



REPORT No.: SZ22090382S01

## Annex E Conducted Power

**Note:**

Conducted power unit: dBm

The target power was recorded in the manufacture document.

## Full Power

| GSM850          |  | Burst Average Power (dBm) |       |       | Tune-up Limit (dBm) | Frame-Average Power (dBm) |       |       | Tune-up Limit (dBm) | Ch Delta > 0.5 |
|-----------------|--|---------------------------|-------|-------|---------------------|---------------------------|-------|-------|---------------------|----------------|
| TX Channel      |  | 128                       | 189   | 251   |                     | 128                       | 189   | 251   |                     |                |
| Frequency (MHz) |  | 824.2                     | 836.4 | 848.8 |                     | 824.2                     | 836.4 | 848.8 |                     |                |
| GSM 1 Tx slot   |  | 32.17                     | 32.34 | 32.40 | 33.00               | 23.17                     | 23.34 | 23.40 | 24.00               | 0.23           |
| GPRS 1 Tx slot  |  | 32.17                     | 32.33 | 32.38 | 33.00               | 23.17                     | 23.33 | 23.38 | 24.00               |                |
| GPRS 2 Tx slots |  | 30.55                     | 30.60 | 30.63 | 31.50               | 24.55                     | 24.60 | 24.63 | 25.50               | 0.08           |
| GPRS 3 Tx slots |  | 28.54                     | 28.53 | 28.60 | 29.50               | 24.28                     | 24.27 | 24.34 | 25.24               | 0.07           |
| GPRS 4 Tx slots |  | 26.74                     | 26.84 | 26.88 | 27.50               | 23.74                     | 23.84 | 23.88 | 24.50               | 0.14           |
| EDGE 1 Tx slot  |  | 25.53                     | 25.36 | 25.21 | 26.00               | 16.53                     | 16.36 | 16.21 | 17.00               | 0.32           |
| EDGE 2 Tx slots |  | 23.41                     | 23.72 | 23.54 | 24.00               | 17.41                     | 17.72 | 17.54 | 18.00               | 0.31           |
| EDGE 3 Tx slots |  | 21.44                     | 21.56 | 21.63 | 22.00               | 17.18                     | 17.30 | 17.37 | 17.74               | 0.19           |
| EDGE 4 Tx slots |  | 19.56                     | 19.80 | 19.43 | 20.50               | 16.56                     | 16.80 | 16.43 | 17.50               | 0.37           |
| Mode            |  |                           | Max.  | 32.40 |                     |                           | Max.  | 24.63 |                     |                |
| Attenuator      |  | Cable Loss : 0.6          |       |       |                     |                           |       |       |                     |                |

| GSM1900         |  | Burst Average Power (dBm) |       |        | Tune-up Limit (dBm) | Frame-Average Power (dBm) |       |        | Tune-up Limit (dBm) | Ch Delta > 0.5 |
|-----------------|--|---------------------------|-------|--------|---------------------|---------------------------|-------|--------|---------------------|----------------|
| TX Channel      |  | 512                       | 661   | 810    |                     | 512                       | 661   | 810    |                     |                |
| Frequency (MHz) |  | 1850.2                    | 1880  | 1909.8 |                     | 1850.2                    | 1880  | 1909.8 |                     |                |
| GSM 1 Tx slot   |  | 29.37                     | 29.42 | 29.36  | 30.00               | 20.37                     | 20.42 | 20.36  | 21.00               | 0.09           |
| GPRS 1 Tx slot  |  | 29.34                     | 29.40 | 29.33  | 30.00               | 20.34                     | 20.40 | 20.33  | 21.00               |                |
| GPRS 2 Tx slots |  | 27.31                     | 27.39 | 27.28  | 28.00               | 21.31                     | 21.39 | 21.28  | 22.00               | 0.11           |
| GPRS 3 Tx slots |  | 25.59                     | 25.76 | 25.68  | 26.50               | 21.33                     | 21.50 | 21.42  | 22.24               | 0.17           |
| GPRS 4 Tx slots |  | 23.58                     | 23.65 | 23.52  | 24.50               | 20.58                     | 20.65 | 20.52  | 21.50               | 0.13           |
| EDGE 1 Tx slot  |  | 25.22                     | 25.62 | 25.19  | 26.00               | 16.22                     | 16.62 | 16.19  | 17.00               | 0.43           |
| EDGE 2 Tx slots |  | 23.41                     | 23.75 | 23.35  | 24.00               | 17.41                     | 17.75 | 17.35  | 18.00               | 0.40           |
| EDGE 3 Tx slots |  | 21.02                     | 21.45 | 21.12  | 22.00               | 16.76                     | 17.19 | 16.86  | 17.74               | 0.43           |
| EDGE 4 Tx slots |  | 17.83                     | 18.05 | 17.80  | 18.50               | 14.83                     | 15.05 | 14.80  | 15.50               | 0.25           |
| Mode            |  |                           | Max.  | 29.42  |                     |                           | Max.  | 21.50  |                     |                |
| Attenuator      |  | Cable Loss : 0.8          |       |        |                     |                           |       |        |                     |                |

| Band            |                         | WCDMA Band II (dBm) |            |        | Tune-up Limit (dBm) | WCDMA Band IV (dBm) |            |        | Tune-up Limit (dBm) | WCDMA Band V (dBm) |            |       | Tune-up Limit (dBm) |
|-----------------|-------------------------|---------------------|------------|--------|---------------------|---------------------|------------|--------|---------------------|--------------------|------------|-------|---------------------|
| TX Channel      |                         | 9262                | 9400       | 9538   |                     | 1312                | 1413       | 1513   |                     | 4132               | 4182       | 4233  |                     |
| Rx Channel      |                         | 9662                | 9800       | 9938   |                     | 1537                | 1638       | 1738   |                     | 4357               | 4407       | 4458  |                     |
| Frequency (MHz) |                         | 1852.4              | 1880       | 1907.6 |                     | 1712.4              | 1732.6     | 1752.6 |                     | 826.4              | 836.4      | 846.6 |                     |
| 3GPP Rel 99     | RMC 12.2Kbps            | 22.28               | 22.23      | 22.33  | 23.00               | 22.31               | 22.38      | 22.34  | 23.00               | 22.35              | 22.41      | 22.37 | 23.00               |
| 3GPP Rel 6      | HSDPA Subtest-1         | 21.73               | 21.50      | 21.44  | 22.00               | 21.21               | 21.47      | 21.39  | 22.00               | 21.58              | 21.24      | 21.57 | 22.00               |
| 3GPP Rel 6      | HSDPA Subtest-2         | 21.34               | 21.14      | 21.08  | 22.00               | 21.23               | 21.48      | 21.40  | 22.00               | 21.30              | 21.00      | 21.30 | 22.00               |
| 3GPP Rel 6      | HSDPA Subtest-3         | 21.49               | 21.29      | 21.21  | 21.50               | 21.17               | 21.43      | 21.35  | 21.50               | 21.01              | 20.67      | 21.00 | 21.50               |
| 3GPP Rel 6      | HSDPA Subtest-4         | 21.16               | 20.97      | 20.89  | 21.50               | 21.21               | 21.48      | 21.39  | 21.50               | 20.92              | 20.59      | 20.91 | 21.50               |
| 3GPP Rel 6      | HSUPA Subtest-1         | 21.61               | 21.36      | 21.28  | 22.00               | 21.03               | 21.37      | 21.36  | 21.50               | 22.31              | 22.10      | 22.23 | 22.50               |
| 3GPP Rel 6      | HSUPA Subtest-2         | 21.63               | 21.37      | 21.29  | 22.00               | 21.00               | 21.35      | 21.33  | 21.50               | 22.29              | 22.07      | 22.22 | 22.50               |
| 3GPP Rel 6      | HSUPA Subtest-3         | 21.58               | 21.34      | 21.25  | 22.00               | 21.01               | 21.35      | 21.31  | 21.50               | 22.27              | 22.08      | 22.22 | 22.50               |
| 3GPP Rel 6      | HSUPA Subtest-4         | 21.62               | 21.36      | 21.27  | 22.00               | 20.97               | 21.31      | 21.29  | 21.50               | 22.27              | 22.02      | 22.17 | 22.50               |
| 3GPP Rel 6      | HSUPA Subtest-5         | 21.60               | 21.37      | 21.70  | 22.00               | 21.01               | 21.33      | 21.30  | 21.50               | 22.32              | 22.10      | 22.23 | 22.50               |
| 3GPP Rel 7      | HSPA+ (16QAM) Subtest-1 | 21.79               | 21.45      | 21.38  | 22.50               | 21.05               | 21.39      | 21.19  | 22.00               | 22.29              | 21.92      | 22.13 | 22.50               |
| Attenuator      |                         |                     | Cable Loss | 0.8    |                     |                     | Cable Loss | 0.8    |                     |                    | Cable Loss | 0.8   |                     |
| Mode            |                         |                     | Max.       | 22.33  |                     |                     | Max.       | 22.38  |                     |                    | Max.       | 22.41 |                     |

| Band 2 (1900MHz Band) (dBm) |            |         |           |             |                |              |                     |
|-----------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| Part 24E                    |            |         |           |             |                |              |                     |
| BW [MHz]                    | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                     |            |         |           | 18700       | 18900          | 19100        |                     |
| Frequency (MHz)             |            |         |           | 1860        | 1880           | 1900         |                     |
| 20                          | QPSK       | 1       | 0         | 23.75       | 23.71          | 23.80        |                     |
| 20                          | QPSK       | 1       | 49        | 23.66       | 23.58          | 23.70        | 24.5                |
| 20                          | QPSK       | 1       | 99        | 23.69       | 23.62          | 23.72        |                     |
| 20                          | QPSK       | 50      | 0         | 22.55       | 22.57          | 22.59        |                     |
| 20                          | QPSK       | 50      | 24        | 22.49       | 22.55          | 22.54        | 23.5                |
| 20                          | QPSK       | 50      | 50        | 22.53       | 22.63          | 22.57        |                     |
| 20                          | QPSK       | 100     | 0         | 22.48       | 22.51          | 22.54        |                     |
| 20                          | 16QAM      | 1       | 0         | 22.62       | 22.58          | 22.65        | 23.5                |
| 20                          | 16QAM      | 1       | 49        | 22.60       | 22.51          | 22.57        |                     |
| 20                          | 16QAM      | 1       | 99        | 22.55       | 22.53          | 22.53        |                     |
| 20                          | 16QAM      | 50      | 0         | 21.59       | 21.55          | 21.62        | 22.5                |
| 20                          | 16QAM      | 50      | 24        | 21.60       | 21.47          | 21.49        |                     |
| 20                          | 16QAM      | 50      | 50        | 21.53       | 21.57          | 21.53        |                     |
| 20                          | 16QAM      | 100     | 0         | 21.52       | 21.51          | 21.55        |                     |
| Channel                     |            |         |           | 1867.5      | 18900          | 19125        | Tune-up limit (dBm) |
| Frequency (MHz)             |            |         |           | 1857.5      | 1880           | 1902.5       |                     |
| 15                          | QPSK       | 1       | 0         | 23.69       | 23.46          | 23.57        |                     |
| 15                          | QPSK       | 1       | 37        | 23.54       | 23.45          | 23.51        | 24.5                |
| 15                          | QPSK       | 1       | 74        | 23.56       | 23.39          | 23.52        |                     |
| 15                          | QPSK       | 36      | 0         | 22.45       | 22.40          | 22.29        |                     |
| 15                          | QPSK       | 36      | 20        | 22.22       | 22.41          | 22.42        | 23.5                |
| 15                          | QPSK       | 36      | 39        | 22.51       | 22.43          | 22.46        |                     |
| 15                          | QPSK       | 75      | 0         | 22.41       | 22.40          | 22.30        |                     |
| 15                          | 16QAM      | 1       | 0         | 22.47       | 22.37          | 22.41        | 23.5                |
| 15                          | 16QAM      | 1       | 37        | 22.53       | 22.33          | 22.46        |                     |
| 15                          | 16QAM      | 1       | 74        | 22.30       | 22.36          | 22.51        |                     |
| 15                          | 16QAM      | 36      | 0         | 21.33       | 21.41          | 21.45        | 22.5                |
| 15                          | 16QAM      | 36      | 20        | 21.59       | 21.31          | 21.34        |                     |
| 15                          | 16QAM      | 36      | 39        | 21.45       | 21.34          | 21.51        |                     |
| 15                          | 16QAM      | 75      | 0         | 21.27       | 21.46          | 21.26        |                     |
| Channel                     |            |         |           | 18650       | 18900          | 19150        | Tune-up limit (dBm) |
| Frequency (MHz)             |            |         |           | 1855        | 1880           | 1905         |                     |
| 10                          | QPSK       | 1       | 0         | 23.65       | 23.63          | 23.71        |                     |
| 10                          | QPSK       | 1       | 25        | 23.63       | 23.29          | 23.50        | 24.5                |
| 10                          | QPSK       | 1       | 49        | 23.45       | 23.57          | 23.63        |                     |
| 10                          | QPSK       | 25      | 0         | 22.50       | 22.57          | 22.36        |                     |
| 10                          | QPSK       | 25      | 12        | 22.42       | 22.25          | 22.33        | 23.5                |
| 10                          | QPSK       | 25      | 25        | 22.23       | 22.49          | 22.51        |                     |
| 10                          | QPSK       | 50      | 0         | 22.21       | 22.35          | 22.26        |                     |
| 10                          | 16QAM      | 1       | 0         | 22.33       | 22.35          | 22.62        | 23.5                |
| 10                          | 16QAM      | 1       | 25        | 22.40       | 22.37          | 22.46        |                     |
| 10                          | 16QAM      | 1       | 49        | 22.36       | 22.29          | 22.49        |                     |
| 10                          | 16QAM      | 25      | 0         | 21.50       | 21.26          | 21.33        | 22.5                |
| 10                          | 16QAM      | 25      | 12        | 21.57       | 21.42          | 21.46        |                     |
| 10                          | 16QAM      | 25      | 25        | 21.25       | 21.55          | 21.52        |                     |
| 10                          | 16QAM      | 50      | 0         | 21.29       | 21.34          | 21.50        |                     |
| Channel                     |            |         |           | 18625       | 18900          | 19175        | Tune-up limit (dBm) |
| Frequency (MHz)             |            |         |           | 1852.5      | 1880           | 1907.5       |                     |
| 5                           | QPSK       | 1       | 0         | 23.79       | 23.44          | 23.66        |                     |
| 5                           | QPSK       | 1       | 12        | 23.50       | 23.46          | 23.56        | 24.5                |
| 5                           | QPSK       | 1       | 24        | 23.49       | 23.44          | 23.69        |                     |
| 5                           | QPSK       | 12      | 0         | 22.50       | 22.52          | 22.36        |                     |
| 5                           | QPSK       | 12      | 7         | 22.48       | 22.49          | 22.29        | 23.5                |
| 5                           | QPSK       | 12      | 13        | 22.51       | 22.47          | 22.54        |                     |
| 5                           | QPSK       | 25      | 0         | 22.40       | 22.36          | 22.50        |                     |
| 5                           | 16QAM      | 1       | 0         | 22.46       | 22.33          | 22.44        | 23.5                |
| 5                           | 16QAM      | 1       | 12        | 22.42       | 22.27          | 22.41        |                     |
| 5                           | 16QAM      | 1       | 24        | 22.51       | 22.24          | 22.26        |                     |
| 5                           | 16QAM      | 12      | 0         | 21.29       | 21.28          | 21.55        | 22.5                |
| 5                           | 16QAM      | 12      | 7         | 21.48       | 21.30          | 21.34        |                     |
| 5                           | 16QAM      | 12      | 13        | 21.40       | 21.47          | 21.38        |                     |
| 5                           | 16QAM      | 25      | 0         | 21.46       | 21.48          | 21.34        |                     |
| Channel                     |            |         |           | 18615       | 18900          | 19185        | Tune-up limit (dBm) |
| Frequency (MHz)             |            |         |           | 1851.5      | 1880           | 1908.5       |                     |
| 3                           | QPSK       | 1       | 0         | 23.56       | 23.47          | 23.63        |                     |
| 3                           | QPSK       | 1       | 8         | 23.60       | 23.34          | 23.50        | 24.5                |
| 3                           | QPSK       | 1       | 14        | 23.64       | 23.41          | 23.71        |                     |
| 3                           | QPSK       | 8       | 0         | 22.51       | 22.45          | 22.52        |                     |
| 3                           | QPSK       | 8       | 4         | 22.43       | 22.28          | 22.42        | 23.5                |
| 3                           | QPSK       | 8       | 7         | 22.24       | 22.56          | 22.34        |                     |
| 3                           | QPSK       | 15      | 0         | 22.24       | 22.25          | 22.42        |                     |
| 3                           | 16QAM      | 1       | 0         | 22.56       | 22.30          | 22.62        | 23.5                |
| 3                           | 16QAM      | 1       | 8         | 22.35       | 22.45          | 22.40        |                     |
| 3                           | 16QAM      | 1       | 14        | 22.32       | 22.50          | 22.33        |                     |
| 3                           | 16QAM      | 8       | 0         | 21.56       | 21.37          | 21.33        | 22.5                |
| 3                           | 16QAM      | 8       | 4         | 21.56       | 21.22          | 21.27        |                     |
| 3                           | 16QAM      | 8       | 7         | 21.25       | 21.40          | 21.25        |                     |
| 3                           | 16QAM      | 15      | 0         | 21.44       | 21.27          | 21.29        |                     |
| Channel                     |            |         |           | 18607       | 18900          | 19193        | Tune-up limit (dBm) |
| Frequency (MHz)             |            |         |           | 1850.7      | 1880           | 1909.3       |                     |
| 1.4                         | QPSK       | 1       | 0         | 23.70       | 23.52          | 23.78        |                     |
| 1.4                         | QPSK       | 1       | 3         | 23.55       | 23.50          | 23.45        | 24.5                |
| 1.4                         | QPSK       | 1       | 5         | 23.68       | 23.42          | 23.60        |                     |
| 1.4                         | QPSK       | 3       | 0         | 22.28       | 22.45          | 22.35        |                     |
| 1.4                         | QPSK       | 3       | 1         | 22.26       | 22.34          | 22.33        | 23.5                |
| 1.4                         | QPSK       | 3       | 3         | 22.46       | 22.42          | 22.36        |                     |
| 1.4                         | QPSK       | 6       | 0         | 22.57       | 22.58          | 22.53        |                     |
| 1.4                         | 16QAM      | 1       | 0         | 22.50       | 22.57          | 22.51        | 23.5                |
| 1.4                         | 16QAM      | 1       | 3         | 22.47       | 22.37          | 22.48        |                     |
| 1.4                         | 16QAM      | 1       | 5         | 22.32       | 22.27          | 22.31        |                     |
| 1.4                         | 16QAM      | 3       | 0         | 21.54       | 21.39          | 21.45        | 23.5                |
| 1.4                         | 16QAM      | 3       | 1         | 21.56       | 21.43          | 21.31        |                     |
| 1.4                         | 16QAM      | 3       | 3         | 21.50       | 21.54          | 21.34        |                     |
| 1.4                         | 16QAM      | 6       | 0         | 21.55       | 21.53          | 21.51        | 22.5                |

| Band 4 (AWS Band) (dBm)             |            |         |           |             |                |              |                     |
|-------------------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| Part 27L (only on channel required) |            |         |           |             |                |              |                     |
| BW [MHz]                            | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                             |            |         |           | 20050       | 20175          | 20300        |                     |
| Frequency (MHz)                     |            |         |           | 1720        | 1732.5         | 1745         |                     |
| 20                                  | QPSK       | 1       | 0         | 23.71       | 23.79          | 23.86        | 24.5                |
| 20                                  | QPSK       | 1       | 49        | 23.68       | 23.71          | 23.65        |                     |
| 20                                  | QPSK       | 1       | 99        | 23.66       | 23.57          | 23.54        |                     |
| 20                                  | QPSK       | 50      | 0         | 22.41       | 22.51          | 22.53        |                     |
| 20                                  | QPSK       | 50      | 24        | 22.48       | 22.58          | 22.54        | 23.5                |
| 20                                  | QPSK       | 50      | 50        | 22.56       | 22.43          | 22.49        |                     |
| 20                                  | QPSK       | 100     | 0         | 22.44       | 22.46          | 22.49        |                     |
| 20                                  | 16QAM      | 1       | 0         | 22.58       | 22.73          | 22.83        |                     |
| 20                                  | 16QAM      | 1       | 49        | 22.64       | 22.61          | 22.67        | 23.5                |
| 20                                  | 16QAM      | 1       | 99        | 22.60       | 22.50          | 22.56        |                     |
| 20                                  | 16QAM      | 50      | 0         | 21.61       | 21.74          | 21.68        |                     |
| 20                                  | 16QAM      | 50      | 24        | 21.53       | 21.41          | 21.51        |                     |
| 20                                  | 16QAM      | 50      | 50        | 21.72       | 21.51          | 21.69        | 22.5                |
| 20                                  | 16QAM      | 100     | 0         | 21.52       | 21.46          | 21.70        |                     |
| Channel                             |            |         |           | 20025       | 20175          | 20325        |                     |
| Frequency (MHz)                     |            |         |           | 1717.5      | 1732.5         | 1747.5       |                     |
| 15                                  | QPSK       | 1       | 0         | 23.75       | 23.77          | 23.80        | 24.5                |
| 15                                  | QPSK       | 1       | 37        | 23.55       | 23.67          | 23.39        |                     |
| 15                                  | QPSK       | 1       | 74        | 23.40       | 23.58          | 23.57        |                     |
| 15                                  | QPSK       | 36      | 0         | 22.34       | 22.44          | 22.38        |                     |
| 15                                  | QPSK       | 36      | 20        | 22.45       | 22.55          | 22.43        | 23.5                |
| 15                                  | QPSK       | 36      | 39        | 22.46       | 22.23          | 22.32        |                     |
| 15                                  | QPSK       | 75      | 0         | 22.19       | 22.28          | 22.38        |                     |
| 15                                  | 16QAM      | 1       | 0         | 22.41       | 22.47          | 22.63        |                     |
| 15                                  | 16QAM      | 1       | 37        | 22.60       | 22.59          | 22.61        | 23.5                |
| 15                                  | 16QAM      | 1       | 74        | 22.38       | 22.27          | 22.36        |                     |
| 15                                  | 16QAM      | 36      | 0         | 21.38       | 21.65          | 21.41        |                     |
| 15                                  | 16QAM      | 36      | 20        | 21.34       | 21.24          | 21.23        |                     |
| 15                                  | 16QAM      | 36      | 39        | 21.59       | 21.46          | 21.48        | 22.5                |
| 15                                  | 16QAM      | 75      | 0         | 21.41       | 21.22          | 21.40        |                     |
| Channel                             |            |         |           | 20000       | 20175          | 20350        |                     |
| Frequency (MHz)                     |            |         |           | 1715        | 1732.5         | 1750         |                     |
| 10                                  | QPSK       | 1       | 0         | 23.46       | 23.73          | 23.57        | 24.5                |
| 10                                  | QPSK       | 1       | 25        | 23.41       | 23.46          | 23.54        |                     |
| 10                                  | QPSK       | 1       | 49        | 23.38       | 23.36          | 23.52        |                     |
| 10                                  | QPSK       | 25      | 0         | 22.31       | 22.45          | 22.35        |                     |
| 10                                  | QPSK       | 25      | 12        | 22.19       | 22.32          | 22.52        | 23.5                |
| 10                                  | QPSK       | 25      | 25        | 22.49       | 22.21          | 22.31        |                     |
| 10                                  | QPSK       | 50      | 0         | 22.31       | 22.24          | 22.44        |                     |
| 10                                  | 16QAM      | 1       | 0         | 22.37       | 22.51          | 22.63        |                     |
| 10                                  | 16QAM      | 1       | 25        | 22.55       | 22.38          | 22.63        | 23.5                |
| 10                                  | 16QAM      | 1       | 49        | 22.41       | 22.38          | 22.26        |                     |
| 10                                  | 16QAM      | 25      | 0         | 21.47       | 21.68          | 21.53        |                     |
| 10                                  | 16QAM      | 25      | 12        | 21.33       | 21.39          | 21.22        |                     |
| 10                                  | 16QAM      | 25      | 25        | 21.43       | 21.45          | 21.48        | 22.5                |
| 10                                  | 16QAM      | 50      | 0         | 21.49       | 21.45          | 21.42        |                     |
| Channel                             |            |         |           | 19975       | 20175          | 20375        |                     |
| Frequency (MHz)                     |            |         |           | 1712.5      | 1732.5         | 1752.5       |                     |
| 5                                   | QPSK       | 1       | 0         | 23.52       | 23.57          | 23.73        | 24.5                |
| 5                                   | QPSK       | 1       | 12        | 23.44       | 23.56          | 23.42        |                     |
| 5                                   | QPSK       | 1       | 24        | 23.57       | 23.31          | 23.48        |                     |
| 5                                   | QPSK       | 12      | 0         | 22.26       | 22.34          | 22.35        |                     |
| 5                                   | QPSK       | 12      | 7         | 22.46       | 22.51          | 22.44        | 23.5                |
| 5                                   | QPSK       | 12      | 13        | 22.53       | 22.13          | 22.19        |                     |
| 5                                   | QPSK       | 25      | 0         | 22.34       | 22.45          | 22.38        |                     |
| 5                                   | 16QAM      | 1       | 0         | 22.29       | 22.64          | 22.59        |                     |
| 5                                   | 16QAM      | 1       | 12        | 22.43       | 22.32          | 22.48        | 23.5                |
| 5                                   | 16QAM      | 1       | 24        | 22.58       | 22.24          | 22.28        |                     |
| 5                                   | 16QAM      | 12      | 0         | 21.51       | 21.55          | 21.58        |                     |
| 5                                   | 16QAM      | 12      | 7         | 21.38       | 21.19          | 21.33        |                     |
| 5                                   | 16QAM      | 12      | 13        | 21.50       | 21.28          | 21.55        | 22.5                |
| 5                                   | 16QAM      | 25      | 0         | 21.27       | 21.22          | 21.60        |                     |
| Channel                             |            |         |           | 19965       | 20175          | 20385        |                     |
| Frequency (MHz)                     |            |         |           | 1711.5      | 1732.5         | 1753.5       |                     |
| 3                                   | QPSK       | 1       | 0         | 23.71       | 23.72          | 23.71        | 24.5                |
| 3                                   | QPSK       | 1       | 8         | 23.66       | 23.55          | 23.56        |                     |
| 3                                   | QPSK       | 1       | 14        | 23.43       | 23.49          | 23.50        |                     |
| 3                                   | QPSK       | 8       | 0         | 22.37       | 22.42          | 22.26        |                     |
| 3                                   | QPSK       | 8       | 4         | 22.26       | 22.43          | 22.53        | 23.5                |
| 3                                   | QPSK       | 8       | 7         | 22.29       | 22.18          | 22.32        |                     |
| 3                                   | QPSK       | 15      | 0         | 22.31       | 22.37          | 22.29        |                     |
| 3                                   | 16QAM      | 1       | 0         | 22.55       | 22.55          | 22.59        |                     |
| 3                                   | 16QAM      | 1       | 8         | 22.57       | 22.59          | 22.43        | 23.5                |
| 3                                   | 16QAM      | 1       | 14        | 22.43       | 22.31          | 22.39        |                     |
| 3                                   | 16QAM      | 8       | 0         | 21.59       | 21.63          | 21.39        |                     |
| 3                                   | 16QAM      | 8       | 4         | 21.46       | 21.24          | 21.40        |                     |
| 3                                   | 16QAM      | 8       | 7         | 21.57       | 21.50          | 21.58        | 22.5                |
| 3                                   | 16QAM      | 15      | 0         | 21.27       | 21.32          | 21.68        |                     |
| Channel                             |            |         |           | 19957       | 20175          | 20393        |                     |
| Frequency (MHz)                     |            |         |           | 1710.7      | 1732.5         | 1754.3       |                     |
| 1.4                                 | QPSK       | 1       | 0         | 23.70       | 23.51          | 23.80        | 24.5                |
| 1.4                                 | QPSK       | 1       | 3         | 23.42       | 23.61          | 23.55        |                     |
| 1.4                                 | QPSK       | 1       | 5         | 23.36       | 23.36          | 23.37        |                     |
| 1.4                                 | QPSK       | 3       | 0         | 22.12       | 22.36          | 22.23        |                     |
| 1.4                                 | QPSK       | 3       | 1         | 22.46       | 22.33          | 22.30        | 23.5                |
| 1.4                                 | QPSK       | 3       | 3         | 22.33       | 22.24          | 22.21        |                     |
| 1.4                                 | QPSK       | 6       | 0         | 22.53       | 22.51          | 22.60        |                     |
| 1.4                                 | 16QAM      | 1       | 0         | 22.56       | 22.66          | 22.61        |                     |
| 1.4                                 | 16QAM      | 1       | 3         | 22.38       | 22.50          | 22.56        | 23.5                |
| 1.4                                 | 16QAM      | 1       | 5         | 22.44       | 22.21          | 22.29        |                     |
| 1.4                                 | 16QAM      | 3       | 0         | 21.40       | 21.70          | 21.40        |                     |
| 1.4                                 | 16QAM      | 3       | 1         | 21.49       | 21.39          | 21.45        |                     |
| 1.4                                 | 16QAM      | 3       | 3         | 21.43       | 21.46          | 21.57        | 22.5                |
| 1.4                                 | 16QAM      | 6       | 0         | 21.42       | 21.58          | 21.57        |                     |

| Band 5 (Celluar Band) (dBm)<br>Part 22H(only on channel required) |            |         |           |             |                |              |                     |
|-------------------------------------------------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]                                                          | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                                                           |            |         |           | 20450       | 20525          | 20600        |                     |
| Frequency (MHz)                                                   |            |         |           | 829         | 836.5          | 844          |                     |
| 10                                                                | QPSK       | 1       | 0         | 23.76       | 23.64          | 23.63        | 24.5                |
| 10                                                                | QPSK       | 1       | 25        | 23.52       | 23.55          | 23.57        |                     |
| 10                                                                | QPSK       | 1       | 49        | 23.48       | 23.45          | 23.38        |                     |
| 10                                                                | QPSK       | 25      | 0         | 22.59       | 22.58          | 22.41        | 23.5                |
| 10                                                                | QPSK       | 25      | 12        | 22.58       | 22.50          | 22.55        |                     |
| 10                                                                | QPSK       | 25      | 25        | 22.60       | 22.61          | 22.60        |                     |
| 10                                                                | QPSK       | 50      | 0         | 22.54       | 22.58          | 22.65        | 23.5                |
| 10                                                                | 16QAM      | 1       | 0         | 22.54       | 22.53          | 22.55        |                     |
| 10                                                                | 16QAM      | 1       | 25        | 22.61       | 22.45          | 22.47        |                     |
| 10                                                                | 16QAM      | 1       | 49        | 22.44       | 22.45          | 22.41        | 22.5                |
| 10                                                                | 16QAM      | 25      | 0         | 21.42       | 21.63          | 21.63        |                     |
| 10                                                                | 16QAM      | 25      | 12        | 21.32       | 21.23          | 21.34        |                     |
| 10                                                                | 16QAM      | 25      | 25        | 21.58       | 21.35          | 21.56        | 22.5                |
| 10                                                                | 16QAM      | 50      | 0         | 21.40       | 21.38          | 21.48        |                     |
| Channel                                                           |            |         |           | 20425       | 20525          | 20625        |                     |
| Frequency (MHz)                                                   |            |         |           | 826.5       | 836.5          | 846.5        |                     |
| 5                                                                 | QPSK       | 1       | 0         | 23.69       | 23.59          | 23.54        |                     |
| 5                                                                 | QPSK       | 1       | 12        | 23.47       | 23.55          | 23.55        | 24.5                |
| 5                                                                 | QPSK       | 1       | 24        | 23.53       | 23.52          | 23.65        |                     |
| 5                                                                 | QPSK       | 12      | 0         | 22.61       | 22.54          | 22.55        |                     |
| 5                                                                 | QPSK       | 12      | 7         | 22.46       | 22.36          | 22.43        | 23.5                |
| 5                                                                 | QPSK       | 12      | 13        | 22.36       | 22.52          | 22.35        |                     |
| 5                                                                 | QPSK       | 25      | 0         | 22.25       | 22.34          | 22.55        |                     |
| 5                                                                 | 16QAM      | 1       | 0         | 22.65       | 22.58          | 22.64        | 23.5                |
| 5                                                                 | 16QAM      | 1       | 12        | 22.34       | 22.36          | 22.57        |                     |
| 5                                                                 | 16QAM      | 1       | 24        | 22.41       | 22.49          | 22.39        |                     |
| 5                                                                 | 16QAM      | 12      | 0         | 21.66       | 21.57          | 21.59        | 22.5                |
| 5                                                                 | 16QAM      | 12      | 7         | 21.52       | 21.52          | 21.59        |                     |
| 5                                                                 | 16QAM      | 12      | 13        | 21.39       | 21.45          | 21.47        |                     |
| 5                                                                 | 16QAM      | 25      | 0         | 21.61       | 21.60          | 21.55        |                     |
| Channel                                                           |            |         |           | 20415       | 20525          | 20635        |                     |
| Frequency (MHz)                                                   |            |         |           | 825.5       | 836.5          | 847.5        |                     |
| 3                                                                 | QPSK       | 1       | 0         | 23.55       | 23.62          | 23.52        |                     |
| 3                                                                 | QPSK       | 1       | 8         | 23.49       | 23.44          | 23.51        | 24.5                |
| 3                                                                 | QPSK       | 1       | 14        | 23.58       | 23.35          | 23.46        |                     |
| 3                                                                 | QPSK       | 8       | 0         | 22.64       | 22.57          | 22.51        |                     |
| 3                                                                 | QPSK       | 8       | 4         | 22.41       | 22.39          | 22.25        | 23.5                |
| 3                                                                 | QPSK       | 8       | 7         | 22.31       | 22.55          | 22.33        |                     |
| 3                                                                 | QPSK       | 15      | 0         | 22.47       | 22.47          | 22.49        |                     |
| 3                                                                 | 16QAM      | 1       | 0         | 22.52       | 22.63          | 22.42        | 23.5                |
| 3                                                                 | 16QAM      | 1       | 8         | 22.60       | 22.41          | 22.38        |                     |
| 3                                                                 | 16QAM      | 1       | 14        | 22.45       | 22.59          | 22.55        |                     |
| 3                                                                 | 16QAM      | 8       | 0         | 21.52       | 21.64          | 21.45        | 22.5                |
| 3                                                                 | 16QAM      | 8       | 4         | 21.39       | 21.51          | 21.49        |                     |
| 3                                                                 | 16QAM      | 8       | 7         | 21.45       | 21.44          | 21.55        |                     |
| 3                                                                 | 16QAM      | 15      | 0         | 21.53       | 21.51          | 21.49        |                     |
| Channel                                                           |            |         |           | 20407       | 20525          | 20643        |                     |
| Frequency (MHz)                                                   |            |         |           | 824.7       | 836.5          | 848.3        |                     |
| 1.4                                                               | QPSK       | 1       | 0         | 23.74       | 23.61          | 23.60        |                     |
| 1.4                                                               | QPSK       | 1       | 3         | 23.58       | 23.47          | 23.54        | 24.5                |
| 1.4                                                               | QPSK       | 1       | 5         | 23.45       | 23.58          | 23.44        |                     |
| 1.4                                                               | QPSK       | 3       | 0         | 22.58       | 22.49          | 22.48        |                     |
| 1.4                                                               | QPSK       | 3       | 1         | 22.46       | 22.49          | 22.51        | 23.5                |
| 1.4                                                               | QPSK       | 3       | 3         | 22.55       | 22.52          | 22.36        |                     |
| 1.4                                                               | QPSK       | 6       | 0         | 22.69       | 22.51          | 22.59        |                     |
| 1.4                                                               | 16QAM      | 1       | 0         | 22.50       | 22.52          | 22.54        | 23.5                |
| 1.4                                                               | 16QAM      | 1       | 3         | 22.45       | 22.40          | 22.32        |                     |
| 1.4                                                               | 16QAM      | 1       | 5         | 22.59       | 22.37          | 22.61        |                     |
| 1.4                                                               | 16QAM      | 3       | 0         | 21.58       | 21.59          | 21.36        | 23.5                |
| 1.4                                                               | 16QAM      | 3       | 1         | 21.53       | 21.60          | 21.69        |                     |
| 1.4                                                               | 16QAM      | 3       | 3         | 21.47       | 21.48          | 21.54        |                     |
| 1.4                                                               | 16QAM      | 6       | 0         | 21.54       | 21.57          | 21.44        | 22.5                |

| Band 7 (2600MHz Band) (dBm)<br>Part 27 |            |         |           |             |                |              |                     |
|----------------------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]                               | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                                |            |         |           | 20850       | 21100          | 21350        |                     |
| Frequency (MHz)                        |            |         |           | 2510        | 2535           | 2560         |                     |
| 20                                     | QPSK       | 1       | 0         | 23.28       | 23.21          | 23.33        | 24                  |
| 20                                     | QPSK       | 1       | 49        | 23.18       | 23.11          | 23.26        |                     |
| 20                                     | QPSK       | 1       | 99        | 23.15       | 23.15          | 23.19        |                     |
| 20                                     | QPSK       | 50      | 0         | 22.25       | 22.31          | 22.33        | 23                  |
| 20                                     | QPSK       | 50      | 24        | 22.28       | 22.30          | 22.19        |                     |
| 20                                     | QPSK       | 50      | 50        | 22.16       | 22.27          | 22.26        |                     |
| 20                                     | QPSK       | 100     | 0         | 22.22       | 22.24          | 22.23        | 23.5                |
| 20                                     | 16QAM      | 1       | 0         | 22.81       | 22.75          | 22.83        |                     |
| 20                                     | 16QAM      | 1       | 49        | 22.80       | 22.91          | 22.69        |                     |
| 20                                     | 16QAM      | 1       | 99        | 22.78       | 22.88          | 22.77        | 22                  |
| 20                                     | 16QAM      | 50      | 0         | 21.47       | 21.45          | 21.39        |                     |
| 20                                     | 16QAM      | 50      | 24        | 21.33       | 21.37          | 21.44        |                     |
| 20                                     | 16QAM      | 50      | 50        | 21.42       | 21.35          | 21.46        | 22                  |
| 20                                     | 16QAM      | 100     | 0         | 21.38       | 21.42          | 21.42        |                     |
| Channel                                |            |         |           | 20825       | 21100          | 21375        |                     |
| Frequency (MHz)                        |            |         |           | 2507.5      | 2535           | 2562.5       |                     |
| 15                                     | QPSK       | 1       | 0         | 23.14       | 23.18          | 23.20        |                     |
| 15                                     | QPSK       | 1       | 37        | 23.11       | 23.06          | 23.22        | 24                  |
| 15                                     | QPSK       | 1       | 74        | 23.08       | 22.94          | 23.18        |                     |
| 15                                     | QPSK       | 36      | 0         | 21.98       | 22.23          | 22.28        | 23                  |
| 15                                     | QPSK       | 36      | 20        | 22.08       | 22.20          | 22.14        |                     |
| 15                                     | QPSK       | 36      | 39        | 22.05       | 22.22          | 22.17        |                     |
| 15                                     | QPSK       | 75      | 0         | 21.94       | 22.12          | 21.98        | 23.5                |
| 15                                     | 16QAM      | 1       | 0         | 22.76       | 22.73          | 22.62        |                     |
| 15                                     | 16QAM      | 1       | 37        | 22.66       | 22.88          | 22.59        |                     |
| 15                                     | 16QAM      | 1       | 74        | 22.49       | 22.87          | 22.57        | 22                  |
| 15                                     | 16QAM      | 36      | 0         | 21.27       | 21.26          | 21.31        |                     |
| 15                                     | 16QAM      | 36      | 20        | 21.11       | 21.21          | 21.17        |                     |
| 15                                     | 16QAM      | 36      | 39        | 21.23       | 21.10          | 21.43        | 22                  |
| 15                                     | 16QAM      | 75      | 0         | 21.24       | 21.39          | 21.19        |                     |
| Channel                                |            |         |           | 20800       | 21100          | 21400        |                     |
| Frequency (MHz)                        |            |         |           | 2505        | 2535           | 2565         |                     |
| 10                                     | QPSK       | 1       | 0         | 23.16       | 23.14          | 23.10        |                     |
| 10                                     | QPSK       | 1       | 25        | 23.15       | 23.01          | 23.08        | 24                  |
| 10                                     | QPSK       | 1       | 49        | 23.14       | 22.99          | 23.12        |                     |
| 10                                     | QPSK       | 25      | 0         | 22.01       | 22.24          | 22.21        |                     |
| 10                                     | QPSK       | 25      | 12        | 22.13       | 22.03          | 21.96        | 23                  |
| 10                                     | QPSK       | 25      | 25        | 21.88       | 22.26          | 22.09        |                     |
| 10                                     | QPSK       | 50      | 0         | 22.19       | 22.03          | 22.12        |                     |
| 10                                     | 16QAM      | 1       | 0         | 22.70       | 22.69          | 22.70        | 23.5                |
| 10                                     | 16QAM      | 1       | 25        | 22.59       | 22.74          | 22.57        |                     |
| 10                                     | 16QAM      | 1       | 49        | 22.66       | 22.74          | 22.60        |                     |
| 10                                     | 16QAM      | 25      | 0         | 21.19       | 21.20          | 21.21        | 22                  |
| 10                                     | 16QAM      | 25      | 12        | 21.15       | 21.33          | 21.38        |                     |
| 10                                     | 16QAM      | 25      | 25        | 21.28       | 21.23          | 21.39        |                     |
| 10                                     | 16QAM      | 50      | 0         | 21.10       | 21.37          | 21.25        |                     |
| Channel                                |            |         |           | 20775       | 21100          | 21425        |                     |
| Frequency (MHz)                        |            |         |           | 2502.5      | 2535           | 2567.5       |                     |
| 5                                      | QPSK       | 1       | 0         | 23.18       | 23.21          | 23.24        |                     |
| 5                                      | QPSK       | 1       | 12        | 22.98       | 23.07          | 23.14        | 24                  |
| 5                                      | QPSK       | 1       | 24        | 22.91       | 23.03          | 22.89        |                     |
| 5                                      | QPSK       | 12      | 0         | 22.20       | 22.31          | 22.19        |                     |
| 5                                      | QPSK       | 12      | 7         | 22.22       | 22.09          | 22.09        | 23                  |
| 5                                      | QPSK       | 12      | 13        | 21.98       | 22.02          | 22.10        |                     |
| 5                                      | QPSK       | 25      | 0         | 22.01       | 22.14          | 22.20        |                     |
| 5                                      | 16QAM      | 1       | 0         | 22.53       | 22.50          | 22.67        | 23.5                |
| 5                                      | 16QAM      | 1       | 12        | 22.79       | 22.63          | 22.54        |                     |
| 5                                      | 16QAM      | 1       | 24        | 22.67       | 22.83          | 22.51        |                     |
| 5                                      | 16QAM      | 12      | 0         | 21.42       | 21.37          | 21.38        | 22                  |
| 5                                      | 16QAM      | 12      | 7         | 21.23       | 21.09          | 21.39        |                     |
| 5                                      | 16QAM      | 12      | 13        | 21.19       | 21.05          | 21.21        |                     |
| 5                                      | 16QAM      | 25      | 0         | 21.23       | 21.36          | 21.37        |                     |

| Band 12 (700MHz Low Band) (dBm)<br>Part 27F(only on channel required) |            |         |           |             |                |              |                     |
|-----------------------------------------------------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]                                                              | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                                                               |            |         |           | 23090       | 23095          | 23130        |                     |
| Frequency (MHz)                                                       |            |         |           | 704         | 707.5          | 711          |                     |
| 10                                                                    | QPSK       | 1       | 0         | 23.57       | 23.59          | 23.62        | 24.5                |
| 10                                                                    | QPSK       | 1       | 25        | 23.51       | 23.35          | 23.39        |                     |
| 10                                                                    | QPSK       | 1       | 49        | 23.34       | 23.38          | 23.42        |                     |
| 10                                                                    | QPSK       | 25      | 0         | 22.46       | 22.51          | 22.57        | 23.5                |
| 10                                                                    | QPSK       | 25      | 12        | 22.41       | 22.38          | 22.35        |                     |
| 10                                                                    | QPSK       | 25      | 25        | 22.43       | 22.39          | 22.48        |                     |
| 10                                                                    | QPSK       | 50      | 0         | 22.46       | 22.45          | 22.63        | 23.5                |
| 10                                                                    | 16QAM      | 1       | 0         | 22.54       | 22.58          | 22.52        |                     |
| 10                                                                    | 16QAM      | 1       | 25        | 22.57       | 22.37          | 22.20        |                     |
| 10                                                                    | 16QAM      | 1       | 49        | 22.49       | 22.45          | 22.43        | 22.5                |
| 10                                                                    | 16QAM      | 25      | 0         | 21.40       | 21.43          | 21.61        |                     |
| 10                                                                    | 16QAM      | 25      | 12        | 21.51       | 21.53          | 21.46        |                     |
| 10                                                                    | 16QAM      | 25      | 25        | 21.39       | 21.29          | 21.29        | 22.5                |
| 10                                                                    | 16QAM      | 50      | 0         | 21.48       | 21.47          | 21.43        |                     |
| Channel                                                               |            |         |           | 23035       | 23095          | 23155        | Tune-up limit (dBm) |
| Frequency (MHz)                                                       |            |         |           | 701.5       | 707.5          | 713.5        |                     |
| 5                                                                     | QPSK       | 1       | 0         | 23.56       | 23.44          | 23.54        | 24.5                |
| 5                                                                     | QPSK       | 1       | 12        | 23.30       | 23.51          | 23.56        |                     |
| 5                                                                     | QPSK       | 1       | 24        | 23.30       | 23.34          | 23.40        |                     |
| 5                                                                     | QPSK       | 12      | 0         | 22.39       | 22.49          | 22.52        | 23.5                |
| 5                                                                     | QPSK       | 12      | 7         | 22.52       | 22.30          | 22.29        |                     |
| 5                                                                     | QPSK       | 12      | 13        | 22.41       | 22.42          | 22.55        |                     |
| 5                                                                     | QPSK       | 25      | 0         | 22.45       | 22.57          | 22.56        | 23.5                |
| 5                                                                     | 16QAM      | 1       | 0         | 22.48       | 22.58          | 22.53        |                     |
| 5                                                                     | 16QAM      | 1       | 12        | 22.43       | 22.50          | 22.41        |                     |
| 5                                                                     | 16QAM      | 1       | 24        | 22.37       | 22.32          | 22.49        | 22.5                |
| 5                                                                     | 16QAM      | 12      | 0         | 21.49       | 21.39          | 21.59        |                     |
| 5                                                                     | 16QAM      | 12      | 7         | 21.52       | 21.45          | 21.52        |                     |
| 5                                                                     | 16QAM      | 12      | 13        | 21.48       | 21.59          | 21.45        | 22.5                |
| 5                                                                     | 16QAM      | 25      | 0         | 21.38       | 21.42          | 21.44        |                     |
| Channel                                                               |            |         |           | 23025       | 23095          | 23165        | Tune-up limit (dBm) |
| Frequency (MHz)                                                       |            |         |           | 700.5       | 707.5          | 714.5        |                     |
| 3                                                                     | QPSK       | 1       | 0         | 23.54       | 23.51          | 23.50        | 24.5                |
| 3                                                                     | QPSK       | 1       | 8         | 23.45       | 23.26          | 23.49        |                     |
| 3                                                                     | QPSK       | 1       | 14        | 23.41       | 23.39          | 23.32        |                     |
| 3                                                                     | QPSK       | 8       | 0         | 22.43       | 22.45          | 22.51        | 23.5                |
| 3                                                                     | QPSK       | 8       | 4         | 22.29       | 22.36          | 22.46        |                     |
| 3                                                                     | QPSK       | 8       | 7         | 22.41       | 22.37          | 22.25        |                     |
| 3                                                                     | QPSK       | 15      | 0         | 22.45       | 22.40          | 22.48        | 23.5                |
| 3                                                                     | 16QAM      | 1       | 0         | 22.43       | 22.59          | 22.54        |                     |
| 3                                                                     | 16QAM      | 1       | 8         | 22.41       | 22.45          | 22.44        |                     |
| 3                                                                     | 16QAM      | 1       | 14        | 22.33       | 22.39          | 22.57        | 22.5                |
| 3                                                                     | 16QAM      | 8       | 0         | 21.29       | 21.58          | 21.54        |                     |
| 3                                                                     | 16QAM      | 8       | 4         | 21.31       | 21.49          | 21.44        |                     |
| 3                                                                     | 16QAM      | 8       | 7         | 21.28       | 21.37          | 21.39        | 22.5                |
| 3                                                                     | 16QAM      | 15      | 0         | 21.39       | 21.42          | 21.40        |                     |
| Channel                                                               |            |         |           | 23017       | 23095          | 23173        | Tune-up limit (dBm) |
| Frequency (MHz)                                                       |            |         |           | 699.7       | 707.5          | 715.3        |                     |
| 1.4                                                                   | QPSK       | 1       | 0         | 23.40       | 23.44          | 23.54        | 24.5                |
| 1.4                                                                   | QPSK       | 1       | 3         | 23.37       | 23.30          | 23.43        |                     |
| 1.4                                                                   | QPSK       | 1       | 5         | 23.33       | 23.32          | 23.41        |                     |
| 1.4                                                                   | QPSK       | 3       | 0         | 22.36       | 22.34          | 22.46        | 23.5                |
| 1.4                                                                   | QPSK       | 3       | 1         | 22.26       | 22.29          | 22.23        |                     |
| 1.4                                                                   | QPSK       | 3       | 3         | 22.23       | 22.30          | 22.46        |                     |
| 1.4                                                                   | QPSK       | 6       | 0         | 22.38       | 22.42          | 22.62        | 23.5                |
| 1.4                                                                   | 16QAM      | 1       | 0         | 22.30       | 22.36          | 22.51        |                     |
| 1.4                                                                   | 16QAM      | 1       | 3         | 22.42       | 22.32          | 22.31        |                     |
| 1.4                                                                   | 16QAM      | 1       | 5         | 22.21       | 22.29          | 22.33        | 23.5                |
| 1.4                                                                   | 16QAM      | 3       | 0         | 21.39       | 21.44          | 21.35        |                     |
| 1.4                                                                   | 16QAM      | 3       | 1         | 21.39       | 21.43          | 21.30        |                     |
| 1.4                                                                   | 16QAM      | 3       | 3         | 21.31       | 21.24          | 21.33        | 22.5                |
| 1.4                                                                   | 16QAM      | 6       | 0         | 21.48       | 21.39          | 21.54        |                     |

| Band 17 (700MHz Band) (dBm)<br>Part 27H(only on channel required) |            |         |           |             |                |              |                     |
|-------------------------------------------------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]                                                          | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                                                           |            |         |           | 23780       | 23790          | 23800        |                     |
| Frequency (MHz)                                                   |            |         |           | 709         | 710            | 711          |                     |
| 10                                                                | QPSK       | 1       | 0         | 23.56       | 23.65          | 23.61        | 24.5                |
| 10                                                                | QPSK       | 1       | 25        | 23.39       | 23.49          | 23.46        |                     |
| 10                                                                | QPSK       | 1       | 49        | 23.44       | 23.39          | 23.51        |                     |
| 10                                                                | QPSK       | 25      | 0         | 22.64       | 22.66          | 22.58        | 23.5                |
| 10                                                                | QPSK       | 25      | 12        | 22.51       | 22.51          | 22.62        |                     |
| 10                                                                | QPSK       | 25      | 25        | 22.46       | 22.40          | 22.56        |                     |
| 10                                                                | QPSK       | 50      | 0         | 22.47       | 22.62          | 22.82        | 23.5                |
| 10                                                                | 16QAM      | 1       | 0         | 22.64       | 22.60          | 22.56        |                     |
| 10                                                                | 16QAM      | 1       | 25        | 22.69       | 22.56          | 22.35        |                     |
| 10                                                                | 16QAM      | 1       | 49        | 22.70       | 22.53          | 22.52        | 22.5                |
| 10                                                                | 16QAM      | 25      | 0         | 21.66       | 21.43          | 21.69        |                     |
| 10                                                                | 16QAM      | 25      | 12        | 21.51       | 21.55          | 21.71        |                     |
| 10                                                                | 16QAM      | 25      | 25        | 21.57       | 21.31          | 21.47        | 22.5                |
| 10                                                                | 16QAM      | 50      | 0         | 21.70       | 21.66          | 21.64        |                     |
| Channel                                                           |            |         |           | 23755       | 23790          | 23825        | Tune-up limit (dBm) |
| Frequency (MHz)                                                   |            |         |           | 706.5       | 710            | 713.5        |                     |
| 5                                                                 | QPSK       | 1       | 0         | 23.48       | 23.46          | 23.51        | 24.5                |
| 5                                                                 | QPSK       | 1       | 12        | 23.23       | 23.25          | 23.37        |                     |
| 5                                                                 | QPSK       | 1       | 24        | 23.36       | 23.48          | 23.33        |                     |
| 5                                                                 | QPSK       | 12      | 0         | 22.38       | 22.37          | 22.51        | 23.5                |
| 5                                                                 | QPSK       | 12      | 7         | 22.37       | 22.52          | 22.28        |                     |
| 5                                                                 | QPSK       | 12      | 13        | 22.36       | 22.30          | 22.43        |                     |
| 5                                                                 | QPSK       | 25      | 0         | 22.33       | 22.40          | 22.49        | 23.5                |
| 5                                                                 | 16QAM      | 1       | 0         | 22.47       | 22.53          | 22.48        |                     |
| 5                                                                 | 16QAM      | 1       | 12        | 22.32       | 22.25          | 22.54        |                     |
| 5                                                                 | 16QAM      | 1       | 24        | 22.25       | 22.37          | 22.22        | 22.5                |
| 5                                                                 | 16QAM      | 12      | 0         | 21.52       | 21.63          | 21.51        |                     |
| 5                                                                 | 16QAM      | 12      | 7         | 21.30       | 21.50          | 21.33        |                     |
| 5                                                                 | 16QAM      | 12      | 13        | 21.38       | 21.38          | 21.23        | 22.5                |
| 5                                                                 | 16QAM      | 25      | 0         | 21.38       | 21.21          | 21.24        |                     |

| Band 66 (dBm)   |            |         |           |             |                |              |                     |
|-----------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel         |            |         |           | 132072      | 132322         | 132572       |                     |
| Frequency (MHz) |            |         |           | 1720        | 1745           | 1770         |                     |
| 20              | QPSK       | 1       | 0         | 23.52       | 23.77          | 23.70        | 24.5                |
| 20              | QPSK       | 1       | 49        | 23.51       | 23.55          | 23.53        |                     |
| 20              | QPSK       | 1       | 99        | 23.67       | 23.44          | 23.58        |                     |
| 20              | QPSK       | 50      | 0         | 22.60       | 22.68          | 22.41        | 23.5                |
| 20              | QPSK       | 50      | 24        | 22.44       | 22.50          | 22.45        |                     |
| 20              | QPSK       | 50      | 50        | 22.52       | 22.46          | 22.44        |                     |
| 20              | QPSK       | 100     | 0         | 22.32       | 22.37          | 22.39        | 23.5                |
| 20              | 16QAM      | 1       | 0         | 22.42       | 22.72          | 22.63        |                     |
| 20              | 16QAM      | 1       | 49        | 22.45       | 22.41          | 22.53        |                     |
| 20              | 16QAM      | 1       | 99        | 22.45       | 22.28          | 22.38        | 22.5                |
| 20              | 16QAM      | 50      | 0         | 21.60       | 21.44          | 21.65        |                     |
| 20              | 16QAM      | 50      | 24        | 21.29       | 21.39          | 21.40        |                     |
| 20              | 16QAM      | 50      | 50        | 21.55       | 21.48          | 21.51        | 22.5                |
| 20              | 16QAM      | 100     | 0         | 21.36       | 21.39          | 21.43        |                     |
| Channel         |            |         |           | 132047      | 132322         | 132597       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1717.5      | 1745           | 1772.5       |                     |
| 15              | QPSK       | 1       | 0         | 23.64       | 23.50          | 23.69        | 24.5                |
| 15              | QPSK       | 1       | 37        | 23.46       | 23.33          | 23.37        |                     |
| 15              | QPSK       | 1       | 74        | 23.63       | 23.39          | 23.35        |                     |
| 15              | QPSK       | 36      | 0         | 22.55       | 22.42          | 22.35        | 23.5                |
| 15              | QPSK       | 36      | 20        | 22.40       | 22.46          | 22.50        |                     |
| 15              | QPSK       | 36      | 39        | 22.36       | 22.56          | 22.28        |                     |
| 15              | QPSK       | 75      | 0         | 22.25       | 22.28          | 22.25        | 23.5                |
| 15              | 16QAM      | 1       | 0         | 22.35       | 22.64          | 22.39        |                     |
| 15              | 16QAM      | 1       | 37        | 22.29       | 22.54          | 22.52        |                     |
| 15              | 16QAM      | 1       | 74        | 22.26       | 22.38          | 22.44        | 22.5                |
| 15              | 16QAM      | 36      | 0         | 21.46       | 21.42          | 21.53        |                     |
| 15              | 16QAM      | 36      | 20        | 21.57       | 21.32          | 21.36        |                     |
| 15              | 16QAM      | 36      | 39        | 21.47       | 21.35          | 21.41        | 22.5                |
| 15              | 16QAM      | 75      | 0         | 21.29       | 21.30          | 21.24        |                     |
| Channel         |            |         |           | 132022      | 132322         | 132622       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1715        | 1745           | 1775         |                     |
| 10              | QPSK       | 1       | 0         | 23.53       | 23.59          | 23.50        | 24.5                |
| 10              | QPSK       | 1       | 25        | 23.38       | 23.58          | 23.50        |                     |
| 10              | QPSK       | 1       | 49        | 23.38       | 23.43          | 23.52        |                     |
| 10              | QPSK       | 25      | 0         | 22.49       | 22.38          | 22.39        | 23.5                |
| 10              | QPSK       | 25      | 12        | 22.54       | 22.30          | 22.53        |                     |
| 10              | QPSK       | 25      | 25        | 22.40       | 22.39          | 22.58        |                     |
| 10              | QPSK       | 50      | 0         | 22.41       | 22.63          | 22.49        | 23.5                |
| 10              | 16QAM      | 1       | 0         | 22.35       | 22.59          | 22.35        |                     |
| 10              | 16QAM      | 1       | 25        | 22.25       | 22.38          | 22.27        |                     |
| 10              | 16QAM      | 1       | 49        | 22.42       | 22.21          | 22.53        | 22.5                |
| 10              | 16QAM      | 25      | 0         | 21.59       | 21.30          | 21.50        |                     |
| 10              | 16QAM      | 25      | 12        | 21.39       | 21.38          | 21.55        |                     |
| 10              | 16QAM      | 25      | 25        | 21.26       | 21.38          | 21.32        | 22.5                |
| 10              | 16QAM      | 50      | 0         | 21.15       | 21.24          | 21.29        |                     |
| Channel         |            |         |           | 131997      | 132322         | 132647       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1712.5      | 1745           | 1777.5       |                     |
| 5               | QPSK       | 1       | 0         | 23.55       | 23.66          | 23.60        | 24.5                |
| 5               | QPSK       | 1       | 12        | 23.48       | 23.32          | 23.49        |                     |
| 5               | QPSK       | 1       | 24        | 23.61       | 23.29          | 23.36        |                     |
| 5               | QPSK       | 12      | 0         | 22.40       | 22.44          | 22.52        | 23.5                |
| 5               | QPSK       | 12      | 7         | 22.43       | 22.47          | 22.32        |                     |
| 5               | QPSK       | 12      | 13        | 22.39       | 22.24          | 22.67        |                     |
| 5               | QPSK       | 25      | 0         | 22.28       | 22.09          | 22.17        | 23.5                |
| 5               | 16QAM      | 1       | 0         | 22.40       | 22.42          | 22.57        |                     |
| 5               | 16QAM      | 1       | 12        | 22.34       | 22.53          | 22.48        |                     |
| 5               | 16QAM      | 1       | 24        | 22.20       | 22.48          | 22.38        | 22.5                |
| 5               | 16QAM      | 12      | 0         | 21.51       | 21.22          | 21.43        |                     |
| 5               | 16QAM      | 12      | 7         | 21.53       | 21.32          | 21.30        |                     |
| 5               | 16QAM      | 12      | 13        | 21.33       | 21.37          | 21.38        | 22.5                |
| 5               | 16QAM      | 25      | 0         | 21.09       | 21.27          | 21.35        |                     |
| Channel         |            |         |           | 131987      | 132322         | 132657       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1711.5      | 1745           | 1778.5       |                     |
| 3               | QPSK       | 1       | 0         | 23.64       | 23.49          | 23.67        | 24.5                |
| 3               | QPSK       | 1       | 8         | 23.47       | 23.44          | 23.49        |                     |
| 3               | QPSK       | 1       | 14        | 23.45       | 23.28          | 23.33        |                     |
| 3               | QPSK       | 8       | 0         | 22.47       | 22.43          | 22.38        | 23.5                |
| 3               | QPSK       | 8       | 4         | 22.55       | 22.57          | 22.38        |                     |
| 3               | QPSK       | 8       | 7         | 22.28       | 22.24          | 22.43        |                     |
| 3               | QPSK       | 15      | 0         | 22.19       | 22.36          | 22.26        | 23.5                |
| 3               | 16QAM      | 1       | 0         | 22.42       | 22.64          | 22.36        |                     |
| 3               | 16QAM      | 1       | 8         | 22.40       | 22.22          | 22.27        |                     |
| 3               | 16QAM      | 1       | 14        | 22.43       | 22.53          | 22.64        | 22.5                |
| 3               | 16QAM      | 8       | 0         | 21.41       | 21.34          | 21.46        |                     |
| 3               | 16QAM      | 8       | 4         | 21.37       | 21.40          | 21.27        |                     |
| 3               | 16QAM      | 8       | 7         | 21.36       | 21.39          | 21.30        | 22.5                |
| 3               | 16QAM      | 15      | 0         | 21.06       | 21.25          | 21.28        |                     |
| Channel         |            |         |           | 131979      | 132322         | 132665       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1710.7      | 1745           | 1779.3       |                     |
| 1.4             | QPSK       | 1       | 0         | 23.51       | 23.57          | 23.65        | 24.5                |
| 1.4             | QPSK       | 1       | 3         | 23.38       | 23.48          | 23.24        |                     |
| 1.4             | QPSK       | 1       | 5         | 23.59       | 23.35          | 23.45        |                     |
| 1.4             | QPSK       | 3       | 0         | 22.32       | 22.49          | 22.31        | 23.5                |
| 1.4             | QPSK       | 3       | 1         | 22.41       | 22.41          | 22.37        |                     |
| 1.4             | QPSK       | 3       | 3         | 22.46       | 22.45          | 22.22        |                     |
| 1.4             | QPSK       | 6       | 0         | 22.60       | 22.62          | 22.64        | 23.5                |
| 1.4             | 16QAM      | 1       | 0         | 22.52       | 22.61          | 22.57        |                     |
| 1.4             | 16QAM      | 1       | 3         | 22.35       | 22.37          | 22.44        |                     |
| 1.4             | 16QAM      | 1       | 5         | 22.37       | 22.22          | 22.39        | 23.5                |
| 1.4             | 16QAM      | 3       | 0         | 21.46       | 21.28          | 21.63        |                     |
| 1.4             | 16QAM      | 3       | 1         | 21.25       | 21.37          | 21.32        |                     |
| 1.4             | 16QAM      | 3       | 3         | 21.31       | 21.28          | 21.25        | 22.5                |
| 1.4             | 16QAM      | 6       | 0         | 21.27       | 21.32          | 21.33        |                     |

**2.4GHz WLAN ANT 1**

| 2.4GHz WLAN<br>ANT 1 | Mode              | Channel | Frequency<br>(MHz) | Average power<br>(dBm) | Tune-Up<br>Limit | Power Setting | Duty Cycle % |
|----------------------|-------------------|---------|--------------------|------------------------|------------------|---------------|--------------|
|                      | 802.11b 1Mbps     | CH 1    | 2412               | 15.35                  | 15.50            | 17.00         | 100.00       |
|                      |                   | CH 7    | 2442               | 14.73                  | 15.00            | 17.00         |              |
|                      |                   | CH 13   | 2472               | 15.32                  | 15.50            | 17.00         |              |
|                      | 802.11g 6Mbps     | CH 1    | 2412               | 13.82                  | 14.50            | 14.00         | 97.55        |
|                      |                   | CH 7    | 2442               | 13.53                  | 14.00            | 14.00         |              |
|                      |                   | CH 13   | 2472               | 13.27                  | 13.50            | 14.00         |              |
|                      | 802.11n-HT20 MCS0 | CH 1    | 2412               | 11.42                  | 12.00            | 12.00         | 97.38        |
|                      |                   | CH 7    | 2442               | 10.85                  | 11.50            | 12.00         |              |
|                      |                   | CH 13   | 2472               | 10.94                  | 11.50            | 12.00         |              |

| Mode          | Channel | Frequency<br>(MHz) | Average power (dBm) |       |       |
|---------------|---------|--------------------|---------------------|-------|-------|
|               |         |                    | 1Mbps               | 2Mbps | 3Mbps |
| BR / EDR      | CH 00   | 2402               | 5.72                | 3.07  | 3.09  |
|               | CH 39   | 2441               | 5.16                | 3.76  | 3.71  |
|               | CH 78   | 2480               | 4.24                | 3.22  | 3.19  |
| Tune-up Limit |         |                    | 6.5                 | 4.5   | 4.5   |
| Duty Cycle %  |         |                    | 77.33               | 76.8  | 76.8  |

| Mode          | Channel | Frequency<br>(MHz) | Average power (dBm) |
|---------------|---------|--------------------|---------------------|
|               |         |                    | GFSK                |
| LE            | CH 00   | 2402               | -3.34               |
|               | CH 19   | 2440               | -1.02               |
|               | CH 39   | 2480               | -3.04               |
| Tune-up Limit |         |                    | 1                   |
| Duty Cycle %  |         |                    | 62.98               |

## Reduced Power

| GSM850          |  | Burst Average Power (dBm) |       |       | Tune-up Limit (dBm) | Frame-Average Power (dBm) |       |       | Tune-up Limit (dBm) | Ch Delta > 0.5 |
|-----------------|--|---------------------------|-------|-------|---------------------|---------------------------|-------|-------|---------------------|----------------|
| TX Channel      |  | 128                       | 189   | 251   |                     | 128                       | 189   | 251   |                     |                |
| Frequency (MHz) |  | 824.2                     | 836.4 | 848.8 |                     | 824.2                     | 836.4 | 848.8 |                     |                |
| GSM 1 Tx slot   |  | 30.17                     | 30.34 | 30.40 | 31.00               | 21.17                     | 21.34 | 21.40 | 22.00               | 0.23           |
| GPRS 1 Tx slot  |  | 30.17                     | 30.33 | 30.38 | 31.00               | 21.17                     | 21.33 | 21.38 | 22.00               |                |
| GPRS 2 Tx slots |  | 28.55                     | 28.60 | 28.63 | 29.50               | 22.55                     | 22.60 | 22.63 | 23.50               | 0.08           |
| GPRS 3 Tx slots |  | 26.54                     | 26.53 | 26.60 | 27.00               | 22.28                     | 22.27 | 22.34 | 22.74               | 0.07           |
| GPRS 4 Tx slots |  | 24.74                     | 24.84 | 24.88 | 25.50               | 21.74                     | 21.84 | 21.88 | 22.50               | 0.14           |
| EDGE 1 Tx slot  |  | 23.53                     | 23.36 | 23.21 | 24.00               | 14.53                     | 14.36 | 14.21 | 15.00               | 0.32           |
| EDGE 2 Tx slots |  | 21.41                     | 21.72 | 21.54 | 22.00               | 15.41                     | 15.72 | 15.54 | 16.00               | 0.31           |
| EDGE 3 Tx slots |  | 19.44                     | 19.56 | 19.63 | 20.00               | 15.18                     | 15.30 | 15.37 | 15.74               | 0.19           |
| EDGE 4 Tx slots |  | 17.56                     | 17.80 | 17.43 | 18.50               | 14.56                     | 14.80 | 14.43 | 15.50               | 0.37           |
| Mode            |  |                           | Max.  | 30.40 |                     |                           | Max.  | 22.63 |                     |                |
| Attenuator      |  | Cable Loss : 0.6          |       |       |                     |                           |       |       |                     |                |

| GSM1900         |  | Burst Average Power (dBm) |       |        | Tune-up Limit (dBm) | Frame-Average Power (dBm) |       |        | Tune-up Limit (dBm) | Ch Delta > 0.5 |
|-----------------|--|---------------------------|-------|--------|---------------------|---------------------------|-------|--------|---------------------|----------------|
| TX Channel      |  | 512                       | 661   | 810    |                     | 512                       | 661   | 810    |                     |                |
| Frequency (MHz) |  | 1850.2                    | 1880  | 1909.8 |                     | 1850.2                    | 1880  | 1909.8 |                     |                |
| GSM 1 Tx slot   |  | 26.87                     | 26.92 | 26.86  | 27.50               | 17.87                     | 17.92 | 17.86  | 18.50               | 0.09           |
| GPRS 1 Tx slot  |  | 26.84                     | 26.90 | 26.83  | 27.50               | 17.84                     | 17.90 | 17.83  | 18.50               |                |
| GPRS 2 Tx slots |  | 24.81                     | 24.89 | 24.78  | 25.50               | 18.81                     | 18.89 | 18.78  | 19.50               | 0.11           |
| GPRS 3 Tx slots |  | 23.09                     | 23.26 | 23.18  | 24.00               | 18.83                     | 19.00 | 18.92  | 19.74               | 0.17           |
| GPRS 4 Tx slots |  | 21.08                     | 21.15 | 21.02  | 22.00               | 18.08                     | 18.15 | 18.02  | 19.00               | 0.13           |
| EDGE 1 Tx slot  |  | 22.72                     | 23.12 | 22.69  | 23.50               | 13.72                     | 14.12 | 13.69  | 14.50               | 0.43           |
| EDGE 2 Tx slots |  | 20.91                     | 21.25 | 20.85  | 21.50               | 14.91                     | 15.25 | 14.85  | 15.50               | 0.40           |
| EDGE 3 Tx slots |  | 18.52                     | 18.95 | 18.62  | 19.50               | 14.26                     | 14.69 | 14.36  | 15.24               | 0.43           |
| EDGE 4 Tx slots |  | 15.33                     | 15.55 | 15.30  | 16.00               | 12.33                     | 12.55 | 12.30  | 13.00               | 0.25           |
| Mode            |  |                           | Max.  | 26.92  |                     |                           | Max.  | 19.00  |                     |                |
| Attenuator      |  | Cable Loss : 0.8          |       |        |                     |                           |       |        |                     |                |

| Band            |                         | WCDMA Band II (dBm) |            |        | Tune-up Limit (dBm) | WCDMA Band IV (dBm) |            |        | Tune-up Limit (dBm) | WCDMA Band V (dBm) |            |       | Tune-up Limit (dBm) |
|-----------------|-------------------------|---------------------|------------|--------|---------------------|---------------------|------------|--------|---------------------|--------------------|------------|-------|---------------------|
| TX Channel      |                         | 9262                | 9400       | 9538   |                     | 1312                | 1413       | 1513   |                     | 4132               | 4182       | 4233  |                     |
| Rx Channel      |                         | 9662                | 9800       | 9938   |                     | 1537                | 1638       | 1738   |                     | 4357               | 4407       | 4458  |                     |
| Frequency (MHz) |                         | 1852.4              | 1880       | 1907.6 |                     | 1712.4              | 1732.6     | 1752.6 |                     | 826.4              | 836.4      | 846.6 |                     |
| 3GPP Rel 99     | RMC 12.2Kbps            | 16.28               | 16.23      | 16.33  | 16.50               | 15.81               | 15.88      | 15.84  | 16.50               | 16.85              | 16.91      | 16.87 | 17.50               |
| 3GPP Rel 6      | HSDPA Subtest-1         | 16.03               | 15.80      | 15.74  | 16.50               | 15.51               | 15.77      | 15.69  | 16.50               | 15.88              | 15.54      | 15.87 | 16.00               |
| 3GPP Rel 6      | HSDPA Subtest-2         | 15.64               | 15.44      | 15.38  | 16.50               | 15.53               | 15.78      | 15.70  | 16.50               | 15.60              | 15.30      | 15.60 | 16.00               |
| 3GPP Rel 6      | HSDPA Subtest-3         | 15.79               | 15.59      | 15.51  | 16.00               | 15.47               | 15.73      | 15.65  | 16.50               | 15.31              | 14.97      | 15.30 | 16.00               |
| 3GPP Rel 6      | HSDPA Subtest-4         | 15.46               | 15.27      | 15.19  | 16.00               | 15.51               | 15.78      | 15.69  | 16.50               | 15.22              | 14.89      | 15.21 | 15.50               |
| 3GPP Rel 6      | HSUPA Subtest-1         | 15.91               | 15.66      | 15.58  | 16.50               | 15.33               | 15.67      | 15.66  | 16.00               | 16.61              | 16.40      | 16.53 | 17.00               |
| 3GPP Rel 6      | HSUPA Subtest-2         | 15.93               | 15.67      | 15.59  | 16.50               | 15.30               | 15.65      | 15.63  | 16.00               | 16.59              | 16.37      | 16.52 | 17.00               |
| 3GPP Rel 6      | HSUPA Subtest-3         | 15.88               | 15.64      | 15.55  | 16.50               | 15.31               | 15.65      | 15.61  | 16.00               | 16.57              | 16.38      | 16.52 | 17.00               |
| 3GPP Rel 6      | HSUPA Subtest-4         | 15.92               | 15.66      | 15.57  | 16.50               | 15.27               | 15.61      | 15.59  | 16.00               | 16.57              | 16.32      | 16.47 | 17.00               |
| 3GPP Rel 6      | HSUPA Subtest-5         | 15.90               | 15.67      | 15.72  | 16.50               | 15.31               | 15.63      | 15.60  | 16.00               | 16.62              | 16.40      | 16.53 | 17.00               |
| 3GPP Rel 7      | HSPA+ (16QAM) Subtest-1 | 15.71               | 15.75      | 15.68  | 16.50               | 15.35               | 15.69      | 15.49  | 16.00               | 16.59              | 16.22      | 16.43 | 17.00               |
| Attenuator      |                         |                     | Cable Loss | 0.8    |                     |                     | Cable Loss | 0.8    |                     |                    | Cable Loss | 0.8   |                     |
| Mode            |                         |                     | Max.       | 16.33  |                     |                     | Max.       | 15.88  |                     |                    | Max.       | 16.91 |                     |

| Band 2 (1900MHz Band) (dBm) |            |         |           |             |                |              |                     |
|-----------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| Part 24E                    |            |         |           |             |                |              |                     |
| BW [MHz]                    | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                     |            |         |           | 18700       | 18900          | 19100        |                     |
| Frequency (MHz)             |            |         |           | 1860        | 1880           | 1900         |                     |
| 20                          | QPSK       | 1       | 0         | 16.25       | 16.21          | 16.30        | 16.5                |
| 20                          | QPSK       | 1       | 49        | 16.16       | 16.08          | 16.20        |                     |
| 20                          | QPSK       | 1       | 99        | 16.19       | 16.12          | 16.22        |                     |
| 20                          | QPSK       | 50      | 0         | 15.05       | 15.09          | 15.10        | 15.5                |
| 20                          | QPSK       | 50      | 24        | 15.00       | 15.05          | 15.04        |                     |
| 20                          | QPSK       | 50      | 50        | 15.03       | 15.13          | 15.07        |                     |
| 20                          | QPSK       | 100     | 0         | 15.00       | 15.01          | 15.04        | 15.5                |
| 20                          | 16QAM      | 1       | 0         | 15.12       | 15.08          | 15.15        |                     |
| 20                          | 16QAM      | 1       | 49        | 15.10       | 15.01          | 15.07        |                     |
| 20                          | 16QAM      | 1       | 99        | 15.05       | 15.03          | 15.03        | 14.5                |
| 20                          | 16QAM      | 50      | 0         | 14.50       | 14.05          | 14.12        |                     |
| 20                          | 16QAM      | 50      | 24        | 14.10       | 14.05          | 14.07        |                     |
| 20                          | 16QAM      | 50      | 50        | 14.03       | 14.07          | 14.03        | 14.5                |
| 20                          | 16QAM      | 100     | 0         | 14.02       | 14.01          | 14.05        |                     |
| Channel                     |            |         |           | 18675       | 18900          | 19125        | Tune-up limit (dBm) |
| Frequency (MHz)             |            |         |           | 1857.5      | 1880           | 1902.5       |                     |
| 15                          | QPSK       | 1       | 0         | 16.23       | 16.19          | 16.28        | 16.5                |
| 15                          | QPSK       | 1       | 37        | 16.14       | 16.06          | 16.18        |                     |
| 15                          | QPSK       | 1       | 74        | 16.17       | 16.10          | 16.20        |                     |
| 15                          | QPSK       | 36      | 0         | 15.03       | 15.08          | 15.07        | 15.5                |
| 15                          | QPSK       | 36      | 20        | 14.98       | 15.03          | 15.02        |                     |
| 15                          | QPSK       | 36      | 39        | 15.01       | 15.11          | 15.05        |                     |
| 15                          | QPSK       | 75      | 0         | 14.98       | 14.99          | 15.02        | 15.5                |
| 15                          | 16QAM      | 1       | 0         | 15.10       | 15.06          | 15.13        |                     |
| 15                          | 16QAM      | 1       | 37        | 15.08       | 14.99          | 15.05        |                     |
| 15                          | 16QAM      | 1       | 74        | 15.03       | 15.01          | 15.01        | 14.5                |
| 15                          | 16QAM      | 36      | 0         | 14.48       | 14.03          | 14.10        |                     |
| 15                          | 16QAM      | 36      | 20        | 14.08       | 14.03          | 14.05        |                     |
| 15                          | 16QAM      | 36      | 39        | 14.01       | 14.05          | 14.01        | 14.5                |
| 15                          | 16QAM      | 75      | 0         | 14.00       | 13.99          | 14.03        |                     |
| Channel                     |            |         |           | 18650       | 18900          | 19150        | Tune-up limit (dBm) |
| Frequency (MHz)             |            |         |           | 1855        | 1880           | 1905         |                     |
| 10                          | QPSK       | 1       | 0         | 16.21       | 16.17          | 16.26        | 16.5                |
| 10                          | QPSK       | 1       | 25        | 16.12       | 16.04          | 16.16        |                     |
| 10                          | QPSK       | 1       | 49        | 16.15       | 16.08          | 16.18        |                     |
| 10                          | QPSK       | 25      | 0         | 15.01       | 15.06          | 15.05        | 15.5                |
| 10                          | QPSK       | 25      | 12        | 14.96       | 15.01          | 15.00        |                     |
| 10                          | QPSK       | 25      | 25        | 14.99       | 15.09          | 15.03        |                     |
| 10                          | QPSK       | 50      | 0         | 14.96       | 14.97          | 15.00        | 15.5                |
| 10                          | 16QAM      | 1       | 0         | 15.08       | 15.04          | 15.11        |                     |
| 10                          | 16QAM      | 1       | 25        | 15.06       | 14.97          | 15.03        |                     |
| 10                          | 16QAM      | 1       | 49        | 15.01       | 14.99          | 14.99        | 14.5                |
| 10                          | 16QAM      | 25      | 0         | 14.46       | 14.01          | 14.08        |                     |
| 10                          | 16QAM      | 25      | 12        | 14.06       | 14.01          | 14.03        |                     |
| 10                          | 16QAM      | 25      | 25        | 13.99       | 14.03          | 13.99        | 14.5                |
| 10                          | 16QAM      | 50      | 0         | 13.98       | 13.97          | 14.01        |                     |
| Channel                     |            |         |           | 18625       | 18900          | 19175        | Tune-up limit (dBm) |
| Frequency (MHz)             |            |         |           | 1852.5      | 1880           | 1907.5       |                     |
| 5                           | QPSK       | 1       | 0         | 16.19       | 16.15          | 16.24        | 16.5                |
| 5                           | QPSK       | 1       | 12        | 16.10       | 16.02          | 16.14        |                     |
| 5                           | QPSK       | 1       | 24        | 16.13       | 16.06          | 16.16        |                     |
| 5                           | QPSK       | 12      | 0         | 14.99       | 15.04          | 15.03        | 15.5                |
| 5                           | QPSK       | 12      | 7         | 14.94       | 14.99          | 14.98        |                     |
| 5                           | QPSK       | 12      | 13        | 14.97       | 15.07          | 15.01        |                     |
| 5                           | QPSK       | 25      | 0         | 14.94       | 14.95          | 14.98        | 15.5                |
| 5                           | 16QAM      | 1       | 0         | 15.06       | 15.02          | 15.09        |                     |
| 5                           | 16QAM      | 1       | 12        | 15.04       | 14.95          | 15.01        |                     |
| 5                           | 16QAM      | 1       | 24        | 14.99       | 14.97          | 14.97        | 14.5                |
| 5                           | 16QAM      | 12      | 0         | 14.44       | 13.99          | 14.06        |                     |
| 5                           | 16QAM      | 12      | 7         | 14.04       | 13.99          | 14.01        |                     |
| 5                           | 16QAM      | 12      | 13        | 13.97       | 14.01          | 13.97        | 14.5                |
| 5                           | 16QAM      | 25      | 0         | 13.96       | 13.95          | 13.99        |                     |
| Channel                     |            |         |           | 18615       | 18900          | 19185        | Tune-up limit (dBm) |
| Frequency (MHz)             |            |         |           | 1851.5      | 1880           | 1908.5       |                     |
| 3                           | QPSK       | 1       | 0         | 16.17       | 16.13          | 16.22        | 16.5                |
| 3                           | QPSK       | 1       | 8         | 16.08       | 16.00          | 16.12        |                     |
| 3                           | QPSK       | 1       | 14        | 16.11       | 16.04          | 16.14        |                     |
| 3                           | QPSK       | 8       | 0         | 14.97       | 15.02          | 15.01        | 15.5                |
| 3                           | QPSK       | 8       | 4         | 14.92       | 14.97          | 14.96        |                     |
| 3                           | QPSK       | 8       | 7         | 14.95       | 15.05          | 14.99        |                     |
| 3                           | QPSK       | 15      | 0         | 14.92       | 14.93          | 14.96        | 15.5                |
| 3                           | 16QAM      | 1       | 0         | 15.04       | 15.00          | 15.07        |                     |
| 3                           | 16QAM      | 1       | 8         | 15.02       | 14.93          | 14.99        |                     |
| 3                           | 16QAM      | 1       | 14        | 14.97       | 14.95          | 14.95        | 14.5                |
| 3                           | 16QAM      | 8       | 0         | 14.42       | 13.97          | 14.04        |                     |
| 3                           | 16QAM      | 8       | 4         | 14.02       | 13.97          | 13.99        |                     |
| 3                           | 16QAM      | 8       | 7         | 13.95       | 13.99          | 13.95        | 14.5                |
| 3                           | 16QAM      | 15      | 0         | 13.94       | 13.93          | 13.97        |                     |
| Channel                     |            |         |           | 18607       | 18900          | 19193        | Tune-up limit (dBm) |
| Frequency (MHz)             |            |         |           | 1850.7      | 1880           | 1909.3       |                     |
| 1.4                         | QPSK       | 1       | 0         | 16.15       | 16.11          | 16.20        | 17.5                |
| 1.4                         | QPSK       | 1       | 3         | 16.06       | 15.98          | 16.10        |                     |
| 1.4                         | QPSK       | 1       | 5         | 16.09       | 16.02          | 16.12        |                     |
| 1.4                         | QPSK       | 3       | 0         | 14.95       | 15.00          | 14.99        | 16.5                |
| 1.4                         | QPSK       | 3       | 1         | 14.90       | 14.95          | 14.94        |                     |
| 1.4                         | QPSK       | 3       | 3         | 14.93       | 15.03          | 14.97        |                     |
| 1.4                         | QPSK       | 6       | 0         | 14.90       | 14.91          | 14.94        | 16.5                |
| 1.4                         | 16QAM      | 1       | 0         | 15.02       | 14.98          | 15.05        |                     |
| 1.4                         | 16QAM      | 1       | 3         | 15.00       | 14.91          | 14.97        |                     |
| 1.4                         | 16QAM      | 1       | 5         | 14.95       | 14.93          | 14.93        | 16.5                |
| 1.4                         | 16QAM      | 3       | 0         | 14.40       | 13.95          | 14.02        |                     |
| 1.4                         | 16QAM      | 3       | 1         | 14.00       | 13.95          | 13.97        |                     |
| 1.4                         | 16QAM      | 3       | 3         | 13.93       | 13.97          | 13.93        | 15.5                |
| 1.4                         | 16QAM      | 6       | 0         | 13.92       | 13.91          | 13.95        |                     |

| Band 4 (AWS Band) (dBm)             |            |         |           |             |                |              |                     |
|-------------------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| Part 27L (only on channel required) |            |         |           |             |                |              |                     |
| BW [MHz]                            | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                             |            |         |           | 20050       | 20175          | 20300        |                     |
| Frequency (MHz)                     |            |         |           | 1720        | 1732.5         | 1745         |                     |
| 20                                  | QPSK       | 1       | 0         | 16.19       | 16.27          | 16.34        | 16.5                |
| 20                                  | QPSK       | 1       | 49        | 16.16       | 16.19          | 16.13        |                     |
| 20                                  | QPSK       | 1       | 99        | 16.14       | 16.05          | 16.02        |                     |
| 20                                  | QPSK       | 50      | 0         | 14.89       | 14.99          | 15.01        | 15.5                |
| 20                                  | QPSK       | 50      | 24        | 14.96       | 15.06          | 15.02        |                     |
| 20                                  | QPSK       | 50      | 50        | 15.04       | 14.91          | 14.97        |                     |
| 20                                  | QPSK       | 100     | 0         | 14.92       | 14.94          | 14.97        | 15.5                |
| 20                                  | 16QAM      | 1       | 0         | 15.06       | 15.21          | 15.31        |                     |
| 20                                  | 16QAM      | 1       | 49        | 15.12       | 15.09          | 15.15        |                     |
| 20                                  | 16QAM      | 1       | 99        | 15.08       | 14.98          | 15.04        | 14.5                |
| 20                                  | 16QAM      | 50      | 0         | 14.09       | 14.22          | 14.16        |                     |
| 20                                  | 16QAM      | 50      | 24        | 14.11       | 14.21          | 14.10        |                     |
| 20                                  | 16QAM      | 50      | 50        | 14.20       | 14.19          | 14.17        | 14.5                |
| 20                                  | 16QAM      | 100     | 0         | 14.07       | 14.18          | 14.18        |                     |
| Channel                             |            |         |           | 20025       | 20175          | 20325        | Tune-up limit (dBm) |
| Frequency (MHz)                     |            |         |           | 1717.5      | 1732.5         | 1747.5       |                     |
| 15                                  | QPSK       | 1       | 0         | 16.17       | 16.25          | 16.32        | 16.5                |
| 15                                  | QPSK       | 1       | 37        | 16.14       | 16.17          | 16.11        |                     |
| 15                                  | QPSK       | 1       | 74        | 16.12       | 16.03          | 16.00        |                     |
| 15                                  | QPSK       | 36      | 0         | 14.87       | 14.97          | 14.99        | 15.5                |
| 15                                  | QPSK       | 36      | 20        | 14.94       | 15.04          | 15.00        |                     |
| 15                                  | QPSK       | 36      | 39        | 15.02       | 14.89          | 14.95        |                     |
| 15                                  | QPSK       | 75      | 0         | 14.90       | 14.92          | 14.95        | 15.5                |
| 15                                  | 16QAM      | 1       | 0         | 15.04       | 15.19          | 15.29        |                     |
| 15                                  | 16QAM      | 1       | 37        | 15.10       | 15.07          | 15.13        |                     |
| 15                                  | 16QAM      | 1       | 74        | 15.06       | 14.96          | 15.02        | 14.5                |
| 15                                  | 16QAM      | 36      | 0         | 14.07       | 14.20          | 14.14        |                     |
| 15                                  | 16QAM      | 36      | 20        | 14.09       | 14.19          | 14.08        |                     |
| 15                                  | 16QAM      | 36      | 39        | 14.18       | 14.17          | 14.15        | 14.5                |
| 15                                  | 16QAM      | 75      | 0         | 14.05       | 14.16          | 14.16        |                     |
| Channel                             |            |         |           | 20000       | 20175          | 20350        | Tune-up limit (dBm) |
| Frequency (MHz)                     |            |         |           | 1715        | 1732.5         | 1750         |                     |
| 10                                  | QPSK       | 1       | 0         | 16.15       | 16.23          | 16.30        | 16.5                |
| 10                                  | QPSK       | 1       | 25        | 16.12       | 16.15          | 16.09        |                     |
| 10                                  | QPSK       | 1       | 49        | 16.10       | 16.01          | 15.98        |                     |
| 10                                  | QPSK       | 25      | 0         | 14.85       | 14.95          | 14.97        | 15.5                |
| 10                                  | QPSK       | 25      | 12        | 14.92       | 15.02          | 14.98        |                     |
| 10                                  | QPSK       | 25      | 25        | 15.00       | 14.87          | 14.93        |                     |
| 10                                  | QPSK       | 50      | 0         | 14.88       | 14.90          | 14.93        | 15.5                |
| 10                                  | 16QAM      | 1       | 0         | 15.02       | 15.17          | 15.27        |                     |
| 10                                  | 16QAM      | 1       | 25        | 15.08       | 15.05          | 15.11        |                     |
| 10                                  | 16QAM      | 1       | 49        | 15.04       | 14.94          | 15.00        | 14.5                |
| 10                                  | 16QAM      | 25      | 0         | 14.05       | 14.18          | 14.12        |                     |
| 10                                  | 16QAM      | 25      | 12        | 14.07       | 14.17          | 14.06        |                     |
| 10                                  | 16QAM      | 25      | 25        | 14.16       | 14.15          | 14.13        | 14.5                |
| 10                                  | 16QAM      | 50      | 0         | 14.03       | 14.14          | 14.14        |                     |
| Channel                             |            |         |           | 19975       | 20175          | 20375        | Tune-up limit (dBm) |
| Frequency (MHz)                     |            |         |           | 1712.5      | 1732.5         | 1752.5       |                     |
| 5                                   | QPSK       | 1       | 0         | 16.12       | 16.20          | 16.27        | 16.5                |
| 5                                   | QPSK       | 1       | 12        | 16.09       | 16.12          | 16.06        |                     |
| 5                                   | QPSK       | 1       | 24        | 16.07       | 15.98          | 15.95        |                     |
| 5                                   | QPSK       | 12      | 0         | 14.82       | 14.92          | 14.94        | 15.5                |
| 5                                   | QPSK       | 12      | 7         | 14.89       | 14.99          | 14.95        |                     |
| 5                                   | QPSK       | 12      | 13        | 14.97       | 14.84          | 14.90        |                     |
| 5                                   | QPSK       | 25      | 0         | 14.85       | 14.87          | 14.90        | 15.5                |
| 5                                   | 16QAM      | 1       | 0         | 14.99       | 15.14          | 15.24        |                     |
| 5                                   | 16QAM      | 1       | 12        | 15.05       | 15.02          | 15.08        |                     |
| 5                                   | 16QAM      | 1       | 24        | 15.01       | 14.91          | 14.97        | 14.5                |
| 5                                   | 16QAM      | 12      | 0         | 14.02       | 14.15          | 14.09        |                     |
| 5                                   | 16QAM      | 12      | 7         | 14.04       | 14.14          | 14.03        |                     |
| 5                                   | 16QAM      | 12      | 13        | 14.13       | 14.12          | 14.10        | 14.5                |
| 5                                   | 16QAM      | 25      | 0         | 14.00       | 14.11          | 14.11        |                     |
| Channel                             |            |         |           | 19965       | 20175          | 20385        | Tune-up limit (dBm) |
| Frequency (MHz)                     |            |         |           | 1711.5      | 1732.5         | 1753.5       |                     |
| 3                                   | QPSK       | 1       | 0         | 16.09       | 16.17          | 16.24        | 16.5                |
| 3                                   | QPSK       | 1       | 8         | 16.06       | 16.09          | 16.03        |                     |
| 3                                   | QPSK       | 1       | 14        | 16.04       | 15.95          | 15.92        |                     |
| 3                                   | QPSK       | 8       | 0         | 14.79       | 14.89          | 14.91        | 15.5                |
| 3                                   | QPSK       | 8       | 4         | 14.86       | 14.96          | 14.92        |                     |
| 3                                   | QPSK       | 8       | 7         | 14.94       | 14.81          | 14.87        |                     |
| 3                                   | QPSK       | 16      | 0         | 14.82       | 14.84          | 14.87        | 15.5                |
| 3                                   | 16QAM      | 1       | 0         | 14.96       | 15.11          | 15.21        |                     |
| 3                                   | 16QAM      | 1       | 8         | 15.02       | 14.99          | 15.05        |                     |
| 3                                   | 16QAM      | 1       | 14        | 14.98       | 14.88          | 14.94        | 14.5                |
| 3                                   | 16QAM      | 8       | 0         | 13.99       | 14.12          | 14.06        |                     |
| 3                                   | 16QAM      | 8       | 4         | 14.01       | 14.11          | 14.00        |                     |
| 3                                   | 16QAM      | 8       | 7         | 14.10       | 14.09          | 14.07        | 14.5                |
| 3                                   | 16QAM      | 16      | 0         | 13.97       | 14.08          | 14.08        |                     |
| Channel                             |            |         |           | 19967       | 20175          | 20393        | Tune-up limit (dBm) |
| Frequency (MHz)                     |            |         |           | 1710.7      | 1732.5         | 1754.3       |                     |
| 1.4                                 | QPSK       | 1       | 0         | 16.06       | 16.14          | 16.21        | 16.5                |
| 1.4                                 | QPSK       | 1       | 3         | 16.03       | 16.06          | 16.00        |                     |
| 1.4                                 | QPSK       | 1       | 5         | 16.01       | 15.92          | 15.89        |                     |
| 1.4                                 | QPSK       | 3       | 0         | 14.76       | 14.86          | 14.88        | 15.5                |
| 1.4                                 | QPSK       | 3       | 1         | 14.83       | 14.93          | 14.89        |                     |
| 1.4                                 | QPSK       | 3       | 3         | 14.91       | 14.78          | 14.84        |                     |
| 1.4                                 | QPSK       | 6       | 0         | 14.79       | 14.81          | 14.84        | 15.5                |
| 1.4                                 | 16QAM      | 1       | 0         | 14.93       | 15.08          | 15.18        |                     |
| 1.4                                 | 16QAM      | 1       | 3         | 14.99       | 14.96          | 15.02        |                     |
| 1.4                                 | 16QAM      | 1       | 5         | 14.95       | 14.85          | 14.91        | 15.5                |
| 1.4                                 | 16QAM      | 3       | 0         | 13.96       | 14.09          | 14.03        |                     |
| 1.4                                 | 16QAM      | 3       | 1         | 13.96       | 14.08          | 13.97        |                     |
| 1.4                                 | 16QAM      | 3       | 3         | 14.07       | 14.06          | 14.04        | 14.5                |
| 1.4                                 | 16QAM      | 6       | 0         | 13.94       | 14.05          | 14.05        |                     |

| Band 5 (Celluar Band) (dBm)<br>Part 22H(only on channel required) |            |         |           |             |                |              |                     |
|-------------------------------------------------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]                                                          | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                                                           |            |         |           | 20450       | 20525          | 20600        |                     |
| Frequency (MHz)                                                   |            |         |           | 829         | 836.5          | 844          |                     |
| 10                                                                | QPSK       | 1       | 0         | 17.26       | 17.14          | 17.13        | 17.5                |
| 10                                                                | QPSK       | 1       | 25        | 17.02       | 17.05          | 17.07        |                     |
| 10                                                                | QPSK       | 1       | 49        | 16.98       | 16.95          | 16.88        |                     |
| 10                                                                | QPSK       | 25      | 0         | 16.09       | 16.08          | 15.91        | 16.5                |
| 10                                                                | QPSK       | 25      | 12        | 16.08       | 16.00          | 16.05        |                     |
| 10                                                                | QPSK       | 25      | 25        | 16.10       | 16.11          | 16.10        |                     |
| 10                                                                | QPSK       | 50      | 0         | 16.04       | 16.08          | 16.15        | 16.5                |
| 10                                                                | 16QAM      | 1       | 0         | 16.04       | 16.03          | 16.05        |                     |
| 10                                                                | 16QAM      | 1       | 25        | 16.11       | 15.95          | 15.97        |                     |
| 10                                                                | 16QAM      | 1       | 49        | 15.94       | 15.95          | 15.91        | 15.5                |
| 10                                                                | 16QAM      | 25      | 0         | 15.11       | 15.17          | 15.18        |                     |
| 10                                                                | 16QAM      | 25      | 12        | 15.13       | 15.19          | 15.12        |                     |
| 10                                                                | 16QAM      | 25      | 25        | 15.12       | 15.20          | 15.06        | 15.5                |
| 10                                                                | 16QAM      | 50      | 0         | 15.12       | 15.08          | 15.11        |                     |
| Channel                                                           |            |         |           | 20425       | 20525          | 20625        |                     |
| Frequency (MHz)                                                   |            |         |           | 826.5       | 836.5          | 846.5        |                     |
| 5                                                                 | QPSK       | 1       | 0         | 17.23       | 17.11          | 17.10        | 17.5                |
| 5                                                                 | QPSK       | 1       | 12        | 16.99       | 17.02          | 17.04        |                     |
| 5                                                                 | QPSK       | 1       | 24        | 16.95       | 16.92          | 16.85        |                     |
| 5                                                                 | QPSK       | 12      | 0         | 15.88       | 16.05          | 16.06        | 16.5                |
| 5                                                                 | QPSK       | 12      | 7         | 16.05       | 15.97          | 16.02        |                     |
| 5                                                                 | QPSK       | 12      | 13        | 16.07       | 16.08          | 16.07        |                     |
| 5                                                                 | QPSK       | 25      | 0         | 16.01       | 16.05          | 16.12        | 16.5                |
| 5                                                                 | 16QAM      | 1       | 0         | 16.01       | 16.00          | 16.02        |                     |
| 5                                                                 | 16QAM      | 1       | 12        | 16.08       | 15.92          | 15.94        |                     |
| 5                                                                 | 16QAM      | 1       | 24        | 15.91       | 15.92          | 15.88        | 15.5                |
| 5                                                                 | 16QAM      | 12      | 0         | 15.08       | 15.14          | 15.15        |                     |
| 5                                                                 | 16QAM      | 12      | 7         | 15.10       | 15.16          | 15.09        |                     |
| 5                                                                 | 16QAM      | 12      | 13        | 15.09       | 15.17          | 15.03        | 15.5                |
| 5                                                                 | 16QAM      | 25      | 0         | 15.09       | 15.05          | 15.08        |                     |
| Channel                                                           |            |         |           | 20415       | 20525          | 20635        |                     |
| Frequency (MHz)                                                   |            |         |           | 825.5       | 836.5          | 847.5        |                     |
| 3                                                                 | QPSK       | 1       | 0         | 17.20       | 17.08          | 17.07        | 17.5                |
| 3                                                                 | QPSK       | 1       | 8         | 16.96       | 16.99          | 17.01        |                     |
| 3                                                                 | QPSK       | 1       | 14        | 16.92       | 16.89          | 16.82        |                     |
| 3                                                                 | QPSK       | 8       | 0         | 15.85       | 16.02          | 16.03        | 16.5                |
| 3                                                                 | QPSK       | 8       | 4         | 16.02       | 15.94          | 15.99        |                     |
| 3                                                                 | QPSK       | 8       | 7         | 16.04       | 16.05          | 16.04        |                     |
| 3                                                                 | QPSK       | 15      | 0         | 15.98       | 16.02          | 16.09        | 16.5                |
| 3                                                                 | 16QAM      | 1       | 0         | 15.98       | 15.97          | 15.99        |                     |
| 3                                                                 | 16QAM      | 1       | 8         | 16.05       | 15.89          | 15.91        |                     |
| 3                                                                 | 16QAM      | 1       | 14        | 15.88       | 15.89          | 15.85        | 15.5                |
| 3                                                                 | 16QAM      | 8       | 0         | 15.05       | 15.11          | 15.12        |                     |
| 3                                                                 | 16QAM      | 8       | 4         | 15.07       | 15.13          | 15.06        |                     |
| 3                                                                 | 16QAM      | 8       | 7         | 15.06       | 15.14          | 15.00        | 15.5                |
| 3                                                                 | 16QAM      | 15      | 0         | 15.06       | 15.02          | 15.05        |                     |
| Channel                                                           |            |         |           | 20407       | 20525          | 20643        |                     |
| Frequency (MHz)                                                   |            |         |           | 824.7       | 836.5          | 848.3        |                     |
| 1.4                                                               | QPSK       | 1       | 0         | 17.17       | 17.05          | 17.04        | 17.5                |
| 1.4                                                               | QPSK       | 1       | 3         | 16.93       | 16.96          | 16.98        |                     |
| 1.4                                                               | QPSK       | 1       | 5         | 16.89       | 16.86          | 16.79        |                     |
| 1.4                                                               | QPSK       | 3       | 0         | 15.82       | 15.99          | 16.00        | 16.5                |
| 1.4                                                               | QPSK       | 3       | 1         | 15.99       | 15.91          | 15.96        |                     |
| 1.4                                                               | QPSK       | 3       | 3         | 16.01       | 16.02          | 16.01        |                     |
| 1.4                                                               | QPSK       | 6       | 0         | 15.95       | 15.99          | 16.06        | 16.5                |
| 1.4                                                               | 16QAM      | 1       | 0         | 15.95       | 15.94          | 15.96        |                     |
| 1.4                                                               | 16QAM      | 1       | 3         | 16.02       | 15.86          | 15.88        |                     |
| 1.4                                                               | 16QAM      | 1       | 5         | 15.85       | 15.86          | 15.82        | 16.5                |
| 1.4                                                               | 16QAM      | 3       | 0         | 15.02       | 15.08          | 15.09        |                     |
| 1.4                                                               | 16QAM      | 3       | 1         | 15.04       | 15.10          | 15.03        |                     |
| 1.4                                                               | 16QAM      | 3       | 3         | 15.03       | 15.11          | 15.09        | 15.5                |
| 1.4                                                               | 16QAM      | 6       | 0         | 15.03       | 15.03          | 15.02        |                     |

| Band 7 (2600MHz Band) (dBm)<br>Part 27 |            |         |           |             |                |              |                     |
|----------------------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]                               | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                                |            |         |           | 20850       | 21100          | 21350        |                     |
| Frequency (MHz)                        |            |         |           | 2510        | 2535           | 2560         |                     |
| 20                                     | QPSK       | 1       | 0         | 15.28       | 15.21          | 15.40        | 15.5                |
| 20                                     | QPSK       | 1       | 49        | 15.18       | 15.11          | 15.26        |                     |
| 20                                     | QPSK       | 1       | 99        | 15.15       | 15.15          | 15.19        |                     |
| 20                                     | QPSK       | 50      | 0         | 14.25       | 14.33          | 14.31        | 14.5                |
| 20                                     | QPSK       | 50      | 24        | 14.28       | 14.30          | 14.19        |                     |
| 20                                     | QPSK       | 50      | 50        | 14.16       | 14.27          | 14.26        |                     |
| 20                                     | QPSK       | 100     | 0         | 14.22       | 14.24          | 14.23        | 15                  |
| 20                                     | 16QAM      | 1       | 0         | 14.81       | 14.75          | 14.83        |                     |
| 20                                     | 16QAM      | 1       | 49        | 14.80       | 14.91          | 14.69        |                     |
| 20                                     | 16QAM      | 1       | 99        | 14.78       | 14.88          | 14.77        | 13.5                |
| 20                                     | 16QAM      | 50      | 0         | 13.47       | 13.45          | 13.39        |                     |
| 20                                     | 16QAM      | 50      | 24        | 13.33       | 13.37          | 13.44        |                     |
| 20                                     | 16QAM      | 50      | 50        | 13.42       | 13.35          | 13.46        | 13.5                |
| 20                                     | 16QAM      | 100     | 0         | 13.38       | 13.42          | 13.42        |                     |
| Channel                                |            |         |           | 20825       | 21100          | 21375        |                     |
| Frequency (MHz)                        |            |         |           | 2507.5      | 2535           | 2562.5       |                     |
| 15                                     | QPSK       | 1       | 0         | 15.26       | 15.19          | 15.28        | 15.5                |
| 15                                     | QPSK       | 1       | 37        | 15.16       | 15.09          | 15.24        |                     |
| 15                                     | QPSK       | 1       | 74        | 15.13       | 15.13          | 15.17        |                     |
| 15                                     | QPSK       | 36      | 0         | 14.23       | 14.31          | 14.29        | 14.5                |
| 15                                     | QPSK       | 36      | 20        | 14.26       | 14.28          | 14.17        |                     |
| 15                                     | QPSK       | 36      | 39        | 14.14       | 14.25          | 14.24        |                     |
| 15                                     | QPSK       | 75      | 0         | 14.20       | 14.22          | 14.21        | 15                  |
| 15                                     | 16QAM      | 1       | 0         | 14.79       | 14.73          | 14.81        |                     |
| 15                                     | 16QAM      | 1       | 37        | 14.78       | 14.89          | 14.67        |                     |
| 15                                     | 16QAM      | 1       | 74        | 14.76       | 14.86          | 14.75        | 13.5                |
| 15                                     | 16QAM      | 36      | 0         | 13.45       | 13.43          | 13.37        |                     |
| 15                                     | 16QAM      | 36      | 20        | 13.31       | 13.35          | 13.42        |                     |
| 15                                     | 16QAM      | 36      | 39        | 13.40       | 13.33          | 13.44        | 13.5                |
| 15                                     | 16QAM      | 75      | 0         | 13.36       | 13.40          | 13.40        |                     |
| Channel                                |            |         |           | 20800       | 21100          | 21400        |                     |
| Frequency (MHz)                        |            |         |           | 2505        | 2535           | 2565         |                     |
| 10                                     | QPSK       | 1       | 0         | 15.24       | 15.17          | 15.26        | 15.5                |
| 10                                     | QPSK       | 1       | 25        | 15.14       | 15.07          | 15.22        |                     |
| 10                                     | QPSK       | 1       | 49        | 15.11       | 15.11          | 15.15        |                     |
| 10                                     | QPSK       | 25      | 0         | 14.21       | 14.29          | 14.27        | 14.5                |
| 10                                     | QPSK       | 25      | 12        | 14.24       | 14.26          | 14.15        |                     |
| 10                                     | QPSK       | 25      | 25        | 14.12       | 14.23          | 14.22        |                     |
| 10                                     | QPSK       | 50      | 0         | 14.18       | 14.20          | 14.19        | 15                  |
| 10                                     | 16QAM      | 1       | 0         | 14.77       | 14.71          | 14.79        |                     |
| 10                                     | 16QAM      | 1       | 25        | 14.76       | 14.87          | 14.65        |                     |
| 10                                     | 16QAM      | 1       | 49        | 14.74       | 14.84          | 14.73        | 13.5                |
| 10                                     | 16QAM      | 25      | 0         | 13.43       | 13.41          | 13.35        |                     |
| 10                                     | 16QAM      | 25      | 12        | 13.29       | 13.33          | 13.40        |                     |
| 10                                     | 16QAM      | 25      | 25        | 13.38       | 13.31          | 13.42        | 13.5                |
| 10                                     | 16QAM      | 50      | 0         | 13.34       | 13.38          | 13.38        |                     |
| Channel                                |            |         |           | 20775       | 21100          | 21425        |                     |
| Frequency (MHz)                        |            |         |           | 2502.5      | 2535           | 2567.5       |                     |
| 5                                      | QPSK       | 1       | 0         | 15.22       | 15.15          | 15.24        | 15.5                |
| 5                                      | QPSK       | 1       | 12        | 15.12       | 15.05          | 15.20        |                     |
| 5                                      | QPSK       | 1       | 24        | 15.09       | 15.09          | 15.13        |                     |
| 5                                      | QPSK       | 12      | 0         | 14.19       | 14.27          | 14.25        | 14.5                |
| 5                                      | QPSK       | 12      | 7         | 14.22       | 14.24          | 14.13        |                     |
| 5                                      | QPSK       | 12      | 13        | 14.10       | 14.21          | 14.20        |                     |
| 5                                      | QPSK       | 25      | 0         | 14.16       | 14.18          | 14.17        | 15                  |
| 5                                      | 16QAM      | 1       | 0         | 14.75       | 14.69          | 14.77        |                     |
| 5                                      | 16QAM      | 1       | 12        | 14.74       | 14.85          | 14.63        |                     |
| 5                                      | 16QAM      | 1       | 24        | 14.72       | 14.82          | 14.71        | 13.5                |
| 5                                      | 16QAM      | 12      | 0         | 13.41       | 13.39          | 13.33        |                     |
| 5                                      | 16QAM      | 12      | 7         | 13.27       | 13.31          | 13.38        |                     |
| 5                                      | 16QAM      | 12      | 13        | 13.36       | 13.29          | 13.40        | 13.5                |
| 5                                      | 16QAM      | 25      | 0         | 13.32       | 13.36          | 13.36        |                     |

0.02

| Band 12 (700MHz Low Band) (dBm)<br>Part 27F(only on channel required) |            |         |           |             |                |              |                     |
|-----------------------------------------------------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]                                                              | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                                                               |            |         |           | 23090       | 23095          | 23130        |                     |
| Frequency (MHz)                                                       |            |         |           | 704         | 707.5          | 711          |                     |
| 10                                                                    | QPSK       | 1       | 0         | 18.07       | 18.09          | 18.12        | 18.5                |
| 10                                                                    | QPSK       | 1       | 25        | 18.01       | 17.85          | 17.89        |                     |
| 10                                                                    | QPSK       | 1       | 49        | 17.84       | 17.88          | 17.92        |                     |
| 10                                                                    | QPSK       | 25      | 0         | 16.96       | 17.01          | 17.07        | 17.5                |
| 10                                                                    | QPSK       | 25      | 12        | 16.91       | 16.88          | 16.85        |                     |
| 10                                                                    | QPSK       | 25      | 25        | 16.93       | 16.89          | 16.98        |                     |
| 10                                                                    | QPSK       | 50      | 0         | 16.96       | 16.95          | 17.13        | 17.5                |
| 10                                                                    | 16QAM      | 1       | 0         | 17.04       | 17.08          | 17.02        |                     |
| 10                                                                    | 16QAM      | 1       | 25        | 17.07       | 16.87          | 16.70        |                     |
| 10                                                                    | 16QAM      | 1       | 49        | 16.99       | 16.95          | 16.93        | 16.5                |
| 10                                                                    | 16QAM      | 25      | 0         | 15.90       | 15.93          | 16.11        |                     |
| 10                                                                    | 16QAM      | 25      | 12        | 16.01       | 16.03          | 15.96        |                     |
| 10                                                                    | 16QAM      | 25      | 25        | 15.89       | 15.79          | 15.79        | 16.5                |
| 10                                                                    | 16QAM      | 50      | 0         | 15.98       | 15.97          | 15.93        |                     |
| Channel                                                               |            |         |           | 23035       | 23095          | 23155        | Tune-up limit (dBm) |
| Frequency (MHz)                                                       |            |         |           | 701.5       | 707.5          | 713.5        |                     |
| 5                                                                     | QPSK       | 1       | 0         | 18.04       | 18.06          | 18.09        | 18.5                |
| 5                                                                     | QPSK       | 1       | 12        | 17.98       | 17.82          | 17.86        |                     |
| 5                                                                     | QPSK       | 1       | 24        | 17.81       | 17.85          | 17.89        |                     |
| 5                                                                     | QPSK       | 12      | 0         | 16.93       | 16.98          | 17.04        | 17.5                |
| 5                                                                     | QPSK       | 12      | 7         | 16.88       | 16.85          | 16.82        |                     |
| 5                                                                     | QPSK       | 12      | 13        | 16.90       | 16.86          | 16.95        |                     |
| 5                                                                     | QPSK       | 25      | 0         | 16.93       | 16.92          | 17.10        | 17.5                |
| 5                                                                     | 16QAM      | 1       | 0         | 17.01       | 17.05          | 16.99        |                     |
| 5                                                                     | 16QAM      | 1       | 12        | 17.04       | 16.84          | 16.67        |                     |
| 5                                                                     | 16QAM      | 1       | 24        | 16.96       | 16.92          | 16.90        | 16.5                |
| 5                                                                     | 16QAM      | 12      | 0         | 15.87       | 15.90          | 16.08        |                     |
| 5                                                                     | 16QAM      | 12      | 7         | 15.98       | 16.00          | 15.93        |                     |
| 5                                                                     | 16QAM      | 12      | 13        | 15.86       | 15.76          | 15.76        | 16.5                |
| 5                                                                     | 16QAM      | 25      | 0         | 15.95       | 15.94          | 15.90        |                     |
| Channel                                                               |            |         |           | 23025       | 23095          | 23165        | Tune-up limit (dBm) |
| Frequency (MHz)                                                       |            |         |           | 700.5       | 707.5          | 714.5        |                     |
| 3                                                                     | QPSK       | 1       | 0         | 18.01       | 18.03          | 18.06        | 18.5                |
| 3                                                                     | QPSK       | 1       | 8         | 17.95       | 17.79          | 17.83        |                     |
| 3                                                                     | QPSK       | 1       | 14        | 17.78       | 17.82          | 17.86        |                     |
| 3                                                                     | QPSK       | 8       | 0         | 16.90       | 16.95          | 17.01        | 17.5                |
| 3                                                                     | QPSK       | 8       | 4         | 16.85       | 16.82          | 16.79        |                     |
| 3                                                                     | QPSK       | 8       | 7         | 16.87       | 16.83          | 16.92        |                     |
| 3                                                                     | QPSK       | 15      | 0         | 16.90       | 16.89          | 17.07        | 17.5                |
| 3                                                                     | 16QAM      | 1       | 0         | 16.98       | 17.02          | 16.96        |                     |
| 3                                                                     | 16QAM      | 1       | 8         | 17.01       | 16.81          | 16.64        |                     |
| 3                                                                     | 16QAM      | 1       | 14        | 16.93       | 16.89          | 16.87        | 16.5                |
| 3                                                                     | 16QAM      | 8       | 0         | 15.84       | 15.87          | 16.05        |                     |
| 3                                                                     | 16QAM      | 8       | 4         | 15.95       | 15.97          | 15.90        |                     |
| 3                                                                     | 16QAM      | 8       | 7         | 15.83       | 15.73          | 15.73        | 16.5                |
| 3                                                                     | 16QAM      | 15      | 0         | 15.92       | 15.91          | 15.87        |                     |
| Channel                                                               |            |         |           | 23017       | 23095          | 23173        | Tune-up limit (dBm) |
| Frequency (MHz)                                                       |            |         |           | 699.7       | 707.5          | 715.3        |                     |
| 1.4                                                                   | QPSK       | 1       | 0         | 18.00       | 18.02          | 18.05        | 18.5                |
| 1.4                                                                   | QPSK       | 1       | 3         | 17.94       | 17.78          | 17.82        |                     |
| 1.4                                                                   | QPSK       | 1       | 5         | 17.77       | 17.81          | 17.85        |                     |
| 1.4                                                                   | QPSK       | 3       | 0         | 16.89       | 16.94          | 17.00        | 17.5                |
| 1.4                                                                   | QPSK       | 3       | 1         | 16.84       | 16.81          | 16.78        |                     |
| 1.4                                                                   | QPSK       | 3       | 3         | 16.86       | 16.82          | 16.91        |                     |
| 1.4                                                                   | QPSK       | 6       | 0         | 16.89       | 16.88          | 17.06        | 17.5                |
| 1.4                                                                   | 16QAM      | 1       | 0         | 16.97       | 17.01          | 16.95        |                     |
| 1.4                                                                   | 16QAM      | 1       | 3         | 17.00       | 16.80          | 16.63        |                     |
| 1.4                                                                   | 16QAM      | 1       | 5         | 16.92       | 16.88          | 16.86        | 17.5                |
| 1.4                                                                   | 16QAM      | 3       | 0         | 15.83       | 15.86          | 16.04        |                     |
| 1.4                                                                   | 16QAM      | 3       | 1         | 15.94       | 15.96          | 15.89        |                     |
| 1.4                                                                   | 16QAM      | 3       | 3         | 15.82       | 15.72          | 15.72        | 16.5                |
| 1.4                                                                   | 16QAM      | 6       | 0         | 15.91       | 15.90          | 15.86        |                     |

| Band 17 (700MHz Band) (dBm)<br>Part 27H(only on channel required) |            |         |           |             |                |              |                     |
|-------------------------------------------------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]                                                          | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                                                           |            |         |           | 23780       | 23790          | 23800        |                     |
| Frequency (MHz)                                                   |            |         |           | 709         | 710            | 711          |                     |
| 10                                                                | QPSK       | 1       | 0         | 17.56       | 17.65          | 17.61        | 18                  |
| 10                                                                | QPSK       | 1       | 25        | 17.39       | 17.49          | 17.46        |                     |
| 10                                                                | QPSK       | 1       | 49        | 17.44       | 17.39          | 17.51        |                     |
| 10                                                                | QPSK       | 25      | 0         | 16.64       | 16.58          | 16.66        | 17                  |
| 10                                                                | QPSK       | 25      | 12        | 16.51       | 16.51          | 16.62        |                     |
| 10                                                                | QPSK       | 25      | 25        | 16.46       | 16.40          | 16.56        |                     |
| 10                                                                | QPSK       | 50      | 0         | 16.47       | 16.82          | 16.82        | 17                  |
| 10                                                                | 16QAM      | 1       | 0         | 16.64       | 16.60          | 16.56        |                     |
| 10                                                                | 16QAM      | 1       | 25        | 16.69       | 16.56          | 16.35        |                     |
| 10                                                                | 16QAM      | 1       | 49        | 16.70       | 16.53          | 16.52        | 16                  |
| 10                                                                | 16QAM      | 25      | 0         | 15.66       | 15.43          | 15.69        |                     |
| 10                                                                | 16QAM      | 25      | 12        | 15.51       | 15.55          | 15.71        |                     |
| 10                                                                | 16QAM      | 25      | 25        | 15.57       | 15.31          | 15.47        | 16                  |
| 10                                                                | 16QAM      | 50      | 0         | 15.70       | 15.66          | 15.64        |                     |
| Channel                                                           |            |         |           | 23755       | 23790          | 23825        | Tune-up limit (dBm) |
| Frequency (MHz)                                                   |            |         |           | 706.5       | 710            | 713.5        |                     |
| 5                                                                 | QPSK       | 1       | 0         | 17.53       | 17.62          | 17.58        | 18                  |
| 5                                                                 | QPSK       | 1       | 12        | 17.36       | 17.46          | 17.43        |                     |
| 5                                                                 | QPSK       | 1       | 24        | 17.41       | 17.36          | 17.48        |                     |
| 5                                                                 | QPSK       | 12      | 0         | 16.61       | 16.55          | 16.63        | 17                  |
| 5                                                                 | QPSK       | 12      | 7         | 16.48       | 16.48          | 16.59        |                     |
| 5                                                                 | QPSK       | 12      | 13        | 16.43       | 16.37          | 16.53        |                     |
| 5                                                                 | QPSK       | 25      | 0         | 16.44       | 16.59          | 16.79        | 17                  |
| 5                                                                 | 16QAM      | 1       | 0         | 16.61       | 16.57          | 16.53        |                     |
| 5                                                                 | 16QAM      | 1       | 12        | 16.66       | 16.53          | 16.32        |                     |
| 5                                                                 | 16QAM      | 1       | 24        | 16.67       | 16.50          | 16.49        | 16                  |
| 5                                                                 | 16QAM      | 12      | 0         | 15.63       | 15.40          | 15.66        |                     |
| 5                                                                 | 16QAM      | 12      | 7         | 15.48       | 15.52          | 15.68        |                     |
| 5                                                                 | 16QAM      | 12      | 13        | 15.54       | 15.28          | 15.44        | 16                  |
| 5                                                                 | 16QAM      | 25      | 0         | 15.67       | 15.63          | 15.61        |                     |

| Band 66 (dBm)   |            |         |           |             |                |              |                     |
|-----------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel         |            |         |           | 132072      | 132322         | 132572       |                     |
| Frequency (MHz) |            |         |           | 1720        | 1745           | 1770         |                     |
| 20              | QPSK       | 1       | 0         | 17.02       | 17.27          | 17.20        | 17.5                |
| 20              | QPSK       | 1       | 49        | 17.01       | 17.05          | 17.03        |                     |
| 20              | QPSK       | 1       | 99        | 17.17       | 16.94          | 17.08        |                     |
| 20              | QPSK       | 50      | 0         | 16.10       | 16.18          | 15.91        | 16.5                |
| 20              | QPSK       | 50      | 24        | 15.94       | 16.00          | 15.95        |                     |
| 20              | QPSK       | 50      | 50        | 16.02       | 15.96          | 15.94        |                     |
| 20              | QPSK       | 100     | 0         | 15.82       | 15.87          | 15.89        | 16.5                |
| 20              | 16QAM      | 1       | 0         | 15.92       | 16.22          | 16.13        |                     |
| 20              | 16QAM      | 1       | 49        | 15.95       | 15.91          | 16.03        |                     |
| 20              | 16QAM      | 1       | 99        | 15.95       | 15.78          | 15.88        | 15.5                |
| 20              | 16QAM      | 50      | 0         | 15.10       | 15.23          | 15.15        |                     |
| 20              | 16QAM      | 50      | 24        | 15.20       | 15.21          | 15.19        |                     |
| 20              | 16QAM      | 50      | 50        | 15.17       | 15.20          | 15.16        | 15.5                |
| 20              | 16QAM      | 100     | 0         | 15.12       | 15.14          | 15.11        |                     |
| Channel         |            |         |           | 132047      | 132322         | 132597       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1717.5      | 1745           | 1772.5       |                     |
| 15              | QPSK       | 1       | 0         | 17.00       | 17.25          | 17.18        | 17.5                |
| 15              | QPSK       | 1       | 37        | 16.99       | 17.03          | 17.01        |                     |
| 15              | QPSK       | 1       | 74        | 17.15       | 16.92          | 17.06        |                     |
| 15              | QPSK       | 36      | 0         | 16.08       | 16.16          | 15.89        | 16.5                |
| 15              | QPSK       | 36      | 20        | 15.92       | 15.98          | 15.93        |                     |
| 15              | QPSK       | 36      | 39        | 16.00       | 15.94          | 15.92        |                     |
| 15              | QPSK       | 75      | 0         | 15.80       | 15.85          | 15.87        | 16.5                |
| 15              | 16QAM      | 1       | 0         | 15.90       | 16.20          | 16.11        |                     |
| 15              | 16QAM      | 1       | 37        | 15.93       | 15.89          | 16.01        |                     |
| 15              | 16QAM      | 1       | 74        | 15.93       | 15.76          | 15.86        | 15.5                |
| 15              | 16QAM      | 36      | 0         | 15.08       | 15.21          | 15.13        |                     |
| 15              | 16QAM      | 36      | 20        | 15.18       | 15.19          | 15.17        |                     |
| 15              | 16QAM      | 36      | 39        | 15.15       | 15.18          | 15.14        | 15.5                |
| 15              | 16QAM      | 75      | 0         | 15.10       | 15.12          | 15.09        |                     |
| Channel         |            |         |           | 132022      | 132322         | 132622       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1715        | 1745           | 1775         |                     |
| 10              | QPSK       | 1       | 0         | 16.98       | 17.23          | 17.16        | 17.5                |
| 10              | QPSK       | 1       | 25        | 16.97       | 17.01          | 16.99        |                     |
| 10              | QPSK       | 1       | 49        | 17.13       | 16.90          | 17.04        |                     |
| 10              | QPSK       | 25      | 0         | 16.06       | 16.14          | 15.87        | 16.5                |
| 10              | QPSK       | 25      | 12        | 15.90       | 15.96          | 15.91        |                     |
| 10              | QPSK       | 25      | 25        | 15.98       | 15.92          | 15.90        |                     |
| 10              | QPSK       | 50      | 0         | 15.78       | 15.83          | 15.85        | 16.5                |
| 10              | 16QAM      | 1       | 0         | 15.88       | 16.18          | 16.09        |                     |
| 10              | 16QAM      | 1       | 25        | 15.91       | 15.87          | 15.99        |                     |
| 10              | 16QAM      | 1       | 49        | 15.91       | 15.74          | 15.84        | 15.5                |
| 10              | 16QAM      | 25      | 0         | 15.06       | 15.19          | 15.11        |                     |
| 10              | 16QAM      | 25      | 12        | 15.16       | 15.17          | 15.15        |                     |
| 10              | 16QAM      | 25      | 25        | 15.13       | 15.16          | 15.12        | 15.5                |
| 10              | 16QAM      | 50      | 0         | 15.08       | 15.10          | 15.07        |                     |
| Channel         |            |         |           | 131997      | 132322         | 132647       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1712.5      | 1745           | 1777.5       |                     |
| 5               | QPSK       | 1       | 0         | 16.96       | 17.21          | 17.14        | 17.5                |
| 5               | QPSK       | 1       | 12        | 16.95       | 16.99          | 16.97        |                     |
| 5               | QPSK       | 1       | 24        | 17.11       | 16.88          | 17.02        |                     |
| 5               | QPSK       | 12      | 0         | 16.04       | 16.12          | 15.85        | 16.5                |
| 5               | QPSK       | 12      | 7         | 15.88       | 15.94          | 15.89        |                     |
| 5               | QPSK       | 12      | 13        | 15.96       | 15.90          | 15.88        |                     |
| 5               | QPSK       | 25      | 0         | 15.76       | 15.81          | 15.83        | 16.5                |
| 5               | 16QAM      | 1       | 0         | 15.86       | 16.16          | 16.07        |                     |
| 5               | 16QAM      | 1       | 12        | 15.89       | 15.85          | 15.97        |                     |
| 5               | 16QAM      | 1       | 24        | 15.89       | 15.72          | 15.82        | 15.5                |
| 5               | 16QAM      | 12      | 0         | 15.04       | 15.17          | 15.09        |                     |
| 5               | 16QAM      | 12      | 7         | 15.14       | 15.15          | 15.13        |                     |
| 5               | 16QAM      | 12      | 13        | 15.11       | 15.14          | 15.10        | 15.5                |
| 5               | 16QAM      | 25      | 0         | 15.06       | 15.08          | 15.05        |                     |
| Channel         |            |         |           | 131987      | 132322         | 132657       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1711.5      | 1745           | 1778.5       |                     |
| 3               | QPSK       | 1       | 0         | 16.94       | 17.19          | 17.12        | 17.5                |
| 3               | QPSK       | 1       | 8         | 16.93       | 16.97          | 16.95        |                     |
| 3               | QPSK       | 1       | 14        | 17.09       | 16.86          | 17.00        |                     |
| 3               | QPSK       | 8       | 0         | 16.02       | 16.10          | 15.83        | 16.5                |
| 3               | QPSK       | 8       | 4         | 15.86       | 15.92          | 15.87        |                     |
| 3               | QPSK       | 8       | 7         | 15.94       | 15.88          | 15.86        |                     |
| 3               | QPSK       | 15      | 0         | 15.74       | 15.79          | 15.81        | 16.5                |
| 3               | 16QAM      | 1       | 0         | 15.84       | 16.14          | 16.05        |                     |
| 3               | 16QAM      | 1       | 8         | 15.87       | 15.83          | 15.95        |                     |
| 3               | 16QAM      | 1       | 14        | 15.87       | 15.70          | 15.80        | 15.5                |
| 3               | 16QAM      | 8       | 0         | 15.02       | 15.15          | 15.07        |                     |
| 3               | 16QAM      | 8       | 4         | 15.12       | 15.13          | 15.11        |                     |
| 3               | 16QAM      | 8       | 7         | 15.09       | 15.12          | 15.08        | 15.5                |
| 3               | 16QAM      | 15      | 0         | 15.04       | 15.06          | 15.03        |                     |
| Channel         |            |         |           | 131979      | 132322         | 132665       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1710.7      | 1745           | 1779.3       |                     |
| 1.4             | QPSK       | 1       | 0         | 16.92       | 17.17          | 17.10        | 17.5                |
| 1.4             | QPSK       | 1       | 3         | 16.91       | 16.95          | 16.93        |                     |
| 1.4             | QPSK       | 1       | 5         | 17.07       | 16.84          | 16.98        |                     |
| 1.4             | QPSK       | 3       | 0         | 16.00       | 16.08          | 15.81        | 16.5                |
| 1.4             | QPSK       | 3       | 1         | 15.84       | 15.90          | 15.85        |                     |
| 1.4             | QPSK       | 3       | 3         | 15.92       | 15.86          | 15.84        |                     |
| 1.4             | QPSK       | 6       | 0         | 15.72       | 15.77          | 15.79        | 16.5                |
| 1.4             | 16QAM      | 1       | 0         | 15.82       | 16.12          | 16.03        |                     |
| 1.4             | 16QAM      | 1       | 3         | 15.85       | 15.81          | 15.93        |                     |
| 1.4             | 16QAM      | 1       | 5         | 15.85       | 15.68          | 15.78        | 16.5                |
| 1.4             | 16QAM      | 3       | 0         | 15.00       | 15.13          | 15.05        |                     |
| 1.4             | 16QAM      | 3       | 1         | 15.10       | 15.11          | 15.09        |                     |
| 1.4             | 16QAM      | 3       | 3         | 15.07       | 15.10          | 15.06        | 15.5                |
| 1.4             | 16QAM      | 6       | 0         | 15.02       | 15.04          | 15.01        |                     |