        | Back          | 5mm      | ON              | 41490 | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | 0.07             | 1.090                  | -     | 1.117                  |
| 2nd | LTE Band 41_Main | 20M_QPSK_1_0        | Back          | 5mm      | ON              | 41490 | 2680        | 19.92               | 20.00               | 1.019                  | 62.90        | 1.006                     | 0.11             | 1.030                  | 1.06  | 1.055                  |
| 1st | WLAN2.4GHz       | 802.11b 1Mbps       | Left Side     | 5mm      | ON              | 6     | 2437        | 18.87               | 20.50               | 1.455                  | 99.42        | 1.006                     | -0.16            | 0.816                  | -     | 1.195                  |
| 2nd | WLAN2.4GHz       | 802.11b 1Mbps       | Left Side     | 5mm      | ON              | 6     | 2437        | 18.87               | 20.50               | 1.455                  | 99.42        | 1.006                     | -0.16            | 0.795                  | 1.03  | 1.164                  |
| 1st | WLAN5GHz         | 802.11ac-VHT80 MCS0 | Right Cheek   | 0mm      | ON              | 58    | 5290        | 15.70               | 16.00               | 1.071                  | 87.06        | 1.149                     | 0.1              | 0.847                  | -     | 1.042                  |
| 2nd | WLAN5GHz         | 802.11ac-VHT80 MCS0 | Right Cheek   | 0mm      | ON              | 58    | 5290        | 15.70               | 16.00               | 1.071                  | 87.06        | 1.149                     | 0.16             | 0.838                  | 1.02  | 1.031                  |
| 1st | WLAN5GHz         | 802.11ac-VHT80 MCS0 | Right Cheek   | 0mm      | ON              | 138   | 5690        | 15.81               | 16.00               | 1.044                  | 87.06        | 1.149                     | 0.09             | 0.980                  | -     | 1.176                  |
| 2nd | WLAN5GHz         | 802.11ac-VHT80 MCS0 | Right Cheek   | 0mm      | ON              | 138   | 5690        | 15.81               | 16.00               | 1.044                  | 87.06        | 1.149                     | 0.11             | 0.952                  | 1.03  | 1.142                  |
| 1st | WLAN5GHz         | 802.11n-HT40 MCS0   | Right Cheek   | 0mm      | ON              | 151   | 5755        | 15.73               | 16.00               | 1.063                  | 93.90        | 1.065                     | 0.14             | 0.884                  | -     | 1.001                  |
| 2nd | WLAN5GHz         | 802.11n-HT40 MCS0   | Right Cheek   | 0mm      | ON              | 151   | 5755        | 15.73               | 16.00               | 1.063                  | 93.90        | 1.065                     | 0.11             | 0.852                  | 1.04  | 0.965                  |

| No. | Band             | Mode          | Test Position | Gap (mm) | Power Reduction | Ch.   | Freq. (MHz) | Average Power (dBm) | Tune-Up Limit (dBm) | Tune-up Scaling Factor | Duty Cycle % | Duty Cycle Scaling Factor | Power Drift (dB) | Measured 10g SAR (W/kg) | Ratio | Reported 10g SAR (W/kg) |
|-----|------------------|---------------|---------------|----------|-----------------|-------|-------------|---------------------|---------------------|------------------------|--------------|---------------------------|------------------|-------------------------|-------|-------------------------|
| 1st | WCDMA II         | RMC 12.2Kbps  | Bottom Side   | 0mm      | ON              | 9262  | 1852.4      | 22.23               | 23.00               | 1.194                  |              | 1.000                     | -0.17            | 2.530                   | -     | 3.021                   |
| 2nd | WCDMA II         | RMC 12.2Kbps  | Bottom Side   | 0mm      | ON              | 9262  | 1852.4      | 22.23               | 23.00               | 1.194                  |              | 1.000                     | -0.15            | 2.390                   | 1.06  | 2.854                   |
| 1st | WCDMA IV         | RMC 12.2Kbps  | Bottom Side   | 0mm      | ON              | 1312  | 1712.4      | 21.87               | 22.00               | 1.030                  |              | 1.000                     | -0.03            | 3.060                   | -     | 3.153                   |
| 2nd | WCDMA IV         | RMC 12.2Kbps  | Bottom Side   | 0mm      | ON              | 1312  | 1712.4      | 21.87               | 22.00               | 1.030                  |              | 1.000                     | 0.02             | 2.770                   | 1.10  | 2.854                   |
| 1st | LTE Band 30_Main | 10M_QPSK_1_0  | Right Side    | 0mm      | ON              | 27710 | 2310        | 22.66               | 23.50               | 1.213                  |              | 1.000                     | 0.05             | 2.520                   | -     | 3.058                   |
| 2nd | LTE Band 30_Main | 10M_QPSK_1_0  | Right Side    | 0mm      | ON              | 27710 | 2310        | 22.66               | 23.50               | 1.213                  |              | 1.000                     | 0.11             | 2.480                   | 1.02  | 3.009                   |
| 1st | LTE Band 41_Main | 20M_QPSK_1_0  | Right Side    | 0mm      | ON              | 41490 | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | -0.08            | 3.100                   | -     | 3.177                   |
| 2nd | LTE Band 41_Main | 20M_QPSK_1_0  | Right Side    | 0mm      | ON              | 41490 | 2680        | 23.92               | 24.00               | 1.019                  | 62.90        | 1.006                     | 0.12             | 2.900                   | 1.07  | 2.972                   |
| 1st | WLAN5GHz         | 802.11a 6Mbps | Left Side     | 0mm      | OFF             | 64    | 5320        | 19.98               | 20.00               | 1.005                  | 93.64        | 1.068                     | 0.12             | 2.670                   | -     | 2.865                   |
| 2nd | WLAN5GHz         | 802.11a 6Mbps | Left Side     | 0mm      | OFF             | 64    | 5320        | 19.98               | 20.00               | 1.005                  | 93.64        | 1.068                     | 0.05             | 2.570                   | 1.04  | 2.757                   |
| 1st | WLAN5GHz         | 802.11a 6Mbps | Left Side     | 0mm      | OFF             | 144   | 5720        | 19.95               | 20.00               | 1.012                  | 93.64        | 1.068                     | -0.11            | 2.290                   | -     | 2.474                   |
| 2nd | WLAN5GHz         | 802.11a 6Mbps | Left Side     | 0mm      | OFF             | 144   | 5720        | 19.95               | 20.00               | 1.012                  | 93.64        | 1.068                     | -0.03            | 2.190                   | 1.05  | 2.366                   |
| 1st | WLAN5GHz         | 802.11a 6Mbps | Left Side     | 0mm      | OFF             | 165   | 5825        | 19.98               | 20.00               | 1.005                  | 93.64        | 1.068                     | -0.11            | 2.520                   | -     | 2.704                   |
| 2nd | WLAN5GHz         | 802.11a 6Mbps | Left Side     | 0mm      | OFF             | 165   | 5825        | 19.98               | 20.00               | 1.005                  | 93.64        | 1.068                     | 0.02             | 2.440                   | 1.03  | 2.618                   |

#### General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is  $\geq 0.8$ W/kg.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is  $\leq 1.2$  and the measured SAR  $< 1.45$ W/kg, only one repeated measurement is required.
3. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The ratio is the difference in percentage between original and repeated *measured* SAR.
5. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

### **14.6 LTE Band 41 Power Class 2 and Power Class 3 Linearity**

This device support Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg, Separate SAR testing for Power Class 2 is not required

**<LTE Band 41 Linearity Data for Head>**

|                                     | LTE Band 41<br>(Power Class 3) | LTE Band 41<br>(Power Class 2) |
|-------------------------------------|--------------------------------|--------------------------------|
| Maximum Tune up Power (dBm)         | 24                             | 27                             |
| Reported 1g SAR (W/kg)              | 0.501                          | 0.618                          |
| Duty Cycle                          | 63.30%                         | 43.30%                         |
| Frame Averaged (mW)                 | 159.00                         | 217.01                         |
| Linearity SAR(W/kg)                 | 0.68                           |                                |
| % deviation from expected linearity |                                | -9.62%                         |

**<LTE Band 41 Linearity Data for Hotspot and Body-worn>**

|                                     | LTE Band 41<br>(Power Class 3) | LTE Band 41<br>(Power Class 2) |
|-------------------------------------|--------------------------------|--------------------------------|
| Maximum Tune up Power (dBm)         | 20                             | 21                             |
| Reported 1g SAR (W/kg)              | 1.117                          | 0.876                          |
| Duty Cycle                          | 63.30%                         | 43.30%                         |
| Frame Averaged (mW)                 | 63.30                          | 54.51                          |
| Linearity SAR(W/kg)                 | 0.96                           |                                |
| % deviation from expected linearity |                                | -8.93%                         |

**<LTE Band 41 Linearity Data for Product Specific>**

|                                     | LTE Band 41<br>(Power Class 3) | LTE Band 41<br>(Power Class 2) |
|-------------------------------------|--------------------------------|--------------------------------|
| Maximum Tune up Power (dBm)         | 24                             | 25.5                           |
| Reported 1g SAR (W/kg)              | 3.195                          | 2.855                          |
| Duty Cycle                          | 63.30%                         | 43.30%                         |
| Frame Averaged (mW)                 | 159.00                         | 153.63                         |
| Linearity SAR(W/kg)                 | 3.09                           |                                |
| % deviation from expected linearity |                                | -7.52%                         |

## 15. Simultaneous Transmission Analysis

| NO. | Simultaneous Transmission Configurations | Portable Handset |           |         |                  |
|-----|------------------------------------------|------------------|-----------|---------|------------------|
|     |                                          | Head             | Body-worn | Hotspot | Product Specific |
| 1.  | GSM Voice + WLAN2.4GHz                   | Yes              | Yes       |         | Yes              |
| 2.  | GPRS/EDGE + WLAN2.4GHz                   | Yes              | Yes       | Yes     | Yes              |
| 3.  | WCDMA + WLAN2.4GHz                       | Yes              | Yes       | Yes     | Yes              |
| 4.  | LTE + WLAN2.4GHz                         | Yes              | Yes       | Yes     | Yes              |
| 5.  | GSM Voice + Bluetooth                    | Yes              | Yes       |         | Yes              |
| 6.  | GPRS/EDGE + Bluetooth                    | Yes              | Yes       | Yes     | Yes              |
| 7.  | WCDMA+ Bluetooth                         | Yes              | Yes       | Yes     | Yes              |
| 8.  | LTE + Bluetooth                          | Yes              | Yes       | Yes     | Yes              |
| 9.  | GSM Voice + WLAN5GHz                     | Yes              | Yes       |         | Yes              |
| 10. | GPRS/EDGE + WLAN5GHz                     | Yes              | Yes       | Yes     | Yes              |
| 11. | WCDMA + WLAN5GHz                         | Yes              | Yes       | Yes     | Yes              |
| 12. | LTE + WLAN5GHz                           | Yes              | Yes       | Yes     | Yes              |

**General Note:**

1. This device WLAN 2.4GHz / 5.2GHz / 5.8GHz supports Hotspot operation and Bluetooth support tethering applications.
2. WLAN and Bluetooth share the same antenna, and cannot transmit simultaneously.
3. EUT will choose either WLAN 2.4GHz or WLAN 5GHz according to the network signal condition; therefore, 2.4GHz WLAN and 5GHz WLAN will not operate simultaneously at any moment.
4. The Scaled SAR summation is calculated based on the same configuration and test position.
5. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
  - i) Scalar SAR summation < 1.6W/kg.
  - ii)  $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$ , and the peak separation distance is determined from the square root of  $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$ , where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
  - iii) If  $SPLSR \leq 0.04$  for 1g SAR, if  $SPLSR < 0.1$  for 10g SAR, simultaneously transmission SAR measurement is not necessary.
  - iv) Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.
  - v) The SPLSR calculated results please refer to section 15.2.



### 15.1 Head Exposure Conditions

| WWAN Band |                 | Exposure Position | 1                        | 2                                  | 3                                | 4                             | 1+2<br>Summed<br>1g SAR<br>(W/kg) | 1+3<br>Summed<br>1g SAR<br>(W/kg) | 1+4<br>Summed<br>1g SAR<br>(W/kg) | SPLSR | Case No |
|-----------|-----------------|-------------------|--------------------------|------------------------------------|----------------------------------|-------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|---------|
|           |                 |                   | WWAN<br>1g SAR<br>(W/kg) | 2.4GHz<br>WLAN<br>1g SAR<br>(W/kg) | 5GHz<br>WLAN<br>1g SAR<br>(W/kg) | Bluetooth<br>1g SAR<br>(W/kg) |                                   |                                   |                                   |       |         |
| GSM       | GSM850          | Right Cheek       | 0.083                    | 1.134                              | 1.176                            | 0.143                         | 1.217                             | 1.259                             | 0.226                             |       |         |
|           |                 | Right Tilted      | 0.037                    | 0.735                              | 0.758                            | 0.066                         | 0.772                             | 0.795                             | 0.103                             |       |         |
|           |                 | Left Cheek        | 0.182                    | 0.395                              | 0.390                            | 0.034                         | 0.577                             | 0.572                             | 0.216                             |       |         |
|           |                 | Left Tilted       | 0.043                    | 0.329                              | 0.403                            | 0.034                         | 0.372                             | 0.446                             | 0.077                             |       |         |
|           | GSM1900         | Right Cheek       | 0.128                    | 1.134                              | 1.176                            | 0.143                         | 1.262                             | 1.304                             | 0.271                             |       |         |
|           |                 | Right Tilted      | 0.032                    | 0.735                              | 0.758                            | 0.066                         | 0.767                             | 0.790                             | 0.098                             |       |         |
|           |                 | Left Cheek        | 0.065                    | 0.395                              | 0.390                            | 0.034                         | 0.460                             | 0.455                             | 0.099                             |       |         |
|           |                 | Left Tilted       | 0.051                    | 0.329                              | 0.403                            | 0.034                         | 0.380                             | 0.454                             | 0.085                             |       |         |
| WCDMA     | WCDMA II        | Right Cheek       | 0.278                    | 1.134                              | 1.176                            | 0.143                         | 1.412                             | 1.454                             | 0.421                             |       |         |
|           |                 | Right Tilted      | 0.088                    | 0.735                              | 0.758                            | 0.066                         | 0.823                             | 0.846                             | 0.154                             |       |         |
|           |                 | Left Cheek        | 0.113                    | 0.395                              | 0.390                            | 0.034                         | 0.508                             | 0.503                             | 0.147                             |       |         |
|           |                 | Left Tilted       | 0.121                    | 0.329                              | 0.403                            | 0.034                         | 0.450                             | 0.524                             | 0.155                             |       |         |
|           | WCDMA IV        | Right Cheek       | 0.307                    | 1.134                              | 1.176                            | 0.143                         | 1.441                             | 1.483                             | 0.450                             |       |         |
|           |                 | Right Tilted      | 0.092                    | 0.735                              | 0.758                            | 0.066                         | 0.827                             | 0.850                             | 0.158                             |       |         |
|           |                 | Left Cheek        | 0.143                    | 0.395                              | 0.390                            | 0.034                         | 0.538                             | 0.533                             | 0.177                             |       |         |
|           |                 | Left Tilted       | 0.091                    | 0.329                              | 0.403                            | 0.034                         | 0.420                             | 0.494                             | 0.125                             |       |         |
|           | WCDMA V         | Right Cheek       | 0.309                    | 1.134                              | 1.176                            | 0.143                         | 1.443                             | 1.485                             | 0.452                             |       |         |
|           |                 | Right Tilted      | 0.137                    | 0.735                              | 0.758                            | 0.066                         | 0.872                             | 0.895                             | 0.203                             |       |         |
|           |                 | Left Cheek        | 0.408                    | 0.395                              | 0.390                            | 0.034                         | 0.803                             | 0.798                             | 0.442                             |       |         |
|           |                 | Left Tilted       | 0.146                    | 0.329                              | 0.403                            | 0.034                         | 0.475                             | 0.549                             | 0.180                             |       |         |
| CDMA      | CDMA BC0        | Right Cheek       | 0.298                    | 1.134                              | 1.176                            | 0.143                         | 1.432                             | 1.474                             | 0.441                             |       |         |
|           |                 | Right Tilted      | 0.103                    | 0.735                              | 0.758                            | 0.066                         | 0.838                             | 0.861                             | 0.169                             |       |         |
|           |                 | Left Cheek        | 0.215                    | 0.395                              | 0.390                            | 0.034                         | 0.610                             | 0.605                             | 0.249                             |       |         |
|           |                 | Left Tilted       | 0.115                    | 0.329                              | 0.403                            | 0.034                         | 0.444                             | 0.518                             | 0.149                             |       |         |
|           | CDMA BC1        | Right Cheek       | 0.349                    | 1.134                              | 1.176                            | 0.143                         | 1.483                             | 1.525                             | 0.492                             |       |         |
|           |                 | Right Tilted      | 0.076                    | 0.735                              | 0.758                            | 0.066                         | 0.811                             | 0.834                             | 0.142                             |       |         |
|           |                 | Left Cheek        | 0.219                    | 0.395                              | 0.390                            | 0.034                         | 0.614                             | 0.609                             | 0.253                             |       |         |
|           |                 | Left Tilted       | 0.179                    | 0.329                              | 0.403                            | 0.034                         | 0.508                             | 0.582                             | 0.213                             |       |         |
|           | CDMA BC10       | Right Cheek       | 0.257                    | 1.134                              | 1.176                            | 0.143                         | 1.391                             | 1.433                             | 0.400                             |       |         |
|           |                 | Right Tilted      | 0.085                    | 0.735                              | 0.758                            | 0.066                         | 0.820                             | 0.843                             | 0.151                             |       |         |
|           |                 | Left Cheek        | 0.361                    | 0.395                              | 0.390                            | 0.034                         | 0.756                             | 0.751                             | 0.395                             |       |         |
|           |                 | Left Tilted       | 0.115                    | 0.329                              | 0.403                            | 0.034                         | 0.444                             | 0.518                             | 0.149                             |       |         |
| LTE       | LTE Band 7_Main | Right Cheek       | 0.799                    | 1.134                              | 1.176                            | 0.143                         | 1.933                             | 1.975                             | 0.942                             | 0.03  | Case 1  |
|           |                 | Right Tilted      | 0.389                    | 0.735                              | 0.758                            | 0.066                         | 1.124                             | 1.147                             | 0.455                             |       |         |
|           |                 | Left Cheek        | 0.348                    | 0.395                              | 0.390                            | 0.034                         | 0.743                             | 0.738                             | 0.382                             |       |         |
|           |                 | Left Tilted       | 0.423                    | 0.329                              | 0.403                            | 0.034                         | 0.752                             | 0.826                             | 0.457                             |       |         |
|           | LTE Band 7_Aux  | Right Cheek       | 0.359                    | 1.134                              | 1.176                            | 0.143                         | 1.493                             | 1.535                             | 0.502                             |       |         |
|           |                 | Right Tilted      | 0.264                    | 0.735                              | 0.758                            | 0.066                         | 0.999                             | 1.022                             | 0.330                             |       |         |
|           |                 | Left Cheek        | 0.643                    | 0.395                              | 0.390                            | 0.034                         | 1.038                             | 1.033                             | 0.677                             |       |         |
|           |                 | Left Tilted       | 0.196                    | 0.329                              | 0.403                            | 0.034                         | 0.525                             | 0.599                             | 0.230                             |       |         |
|           | LTE Band 12     | Right Cheek       | 0.250                    | 1.134                              | 1.176                            | 0.143                         | 1.384                             | 1.426                             | 0.393                             |       |         |
|           |                 | Right Tilted      | 0.115                    | 0.735                              | 0.758                            | 0.066                         | 0.850                             | 0.873                             | 0.181                             |       |         |
|           |                 | Left Cheek        | 0.317                    | 0.395                              | 0.390                            | 0.034                         | 0.712                             | 0.707                             | 0.351                             |       |         |
|           |                 | Left Tilted       | 0.142                    | 0.329                              | 0.403                            | 0.034                         | 0.471                             | 0.545                             | 0.176                             |       |         |



| WWAN Band |                  | Exposure Position | 1                        | 2                                  | 3                                | 4                             | 1+2<br>Summed<br>1g SAR<br>(W/kg) | 1+3<br>Summed<br>1g SAR<br>(W/kg) | 1+4<br>Summed<br>1g SAR<br>(W/kg) | SPLSR | Case No |
|-----------|------------------|-------------------|--------------------------|------------------------------------|----------------------------------|-------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|---------|
|           |                  |                   | WWAN<br>1g SAR<br>(W/kg) | 2.4GHz<br>WLAN<br>1g SAR<br>(W/kg) | 5GHz<br>WLAN<br>1g SAR<br>(W/kg) | Bluetooth<br>1g SAR<br>(W/kg) |                                   |                                   |                                   |       |         |
| LTE       | LTE Band 13      | Right Cheek       | 0.204                    | 1.134                              | 1.176                            | 0.143                         | 1.338                             | 1.380                             | 0.347                             |       |         |
|           |                  | Right Tilted      | 0.102                    | 0.735                              | 0.758                            | 0.066                         | 0.837                             | 0.860                             | 0.168                             |       |         |
|           |                  | Left Cheek        | 0.239                    | 0.395                              | 0.390                            | 0.034                         | 0.634                             | 0.629                             | 0.273                             |       |         |
|           |                  | Left Tilted       | 0.086                    | 0.329                              | 0.403                            | 0.034                         | 0.415                             | 0.489                             | 0.120                             |       |         |
|           | LTE Band 14      | Right Cheek       | 0.284                    | 1.134                              | 1.176                            | 0.143                         | 1.418                             | 1.460                             | 0.427                             |       |         |
|           |                  | Right Tilted      | 0.176                    | 0.735                              | 0.758                            | 0.066                         | 0.911                             | 0.934                             | 0.242                             |       |         |
|           |                  | Left Cheek        | 0.361                    | 0.395                              | 0.390                            | 0.034                         | 0.756                             | 0.751                             | 0.395                             |       |         |
|           |                  | Left Tilted       | 0.144                    | 0.329                              | 0.403                            | 0.034                         | 0.473                             | 0.547                             | 0.178                             |       |         |
|           | LTE Band 25      | Right Cheek       | 0.259                    | 1.134                              | 1.176                            | 0.143                         | 1.393                             | 1.435                             | 0.402                             |       |         |
|           |                  | Right Tilted      | 0.070                    | 0.735                              | 0.758                            | 0.066                         | 0.805                             | 0.828                             | 0.136                             |       |         |
|           |                  | Left Cheek        | 0.135                    | 0.395                              | 0.390                            | 0.034                         | 0.530                             | 0.525                             | 0.169                             |       |         |
|           |                  | Left Tilted       | 0.092                    | 0.329                              | 0.403                            | 0.034                         | 0.421                             | 0.495                             | 0.126                             |       |         |
|           | LTE Band 26      | Right Cheek       | 0.289                    | 1.134                              | 1.176                            | 0.143                         | 1.423                             | 1.465                             | 0.432                             |       |         |
|           |                  | Right Tilted      | 0.122                    | 0.735                              | 0.758                            | 0.066                         | 0.857                             | 0.880                             | 0.188                             |       |         |
|           |                  | Left Cheek        | 0.360                    | 0.395                              | 0.390                            | 0.034                         | 0.755                             | 0.750                             | 0.394                             |       |         |
|           |                  | Left Tilted       | 0.162                    | 0.329                              | 0.403                            | 0.034                         | 0.491                             | 0.565                             | 0.196                             |       |         |
|           | LTE Band 30_Main | Right Cheek       | 0.343                    | 1.134                              | 1.176                            | 0.143                         | 1.477                             | 1.519                             | 0.486                             |       |         |
|           |                  | Right Tilted      | 0.167                    | 0.735                              | 0.758                            | 0.066                         | 0.902                             | 0.925                             | 0.233                             |       |         |
|           |                  | Left Cheek        | 0.174                    | 0.395                              | 0.390                            | 0.034                         | 0.569                             | 0.564                             | 0.208                             |       |         |
|           |                  | Left Tilted       | 0.187                    | 0.329                              | 0.403                            | 0.034                         | 0.516                             | 0.590                             | 0.221                             |       |         |
|           | LTE Band 30_Aux  | Right Cheek       | 0.128                    | 1.134                              | 1.176                            | 0.143                         | 1.262                             | 1.304                             | 0.271                             |       |         |
|           |                  | Right Tilted      | 0.167                    | 0.735                              | 0.758                            | 0.066                         | 0.902                             | 0.925                             | 0.233                             |       |         |
|           |                  | Left Cheek        | 0.198                    | 0.395                              | 0.390                            | 0.034                         | 0.593                             | 0.588                             | 0.232                             |       |         |
|           |                  | Left Tilted       | 0.116                    | 0.329                              | 0.403                            | 0.034                         | 0.445                             | 0.519                             | 0.150                             |       |         |
|           | LTE Band 41_Main | Right Cheek       | 0.501                    | 1.134                              | 1.176                            | 0.143                         | 1.635                             | 1.677                             | 0.644                             | 0.02  | Case 2  |
|           |                  | Right Tilted      | 0.202                    | 0.735                              | 0.758                            | 0.066                         | 0.937                             | 0.960                             | 0.268                             |       |         |
|           |                  | Left Cheek        | 0.214                    | 0.395                              | 0.390                            | 0.034                         | 0.609                             | 0.604                             | 0.248                             |       |         |
|           |                  | Left Tilted       | 0.260                    | 0.329                              | 0.403                            | 0.034                         | 0.589                             | 0.663                             | 0.294                             |       |         |
|           | LTE Band 41_Aux  | Right Cheek       | 0.156                    | 1.134                              | 1.176                            | 0.143                         | 1.290                             | 1.332                             | 0.299                             |       |         |
|           |                  | Right Tilted      | 0.097                    | 0.735                              | 0.758                            | 0.066                         | 0.832                             | 0.855                             | 0.163                             |       |         |
|           |                  | Left Cheek        | 0.293                    | 0.395                              | 0.390                            | 0.034                         | 0.688                             | 0.683                             | 0.327                             |       |         |
|           |                  | Left Tilted       | 0.078                    | 0.329                              | 0.403                            | 0.034                         | 0.407                             | 0.481                             | 0.112                             |       |         |
|           | LTE Band 66      | Right Cheek       | 0.125                    | 1.134                              | 1.176                            | 0.143                         | 1.259                             | 1.301                             | 0.268                             |       |         |
|           |                  | Right Tilted      | 0.076                    | 0.735                              | 0.758                            | 0.066                         | 0.811                             | 0.834                             | 0.142                             |       |         |
|           |                  | Left Cheek        | 0.249                    | 0.395                              | 0.390                            | 0.034                         | 0.644                             | 0.639                             | 0.283                             |       |         |
|           |                  | Left Tilted       | 0.065                    | 0.329                              | 0.403                            | 0.034                         | 0.394                             | 0.468                             | 0.099                             |       |         |
|           | LTE Band 71      | Right Cheek       | 0.175                    | 1.134                              | 1.176                            | 0.143                         | 1.309                             | 1.351                             | 0.318                             |       |         |
|           |                  | Right Tilted      | 0.089                    | 0.735                              | 0.758                            | 0.066                         | 0.824                             | 0.847                             | 0.155                             |       |         |
|           |                  | Left Cheek        | 0.202                    | 0.395                              | 0.390                            | 0.034                         | 0.597                             | 0.592                             | 0.236                             |       |         |
|           |                  | Left Tilted       | 0.106                    | 0.329                              | 0.403                            | 0.034                         | 0.435                             | 0.509                             | 0.140                             |       |         |

### 15.2 Hotspot Exposure Conditions

| WWAN Band |           | Exposure Position | 1                  | 2                         | 3                       | 4                       | 1+2 Summed 1g SAR (W/kg) | 1+3 Summed 1g SAR (W/kg) | 1+4 Summed 1g SAR (W/kg) | SPLSR | Case No |
|-----------|-----------|-------------------|--------------------|---------------------------|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|-------|---------|
|           |           |                   | WWAN 1g SAR (W/kg) | 2.4GHz WLAN 1g SAR (W/kg) | 5GHz WLAN 1g SAR (W/kg) | Bluetooth 1g SAR (W/kg) |                          |                          |                          |       |         |
| GSM       | GSM850    | Front             | 0.359              | 0.862                     | 0.476                   | 0.035                   | 1.221                    | 0.835                    | 0.394                    |       |         |
|           |           | Back              | 0.679              | 1.009                     | 0.569                   | 0.045                   | 1.688                    | 1.248                    | 0.724                    | 0.01  | Case 3  |
|           |           | Left side         | 0.244              | 1.195                     | 0.731                   | 0.081                   | 1.439                    | 0.975                    | 0.325                    |       |         |
|           |           | Right side        | 0.145              |                           |                         |                         | 0.145                    | 0.145                    | 0.145                    |       |         |
|           |           | Top side          |                    | 0.275                     | 0.134                   | 0.012                   | 0.275                    | 0.134                    | 0.012                    |       |         |
|           |           | Bottom side       | 0.203              |                           |                         |                         | 0.203                    | 0.203                    | 0.203                    |       |         |
|           | GSM1900   | Front             | 0.773              | 0.862                     | 0.476                   | 0.035                   | 1.635                    | 1.249                    | 0.808                    | 0.01  | Case 4  |
|           |           | Back              | 0.750              | 1.009                     | 0.569                   | 0.045                   | 1.759                    | 1.319                    | 0.795                    | 0.02  | Case 5  |
|           |           | Left side         | 0.027              | 1.195                     | 0.731                   | 0.081                   | 1.222                    | 0.758                    | 0.108                    |       |         |
|           |           | Right side        | 0.075              |                           |                         |                         | 0.075                    | 0.075                    | 0.075                    |       |         |
|           |           | Top side          |                    | 0.275                     | 0.134                   | 0.012                   | 0.275                    | 0.134                    | 0.012                    |       |         |
|           |           | Bottom side       | 1.140              |                           |                         |                         | 1.140                    | 1.140                    | 1.140                    |       |         |
| WCDMA     | WCDMA II  | Front             | 0.794              | 0.862                     | 0.476                   | 0.035                   | 1.656                    | 1.270                    | 0.829                    | 0.01  | Case 6  |
|           |           | Back              | 0.667              | 1.009                     | 0.569                   | 0.045                   | 1.676                    | 1.236                    | 0.712                    | 0.01  | Case 7  |
|           |           | Left side         | 0.024              | 1.195                     | 0.731                   | 0.081                   | 1.219                    | 0.755                    | 0.105                    |       |         |
|           |           | Right side        | 0.073              |                           |                         |                         | 0.073                    | 0.073                    | 0.073                    |       |         |
|           |           | Top side          |                    | 0.275                     | 0.134                   | 0.012                   | 0.275                    | 0.134                    | 0.012                    |       |         |
|           |           | Bottom side       | 1.123              |                           |                         |                         | 1.123                    | 1.123                    | 1.123                    |       |         |
|           | WCDMA IV  | Front             | 0.880              | 0.862                     | 0.476                   | 0.035                   | 1.742                    | 1.356                    | 0.915                    | 0.02  | Case 8  |
|           |           | Back              | 0.816              | 1.009                     | 0.569                   | 0.045                   | 1.825                    | 1.385                    | 0.861                    | 0.02  | Case 9  |
|           |           | Left side         | 0.048              | 1.195                     | 0.731                   | 0.081                   | 1.243                    | 0.779                    | 0.129                    |       |         |
|           |           | Right side        | 0.088              |                           |                         |                         | 0.088                    | 0.088                    | 0.088                    |       |         |
|           |           | Top side          |                    | 0.275                     | 0.134                   | 0.012                   | 0.275                    | 0.134                    | 0.012                    |       |         |
|           |           | Bottom side       | 1.175              |                           |                         |                         | 1.175                    | 1.175                    | 1.175                    |       |         |
|           | WCDMA V   | Front             | 0.701              | 0.862                     | 0.476                   | 0.035                   | 1.563                    | 1.177                    | 0.736                    |       |         |
|           |           | Back              | 0.898              | 1.009                     | 0.569                   | 0.045                   | 1.907                    | 1.467                    | 0.943                    | 0.02  | Case 10 |
|           |           | Left side         | 0.440              | 1.195                     | 0.731                   | 0.081                   | 1.635                    | 1.171                    | 0.521                    | 0.04  | Case 11 |
|           |           | Right side        | 0.286              |                           |                         |                         | 0.286                    | 0.286                    | 0.286                    |       |         |
|           |           | Top side          |                    | 0.275                     | 0.134                   | 0.012                   | 0.275                    | 0.134                    | 0.012                    |       |         |
|           |           | Bottom side       | 0.386              |                           |                         |                         | 0.386                    | 0.386                    | 0.386                    |       |         |
| CDMA      | CDMA BC0  | Front             | 0.653              | 0.862                     | 0.476                   | 0.035                   | 1.515                    | 1.129                    | 0.688                    |       |         |
|           |           | Back              | 0.981              | 1.009                     | 0.569                   | 0.045                   | 1.990                    | 1.550                    | 1.026                    | 0.02  | Case 12 |
|           |           | Left side         | 0.328              | 1.195                     | 0.731                   | 0.081                   | 1.523                    | 1.059                    | 0.409                    |       |         |
|           |           | Right side        | 0.157              |                           |                         |                         | 0.157                    | 0.157                    | 0.157                    |       |         |
|           |           | Top side          |                    | 0.275                     | 0.134                   | 0.012                   | 0.275                    | 0.134                    | 0.012                    |       |         |
|           |           | Bottom side       | 0.521              |                           |                         |                         | 0.521                    | 0.521                    | 0.521                    |       |         |
|           | CDMA BC1  | Front             | 0.589              | 0.862                     | 0.476                   | 0.035                   | 1.451                    | 1.065                    | 0.624                    |       |         |
|           |           | Back              | 0.601              | 1.009                     | 0.569                   | 0.045                   | 1.610                    | 1.170                    | 0.646                    | 0.01  | Case 13 |
|           |           | Left side         | 0.023              | 1.195                     | 0.731                   | 0.081                   | 1.218                    | 0.754                    | 0.104                    |       |         |
|           |           | Right side        | 0.071              |                           |                         |                         | 0.071                    | 0.071                    | 0.071                    |       |         |
|           |           | Top side          |                    | 0.275                     | 0.134                   | 0.012                   | 0.275                    | 0.134                    | 0.012                    |       |         |
|           |           | Bottom side       | 1.002              |                           |                         |                         | 1.002                    | 1.002                    | 1.002                    |       |         |
|           | CDMA BC10 | Front             | 0.743              | 0.862                     | 0.476                   | 0.035                   | 1.605                    | 1.219                    | 0.778                    | 0.01  | Case 14 |
|           |           | Back              | 0.971              | 1.009                     | 0.569                   | 0.045                   | 1.980                    | 1.540                    | 1.016                    | 0.02  | Case 15 |
|           |           | Left side         | 0.415              | 1.195                     | 0.731                   | 0.081                   | 1.610                    | 1.146                    | 0.496                    | 0.04  | Case 16 |
|           |           | Right side        | 0.298              |                           |                         |                         | 0.298                    | 0.298                    | 0.298                    |       |         |
|           |           | Top side          |                    | 0.275                     | 0.134                   | 0.012                   | 0.275                    | 0.134                    | 0.012                    |       |         |
|           |           | Bottom side       | 0.468              |                           |                         |                         | 0.468                    | 0.468                    | 0.468                    |       |         |

| WWAN Band |                 | Exposure Position | 1<br>WWAN<br>1g SAR<br>(W/kg) | 2<br>2.4GHz<br>WLAN<br>1g SAR<br>(W/kg) | 3<br>5GHz<br>WLAN<br>1g SAR<br>(W/kg) | 4<br>Bluetooth<br>1g SAR<br>(W/kg) | 1+2<br>Summed<br>1g SAR<br>(W/kg) | 1+3<br>Summed<br>1g SAR<br>(W/kg) | 1+4<br>Summed<br>1g SAR<br>(W/kg) | SPLSR | Case No |
|-----------|-----------------|-------------------|-------------------------------|-----------------------------------------|---------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|---------|
| LTE       | LTE Band 7_Main | Front             | 0.642                         | 0.862                                   | 0.476                                 | 0.035                              | 1.504                             | 1.118                             | 0.677                             |       |         |
|           |                 | Back              | 1.095                         | 1.009                                   | 0.569                                 | 0.045                              | 2.104                             | 1.664                             | 1.140                             | 0.02  | Case 17 |
|           |                 | Left side         |                               | 1.195                                   | 0.731                                 | 0.081                              | 1.195                             | 0.731                             | 0.081                             |       |         |
|           |                 | Right side        | 0.907                         |                                         |                                       |                                    | 0.907                             | 0.907                             | 0.907                             |       |         |
|           |                 | Top side          |                               | 0.275                                   | 0.134                                 | 0.012                              | 0.275                             | 0.134                             | 0.012                             |       |         |
|           |                 | Bottom side       | 0.265                         |                                         |                                       |                                    | 0.265                             | 0.265                             | 0.265                             |       |         |
|           | LTE Band 7_Aux  | Front             | 0.512                         | 0.862                                   | 0.476                                 | 0.035                              | 1.374                             | 0.988                             | 0.547                             |       |         |
|           |                 | Back              | 0.864                         | 1.009                                   | 0.569                                 | 0.045                              | 1.873                             | 1.433                             | 0.909                             | 0.02  | Case 18 |
|           |                 | Left side         | 0.569                         | 1.195                                   | 0.731                                 | 0.081                              | 1.764                             | 1.300                             | 0.650                             | 0.02  | Case 19 |
|           |                 | Right side        |                               |                                         |                                       |                                    | 0.000                             | 0.000                             | 0.000                             |       |         |
|           |                 | Top side          |                               | 0.275                                   | 0.134                                 | 0.012                              | 0.275                             | 0.134                             | 0.012                             |       |         |
|           |                 | Bottom side       | 0.098                         |                                         |                                       |                                    | 0.098                             | 0.098                             | 0.098                             |       |         |
|           | LTE Band 12     | Front             | 0.884                         | 0.862                                   | 0.476                                 | 0.035                              | 1.746                             | 1.360                             | 0.919                             | 0.02  | Case 20 |
|           |                 | Back              | 1.157                         | 1.009                                   | 0.569                                 | 0.045                              | 2.166                             | 1.726                             | 1.202                             | 0.02  | Case 21 |
|           |                 | Left side         | 0.571                         | 1.195                                   | 0.731                                 | 0.081                              | 1.766                             | 1.302                             | 0.652                             | 0.04  | Case 22 |
|           |                 | Right side        | 0.488                         |                                         |                                       |                                    | 0.488                             | 0.488                             | 0.488                             |       |         |
|           |                 | Top side          |                               | 0.275                                   | 0.134                                 | 0.012                              | 0.275                             | 0.134                             | 0.012                             |       |         |
|           |                 | Bottom side       | 0.422                         |                                         |                                       |                                    | 0.422                             | 0.422                             | 0.422                             |       |         |
|           | LTE Band 13     | Front             | 0.986                         | 0.862                                   | 0.476                                 | 0.035                              | 1.848                             | 1.462                             | 1.021                             | 0.02  | Case 23 |
|           |                 | Back              | 1.136                         | 1.009                                   | 0.569                                 | 0.045                              | 2.145                             | 1.705                             | 1.181                             | 0.02  | Case 24 |
|           |                 | Left side         | 0.462                         | 1.195                                   | 0.731                                 | 0.081                              | 1.657                             | 1.193                             | 0.543                             | 0.03  | Case 25 |
|           |                 | Right side        | 0.545                         |                                         |                                       |                                    | 0.545                             | 0.545                             | 0.545                             |       |         |
|           |                 | Top side          |                               | 0.275                                   | 0.134                                 | 0.012                              | 0.275                             | 0.134                             | 0.012                             |       |         |
|           |                 | Bottom side       | 0.471                         |                                         |                                       |                                    | 0.471                             | 0.471                             | 0.471                             |       |         |
|           | LTE Band 14     | Front             | 0.774                         | 0.862                                   | 0.476                                 | 0.035                              | 1.636                             | 1.250                             | 0.809                             | 0.01  | Case 26 |
|           |                 | Back              | 1.069                         | 1.009                                   | 0.569                                 | 0.045                              | 2.078                             | 1.638                             | 1.114                             | 0.02  | Case 27 |
|           |                 | Left side         | 0.456                         | 1.195                                   | 0.731                                 | 0.081                              | 1.651                             | 1.187                             | 0.537                             | 0.03  | Case 28 |
|           |                 | Right side        | 0.537                         |                                         |                                       |                                    | 0.537                             | 0.537                             | 0.537                             |       |         |
|           |                 | Top side          |                               | 0.275                                   | 0.134                                 | 0.012                              | 0.275                             | 0.134                             | 0.012                             |       |         |
|           |                 | Bottom side       | 0.411                         |                                         |                                       |                                    | 0.411                             | 0.411                             | 0.411                             |       |         |
|           | LTE Band 25     | Front             | 1.081                         | 0.862                                   | 0.476                                 | 0.035                              | 1.943                             | 1.557                             | 1.116                             | 0.02  | Case 29 |
|           |                 | Back              | 0.740                         | 1.009                                   | 0.569                                 | 0.045                              | 1.749                             | 1.309                             | 0.785                             | 0.02  | Case 30 |
|           |                 | Left side         | 0.023                         | 1.195                                   | 0.731                                 | 0.081                              | 1.218                             | 0.754                             | 0.104                             |       |         |
|           |                 | Right side        | 0.045                         |                                         |                                       |                                    | 0.045                             | 0.045                             | 0.045                             |       |         |
|           |                 | Top side          |                               | 0.275                                   | 0.134                                 | 0.012                              | 0.275                             | 0.134                             | 0.012                             |       |         |
|           |                 | Bottom side       | 1.149                         |                                         |                                       |                                    | 1.149                             | 1.149                             | 1.149                             |       |         |
|           | LTE Band 26     | Front             | 0.768                         | 0.862                                   | 0.476                                 | 0.035                              | 1.630                             | 1.244                             | 0.803                             | 0.01  | Case 31 |
|           |                 | Back              | 0.917                         | 1.009                                   | 0.569                                 | 0.045                              | 1.926                             | 1.486                             | 0.962                             | 0.02  | Case 32 |
|           |                 | Left side         | 0.447                         | 1.195                                   | 0.731                                 | 0.081                              | 1.642                             | 1.178                             | 0.528                             | 0.04  | Case 33 |
|           |                 | Right side        | 0.310                         |                                         |                                       |                                    | 0.310                             | 0.310                             | 0.310                             |       |         |
|           |                 | Top side          |                               | 0.275                                   | 0.134                                 | 0.012                              | 0.275                             | 0.134                             | 0.012                             |       |         |
|           |                 | Bottom side       | 0.424                         |                                         |                                       |                                    | 0.424                             | 0.424                             | 0.424                             |       |         |

| WWAN Band |                  | Exposure Position | 1                        | 2                                  | 3                                | 4                             | 1+2                        | 1+3                        | 1+4                        | SPLSR | Case No |
|-----------|------------------|-------------------|--------------------------|------------------------------------|----------------------------------|-------------------------------|----------------------------|----------------------------|----------------------------|-------|---------|
|           |                  |                   | WWAN<br>1g SAR<br>(W/kg) | 2.4GHz<br>WLAN<br>1g SAR<br>(W/kg) | 5GHz<br>WLAN<br>1g SAR<br>(W/kg) | Bluetooth<br>1g SAR<br>(W/kg) | Summed<br>1g SAR<br>(W/kg) | Summed<br>1g SAR<br>(W/kg) | Summed<br>1g SAR<br>(W/kg) |       |         |
| LTE       | LTE Band 30_Main | Front             | 0.674                    | 0.862                              | 0.476                            | 0.035                         | 1.536                      | 1.150                      | 0.709                      |       |         |
|           |                  | Back              | 1.067                    | 1.009                              | 0.569                            | 0.045                         | 2.076                      | 1.636                      | 1.112                      | 0.02  | Case 34 |
|           |                  | Left side         |                          | 1.195                              | 0.731                            | 0.081                         | 1.195                      | 0.731                      | 0.081                      |       |         |
|           |                  | Right side        | 0.695                    |                                    |                                  |                               | 0.695                      | 0.695                      | 0.695                      |       |         |
|           |                  | Top side          |                          | 0.275                              | 0.134                            | 0.012                         | 0.275                      | 0.134                      | 0.012                      |       |         |
|           |                  | Bottom side       | 0.441                    |                                    |                                  |                               | 0.441                      | 0.441                      | 0.441                      |       |         |
|           | LTE Band 30_Aux  | Front             | 0.459                    | 0.862                              | 0.476                            | 0.035                         | 1.321                      | 0.935                      | 0.494                      |       |         |
|           |                  | Back              | 0.976                    | 1.009                              | 0.569                            | 0.045                         | 1.985                      | 1.545                      | 1.021                      | 0.02  | Case 35 |
|           |                  | Left side         | 0.422                    | 1.195                              | 0.731                            | 0.081                         | 1.617                      | 1.153                      | 0.503                      | 0.02  | Case 36 |
|           |                  | Top side          |                          | 0.275                              | 0.134                            | 0.012                         | 0.275                      | 0.134                      | 0.012                      |       |         |
|           |                  | Bottom side       | 0.144                    |                                    |                                  |                               | 0.144                      | 0.144                      | 0.144                      |       |         |
|           | LTE Band 41_Main | Front             | 0.565                    | 0.862                              | 0.476                            | 0.035                         | 1.427                      | 1.041                      | 0.600                      |       |         |
|           |                  | Back              | 1.117                    | 1.009                              | 0.569                            | 0.045                         | 2.126                      | 1.686                      | 1.162                      | 0.02  | Case 37 |
|           |                  | Left side         |                          | 1.195                              | 0.731                            | 0.081                         | 1.195                      | 0.731                      | 0.081                      |       |         |
|           |                  | Right side        | 0.975                    |                                    |                                  |                               | 0.975                      | 0.975                      | 0.975                      |       |         |
|           |                  | Top side          |                          | 0.275                              | 0.134                            | 0.012                         | 0.275                      | 0.134                      | 0.012                      |       |         |
|           |                  | Bottom side       | 0.206                    |                                    |                                  |                               | 0.206                      | 0.206                      | 0.206                      |       |         |
|           | LTE Band 41_Aux  | Front             | 0.518                    | 0.862                              | 0.476                            | 0.035                         | 1.380                      | 0.994                      | 0.553                      |       |         |
|           |                  | Back              | 0.882                    | 1.009                              | 0.569                            | 0.045                         | 1.891                      | 1.451                      | 0.927                      | 0.02  | Case 38 |
|           |                  | Left side         | 0.578                    | 1.195                              | 0.731                            | 0.081                         | 1.773                      | 1.309                      | 0.659                      | 0.02  | Case 39 |
|           |                  | Right side        |                          |                                    |                                  |                               | 0.000                      | 0.000                      | 0.000                      |       |         |
|           |                  | Top side          |                          | 0.275                              | 0.134                            | 0.012                         | 0.275                      | 0.134                      | 0.012                      |       |         |
|           |                  | Bottom side       | 0.140                    |                                    |                                  |                               | 0.140                      | 0.140                      | 0.140                      |       |         |
|           | LTE Band 66      | Front             | 0.622                    | 0.862                              | 0.476                            | 0.035                         | 1.484                      | 1.098                      | 0.657                      |       |         |
|           |                  | Back              | 0.588                    | 1.009                              | 0.569                            | 0.045                         | 1.597                      | 1.157                      | 0.633                      | 0.01  | Case 40 |
|           |                  | Left side         | 0.045                    | 1.195                              | 0.731                            | 0.081                         | 1.240                      | 0.776                      | 0.126                      |       |         |
|           |                  | Right side        | 0.111                    |                                    |                                  |                               | 0.111                      | 0.111                      | 0.111                      |       |         |
|           |                  | Top side          |                          | 0.275                              | 0.134                            | 0.012                         | 0.275                      | 0.134                      | 0.012                      |       |         |
|           |                  | Bottom side       | 1.062                    |                                    |                                  |                               | 1.062                      | 1.062                      | 1.062                      |       |         |
|           | LTE Band 71      | Front             | 0.779                    | 0.862                              | 0.476                            | 0.035                         | 1.641                      | 1.255                      | 0.814                      | 0.01  | Case 41 |
|           |                  | Back              | 0.865                    | 1.009                              | 0.569                            | 0.045                         | 1.874                      | 1.434                      | 0.910                      | 0.02  | Case 42 |
|           |                  | Left side         | 0.365                    | 1.195                              | 0.731                            | 0.081                         | 1.560                      | 1.096                      | 0.446                      |       |         |
|           |                  | Right side        | 0.336                    |                                    |                                  |                               | 0.336                      | 0.336                      | 0.336                      |       |         |
|           |                  | Top side          |                          | 0.275                              | 0.134                            | 0.012                         | 0.275                      | 0.134                      | 0.012                      |       |         |
|           |                  | Bottom side       | 0.271                    |                                    |                                  |                               | 0.271                      | 0.271                      | 0.271                      |       |         |



### 15.3 Body-Worn Accessory Exposure Conditions

| WWAN Band |                  | Exposure Position | 1                        | 2                                  | 3                                | 4                             | 1+2<br>Summed<br>1g SAR<br>(W/kg) | 1+3<br>Summed<br>1g SAR<br>(W/kg) | 1+4<br>Summed<br>1g SAR<br>(W/kg) | SPLSR | Case No |
|-----------|------------------|-------------------|--------------------------|------------------------------------|----------------------------------|-------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|---------|
|           |                  |                   | WWAN<br>1g SAR<br>(W/kg) | 2.4GHz<br>WLAN<br>1g SAR<br>(W/kg) | 5GHz<br>WLAN<br>1g SAR<br>(W/kg) | Bluetooth<br>1g SAR<br>(W/kg) |                                   |                                   |                                   |       |         |
| GSM       | GSM850           | Front             | 0.359                    | 0.862                              | 0.758                            | 0.035                         | 1.221                             | 1.117                             | 0.394                             |       |         |
|           |                  | Back              | 0.679                    | 1.009                              | 1.015                            | 0.055                         | 1.688                             | 1.694                             | 0.734                             | 0.01  | Case 43 |
|           | GSM1900          | Front             | 1.068                    | 0.862                              | 0.758                            | 0.035                         | 1.930                             | 1.826                             | 1.103                             | 0.02  | Case 44 |
|           |                  | Back              | 1.154                    | 1.009                              | 1.015                            | 0.055                         | 2.163                             | 2.169                             | 1.209                             | 0.02  | Case 45 |
| WCDMA     | WCDMA II         | Front             | 1.177                    | 0.862                              | 0.758                            | 0.035                         | 2.039                             | 1.935                             | 1.212                             | 0.02  | Case 46 |
|           |                  | Back              | 1.007                    | 1.009                              | 1.015                            | 0.055                         | 2.016                             | 2.022                             | 1.062                             | 0.02  | Case 47 |
|           | WCDMA IV         | Front             | 0.988                    | 0.862                              | 0.758                            | 0.035                         | 1.850                             | 1.746                             | 1.023                             | 0.02  | Case 48 |
|           |                  | Back              | 0.916                    | 1.009                              | 1.015                            | 0.055                         | 1.925                             | 1.931                             | 0.971                             | 0.02  | Case 49 |
|           | WCDMA V          | Front             | 0.701                    | 0.862                              | 0.758                            | 0.035                         | 1.563                             | 1.459                             | 0.736                             |       |         |
|           |                  | Back              | 0.898                    | 1.009                              | 1.015                            | 0.055                         | 1.907                             | 1.913                             | 0.953                             | 0.02  | Case 50 |
| CDMA      | CDMA BC0         | Front             | 0.775                    | 0.862                              | 0.758                            | 0.035                         | 1.637                             | 1.533                             | 0.810                             | 0.01  | Case 51 |
|           |                  | Back              | 1.029                    | 1.009                              | 1.015                            | 0.055                         | 2.038                             | 2.044                             | 1.084                             | 0.02  | Case 52 |
|           | CDMA BC1         | Front             | 0.975                    | 0.862                              | 0.758                            | 0.035                         | 1.837                             | 1.733                             | 1.010                             | 0.02  | Case 53 |
|           |                  | Back              | 1.072                    | 1.009                              | 1.015                            | 0.055                         | 2.081                             | 2.087                             | 1.127                             | 0.02  | Case 54 |
|           | CDMA BC10        | Front             | 0.697                    | 0.862                              | 0.758                            | 0.035                         | 1.559                             | 1.455                             | 0.732                             |       |         |
|           |                  | Back              | 0.966                    | 1.009                              | 1.015                            | 0.055                         | 1.975                             | 1.981                             | 1.021                             | 0.02  | Case 55 |
| LTE       | LTE Band 7_Main  | Front             | 0.642                    | 0.862                              | 0.758                            | 0.035                         | 1.504                             | 1.400                             | 0.677                             |       |         |
|           |                  | Back              | 1.095                    | 1.009                              | 1.015                            | 0.055                         | 2.104                             | 2.110                             | 1.150                             | 0.02  | Case 56 |
|           | LTE Band 7_Aux   | Front             | 0.512                    | 0.862                              | 0.758                            | 0.035                         | 1.374                             | 1.270                             | 0.547                             |       |         |
|           |                  | Back              | 0.864                    | 1.009                              | 1.015                            | 0.055                         | 1.873                             | 1.879                             | 0.919                             | 0.02  | Case 57 |
|           | LTE Band 12      | Front             | 0.884                    | 0.862                              | 0.758                            | 0.035                         | 1.746                             | 1.642                             | 0.919                             | 0.01  | Case 58 |
|           |                  | Back              | 1.157                    | 1.009                              | 1.015                            | 0.055                         | 2.166                             | 2.172                             | 1.212                             | 0.02  | Case 59 |
|           | LTE Band 13      | Front             | 0.986                    | 0.862                              | 0.758                            | 0.035                         | 1.848                             | 1.744                             | 1.021                             | 0.01  | Case 60 |
|           |                  | Back              | 1.136                    | 1.009                              | 1.015                            | 0.055                         | 2.145                             | 2.151                             | 1.191                             | 0.02  | Case 61 |
|           | LTE Band 14      | Front             | 0.774                    | 0.862                              | 0.758                            | 0.035                         | 1.636                             | 1.532                             | 0.809                             | 0.01  | Case 62 |
|           |                  | Back              | 1.069                    | 1.009                              | 1.015                            | 0.055                         | 2.078                             | 2.084                             | 1.124                             | 0.02  | Case 63 |
|           | LTE Band 25      | Front             | 1.081                    | 0.862                              | 0.758                            | 0.035                         | 1.943                             | 1.839                             | 1.116                             | 0.02  | Case 64 |
|           |                  | Back              | 0.740                    | 1.009                              | 1.015                            | 0.055                         | 1.749                             | 1.755                             | 0.795                             | 0.02  | Case 65 |
|           | LTE Band 26      | Front             | 0.768                    | 0.862                              | 0.758                            | 0.035                         | 1.630                             | 1.526                             | 0.803                             | 0.01  | Case 66 |
|           |                  | Back              | 0.917                    | 1.009                              | 1.015                            | 0.055                         | 1.926                             | 1.932                             | 0.972                             | 0.02  | Case 67 |
|           | LTE Band 30_Main | Front             | 0.674                    | 0.862                              | 0.758                            | 0.035                         | 1.536                             | 1.432                             | 0.709                             |       |         |
|           |                  | Back              | 1.067                    | 1.009                              | 1.015                            | 0.055                         | 2.076                             | 2.082                             | 1.122                             | 0.02  | Case 68 |
|           | LTE Band 30_Aux  | Front             | 0.459                    | 0.862                              | 0.758                            | 0.035                         | 1.321                             | 1.217                             | 0.494                             |       |         |
|           |                  | Back              | 0.976                    | 1.009                              | 1.015                            | 0.055                         | 1.985                             | 1.991                             | 1.031                             | 0.02  | Case 69 |
|           | LTE Band 41_Main | Front             | 0.565                    | 0.862                              | 0.758                            | 0.035                         | 1.427                             | 1.323                             | 0.600                             |       |         |
|           |                  | Back              | 1.117                    | 1.009                              | 1.015                            | 0.055                         | 2.126                             | 2.132                             | 1.172                             | 0.02  | Case 70 |
|           | LTE Band 41_Aux  | Front             | 0.518                    | 0.862                              | 0.758                            | 0.035                         | 1.380                             | 1.276                             | 0.553                             |       |         |
|           |                  | Back              | 0.882                    | 1.009                              | 1.015                            | 0.055                         | 1.891                             | 1.897                             | 0.937                             | 0.02  | Case 71 |
|           | LTE Band 66      | Front             | 0.706                    | 0.862                              | 0.758                            | 0.035                         | 1.568                             | 1.464                             | 0.741                             |       |         |
|           |                  | Back              | 0.660                    | 1.009                              | 1.015                            | 0.055                         | 1.669                             | 1.675                             | 0.715                             | 0.01  | Case 72 |
|           | LTE Band 71      | Front             | 0.779                    | 0.862                              | 0.758                            | 0.035                         | 1.641                             | 1.537                             | 0.814                             | 0.01  | Case 73 |
|           |                  | Back              | 0.865                    | 1.009                              | 1.015                            | 0.055                         | 1.874                             | 1.880                             | 0.920                             | 0.02  | Case 74 |

### 15.4 Product Specific Conditions

**Remark:**

- According to KDB 941225 D06 v02r01 and KDB 648474 D04v01r03, for WWAN / 2.4GHz WLAN / Bluetooth and 5GHz WLAN SAR ("—") was excluded, due to transmitting antenna located larger 25mm from that surface or edge and Hotspot SAR was < 1.2W/Kg.

| WWAN Band |                 | Exposure Position | 1                         | 2                                   | 3                                 | 4                              | 1+2                        | 1+3                        | 1+4                        | SPLSR | Case No |
|-----------|-----------------|-------------------|---------------------------|-------------------------------------|-----------------------------------|--------------------------------|----------------------------|----------------------------|----------------------------|-------|---------|
|           |                 |                   | WWAN<br>10g SAR<br>(W/kg) | 2.4GHz<br>WLAN<br>10g SAR<br>(W/kg) | 5GHz<br>WLAN<br>10g SAR<br>(W/kg) | Bluetooth<br>10g SAR<br>(W/kg) | Summed<br>1g SAR<br>(W/kg) | Summed<br>1g SAR<br>(W/kg) | Summed<br>1g SAR<br>(W/kg) |       |         |
| GSM       | GSM1900         | Front             | -                         | -                                   | 1.165                             | -                              |                            | 1.165                      |                            |       |         |
|           |                 | Back              | -                         | -                                   | 0.647                             | -                              |                            | 0.647                      |                            |       |         |
|           |                 | Left side         | -                         | 1.479                               | 2.865                             | -                              | 1.479                      | 2.865                      |                            |       |         |
|           |                 | Right side        | -                         | -                                   | -                                 | -                              |                            |                            |                            |       |         |
|           |                 | Top side          | -                         | -                                   | 0.296                             | -                              |                            | 0.296                      |                            |       |         |
|           |                 | Bottom side       | 1.375                     | -                                   | -                                 | -                              | 1.375                      | 1.375                      | 1.375                      |       |         |
| WCDMA     | WCDMA II        | Front             | -                         | -                                   | 1.165                             | -                              |                            | 1.165                      |                            |       |         |
|           |                 | Back              | -                         | -                                   | 0.647                             | -                              |                            | 0.647                      |                            |       |         |
|           |                 | Left side         | -                         | 1.479                               | 2.865                             | -                              | 1.479                      | 2.865                      |                            |       |         |
|           |                 | Right side        | -                         | -                                   | -                                 | -                              |                            |                            |                            |       |         |
|           |                 | Top side          | -                         | -                                   | 0.296                             | -                              |                            | 0.296                      |                            |       |         |
|           |                 | Bottom side       | 3.021                     | -                                   | -                                 | -                              | 3.021                      | 3.021                      | 3.021                      |       |         |
|           | WCDMA IV        | Front             | -                         | -                                   | 1.165                             | -                              |                            | 1.165                      |                            |       |         |
|           |                 | Back              | -                         | -                                   | 0.647                             | -                              |                            | 0.647                      |                            |       |         |
|           |                 | Left side         | -                         | 1.479                               | 2.865                             | -                              | 1.479                      | 2.865                      |                            |       |         |
|           |                 | Right side        | -                         | -                                   | -                                 | -                              |                            |                            |                            |       |         |
|           |                 | Top side          | -                         | -                                   | 0.296                             | -                              |                            | 0.296                      |                            |       |         |
|           |                 | Bottom side       | 3.153                     | -                                   | -                                 | -                              | 3.153                      | 3.153                      | 3.153                      |       |         |
| CDMA      | CDMA BC1        | Front             | -                         | -                                   | 1.165                             | -                              |                            | 1.165                      |                            |       |         |
|           |                 | Back              | -                         | -                                   | 0.647                             | -                              |                            | 0.647                      |                            |       |         |
|           |                 | Left side         | -                         | 1.479                               | 2.865                             | -                              | 1.479                      | 2.865                      |                            |       |         |
|           |                 | Right side        | -                         | -                                   | -                                 | -                              |                            |                            |                            |       |         |
|           |                 | Top side          | -                         | -                                   | 0.296                             | -                              |                            | 0.296                      |                            |       |         |
|           |                 | Bottom side       | 2.804                     | -                                   | -                                 | -                              | 2.804                      | 2.804                      | 2.804                      |       |         |
| LTE       | LTE Band 7_Main | Front             | -                         | -                                   | 1.165                             | -                              |                            | 1.165                      |                            |       |         |
|           |                 | Back              | -                         | -                                   | 0.647                             | -                              |                            | 0.647                      |                            |       |         |
|           |                 | Left side         | -                         | 1.479                               | 2.865                             | -                              | 1.479                      | 2.865                      |                            |       |         |
|           |                 | Right side        | 3.190                     | -                                   | -                                 | -                              | 3.190                      | 3.190                      |                            |       |         |
|           |                 | Top side          | -                         | -                                   | 0.296                             | -                              |                            | 0.296                      |                            |       |         |
|           |                 | Bottom side       | -                         | -                                   | -                                 | -                              |                            |                            |                            |       |         |
|           | LTE Band 7_Aux  | Front             | -                         | -                                   | 1.165                             | -                              |                            | 1.165                      |                            |       |         |
|           |                 | Back              | -                         | -                                   | 0.647                             | -                              |                            | 0.647                      |                            |       |         |
|           |                 | Left side         | 2.722                     | 1.479                               | 2.865                             | -                              | 4.201                      | 5.587                      | 2.722                      | 0.1   | Case 75 |
|           |                 | Right side        | -                         | -                                   | -                                 | -                              |                            |                            |                            |       |         |
|           |                 | Top side          | -                         | -                                   | 0.296                             | -                              |                            | 0.296                      |                            |       |         |
|           |                 | Bottom side       | -                         | -                                   | -                                 | -                              |                            |                            |                            |       |         |

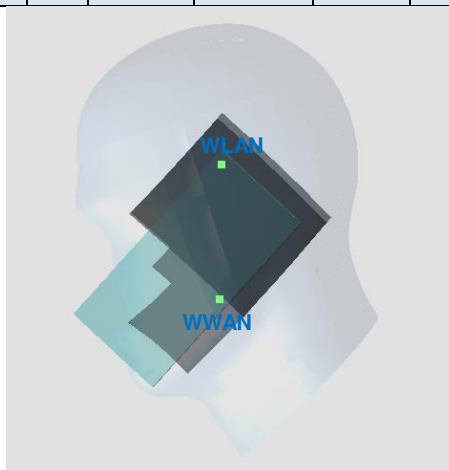
| WWAN Band |                  | Exposure Position | 1                         | 2                                   | 3                                 | 4                              | 1+2<br>Summed<br>1g SAR<br>(W/kg) | 1+3<br>Summed<br>1g SAR<br>(W/kg) | 1+4<br>Summed<br>1g SAR<br>(W/kg) | SPLSR | Case No |
|-----------|------------------|-------------------|---------------------------|-------------------------------------|-----------------------------------|--------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|---------|
|           |                  |                   | WWAN<br>10g SAR<br>(W/kg) | 2.4GHz<br>WLAN<br>10g SAR<br>(W/kg) | 5GHz<br>WLAN<br>10g SAR<br>(W/kg) | Bluetooth<br>10g SAR<br>(W/kg) |                                   |                                   |                                   |       |         |
| LTE       | LTE 25           | Front             | -                         | -                                   | 1.165                             | -                              |                                   | 1.165                             |                                   |       |         |
|           |                  | Back              | -                         | -                                   | 0.647                             | -                              |                                   | 0.647                             |                                   |       |         |
|           |                  | Left side         | -                         | 1.479                               | 2.865                             | -                              | 1.479                             | 2.865                             |                                   |       |         |
|           |                  | Right side        | -                         | -                                   | -                                 | -                              |                                   |                                   |                                   |       |         |
|           |                  | Top side          | -                         | -                                   | 0.296                             | -                              |                                   | 0.296                             |                                   |       |         |
|           |                  | Bottom side       | 2.627                     | -                                   | -                                 | -                              | 2.627                             | 2.627                             | 2.627                             |       |         |
|           | LTE Band 30_Main | Front             | -                         | -                                   | 1.165                             | -                              |                                   | 1.165                             |                                   |       |         |
|           |                  | Back              | -                         | -                                   | 0.647                             | -                              |                                   | 0.647                             |                                   |       |         |
|           |                  | Left side         | -                         | 1.479                               | 2.865                             | -                              | 1.479                             | 2.865                             |                                   |       |         |
|           |                  | Right side        | 3.058                     | -                                   | -                                 | -                              | 3.058                             | 3.058                             | 3.058                             |       |         |
|           |                  | Top side          | -                         | -                                   | 0.296                             | -                              |                                   | 0.296                             |                                   |       |         |
|           |                  | Bottom side       | -                         | -                                   | -                                 | -                              |                                   |                                   |                                   |       |         |
|           | LTE Band 41_Main | Front             | -                         | -                                   | 1.165                             | -                              |                                   | 1.165                             |                                   |       |         |
|           |                  | Back              | -                         | -                                   | 0.647                             | -                              |                                   | 0.647                             |                                   |       |         |
|           |                  | Left side         | -                         | 1.479                               | 2.865                             | -                              | 1.479                             | 2.865                             |                                   |       |         |
|           |                  | Right side        | 3.195                     | -                                   | -                                 | -                              | 3.195                             | 3.195                             | 3.195                             |       |         |
|           |                  | Top side          | -                         | -                                   | 0.296                             | -                              |                                   | 0.296                             |                                   |       |         |
|           |                  | Bottom side       | -                         | -                                   | -                                 | -                              |                                   |                                   |                                   |       |         |
|           | LTE Band 41_Aux  | Front             | -                         | -                                   | 1.165                             | -                              |                                   | 1.165                             |                                   |       |         |
|           |                  | Back              | -                         | -                                   | 0.647                             | -                              |                                   | 0.647                             |                                   |       |         |
|           |                  | Left side         | 2.728                     | 1.479                               | 2.865                             | -                              | 4.207                             | 5.593                             | 2.728                             | 0.1   | Case 76 |
|           |                  | Right side        | -                         | -                                   | -                                 | -                              |                                   |                                   |                                   |       |         |
|           |                  | Top side          | -                         | -                                   | 0.296                             | -                              |                                   | 0.296                             |                                   |       |         |
|           |                  | Bottom side       | -                         | -                                   | -                                 | -                              |                                   |                                   |                                   |       |         |

## 15.5 SPLSR Evaluation and Analysis

**General Note:**

1.  $SPLSR = (SAR_1 + SAR_2)^{1.5} / (\text{min. separation distance, mm})$ . If  $SPLSR \leq 0.04$ , simultaneously transmission SAR measurement is not necessary

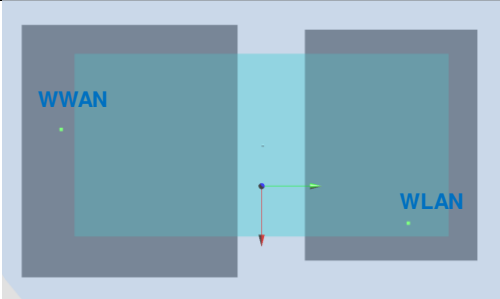
|        | Band        | Position    | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |        |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|--------|-------------|-------------|------------|----------|------------------------|--------|-------|------------------|-------------------|---------------|------------------|
|        |             |             |            |          | X                      | Y      | Z     |                  |                   |               |                  |
| Case 1 | LTE Band 7  | Right Cheek | 0.799      | 0        | 49.01                  | 70.41  | 0.35  | 103.8            | 1.93              | 0.03          | Not required     |
|        | 2.4GHz WLAN |             | 1.134      | 0        | 16.97                  | -28.34 | -1.64 |                  |                   |               |                  |
|        | LTE Band 7  | Right Cheek | 0.799      | 0        | 49.01                  | 70.41  | 0.35  | 107.0            | 1.98              | 0.03          | Not required     |
|        | 5GHz WLAN   |             | 1.176      | 0        | 17.1                   | -31.7  | -0.77 |                  |                   |               |                  |



|        | Band        | Position    | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |        |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|--------|-------------|-------------|------------|----------|------------------------|--------|-------|------------------|-------------------|---------------|------------------|
|        |             |             |            |          | X                      | Y      | Z     |                  |                   |               |                  |
| Case 2 | LTE Band 41 | Right Cheek | 0.501      | 0        | 43.64                  | 66.17  | -0.93 | 98.2             | 1.64              | 0.02          | Not required     |
|        | 2.4GHz WLAN |             | 1.134      | 0        | 16.97                  | -28.34 | -1.64 |                  |                   |               |                  |
|        | LTE Band 41 | Right Cheek | 0.501      | 0        | 43.64                  | 66.17  | -0.93 | 101.4            | 1.68              | 0.02          | Not required     |
|        | 5GHz WLAN   |             | 1.176      | 0        | 17.1                   | -31.7  | -0.77 |                  |                   |               |                  |

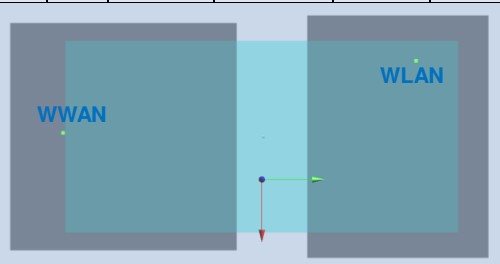


| Case 3 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|--------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|        |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|        |             |          |            |          |                        |       |       |                  |                   |               |                  |
|        | GSM850      | Back     | 0.679      | 5        | -13.9                  | -82.5 | -1.21 | 151.3            | 1.69              | 0.01          | Not required     |
|        | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |



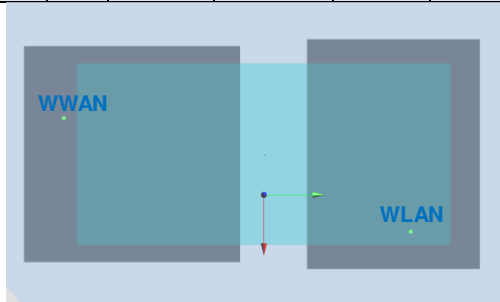
The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A central vertical line separates the two regions. A red dot is located on the central line, with a green arrow pointing to the right and a red arrow pointing downwards. The background is a light gray color.

| Case 4 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|--------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|        |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
|        |             |          |            |          |                        |      |       |                  |                   |               |                  |
|        | GSM1900     | Front    | 0.773      | 5        | 2.3                    | -78  | -2.65 | 145.6            | 1.64              | 0.01          | Not required     |
|        | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2 | -1.84 |                  |                   |               |                  |



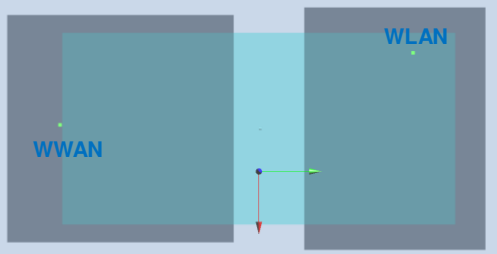
The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A central vertical line separates the two regions. A red dot is located on the central line, with a green arrow pointing to the right and a red arrow pointing downwards. The background is a light gray color.

| Case 5 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|--------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|        |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|        |             |          |            |          |                        |       |       |                  |                   |               |                  |
|        | GSM1900     | Back     | 0.75       | 5        | -14.4                  | -84.1 | -2.68 | 153.0            | 1.76              | 0.02          | Not required     |
|        | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |



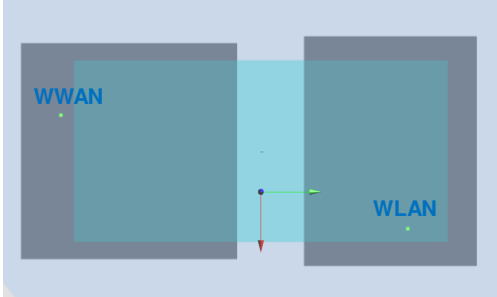
The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A central vertical line separates the two regions. A red dot is located on the central line, with a green arrow pointing to the right and a red arrow pointing downwards. The background is a light gray color.

| Case 6 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|--------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|        |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|        | WCDMA II    | Front    | 0.794      | 5        | 0.8                    | -77.8 | -2.69 | 145.1            | 1.66              | 0.01          | Not required     |
|        | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |



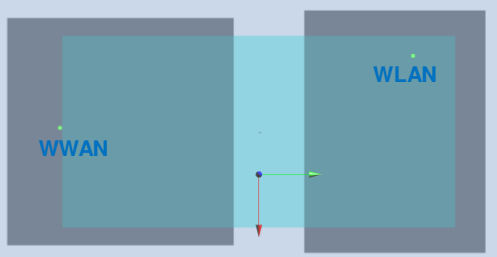
The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A red dot with a green arrow points from the center of the WWAN region towards the WLAN region, indicating the SAR peak location. A red arrow points downwards from the center of the WWAN region.

| Case 7 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|--------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|        |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|        | WCDMA II    | Back     | 0.667      | 5        | -9.8                   | -77.8 | -2.68 | 145.5            | 1.68              | 0.01          | Not required     |
|        | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |



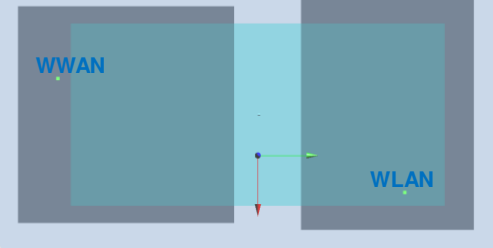
The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A red dot with a green arrow points from the center of the WWAN region towards the WLAN region, indicating the SAR peak location. A red arrow points downwards from the center of the WWAN region.

| Case 8 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|--------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|        |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|        | WCDMA IV    | Front    | 0.88       | 5        | 0.2                    | -79.4 | -1.14 | 146.5            | 1.74              | 0.02          | Not required     |
|        | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |



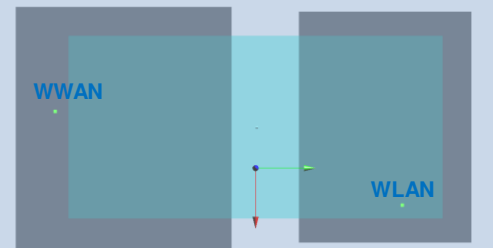
The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A red dot with a green arrow points from the center of the WWAN region towards the WLAN region, indicating the SAR peak location. A red arrow points downwards from the center of the WWAN region.

| Case 9 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|--------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|        |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
|        | WCDMA IV    | Back     | 0.816      | 5        | 0.3                    | -81  | -1.13 | 145.7            | 1.83              | 0.02          | Not required     |
|        | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2 | -1.62 |                  |                   |               |                  |



The diagram shows two overlapping rectangular regions representing SAR peak locations. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A vertical line separates the two regions. A coordinate system is shown with a red arrow pointing down (Z-axis), a green arrow pointing right (X-axis), and a blue arrow pointing up (Y-axis).

| Case 10 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | WCDMA V     | Back     | 0.898      | 5        | -14                    | -77.7 | -1.32 | 146.8            | 1.91              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |



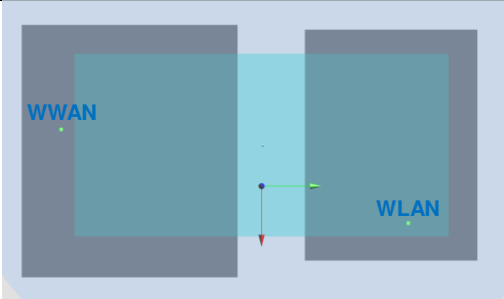
The diagram shows two overlapping rectangular regions representing SAR peak locations. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A vertical line separates the two regions. A coordinate system is shown with a red arrow pointing down (Z-axis), a green arrow pointing right (X-axis), and a blue arrow pointing up (Y-axis).

| Case 11 | Band        | Position  | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|-----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |           |            |          | X                      | Y    | Z     |                  |                   |               |                  |
|         | WCDMA V     | Left Side | 0.44       | 5        | -2.4                   | 1    | -1.64 | 55.8             | 1.64              | 0.04          | Not required     |
|         | 2.4GHz WLAN |           | 1.195      | 5        | 2.4                    | 56.6 | -1.77 |                  |                   |               |                  |



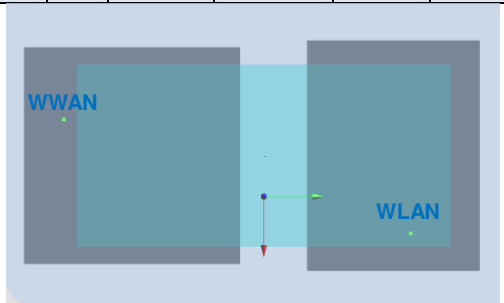
The diagram shows two overlapping rectangular regions representing SAR peak locations. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A vertical line separates the two regions. A coordinate system is shown with a red arrow pointing down (Z-axis), a green arrow pointing right (X-axis), and a blue arrow pointing up (Y-axis).

| Case<br>12 | Band        | Position | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |      |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------------|-------------|----------|---------------|-------------|------------------------|------|-------|------------------------|-------------------------|------------------|---------------------|
|            |             |          |               |             | X                      | Y    | Z     |                        |                         |                  |                     |
|            | CDMA BC0    | Back     | 0.981         | 5           | -9.7                   | -77  | -6.16 | 144.8                  | 1.99                    | 0.02             | Not required        |
|            | 2.4GHz WLAN |          | 1.009         | 5           | 36.4                   | 60.2 | -1.62 |                        |                         |                  |                     |



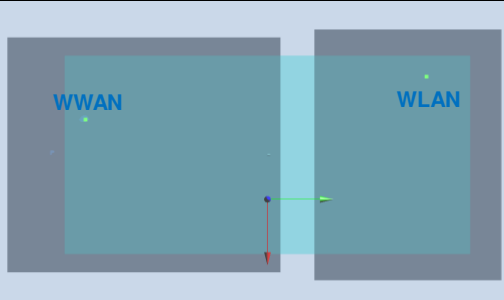
The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A vertical red line with a double-headed arrow indicates the gap between the two regions. A green dot is located in the center of the gap, with a green arrow pointing to the right towards the WLAN region. A red arrow points downwards from the green dot.

| Case<br>13 | Band        | Position | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |       |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------------|-------------|----------|---------------|-------------|------------------------|-------|-------|------------------------|-------------------------|------------------|---------------------|
|            |             |          |               |             | X                      | Y     | Z     |                        |                         |                  |                     |
|            | CDMA BC1    | Back     | 0.601         | 5           | -10.4                  | -80.9 | -1.19 | 148.7                  | 1.61                    | 0.01             | Not required        |
|            | 2.4GHz WLAN |          | 1.009         | 5           | 36.4                   | 60.2  | -1.62 |                        |                         |                  |                     |



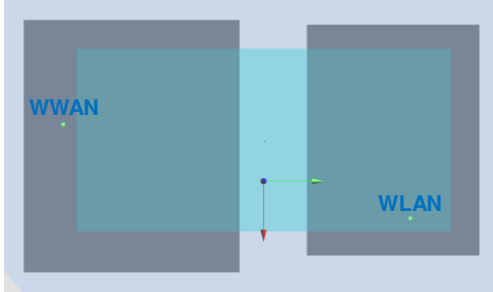
The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A vertical red line with a double-headed arrow indicates the gap between the two regions. A green dot is located in the center of the gap, with a green arrow pointing to the right towards the WLAN region. A red arrow points downwards from the green dot.

| Case<br>14 | Band        | Position | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |       |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------------|-------------|----------|---------------|-------------|------------------------|-------|-------|------------------------|-------------------------|------------------|---------------------|
|            |             |          |               |             | X                      | Y     | Z     |                        |                         |                  |                     |
|            | CDMA BC10   | Front    | 0.743         | 5           | 12.5                   | -79.5 | -6    | 149.6                  | 1.61                    | 0.01             | Not required        |
|            | 2.4GHz WLAN |          | 0.862         | 5           | -29                    | 64.2  | -1.84 |                        |                         |                  |                     |

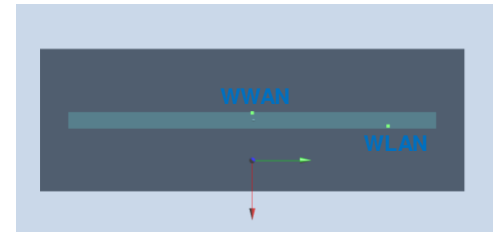


The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A vertical red line with a double-headed arrow indicates the gap between the two regions. A green dot is located in the center of the gap, with a green arrow pointing to the right towards the WLAN region. A red arrow points downwards from the green dot.

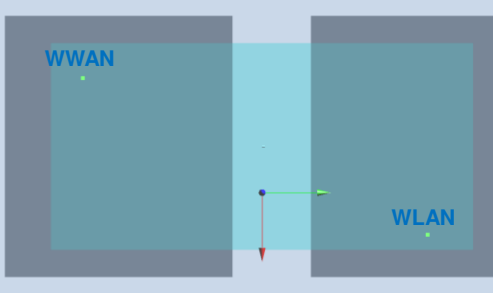
| Case<br>15 | Band      | Position | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |     |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------------|-----------|----------|---------------|-------------|------------------------|-----|-------|------------------------|-------------------------|------------------|---------------------|
|            |           |          |               |             | X                      | Y   | Z     |                        |                         |                  |                     |
|            | CDMA BC10 | Back     | 0.971         | 5           | -9.7                   | -77 | -6.18 | 144.8                  | 1.98                    | 0.02             | Not required        |
|            |           |          |               |             |                        |     |       |                        |                         |                  |                     |



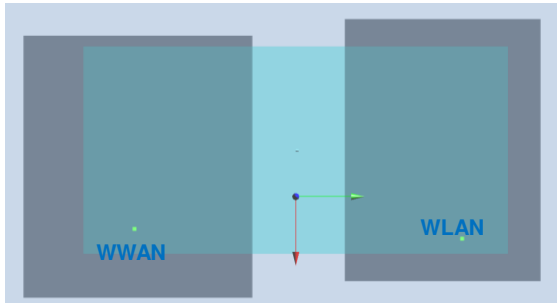
| Case<br>16 | Band        | Position  | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |      |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------------|-------------|-----------|---------------|-------------|------------------------|------|-------|------------------------|-------------------------|------------------|---------------------|
|            |             |           |               |             | X                      | Y    | Z     |                        |                         |                  |                     |
|            | CDMA BC10   | Left Side | 0.415         | 5           | 3.6                    | 0.4  | -6.9  | 56.4                   | 1.61                    | 0.04             | Not required        |
|            | 2.4GHz WLAN |           | 1.195         | 5           | 2.4                    | 56.6 | -1.77 |                        |                         |                  |                     |



| Case<br>17 | Band            | Position | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |       |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------------|-----------------|----------|---------------|-------------|------------------------|-------|-------|------------------------|-------------------------|------------------|---------------------|
|            |                 |          |               |             | X                      | Y     | Z     |                        |                         |                  |                     |
|            | LTE Band 7_Main | Back     | 1.095         | 5           | -28.2                  | -67.2 | -6.03 | 142.9                  | 2.10                    | 0.02             | Not required        |
|            | 2.4GHz WLAN     |          | 1.009         | 5           | 36.4                   | 60.2  | -1.62 |                        |                         |                  |                     |
|            | LTE Band 7_Main | Back     | 1.064         | 5           | -28.2                  | -67.2 | -6.03 | 150.3                  | 1.63                    | 0.01             | Not required        |
|            | 5GHz WLAN       |          | 0.569         | 5           | 37.2                   | 68    | -0.92 |                        |                         |                  |                     |

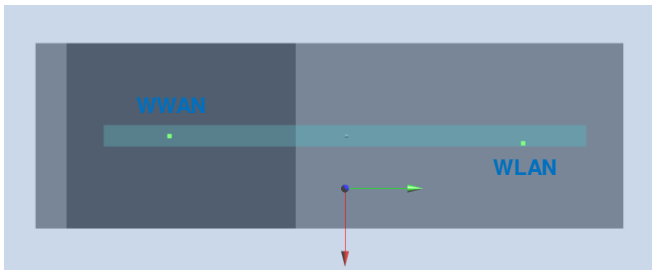


| Case 18 | Band           | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|----------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |                |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | LTE Band 7_Aux | Back     | 0.864      | 5        | 26.8                   | -60.2 | 0.09  | 120.8            | 1.87              | 0.02          | Not required     |
|         | 2.4GHz WLAN    |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |



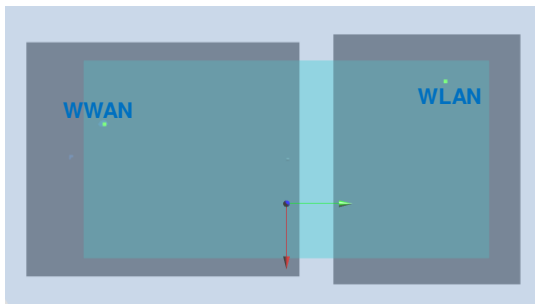
The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A vertical line separates the two regions. A red dot is located on the vertical line, with a green arrow pointing to the right and a red arrow pointing downwards, indicating the SAR peak location.

| Case 19 | Band           | Position  | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|----------------|-----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |                |           |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | LTE Band 7_Aux | Left Side | 0.569      | 5        | 0                      | -54.8 | -0.1  | 111.4            | 1.76              | 0.02          | Not required     |
|         | 2.4GHz WLAN    |           | 1.195      | 5        | 2.4                    | 56.6  | -1.77 |                  |                   |               |                  |



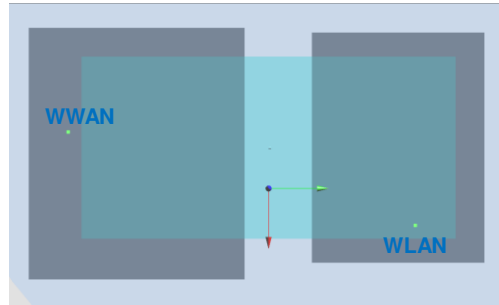
The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A horizontal line separates the two regions. A red dot is located on the horizontal line, with a green arrow pointing to the right and a red arrow pointing downwards, indicating the SAR peak location.

| Case 20 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
|         | LTE Band 12 | Front    | 0.882      | 5        | 12.5                   | -82  | -2.17 | 152.0            | 1.74              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2 | -1.84 |                  |                   |               |                  |

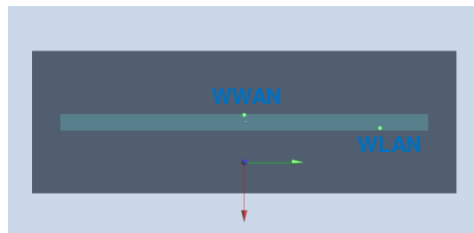


The diagram shows a top-down view of a device with two rectangular regions highlighted in light blue. The left region is labeled 'WWAN' and the right region is labeled 'WLAN'. A vertical line separates the two regions. A red dot is located on the vertical line, with a green arrow pointing to the right and a red arrow pointing downwards, indicating the SAR peak location.

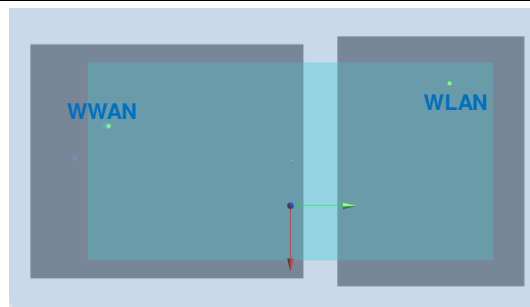
| Case    | Band        | Position | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |       |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|---------|-------------|----------|---------------|-------------|------------------------|-------|-------|------------------------|-------------------------|------------------|---------------------|
|         |             |          |               |             | X                      | Y     | Z     |                        |                         |                  |                     |
| Case 21 | LTE Band 12 | Back     | 1.155         | 5           | -12.9                  | -80.4 | -2.25 | 149.0                  | 2.16                    | 0.02             | Not required        |
|         | 2.4GHz WLAN |          | 1.009         | 5           | 36.4                   | 60.2  | -1.62 |                        |                         |                  |                     |
|         | LTE Band 12 | Back     | 0.349         | 5           | -12.9                  | -80.4 | -2.25 | 156.6                  | 0.92                    | 0.01             | Not required        |
|         | 5GHz WLAN   |          | 0.569         | 5           | 37.2                   | 68    | -0.92 |                        |                         |                  |                     |



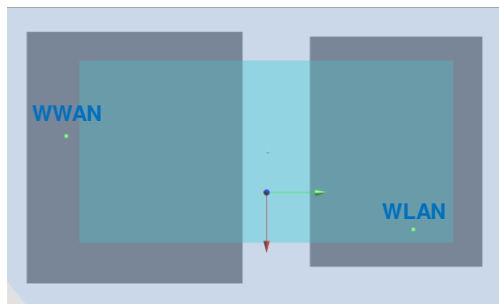
| Case    | Band        | Position  | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |      |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|---------|-------------|-----------|---------------|-------------|------------------------|------|-------|------------------------|-------------------------|------------------|---------------------|
|         |             |           |               |             | X                      | Y    | Z     |                        |                         |                  |                     |
| Case 22 | LTE Band 12 | Left Side | 0.571         | 5           | 0.6                    | -8.4 | -2.65 | 65.0                   | 1.77                    | 0.04             | Not required        |
|         | 2.4GHz WLAN |           | 1.195         | 5           | 2.4                    | 56.6 | -1.77 |                        |                         |                  |                     |



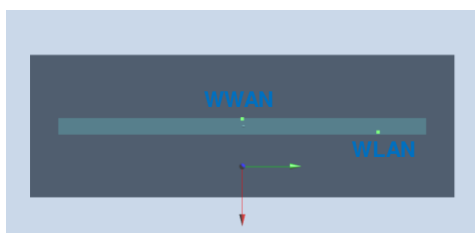
| Case    | Band        | Position | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |      |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|---------|-------------|----------|---------------|-------------|------------------------|------|-------|------------------------|-------------------------|------------------|---------------------|
|         |             |          |               |             | X                      | Y    | Z     |                        |                         |                  |                     |
| Case 23 | LTE Band 13 | Front    | 0.986         | 5           | 12.5                   | -82  | -2.17 | 152.0                  | 1.85                    | 0.02             | Not required        |
|         | 2.4GHz WLAN |          | 0.862         | 5           | -29                    | 64.2 | -1.84 |                        |                         |                  |                     |



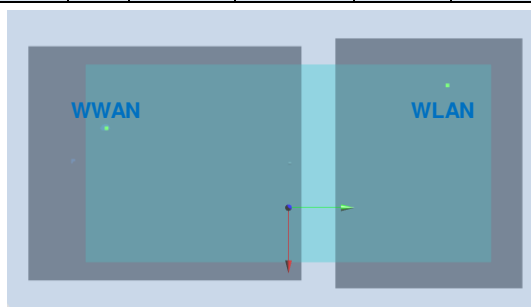
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 24 | LTE Band 13 | Back     | 1.136      | 5        | -12.9                  | -80.4 | -2.19 | 149.0            | 2.15              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 13 | Back     | 1.136      | 5        | -12.9                  | -80.4 | -2.19 | 156.6            | 1.71              | 0.01          | Not required     |
|         | 5GHz WLAN   |          | 0.569      | 5        | 37.2                   | 68    | -0.92 |                  |                   |               |                  |



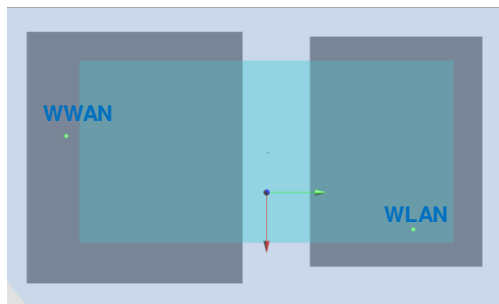
| Case    | Band        | Position  | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|-----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |           |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 25 | LTE Band 13 | Left Side | 0.462      | 5        | -1                     | -14.4 | -2.61 | 71.1             | 1.66              | 0.03          | Not required     |
|         | 2.4GHz WLAN |           | 1.195      | 5        | 2.4                    | 56.6  | -1.77 |                  |                   |               |                  |



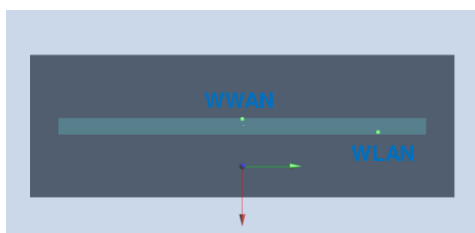
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 26 | LTE Band 14 | Front    | 0.774      | 5        | 10.9                   | -80.5 | -2.16 | 150.1            | 1.64              | 0.01          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |



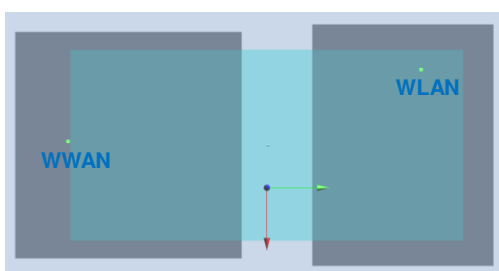
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
| Case 27 | LTE Band 14 | Back     | 1.069      | 5        | -9.6                   | -82  | -2.22 | 149.5            | 2.08              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2 | -1.62 |                  |                   |               |                  |
|         | LTE Band 14 | Back     | 1.069      | 5        | -9.6                   | -82  | -2.22 | 157.1            | 1.64              | 0.01          | Not required     |
|         | 5GHz WLAN   |          | 0.569      | 5        | 37.2                   | 68   | -0.92 |                  |                   |               |                  |



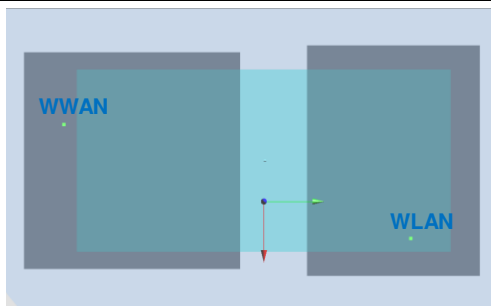
| Case    | Band        | Position  | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|-----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |           |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 28 | LTE Band 14 | Left Side | 0.456      | 5        | -1                     | -14.4 | -2.61 | 71.1             | 1.65              | 0.03          | Not required     |
|         | 2.4GHz WLAN |           | 1.195      | 5        | 2.4                    | 56.6  | -1.77 |                  |                   |               |                  |



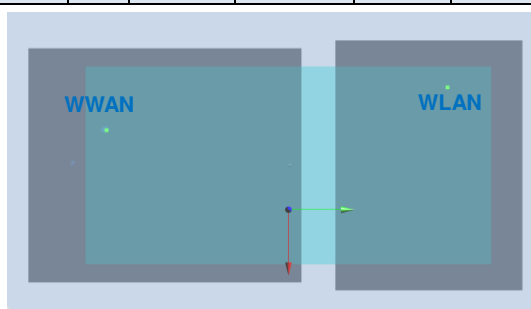
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 29 | LTE Band 25 | Front    | 1.081      | 5        | 2.3                    | -79.5 | -2.6  | 147.1            | 1.94              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |



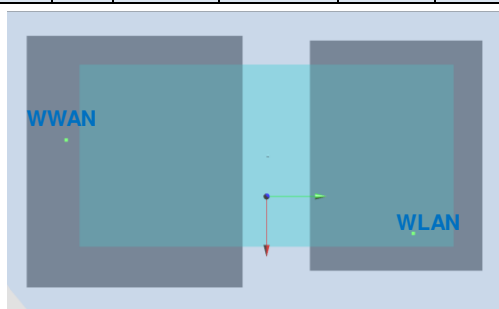
| Case 30 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | LTE Band 25 | Back     | 0.74       | 5        | -8.9                   | -77.8 | -2.69 | 145.2            | 1.75              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |



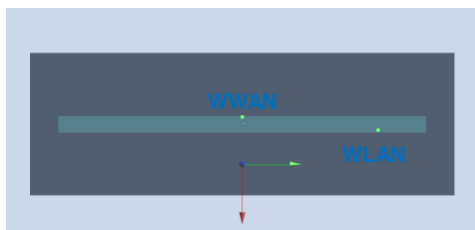
| Case 31 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | LTE Band 26 | Front    | 0.768      | 5        | 6                      | -79.5 | -1.29 | 147.9            | 1.63              | 0.01          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |



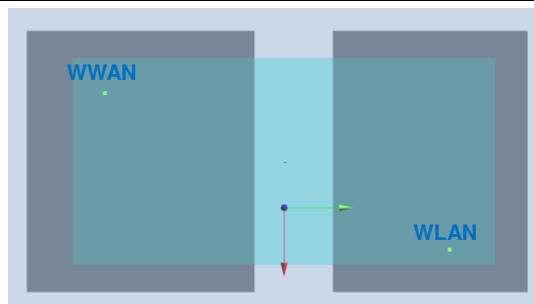
| Case 32 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | LTE Band 26 | Back     | 0.917      | 5        | -13.9                  | -79.4 | -1.36 | 148.4            | 1.93              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |



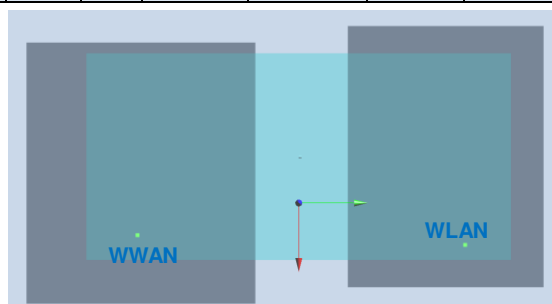
| Case<br>33 | Band        | Position  | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |      |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------------|-------------|-----------|---------------|-------------|------------------------|------|-------|------------------------|-------------------------|------------------|---------------------|
|            |             |           |               |             | X                      | Y    | Z     |                        |                         |                  |                     |
|            | LTE Band 26 | Left Side | 0.447         | 5           | 0.6                    | -2.1 | -1.67 | 58.7                   | 1.64                    | 0.04             | Not required        |
|            | 2.4GHz WLAN |           | 1.195         | 5           | 2.4                    | 56.6 | -1.77 |                        |                         |                  |                     |



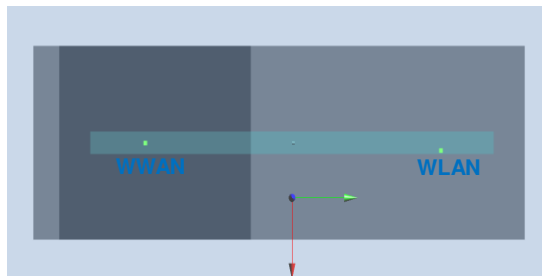
| Case<br>34 | Band             | Position | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |       |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------------|------------------|----------|---------------|-------------|------------------------|-------|-------|------------------------|-------------------------|------------------|---------------------|
|            |                  |          |               |             | X                      | Y     | Z     |                        |                         |                  |                     |
|            | LTE Band 30_Main | Back     | 1.067         | 5           | -35.6                  | -62.8 | -1.14 | 142.5                  | 2.08                    | 0.02             | Not required        |
|            | 2.4GHz WLAN      |          | 1.009         | 5           | 36.4                   | 60.2  | -1.62 |                        |                         |                  |                     |
|            | LTE Band 30_Main | Back     | 1.067         | 5           | -35.6                  | -62.8 | -1.14 | 149.7                  | 1.64                    | 0.01             | Not required        |
|            | 5GHz WLAN        |          | 0.569         | 5           | 37.2                   | 68    | -0.92 |                        |                         |                  |                     |



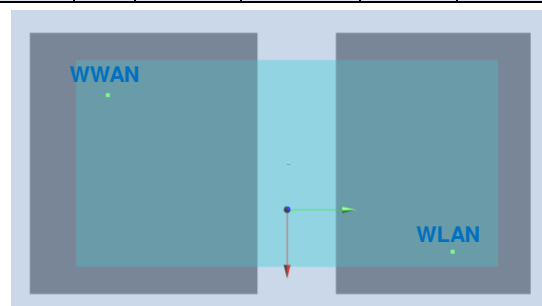
| Case<br>35 | Band            | Position | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |       |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------------|-----------------|----------|---------------|-------------|------------------------|-------|-------|------------------------|-------------------------|------------------|---------------------|
|            |                 |          |               |             | X                      | Y     | Z     |                        |                         |                  |                     |
|            | LTE Band 30_Aux | Back     | 0.976         | 5           | 29                     | -64.4 | -0.46 | 124.8                  | 1.99                    | 0.02             | Not required        |
|            | 2.4GHz WLAN     |          | 1.009         | 5           | 36.4                   | 60.2  | -1.62 |                        |                         |                  |                     |



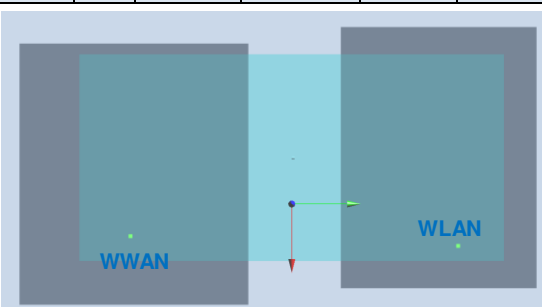
| Case | Band            | Position  | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |       |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------|-----------------|-----------|---------------|-------------|------------------------|-------|-------|------------------------|-------------------------|------------------|---------------------|
|      |                 |           |               |             | X                      | Y     | Z     |                        |                         |                  |                     |
| 36   | LTE Band 30_Aux | Left Side | 0.422         | 5           | 1.2                    | -54.2 | -0.7  | 110.8                  | 1.62                    | 0.02             | Not required        |
|      | 2.4GHz WLAN     |           | 1.195         | 5           | 2.4                    | 56.6  | -1.77 |                        |                         |                  |                     |



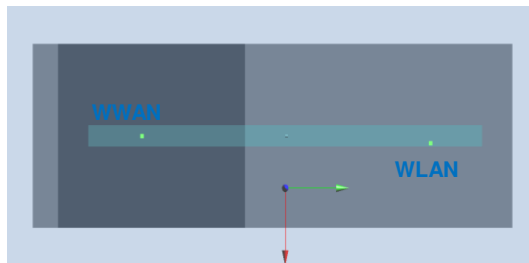
| Case | Band             | Position | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |      |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------|------------------|----------|---------------|-------------|------------------------|------|-------|------------------------|-------------------------|------------------|---------------------|
|      |                  |          |               |             | X                      | Y    | Z     |                        |                         |                  |                     |
| 37   | LTE Band 41_Main | Back     | 1.117         | 5           | -31.6                  | -58  | -0.75 | 136.4                  | 2.13                    | 0.02             | Not required        |
|      | 2.4GHz WLAN      |          | 1.009         | 5           | 36.4                   | 60.2 | -1.62 |                        |                         |                  |                     |
|      | LTE Band 41_Main | Back     | 1.117         | 5           | -31.6                  | -58  | -0.75 | 143.6                  | 1.69                    | 0.02             | Not required        |
|      | 5GHz WLAN        |          | 0.569         | 5           | 37.2                   | 68   | -0.92 |                        |                         |                  |                     |



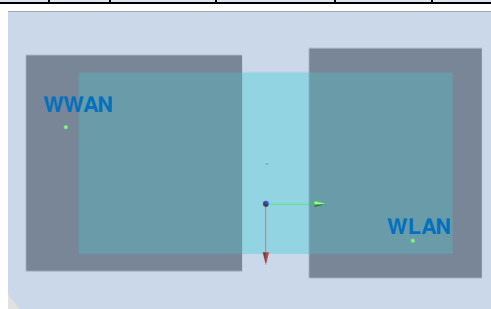
| Case | Band            | Position | SAR<br>(W/kg) | Gap<br>(mm) | SAR peak location (mm) |       |       | 3D<br>distance<br>(mm) | Summed<br>SAR<br>(W/kg) | SPLSR<br>Results | Simultaneous<br>SAR |
|------|-----------------|----------|---------------|-------------|------------------------|-------|-------|------------------------|-------------------------|------------------|---------------------|
|      |                 |          |               |             | X                      | Y     | Z     |                        |                         |                  |                     |
| 38   | LTE Band 41_Aux | Back     | 0.882         | 5           | 26.6                   | -60.2 | 0.09  | 120.8                  | 1.89                    | 0.02             | Not required        |
|      | 2.4GHz WLAN     |          | 1.009         | 5           | 36.4                   | 60.2  | -1.62 |                        |                         |                  |                     |



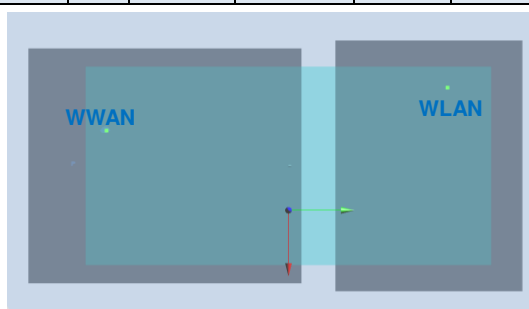
| Case 39 | Band            | Position  | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-----------------|-----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |                 |           |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | LTE Band 41_Aux | Left Side | 0.578      | 5        | 0                      | -55.4 | -0.68 | 112.0            | 1.77              | 0.02          | Not required     |
|         | 2.4GHz WLAN     |           | 1.195      | 5        | 2.4                    | 56.6  | -1.77 |                  |                   |               |                  |



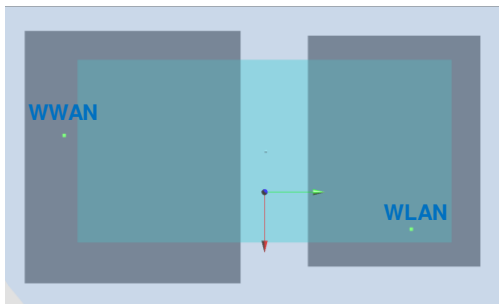
| Case 40 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | LTE Band 66 | Back     | 0.588      | 5        | 1.5                    | -80.6 | -1.2  | 145.1            | 1.60              | 0.01          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |



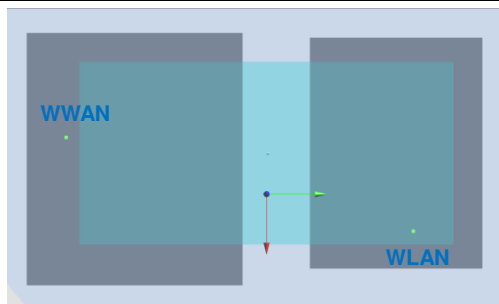
| Case 41 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
|         | LTE Band 71 | Front    | 0.779      | 5        | 12.5                   | -82  | -2.17 | 152.0            | 1.64              | 0.01          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2 | -1.84 |                  |                   |               |                  |



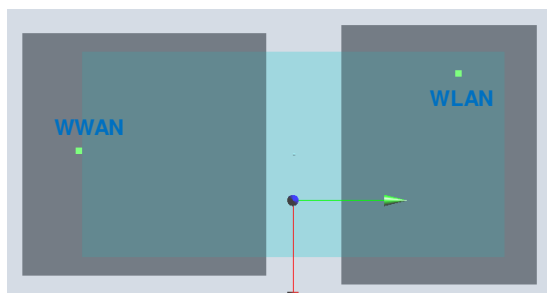
| Case 42 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | LTE Band 71 | Back     | 0.865      | 5        | -14.5                  | -77.3 | -2.27 | 146.6            | 1.87              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |



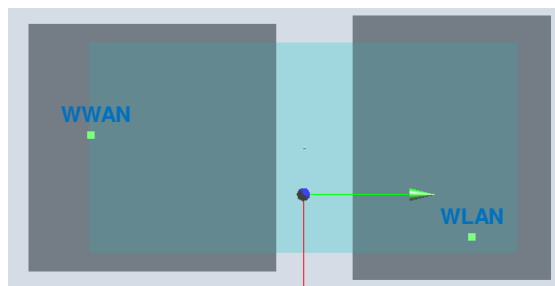
| Case 43 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | GSM850      | Back     | 0.679      | 5        | -13.9                  | -82.5 | -1.21 | 151.3            | 1.69              | 0.01          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | GSM850      | Back     | 0.679      | 5        | -13.9                  | -82.5 | -1.21 | 157.5            | 1.69              | 0.01          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



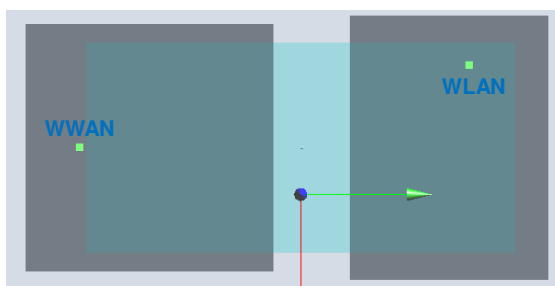
| Case 44 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
|         | GSM1900     | Front    | 1.13       | 5        | -0.9                   | -78  | -1.75 | 144.9            | 1.99              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2 | -1.84 |                  |                   |               |                  |
|         | GSM1900     | Front    | 1.13       | 5        | -0.9                   | -78  | -1.75 | 155.2            | 1.89              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 0.758      | 5        | -37.4                  | 72.8 | -1.3  |                  |                   |               |                  |



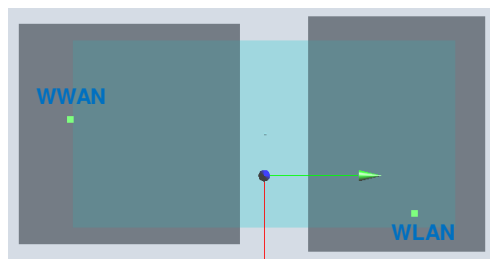
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 45 | GSM1900     | Back     | 1.109      | 5        | -11.9                  | -76.5 | -1.77 | 145.0            | 2.12              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | GSM1900     | Back     | 0.695      | 5        | -11.9                  | -76.5 | -1.77 | 151.2            | 1.71              | 0.01          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



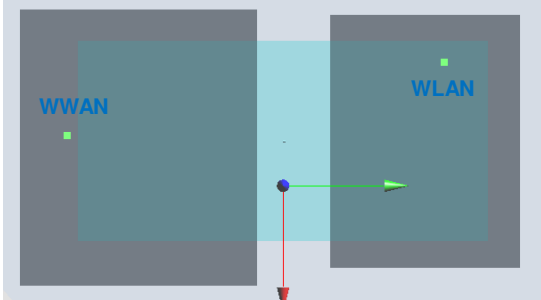
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 46 | WCDMA II    | Front    | 1.177      | 5        | 2.2                    | -77.9 | -1.72 | 145.5            | 2.04              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |
|         | WCDMA II    | Front    | 1.177      | 5        | 2.2                    | -77.9 | -1.72 | 155.8            | 1.94              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 0.758      | 5        | -37.4                  | 72.8  | -1.3  |                  |                   |               |                  |



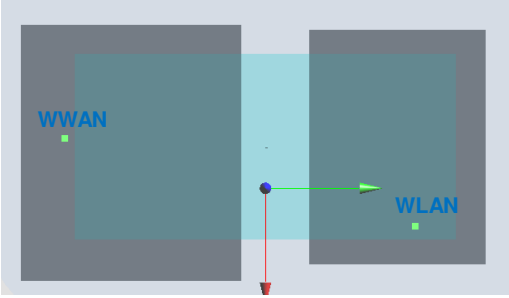
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
| Case 47 | WCDMA II    | Back     | 1.007      | 5        | -13.4                  | -78  | -1.78 | 146.9            | 2.02              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2 | -1.62 |                  |                   |               |                  |
|         | WCDMA II    | Back     | 1.007      | 5        | -13.4                  | -78  | -1.78 | 153.1            | 2.02              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8 | -0.87 |                  |                   |               |                  |



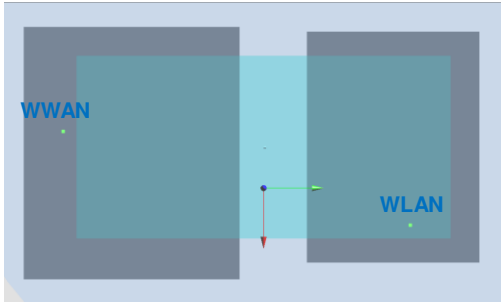
| Case 48 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | WCDMA IV    | Front    | 0.988      | 5        | 0.2                    | -79.4 | -1.14 | 146.5            | 1.85              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |
|         | WCDMA IV    | Front    | 0.988      | 5        | 0.2                    | -79.4 | -1.14 | 156.8            | 1.75              | 0.01          | Not required     |
|         | 5GHz WLAN   |          | 0.758      | 5        | -37.4                  | 72.8  | -1.3  |                  |                   |               |                  |



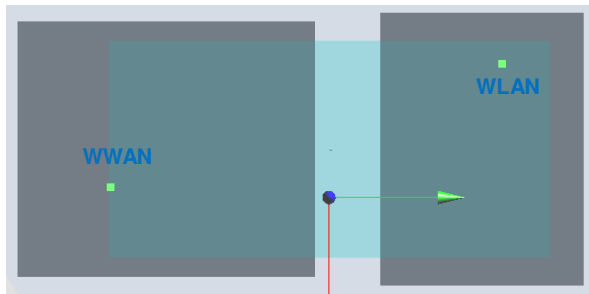
| Case 49 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
|         | WCDMA IV    | Back     | 0.916      | 5        | 0.3                    | -81  | -1.13 | 145.7            | 1.93              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2 | -1.62 |                  |                   |               |                  |
|         | WCDMA IV    | Back     | 0.916      | 5        | 0.3                    | -81  | -1.13 | 152.1            | 1.93              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8 | -0.87 |                  |                   |               |                  |



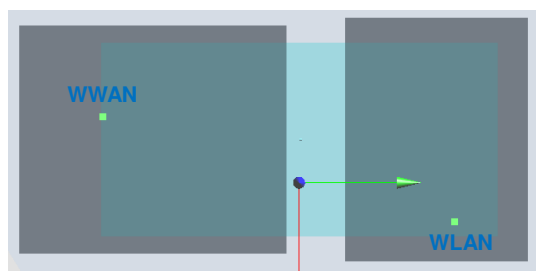
| Case 50 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | WCDMA V     | Back     | 0.898      | 5        | -14                    | -77.7 | -1.32 | 146.8            | 1.91              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | WCDMA V     | Back     | 0.898      | 5        | -14                    | -77.7 | -1.32 | 153.0            | 1.91              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



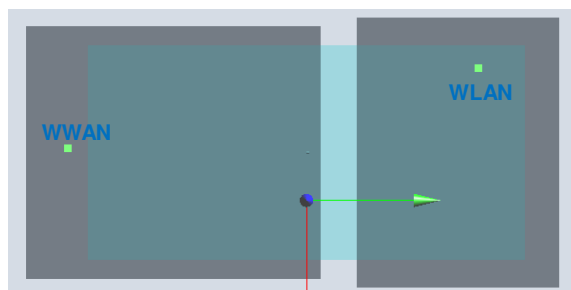
| Case 51 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | CDMA BC0    | Front    | 0.775      | 5        | 10.9                   | -82.4 | -5.94 | 152.0            | 1.64              | 0.01          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |



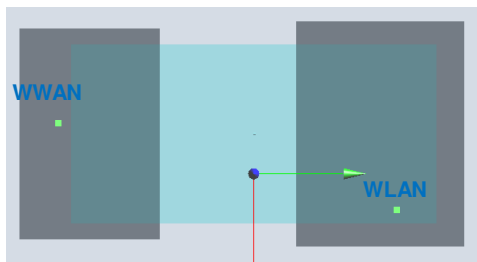
| Case 52 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | CDMA BC0    | Back     | 1.029      | 5        | -10                    | -77.6 | -6.13 | 145.5            | 2.04              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | CDMA BC0    | Back     | 1.029      | 5        | -10                    | -77.6 | -6.13 | 151.7            | 2.04              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



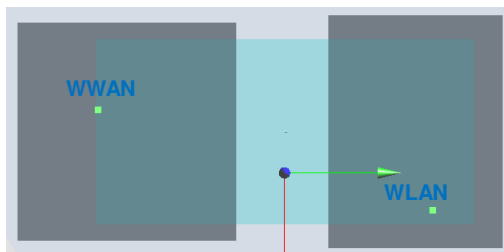
| Case 53 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | CDMA BC1    | Front    | 0.975      | 5        | -0.9                   | -82.4 | -1.16 | 149.3            | 1.84              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |
|         | CDMA BC1    | Front    | 0.975      | 5        | -0.9                   | -82.4 | -1.16 | 159.4            | 1.73              | 0.01          | Not required     |
|         | 5GHz WLAN   |          | 0.758      | 5        | -37.4                  | 72.8  | -1.3  |                  |                   |               |                  |



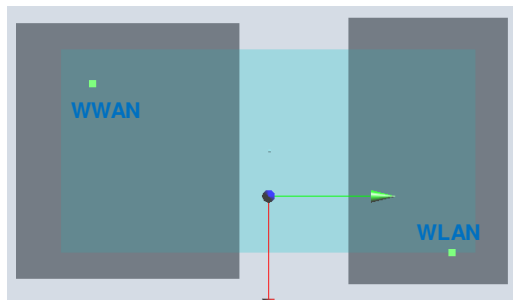
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 54 | CDMA BC1    | Back     | 1.072      | 5        | -11.9                  | -79.3 | -1.19 | 147.6            | 2.08              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | CDMA BC1    | Back     | 1.072      | 5        | -11.9                  | -79.3 | -1.19 | 153.8            | 2.09              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



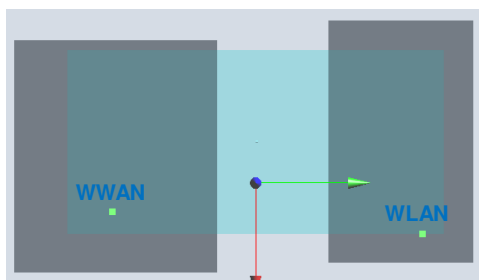
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
| Case 55 | CDMA BC10   | Back     | 0.966      | 5        | -10                    | -76  | -6.15 | 144.0            | 1.98              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2 | -1.62 |                  |                   |               |                  |
|         | CDMA BC10   | Back     | 0.966      | 5        | -10                    | -76  | -6.15 | 150.2            | 1.98              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8 | -0.87 |                  |                   |               |                  |



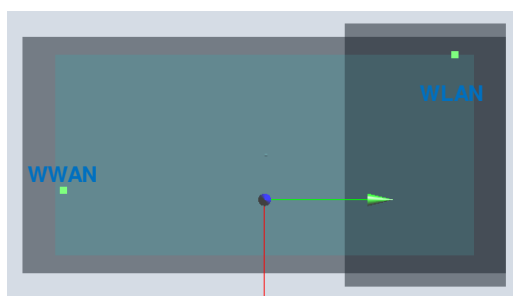
| Case    | Band            | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-----------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |                 |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 56 | LTE Band 7_Main | Back     | 1.095      | 5        | -28.2                  | -67.2 | -6.03 | 142.9            | 2.10              | 0.02          | Not required     |
|         | 2.4GHz WLAN     |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 7      | Back     | 1.095      | 5        | -28.2                  | -67.2 | -6.03 | 148.8            | 2.11              | 0.02          | Not required     |
|         | 5GHz WLAN       |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



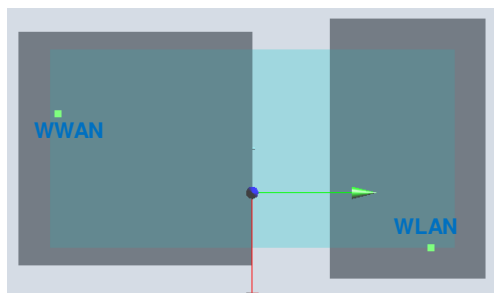
| Case    | Band           | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|----------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |                |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 57 | LTE Band 7_Aux | Back     | 0.864      | 5        | 26.8                   | -60.2 | 0.09  | 120.8            | 1.87              | 0.02          | Not required     |
|         | 2.4GHz WLAN    |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 7     | Back     | 0.864      | 5        | 26.8                   | -60.2 | 0.09  | 127.4            | 1.88              | 0.02          | Not required     |
|         | 5GHz WLAN      |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



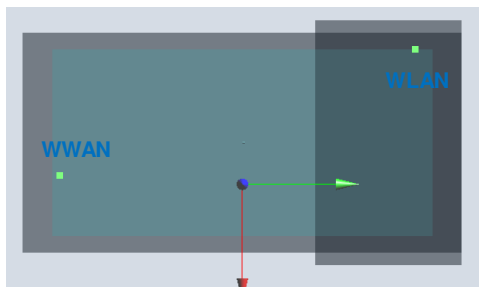
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
| Case 58 | LTE Band 12 | Front    | 0.882      | 5        | 12.5                   | -82  | -2.17 | 152.0            | 1.74              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2 | -1.84 |                  |                   |               |                  |
|         | LTE Band 12 | Front    | 0.882      | 5        | 12.5                   | -82  | -2.17 | 162.6            | 1.64              | 0.01          | Not required     |
|         | 5GHz WLAN   |          | 0.758      | 5        | -37.4                  | 72.8 | -1.3  |                  |                   |               |                  |



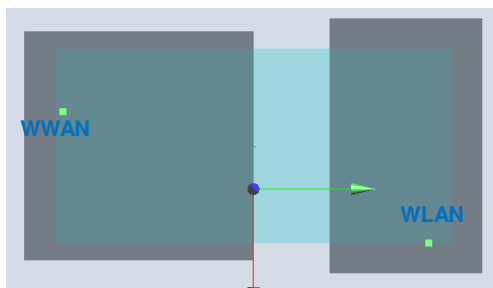
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 59 | LTE Band 12 | Back     | 1.155      | 5        | -12.9                  | -80.4 | -2.25 | 149.0            | 2.16              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 12 | Back     | 1.155      | 5        | -12.9                  | -80.4 | -2.25 | 155.2            | 2.17              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



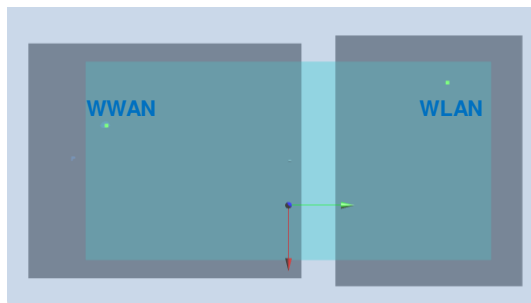
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
| Case 60 | LTE Band 13 | Front    | 0.986      | 5        | 12.5                   | -82  | -2.17 | 152.0            | 1.85              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2 | -1.84 |                  |                   |               |                  |
|         | LTE Band 13 | Front    | 0.986      | 5        | 12.5                   | -82  | -2.17 | 162.6            | 1.74              | 0.01          | Not required     |
|         | 5GHz WLAN   |          | 0.758      | 5        | -37.4                  | 72.8 | -1.3  |                  |                   |               |                  |



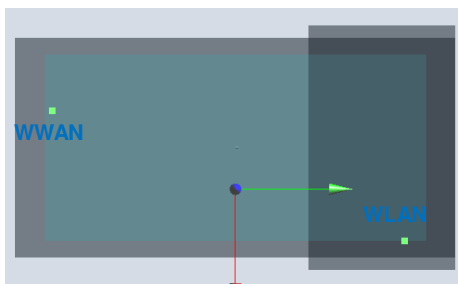
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 61 | LTE Band 13 | Back     | 1.136      | 5        | -12.9                  | -80.4 | -2.19 | 149.0            | 2.15              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 13 | Back     | 1.136      | 5        | -12.9                  | -80.4 | -2.19 | 155.2            | 2.15              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



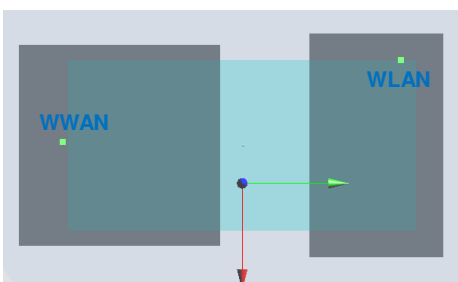
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 62 | LTE Band 14 | Front    | 0.774      | 5        | 10.9                   | -80.5 | -2.16 | 150.1            | 1.64              | 0.01          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |



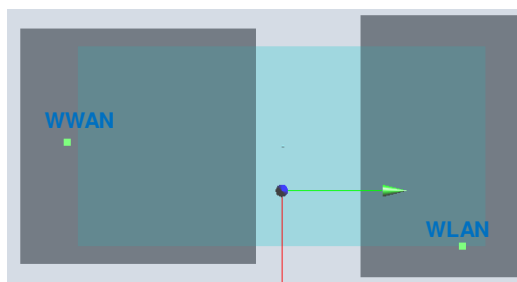
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
| Case 63 | LTE Band 14 | Back     | 1.069      | 5        | -9.6                   | -82  | -2.22 | 149.5            | 2.08              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2 | -1.62 |                  |                   |               |                  |
|         | LTE Band 14 | Back     | 1.069      | 5        | -9.6                   | -82  | -2.22 | 155.7            | 2.08              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8 | -0.87 |                  |                   |               |                  |



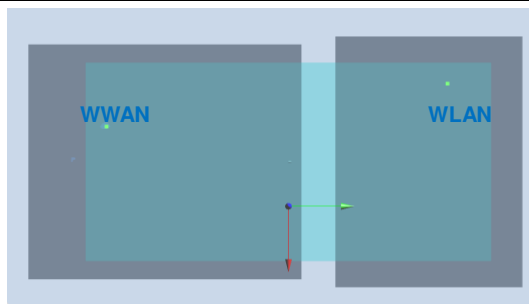
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 64 | LTE Band 25 | Front    | 1.081      | 5        | 2.3                    | -79.5 | -2.6  | 147.1            | 1.94              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |
|         | LTE Band 25 | Front    | 1.081      | 5        | 2.3                    | -79.5 | -2.6  | 157.4            | 1.84              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 0.758      | 5        | -37.4                  | 72.8  | -1.3  |                  |                   |               |                  |



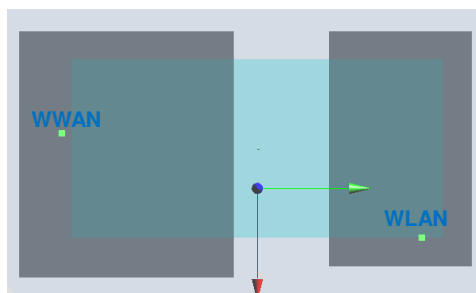
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 65 | LTE Band 25 | Back     | 0.74       | 5        | -8.9                   | -77.8 | -2.69 | 145.2            | 1.75              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 25 | Back     | 0.74       | 5        | -8.9                   | -77.8 | -2.69 | 151.5            | 1.76              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



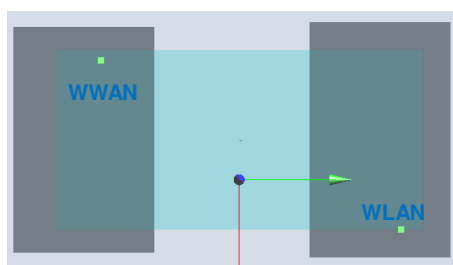
| Case 66 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | LTE Band 26 | Front    | 0.768      | 5        | 6                      | -79.5 | -1.29 | 147.9            | 1.63              | 0.01          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2  | -1.84 |                  |                   |               |                  |



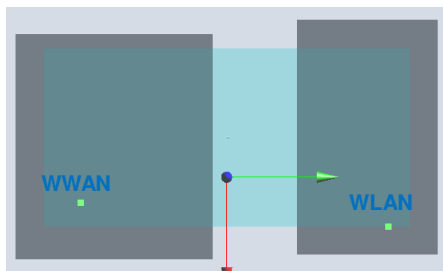
| Case 67 | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | LTE Band 26 | Back     | 0.993      | 5        | -13.9                  | -79.4 | -1.36 | 148.4            | 1.93              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 26 | Back     | 0.930      | 5        | -13.9                  | -79.4 | -1.36 | 154.5            | 1.93              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



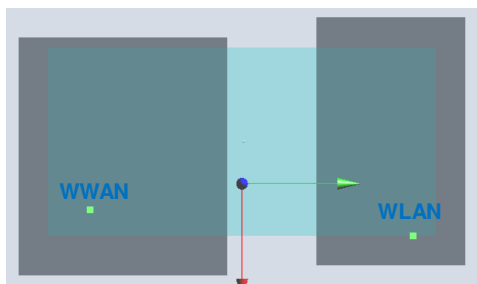
| Case 68 | Band             | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|------------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |                  |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
|         | LTE Band 30_Main | Back     | 1.067      | 5        | -35.6                  | -62.8 | -1.14 | 142.5            | 2.08              | 0.02          | Not required     |
|         | 2.4GHz WLAN      |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 30      | Back     | 1.067      | 5        | -35.6                  | -62.8 | -1.14 | 148.2            | 2.08              | 0.02          | Not required     |
|         | 5GHz WLAN        |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



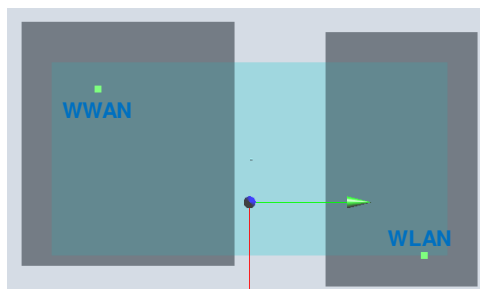
| Case    | Band            | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-----------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |                 |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 69 | LTE Band 30_Aux | Back     | 0.976      | 5        | 29                     | -64.4 | -0.46 | 124.8            | 1.99              | 0.02          | Not required     |
|         | 2.4GHz WLAN     |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 30     | Back     | 0.976      | 5        | 29                     | -64.4 | -0.46 | 131.4            | 1.99              | 0.02          | Not required     |
|         | 5GHz WLAN       |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



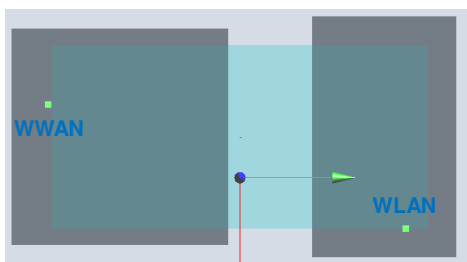
| Case    | Band             | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|------------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |                  |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 70 | LTE Band 41_Main | Back     | 1.117      | 5        | -31.6                  | -58   | -0.75 | 136.4            | 2.13              | 0.02          | Not required     |
|         | 2.4GHz WLAN      |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 41      | Back     | 1.117      | 5        | 26.6                   | -60.2 | 0.09  | 127.4            | 2.13              | 0.02          | Not required     |
|         | 5GHz WLAN        |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



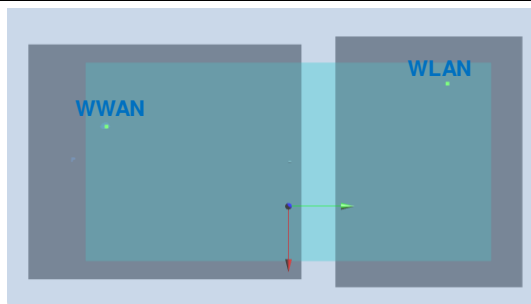
| Case    | Band            | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-----------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |                 |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 71 | LTE Band 41_Aux | Back     | 0          | 5        | 26.6                   | -60.2 | 0.09  | 120.8            | 1.89              | 0.02          | 120.8            |
|         | 2.4GHz WLAN     |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 41     | Back     | 0.882      | 5        | -31.6                  | -58   | -0.75 | 142.0            | 1.90              | 0.02          | Not required     |
|         | 5GHz WLAN       |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



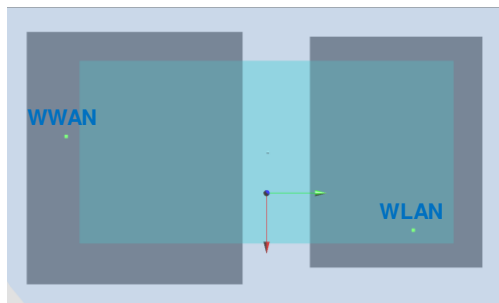
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 72 | LTE Band 66 | Back     | 0.66       | 5        | 1.5                    | -80.6 | -1.2  | 145.1            | 1.67              | 0.01          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 66 | Back     | 0.66       | 5        | 1.5                    | -80.6 | -1.2  | 151.4            | 1.68              | 0.01          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



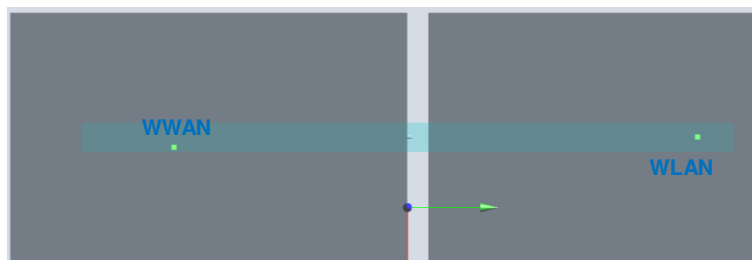
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |      |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y    | Z     |                  |                   |               |                  |
| Case 73 | LTE Band 71 | Front    | 0.779      | 5        | 12.5                   | -82  | -2.17 | 152.0            | 1.64              | 0.01          | Not required     |
|         | 2.4GHz WLAN |          | 0.862      | 5        | -29                    | 64.2 | -1.84 |                  |                   |               |                  |



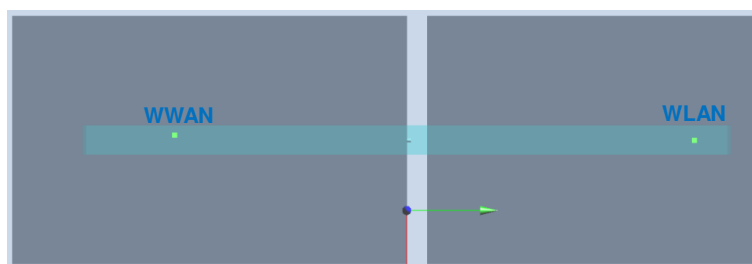
| Case    | Band        | Position | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|---------|-------------|----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|         |             |          |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| Case 74 | LTE Band 71 | Back     | 0.865      | 5        | -14.5                  | -77.3 | -2.27 | 146.6            | 1.87              | 0.02          | Not required     |
|         | 2.4GHz WLAN |          | 1.009      | 5        | 36.4                   | 60.2  | -1.62 |                  |                   |               |                  |
|         | LTE Band 71 | Back     | 0.865      | 5        | -14.5                  | -77.3 | -2.27 | 152.8            | 1.88              | 0.02          | Not required     |
|         | 5GHz WLAN   |          | 1.015      | 5        | 36.2                   | 66.8  | -0.87 |                  |                   |               |                  |



| Case | Band           | Position  | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|------|----------------|-----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|      |                |           |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| 75   | LTE Band 7_Aux | Left Side | 2.722      | 0        | 1.4                    | -60.4 | 0.61  | 120.8            | 4.20              | 0.07          | Not required     |
|      | 2.4GHz WLAN    |           | 1.479      | 0        | 0                      | 60.4  | -1.62 |                  |                   |               |                  |
|      | LTE Band 7_Aux | Left Side | 2.722      | 0        | 1.4                    | -60.4 | 0.61  | 129.0            | 5.59              | 0.10          | Not required     |
|      | 5GHz WLAN      |           | 2.865      | 0        | 0.6                    | 68.6  | -0.83 |                  |                   |               |                  |



| Case | Band            | Position  | SAR (W/kg) | Gap (mm) | SAR peak location (mm) |       |       | 3D distance (mm) | Summed SAR (W/kg) | SPLSR Results | Simultaneous SAR |
|------|-----------------|-----------|------------|----------|------------------------|-------|-------|------------------|-------------------|---------------|------------------|
|      |                 |           |            |          | X                      | Y     | Z     |                  |                   |               |                  |
| 76   | LTE Band 41_Aux | Left Side | 2.728      | 0        | -1.2                   | -60.4 | -0.54 | 120.8            | 4.21              | 0.07          | Not required     |
|      | 2.4GHz WLAN     |           | 1.479      | 0        | 0                      | 60.4  | -1.62 |                  |                   |               |                  |
|      | LTE Band 41_Aux | Left Side | 2.728      | 0        | -1.2                   | -60.4 | -0.54 | 129.0            | 5.59              | 0.10          | Not required     |
|      | 5GHz WLAN       |           | 2.865      | 0        | 0.6                    | 68.6  | -0.83 |                  |                   |               |                  |





## 16. Supplemental tuner tests results

### General Note:

1. The following test procedure was followed to demonstrate that the SAR results in this report represent the appropriate SAR test conditions. For bands with dynamic tuning implemented, SAR will be measured according to the required FCC SAR test procedures with the dynamic tuner active to allow the device to automatically tune to the antenna state for the respective RF exposure test configurations. Additional single point SAR time-sweep measurements will be evaluated for other tuner states to determine that the other tuner configurations would result in equivalent or lower SAR values. The additional tuner hardware has no influence to the antenna characteristics, other than impedance matching.
2. To evaluate all of the tuner states, the 144 tuner states are divided evenly among band, mode and exposure combinations so that at least one single point SAR measurement is measured in each configuration. Single point time-sweep measurements will be performed at the peak SAR location determined by the zoom scan of the configuration with the highest reported SAR for each combination. The tuner state will be established remotely so that the device is not moved for the entire series of single point SAR for the tuner states in each combination. The SAR probe will remain stationary at the same position throughout the entire series of single point measurements for each combination. The bands which are dynamically tuned are split into two separate antennas, so each antenna system will have its own test plan to cover the corresponding 144 tuner states.
3. The operational decryption contains more information about the design and implementation of the dynamic antenna tuning.

### 16.1 Supplemental Head SAR results

| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                           |       |       |       |       |       |       |       |       |
|-----------|------------------------|--------------------|---------|------------|--------------|------------------|---------|------------------------------|------------------------------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State<br>116)        | Default<br>(State<br>14)  | 0     | 19    | 38    | 57    | 76    | 95    | 114   | 133   |
| GSM850    | GPRS (2 Tx slots)      | 824.2              | 128     | N/A        | N/A          | Left Cheek       | 0 mm    | 0.123                        | 0.147                              | 0.1                       | 0.015 | 0.018 | 0.011 | 0.021 | 0.031 | 0.028 | 0.033 | 0.037 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                           |       |       |       |       |       |       |       |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 2)             | Default<br>(State<br>14)  | 1     | 20    | 39    | 58    | 77    | 96    | 115   | 134   |
| GSM1900   | GPRS (3 Tx slots)      | 1909.8             | 810     | N/A        | N/A          | Right Cheek      | 0 mm    | 0.091                        | 0.128                              |                           | 0.122 | 0.111 | 0.109 | 0.082 | 0.103 | 0.081 | 0.071 | 0.058 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                           |       |       |       |       |       |       |       |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 2)             | Default<br>(State<br>123) | 2     | 21    | 40    | 59    | 78    | 97    | 116   | 135   |
| WCDMA B2  | RMC12.2K               | 1907.6             | 9538    | N/A        | N/A          | Right Cheek      | 0 mm    | 0.233                        | 0.341                              |                           | 0.339 | 0.195 | 0.239 | 0.139 | 0.231 | 0.124 | 0.169 | 0.085 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                           |       |       |       |       |       |       |       |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 27)            | Default<br>(State<br>81)  | 3     | 22    | 41    | 60    | 79    | 98    | 117   | 136   |
| WCDMA B4  | RMC12.2K               | 1712.4             | 1312    | N/A        | N/A          | Right Cheek      | 0 mm    | 0.251                        | 0.312                              |                           | 0.219 | 0.279 | 0.275 | 0.294 | 0.299 | 0.303 | 0.297 | 0.281 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                           |       |       |       |       |       |       |       |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State<br>119)        | Default<br>(State<br>33)  | 4     | 23    | 42    | 61    | 80    | 99    | 118   | 137   |
| WCDMA B5  | RMC12.2K               | 826.4              | 4132    | N/A        | N/A          | Left Cheek       | 0 mm    | 0.298                        | 0.342                              |                           | 0.026 | 0.033 | 0.023 | 0.045 | 0.151 | 0.279 | 0.322 | 0.319 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                           |       |       |       |       |       |       |       |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State<br>116)        | Default<br>(State<br>81)  | 5     | 24    | 43    | 62    | 81    | 100   | 119   | 138   |
| CDMA BC0  | 1xRTT RC3 SO55         | 824.7              | 1013    | N/A        | N/A          | Right Cheek      | 0 mm    | 0.229                        | 0.253                              |                           | 0.017 | 0.023 | 0.037 | 0.046 | 0.222 | 0.201 | 0.223 | 0.126 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                           |       |       |       |       |       |       |       |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 1)             | Default<br>(State<br>14)  | 6     | 25    | 44    | 63    | 82    | 101   | 120   | 139   |
| CDMA BC1  | 1xRTT RC3 SO55         | 1908.75            | 1175    | N/A        | N/A          | Right Cheek      | 0 mm    | 0.248                        | 0.238                              | 0.15                      | 0.235 | 0.23  | 0.228 | 0.209 | 0.226 | 0.214 | 0.207 | 0.221 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                           |       |       |       |       |       |       |       |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State<br>118)        | Default<br>(State<br>14)  | 7     | 26    | 45    | 64    | 83    | 102   | 121   | 140   |
| CDMA BC10 | 1xRTT RC3 SO55         | 820.5              | 580     | N/A        | N/A          | Left Cheek       | 0 mm    | 0.276                        | 0.311                              | 0.03                      | 0.158 | 0.176 | 0.301 | 0.295 | 0.303 | 0.196 | 0.209 | 0.182 |

| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                       |       |        |       |       |       |       |       |       |
|---------|------------------------|--------------------|---------|------------|--------------|------------------|---------|------------------------------|------------------------------------|-----------------------|-------|--------|-------|-------|-------|-------|-------|-------|
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 38)            | Default<br>(State 33) | 8     | 27     | 46    | 65    | 84    | 103   | 122   | 141   |
| LTE B2  | QPSK                   | 1860               | 18700   | 1          | 0            | Right Cheek      | 0 mm    | 0.195                        | 0.269                              |                       | 0.224 | 0.177  | 0.168 | 0.137 | 0.167 | 0.141 | 0.131 | 0.113 |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                       |       |        |       |       |       |       |       |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 79)            | Default<br>(State 81) | 9     | 28     | 47    | 66    | 85    | 104   | 123   | 142   |
| LTE B4  | QPSK                   | 1732.5             | 20175   | 1          | 0            | Right Cheek      | 0 mm    | 0.182                        | 0.251                              |                       | 0.246 | 0.249  | 0.244 | 0.223 | 0.225 | 0.229 | 0.205 | 0.218 |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                       |       |        |       |       |       |       |       |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 117)           | Default<br>(State 14) | 10    | 29     | 48    | 67    | 86    | 105   | 124   | 143   |
| LTE B5  | QPSK                   | 836.5              | 20525   | 1          | 0            | Left Cheek       | 0 mm    | 0.28                         | 0.324                              |                       | 0.224 | 0.184  | 0.155 | 0.135 | 0.144 | 0.121 | 0.116 | 0.069 |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                       |       |        |       |       |       |       |       |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 34)            | Default<br>(State 14) | 11    | 30     | 49    | 68    | 87    | 106   | 125   |       |
| LTE B12 | QPSK                   | 707.5              | 23095   | 1          | 49           | Left Cheek       | 0 mm    | 0.239                        | 0.246                              |                       | 0.122 | 0.185  | 0.123 | 0.144 | 0.197 | 0.226 | 0.051 |       |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                       |       |        |       |       |       |       |       |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 47)            | Default<br>(State 33) | 12    | 31     | 50    | 69    | 88    | 107   | 126   |       |
| LTE B13 | QPSK                   | 782                | 23230   | 1          | 0            | Left Cheek       | 0 mm    | 0.178                        | 0.153                              |                       | 0.107 | 0.099  | 0.118 | 0.095 | 0.086 | 0.009 | 0.001 |       |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                       |       |        |       |       |       |       |       |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State x)             | Default<br>(State 81) | 13    | 32     | 51    | 70    | 89    | 108   | 127   |       |
| LTE B14 | QPSK                   | 793                | 23330   | 1          | 0            | Left Cheek       | 0 mm    | 0.268                        | 0.259                              |                       | 0.135 | 0.116  | 0.122 | 0.012 | 0.043 | 0     | 0     |       |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                       |       |        |       |       |       |       |       |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 34)            | Default<br>(State 14) | 14    | 33     | 52    | 71    | 90    | 109   | 128   |       |
| LTE B17 | QPSK                   | 710                | 23790   | 1          | 0            | Left Cheek       | 0 mm    | 0.25                         | 0.258                              | 0.01                  | 0.195 | 0.242  | 0.183 | 0.031 | 0.001 | 0.001 | 0.002 |       |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                       |       |        |       |       |       |       |       |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State x)             | Default<br>(State 14) | 15    | 34     | 53    | 72    | 91    | 110   | 129   |       |
| LTE B25 | QPSK                   | 1860               | 26140   | 1          | 0            | Right Cheek      | 0 mm    | 0.245                        | 0.324                              |                       | 0.221 | 0.209  | 0.189 | 0.168 | 0.225 | 0.321 | 0.28  |       |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                       |       |        |       |       |       |       |       |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 117)           | Default<br>(State 33) | 16    | 35     | 54    | 73    | 92    | 111   | 130   |       |
| LTE B26 | QPSK                   | 831.5              | 26865   | 1          | 0            | Left Cheek       | 0 mm    | 0.269                        | 0.287                              |                       | 0.08  | 0.001  | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |       |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                       |       |        |       |       |       |       |       |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State x)             | Default<br>(State 81) | 17    | 36     | 55    | 74    | 93    | 112   | 131   |       |
| LTE B66 | QPSK                   | 1720               | 132072  | 1          | 0            | Left Cheek       | 0 mm    | 0.11                         | 0.265                              |                       | 0.245 | 0.0656 | 0.118 | 0.184 | 0.245 | 0.247 | 0.251 |       |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |                       |       |        |       |       |       |       |       |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 16)            | Default<br>(State 14) | 18    | 37     | 56    | 75    | 94    | 113   | 132   |       |
| LTE B71 | QPSK                   | 683                | 133322  | 1          | 0            | Left Cheek       | 0 mm    | 0.167                        | 0.172                              |                       | 0.001 | 0.001  | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |       |



## 16.2 Supplemental Body SAR results

| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|-----------|------------------------|--------------------|---------|------------|--------------|------------------|---------|------------------------------|------------------------------------|-------|--------|-------|--------|-------|--------|--------|-------|
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 117)           | 0     | 19     | 38    | 57     | 76    | 95     | 114    | 133   |
| GSM850    | GPRS 2TX               | 824.2              | 128     | N/A        | N/A          | Back             | 5mm     | 0.46                         | 0.802                              | 0.001 | 0.0028 | 0.004 | 0.0068 | 0.027 | 0.0324 | 0.0367 | 0.069 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 2)             | 1     | 20     | 39    | 58     | 77    | 96     | 115    | 134   |
| GSM1900   | GPRS (3 Tx slots)      | 1909.8             | 810     | N/A        | N/A          | Bottom Side      | 5mm     | 0.732                        | 1.33                               | 1.234 | 1.25   | 1.305 | 1.217  | 1.199 | 1.112  | 0.998  | 0.911 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 2)             | 2     | 21     | 40    | 59     | 78    | 97     | 116    | 135   |
| WCDMA B2  | RMC12.2K               | 1852.4             | 9262    | N/A        | N/A          | Bottom Side      | 5mm     | 0.786                        | 1.22                               | 1.18  | 1.159  | 1.005 | 0.884  | 0.981 | 0.795  | 0.774  | 0.582 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 7)             | 3     | 22     | 41    | 60     | 79    | 98     | 117    | 136   |
| WCDMA B4  | RMC12.2K               | 1752.6             | 1513    | N/A        | N/A          | Bottom Side      | 5mm     | 0.94                         | 1.53                               | 1.381 | 1.493  | 1.362 | 1.295  | 1.416 | 1.311  | 1.194  | 1.018 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 117)           | 4     | 23     | 42    | 61     | 80    | 99     | 118    | 137   |
| WCDMA B5  | RMC12.2K               | 846.6              | 4233    | N/A        | N/A          | Back             | 5mm     | 0.658                        | 1.093                              | 0.161 | 0.177  | 0.213 | 0.376  | 0.947 | 0.909  | 0.972  | 0.851 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 44)            | 5     | 24     | 43    | 62     | 81    | 100    | 119    | 138   |
| CDMA BC0  | RTAP 155.6K            | 848.31             | 777     | N/A        | N/A          | Back             | 5mm     | 0.831                        | 1.23                               | 0.394 | 0.389  | 0.947 | 0.812  | 0.926 | 0.744  | 0.706  | 0.341 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 126)           | 6     | 25     | 44    | 63     | 82    | 101    | 120    | 139   |
| CDMA BC1  | RTAP 155.6K            | 1908.75            | 1175    | N/A        | N/A          | Bottom Side      | 5mm     | 0.82                         | 1.314                              | 1.251 | 1.171  | 1.159 | 0.882  | 1.165 | 0.938  | 0.903  | 0.689 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 118)           | 7     | 26     | 45    | 64     | 83    | 102    | 121    | 140   |
| CDMA BC10 | RTAP 155.6K            | 820.5              | 580     | N/A        | N/A          | Back             | 5mm     | 0.793                        | 1.305                              | 0.907 | 0.835  | 1.3   | 1.113  | 1.004 | 0.51   | 0.507  | 0.412 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 19)            | 8     | 27     | 46    | 65     | 84    | 103    | 122    | 141   |
| LTE B2    | QPSK                   | 1860               | 18700   | 1          | 0            | Bottom Side      | 5mm     | 0.94                         | 1.447                              | 1.395 | 1.128  | 1.104 | 0.903  | 1.133 | 0.918  | 0.899  | 0.729 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 90)            | 9     | 28     | 47    | 66     | 85    | 104    | 123    | 142   |
| LTE B4    | QPSK                   | 1732.5             | 20175   | 100        | 0            | Bottom Side      | 5mm     | 0.565                        | 1.13                               | 0.96  | 0.88   | 1     | 0.985  | 1.02  | 1.06   | 1.023  | 0.905 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State x)             | 10    | 29     | 48    | 67     | 86    | 105    | 124    | 143   |
| LTE B5    | QPSK                   | 836.5              | 20525   | 1          | 0            | Back             | 5mm     | 0.685                        | 1.006                              | 0.754 | 0.605  | 0.461 | 0.387  | 0.409 | 0.319  | 0.299  | 0.056 |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 33)            | 11    | 30     | 49    | 68     | 87    | 106    | 125    |       |
| LTE B12   | QPSK                   | 707.5              | 23095   | 1          | 49           | Back             | 5mm     | 0.872                        | 1.438                              | 0.769 | 1.216  | 0.798 | 0.975  | 1.31  | 1.428  | 0.097  |       |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 47)            | 12    | 31     | 50    | 69     | 88    | 107    | 126    |       |
| LTE B13   | QPSK                   | 782                | 23230   | 1          | 0            | Back             | 5mm     | 0.846                        | 1.415                              | 0.918 | 0.821  | 0.926 | 0.736  | 0.71  | 0.105  | 0.0002 |       |
| Mode      | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |        |       |        |        |       |
|           |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 47)            | 13    | 32     | 51    | 70     | 89    | 108    | 127    |       |
| LTE B14   | QPSK                   | 793                | 23330   | 1          | 0            | Back             | 5mm     | 0.7                          | 1.213                              | 0.627 | 0.535  | 0.539 | 0.433  | 0.096 | 0.0006 | 0.001  |       |

| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |       |        |        |       |
|---------|------------------------|--------------------|---------|------------|--------------|------------------|---------|------------------------------|------------------------------------|-------|--------|-------|-------|--------|--------|-------|
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 33)            | 14    | 33     | 52    | 71    | 90     | 109    | 128   |
| LTE B17 | QPSK                   | 710                | 23790   | 1          | 0            | Back             | 5mm     | 0.728                        | 1.313                              | 1.133 | 1.302  | 1.119 | 0.117 | 0.0007 | 0.0002 | 0.002 |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |       |        |        |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 18)            | 15    | 34     | 53    | 72    | 91     | 110    | 129   |
| LTE B25 | QPSK                   | 1905               | 26590   | 50         | 0            | Bottom Side      | 5mm     | 0.934                        | 1.32                               | 1.18  | 1.072  | 1.03  | 1.31  | 1.318  | 1.314  | 1.281 |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |       |        |        |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 45)            | 16    | 35     | 54    | 73    | 92     | 111    | 130   |
| LTE B26 | QPSK                   | 831.5              | 26865   | 36         | 0            | Back             | 5mm     | 0.646                        | 1.041                              | 0.375 | 0.101  | 0.001 | 0.005 | 0.009  | 0.014  | 0.019 |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |       |        |        |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 90)            | 17    | 36     | 55    | 74    | 93     | 112    | 131   |
| LTE B66 | QPSK                   | 1770               | 132572  | 100        | 0            | Bottom Side      | 5mm     | 0.819                        | 1.26                               | 1.22  | 1.045  | 1.14  | 1.16  | 1.06   | 1.01   | 1.182 |
| Mode    | Service/<br>Modulation | Frequency<br>(MHz) | Channel | RB<br>Size | RB<br>Offset | Test<br>Position | Spacing | Measured<br>1g SAR<br>(W/kg) | Average Value of Time Sweep (W/kg) |       |        |       |       |        |        |       |
|         |                        |                    |         |            |              |                  |         |                              | Auto-Tune<br>(State 34)            | 18    | 37     | 56    | 75    | 94     | 113    | 132   |
| LTE B71 | QPSK                   | 683                | 133322  | 1          | 0            | Back             | 5mm     | 0.716                        | 1.152                              | 0.002 | 0.0003 | 0.004 | 0.006 | 0.016  | 0.007  | 0.016 |

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## **17. Uncertainty Assessment**

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be  $\leq 30\%$ , for a confidence interval of  $k = 2$ . If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

## **18. References**

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [6] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [7] FCC KDB 648474 D04 v01r03, "SAR Evaluation Considerations for Wireless Handsets", Oct 2015.
- [8] FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [9] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [10] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [11] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [12] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [13] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.