



REPORT No. : SZ21060072S01

## Annex E Conducted Power

| Band            |                        | WCDMA Band II |       |        | Tune-up<br>Limit<br>(dBm) | WCDMA Band IV |        |        | Tune-up<br>Limit<br>(dBm) | WCDMA Band V |       |       | Tune-up<br>Limit<br>(dBm) |
|-----------------|------------------------|---------------|-------|--------|---------------------------|---------------|--------|--------|---------------------------|--------------|-------|-------|---------------------------|
| TX Channel      |                        | 9262          | 9400  | 9538   |                           | 1312          | 1413   | 1513   |                           | 4132         | 4182  | 4233  |                           |
| Rx Channel      |                        | 9662          | 9800  | 9938   |                           | 1537          | 1638   | 1738   |                           | 4357         | 4407  | 4458  |                           |
| Frequency (MHz) |                        | 1852.4        | 1880  | 1907.6 |                           | 1712.4        | 1732.6 | 1752.6 |                           | 826.4        | 836.4 | 846.6 |                           |
| 3GPP Rel 99     | RMC 12.2Kbps           | 22.45         | 22.36 | 22.38  | 23.00                     | 22.46         | 22.52  | 22.61  | 23.00                     | 22.34        | 22.25 | 22.21 | 23.00                     |
| 3GPP Rel 6      | HSDPA Subtest-1        | 20.47         | 20.65 | 20.67  | 21.50                     | 20.64         | 20.86  | 20.78  | 21.50                     | 20.13        | 19.94 | 20.06 | 21.00                     |
| 3GPP Rel 6      | HSDPA Subtest-2        | 20.50         | 20.60 | 20.70  | 21.50                     | 20.67         | 20.79  | 20.72  | 21.50                     | 20.05        | 19.88 | 20.11 | 21.00                     |
| 3GPP Rel 6      | HSDPA Subtest-3        | 20.11         | 20.25 | 20.23  | 21.50                     | 20.18         | 20.30  | 20.33  | 21.50                     | 19.63        | 19.63 | 19.54 | 21.00                     |
| 3GPP Rel 6      | HSDPA Subtest-4        | 20.01         | 20.15 | 20.13  | 21.50                     | 20.18         | 20.41  | 20.26  | 21.50                     | 19.61        | 19.43 | 19.53 | 21.00                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-1     | 20.63         | 20.69 | 20.70  | 21.50                     | 20.74         | 20.87  | 20.88  | 21.50                     | 20.16        | 20.10 | 20.13 | 21.00                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-2     | 20.65         | 20.66 | 20.72  | 21.50                     | 20.67         | 20.89  | 20.87  | 21.50                     | 20.18        | 20.11 | 20.14 | 21.00                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-3     | 20.10         | 20.17 | 20.20  | 21.50                     | 20.17         | 20.42  | 20.35  | 21.50                     | 19.66        | 19.60 | 19.68 | 21.00                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-4     | 20.11         | 20.15 | 20.18  | 21.50                     | 20.16         | 20.36  | 20.38  | 21.50                     | 19.66        | 19.58 | 19.67 | 21.00                     |
| 3GPP Rel 6      | HSUPA Subtest-1        | 20.46         | 20.58 | 20.58  | 21.50                     | 20.66         | 20.80  | 20.77  | 21.50                     | 20.05        | 20.18 | 19.98 | 21.00                     |
| 3GPP Rel 6      | HSUPA Subtest-2        | 20.02         | 20.10 | 20.19  | 21.50                     | 20.14         | 20.35  | 20.32  | 21.50                     | 19.61        | 19.57 | 19.50 | 21.00                     |
| 3GPP Rel 6      | HSUPA Subtest-3        | 20.57         | 20.59 | 20.58  | 21.50                     | 20.68         | 20.72  | 20.76  | 21.50                     | 20.07        | 20.03 | 19.98 | 21.00                     |
| 3GPP Rel 6      | HSUPA Subtest-4        | 20.45         | 20.56 | 20.61  | 21.50                     | 20.62         | 20.76  | 20.79  | 21.50                     | 20.06        | 19.93 | 20.00 | 21.00                     |
| 3GPP Rel 6      | HSUPA Subtest-5        | 20.56         | 20.68 | 20.57  | 21.50                     | 20.74         | 20.71  | 20.74  | 21.50                     | 20.09        | 19.99 | 20.09 | 21.00                     |
| 3GPP Rel 7      | HSPA+ (16QAM) Subtest- | 20.51         | 20.62 | 20.61  | 21.50                     | 20.62         | 20.85  | 20.69  | 21.50                     | 20.14        | 20.04 | 20.06 | 21.00                     |

| LTE Band 2      |            |         |           |             |                |              |                     |
|-----------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel         |            |         |           | 18700       | 18900          | 19100        |                     |
| Frequency (MHz) |            |         |           | 1860        | 1880           | 1900         |                     |
| 20              | QPSK       | 1       | 0         | 22.29       | 22.38          | 22.34        | 23                  |
| 20              | QPSK       | 1       | 49        | 22.23       | 22.24          | 22.21        |                     |
| 20              | QPSK       | 1       | 99        | 22.19       | 22.37          | 22.31        |                     |
| 20              | QPSK       | 50      | 0         | 21.58       | 21.63          | 21.55        |                     |
| 20              | QPSK       | 50      | 24        | 21.38       | 21.34          | 21.38        | 22                  |
| 20              | QPSK       | 50      | 50        | 21.37       | 21.39          | 21.34        |                     |
| 20              | QPSK       | 100     | 0         | 21.42       | 21.39          | 21.25        |                     |
| 20              | 16QAM      | 1       | 0         | 21.63       | 21.24          | 21.63        |                     |
| 20              | 16QAM      | 1       | 49        | 21.10       | 21.44          | 21.39        | 22                  |
| 20              | 16QAM      | 1       | 99        | 21.13       | 21.51          | 20.70        |                     |
| 20              | 16QAM      | 50      | 0         | 21.14       | 21.26          | 21.19        |                     |
| 20              | 16QAM      | 50      | 24        | 21.34       | 21.21          | 21.23        |                     |
| 20              | 16QAM      | 50      | 50        | 21.35       | 21.23          | 21.29        | 22                  |
| 20              | 16QAM      | 100     | 0         | 21.30       | 21.23          | 21.10        |                     |
| 20              | 64QAM      | 1       | 0         | 20.40       | 20.15          | 20.48        |                     |
| 20              | 64QAM      | 1       | 49        | 20.16       | 20.21          | 20.30        |                     |
| 20              | 64QAM      | 1       | 99        | 20.20       | 20.54          | 20.60        | 21                  |
| 20              | 64QAM      | 50      | 0         | 20.20       | 20.27          | 20.21        |                     |
| 20              | 64QAM      | 50      | 24        | 20.30       | 20.16          | 20.31        |                     |
| 20              | 64QAM      | 50      | 50        | 20.31       | 20.36          | 20.29        |                     |
| 20              | 64QAM      | 100     | 0         | 20.37       | 20.28          | 20.23        |                     |
| Channel         |            |         |           | 18675       | 18900          | 19125        |                     |
| Frequency (MHz) |            |         |           | 1857.5      | 1880           | 1902.5       |                     |
| 15              | QPSK       | 1       | 0         | 22.12       | 22.14          | 22.13        | 23                  |
| 15              | QPSK       | 1       | 37        | 22.14       | 22.14          | 22.14        |                     |
| 15              | QPSK       | 1       | 74        | 22.08       | 22.13          | 22.14        |                     |
| 15              | QPSK       | 36      | 0         | 21.24       | 21.23          | 21.16        |                     |
| 15              | QPSK       | 36      | 20        | 21.28       | 21.22          | 21.28        | 22                  |
| 15              | QPSK       | 36      | 39        | 21.24       | 21.34          | 21.19        |                     |
| 15              | QPSK       | 75      | 0         | 21.31       | 21.13          | 21.22        |                     |
| 15              | 16QAM      | 1       | 0         | 21.39       | 21.59          | 21.73        |                     |
| 15              | 16QAM      | 1       | 37        | 21.52       | 21.44          | 21.27        | 22                  |
| 15              | 16QAM      | 1       | 74        | 21.33       | 21.64          | 21.59        |                     |
| 15              | 16QAM      | 36      | 0         | 21.30       | 21.28          | 21.19        |                     |
| 15              | 16QAM      | 36      | 20        | 21.40       | 21.30          | 21.33        |                     |
| 15              | 16QAM      | 36      | 39        | 21.32       | 21.28          | 21.34        | 22                  |
| 15              | 16QAM      | 75      | 0         | 21.16       | 21.28          | 21.28        |                     |
| 15              | 64QAM      | 1       | 0         | 20.27       | 20.47          | 20.34        |                     |
| 15              | 64QAM      | 1       | 37        | 20.46       | 20.31          | 20.31        |                     |
| 15              | 64QAM      | 1       | 74        | 20.46       | 20.39          | 20.40        | 21                  |
| 15              | 64QAM      | 36      | 0         | 20.24       | 20.29          | 20.20        |                     |
| 15              | 64QAM      | 36      | 20        | 20.32       | 20.28          | 20.35        |                     |
| 15              | 64QAM      | 36      | 39        | 20.39       | 20.22          | 20.33        |                     |
| 15              | 64QAM      | 75      | 0         | 20.23       | 20.27          | 20.31        |                     |
| Channel         |            |         |           | 18650       | 18900          | 19150        |                     |
| Frequency (MHz) |            |         |           | 1855        | 1880           | 1905         |                     |
| 10              | QPSK       | 1       | 0         | 21.98       | 21.99          | 21.99        | 23                  |
| 10              | QPSK       | 1       | 25        | 22.03       | 22.08          | 22.07        |                     |
| 10              | QPSK       | 1       | 49        | 21.91       | 22.06          | 22.15        |                     |
| 10              | QPSK       | 25      | 0         | 21.20       | 21.07          | 20.98        |                     |
| 10              | QPSK       | 25      | 12        | 21.21       | 21.19          | 21.13        | 22                  |
| 10              | QPSK       | 25      | 25        | 21.15       | 21.18          | 21.19        |                     |
| 10              | QPSK       | 50      | 0         | 21.19       | 21.18          | 21.03        |                     |
| 10              | 16QAM      | 1       | 0         | 21.37       | 21.13          | 21.44        |                     |
| 10              | 16QAM      | 1       | 25        | 21.46       | 21.63          | 21.48        | 22                  |
| 10              | 16QAM      | 1       | 49        | 21.63       | 21.31          | 21.40        |                     |
| 10              | 16QAM      | 25      | 0         | 21.43       | 21.36          | 21.28        |                     |
| 10              | 16QAM      | 25      | 12        | 21.35       | 21.41          | 21.42        |                     |
| 10              | 16QAM      | 25      | 25        | 21.38       | 21.42          | 21.39        | 22                  |
| 10              | 16QAM      | 50      | 0         | 21.38       | 21.45          | 21.39        |                     |
| 10              | 64QAM      | 1       | 0         | 20.05       | 20.31          | 20.66        |                     |
| 10              | 64QAM      | 1       | 25        | 20.17       | 20.54          | 20.29        |                     |
| 10              | 64QAM      | 1       | 49        | 20.45       | 20.43          | 20.65        | 21                  |
| 10              | 64QAM      | 25      | 0         | 20.39       | 20.11          | 20.23        |                     |
| 10              | 64QAM      | 25      | 12        | 20.24       | 20.27          | 20.18        |                     |
| 10              | 64QAM      | 25      | 25        | 20.37       | 20.23          | 20.28        |                     |
| 10              | 64QAM      | 50      | 0         | 20.33       | 20.19          | 20.25        |                     |
| Channel         |            |         |           | 18625       | 18900          | 19175        |                     |
| Frequency (MHz) |            |         |           | 1852.5      | 1880           | 1907.5       |                     |
| 5               | QPSK       | 1       | 0         | 21.98       | 22.15          | 22.04        | 23                  |
| 5               | QPSK       | 1       | 12        | 21.99       | 22.15          | 22.03        |                     |
| 5               | QPSK       | 1       | 24        | 22.14       | 22.03          | 22.03        |                     |
| 5               | QPSK       | 12      | 0         | 21.13       | 21.14          | 21.13        |                     |
| 5               | QPSK       | 12      | 7         | 21.33       | 21.37          | 21.39        | 22                  |
| 5               | QPSK       | 12      | 13        | 21.34       | 21.36          | 21.30        |                     |
| 5               | QPSK       | 25      | 0         | 21.26       | 21.25          | 21.27        |                     |
| 5               | 16QAM      | 1       | 0         | 21.26       | 21.12          | 21.29        |                     |
| 5               | 16QAM      | 1       | 12        | 21.23       | 21.35          | 21.26        | 22                  |
| 5               | 16QAM      | 1       | 24        | 21.03       | 21.58          | 21.05        |                     |
| 5               | 16QAM      | 12      | 0         | 21.45       | 21.36          | 21.40        |                     |
| 5               | 16QAM      | 12      | 7         | 21.41       | 21.48          | 21.40        |                     |
| 5               | 16QAM      | 12      | 13        | 21.36       | 21.48          | 21.45        | 22                  |
| 5               | 16QAM      | 25      | 0         | 21.32       | 21.35          | 21.38        |                     |
| 5               | 64QAM      | 1       | 0         | 20.65       | 20.07          | 20.23        |                     |
| 5               | 64QAM      | 1       | 12        | 20.30       | 20.45          | 20.49        |                     |
| 5               | 64QAM      | 1       | 24        | 20.03       | 20.51          | 20.24        | 21                  |
| 5               | 64QAM      | 12      | 0         | 20.30       | 20.23          | 20.36        |                     |
| 5               | 64QAM      | 12      | 7         | 20.27       | 20.16          | 20.24        |                     |
| 5               | 64QAM      | 12      | 13        | 20.11       | 20.28          | 20.27        |                     |
| 5               | 64QAM      | 25      | 0         | 20.26       | 20.16          | 20.19        |                     |
| Channel         |            |         |           | 18615       | 18900          | 19185        |                     |
| Frequency (MHz) |            |         |           | 1851.5      | 1880           | 1908.5       |                     |
| 3               | QPSK       | 1       | 0         | 21.86       | 21.72          | 21.77        | 23                  |
| 3               | QPSK       | 1       | 8         | 21.82       | 21.92          | 21.85        |                     |
| 3               | QPSK       | 1       | 14        | 21.77       | 21.71          | 21.85        |                     |
| 3               | QPSK       | 8       | 0         | 21.25       | 21.21          | 21.21        |                     |
| 3               | QPSK       | 8       | 4         | 21.22       | 21.24          | 21.27        | 22                  |
| 3               | QPSK       | 8       | 7         | 21.19       | 21.22          | 21.20        |                     |
| 3               | QPSK       | 15      | 0         | 21.24       | 21.16          | 21.22        |                     |
| 3               | 16QAM      | 1       | 0         | 20.91       | 21.22          | 21.39        |                     |
| 3               | 16QAM      | 1       | 8         | 21.39       | 21.42          | 21.41        | 22                  |
| 3               | 16QAM      | 1       | 14        | 21.09       | 21.10          | 21.38        |                     |
| 3               | 16QAM      | 8       | 0         | 21.42       | 21.34          | 21.30        |                     |

| LTE Band 4      |            |         |           |             |                |              |                     |
|-----------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel         |            |         |           | 20050       | 20175          | 20300        |                     |
| Frequency (MHz) |            |         |           | 1720        | 1732.5         | 1745         |                     |
| 20              | QPSK       | 1       | 0         | 22.26       | 22.35          | 22.34        | 23                  |
| 20              | QPSK       | 1       | 49        | 21.97       | 22.31          | 22.32        |                     |
| 20              | QPSK       | 1       | 99        | 22.05       | 22.30          | 22.33        |                     |
| 20              | QPSK       | 50      | 0         | 21.26       | 21.34          | 21.32        |                     |
| 20              | QPSK       | 50      | 24        | 21.26       | 21.25          | 21.26        | 22                  |
| 20              | QPSK       | 50      | 50        | 21.15       | 21.31          | 21.27        |                     |
| 20              | QPSK       | 100     | 0         | 21.22       | 21.35          | 21.29        |                     |
| 20              | 16QAM      | 1       | 0         | 21.39       | 21.42          | 21.63        |                     |
| 20              | 16QAM      | 1       | 49        | 21.10       | 21.44          | 21.52        | 22                  |
| 20              | 16QAM      | 1       | 99        | 21.57       | 21.15          | 21.13        |                     |
| 20              | 16QAM      | 50      | 0         | 21.25       | 21.33          | 21.47        |                     |
| 20              | 16QAM      | 50      | 24        | 21.18       | 21.31          | 21.31        |                     |
| 20              | 16QAM      | 50      | 50        | 21.12       | 21.32          | 21.33        | 21                  |
| 20              | 16QAM      | 100     | 0         | 21.14       | 21.30          | 21.42        |                     |
| 20              | 64QAM      | 1       | 0         | 20.16       | 20.49          | 20.62        |                     |
| 20              | 64QAM      | 1       | 49        | 20.22       | 20.64          | 20.17        |                     |
| 20              | 64QAM      | 1       | 99        | 20.44       | 20.34          | 20.22        | 21                  |
| 20              | 64QAM      | 50      | 0         | 20.08       | 20.40          | 20.35        |                     |
| 20              | 64QAM      | 50      | 24        | 20.29       | 20.39          | 20.38        |                     |
| 20              | 64QAM      | 50      | 50        | 20.29       | 20.25          | 20.20        |                     |
| 20              | 64QAM      | 100     | 0         | 20.30       | 20.25          | 20.38        |                     |
| Channel         |            |         |           | 20025       | 20175          | 20325        |                     |
| Frequency (MHz) |            |         |           | 1717.5      | 1732.5         | 1747.5       |                     |
| 15              | QPSK       | 1       | 0         | 22.17       | 22.22          | 22.31        | 23                  |
| 15              | QPSK       | 1       | 37        | 22.02       | 22.22          | 22.31        |                     |
| 15              | QPSK       | 1       | 74        | 22.27       | 22.19          | 22.30        |                     |
| 15              | QPSK       | 36      | 0         | 21.19       | 21.44          | 21.42        |                     |
| 15              | QPSK       | 36      | 20        | 21.28       | 21.38          | 21.35        | 22                  |
| 15              | QPSK       | 36      | 39        | 21.27       | 21.44          | 21.43        |                     |
| 15              | QPSK       | 75      | 0         | 21.28       | 21.46          | 21.48        |                     |
| 15              | 16QAM      | 1       | 0         | 21.78       | 21.48          | 22.06        |                     |
| 15              | 16QAM      | 1       | 37        | 21.28       | 21.40          | 21.99        | 22                  |
| 15              | 16QAM      | 1       | 74        | 21.61       | 21.40          | 21.60        |                     |
| 15              | 16QAM      | 36      | 0         | 21.17       | 21.31          | 21.14        |                     |
| 15              | 16QAM      | 36      | 20        | 21.19       | 21.32          | 21.04        |                     |
| 15              | 16QAM      | 36      | 39        | 21.09       | 21.31          | 21.10        | 22                  |
| 15              | 16QAM      | 75      | 0         | 21.16       | 21.19          | 21.25        |                     |
| 15              | 64QAM      | 1       | 0         | 20.44       | 20.63          | 20.24        |                     |
| 15              | 64QAM      | 1       | 37        | 20.42       | 20.33          | 20.66        |                     |
| 15              | 64QAM      | 1       | 74        | 20.26       | 20.25          | 20.99        | 21                  |
| 15              | 64QAM      | 36      | 0         | 20.29       | 20.43          | 20.51        |                     |
| 15              | 64QAM      | 36      | 20        | 20.34       | 20.43          | 20.35        |                     |
| 15              | 64QAM      | 36      | 39        | 20.25       | 20.51          | 20.38        |                     |
| 15              | 64QAM      | 75      | 0         | 20.38       | 20.41          | 20.39        |                     |
| Channel         |            |         |           | 20000       | 20175          | 20350        |                     |
| Frequency (MHz) |            |         |           | 1715        | 1732.5         | 1750         |                     |
| 10              | QPSK       | 1       | 0         | 22.12       | 22.16          | 22.22        | 23                  |
| 10              | QPSK       | 1       | 25        | 21.98       | 22.28          | 22.21        |                     |
| 10              | QPSK       | 1       | 49        | 22.09       | 22.27          | 22.11        |                     |
| 10              | QPSK       | 25      | 0         | 21.14       | 21.24          | 21.39        |                     |
| 10              | QPSK       | 25      | 12        | 21.09       | 21.36          | 21.44        | 22                  |
| 10              | QPSK       | 25      | 25        | 21.21       | 21.42          | 21.42        |                     |
| 10              | QPSK       | 50      | 0         | 21.19       | 21.36          | 21.27        |                     |
| 10              | 16QAM      | 1       | 0         | 21.60       | 21.67          | 21.46        |                     |
| 10              | 16QAM      | 1       | 25        | 21.42       | 21.66          | 21.50        | 22                  |
| 10              | 16QAM      | 1       | 49        | 21.44       | 21.82          | 21.27        |                     |
| 10              | 16QAM      | 25      | 0         | 21.04       | 21.15          | 21.18        |                     |
| 10              | 16QAM      | 25      | 12        | 21.16       | 21.28          | 21.33        |                     |
| 10              | 16QAM      | 25      | 25        | 21.20       | 21.39          | 21.29        | 22                  |
| 10              | 16QAM      | 50      | 0         | 21.13       | 21.35          | 21.45        |                     |
| 10              | 64QAM      | 1       | 0         | 20.32       | 20.41          | 20.76        |                     |
| 10              | 64QAM      | 1       | 25        | 20.54       | 20.57          | 20.46        |                     |
| 10              | 64QAM      | 1       | 49        | 19.92       | 20.54          | 20.79        | 21                  |
| 10              | 64QAM      | 25      | 0         | 20.11       | 20.31          | 20.48        |                     |
| 10              | 64QAM      | 25      | 12        | 20.13       | 20.29          | 20.42        |                     |
| 10              | 64QAM      | 25      | 25        | 20.36       | 20.51          | 20.40        |                     |
| 10              | 64QAM      | 50      | 0         | 20.28       | 20.40          | 20.24        |                     |
| Channel         |            |         |           | 19975       | 20175          | 20375        |                     |
| Frequency (MHz) |            |         |           | 1712.5      | 1732.5         | 1752.5       |                     |
| 5               | QPSK       | 1       | 0         | 22.15       | 22.22          | 22.21        | 23                  |
| 5               | QPSK       | 1       | 12        | 22.27       | 22.22          | 22.24        |                     |
| 5               | QPSK       | 1       | 24        | 22.09       | 22.32          | 22.33        |                     |
| 5               | QPSK       | 12      | 0         | 21.09       | 21.20          | 21.32        |                     |
| 5               | QPSK       | 12      | 7         | 21.12       | 21.23          | 21.31        | 22                  |
| 5               | QPSK       | 12      | 13        | 21.07       | 21.31          | 21.15        |                     |
| 5               | QPSK       | 25      | 0         | 21.09       | 21.20          | 21.12        |                     |
| 5               | 16QAM      | 1       | 0         | 21.27       | 21.37          | 21.55        |                     |
| 5               | 16QAM      | 1       | 12        | 21.35       | 21.48          | 21.42        | 22                  |
| 5               | 16QAM      | 1       | 24        | 21.34       | 21.83          | 21.41        |                     |
| 5               | 16QAM      | 12      | 0         | 21.12       | 21.29          | 21.14        |                     |
| 5               | 16QAM      | 12      | 7         | 21.31       | 21.51          | 21.36        |                     |
| 5               | 16QAM      | 12      | 13        | 21.41       | 21.50          | 21.36        | 22                  |
| 5               | 16QAM      | 25      | 0         | 21.21       | 21.44          | 21.44        |                     |
| 5               | 64QAM      | 1       | 0         | 20.80       | 20.43          | 20.75        |                     |
| 5               | 64QAM      | 1       | 12        | 20.90       | 20.50          | 20.44        |                     |
| 5               | 64QAM      | 1       | 24        | 20.64       | 20.79          | 20.96        | 21                  |
| 5               | 64QAM      | 12      | 0         | 20.24       | 20.56          | 20.62        |                     |
| 5               | 64QAM      | 12      | 7         | 20.23       | 20.51          | 20.44        |                     |
| 5               | 64QAM      | 12      | 13        | 20.20       | 20.57          | 20.56        |                     |
| 5               | 64QAM      | 25      | 0         | 20.20       | 20.36          | 20.48        |                     |
| Channel         |            |         |           | 19965       | 20175          | 20385        |                     |
| Frequency (MHz) |            |         |           | 1711.5      | 1732.5         | 1753.5       |                     |
| 3               | QPSK       | 1       | 0         | 22.17       | 22.32          | 22.30        | 23                  |
| 3               | QPSK       | 1       | 8         | 22.30       | 22.31          | 22.29        |                     |
| 3               | QPSK       | 1       | 14        | 22.26       | 22.25          | 22.24        |                     |
| 3               | QPSK       | 8       | 0         | 21.15       | 21.51          | 21.50        |                     |
| 3               | QPSK       | 8       | 4         | 21.12       | 21.48          | 21.49        | 22                  |
| 3               | QPSK       | 8       | 7         | 21.12       | 21.46          | 21.48        |                     |
| 3               | QPSK       | 15      | 0         | 21.17       | 21.40          | 21.46        |                     |
| 3               | 16QAM      | 1       | 0         | 21.45       | 21.57          | 21.58        |                     |
| 3               | 16QAM      | 1       | 8         | 21.40       | 21.50          | 21.51        | 22                  |
| 3               | 16QAM      | 1       | 14        | 21.50       | 21.30          | 21.24        |                     |
| 3               | 16QAM      | 8       | 0         | 21.17       | 21.55          | 21.56        |                     |
|                 |            |         |           |             |                |              |                     |

|                 |       |    |    |        |       |        |                           |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|
| 3               | 16QAM | 8  | 4  | 21.33  | 21.40 | 21.39  | 22                        |
| 3               | 16QAM | 8  | 7  | 21.35  | 21.44 | 21.44  |                           |
| 3               | 16QAM | 15 | 0  | 21.43  | 21.25 | 21.16  |                           |
| 3               | 64QAM | 1  | 0  | 20.19  | 20.23 | 20.56  | 21                        |
| 3               | 64QAM | 1  | 8  | 20.68  | 20.69 | 20.77  |                           |
| 3               | 64QAM | 1  | 14 | 20.48  | 20.27 | 20.70  |                           |
| 3               | 64QAM | 8  | 0  | 20.33  | 20.24 | 20.25  | 21                        |
| 3               | 64QAM | 8  | 4  | 20.24  | 20.48 | 20.39  |                           |
| 3               | 64QAM | 8  | 7  | 20.37  | 20.49 | 20.26  |                           |
| 3               | 64QAM | 15 | 0  | 20.30  | 20.36 | 20.25  |                           |
| Channel         |       |    |    | 18607  | 18900 | 19193  | Tune-up<br>limit<br>(dBm) |
| Frequency (MHz) |       |    |    | 1850.7 | 1880  | 1909.3 |                           |
| 1.4             | QPSK  | 1  | 0  | 22.17  | 22.20 | 22.19  | 23                        |
| 1.4             | QPSK  | 1  | 3  | 22.16  | 22.20 | 22.17  |                           |
| 1.4             | QPSK  | 1  | 5  | 22.13  | 22.17 | 22.13  |                           |
| 1.4             | QPSK  | 3  | 0  | 22.17  | 22.14 | 22.11  |                           |
| 1.4             | QPSK  | 3  | 1  | 22.21  | 21.70 | 22.13  |                           |
| 1.4             | QPSK  | 3  | 3  | 22.13  | 22.15 | 22.12  |                           |
| 1.4             | QPSK  | 6  | 0  | 21.16  | 21.14 | 20.99  | 22                        |
| 1.4             | 16QAM | 1  | 0  | 20.97  | 21.17 | 21.43  | 22                        |
| 1.4             | 16QAM | 1  | 3  | 21.23  | 21.41 | 21.09  |                           |
| 1.4             | 16QAM | 1  | 5  | 21.20  | 21.26 | 21.03  |                           |
| 1.4             | 16QAM | 3  | 0  | 21.02  | 21.09 | 21.21  |                           |
| 1.4             | 16QAM | 3  | 1  | 21.14  | 21.13 | 21.15  |                           |
| 1.4             | 16QAM | 3  | 3  | 21.05  | 21.01 | 21.13  |                           |
| 1.4             | 16QAM | 6  | 0  | 21.07  | 21.27 | 21.09  | 22                        |
| 1.4             | 64QAM | 1  | 0  | 20.13  | 20.81 | 20.14  | 21                        |
| 1.4             | 64QAM | 1  | 3  | 20.14  | 20.21 | 20.41  |                           |
| 1.4             | 64QAM | 1  | 5  | 20.74  | 20.01 | 20.63  |                           |
| 1.4             | 64QAM | 3  | 0  | 20.34  | 20.18 | 20.12  |                           |
| 1.4             | 64QAM | 3  | 1  | 20.02  | 20.05 | 20.13  |                           |
| 1.4             | 64QAM | 3  | 3  | 20.24  | 20.28 | 20.14  |                           |
| 1.4             | 64QAM | 6  | 0  | 20.21  | 20.22 | 20.02  |                           |
| 1.4             | 64QAM | 6  | 0  | 20.21  | 20.22 | 20.02  | 21                        |

|                 |       |    |    |        |        |        |                           |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|
| 3               | 16QAM | 8  | 4  | 21.08  | 21.54  | 21.55  | 22                        |
| 3               | 16QAM | 8  | 7  | 21.21  | 21.53  | 21.53  |                           |
| 3               | 16QAM | 15 | 0  | 21.21  | 21.52  | 21.51  |                           |
| 3               | 64QAM | 1  | 0  | 21.12  | 21.08  | 21.03  | 21                        |
| 3               | 64QAM | 1  | 8  | 20.80  | 20.93  | 20.95  |                           |
| 3               | 64QAM | 1  | 14 | 20.65  | 20.65  | 20.66  |                           |
| 3               | 64QAM | 8  | 0  | 20.43  | 20.51  | 20.53  | 21                        |
| 3               | 64QAM | 8  | 4  | 20.49  | 20.50  | 20.49  |                           |
| 3               | 64QAM | 8  | 7  | 20.52  | 20.51  | 20.50  |                           |
| 3               | 64QAM | 15 | 0  | 20.53  | 20.67  | 20.61  |                           |
| Channel         |       |    |    | 19957  | 20175  | 20393  | Tune-up<br>limit<br>(dBm) |
| Frequency (MHz) |       |    |    | 1710.7 | 1732.5 | 1754.3 |                           |
| 1.4             | QPSK  | 1  | 0  | 22.11  | 22.22  | 22.32  | 23                        |
| 1.4             | QPSK  | 1  | 3  | 22.10  | 22.25  | 22.21  |                           |
| 1.4             | QPSK  | 1  | 5  | 22.05  | 22.09  | 22.07  |                           |
| 1.4             | QPSK  | 3  | 0  | 22.20  | 22.07  | 22.06  |                           |
| 1.4             | QPSK  | 3  | 1  | 22.02  | 22.04  | 22.03  |                           |
| 1.4             | QPSK  | 3  | 3  | 22.20  | 22.20  | 22.12  |                           |
| 1.4             | QPSK  | 6  | 0  | 21.25  | 21.67  | 21.62  | 22                        |
| 1.4             | 16QAM | 1  | 0  | 21.59  | 21.49  | 21.45  | 22                        |
| 1.4             | 16QAM | 1  | 3  | 21.33  | 21.47  | 21.44  |                           |
| 1.4             | 16QAM | 1  | 5  | 21.50  | 21.46  | 21.39  |                           |
| 1.4             | 16QAM | 3  | 0  | 21.01  | 21.36  | 21.33  |                           |
| 1.4             | 16QAM | 3  | 1  | 21.25  | 21.30  | 21.26  |                           |
| 1.4             | 16QAM | 3  | 3  | 21.19  | 21.20  | 21.19  |                           |
| 1.4             | 16QAM | 6  | 0  | 21.17  | 21.52  | 21.54  | 22                        |
| 1.4             | 64QAM | 1  | 0  | 20.98  | 20.87  | 20.97  | 21                        |
| 1.4             | 64QAM | 1  | 3  | 20.59  | 20.81  | 20.85  |                           |
| 1.4             | 64QAM | 1  | 5  | 20.37  | 20.77  | 20.81  |                           |
| 1.4             | 64QAM | 3  | 0  | 20.50  | 20.69  | 20.80  |                           |
| 1.4             | 64QAM | 3  | 1  | 20.31  | 20.65  | 20.77  |                           |
| 1.4             | 64QAM | 3  | 3  | 20.27  | 20.63  | 20.74  |                           |
| 1.4             | 64QAM | 6  | 0  | 20.37  | 20.63  | 20.73  |                           |
| 1.4             | 64QAM | 6  | 0  | 20.37  | 20.63  | 20.73  | 21                        |

| LTE Band 5      |            |         |           |             |                |              |                     |  |
|-----------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|--|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |  |
| Channel         |            |         |           | 20450       | 20525          | 20600        |                     |  |
| Frequency (MHz) |            |         |           | 829         | 836.5          | 844          |                     |  |
| 10              | QPSK       | 1       | 0         | 22.56       | 22.57          | 22.55        | 23                  |  |
| 10              | QPSK       | 1       | 25        | 22.48       | 22.52          | 22.47        |                     |  |
| 10              | QPSK       | 1       | 49        | 22.56       | 22.49          | 22.37        |                     |  |
| 10              | QPSK       | 25      | 0         | 21.49       | 21.60          | 21.57        | 22                  |  |
| 10              | QPSK       | 25      | 12        | 21.57       | 21.58          | 21.53        |                     |  |
| 10              | QPSK       | 25      | 25        | 21.48       | 21.44          | 21.46        |                     |  |
| 10              | QPSK       | 50      | 0         | 21.34       | 21.35          | 21.40        | 22                  |  |
| 10              | 16QAM      | 1       | 0         | 21.37       | 21.23          | 21.49        |                     |  |
| 10              | 16QAM      | 1       | 25        | 21.29       | 21.46          | 21.50        |                     |  |
| 10              | 16QAM      | 1       | 49        | 21.41       | 21.69          | 21.32        | 21                  |  |
| 10              | 16QAM      | 25      | 0         | 20.43       | 20.28          | 20.41        |                     |  |
| 10              | 16QAM      | 25      | 12        | 20.39       | 20.49          | 20.43        |                     |  |
| 10              | 16QAM      | 25      | 25        | 20.45       | 20.43          | 20.47        | 21                  |  |
| 10              | 16QAM      | 50      | 0         | 20.52       | 20.46          | 20.43        |                     |  |
| 10              | 64QAM      | 1       | 0         | 20.53       | 20.18          | 20.41        |                     |  |
| 10              | 64QAM      | 1       | 25        | 20.11       | 20.38          | 20.32        | 21                  |  |
| 10              | 64QAM      | 1       | 49        | 20.25       | 20.60          | 19.81        |                     |  |
| 10              | 64QAM      | 25      | 0         | 20.17       | 20.24          | 20.19        |                     |  |
| 10              | 64QAM      | 25      | 12        | 20.23       | 20.27          | 20.21        | 21                  |  |
| 10              | 64QAM      | 25      | 25        | 20.42       | 20.10          | 20.12        |                     |  |
| 10              | 64QAM      | 50      | 0         | 20.17       | 20.16          | 20.03        |                     |  |
| Channel         |            |         |           | 20425       | 20525          | 20625        | Tune-up limit (dBm) |  |
| Frequency (MHz) |            |         |           | 826.5       | 836.5          | 846.5        |                     |  |
| 5               | QPSK       | 1       | 0         | 22.20       | 22.42          | 22.38        | 23                  |  |
| 5               | QPSK       | 1       | 12        | 22.10       | 22.34          | 22.37        |                     |  |
| 5               | QPSK       | 1       | 24        | 22.18       | 22.27          | 22.37        |                     |  |
| 5               | QPSK       | 12      | 0         | 21.34       | 21.35          | 21.44        | 22                  |  |
| 5               | QPSK       | 12      | 7         | 21.30       | 21.38          | 21.39        |                     |  |
| 5               | QPSK       | 12      | 13        | 21.17       | 21.30          | 21.33        |                     |  |
| 5               | QPSK       | 25      | 0         | 21.03       | 21.15          | 21.14        | 22                  |  |
| 5               | 16QAM      | 1       | 0         | 21.65       | 21.35          | 21.16        |                     |  |
| 5               | 16QAM      | 1       | 12        | 21.37       | 21.42          | 21.67        |                     |  |
| 5               | 16QAM      | 1       | 24        | 21.30       | 21.41          | 21.55        | 21                  |  |
| 5               | 16QAM      | 12      | 0         | 20.52       | 20.37          | 20.63        |                     |  |
| 5               | 16QAM      | 12      | 7         | 20.32       | 20.41          | 20.47        |                     |  |
| 5               | 16QAM      | 12      | 13        | 20.33       | 20.35          | 20.55        | 21                  |  |
| 5               | 16QAM      | 25      | 0         | 20.38       | 20.39          | 20.49        |                     |  |
| 5               | 64QAM      | 1       | 0         | 20.19       | 20.14          | 20.43        |                     |  |
| 5               | 64QAM      | 1       | 12        | 20.14       | 20.12          | 20.43        | 21                  |  |
| 5               | 64QAM      | 1       | 24        | 20.10       | 20.09          | 20.43        |                     |  |
| 5               | 64QAM      | 12      | 0         | 20.06       | 20.13          | 20.37        |                     |  |
| 5               | 64QAM      | 12      | 7         | 20.24       | 20.00          | 20.35        | 21                  |  |
| 5               | 64QAM      | 12      | 13        | 20.10       | 20.03          | 20.14        |                     |  |
| 5               | 64QAM      | 25      | 0         | 20.24       | 20.03          | 20.28        |                     |  |
| Channel         |            |         |           | 20415       | 20525          | 20635        | Tune-up limit (dBm) |  |
| Frequency (MHz) |            |         |           | 825.5       | 836.5          | 847.5        |                     |  |
| 3               | QPSK       | 1       | 0         | 22.39       | 22.41          | 22.37        | 23                  |  |
| 3               | QPSK       | 1       | 8         | 22.28       | 22.30          | 22.35        |                     |  |
| 3               | QPSK       | 1       | 14        | 22.27       | 22.27          | 22.28        |                     |  |
| 3               | QPSK       | 8       | 0         | 21.49       | 21.35          | 21.53        | 22                  |  |
| 3               | QPSK       | 8       | 4         | 21.53       | 21.38          | 21.56        |                     |  |
| 3               | QPSK       | 8       | 7         | 21.47       | 21.30          | 21.54        |                     |  |
| 3               | QPSK       | 15      | 0         | 21.46       | 21.36          | 21.53        | 22                  |  |
| 3               | 16QAM      | 1       | 0         | 21.55       | 21.56          | 21.72        |                     |  |
| 3               | 16QAM      | 1       | 8         | 21.22       | 21.63          | 21.69        |                     |  |
| 3               | 16QAM      | 1       | 14        | 21.48       | 21.45          | 21.57        | 21                  |  |
| 3               | 16QAM      | 8       | 0         | 20.48       | 20.16          | 20.47        |                     |  |
| 3               | 16QAM      | 8       | 4         | 20.39       | 20.41          | 20.48        |                     |  |
| 3               | 16QAM      | 8       | 7         | 20.44       | 20.35          | 20.49        | 21                  |  |
| 3               | 16QAM      | 15      | 0         | 20.62       | 20.60          | 20.65        |                     |  |
| 3               | 64QAM      | 1       | 0         | 20.37       | 20.35          | 20.20        |                     |  |
| 3               | 64QAM      | 1       | 8         | 20.42       | 20.21          | 20.44        | 21                  |  |
| 3               | 64QAM      | 1       | 14        | 20.32       | 20.04          | 20.35        |                     |  |
| 3               | 64QAM      | 8       | 0         | 20.24       | 20.34          | 20.24        |                     |  |
| 3               | 64QAM      | 8       | 4         | 20.09       | 20.21          | 20.25        | 21                  |  |
| 3               | 64QAM      | 8       | 7         | 20.34       | 20.24          | 20.24        |                     |  |
| 3               | 64QAM      | 15      | 0         | 20.10       | 20.24          | 20.24        |                     |  |
| Channel         |            |         |           | 20407       | 20525          | 20643        | Tune-up limit (dBm) |  |
| Frequency (MHz) |            |         |           | 824.7       | 836.5          | 848.3        |                     |  |
| 1.4             | QPSK       | 1       | 0         | 22.32       | 22.45          | 22.35        | 23                  |  |
| 1.4             | QPSK       | 1       | 3         | 22.44       | 22.33          | 22.34        |                     |  |
| 1.4             | QPSK       | 1       | 5         | 22.27       | 22.29          | 22.26        |                     |  |
| 1.4             | QPSK       | 3       | 0         | 22.37       | 22.27          | 22.29        | 22                  |  |
| 1.4             | QPSK       | 3       | 1         | 22.43       | 22.24          | 22.41        |                     |  |
| 1.4             | QPSK       | 3       | 3         | 22.38       | 22.19          | 22.37        |                     |  |
| 1.4             | QPSK       | 6       | 0         | 21.46       | 21.37          | 21.39        | 22                  |  |
| 1.4             | 16QAM      | 1       | 0         | 21.24       | 21.28          | 21.42        |                     |  |
| 1.4             | 16QAM      | 1       | 3         | 21.26       | 21.27          | 21.26        |                     |  |
| 1.4             | 16QAM      | 1       | 5         | 21.50       | 21.51          | 21.51        | 22                  |  |
| 1.4             | 16QAM      | 3       | 0         | 21.33       | 21.41          | 21.39        |                     |  |
| 1.4             | 16QAM      | 3       | 1         | 21.37       | 21.38          | 21.36        |                     |  |
| 1.4             | 16QAM      | 3       | 3         | 21.49       | 21.50          | 21.48        | 21                  |  |
| 1.4             | 16QAM      | 6       | 0         | 20.22       | 20.22          | 20.26        |                     |  |
| 1.4             | 64QAM      | 1       | 0         | 20.43       | 20.18          | 20.35        |                     |  |
| 1.4             | 64QAM      | 1       | 3         | 20.20       | 20.16          | 20.17        | 21                  |  |
| 1.4             | 64QAM      | 1       | 5         | 20.50       | 20.15          | 20.20        |                     |  |
| 1.4             | 64QAM      | 3       | 0         | 20.19       | 20.11          | 20.15        |                     |  |
| 1.4             | 64QAM      | 3       | 1         | 20.28       | 20.12          | 20.22        | 21                  |  |
| 1.4             | 64QAM      | 3       | 3         | 20.22       | 20.13          | 20.20        |                     |  |
| 1.4             | 64QAM      | 6       | 0         | 20.30       | 20.13          | 20.19        |                     |  |

| LTE Band 12     |            |         |           |             |                |              |                     |
|-----------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel         |            |         |           | 23060       | 23095          | 23130        |                     |
| Frequency (MHz) |            |         |           | 704         | 707.5          | 711          |                     |
| 10              | QPSK       | 1       | 0         | 22.56       | 22.63          | 22.55        | 23                  |
| 10              | QPSK       | 1       | 25        | 22.29       | 22.40          | 22.36        |                     |
| 10              | QPSK       | 1       | 49        | 22.27       | 22.28          | 22.27        |                     |
| 10              | QPSK       | 25      | 0         | 21.59       | 21.66          | 21.48        | 22                  |
| 10              | QPSK       | 25      | 12        | 21.56       | 21.36          | 21.30        |                     |
| 10              | QPSK       | 25      | 25        | 21.51       | 21.31          | 21.39        |                     |
| 10              | QPSK       | 50      | 0         | 21.40       | 21.42          | 21.43        | 22                  |
| 10              | 16QAM      | 1       | 0         | 21.59       | 21.17          | 21.62        |                     |
| 10              | 16QAM      | 1       | 25        | 21.73       | 21.79          | 21.69        |                     |
| 10              | 16QAM      | 1       | 49        | 21.84       | 21.48          | 21.73        | 21                  |
| 10              | 16QAM      | 25      | 0         | 20.48       | 20.47          | 20.48        |                     |
| 10              | 16QAM      | 25      | 12        | 20.62       | 20.36          | 20.41        |                     |
| 10              | 16QAM      | 25      | 25        | 20.66       | 20.38          | 20.52        | 21                  |
| 10              | 16QAM      | 50      | 0         | 20.47       | 20.42          | 20.47        |                     |
| 10              | 64QAM      | 1       | 0         | 20.05       | 20.08          | 20.03        |                     |
| 10              | 64QAM      | 1       | 25        | 20.16       | 20.17          | 20.29        | 21                  |
| 10              | 64QAM      | 1       | 49        | 20.43       | 20.53          | 20.28        |                     |
| 10              | 64QAM      | 25      | 0         | 20.35       | 20.33          | 20.27        |                     |
| 10              | 64QAM      | 25      | 12        | 20.30       | 20.22          | 20.26        | 21                  |
| 10              | 64QAM      | 25      | 25        | 20.30       | 20.36          | 20.13        |                     |
| 10              | 64QAM      | 50      | 0         | 20.30       | 20.30          | 20.17        |                     |
| Channel         |            |         |           | 23035       | 23095          | 23155        | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 701.5       | 707.5          | 713.5        |                     |
| 5               | QPSK       | 1       | 0         | 22.51       | 22.74          | 22.61        | 23                  |
| 5               | QPSK       | 1       | 12        | 22.63       | 22.67          | 22.54        |                     |
| 5               | QPSK       | 1       | 24        | 22.72       | 22.51          | 22.48        |                     |
| 5               | QPSK       | 12      | 0         | 21.50       | 21.37          | 21.33        | 22                  |
| 5               | QPSK       | 12      | 7         | 21.23       | 21.37          | 21.29        |                     |
| 5               | QPSK       | 12      | 13        | 21.27       | 21.31          | 21.35        |                     |
| 5               | QPSK       | 25      | 0         | 21.29       | 21.42          | 21.28        | 22                  |
| 5               | 16QAM      | 1       | 0         | 21.55       | 21.09          | 21.40        |                     |
| 5               | 16QAM      | 1       | 12        | 21.38       | 21.64          | 21.40        |                     |
| 5               | 16QAM      | 1       | 24        | 21.46       | 21.49          | 21.07        | 21                  |
| 5               | 16QAM      | 12      | 0         | 20.51       | 20.46          | 20.45        |                     |
| 5               | 16QAM      | 12      | 7         | 20.65       | 20.47          | 20.43        |                     |
| 5               | 16QAM      | 12      | 13        | 20.46       | 20.45          | 20.31        | 21                  |
| 5               | 16QAM      | 25      | 0         | 20.40       | 20.34          | 20.29        |                     |
| 5               | 64QAM      | 1       | 0         | 20.47       | 20.02          | 20.35        |                     |
| 5               | 64QAM      | 1       | 12        | 20.26       | 20.13          | 20.25        | 21                  |
| 5               | 64QAM      | 1       | 24        | 20.44       | 20.06          | 20.48        |                     |
| 5               | 64QAM      | 12      | 0         | 20.11       | 20.12          | 20.38        |                     |
| 5               | 64QAM      | 12      | 7         | 20.26       | 20.04          | 20.13        | 21                  |
| 5               | 64QAM      | 12      | 13        | 20.04       | 20.10          | 20.11        |                     |
| 5               | 64QAM      | 25      | 0         | 20.16       | 20.04          | 20.23        |                     |
| Channel         |            |         |           | 23025       | 23095          | 23165        | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 700.5       | 707.5          | 714.5        |                     |
| 3               | QPSK       | 1       | 0         | 22.56       | 22.73          | 22.63        | 23                  |
| 3               | QPSK       | 1       | 8         | 22.68       | 22.69          | 22.64        |                     |
| 3               | QPSK       | 1       | 14        | 22.67       | 22.64          | 22.65        |                     |
| 3               | QPSK       | 8       | 0         | 21.23       | 21.38          | 21.36        | 22                  |
| 3               | QPSK       | 8       | 4         | 21.27       | 21.37          | 21.31        |                     |
| 3               | QPSK       | 8       | 7         | 21.20       | 21.36          | 21.25        |                     |
| 3               | QPSK       | 15      | 0         | 21.25       | 21.34          | 21.23        | 22                  |
| 3               | 16QAM      | 1       | 0         | 21.47       | 21.90          | 21.80        |                     |
| 3               | 16QAM      | 1       | 8         | 21.52       | 21.53          | 21.51        |                     |
| 3               | 16QAM      | 1       | 14        | 21.51       | 21.50          | 21.52        | 21                  |
| 3               | 16QAM      | 8       | 0         | 20.42       | 20.45          | 20.43        |                     |
| 3               | 16QAM      | 8       | 4         | 20.32       | 20.34          | 20.31        |                     |
| 3               | 16QAM      | 8       | 7         | 20.18       | 20.21          | 20.19        | 21                  |
| 3               | 16QAM      | 15      | 0         | 20.32       | 20.42          | 20.22        |                     |
| 3               | 64QAM      | 1       | 0         | 20.00       | 20.14          | 20.11        |                     |
| 3               | 64QAM      | 1       | 8         | 20.53       | 20.54          | 20.56        | 21                  |
| 3               | 64QAM      | 1       | 14        | 20.30       | 20.31          | 20.32        |                     |
| 3               | 64QAM      | 8       | 0         | 20.22       | 20.25          | 20.26        |                     |
| 3               | 64QAM      | 8       | 4         | 20.41       | 20.60          | 20.44        | 21                  |
| 3               | 64QAM      | 8       | 7         | 20.37       | 20.59          | 20.43        |                     |
| 3               | 64QAM      | 15      | 0         | 20.30       | 20.58          | 20.41        |                     |
| Channel         |            |         |           | 23017       | 23095          | 23173        | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 699.7       | 707.5          | 715.3        |                     |
| 1.4             | QPSK       | 1       | 0         | 22.09       | 22.53          | 22.43        | 23                  |
| 1.4             | QPSK       | 1       | 3         | 22.21       | 22.23          | 22.24        |                     |
| 1.4             | QPSK       | 1       | 5         | 22.07       | 22.09          | 22.08        |                     |
| 1.4             | QPSK       | 3       | 0         | 22.14       | 22.16          | 22.15        | 23                  |
| 1.4             | QPSK       | 3       | 1         | 22.21       | 22.23          | 22.21        |                     |
| 1.4             | QPSK       | 3       | 3         | 22.17       | 22.18          | 22.19        |                     |
| 1.4             | QPSK       | 6       | 0         | 21.01       | 21.47          | 21.41        | 22                  |
| 1.4             | 16QAM      | 1       | 0         | 21.34       | 21.46          | 21.45        |                     |
| 1.4             | 16QAM      | 1       | 3         | 21.53       | 21.54          | 21.56        |                     |
| 1.4             | 16QAM      | 1       | 5         | 21.20       | 21.23          | 21.24        | 22                  |
| 1.4             | 16QAM      | 3       | 0         | 21.29       | 21.30          | 21.30        |                     |
| 1.4             | 16QAM      | 3       | 1         | 21.30       | 21.34          | 21.32        |                     |
| 1.4             | 16QAM      | 3       | 3         | 21.43       | 21.42          | 21.40        | 21                  |
| 1.4             | 16QAM      | 6       | 0         | 20.27       | 20.70          | 20.65        |                     |
| 1.4             | 64QAM      | 1       | 0         | 20.19       | 20.74          | 20.73        |                     |
| 1.4             | 64QAM      | 1       | 3         | 20.33       | 20.35          | 20.34        | 21                  |
| 1.4             | 64QAM      | 1       | 5         | 20.21       | 20.26          | 20.33        |                     |
| 1.4             | 64QAM      | 3       | 0         | 20.30       | 20.29          | 20.31        |                     |
| 1.4             | 64QAM      | 3       | 1         | 20.31       | 20.41          | 20.45        | 21                  |
| 1.4             | 64QAM      | 3       | 3         | 20.40       | 20.38          | 20.43        |                     |
| 1.4             | 64QAM      | 6       | 0         | 20.22       | 20.35          | 20.42        |                     |

| LTE Band 13     |            |         |           |             |                |              |                     |
|-----------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel         |            |         |           | 23230       |                |              |                     |
| Frequency (MHz) |            |         |           | 782         |                |              |                     |
| 10              | QPSK       | 1       | 0         | 22.44       |                |              | 23                  |
| 10              | QPSK       | 1       | 25        | 22.31       |                |              |                     |
| 10              | QPSK       | 1       | 49        | 22.37       |                |              |                     |
| 10              | QPSK       | 25      | 0         | 21.66       |                |              | 22                  |
| 10              | QPSK       | 25      | 12        | 21.41       |                |              |                     |
| 10              | QPSK       | 25      | 25        | 21.51       |                |              |                     |
| 10              | QPSK       | 50      | 0         | 21.48       |                |              | 22                  |
| 10              | 16QAM      | 1       | 0         | 21.38       |                |              |                     |
| 10              | 16QAM      | 1       | 25        | 21.36       |                |              |                     |
| 10              | 16QAM      | 1       | 49        | 21.25       |                |              | 21                  |
| 10              | 16QAM      | 25      | 0         | 20.24       |                |              |                     |
| 10              | 16QAM      | 25      | 12        | 20.27       |                |              |                     |
| 10              | 16QAM      | 25      | 25        | 20.26       |                |              | 21                  |
| 10              | 16QAM      | 50      | 0         | 20.33       |                |              |                     |
| 10              | 64QAM      | 1       | 0         | 20.35       |                |              |                     |
| 10              | 64QAM      | 1       | 25        | 20.42       |                |              | 21                  |
| 10              | 64QAM      | 1       | 49        | 22.24       |                |              |                     |
| 10              | 64QAM      | 25      | 0         | 22.22       |                |              | 21                  |
| 10              | 64QAM      | 25      | 12        | 20.32       |                |              |                     |
| 10              | 64QAM      | 25      | 25        | 20.28       |                |              |                     |
| 10              | 64QAM      | 50      | 0         | 20.31       |                |              |                     |
| Channel         |            |         |           | 23205       | 23230          | 23255        | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 779.5       | 782            | 784.5        |                     |
| 5               | QPSK       | 1       | 0         | 22.26       | 22.23          | 22.24        | 23                  |
| 5               | QPSK       | 1       | 12        | 22.13       | 22.11          | 22.16        |                     |
| 5               | QPSK       | 1       | 24        | 22.28       | 22.21          | 22.32        |                     |
| 5               | QPSK       | 12      | 0         | 21.34       | 21.35          | 21.47        | 22                  |
| 5               | QPSK       | 12      | 7         | 21.45       | 21.47          | 21.52        |                     |
| 5               | QPSK       | 12      | 13        | 21.49       | 21.53          | 21.59        |                     |
| 5               | QPSK       | 25      | 0         | 21.29       | 21.41          | 21.51        | 22                  |
| 5               | 16QAM      | 1       | 0         | 21.37       | 21.67          | 21.51        |                     |
| 5               | 16QAM      | 1       | 12        | 21.53       | 21.55          | 21.67        |                     |
| 5               | 16QAM      | 1       | 24        | 22.02       | 21.57          | 22.01        | 21                  |
| 5               | 16QAM      | 12      | 0         | 20.22       | 20.23          | 20.36        |                     |
| 5               | 16QAM      | 12      | 7         | 20.22       | 20.30          | 20.38        |                     |
| 5               | 16QAM      | 12      | 13        | 20.25       | 20.24          | 20.48        | 21                  |
| 5               | 16QAM      | 25      | 0         | 20.24       | 20.11          | 20.35        |                     |
| 5               | 64QAM      | 1       | 0         | 20.43       | 20.45          | 20.52        |                     |
| 5               | 64QAM      | 1       | 12        | 20.04       | 20.32          | 20.62        | 21                  |
| 5               | 64QAM      | 1       | 24        | 20.33       | 20.46          | 20.29        |                     |
| 5               | 64QAM      | 12      | 0         | 20.08       | 20.12          | 20.20        |                     |
| 5               | 64QAM      | 12      | 7         | 20.16       | 20.23          | 20.35        | 21                  |
| 5               | 64QAM      | 12      | 13        | 20.27       | 20.40          | 20.42        |                     |
| 5               | 64QAM      | 25      | 0         | 20.29       | 20.20          | 20.33        |                     |

| LTE Band 66     |            |         |           |             |                |              |                     |
|-----------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel         |            |         |           | 132072      | 132322         | 132572       |                     |
| Frequency (MHz) |            |         |           | 1720        | 1745           | 1770         |                     |
| 20              | QPSK       | 1       | 0         | 22.07       | 22.31          | 22.23        | 23                  |
| 20              | QPSK       | 1       | 49        | 22.05       | 22.29          | 22.04        |                     |
| 20              | QPSK       | 1       | 99        | 21.99       | 22.28          | 21.95        |                     |
| 20              | QPSK       | 50      | 0         | 21.26       | 21.55          | 21.37        | 22                  |
| 20              | QPSK       | 50      | 24        | 21.45       | 21.40          | 21.35        |                     |
| 20              | QPSK       | 50      | 50        | 21.36       | 21.50          | 21.19        |                     |
| 20              | QPSK       | 100     | 0         | 21.42       | 21.38          | 21.42        | 22                  |
| 20              | 16QAM      | 1       | 0         | 21.34       | 21.67          | 21.63        |                     |
| 20              | 16QAM      | 1       | 49        | 21.15       | 21.11          | 21.37        |                     |
| 20              | 16QAM      | 1       | 99        | 21.48       | 21.45          | 21.26        | 22                  |
| 20              | 16QAM      | 50      | 0         | 21.16       | 21.43          | 21.32        |                     |
| 20              | 16QAM      | 50      | 24        | 21.39       | 21.38          | 21.40        |                     |
| 20              | 16QAM      | 50      | 50        | 21.41       | 21.40          | 21.21        | 21                  |
| 20              | 16QAM      | 100     | 0         | 21.52       | 21.58          | 21.54        |                     |
| 20              | 64QAM      | 1       | 0         | 20.06       | 20.49          | 20.19        |                     |
| 20              | 64QAM      | 1       | 49        | 20.57       | 20.27          | 20.16        | 21                  |
| 20              | 64QAM      | 1       | 99        | 20.54       | 20.28          | 20.19        |                     |
| 20              | 64QAM      | 50      | 0         | 20.17       | 20.29          | 20.09        |                     |
| 20              | 64QAM      | 50      | 24        | 20.13       | 20.27          | 20.12        | 21                  |
| 20              | 64QAM      | 50      | 50        | 20.14       | 20.12          | 20.07        |                     |
| 20              | 64QAM      | 100     | 0         | 20.08       | 20.17          | 20.04        |                     |
| Channel         |            |         |           | 132047      | 132322         | 132597       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1717.5      | 1745           | 1772.5       |                     |
| 15              | QPSK       | 1       | 0         | 22.10       | 22.25          | 22.07        | 23                  |
| 15              | QPSK       | 1       | 37        | 22.16       | 22.24          | 22.05        |                     |
| 15              | QPSK       | 1       | 74        | 22.19       | 22.24          | 22.00        |                     |
| 15              | QPSK       | 36      | 0         | 21.01       | 21.30          | 21.14        | 22                  |
| 15              | QPSK       | 36      | 20        | 21.14       | 21.20          | 21.17        |                     |
| 15              | QPSK       | 36      | 39        | 21.15       | 21.30          | 20.99        |                     |
| 15              | QPSK       | 75      | 0         | 21.03       | 21.25          | 21.16        | 22                  |
| 15              | 16QAM      | 1       | 0         | 21.32       | 21.40          | 21.21        |                     |
| 15              | 16QAM      | 1       | 37        | 21.46       | 21.15          | 21.22        |                     |
| 15              | 16QAM      | 1       | 74        | 21.38       | 21.76          | 21.34        | 22                  |
| 15              | 16QAM      | 36      | 0         | 21.11       | 21.36          | 21.34        |                     |
| 15              | 16QAM      | 36      | 20        | 21.27       | 21.49          | 21.30        |                     |
| 15              | 16QAM      | 36      | 39        | 21.29       | 21.39          | 21.11        | 21                  |
| 15              | 16QAM      | 75      | 0         | 21.29       | 21.43          | 21.26        |                     |
| 15              | 64QAM      | 1       | 0         | 19.89       | 20.11          | 20.19        |                     |
| 15              | 64QAM      | 1       | 37        | 20.47       | 20.57          | 20.42        | 21                  |
| 15              | 64QAM      | 1       | 74        | 20.28       | 20.42          | 20.11        |                     |
| 15              | 64QAM      | 36      | 0         | 20.08       | 20.17          | 20.17        |                     |
| 15              | 64QAM      | 36      | 20        | 20.13       | 20.20          | 20.10        | 21                  |
| 15              | 64QAM      | 36      | 39        | 20.03       | 20.21          | 20.05        |                     |
| 15              | 64QAM      | 75      | 0         | 20.04       | 20.25          | 20.03        |                     |
| Channel         |            |         |           | 132022      | 132322         | 132622       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1715        | 1745           | 1775         |                     |
| 10              | QPSK       | 1       | 0         | 22.19       | 22.19          | 22.08        | 23                  |
| 10              | QPSK       | 1       | 25        | 22.01       | 22.20          | 21.90        |                     |
| 10              | QPSK       | 1       | 49        | 21.90       | 21.94          | 22.01        |                     |
| 10              | QPSK       | 25      | 0         | 21.03       | 21.09          | 21.08        | 22                  |
| 10              | QPSK       | 25      | 12        | 20.98       | 21.16          | 20.97        |                     |
| 10              | QPSK       | 25      | 25        | 20.96       | 21.11          | 21.03        |                     |
| 10              | QPSK       | 50      | 0         | 21.05       | 21.17          | 21.03        | 22                  |
| 10              | 16QAM      | 1       | 0         | 21.25       | 21.32          | 21.39        |                     |
| 10              | 16QAM      | 1       | 25        | 21.20       | 21.43          | 21.22        |                     |
| 10              | 16QAM      | 1       | 49        | 21.15       | 21.29          | 21.15        | 21                  |
| 10              | 16QAM      | 25      | 0         | 21.07       | 21.24          | 21.10        |                     |
| 10              | 16QAM      | 25      | 12        | 21.29       | 21.35          | 21.23        |                     |
| 10              | 16QAM      | 25      | 25        | 21.14       | 21.27          | 21.11        | 21                  |
| 10              | 16QAM      | 50      | 0         | 21.06       | 21.29          | 21.08        |                     |
| 10              | 64QAM      | 1       | 0         | 20.38       | 20.51          | 20.44        |                     |
| 10              | 64QAM      | 1       | 25        | 20.32       | 20.67          | 20.27        | 21                  |
| 10              | 64QAM      | 1       | 49        | 20.69       | 20.55          | 20.41        |                     |
| 10              | 64QAM      | 25      | 0         | 20.44       | 20.52          | 20.35        |                     |
| 10              | 64QAM      | 25      | 12        | 20.41       | 20.59          | 20.41        | 21                  |
| 10              | 64QAM      | 25      | 25        | 20.33       | 20.38          | 20.39        |                     |
| 10              | 64QAM      | 50      | 0         | 20.28       | 20.56          | 20.22        |                     |
| Channel         |            |         |           | 131997      | 132322         | 132647       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1712.5      | 1745           | 1777.5       |                     |
| 5               | QPSK       | 1       | 0         | 22.04       | 22.27          | 22.12        | 23                  |
| 5               | QPSK       | 1       | 12        | 22.05       | 22.26          | 22.11        |                     |
| 5               | QPSK       | 1       | 24        | 22.08       | 22.26          | 22.10        |                     |
| 5               | QPSK       | 12      | 0         | 21.33       | 21.37          | 21.20        | 22                  |
| 5               | QPSK       | 12      | 7         | 21.41       | 21.37          | 21.21        |                     |
| 5               | QPSK       | 12      | 13        | 21.36       | 21.37          | 21.21        |                     |
| 5               | QPSK       | 25      | 0         | 21.40       | 21.34          | 21.21        | 22                  |
| 5               | 16QAM      | 1       | 0         | 21.21       | 21.33          | 21.30        |                     |
| 5               | 16QAM      | 1       | 12        | 21.19       | 21.38          | 21.18        |                     |
| 5               | 16QAM      | 1       | 24        | 21.33       | 21.04          | 21.51        | 22                  |
| 5               | 16QAM      | 12      | 0         | 21.37       | 21.43          | 21.12        |                     |
| 5               | 16QAM      | 12      | 7         | 21.42       | 21.26          | 21.31        |                     |
| 5               | 16QAM      | 12      | 13        | 21.44       | 21.30          | 21.09        | 21                  |
| 5               | 16QAM      | 25      | 0         | 21.37       | 21.33          | 21.25        |                     |
| 5               | 64QAM      | 1       | 0         | 20.33       | 20.70          | 20.40        |                     |
| 5               | 64QAM      | 1       | 12        | 20.11       | 20.35          | 20.45        | 21                  |
| 5               | 64QAM      | 1       | 24        | 20.40       | 20.42          | 20.32        |                     |
| 5               | 64QAM      | 12      | 0         | 20.13       | 20.16          | 20.10        |                     |
| 5               | 64QAM      | 12      | 7         | 20.20       | 20.16          | 20.19        | 21                  |
| 5               | 64QAM      | 12      | 13        | 20.11       | 19.99          | 20.22        |                     |
| 5               | 64QAM      | 25      | 0         | 20.13       | 20.10          | 20.19        |                     |
| Channel         |            |         |           | 131987      | 132322         | 132657       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1711.5      | 1745           | 1778.5       |                     |
| 3               | QPSK       | 1       | 0         | 22.19       | 22.19          | 22.17        | 23                  |
| 3               | QPSK       | 1       | 8         | 22.12       | 22.13          | 22.11        |                     |
| 3               | QPSK       | 1       | 14        | 21.97       | 22.00          | 21.98        |                     |
| 3               | QPSK       | 8       | 0         | 21.41       | 21.42          | 21.37        | 22                  |
| 3               | QPSK       | 8       | 4         | 21.40       | 21.43          | 21.39        |                     |
| 3               | QPSK       | 8       | 7         | 21.42       | 21.41          | 21.40        |                     |
| 3               | QPSK       | 15      | 0         | 21.36       | 21.37          | 21.36        | 22                  |
| 3               | 16QAM      | 1       | 0         | 21.36       | 21.35          | 21.36        |                     |
| 3               | 16QAM      | 1       | 8         | 21.06       | 21.43          | 21.42        |                     |
| 3               | 16QAM      | 1       | 14        | 21.64       | 21.42          | 21.41        | 22                  |
| 3               | 16QAM      | 8       | 0         | 21.45       | 21.25          | 21.24        |                     |

|                 |       |    |    |         |         |         |                           |
|-----------------|-------|----|----|---------|---------|---------|---------------------------|
| 3               | 16QAM | 8  | 4  | 21.34   | 21.15   | 21.16   | 22                        |
| 3               | 16QAM | 8  | 7  | 21.42   | 21.20   | 21.19   |                           |
| 3               | 16QAM | 15 | 0  | 21.30   | 21.12   | 21.08   |                           |
| 3               | 64QAM | 1  | 0  | 20.20   | 21.30   | 21.28   | 21                        |
| 3               | 64QAM | 1  | 8  | 20.08   | 21.24   | 21.20   |                           |
| 3               | 64QAM | 1  | 14 | 20.17   | 21.16   | 21.17   |                           |
| 3               | 64QAM | 8  | 0  | 20.36   | 20.33   | 20.33   | 21                        |
| 3               | 64QAM | 8  | 4  | 20.42   | 20.41   | 20.40   |                           |
| 3               | 64QAM | 8  | 7  | 20.37   | 20.36   | 20.38   |                           |
| 3               | 64QAM | 15 | 0  | 20.28   | 20.29   | 20.30   |                           |
| Channel         |       |    |    | 13197.9 | 13232.2 | 13266.5 | Tune-up<br>limit<br>(dBm) |
| Frequency (MHz) |       |    |    | 1710.7  | 1745    | 1779.3  |                           |
| 1.4             | QPSK  | 1  | 0  | 21.81   | 22.25   | 22.13   | 23                        |
| 1.4             | QPSK  | 1  | 3  | 22.01   | 22.24   | 22.16   |                           |
| 1.4             | QPSK  | 1  | 5  | 21.95   | 22.23   | 22.14   |                           |
| 1.4             | QPSK  | 3  | 0  | 21.90   | 22.18   | 22.12   |                           |
| 1.4             | QPSK  | 3  | 1  | 21.95   | 22.19   | 22.11   |                           |
| 1.4             | QPSK  | 3  | 3  | 21.93   | 22.16   | 22.12   |                           |
| 1.4             | QPSK  | 6  | 0  | 21.19   | 21.51   | 21.21   | 22                        |
| 1.4             | 16QAM | 1  | 0  | 21.17   | 21.53   | 21.47   | 22                        |
| 1.4             | 16QAM | 1  | 3  | 21.41   | 21.42   | 21.40   |                           |
| 1.4             | 16QAM | 1  | 5  | 21.11   | 21.37   | 21.13   |                           |
| 1.4             | 16QAM | 3  | 0  | 21.11   | 21.34   | 21.12   |                           |
| 1.4             | 16QAM | 3  | 1  | 21.26   | 21.25   | 21.07   |                           |
| 1.4             | 16QAM | 3  | 3  | 21.28   | 21.37   | 21.06   |                           |
| 1.4             | 16QAM | 6  | 0  | 21.53   | 21.68   | 21.52   | 22                        |
| 1.4             | 64QAM | 1  | 0  | 20.21   | 20.41   | 20.52   |                           |
| 1.4             | 64QAM | 1  | 3  | 20.38   | 20.31   | 20.46   | 21                        |
| 1.4             | 64QAM | 1  | 5  | 20.66   | 20.46   | 20.42   |                           |
| 1.4             | 64QAM | 3  | 0  | 20.33   | 20.14   | 20.21   |                           |
| 1.4             | 64QAM | 3  | 1  | 20.42   | 20.09   | 20.13   |                           |
| 1.4             | 64QAM | 3  | 3  | 20.53   | 20.41   | 20.42   |                           |
| 1.4             | 64QAM | 6  | 0  | 20.24   | 20.08   | 19.75   | 21                        |

## LTE Band 48

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Middle-Low Channel | Middle-Low Channel | Middle-High Channel | High Channel | Tune-up limit (dBm) |
|-----------------|------------|---------|-----------|-----------------------|--------------------|--------------------|---------------------|--------------|---------------------|
| Channel         |            |         |           | 55340                 | 55830              | 55990              | 56150               | 56640        |                     |
| Frequency (MHz) |            |         |           | 3560                  | 3609               | 3625               | 3641                | 3690         |                     |
| 20              | QPSK       | 1       | 0         | 23.57                 | 23.58              | 23.56              | 23.57               | 23.61        | 24                  |
| 20              | QPSK       | 1       | 49        | 23.34                 | 23.44              | 23.53              | 23.53               | 23.54        |                     |
| 20              | QPSK       | 1       | 99        | 23.27                 | 23.38              | 23.54              | 23.49               | 23.59        |                     |
| 20              | QPSK       | 50      | 0         | 22.47                 | 22.44              | 22.69              | 22.66               | 22.71        | 23                  |
| 20              | QPSK       | 50      | 24        | 22.53                 | 22.44              | 22.54              | 22.47               | 22.44        |                     |
| 20              | QPSK       | 50      | 50        | 22.48                 | 22.47              | 22.68              | 22.48               | 22.47        |                     |
| 20              | QPSK       | 100     | 0         | 22.47                 | 22.44              | 22.47              | 22.54               | 22.48        |                     |
| 20              | 16QAM      | 1       | 0         | 22.44                 | 22.48              | 22.64              | 22.47               | 22.54        | 23                  |
| 20              | 16QAM      | 1       | 49        | 22.48                 | 22.47              | 22.52              | 22.47               | 22.42        |                     |
| 20              | 16QAM      | 1       | 99        | 22.47                 | 22.54              | 22.44              | 22.54               | 22.52        |                     |
| 20              | 16QAM      | 50      | 0         | 22.54                 | 22.45              | 22.54              | 22.47               | 22.77        | 23                  |
| 20              | 16QAM      | 50      | 24        | 22.47                 | 22.43              | 22.75              | 22.44               | 22.54        |                     |
| 20              | 16QAM      | 50      | 50        | 22.51                 | 22.49              | 22.81              | 22.90               | 22.51        |                     |
| 20              | 16QAM      | 100     | 0         | 22.54                 | 22.43              | 22.74              | 22.89               | 22.58        | 23                  |
| 20              | 64QAM      | 1       | 0         | 22.43                 | 22.58              | 22.49              | 22.69               | 22.52        |                     |
| 20              | 64QAM      | 1       | 49        | 22.50                 | 22.51              | 22.61              | 22.51               | 22.80        |                     |
| 20              | 64QAM      | 1       | 99        | 22.54                 | 22.61              | 22.56              | 22.47               | 22.56        | 23                  |
| 20              | 64QAM      | 50      | 0         | 22.47                 | 22.57              | 22.53              | 22.50               | 22.45        |                     |
| 20              | 64QAM      | 50      | 24        | 22.59                 | 22.42              | 22.69              | 22.57               | 22.54        |                     |
| 20              | 64QAM      | 50      | 50        | 22.48                 | 22.52              | 22.68              | 22.71               | 22.60        |                     |
| 20              | 64QAM      | 100     | 0         | 22.50                 | 22.50              | 22.78              | 22.74               | 22.42        |                     |
| Channel         |            |         |           | 55315                 | 55820              | 55990              | 56160               | 56665        | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 3557.5                | 3608               | 3625               | 3642                | 3692.5       |                     |
| 15              | QPSK       | 1       | 0         | 23.27                 | 23.14              | 23.30              | 23.50               | 23.37        | 24                  |
| 15              | QPSK       | 1       | 37        | 23.17                 | 23.13              | 23.48              | 23.54               | 23.37        |                     |
| 15              | QPSK       | 1       | 74        | 23.17                 | 23.13              | 23.46              | 23.47               | 23.30        |                     |
| 15              | QPSK       | 36      | 0         | 22.27                 | 22.30              | 22.64              | 22.49               | 22.69        | 23                  |
| 15              | QPSK       | 36      | 20        | 22.44                 | 22.35              | 22.69              | 22.45               | 22.65        |                     |
| 15              | QPSK       | 36      | 39        | 22.58                 | 22.51              | 22.72              | 22.44               | 22.68        |                     |
| 15              | QPSK       | 75      | 0         | 22.43                 | 22.29              | 22.74              | 22.47               | 22.71        |                     |
| 15              | 16QAM      | 1       | 0         | 22.34                 | 22.23              | 22.55              | 22.84               | 22.49        | 23                  |
| 15              | 16QAM      | 1       | 37        | 22.45                 | 22.44              | 22.72              | 22.41               | 22.55        |                     |
| 15              | 16QAM      | 1       | 74        | 22.53                 | 22.40              | 22.64              | 21.98               | 22.39        |                     |
| 15              | 16QAM      | 36      | 0         | 22.47                 | 22.27              | 22.71              | 22.38               | 22.58        | 23                  |
| 15              | 16QAM      | 36      | 20        | 22.34                 | 22.32              | 22.65              | 22.34               | 22.54        |                     |
| 15              | 16QAM      | 36      | 39        | 22.54                 | 22.39              | 22.78              | 22.88               | 22.58        |                     |
| 15              | 16QAM      | 75      | 0         | 22.33                 | 22.30              | 22.79              | 22.36               | 22.58        |                     |
| 15              | 64QAM      | 1       | 0         | 22.50                 | 22.60              | 22.50              | 22.74               | 22.38        | 23                  |
| 15              | 64QAM      | 1       | 37        | 22.53                 | 22.88              | 22.64              | 22.88               | 22.51        |                     |
| 15              | 64QAM      | 1       | 74        | 22.47                 | 22.85              | 22.57              | 22.67               | 22.85        |                     |
| 15              | 64QAM      | 36      | 0         | 22.39                 | 22.29              | 22.63              | 22.45               | 22.59        | 23                  |
| 15              | 64QAM      | 36      | 20        | 22.48                 | 22.44              | 22.74              | 22.89               | 22.52        |                     |
| 15              | 64QAM      | 36      | 39        | 22.54                 | 22.39              | 22.73              | 22.86               | 22.58        |                     |
| 15              | 64QAM      | 75      | 0         | 22.47                 | 22.37              | 22.74              | 22.86               | 22.62        |                     |
| Channel         |            |         |           | 55290                 | 55815              | 55990              | 56165               | 56690        | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 3555                  | 3607.5             | 3625               | 3642.5              | 3695         |                     |
| 10              | QPSK       | 1       | 0         | 23.14                 | 23.18              | 23.39              | 23.47               | 23.35        | 24                  |
| 10              | QPSK       | 1       | 25        | 23.27                 | 23.38              | 23.44              | 23.34               | 23.30        |                     |
| 10              | QPSK       | 1       | 49        | 23.18                 | 23.15              | 23.31              | 23.54               | 23.54        |                     |
| 10              | QPSK       | 25      | 0         | 23.25                 | 22.26              | 22.69              | 22.57               | 22.53        | 23                  |
| 10              | QPSK       | 25      | 12        | 22.44                 | 22.34              | 22.68              | 22.46               | 22.53        |                     |
| 10              | QPSK       | 25      | 25        | 22.47                 | 22.38              | 22.77              | 22.41               | 22.57        |                     |
| 10              | QPSK       | 50      | 0         | 22.54                 | 22.43              | 22.81              | 22.49               | 22.55        |                     |
| 10              | 16QAM      | 1       | 0         | 22.34                 | 22.29              | 22.16              | 22.31               | 22.56        | 23                  |
| 10              | 16QAM      | 1       | 25        | 22.41                 | 22.47              | 22.25              | 22.46               | 22.39        |                     |

|                 |       |    |    |        |       |       |       |        |                        |
|-----------------|-------|----|----|--------|-------|-------|-------|--------|------------------------|
| 10              | 16QAM | 1  | 49 | 22.44  | 22.33 | 22.21 | 22.38 | 22.52  | 23                     |
| 10              | 16QAM | 25 | 0  | 22.54  | 22.33 | 22.24 | 22.52 | 22.70  |                        |
| 10              | 16QAM | 25 | 12 | 22.27  | 22.46 | 22.21 | 22.38 | 22.64  |                        |
| 10              | 16QAM | 25 | 25 | 22.34  | 22.43 | 22.28 | 22.50 | 22.77  |                        |
| 10              | 16QAM | 50 | 0  | 22.38  | 22.41 | 22.24 | 22.48 | 22.66  |                        |
| 10              | 64QAM | 1  | 0  | 22.47  | 22.23 | 22.59 | 22.19 | 22.53  | 23                     |
| 10              | 64QAM | 1  | 25 | 22.47  | 22.26 | 22.71 | 22.36 | 22.58  |                        |
| 10              | 64QAM | 1  | 49 | 22.41  | 22.24 | 22.60 | 22.23 | 22.49  |                        |
| 10              | 64QAM | 25 | 0  | 22.53  | 22.31 | 22.74 | 22.44 | 22.62  | 23                     |
| 10              | 64QAM | 25 | 12 | 22.45  | 22.34 | 22.71 | 22.33 | 22.62  |                        |
| 10              | 64QAM | 25 | 25 | 22.47  | 22.43 | 22.75 | 22.42 | 22.59  |                        |
| 10              | 64QAM | 50 | 0  | 22.53  | 22.39 | 22.72 | 22.47 | 22.68  |                        |
| Channel         |       |    |    | 55265  | 55810 | 55990 | 56170 | 56175  | Tune-up limit<br>(dBm) |
| Frequency (MHz) |       |    |    | 3552.5 | 3607  | 3625  | 3643  | 3697.5 |                        |
| 5               | QPSK  | 1  | 0  | 23.14  | 23.15 | 23.24 | 23.47 | 23.44  | 24                     |
| 5               | QPSK  | 1  | 12 | 23.24  | 23.14 | 23.39 | 23.34 | 23.47  |                        |
| 5               | QPSK  | 1  | 24 | 23.44  | 23.27 | 23.30 | 23.44 | 23.17  |                        |
| 5               | QPSK  | 12 | 0  | 22.54  | 22.28 | 22.62 | 22.66 | 22.75  | 23                     |
| 5               | QPSK  | 12 | 7  | 22.47  | 22.36 | 22.75 | 22.51 | 22.81  |                        |
| 5               | QPSK  | 12 | 13 | 22.34  | 22.30 | 22.75 | 22.73 | 22.87  |                        |
| 5               | QPSK  | 25 | 0  | 22.47  | 22.33 | 22.76 | 22.74 | 22.89  |                        |
| 5               | 16QAM | 1  | 0  | 22.54  | 22.77 | 22.59 | 22.75 | 22.44  | 23                     |
| 5               | 16QAM | 1  | 12 | 22.49  | 22.38 | 22.76 | 22.92 | 22.60  |                        |
| 5               | 16QAM | 1  | 24 | 22.34  | 22.24 | 22.62 | 22.73 | 22.45  |                        |
| 5               | 16QAM | 12 | 0  | 22.53  | 22.22 | 22.17 | 22.39 | 22.57  | 23                     |
| 5               | 16QAM | 12 | 7  | 22.38  | 22.34 | 22.12 | 22.49 | 22.68  |                        |
| 5               | 16QAM | 12 | 13 | 22.41  | 22.40 | 22.25 | 22.39 | 22.61  |                        |
| 5               | 16QAM | 25 | 0  | 22.49  | 22.32 | 22.13 | 22.47 | 22.68  |                        |
| 5               | 64QAM | 1  | 0  | 22.53  | 22.59 | 22.44 | 22.71 | 22.46  | 23                     |
| 5               | 64QAM | 1  | 12 | 22.47  | 22.79 | 22.65 | 22.84 | 22.55  |                        |
| 5               | 64QAM | 1  | 24 | 22.53  | 22.64 | 22.50 | 22.77 | 22.41  |                        |
| 5               | 64QAM | 12 | 0  | 22.41  | 22.59 | 22.68 | 22.37 | 22.49  | 23                     |
| 5               | 64QAM | 12 | 7  | 22.45  | 22.60 | 22.16 | 22.45 | 22.67  |                        |
| 5               | 64QAM | 12 | 13 | 22.53  | 22.58 | 22.15 | 22.24 | 22.55  |                        |
| 5               | 64QAM | 25 | 0  | 22.46  | 22.32 | 22.15 | 22.30 | 22.64  |                        |

| 5G NR n2        |                         |         |           |             |                |              |                     |
|-----------------|-------------------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]        | Modulation              | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel         |                         |         |           | 372000      | 376000         | 380000       |                     |
| Frequency (MHz) |                         |         |           | 1860        | 1880           | 1900         |                     |
| 20              | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | 23.89       | 23.96          | 23.93        | 25                  |
| 20              |                         | 1       | 53        | 24.08       | 24.01          | 24.05        |                     |
| 20              |                         | 1       | 104       | 24.05       | 23.98          | 23.91        |                     |
| 20              |                         | 50      | 1         | 23.60       | 23.50          | 23.41        | 24                  |
| 20              |                         | 50      | 25        | 23.68       | 23.53          | 23.66        |                     |
| 20              |                         | 50      | 50        | 23.39       | 23.58          | 23.51        |                     |
| 20              |                         | 100     | 0         | 23.51       | 23.61          | 23.48        |                     |
| 20              |                         | 1       | 1         | 24.16       | 24.19          | 24.16        |                     |
| 20              | DFT-s-OFDM<br>QPSK      | 1       | 53        | 23.91       | 23.95          | 23.90        | 25                  |
| 20              |                         | 1       | 104       | 24.14       | 24.01          | 24.02        |                     |
| 20              |                         | 50      | 1         | 23.62       | 23.61          | 23.45        |                     |
| 20              |                         | 50      | 25        | 23.67       | 23.68          | 23.67        | 24                  |
| 20              |                         | 50      | 50        | 23.52       | 23.55          | 23.59        |                     |
| 20              |                         | 100     | 0         | 23.82       | 23.85          | 24.04        |                     |
| 20              | DFT-s-OFDM              | 1       | 1         | 22.98       | 23.17          | 23.21        | 24                  |
| 20              | DFT-s-OFDM              | 1       | 1         | 22.52       | 22.67          | 22.53        | 23                  |
| 20              | DFT-s-OFDM              | 1       | 1         | 20.77       | 20.71          | 20.85        | 21.5                |
| Channel         |                         |         |           | 371500      | 376000         | 380500       | Tune-up limit (dBm) |
| Frequency (MHz) |                         |         |           | 1857.5      | 1880           | 1902.5       |                     |
| 15              | DFT-s-OFDM              | 1       | 1         | 23.74       | 23.64          | 23.70        | 24                  |
| Channel         |                         |         |           | 371000      | 376000         | 381000       | Tune-up limit (dBm) |
| Frequency (MHz) |                         |         |           | 1855        | 1880           | 1905         |                     |
| 10              | DFT-s-OFDM              | 1       | 1         | 23.65       | 23.64          | 23.79        | 24                  |
| Channel         |                         |         |           | 370500      | 376000         | 381500       | Tune-up limit (dBm) |
| Frequency (MHz) |                         |         |           | 1852.5      | 1880           | 1907.5       |                     |
| 5               | DFT-s-OFDM              | 1       | 1         | 23.48       | 23.46          | 22.37        | 24                  |

| BW [MHz]        | Modulation        | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
|-----------------|-------------------|---------|-----------|-------------|----------------|--------------|---------------------|
| Channel         |                   |         |           | 372000      | 376000         | 380000       |                     |
| Frequency (MHz) |                   |         |           | 1860        | 1880           | 1900         |                     |
| 20              | CP-OFDM<br>QPSK   | 1       | 1         | 23.23       | 23.20          | 23.46        | 24                  |
| 20              | CP-OFDM<br>16QAM  | 1       | 1         | 23.15       | 22.86          | 22.79        | 24                  |
| 20              | CP-OFDM<br>64QAM  | 1       | 1         | 20.59       | 20.59          | 20.46        | 21                  |
| 20              | CP-OFDM<br>256QAM | 1       | 1         | 18.53       | 18.65          | 18.53        | 19                  |

| 5G NR n66       |                         |         |           |             |                |              |                     |
|-----------------|-------------------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]        | Modulation              | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel         |                         |         |           | 344000      | 349000         | 354000       |                     |
| Frequency (MHz) |                         |         |           | 1720        | 1745           | 1770         |                     |
| 20              | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | 24.20       | 24.02          | 24.19        | 25                  |
| 20              |                         | 1       | 53        | 24.21       | 24.06          | 24.03        |                     |
| 20              |                         | 1       | 104       | 24.01       | 24.13          | 24.25        |                     |
| 20              |                         | 50      | 1         | 23.71       | 23.43          | 23.65        | 24                  |
| 20              |                         | 50      | 25        | 23.58       | 23.52          | 23.47        |                     |
| 20              |                         | 50      | 50        | 23.43       | 23.50          | 23.46        |                     |
| 20              |                         | 100     | 0         | 23.45       | 23.39          | 23.54        |                     |
| 20              |                         | 1       | 1         | 24.09       | 24.35          | 24.00        |                     |
| 20              | DFT-s-OFDM<br>QPSK      | 1       | 53        | 24.30       | 24.10          | 24.23        | 25                  |
| 20              |                         | 1       | 104       | 24.04       | 24.09          | 23.99        |                     |
| 20              |                         | 50      | 1         | 23.44       | 23.64          | 23.53        |                     |
| 20              |                         | 50      | 25        | 23.61       | 23.41          | 23.60        | 24                  |
| 20              |                         | 50      | 50        | 23.57       | 23.53          | 23.59        |                     |
| 20              |                         | 100     | 0         | 23.36       | 23.66          | 23.46        |                     |
| 20              | DFT-s-OFDM              | 1       | 1         | 23.45       | 23.33          | 23.15        | 24                  |
| 20              | DFT-s-OFDM              | 1       | 1         | 22.52       | 22.42          | 22.66        | 23                  |
| 20              | DFT-s-OFDM              | 1       | 1         | 20.65       | 20.48          | 20.78        | 21                  |
| Channel         |                         |         |           | 343500      | 349000         | 354500       | Tune-up limit (dBm) |
| Frequency (MHz) |                         |         |           | 1717.5      | 1745           | 1772.5       |                     |
| 15              | DFT-s-OFDM              | 1       | 1         | 24.27       | 24.22          | 24.32        | 25                  |
| Channel         |                         |         |           | 343000      | 349000         | 355000       | Tune-up limit (dBm) |
| Frequency (MHz) |                         |         |           | 1715        | 1745           | 1775         |                     |
| 10              | DFT-s-OFDM              | 1       | 1         | 23.95       | 23.98          | 24.25        | 25                  |
| Channel         |                         |         |           | 342500      | 349000         | 355500       | Tune-up limit (dBm) |
| Frequency (MHz) |                         |         |           | 1712.5      | 1745           | 1777.5       |                     |
| 5               | DFT-s-OFDM              | 1       | 1         | 24.20       | 24.10          | 24.16        | 25                  |

| BW [MHz]        | Modulation        | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
|-----------------|-------------------|---------|-----------|-------------|----------------|--------------|---------------------|
| Channel         |                   |         |           | 344000      | 349000         | 354000       |                     |
| Frequency (MHz) |                   |         |           | 1710        | 1745           | 1780         |                     |
| 20              | CP-OFDM<br>QPSK   | 1       | 1         | 23.38       | 23.17          | 23.34        | 24                  |
| 20              | CP-OFDM<br>16QAM  | 1       | 1         | 22.88       | 22.91          | 22.99        | 24                  |
| 20              | CP-OFDM<br>64QAM  | 1       | 1         | 20.42       | 20.52          | 20.61        | 21                  |
| 20              | CP-OFDM<br>256QAM | 1       | 1         | 18.68       | 18.58          | 18.55        | 19                  |

## 5G NR n78

| BW [MHz]        | Modulation              | RB Size | RB Offset | Low Channel | Low/Middle Channel | Middle Channel | Middle/High Channel | High Channel | Tune-up limit (dBm) |
|-----------------|-------------------------|---------|-----------|-------------|--------------------|----------------|---------------------|--------------|---------------------|
| Channel         |                         |         |           | /           | /                  | 650000         | /                   | /            |                     |
| Frequency (MHz) |                         |         |           | /           | /                  | 3750           | /                   | /            |                     |
| 100             | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         |             |                    | 21.48          |                     |              | 22                  |
| 100             |                         | 1       | 136       |             |                    | 21.28          |                     |              |                     |
| 100             |                         | 1       | 272       |             |                    | 21.22          |                     |              |                     |
| 100             |                         | 135     | 1         |             |                    | 20.60          |                     |              | 21                  |
| 100             |                         | 135     | 67        |             |                    | 20.63          |                     |              |                     |
| 100             |                         | 135     | 136       |             |                    | 20.32          |                     |              |                     |
| 100             |                         | 270     | 0         |             |                    | 20.53          |                     |              |                     |
| 100             | DFT-s-OFDM<br>QPSK      | 1       | 1         |             |                    | 21.55          |                     |              | 22                  |
| 100             |                         | 1       | 136       |             |                    | 21.10          |                     |              |                     |
| 100             |                         | 1       | 272       |             |                    | 20.21          |                     |              |                     |
| 100             |                         | 135     | 1         |             |                    | 20.65          |                     |              | 21                  |
| 100             |                         | 135     | 67        |             |                    | 20.22          |                     |              |                     |
| 100             |                         | 135     | 136       |             |                    | 20.17          |                     |              |                     |
| 100             |                         | 270     | 0         |             |                    | 20.32          |                     |              |                     |
| 100             | DFT-s-OFDM              | 1       | 1         |             |                    | 20.62          |                     |              | 21                  |
| 100             | DFT-s-OFDM              | 1       | 1         |             |                    | 18.75          |                     |              | 19                  |
| 100             | DFT-s-OFDM              | 1       | 1         |             |                    | 16.91          |                     |              | 17.5                |

| BW [MHz]        | Modulation        | RB Size | RB Offset | Low Channel | Low/Middle Channel | Middle Channel | Middle/High Channel | High Channel | Tune-up limit (dBm) |
|-----------------|-------------------|---------|-----------|-------------|--------------------|----------------|---------------------|--------------|---------------------|
| Channel         |                   |         |           | /           | /                  | 650000         | /                   | /            |                     |
| Frequency (MHz) |                   |         |           | /           | /                  | 3750           | /                   | /            |                     |
| 100             | CP-OFDM<br>QPSK   | 1       | 1         |             |                    | 20.15          |                     |              | 21                  |
| 100             | CP-OFDM<br>16QAM  | 1       | 1         |             |                    | 19.80          |                     |              | 20.5                |
| 100             | CP-OFDM<br>64QAM  | 1       | 1         |             |                    | 17.68          |                     |              | 18.5                |
| 100             | CP-OFDM<br>256QAM | 1       | 1         |             |                    | 14.85          |                     |              | 15.5                |

2.4GHz WLAN ANT 1

|                   | Mode              | Channel | Frequency (MHz) | Average power (dBm) | Turn-Up Limit | Power Setting | Duty Cycle % |
|-------------------|-------------------|---------|-----------------|---------------------|---------------|---------------|--------------|
|                   |                   |         | (MHz)           | (dBm)               |               |               |              |
| 3.4GHz WLAN ANT 1 | 802.11a 1Mbps     | CH 1    | 2412            | 14.68               | 15.0          | 15            | 100.00       |
|                   |                   | CH 7    | 2442            | 15.96               | 16.5          | 15            |              |
|                   |                   | CH 13   | 2472            | 14.62               | 15.5          | 15            |              |
|                   | 802.11g 6Mbps     | CH 3    | 2424            | 14.68               | 15.0          | 15            | 100.00       |
|                   |                   | CH 7    | 2442            | 15.69               | 16.5          | 15            |              |
|                   |                   | CH 13   | 2472            | 14.41               | 15.0          | 15            |              |
|                   | 802.11a-HT20 MCS0 | CH 1    | 2412            | 14.57               | 15.0          | 15            | 100.00       |
|                   |                   | CH 7    | 2442            | 15.64               | 16.5          | 15            |              |
|                   |                   | CH 13   | 2472            | 14.33               | 15.0          | 15            |              |
|                   | 802.11a-HT40 MCS0 | CH 3    | 2424            | 14.45               | 15.0          | 15            | 100.00       |
|                   |                   | CH 7    | 2442            | 15.76               | 16.5          | 15            |              |
|                   |                   | CH 13   | 2462            | 14.73               | 15.0          | 15            |              |

5.8GHz WLAN ANT 1

|                   | Mode                       | Channel | Frequency (MHz) | Average power (dBm) | Turn-Up Limit | Power Setting | Duty Cycle % |
|-------------------|----------------------------|---------|-----------------|---------------------|---------------|---------------|--------------|
|                   |                            |         | (MHz)           | (dBm)               |               |               |              |
| 5.2GHz WLAN ANT 1 | 802.11a 6Mbps              | CH 36   | 5180            | 12.02               | 13.0          | 13            | 100.00       |
|                   |                            | CH 44   | 5220            | 12.31               | 13.0          | 13            |              |
|                   |                            | CH 48   | 5240            | 12.40               | 13.0          | 13            |              |
|                   | 802.11a-HT20 MCS0          | CH 36   | 5180            | 11.96               | 12.5          | 13            | 100.00       |
|                   |                            | CH 44   | 5220            | 12.21               | 13.0          | 13            |              |
|                   |                            | CH 48   | 5240            | 12.22               | 13.0          | 13            |              |
|                   | 802.11a-VHT20 MCS0         | CH 36   | 5180            | 11.18               | 12.0          | 13            | 100.00       |
|                   |                            | CH 44   | 5220            | 12.16               | 13.0          | 13            |              |
|                   |                            | CH 48   | 5240            | 12.27               | 13.0          | 13            |              |
|                   | 802.11a-VHT40 MCS0         | CH 36   | 5180            | 12.10               | 13.0          | 13            | 100.00       |
|                   |                            | CH 46   | 5230            | 12.27               | 13.0          | 13            |              |
|                   |                            | CH 42   | 5210            | 12.23               | 13.0          | 13            |              |
|                   | 802.11a-VHT80 MCS0 (RU242) | CH 36   | 5180            | 12.00               | 13.0          | 14            | 100.00       |
|                   |                            | CH 44   | 5220            | 12.24               | 13.0          | 14            |              |
|                   |                            | CH 48   | 5240            | 12.41               | 13.0          | 14            |              |
|                   | 802.11a-HEW20 MCS0 (RU26)  | CH 36   | 5180            | 11.76               | 12.5          | 14            | 100.00       |
|                   |                            | CH 44   | 5220            | 12.00               | 13.0          | 14            |              |
|                   |                            | CH 48   | 5240            | 12.49               | 13.0          | 14            |              |
|                   | 802.11a-HEW20 MCS0 (RU52)  | CH 36   | 5180            | 12.06               | 12.5          | 14            | 100.00       |
|                   |                            | CH 44   | 5220            | 12.39               | 13.0          | 14            |              |
|                   |                            | CH 48   | 5240            | 12.62               | 13.0          | 14            |              |
|                   | 802.11a-HEW20 MCS0 (RU106) | CH 36   | 5180            | 11.77               | 12.5          | 14            | 100.00       |
|                   |                            | CH 44   | 5220            | 12.24               | 13.0          | 14            |              |
|                   |                            | CH 48   | 5240            | 12.48               | 13.0          | 14            |              |
|                   | 802.11a-HEW40 MCS0         | CH 36   | 5180            | 11.98               | 12.5          | 13            | 100.00       |
|                   |                            | CH 46   | 5230            | 12.15               | 13.0          | 13            |              |
|                   |                            | CH 42   | 5210            | 12.18               | 13.0          | 13            |              |

5.8GHz WLAN ANT 1

|                   | Mode                       | Channel | Frequency (MHz) | Average power (dBm) | Turn-Up Limit | Power Setting | Duty Cycle % |
|-------------------|----------------------------|---------|-----------------|---------------------|---------------|---------------|--------------|
|                   |                            |         | (MHz)           | (dBm)               |               |               |              |
| 5.8GHz WLAN ANT 1 | 802.11a MCS0               | CH 149  | 5745            | 12.09               | 13.00         | 13            | 100.00       |
|                   |                            | CH 157  | 5785            | 12.15               | 13.00         | 13            |              |
|                   |                            | CH 165  | 5825            | 11.77               | 12.50         | 13            |              |
|                   | 802.11a-HT20 MCS0          | CH 149  | 5745            | 11.95               | 12.50         | 13            | 100.00       |
|                   |                            | CH 157  | 5785            | 12.02               | 13.00         | 13            |              |
|                   |                            | CH 165  | 5825            | 11.64               | 12.00         | 13            |              |
|                   | 802.11a-VHT20 MCS0         | CH 149  | 5745            | 11.94               | 12.00         | 13            | 100.00       |
|                   |                            | CH 157  | 5785            | 12.02               | 13.00         | 13            |              |
|                   |                            | CH 165  | 5825            | 11.65               | 12.00         | 13            |              |
|                   | 802.11a-VHT40 MCS0         | CH 149  | 5745            | 12.08               | 13.00         | 13            | 100.00       |
|                   |                            | CH 157  | 5785            | 12.12               | 13.00         | 13            |              |
|                   |                            | CH 165  | 5785            | 12.12               | 13.00         | 13            |              |
|                   | 802.11a-VHT80 MCS0         | CH 149  | 5745            | 12.09               | 13.00         | 13            | 100.00       |
|                   |                            | CH 155  | 5775            | 12.09               | 13.00         | 13            |              |
|                   |                            | CH 165  | 5825            | 12.37               | 13.00         | 14            |              |
|                   | 802.11a-HEW20 MCS0 (RU242) | CH 149  | 5745            | 12.18               | 13.00         | 14            | 100.00       |
|                   |                            | CH 157  | 5785            | 12.18               | 13.00         | 14            |              |
|                   |                            | CH 165  | 5825            | 11.77               | 12.50         | 14            |              |
|                   | 802.11a-HEW20 MCS0 (RU26)  | CH 149  | 5745            | 11.90               | 12.50         | 14            | 100.00       |
|                   |                            | CH 157  | 5785            | 11.78               | 12.50         | 14            |              |
|                   |                            | CH 165  | 5825            | 11.57               | 12.00         | 14            |              |
|                   | 802.11a-HEW20 MCS0 (RU52)  | CH 149  | 5745            | 11.79               | 12.50         | 14            | 100.00       |
|                   |                            | CH 157  | 5785            | 11.60               | 12.50         | 14            |              |
|                   |                            | CH 165  | 5825            | 11.50               | 12.00         | 14            |              |
|                   | 802.11a-HEW40 MCS0 (RU106) | CH 149  | 5745            | 12.13               | 13.00         | 14            | 100.00       |
|                   |                            | CH 157  | 5785            | 12.18               | 13.00         | 14            |              |
|                   |                            | CH 165  | 5825            | 11.56               | 12.00         | 14            |              |
|                   | 802.11a-HEW40 MCS0         | CH 149  | 5745            | 12.10               | 12.50         | 13            | 100.00       |
|                   |                            | CH 155  | 5775            | 11.85               | 12.00         | 13            |              |
|                   |                            | CH 155  | 5775            | 12.02               | 13.00         | 13            |              |

2.4GHz WLAN ANT 2

|                   | Mode              | Channel | Frequency (MHz) | Average power (dBm) | Turn-Up Limit | Power Setting | Duty Cycle % |
|-------------------|-------------------|---------|-----------------|---------------------|---------------|---------------|--------------|
|                   |                   |         | (MHz)           | (dBm)               |               |               |              |
| 2.4GHz WLAN ANT 2 | 802.11a 1Mbps     | CH 1    | 2412            | 15.82               | 16.50         | 15            | 100.00       |
|                   |                   | CH 7    | 2442            | 15.52               | 16.00         | 15            |              |
|                   |                   | CH 13   | 2472            | 14.60               | 15.50         | 15            |              |
|                   | 802.11g 6Mbps     | CH 1    | 2412            | 15.50               | 16.00         | 15            | 100.00       |
|                   |                   | CH 7    | 2442            | 15.34               | 16.00         | 15            |              |
|                   |                   | CH 13   | 2472            | 14.48               | 15.00         | 15            |              |
|                   | 802.11a-HT20 MCS0 | CH 1    | 2412            | 15.38               | 16.00         | 15            | 100.00       |
|                   |                   | CH 7    | 2442            | 15.24               | 16.00         | 15            |              |
|                   |                   | CH 13   | 2472            | 14.35               | 15.00         | 15            |              |
|                   | 802.11a-HT40 MCS0 | CH 3    | 2424            | 15.38               | 16.00         | 15            | 100.00       |
|                   |                   | CH 7    | 2442            | 15.18               | 16.00         | 15            |              |
|                   |                   | CH 11   | 2462            | 14.60               | 15.00         | 15            |              |

5.2GHz WLAN ANT 2

|                   | Mode                       | Channel | Frequency (MHz) | Average power (dBm) | Turn-Up Limit | Power Setting | Duty Cycle % |
|-------------------|----------------------------|---------|-----------------|---------------------|---------------|---------------|--------------|
|                   |                            |         | (MHz)           | (dBm)               |               |               |              |
| 5.2GHz WLAN ANT 2 | 802.11a 6Mbps              | CH 36   | 5180            | 11.44               | 12.00         | 13            | 100.00       |
|                   |                            | CH 44   | 5220            | 11.65               | 12.00         | 13            |              |
|                   |                            | CH 48   | 5240            | 11.82               | 12.50         | 13            |              |
|                   | 802.11a-HT20 MCS0          | CH 36   | 5180            | 11.26               | 12.00         | 13            | 100.00       |
|                   |                            | CH 44   | 5220            | 11.47               | 12.00         | 13            |              |
|                   |                            | CH 48   | 5240            | 11.65               | 12.00         | 13            |              |
|                   | 802.11a-VHT20 MCS0         | CH 36   | 5180            | 11.25               | 12.00         | 13            | 100.00       |
|                   |                            | CH 44   | 5220            | 11.48               | 12.00         | 13            |              |
|                   |                            | CH 48   | 5240            | 11.64               | 12.00         | 13            |              |
|                   | 802.11a-VHT40 MCS0         | CH 36   | 5180            | 11.49               | 12.00         | 13            | 100.00       |
|                   |                            | CH 46   | 5230            | 11.64               | 12.00         | 13            |              |
|                   |                            | CH 42   | 5210            | 11.36               | 12.00         | 13            |              |
|                   | 802.11a-VHT80 MCS0         | CH 36   | 5180            | 11.37               | 12.00         | 14            | 100.00       |
|                   |                            | CH 44   | 5220            | 11.39               | 12.00         | 14            |              |
|                   |                            | CH 48   | 5240            | 11.73               | 12.50         | 14            |              |
|                   | 802.11a-HEW20 MCS0 (RU26)  | CH 36   | 5180            | 10.79               | 11.50         | 14            | 100.00       |
|                   |                            | CH 44   | 5220            | 10.88               | 11.50         | 14            |              |
|                   |                            | CH 48   | 5240            | 10.97               | 11.50         | 14            |              |
|                   | 802.11a-HEW20 MCS0 (RU52)  | CH 36   | 5180            | 10.87               | 11.50         | 14            | 100.00       |
|                   |                            | CH 44   | 5220            | 10.97               | 11.50         | 14            |              |
|                   |                            | CH 48   | 5240            | 11.15               | 12.00         | 14            |              |
|                   | 802.11a-HEW20 MCS0 (RU106) | CH 36   | 5180            | 10.80               | 11.50         | 14            | 100.00       |
|                   |                            | CH 44   | 5220            | 11.20               | 12.00         | 14            |              |
|                   |                            | CH 48   | 5240            | 11.09               | 12.00         | 14            |              |
|                   | 802.11a-HEW40 MCS0         | CH 36   | 5180            | 11.28               | 12.00         | 13            | 100.00       |
|                   |                            | CH 46   | 5230            | 11.52               | 12.00         | 13            |              |
|                   |                            | CH 42   | 5210            | 11.35               | 12.00         | 13            |              |

5.8 WLAN ANT 2

|                            | Mode               | Channel | Frequency (MHz) | Average power (dBm) | Turn-Up Limit | Power Setting | Duty Cycle % |
|----------------------------|--------------------|---------|-----------------|---------------------|---------------|---------------|--------------|
| 5.8GHz WLAN ANT 2          | 802.11a MCS0       | CH 149  | 5745            | 12.25               | 13.00         | 13            | 100.00       |
|                            |                    | CH 157  | 5785            | 12.08               | 13.00         | 13            |              |
|                            |                    | CH 165  | 5825            | 12.27               | 13.00         | 13            |              |
|                            | 802.11a-HT20 MCS0  | CH 149  | 5745            | 12.14               | 13.00         | 13            | 100.00       |
|                            |                    | CH 157  | 5785            | 12.02               | 13.00         | 13            |              |
|                            |                    | CH 165  | 5825            | 12.25               | 13.00         | 13            |              |
|                            | 802.11a-VHT20 MCS0 | CH 149  | 5745            | 12.11               | 13.00         | 13            | 100.00       |
|                            |                    | CH 157  | 5785            | 12.02               | 13.00         | 13            |              |
|                            |                    | CH 165  | 5825            | 12.25               | 13.00         | 13            |              |
|                            | 802.11a-VHT40 MCS0 | CH 149  | 5745            | 12.16               | 13.00         | 13            | 100.00       |
|                            |                    | CH 155  | 5775            | 12.15               | 13.00         | 13            |              |
|                            |                    | CH 165  | 5785            | 12.15               | 13.00         | 13            |              |
| 802.11a-VHT80 MCS0         | CH 149             | 5745    | 12.22           | 13.00               | 14            | 100.00        |              |
|                            | CH 157             | 5785    | 12.03           | 13.00               | 14            |               |              |
|                            | CH 165             | 5825    | 12.17           | 13.00               | 14            |               |              |
| 802.11a-HEW20 MCS0 (RU26)  | CH 149             | 5745    | 10.78           | 11.50               | 14            | 100.00        |              |
|                            | CH 157             | 5785    | 10.85           | 11.50               | 14            |               |              |
|                            | CH 165             | 5825    | 10.89           | 11.50               | 14            |               |              |
| 802.11a-HEW20 MCS0 (RU52)  | CH 149             | 5745    | 10.85           | 11.50               | 14            | 100.00        |              |
|                            | CH 157             | 5785    | 10.87           | 11.00               | 14            |               |              |
|                            | CH 165             | 5825    | 10.89           | 11.50               | 14            |               |              |
| 802.11a-HEW40 MCS0 (RU106) | CH 149             | 5745    | 10.42           | 11.00               | 14            | 100.00        |              |
|                            | CH 157             | 5785    | 10.26           | 11.00               | 14            |               |              |
|                            | CH 165             | 5825    | 10.65           | 11.50               | 14            |               |              |
| 802.11a-HEW40 MCS0 (RU206) | CH 149             | 5745    | 10.23           | 11.00               | 13            | 100.00        |              |
|                            | CH 155             | 5775    | 12.09           | 13.00               | 13            |               |              |
|                            | CH 165             | 5785    | 12.09           | 13.00               | 13            |               |              |
| 802.11a-HEW80 MCS0 (RU406) | CH 149             | 5745    | 10.41           | 11.00               | 14            | 100.00        |              |
|                            | CH 157             | 5785    | 10.26           | 11.00               | 14            |               |              |
|                            | CH 165             | 5825    | 10.65           | 11.50               | 14            |               |              |
| 802.11a-HEW80 MCS0 (RU806) | CH 149             | 5745    | 10.23           | 11.00               | 13            | 100.00        |              |
|                            | CH 155             | 5775    | 12.09           | 13.00               | 13            |               |              |
|                            | CH 165             | 5785    | 12.15           | 13.00               | 13            |               |              |

| CA_66B                             |                    |             |            |         |           |         |           |               |                      |                     |                    |
|------------------------------------|--------------------|-------------|------------|---------|-----------|---------|-----------|---------------|----------------------|---------------------|--------------------|
| Combination:10MHz+10MHz(50RB+50RB) |                    |             |            |         |           |         |           |               |                      |                     |                    |
| PCC Channel                        | PCC Channel (3GPP) | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level(dB) | Measured Power(dBm) | Tune-up limit(dBm) |
|                                    |                    |             |            | RB Size | RB Offset | RB Size | RB Offset |               |                      |                     |                    |
| 132072                             | 132022             | 132121      | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                    | 23.80               | 24.5               |
| 132322                             | 132373             | 132472      | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                    | 24.34               | 24.5               |
| 132572                             | 132523             | 132622      | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                    | 24.32               | 24.5               |

| CA_66C                               |                    |             |            |         |           |         |           |               |                      |                     |                    |
|--------------------------------------|--------------------|-------------|------------|---------|-----------|---------|-----------|---------------|----------------------|---------------------|--------------------|
| Combination:20MHz+20MHz(100RB+100RB) |                    |             |            |         |           |         |           |               |                      |                     |                    |
| PCC Channel                          | PCC Channel (3GPP) | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level(dB) | Measured Power(dBm) | Tune-up limit(dBm) |
|                                      |                    |             |            | RB Size | RB Offset | RB Size | RB Offset |               |                      |                     |                    |
| 132072                               | 132072             | 132270      | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                    | 23.78               | 24.5               |
| 132322                               | 132323             | 132521      | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                    | 24.17               | 24.5               |
| 132572                               | 132374             | 132572      | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                    | 24.2                | 24.5               |

| CA_48C                               |                    |             |            |         |           |         |           |               |                      |                     |                    |
|--------------------------------------|--------------------|-------------|------------|---------|-----------|---------|-----------|---------------|----------------------|---------------------|--------------------|
| Combination:20MHz+20MHz(100RB+100RB) |                    |             |            |         |           |         |           |               |                      |                     |                    |
| PCC Channel                          | PCC Channel (3GPP) | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level(dB) | Measured Power(dBm) | Tune-up limit(dBm) |
|                                      |                    |             |            | RB Size | RB Offset | RB Size | RB Offset |               |                      |                     |                    |
| 55340                                | 55340              | 55538       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                    | 23.11               | 24                 |
| 55990                                | 55891              | 56089       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                    | 23.19               | 24                 |
| 56640                                | 56442              | 56640       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                    | 23.24               | 24                 |

| 2CC LTE Uplink |                  |      |          |            |               |                                 |      |          |            |               |                     |                    |
|----------------|------------------|------|----------|------------|---------------|---------------------------------|------|----------|------------|---------------|---------------------|--------------------|
| Configure      | CA Configuration | PCC  |          |            |               |                                 | SCC  |          |            |               | Power               |                    |
|                |                  | Band | BW (MHz) | UL Channel | UL Fre. (MHz) | UL Mode (Modulation/RB /Offset) | Band | BW (MHz) | UL Channel | UL Fre. (MHz) | Measured Power(dBm) | Tune-up limit(dBm) |
| Inter-band     | CA_2A-4A         | 2    | 20       | 19100      | 1900          | QPSK/1#0                        | 4    | 20       | 20175      | 1732.5        | 24.02               | 24.5               |
|                | CA_2A-5A         | 4    | 20       | 19100      | 1900          | QPSK/1#0                        | 5    | 20       | 20525      | 836.5         | 24.10               | 24.5               |
|                | CA_2A-13A        | 4    | 20       | 19100      | 1900          | QPSK/1#0                        | 13   | 10       | 23230      | 782           | 24.07               | 24.5               |
|                | CA_2A-66A        | 2    | 20       | 19100      | 1900          | QPSK/1#0                        | 66   | 20       | 132322     | 1745          | 24.07               | 24.5               |
|                | CA_4A-5A         | 4    | 20       | 20175      | 1732.5        | QPSK/1#0                        | 5    | 20       | 20525      | 836.5         | 23.89               | 24.5               |
|                | CA_4A-13A        | 4    | 20       | 20175      | 1732.5        | QPSK/1#0                        | 13   | 10       | 23230      | 782           | 23.62               | 24                 |
|                | CA_5A-66A        | 5    | 20       | 20525      | 836.5         | QPSK/1#0                        | 66   | 20       | 132322     | 1745          | 23.57               | 24                 |
|                | CA_13A-66A       | 13   | 10       | 23230      | 782           | QPSK/1#0                        | 66   | 20       | 132322     | 1745          | 23.54               | 24                 |

| 2CC LTE Downlink |                  |      |          |            |               |                                |      |          |            |               |             |                |
|------------------|------------------|------|----------|------------|---------------|--------------------------------|------|----------|------------|---------------|-------------|----------------|
| Configure        | CA Configuration | PCC  |          |            |               |                                | SCC  |          |            |               | Power       |                |
|                  |                  | Band | BW (MHz) | UL Channel | UL Fre. (MHz) | UL Mode (Modulation/RB/Offset) | Band | BW (MHz) | DL Channel | DL Fre. (MHz) | CA TX (dBm) | Rel.8 TX (dBm) |
|                  | CA_2A-71A        | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 71   | 20       | 68786      | 637           | 22.12       | 22.38          |
|                  | CA_4A-71A        | 4    | 20       | 20175      | 1732.5        | QPSK/1#0                       | 71   | 20       | 68786      | 637           | 21.62       | 22.35          |
|                  | CA_5A-12A        | 5    | 10       | 20525      | 836.5         | QPSK/1#0                       | 12   | 10       | 5095       | 737.5         | 21.52       | 22.57          |
|                  | CA_13A-48A       | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 21.62       | 22.44          |
|                  | CA_2A-48A        | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 22.11       | 22.38          |
|                  | CA_48A-48A       | 48   | 20       | 56640      | 3690          | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 22.16       | 23.61          |
|                  | CA_5A-48A        | 5    | 10       | 20525      | 836.5         | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 21.51       | 22.57          |
|                  | CA_48A-66A       | 48   | 20       | 56640      | 3690          | QPSK/1#0                       | 66   | 20       | 66886      | 2155          | 21.34       | 23.61          |

| 3CC LTE Downlink |                  |      |          |            |               |                                |      |          |            |               |      |          |            |               |             |                |
|------------------|------------------|------|----------|------------|---------------|--------------------------------|------|----------|------------|---------------|------|----------|------------|---------------|-------------|----------------|
| Configure        | CA Configuration | PCC  |          |            |               |                                | SCC1 |          |            |               | SCC2 |          |            |               | Power       |                |
|                  |                  | Band | BW (MHz) | UL Channel | UL Fre. (MHz) | UL Mode (Modulation/RB/Offset) | Band | BW (MHz) | DL Channel | DL Fre. (MHz) | Band | BW (MHz) | DL Channel | DL Fre. (MHz) | CA TX (dBm) | Rel.8 TX (dBm) |
| Inter-band       | CA_2A-4A-13A     | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 4    | 20       | 2175       | 2132.5        | 13   | 10       | 5230       | 751           | 21.45       | 22.38          |
|                  | CA_4A-4A-13A     | 4    | 20       | 20175      | 1732.5        | QPSK/1#0                       | 4    | 20       | 2175       | 2132.5        | 13   | 10       | 5230       | 751           | 21.44       | 22.35          |
|                  | CA_13A-48A-48A   | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 48   | 20       | 56640      | 3690          | 20.34       | 22.44          |
|                  | CA_13A-48C       | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 13   | 10       | 23230      | 782           | 48   | 20       | 56089      | 3634.9        | 20.22       | 22.44          |
|                  | CA_2A-48A-48A    | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 48   | 20       | 56640      | 3690          | 20.22       | 22.38          |
|                  | CA_48B-66A       | 48   | 5        | 55265      | 3552.5        | QPSK/1#0                       | 66   | 20       | 66886      | 2155          | 48   | 15       | 56665      | 3692.5        | 22.63       | 22.96          |
|                  | CA_2A-48C        | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 48   | 20       | 56089      | 3634.9        | 21.11       | 22.38          |
|                  | CA_4A-48C        | 4    | 20       | 20175      | 1732.5        | QPSK/1#0                       | 4    | 20       | 2175       | 2132.5        | 48   | 20       | 56089      | 3634.9        | 21.25       | 22.35          |
|                  | CA_48C-66A       | 48   | 20       | 55891      | 3615.1        | QPSK/1#0                       | 48   | 20       | 56089      | 3634.9        | 66   | 20       | 66886      | 2155          | 22.11       | 23.61          |
|                  | CA_48D           | 48   | 20       | 56244      | 3650.4        | QPSK/1#0                       | 48   | 20       | 56442      | 3670.2        | 48   | 20       | 56640      | 3690          | 22.62       | 23.61          |
|                  | CA_5A-48C        | 5    | 10       | 20525      | 836.5         | QPSK/1#0                       | 5    | 10       | 40712      | 2602.2        | 48   | 20       | 56442      | 3670.2        | 22.13       | 22.57          |
|                  | CA_13A-48A-66A   | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 21.14       | 22.44          |
|                  | CA_2A-48A-66A    | 2    | 20       | 19100      | 1900          | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 22.14       | 22.38          |
|                  | CA_48A-48A-66A   | 48   | 20       | 56640      | 3690          | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 22.24       | 23.61          |
|                  | CA_48A-66A-66A   | 48   | 20       | 56640      | 3690          | QPSK/1#0                       | 66   | 20       | 66886      | 2155          | 66   | 20       | 66886      | 2155          | 22.32       | 23.61          |
|                  | CA_5A-48A-66A    | 5    | 10       | 20525      | 836.5         | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 22.26       | 22.57          |

| 4CC LTE Downlink |                    |      |          |            |               |                                |      |          |            |               |      |          |            |               |      |          |            |               |             |                |
|------------------|--------------------|------|----------|------------|---------------|--------------------------------|------|----------|------------|---------------|------|----------|------------|---------------|------|----------|------------|---------------|-------------|----------------|
| Configure        | CA Configuration   | PCC  |          |            |               |                                | SCC1 |          |            | SCC2          |      |          |            | SCC3          |      |          |            | Power         |             |                |
|                  |                    | Band | BW (MHz) | UL Channel | UL Fre. (MHz) | UL Mode (Modulation/RB/Offset) | Band | BW (MHz) | DL Channel | DL Fre. (MHz) | Band | BW (MHz) | DL Channel | DL Fre. (MHz) | Band | BW (MHz) | DL Channel | DL Fre. (MHz) | CA TX (dBm) | Rel.8 TX (dBm) |
| Inter-band       | CA_2A-2A-4A-4A     | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 4    | 20       | 2175       | 2132.5        | 4    | 20       | 2175       | 2132.5        | 21.22       | 22.38          |
|                  | CA_2A-2A-4A-5A     | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 4    | 20       | 2175       | 2132.5        | 5    | 10       | 2450       | 874           | 21.05       | 22.38          |
|                  | CA_2A-2A-4A-12A    | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 4    | 20       | 2175       | 2132.5        | 12   | 10       | 5060       | 704           | 20.65       | 22.38          |
|                  | CA_2A-2A-5A-12A    | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 5    | 10       | 2450       | 874           | 12   | 10       | 5060       | 704           | 21.12       | 22.38          |
|                  | CA_2A-2A-5B        | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 5    | 10       | 2450       | 874           | 5    | 10       | 2450       | 874           | 21.16       | 22.38          |
|                  | CA_2A-2A-12A-66A   | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 12   | 10       | 5060       | 704           | 66   | 20       | 66886      | 2155          | 20.58       | 22.38          |
|                  | CA_2A-2A-13A-66A   | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 13   | 10       | 5230       | 751           | 66   | 20       | 66886      | 2155          | 20.09       | 22.38          |
|                  | CA_2A-2A-66A-66A   | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 66   | 20       | 66886      | 2155          | 66   | 20       | 66886      | 2155          | 20.22       | 22.38          |
|                  | CA_13A-48C-66A     | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 13   | 10       | 23230      | 782           | 48   | 20       | 56089      | 3634.9        | 66   | 20       | 66886      | 2155          | 20.33       | 22.44          |
|                  | CA_48C-66A-66A     | 48   | 20       | 55891      | 3615.1        | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 66   | 20       | 66886      | 2155          | 22.22       | 23.61          |
|                  | CA_2A-13A-48C      | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 13   | 10       | 23230      | 782           | 48   | 20       | 56089      | 3634.9        | 20.62       | 22.38          |
|                  | CA_2A-48C-66A      | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 48   | 20       | 56089      | 3634.9        | 66   | 20       | 66886      | 2155          | 20.52       | 22.38          |
|                  | CA_4A-48D          | 4    | 20       | 20175      | 1732.5        | QPSK/1#0                       | 4    | 20       | 2175       | 2132.5        | 4    | 20       | 2175       | 2132.5        | 4    | 20       | 2175       | 2132.5        | 20.24       | 22.35          |
|                  | CA_2A-48D          | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 2    | 20       | 1100       | 1980          | 48   | 20       | 55792      | 3605.2        | 20.44       | 22.38          |
|                  | CA_13A-48A-48C     | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 48   | 20       | 56640      | 3690          | 48   | 20       | 56089      | 3634.9        | 20.34       | 22.44          |
|                  | CA_13A-48D         | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 13   | 10       | 23230      | 782           | 13   | 10       | 23230      | 782           | 48   | 20       | 55792      | 3605.2        | 21.22       | 22.44          |
|                  | CA_48A-48C-66A     | 48   | 20       | 56640      | 3690          | QPSK/1#0                       | 48   | 20       | 56089      | 3634.9        | 48   | 20       | 56089      | 3634.9        | 66   | 20       | 66886      | 2155          | 22.22       | 23.61          |
|                  | CA_48D-66A         | 48   | 20       | 55792      | 3605.2        | QPSK/1#0                       | 48   | 20       | 55792      | 3605.2        | 48   | 20       | 55792      | 3605.2        | 66   | 20       | 66886      | 2155          | 22.14       | 23.61          |
|                  | CA_48E             | 48   | 20       | 55990      | 3625          | QPSK/1#0                       | 48   | 20       | 56188      | 3644.8        | 48   | 20       | 56386      | 3664.6        | 48   | 20       | 56584      | 3684.4        | 23.13       | 23.41          |
|                  | CA_48C-66B         | 48   | 20       | 55891      | 3615.1        | QPSK/1#0                       | 48   | 20       | 55792      | 3605.2        | 48   | 20       | 55792      | 3605.2        | 66   | 20       | 66837      | 2150.1        | 22.16       | 23.61          |
|                  | CA_48C-66C         | 48   | 20       | 55891      | 3615.1        | QPSK/1#0                       | 48   | 20       | 55792      | 3605.2        | 48   | 20       | 55792      | 3605.2        | 66   | 20       | 66985      | 2164.9        | 21.68       | 23.61          |
|                  | CA_2A-5A-48C       | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 5    | 10       | 40712      | 2602.2        | 5    | 10       | 40712      | 2602.2        | 48   | 20       | 56089      | 3634.9        | 21.47       | 22.38          |
|                  | CA_5A-48C-66A      | 5    | 10       | 20525      | 836.5         | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 21.22       | 22.57          |
|                  | CA_5A-48D          | 5    | 10       | 20525      | 836.5         | QPSK/1#0                       | 5    | 10       | 40712      | 2602.2        | 5    | 10       | 40712      | 2602.2        | 48   | 20       | 55792      | 3605.2        | 20.52       | 22.57          |
|                  | CA_13A-48A-48A-66A | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 20.33       | 22.44          |
|                  | CA_2A-13A-48A-66A  | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 13   | 10       | 23230      | 782           | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 21.25       | 22.38          |
|                  | CA_2A-48A-48A-66A  | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 21.66       | 22.38          |
|                  | CA_2A-48A-66A-66A  | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 66   | 20       | 66886      | 2155          | 20.25       | 22.38          |
|                  | CA_2A-5A-48A-66A   | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 5    | 10       | 40712      | 2602.2        | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 20.61       | 22.38          |
|                  | CA_48A-48A-66A-66A | 48   | 20       | 56640      | 3690          | QPSK/1#0                       | 48   | 20       | 56640      | 3690          | 66   | 20       | 66886      | 2155          | 66   | 20       | 66886      | 2155          | 21.62       | 23.61          |

| 5CC LTE Downlink      |                      |      |          |            |               |                                |      |          |            |               |      |          |            |               |      |          |            |               |      |          |            |               |             |                |
|-----------------------|----------------------|------|----------|------------|---------------|--------------------------------|------|----------|------------|---------------|------|----------|------------|---------------|------|----------|------------|---------------|------|----------|------------|---------------|-------------|----------------|
| Configure             | CA Configuration     | PCC  |          |            |               |                                | SCC1 |          |            | SCC2          |      |          | SCC3       |               |      |          | SCC4       |               |      |          | Power      |               |             |                |
|                       |                      | Band | BW (MHz) | UL Channel | UL Fre. (MHz) | UL Mode (Modulation/RB/Offset) | Band | BW (MHz) | DL Channel | DL Fre. (MHz) | Band | BW (MHz) | DL Channel | DL Fre. (MHz) | Band | BW (MHz) | DL Channel | DL Fre. (MHz) | Band | BW (MHz) | DL Channel | DL Fre. (MHz) | CA TX (dBm) | Rel.8 TX (dBm) |
| Inter-band            | CA_2A-2A-13A-66A-66A | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 13   | 10       | 5230       | 751           | 66   | 20       | 66886      | 2155          | 66   | 20       | 66886      | 2155          | 21.44       | 22.38          |
|                       | CA_2A-2A-13A-66B     | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 13   | 10       | 5230       | 751           | 66   | 10       | 66837      | 2150.1        | 66   | 20       | 66936      | 2160          | 21.55       | 22.38          |
|                       | CA_2A-2A-5A-66A-66A  | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 5    | 10       | 2450       | 874           | 66   | 20       | 66837      | 2150.1        | 66   | 20       | 66936      | 2160          | 21.24       | 22.38          |
|                       | CA_2A-2A-5A-66B      | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 5    | 10       | 2450       | 874           | 66   | 10       | 66837      | 2150.1        | 66   | 20       | 66936      | 1760          | 21.34       | 22.38          |
|                       | CA_2A-5A-66C         | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 5    | 10       | 2450       | 874           | 66   | 20       | 66787      | 2145.1        | 66   | 20       | 66985      | 2164.9        | 21.29       | 22.38          |
|                       | CA_2A-5A-66B         | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 5    | 10       | 40712      | 2602.2        | 66   | 10       | 66837      | 2150.1        | 66   | 20       | 66936      | 2160          | 21.33       | 22.38          |
|                       | CA_2A-5A-66C         | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 5    | 10       | 40712      | 2602.2        | 66   | 20       | 66787      | 2145.1        | 66   | 20       | 66985      | 2164.9        | 21.42       | 22.38          |
|                       | CA_13A-48E-66A       | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 48   | 20       | 55990      | 3625          | 48   | 20       | 56188      | 3644.8        | 48   | 20       | 56386      | 3664.6        | 66   | 20       | 66886      | 2155          | 22.32       | 22.44          |
|                       | CA_2A-48E-66A        | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 48   | 20       | 55990      | 3625          | 48   | 20       | 56188      | 3644.8        | 48   | 20       | 56386      | 3664.6        | 66   | 20       | 66886      | 2155          | 21.92       | 22.38          |
|                       | CA_2A-48E            | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 48   | 20       | 55990      | 3625          | 48   | 20       | 56188      | 3644.8        | 48   | 20       | 56386      | 3664.6        | 48   | 20       | 56584      | 3684.4        | 21.96       | 22.38          |
|                       | CA_4A-48E            | 4    | 20       | 20175      | 1732.5        | QPSK/1#0                       | 48   | 20       | 55990      | 3625          | 48   | 20       | 56188      | 3644.8        | 48   | 20       | 56386      | 3664.6        | 48   | 20       | 56584      | 3684.4        | 21.76       | 22.35          |
|                       | CA_13A-48A-48C-66A   | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 13   | 10       | 23230      | 782           | 48   | 20       | 56640      | 3690          | 48   | 20       | 56089      | 3634.9        | 66   | 20       | 66886      | 2155          | 21.43       | 22.44          |
|                       | CA_13A-48A-48D       | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 13   | 10       | 23230      | 782           | 13   | 10       | 23230      | 782           | 48   | 20       | 56640      | 3690          | 48   | 20       | 55792      | 3605.2        | 21.22       | 22.44          |
|                       | CA_13A-48C-48C       | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 13   | 10       | 23230      | 782           | 13   | 10       | 23230      | 782           | 48   | 20       | 56089      | 3634.9        | 48   | 20       | 56089      | 3634.9        | 20.89       | 22.44          |
|                       | CA_13A-48D-66A       | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 13   | 10       | 23230      | 782           | 13   | 10       | 23230      | 782           | 48   | 20       | 55792      | 3605.2        | 66   | 20       | 66886      | 2155          | 20.61       | 22.44          |
|                       | CA_13A-48E           | 13   | 10       | 23230      | 782           | QPSK/1#0                       | 48   | 20       | 55990      | 3625          | 48   | 20       | 56386      | 3664.6        | 48   | 20       | 56386      | 3664.6        | 48   | 20       | 56584      | 3684.4        | 22.3        | 22.44          |
|                       | CA_2A-13A-48A-48C    | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 13   | 10       | 23230      | 782           | 48   | 20       | 56640      | 3690          | 48   | 20       | 56089      | 3634.9        | 20.66       | 22.38          |
|                       | CA_2A-13A-48C-66A    | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 13   | 10       | 23230      | 782           | 48   | 20       | 56089      | 3634.9        | 66   | 20       | 66886      | 2155          | 21.52       | 22.38          |
|                       | CA_2A-13A-48D        | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 2    | 20       | 1100       | 1980          | 13   | 10       | 23230      | 782           | 48   | 20       | 55792      | 3605.2        | 21.37       | 22.38          |
|                       | CA_2A-48A-48C-66A    | 2    | 20       | 18900      | 1880          | QPSK/1#0                       | 2    | 20       | 1100       | 1980          | 48   | 20       | 56640      | 3690          | 48   | 20       | 56089      | 3634.9        | 66   | 20       | 66886      | 2155          | 20.77       | 22.38          |
| CA_2A-48A-48D         | 2                    | 20   | 18900    | 1880       | QPSK/1#0      | 2                              | 20   | 1100     | 1980       | 2             | 20   | 1100     | 1980       | 48            | 20   | 56640    | 3690       | 48            | 20   | 55792    | 3605.2     | 20.49         | 22.38       |                |
| CA_2A-48C-48C         | 2                    | 20   | 18900    | 1880       | QPSK/1#0      | 2                              | 20   | 1100     | 1980       | 2             | 20   | 1100     | 1980       | 48            | 20   | 56089    | 3634.9     | 48            | 20   | 56089    | 3634.9     | 21.73         | 22.38       |                |
| CA_2A-48D-66A         | 2                    | 20   | 18900    | 1880       | QPSK/1#0      | 2                              | 20   | 1100     | 1980       | 2             | 20   | 1100     | 1980       | 48            | 20   | 55792    | 3605.2     | 66            | 20   | 66886    | 2155       | 21.99         | 22.38       |                |
| CA_48C-48C-66A        | 48                   | 20   | 56640    | 3690       | QPSK/1#0      | 48                             | 20   | 56089    | 3634.9     | 48            | 20   | 56089    | 3634.9     | 48            | 20   | 56089    | 3634.9     | 66            | 20   | 66886    | 2155       | 21.66         | 23.61       |                |
| CA_48A-48C-66B        | 48                   | 20   | 56640    | 3690       | QPSK/1#0      | 48                             | 20   | 56640    | 3690       | 48            | 20   | 56640    | 3690       | 48            | 20   | 56089    | 3634.9     | 66            | 20   | 66936    | 2160       | 21.78         | 23.61       |                |
| CA_48A-48C-66C        | 48                   | 20   | 56640    | 3690       | QPSK/1#0      | 48                             | 20   | 56640    | 3690       | 48            | 20   | 56640    | 3690       | 48            | 20   | 56089    | 3634.9     | 66            | 20   | 66985    | 2164.9     | 21.62         | 23.61       |                |
| CA_48A-48D-66A        | 48                   | 20   | 56640    | 3690       | QPSK/1#0      | 48                             | 20   | 56640    | 3690       | 48            | 20   | 56640    | 3690       | 48            | 20   | 55792    | 3605.2     | 66            | 20   | 66886    | 2155       | 21.55         | 23.61       |                |
| CA_48C-48D            | 48                   | 20   | 55891    | 3615.1     | QPSK/1#0      | 48                             | 20   | 56089    | 3634.9     | 48            | 20   | 56089    | 3634.9     | 48            | 20   | 56089    | 3634.9     | 48            | 20   | 55792    | 3605.2     | 21.42         | 23.61       |                |
| CA_48E-66A            | 48                   | 20   | 55990    | 3625       | QPSK/1#0      | 48                             | 20   | 56188    | 3644.8     | 48            | 20   | 56386    | 3664.6     | 48            | 20   | 56584    | 3684.4     | 66            | 20   | 66886    | 2155       | 22.14         | 23.61       |                |
| CA_2A-5A-48C-66A      | 2                    | 20   | 18900    | 1880       | QPSK/1#0      | 2                              | 20   | 1100     | 1980       | 5             | 10   | 40712    | 2602.2     | 48            | 20   | 56089    | 3634.9     | 66            | 20   | 66886    | 2155       | 21.68         | 22.38       |                |
| CA_2A-5A-48D          | 2                    | 20   | 18900    | 1880       | QPSK/1#0      | 2                              | 20   | 1100     | 1980       | 5             | 10   | 40712    | 2602.2     | 5             | 10   | 40712    | 2602.2     | 48            | 20   | 55792    | 3605.2     | 21.22         | 22.38       |                |
| CA_5A-48D-66A         | 5                    | 10   | 20525    | 836.5      | QPSK/1#0      | 5                              | 10   | 40712    | 2602.2     | 5             | 10   | 40712    | 2602.2     | 48            | 20   | 55792    | 3605.2     | 66            | 20   | 66886    | 2155       | 21.56         | 22.57       |                |
| CA_2A-13A-48A-48A-66A | 2                    | 20   | 18900    | 1880       | QPSK/1#0      | 13                             | 10   | 23230    | 782        | 48            | 20   | 56640    | 3690       | 48            | 20   | 56640    | 3690       | 66            | 20   | 66886    | 2155       | 22.5          | 22.38       |                |