



REPORT No.: SZ21070267S01

## Annex E Conducted Power

| GSM850          | Burst Average Power (dBm) |       |       | Tune-up<br>Limit<br>(dBm) | Frame-Average Power (dBm) |       |       | Tune-up<br>Limit<br>(dBm) |
|-----------------|---------------------------|-------|-------|---------------------------|---------------------------|-------|-------|---------------------------|
| 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   | 30.96                     | 31.01 | 31.04 | 31.50                     | 21.96                     | 22.01 | 22.04 | 22.50                     |
| GPRS 1 Tx slot  | 31.01                     | 30.93 | 30.95 | 31.50                     | 22.01                     | 21.93 | 21.95 | 22.50                     |
| GPRS 2 Tx slots | 28.95                     | 28.91 | 28.96 | 29.50                     | 22.95                     | 22.91 | 22.96 | 23.50                     |
| GPRS 3 Tx slots | 27.07                     | 27.07 | 27.11 | 27.50                     | 22.81                     | 22.81 | 22.85 | 23.24                     |
| GPRS 4 Tx slots | 24.96                     | 24.98 | 25.03 | 25.50                     | 21.96                     | 21.98 | 22.03 | 22.50                     |
| EDGE 1 Tx slot  | 24.16                     | 23.88 | 23.79 | 24.50                     | 15.16                     | 14.88 | 14.79 | 15.50                     |
| EDGE 2 Tx slots | 22.88                     | 22.45 | 22.64 | 23.50                     | 16.88                     | 16.45 | 16.64 | 17.50                     |
| EDGE 3 Tx slots | 20.55                     | 20.28 | 20.33 | 21.00                     | 16.29                     | 16.02 | 16.07 | 16.74                     |
| EDGE 4 Tx slots | 17.96                     | 17.71 | 17.86 | 18.50                     | 14.96                     | 14.71 | 14.86 | 15.50                     |
| Mode            |                           | Max.  | 31.04 |                           |                           | Max.  | 22.96 |                           |
| Attenuator      | Cable Loss : 0.6          |       |       |                           |                           |       |       |                           |
| Date            | 2021.11.20                |       |       |                           |                           |       |       |                           |

| GSM1900         | Burst Average Power (dBm) |       |        | Tune-up<br>Limit<br>(dBm) | Frame-Average Power (dBm) |       |        | Tune-up<br>Limit<br>(dBm) |
|-----------------|---------------------------|-------|--------|---------------------------|---------------------------|-------|--------|---------------------------|
| TX Channel      | 512                       | 661   | 810    |                           | 512                       | 661   | 810    |                           |
| Frequency (MHz) | 1850.2                    | 1880  | 1909.8 |                           | 1850.2                    | 1880  | 1909.8 |                           |
| GSM 1 Tx slot   | 27.40                     | 27.51 | 27.61  | 28.00                     | 18.40                     | 18.51 | 18.61  | 19.00                     |
| GPRS 1 Tx slot  | 27.41                     | 27.49 | 27.58  | 28.00                     | 18.41                     | 18.49 | 18.58  | 19.00                     |
| GPRS 2 Tx slots | 25.31                     | 25.37 | 25.45  | 26.00                     | 19.31                     | 19.37 | 19.45  | 20.00                     |
| GPRS 3 Tx slots | 23.71                     | 23.74 | 23.79  | 24.50                     | 19.45                     | 19.48 | 19.53  | 20.24                     |
| GPRS 4 Tx slots | 21.66                     | 21.72 | 21.73  | 22.50                     | 18.66                     | 18.72 | 18.73  | 19.50                     |
| EDGE 1 Tx slot  | 24.46                     | 24.48 | 23.98  | 25.00                     | 15.46                     | 15.48 | 14.98  | 16.00                     |
| EDGE 2 Tx slots | 24.21                     | 23.90 | 23.78  | 24.50                     | 18.21                     | 17.90 | 17.78  | 18.50                     |
| EDGE 3 Tx slots | 21.07                     | 20.59 | 20.81  | 21.50                     | 16.81                     | 16.33 | 16.55  | 17.24                     |
| EDGE 4 Tx slots | 17.84                     | 17.43 | 17.42  | 18.50                     | 14.84                     | 14.43 | 14.42  | 15.50                     |
| Mode            |                           | Max.  | 27.61  |                           |                           | Max.  | 19.53  |                           |
| Attenuator      | Cable Loss : 0.8          |       |        |                           |                           |       |        |                           |
| Date            | 2021.11.20                |       |        |                           |                           |       |        |                           |

| Band            |                         | WCDMA Band II |            |        | Tune-up<br>Limit<br>(dBm) | WCDMA Band IV |            |        | Tune-up<br>Limit<br>(dBm) |
|-----------------|-------------------------|---------------|------------|--------|---------------------------|---------------|------------|--------|---------------------------|
| TX Channel      |                         | 9262          | 9400       | 9538   |                           | 1312          | 1413       | 1513   |                           |
| Rx Channel      |                         | 9662          | 9800       | 9938   |                           | 1537          | 1638       | 1738   |                           |
| Frequency (MHz) |                         | 1852.4        | 1880       | 1907.6 |                           | 1712.4        | 1732.6     | 1752.6 |                           |
| 3GPP Rel 99     | RMC 12.2Kbps            | 18.56         | 18.62      | 18.55  | 19.00                     | 19.44         | 19.49      | 19.47  | 20.00                     |
| 3GPP Rel 6      | HSDPA Subtest-1         | 18.49         | 18.00      | 17.64  | 19.00                     | 19.38         | 19.09      | 19.00  | 20.00                     |
| 3GPP Rel 6      | HSDPA Subtest-2         | 18.54         | 17.63      | 17.31  | 19.00                     | 19.39         | 19.12      | 19.03  | 20.00                     |
| 3GPP Rel 6      | HSDPA Subtest-3         | 18.44         | 17.85      | 17.48  | 18.50                     | 19.36         | 19.09      | 19.00  | 19.50                     |
| 3GPP Rel 6      | HSDPA Subtest-4         | 18.40         | 17.45      | 17.06  | 18.50                     | 19.38         | 19.11      | 19.02  | 19.50                     |
| 3GPP Rel 6      | HSUPA Subtest-1         | 18.48         | 18.00      | 17.67  | 19.00                     | 19.43         | 19.08      | 18.95  | 20.00                     |
| 3GPP Rel 6      | HSUPA Subtest-2         | 18.47         | 17.98      | 17.64  | 19.00                     | 19.41         | 19.05      | 18.92  | 20.00                     |
| 3GPP Rel 6      | HSUPA Subtest-3         | 18.41         | 17.94      | 17.61  | 19.00                     | 19.41         | 19.11      | 18.97  | 20.00                     |
| 3GPP Rel 6      | HSUPA Subtest-4         | 18.41         | 18.01      | 17.65  | 19.00                     | 19.39         | 19.04      | 18.88  | 20.00                     |
| 3GPP Rel 6      | HSUPA Subtest-5         | 18.03         | 18.22      | 17.74  | 19.00                     | 19.43         | 19.13      | 18.95  | 20.00                     |
| 3GPP Rel 7      | HSPA+ (16QAM) Subtest-1 | 18.03         | 18.22      | 18.34  | 19.00                     | 19.36         | 19.16      | 19.11  | 20.00                     |
| Attenuator      |                         |               | Cable Loss | 0.8    |                           |               | Cable Loss | 0.8    |                           |
| Mode            |                         |               | Max.       | 18.62  |                           |               | Max.       | 19.49  |                           |
| Date            |                         | 2021.11.20    |            |        |                           | 2021.11.20    |            |        |                           |

| Band            |                         | WCDMA Band V |            |       | Tune-up<br>Limit<br>(dBm) |
|-----------------|-------------------------|--------------|------------|-------|---------------------------|
| TX Channel      |                         | 4132         | 4182       | 4233  |                           |
| Rx Channel      |                         | 4357         | 4407       | 4458  |                           |
| Frequency (MHz) |                         | 826.4        | 836.4      | 846.6 |                           |
| 3GPP Rel 99     | RMC 12.2Kbps            | 21.80        | 21.81      | 21.76 | 22.50                     |
| 3GPP Rel 6      | HSDPA Subtest-1         | 20.13        | 19.29      | 20.31 | 21.00                     |
| 3GPP Rel 6      | HSDPA Subtest-2         | 19.84        | 19.02      | 19.82 | 21.00                     |
| 3GPP Rel 6      | HSDPA Subtest-3         | 19.63        | 18.75      | 19.57 | 20.50                     |
| 3GPP Rel 6      | HSDPA Subtest-4         | 19.49        | 18.61      | 19.47 | 20.50                     |
| 3GPP Rel 6      | HSUPA Subtest-1         | 20.83        | 20.02      | 20.92 | 21.00                     |
| 3GPP Rel 6      | HSUPA Subtest-2         | 20.78        | 19.95      | 20.89 | 21.00                     |
| 3GPP Rel 6      | HSUPA Subtest-3         | 20.80        | 20.01      | 20.95 | 21.00                     |
| 3GPP Rel 6      | HSUPA Subtest-4         | 20.77        | 19.92      | 20.87 | 21.00                     |
| 3GPP Rel 6      | HSUPA Subtest-5         | 20.81        | 20.00      | 20.96 | 21.00                     |
| 3GPP Rel 7      | HSPA+ (16QAM) Subtest-1 | 20.89        | 20.11      | 20.82 | 21.00                     |
| Attenuator      |                         |              | Cable Loss | 0.6   |                           |
| Mode            |                         |              | Max.       | 21.81 |                           |
| Date            |                         | 2021.11.20   |            |       |                           |

| Band 2 (1900MHz Band)<br>Part 24E |            |         |           |             |                |              |                     |
|-----------------------------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| BW [MHz]                          | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
| Channel                           |            |         |           | 18700       | 18900          | 19100        | 20.5                |
| Frequency (MHz)                   |            |         |           | 18800       | 18800          | 18900        |                     |
| 20                                | QPSK       | 1       | 0         | 19.66       | 19.72          | 19.69        | 19.5                |
| 20                                | QPSK       | 1       | 49        | 19.40       | 19.69          | 19.55        |                     |
| 20                                | QPSK       | 1       | 99        | 19.60       | 19.42          | 19.46        |                     |
| 20                                | QPSK       | 50      | 0         | 18.63       | 18.68          | 18.66        |                     |
| 20                                | QPSK       | 50      | 24        | 18.25       | 18.54          | 18.41        |                     |
| 20                                | QPSK       | 50      | 50        | 18.56       | 18.51          | 18.57        | 20                  |
| 20                                | QPSK       | 100     | 0         | 18.58       | 18.57          | 18.64        |                     |
| 20                                | 16QAM      | 1       | 0         | 19.48       | 19.50          | 19.27        |                     |
| 20                                | 16QAM      | 1       | 49        | 19.26       | 19.30          | 19.21        |                     |
| 20                                | 16QAM      | 1       | 99        | 19.18       | 19.41          | 19.23        |                     |
| 20                                | 16QAM      | 50      | 0         | 17.75       | 17.72          | 17.76        | 18.5                |
| 20                                | 16QAM      | 50      | 24        | 17.63       | 17.76          | 17.93        |                     |
| 20                                | 16QAM      | 50      | 50        | 17.67       | 17.63          | 17.85        |                     |
| 20                                | 16QAM      | 100     | 0         | 17.41       | 17.57          | 17.89        |                     |
| 20                                | 64QAM      | 1       | 0         | 18.87       | 18.52          | 18.67        |                     |
| 20                                | 64QAM      | 1       | 49        | 18.65       | 18.61          | 18.83        | 19.5                |
| 20                                | 64QAM      | 1       | 99        | 18.39       | 18.55          | 18.65        |                     |
| 20                                | 64QAM      | 50      | 0         | 17.54       | 17.60          | 17.74        |                     |
| 20                                | 64QAM      | 50      | 24        | 17.47       | 17.48          | 17.70        |                     |
| 20                                | 64QAM      | 50      | 50        | 17.26       | 17.42          | 17.52        |                     |
| 20                                | 64QAM      | 100     | 0         | 17.63       | 17.40          | 17.48        | 20.5                |
| Channel                           |            |         |           | 18675       | 18900          | 19125        |                     |
| Frequency (MHz)                   |            |         |           | 1857.5      | 18800          | 1902.5       | 20.5                |
| 15                                | QPSK       | 1       | 0         | 19.60       | 19.77          | 19.63        |                     |
| 15                                | QPSK       | 1       | 37        | 19.34       | 19.30          | 19.73        | 19.5                |
| 15                                | QPSK       | 1       | 74        | 19.54       | 19.33          | 19.40        |                     |
| 15                                | QPSK       | 36      | 0         | 18.57       | 18.62          | 18.60        |                     |
| 15                                | QPSK       | 36      | 20        | 18.19       | 18.48          | 18.35        |                     |
| 15                                | QPSK       | 36      | 39        | 18.50       | 18.45          | 18.51        |                     |
| 15                                | QPSK       | 75      | 0         | 18.52       | 18.51          | 18.58        | 20                  |
| 15                                | 16QAM      | 1       | 0         | 19.42       | 19.44          | 19.21        |                     |
| 15                                | 16QAM      | 1       | 37        | 19.20       | 19.24          | 19.15        |                     |
| 15                                | 16QAM      | 1       | 74        | 19.12       | 19.35          | 19.17        |                     |
| 15                                | 16QAM      | 36      | 0         | 17.69       | 17.66          | 17.70        |                     |
| 15                                | 16QAM      | 36      | 20        | 17.57       | 17.70          | 17.87        | 18.5                |
| 15                                | 16QAM      | 36      | 39        | 17.61       | 17.57          | 17.79        |                     |
| 15                                | 16QAM      | 75      | 0         | 17.35       | 17.51          | 17.83        |                     |
| 15                                | 64QAM      | 1       | 0         | 18.81       | 18.46          | 18.61        |                     |
| 15                                | 64QAM      | 1       | 37        | 18.59       | 18.55          | 18.77        |                     |
| 15                                | 64QAM      | 1       | 74        | 18.33       | 18.49          | 18.59        | 19.5                |
| 15                                | 64QAM      | 36      | 0         | 17.48       | 17.54          | 17.68        |                     |
| 15                                | 64QAM      | 36      | 20        | 17.41       | 17.42          | 17.64        |                     |
| 15                                | 64QAM      | 36      | 39        | 17.20       | 17.36          | 17.46        |                     |
| 15                                | 64QAM      | 75      | 0         | 17.57       | 17.34          | 17.42        |                     |
| Channel                           |            |         |           | 18650       | 18900          | 19150        | 20.5                |
| Frequency (MHz)                   |            |         |           | 1855        | 18800          | 1905         |                     |
| 10                                | QPSK       | 1       | 0         | 19.56       | 19.73          | 19.59        | 19.5                |
| 10                                | QPSK       | 1       | 25        | 19.30       | 19.26          | 19.69        |                     |
| 10                                | QPSK       | 1       | 49        | 19.50       | 19.29          | 19.36        |                     |
| 10                                | QPSK       | 25      | 0         | 18.53       | 18.58          | 18.56        |                     |
| 10                                | QPSK       | 25      | 12        | 18.15       | 18.44          | 18.31        |                     |
| 10                                | QPSK       | 25      | 25        | 18.46       | 18.41          | 18.47        | 20                  |
| 10                                | QPSK       | 50      | 0         | 18.48       | 18.47          | 18.54        |                     |
| 10                                | 16QAM      | 1       | 0         | 19.38       | 19.40          | 19.17        |                     |
| 10                                | 16QAM      | 1       | 25        | 19.16       | 19.20          | 19.11        |                     |
| 10                                | 16QAM      | 1       | 49        | 19.08       | 19.31          | 19.13        |                     |
| 10                                | 16QAM      | 25      | 0         | 17.65       | 17.62          | 17.66        | 18.5                |
| 10                                | 16QAM      | 25      | 12        | 17.53       | 17.66          | 17.83        |                     |
| 10                                | 16QAM      | 25      | 25        | 17.57       | 17.53          | 17.75        |                     |
| 10                                | 16QAM      | 50      | 0         | 17.31       | 17.47          | 17.79        |                     |
| 10                                | 64QAM      | 1       | 0         | 18.77       | 18.42          | 18.57        |                     |
| 10                                | 64QAM      | 1       | 25        | 18.55       | 18.51          | 18.73        | 19.5                |
| 10                                | 64QAM      | 1       | 49        | 18.29       | 18.45          | 18.55        |                     |
| 10                                | 64QAM      | 25      | 0         | 17.44       | 17.50          | 17.64        |                     |
| 10                                | 64QAM      | 25      | 12        | 17.42       | 17.38          | 17.60        |                     |
| 10                                | 64QAM      | 25      | 25        | 17.16       | 17.32          | 17.42        |                     |
| 10                                | 64QAM      | 50      | 0         | 17.53       | 17.30          | 17.38        | 20.5                |
| Channel                           |            |         |           | 18625       | 18900          | 19175        |                     |
| Frequency (MHz)                   |            |         |           | 1852.5      | 18800          | 1907.5       | 20.5                |
| 5                                 | QPSK       | 1       | 0         | 19.52       | 19.69          | 19.55        |                     |
| 5                                 | QPSK       | 1       | 12        | 19.26       | 19.22          | 19.65        | 19.5                |
| 5                                 | QPSK       | 1       | 24        | 19.46       | 19.25          | 19.32        |                     |
| 5                                 | QPSK       | 12      | 0         | 18.49       | 18.54          | 18.52        |                     |
| 5                                 | QPSK       | 12      | 7         | 18.11       | 18.40          | 18.27        |                     |
| 5                                 | QPSK       | 12      | 13        | 18.42       | 18.37          | 18.43        |                     |
| 5                                 | QPSK       | 25      | 0         | 18.44       | 18.43          | 18.50        | 20                  |
| 5                                 | 16QAM      | 1       | 0         | 19.34       | 19.36          | 19.13        |                     |
| 5                                 | 16QAM      | 1       | 12        | 19.12       | 19.16          | 19.07        |                     |
| 5                                 | 16QAM      | 1       | 24        | 19.04       | 19.27          | 19.09        |                     |
| 5                                 | 16QAM      | 12      | 0         | 17.61       | 17.58          | 17.62        |                     |
| 5                                 | 16QAM      | 12      | 7         | 17.49       | 17.62          | 17.79        | 18.5                |
| 5                                 | 16QAM      | 12      | 13        | 17.53       | 17.49          | 17.71        |                     |
| 5                                 | 16QAM      | 25      | 0         | 17.27       | 17.43          | 17.75        |                     |
| 5                                 | 64QAM      | 1       | 0         | 18.73       | 18.38          | 18.53        |                     |
| 5                                 | 64QAM      | 1       | 12        | 18.51       | 18.47          | 18.69        |                     |
| 5                                 | 64QAM      | 1       | 24        | 18.25       | 18.41          | 18.51        | 19.5                |
| 5                                 | 64QAM      | 12      | 0         | 17.40       | 17.46          | 17.60        |                     |
| 5                                 | 64QAM      | 12      | 7         | 17.38       | 17.34          | 17.56        |                     |
| 5                                 | 64QAM      | 12      | 13        | 17.12       | 17.28          | 17.38        |                     |
| 5                                 | 64QAM      | 25      | 0         | 17.49       | 17.26          | 17.34        |                     |
| Channel                           |            |         |           | 18615       | 18900          | 19185        | 20.5                |
| Frequency (MHz)                   |            |         |           | 1851.5      | 18800          | 1908.5       |                     |
| 3                                 | QPSK       | 1       | 0         | 19.48       | 19.65          | 19.51        | 19.5                |
| 3                                 | QPSK       | 1       | 8         | 19.22       | 19.18          | 19.61        |                     |
| 3                                 | QPSK       | 1       | 14        | 19.42       | 19.21          | 19.28        |                     |
| 3                                 | QPSK       | 8       | 0         | 18.45       | 18.50          | 18.48        |                     |
| 3                                 | QPSK       | 8       | 4         | 18.07       | 18.36          | 18.23        |                     |
| 3                                 | QPSK       | 8       | 7         | 18.38       | 18.33          | 18.39        | 20.5                |
| 3                                 | QPSK       | 15      | 0         | 18.40       | 18.39          | 18.46        |                     |

| Band 4 (AWS Band)<br>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         | 20.05       | 20.07          | 20.01        | 20.5                |
| 20                                                       | QPSK       | 1       | 49        | 19.82       | 19.68          | 19.64        |                     |
| 20                                                       | QPSK       | 1       | 99        | 19.63       | 19.65          | 19.58        |                     |
| 20                                                       | QPSK       | 50      | 0         | 18.82       | 18.85          | 18.78        | 19.5                |
| 20                                                       | QPSK       | 50      | 24        | 18.74       | 18.59          | 18.59        |                     |
| 20                                                       | QPSK       | 50      | 50        | 18.71       | 18.60          | 18.48        |                     |
| 20                                                       | QPSK       | 100     | 0         | 18.77       | 18.65          | 18.62        |                     |
| 20                                                       | 16QAM      | 1       | 0         | 19.28       | 19.32          | 19.25        |                     |
| 20                                                       | 16QAM      | 1       | 49        | 19.29       | 19.16          | 19.13        | 20                  |
| 20                                                       | 16QAM      | 1       | 99        | 19.03       | 19.15          | 19.11        |                     |
| 20                                                       | 16QAM      | 50      | 0         | 17.26       | 17.27          | 16.90        |                     |
| 20                                                       | 16QAM      | 50      | 24        | 17.24       | 16.90          | 16.84        | 18                  |
| 20                                                       | 16QAM      | 50      | 50        | 17.18       | 17.28          | 16.82        |                     |
| 20                                                       | 16QAM      | 100     | 0         | 17.38       | 17.26          | 16.94        |                     |
| 20                                                       | 64QAM      | 1       | 0         | 18.80       | 18.86          | 19.20        | 20                  |
| 20                                                       | 64QAM      | 1       | 49        | 19.13       | 19.20          | 18.94        |                     |
| 20                                                       | 64QAM      | 1       | 99        | 19.30       | 19.18          | 18.96        |                     |
| 20                                                       | 64QAM      | 50      | 0         | 17.04       | 17.23          | 17.06        |                     |
| 20                                                       | 64QAM      | 50      | 24        | 17.12       | 17.19          | 16.83        |                     |
| 20                                                       | 64QAM      | 50      | 50        | 17.29       | 17.17          | 16.85        | 17.5                |
| 20                                                       | 64QAM      | 100     | 0         | 17.29       | 16.92          | 16.87        |                     |
| Channel                                                  |            |         |           | 20025       | 20175          | 20325        |                     |
| Frequency (MHz)                                          |            |         |           | 1717.5      | 1732.5         | 1747.5       |                     |
| 15                                                       | QPSK       | 1       | 0         | 19.99       | 20.02          | 19.92        | 20.5                |
| 15                                                       | QPSK       | 1       | 37        | 19.76       | 19.62          | 19.58        |                     |
| 15                                                       | QPSK       | 1       | 74        | 19.57       | 19.59          | 19.52        |                     |
| 15                                                       | QPSK       | 36      | 0         | 18.66       | 18.69          | 18.48        | 19.5                |
| 15                                                       | QPSK       | 36      | 20        | 18.58       | 18.43          | 18.23        |                     |
| 15                                                       | QPSK       | 36      | 39        | 18.55       | 18.44          | 18.22        |                     |
| 15                                                       | QPSK       | 75      | 0         | 18.61       | 18.49          | 18.46        | 20                  |
| 15                                                       | 16QAM      | 1       | 0         | 19.22       | 19.26          | 19.19        |                     |
| 15                                                       | 16QAM      | 1       | 37        | 19.23       | 19.10          | 19.07        |                     |
| 15                                                       | 16QAM      | 1       | 74        | 18.97       | 19.09          | 19.05        |                     |
| 15                                                       | 16QAM      | 36      | 0         | 17.20       | 17.21          | 16.84        |                     |
| 15                                                       | 16QAM      | 36      | 20        | 17.18       | 16.84          | 16.78        | 18.5                |
| 15                                                       | 16QAM      | 36      | 39        | 17.12       | 17.22          | 16.76        |                     |
| 15                                                       | 16QAM      | 75      | 0         | 17.32       | 17.20          | 16.88        |                     |
| 15                                                       | 64QAM      | 1       | 0         | 18.74       | 18.80          | 19.14        | 20                  |
| 15                                                       | 64QAM      | 1       | 37        | 19.07       | 19.14          | 18.88        |                     |
| 15                                                       | 64QAM      | 1       | 74        | 19.24       | 19.12          | 18.90        |                     |
| 15                                                       | 64QAM      | 36      | 0         | 16.98       | 17.17          | 17.00        |                     |
| 15                                                       | 64QAM      | 36      | 20        | 17.06       | 17.13          | 16.77        |                     |
| 15                                                       | 64QAM      | 36      | 39        | 17.23       | 17.11          | 16.79        | 17.5                |
| 15                                                       | 64QAM      | 75      | 0         | 17.23       | 16.86          | 16.81        |                     |
| Channel                                                  |            |         |           | 20000       | 20175          | 20350        |                     |
| Frequency (MHz)                                          |            |         |           | 1715        | 1732.5         | 1750         |                     |
| 10                                                       | QPSK       | 1       | 0         | 19.97       | 20.00          | 19.90        | 20.5                |
| 10                                                       | QPSK       | 1       | 25        | 19.74       | 19.60          | 19.56        |                     |
| 10                                                       | QPSK       | 1       | 49        | 19.55       | 19.57          | 19.50        |                     |
| 10                                                       | QPSK       | 25      | 0         | 18.64       | 18.67          | 18.46        | 19.5                |
| 10                                                       | QPSK       | 25      | 12        | 18.56       | 18.41          | 18.21        |                     |
| 10                                                       | QPSK       | 25      | 25        | 18.53       | 18.42          | 18.20        |                     |
| 10                                                       | QPSK       | 50      | 0         | 18.59       | 18.47          | 18.44        |                     |
| 10                                                       | 16QAM      | 1       | 0         | 19.20       | 19.24          | 19.17        |                     |
| 10                                                       | 16QAM      | 1       | 25        | 19.21       | 19.08          | 19.05        | 19.5                |
| 10                                                       | 16QAM      | 1       | 49        | 18.95       | 19.07          | 19.03        |                     |
| 10                                                       | 16QAM      | 25      | 0         | 17.18       | 17.19          | 16.82        |                     |
| 10                                                       | 16QAM      | 25      | 12        | 17.16       | 16.82          | 16.76        | 18.5                |
| 10                                                       | 16QAM      | 25      | 25        | 17.10       | 17.20          | 16.74        |                     |
| 10                                                       | 16QAM      | 50      | 0         | 17.30       | 17.18          | 16.86        |                     |
| 10                                                       | 64QAM      | 1       | 0         | 18.72       | 18.78          | 19.12        |                     |
| 10                                                       | 64QAM      | 1       | 25        | 19.05       | 19.12          | 18.86        |                     |
| 10                                                       | 64QAM      | 1       | 49        | 19.22       | 19.10          | 18.88        | 20                  |
| 10                                                       | 64QAM      | 25      | 0         | 16.96       | 17.15          | 16.98        |                     |
| 10                                                       | 64QAM      | 25      | 12        | 17.04       | 17.11          | 16.75        |                     |
| 10                                                       | 64QAM      | 25      | 25        | 17.21       | 17.09          | 16.77        | 17.5                |
| 10                                                       | 64QAM      | 50      | 0         | 17.21       | 16.84          | 16.79        |                     |
| Channel                                                  |            |         |           | 19975       | 20175          | 20375        |                     |
| Frequency (MHz)                                          |            |         |           | 1712.5      | 1732.5         | 1752.5       |                     |
| 5                                                        | QPSK       | 1       | 0         | 19.93       | 19.96          | 19.86        | 20.5                |
| 5                                                        | QPSK       | 1       | 12        | 19.70       | 19.56          | 19.52        |                     |
| 5                                                        | QPSK       | 1       | 24        | 19.51       | 19.53          | 19.46        |                     |
| 5                                                        | QPSK       | 12      | 0         | 18.60       | 18.63          | 18.42        | 19.5                |
| 5                                                        | QPSK       | 12      | 7         | 18.52       | 18.37          | 18.17        |                     |
| 5                                                        | QPSK       | 12      | 13        | 18.49       | 18.38          | 18.16        |                     |
| 5                                                        | QPSK       | 25      | 0         | 18.55       | 18.43          | 18.40        |                     |
| 5                                                        | 16QAM      | 1       | 0         | 19.16       | 19.20          | 19.13        |                     |
| 5                                                        | 16QAM      | 1       | 12        | 19.17       | 19.04          | 19.01        | 19.5                |
| 5                                                        | 16QAM      | 1       | 24        | 18.91       | 19.03          | 18.99        |                     |
| 5                                                        | 16QAM      | 12      | 0         | 17.14       | 17.15          | 16.78        |                     |
| 5                                                        | 16QAM      | 12      | 7         | 17.12       | 16.78          | 16.72        | 18.5                |
| 5                                                        | 16QAM      | 12      | 13        | 17.06       | 17.16          | 16.70        |                     |
| 5                                                        | 16QAM      | 25      | 0         | 17.26       | 17.14          | 16.82        |                     |
| 5                                                        | 64QAM      | 1       | 0         | 18.68       | 18.74          | 19.08        | 20                  |
| 5                                                        | 64QAM      | 1       | 12        | 19.01       | 19.08          | 18.82        |                     |
| 5                                                        | 64QAM      | 1       | 24        | 19.18       | 19.06          | 18.84        |                     |
| 5                                                        | 64QAM      | 12      | 0         | 16.92       | 17.11          | 16.94        |                     |
| 5                                                        | 64QAM      | 12      | 7         | 17.00       | 17.07          | 16.71        |                     |
| 5                                                        | 64QAM      | 12      | 13        | 17.17       | 17.05          | 16.73        | 17.5                |
| 5                                                        | 64QAM      | 25      | 0         | 17.17       | 16.80          | 16.75        |                     |
| Channel                                                  |            |         |           | 19965       | 20175          | 20385        |                     |
| Frequency (MHz)                                          |            |         |           | 1711.5      | 1732.5         | 1753.5       |                     |
| 3                                                        | QPSK       | 1       | 0         | 19.88       | 19.91          | 19.81        | 20.5                |
| 3                                                        | QPSK       | 1       | 8         | 19.65       | 19.51          | 19.47        |                     |
| 3                                                        | QPSK       | 1       | 14        | 19.46       | 19.48          | 19.41        |                     |
| 3                                                        | QPSK       | 8       | 0         | 18.55       | 18.58          | 18.37        | 19.5                |
| 3                                                        | QPSK       | 8       | 4         | 18.47       | 18.32          | 18.12        |                     |
| 3                                                        | QPSK       | 8       | 7         | 18.44       | 18.33          | 18.11        |                     |
| 3                                                        | QPSK       | 15      | 0         | 18.50       | 18.38          | 18.35        |                     |

|                 |       |    |    |        |        |        |                        |
|-----------------|-------|----|----|--------|--------|--------|------------------------|
| 3               | 16QAM | 1  | 0  | 19.30  | 19.32  | 19.09  | 20                     |
| 3               | 16QAM | 1  | 8  | 19.08  | 19.12  | 19.03  |                        |
| 3               | 16QAM | 1  | 14 | 19.00  | 19.23  | 19.05  |                        |
| 3               | 16QAM | 8  | 0  | 17.57  | 17.54  | 17.58  | 18.5                   |
| 3               | 16QAM | 8  | 4  | 17.45  | 17.58  | 17.75  |                        |
| 3               | 16QAM | 8  | 7  | 17.49  | 17.45  | 17.67  |                        |
| 3               | 16QAM | 15 | 0  | 17.23  | 17.39  | 17.71  | 19.5                   |
| 3               | 64QAM | 1  | 0  | 18.69  | 18.34  | 18.49  |                        |
| 3               | 64QAM | 1  | 8  | 18.47  | 18.43  | 18.65  |                        |
| 3               | 64QAM | 1  | 14 | 18.21  | 18.37  | 18.47  | 18.5                   |
| 3               | 64QAM | 8  | 0  | 17.36  | 17.42  | 17.56  |                        |
| 3               | 64QAM | 8  | 4  | 17.34  | 17.30  | 17.52  |                        |
| 3               | 64QAM | 8  | 7  | 17.08  | 17.24  | 17.34  | 19.5                   |
| 3               | 64QAM | 15 | 0  | 17.45  | 17.22  | 17.30  |                        |
| Channel         |       |    |    | 1860.7 | 1890.0 | 1919.3 | Tune-up limit<br>(dBm) |
| Frequency (MHz) |       |    |    | 1850.7 | 1880   | 1909.3 |                        |
| 1.4             | QPSK  | 1  | 0  | 19.43  | 19.60  | 19.46  | 20.5                   |
| 1.4             | QPSK  | 1  | 3  | 19.17  | 19.13  | 19.56  |                        |
| 1.4             | QPSK  | 1  | 5  | 19.37  | 19.16  | 19.23  |                        |
| 1.4             | QPSK  | 3  | 0  | 18.40  | 18.45  | 18.43  |                        |
| 1.4             | QPSK  | 3  | 1  | 18.02  | 18.31  | 18.18  |                        |
| 1.4             | QPSK  | 3  | 3  | 18.33  | 18.28  | 18.34  |                        |
| 1.4             | QPSK  | 6  | 0  | 18.35  | 18.34  | 18.41  | 19.5                   |
| 1.4             | 16QAM | 1  | 0  | 19.25  | 19.27  | 19.04  | 20                     |
| 1.4             | 16QAM | 1  | 3  | 19.03  | 19.07  | 18.98  |                        |
| 1.4             | 16QAM | 1  | 5  | 18.95  | 19.18  | 19.00  |                        |
| 1.4             | 16QAM | 3  | 0  | 17.52  | 17.49  | 17.53  |                        |
| 1.4             | 16QAM | 3  | 1  | 17.40  | 17.53  | 17.70  |                        |
| 1.4             | 16QAM | 3  | 3  | 17.44  | 17.40  | 17.62  |                        |
| 1.4             | 16QAM | 6  | 0  | 17.18  | 17.34  | 17.66  | 18.5                   |
| 1.4             | 64QAM | 1  | 0  | 18.64  | 18.29  | 18.44  |                        |
| 1.4             | 64QAM | 1  | 3  | 18.42  | 18.38  | 18.60  |                        |
| 1.4             | 64QAM | 1  | 5  | 18.16  | 18.32  | 18.42  | 19.5                   |
| 1.4             | 64QAM | 3  | 0  | 17.31  | 17.37  | 17.51  |                        |
| 1.4             | 64QAM | 3  | 1  | 17.29  | 17.25  | 17.47  |                        |
| 1.4             | 64QAM | 3  | 3  | 17.03  | 17.19  | 17.29  |                        |
| 1.4             | 64QAM | 6  | 0  | 17.40  | 17.17  | 17.25  | 18.5                   |

|                 |       |    |    |        |        |        |                        |
|-----------------|-------|----|----|--------|--------|--------|------------------------|
| 3               | 16QAM | 1  | 0  | 19.11  | 19.15  | 19.08  | 19.5                   |
| 3               | 16QAM | 1  | 8  | 19.12  | 18.99  | 18.96  |                        |
| 3               | 16QAM | 1  | 14 | 18.86  | 18.98  | 18.94  |                        |
| 3               | 16QAM | 8  | 0  | 17.09  | 17.10  | 16.73  | 18.5                   |
| 3               | 16QAM | 8  | 4  | 17.07  | 16.73  | 16.67  |                        |
| 3               | 16QAM | 8  | 7  | 17.01  | 17.11  | 16.65  |                        |
| 3               | 16QAM | 15 | 0  | 17.21  | 17.09  | 16.77  | 20                     |
| 3               | 16QAM | 1  | 0  | 18.63  | 18.69  | 19.03  |                        |
| 3               | 16QAM | 1  | 8  | 18.96  | 19.03  | 18.77  |                        |
| 3               | 16QAM | 1  | 14 | 19.13  | 19.01  | 18.79  | 17.5                   |
| 3               | 16QAM | 8  | 0  | 16.87  | 17.06  | 16.89  |                        |
| 3               | 16QAM | 8  | 4  | 16.95  | 17.02  | 16.66  |                        |
| 3               | 16QAM | 8  | 7  | 17.12  | 17.00  | 16.68  | 19.5                   |
| 3               | 16QAM | 15 | 0  | 17.12  | 16.75  | 16.70  |                        |
| Channel         |       |    |    | 1995.7 | 2017.5 | 2039.3 | Tune-up limit<br>(dBm) |
| Frequency (MHz) |       |    |    | 1710.7 | 1732.5 | 1754.3 |                        |
| 1.4             | QPSK  | 1  | 0  | 19.86  | 19.89  | 19.79  | 20.5                   |
| 1.4             | QPSK  | 1  | 3  | 19.63  | 19.49  | 19.45  |                        |
| 1.4             | QPSK  | 1  | 5  | 19.44  | 19.46  | 19.39  |                        |
| 1.4             | QPSK  | 3  | 0  | 18.53  | 18.56  | 18.35  |                        |
| 1.4             | QPSK  | 3  | 1  | 18.45  | 18.30  | 18.10  |                        |
| 1.4             | QPSK  | 3  | 3  | 18.42  | 18.31  | 18.09  |                        |
| 1.4             | QPSK  | 6  | 0  | 17.98  | 17.86  | 17.83  | 19.5                   |
| 1.4             | 16QAM | 1  | 0  | 19.09  | 19.13  | 19.06  | 19.5                   |
| 1.4             | 16QAM | 1  | 3  | 19.10  | 18.97  | 18.94  |                        |
| 1.4             | 16QAM | 1  | 5  | 18.84  | 18.96  | 18.92  |                        |
| 1.4             | 16QAM | 3  | 0  | 17.07  | 17.08  | 16.71  |                        |
| 1.4             | 16QAM | 3  | 1  | 17.05  | 16.71  | 16.65  |                        |
| 1.4             | 16QAM | 3  | 3  | 16.99  | 17.09  | 16.63  |                        |
| 1.4             | 16QAM | 6  | 0  | 17.19  | 17.07  | 16.75  | 18.5                   |
| 1.4             | 16QAM | 1  | 0  | 18.61  | 18.67  | 19.01  |                        |
| 1.4             | 16QAM | 1  | 3  | 18.94  | 19.01  | 18.75  |                        |
| 1.4             | 16QAM | 1  | 5  | 19.11  | 18.99  | 18.77  | 20                     |
| 1.4             | 16QAM | 3  | 0  | 16.85  | 17.04  | 16.87  |                        |
| 1.4             | 16QAM | 3  | 1  | 16.93  | 17.00  | 16.64  |                        |
| 1.4             | 16QAM | 3  | 3  | 17.10  | 16.98  | 16.66  |                        |
| 1.4             | 16QAM | 6  | 0  | 17.10  | 16.73  | 16.68  | 17.5                   |

| Band 5 (Celluar Band)<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         | 22.40       | 22.69          | 22.53        | 23.5                |
| 10                                                          | QPSK       | 1       | 25        | 22.28       | 22.29          | 22.52        |                     |
| 10                                                          | QPSK       | 1       | 49        | 22.33       | 22.28          | 22.22        |                     |
| 10                                                          | QPSK       | 25      | 0         | 21.53       | 21.71          | 21.47        | 22.5                |
| 10                                                          | QPSK       | 25      | 12        | 21.31       | 21.65          | 21.59        |                     |
| 10                                                          | QPSK       | 25      | 25        | 21.37       | 21.56          | 21.40        |                     |
| 10                                                          | QPSK       | 50      | 0         | 21.26       | 21.64          | 21.51        | 22.5                |
| 10                                                          | 16QAM      | 1       | 0         | 22.09       | 22.06          | 22.03        |                     |
| 10                                                          | 16QAM      | 1       | 25        | 21.91       | 21.88          | 22.08        |                     |
| 10                                                          | 16QAM      | 1       | 49        | 21.94       | 21.90          | 21.94        | 21.5                |
| 10                                                          | 16QAM      | 25      | 0         | 20.47       | 20.26          | 20.30        |                     |
| 10                                                          | 16QAM      | 25      | 12        | 20.32       | 20.42          | 20.37        |                     |
| 10                                                          | 16QAM      | 25      | 25        | 20.34       | 20.68          | 20.56        | 21.5                |
| 10                                                          | 16QAM      | 50      | 0         | 20.45       | 20.32          | 20.42        |                     |
| 10                                                          | 64QAM      | 1       | 0         | 21.28       | 21.21          | 21.40        |                     |
| 10                                                          | 64QAM      | 1       | 25        | 21.06       | 21.33          | 21.28        | 21.5                |
| 10                                                          | 64QAM      | 1       | 49        | 21.17       | 21.04          | 21.14        |                     |
| 10                                                          | 64QAM      | 25      | 0         | 20.13       | 20.19          | 20.06        |                     |
| 10                                                          | 64QAM      | 25      | 12        | 20.06       | 20.33          | 20.28        | 20.5                |
| 10                                                          | 64QAM      | 25      | 25        | 20.17       | 20.04          | 20.14        |                     |
| 10                                                          | 64QAM      | 50      | 0         | 20.40       | 20.23          | 20.26        |                     |
| Channel                                                     |            |         |           | 20425       | 20525          | 20625        | Tune-up limit (dBm) |
| Frequency (MHz)                                             |            |         |           | 826.5       | 836.5          | 846.5        |                     |
| 5                                                           | QPSK       | 1       | 0         | 22.38       | 22.67          | 22.51        | 23.5                |
| 5                                                           | QPSK       | 1       | 12        | 22.26       | 22.27          | 22.50        |                     |
| 5                                                           | QPSK       | 1       | 24        | 22.31       | 22.26          | 22.20        |                     |
| 5                                                           | QPSK       | 12      | 0         | 21.51       | 21.69          | 21.45        | 22.5                |
| 5                                                           | QPSK       | 12      | 7         | 21.29       | 21.63          | 21.57        |                     |
| 5                                                           | QPSK       | 12      | 13        | 21.35       | 21.54          | 21.38        |                     |
| 5                                                           | QPSK       | 25      | 0         | 21.24       | 21.62          | 21.49        | 22.5                |
| 5                                                           | 16QAM      | 1       | 0         | 22.07       | 22.04          | 22.01        |                     |
| 5                                                           | 16QAM      | 1       | 12        | 21.89       | 21.86          | 22.06        |                     |
| 5                                                           | 16QAM      | 1       | 24        | 21.92       | 21.88          | 21.92        | 21.5                |
| 5                                                           | 16QAM      | 12      | 0         | 20.45       | 20.24          | 20.28        |                     |
| 5                                                           | 16QAM      | 12      | 7         | 20.30       | 20.40          | 20.35        |                     |
| 5                                                           | 16QAM      | 12      | 13        | 20.32       | 20.66          | 20.54        | 21.5                |
| 5                                                           | 16QAM      | 25      | 0         | 20.43       | 20.30          | 20.40        |                     |
| 5                                                           | 64QAM      | 1       | 0         | 21.26       | 21.19          | 21.38        |                     |
| 5                                                           | 64QAM      | 1       | 12        | 21.04       | 21.31          | 21.26        | 21.5                |
| 5                                                           | 64QAM      | 1       | 24        | 21.15       | 21.02          | 21.12        |                     |
| 5                                                           | 64QAM      | 12      | 0         | 20.11       | 20.17          | 20.04        |                     |
| 5                                                           | 64QAM      | 12      | 7         | 20.04       | 20.31          | 20.26        | 20.5                |
| 5                                                           | 64QAM      | 12      | 13        | 20.15       | 20.02          | 20.12        |                     |
| 5                                                           | 64QAM      | 25      | 0         | 20.38       | 20.21          | 20.24        |                     |
| Channel                                                     |            |         |           | 20415       | 20525          | 20635        | Tune-up limit (dBm) |
| Frequency (MHz)                                             |            |         |           | 825.5       | 836.5          | 847.5        |                     |
| 3                                                           | QPSK       | 1       | 0         | 22.35       | 22.64          | 22.48        | 23.5                |
| 3                                                           | QPSK       | 1       | 8         | 22.23       | 22.24          | 22.47        |                     |
| 3                                                           | QPSK       | 1       | 14        | 22.28       | 22.23          | 22.17        |                     |
| 3                                                           | QPSK       | 8       | 0         | 21.48       | 21.66          | 21.42        | 22.5                |
| 3                                                           | QPSK       | 8       | 4         | 21.26       | 21.60          | 21.54        |                     |
| 3                                                           | QPSK       | 8       | 7         | 21.32       | 21.51          | 21.35        |                     |
| 3                                                           | QPSK       | 15      | 0         | 21.21       | 21.59          | 21.46        | 22.5                |
| 3                                                           | 16QAM      | 1       | 0         | 22.04       | 22.01          | 21.98        |                     |
| 3                                                           | 16QAM      | 1       | 8         | 21.86       | 21.83          | 22.03        |                     |
| 3                                                           | 16QAM      | 1       | 14        | 21.89       | 21.85          | 21.89        | 21.5                |
| 3                                                           | 16QAM      | 8       | 0         | 20.42       | 20.21          | 20.25        |                     |
| 3                                                           | 16QAM      | 8       | 4         | 20.27       | 20.37          | 20.32        |                     |
| 3                                                           | 16QAM      | 8       | 7         | 20.29       | 20.63          | 20.51        | 21.5                |
| 3                                                           | 16QAM      | 15      | 0         | 20.40       | 20.27          | 20.37        |                     |
| 3                                                           | 64QAM      | 1       | 0         | 21.23       | 21.16          | 21.35        |                     |
| 3                                                           | 64QAM      | 1       | 8         | 21.01       | 21.28          | 21.23        | 21.5                |
| 3                                                           | 64QAM      | 1       | 14        | 21.12       | 20.99          | 21.09        |                     |
| 3                                                           | 64QAM      | 8       | 0         | 20.08       | 20.14          | 20.01        |                     |
| 3                                                           | 64QAM      | 8       | 4         | 20.01       | 20.28          | 20.23        | 20.5                |
| 3                                                           | 64QAM      | 8       | 7         | 20.12       | 19.99          | 20.09        |                     |
| 3                                                           | 64QAM      | 15      | 0         | 20.35       | 20.18          | 20.21        |                     |
| Channel                                                     |            |         |           | 20407       | 20525          | 20643        | Tune-up limit (dBm) |
| Frequency (MHz)                                             |            |         |           | 824.7       | 836.5          | 848.3        |                     |
| 1.4                                                         | QPSK       | 1       | 0         | 22.32       | 22.61          | 22.45        | 23.5                |
| 1.4                                                         | QPSK       | 1       | 3         | 22.20       | 22.21          | 22.44        |                     |
| 1.4                                                         | QPSK       | 1       | 5         | 22.25       | 22.20          | 22.14        |                     |
| 1.4                                                         | QPSK       | 3       | 0         | 21.45       | 21.63          | 21.39        | 22.5                |
| 1.4                                                         | QPSK       | 3       | 1         | 21.23       | 21.57          | 21.51        |                     |
| 1.4                                                         | QPSK       | 3       | 3         | 21.29       | 21.48          | 21.32        |                     |
| 1.4                                                         | QPSK       | 6       | 0         | 21.18       | 21.56          | 21.43        | 22.5                |
| 1.4                                                         | 16QAM      | 1       | 0         | 22.01       | 21.98          | 21.95        |                     |
| 1.4                                                         | 16QAM      | 1       | 3         | 21.83       | 21.80          | 22.00        |                     |
| 1.4                                                         | 16QAM      | 1       | 5         | 21.86       | 21.82          | 21.86        | 22.5                |
| 1.4                                                         | 16QAM      | 3       | 0         | 20.39       | 20.18          | 20.22        |                     |
| 1.4                                                         | 16QAM      | 3       | 1         | 20.24       | 20.34          | 20.29        |                     |
| 1.4                                                         | 16QAM      | 3       | 3         | 20.26       | 20.60          | 20.48        | 21.5                |
| 1.4                                                         | 16QAM      | 6       | 0         | 20.37       | 20.24          | 20.34        |                     |
| 1.4                                                         | 64QAM      | 1       | 0         | 21.20       | 21.13          | 21.32        |                     |
| 1.4                                                         | 64QAM      | 1       | 3         | 20.98       | 21.25          | 21.20        | 21.5                |
| 1.4                                                         | 64QAM      | 1       | 5         | 21.09       | 20.96          | 21.06        |                     |
| 1.4                                                         | 64QAM      | 3       | 0         | 20.05       | 20.11          | 19.98        |                     |
| 1.4                                                         | 64QAM      | 3       | 1         | 19.98       | 20.25          | 20.20        | 20.5                |
| 1.4                                                         | 64QAM      | 3       | 3         | 20.09       | 19.96          | 20.06        |                     |
| 1.4                                                         | 64QAM      | 6       | 0         | 20.32       | 20.15          | 20.18        |                     |

| Band 7 (2600MHz Band)<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         | 18.46       | 18.63          | 18.42        | 19                  |
| 20                               | QPSK       | 1       | 49        | 18.19       | 18.16          | 18.13        |                     |
| 20                               | QPSK       | 1       | 99        | 18.59       | 18.21          | 18.17        |                     |
| 20                               | QPSK       | 50      | 0         | 17.21       | 17.42          | 17.35        | 18                  |
| 20                               | QPSK       | 50      | 24        | 17.03       | 17.33          | 17.39        |                     |
| 20                               | QPSK       | 50      | 50        | 17.39       | 17.18          | 17.24        |                     |
| 20                               | QPSK       | 100     | 0         | 16.97       | 17.08          | 17.06        | 18.5                |
| 20                               | 16QAM      | 1       | 0         | 18.28       | 17.85          | 17.80        |                     |
| 20                               | 16QAM      | 1       | 49        | 17.99       | 18.19          | 18.25        |                     |
| 20                               | 16QAM      | 1       | 99        | 18.27       | 18.04          | 18.10        | 18                  |
| 20                               | 16QAM      | 50      | 0         | 17.23       | 17.18          | 17.13        |                     |
| 20                               | 16QAM      | 50      | 24        | 17.22       | 17.27          | 17.58        |                     |
| 20                               | 16QAM      | 50      | 50        | 17.61       | 17.37          | 17.43        | 18                  |
| 20                               | 16QAM      | 100     | 0         | 16.61       | 16.29          | 16.14        |                     |
| 20                               | 64QAM      | 1       | 0         | 17.58       | 17.35          | 17.23        |                     |
| 20                               | 64QAM      | 1       | 49        | 17.57       | 17.43          | 17.49        | 18                  |
| 20                               | 64QAM      | 1       | 99        | 17.47       | 17.35          | 17.20        |                     |
| 20                               | 64QAM      | 50      | 0         | 16.31       | 16.35          | 16.01        |                     |
| 20                               | 64QAM      | 50      | 24        | 16.39       | 16.15          | 16.21        | 16.5                |
| 20                               | 64QAM      | 50      | 50        | 16.49       | 16.17          | 16.17        |                     |
| 20                               | 64QAM      | 100     | 0         | 16.18       | 16.33          | 16.34        |                     |
| Channel                          |            |         |           | 20825       | 21100          | 21375        | Tune-up limit (dbm) |
| Frequency (MHz)                  |            |         |           | 2507.5      | 2535           | 2562.5       |                     |
| 15                               | QPSK       | 1       | 0         | 18.43       | 18.60          | 18.39        | 19                  |
| 15                               | QPSK       | 1       | 37        | 18.16       | 18.13          | 18.10        |                     |
| 15                               | QPSK       | 1       | 74        | 18.56       | 18.18          | 18.14        |                     |
| 15                               | QPSK       | 36      | 0         | 17.18       | 17.39          | 17.32        | 18                  |
| 15                               | QPSK       | 36      | 20        | 17.00       | 17.30          | 17.36        |                     |
| 15                               | QPSK       | 36      | 39        | 17.36       | 17.15          | 17.21        |                     |
| 15                               | QPSK       | 75      | 0         | 16.94       | 17.05          | 17.03        | 18.5                |
| 15                               | 16QAM      | 1       | 0         | 18.25       | 17.82          | 17.77        |                     |
| 15                               | 16QAM      | 1       | 37        | 17.96       | 18.16          | 18.22        |                     |
| 15                               | 16QAM      | 1       | 74        | 18.24       | 18.01          | 18.07        | 18                  |
| 15                               | 16QAM      | 36      | 0         | 17.20       | 17.15          | 17.10        |                     |
| 15                               | 16QAM      | 36      | 20        | 17.19       | 17.24          | 17.55        |                     |
| 15                               | 16QAM      | 36      | 39        | 17.58       | 17.34          | 17.40        | 18                  |
| 15                               | 16QAM      | 75      | 0         | 16.58       | 16.26          | 16.11        |                     |
| 15                               | 64QAM      | 1       | 0         | 17.55       | 17.32          | 17.20        |                     |
| 15                               | 64QAM      | 1       | 37        | 17.54       | 17.40          | 17.46        | 18                  |
| 15                               | 64QAM      | 1       | 74        | 17.44       | 17.32          | 17.17        |                     |
| 15                               | 64QAM      | 36      | 0         | 16.28       | 16.32          | 15.98        |                     |
| 15                               | 64QAM      | 36      | 20        | 16.36       | 16.12          | 16.18        | 16.5                |
| 15                               | 64QAM      | 36      | 39        | 16.46       | 16.14          | 16.14        |                     |
| 15                               | 64QAM      | 75      | 0         | 16.15       | 16.30          | 16.31        |                     |
| Channel                          |            |         |           | 20800       | 21100          | 21400        | Tune-up limit (dbm) |
| Frequency (MHz)                  |            |         |           | 2505        | 2535           | 2565         |                     |
| 10                               | QPSK       | 1       | 0         | 18.40       | 18.57          | 18.38        | 19                  |
| 10                               | QPSK       | 1       | 25        | 18.13       | 18.10          | 18.07        |                     |
| 10                               | QPSK       | 1       | 49        | 18.53       | 18.15          | 18.11        |                     |
| 10                               | QPSK       | 25      | 0         | 17.15       | 17.36          | 17.29        | 18                  |
| 10                               | QPSK       | 25      | 12        | 16.97       | 17.27          | 17.33        |                     |
| 10                               | QPSK       | 25      | 25        | 17.33       | 17.12          | 17.18        |                     |
| 10                               | QPSK       | 50      | 0         | 16.91       | 17.02          | 17.00        | 18.5                |
| 10                               | 16QAM      | 1       | 0         | 18.22       | 17.79          | 17.74        |                     |
| 10                               | 16QAM      | 1       | 25        | 17.93       | 18.13          | 18.19        |                     |
| 10                               | 16QAM      | 1       | 49        | 18.21       | 17.98          | 18.04        | 17                  |
| 10                               | 16QAM      | 25      | 0         | 17.17       | 17.12          | 17.07        |                     |
| 10                               | 16QAM      | 25      | 12        | 17.16       | 17.21          | 17.52        |                     |
| 10                               | 16QAM      | 25      | 25        | 17.55       | 17.31          | 17.37        | 17                  |
| 10                               | 16QAM      | 50      | 0         | 16.55       | 16.23          | 16.08        |                     |
| 10                               | 64QAM      | 1       | 0         | 17.52       | 17.29          | 17.17        |                     |
| 10                               | 64QAM      | 1       | 25        | 17.51       | 17.37          | 17.43        | 16                  |
| 10                               | 64QAM      | 1       | 49        | 17.41       | 17.29          | 17.14        |                     |
| 10                               | 64QAM      | 25      | 0         | 16.25       | 16.29          | 15.95        |                     |
| 10                               | 64QAM      | 25      | 12        | 16.33       | 16.09          | 16.15        | 18                  |
| 10                               | 64QAM      | 25      | 25        | 16.43       | 16.11          | 16.11        |                     |
| 10                               | 64QAM      | 50      | 0         | 16.12       | 16.27          | 16.28        |                     |
| Channel                          |            |         |           | 20775       | 21100          | 21425        | Tune-up limit (dbm) |
| Frequency (MHz)                  |            |         |           | 2502.5      | 2535           | 2567.5       |                     |
| 5                                | QPSK       | 1       | 0         | 18.37       | 18.54          | 18.33        | 19                  |
| 5                                | QPSK       | 1       | 12        | 18.10       | 18.07          | 18.04        |                     |
| 5                                | QPSK       | 1       | 24        | 18.50       | 18.12          | 18.08        |                     |
| 5                                | QPSK       | 12      | 0         | 17.12       | 17.33          | 17.26        | 18                  |
| 5                                | QPSK       | 12      | 7         | 16.94       | 17.24          | 17.30        |                     |
| 5                                | QPSK       | 12      | 13        | 17.30       | 17.09          | 17.15        |                     |
| 5                                | QPSK       | 25      | 0         | 16.88       | 16.99          | 16.97        | 18.5                |
| 5                                | 16QAM      | 1       | 0         | 18.19       | 17.76          | 17.71        |                     |
| 5                                | 16QAM      | 1       | 12        | 17.90       | 18.10          | 18.16        |                     |
| 5                                | 16QAM      | 1       | 24        | 18.18       | 17.95          | 18.01        | 18                  |
| 5                                | 16QAM      | 12      | 0         | 17.14       | 17.09          | 17.04        |                     |
| 5                                | 16QAM      | 12      | 7         | 17.13       | 17.18          | 17.49        |                     |
| 5                                | 16QAM      | 12      | 13        | 17.52       | 17.28          | 17.34        | 18                  |
| 5                                | 16QAM      | 25      | 0         | 16.52       | 16.20          | 16.05        |                     |
| 5                                | 64QAM      | 1       | 0         | 17.49       | 17.26          | 17.14        |                     |
| 5                                | 64QAM      | 1       | 12        | 17.48       | 17.34          | 17.40        | 18                  |
| 5                                | 64QAM      | 1       | 24        | 17.38       | 17.26          | 17.11        |                     |
| 5                                | 64QAM      | 12      | 0         | 16.22       | 16.26          | 15.92        |                     |
| 5                                | 64QAM      | 12      | 7         | 16.30       | 16.06          | 16.12        | 17                  |
| 5                                | 64QAM      | 12      | 13        | 16.40       | 16.08          | 16.08        |                     |
| 5                                | 64QAM      | 25      | 0         | 16.09       | 16.24          | 16.25        |                     |

| Band 12 (700MHz Low Band)<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                                                         |            |         |           | 23060       | 23095          | 23130        |                     |  |
| Frequency (MHz)                                                 |            |         |           | 704         | 707.5          | 711          |                     |  |
| 10                                                              | QPSK       | 1       | 0         | 22.83       | 22.89          | 22.84        | 23.5                |  |
| 10                                                              | QPSK       | 1       | 25        | 22.78       | 22.51          | 22.54        |                     |  |
| 10                                                              | QPSK       | 1       | 49        | 22.53       | 22.43          | 22.45        |                     |  |
| 10                                                              | QPSK       | 25      | 0         | 21.84       | 21.98          | 21.88        | 22.5                |  |
| 10                                                              | QPSK       | 25      | 12        | 21.79       | 21.59          | 21.56        |                     |  |
| 10                                                              | QPSK       | 25      | 25        | 21.59       | 21.60          | 21.63        |                     |  |
| 10                                                              | QPSK       | 50      | 0         | 21.90       | 21.52          | 21.85        | 22.5                |  |
| 10                                                              | 16QAM      | 1       | 0         | 22.08       | 21.92          | 21.88        |                     |  |
| 10                                                              | 16QAM      | 1       | 25        | 21.69       | 21.70          | 21.73        |                     |  |
| 10                                                              | 16QAM      | 1       | 49        | 22.00       | 21.62          | 21.95        | 21.5                |  |
| 10                                                              | 16QAM      | 25      | 0         | 21.17       | 20.88          | 20.70        |                     |  |
| 10                                                              | 16QAM      | 25      | 12        | 20.78       | 20.79          | 20.82        |                     |  |
| 10                                                              | 16QAM      | 25      | 25        | 21.09       | 20.71          | 21.04        | 21.5                |  |
| 10                                                              | 16QAM      | 50      | 0         | 20.98       | 20.49          | 20.74        |                     |  |
| 10                                                              | 64QAM      | 1       | 0         | 20.88       | 20.89          | 21.05        |                     |  |
| 10                                                              | 64QAM      | 1       | 25        | 20.97       | 20.90          | 20.92        | 21.5                |  |
| 10                                                              | 64QAM      | 1       | 49        | 20.86       | 20.84          | 20.82        |                     |  |
| 10                                                              | 64QAM      | 25      | 0         | 20.43       | 20.27          | 20.10        |                     |  |
| 10                                                              | 64QAM      | 25      | 12        | 20.42       | 20.34          | 20.47        | 20.5                |  |
| 10                                                              | 64QAM      | 25      | 25        | 20.41       | 20.12          | 20.17        |                     |  |
| 10                                                              | 64QAM      | 50      | 0         | 20.50       | 20.03          | 20.09        |                     |  |
| Channel                                                         |            |         |           | 23035       | 23095          | 23155        | Tune-up limit (dBm) |  |
| Frequency (MHz)                                                 |            |         |           | 701.5       | 707.5          | 713.5        |                     |  |
| 5                                                               | QPSK       | 1       | 0         | 22.77       | 22.83          | 22.78        | 23.5                |  |
| 5                                                               | QPSK       | 1       | 12        | 22.72       | 22.45          | 22.48        |                     |  |
| 5                                                               | QPSK       | 1       | 24        | 22.47       | 22.37          | 22.39        |                     |  |
| 5                                                               | QPSK       | 12      | 0         | 21.78       | 21.92          | 21.82        | 22.5                |  |
| 5                                                               | QPSK       | 12      | 7         | 21.73       | 21.53          | 21.50        |                     |  |
| 5                                                               | QPSK       | 12      | 13        | 21.53       | 21.54          | 21.57        |                     |  |
| 5                                                               | QPSK       | 25      | 0         | 21.84       | 21.46          | 21.79        | 22.5                |  |
| 5                                                               | 16QAM      | 1       | 0         | 22.02       | 21.86          | 21.82        |                     |  |
| 5                                                               | 16QAM      | 1       | 12        | 21.63       | 21.64          | 21.67        |                     |  |
| 5                                                               | 16QAM      | 1       | 24        | 21.94       | 21.56          | 21.89        | 21.5                |  |
| 5                                                               | 16QAM      | 12      | 0         | 21.11       | 20.82          | 20.64        |                     |  |
| 5                                                               | 16QAM      | 12      | 7         | 20.72       | 20.73          | 20.76        |                     |  |
| 5                                                               | 16QAM      | 12      | 13        | 21.03       | 20.65          | 20.98        | 21.5                |  |
| 5                                                               | 16QAM      | 25      | 0         | 20.92       | 20.43          | 20.68        |                     |  |
| 5                                                               | 64QAM      | 1       | 0         | 20.85       | 20.86          | 21.02        |                     |  |
| 5                                                               | 64QAM      | 1       | 12        | 20.94       | 20.87          | 20.89        | 21.5                |  |
| 5                                                               | 64QAM      | 1       | 24        | 20.83       | 20.81          | 20.59        |                     |  |
| 5                                                               | 64QAM      | 12      | 0         | 20.40       | 20.24          | 20.07        |                     |  |
| 5                                                               | 64QAM      | 12      | 7         | 20.39       | 20.31          | 20.44        | 20.5                |  |
| 5                                                               | 64QAM      | 12      | 13        | 20.38       | 20.09          | 20.14        |                     |  |
| 5                                                               | 64QAM      | 25      | 0         | 20.47       | 20.00          | 20.06        |                     |  |
| Channel                                                         |            |         |           | 23025       | 23095          | 23165        | Tune-up limit (dBm) |  |
| Frequency (MHz)                                                 |            |         |           | 700.5       | 707.5          | 714.5        |                     |  |
| 3                                                               | QPSK       | 1       | 0         | 22.74       | 22.80          | 22.75        | 23.5                |  |
| 3                                                               | QPSK       | 1       | 8         | 22.69       | 22.42          | 22.45        |                     |  |
| 3                                                               | QPSK       | 1       | 14        | 22.44       | 22.34          | 22.36        |                     |  |
| 3                                                               | QPSK       | 8       | 0         | 21.75       | 21.89          | 21.79        | 22.5                |  |
| 3                                                               | QPSK       | 8       | 4         | 21.70       | 21.50          | 21.47        |                     |  |
| 3                                                               | QPSK       | 8       | 7         | 21.50       | 21.51          | 21.54        |                     |  |
| 3                                                               | QPSK       | 15      | 0         | 21.81       | 21.43          | 21.76        | 22.5                |  |
| 3                                                               | 16QAM      | 1       | 0         | 21.99       | 21.83          | 21.79        |                     |  |
| 3                                                               | 16QAM      | 1       | 8         | 21.60       | 21.61          | 21.64        |                     |  |
| 3                                                               | 16QAM      | 1       | 14        | 21.91       | 21.53          | 21.86        | 21.5                |  |
| 3                                                               | 16QAM      | 8       | 0         | 21.08       | 20.79          | 20.61        |                     |  |
| 3                                                               | 16QAM      | 8       | 4         | 20.69       | 20.70          | 20.73        |                     |  |
| 3                                                               | 16QAM      | 8       | 7         | 21.00       | 20.62          | 20.95        | 21.5                |  |
| 3                                                               | 16QAM      | 15      | 0         | 20.89       | 20.40          | 20.65        |                     |  |
| 3                                                               | 64QAM      | 1       | 0         | 20.82       | 20.83          | 20.99        |                     |  |
| 3                                                               | 64QAM      | 1       | 8         | 20.91       | 20.84          | 20.86        | 20.5                |  |
| 3                                                               | 64QAM      | 1       | 14        | 20.80       | 20.78          | 20.56        |                     |  |
| 3                                                               | 64QAM      | 8       | 0         | 20.37       | 20.21          | 20.04        |                     |  |
| 3                                                               | 64QAM      | 8       | 4         | 20.36       | 20.28          | 20.41        | 20.5                |  |
| 3                                                               | 64QAM      | 8       | 7         | 20.35       | 20.06          | 20.11        |                     |  |
| 3                                                               | 64QAM      | 15      | 0         | 20.44       | 19.97          | 20.03        |                     |  |
| Channel                                                         |            |         |           | 23017       | 23095          | 23173        | Tune-up limit (dBm) |  |
| Frequency (MHz)                                                 |            |         |           | 699.7       | 707.5          | 715.3        |                     |  |
| 1.4                                                             | QPSK       | 1       | 0         | 22.68       | 22.74          | 22.69        | 23.5                |  |
| 1.4                                                             | QPSK       | 1       | 3         | 22.63       | 22.36          | 22.39        |                     |  |
| 1.4                                                             | QPSK       | 1       | 5         | 22.38       | 22.28          | 22.30        |                     |  |
| 1.4                                                             | QPSK       | 3       | 0         | 21.69       | 21.83          | 21.73        | 22.5                |  |
| 1.4                                                             | QPSK       | 3       | 1         | 21.64       | 21.44          | 21.41        |                     |  |
| 1.4                                                             | QPSK       | 3       | 3         | 21.44       | 21.45          | 21.48        |                     |  |
| 1.4                                                             | QPSK       | 6       | 0         | 21.75       | 21.37          | 21.70        | 22.5                |  |
| 1.4                                                             | 16QAM      | 1       | 0         | 21.93       | 21.77          | 21.73        |                     |  |
| 1.4                                                             | 16QAM      | 1       | 3         | 21.54       | 21.55          | 21.58        |                     |  |
| 1.4                                                             | 16QAM      | 1       | 5         | 21.85       | 21.47          | 21.80        | 21.5                |  |
| 1.4                                                             | 16QAM      | 3       | 0         | 21.02       | 20.73          | 20.55        |                     |  |
| 1.4                                                             | 16QAM      | 3       | 1         | 20.63       | 20.64          | 20.67        |                     |  |
| 1.4                                                             | 16QAM      | 3       | 3         | 20.94       | 20.56          | 20.89        | 21.5                |  |
| 1.4                                                             | 16QAM      | 6       | 0         | 20.83       | 20.34          | 20.59        |                     |  |
| 1.4                                                             | 64QAM      | 1       | 0         | 20.76       | 20.77          | 20.93        |                     |  |
| 1.4                                                             | 64QAM      | 1       | 3         | 20.85       | 20.78          | 20.80        | 21.5                |  |
| 1.4                                                             | 64QAM      | 1       | 5         | 20.74       | 20.72          | 20.50        |                     |  |
| 1.4                                                             | 64QAM      | 3       | 0         | 20.31       | 20.15          | 19.98        |                     |  |
| 1.4                                                             | 64QAM      | 3       | 1         | 20.30       | 20.22          | 20.35        | 20.5                |  |
| 1.4                                                             | 64QAM      | 3       | 3         | 20.29       | 20.00          | 20.05        |                     |  |
| 1.4                                                             | 64QAM      | 6       | 0         | 20.38       | 19.91          | 19.97        |                     |  |

| Band 17 (700MHz Band)<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         | 22.62       | 22.75          | 22.60        | 23.5                |  |
| 10                                                          | QPSK       | 1       | 25        | 22.27       | 22.29          | 22.48        |                     |  |
| 10                                                          | QPSK       | 1       | 49        | 22.55       | 22.51          | 22.54        |                     |  |
| 10                                                          | QPSK       | 25      | 0         | 21.63       | 21.74          | 21.68        | 22.5                |  |
| 10                                                          | QPSK       | 25      | 12        | 21.53       | 21.69          | 21.67        |                     |  |
| 10                                                          | QPSK       | 25      | 25        | 21.42       | 21.43          | 21.56        |                     |  |
| 10                                                          | QPSK       | 50      | 0         | 21.27       | 21.68          | 21.67        | 22.5                |  |
| 10                                                          | 16QAM      | 1       | 0         | 22.24       | 21.86          | 21.97        |                     |  |
| 10                                                          | 16QAM      | 1       | 25        | 22.03       | 22.19          | 22.17        |                     |  |
| 10                                                          | 16QAM      | 1       | 49        | 21.92       | 21.93          | 22.06        | 21.5                |  |
| 10                                                          | 16QAM      | 25      | 0         | 20.68       | 20.69          | 20.34        |                     |  |
| 10                                                          | 16QAM      | 25      | 12        | 20.50       | 20.66          | 20.64        |                     |  |
| 10                                                          | 16QAM      | 25      | 25        | 20.39       | 20.40          | 20.53        | 21.5                |  |
| 10                                                          | 16QAM      | 50      | 0         | 20.59       | 20.71          | 20.70        |                     |  |
| 10                                                          | 64QAM      | 1       | 0         | 21.27       | 20.85          | 21.04        |                     |  |
| 10                                                          | 64QAM      | 1       | 25        | 20.95       | 20.96          | 21.09        | 21.5                |  |
| 10                                                          | 64QAM      | 1       | 49        | 21.15       | 21.27          | 21.26        |                     |  |
| 10                                                          | 64QAM      | 25      | 0         | 20.03       | 19.92          | 19.80        |                     |  |
| 10                                                          | 64QAM      | 25      | 12        | 19.79       | 19.80          | 19.93        | 20.5                |  |
| 10                                                          | 64QAM      | 25      | 25        | 19.99       | 20.11          | 20.10        |                     |  |
| 10                                                          | 64QAM      | 50      | 0         | 19.95       | 20.10          | 20.11        |                     |  |
| Channel                                                     |            |         |           | 23755       | 23790          | 23825        | Tune-up limit (dBm) |  |
| Frequency (MHz)                                             |            |         |           | 706.5       | 710            | 713.5        |                     |  |
| 5                                                           | QPSK       | 1       | 0         | 22.56       | 22.69          | 22.54        | 23.5                |  |
| 5                                                           | QPSK       | 1       | 12        | 22.21       | 22.23          | 22.42        |                     |  |
| 5                                                           | QPSK       | 1       | 24        | 22.49       | 22.45          | 22.48        |                     |  |
| 5                                                           | QPSK       | 12      | 0         | 21.57       | 21.68          | 21.62        | 22.5                |  |
| 5                                                           | QPSK       | 12      | 7         | 21.47       | 21.63          | 21.61        |                     |  |
| 5                                                           | QPSK       | 12      | 13        | 21.36       | 21.37          | 21.50        |                     |  |
| 5                                                           | QPSK       | 25      | 0         | 21.21       | 21.62          | 21.61        | 22.5                |  |
| 5                                                           | 16QAM      | 1       | 0         | 22.18       | 21.80          | 21.91        |                     |  |
| 5                                                           | 16QAM      | 1       | 12        | 21.97       | 22.13          | 22.11        |                     |  |
| 5                                                           | 16QAM      | 1       | 24        | 21.86       | 21.87          | 22.00        | 21.5                |  |
| 5                                                           | 16QAM      | 12      | 0         | 20.62       | 20.63          | 20.28        |                     |  |
| 5                                                           | 16QAM      | 12      | 7         | 20.44       | 20.60          | 20.58        |                     |  |
| 5                                                           | 16QAM      | 12      | 13        | 20.33       | 20.34          | 20.47        | 21.5                |  |
| 5                                                           | 16QAM      | 25      | 0         | 20.53       | 20.65          | 20.64        |                     |  |
| 5                                                           | 64QAM      | 1       | 0         | 21.21       | 20.79          | 20.98        |                     |  |
| 5                                                           | 64QAM      | 1       | 12        | 20.89       | 20.90          | 21.03        | 21.5                |  |
| 5                                                           | 64QAM      | 1       | 24        | 21.09       | 21.21          | 21.20        |                     |  |
| 5                                                           | 64QAM      | 12      | 0         | 19.97       | 19.86          | 19.74        |                     |  |
| 5                                                           | 64QAM      | 12      | 7         | 19.73       | 19.74          | 19.87        | 20.5                |  |
| 5                                                           | 64QAM      | 12      | 13        | 19.93       | 20.05          | 20.04        |                     |  |
| 5                                                           | 64QAM      | 25      | 0         | 19.89       | 20.04          | 20.05        |                     |  |

# Band 66

| BW [MHz]        | Modulation | RB Size | RB Offset | Low Channel | Middle Channel | High Channel | Tune-up limit (dBm) |
|-----------------|------------|---------|-----------|-------------|----------------|--------------|---------------------|
| Channel         |            |         |           | 132072      | 132322         | 132572       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1720        | 1745           | 1770         |                     |
| 20              | QPSK       | 1       | 0         | 20.40       | 20.42          | 20.40        | 21                  |
| 20              | QPSK       | 1       | 49        | 20.40       | 20.32          | 20.32        |                     |
| 20              | QPSK       | 1       | 99        | 20.22       | 20.12          | 20.13        |                     |
| 20              | QPSK       | 50      | 0         | 19.51       | 19.55          | 20.46        | 20                  |
| 20              | QPSK       | 50      | 24        | 19.36       | 19.39          | 19.47        |                     |
| 20              | QPSK       | 50      | 50        | 19.36       | 19.22          | 19.42        |                     |
| 20              | QPSK       | 100     | 0         | 19.39       | 19.45          | 19.39        | 20                  |
| 20              | 16QAM      | 1       | 0         | 19.41       | 19.45          | 19.44        |                     |
| 20              | 16QAM      | 1       | 49        | 19.72       | 19.48          | 19.56        |                     |
| 20              | 16QAM      | 1       | 99        | 19.45       | 19.31          | 19.51        | 19                  |
| 20              | 16QAM      | 50      | 0         | 18.45       | 18.39          | 18.38        |                     |
| 20              | 16QAM      | 50      | 24        | 18.54       | 18.30          | 18.38        |                     |
| 20              | 16QAM      | 50      | 50        | 18.27       | 18.13          | 18.33        | 19                  |
| 20              | 16QAM      | 100     | 0         | 18.44       | 18.41          | 18.63        |                     |
| 20              | 64QAM      | 1       | 0         | 18.49       | 18.52          | 18.55        |                     |
| 20              | 64QAM      | 1       | 49        | 18.54       | 18.40          | 18.60        | 19                  |
| 20              | 64QAM      | 1       | 99        | 18.35       | 18.58          | 18.45        |                     |
| 20              | 64QAM      | 50      | 0         | 17.66       | 17.33          | 17.65        |                     |
| 20              | 64QAM      | 50      | 24        | 17.30       | 17.16          | 17.36        | 18                  |
| 20              | 64QAM      | 50      | 50        | 17.47       | 17.44          | 17.66        |                     |
| 20              | 64QAM      | 100     | 0         | 17.39       | 17.26          | 17.25        |                     |
| Channel         |            |         |           | 132047      | 132322         | 132597       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1717.5      | 1745           | 1772.5       |                     |
| 15              | QPSK       | 1       | 0         | 20.30       | 20.39          | 20.00        | 21                  |
| 15              | QPSK       | 1       | 37        | 20.34       | 20.35          | 20.26        |                     |
| 15              | QPSK       | 1       | 74        | 20.16       | 20.06          | 20.07        |                     |
| 15              | QPSK       | 36      | 0         | 19.65       | 19.66          | 19.58        | 20                  |
| 15              | QPSK       | 36      | 20        | 19.57       | 19.33          | 19.41        |                     |
| 15              | QPSK       | 36      | 39        | 19.30       | 19.16          | 19.36        |                     |
| 15              | QPSK       | 75      | 0         | 19.61       | 19.39          | 19.63        | 20                  |
| 15              | 16QAM      | 1       | 0         | 19.65       | 19.49          | 19.52        |                     |
| 15              | 16QAM      | 1       | 37        | 19.66       | 19.42          | 19.50        |                     |
| 15              | 16QAM      | 1       | 74        | 19.39       | 19.25          | 19.45        | 19                  |
| 15              | 16QAM      | 36      | 0         | 18.39       | 18.33          | 18.32        |                     |
| 15              | 16QAM      | 36      | 20        | 18.48       | 18.24          | 18.32        |                     |
| 15              | 16QAM      | 36      | 39        | 18.21       | 18.07          | 18.27        | 19                  |
| 15              | 16QAM      | 75      | 0         | 18.38       | 18.35          | 18.57        |                     |
| 15              | 64QAM      | 1       | 0         | 18.43       | 18.84          | 18.49        |                     |
| 15              | 64QAM      | 1       | 37        | 18.48       | 18.34          | 18.54        | 19                  |
| 15              | 64QAM      | 1       | 74        | 18.65       | 18.62          | 18.84        |                     |
| 15              | 64QAM      | 36      | 0         | 17.60       | 17.27          | 17.59        |                     |
| 15              | 64QAM      | 36      | 20        | 17.24       | 17.10          | 17.30        | 18                  |
| 15              | 64QAM      | 36      | 39        | 17.41       | 17.38          | 17.60        |                     |
| 15              | 64QAM      | 75      | 0         | 17.33       | 17.20          | 17.19        |                     |
| Channel         |            |         |           | 132022      | 132322         | 132622       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1715        | 1745           | 1775         |                     |
| 10              | QPSK       | 1       | 0         | 20.34       | 20.44          | 20.39        | 21                  |
| 10              | QPSK       | 1       | 25        | 20.28       | 20.37          | 20.20        |                     |
| 10              | QPSK       | 1       | 49        | 20.10       | 20.00          | 20.01        |                     |
| 10              | QPSK       | 25      | 0         | 19.59       | 19.60          | 19.52        | 20                  |
| 10              | QPSK       | 25      | 12        | 19.51       | 19.27          | 19.35        |                     |
| 10              | QPSK       | 25      | 25        | 19.24       | 19.10          | 19.30        |                     |
| 10              | QPSK       | 50      | 0         | 19.55       | 19.33          | 19.57        | 20                  |
| 10              | 16QAM      | 1       | 0         | 19.59       | 19.43          | 19.46        |                     |
| 10              | 16QAM      | 1       | 25        | 19.60       | 19.36          | 19.44        |                     |
| 10              | 16QAM      | 1       | 49        | 19.33       | 19.19          | 19.39        | 19                  |
| 10              | 16QAM      | 25      | 0         | 18.33       | 18.27          | 18.26        |                     |
| 10              | 16QAM      | 25      | 12        | 18.42       | 18.18          | 18.26        |                     |
| 10              | 16QAM      | 25      | 25        | 18.15       | 18.01          | 18.21        | 19                  |
| 10              | 16QAM      | 50      | 0         | 18.32       | 18.29          | 18.51        |                     |
| 10              | 64QAM      | 1       | 0         | 18.37       | 18.78          | 18.43        |                     |
| 10              | 64QAM      | 1       | 25        | 18.42       | 18.28          | 18.48        | 19                  |
| 10              | 64QAM      | 1       | 49        | 18.59       | 18.56          | 18.78        |                     |
| 10              | 64QAM      | 25      | 0         | 17.54       | 17.21          | 17.53        |                     |
| 10              | 64QAM      | 25      | 12        | 17.18       | 17.04          | 17.24        | 18                  |
| 10              | 64QAM      | 25      | 25        | 17.35       | 17.32          | 17.54        |                     |
| 10              | 64QAM      | 50      | 0         | 17.27       | 17.14          | 17.13        |                     |
| Channel         |            |         |           | 131997      | 132322         | 132647       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1712.5      | 1745           | 1777.5       |                     |
| 5               | QPSK       | 1       | 0         | 20.30       | 20.40          | 20.35        | 21                  |
| 5               | QPSK       | 1       | 12        | 20.24       | 20.33          | 20.16        |                     |
| 5               | QPSK       | 1       | 24        | 20.06       | 19.96          | 19.97        |                     |
| 5               | QPSK       | 12      | 0         | 19.55       | 19.56          | 19.48        | 20                  |
| 5               | QPSK       | 12      | 7         | 19.47       | 19.23          | 19.31        |                     |
| 5               | QPSK       | 12      | 13        | 19.20       | 19.06          | 19.26        |                     |
| 5               | QPSK       | 25      | 0         | 19.51       | 19.29          | 19.53        | 20                  |
| 5               | 16QAM      | 1       | 0         | 19.55       | 19.39          | 19.42        |                     |
| 5               | 16QAM      | 1       | 12        | 19.56       | 19.32          | 19.40        |                     |
| 5               | 16QAM      | 1       | 24        | 19.29       | 19.15          | 19.35        | 19                  |
| 5               | 16QAM      | 12      | 0         | 18.29       | 18.23          | 18.22        |                     |
| 5               | 16QAM      | 12      | 7         | 18.38       | 18.14          | 18.22        |                     |
| 5               | 16QAM      | 12      | 13        | 18.11       | 17.97          | 18.17        | 19                  |
| 5               | 16QAM      | 25      | 0         | 18.28       | 18.25          | 18.47        |                     |
| 5               | 64QAM      | 1       | 0         | 18.33       | 18.74          | 18.39        |                     |
| 5               | 64QAM      | 1       | 12        | 18.38       | 18.24          | 18.44        | 19                  |
| 5               | 64QAM      | 1       | 24        | 18.55       | 18.52          | 18.74        |                     |
| 5               | 64QAM      | 12      | 0         | 17.50       | 17.17          | 17.49        |                     |
| 5               | 64QAM      | 12      | 7         | 17.14       | 17.00          | 17.20        | 18                  |
| 5               | 64QAM      | 12      | 13        | 17.31       | 17.28          | 17.50        |                     |
| 5               | 64QAM      | 25      | 0         | 17.23       | 17.10          | 17.09        |                     |
| Channel         |            |         |           | 131987      | 132322         | 132657       | Tune-up limit (dBm) |
| Frequency (MHz) |            |         |           | 1711.5      | 1745           | 1778.5       |                     |
| 3               | QPSK       | 1       | 0         | 20.26       | 20.36          | 20.31        | 21                  |
| 3               | QPSK       | 1       | 8         | 20.20       | 20.29          | 20.12        |                     |
| 3               | QPSK       | 1       | 14        | 20.02       | 19.92          | 19.93        |                     |
| 3               | QPSK       | 8       | 0         | 19.51       | 19.52          | 19.44        | 20                  |
| 3               | QPSK       | 8       | 4         | 19.43       | 19.19          | 19.27        |                     |
| 3               | QPSK       | 8       | 7         | 19.16       | 19.02          | 19.22        |                     |
| 3               | QPSK       | 15      | 0         | 19.47       | 19.25          | 19.49        |                     |

|                 |       |    |    |        |         |         |                        |
|-----------------|-------|----|----|--------|---------|---------|------------------------|
| 3               | 16QAM | 1  | 0  | 19.51  | 19.35   | 19.38   | 20                     |
| 3               | 16QAM | 1  | 8  | 19.52  | 19.28   | 19.36   |                        |
| 3               | 16QAM | 1  | 14 | 19.25  | 19.11   | 19.31   |                        |
| 3               | 16QAM | 8  | 0  | 18.25  | 18.19   | 18.18   | 19                     |
| 3               | 16QAM | 8  | 4  | 18.34  | 18.10   | 18.18   |                        |
| 3               | 16QAM | 8  | 7  | 18.07  | 17.93   | 18.13   |                        |
| 3               | 16QAM | 15 | 0  | 18.24  | 18.21   | 18.43   | 19                     |
| 3               | 64QAM | 1  | 0  | 18.29  | 18.70   | 18.35   |                        |
| 3               | 64QAM | 1  | 8  | 18.34  | 18.20   | 18.40   |                        |
| 3               | 64QAM | 1  | 14 | 18.51  | 18.48   | 18.70   | 18                     |
| 3               | 64QAM | 8  | 0  | 17.46  | 17.13   | 17.45   |                        |
| 3               | 64QAM | 8  | 4  | 17.10  | 16.96   | 17.16   |                        |
| 3               | 64QAM | 8  | 7  | 17.27  | 17.24   | 17.46   |                        |
| 3               | 64QAM | 15 | 0  | 17.19  | 17.06   | 17.05   |                        |
| Channel         |       |    |    | 1319.9 | 1323.22 | 1326.65 | Tune-up limit<br>(dBm) |
| Frequency (MHz) |       |    |    | 1710.7 | 1745    | 1779.3  |                        |
| 1.4             | QPSK  | 1  | 0  | 20.22  | 20.32   | 20.27   | 21                     |
| 1.4             | QPSK  | 1  | 3  | 20.16  | 20.25   | 20.08   |                        |
| 1.4             | QPSK  | 1  | 5  | 19.98  | 19.88   | 19.89   |                        |
| 1.4             | QPSK  | 3  | 0  | 19.47  | 19.48   | 19.40   |                        |
| 1.4             | QPSK  | 3  | 1  | 19.39  | 19.15   | 19.23   |                        |
| 1.4             | QPSK  | 3  | 3  | 19.12  | 18.98   | 19.18   |                        |
| 1.4             | QPSK  | 6  | 0  | 19.43  | 19.21   | 19.45   | 20                     |
| 1.4             | 16QAM | 1  | 0  | 19.47  | 19.31   | 19.34   | 20                     |
| 1.4             | 16QAM | 1  | 3  | 19.48  | 19.24   | 19.32   |                        |
| 1.4             | 16QAM | 1  | 5  | 19.21  | 19.07   | 19.27   |                        |
| 1.4             | 16QAM | 3  | 0  | 18.21  | 18.15   | 18.14   |                        |
| 1.4             | 16QAM | 3  | 1  | 18.30  | 18.06   | 18.14   |                        |
| 1.4             | 16QAM | 3  | 3  | 18.03  | 17.89   | 18.09   |                        |
| 1.4             | 16QAM | 6  | 0  | 18.20  | 18.17   | 18.39   | 19                     |
| 1.4             | 64QAM | 1  | 0  | 18.25  | 18.66   | 18.31   | 19                     |
| 1.4             | 64QAM | 1  | 3  | 18.30  | 18.16   | 18.36   |                        |
| 1.4             | 64QAM | 1  | 5  | 18.47  | 18.44   | 18.66   |                        |
| 1.4             | 64QAM | 3  | 0  | 17.42  | 17.09   | 17.41   |                        |
| 1.4             | 64QAM | 3  | 1  | 17.06  | 16.92   | 17.12   |                        |
| 1.4             | 64QAM | 3  | 3  | 17.23  | 17.20   | 17.42   |                        |
| 1.4             | 64QAM | 6  | 0  | 17.15  | 17.02   | 17.01   | 18                     |

## 2.4GHz WLAN ANT 1

| 2.4GHz WLAN ANT 1 | Mode              | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Power Setting | Duty Cycle % |
|-------------------|-------------------|---------|-----------------|---------------------|---------------|---------------|--------------|
|                   | 802.11b 1Mbps     | CH 1    | 2412            | 11.95               | 12.50         | 12.00         | 98.78        |
|                   |                   | CH 7    | 2442            | 15.24               | 15.50         | 12.00         |              |
|                   |                   | CH 13   | 2472            | 12.70               | 13.00         | 12.00         |              |
|                   | 802.11g 6Mbps     | CH 1    | 2412            | 12.07               | 12.50         | 13.00         | 92.47        |
|                   |                   | CH 7    | 2442            | 15.44               | 15.50         | 13.00         |              |
|                   |                   | CH 13   | 2472            | 13.70               | 14.00         | 13.00         |              |
|                   | 802.11n-HT20 MCS0 | CH 1    | 2412            | 11.24               | 12.00         | 12.00         | 91.58        |
|                   |                   | CH 7    | 2442            | 14.92               | 15.50         | 12.00         |              |
|                   |                   | CH 13   | 2472            | 12.03               | 12.50         | 12.00         |              |
|                   | 802.11n-HT40 MCS0 | CH 1    | 2412            | 12.22               | 12.50         | 12.00         | 80.99        |
|                   |                   | CH 7    | 2442            | 14.00               | 14.50         | 12.00         |              |
|                   |                   | CH 13   | 2472            | 11.93               | 12.50         | 12.00         |              |

## 5GHz WLAN ANT 1

| 5.2GHz WLAN ANT 1 | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Power Setting | Duty Cycle % |
|-------------------|---------------------|---------|-----------------|---------------------|---------------|---------------|--------------|
|                   | 802.11a 6Mbps       | CH 36   | 5180            | 11.53               | 12.00         | 12.00         | 91.50        |
|                   |                     | CH 44   | 5220            | 11.78               | 12.50         | 12.00         |              |
|                   |                     | CH 48   | 5240            | 11.88               | 12.50         | 12.00         |              |
|                   | 802.11n-HT20 MCS0   | CH 36   | 5180            | 10.91               | 11.00         | 11.00         | 91.54        |
|                   |                     | CH 44   | 5220            | 11.11               | 11.50         | 11.00         |              |
|                   |                     | CH 48   | 5240            | 11.16               | 11.50         | 11.00         |              |
|                   | 802.11n-HT40 MCS0   | CH 38   | 5190            | 11.74               | 12.00         | 12.00         | 80.82        |
|                   |                     | CH 46   | 5230            | 11.81               | 12.00         | 12.00         |              |
|                   | 802.11ac-VHT20 MCS0 | CH 36   | 5180            | 11.09               | 11.50         | 11.00         | 90.94        |
|                   |                     | CH 44   | 5220            | 11.21               | 11.50         | 11.00         |              |
|                   |                     | CH 48   | 5240            | 11.28               | 11.50         | 11.00         |              |
|                   | 802.11ac-VHT40 MCS0 | CH 38   | 5190            | 11.58               | 12.00         | 12.00         | 81.08        |
|                   |                     | CH 46   | 5230            | 11.73               | 12.00         | 12.00         |              |
|                   | 802.11ac-VHT80 MCS0 | CH 42   | 5210            | 11.30               | 11.50         | 12.00         | 67.27        |

## 5GHz WLAN ANT 1

| 5.8GHz WLAN ANT 1 | Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Power Setting | Duty Cycle % |
|-------------------|---------------------|---------|-----------------|---------------------|---------------|---------------|--------------|
|                   | 802.11a MCS0        | CH 149  | 5745            | 9.86                | 10.50         | 12.00         | 91.50        |
|                   |                     | CH 157  | 5785            | 9.76                | 10.50         | 12.00         |              |
|                   |                     | CH 165  | 5825            | 9.77                | 10.50         | 12.00         |              |
|                   | 802.11n-HT20 MCS0   | CH 149  | 5745            | 9.17                | 9.50          | 11.00         | 91.54        |
|                   |                     | CH 157  | 5785            | 9.13                | 9.50          | 11.00         |              |
|                   |                     | CH 165  | 5825            | 9.13                | 9.50          | 11.00         |              |
|                   | 802.11n-HT40 MCS0   | CH 151  | 5755            | 9.84                | 10.50         | 12.00         | 80.82        |
|                   |                     | CH 159  | 5795            | 9.83                | 10.50         | 12.00         |              |
|                   | 802.11ac-VHT20 MCS0 | CH 149  | 5745            | 9.26                | 10.00         | 11.00         | 90.94        |
|                   |                     | CH 157  | 5785            | 9.21                | 10.00         | 11.00         |              |
|                   |                     | CH 165  | 5825            | 9.18                | 10.00         | 11.00         |              |
|                   | 802.11ac-VHT40 MCS0 | CH 151  | 5755            | 9.76                | 10.50         | 12.00         | 81.08        |
|                   |                     | CH 159  | 5795            | 9.63                | 10.00         | 12.00         |              |
|                   | 802.11ac-VHT80 MCS0 | CH 155  | 5775            | 9.22                | 10.00         | 12.00         | 67.27        |

| Mode          | Channel | Frequency<br>(MHz) | Average power (dBm) |       |       |
|---------------|---------|--------------------|---------------------|-------|-------|
|               |         |                    | 1Mbps               | 2Mbps | 3Mbps |
| BR / EDR      | CH 00   | 2402               | 4.99                | 4.10  | 4.03  |
|               | CH 39   | 2441               | 5.71                | 4.84  | 4.84  |
|               | CH 78   | 2480               | 5.04                | 4.15  | 4.21  |
| Tune-up Limit |         |                    | 6.00                | 5.50  | 5.50  |
| Duty Cycle %  |         |                    | 77.6                | 77.33 | 77.33 |

| Mode          | Channel | Frequency<br>(MHz) | Average power (dBm) |
|---------------|---------|--------------------|---------------------|
|               |         |                    | GFSK                |
| LE            | CH 00   | 2402               | 0.40                |
|               | CH 19   | 2440               | 0.50                |
|               | CH 39   | 2480               | 0.53                |
| Tune-up Limit |         |                    | 1                   |
| Duty Cycle %  |         |                    | 31.6                |