

## 8 CONDUCTED RF OUTPUT POWER

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## 8.1.1 LTE Cat-M\_Band2 Output Power

| LTE Cat-M_B2 Full Power |            |         |           |                       |                          |                        |                     |
|-------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [MHz]                | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                 |            |         |           | 18700                 | 18900                    | 19100                  |                     |
| Frequency (MHz)         |            |         |           | 1860                  | 1880                     | 1900                   |                     |
| 20                      | 1          | 0       | QPSK      | 22.56                 | 22.59                    | 22.45                  | 23.50               |
|                         | 6          | 0       | QPSK      | 22.54                 | 22.57                    | 22.44                  | 23.50               |
| 20                      | 1          | 0       | 16QAM     | 22.26                 | 22.09                    | 22.07                  | 22.50               |
|                         | 5          | 0       | 16QAM     | 22.22                 | 22.16                    | 22.32                  | 22.50               |
| Channel                 |            |         |           | 18675                 | 18900                    | 19125                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 1857.5                | 1880                     | 1902.5                 |                     |
| 15                      | 1          | 0       | QPSK      | 22.51                 | 22.53                    | 22.35                  | 23.50               |
|                         | 6          | 0       | QPSK      | 22.54                 | 22.58                    | 22.53                  | 23.50               |
| 15                      | 1          | 0       | 16QAM     | 22.12                 | 22.08                    | 21.97                  | 22.50               |
|                         | 5          | 0       | 16QAM     | 22.16                 | 22.18                    | 22.03                  | 22.50               |
| Channel                 |            |         |           | 18650                 | 18900                    | 19150                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 1855                  | 1880                     | 1905                   |                     |
| 10                      | 1          | 0       | QPSK      | 22.21                 | 22.23                    | 22.17                  | 23.50               |
|                         | 6          | 0       | QPSK      | 21.96                 | 21.97                    | 21.69                  | 23.50               |
| 10                      | 1          | 0       | 16QAM     | 22.03                 | 22.07                    | 21.91                  | 22.50               |
|                         | 5          | 0       | 16QAM     | 21.17                 | 21.19                    | 20.95                  | 22.50               |
| Channel                 |            |         |           | 18625                 | 18900                    | 19175                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 1852.5                | 1880                     | 1907.5                 |                     |
| 5                       | 1          | 0       | QPSK      | 22.49                 | 22.56                    | 22.26                  | 23.50               |
|                         | 6          | 0       | QPSK      | 21.92                 | 21.88                    | 21.69                  | 23.50               |
| 5                       | 1          | 0       | 16QAM     | 22.16                 | 22.16                    | 21.95                  | 22.50               |
|                         | 5          | 0       | 16QAM     | 21.54                 | 21.54                    | 21.38                  | 22.50               |
| Channel                 |            |         |           | 18615                 | 18900                    | 19185                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 1851.5                | 1880                     | 1908.5                 |                     |
| 3                       | 1          | 0       | QPSK      | 22.60                 | 22.62                    | 22.32                  | 23.50               |
|                         | 6          | 0       | QPSK      | 22.47                 | 22.58                    | 22.38                  | 23.50               |
| 3                       | 1          | 0       | 16QAM     | 20.94                 | 20.91                    | 20.91                  | 22.50               |
|                         | 5          | 0       | 16QAM     | 21.49                 | 21.57                    | 21.41                  | 22.50               |
| Channel                 |            |         |           | 18607                 | 18900                    | 19193                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 1850.7                | 1880                     | 1909.3                 |                     |
| 1.4                     | 1          | 0       | QPSK      | 22.36                 | 22.43                    | 22.13                  | 23.50               |
|                         | 6          | 0       | QPSK      | 22.54                 | 22.56                    | 22.39                  | 23.50               |
| 1.4                     | 1          | 0       | 16QAM     | 20.78                 | 20.78                    | 20.51                  | 22.50               |
|                         | 5          | 0       | 16QAM     | 21.49                 | 21.51                    | 21.36                  | 22.50               |

## 8.1.2 LTE Cat-M\_Band4 Output Power

| LTE Cat-M_B4 Full Power |            |         |           |                       |                          |                        |                     |
|-------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [MHz]                | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                 |            |         |           | 20050                 | 20175                    | 20300                  |                     |
| Frequency (MHz)         |            |         |           | 1720                  | 1732.5                   | 1745                   |                     |
| 20                      | 1          | 0       | QPSK      | 22.74                 | 23.17                    | 23.12                  | 24.00               |
|                         | 6          | 0       | QPSK      | 23.09                 | 23.11                    | 22.91                  | 24.00               |
| 20                      | 1          | 0       | 16QAM     | 22.11                 | 22.14                    | 22.10                  | 23.00               |
|                         | 5          | 0       | 16QAM     | 22.23                 | 22.85                    | 22.74                  | 23.00               |
| Channel                 |            |         |           | 20025                 | 20175                    | 20325                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 1717.5                | 1732.5                   | 1747.5                 |                     |
| 15                      | 1          | 0       | QPSK      | 22.74                 | 23.07                    | 23.02                  | 24.00               |
|                         | 6          | 0       | QPSK      | 22.98                 | 22.72                    | 22.83                  | 24.00               |
| 15                      | 1          | 0       | 16QAM     | 22.24                 | 22.96                    | 22.84                  | 23.00               |
|                         | 5          | 0       | 16QAM     | 22.31                 | 22.71                    | 22.73                  | 23.00               |
| Channel                 |            |         |           | 20000                 | 20175                    | 20350                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 1715                  | 1732.5                   | 1750                   |                     |
| 10                      | 1          | 0       | QPSK      | 22.74                 | 23.22                    | 22.81                  | 24.00               |
|                         | 6          | 0       | QPSK      | 22.07                 | 22.00                    | 22.19                  | 24.00               |
| 10                      | 1          | 0       | 16QAM     | 21.71                 | 22.14                    | 22.06                  | 23.00               |
|                         | 5          | 0       | 16QAM     | 21.33                 | 21.71                    | 21.51                  | 23.00               |
| Channel                 |            |         |           | 19975                 | 20175                    | 20375                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 1712.5                | 1732.5                   | 1752.5                 |                     |
| 5                       | 1          | 0       | QPSK      | 22.77                 | 23.16                    | 23.10                  | 24.00               |
|                         | 6          | 0       | QPSK      | 22.65                 | 23.11                    | 23.05                  | 24.00               |
| 5                       | 1          | 0       | 16QAM     | 21.66                 | 22.08                    | 22.09                  | 23.00               |
|                         | 5          | 0       | 16QAM     | 21.71                 | 22.10                    | 22.09                  | 23.00               |
| Channel                 |            |         |           | 19965                 | 20175                    | 20385                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 1711.5                | 1732.5                   | 1753.5                 |                     |
| 3                       | 1          | 0       | QPSK      | 22.68                 | 22.73                    | 22.71                  | 24.00               |
|                         | 6          | 0       | QPSK      | 22.69                 | 23.14                    | 23.03                  | 24.00               |
| 3                       | 1          | 0       | 16QAM     | 21.03                 | 21.21                    | 21.29                  | 23.00               |
|                         | 5          | 0       | 16QAM     | 21.67                 | 22.12                    | 22.06                  | 23.00               |
| Channel                 |            |         |           | 19957                 | 20175                    | 20393                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 1710.7                | 1732.5                   | 1754.3                 |                     |
| 1.4                     | 1          | 0       | QPSK      | 22.51                 | 22.71                    | 22.69                  | 24.00               |
|                         | 6          | 0       | QPSK      | 22.66                 | 23.10                    | 23.09                  | 24.00               |
| 1.4                     | 1          | 0       | 16QAM     | 21.69                 | 22.09                    | 22.07                  | 23.00               |
|                         | 5          | 0       | 16QAM     | 21.65                 | 22.10                    | 22.04                  | 23.00               |

## 8.1.3 LTE Cat-M\_Band5 Output Power

| LTE Cat-M_B5 Full Power |            |         |           |                       |                          |                        |                     |
|-------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [MHz]                | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                 |            |         |           | 20450                 | 20525                    | 20600                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 829                   | 836.5                    | 844                    |                     |
| 10                      | 1          | 0       | QPSK      | 22.62                 | 22.64                    | 22.57                  | 23.50               |
|                         | 6          | 0       | QPSK      | 22.53                 | 22.63                    | 22.56                  | 23.50               |
| 10                      | 1          | 0       | 16QAM     | 21.59                 | 21.55                    | 21.50                  | 22.50               |
|                         | 5          | 0       | 16QAM     | 21.63                 | 21.66                    | 21.42                  | 22.50               |
| Channel                 |            |         |           | 20425                 | 20525                    | 20625                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 826.5                 | 836.5                    | 846.5                  |                     |
| 5                       | 1          | 0       | QPSK      | 22.55                 | 22.62                    | 22.54                  | 23.50               |
|                         | 6          | 0       | QPSK      | 22.54                 | 22.58                    | 22.53                  | 23.50               |
| 5                       | 1          | 0       | 16QAM     | 21.58                 | 21.57                    | 21.50                  | 22.50               |
|                         | 5          | 0       | 16QAM     | 20.65                 | 20.57                    | 20.57                  | 22.50               |
| Channel                 |            |         |           | 20415                 | 20525                    | 20635                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 825.5                 | 836.5                    | 847.5                  |                     |
| 3                       | 1          | 0       | QPSK      | 22.51                 | 22.58                    | 22.53                  | 23.50               |
|                         | 6          | 0       | QPSK      | 22.55                 | 22.62                    | 22.55                  | 23.50               |
| 3                       | 1          | 0       | 16QAM     | 21.38                 | 21.21                    | 21.30                  | 22.50               |
|                         | 5          | 0       | 16QAM     | 20.72                 | 20.56                    | 20.55                  | 22.50               |
| Channel                 |            |         |           | 20407                 | 20525                    | 20643                  | Tune-up limit (dBm) |
| Frequency (MHz)         |            |         |           | 824.7                 | 836.5                    | 848.3                  |                     |
| 1.4                     | 1          | 0       | QPSK      | 22.54                 | 22.59                    | 22.45                  | 23.50               |
|                         | 6          | 0       | QPSK      | 22.58                 | 22.55                    | 22.50                  | 23.50               |
| 1.4                     | 1          | 0       | 16QAM     | 21.04                 | 20.92                    | 20.93                  | 22.50               |
|                         | 5          | 0       | 16QAM     | 21.61                 | 21.63                    | 21.48                  | 22.50               |

## 8.1.4 LTE Cat-M\_Band12 Output Power

| LTE Cat-M_B12 Full Power |            |         |           |                       |                          |                        |                     |
|--------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [MHz]                 | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                  |            |         |           | 23060                 | 23095                    | 23130                  |                     |
| Frequency (MHz)          |            |         |           | 704                   | 707.5                    | 711                    |                     |
| 10                       | 1          | 0       | QPSK      | 21.44                 | 21.80                    | 21.77                  | 22.50               |
|                          | 6          | 0       | QPSK      | 21.42                 | 21.76                    | 21.72                  | 22.50               |
| 10                       | 1          | 0       | 16QAM     | 20.35                 | 20.73                    | 20.75                  | 21.50               |
|                          | 5          | 0       | 16QAM     | 20.06                 | 20.38                    | 20.46                  | 21.50               |
| Channel                  |            |         |           | 23035                 | 23095                    | 23155                  | Tune-up power(dBm)  |
| Frequency (MHz)          |            |         |           | 701.5                 | 707.5                    | 713.5                  |                     |
| 5                        | 1          | 0       | QPSK      | 21.44                 | 21.52                    | 21.51                  | 22.50               |
|                          | 6          | 0       | QPSK      | 20.82                 | 20.95                    | 20.94                  | 22.50               |
| 5                        | 1          | 0       | 16QAM     | 20.77                 | 21.07                    | 21.11                  | 21.50               |
|                          | 5          | 0       | 16QAM     | 20.42                 | 20.77                    | 20.74                  | 21.50               |
| Channel                  |            |         |           | 23025                 | 23095                    | 23165                  | Tune-up power(dBm)  |
| Frequency (MHz)          |            |         |           | 700.5                 | 707.5                    | 714.5                  |                     |
| 3                        | 1          | 0       | QPSK      | 21.38                 | 21.77                    | 21.75                  | 22.50               |
|                          | 6          | 0       | QPSK      | 21.40                 | 21.75                    | 21.73                  | 22.50               |
| 3                        | 1          | 0       | 16QAM     | 20.37                 | 20.78                    | 20.70                  | 21.50               |
|                          | 5          | 0       | 16QAM     | 20.35                 | 20.77                    | 20.74                  | 21.50               |
| Channel                  |            |         |           | 23017                 | 23095                    | 23173                  | Tune-up power(dBm)  |
| Frequency (MHz)          |            |         |           | 699.7                 | 707.5                    | 715.3                  |                     |
| 1.4                      | 1          | 0       | QPSK      | 21.35                 | 21.72                    | 21.70                  | 22.50               |
|                          | 6          | 0       | QPSK      | 21.43                 | 21.79                    | 21.69                  | 22.50               |
| 1.4                      | 1          | 0       | 16QAM     | 20.41                 | 20.74                    | 20.76                  | 21.50               |
|                          | 5          | 0       | 16QAM     | 20.38                 | 20.72                    | 20.73                  | 21.50               |

## 8.1.5 LTE Cat-M\_Band13 Output Power

| LTE Cat-M_B13 Full Power |            |         |           |                       |                          |                        |                     |
|--------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [MHz]                 | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                  |            |         |           | 23230                 |                          |                        |                     |
| Frequency (MHz)          |            |         |           | 782                   |                          |                        |                     |
| 10                       | 1          | 0       | QPSK      |                       | 22. 53                   |                        | 23.50               |
|                          | 6          | 0       | QPSK      |                       | 22.52                    |                        | 23.50               |
| 10                       | 1          | 0       | 16QAM     |                       | 21.36                    |                        | 22.50               |
|                          | 5          | 0       | 16QAM     |                       | 21.29                    |                        | 22.50               |
| Channel                  |            |         |           | 23205                 | 23230                    | 23255                  | Tune-up power(dBm)  |
| Frequency (MHz)          |            |         |           | 779.5                 | 782                      | 784.5                  |                     |
| 5                        | 1          | 0       | QPSK      | 22.29                 | 22. 52                   | 22.49                  | 23.50               |
|                          | 6          | 0       | QPSK      | 21.53                 | 21.52                    | 21.60                  | 23.50               |
| 5                        | 1          | 0       | 16QAM     | 21.30                 | 21.35                    | 21.45                  | 22.50               |
|                          | 5          | 0       | 16QAM     | 21.25                 | 21.57                    | 21.41                  | 22.50               |

## 8.1.6 LTE Cat-M\_Band25 Output Power

| LTE Cat-M_B25 Full Power |            |         |           |                       |                          |                        |                     |
|--------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [MHz]                 | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                  |            |         |           | 26140                 | 26340                    | 26590                  |                     |
| Frequency (MHz)          |            |         |           | 1860                  | 1880                     | 1905                   |                     |
| 20                       | 1          | 0       | QPSK      | 22.64                 | 23.16                    | 22.87                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.95                 | 23.04                    | 22.69                  | 24.00               |
| 20                       | 1          | 0       | 16QAM     | 22.22                 | 22.72                    | 22.72                  | 24.00               |
|                          | 5          | 0       | 16QAM     | 22.22                 | 22.54                    | 22.28                  | 24.00               |
| Channel                  |            |         |           | 26115                 | 26340                    | 26615                  | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 1857.5                | 1880                     | 1907.5                 |                     |
| 15                       | 1          | 0       | QPSK      | 22.62                 | 23.16                    | 22.82                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.97                 | 22.64                    | 22.32                  | 24.00               |
| 15                       | 1          | 0       | 16QAM     | 22.09                 | 22.15                    | 22.07                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 22.16                 | 22.52                    | 22.25                  | 23.00               |
| Channel                  |            |         |           | 26090                 | 26340                    | 26640                  | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 1855                  | 1880                     | 1910                   |                     |
| 10                       | 1          | 0       | QPSK      | 22.54                 | 23.14                    | 22.77                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.59                 | 23.13                    | 22.73                  | 24.00               |
| 10                       | 1          | 0       | 16QAM     | 21.55                 | 22.07                    | 21.73                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.18                 | 21.38                    | 21.16                  | 23.00               |
| Channel                  |            |         |           | 26065                 | 26340                    | 26665                  | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 1852.5                | 1880                     | 1912.5                 |                     |
| 5                        | 1          | 0       | QPSK      | 22.58                 | 23.11                    | 22.77                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.57                 | 23.10                    | 22.81                  | 24.00               |
| 5                        | 1          | 0       | 16QAM     | 22.09                 | 23.00                    | 22.58                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.53                 | 22.12                    | 21.79                  | 23.00               |
| Channel                  |            |         |           | 26055                 | 26340                    | 26675                  | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 1851.5                | 1880                     | 1913.5                 |                     |
| 3                        | 1          | 0       | QPSK      | 22.60                 | 23.07                    | 22.76                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.56                 | 23.09                    | 22.78                  | 24.00               |
| 3                        | 1          | 0       | 16QAM     | 21.56                 | 22.12                    | 21.79                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.55                 | 22.10                    | 21.78                  | 23.00               |
| Channel                  |            |         |           | 26047                 | 26340                    | 26683                  | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 1850.7                | 1880                     | 1914.3                 |                     |
| 1.4                      | 1          | 0       | QPSK      | 22.55                 | 23.15                    | 22.81                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.56                 | 23.12                    | 22.75                  | 24.00               |
| 1.4                      | 1          | 0       | 16QAM     | 21.56                 | 22.07                    | 21.76                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.54                 | 22.15                    | 21.81                  | 23.00               |

## 8.1.7 LTE Cat-M\_Band26 Output Power

| LTE Cat-M_B26 Full Power |            |         |           |                       |                          |                        |                     |
|--------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [MHz]                 | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                  |            |         |           | 26765                 | 26865                    | 26965                  |                     |
| Frequency (MHz)          |            |         |           | 821.5                 | 831.5                    | 841.5                  |                     |
| 15                       | 1          | 0       | QPSK      | 22.90                 | 23.35                    | 23.32                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.72                 | 22.83                    | 22.82                  | 24.00               |
| 15                       | 1          | 0       | 16QAM     | 21.84                 | 22.27                    | 22.28                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.89                 | 22.31                    | 22.27                  | 23.00               |
| Channel                  |            |         |           | 26740                 | 26865                    | 26990                  | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 819                   | 831.5                    | 844                    |                     |
| 10                       | 1          | 0       | QPSK      | 22.88                 | 23.22                    | 23.24                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.85                 | 23.33                    | 23.28                  | 24.00               |
| 10                       | 1          | 0       | 16QAM     | 21.82                 | 22.31                    | 22.26                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.42                 | 21.73                    | 21.72                  | 23.00               |
| Channel                  |            |         |           | 26715                 | 26865                    | 27015                  | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 816.5                 | 831.5                    | 846.5                  |                     |
| 5                        | 1          | 0       | QPSK      | 22.85                 | 23.29                    | 23.23                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.93                 | 23.10                    | 23.18                  | 24.00               |
| 5                        | 1          | 0       | 16QAM     | 22.28                 | 21.71                    | 21.74                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.83                 | 22.32                    | 22.31                  | 23.00               |
| Channel                  |            |         |           | 26705                 | 26865                    | 27025                  | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 815.5                 | 831.5                    | 847.5                  |                     |
| 3                        | 1          | 0       | QPSK      | 22.84                 | 23.26                    | 23.25                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.85                 | 23.33                    | 23.28                  | 24.00               |
| 3                        | 1          | 0       | 16QAM     | 21.83                 | 22.34                    | 22.31                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.81                 | 22.26                    | 22.24                  | 23.00               |
| Channel                  |            |         |           | 26697                 | 26865                    | 27033                  | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 814.7                 | 831.5                    | 848.3                  |                     |
| 1.4                      | 1          | 0       | QPSK      | 22.84                 | 23.34                    | 23.24                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.86                 | 23.33                    | 23.30                  | 24.00               |
| 1.4                      | 1          | 0       | 16QAM     | 21.89                 | 22.31                    | 22.28                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.83                 | 22.30                    | 22.28                  | 23.00               |

## 8.1.8 LTE Cat-M\_Band66 Output Power

| LTE Cat-M_B66 Full Power |            |         |           |                       |                          |                        |                     |
|--------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [MHz]                 | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                  |            |         |           | 132072                | 132322                   | 132572                 |                     |
| Frequency (MHz)          |            |         |           | 1720                  | 1745                     | 1770                   |                     |
| 20                       | 1          | 0       | QPSK      | 22.60                 | 23.21                    | 22.89                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.81                 | 22.89                    | 22.82                  | 24.00               |
| 20                       | 1          | 0       | 16QAM     | 21.58                 | 22.15                    | 21.83                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 22.16                 | 22.70                    | 21.94                  | 23.00               |
| Channel                  |            |         |           | 132047                | 132322                   | 132597                 | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 1717.5                | 1745                     | 1772.5                 |                     |
| 15                       | 1          | 0       | QPSK      | 22.89                 | 23.21                    | 22.79                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.59                 | 22.89                    | 22.89                  | 24.00               |
| 15                       | 1          | 0       | 16QAM     | 21.58                 | 22.14                    | 21.87                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 22.55                 | 22.67                    | 22.05                  | 23.00               |
| Channel                  |            |         |           | 132022                | 132322                   | 132622                 | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 1715                  | 1745                     | 1775                   |                     |
| 10                       | 1          | 0       | QPSK      | 22.60                 | 23.13                    | 22.94                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.56                 | 23.11                    | 22.80                  | 24.00               |
| 10                       | 1          | 0       | 16QAM     | 22.23                 | 22.07                    | 22.84                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.28                 | 21.10                    | 21.58                  | 23.00               |
| Channel                  |            |         |           | 131997                | 132322                   | 132647                 | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 1712.5                | 1745                     | 1777.5                 |                     |
| 5                        | 1          | 0       | QPSK      | 22.61                 | 23.27                    | 22.58                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.51                 | 23.20                    | 22.87                  | 24.00               |
|                          | 1          | 0       | QPSK      | 21.53                 | 22.19                    | 21.85                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.55                 | 22.14                    | 21.80                  | 23.00               |
| Channel                  |            |         |           | 131987                | 132322                   | 132657                 | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 1711.5                | 1745                     | 1778.5                 |                     |
| 3                        | 1          | 0       | QPSK      | 22.56                 | 22.62                    | 22.57                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.57                 | 23.17                    | 22.86                  | 24.00               |
| 3                        | 1          | 0       | 16QAM     | 21.59                 | 22.16                    | 21.87                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.55                 | 22.14                    | 21.86                  | 23.00               |
| Channel                  |            |         |           | 131979                | 132322                   | 132665                 | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 1710.7                | 1745                     | 1779.3                 |                     |
| 1.4                      | 1          | 0       | QPSK      | 22.48                 | 22.66                    | 22.36                  | 24.00               |
|                          | 6          | 0       | QPSK      | 22.56                 | 23.19                    | 22.82                  | 24.00               |
| 1.4                      | 1          | 0       | 16QAM     | 21.56                 | 22.17                    | 21.82                  | 23.00               |
|                          | 5          | 0       | 16QAM     | 21.57                 | 22.13                    | 21.83                  | 23.00               |

## 8.2.1 LTE NB-IoT\_Band2 Output Power

| LTE NB-IOT_B2 Full Power |            |         |           |                       |                          |                        |                     |
|--------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [kHz]                 | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                  |            |         |           | 18601                 | 18900                    | 19199                  |                     |
| Frequency (MHz)          |            |         |           | 1850.1                | 1880                     | 1909.9                 |                     |
| 15                       | 1          | 0       | QPSK      | 22.14                 | 22.53                    | 22.36                  | 23.50               |
|                          | 1          | 11      | QPSK      | 22.35                 | 22.12                    | 21.89                  | 23.50               |
|                          | 12         | 0       | QPSK      | 22.43                 | 22.49                    | 22.32                  | 23.50               |
| 15                       | 1          | 0       | BPSK      | 22.25                 | 22.47                    | 22.18                  | 23.50               |
|                          | 1          | 11      | BPSK      | 22.36                 | 22.18                    | 21.80                  | 23.50               |
| Channel                  |            |         |           | 18601                 | 18900                    | 19199                  | Tune-up limit (dBm) |
| Frequency (MHz)          |            |         |           | 1850.1                | 1880                     | 1909.9                 |                     |
| 3.75                     | 1          | 0       | QPSK      | 21.96                 | 22.27                    | 23.00                  | 23.50               |
|                          | 1          | 47      | QPSK      | 22.13                 | 21.96                    | 21.63                  | 23.50               |
| 3.75                     | 1          | 0       | BPSK      | 21.95                 | 22.47                    | 23.01                  | 23.50               |
|                          | 1          | 47      | BPSK      | 22.07                 | 21.91                    | 21.61                  | 23.50               |

## 8.2.2 LTE NB-IoT\_Band4 Output Power

| LTE NB-IOT_B4 Full Power |            |            |              |                             |                                |                              |                        |
|--------------------------|------------|------------|--------------|-----------------------------|--------------------------------|------------------------------|------------------------|
| BW<br>[kHz]              | Modulation | RB<br>Size | RB<br>Offset | Power<br>Low<br>Ch. / Freq. | Power<br>Middle<br>Ch. / Freq. | Power<br>High<br>Ch. / Freq. | Tune-up limit<br>(dBm) |
| Channel                  |            |            |              | 19951                       | 20175                          | 20399                        |                        |
| Frequency (MHz)          |            |            |              | 1710.1                      | 1732.5                         | 1754.9                       |                        |
| 15                       | 1          | 0          | QPSK         | 22.22                       | 22.30                          | 22.26                        | 23.00                  |
|                          | 1          | 11         | QPSK         | 22.27                       | 22.27                          | 22.22                        | 23.00                  |
|                          | 12         | 0          | QPSK         | 22.23                       | 22.25                          | 22.21                        | 23.00                  |
| 15                       | 1          | 0          | BPSK         | 22.28                       | 22.29                          | 22.23                        | 23.00                  |
|                          | 1          | 11         | BPSK         | 22.25                       | 22.22                          | 22.24                        | 23.00                  |
| Channel                  |            |            |              | 19951                       | 20175                          | 20399                        | Tune-up limit<br>(dBm) |
| Frequency (MHz)          |            |            |              | 1710.1                      | 1732.5                         | 1754.9                       |                        |
| 3.75                     | 1          | 0          | QPSK         | 22.11                       | 21.94                          | 22.13                        | 23.00                  |
|                          | 1          | 47         | QPSK         | 22.27                       | 22.28                          | 22.23                        | 23.00                  |
| 3.75                     | 1          | 0          | BPSK         | 22.01                       | 21.98                          | 22.09                        | 23.00                  |
|                          | 1          | 47         | BPSK         | 22.23                       | 22.24                          | 22.21                        | 23.00                  |

## 8.2.3 LTE NB-IoT\_Band5 Output Power

| LTE NB-IOT_B5 Full Power |            |            |              |                             |                                |                              |                        |
|--------------------------|------------|------------|--------------|-----------------------------|--------------------------------|------------------------------|------------------------|
| BW<br>[kHz]              | Modulation | RB<br>Size | RB<br>Offset | Power<br>Low<br>Ch. / Freq. | Power<br>Middle<br>Ch. / Freq. | Power<br>High<br>Ch. / Freq. | Tune-up limit<br>(dBm) |
| Channel                  |            |            |              | 20401                       | 20525                          | 20649                        | Tune-up limit<br>(dBm) |
| Frequency (MHz)          |            |            |              | 824.1                       | 836.5                          | 848.9                        |                        |
| 15                       | 1          | 0          | QPSK         | 22.61                       | 22.68                          | 22.52                        | 23.50                  |
|                          | 1          | 11         | QPSK         | 22.63                       | 22.25                          | 22.64                        | 23.50                  |
|                          | 12         | 0          | QPSK         | 22.52                       | 22.58                          | 22.54                        | 23.50                  |
| 15                       | 1          | 0          | BPSK         | 22.62                       | 22.57                          | 22.48                        | 23.50                  |
|                          | 1          | 11         | BPSK         | 22.57                       | 22.19                          | 22.65                        | 23.50                  |
| Channel                  |            |            |              | 20401                       | 20525                          | 20649                        | Tune-up limit<br>(dBm) |
| Frequency (MHz)          |            |            |              | 824.1                       | 836.5                          | 848.9                        |                        |
| 3.75                     | 1          | 0          | QPSK         | 22.53                       | 22.59                          | 22.40                        | 23.50                  |
|                          | 1          | 47         | QPSK         | 22.47                       | 22.61                          | 22.59                        | 23.50                  |
| 3.75                     | 1          | 0          | BPSK         | 22.43                       | 22.49                          | 22.33                        | 23.50                  |
|                          | 1          | 47         | BPSK         | 22.43                       | 22.55                          | 22.52                        | 23.50                  |

## 8.2.4 LTE NB-IoT\_Band12 Output Power

| LTE NB-IOT_B12 Full Power |            |         |           |                       |                          |                        |                     |
|---------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [kHz]                  | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                   |            |         |           | 23011                 | 23095                    | 23179                  |                     |
| Frequency (MHz)           |            |         |           | 699                   | 707.5                    | 715.9                  |                     |
| 15                        | 1          | 0       | QPSK      | 22.89                 | 22.95                    | 22.90                  | 24.00               |
|                           | 1          | 11      | QPSK      | 22.80                 | 22.88                    | 22.83                  | 24.00               |
|                           | 12         | 0       | QPSK      | 22.78                 | 22.89                    | 22.84                  | 24.00               |
| 15                        | 1          | 0       | BPSK      | 22.85                 | 22.86                    | 22.86                  | 24.00               |
|                           | 1          | 11      | BPSK      | 22.80                 | 22.87                    | 22.89                  | 24.00               |
| Channel                   |            |         |           | 23011                 | 23095                    | 23179                  | Tune-up power(dBm)  |
| Frequency (MHz)           |            |         |           | 699                   | 707.5                    | 715.9                  |                     |
| 3.75                      | 1          | 0       | QPSK      | 22.68                 | 22.78                    | 22.75                  | 24.00               |
|                           | 1          | 47      | QPSK      | 22.86                 | 22.94                    | 22.88                  | 24.00               |
| 3.75                      | 1          | 0       | BPSK      | 22.61                 | 22.67                    | 22.63                  | 24.00               |
|                           | 1          | 47      | BPSK      | 22.85                 | 22.87                    | 22.84                  | 24.00               |

## 8.2.5 LTE NB-IoT\_Band13 Output Power

| LTE NB-IOT_B13 Full Power |            |         |           |                       |                          |                        |                     |
|---------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [kHz]                  | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                   |            |         |           | 23181                 | 23230                    | 23279                  |                     |
| Frequency (MHz)           |            |         |           | 777                   | 782                      | 786.9                  |                     |
| 15                        | 1          | 0       | QPSK      | 22.15                 | 22.20                    | 22.03                  | 23.00               |
|                           | 1          | 11      | QPSK      | 22.12                 | 22.15                    | 22.14                  | 23.00               |
|                           | 12         | 0       | QPSK      | 22.14                 | 22.19                    | 22.13                  | 23.00               |
| 15                        | 1          | 0       | BPSK      | 22.12                 | 22.04                    | 21.93                  | 23.00               |
|                           | 1          | 11      | BPSK      | 22.13                 | 22.19                    | 22.14                  | 23.00               |
| Channel                   |            |         |           | 23181                 | 23230                    | 23279                  | Tune-up power(dBm)  |
| Frequency (MHz)           |            |         |           | 777                   | 782                      | 786.9                  |                     |
| 3.75                      | 1          | 0       | QPSK      | 22.07                 | 22.12                    | 21.82                  | 23.00               |
|                           | 1          | 47      | QPSK      | 22.12                 | 22.18                    | 22.14                  | 23.00               |
| 3.75                      | 1          | 0       | BPSK      | 22.06                 | 21.96                    | 21.88                  | 23.00               |
|                           | 1          | 47      | BPSK      | 22.11                 | 22.19                    | 22.15                  | 23.00               |

## 8.2.6 LTE NB-IoT\_Band17 Output Power

| LTE NB-IOT_B17 Full Power |            |         |           |                       |                          |                        |                     |
|---------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [kHz]                  | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                   |            |         |           | 23731                 | 23790                    | 23849                  |                     |
| Frequency (MHz)           |            |         |           | 704.1                 | 710                      | 715.9                  |                     |
| 15                        | 1          | 0       | QPSK      | 22.53                 | 22.59                    | 22.54                  | 24.00               |
|                           | 1          | 11      | QPSK      | 22.48                 | 22.52                    | 22.46                  | 24.00               |
|                           | 12         | 0       | QPSK      | 22.57                 | 22.34                    | 22.48                  | 24.00               |
| 15                        | 1          | 0       | BPSK      | 22.38                 | 22.26                    | 22.55                  | 24.00               |
|                           | 1          | 11      | BPSK      | 22.49                 | 22.52                    | 22.45                  | 24.00               |
| Channel                   |            |         |           | 23731                 | 23790                    | 23849                  | Tune-up power(dBm)  |
| Frequency (MHz)           |            |         |           | 704.1                 | 710                      | 715.9                  |                     |
| 3.75                      | 1          | 0       | QPSK      | 22.31                 | 22.26                    | 22.38                  | 24.00               |
|                           | 1          | 47      | QPSK      | 22.49                 | 22.57                    | 22.53                  | 24.00               |
| 3.75                      | 1          | 0       | BPSK      | 22.47                 | 22.47                    | 22.46                  | 24.00               |
|                           | 1          | 47      | BPSK      | 22.44                 | 22.54                    | 22.49                  | 24.00               |

## 8.2.7 LTE NB-IoT\_Band25 Output Power

| LTE NB-IOT_B25 Full Power |            |         |           |                       |                          |                        |                     |
|---------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [kHz]                  | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                   |            |         |           | 26041                 | 26340                    | 26689                  |                     |
| Frequency (MHz)           |            |         |           | 1850.1                | 1880                     | 1914.9                 |                     |
| 15                        | 1          | 0       | QPSK      | 22.51                 | 23.00                    | 22.87                  | 24.00               |
|                           | 1          | 11      | QPSK      | 22.45                 | 22.91                    | 22.85                  | 24.00               |
|                           | 12         | 0       | QPSK      | 22.77                 | 22.99                    | 22.96                  | 24.00               |
| 15                        | 1          | 0       | BPSK      | 22.56                 | 22.98                    | 22.95                  | 24.00               |
|                           | 1          | 11      | BPSK      | 22.50                 | 22.99                    | 22.85                  | 24.00               |
| Channel                   |            |         |           | 26041                 | 26340                    | 26689                  | Tune-up limit (dBm) |
| Frequency (MHz)           |            |         |           | 1850.1                | 1880                     | 1914.9                 |                     |
| 3.75                      | 1          | 0       | QPSK      | 22.37                 | 22.84                    | 22.73                  | 24.00               |
|                           | 1          | 47      | QPSK      | 22.43                 | 22.96                    | 22.81                  | 24.00               |
| 3.75                      | 1          | 0       | BPSK      | 22.41                 | 22.83                    | 22.65                  | 24.00               |
|                           | 1          | 47      | BPSK      | 22.45                 | 22.95                    | 22.80                  | 24.00               |

## 8.2.8 LTE NB-IoT\_Band66 Output Power

| LTE NB-IOT_B66 Full Power |            |         |           |                       |                          |                        |                     |
|---------------------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|
| BW [kHz]                  | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) |
| Channel                   |            |         |           | 131973                | 132322                   | 132671                 |                     |
| Frequency (MHz)           |            |         |           | 1710.1                | 1745                     | 1779.9                 |                     |
| 15                        | 1          | 0       | QPSK      | 22.11                 | 22.15                    | 22.10                  | 23.00               |
|                           | 1          | 11      | QPSK      | 22.07                 | 22.10                    | 22.10                  | 23.00               |
|                           | 12         | 0       | QPSK      | 22.08                 | 22.11                    | 22.02                  | 23.00               |
| 15                        | 1          | 0       | BPSK      | 22.10                 | 22.13                    | 22.04                  | 23.00               |
|                           | 1          | 11      | BPSK      | 22.06                 | 22.10                    | 22.07                  | 23.00               |
| Channel                   |            |         |           | 131973                | 132322                   | 132671                 | Tune-up limit (dBm) |
| Frequency (MHz)           |            |         |           | 1710.1                | 1745                     | 1779.9                 |                     |
| 3.75                      | 1          | 0       | QPSK      | 22.00                 | 22.14                    | 21.86                  | 23.00               |
|                           | 1          | 47      | QPSK      | 22.09                 | 22.10                    | 22.07                  | 23.00               |
| 3.75                      | 1          | 0       | BPSK      | 22.13                 | 21.95                    | 21.82                  | 23.00               |
|                           | 1          | 47      | BPSK      | 22.09                 | 22.11                    | 22.08                  | 23.00               |