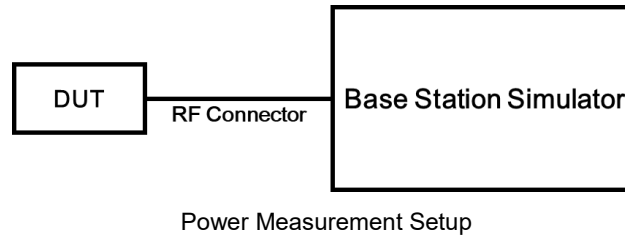


## Appendix A - Conducted Power Measurements

### UMTS Conducted Power



#### WCDMA

Maximum output power is verified on the high, middle and low channels according to procedures described in section 5.2 of 3GPP TS 34.121, using the appropriate RMC or AMR with TPC (transmit power control) set to all "1's" for WCDMA/HSDPA or by applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active

#### Rel. 5 HSDPA

Maximum output power is verified on the high, middle and low channels according to Release 5 procedures described in section 5.2 of 3GPP TS 34.121, using an FRC with H-set 1 and a 12.2 kbps RMC with TPC set to all "1's". When HSDPA is active, output power is measured according to requirements for HS-DPCCH Sub-test 1 - 4.

The following table specified in 3GPP TS 34.121 is applicable for tests on Transmitter Characteristics with HSDPA:

**Table C.10.1.4:  $\beta$  values for transmitter characteristics tests with HS-DPCCH**

| Sub-test | $\beta_c$         | $\beta_d$         | $\beta_d$<br>(SF) | $\beta_c/\beta_d$ | $\beta_{HS}$<br>(Note 1, Note 2) | CM (dB)<br>(Note 3) | MPR (dB)<br>(Note 3) |
|----------|-------------------|-------------------|-------------------|-------------------|----------------------------------|---------------------|----------------------|
| 1        | 2/15              | 15/15             | 64                | 2/15              | 4/15                             | 0.0                 | 0.0                  |
| 2        | 12/15<br>(Note 4) | 15/15<br>(Note 4) | 64                | 12/15<br>(Note 4) | 24/15                            | 1.0                 | 0.0                  |
| 3        | 15/15             | 8/15              | 64                | 15/8              | 30/15                            | 1.5                 | 0.5                  |
| 4        | 15/15             | 4/15              | 64                | 15/4              | 30/15                            | 1.5                 | 0.5                  |

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ .

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA,  $\Delta_{ACK}$  and  $\Delta_{NACK} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ , and  $\Delta_{CQI} = 24/15$  with  $\beta_{HS} = 24/15 * \beta_c$ .

Note 3: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{HS}/\beta_c = 24/15$ . For all other combinations of DPDCCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the  $\beta_c/\beta_d$  ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 11/15$  and  $\beta_d = 15/15$ .

### Rel. 6 HSPA (HSDPA/HSUPA)

Maximum output power is verified on the high, middle and low channels according to Release 6 procedures in section 5.2 of 3GPP TS 34.121, using the appropriate RMC, FRC and E-DCH configurations. When E-DCH is not active, TPC is set to all "1's"; otherwise, inner loop power control with power control algorithm 2 is required to maintain E-TFCI requirements. When HSPA is active output power for the applicable HSPA modes should be measured for E-DCH Sub-test 1-5. The following table specified in 3GPP TS 34.121 is applicable for tests on Transmitter Characteristics with HS-DPCCH and E-DCH:

**Table C.11.1.3:  $\beta$  values for transmitter characteristics tests with HS-DPCCH and E-DCH**

| Sub-test  | $\beta_c$         | $\beta_d$         | $\beta_d$<br>(SF) | $\beta_d/\beta_d$<br>(Note 3) | $\beta_{HS}$<br>(Note 1) | $\beta_{ec}$ | $\beta_{ed}$<br>(Note 4)/(Note 5)              | $\beta_{ed}$<br>(SF) | $\beta_{ed}$<br>(Codes) | CM (dB)<br>(Note 2) | MPR (dB)<br>(Note 2)/(Note 6) | AG Index<br>(Note 5) | E-TFCI |
|-----------|-------------------|-------------------|-------------------|-------------------------------|--------------------------|--------------|------------------------------------------------|----------------------|-------------------------|---------------------|-------------------------------|----------------------|--------|
| 1         | 11/15<br>(Note 3) | 15/15<br>(Note 3) | 64                | 11/15<br>(Note 3)             | 22/15                    | 209/225      | 1309/225                                       | 4                    | 1                       | 1.0                 | 0.0                           | 20                   | 75     |
| 2         | 6/15              | 15/15             | 64                | 6/15                          | 12/15                    | 12/15        | 94/75                                          | 4                    | 1                       | 3.0                 | 2.0                           | 12                   | 67     |
| 3         | 15/15             | 9/15              | 64                | 15/9                          | 30/15                    | 30/15        | $\beta_{ed1}$ : 47/15<br>$\beta_{ed2}$ : 47/15 | 4<br>4               | 2                       | 2.0                 | 1.0                           | 15                   | 92     |
| 4         | 2/15              | 15/15             | 64                | 2/15                          | 4/15                     | 2/15         | 56/75                                          | 4                    | 1                       | 3.0                 | 2.0                           | 17                   | 71     |
| 5 (Rel.8) | 15/15             | 15/15             | 64                | 15/15                         | 30/15                    | 24/15        | 134/15                                         | 4                    | 1                       | 1.0                 | 0.0                           | 21                   | 81     |
| 5         | 15/15             | 0                 | -                 | -                             | 5/15                     | 5/15         | 47/15                                          | 4                    | 1                       | 1.0                 | 0.0                           | 12                   | 67     |

Note 1: For sub-test 1 to 4,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ . For sub-test 5,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 5/15$  with  $\beta_{HS} = 5/15 * \beta_c$ .

Note 2: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{HS}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the  $\beta_c/\beta_d$  ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 10/15$  and  $\beta_d = 15/15$ .

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5:  $\beta_{ed}$  can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

### Rel. 8 DC-HSDPA

Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction.

The following table specified in 3GPP TS 34.121 is applicable for tests on Transmitter Characteristics with DC-HSPDA:

**Table C.8.1.12: Fixed Reference Channel H-Set 12**

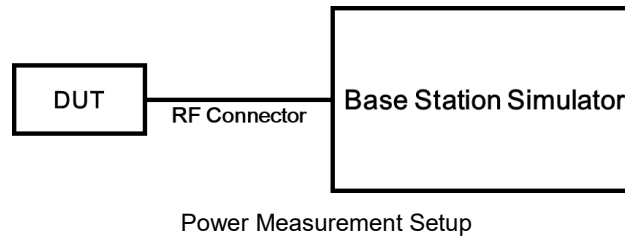
| Parameter                             | Unit      | Value |
|---------------------------------------|-----------|-------|
| Nominal Avg. Inf. Bit Rate            | kbps      | 60    |
| Inter-TTI Distance                    | TTI's     | 1     |
| Number of HARQ Processes              | Processes | 6     |
| Information Bit Payload ( $N_{INF}$ ) | Bits      | 120   |
| Number Code Blocks                    | Blocks    | 1     |
| Binary Channel Bits Per TTI           | Bits      | 960   |
| Total Available SML's in UE           | SML's     | 19200 |
| Number of SML's per HARQ Proc.        | SML's     | 3200  |
| Coding Rate                           |           | 0.15  |
| Number of Physical Channel Codes      | Codes     | 1     |
| Modulation                            |           | QPSK  |

Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.

Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.

## LTE Conducted Power

The following test were implemented according to KDB 941225 D05, 3GPP TS36.101 and 3Gpp TS36.521-1 specification. All the LTE measurements were performed using the Anritsu MT8820C. A closed loop power control setting allowed the UE to transmit at the maximum output power during the SAR measurements. The parameter of frequency band, channel bandwidth, RB allocation configuration and power control were set up in base station for LTE tests according to the 3GPP 36.521-1.



### <Maximum power reduction (MPR) >

MPR is enabled for this device, according to the following table specified in 3GPP TS36.101:

**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3**

| Modulation | Channel bandwidth / Transmission bandwidth ( $N_{RB}$ ) |         |       |        |        |        | MPR(dB) |
|------------|---------------------------------------------------------|---------|-------|--------|--------|--------|---------|
|            | 1.4 MHz                                                 | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz |         |
| QPSK       | > 5                                                     | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 1     |
| 16 QAM     | ≤ 5                                                     | ≤ 4     | ≤ 8   | ≤ 12   | ≤ 16   | ≤ 18   | ≤ 1     |
| 16 QAM     | > 5                                                     | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 2     |
| 64 QAM     | ≤ 5                                                     | ≤ 4     | ≤ 8   | ≤ 12   | ≤ 16   | ≤ 18   | ≤ 2     |
| 64 QAM     | > 5                                                     | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 3     |
| 256 QAM    | ≥ 1                                                     |         |       |        |        |        | ≤ 5     |

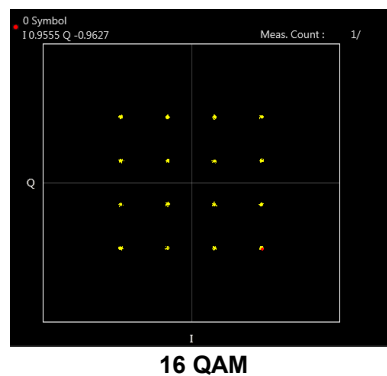
### <Additional MPR (A-MPR)>

According to KDB 941225 D05, Additional MPR (A-MPR) was disabled for all SAR tests.

### <Spectrum plots for RB configurations>

According to KDB 941225 D05, when a properly configured base station simulator is used for the SAR or power measurements, spectrum plots for each RB allocation and offset configuration are not required.

According to TCB workshop May.2017, for 64 QAM and 16 QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation. The 16 QAM signal modulation were verified as follows:



### <TDD Consideration >

According to KDB 941225 D05, for TDD test configurations, SAR were measured with a fixed periodic duty factor corresponding to the highest transmission duty factor implemented for the device according to the UL-DL configurations defined by 3GPP.

The support configurations described in 3GPP TS36.211 are as follows:

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

| Special subframe configuration | Normal cyclic prefix in downlink |                                |                                  | Extended cyclic prefix in downlink |                                |                                  |
|--------------------------------|----------------------------------|--------------------------------|----------------------------------|------------------------------------|--------------------------------|----------------------------------|
|                                | DwPTS                            | UpPTS                          |                                  | DwPTS                              | UpPTS                          |                                  |
|                                |                                  | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |                                    | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |
| 0                              | $6592 \cdot T_s$                 | $(1+X) \cdot 2192 \cdot T_s$   | $(1+X) \cdot 2560 \cdot T_s$     | $7680 \cdot T_s$                   | $(1+X) \cdot 2192 \cdot T_s$   | $(1+X) \cdot 2560 \cdot T_s$     |
| 1                              | $19760 \cdot T_s$                |                                |                                  | $20480 \cdot T_s$                  |                                |                                  |
| 2                              | $21952 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 3                              | $24144 \cdot T_s$                |                                |                                  | $25600 \cdot T_s$                  |                                |                                  |
| 4                              | $26336 \cdot T_s$                | $(2+X) \cdot 2192 \cdot T_s$   | $(2+X) \cdot 2560 \cdot T_s$     | $7680 \cdot T_s$                   | $(2+X) \cdot 2192 \cdot T_s$   | $(2+X) \cdot 2560 \cdot T_s$     |
| 5                              | $6592 \cdot T_s$                 |                                |                                  | $20480 \cdot T_s$                  |                                |                                  |
| 6                              | $19760 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 7                              | $21952 \cdot T_s$                |                                |                                  | $12800 \cdot T_s$                  |                                |                                  |
| 8                              | $24144 \cdot T_s$                |                                |                                  | -                                  | -                              | -                                |
| 9                              | $13168 \cdot T_s$                |                                |                                  | -                                  | -                              | -                                |
| 10                             | $13168 \cdot T_s$                | $13168 \cdot T_s$              | $13168 \cdot T_s$                | -                                  | -                              | -                                |

**Table 4.2.2 : Uplink-downlink configurations**

| Uplink-downlink configuration | Downlink-to-Uplink Switch-point periodicity | Subframe number |   |   |   |   |   |   |   |   |   | Duty Cycle |
|-------------------------------|---------------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|------------|
|                               |                                             | 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |            |
| 0                             | 5ms                                         | D               | S | U | U | U | D | S | U | U | U | 63.3%      |
| 1                             | 5ms                                         | D               | S | U | U | D | D | S | U | U | D | 43.3%      |
| 2                             | 5ms                                         | D               | S | U | D | D | D | S | U | D | D | 23.3%      |
| 3                             | 10ms                                        | D               | S | U | U | U | D | D | D | D | D | 31.7%      |
| 4                             | 10ms                                        | D               | S | U | U | D | D | D | D | D | D | 21.7%      |
| 5                             | 10ms                                        | D               | S | U | D | D | D | D | D | D | D | 11.7%      |
| 6                             | 5ms                                         | D               | S | U | U | U | D | S | U | U | D | 53.3%      |

Calculated Duty Cycle = Extended cyclic prefix in uplink \* ( $T_s$ ) \* (the number of S) + (the number of U) / period

Where

$T_s = 1 / (15000 \cdot 2048)$  seconds

S = special subframe

U = uplink subframe

This device supports Uplink-downlink configuration 0-6. The SAR test were performed at maximum output power and worst-case duty factor in extended cyclic prefix: configuration 0 at 63.3% duty cycle for power class 3; configuration 1 at 43.3% duty cycle for power class 2.

**Conducted Power Measurements**

| WCDMA<br>II | Uplink Channel   | 9262   | 9400   | 9538   | Tune up<br>(dBm) |
|-------------|------------------|--------|--------|--------|------------------|
|             | Uplink Frequency | 1852.4 | 1880.0 | 1907.6 |                  |
|             | RMC_12.2Kbps     | 23.24  | 23.34  | 23.29  | 24.5             |
|             | HSDPA_Subtest 1  | 23.17  | 23.25  | 23.2   | 24.5             |
|             | HSDPA_Subtest 2  | 23.1   | 23.11  | 23.1   | 24.5             |
|             | HSDPA_Subtest 3  | 22.6   | 22.65  | 22.59  | 24               |
|             | HSDPA_Subtest 4  | 22.5   | 22.57  | 22.57  | 24               |
|             | HSUPA_Subtest 1  | 22.96  | 23.04  | 23.03  | 24.5             |
|             | HSUPA_Subtest 2  | 21.32  | 21.32  | 21.3   | 22.5             |
|             | HSUPA_Subtest 3  | 22.31  | 22.34  | 22.25  | 23.5             |
|             | HSUPA_Subtest 4  | 21.15  | 21.21  | 21.12  | 22.5             |
|             | HSUPA_Subtest 5  | 22.95  | 22.98  | 22.96  | 24.5             |

| WCDMA<br>IV | Uplink Channel   | 1312   | 1413   | 1513   | Tune up<br>(dBm) |
|-------------|------------------|--------|--------|--------|------------------|
|             | Uplink Frequency | 1712.4 | 1732.6 | 1752.6 |                  |
|             | RMC_12.2Kbps     | 23.26  | 23.34  | 23.3   | 24.5             |
|             | HSDPA_Subtest 1  | 23.13  | 23.23  | 23.22  | 24.5             |
|             | HSDPA_Subtest 2  | 23.05  | 23.1   | 23.05  | 24.5             |
|             | HSDPA_Subtest 3  | 22.61  | 22.65  | 22.57  | 24               |
|             | HSDPA_Subtest 4  | 22.53  | 22.56  | 22.51  | 24               |
|             | HSUPA_Subtest 1  | 23.08  | 23.08  | 22.99  | 24.5             |
|             | HSUPA_Subtest 2  | 21.31  | 21.32  | 21.23  | 22.5             |
|             | HSUPA_Subtest 3  | 22.35  | 22.36  | 22.35  | 23.5             |
|             | HSUPA_Subtest 4  | 21.1   | 21.19  | 21.13  | 22.5             |
|             | HSUPA_Subtest 5  | 22.99  | 23.02  | 22.97  | 24.5             |

|            |                  |       |       |       |                  |
|------------|------------------|-------|-------|-------|------------------|
| WCDMA<br>V | Uplink Channel   | 4132  | 4182  | 4233  | Tune up<br>(dBm) |
|            | Uplink Frequency | 826.4 | 836.4 | 846.6 |                  |
|            | RMC_12.2Kbps     | 23.14 | 23.41 | 23.15 | 24.5             |
|            | HSDPA_Subtest 1  | 22.66 | 22.82 | 22.65 | 24.5             |
|            | HSDPA_Subtest 2  | 22.67 | 22.57 | 22.65 | 24.5             |
|            | HSDPA_Subtest 3  | 22.19 | 22.17 | 22.22 | 24               |
|            | HSDPA_Subtest 4  | 22.05 | 22.12 | 22.05 | 24               |
|            | HSUPA_Subtest 1  | 22.51 | 22.62 | 22.56 | 24.5             |
|            | HSUPA_Subtest 2  | 20.87 | 20.87 | 20.77 | 22.5             |
|            | HSUPA_Subtest 3  | 21.76 | 21.94 | 21.87 | 23.5             |
|            | HSUPA_Subtest 4  | 20.68 | 20.76 | 20.59 | 22.5             |
|            | HSUPA_Subtest 5  | 22.63 | 22.58 | 22.53 | 24.5             |

| LTE Band 2                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18700                       | 18900 | 19100 | Channel       |            |           |                      |                       |
| 1860                        | 1880  | 1900  | Freq. (MHz)   |            |           |                      |                       |
| 22.48                       | 22.58 | 22.52 | 24            | QPSK       | 20MHz     | 1                    | 0                     |
| 22.17                       | 22.41 | 22.46 | 24            | QPSK       | 20MHz     | 1                    | 49                    |
| 22.29                       | 22.39 | 22.33 | 24            | QPSK       | 20MHz     | 1                    | 99                    |
| 21.46                       | 21.56 | 21.50 | 23            | QPSK       | 20MHz     | 50                   | 0                     |
| 21.39                       | 21.49 | 21.43 | 23            | QPSK       | 20MHz     | 50                   | 25                    |
| 21.30                       | 21.40 | 21.34 | 23            | QPSK       | 20MHz     | 50                   | 50                    |
| 21.49                       | 21.59 | 21.53 | 23            | QPSK       | 20MHz     | 100                  | 0                     |
| 21.71                       | 21.81 | 21.75 | 23            | 16QAM      | 20MHz     | 1                    | 0                     |
| 21.73                       | 21.83 | 21.77 | 23            | 16QAM      | 20MHz     | 1                    | 49                    |
| 21.63                       | 21.73 | 21.67 | 23            | 16QAM      | 20MHz     | 1                    | 99                    |
| 20.51                       | 20.61 | 20.55 | 22            | 16QAM      | 20MHz     | 50                   | 0                     |
| 20.47                       | 20.57 | 20.51 | 22            | 16QAM      | 20MHz     | 50                   | 25                    |
| 20.40                       | 20.50 | 20.44 | 22            | 16QAM      | 20MHz     | 50                   | 50                    |
| 20.57                       | 20.67 | 20.61 | 22            | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 2                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18675                       | 18900 | 19125  | Channel       |            |           |                      |                       |
| 1857.5                      | 1880  | 1902.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.47                       | 22.56 | 22.51  | 24            | QPSK       | 15MHz     | 1                    | 0                     |
| 22.08                       | 22.38 | 22.41  | 24            | QPSK       | 15MHz     | 1                    | 37                    |
| 22.29                       | 22.37 | 22.26  | 24            | QPSK       | 15MHz     | 1                    | 74                    |
| 21.39                       | 21.55 | 21.45  | 23            | QPSK       | 15MHz     | 36                   | 0                     |
| 21.37                       | 21.46 | 21.41  | 23            | QPSK       | 15MHz     | 36                   | 19                    |
| 21.29                       | 21.40 | 21.33  | 23            | QPSK       | 15MHz     | 36                   | 39                    |
| 21.46                       | 21.57 | 21.47  | 23            | QPSK       | 15MHz     | 75                   | 0                     |
| 21.69                       | 21.78 | 21.70  | 23            | 16QAM      | 15MHz     | 1                    | 0                     |
| 21.72                       | 21.83 | 21.77  | 23            | 16QAM      | 15MHz     | 1                    | 37                    |
| 21.57                       | 21.69 | 21.60  | 23            | 16QAM      | 15MHz     | 1                    | 74                    |
| 20.43                       | 20.54 | 20.51  | 22            | 16QAM      | 15MHz     | 36                   | 0                     |
| 20.39                       | 20.55 | 20.47  | 22            | 16QAM      | 15MHz     | 36                   | 19                    |
| 20.30                       | 20.41 | 20.38  | 22            | 16QAM      | 15MHz     | 36                   | 39                    |
| 20.56                       | 20.62 | 20.57  | 22            | 16QAM      | 15MHz     | 75                   | 0                     |



| LTE Band 2                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18650                       | 18900 | 19150 | Channel       |            |           |                      |                       |
| 1855                        | 1880  | 1905  | Freq. (MHz)   |            |           |                      |                       |
| 22.41                       | 22.39 | 22.36 | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.09                       | 22.24 | 22.31 | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.13                       | 22.37 | 22.23 | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.27                       | 21.32 | 21.34 | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.31                       | 21.43 | 21.29 | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.14                       | 21.24 | 21.24 | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.34                       | 21.49 | 21.36 | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 21.59                       | 21.74 | 21.64 | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 21.57                       | 21.72 | 21.69 | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 21.46                       | 21.58 | 21.49 | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.31                       | 20.55 | 20.33 | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.41                       | 20.43 | 20.39 | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.35                       | 20.39 | 20.32 | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.43                       | 20.54 | 20.58 | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 2                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18625                       | 18900 | 19175  | Channel       |            |           |                      |                       |
| 1852.5                      | 1880  | 1907.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.40                       | 22.44 | 22.35  | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.03                       | 22.23 | 22.18  | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.17                       | 22.24 | 22.20  | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.32                       | 21.46 | 21.29  | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.23                       | 21.30 | 21.15  | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.14                       | 21.25 | 21.18  | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.44                       | 21.46 | 21.31  | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 21.52                       | 21.68 | 21.64  | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 21.67                       | 21.75 | 21.58  | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 21.50                       | 21.64 | 21.64  | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.34                       | 20.59 | 20.37  | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.38                       | 20.38 | 20.33  | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.25                       | 20.37 | 20.28  | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.45                       | 20.58 | 20.42  | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 2                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18615                       | 18900 | 19185  | Channel       |            |           |                      |                       |
| 1851.5                      | 1880  | 1908.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.28                       | 22.40 | 22.46  | 24            | QPSK       | 3MHz      | 1                    | 0                     |
| 22.12                       | 22.27 | 22.26  | 24            | QPSK       | 3MHz      | 1                    | 7                     |
| 22.25                       | 22.28 | 22.17  | 24            | QPSK       | 3MHz      | 1                    | 14                    |
| 21.25                       | 21.37 | 21.42  | 23            | QPSK       | 3MHz      | 8                    | 0                     |
| 21.31                       | 21.38 | 21.32  | 23            | QPSK       | 3MHz      | 8                    | 3                     |
| 21.16                       | 21.30 | 21.22  | 23            | QPSK       | 3MHz      | 8                    | 7                     |
| 21.40                       | 21.46 | 21.41  | 23            | QPSK       | 3MHz      | 15                   | 0                     |
| 21.63                       | 21.68 | 21.66  | 23            | 16QAM      | 3MHz      | 1                    | 0                     |
| 21.62                       | 21.66 | 21.57  | 23            | 16QAM      | 3MHz      | 1                    | 7                     |
| 21.56                       | 21.53 | 21.53  | 23            | 16QAM      | 3MHz      | 1                    | 14                    |
| 20.39                       | 20.49 | 20.46  | 22            | 16QAM      | 3MHz      | 8                    | 0                     |
| 20.26                       | 20.49 | 20.37  | 22            | 16QAM      | 3MHz      | 8                    | 3                     |
| 20.31                       | 20.40 | 20.38  | 22            | 16QAM      | 3MHz      | 8                    | 7                     |
| 20.43                       | 20.44 | 20.52  | 22            | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 2                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18607                       | 18900 | 19193  | Channel       |            |           |                      |                       |
| 1850.7                      | 1880  | 1909.3 | Freq. (MHz)   |            |           |                      |                       |
| 22.31                       | 22.48 | 22.35  | 24            | QPSK       | 1.4MHz    | 1                    | 0                     |
| 22.08                       | 22.25 | 22.36  | 24            | QPSK       | 1.4MHz    | 1                    | 2                     |
| 22.24                       | 22.31 | 22.28  | 24            | QPSK       | 1.4MHz    | 1                    | 5                     |
| 22.32                       | 22.34 | 22.35  | 24            | QPSK       | 1.4MHz    | 3                    | 0                     |
| 22.21                       | 22.32 | 22.26  | 24            | QPSK       | 1.4MHz    | 3                    | 1                     |
| 22.15                       | 22.21 | 22.18  | 24            | QPSK       | 1.4MHz    | 3                    | 3                     |
| 21.46                       | 21.42 | 21.42  | 23            | QPSK       | 1.4MHz    | 6                    | 0                     |
| 21.59                       | 21.74 | 21.59  | 23            | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 21.68                       | 21.77 | 21.64  | 23            | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 21.52                       | 21.57 | 21.62  | 23            | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 21.38                       | 21.51 | 21.38  | 23            | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 21.36                       | 21.36 | 21.40  | 23            | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 21.29                       | 21.38 | 21.22  | 23            | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 20.42                       | 20.43 | 20.56  | 22            | 16QAM      | 1.4MHz    | 6                    | 0                     |

| LTE Band 4                  |        |       |               |            |           |                      |                       |
|-----------------------------|--------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20050                       | 20175  | 20300 | Channel       |            |           |                      |                       |
| 1720                        | 1732.5 | 1745  | Freq. (MHz)   |            |           |                      |                       |
| 22.87                       | 23.05  | 22.69 | 24            | QPSK       | 20MHz     | 1                    | 0                     |
| 22.64                       | 22.96  | 22.60 | 24            | QPSK       | 20MHz     | 1                    | 49                    |
| 22.47                       | 22.64  | 22.66 | 24            | QPSK       | 20MHz     | 1                    | 99                    |
| 21.74                       | 21.92  | 21.78 | 23            | QPSK       | 20MHz     | 50                   | 0                     |
| 21.69                       | 21.87  | 21.73 | 23            | QPSK       | 20MHz     | 50                   | 25                    |
| 21.52                       | 21.70  | 21.56 | 23            | QPSK       | 20MHz     | 50                   | 50                    |
| 21.76                       | 21.94  | 21.80 | 23            | QPSK       | 20MHz     | 100                  | 0                     |
| 22.12                       | 22.30  | 22.16 | 23            | 16QAM      | 20MHz     | 1                    | 0                     |
| 22.01                       | 22.19  | 22.05 | 23            | 16QAM      | 20MHz     | 1                    | 49                    |
| 21.73                       | 21.91  | 21.77 | 23            | 16QAM      | 20MHz     | 1                    | 99                    |
| 20.87                       | 21.05  | 20.91 | 22            | 16QAM      | 20MHz     | 50                   | 0                     |
| 20.77                       | 20.95  | 20.81 | 22            | 16QAM      | 20MHz     | 50                   | 25                    |
| 20.62                       | 20.80  | 20.66 | 22            | 16QAM      | 20MHz     | 50                   | 50                    |
| 20.83                       | 21.01  | 20.87 | 22            | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 4                  |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20025                       | 20175  | 20325  | Channel       |            |           |                      |                       |
| 1717.5                      | 1732.5 | 1747.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.84                       | 23.02  | 22.60  | 24            | QPSK       | 15MHz     | 1                    | 0                     |
| 22.55                       | 22.91  | 22.54  | 24            | QPSK       | 15MHz     | 1                    | 37                    |
| 22.45                       | 22.60  | 22.59  | 24            | QPSK       | 15MHz     | 1                    | 74                    |
| 21.72                       | 21.82  | 21.78  | 23            | QPSK       | 15MHz     | 36                   | 0                     |
| 21.63                       | 21.83  | 21.66  | 23            | QPSK       | 15MHz     | 36                   | 19                    |
| 21.52                       | 21.64  | 21.49  | 23            | QPSK       | 15MHz     | 36                   | 39                    |
| 21.74                       | 21.85  | 21.73  | 23            | QPSK       | 15MHz     | 75                   | 0                     |
| 22.02                       | 22.28  | 22.06  | 23            | 16QAM      | 15MHz     | 1                    | 0                     |
| 21.94                       | 22.11  | 21.97  | 23            | 16QAM      | 15MHz     | 1                    | 37                    |
| 21.63                       | 21.83  | 21.68  | 23            | 16QAM      | 15MHz     | 1                    | 74                    |
| 20.83                       | 20.97  | 20.90  | 22            | 16QAM      | 15MHz     | 36                   | 0                     |
| 20.77                       | 20.88  | 20.76  | 22            | 16QAM      | 15MHz     | 36                   | 19                    |
| 20.61                       | 20.77  | 20.56  | 22            | 16QAM      | 15MHz     | 36                   | 39                    |
| 20.79                       | 20.93  | 20.79  | 22            | 16QAM      | 15MHz     | 75                   | 0                     |

| LTE Band 4                  |        |       |               |            |           |                      |                       |
|-----------------------------|--------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20000                       | 20175  | 20350 | Channel       |            |           |                      |                       |
| 1715                        | 1732.5 | 1750  | Freq. (MHz)   |            |           |                      |                       |
| 22.69                       | 23.02  | 22.51 | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.49                       | 22.87  | 22.46 | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.27                       | 22.53  | 22.56 | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.69                       | 21.76  | 21.73 | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.66                       | 21.77  | 21.54 | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.36                       | 21.47  | 21.47 | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.63                       | 21.87  | 21.59 | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 22.07                       | 22.13  | 22.06 | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 21.92                       | 22.02  | 21.95 | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 21.61                       | 21.70  | 21.64 | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.74                       | 21.01  | 20.69 | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.54                       | 20.87  | 20.60 | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.43                       | 20.70  | 20.48 | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.75                       | 20.86  | 20.71 | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 4                  |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 19975                       | 20175  | 20375  | Channel       |            |           |                      |                       |
| 1712.5                      | 1732.5 | 1752.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.75                       | 23.00  | 22.54  | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.49                       | 22.81  | 22.32  | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.33                       | 22.49  | 22.47  | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.61                       | 21.78  | 21.59  | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.51                       | 21.77  | 21.39  | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.40                       | 21.64  | 21.35  | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.54                       | 21.71  | 21.68  | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 21.94                       | 22.20  | 21.92  | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 21.84                       | 22.08  | 21.92  | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 21.69                       | 21.72  | 21.69  | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.72                       | 20.89  | 20.73  | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.64                       | 20.85  | 20.56  | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.49                       | 20.67  | 20.52  | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.73                       | 20.91  | 20.69  | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 4                  |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 19965                       | 20175  | 20385  | Channel       |            |           |                      |                       |
| 1711.5                      | 1732.5 | 1753.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.79                       | 22.84  | 22.58  | 24            | QPSK       | 3MHz      | 1                    | 0                     |
| 22.44                       | 22.90  | 22.56  | 24            | QPSK       | 3MHz      | 1                    | 7                     |
| 22.36                       | 22.54  | 22.41  | 24            | QPSK       | 3MHz      | 1                    | 14                    |
| 21.73                       | 21.71  | 21.59  | 23            | QPSK       | 3MHz      | 8                    | 0                     |
| 21.60                       | 21.72  | 21.58  | 23            | QPSK       | 3MHz      | 8                    | 3                     |
| 21.39                       | 21.60  | 21.48  | 23            | QPSK       | 3MHz      | 8                    | 7                     |
| 21.59                       | 21.84  | 21.74  | 23            | QPSK       | 3MHz      | 15                   | 0                     |
| 22.08                       | 22.19  | 21.93  | 23            | 16QAM      | 3MHz      | 1                    | 0                     |
| 21.94                       | 22.05  | 21.83  | 23            | 16QAM      | 3MHz      | 1                    | 7                     |
| 21.60                       | 21.75  | 21.61  | 23            | 16QAM      | 3MHz      | 1                    | 14                    |
| 20.81                       | 20.85  | 20.83  | 22            | 16QAM      | 3MHz      | 8                    | 0                     |
| 20.61                       | 20.79  | 20.62  | 22            | 16QAM      | 3MHz      | 8                    | 3                     |
| 20.45                       | 20.71  | 20.58  | 22            | 16QAM      | 3MHz      | 8                    | 7                     |
| 20.76                       | 20.84  | 20.71  | 22            | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 4                  |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 19957                       | 20175  | 20393  | Channel       |            |           |                      |                       |
| 1710.7                      | 1732.5 | 1754.3 | Freq. (MHz)   |            |           |                      |                       |
| 22.68                       | 22.92  | 22.50  | 24            | QPSK       | 1.4MHz    | 1                    | 0                     |
| 22.48                       | 22.74  | 22.44  | 24            | QPSK       | 1.4MHz    | 1                    | 2                     |
| 22.40                       | 22.55  | 22.49  | 24            | QPSK       | 1.4MHz    | 1                    | 5                     |
| 22.63                       | 22.86  | 22.71  | 24            | QPSK       | 1.4MHz    | 3                    | 0                     |
| 22.61                       | 22.66  | 22.71  | 24            | QPSK       | 1.4MHz    | 3                    | 1                     |
| 22.44                       | 22.61  | 22.51  | 24            | QPSK       | 1.4MHz    | 3                    | 3                     |
| 21.53                       | 21.82  | 21.71  | 23            | QPSK       | 1.4MHz    | 6                    | 0                     |
| 22.05                       | 22.23  | 22.00  | 23            | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 21.94                       | 22.10  | 21.81  | 23            | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 21.55                       | 21.72  | 21.65  | 23            | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 21.78                       | 21.85  | 21.74  | 23            | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 21.59                       | 21.75  | 21.66  | 23            | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 21.39                       | 21.71  | 21.52  | 23            | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 20.81                       | 20.89  | 20.76  | 22            | 16QAM      | 1.4MHz    | 6                    | 0                     |

| LTE Band 5                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20450                       | 20525 | 20600 | Channel       |            |           |                      |                       |
| 829                         | 836.5 | 844   | Freq. (MHz)   |            |           |                      |                       |
| 22.47                       | 22.57 | 22.29 | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.10                       | 22.14 | 22.22 | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.12                       | 22.19 | 22.13 | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.26                       | 21.33 | 21.27 | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.10                       | 21.17 | 21.11 | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.09                       | 21.16 | 21.10 | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.13                       | 21.20 | 21.14 | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 21.63                       | 21.70 | 21.64 | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 21.36                       | 21.38 | 21.32 | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 21.34                       | 21.41 | 21.58 | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.32                       | 20.39 | 20.30 | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.15                       | 20.22 | 20.28 | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.23                       | 20.30 | 20.34 | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.23                       | 20.25 | 20.32 | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 5                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20425                       | 20525 | 20625 | Channel       |            |           |                      |                       |
| 826.5                       | 836.5 | 846.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.47                       | 22.54 | 22.20 | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.10                       | 22.06 | 22.16 | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.08                       | 22.14 | 22.09 | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.18                       | 21.28 | 21.21 | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.02                       | 21.08 | 21.03 | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.03                       | 21.14 | 21.03 | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.06                       | 21.12 | 21.14 | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 21.55                       | 21.66 | 21.62 | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 21.35                       | 21.30 | 21.25 | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 21.26                       | 21.38 | 21.49 | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.26                       | 20.34 | 20.28 | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.09                       | 20.21 | 20.24 | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.16                       | 20.27 | 20.33 | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.23                       | 20.21 | 20.22 | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 5                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20415                       | 20525 | 20635 | Channel       |            |           |                      |                       |
| 825.5                       | 836.5 | 847.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.47                       | 22.51 | 22.20 | 24            | QPSK       | 3MHz      | 1                    | 0                     |
| 22.08                       | 22.09 | 22.22 | 24            | QPSK       | 3MHz      | 1                    | 7                     |
| 22.11                       | 22.17 | 22.07 | 24            | QPSK       | 3MHz      | 1                    | 14                    |
| 21.23                       | 21.23 | 21.26 | 23            | QPSK       | 3MHz      | 8                    | 0                     |
| 21.08                       | 21.10 | 21.07 | 23            | QPSK       | 3MHz      | 8                    | 3                     |
| 21.09                       | 21.11 | 21.10 | 23            | QPSK       | 3MHz      | 8                    | 7                     |
| 21.06                       | 21.20 | 21.05 | 23            | QPSK       | 3MHz      | 15                   | 0                     |
| 21.53                       | 21.65 | 21.64 | 23            | 16QAM      | 3MHz      | 1                    | 0                     |
| 21.32                       | 21.37 | 21.28 | 23            | 16QAM      | 3MHz      | 1                    | 7                     |
| 21.31                       | 21.39 | 21.56 | 23            | 16QAM      | 3MHz      | 1                    | 14                    |
| 20.22                       | 20.33 | 20.30 | 22            | 16QAM      | 3MHz      | 8                    | 0                     |
| 20.15                       | 20.19 | 20.28 | 22            | 16QAM      | 3MHz      | 8                    | 3                     |
| 20.18                       | 20.27 | 20.24 | 22            | 16QAM      | 3MHz      | 8                    | 7                     |
| 20.17                       | 20.21 | 20.32 | 22            | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 5                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20407                       | 20525 | 20643 | Channel       |            |           |                      |                       |
| 824.7                       | 836.5 | 848.3 | Freq. (MHz)   |            |           |                      |                       |
| 22.36                       | 22.47 | 22.22 | 24            | QPSK       | 1.4MHz    | 1                    | 0                     |
| 22.02                       | 22.02 | 22.11 | 24            | QPSK       | 1.4MHz    | 1                    | 2                     |
| 22.02                       | 22.10 | 22.01 | 24            | QPSK       | 1.4MHz    | 1                    | 5                     |
| 22.18                       | 22.13 | 22.16 | 24            | QPSK       | 1.4MHz    | 3                    | 0                     |
| 22.01                       | 22.11 | 22.01 | 24            | QPSK       | 1.4MHz    | 3                    | 1                     |
| 22.03                       | 22.04 | 22.08 | 24            | QPSK       | 1.4MHz    | 3                    | 3                     |
| 21.07                       | 21.07 | 21.03 | 23            | QPSK       | 1.4MHz    | 6                    | 0                     |
| 21.50                       | 21.60 | 21.47 | 23            | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 21.34                       | 21.32 | 21.22 | 23            | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 21.19                       | 21.34 | 21.35 | 23            | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 21.13                       | 21.30 | 21.07 | 23            | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 21.10                       | 21.14 | 21.10 | 23            | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 21.21                       | 21.17 | 21.13 | 23            | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 20.17                       | 20.06 | 20.21 | 22            | 16QAM      | 1.4MHz    | 6                    | 0                     |

| LTE Band 7                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20850                       | 21100 | 21350 | Channel       |            |           |                      |                       |
| 2510                        | 2535  | 2560  | Freq. (MHz)   |            |           |                      |                       |
| 22.82                       | 22.83 | 22.75 | 24            | QPSK       | 20MHz     | 1                    | 0                     |
| 22.41                       | 22.55 | 22.48 | 24            | QPSK       | 20MHz     | 1                    | 49                    |
| 22.48                       | 22.31 | 22.43 | 24            | QPSK       | 20MHz     | 1                    | 99                    |
| 21.56                       | 21.70 | 21.63 | 23            | QPSK       | 20MHz     | 50                   | 0                     |
| 21.49                       | 21.63 | 21.56 | 23            | QPSK       | 20MHz     | 50                   | 25                    |
| 21.40                       | 21.54 | 21.47 | 23            | QPSK       | 20MHz     | 50                   | 50                    |
| 21.59                       | 21.73 | 21.66 | 23            | QPSK       | 20MHz     | 100                  | 0                     |
| 21.78                       | 21.67 | 21.79 | 23            | 16QAM      | 20MHz     | 1                    | 0                     |
| 21.71                       | 21.85 | 21.78 | 23            | 16QAM      | 20MHz     | 1                    | 49                    |
| 21.72                       | 21.61 | 21.72 | 23            | 16QAM      | 20MHz     | 1                    | 99                    |
| 20.64                       | 20.78 | 20.71 | 22            | 16QAM      | 20MHz     | 50                   | 0                     |
| 20.61                       | 20.75 | 20.68 | 22            | 16QAM      | 20MHz     | 50                   | 25                    |
| 20.55                       | 20.69 | 20.62 | 22            | 16QAM      | 20MHz     | 50                   | 50                    |
| 20.67                       | 20.81 | 20.74 | 22            | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 7                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20825                       | 21100 | 21375  | Channel       |            |           |                      |                       |
| 2507.5                      | 2535  | 2562.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.75                       | 22.80 | 22.67  | 24            | QPSK       | 15MHz     | 1                    | 0                     |
| 22.35                       | 22.45 | 22.44  | 24            | QPSK       | 15MHz     | 1                    | 37                    |
| 22.38                       | 22.29 | 22.42  | 24            | QPSK       | 15MHz     | 1                    | 74                    |
| 21.50                       | 21.70 | 21.57  | 23            | QPSK       | 15MHz     | 36                   | 0                     |
| 21.49                       | 21.60 | 21.48  | 23            | QPSK       | 15MHz     | 36                   | 19                    |
| 21.39                       | 21.49 | 21.46  | 23            | QPSK       | 15MHz     | 36                   | 39                    |
| 21.53                       | 21.68 | 21.57  | 23            | QPSK       | 15MHz     | 75                   | 0                     |
| 21.73                       | 21.57 | 21.69  | 23            | 16QAM      | 15MHz     | 1                    | 0                     |
| 21.61                       | 21.79 | 21.68  | 23            | 16QAM      | 15MHz     | 1                    | 37                    |
| 21.72                       | 21.56 | 21.72  | 23            | 16QAM      | 15MHz     | 1                    | 74                    |
| 20.64                       | 20.78 | 20.65  | 22            | 16QAM      | 15MHz     | 36                   | 0                     |
| 20.54                       | 20.68 | 20.61  | 22            | 16QAM      | 15MHz     | 36                   | 19                    |
| 20.53                       | 20.67 | 20.57  | 22            | 16QAM      | 15MHz     | 36                   | 39                    |
| 20.60                       | 20.81 | 20.65  | 22            | 16QAM      | 15MHz     | 75                   | 0                     |



| LTE Band 7                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20800                       | 21100 | 21400 | Channel       |            |           |                      |                       |
| 2505                        | 2535  | 2565  | Freq. (MHz)   |            |           |                      |                       |
| 22.65                       | 22.64 | 22.65 | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.21                       | 22.45 | 22.41 | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.42                       | 22.09 | 22.34 | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.34                       | 21.54 | 21.49 | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.41                       | 21.51 | 21.40 | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.27                       | 21.54 | 21.28 | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.34                       | 21.63 | 21.56 | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 21.68                       | 21.44 | 21.70 | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 21.68                       | 21.74 | 21.72 | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 21.51                       | 21.50 | 21.62 | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.55                       | 20.67 | 20.63 | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.54                       | 20.69 | 20.54 | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.42                       | 20.51 | 20.56 | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.53                       | 20.60 | 20.65 | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 7                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20775                       | 21100 | 21425  | Channel       |            |           |                      |                       |
| 2502.5                      | 2535  | 2567.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.69                       | 22.68 | 22.52  | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.26                       | 22.49 | 22.10  | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.37                       | 22.17 | 22.26  | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.48                       | 21.51 | 21.45  | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.39                       | 21.51 | 21.32  | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.35                       | 21.38 | 21.33  | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.51                       | 21.60 | 21.46  | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 21.57                       | 21.54 | 21.71  | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 21.70                       | 21.67 | 21.68  | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 21.56                       | 21.43 | 21.48  | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.58                       | 20.62 | 20.60  | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.53                       | 20.57 | 20.47  | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.37                       | 20.55 | 20.51  | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.54                       | 20.61 | 20.57  | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 12                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23060                       | 23095 | 23130 | Channel       |            |           |                      |                       |
| 704                         | 707.5 | 711   | Freq. (MHz)   |            |           |                      |                       |
| 22.49                       | 22.61 | 22.42 | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.37                       | 22.49 | 22.30 | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.42                       | 22.54 | 22.35 | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.50                       | 21.65 | 21.43 | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.48                       | 21.60 | 21.41 | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.44                       | 21.62 | 21.39 | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.56                       | 21.63 | 21.49 | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 21.89                       | 22.01 | 21.82 | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 21.74                       | 21.86 | 21.67 | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 21.86                       | 21.98 | 21.79 | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.64                       | 20.76 | 20.57 | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.56                       | 20.68 | 20.49 | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.62                       | 20.74 | 20.55 | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.59                       | 20.71 | 20.52 | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 12                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23035                       | 23095 | 23155 | Channel       |            |           |                      |                       |
| 701.5                       | 707.5 | 713.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.41                       | 22.59 | 22.39 | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.28                       | 22.40 | 22.25 | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.35                       | 22.52 | 22.35 | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.44                       | 21.60 | 21.41 | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.46                       | 21.58 | 21.33 | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.49                       | 21.63 | 21.34 | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.56                       | 21.59 | 21.39 | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 21.81                       | 22.00 | 21.75 | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 21.73                       | 21.78 | 21.59 | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 21.80                       | 21.90 | 21.75 | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.58                       | 20.72 | 20.53 | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.47                       | 20.67 | 20.49 | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.53                       | 20.64 | 20.49 | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.54                       | 20.62 | 20.46 | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 12                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23025                       | 23095 | 23165 | Channel       |            |           |                      |                       |
| 700.5                       | 707.5 | 714.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.29                       | 22.39 | 22.26 | 24            | QPSK       | 3MHz      | 1                    | 0                     |
| 22.26                       | 22.42 | 22.28 | 24            | QPSK       | 3MHz      | 1                    | 7                     |
| 22.26                       | 22.45 | 22.23 | 24            | QPSK       | 3MHz      | 1                    | 14                    |
| 21.42                       | 21.52 | 21.32 | 23            | QPSK       | 3MHz      | 8                    | 0                     |
| 21.36                       | 21.48 | 21.33 | 23            | QPSK       | 3MHz      | 8                    | 3                     |
| 21.39                       | 21.65 | 21.24 | 23            | QPSK       | 3MHz      | 8                    | 7                     |
| 21.38                       | 21.48 | 21.32 | 23            | QPSK       | 3MHz      | 15                   | 0                     |
| 21.68                       | 21.92 | 21.63 | 23            | 16QAM      | 3MHz      | 1                    | 0                     |
| 21.63                       | 21.75 | 21.50 | 23            | 16QAM      | 3MHz      | 1                    | 7                     |
| 21.81                       | 21.96 | 21.65 | 23            | 16QAM      | 3MHz      | 1                    | 14                    |
| 20.47                       | 20.63 | 20.52 | 22            | 16QAM      | 3MHz      | 8                    | 0                     |
| 20.36                       | 20.52 | 20.47 | 22            | 16QAM      | 3MHz      | 8                    | 3                     |
| 20.54                       | 20.69 | 20.45 | 22            | 16QAM      | 3MHz      | 8                    | 7                     |
| 20.45                       | 20.67 | 20.35 | 22            | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 12                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23017                       | 23095 | 23173 | Channel       |            |           |                      |                       |
| 699.7                       | 707.5 | 715.3 | Freq. (MHz)   |            |           |                      |                       |
| 22.48                       | 22.43 | 22.33 | 24            | QPSK       | 1.4MHz    | 1                    | 0                     |
| 22.25                       | 22.42 | 22.24 | 24            | QPSK       | 1.4MHz    | 1                    | 2                     |
| 22.38                       | 22.42 | 22.31 | 24            | QPSK       | 1.4MHz    | 1                    | 5                     |
| 22.47                       | 22.57 | 22.34 | 24            | QPSK       | 1.4MHz    | 3                    | 0                     |
| 22.29                       | 22.50 | 22.20 | 24            | QPSK       | 1.4MHz    | 3                    | 1                     |
| 22.34                       | 22.50 | 22.38 | 24            | QPSK       | 1.4MHz    | 3                    | 3                     |
| 21.39                       | 21.56 | 21.28 | 23            | QPSK       | 1.4MHz    | 6                    | 0                     |
| 21.79                       | 21.87 | 21.67 | 23            | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 21.63                       | 21.77 | 21.43 | 23            | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 21.84                       | 21.79 | 21.59 | 23            | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 21.53                       | 21.60 | 21.41 | 23            | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 21.40                       | 21.50 | 21.30 | 23            | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 21.45                       | 21.70 | 21.46 | 23            | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 20.45                       | 20.63 | 20.43 | 22            | 16QAM      | 1.4MHz    | 6                    | 0                     |

| LTE Band 13                 |               |            |           |                      |                       |
|-----------------------------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23230                       | Channel       |            |           |                      |                       |
| 782                         | Freq. (MHz)   |            |           |                      |                       |
| 22.78                       | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.75                       | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.72                       | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.91                       | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.82                       | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.84                       | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.92                       | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 22.09                       | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 22.04                       | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 22.02                       | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.99                       | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.91                       | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.96                       | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.95                       | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 13                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23205                       | 23230 | 23255 | Channel       |            |           |                      |                       |
| 779.5                       | 782   | 784.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.62                       | 22.70 | 22.63 | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.60                       | 22.60 | 22.55 | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.56                       | 22.60 | 22.52 | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.76                       | 21.77 | 21.78 | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.70                       | 21.61 | 21.69 | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.73                       | 21.65 | 21.69 | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.83                       | 21.73 | 21.78 | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 21.84                       | 21.91 | 21.92 | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 21.96                       | 21.84 | 21.85 | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 21.83                       | 21.80 | 21.81 | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.81                       | 20.81 | 20.93 | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.86                       | 20.71 | 20.83 | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.84                       | 20.70 | 20.80 | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.79                       | 20.77 | 20.79 | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 17                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23780                       | 23790 | 23800 | Channel       |            |           |                      |                       |
| 709                         | 710   | 711   | Freq. (MHz)   |            |           |                      |                       |
| 22.54                       | 22.61 | 22.56 | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.48                       | 22.55 | 22.50 | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.50                       | 22.57 | 22.52 | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.59                       | 21.66 | 21.61 | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.54                       | 21.61 | 21.56 | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.56                       | 21.63 | 21.58 | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.66                       | 21.73 | 21.68 | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 21.84                       | 21.90 | 21.86 | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 21.75                       | 21.82 | 21.77 | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 21.78                       | 21.85 | 21.80 | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.67                       | 20.74 | 20.69 | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.70                       | 20.77 | 20.72 | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.68                       | 20.75 | 20.70 | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.73                       | 20.80 | 20.75 | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 17                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23755                       | 23790 | 23825 | Channel       |            |           |                      |                       |
| 706.5                       | 710   | 713.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.45                       | 22.58 | 22.53 | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.47                       | 22.45 | 22.41 | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.50                       | 22.55 | 22.46 | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.51                       | 21.63 | 21.61 | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.48                       | 21.59 | 21.52 | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.48                       | 21.60 | 21.50 | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.61                       | 21.67 | 21.67 | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 21.82                       | 21.86 | 21.80 | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 21.73                       | 21.76 | 21.72 | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 21.72                       | 21.75 | 21.76 | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.62                       | 20.67 | 20.69 | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.60                       | 20.67 | 20.65 | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.65                       | 20.65 | 20.63 | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.64                       | 20.74 | 20.75 | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 26                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 26765                       | 26865 | 26965 | Channel       |            |           |                      |                       |
| 821.5                       | 831.5 | 841.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.44                       | 22.60 | 22.31 | 24            | QPSK       | 15MHz     | 1                    | 0                     |
| 22.33                       | 22.45 | 22.20 | 24            | QPSK       | 15MHz     | 1                    | 37                    |
| 22.26                       | 22.28 | 22.23 | 24            | QPSK       | 15MHz     | 1                    | 74                    |
| 21.47                       | 21.59 | 21.34 | 23            | QPSK       | 15MHz     | 36                   | 0                     |
| 21.34                       | 21.46 | 21.21 | 23            | QPSK       | 15MHz     | 36                   | 19                    |
| 21.14                       | 21.26 | 21.01 | 23            | QPSK       | 15MHz     | 36                   | 39                    |
| 21.44                       | 21.56 | 21.31 | 23            | QPSK       | 15MHz     | 75                   | 0                     |
| 21.69                       | 21.81 | 21.57 | 23            | 16QAM      | 15MHz     | 1                    | 0                     |
| 21.61                       | 21.72 | 21.48 | 23            | 16QAM      | 15MHz     | 1                    | 37                    |
| 21.29                       | 21.41 | 21.16 | 23            | 16QAM      | 15MHz     | 1                    | 74                    |
| 20.57                       | 20.69 | 20.44 | 22            | 16QAM      | 15MHz     | 36                   | 0                     |
| 20.44                       | 20.56 | 20.31 | 22            | 16QAM      | 15MHz     | 36                   | 19                    |
| 20.26                       | 20.38 | 20.13 | 22            | 16QAM      | 15MHz     | 36                   | 39                    |
| 20.65                       | 20.77 | 20.52 | 22            | 16QAM      | 15MHz     | 75                   | 0                     |

| LTE Band 26                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 26740                       | 26865 | 26990 | Channel       |            |           |                      |                       |
| 819                         | 831.5 | 844   | Freq. (MHz)   |            |           |                      |                       |
| 22.38                       | 22.59 | 22.25 | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.25                       | 22.37 | 22.17 | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.25                       | 22.23 | 22.23 | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.38                       | 21.59 | 21.33 | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.25                       | 21.43 | 21.20 | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.04                       | 21.22 | 20.99 | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.39                       | 21.51 | 21.27 | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 21.67                       | 21.81 | 21.55 | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 21.54                       | 21.66 | 21.46 | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 21.19                       | 21.39 | 21.07 | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.47                       | 20.62 | 20.39 | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.38                       | 20.55 | 20.31 | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.20                       | 20.38 | 20.12 | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.63                       | 20.70 | 20.43 | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 26                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 26715                       | 26865 | 27015 | Channel       |            |           |                      |                       |
| 816.5                       | 831.5 | 846.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.39                       | 22.59 | 22.31 | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.27                       | 22.42 | 22.20 | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.17                       | 22.19 | 22.14 | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.45                       | 21.51 | 21.25 | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.26                       | 21.44 | 21.13 | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.11                       | 21.24 | 21.00 | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.38                       | 21.52 | 21.28 | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 21.69                       | 21.76 | 21.50 | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 21.52                       | 21.62 | 21.44 | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 21.21                       | 21.36 | 21.09 | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.54                       | 20.60 | 20.34 | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.43                       | 20.48 | 20.23 | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.26                       | 20.30 | 20.08 | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.65                       | 20.69 | 20.52 | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 26                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 26705                       | 26865 | 27025 | Channel       |            |           |                      |                       |
| 815.5                       | 831.5 | 847.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.38                       | 22.57 | 22.29 | 24            | QPSK       | 3MHz      | 1                    | 0                     |
| 22.32                       | 22.39 | 22.11 | 24            | QPSK       | 3MHz      | 1                    | 7                     |
| 22.19                       | 22.18 | 22.18 | 24            | QPSK       | 3MHz      | 1                    | 14                    |
| 21.46                       | 21.55 | 21.32 | 23            | QPSK       | 3MHz      | 8                    | 0                     |
| 21.30                       | 21.46 | 21.13 | 23            | QPSK       | 3MHz      | 8                    | 3                     |
| 21.11                       | 21.20 | 21.01 | 23            | QPSK       | 3MHz      | 8                    | 7                     |
| 21.35                       | 21.46 | 21.29 | 23            | QPSK       | 3MHz      | 15                   | 0                     |
| 21.59                       | 21.80 | 21.55 | 23            | 16QAM      | 3MHz      | 1                    | 0                     |
| 21.54                       | 21.67 | 21.40 | 23            | 16QAM      | 3MHz      | 1                    | 7                     |
| 21.22                       | 21.39 | 21.15 | 23            | 16QAM      | 3MHz      | 1                    | 14                    |
| 20.50                       | 20.69 | 20.41 | 22            | 16QAM      | 3MHz      | 8                    | 0                     |
| 20.44                       | 20.49 | 20.22 | 22            | 16QAM      | 3MHz      | 8                    | 3                     |
| 20.18                       | 20.34 | 20.06 | 22            | 16QAM      | 3MHz      | 8                    | 7                     |
| 20.62                       | 20.74 | 20.42 | 22            | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 26                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 26697                       | 26865 | 27033 | Channel       |            |           |                      |                       |
| 814.7                       | 831.5 | 848.3 | Freq. (MHz)   |            |           |                      |                       |
| 22.23                       | 22.50 | 22.16 | 24            | QPSK       | 1.4MHz    | 1                    | 0                     |
| 22.26                       | 22.31 | 22.07 | 24            | QPSK       | 1.4MHz    | 1                    | 2                     |
| 22.18                       | 22.09 | 22.02 | 24            | QPSK       | 1.4MHz    | 1                    | 5                     |
| 22.34                       | 22.50 | 22.11 | 24            | QPSK       | 1.4MHz    | 3                    | 0                     |
| 22.19                       | 22.26 | 22.15 | 24            | QPSK       | 1.4MHz    | 3                    | 1                     |
| 22.11                       | 22.16 | 22.10 | 24            | QPSK       | 1.4MHz    | 3                    | 3                     |
| 21.28                       | 21.44 | 21.08 | 23            | QPSK       | 1.4MHz    | 6                    | 0                     |
| 21.57                       | 21.73 | 21.36 | 23            | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 21.49                       | 21.55 | 21.33 | 23            | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 21.24                       | 21.18 | 21.01 | 23            | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 21.41                       | 21.47 | 21.23 | 23            | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 21.27                       | 21.47 | 21.24 | 23            | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 21.18                       | 21.36 | 21.02 | 23            | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 20.50                       | 20.60 | 20.32 | 22            | 16QAM      | 1.4MHz    | 6                    | 0                     |



| LTE Band 30                 |               |            |           |                      |                       |
|-----------------------------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 27710                       | Channel       |            |           |                      |                       |
| 2310                        | Freq. (MHz)   |            |           |                      |                       |
| 22.42                       | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.18                       | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.22                       | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.30                       | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.19                       | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.25                       | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.27                       | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 21.55                       | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 21.46                       | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 21.49                       | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.26                       | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.23                       | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.34                       | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.29                       | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 30                 |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 27685                       | 27710 | 27735  | Channel       |            |           |                      |                       |
| 2307.5                      | 2310  | 2312.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.25                       | 22.39 | 22.34  | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.08                       | 22.09 | 22.07  | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.21                       | 22.13 | 22.08  | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.18                       | 21.13 | 21.06  | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.03                       | 21.05 | 21.09  | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.21                       | 21.23 | 21.23  | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.09                       | 21.22 | 21.22  | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 21.41                       | 21.44 | 21.44  | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 21.30                       | 21.40 | 21.40  | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 21.44                       | 21.41 | 21.33  | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.08                       | 20.08 | 20.20  | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.10                       | 20.13 | 20.17  | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.20                       | 20.16 | 20.22  | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.13                       | 20.19 | 20.17  | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 38                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 37850                       | 38000 | 38150 | Channel       |            |           |                      |                       |
| 2580                        | 2595  | 2610  | Freq. (MHz)   |            |           |                      |                       |
| 22.72                       | 22.85 | 22.74 | 24            | QPSK       | 20MHz     | 1                    | 0                     |
| 22.17                       | 22.31 | 22.20 | 24            | QPSK       | 20MHz     | 1                    | 49                    |
| 22.58                       | 22.67 | 22.58 | 24            | QPSK       | 20MHz     | 1                    | 99                    |
| 21.09                       | 21.23 | 21.15 | 23            | QPSK       | 20MHz     | 50                   | 0                     |
| 21.07                       | 21.21 | 21.14 | 23            | QPSK       | 20MHz     | 50                   | 25                    |
| 21.06                       | 21.21 | 21.00 | 23            | QPSK       | 20MHz     | 50                   | 50                    |
| 21.17                       | 21.24 | 21.17 | 23            | QPSK       | 20MHz     | 100                  | 0                     |
| 21.54                       | 21.63 | 21.56 | 23            | 16QAM      | 20MHz     | 1                    | 0                     |
| 21.23                       | 21.43 | 21.30 | 23            | 16QAM      | 20MHz     | 1                    | 49                    |
| 21.45                       | 21.56 | 21.49 | 23            | 16QAM      | 20MHz     | 1                    | 99                    |
| 20.12                       | 20.19 | 20.08 | 22            | 16QAM      | 20MHz     | 50                   | 0                     |
| 20.13                       | 20.25 | 20.08 | 22            | 16QAM      | 20MHz     | 50                   | 25                    |
| 20.14                       | 20.22 | 20.16 | 22            | 16QAM      | 20MHz     | 50                   | 50                    |
| 20.13                       | 20.34 | 20.22 | 22            | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 38                 |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 37825                       | 38000 | 38175  | Channel       |            |           |                      |                       |
| 2577.5                      | 2595  | 2612.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.66                       | 22.78 | 22.66  | 24            | QPSK       | 15MHz     | 1                    | 0                     |
| 22.14                       | 22.23 | 22.18  | 24            | QPSK       | 15MHz     | 1                    | 37                    |
| 22.52                       | 22.66 | 22.56  | 24            | QPSK       | 15MHz     | 1                    | 74                    |
| 21.05                       | 21.17 | 21.14  | 23            | QPSK       | 15MHz     | 36                   | 0                     |
| 21.02                       | 21.19 | 21.06  | 23            | QPSK       | 15MHz     | 36                   | 19                    |
| 21.06                       | 21.12 | 21.00  | 23            | QPSK       | 15MHz     | 36                   | 39                    |
| 21.15                       | 21.23 | 21.08  | 23            | QPSK       | 15MHz     | 75                   | 0                     |
| 21.44                       | 21.61 | 21.46  | 23            | 16QAM      | 15MHz     | 1                    | 0                     |
| 21.19                       | 21.33 | 21.29  | 23            | 16QAM      | 15MHz     | 1                    | 37                    |
| 21.43                       | 21.51 | 21.49  | 23            | 16QAM      | 15MHz     | 1                    | 74                    |
| 20.07                       | 20.09 | 20.07  | 22            | 16QAM      | 15MHz     | 36                   | 0                     |
| 20.13                       | 20.25 | 20.04  | 22            | 16QAM      | 15MHz     | 36                   | 19                    |
| 20.04                       | 20.21 | 20.14  | 22            | 16QAM      | 15MHz     | 36                   | 39                    |
| 20.12                       | 20.33 | 20.16  | 22            | 16QAM      | 15MHz     | 75                   | 0                     |

| LTE Band 38                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 37800                       | 38000 | 38200 | Channel       |            |           |                      |                       |
| 2575                        | 2595  | 2615  | Freq. (MHz)   |            |           |                      |                       |
| 22.72                       | 22.83 | 22.71 | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.12                       | 22.25 | 22.16 | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.50                       | 22.66 | 22.52 | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.02                       | 21.21 | 21.13 | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.04                       | 21.15 | 21.05 | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.05                       | 21.14 | 21.10 | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.07                       | 21.19 | 21.16 | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 21.53                       | 21.54 | 21.54 | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 21.22                       | 21.36 | 21.23 | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 21.36                       | 21.54 | 21.39 | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.07                       | 20.15 | 20.01 | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.03                       | 20.16 | 20.08 | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.14                       | 20.21 | 20.13 | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.11                       | 20.25 | 20.15 | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 38                 |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 37775                       | 38000 | 38225  | Channel       |            |           |                      |                       |
| 2572.5                      | 2595  | 2617.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.71                       | 22.81 | 22.68  | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.12                       | 22.30 | 22.19  | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.55                       | 22.57 | 22.58  | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.08                       | 21.18 | 21.11  | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.08                       | 21.11 | 21.11  | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.01                       | 21.21 | 21.09  | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.11                       | 21.19 | 21.12  | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 21.45                       | 21.53 | 21.48  | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 21.17                       | 21.36 | 21.30  | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 21.44                       | 21.49 | 21.41  | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.11                       | 20.18 | 20.07  | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.07                       | 20.21 | 20.00  | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.13                       | 20.20 | 20.10  | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.06                       | 20.28 | 20.13  | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 41                 |        |       |        |       |               |            |           |                      |                       |
|-----------------------------|--------|-------|--------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |       |        |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 39750                       | 40185  | 40620 | 41055  | 41490 | Channel       |            |           |                      |                       |
| 2506                        | 2549.5 | 2593  | 2636.5 | 2680  | Freq. (MHz)   |            |           |                      |                       |
| 22.62                       | 22.67  | 22.64 | 22.65  | 22.53 | 24            | QPSK       | 20MHz     | 1                    | 0                     |
| 22.43                       | 22.58  | 22.47 | 22.42  | 22.32 | 24            | QPSK       | 20MHz     | 1                    | 49                    |
| 22.45                       | 22.57  | 22.53 | 22.47  | 22.41 | 24            | QPSK       | 20MHz     | 1                    | 99                    |
| 21.49                       | 21.54  | 21.51 | 21.49  | 21.43 | 23            | QPSK       | 20MHz     | 50                   | 0                     |
| 21.44                       | 21.50  | 21.45 | 21.40  | 21.28 | 23            | QPSK       | 20MHz     | 50                   | 25                    |
| 21.45                       | 21.52  | 21.46 | 21.48  | 21.39 | 23            | QPSK       | 20MHz     | 50                   | 50                    |
| 21.44                       | 21.49  | 21.45 | 21.47  | 21.36 | 23            | QPSK       | 20MHz     | 100                  | 0                     |
| 21.69                       | 21.76  | 21.71 | 21.69  | 21.63 | 23            | 16QAM      | 20MHz     | 1                    | 0                     |
| 21.61                       | 21.70  | 21.72 | 21.68  | 21.52 | 23            | 16QAM      | 20MHz     | 1                    | 49                    |
| 21.67                       | 21.68  | 21.68 | 21.62  | 21.53 | 23            | 16QAM      | 20MHz     | 1                    | 99                    |
| 20.34                       | 20.41  | 20.41 | 20.36  | 20.24 | 22            | 16QAM      | 20MHz     | 50                   | 0                     |
| 20.33                       | 20.49  | 20.39 | 20.44  | 20.32 | 22            | 16QAM      | 20MHz     | 50                   | 25                    |
| 20.35                       | 20.45  | 20.35 | 20.34  | 20.27 | 22            | 16QAM      | 20MHz     | 50                   | 50                    |
| 20.46                       | 20.50  | 20.47 | 20.42  | 20.39 | 22            | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 41                 |        |       |        |        |               |            |           |                      |                       |
|-----------------------------|--------|-------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |       |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 39725                       | 40173  | 40620 | 41068  | 41515  | Channel       |            |           |                      |                       |
| 2503.5                      | 2548.3 | 2593  | 2637.8 | 2682.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.56                       | 22.63  | 22.62 | 22.60  | 22.53  | 24            | QPSK       | 15MHz     | 1                    | 0                     |
| 22.43                       | 22.49  | 22.45 | 22.33  | 22.22  | 24            | QPSK       | 15MHz     | 1                    | 37                    |
| 22.45                       | 22.56  | 22.51 | 22.37  | 22.39  | 24            | QPSK       | 15MHz     | 1                    | 74                    |
| 21.46                       | 21.47  | 21.44 | 21.46  | 21.33  | 23            | QPSK       | 15MHz     | 36                   | 0                     |
| 21.37                       | 21.50  | 21.42 | 21.37  | 21.20  | 23            | QPSK       | 15MHz     | 36                   | 19                    |
| 21.37                       | 21.49  | 21.39 | 21.41  | 21.35  | 23            | QPSK       | 15MHz     | 36                   | 39                    |
| 21.40                       | 21.47  | 21.40 | 21.38  | 21.28  | 23            | QPSK       | 15MHz     | 75                   | 0                     |
| 21.68                       | 21.71  | 21.63 | 21.59  | 21.51  | 23            | 16QAM      | 15MHz     | 1                    | 0                     |
| 21.61                       | 21.70  | 21.66 | 21.64  | 21.25  | 23            | 16QAM      | 15MHz     | 1                    | 37                    |
| 21.63                       | 21.66  | 21.61 | 21.58  | 21.38  | 23            | 16QAM      | 15MHz     | 1                    | 74                    |
| 20.31                       | 20.32  | 20.41 | 20.36  | 20.37  | 22            | 16QAM      | 15MHz     | 36                   | 0                     |
| 20.23                       | 20.48  | 20.29 | 20.44  | 20.26  | 22            | 16QAM      | 15MHz     | 36                   | 19                    |
| 20.33                       | 20.42  | 20.29 | 20.31  | 20.30  | 22            | 16QAM      | 15MHz     | 36                   | 39                    |
| 20.37                       | 20.45  | 20.37 | 20.32  | 20.34  | 22            | 16QAM      | 15MHz     | 75                   | 0                     |

| LTE Band 41                 |       |       |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 39700                       | 40160 | 40620 | 41080 | 41540 | Channel       |            |           |                      |                       |
| 2501                        | 2547  | 2593  | 2639  | 2685  | Freq. (MHz)   |            |           |                      |                       |
| 22.49                       | 22.57 | 22.54 | 22.63 | 22.48 | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.32                       | 22.47 | 22.37 | 22.30 | 22.24 | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.32                       | 22.45 | 22.43 | 22.36 | 22.31 | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.34                       | 21.43 | 21.41 | 21.44 | 21.35 | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.35                       | 21.40 | 21.35 | 21.33 | 21.14 | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.31                       | 21.41 | 21.44 | 21.44 | 21.22 | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.27                       | 21.35 | 21.40 | 21.33 | 21.18 | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 21.59                       | 21.61 | 21.50 | 21.62 | 21.43 | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 21.23                       | 21.45 | 21.41 | 21.31 | 21.27 | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 21.28                       | 21.47 | 21.39 | 21.36 | 21.36 | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.34                       | 20.39 | 20.41 | 20.37 | 20.28 | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.32                       | 20.45 | 20.30 | 20.34 | 20.21 | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.38                       | 20.40 | 20.38 | 20.42 | 20.22 | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.31                       | 20.41 | 20.42 | 20.38 | 20.23 | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 41                 |        |       |        |        |               |            |           |                      |                       |
|-----------------------------|--------|-------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |       |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 39675                       | 40148  | 40620 | 41093  | 41565  | Channel       |            |           |                      |                       |
| 2498.5                      | 2545.8 | 2593  | 2640.3 | 2687.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.48                       | 22.56  | 22.58 | 22.55  | 22.48  | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.24                       | 22.49  | 22.38 | 22.34  | 22.26  | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.39                       | 22.40  | 22.42 | 22.35  | 22.30  | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.39                       | 21.45  | 21.44 | 21.47  | 21.31  | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.30                       | 21.42  | 21.44 | 21.26  | 21.21  | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.35                       | 21.42  | 21.38 | 21.35  | 21.27  | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.33                       | 21.45  | 21.32 | 21.35  | 21.20  | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 21.50                       | 21.55  | 21.60 | 21.51  | 21.50  | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 21.29                       | 21.52  | 21.37 | 21.34  | 21.22  | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 21.41                       | 21.43  | 21.41 | 21.30  | 21.30  | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.33                       | 20.54  | 20.42 | 20.40  | 20.29  | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.37                       | 20.50  | 20.40 | 20.31  | 20.26  | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.31                       | 20.43  | 20.29 | 20.36  | 20.33  | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.29                       | 20.45  | 20.29 | 20.39  | 20.29  | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 132072                      | 132322 | 132572 | Channel       |            |           |                      |                       |
| 1720                        | 1745   | 1770   | Freq. (MHz)   |            |           |                      |                       |
| 22.83                       | 23.02  | 22.77  | 24            | QPSK       | 20MHz     | 1                    | 0                     |
| 22.84                       | 23.00  | 22.77  | 24            | QPSK       | 20MHz     | 1                    | 49                    |
| 22.77                       | 22.93  | 22.70  | 24            | QPSK       | 20MHz     | 1                    | 99                    |
| 21.93                       | 22.05  | 21.86  | 23            | QPSK       | 20MHz     | 50                   | 0                     |
| 21.87                       | 22.03  | 21.80  | 23            | QPSK       | 20MHz     | 50                   | 25                    |
| 21.84                       | 22.09  | 21.77  | 23            | QPSK       | 20MHz     | 50                   | 50                    |
| 22.01                       | 22.17  | 21.94  | 23            | QPSK       | 20MHz     | 100                  | 0                     |
| 22.12                       | 22.28  | 22.04  | 23            | 16QAM      | 20MHz     | 1                    | 0                     |
| 22.08                       | 22.24  | 22.01  | 23            | 16QAM      | 20MHz     | 1                    | 49                    |
| 22.06                       | 22.22  | 21.99  | 23            | 16QAM      | 20MHz     | 1                    | 99                    |
| 20.84                       | 21.00  | 20.77  | 22            | 16QAM      | 20MHz     | 50                   | 0                     |
| 20.80                       | 20.96  | 20.73  | 22            | 16QAM      | 20MHz     | 50                   | 25                    |
| 20.72                       | 20.88  | 20.65  | 22            | 16QAM      | 20MHz     | 50                   | 50                    |
| 20.98                       | 21.14  | 20.91  | 22            | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 132047                      | 132322 | 132597 | Channel       |            |           |                      |                       |
| 1717.5                      | 1745   | 1772.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.77                       | 22.95  | 22.69  | 24            | QPSK       | 15MHz     | 1                    | 0                     |
| 22.75                       | 22.92  | 22.70  | 24            | QPSK       | 15MHz     | 1                    | 37                    |
| 22.69                       | 22.83  | 22.64  | 24            | QPSK       | 15MHz     | 1                    | 74                    |
| 21.85                       | 22.03  | 21.77  | 23            | QPSK       | 15MHz     | 36                   | 0                     |
| 21.79                       | 22.01  | 21.75  | 23            | QPSK       | 15MHz     | 36                   | 19                    |
| 21.75                       | 22.00  | 21.74  | 23            | QPSK       | 15MHz     | 36                   | 39                    |
| 21.92                       | 22.16  | 21.89  | 23            | QPSK       | 15MHz     | 75                   | 0                     |
| 22.08                       | 22.27  | 22.01  | 23            | 16QAM      | 15MHz     | 1                    | 0                     |
| 22.06                       | 22.14  | 21.98  | 23            | 16QAM      | 15MHz     | 1                    | 37                    |
| 22.01                       | 22.16  | 21.91  | 23            | 16QAM      | 15MHz     | 1                    | 74                    |
| 20.78                       | 21.00  | 20.67  | 22            | 16QAM      | 15MHz     | 36                   | 0                     |
| 20.70                       | 20.89  | 20.69  | 22            | 16QAM      | 15MHz     | 36                   | 19                    |
| 20.66                       | 20.84  | 20.55  | 22            | 16QAM      | 15MHz     | 36                   | 39                    |
| 20.91                       | 21.14  | 20.82  | 22            | 16QAM      | 15MHz     | 75                   | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 132022                      | 132322 | 132622 | Channel       |            |           |                      |                       |
| 1715                        | 1745   | 1775   | Freq. (MHz)   |            |           |                      |                       |
| 22.80                       | 22.92  | 22.76  | 24            | QPSK       | 10MHz     | 1                    | 0                     |
| 22.82                       | 22.95  | 22.77  | 24            | QPSK       | 10MHz     | 1                    | 24                    |
| 22.71                       | 22.87  | 22.67  | 24            | QPSK       | 10MHz     | 1                    | 49                    |
| 21.84                       | 21.98  | 21.83  | 23            | QPSK       | 10MHz     | 25                   | 0                     |
| 21.84                       | 22.01  | 21.76  | 23            | QPSK       | 10MHz     | 25                   | 12                    |
| 21.77                       | 22.08  | 21.69  | 23            | QPSK       | 10MHz     | 25                   | 25                    |
| 21.94                       | 22.07  | 21.92  | 23            | QPSK       | 10MHz     | 50                   | 0                     |
| 22.04                       | 22.27  | 21.95  | 23            | 16QAM      | 10MHz     | 1                    | 0                     |
| 22.02                       | 22.20  | 22.01  | 23            | 16QAM      | 10MHz     | 1                    | 24                    |
| 21.99                       | 22.22  | 21.95  | 23            | 16QAM      | 10MHz     | 1                    | 49                    |
| 20.79                       | 20.98  | 20.68  | 22            | 16QAM      | 10MHz     | 25                   | 0                     |
| 20.79                       | 20.87  | 20.68  | 22            | 16QAM      | 10MHz     | 25                   | 12                    |
| 20.62                       | 20.88  | 20.60  | 22            | 16QAM      | 10MHz     | 25                   | 25                    |
| 20.92                       | 21.09  | 20.85  | 22            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 131997                      | 132322 | 132647 | Channel       |            |           |                      |                       |
| 1712.5                      | 1745   | 1777.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.82                       | 22.98  | 22.69  | 24            | QPSK       | 5MHz      | 1                    | 0                     |
| 22.79                       | 22.92  | 22.77  | 24            | QPSK       | 5MHz      | 1                    | 12                    |
| 22.73                       | 22.89  | 22.69  | 24            | QPSK       | 5MHz      | 1                    | 24                    |
| 21.87                       | 22.01  | 21.86  | 23            | QPSK       | 5MHz      | 12                   | 0                     |
| 21.87                       | 21.96  | 21.77  | 23            | QPSK       | 5MHz      | 12                   | 6                     |
| 21.76                       | 22.06  | 21.67  | 23            | QPSK       | 5MHz      | 12                   | 13                    |
| 21.97                       | 22.09  | 21.89  | 23            | QPSK       | 5MHz      | 25                   | 0                     |
| 22.07                       | 22.26  | 22.01  | 23            | 16QAM      | 5MHz      | 1                    | 0                     |
| 22.04                       | 22.22  | 21.99  | 23            | 16QAM      | 5MHz      | 1                    | 12                    |
| 22.02                       | 22.15  | 21.95  | 23            | 16QAM      | 5MHz      | 1                    | 24                    |
| 20.79                       | 20.94  | 20.69  | 22            | 16QAM      | 5MHz      | 12                   | 0                     |
| 20.73                       | 20.89  | 20.68  | 22            | 16QAM      | 5MHz      | 12                   | 6                     |
| 20.69                       | 20.82  | 20.56  | 22            | 16QAM      | 5MHz      | 12                   | 13                    |
| 20.91                       | 21.09  | 20.91  | 22            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 131987                      | 132322 | 132657 | Channel       |            |           |                      |                       |
| 1711.5                      | 1745   | 1778.5 | Freq. (MHz)   |            |           |                      |                       |
| 22.73                       | 22.94  | 22.69  | 24            | QPSK       | 3MHz      | 1                    | 0                     |
| 22.80                       | 22.94  | 22.73  | 24            | QPSK       | 3MHz      | 1                    | 7                     |
| 22.67                       | 22.92  | 22.69  | 24            | QPSK       | 3MHz      | 1                    | 14                    |
| 21.93                       | 22.00  | 21.78  | 23            | QPSK       | 3MHz      | 8                    | 0                     |
| 21.80                       | 22.00  | 21.71  | 23            | QPSK       | 3MHz      | 8                    | 3                     |
| 21.74                       | 22.08  | 21.76  | 23            | QPSK       | 3MHz      | 8                    | 7                     |
| 21.97                       | 22.08  | 21.86  | 23            | QPSK       | 3MHz      | 15                   | 0                     |
| 22.02                       | 22.28  | 22.04  | 23            | 16QAM      | 3MHz      | 1                    | 0                     |
| 22.04                       | 22.14  | 21.95  | 23            | 16QAM      | 3MHz      | 1                    | 7                     |
| 22.04                       | 22.19  | 21.98  | 23            | 16QAM      | 3MHz      | 1                    | 14                    |
| 20.79                       | 20.98  | 20.75  | 22            | 16QAM      | 3MHz      | 8                    | 0                     |
| 20.80                       | 20.88  | 20.69  | 22            | 16QAM      | 3MHz      | 8                    | 3                     |
| 20.67                       | 20.88  | 20.57  | 22            | 16QAM      | 3MHz      | 8                    | 7                     |
| 20.96                       | 21.10  | 20.84  | 22            | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 131979                      | 132322 | 132665 | Channel       |            |           |                      |                       |
| 1710.7                      | 1745   | 1779.3 | Freq. (MHz)   |            |           |                      |                       |
| 22.64                       | 22.96  | 22.63  | 24            | QPSK       | 1.4MHz    | 1                    | 0                     |
| 22.68                       | 22.99  | 22.68  | 24            | QPSK       | 1.4MHz    | 1                    | 2                     |
| 22.73                       | 22.87  | 22.66  | 24            | QPSK       | 1.4MHz    | 1                    | 5                     |
| 22.76                       | 23.01  | 22.62  | 24            | QPSK       | 1.4MHz    | 3                    | 0                     |
| 22.71                       | 22.98  | 22.66  | 24            | QPSK       | 1.4MHz    | 3                    | 1                     |
| 22.63                       | 23.01  | 22.68  | 24            | QPSK       | 1.4MHz    | 3                    | 3                     |
| 21.92                       | 22.03  | 21.82  | 23            | QPSK       | 1.4MHz    | 6                    | 0                     |
| 21.94                       | 22.11  | 21.90  | 23            | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 21.94                       | 22.13  | 21.91  | 23            | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 21.86                       | 22.13  | 21.83  | 23            | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 21.74                       | 21.85  | 21.72  | 23            | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 21.67                       | 21.85  | 21.59  | 23            | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 21.63                       | 21.83  | 21.50  | 23            | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 20.88                       | 20.98  | 20.75  | 22            | 16QAM      | 1.4MHz    | 6                    | 0                     |



**Power Reduction**

| WCDMA<br>II | Uplink Channel   | 9262   | 9400   | 9538   | Tune up<br>(dBm) |
|-------------|------------------|--------|--------|--------|------------------|
|             | Uplink Frequency | 1852.4 | 1880.0 | 1907.6 |                  |
|             | RMC_12.2Kbps     | 17.39  | 17.41  | 17.37  | 17.5             |
|             | HSDPA_Subtest 1  | 17.19  | 17.29  | 17.23  | 17.5             |
|             | HSDPA_Subtest 2  | 17.24  | 17.22  | 17.27  | 17.5             |
|             | HSDPA_Subtest 3  | 16.73  | 16.67  | 16.72  | 17               |
|             | HSDPA_Subtest 4  | 16.62  | 16.59  | 16.57  | 17               |
|             | HSUPA_Subtest 1  | 17.05  | 17.03  | 16.97  | 17.5             |
|             | HSUPA_Subtest 2  | 14.99  | 14.91  | 14.93  | 15.5             |
|             | HSUPA_Subtest 3  | 15.6   | 15.69  | 15.63  | 16.5             |
|             | HSUPA_Subtest 4  | 14.72  | 14.81  | 14.88  | 15.5             |
|             | HSUPA_Subtest 5  | 16.78  | 16.74  | 16.76  | 17.5             |

| WCDMA<br>IV | Uplink Channel   | 1312   | 1413   | 1513   | Tune up<br>(dBm) |
|-------------|------------------|--------|--------|--------|------------------|
|             | Uplink Frequency | 1712.4 | 1732.6 | 1752.6 |                  |
|             | RMC_12.2Kbps     | 16.39  | 16.42  | 16.28  | 16.5             |
|             | HSDPA_Subtest 1  | 16.28  | 16.32  | 16.25  | 16.5             |
|             | HSDPA_Subtest 2  | 16.24  | 16.2   | 16.1   | 16.5             |
|             | HSDPA_Subtest 3  | 15.63  | 15.66  | 15.75  | 16               |
|             | HSDPA_Subtest 4  | 15.56  | 15.6   | 15.64  | 16               |
|             | HSUPA_Subtest 1  | 16.01  | 15.94  | 15.92  | 16.5             |
|             | HSUPA_Subtest 2  | 13.79  | 13.87  | 13.85  | 14.5             |
|             | HSUPA_Subtest 3  | 14.84  | 14.75  | 14.73  | 15.5             |
|             | HSUPA_Subtest 4  | 13.76  | 13.82  | 13.78  | 14.5             |
|             | HSUPA_Subtest 5  | 15.92  | 15.9   | 15.81  | 16.5             |

|            |                  |       |       |       |                  |
|------------|------------------|-------|-------|-------|------------------|
| WCDMA<br>V | Uplink Channel   | 4132  | 4182  | 4233  | Tune up<br>(dBm) |
|            | Uplink Frequency | 826.4 | 836.4 | 846.6 |                  |
|            | RMC_12.2Kbps     | 18.47 | 19.44 | 18.28 | 19.5             |
|            | HSDPA_Subtest 1  | 18.26 | 19.22 | 18.35 | 19.5             |
|            | HSDPA_Subtest 2  | 18.15 | 19.13 | 18.23 | 19.5             |
|            | HSDPA_Subtest 3  | 17.63 | 18.65 | 17.55 | 19               |
|            | HSDPA_Subtest 4  | 17.57 | 18.54 | 17.5  | 19               |
|            | HSUPA_Subtest 1  | 17.91 | 18.93 | 17.97 | 19.5             |
|            | HSUPA_Subtest 2  | 16.01 | 16.98 | 16.03 | 17.5             |
|            | HSUPA_Subtest 3  | 17.02 | 17.89 | 17    | 18.5             |
|            | HSUPA_Subtest 4  | 15.89 | 16.85 | 15.83 | 17.5             |
|            | HSUPA_Subtest 5  | 18.19 | 18.67 | 18.11 | 19.5             |

| LTE Band 2                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18700                       | 18900 | 19100 | Channel       |            |           |                      |                       |
| 1860                        | 1880  | 1900  | Freq. (MHz)   |            |           |                      |                       |
| 18.83                       | 18.89 | 18.86 | 19            | QPSK       | 20MHz     | 1                    | 0                     |
| 18.81                       | 18.86 | 18.84 | 19            | QPSK       | 20MHz     | 1                    | 49                    |
| 18.73                       | 18.78 | 18.76 | 19            | QPSK       | 20MHz     | 1                    | 99                    |
| 17.81                       | 17.86 | 17.84 | 18            | QPSK       | 20MHz     | 50                   | 0                     |
| 17.76                       | 17.81 | 17.79 | 18            | QPSK       | 20MHz     | 50                   | 25                    |
| 17.74                       | 17.79 | 17.77 | 18            | QPSK       | 20MHz     | 50                   | 50                    |
| 17.86                       | 17.91 | 17.89 | 18            | QPSK       | 20MHz     | 100                  | 0                     |
| 17.86                       | 17.91 | 17.89 | 18            | 16QAM      | 20MHz     | 1                    | 0                     |
| 17.84                       | 17.89 | 17.87 | 18            | 16QAM      | 20MHz     | 1                    | 49                    |
| 17.81                       | 17.86 | 17.84 | 18            | 16QAM      | 20MHz     | 1                    | 99                    |
| 16.86                       | 16.91 | 16.89 | 17            | 16QAM      | 20MHz     | 50                   | 0                     |
| 16.85                       | 16.90 | 16.88 | 17            | 16QAM      | 20MHz     | 50                   | 25                    |
| 16.80                       | 16.85 | 16.83 | 17            | 16QAM      | 20MHz     | 50                   | 50                    |
| 16.86                       | 16.91 | 16.89 | 17            | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 2                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18675                       | 18900 | 19125  | Channel       |            |           |                      |                       |
| 1857.5                      | 1880  | 1902.5 | Freq. (MHz)   |            |           |                      |                       |
| 18.74                       | 18.83 | 18.80  | 19            | QPSK       | 15MHz     | 1                    | 0                     |
| 18.77                       | 18.76 | 18.83  | 19            | QPSK       | 15MHz     | 1                    | 37                    |
| 18.63                       | 18.68 | 18.71  | 19            | QPSK       | 15MHz     | 1                    | 74                    |
| 17.81                       | 17.81 | 17.77  | 18            | QPSK       | 15MHz     | 36                   | 0                     |
| 17.66                       | 17.78 | 17.79  | 18            | QPSK       | 15MHz     | 36                   | 19                    |
| 17.72                       | 17.74 | 17.67  | 18            | QPSK       | 15MHz     | 36                   | 39                    |
| 17.77                       | 17.83 | 17.86  | 18            | QPSK       | 15MHz     | 75                   | 0                     |
| 17.76                       | 17.84 | 17.89  | 18            | 16QAM      | 15MHz     | 1                    | 0                     |
| 17.81                       | 17.81 | 17.77  | 18            | 16QAM      | 15MHz     | 1                    | 37                    |
| 17.79                       | 17.82 | 17.82  | 18            | 16QAM      | 15MHz     | 1                    | 74                    |
| 16.86                       | 16.88 | 16.89  | 17            | 16QAM      | 15MHz     | 36                   | 0                     |
| 16.84                       | 16.89 | 16.86  | 17            | 16QAM      | 15MHz     | 36                   | 19                    |
| 16.79                       | 16.83 | 16.83  | 17            | 16QAM      | 15MHz     | 36                   | 39                    |
| 16.77                       | 16.82 | 16.83  | 17            | 16QAM      | 15MHz     | 75                   | 0                     |

| LTE Band 2                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18650                       | 18900 | 19150 | Channel       |            |           |                      |                       |
| 1855                        | 1880  | 1905  | Freq. (MHz)   |            |           |                      |                       |
| 18.64                       | 18.72 | 18.65 | 19            | QPSK       | 10MHz     | 1                    | 0                     |
| 18.57                       | 18.67 | 18.69 | 19            | QPSK       | 10MHz     | 1                    | 24                    |
| 18.61                       | 18.61 | 18.52 | 19            | QPSK       | 10MHz     | 1                    | 49                    |
| 17.61                       | 17.71 | 17.61 | 18            | QPSK       | 10MHz     | 25                   | 0                     |
| 17.54                       | 17.60 | 17.60 | 18            | QPSK       | 10MHz     | 25                   | 12                    |
| 17.61                       | 17.78 | 17.73 | 18            | QPSK       | 10MHz     | 25                   | 25                    |
| 17.77                       | 17.76 | 17.75 | 18            | QPSK       | 10MHz     | 50                   | 0                     |
| 17.78                       | 17.76 | 17.82 | 18            | 16QAM      | 10MHz     | 1                    | 0                     |
| 17.59                       | 17.80 | 17.79 | 18            | 16QAM      | 10MHz     | 1                    | 24                    |
| 17.69                       | 17.64 | 17.73 | 18            | 16QAM      | 10MHz     | 1                    | 49                    |
| 16.74                       | 16.73 | 16.78 | 17            | 16QAM      | 10MHz     | 25                   | 0                     |
| 16.78                       | 16.77 | 16.70 | 17            | 16QAM      | 10MHz     | 25                   | 12                    |
| 16.57                       | 16.69 | 16.83 | 17            | 16QAM      | 10MHz     | 25                   | 25                    |
| 16.77                       | 16.88 | 16.73 | 17            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 2                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18625                       | 18900 | 19175  | Channel       |            |           |                      |                       |
| 1852.5                      | 1880  | 1907.5 | Freq. (MHz)   |            |           |                      |                       |
| 18.67                       | 18.82 | 18.77  | 19            | QPSK       | 5MHz      | 1                    | 0                     |
| 18.60                       | 18.78 | 18.62  | 19            | QPSK       | 5MHz      | 1                    | 12                    |
| 18.56                       | 18.60 | 18.62  | 19            | QPSK       | 5MHz      | 1                    | 24                    |
| 17.68                       | 17.63 | 17.60  | 18            | QPSK       | 5MHz      | 12                   | 0                     |
| 17.71                       | 17.63 | 17.72  | 18            | QPSK       | 5MHz      | 12                   | 6                     |
| 17.69                       | 17.63 | 17.54  | 18            | QPSK       | 5MHz      | 12                   | 13                    |
| 17.70                       | 17.80 | 17.77  | 18            | QPSK       | 5MHz      | 25                   | 0                     |
| 17.77                       | 17.83 | 17.75  | 18            | 16QAM      | 5MHz      | 1                    | 0                     |
| 17.77                       | 17.81 | 17.67  | 18            | 16QAM      | 5MHz      | 1                    | 12                    |
| 17.75                       | 17.69 | 17.65  | 18            | 16QAM      | 5MHz      | 1                    | 24                    |
| 16.66                       | 16.77 | 16.75  | 17            | 16QAM      | 5MHz      | 12                   | 0                     |
| 16.80                       | 16.72 | 16.80  | 17            | 16QAM      | 5MHz      | 12                   | 6                     |
| 16.70                       | 16.69 | 16.68  | 17            | 16QAM      | 5MHz      | 12                   | 13                    |
| 16.70                       | 16.89 | 16.74  | 17            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 2                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18615                       | 18900 | 19185  | Channel       |            |           |                      |                       |
| 1851.5                      | 1880  | 1908.5 | Freq. (MHz)   |            |           |                      |                       |
| 18.66                       | 18.85 | 18.83  | 19            | QPSK       | 3MHz      | 1                    | 0                     |
| 18.78                       | 18.81 | 18.64  | 19            | QPSK       | 3MHz      | 1                    | 7                     |
| 18.49                       | 18.64 | 18.67  | 19            | QPSK       | 3MHz      | 1                    | 14                    |
| 17.60                       | 17.84 | 17.72  | 18            | QPSK       | 3MHz      | 8                    | 0                     |
| 17.66                       | 17.59 | 17.66  | 18            | QPSK       | 3MHz      | 8                    | 3                     |
| 17.61                       | 17.68 | 17.61  | 18            | QPSK       | 3MHz      | 8                    | 7                     |
| 17.74                       | 17.82 | 17.82  | 18            | QPSK       | 3MHz      | 15                   | 0                     |
| 17.73                       | 17.76 | 17.65  | 18            | 16QAM      | 3MHz      | 1                    | 0                     |
| 17.70                       | 17.79 | 17.67  | 18            | 16QAM      | 3MHz      | 1                    | 7                     |
| 17.70                       | 17.63 | 17.74  | 18            | 16QAM      | 3MHz      | 1                    | 14                    |
| 16.67                       | 16.68 | 16.69  | 17            | 16QAM      | 3MHz      | 8                    | 0                     |
| 16.65                       | 16.86 | 16.73  | 17            | 16QAM      | 3MHz      | 8                    | 3                     |
| 16.71                       | 16.80 | 16.73  | 17            | 16QAM      | 3MHz      | 8                    | 7                     |
| 16.83                       | 16.74 | 16.70  | 17            | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 2                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 18607                       | 18900 | 19193  | Channel       |            |           |                      |                       |
| 1850.7                      | 1880  | 1909.3 | Freq. (MHz)   |            |           |                      |                       |
| 18.67                       | 18.79 | 18.74  | 19            | QPSK       | 1.4MHz    | 1                    | 0                     |
| 18.61                       | 18.64 | 18.73  | 19            | QPSK       | 1.4MHz    | 1                    | 2                     |
| 18.63                       | 18.58 | 18.60  | 19            | QPSK       | 1.4MHz    | 1                    | 5                     |
| 18.66                       | 18.75 | 18.75  | 19            | QPSK       | 1.4MHz    | 3                    | 0                     |
| 18.71                       | 18.74 | 18.69  | 19            | QPSK       | 1.4MHz    | 3                    | 1                     |
| 18.61                       | 18.64 | 18.52  | 19            | QPSK       | 1.4MHz    | 3                    | 3                     |
| 17.70                       | 17.82 | 17.73  | 18            | QPSK       | 1.4MHz    | 6                    | 0                     |
| 17.82                       | 17.82 | 17.76  | 18            | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 17.65                       | 17.67 | 17.76  | 18            | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 17.66                       | 17.73 | 17.65  | 18            | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 17.74                       | 17.69 | 17.82  | 18            | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 17.72                       | 17.81 | 17.73  | 18            | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 17.73                       | 17.71 | 17.77  | 18            | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 16.71                       | 16.70 | 16.80  | 17            | 16QAM      | 1.4MHz    | 6                    | 0                     |

| LTE Band 4                  |        |       |               |            |           |                      |                       |
|-----------------------------|--------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20050                       | 20175  | 20300 | Channel       |            |           |                      |                       |
| 1720                        | 1732.5 | 1745  | Freq. (MHz)   |            |           |                      |                       |
| 16.66                       | 16.70  | 16.64 | 17.5          | QPSK       | 20MHz     | 1                    | 0                     |
| 16.63                       | 16.69  | 16.56 | 17.5          | QPSK       | 20MHz     | 1                    | 49                    |
| 16.58                       | 16.67  | 16.51 | 17.5          | QPSK       | 20MHz     | 1                    | 99                    |
| 15.56                       | 15.60  | 15.44 | 16.5          | QPSK       | 20MHz     | 50                   | 0                     |
| 15.47                       | 15.51  | 15.35 | 16.5          | QPSK       | 20MHz     | 50                   | 25                    |
| 15.34                       | 15.38  | 15.22 | 16.5          | QPSK       | 20MHz     | 50                   | 50                    |
| 15.59                       | 15.62  | 15.47 | 16.5          | QPSK       | 20MHz     | 100                  | 0                     |
| 15.83                       | 15.87  | 15.71 | 16.5          | 16QAM      | 20MHz     | 1                    | 0                     |
| 15.67                       | 15.71  | 15.56 | 16.5          | 16QAM      | 20MHz     | 1                    | 49                    |
| 15.38                       | 15.42  | 15.26 | 16.5          | 16QAM      | 20MHz     | 1                    | 99                    |
| 14.59                       | 14.63  | 14.47 | 15.5          | 16QAM      | 20MHz     | 50                   | 0                     |
| 14.48                       | 14.52  | 14.36 | 15.5          | 16QAM      | 20MHz     | 50                   | 25                    |
| 14.35                       | 14.39  | 14.24 | 15.5          | 16QAM      | 20MHz     | 50                   | 50                    |
| 14.58                       | 14.62  | 14.46 | 15.5          | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 4                  |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20025                       | 20175  | 20325  | Channel       |            |           |                      |                       |
| 1717.5                      | 1732.5 | 1747.5 | Freq. (MHz)   |            |           |                      |                       |
| 16.54                       | 16.62  | 16.46  | 17.5          | QPSK       | 15MHz     | 1                    | 0                     |
| 16.45                       | 16.44  | 16.34  | 17.5          | QPSK       | 15MHz     | 1                    | 37                    |
| 16.13                       | 16.22  | 16.06  | 17.5          | QPSK       | 15MHz     | 1                    | 74                    |
| 15.47                       | 15.60  | 15.44  | 16.5          | QPSK       | 15MHz     | 36                   | 0                     |
| 15.41                       | 15.51  | 15.25  | 16.5          | QPSK       | 15MHz     | 36                   | 19                    |
| 15.33                       | 15.34  | 15.22  | 16.5          | QPSK       | 15MHz     | 36                   | 39                    |
| 15.52                       | 15.60  | 15.40  | 16.5          | QPSK       | 15MHz     | 75                   | 0                     |
| 15.80                       | 15.78  | 15.66  | 16.5          | 16QAM      | 15MHz     | 1                    | 0                     |
| 15.60                       | 15.61  | 15.56  | 16.5          | 16QAM      | 15MHz     | 1                    | 37                    |
| 15.35                       | 15.38  | 15.17  | 16.5          | 16QAM      | 15MHz     | 1                    | 74                    |
| 14.53                       | 14.57  | 14.38  | 15.5          | 16QAM      | 15MHz     | 36                   | 0                     |
| 14.47                       | 14.49  | 14.27  | 15.5          | 16QAM      | 15MHz     | 36                   | 19                    |
| 14.25                       | 14.32  | 14.22  | 15.5          | 16QAM      | 15MHz     | 36                   | 39                    |
| 14.51                       | 14.53  | 14.42  | 15.5          | 16QAM      | 15MHz     | 75                   | 0                     |

| LTE Band 4                  |        |       |               |            |           |                      |                       |
|-----------------------------|--------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20000                       | 20175  | 20350 | Channel       |            |           |                      |                       |
| 1715                        | 1732.5 | 1750  | Freq. (MHz)   |            |           |                      |                       |
| 16.50                       | 16.61  | 16.43 | 17.5          | QPSK       | 10MHz     | 1                    | 0                     |
| 16.36                       | 16.37  | 16.27 | 17.5          | QPSK       | 10MHz     | 1                    | 24                    |
| 15.99                       | 16.06  | 15.95 | 17.5          | QPSK       | 10MHz     | 1                    | 49                    |
| 15.39                       | 15.41  | 15.27 | 16.5          | QPSK       | 10MHz     | 25                   | 0                     |
| 15.44                       | 15.37  | 15.20 | 16.5          | QPSK       | 10MHz     | 25                   | 12                    |
| 15.12                       | 15.27  | 15.12 | 16.5          | QPSK       | 10MHz     | 25                   | 25                    |
| 15.50                       | 15.51  | 15.38 | 16.5          | QPSK       | 10MHz     | 50                   | 0                     |
| 15.69                       | 15.71  | 15.57 | 16.5          | 16QAM      | 10MHz     | 1                    | 0                     |
| 15.62                       | 15.54  | 15.46 | 16.5          | 16QAM      | 10MHz     | 1                    | 24                    |
| 15.34                       | 15.37  | 15.09 | 16.5          | 16QAM      | 10MHz     | 1                    | 49                    |
| 14.41                       | 14.50  | 14.42 | 15.5          | 16QAM      | 10MHz     | 25                   | 0                     |
| 14.45                       | 14.44  | 14.24 | 15.5          | 16QAM      | 10MHz     | 25                   | 12                    |
| 14.18                       | 14.32  | 14.08 | 15.5          | 16QAM      | 10MHz     | 25                   | 25                    |
| 14.38                       | 14.51  | 14.41 | 15.5          | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 4                  |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 19975                       | 20175  | 20375  | Channel       |            |           |                      |                       |
| 1712.5                      | 1732.5 | 1752.5 | Freq. (MHz)   |            |           |                      |                       |
| 16.52                       | 16.53  | 16.42  | 17.5          | QPSK       | 5MHz      | 1                    | 0                     |
| 16.37                       | 16.34  | 16.19  | 17.5          | QPSK       | 5MHz      | 1                    | 12                    |
| 16.07                       | 16.14  | 15.88  | 17.5          | QPSK       | 5MHz      | 1                    | 24                    |
| 15.36                       | 15.45  | 15.27  | 16.5          | QPSK       | 5MHz      | 12                   | 0                     |
| 15.43                       | 15.37  | 15.17  | 16.5          | QPSK       | 5MHz      | 12                   | 6                     |
| 15.23                       | 15.26  | 15.08  | 16.5          | QPSK       | 5MHz      | 12                   | 13                    |
| 15.58                       | 15.50  | 15.32  | 16.5          | QPSK       | 5MHz      | 25                   | 0                     |
| 15.75                       | 15.67  | 15.67  | 16.5          | 16QAM      | 5MHz      | 1                    | 0                     |
| 15.47                       | 15.64  | 15.41  | 16.5          | 16QAM      | 5MHz      | 1                    | 12                    |
| 15.22                       | 15.37  | 15.26  | 16.5          | 16QAM      | 5MHz      | 1                    | 24                    |
| 14.50                       | 14.56  | 14.33  | 15.5          | 16QAM      | 5MHz      | 12                   | 0                     |
| 14.35                       | 14.43  | 14.22  | 15.5          | 16QAM      | 5MHz      | 12                   | 6                     |
| 14.24                       | 14.23  | 14.02  | 15.5          | 16QAM      | 5MHz      | 12                   | 13                    |
| 14.41                       | 14.48  | 14.35  | 15.5          | 16QAM      | 5MHz      | 25                   | 0                     |



| LTE Band 4                  |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 19965                       | 20175  | 20385  | Channel       |            |           |                      |                       |
| 1711.5                      | 1732.5 | 1753.5 | Freq. (MHz)   |            |           |                      |                       |
| 16.51                       | 16.52  | 16.33  | 17.5          | QPSK       | 3MHz      | 1                    | 0                     |
| 16.26                       | 16.41  | 16.19  | 17.5          | QPSK       | 3MHz      | 1                    | 7                     |
| 16.04                       | 16.17  | 15.84  | 17.5          | QPSK       | 3MHz      | 1                    | 14                    |
| 15.52                       | 15.49  | 15.28  | 16.5          | QPSK       | 3MHz      | 8                    | 0                     |
| 15.43                       | 15.38  | 15.21  | 16.5          | QPSK       | 3MHz      | 8                    | 3                     |
| 15.24                       | 15.27  | 15.10  | 16.5          | QPSK       | 3MHz      | 8                    | 7                     |
| 15.42                       | 15.49  | 15.27  | 16.5          | QPSK       | 3MHz      | 15                   | 0                     |
| 15.69                       | 15.82  | 15.57  | 16.5          | 16QAM      | 3MHz      | 1                    | 0                     |
| 15.59                       | 15.62  | 15.43  | 16.5          | 16QAM      | 3MHz      | 1                    | 7                     |
| 15.31                       | 15.29  | 15.04  | 16.5          | 16QAM      | 3MHz      | 1                    | 14                    |
| 14.53                       | 14.58  | 14.33  | 15.5          | 16QAM      | 3MHz      | 8                    | 0                     |
| 14.36                       | 14.37  | 14.30  | 15.5          | 16QAM      | 3MHz      | 8                    | 3                     |
| 14.26                       | 14.34  | 14.09  | 15.5          | 16QAM      | 3MHz      | 8                    | 7                     |
| 14.39                       | 14.60  | 14.28  | 15.5          | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 4                  |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 19957                       | 20175  | 20393  | Channel       |            |           |                      |                       |
| 1710.7                      | 1732.5 | 1754.3 | Freq. (MHz)   |            |           |                      |                       |
| 16.61                       | 16.62  | 16.46  | 17.5          | QPSK       | 1.4MHz    | 1                    | 0                     |
| 16.32                       | 16.37  | 16.15  | 17.5          | QPSK       | 1.4MHz    | 1                    | 2                     |
| 16.17                       | 16.11  | 15.94  | 17.5          | QPSK       | 1.4MHz    | 1                    | 5                     |
| 16.42                       | 16.52  | 16.23  | 17.5          | QPSK       | 1.4MHz    | 3                    | 0                     |
| 16.36                       | 16.45  | 16.10  | 17.5          | QPSK       | 1.4MHz    | 3                    | 1                     |
| 16.12                       | 16.33  | 16.06  | 17.5          | QPSK       | 1.4MHz    | 3                    | 3                     |
| 15.41                       | 15.55  | 15.38  | 16.5          | QPSK       | 1.4MHz    | 6                    | 0                     |
| 15.80                       | 15.71  | 15.66  | 16.5          | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 15.56                       | 15.64  | 15.36  | 16.5          | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 15.29                       | 15.28  | 15.08  | 16.5          | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 15.39                       | 15.45  | 15.25  | 16.5          | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 15.35                       | 15.46  | 15.19  | 16.5          | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 15.16                       | 15.32  | 15.11  | 16.5          | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 14.41                       | 14.49  | 14.28  | 15.5          | 16QAM      | 1.4MHz    | 6                    | 0                     |

| LTE Band 5                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20450                       | 20525 | 20600 | Channel       |            |           |                      |                       |
| 829                         | 836.5 | 844   | Freq. (MHz)   |            |           |                      |                       |
| 18.85                       | 18.88 | 18.70 | 19.5          | QPSK       | 10MHz     | 1                    | 0                     |
| 18.59                       | 18.64 | 18.34 | 19.5          | QPSK       | 10MHz     | 1                    | 24                    |
| 18.58                       | 18.63 | 18.33 | 19.5          | QPSK       | 10MHz     | 1                    | 49                    |
| 17.69                       | 17.74 | 17.44 | 18.5          | QPSK       | 10MHz     | 25                   | 0                     |
| 17.52                       | 17.57 | 17.27 | 18.5          | QPSK       | 10MHz     | 25                   | 12                    |
| 17.50                       | 17.55 | 17.25 | 18.5          | QPSK       | 10MHz     | 25                   | 25                    |
| 17.55                       | 17.60 | 17.30 | 18.5          | QPSK       | 10MHz     | 50                   | 0                     |
| 18.15                       | 18.20 | 17.90 | 18.5          | 16QAM      | 10MHz     | 1                    | 0                     |
| 17.81                       | 17.86 | 17.56 | 18.5          | 16QAM      | 10MHz     | 1                    | 24                    |
| 17.79                       | 17.84 | 17.54 | 18.5          | 16QAM      | 10MHz     | 1                    | 49                    |
| 16.82                       | 16.87 | 16.57 | 17.5          | 16QAM      | 10MHz     | 25                   | 0                     |
| 16.67                       | 16.72 | 16.42 | 17.5          | 16QAM      | 10MHz     | 25                   | 12                    |
| 16.65                       | 16.70 | 16.40 | 17.5          | 16QAM      | 10MHz     | 25                   | 25                    |
| 16.59                       | 16.64 | 16.34 | 17.5          | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 5                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20425                       | 20525 | 20625 | Channel       |            |           |                      |                       |
| 826.5                       | 836.5 | 846.5 | Freq. (MHz)   |            |           |                      |                       |
| 18.62                       | 18.69 | 18.49 | 19.5          | QPSK       | 5MHz      | 1                    | 0                     |
| 18.54                       | 18.44 | 18.13 | 19.5          | QPSK       | 5MHz      | 1                    | 12                    |
| 18.47                       | 18.57 | 18.10 | 19.5          | QPSK       | 5MHz      | 1                    | 24                    |
| 17.59                       | 17.73 | 17.24 | 18.5          | QPSK       | 5MHz      | 12                   | 0                     |
| 17.36                       | 17.51 | 17.15 | 18.5          | QPSK       | 5MHz      | 12                   | 6                     |
| 17.36                       | 17.38 | 17.03 | 18.5          | QPSK       | 5MHz      | 12                   | 13                    |
| 17.36                       | 17.42 | 17.05 | 18.5          | QPSK       | 5MHz      | 25                   | 0                     |
| 18.05                       | 18.05 | 17.77 | 18.5          | 16QAM      | 5MHz      | 1                    | 0                     |
| 17.67                       | 17.77 | 17.47 | 18.5          | 16QAM      | 5MHz      | 1                    | 12                    |
| 17.76                       | 17.76 | 17.50 | 18.5          | 16QAM      | 5MHz      | 1                    | 24                    |
| 16.71                       | 16.84 | 16.47 | 17.5          | 16QAM      | 5MHz      | 12                   | 0                     |
| 16.60                       | 16.66 | 16.24 | 17.5          | 16QAM      | 5MHz      | 12                   | 6                     |
| 16.41                       | 16.51 | 16.18 | 17.5          | 16QAM      | 5MHz      | 12                   | 13                    |
| 16.50                       | 16.54 | 16.19 | 17.5          | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 5                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20415                       | 20525 | 20635 | Channel       |            |           |                      |                       |
| 825.5                       | 836.5 | 847.5 | Freq. (MHz)   |            |           |                      |                       |
| 18.76                       | 18.81 | 18.68 | 19.5          | QPSK       | 3MHz      | 1                    | 0                     |
| 18.43                       | 18.56 | 18.17 | 19.5          | QPSK       | 3MHz      | 1                    | 7                     |
| 18.46                       | 18.44 | 18.21 | 19.5          | QPSK       | 3MHz      | 1                    | 14                    |
| 17.64                       | 17.53 | 17.31 | 18.5          | QPSK       | 3MHz      | 8                    | 0                     |
| 17.32                       | 17.51 | 17.14 | 18.5          | QPSK       | 3MHz      | 8                    | 3                     |
| 17.37                       | 17.44 | 17.03 | 18.5          | QPSK       | 3MHz      | 8                    | 7                     |
| 17.43                       | 17.54 | 17.18 | 18.5          | QPSK       | 3MHz      | 15                   | 0                     |
| 18.13                       | 18.07 | 17.78 | 18.5          | 16QAM      | 3MHz      | 1                    | 0                     |
| 17.61                       | 17.77 | 17.47 | 18.5          | 16QAM      | 3MHz      | 1                    | 7                     |
| 17.65                       | 17.65 | 17.38 | 18.5          | 16QAM      | 3MHz      | 1                    | 14                    |
| 16.68                       | 16.66 | 16.49 | 17.5          | 16QAM      | 3MHz      | 8                    | 0                     |
| 16.55                       | 16.61 | 16.33 | 17.5          | 16QAM      | 3MHz      | 8                    | 3                     |
| 16.53                       | 16.61 | 16.22 | 17.5          | 16QAM      | 3MHz      | 8                    | 7                     |
| 16.56                       | 16.58 | 16.21 | 17.5          | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 5                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20407                       | 20525 | 20643 | Channel       |            |           |                      |                       |
| 824.7                       | 836.5 | 848.3 | Freq. (MHz)   |            |           |                      |                       |
| 18.63                       | 18.70 | 18.57 | 19.5          | QPSK       | 1.4MHz    | 1                    | 0                     |
| 18.55                       | 18.59 | 18.14 | 19.5          | QPSK       | 1.4MHz    | 1                    | 2                     |
| 18.40                       | 18.45 | 18.16 | 19.5          | QPSK       | 1.4MHz    | 1                    | 5                     |
| 18.57                       | 18.61 | 18.33 | 19.5          | QPSK       | 1.4MHz    | 3                    | 0                     |
| 18.45                       | 18.50 | 18.18 | 19.5          | QPSK       | 1.4MHz    | 3                    | 1                     |
| 18.39                       | 18.47 | 18.15 | 19.5          | QPSK       | 1.4MHz    | 3                    | 3                     |
| 17.45                       | 17.38 | 17.28 | 18.5          | QPSK       | 1.4MHz    | 6                    | 0                     |
| 18.04                       | 18.12 | 17.76 | 18.5          | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 17.67                       | 17.64 | 17.41 | 18.5          | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 17.72                       | 17.82 | 17.42 | 18.5          | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 17.66                       | 17.71 | 17.44 | 18.5          | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 17.54                       | 17.65 | 17.33 | 18.5          | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 17.59                       | 17.61 | 17.28 | 18.5          | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 16.50                       | 16.52 | 16.24 | 17.5          | 16QAM      | 1.4MHz    | 6                    | 0                     |

| LTE Band 7                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20850                       | 21100 | 21350 | Channel       |            |           |                      |                       |
| 2510                        | 2535  | 2560  | Freq. (MHz)   |            |           |                      |                       |
| 14.84                       | 15.06 | 14.94 | 15.5          | QPSK       | 20MHz     | 1                    | 0                     |
| 14.71                       | 14.94 | 14.81 | 15.5          | QPSK       | 20MHz     | 1                    | 49                    |
| 14.64                       | 14.87 | 14.74 | 15.5          | QPSK       | 20MHz     | 1                    | 99                    |
| 13.92                       | 14.15 | 14.02 | 14.5          | QPSK       | 20MHz     | 50                   | 0                     |
| 13.72                       | 13.95 | 13.82 | 14.5          | QPSK       | 20MHz     | 50                   | 25                    |
| 13.66                       | 13.89 | 13.76 | 14.5          | QPSK       | 20MHz     | 50                   | 50                    |
| 14.13                       | 14.36 | 14.23 | 14.5          | QPSK       | 20MHz     | 100                  | 0                     |
| 14.00                       | 14.07 | 14.06 | 14.5          | 16QAM      | 20MHz     | 1                    | 0                     |
| 13.93                       | 14.16 | 14.03 | 14.5          | 16QAM      | 20MHz     | 1                    | 49                    |
| 13.79                       | 14.02 | 13.89 | 14.5          | 16QAM      | 20MHz     | 1                    | 99                    |
| 12.95                       | 13.18 | 13.05 | 13.5          | 16QAM      | 20MHz     | 50                   | 0                     |
| 12.87                       | 13.10 | 12.97 | 13.5          | 16QAM      | 20MHz     | 50                   | 25                    |
| 12.83                       | 13.06 | 12.93 | 13.5          | 16QAM      | 20MHz     | 50                   | 50                    |
| 13.12                       | 13.35 | 13.22 | 13.5          | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 7                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20825                       | 21100 | 21375  | Channel       |            |           |                      |                       |
| 2507.5                      | 2535  | 2562.5 | Freq. (MHz)   |            |           |                      |                       |
| 14.79                       | 14.99 | 14.92  | 15.5          | QPSK       | 15MHz     | 1                    | 0                     |
| 14.62                       | 14.88 | 14.80  | 15.5          | QPSK       | 15MHz     | 1                    | 37                    |
| 14.57                       | 14.84 | 14.66  | 15.5          | QPSK       | 15MHz     | 1                    | 74                    |
| 13.84                       | 14.08 | 13.93  | 14.5          | QPSK       | 15MHz     | 36                   | 0                     |
| 13.63                       | 13.90 | 13.75  | 14.5          | QPSK       | 15MHz     | 36                   | 19                    |
| 13.63                       | 13.86 | 13.67  | 14.5          | QPSK       | 15MHz     | 36                   | 39                    |
| 14.13                       | 14.31 | 14.22  | 14.5          | QPSK       | 15MHz     | 75                   | 0                     |
| 13.97                       | 14.05 | 13.96  | 14.5          | 16QAM      | 15MHz     | 1                    | 0                     |
| 13.88                       | 14.08 | 13.97  | 14.5          | 16QAM      | 15MHz     | 1                    | 37                    |
| 13.79                       | 14.01 | 13.89  | 14.5          | 16QAM      | 15MHz     | 1                    | 74                    |
| 12.92                       | 13.12 | 13.03  | 13.5          | 16QAM      | 15MHz     | 36                   | 0                     |
| 12.82                       | 13.07 | 12.96  | 13.5          | 16QAM      | 15MHz     | 36                   | 19                    |
| 12.81                       | 12.96 | 12.91  | 13.5          | 16QAM      | 15MHz     | 36                   | 39                    |
| 13.02                       | 13.25 | 13.14  | 13.5          | 16QAM      | 15MHz     | 75                   | 0                     |

| LTE Band 7                  |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20800                       | 21100 | 21400 | Channel       |            |           |                      |                       |
| 2505                        | 2535  | 2565  | Freq. (MHz)   |            |           |                      |                       |
| 14.70                       | 14.94 | 14.87 | 15.5          | QPSK       | 10MHz     | 1                    | 0                     |
| 14.54                       | 14.85 | 14.63 | 15.5          | QPSK       | 10MHz     | 1                    | 24                    |
| 14.49                       | 14.85 | 14.49 | 15.5          | QPSK       | 10MHz     | 1                    | 49                    |
| 13.69                       | 14.10 | 13.90 | 14.5          | QPSK       | 10MHz     | 25                   | 0                     |
| 13.58                       | 13.82 | 13.64 | 14.5          | QPSK       | 10MHz     | 25                   | 12                    |
| 13.52                       | 13.82 | 13.55 | 14.5          | QPSK       | 10MHz     | 25                   | 25                    |
| 14.04                       | 14.26 | 14.21 | 14.5          | QPSK       | 10MHz     | 50                   | 0                     |
| 13.78                       | 13.91 | 13.85 | 14.5          | 16QAM      | 10MHz     | 1                    | 0                     |
| 13.80                       | 13.99 | 13.89 | 14.5          | 16QAM      | 10MHz     | 1                    | 24                    |
| 13.59                       | 13.85 | 13.77 | 14.5          | 16QAM      | 10MHz     | 1                    | 49                    |
| 12.86                       | 13.06 | 12.95 | 13.5          | 16QAM      | 10MHz     | 25                   | 0                     |
| 12.76                       | 12.95 | 12.84 | 13.5          | 16QAM      | 10MHz     | 25                   | 12                    |
| 12.77                       | 12.95 | 12.80 | 13.5          | 16QAM      | 10MHz     | 25                   | 25                    |
| 12.96                       | 13.29 | 13.14 | 13.5          | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 7                  |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 20775                       | 21100 | 21425  | Channel       |            |           |                      |                       |
| 2502.5                      | 2535  | 2567.5 | Freq. (MHz)   |            |           |                      |                       |
| 14.62                       | 14.92 | 14.87  | 15.5          | QPSK       | 5MHz      | 1                    | 0                     |
| 14.58                       | 14.90 | 14.77  | 15.5          | QPSK       | 5MHz      | 1                    | 12                    |
| 14.48                       | 14.78 | 14.63  | 15.5          | QPSK       | 5MHz      | 1                    | 24                    |
| 13.73                       | 14.04 | 13.86  | 14.5          | QPSK       | 5MHz      | 12                   | 0                     |
| 13.60                       | 13.84 | 13.51  | 14.5          | QPSK       | 5MHz      | 12                   | 6                     |
| 13.46                       | 13.68 | 13.58  | 14.5          | QPSK       | 5MHz      | 12                   | 13                    |
| 14.01                       | 14.23 | 14.01  | 14.5          | QPSK       | 5MHz      | 25                   | 0                     |
| 13.78                       | 13.96 | 13.90  | 14.5          | 16QAM      | 5MHz      | 1                    | 0                     |
| 13.81                       | 14.01 | 13.89  | 14.5          | 16QAM      | 5MHz      | 1                    | 12                    |
| 13.63                       | 13.90 | 13.67  | 14.5          | 16QAM      | 5MHz      | 1                    | 24                    |
| 12.83                       | 12.95 | 12.85  | 13.5          | 16QAM      | 5MHz      | 12                   | 0                     |
| 12.72                       | 12.93 | 12.84  | 13.5          | 16QAM      | 5MHz      | 12                   | 6                     |
| 12.66                       | 13.01 | 12.78  | 13.5          | 16QAM      | 5MHz      | 12                   | 13                    |
| 12.94                       | 13.29 | 13.07  | 13.5          | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 12                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23060                       | 23095 | 23130 | Channel       |            |           |                      |                       |
| 704                         | 707.5 | 711   | Freq. (MHz)   |            |           |                      |                       |
| 21.17                       | 21.34 | 21.12 | 22            | QPSK       | 10MHz     | 1                    | 0                     |
| 21.19                       | 21.16 | 21.14 | 22            | QPSK       | 10MHz     | 1                    | 24                    |
| 21.30                       | 21.14 | 21.32 | 22            | QPSK       | 10MHz     | 1                    | 49                    |
| 20.19                       | 20.20 | 20.14 | 21            | QPSK       | 10MHz     | 25                   | 0                     |
| 20.23                       | 20.20 | 20.18 | 21            | QPSK       | 10MHz     | 25                   | 12                    |
| 20.46                       | 20.43 | 20.41 | 21            | QPSK       | 10MHz     | 25                   | 25                    |
| 20.24                       | 20.27 | 20.22 | 21            | QPSK       | 10MHz     | 50                   | 0                     |
| 20.39                       | 20.40 | 20.38 | 21            | 16QAM      | 10MHz     | 1                    | 0                     |
| 20.42                       | 20.38 | 20.41 | 21            | 16QAM      | 10MHz     | 1                    | 24                    |
| 20.57                       | 20.54 | 20.52 | 21            | 16QAM      | 10MHz     | 1                    | 49                    |
| 19.27                       | 19.24 | 19.22 | 20            | 16QAM      | 10MHz     | 25                   | 0                     |
| 19.28                       | 19.25 | 19.23 | 20            | 16QAM      | 10MHz     | 25                   | 12                    |
| 19.42                       | 19.39 | 19.37 | 20            | 16QAM      | 10MHz     | 25                   | 25                    |
| 19.32                       | 19.29 | 19.27 | 20            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 12                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23035                       | 23095 | 23155 | Channel       |            |           |                      |                       |
| 701.5                       | 707.5 | 713.5 | Freq. (MHz)   |            |           |                      |                       |
| 21.08                       | 21.26 | 20.95 | 22            | QPSK       | 5MHz      | 1                    | 0                     |
| 21.14                       | 21.00 | 20.89 | 22            | QPSK       | 5MHz      | 1                    | 12                    |
| 21.21                       | 20.95 | 21.14 | 22            | QPSK       | 5MHz      | 1                    | 24                    |
| 20.11                       | 20.17 | 19.91 | 21            | QPSK       | 5MHz      | 12                   | 0                     |
| 20.15                       | 20.13 | 19.97 | 21            | QPSK       | 5MHz      | 12                   | 6                     |
| 20.27                       | 20.38 | 20.10 | 21            | QPSK       | 5MHz      | 12                   | 13                    |
| 20.18                       | 20.17 | 20.06 | 21            | QPSK       | 5MHz      | 25                   | 0                     |
| 20.38                       | 20.27 | 20.32 | 21            | 16QAM      | 5MHz      | 1                    | 0                     |
| 20.34                       | 20.34 | 20.26 | 21            | 16QAM      | 5MHz      | 1                    | 12                    |
| 20.38                       | 20.42 | 20.33 | 21            | 16QAM      | 5MHz      | 1                    | 24                    |
| 19.19                       | 19.05 | 19.15 | 20            | 16QAM      | 5MHz      | 12                   | 0                     |
| 19.12                       | 19.14 | 19.05 | 20            | 16QAM      | 5MHz      | 12                   | 6                     |
| 19.35                       | 19.26 | 19.28 | 20            | 16QAM      | 5MHz      | 12                   | 13                    |
| 19.16                       | 19.13 | 19.13 | 20            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 12                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23025                       | 23095 | 23165 | Channel       |            |           |                      |                       |
| 700.5                       | 707.5 | 714.5 | Freq. (MHz)   |            |           |                      |                       |
| 20.99                       | 21.26 | 20.90 | 22            | QPSK       | 3MHz      | 1                    | 0                     |
| 21.08                       | 21.05 | 20.98 | 22            | QPSK       | 3MHz      | 1                    | 7                     |
| 21.14                       | 20.99 | 21.24 | 22            | QPSK       | 3MHz      | 1                    | 14                    |
| 19.98                       | 20.02 | 19.91 | 21            | QPSK       | 3MHz      | 8                    | 0                     |
| 19.99                       | 20.00 | 20.07 | 21            | QPSK       | 3MHz      | 8                    | 3                     |
| 20.34                       | 20.24 | 20.18 | 21            | QPSK       | 3MHz      | 8                    | 7                     |
| 20.10                       | 20.12 | 20.13 | 21            | QPSK       | 3MHz      | 15                   | 0                     |
| 20.28                       | 20.21 | 20.22 | 21            | 16QAM      | 3MHz      | 1                    | 0                     |
| 20.27                       | 20.21 | 20.35 | 21            | 16QAM      | 3MHz      | 1                    | 7                     |
| 20.38                       | 20.47 | 20.45 | 21            | 16QAM      | 3MHz      | 1                    | 14                    |
| 19.15                       | 19.14 | 19.06 | 20            | 16QAM      | 3MHz      | 8                    | 0                     |
| 19.19                       | 19.16 | 19.18 | 20            | 16QAM      | 3MHz      | 8                    | 3                     |
| 19.18                       | 19.25 | 19.26 | 20            | 16QAM      | 3MHz      | 8                    | 7                     |
| 19.21                       | 19.26 | 19.12 | 20            | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 12                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23017                       | 23095 | 23173 | Channel       |            |           |                      |                       |
| 699.7                       | 707.5 | 715.3 | Freq. (MHz)   |            |           |                      |                       |
| 21.10                       | 21.32 | 21.00 | 22            | QPSK       | 1.4MHz    | 1                    | 0                     |
| 21.02                       | 21.00 | 21.09 | 22            | QPSK       | 1.4MHz    | 1                    | 2                     |
| 21.10                       | 21.01 | 21.08 | 22            | QPSK       | 1.4MHz    | 1                    | 5                     |
| 21.01                       | 21.06 | 20.97 | 22            | QPSK       | 1.4MHz    | 3                    | 0                     |
| 21.09                       | 21.13 | 21.14 | 22            | QPSK       | 1.4MHz    | 3                    | 1                     |
| 21.28                       | 21.31 | 21.24 | 22            | QPSK       | 1.4MHz    | 3                    | 3                     |
| 20.10                       | 20.16 | 20.14 | 21            | QPSK       | 1.4MHz    | 6                    | 0                     |
| 20.37                       | 20.32 | 20.26 | 21            | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 20.37                       | 20.24 | 20.31 | 21            | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 20.49                       | 20.33 | 20.46 | 21            | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 20.13                       | 20.07 | 20.21 | 21            | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 20.12                       | 20.21 | 20.12 | 21            | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 20.20                       | 20.28 | 20.20 | 21            | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 19.21                       | 19.19 | 19.17 | 20            | 16QAM      | 1.4MHz    | 6                    | 0                     |

| LTE Band 13                 |               |            |           |                      |                       |
|-----------------------------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23230                       | Channel       |            |           |                      |                       |
| 782                         | Freq. (MHz)   |            |           |                      |                       |
| 20.18                       | 20.5          | QPSK       | 10MHz     | 1                    | 0                     |
| 20.11                       | 20.5          | QPSK       | 10MHz     | 1                    | 24                    |
| 20.10                       | 20.5          | QPSK       | 10MHz     | 1                    | 49                    |
| 19.12                       | 19.5          | QPSK       | 10MHz     | 25                   | 0                     |
| 19.06                       | 19.5          | QPSK       | 10MHz     | 25                   | 12                    |
| 19.05                       | 19.5          | QPSK       | 10MHz     | 25                   | 25                    |
| 19.04                       | 19.5          | QPSK       | 10MHz     | 50                   | 0                     |
| 19.28                       | 19.5          | 16QAM      | 10MHz     | 1                    | 0                     |
| 19.20                       | 19.5          | 16QAM      | 10MHz     | 1                    | 24                    |
| 19.19                       | 19.5          | 16QAM      | 10MHz     | 1                    | 49                    |
| 18.16                       | 18.5          | 16QAM      | 10MHz     | 25                   | 0                     |
| 18.11                       | 18.5          | 16QAM      | 10MHz     | 25                   | 12                    |
| 18.10                       | 18.5          | 16QAM      | 10MHz     | 25                   | 25                    |
| 18.03                       | 18.5          | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 13                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23205                       | 23230 | 23255 | Channel       |            |           |                      |                       |
| 779.5                       | 782   | 784.5 | Freq. (MHz)   |            |           |                      |                       |
| 19.83                       | 19.99 | 19.78 | 20.5          | QPSK       | 5MHz      | 1                    | 0                     |
| 19.83                       | 19.91 | 19.74 | 20.5          | QPSK       | 5MHz      | 1                    | 12                    |
| 19.87                       | 19.82 | 19.95 | 20.5          | QPSK       | 5MHz      | 1                    | 24                    |
| 19.02                       | 18.86 | 18.90 | 19.5          | QPSK       | 5MHz      | 12                   | 0                     |
| 18.82                       | 18.84 | 18.83 | 19.5          | QPSK       | 5MHz      | 12                   | 6                     |
| 18.88                       | 18.85 | 18.63 | 19.5          | QPSK       | 5MHz      | 12                   | 13                    |
| 18.81                       | 18.70 | 18.75 | 19.5          | QPSK       | 5MHz      | 25                   | 0                     |
| 18.95                       | 19.10 | 19.01 | 19.5          | 16QAM      | 5MHz      | 1                    | 0                     |
| 19.07                       | 19.12 | 18.87 | 19.5          | 16QAM      | 5MHz      | 1                    | 12                    |
| 18.90                       | 18.94 | 19.14 | 19.5          | 16QAM      | 5MHz      | 1                    | 24                    |
| 18.01                       | 17.94 | 17.89 | 18.5          | 16QAM      | 5MHz      | 12                   | 0                     |
| 17.70                       | 17.93 | 17.94 | 18.5          | 16QAM      | 5MHz      | 12                   | 6                     |
| 17.78                       | 17.90 | 17.78 | 18.5          | 16QAM      | 5MHz      | 12                   | 13                    |
| 17.78                       | 17.73 | 17.93 | 18.5          | 16QAM      | 5MHz      | 25                   | 0                     |



| LTE Band 17                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23780                       | 23790 | 23800 | Channel       |            |           |                      |                       |
| 709                         | 710   | 711   | Freq. (MHz)   |            |           |                      |                       |
| 21.18                       | 21.22 | 21.16 | 21.5          | QPSK       | 10MHz     | 1                    | 0                     |
| 21.13                       | 21.17 | 21.11 | 21.5          | QPSK       | 10MHz     | 1                    | 24                    |
| 21.12                       | 21.16 | 21.10 | 21.5          | QPSK       | 10MHz     | 1                    | 49                    |
| 20.24                       | 20.28 | 20.22 | 20.5          | QPSK       | 10MHz     | 25                   | 0                     |
| 20.21                       | 20.25 | 20.19 | 20.5          | QPSK       | 10MHz     | 25                   | 12                    |
| 20.18                       | 20.22 | 20.16 | 20.5          | QPSK       | 10MHz     | 25                   | 25                    |
| 20.16                       | 20.20 | 20.14 | 20.5          | QPSK       | 10MHz     | 50                   | 0                     |
| 20.41                       | 20.45 | 20.39 | 20.5          | 16QAM      | 10MHz     | 1                    | 0                     |
| 20.39                       | 20.43 | 20.37 | 20.5          | 16QAM      | 10MHz     | 1                    | 24                    |
| 20.38                       | 20.42 | 20.36 | 20.5          | 16QAM      | 10MHz     | 1                    | 49                    |
| 19.28                       | 19.32 | 19.26 | 19.5          | 16QAM      | 10MHz     | 25                   | 0                     |
| 19.21                       | 19.25 | 19.19 | 19.5          | 16QAM      | 10MHz     | 25                   | 12                    |
| 19.16                       | 19.20 | 19.14 | 19.5          | 16QAM      | 10MHz     | 25                   | 25                    |
| 19.11                       | 19.15 | 19.09 | 19.5          | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 17                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 23755                       | 23790 | 23825 | Channel       |            |           |                      |                       |
| 706.5                       | 710   | 713.5 | Freq. (MHz)   |            |           |                      |                       |
| 20.99                       | 21.09 | 21.01 | 21.5          | QPSK       | 5MHz      | 1                    | 0                     |
| 21.02                       | 21.05 | 20.81 | 21.5          | QPSK       | 5MHz      | 1                    | 12                    |
| 20.93                       | 20.98 | 21.01 | 21.5          | QPSK       | 5MHz      | 1                    | 24                    |
| 20.01                       | 20.09 | 20.02 | 20.5          | QPSK       | 5MHz      | 12                   | 0                     |
| 20.09                       | 20.13 | 19.99 | 20.5          | QPSK       | 5MHz      | 12                   | 6                     |
| 20.13                       | 20.18 | 20.16 | 20.5          | QPSK       | 5MHz      | 12                   | 13                    |
| 19.98                       | 20.09 | 20.06 | 20.5          | QPSK       | 5MHz      | 25                   | 0                     |
| 20.22                       | 20.39 | 20.32 | 20.5          | 16QAM      | 5MHz      | 1                    | 0                     |
| 20.31                       | 20.33 | 20.31 | 20.5          | 16QAM      | 5MHz      | 1                    | 12                    |
| 20.33                       | 20.30 | 20.23 | 20.5          | 16QAM      | 5MHz      | 1                    | 24                    |
| 19.10                       | 19.21 | 19.10 | 19.5          | 16QAM      | 5MHz      | 12                   | 0                     |
| 19.15                       | 19.04 | 19.16 | 19.5          | 16QAM      | 5MHz      | 12                   | 6                     |
| 19.08                       | 18.96 | 19.06 | 19.5          | 16QAM      | 5MHz      | 12                   | 13                    |
| 18.92                       | 19.10 | 18.93 | 19.5          | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 26                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 26765                       | 26865 | 26965 | Channel       |            |           |                      |                       |
| 821.5                       | 831.5 | 841.5 | Freq. (MHz)   |            |           |                      |                       |
| 19.26                       | 19.49 | 19.19 | 20            | QPSK       | 15MHz     | 1                    | 0                     |
| 19.40                       | 19.47 | 19.33 | 20            | QPSK       | 15MHz     | 1                    | 37                    |
| 19.31                       | 19.38 | 19.24 | 20            | QPSK       | 15MHz     | 1                    | 74                    |
| 18.28                       | 18.35 | 18.21 | 19            | QPSK       | 15MHz     | 36                   | 0                     |
| 18.35                       | 18.41 | 18.28 | 19            | QPSK       | 15MHz     | 36                   | 19                    |
| 18.31                       | 18.37 | 18.24 | 19            | QPSK       | 15MHz     | 36                   | 39                    |
| 18.24                       | 18.31 | 18.17 | 19            | QPSK       | 15MHz     | 75                   | 0                     |
| 18.43                       | 18.50 | 18.37 | 19            | 16QAM      | 15MHz     | 1                    | 0                     |
| 18.52                       | 18.59 | 18.45 | 19            | 16QAM      | 15MHz     | 1                    | 37                    |
| 18.47                       | 18.54 | 18.40 | 19            | 16QAM      | 15MHz     | 1                    | 74                    |
| 17.40                       | 17.47 | 17.33 | 18            | 16QAM      | 15MHz     | 36                   | 0                     |
| 17.48                       | 17.55 | 17.41 | 18            | 16QAM      | 15MHz     | 36                   | 19                    |
| 17.45                       | 17.52 | 17.38 | 18            | 16QAM      | 15MHz     | 36                   | 39                    |
| 17.57                       | 17.63 | 17.50 | 18            | 16QAM      | 15MHz     | 75                   | 0                     |

| LTE Band 26                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 26740                       | 26865 | 26990 | Channel       |            |           |                      |                       |
| 819                         | 831.5 | 844   | Freq. (MHz)   |            |           |                      |                       |
| 19.09                       | 19.42 | 19.01 | 20            | QPSK       | 10MHz     | 1                    | 0                     |
| 19.16                       | 19.38 | 19.13 | 20            | QPSK       | 10MHz     | 1                    | 24                    |
| 19.27                       | 19.27 | 19.11 | 20            | QPSK       | 10MHz     | 1                    | 49                    |
| 18.13                       | 18.26 | 18.06 | 19            | QPSK       | 10MHz     | 25                   | 0                     |
| 18.30                       | 18.35 | 18.11 | 19            | QPSK       | 10MHz     | 25                   | 12                    |
| 18.29                       | 18.29 | 18.16 | 19            | QPSK       | 10MHz     | 25                   | 25                    |
| 18.11                       | 18.20 | 18.06 | 19            | QPSK       | 10MHz     | 50                   | 0                     |
| 18.31                       | 18.34 | 18.28 | 19            | 16QAM      | 10MHz     | 1                    | 0                     |
| 18.42                       | 18.40 | 18.33 | 19            | 16QAM      | 10MHz     | 1                    | 24                    |
| 18.30                       | 18.42 | 18.27 | 19            | 16QAM      | 10MHz     | 1                    | 49                    |
| 17.30                       | 17.42 | 17.13 | 18            | 16QAM      | 10MHz     | 25                   | 0                     |
| 17.40                       | 17.54 | 17.38 | 18            | 16QAM      | 10MHz     | 25                   | 12                    |
| 17.38                       | 17.35 | 17.28 | 18            | 16QAM      | 10MHz     | 25                   | 25                    |
| 17.42                       | 17.54 | 17.29 | 18            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 26                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 26715                       | 26865 | 27015 | Channel       |            |           |                      |                       |
| 816.5                       | 831.5 | 846.5 | Freq. (MHz)   |            |           |                      |                       |
| 19.02                       | 19.38 | 19.03 | 20            | QPSK       | 5MHz      | 1                    | 0                     |
| 19.22                       | 19.36 | 19.04 | 20            | QPSK       | 5MHz      | 1                    | 12                    |
| 19.17                       | 19.24 | 19.08 | 20            | QPSK       | 5MHz      | 1                    | 24                    |
| 18.04                       | 18.19 | 17.93 | 19            | QPSK       | 5MHz      | 12                   | 0                     |
| 18.30                       | 18.24 | 18.03 | 19            | QPSK       | 5MHz      | 12                   | 6                     |
| 18.22                       | 18.36 | 18.10 | 19            | QPSK       | 5MHz      | 12                   | 13                    |
| 18.13                       | 18.12 | 18.14 | 19            | QPSK       | 5MHz      | 25                   | 0                     |
| 18.26                       | 18.27 | 18.24 | 19            | 16QAM      | 5MHz      | 1                    | 0                     |
| 18.35                       | 18.43 | 18.35 | 19            | 16QAM      | 5MHz      | 1                    | 12                    |
| 18.35                       | 18.45 | 18.36 | 19            | 16QAM      | 5MHz      | 1                    | 24                    |
| 17.26                       | 17.32 | 17.18 | 18            | 16QAM      | 5MHz      | 12                   | 0                     |
| 17.34                       | 17.40 | 17.28 | 18            | 16QAM      | 5MHz      | 12                   | 6                     |
| 17.29                       | 17.38 | 17.25 | 18            | 16QAM      | 5MHz      | 12                   | 13                    |
| 17.44                       | 17.49 | 17.39 | 18            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 26                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 26705                       | 26865 | 27025 | Channel       |            |           |                      |                       |
| 815.5                       | 831.5 | 847.5 | Freq. (MHz)   |            |           |                      |                       |
| 19.08                       | 19.32 | 19.06 | 20            | QPSK       | 3MHz      | 1                    | 0                     |
| 19.31                       | 19.24 | 19.17 | 20            | QPSK       | 3MHz      | 1                    | 7                     |
| 19.27                       | 19.26 | 19.13 | 20            | QPSK       | 3MHz      | 1                    | 14                    |
| 18.10                       | 18.18 | 18.03 | 19            | QPSK       | 3MHz      | 8                    | 0                     |
| 18.25                       | 18.33 | 18.19 | 19            | QPSK       | 3MHz      | 8                    | 3                     |
| 18.22                       | 18.17 | 18.07 | 19            | QPSK       | 3MHz      | 8                    | 7                     |
| 18.10                       | 18.18 | 17.98 | 19            | QPSK       | 3MHz      | 15                   | 0                     |
| 18.26                       | 18.44 | 18.23 | 19            | 16QAM      | 3MHz      | 1                    | 0                     |
| 18.41                       | 18.49 | 18.36 | 19            | 16QAM      | 3MHz      | 1                    | 7                     |
| 18.40                       | 18.42 | 18.27 | 19            | 16QAM      | 3MHz      | 1                    | 14                    |
| 17.24                       | 17.41 | 17.27 | 18            | 16QAM      | 3MHz      | 8                    | 0                     |
| 17.41                       | 17.44 | 17.30 | 18            | 16QAM      | 3MHz      | 8                    | 3                     |
| 17.34                       | 17.30 | 17.21 | 18            | 16QAM      | 3MHz      | 8                    | 7                     |
| 17.42                       | 17.53 | 17.39 | 18            | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 26                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 26697                       | 26865 | 27033 | Channel       |            |           |                      |                       |
| 814.7                       | 831.5 | 848.3 | Freq. (MHz)   |            |           |                      |                       |
| 19.12                       | 19.35 | 19.08 | 20            | QPSK       | 1.4MHz    | 1                    | 0                     |
| 19.17                       | 19.30 | 19.16 | 20            | QPSK       | 1.4MHz    | 1                    | 2                     |
| 19.26                       | 19.18 | 18.99 | 20            | QPSK       | 1.4MHz    | 1                    | 5                     |
| 19.12                       | 19.28 | 19.10 | 20            | QPSK       | 1.4MHz    | 3                    | 0                     |
| 19.23                       | 19.16 | 19.14 | 20            | QPSK       | 1.4MHz    | 3                    | 1                     |
| 19.21                       | 19.28 | 19.04 | 20            | QPSK       | 1.4MHz    | 3                    | 3                     |
| 18.20                       | 18.22 | 18.04 | 19            | QPSK       | 1.4MHz    | 6                    | 0                     |
| 18.33                       | 18.41 | 18.31 | 19            | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 18.38                       | 18.43 | 18.40 | 19            | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 18.30                       | 18.48 | 18.31 | 19            | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 18.22                       | 18.35 | 18.25 | 19            | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 18.43                       | 18.36 | 18.37 | 19            | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 18.37                       | 18.30 | 18.34 | 19            | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 17.53                       | 17.49 | 17.29 | 18            | 16QAM      | 1.4MHz    | 6                    | 0                     |

| LTE Band 30                 |               |            |           |                      |                       |
|-----------------------------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 27710                       | Channel       |            |           |                      |                       |
| 2310                        | Freq. (MHz)   |            |           |                      |                       |
| 19.78                       | 20            | QPSK       | 10MHz     | 1                    | 0                     |
| 19.59                       | 20            | QPSK       | 10MHz     | 1                    | 24                    |
| 19.64                       | 20            | QPSK       | 10MHz     | 1                    | 49                    |
| 18.75                       | 19            | QPSK       | 10MHz     | 25                   | 0                     |
| 18.66                       | 19            | QPSK       | 10MHz     | 25                   | 12                    |
| 18.71                       | 19            | QPSK       | 10MHz     | 25                   | 25                    |
| 18.64                       | 19            | QPSK       | 10MHz     | 50                   | 0                     |
| 18.85                       | 19            | 16QAM      | 10MHz     | 1                    | 0                     |
| 18.80                       | 19            | 16QAM      | 10MHz     | 1                    | 24                    |
| 18.82                       | 19            | 16QAM      | 10MHz     | 1                    | 49                    |
| 17.64                       | 18            | 16QAM      | 10MHz     | 25                   | 0                     |
| 17.58                       | 18            | 16QAM      | 10MHz     | 25                   | 12                    |
| 17.62                       | 18            | 16QAM      | 10MHz     | 25                   | 25                    |
| 17.65                       | 18            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 30                 |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 27685                       | 27710 | 27735  | Channel       |            |           |                      |                       |
| 2307.5                      | 2310  | 2312.5 | Freq. (MHz)   |            |           |                      |                       |
| 19.71                       | 19.73 | 19.54  | 20            | QPSK       | 5MHz      | 1                    | 0                     |
| 19.42                       | 19.48 | 19.42  | 20            | QPSK       | 5MHz      | 1                    | 12                    |
| 19.65                       | 19.51 | 19.38  | 20            | QPSK       | 5MHz      | 1                    | 24                    |
| 18.66                       | 18.71 | 18.55  | 19            | QPSK       | 5MHz      | 12                   | 0                     |
| 18.65                       | 18.54 | 18.57  | 19            | QPSK       | 5MHz      | 12                   | 6                     |
| 18.60                       | 18.67 | 18.64  | 19            | QPSK       | 5MHz      | 12                   | 13                    |
| 18.59                       | 18.62 | 18.56  | 19            | QPSK       | 5MHz      | 25                   | 0                     |
| 18.85                       | 18.76 | 18.87  | 19            | 16QAM      | 5MHz      | 1                    | 0                     |
| 18.80                       | 18.78 | 18.72  | 19            | 16QAM      | 5MHz      | 1                    | 12                    |
| 18.85                       | 18.83 | 18.77  | 19            | 16QAM      | 5MHz      | 1                    | 24                    |
| 17.55                       | 17.58 | 17.59  | 18            | 16QAM      | 5MHz      | 12                   | 0                     |
| 17.56                       | 17.63 | 17.59  | 18            | 16QAM      | 5MHz      | 12                   | 6                     |
| 17.45                       | 17.64 | 17.60  | 18            | 16QAM      | 5MHz      | 12                   | 13                    |
| 17.60                       | 17.70 | 17.57  | 18            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 38                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 37850                       | 38000 | 38150 | Channel       |            |           |                      |                       |
| 2580                        | 2595  | 2610  | Freq. (MHz)   |            |           |                      |                       |
| 16.51                       | 16.63 | 16.49 | 17            | QPSK       | 20MHz     | 1                    | 0                     |
| 16.55                       | 16.57 | 16.53 | 17            | QPSK       | 20MHz     | 1                    | 49                    |
| 16.61                       | 16.53 | 16.59 | 17            | QPSK       | 20MHz     | 1                    | 99                    |
| 15.43                       | 15.45 | 15.41 | 16            | QPSK       | 20MHz     | 50                   | 0                     |
| 15.44                       | 15.46 | 15.42 | 16            | QPSK       | 20MHz     | 50                   | 25                    |
| 15.46                       | 15.48 | 15.44 | 16            | QPSK       | 20MHz     | 50                   | 50                    |
| 15.39                       | 15.41 | 15.37 | 16            | QPSK       | 20MHz     | 100                  | 0                     |
| 15.54                       | 15.56 | 15.52 | 16            | 16QAM      | 20MHz     | 1                    | 0                     |
| 15.56                       | 15.58 | 15.54 | 16            | 16QAM      | 20MHz     | 1                    | 49                    |
| 15.59                       | 15.61 | 15.57 | 16            | 16QAM      | 20MHz     | 1                    | 99                    |
| 14.43                       | 14.45 | 14.41 | 15            | 16QAM      | 20MHz     | 50                   | 0                     |
| 14.45                       | 14.47 | 14.43 | 15            | 16QAM      | 20MHz     | 50                   | 25                    |
| 14.46                       | 14.48 | 14.44 | 15            | 16QAM      | 20MHz     | 50                   | 50                    |
| 14.47                       | 14.49 | 14.45 | 15            | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 38                 |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 37825                       | 38000 | 38175  | Channel       |            |           |                      |                       |
| 2577.5                      | 2595  | 2612.5 | Freq. (MHz)   |            |           |                      |                       |
| 16.49                       | 16.57 | 16.44  | 17            | QPSK       | 15MHz     | 1                    | 0                     |
| 16.45                       | 16.56 | 16.51  | 17            | QPSK       | 15MHz     | 1                    | 37                    |
| 16.51                       | 16.43 | 16.52  | 17            | QPSK       | 15MHz     | 1                    | 74                    |
| 15.40                       | 15.41 | 15.35  | 16            | QPSK       | 15MHz     | 36                   | 0                     |
| 15.38                       | 15.40 | 15.37  | 16            | QPSK       | 15MHz     | 36                   | 19                    |
| 15.40                       | 15.47 | 15.35  | 16            | QPSK       | 15MHz     | 36                   | 39                    |
| 15.35                       | 15.38 | 15.35  | 16            | QPSK       | 15MHz     | 75                   | 0                     |
| 15.49                       | 15.50 | 15.49  | 16            | 16QAM      | 15MHz     | 1                    | 0                     |
| 15.46                       | 15.48 | 15.47  | 16            | 16QAM      | 15MHz     | 1                    | 37                    |
| 15.52                       | 15.55 | 15.57  | 16            | 16QAM      | 15MHz     | 1                    | 74                    |
| 14.43                       | 14.39 | 14.38  | 15            | 16QAM      | 15MHz     | 36                   | 0                     |
| 14.37                       | 14.39 | 14.34  | 15            | 16QAM      | 15MHz     | 36                   | 19                    |
| 14.46                       | 14.47 | 14.41  | 15            | 16QAM      | 15MHz     | 36                   | 39                    |
| 14.47                       | 14.43 | 14.38  | 15            | 16QAM      | 15MHz     | 75                   | 0                     |

| LTE Band 38                 |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 37800                       | 38000 | 38200 | Channel       |            |           |                      |                       |
| 2575                        | 2595  | 2615  | Freq. (MHz)   |            |           |                      |                       |
| 16.29                       | 16.49 | 16.38 | 17            | QPSK       | 10MHz     | 1                    | 0                     |
| 16.43                       | 16.46 | 16.37 | 17            | QPSK       | 10MHz     | 1                    | 24                    |
| 16.43                       | 16.36 | 16.43 | 17            | QPSK       | 10MHz     | 1                    | 49                    |
| 15.37                       | 15.29 | 15.29 | 16            | QPSK       | 10MHz     | 25                   | 0                     |
| 15.40                       | 15.30 | 15.18 | 16            | QPSK       | 10MHz     | 25                   | 12                    |
| 15.32                       | 15.46 | 15.43 | 16            | QPSK       | 10MHz     | 25                   | 25                    |
| 15.25                       | 15.20 | 15.21 | 16            | QPSK       | 10MHz     | 50                   | 0                     |
| 15.39                       | 15.44 | 15.32 | 16            | 16QAM      | 10MHz     | 1                    | 0                     |
| 15.43                       | 15.39 | 15.45 | 16            | 16QAM      | 10MHz     | 1                    | 24                    |
| 15.37                       | 15.57 | 15.38 | 16            | 16QAM      | 10MHz     | 1                    | 49                    |
| 14.34                       | 14.36 | 14.38 | 15            | 16QAM      | 10MHz     | 25                   | 0                     |
| 14.27                       | 14.33 | 14.24 | 15            | 16QAM      | 10MHz     | 25                   | 12                    |
| 14.24                       | 14.45 | 14.38 | 15            | 16QAM      | 10MHz     | 25                   | 25                    |
| 14.32                       | 14.47 | 14.30 | 15            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 38                 |       |        |               |            |           |                      |                       |
|-----------------------------|-------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 37775                       | 38000 | 38225  | Channel       |            |           |                      |                       |
| 2572.5                      | 2595  | 2617.5 | Freq. (MHz)   |            |           |                      |                       |
| 16.40                       | 16.44 | 16.30  | 17            | QPSK       | 5MHz      | 1                    | 0                     |
| 16.30                       | 16.39 | 16.20  | 17            | QPSK       | 5MHz      | 1                    | 12                    |
| 16.43                       | 16.35 | 16.42  | 17            | QPSK       | 5MHz      | 1                    | 24                    |
| 15.27                       | 15.32 | 15.24  | 16            | QPSK       | 5MHz      | 12                   | 0                     |
| 15.42                       | 15.22 | 15.23  | 16            | QPSK       | 5MHz      | 12                   | 6                     |
| 15.24                       | 15.32 | 15.15  | 16            | QPSK       | 5MHz      | 12                   | 13                    |
| 15.26                       | 15.24 | 15.22  | 16            | QPSK       | 5MHz      | 25                   | 0                     |
| 15.35                       | 15.40 | 15.31  | 16            | 16QAM      | 5MHz      | 1                    | 0                     |
| 15.49                       | 15.34 | 15.42  | 16            | 16QAM      | 5MHz      | 1                    | 12                    |
| 15.45                       | 15.48 | 15.47  | 16            | 16QAM      | 5MHz      | 1                    | 24                    |
| 14.31                       | 14.31 | 14.31  | 15            | 16QAM      | 5MHz      | 12                   | 0                     |
| 14.29                       | 14.26 | 14.25  | 15            | 16QAM      | 5MHz      | 12                   | 6                     |
| 14.29                       | 14.30 | 14.35  | 15            | 16QAM      | 5MHz      | 12                   | 13                    |
| 14.40                       | 14.38 | 14.25  | 15            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 41                 |        |       |        |       |               |            |           |                      |                       |
|-----------------------------|--------|-------|--------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |       |        |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 39750                       | 40185  | 40620 | 41055  | 41490 | Channel       |            |           |                      |                       |
| 2506                        | 2549.5 | 2593  | 2636.5 | 2680  | Freq. (MHz)   |            |           |                      |                       |
| 16.70                       | 16.71  | 16.76 | 16.68  | 16.67 | 17            | QPSK       | 20MHz     | 1                    | 0                     |
| 15.65                       | 15.66  | 15.71 | 15.63  | 15.74 | 17            | QPSK       | 20MHz     | 1                    | 49                    |
| 15.64                       | 15.65  | 15.70 | 15.62  | 15.73 | 17            | QPSK       | 20MHz     | 1                    | 99                    |
| 15.68                       | 15.69  | 15.74 | 15.66  | 15.73 | 16            | QPSK       | 20MHz     | 50                   | 0                     |
| 15.62                       | 15.63  | 15.68 | 15.60  | 15.71 | 16            | QPSK       | 20MHz     | 50                   | 25                    |
| 15.60                       | 15.61  | 15.66 | 15.58  | 15.69 | 16            | QPSK       | 20MHz     | 50                   | 50                    |
| 15.59                       | 15.60  | 15.65 | 15.57  | 15.64 | 16            | QPSK       | 20MHz     | 100                  | 0                     |
| 15.62                       | 15.63  | 15.68 | 15.60  | 15.71 | 16            | 16QAM      | 20MHz     | 1                    | 0                     |
| 15.57                       | 15.58  | 15.63 | 15.55  | 15.66 | 16            | 16QAM      | 20MHz     | 1                    | 49                    |
| 15.54                       | 15.55  | 15.60 | 15.52  | 15.63 | 16            | 16QAM      | 20MHz     | 1                    | 99                    |
| 14.41                       | 14.42  | 14.47 | 14.39  | 14.50 | 15            | 16QAM      | 20MHz     | 50                   | 0                     |
| 14.37                       | 14.38  | 14.43 | 14.35  | 14.46 | 15            | 16QAM      | 20MHz     | 50                   | 25                    |
| 14.35                       | 14.36  | 14.41 | 14.33  | 14.44 | 15            | 16QAM      | 20MHz     | 50                   | 50                    |
| 14.33                       | 14.34  | 14.39 | 14.31  | 14.42 | 15            | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 41                 |        |       |        |        |               |            |           |                      |                       |
|-----------------------------|--------|-------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |       |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 39725                       | 40173  | 40620 | 41068  | 41515  | Channel       |            |           |                      |                       |
| 2503.5                      | 2548.3 | 2593  | 2637.8 | 2682.5 | Freq. (MHz)   |            |           |                      |                       |
| 16.64                       | 16.63  | 16.74 | 16.66  | 16.65  | 17            | QPSK       | 15MHz     | 1                    | 0                     |
| 15.60                       | 15.60  | 15.65 | 15.61  | 15.65  | 17            | QPSK       | 15MHz     | 1                    | 37                    |
| 15.59                       | 15.60  | 15.60 | 15.59  | 15.68  | 17            | QPSK       | 15MHz     | 1                    | 74                    |
| 15.63                       | 15.60  | 15.64 | 15.59  | 15.67  | 16            | QPSK       | 15MHz     | 36                   | 0                     |
| 15.59                       | 15.60  | 15.59 | 15.53  | 15.64  | 16            | QPSK       | 15MHz     | 36                   | 19                    |
| 15.58                       | 15.55  | 15.61 | 15.48  | 15.66  | 16            | QPSK       | 15MHz     | 36                   | 39                    |
| 15.56                       | 15.60  | 15.63 | 15.56  | 15.56  | 16            | QPSK       | 15MHz     | 75                   | 0                     |
| 15.54                       | 15.61  | 15.63 | 15.58  | 15.60  | 16            | 16QAM      | 15MHz     | 1                    | 0                     |
| 15.50                       | 15.56  | 15.62 | 15.46  | 14.69  | 16            | 16QAM      | 15MHz     | 1                    | 37                    |
| 15.47                       | 15.52  | 15.50 | 15.52  | 14.71  | 16            | 16QAM      | 15MHz     | 1                    | 74                    |
| 14.36                       | 14.40  | 14.42 | 14.33  | 14.71  | 15            | 16QAM      | 15MHz     | 36                   | 0                     |
| 14.37                       | 14.32  | 14.40 | 14.29  | 14.65  | 15            | 16QAM      | 15MHz     | 36                   | 19                    |
| 14.29                       | 14.34  | 14.32 | 14.30  | 14.64  | 15            | 16QAM      | 15MHz     | 36                   | 39                    |
| 14.23                       | 14.27  | 14.29 | 14.29  | 14.62  | 15            | 16QAM      | 15MHz     | 75                   | 0                     |



| LTE Band 41                 |       |       |       |       |               |            |           |                      |                       |
|-----------------------------|-------|-------|-------|-------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |       |       |       |       | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 39700                       | 40160 | 40620 | 41080 | 41540 | Channel       |            |           |                      |                       |
| 2501                        | 2547  | 2593  | 2639  | 2685  | Freq. (MHz)   |            |           |                      |                       |
| 16.65                       | 16.51 | 16.67 | 16.49 | 16.61 | 17            | QPSK       | 10MHz     | 1                    | 0                     |
| 15.57                       | 15.62 | 15.62 | 15.49 | 15.61 | 17            | QPSK       | 10MHz     | 1                    | 24                    |
| 15.54                       | 15.58 | 15.55 | 15.57 | 15.54 | 17            | QPSK       | 10MHz     | 1                    | 49                    |
| 15.57                       | 15.63 | 15.64 | 15.55 | 15.57 | 16            | QPSK       | 10MHz     | 25                   | 0                     |
| 15.49                       | 15.60 | 15.52 | 15.51 | 15.62 | 16            | QPSK       | 10MHz     | 25                   | 12                    |
| 15.54                       | 15.61 | 15.63 | 15.43 | 15.57 | 16            | QPSK       | 10MHz     | 25                   | 25                    |
| 15.52                       | 15.43 | 15.54 | 15.48 | 15.49 | 16            | QPSK       | 10MHz     | 50                   | 0                     |
| 15.66                       | 15.56 | 15.63 | 15.51 | 15.58 | 16            | 16QAM      | 10MHz     | 1                    | 0                     |
| 14.57                       | 14.59 | 14.58 | 14.49 | 14.71 | 16            | 16QAM      | 10MHz     | 1                    | 24                    |
| 14.51                       | 14.54 | 14.58 | 14.57 | 14.59 | 16            | 16QAM      | 10MHz     | 1                    | 49                    |
| 14.58                       | 14.58 | 14.64 | 14.49 | 14.56 | 15            | 16QAM      | 10MHz     | 25                   | 0                     |
| 14.54                       | 14.51 | 14.54 | 14.48 | 14.65 | 15            | 16QAM      | 10MHz     | 25                   | 12                    |
| 14.49                       | 14.55 | 14.56 | 14.44 | 14.51 | 15            | 16QAM      | 10MHz     | 25                   | 25                    |
| 14.49                       | 14.50 | 14.56 | 14.48 | 14.54 | 15            | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 41                 |        |       |        |        |               |            |           |                      |                       |
|-----------------------------|--------|-------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |       |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 39675                       | 40148  | 40620 | 41093  | 41565  | Channel       |            |           |                      |                       |
| 2498.5                      | 2545.8 | 2593  | 2640.3 | 2687.5 | Freq. (MHz)   |            |           |                      |                       |
| 16.61                       | 16.64  | 16.66 | 16.58  | 16.54  | 17            | QPSK       | 5MHz      | 1                    | 0                     |
| 15.53                       | 15.51  | 15.63 | 15.55  | 15.64  | 17            | QPSK       | 5MHz      | 1                    | 12                    |
| 15.55                       | 15.56  | 15.56 | 15.58  | 15.57  | 17            | QPSK       | 5MHz      | 1                    | 24                    |
| 15.60                       | 15.68  | 15.70 | 15.51  | 15.59  | 16            | QPSK       | 5MHz      | 12                   | 0                     |
| 15.54                       | 15.47  | 15.56 | 15.44  | 15.55  | 16            | QPSK       | 5MHz      | 12                   | 6                     |
| 15.45                       | 15.51  | 15.60 | 15.57  | 15.58  | 16            | QPSK       | 5MHz      | 12                   | 13                    |
| 15.43                       | 15.45  | 15.58 | 15.52  | 15.53  | 16            | QPSK       | 5MHz      | 25                   | 0                     |
| 15.60                       | 15.62  | 15.60 | 15.58  | 15.60  | 16            | 16QAM      | 5MHz      | 1                    | 0                     |
| 14.63                       | 14.56  | 14.61 | 14.49  | 14.66  | 16            | 16QAM      | 5MHz      | 1                    | 12                    |
| 14.53                       | 14.56  | 14.61 | 14.56  | 14.58  | 16            | 16QAM      | 5MHz      | 1                    | 24                    |
| 14.61                       | 14.67  | 14.65 | 14.53  | 14.62  | 15            | 16QAM      | 5MHz      | 12                   | 0                     |
| 14.46                       | 14.55  | 14.62 | 14.45  | 14.65  | 15            | 16QAM      | 5MHz      | 12                   | 6                     |
| 14.47                       | 14.54  | 14.54 | 14.56  | 14.63  | 15            | 16QAM      | 5MHz      | 12                   | 13                    |
| 14.45                       | 14.42  | 14.58 | 14.49  | 14.49  | 15            | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 132072                      | 132322 | 132572 | Channel       |            |           |                      |                       |
| 1720                        | 1745   | 1770   | Freq. (MHz)   |            |           |                      |                       |
| 17.07                       | 17.16  | 16.93  | 17.5          | QPSK       | 20MHz     | 1                    | 0                     |
| 17.09                       | 17.11  | 16.95  | 17.5          | QPSK       | 20MHz     | 1                    | 49                    |
| 17.14                       | 17.07  | 17.00  | 17.5          | QPSK       | 20MHz     | 1                    | 99                    |
| 15.99                       | 16.01  | 15.85  | 16.5          | QPSK       | 20MHz     | 50                   | 0                     |
| 15.94                       | 15.96  | 15.80  | 16.5          | QPSK       | 20MHz     | 50                   | 25                    |
| 16.07                       | 16.09  | 15.93  | 16.5          | QPSK       | 20MHz     | 50                   | 50                    |
| 15.92                       | 15.94  | 15.78  | 16.5          | QPSK       | 20MHz     | 100                  | 0                     |
| 16.01                       | 16.03  | 15.87  | 16.5          | 16QAM      | 20MHz     | 1                    | 0                     |
| 16.03                       | 16.05  | 15.89  | 16.5          | 16QAM      | 20MHz     | 1                    | 49                    |
| 16.10                       | 16.12  | 15.96  | 16.5          | 16QAM      | 20MHz     | 1                    | 99                    |
| 15.08                       | 15.10  | 14.94  | 15.5          | 16QAM      | 20MHz     | 50                   | 0                     |
| 15.12                       | 15.14  | 14.98  | 15.5          | 16QAM      | 20MHz     | 50                   | 25                    |
| 15.13                       | 15.15  | 14.99  | 15.5          | 16QAM      | 20MHz     | 50                   | 50                    |
| 15.00                       | 15.02  | 14.86  | 15.5          | 16QAM      | 20MHz     | 100                  | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 132047                      | 132322 | 132597 | Channel       |            |           |                      |                       |
| 1717.5                      | 1745   | 1772.5 | Freq. (MHz)   |            |           |                      |                       |
| 17.04                       | 17.12  | 16.84  | 17.5          | QPSK       | 15MHz     | 1                    | 0                     |
| 17.06                       | 17.10  | 16.88  | 17.5          | QPSK       | 15MHz     | 1                    | 37                    |
| 17.10                       | 17.02  | 16.95  | 17.5          | QPSK       | 15MHz     | 1                    | 74                    |
| 15.91                       | 15.92  | 15.78  | 16.5          | QPSK       | 15MHz     | 36                   | 0                     |
| 15.94                       | 15.90  | 15.78  | 16.5          | QPSK       | 15MHz     | 36                   | 19                    |
| 16.00                       | 16.03  | 15.90  | 16.5          | QPSK       | 15MHz     | 36                   | 39                    |
| 15.84                       | 15.88  | 15.76  | 16.5          | QPSK       | 15MHz     | 75                   | 0                     |
| 15.99                       | 15.97  | 15.83  | 16.5          | 16QAM      | 15MHz     | 1                    | 0                     |
| 16.00                       | 15.98  | 15.88  | 16.5          | 16QAM      | 15MHz     | 1                    | 37                    |
| 16.00                       | 16.07  | 15.86  | 16.5          | 16QAM      | 15MHz     | 1                    | 74                    |
| 15.02                       | 15.00  | 14.89  | 15.5          | 16QAM      | 15MHz     | 36                   | 0                     |
| 15.02                       | 15.06  | 14.98  | 15.5          | 16QAM      | 15MHz     | 36                   | 19                    |
| 15.03                       | 15.15  | 14.94  | 15.5          | 16QAM      | 15MHz     | 36                   | 39                    |
| 14.96                       | 14.92  | 14.79  | 15.5          | 16QAM      | 15MHz     | 75                   | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 132022                      | 132322 | 132622 | Channel       |            |           |                      |                       |
| 1715                        | 1745   | 1775   | Freq. (MHz)   |            |           |                      |                       |
| 16.87                       | 17.07  | 16.80  | 17.5          | QPSK       | 10MHz     | 1                    | 0                     |
| 16.98                       | 16.95  | 16.86  | 17.5          | QPSK       | 10MHz     | 1                    | 24                    |
| 16.95                       | 16.86  | 16.87  | 17.5          | QPSK       | 10MHz     | 1                    | 49                    |
| 15.94                       | 15.98  | 15.81  | 16.5          | QPSK       | 10MHz     | 25                   | 0                     |
| 15.83                       | 15.75  | 15.73  | 16.5          | QPSK       | 10MHz     | 25                   | 12                    |
| 16.07                       | 15.92  | 15.78  | 16.5          | QPSK       | 10MHz     | 25                   | 25                    |
| 15.82                       | 15.75  | 15.65  | 16.5          | QPSK       | 10MHz     | 50                   | 0                     |
| 15.78                       | 15.86  | 15.77  | 16.5          | 16QAM      | 10MHz     | 1                    | 0                     |
| 15.85                       | 15.93  | 15.86  | 16.5          | 16QAM      | 10MHz     | 1                    | 24                    |
| 15.99                       | 16.01  | 15.88  | 16.5          | 16QAM      | 10MHz     | 1                    | 49                    |
| 14.90                       | 14.96  | 14.77  | 15.5          | 16QAM      | 10MHz     | 25                   | 0                     |
| 14.89                       | 15.07  | 14.84  | 15.5          | 16QAM      | 10MHz     | 25                   | 12                    |
| 14.99                       | 14.95  | 14.87  | 15.5          | 16QAM      | 10MHz     | 25                   | 25                    |
| 14.88                       | 14.96  | 14.70  | 15.5          | 16QAM      | 10MHz     | 50                   | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 131997                      | 132322 | 132647 | Channel       |            |           |                      |                       |
| 1712.5                      | 1745   | 1777.5 | Freq. (MHz)   |            |           |                      |                       |
| 16.97                       | 17.09  | 16.67  | 17.5          | QPSK       | 5MHz      | 1                    | 0                     |
| 17.08                       | 16.91  | 16.76  | 17.5          | QPSK       | 5MHz      | 1                    | 12                    |
| 17.02                       | 17.00  | 16.95  | 17.5          | QPSK       | 5MHz      | 1                    | 24                    |
| 15.89                       | 15.97  | 15.55  | 16.5          | QPSK       | 5MHz      | 12                   | 0                     |
| 15.84                       | 15.89  | 15.59  | 16.5          | QPSK       | 5MHz      | 12                   | 6                     |
| 15.92                       | 15.95  | 15.74  | 16.5          | QPSK       | 5MHz      | 12                   | 13                    |
| 15.77                       | 15.85  | 15.69  | 16.5          | QPSK       | 5MHz      | 25                   | 0                     |
| 15.82                       | 15.89  | 15.73  | 16.5          | 16QAM      | 5MHz      | 1                    | 0                     |
| 15.88                       | 15.97  | 15.83  | 16.5          | 16QAM      | 5MHz      | 1                    | 12                    |
| 16.00                       | 16.04  | 15.82  | 16.5          | 16QAM      | 5MHz      | 1                    | 24                    |
| 15.00                       | 14.97  | 14.87  | 15.5          | 16QAM      | 5MHz      | 12                   | 0                     |
| 14.95                       | 15.06  | 14.89  | 15.5          | 16QAM      | 5MHz      | 12                   | 6                     |
| 14.96                       | 15.01  | 14.80  | 15.5          | 16QAM      | 5MHz      | 12                   | 13                    |
| 14.92                       | 14.97  | 14.70  | 15.5          | 16QAM      | 5MHz      | 25                   | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 131987                      | 132322 | 132657 | Channel       |            |           |                      |                       |
| 1711.5                      | 1745   | 1778.5 | Freq. (MHz)   |            |           |                      |                       |
| 16.87                       | 17.08  | 16.84  | 17.5          | QPSK       | 3MHz      | 1                    | 0                     |
| 16.89                       | 17.05  | 16.88  | 17.5          | QPSK       | 3MHz      | 1                    | 7                     |
| 16.95                       | 17.01  | 16.99  | 17.5          | QPSK       | 3MHz      | 1                    | 14                    |
| 15.76                       | 15.85  | 15.68  | 16.5          | QPSK       | 3MHz      | 8                    | 0                     |
| 15.83                       | 15.86  | 15.67  | 16.5          | QPSK       | 3MHz      | 8                    | 3                     |
| 15.92                       | 16.04  | 15.74  | 16.5          | QPSK       | 3MHz      | 8                    | 7                     |
| 15.76                       | 15.80  | 15.66  | 16.5          | QPSK       | 3MHz      | 15                   | 0                     |
| 15.79                       | 15.85  | 15.73  | 16.5          | 16QAM      | 3MHz      | 1                    | 0                     |
| 15.86                       | 16.02  | 15.77  | 16.5          | 16QAM      | 3MHz      | 1                    | 7                     |
| 15.94                       | 16.01  | 15.88  | 16.5          | 16QAM      | 3MHz      | 1                    | 14                    |
| 14.92                       | 15.01  | 14.80  | 15.5          | 16QAM      | 3MHz      | 8                    | 0                     |
| 15.07                       | 15.01  | 14.80  | 15.5          | 16QAM      | 3MHz      | 8                    | 3                     |
| 15.03                       | 15.03  | 14.89  | 15.5          | 16QAM      | 3MHz      | 8                    | 7                     |
| 14.86                       | 14.91  | 14.70  | 15.5          | 16QAM      | 3MHz      | 15                   | 0                     |

| LTE Band 66                 |        |        |               |            |           |                      |                       |
|-----------------------------|--------|--------|---------------|------------|-----------|----------------------|-----------------------|
| Maximum Average Power (dBm) |        |        | Tune up (dBm) | Modulation | Bandwidth | # of Resource Blocks | Resource Block Offset |
| 131979                      | 132322 | 132665 | Channel       |            |           |                      |                       |
| 1710.7                      | 1745   | 1779.3 | Freq. (MHz)   |            |           |                      |                       |
| 17.00                       | 17.05  | 16.86  | 17.5          | QPSK       | 1.4MHz    | 1                    | 0                     |
| 17.01                       | 16.99  | 16.78  | 17.5          | QPSK       | 1.4MHz    | 1                    | 2                     |
| 17.00                       | 17.02  | 16.91  | 17.5          | QPSK       | 1.4MHz    | 1                    | 5                     |
| 16.91                       | 16.95  | 16.71  | 17.5          | QPSK       | 1.4MHz    | 3                    | 0                     |
| 16.89                       | 16.81  | 16.61  | 17.5          | QPSK       | 1.4MHz    | 3                    | 1                     |
| 16.89                       | 16.94  | 16.74  | 17.5          | QPSK       | 1.4MHz    | 3                    | 3                     |
| 15.87                       | 15.92  | 15.71  | 16.5          | QPSK       | 1.4MHz    | 6                    | 0                     |
| 15.83                       | 15.89  | 15.67  | 16.5          | 16QAM      | 1.4MHz    | 1                    | 0                     |
| 15.96                       | 15.83  | 15.78  | 16.5          | 16QAM      | 1.4MHz    | 1                    | 2                     |
| 15.99                       | 16.04  | 15.86  | 16.5          | 16QAM      | 1.4MHz    | 1                    | 5                     |
| 15.93                       | 15.91  | 15.84  | 16.5          | 16QAM      | 1.4MHz    | 3                    | 0                     |
| 16.10                       | 16.04  | 15.84  | 16.5          | 16QAM      | 1.4MHz    | 3                    | 1                     |
| 15.97                       | 16.04  | 15.89  | 16.5          | 16QAM      | 1.4MHz    | 3                    | 3                     |
| 14.84                       | 14.79  | 14.72  | 15.5          | 16QAM      | 1.4MHz    | 6                    | 0                     |