

# Appendix E:

## Output Power Measurement

LTE Ant0:

| LTE Band 2 |            |         |           | Conducted Power(dBm) |                  |                  | Tune up |
|------------|------------|---------|-----------|----------------------|------------------|------------------|---------|
| Bandwidth  | Modulation | RB size | RB offset | Channel<br>18607     | Channel<br>18900 | Channel<br>19193 |         |
| 1.4MHz     | QPSK       | 1       | 0         | 19.97                | 19.83            | 19.84            | 20.50   |
|            |            | 1       | 2         | 19.90                | 19.93            | 19.95            | 20.50   |
|            |            | 1       | 5         | 19.92                | 19.89            | 19.84            | 20.50   |
|            |            | 3       | 0         | 19.86                | 19.92            | 19.95            | 20.50   |
|            |            | 3       | 2         | 19.87                | 19.94            | 19.91            | 20.50   |
|            |            | 3       | 3         | 19.91                | 19.88            | 19.89            | 20.50   |
|            |            | 6       | 0         | 19.88                | 19.88            | 19.85            | 20.50   |
|            | 16QAM      | 1       | 0         | 19.89                | 19.86            | 19.90            | 20.50   |
|            |            | 1       | 2         | 19.80                | 19.78            | 19.91            | 20.50   |
|            |            | 1       | 5         | 19.88                | 19.82            | 19.87            | 20.50   |
|            |            | 3       | 0         | 19.94                | 19.94            | 19.93            | 20.50   |
|            |            | 3       | 2         | 19.91                | 19.85            | 19.90            | 20.50   |
|            |            | 3       | 3         | 19.88                | 19.91            | 19.75            | 20.50   |
|            |            | 6       | 0         | 19.89                | 19.85            | 19.81            | 20.50   |
|            | 64QAM      | 1       | 0         | 19.57                | 19.60            | 19.56            | 20.50   |
|            |            | 1       | 2         | 19.42                | 19.41            | 19.45            | 20.50   |
|            |            | 1       | 5         | 19.63                | 19.60            | 19.69            | 20.50   |
|            |            | 3       | 0         | 19.34                | 19.41            | 19.35            | 20.50   |
|            |            | 3       | 2         | 19.46                | 19.39            | 19.36            | 20.50   |
|            |            | 3       | 3         | 19.35                | 19.30            | 19.24            | 20.50   |
|            |            | 6       | 0         | 19.40                | 19.19            | 19.24            | 20.50   |
|            | 256QAM     | 1       | 0         | 18.89                | 18.88            | 18.92            | 19.50   |
|            |            | 1       | 2         | 18.92                | 18.89            | 18.92            | 19.50   |
|            |            | 1       | 5         | 18.91                | 18.97            | 18.88            | 19.50   |
|            |            | 3       | 0         | 18.84                | 18.84            | 18.79            | 19.50   |
|            |            | 3       | 2         | 18.84                | 18.76            | 18.76            | 19.50   |
|            |            | 3       | 3         | 18.71                | 18.70            | 18.65            | 19.50   |
|            |            | 6       | 0         | 18.74                | 18.68            | 18.77            | 19.50   |
| Bandwidth  | Modulation | RB size | RB offset | Channel<br>18615     | Channel<br>18900 | Channel<br>19185 | Tune up |
| 3MHz       | QPSK       | 1       | 0         | 19.81                | 19.84            | 19.87            | 20.50   |
|            |            | 1       | 7         | 19.89                | 19.91            | 19.89            | 20.50   |
|            |            | 1       | 14        | 19.91                | 19.90            | 19.82            | 20.50   |
|            |            | 8       | 0         | 19.89                | 19.92            | 19.88            | 20.50   |
|            |            | 8       | 4         | 19.88                | 19.95            | 19.89            | 20.50   |
|            |            | 8       | 7         | 19.93                | 19.93            | 19.94            | 20.50   |
|            |            | 15      | 0         | 19.80                | 19.93            | 19.83            | 20.50   |
|            | 16QAM      | 1       | 0         | 19.88                | 19.85            | 19.90            | 20.50   |
|            |            | 1       | 7         | 19.90                | 19.82            | 19.93            | 20.50   |
|            |            | 1       | 14        | 19.86                | 19.89            | 19.81            | 20.50   |
|            |            | 8       | 0         | 19.92                | 19.90            | 19.87            | 20.50   |
|            |            | 8       | 4         | 19.94                | 19.82            | 19.94            | 20.50   |
|            |            | 8       | 7         | 19.91                | 19.88            | 19.74            | 20.50   |
|            |            | 15      | 0         | 19.85                | 19.86            | 19.77            | 20.50   |
|            | 64QAM      | 1       | 0         | 19.53                | 19.42            | 19.68            | 20.50   |
|            |            | 1       | 7         | 19.55                | 19.39            | 19.48            | 20.50   |
|            |            | 1       | 14        | 19.54                | 19.57            | 19.53            | 20.50   |
|            |            | 8       | 0         | 19.40                | 19.25            | 19.33            | 20.50   |
|            |            | 8       | 4         | 19.33                | 19.23            | 19.45            | 20.50   |
|            |            | 8       | 7         | 19.26                | 19.27            | 19.22            | 20.50   |
|            |            | 15      | 0         | 19.36                | 19.37            | 19.38            | 20.50   |
|            | 256QAM     | 1       | 0         | 18.85                | 18.89            | 18.89            | 19.50   |
|            |            | 1       | 7         | 18.93                | 18.83            | 18.93            | 19.50   |
|            |            | 1       | 14        | 18.80                | 18.95            | 18.92            | 19.50   |
|            |            | 8       | 0         | 18.93                | 18.80            | 18.77            | 19.50   |
|            |            | 8       | 4         | 18.73                | 18.83            | 18.74            | 19.50   |
|            |            | 8       | 7         | 18.72                | 18.71            | 18.72            | 19.50   |
|            |            | 15      | 0         | 18.79                | 18.68            | 18.75            | 19.50   |
| Bandwidth  | Modulation | RB size | RB offset | Channel<br>18625     | Channel<br>18900 | Channel<br>19175 | Tune up |
| 5MHz       | QPSK       | 1       | 0         | 19.86                | 19.86            | 19.85            | 20.50   |
|            |            | 1       | 13        | 19.88                | 19.90            | 19.92            | 20.50   |
|            |            | 1       | 24        | 19.94                | 19.90            | 19.84            | 20.50   |
|            |            | 12      | 0         | 19.93                | 19.90            | 19.88            | 20.50   |
|            |            | 12      | 6         | 19.97                | 19.96            | 19.86            | 20.50   |
|            |            | 12      | 13        | 19.93                | 19.89            | 19.91            | 20.50   |
|            |            | 25      | 0         | 19.83                | 19.80            | 19.92            | 20.50   |

|           |            |         |           |         |         |         |         |
|-----------|------------|---------|-----------|---------|---------|---------|---------|
|           | 16QAM      | 1       | 0         | 19.94   | 19.87   | 19.96   | 20.50   |
|           |            | 1       | 13        | 19.85   | 19.92   | 19.93   | 20.50   |
|           |            | 1       | 24        | 19.94   | 19.93   | 19.86   | 20.50   |
|           |            | 12      | 0         | 19.95   | 19.97   | 19.94   | 20.50   |
|           |            | 12      | 6         | 19.82   | 19.87   | 19.88   | 20.50   |
|           |            | 12      | 13        | 19.88   | 19.81   | 19.76   | 20.50   |
|           |            | 25      | 0         | 19.96   | 19.93   | 19.92   | 20.50   |
|           | 64QAM      | 1       | 0         | 19.42   | 19.43   | 19.55   | 20.50   |
|           |            | 1       | 13        | 19.49   | 19.54   | 19.43   | 20.50   |
|           |            | 1       | 24        | 19.59   | 19.58   | 19.60   | 20.50   |
|           |            | 12      | 0         | 19.37   | 19.26   | 19.37   | 20.50   |
|           |            | 12      | 6         | 19.50   | 19.30   | 19.48   | 20.50   |
|           |            | 12      | 13        | 19.32   | 19.31   | 19.22   | 20.50   |
|           |            | 25      | 0         | 19.43   | 19.32   | 19.27   | 20.50   |
|           | 256QAM     | 1       | 0         | 18.89   | 18.79   | 18.79   | 19.50   |
|           |            | 1       | 13        | 18.91   | 18.94   | 18.82   | 19.50   |
|           |            | 1       | 24        | 18.93   | 18.98   | 18.88   | 19.50   |
|           |            | 12      | 0         | 18.93   | 18.75   | 18.82   | 19.50   |
|           |            | 12      | 6         | 18.69   | 18.72   | 18.72   | 19.50   |
|           |            | 12      | 13        | 18.62   | 18.70   | 18.58   | 19.50   |
|           |            | 25      | 0         | 18.72   | 18.77   | 18.76   | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Tune up |
|           |            |         |           | 18650   | 18900   | 19150   |         |
| 10MHz     | QPSK       | 1       | 0         | 19.84   | 19.80   | 19.91   | 20.50   |
|           |            | 1       | 25        | 19.93   | 19.95   | 19.96   | 20.50   |
|           |            | 1       | 49        | 19.96   | 19.92   | 19.88   | 20.50   |
|           |            | 25      | 0         | 19.97   | 19.96   | 19.92   | 20.50   |
|           |            | 25      | 13        | 19.96   | 19.92   | 19.86   | 20.50   |
|           |            | 25      | 25        | 19.95   | 19.92   | 19.94   | 20.50   |
|           |            | 50      | 0         | 19.77   | 19.88   | 19.91   | 20.50   |
|           | 16QAM      | 1       | 0         | 19.87   | 19.85   | 19.84   | 20.50   |
|           |            | 1       | 25        | 19.90   | 19.75   | 19.95   | 20.50   |
|           |            | 1       | 49        | 19.93   | 19.84   | 19.81   | 20.50   |
|           |            | 25      | 0         | 19.91   | 19.92   | 19.92   | 20.50   |
|           |            | 25      | 13        | 19.95   | 19.92   | 19.93   | 20.50   |
|           |            | 25      | 25        | 19.93   | 19.79   | 19.84   | 20.50   |
|           |            | 50      | 0         | 19.86   | 19.94   | 19.75   | 20.50   |
|           | 64QAM      | 1       | 0         | 19.54   | 19.53   | 19.58   | 20.50   |
|           |            | 1       | 25        | 19.44   | 19.42   | 19.41   | 20.50   |
|           |            | 1       | 49        | 19.62   | 19.50   | 19.52   | 20.50   |
|           |            | 25      | 0         | 19.47   | 19.27   | 19.38   | 20.50   |
|           |            | 25      | 13        | 19.45   | 19.39   | 19.46   | 20.50   |
|           |            | 25      | 25        | 19.27   | 19.21   | 19.38   | 20.50   |
|           |            | 50      | 0         | 19.34   | 19.23   | 19.25   | 20.50   |
|           | 256QAM     | 1       | 0         | 18.93   | 18.88   | 18.79   | 19.50   |
|           |            | 1       | 25        | 18.91   | 18.96   | 18.82   | 19.50   |
|           |            | 1       | 49        | 18.80   | 18.91   | 18.92   | 19.50   |
|           |            | 25      | 0         | 18.80   | 18.86   | 18.73   | 19.50   |
|           |            | 25      | 13        | 18.80   | 18.74   | 18.82   | 19.50   |
|           |            | 25      | 25        | 18.61   | 18.59   | 18.69   | 19.50   |
|           |            | 50      | 0         | 18.79   | 18.72   | 18.74   | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Tune up |
|           |            |         |           | 18675   | 18900   | 19125   |         |
| 15MHz     | QPSK       | 1       | 0         | 19.88   | 19.74   | 19.89   | 20.50   |
|           |            | 1       | 38        | 19.93   | 19.96   | 19.89   | 20.50   |
|           |            | 1       | 74        | 19.84   | 19.95   | 19.95   | 20.50   |
|           |            | 36      | 0         | 19.91   | 19.92   | 19.94   | 20.50   |
|           |            | 36      | 18        | 19.95   | 19.97   | 19.93   | 20.50   |
|           |            | 36      | 39        | 19.94   | 19.88   | 19.92   | 20.50   |
|           |            | 75      | 0         | 19.92   | 19.90   | 19.95   | 20.50   |
|           | 16QAM      | 1       | 0         | 19.85   | 19.87   | 19.88   | 20.50   |
|           |            | 1       | 38        | 19.89   | 19.76   | 19.94   | 20.50   |
|           |            | 1       | 74        | 19.91   | 19.86   | 19.90   | 20.50   |
|           |            | 36      | 0         | 19.89   | 19.88   | 19.92   | 20.50   |
|           |            | 36      | 18        | 19.82   | 19.95   | 19.97   | 20.50   |
|           |            | 36      | 39        | 19.94   | 19.80   | 19.88   | 20.50   |
|           |            | 75      | 0         | 19.92   | 19.97   | 19.88   | 20.50   |
|           | 64QAM      | 1       | 0         | 19.48   | 19.61   | 19.65   | 20.50   |
|           |            | 1       | 38        | 19.47   | 19.55   | 19.50   | 20.50   |
|           |            | 1       | 74        | 19.56   | 19.49   | 19.58   | 20.50   |
|           |            | 36      | 0         | 19.37   | 19.39   | 19.42   | 20.50   |
|           |            | 36      | 18        | 19.45   | 19.41   | 19.48   | 20.50   |
|           |            | 36      | 39        | 19.34   | 19.27   | 19.31   | 20.50   |
|           |            | 75      | 0         | 19.39   | 19.19   | 19.31   | 20.50   |
|           | 256QAM     | 1       | 0         | 18.94   | 18.88   | 18.87   | 19.50   |
|           |            | 1       | 38        | 18.87   | 18.95   | 18.89   | 19.50   |
|           |            | 1       | 74        | 18.82   | 18.94   | 18.88   | 19.50   |

|           |            | 36      | 0         | 18.83   | 18.83   | 18.66   | 19.50   |
|-----------|------------|---------|-----------|---------|---------|---------|---------|
|           |            | 36      | 18        | 18.78   | 18.82   | 18.74   | 19.50   |
|           |            | 36      | 39        | 18.65   | 18.62   | 18.71   | 19.50   |
|           |            | 75      | 0         | 18.74   | 18.82   | 18.75   | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Tune up |
| 20MHz     | QPSK       | 18700   |           | 18900   | 19100   |         |         |
|           |            | 1       | 0         | 19.90   | 19.92   | 19.92   | 20.50   |
|           |            | 1       | 50        | 19.95   | 19.98   | 19.95   | 20.50   |
|           |            | 1       | 99        | 19.94   | 19.96   | 19.93   | 20.50   |
|           |            | 50      | 0         | 19.94   | 19.97   | 19.93   | 20.50   |
|           |            | 50      | 25        | 19.97   | 19.96   | 19.95   | 20.50   |
|           |            | 50      | 50        | 19.97   | 19.95   | 19.96   | 20.50   |
|           | 16QAM      | 100     | 0         | 19.93   | 19.97   | 19.91   | 20.50   |
|           |            | 1       | 0         | 19.95   | 19.89   | 19.97   | 20.50   |
|           |            | 1       | 50        | 19.93   | 19.93   | 19.96   | 20.50   |
|           |            | 1       | 99        | 19.94   | 19.96   | 19.90   | 20.50   |
|           |            | 50      | 0         | 19.94   | 19.95   | 19.94   | 20.50   |
|           |            | 50      | 25        | 19.93   | 19.92   | 19.97   | 20.50   |
|           |            | 50      | 50        | 19.93   | 19.91   | 19.84   | 20.50   |
|           | 64QAM      | 100     | 0         | 19.90   | 19.94   | 19.92   | 20.50   |
|           |            | 1       | 0         | 19.49   | 19.52   | 19.60   | 20.50   |
|           |            | 1       | 50        | 19.48   | 19.45   | 19.47   | 20.50   |
|           |            | 1       | 99        | 19.62   | 19.56   | 19.62   | 20.50   |
|           |            | 50      | 0         | 19.41   | 19.35   | 19.43   | 20.50   |
|           |            | 50      | 25        | 19.41   | 19.33   | 19.40   | 20.50   |
|           |            | 50      | 50        | 19.33   | 19.31   | 19.31   | 20.50   |
|           | 256QAM     | 100     | 0         | 19.37   | 19.29   | 19.30   | 20.50   |
|           |            | 1       | 0         | 18.91   | 18.87   | 18.87   | 19.50   |
|           |            | 1       | 50        | 18.92   | 18.93   | 18.90   | 19.50   |
|           |            | 1       | 99        | 18.90   | 18.92   | 18.91   | 19.50   |
|           |            | 50      | 0         | 18.87   | 18.80   | 18.76   | 19.50   |
|           |            | 50      | 25        | 18.79   | 18.77   | 18.79   | 19.50   |
|           |            | 50      | 50        | 18.70   | 18.69   | 18.66   | 19.50   |
|           |            | 100     | 0         | 18.75   | 18.76   | 18.75   | 19.50   |

| LTE Band 4 |            |         |           | Conducted Power(dBm) |         |         | Tune up |
|------------|------------|---------|-----------|----------------------|---------|---------|---------|
| Bandwidth  | Modulation | RB size | RB offset | Channel              | Channel | Channel |         |
| 1.4MHz     | QPSK       | 19957   |           | 20175                | 20393   |         |         |
|            |            | 1       | 0         | 19.96                | 19.95   | 19.89   | 20.50   |
|            |            | 1       | 2         | 19.97                | 19.93   | 19.92   | 20.50   |
|            |            | 1       | 5         | 19.98                | 19.94   | 19.93   | 20.50   |
|            |            | 3       | 0         | 19.91                | 19.89   | 19.93   | 20.50   |
|            |            | 3       | 2         | 19.87                | 19.96   | 19.94   | 20.50   |
|            |            | 3       | 3         | 19.95                | 19.94   | 19.93   | 20.50   |
|            | 16QAM      | 6       | 0         | 19.98                | 19.99   | 19.94   | 20.50   |
|            |            | 1       | 0         | 19.96                | 19.97   | 19.90   | 20.50   |
|            |            | 1       | 2         | 19.95                | 19.91   | 19.95   | 20.50   |
|            |            | 1       | 5         | 19.86                | 19.95   | 19.99   | 20.50   |
|            |            | 3       | 0         | 19.99                | 19.91   | 19.93   | 20.50   |
|            |            | 3       | 2         | 19.95                | 19.89   | 19.96   | 20.50   |
|            |            | 3       | 3         | 19.90                | 19.97   | 19.95   | 20.50   |
|            | 64QAM      | 6       | 0         | 19.86                | 19.93   | 19.80   | 20.50   |
|            |            | 1       | 0         | 19.84                | 19.85   | 19.81   | 20.50   |
|            |            | 1       | 2         | 19.75                | 19.88   | 19.97   | 20.50   |
|            |            | 1       | 5         | 19.87                | 19.76   | 19.93   | 20.50   |
|            |            | 3       | 0         | 19.43                | 19.61   | 19.68   | 20.50   |
|            |            | 3       | 2         | 19.49                | 19.51   | 19.57   | 20.50   |
|            |            | 3       | 3         | 19.66                | 19.47   | 19.55   | 20.50   |
|            | 256QAM     | 6       | 0         | 19.44                | 19.57   | 19.42   | 20.50   |
|            |            | 1       | 0         | 19.08                | 19.11   | 19.04   | 19.50   |
|            |            | 1       | 2         | 19.05                | 19.19   | 19.12   | 19.50   |
|            |            | 1       | 5         | 19.18                | 19.16   | 19.08   | 19.50   |
|            |            | 3       | 0         | 19.03                | 19.03   | 19.05   | 19.50   |
|            |            | 3       | 2         | 19.02                | 19.04   | 19.01   | 19.50   |
|            |            | 3       | 3         | 19.02                | 19.06   | 19.03   | 19.50   |
|            |            | 6       | 0         | 19.08                | 19.07   | 19.05   | 19.50   |
| Bandwidth  | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 3MHz       | QPSK       | 19965   |           | 20175                | 20385   |         |         |
|            |            | 1       | 0         | 19.98                | 19.93   | 19.92   | 20.50   |
|            |            | 1       | 7         | 19.93                | 19.87   | 19.96   | 20.50   |
|            |            | 1       | 14        | 19.95                | 19.96   | 19.98   | 20.50   |
|            |            | 8       | 0         | 19.91                | 19.82   | 19.79   | 20.50   |
|            |            | 8       | 4         | 19.90                | 19.99   | 19.88   | 20.50   |
|            |            | 8       | 7         | 19.89                | 19.96   | 19.89   | 20.50   |
|            |            | 15      | 0         | 19.89                | 19.95   | 19.97   | 20.50   |
|            | 16QAM      | 1       | 0         | 19.96                | 19.94   | 19.91   | 20.50   |

|           |            |         |           |         |         |         |         |
|-----------|------------|---------|-----------|---------|---------|---------|---------|
|           |            | 1       | 7         | 19.91   | 19.99   | 19.96   | 20.50   |
|           |            | 1       | 14        | 19.86   | 19.85   | 19.91   | 20.50   |
|           |            | 8       | 0         | 19.91   | 19.85   | 19.97   | 20.50   |
|           |            | 8       | 4         | 19.88   | 19.91   | 19.85   | 20.50   |
|           |            | 8       | 7         | 19.96   | 19.99   | 19.99   | 20.50   |
|           |            | 15      | 0         | 19.93   | 19.89   | 19.88   | 20.50   |
|           | 64QAM      | 1       | 0         | 19.89   | 19.76   | 19.71   | 20.50   |
|           |            | 1       | 7         | 19.89   | 19.74   | 19.90   | 20.50   |
|           |            | 1       | 14        | 19.74   | 19.89   | 19.84   | 20.50   |
|           |            | 8       | 0         | 19.42   | 19.43   | 19.68   | 20.50   |
|           |            | 8       | 4         | 19.56   | 19.52   | 19.51   | 20.50   |
|           |            | 8       | 7         | 19.49   | 19.50   | 19.54   | 20.50   |
|           | 256QAM     | 15      | 0         | 19.64   | 19.44   | 19.49   | 20.50   |
|           |            | 1       | 0         | 19.07   | 19.11   | 18.98   | 19.50   |
|           |            | 1       | 7         | 19.10   | 19.12   | 19.16   | 19.50   |
|           |            | 1       | 14        | 19.21   | 19.25   | 19.12   | 19.50   |
|           |            | 8       | 0         | 18.99   | 19.00   | 19.07   | 19.50   |
|           |            | 8       | 4         | 19.14   | 19.11   | 18.94   | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Tune up |
|           |            |         |           | 19975   | 20175   | 20375   |         |
| 5MHz      | QPSK       | 1       | 0         | 19.95   | 19.93   | 19.93   | 20.50   |
|           |            | 1       | 13        | 19.98   | 19.94   | 19.95   | 20.50   |
|           |            | 1       | 24        | 19.94   | 19.92   | 19.94   | 20.50   |
|           |            | 12      | 0         | 19.96   | 19.86   | 19.85   | 20.50   |
|           |            | 12      | 6         | 19.95   | 19.96   | 19.92   | 20.50   |
|           |            | 12      | 13        | 19.94   | 19.85   | 19.89   | 20.50   |
|           | 16QAM      | 25      | 0         | 19.93   | 19.98   | 19.96   | 20.50   |
|           |            | 1       | 0         | 19.93   | 19.90   | 19.91   | 20.50   |
|           |            | 1       | 13        | 19.97   | 19.91   | 19.88   | 20.50   |
|           |            | 1       | 24        | 19.92   | 19.93   | 19.94   | 20.50   |
|           |            | 12      | 0         | 19.94   | 19.87   | 19.88   | 20.50   |
|           |            | 12      | 6         | 19.99   | 19.93   | 19.93   | 20.50   |
|           | 64QAM      | 12      | 13        | 19.85   | 19.94   | 19.95   | 20.50   |
|           |            | 25      | 0         | 19.84   | 19.92   | 19.90   | 20.50   |
|           |            | 1       | 0         | 19.93   | 19.84   | 19.70   | 20.50   |
|           |            | 1       | 13        | 19.76   | 19.88   | 19.85   | 20.50   |
|           |            | 1       | 24        | 19.78   | 19.85   | 19.86   | 20.50   |
|           |            | 12      | 0         | 19.54   | 19.50   | 19.59   | 20.50   |
| 10MHz     | QPSK       | 12      | 6         | 19.55   | 19.49   | 19.56   | 20.50   |
|           |            | 12      | 13        | 19.56   | 19.47   | 19.57   | 20.50   |
|           |            | 25      | 0         | 19.61   | 19.48   | 19.51   | 20.50   |
|           | 16QAM      | 1       | 0         | 19.10   | 19.14   | 19.00   | 19.50   |
|           |            | 1       | 13        | 19.13   | 19.08   | 19.07   | 19.50   |
|           |            | 1       | 24        | 19.22   | 19.24   | 19.18   | 19.50   |
|           | 256QAM     | 12      | 0         | 18.93   | 19.06   | 18.93   | 19.50   |
|           |            | 12      | 6         | 19.07   | 19.10   | 19.00   | 19.50   |
|           |            | 12      | 13        | 18.95   | 19.09   | 18.91   | 19.50   |
|           |            | 25      | 0         | 19.11   | 19.06   | 19.12   | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Tune up |
|           |            |         |           | 20000   | 20175   | 20350   |         |
| 10MHz     | QPSK       | 1       | 0         | 19.88   | 19.88   | 19.96   | 20.50   |
|           |            | 1       | 25        | 19.90   | 19.99   | 19.90   | 20.50   |
|           |            | 1       | 49        | 19.96   | 19.95   | 19.94   | 20.50   |
|           |            | 25      | 0         | 19.92   | 19.88   | 19.82   | 20.50   |
|           |            | 25      | 13        | 19.96   | 19.94   | 19.91   | 20.50   |
|           |            | 25      | 25        | 19.99   | 19.93   | 19.84   | 20.50   |
|           | 16QAM      | 50      | 0         | 19.89   | 19.95   | 19.94   | 20.50   |
|           |            | 1       | 0         | 19.92   | 19.98   | 19.97   | 20.50   |
|           |            | 1       | 25        | 19.96   | 19.87   | 19.96   | 20.50   |
|           |            | 1       | 49        | 19.96   | 19.98   | 19.95   | 20.50   |
|           |            | 25      | 0         | 19.91   | 19.89   | 19.94   | 20.50   |
|           |            | 25      | 13        | 19.96   | 19.91   | 19.93   | 20.50   |
| 10MHz     | 64QAM      | 25      | 25        | 19.98   | 19.88   | 19.90   | 20.50   |
|           |            | 50      | 0         | 19.96   | 19.85   | 19.79   | 20.50   |
|           |            | 1       | 0         | 19.95   | 19.73   | 19.79   | 20.50   |
|           |            | 1       | 25        | 19.82   | 19.89   | 19.97   | 20.50   |
|           |            | 1       | 49        | 19.84   | 19.82   | 19.84   | 20.50   |
|           |            | 25      | 0         | 19.51   | 19.47   | 19.66   | 20.50   |
| 10MHz     | 256QAM     | 25      | 13        | 19.66   | 19.57   | 19.51   | 20.50   |
|           |            | 25      | 25        | 19.56   | 19.44   | 19.53   | 20.50   |
|           |            | 50      | 0         | 19.54   | 19.50   | 19.52   | 20.50   |
|           |            | 1       | 0         | 19.05   | 19.06   | 19.08   | 19.50   |
|           |            | 1       | 25        | 19.03   | 19.11   | 19.15   | 19.50   |
|           |            | 1       | 49        | 19.16   | 19.21   | 19.19   | 19.50   |
| 10MHz     | 256QAM     | 25      | 0         | 18.89   | 18.99   | 19.04   | 19.50   |

|           |            |         |           |         |         |         |         |
|-----------|------------|---------|-----------|---------|---------|---------|---------|
| Bandwidth | Modulation | 25      | 13        | 19.01   | 19.16   | 18.96   | 19.50   |
|           |            | 25      | 25        | 18.95   | 19.06   | 18.92   | 19.50   |
|           |            | 50      | 0         | 19.07   | 19.08   | 19.16   | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Tune up |
|           |            |         |           | 20025   | 20175   | 20325   |         |
| 15MHz     | QPSK       | 1       | 0         | 19.92   | 19.97   | 19.97   | 20.50   |
|           |            | 1       | 38        | 19.96   | 19.95   | 19.96   | 20.50   |
|           |            | 1       | 74        | 19.95   | 19.92   | 19.96   | 20.50   |
|           |            | 36      | 0         | 19.91   | 19.83   | 19.82   | 20.50   |
|           |            | 36      | 18        | 19.89   | 19.88   | 19.91   | 20.50   |
|           |            | 36      | 39        | 19.86   | 19.97   | 19.87   | 20.50   |
|           |            | 75      | 0         | 19.85   | 19.91   | 19.94   | 20.50   |
|           | 16QAM      | 1       | 0         | 19.89   | 19.93   | 19.97   | 20.50   |
|           |            | 1       | 38        | 19.92   | 19.92   | 19.94   | 20.50   |
|           |            | 1       | 74        | 19.97   | 19.88   | 19.90   | 20.50   |
|           |            | 36      | 0         | 19.91   | 19.86   | 19.95   | 20.50   |
|           |            | 36      | 18        | 19.91   | 19.90   | 19.96   | 20.50   |
|           |            | 36      | 39        | 19.88   | 19.94   | 19.98   | 20.50   |
|           |            | 75      | 0         | 19.87   | 19.86   | 19.95   | 20.50   |
|           | 64QAM      | 1       | 0         | 19.80   | 19.68   | 19.74   | 20.50   |
|           |            | 1       | 38        | 19.91   | 19.78   | 19.90   | 20.50   |
|           |            | 1       | 74        | 19.87   | 19.84   | 19.78   | 20.50   |
|           |            | 36      | 0         | 19.44   | 19.54   | 19.65   | 20.50   |
|           |            | 36      | 18        | 19.61   | 19.57   | 19.57   | 20.50   |
|           |            | 36      | 39        | 19.63   | 19.56   | 19.45   | 20.50   |
|           |            | 75      | 0         | 19.57   | 19.51   | 19.53   | 20.50   |
|           | 256QAM     | 1       | 0         | 19.00   | 19.17   | 19.07   | 19.50   |
|           |            | 1       | 38        | 19.14   | 19.10   | 19.08   | 19.50   |
|           |            | 1       | 74        | 19.14   | 19.21   | 19.14   | 19.50   |
|           |            | 36      | 0         | 18.90   | 18.99   | 18.99   | 19.50   |
|           |            | 36      | 18        | 19.02   | 19.06   | 18.94   | 19.50   |
|           |            | 36      | 39        | 18.96   | 18.98   | 19.02   | 19.50   |
|           |            | 75      | 0         | 19.01   | 19.09   | 19.13   | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Tune up |
|           |            |         |           | 20050   | 20175   | 20300   |         |
| 20MHz     | QPSK       | 1       | 0         | 19.93   | 19.96   | 19.97   | 20.50   |
|           |            | 1       | 50        | 19.95   | 20.01   | 20.00   | 20.50   |
|           |            | 1       | 99        | 19.97   | 19.99   | 19.97   | 20.50   |
|           |            | 50      | 0         | 19.93   | 19.91   | 19.89   | 20.50   |
|           |            | 50      | 25        | 19.96   | 19.97   | 19.95   | 20.50   |
|           |            | 50      | 50        | 19.95   | 19.94   | 19.94   | 20.50   |
|           |            | 100     | 0         | 19.93   | 19.96   | 19.96   | 20.50   |
|           | 16QAM      | 1       | 0         | 19.99   | 19.98   | 20.00   | 20.50   |
|           |            | 1       | 50        | 19.99   | 19.97   | 19.98   | 20.50   |
|           |            | 1       | 99        | 19.96   | 19.93   | 19.93   | 20.50   |
|           |            | 50      | 0         | 19.91   | 19.94   | 19.95   | 20.50   |
|           |            | 50      | 25        | 20.01   | 19.95   | 19.96   | 20.50   |
|           |            | 50      | 50        | 19.94   | 19.92   | 19.99   | 20.50   |
|           |            | 100     | 0         | 19.89   | 19.85   | 19.89   | 20.50   |
|           | 64QAM      | 1       | 0         | 19.88   | 19.78   | 19.80   | 20.50   |
|           |            | 1       | 50        | 19.83   | 19.79   | 19.87   | 20.50   |
|           |            | 1       | 99        | 19.82   | 19.82   | 19.86   | 20.50   |
|           |            | 50      | 0         | 19.47   | 19.52   | 19.58   | 20.50   |
|           |            | 50      | 25        | 19.59   | 19.51   | 19.50   | 20.50   |
|           |            | 50      | 50        | 19.57   | 19.50   | 19.47   | 20.50   |
|           |            | 100     | 0         | 19.54   | 19.47   | 19.46   | 20.50   |
|           | 256QAM     | 1       | 0         | 19.10   | 19.11   | 19.08   | 19.50   |
|           |            | 1       | 50        | 19.13   | 19.18   | 19.15   | 19.50   |
|           |            | 1       | 99        | 19.20   | 19.21   | 19.16   | 19.50   |
|           |            | 50      | 0         | 18.97   | 19.06   | 19.01   | 19.50   |
|           |            | 50      | 25        | 19.11   | 19.14   | 19.03   | 19.50   |
|           |            | 50      | 50        | 19.03   | 19.08   | 19.00   | 19.50   |
|           |            | 100     | 0         | 19.08   | 19.11   | 19.10   | 19.50   |

| LTE Band 30 |            |         |           | Conducted Power(dBm) |         |         |         |
|-------------|------------|---------|-----------|----------------------|---------|---------|---------|
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|             |            |         |           | 27685                | 27710   | 27735   |         |
| 5MHz        | QPSK       | 1       | 0         | 15.27                | 15.29   | 15.27   | 16.00   |
|             |            | 1       | 13        | 15.35                | 15.39   | 15.40   | 16.00   |
|             |            | 1       | 24        | 15.27                | 15.26   | 15.22   | 16.00   |
|             |            | 12      | 0         | 15.35                | 15.23   | 15.25   | 16.00   |
|             |            | 12      | 6         | 15.38                | 15.40   | 15.34   | 16.00   |
|             |            | 12      | 13        | 15.31                | 15.31   | 15.28   | 16.00   |
|             |            | 25      | 0         | 15.19                | 15.22   | 15.17   | 16.00   |
|             | 16QAM      | 1       | 0         | 15.21                | 15.23   | 15.22   | 16.00   |
|             |            | 1       | 13        | 15.31                | 15.18   | 15.21   | 16.00   |

|           |            |         |           |         |         |         |         |
|-----------|------------|---------|-----------|---------|---------|---------|---------|
|           |            | 1       | 24        | 15.31   | 15.25   | 15.22   | 16.00   |
|           |            | 12      | 0         | 15.15   | 15.24   | 15.23   | 16.00   |
|           |            | 12      | 6         | 15.19   | 15.12   | 15.10   | 16.00   |
|           |            | 12      | 13        | 15.22   | 15.20   | 15.17   | 16.00   |
|           |            | 25      | 0         | 15.17   | 15.21   | 15.15   | 16.00   |
|           | 64QAM      | 1       | 0         | 14.63   | 14.65   | 14.70   | 15.50   |
|           |            | 1       | 13        | 14.78   | 14.80   | 14.77   | 15.50   |
|           |            | 1       | 24        | 14.54   | 14.65   | 14.58   | 15.50   |
|           |            | 12      | 0         | 14.38   | 14.39   | 14.38   | 15.50   |
|           |            | 12      | 6         | 14.37   | 14.32   | 14.40   | 15.50   |
|           | 256QAM     | 12      | 13        | 14.40   | 14.27   | 14.41   | 15.50   |
|           |            | 25      | 0         | 14.38   | 14.41   | 14.32   | 15.50   |
|           |            | 1       | 0         | 14.96   | 14.97   | 14.93   | 15.50   |
|           |            | 1       | 13        | 15.25   | 15.17   | 15.27   | 15.50   |
|           |            | 1       | 24        | 14.91   | 14.92   | 15.07   | 15.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Tune up |
|           |            |         |           | /       | 27710   | /       |         |
| 10MHz     | QPSK       | 1       | 0         | /       | 15.39   | /       | 16.00   |
|           |            | 1       | 25        | /       | 15.41   | /       | 16.00   |
|           |            | 1       | 49        | /       | 15.36   | /       | 16.00   |
|           |            | 25      | 0         | /       | 15.37   | /       | 16.00   |
|           |            | 25      | 13        | /       | 15.43   | /       | 16.00   |
|           |            | 25      | 25        | /       | 15.41   | /       | 16.00   |
|           | 16QAM      | 50      | 0         | /       | 15.28   | /       | 16.00   |
|           |            | 1       | 0         | /       | 15.34   | /       | 16.00   |
|           |            | 1       | 25        | /       | 15.32   | /       | 16.00   |
|           |            | 1       | 49        | /       | 15.37   | /       | 16.00   |
|           |            | 25      | 0         | /       | 15.26   | /       | 16.00   |
|           |            | 25      | 13        | /       | 15.24   | /       | 16.00   |
|           | 64QAM      | 25      | 25        | /       | 15.23   | /       | 16.00   |
|           |            | 50      | 0         | /       | 15.22   | /       | 16.00   |
|           |            | 1       | 0         | /       | 14.78   | /       | 15.50   |
|           |            | 1       | 25        | /       | 14.81   | /       | 15.50   |
|           |            | 1       | 49        | /       | 14.67   | /       | 15.50   |
|           |            | 25      | 0         | /       | 14.45   | /       | 15.50   |
|           | 256QAM     | 25      | 13        | /       | 14.44   | /       | 15.50   |
|           |            | 25      | 25        | /       | 14.42   | /       | 15.50   |
|           |            | 50      | 0         | /       | 14.47   | /       | 15.50   |
|           |            | 1       | 0         | /       | 15.07   | /       | 15.50   |
|           |            | 1       | 25        | /       | 15.26   | /       | 15.50   |
|           |            | 1       | 49        | /       | 15.04   | /       | 15.50   |
|           |            | 25      | 0         | /       | 15.02   | /       | 15.50   |
|           |            | 25      | 13        | /       | 15.03   | /       | 15.50   |
|           |            | 25      | 25        | /       | 15.06   | /       | 15.50   |
|           |            | 50      | 0         | /       | 15.00   | /       | 15.50   |

| LTE Band 41(2496~2690) class 3 |            |         |           | Conducted Power(dBm) |         |         |         |         |         |
|--------------------------------|------------|---------|-----------|----------------------|---------|---------|---------|---------|---------|
| Bandwidth                      | Modulation | RB size | RB offset | Channel              | Channel | Channel | Channel | Channel | Tune up |
|                                |            |         |           | 39675                | 40148   | 40620   | 41093   | 41565   |         |
| 5MHz                           | QPSK       | 1       | 0         | 19.23                | 19.26   | 19.47   | 19.27   | 18.94   | 20.00   |
|                                |            | 1       | 13        | 19.35                | 19.28   | 19.48   | 19.44   | 19.24   | 20.00   |
|                                |            | 1       | 24        | 19.15                | 19.22   | 19.46   | 19.01   | 19.21   | 20.00   |
|                                |            | 12      | 0         | 19.25                | 19.20   | 19.49   | 19.24   | 19.11   | 20.00   |
|                                |            | 12      | 6         | 19.22                | 19.33   | 19.46   | 19.39   | 19.28   | 20.00   |
|                                |            | 12      | 13        | 19.30                | 19.35   | 19.42   | 19.23   | 19.26   | 20.00   |
|                                | 16QAM      | 25      | 0         | 19.31                | 19.34   | 19.28   | 19.32   | 19.10   | 20.00   |
|                                |            | 1       | 0         | 19.54                | 19.21   | 19.55   | 19.22   | 19.01   | 20.00   |
|                                |            | 1       | 13        | 19.28                | 19.47   | 19.47   | 19.29   | 19.18   | 20.00   |
|                                |            | 1       | 24        | 19.11                | 19.40   | 19.48   | 19.18   | 19.22   | 20.00   |
|                                |            | 12      | 0         | 19.56                | 19.46   | 19.46   | 19.34   | 19.17   | 20.00   |
|                                |            | 12      | 6         | 19.51                | 19.45   | 19.46   | 19.32   | 19.14   | 20.00   |
|                                | 64QAM      | 12      | 13        | 19.53                | 19.52   | 19.46   | 19.21   | 19.25   | 20.00   |
|                                |            | 25      | 0         | 19.55                | 19.34   | 19.36   | 19.31   | 19.29   | 20.00   |
|                                |            | 1       | 0         | 18.55                | 18.58   | 18.53   | 18.68   | 18.51   | 19.50   |
|                                |            | 1       | 13        | 18.43                | 18.45   | 18.50   | 18.53   | 18.46   | 19.50   |
|                                |            | 1       | 24        | 18.57                | 18.51   | 18.54   | 18.60   | 18.37   | 19.50   |
|                                |            | 12      | 0         | 18.44                | 18.38   | 18.46   | 18.43   | 18.38   | 19.50   |
|                                | 256QAM     | 12      | 6         | 18.37                | 18.28   | 18.34   | 18.22   | 18.34   | 19.50   |
|                                |            | 12      | 13        | 18.58                | 18.53   | 18.59   | 18.53   | 18.36   | 19.50   |
|                                |            | 25      | 0         | 18.54                | 18.45   | 18.46   | 18.38   | 18.56   | 19.50   |
|                                |            | 1       | 0         | 18.33                | 18.49   | 18.38   | 18.43   | 17.96   | 19.50   |
|                                |            | 1       | 13        | 18.62                | 18.48   | 18.66   | 18.52   | 18.41   | 19.50   |

|           |            |         |           |         |         |         |         |         |         |
|-----------|------------|---------|-----------|---------|---------|---------|---------|---------|---------|
|           |            | 1       | 24        | 18.54   | 18.56   | 18.62   | 18.36   | 18.40   | 19.50   |
|           |            | 12      | 0         | 18.20   | 18.46   | 18.43   | 18.34   | 18.32   | 19.50   |
|           |            | 12      | 6         | 18.36   | 18.48   | 18.32   | 18.53   | 18.49   | 19.50   |
|           |            | 12      | 13        | 18.45   | 18.41   | 18.47   | 18.46   | 18.64   | 19.50   |
|           |            | 25      | 0         | 18.33   | 18.49   | 18.38   | 18.56   | 18.37   | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Channel | Channel | Tune up |
|           |            |         |           | 39700   | 40160   | 40620   | 41080   | 41540   |         |
| 10MHz     | QPSK       | 1       | 0         | 19.20   | 19.27   | 19.40   | 19.32   | 18.95   | 20.00   |
|           |            | 1       | 25        | 19.31   | 19.22   | 19.49   | 19.52   | 19.32   | 20.00   |
|           |            | 1       | 49        | 19.17   | 19.25   | 19.38   | 19.06   | 19.19   | 20.00   |
|           |            | 25      | 0         | 19.16   | 19.28   | 19.46   | 19.22   | 19.16   | 20.00   |
|           |            | 25      | 13        | 19.25   | 19.34   | 19.50   | 19.46   | 19.25   | 20.00   |
|           |            | 25      | 25        | 19.25   | 19.36   | 19.45   | 19.28   | 19.33   | 20.00   |
|           | 16QAM      | 50      | 0         | 19.31   | 19.26   | 19.37   | 19.32   | 19.05   | 20.00   |
|           |            | 1       | 0         | 19.51   | 19.21   | 19.53   | 19.30   | 19.09   | 20.00   |
|           |            | 1       | 25        | 19.33   | 19.49   | 19.54   | 19.27   | 19.21   | 20.00   |
|           |            | 1       | 49        | 19.11   | 19.47   | 19.56   | 19.18   | 19.22   | 20.00   |
|           |            | 25      | 0         | 19.52   | 19.45   | 19.39   | 19.32   | 19.13   | 20.00   |
|           |            | 25      | 13        | 19.55   | 19.37   | 19.45   | 19.26   | 19.21   | 20.00   |
|           | 64QAM      | 25      | 25        | 19.54   | 19.47   | 19.45   | 19.28   | 19.22   | 20.00   |
|           |            | 50      | 0         | 19.53   | 19.39   | 19.38   | 19.30   | 19.27   | 20.00   |
|           |            | 1       | 0         | 18.53   | 18.56   | 18.52   | 18.57   | 18.53   | 19.50   |
|           |            | 1       | 25        | 18.42   | 18.44   | 18.40   | 18.44   | 18.34   | 19.50   |
|           |            | 1       | 49        | 18.47   | 18.61   | 18.61   | 18.52   | 18.32   | 19.50   |
|           |            | 25      | 0         | 18.42   | 18.43   | 18.48   | 18.46   | 18.33   | 19.50   |
|           | 256QAM     | 25      | 13        | 18.37   | 18.29   | 18.35   | 18.27   | 18.45   | 19.50   |
|           |            | 25      | 25        | 18.53   | 18.62   | 18.49   | 18.48   | 18.46   | 19.50   |
|           |            | 50      | 0         | 18.54   | 18.44   | 18.54   | 18.41   | 18.57   | 19.50   |
|           |            | 1       | 0         | 18.32   | 18.46   | 18.41   | 18.42   | 17.99   | 19.50   |
|           |            | 1       | 25        | 18.59   | 18.49   | 18.51   | 18.55   | 18.51   | 19.50   |
|           |            | 1       | 49        | 18.49   | 18.51   | 18.49   | 18.55   | 18.34   | 19.50   |
|           |            | 25      | 0         | 18.34   | 18.47   | 18.49   | 18.52   | 18.22   | 19.50   |
|           |            | 25      | 13        | 18.43   | 18.47   | 18.35   | 18.47   | 18.50   | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Channel | Channel | Tune up |
|           |            |         |           | 39725   | 40173   | 40620   | 41068   | 41515   |         |
| 15MHz     | QPSK       | 1       | 0         | 19.16   | 19.27   | 19.44   | 19.25   | 18.93   | 20.00   |
|           |            | 1       | 38        | 19.28   | 19.20   | 19.50   | 19.47   | 19.23   | 20.00   |
|           |            | 1       | 74        | 19.17   | 19.26   | 19.50   | 19.05   | 19.13   | 20.00   |
|           |            | 36      | 0         | 19.16   | 19.30   | 19.46   | 19.22   | 19.05   | 20.00   |
|           |            | 36      | 18        | 19.24   | 19.30   | 19.52   | 19.42   | 19.35   | 20.00   |
|           |            | 36      | 39        | 19.27   | 19.40   | 19.47   | 19.20   | 19.35   | 20.00   |
|           | 16QAM      | 75      | 0         | 19.26   | 19.34   | 19.39   | 19.34   | 19.08   | 20.00   |
|           |            | 1       | 0         | 19.56   | 19.22   | 19.56   | 19.23   | 19.09   | 20.00   |
|           |            | 1       | 38        | 19.34   | 19.43   | 19.53   | 19.20   | 19.18   | 20.00   |
|           |            | 1       | 74        | 19.14   | 19.40   | 19.56   | 19.10   | 19.16   | 20.00   |
|           |            | 36      | 0         | 19.45   | 19.37   | 19.45   | 19.28   | 19.13   | 20.00   |
|           |            | 36      | 18        | 19.50   | 19.37   | 19.54   | 19.28   | 19.18   | 20.00   |
|           | 64QAM      | 36      | 39        | 19.55   | 19.47   | 19.42   | 19.28   | 19.21   | 20.00   |
|           |            | 75      | 0         | 19.53   | 19.46   | 19.42   | 19.27   | 19.18   | 20.00   |
|           |            | 1       | 0         | 18.58   | 18.56   | 18.57   | 18.63   | 18.62   | 19.50   |
|           |            | 1       | 38        | 18.36   | 18.49   | 18.47   | 18.49   | 18.41   | 19.50   |
|           |            | 1       | 74        | 18.55   | 18.54   | 18.56   | 18.64   | 18.40   | 19.50   |
|           |            | 36      | 0         | 18.47   | 18.38   | 18.46   | 18.52   | 18.43   | 19.50   |
|           | 256QAM     | 36      | 18        | 18.43   | 18.27   | 18.38   | 18.21   | 18.45   | 19.50   |
|           |            | 36      | 39        | 18.55   | 18.54   | 18.58   | 18.48   | 18.43   | 19.50   |
|           |            | 75      | 0         | 18.50   | 18.46   | 18.54   | 18.37   | 18.50   | 19.50   |
|           |            | 1       | 0         | 18.19   | 18.47   | 18.28   | 18.43   | 17.98   | 19.50   |
|           |            | 1       | 38        | 18.41   | 18.56   | 18.61   | 18.63   | 18.34   | 19.50   |
|           |            | 1       | 74        | 18.44   | 18.54   | 18.42   | 18.43   | 18.42   | 19.50   |
|           |            | 36      | 0         | 18.37   | 18.44   | 18.53   | 18.50   | 18.18   | 19.50   |
|           |            | 36      | 18        | 18.50   | 18.42   | 18.40   | 18.56   | 18.46   | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Channel | Channel | Tune up |
|           |            |         |           | 39750   | 40185   | 40620   | 41055   | 41490   |         |
| 20MHz     | QPSK       | 1       | 0         | 19.27   | 19.30   | 19.52   | 19.34   | 19.05   | 20.00   |
|           |            | 1       | 50        | 19.36   | 19.33   | 19.57   | 19.53   | 19.35   | 20.00   |
|           |            | 1       | 99        | 19.24   | 19.28   | 19.51   | 19.09   | 19.23   | 20.00   |
|           |            | 50      | 0         | 19.28   | 19.32   | 19.51   | 19.35   | 19.17   | 20.00   |
|           |            | 50      | 25        | 19.35   | 19.42   | 19.54   | 19.48   | 19.38   | 20.00   |
|           |            | 50      | 50        | 19.34   | 19.41   | 19.52   | 19.32   | 19.37   | 20.00   |
|           | 16QAM      | 100     | 0         | 19.33   | 19.39   | 19.41   | 19.42   | 19.17   | 20.00   |
|           |            | 1       | 0         | 19.47   | 19.31   | 19.52   | 19.32   | 19.11   | 20.00   |
|           |            | 1       | 50        | 19.36   | 19.51   | 19.53   | 19.31   | 19.26   | 20.00   |
|           |            | 1       | 99        | 19.21   | 19.48   | 19.51   | 19.23   | 19.29   | 20.00   |

|  |        |     |    |       |       |       |       |       |       |
|--|--------|-----|----|-------|-------|-------|-------|-------|-------|
|  |        | 50  | 0  | 19.52 | 19.50 | 19.52 | 19.39 | 19.26 | 20.00 |
|  |        | 50  | 25 | 19.49 | 19.48 | 19.56 | 19.35 | 19.23 | 20.00 |
|  |        | 50  | 50 | 19.53 | 19.53 | 19.55 | 19.31 | 19.28 | 20.00 |
|  |        | 100 | 0  | 19.46 | 19.47 | 19.47 | 19.32 | 19.31 | 20.00 |
|  | 64QAM  | 1   | 0  | 18.66 | 18.64 | 18.65 | 18.69 | 18.64 | 19.50 |
|  |        | 1   | 50 | 18.45 | 18.50 | 18.52 | 18.56 | 18.47 | 19.50 |
|  |        | 1   | 99 | 18.59 | 18.63 | 18.62 | 18.65 | 18.44 | 19.50 |
|  |        | 50  | 0  | 18.53 | 18.46 | 18.59 | 18.55 | 18.45 | 19.50 |
|  |        | 50  | 25 | 18.45 | 18.34 | 18.47 | 18.34 | 18.47 | 19.50 |
|  |        | 50  | 50 | 18.64 | 18.65 | 18.61 | 18.60 | 18.49 | 19.50 |
|  |        | 100 | 0  | 18.57 | 18.48 | 18.59 | 18.47 | 18.60 | 19.50 |
|  |        | 1   | 0  | 18.21 | 18.46 | 18.33 | 18.46 | 18.04 | 19.50 |
|  | 256QAM | 1   | 50 | 18.50 | 18.52 | 18.57 | 18.55 | 18.44 | 19.50 |
|  |        | 1   | 99 | 18.51 | 18.46 | 18.50 | 18.46 | 18.31 | 19.50 |
|  |        | 50  | 0  | 18.27 | 18.46 | 18.47 | 18.40 | 18.27 | 19.50 |
|  |        | 50  | 25 | 18.38 | 18.49 | 18.42 | 18.45 | 18.51 | 19.50 |
|  |        | 50  | 50 | 18.47 | 18.42 | 18.51 | 18.42 | 18.52 | 19.50 |
|  |        | 100 | 0  | 18.36 | 18.47 | 18.42 | 18.51 | 18.42 | 19.50 |
|  |        |     |    |       |       |       |       |       |       |

| LTE Band 41(2496~2690) class 2 |            |         |           | Conducted Power(dBm) |         |         |         |         |         |
|--------------------------------|------------|---------|-----------|----------------------|---------|---------|---------|---------|---------|
| Bandwidth                      | Modulation | RB size | RB offset | Channel              | Channel | Channel | Channel | Channel | Tune up |
|                                |            |         |           | 39675                | 40148   | 40620   | 41093   | 41565   |         |
| 5MHz                           | QPSK       | 1       | 0         | 20.30                | 20.39   | 20.63   | 20.43   | 20.07   | 21.50   |
|                                |            | 1       | 13        | 20.31                | 20.43   | 20.63   | 20.70   | 20.45   | 21.50   |
|                                |            | 1       | 24        | 20.36                | 20.42   | 20.60   | 20.26   | 20.28   | 21.50   |
|                                |            | 12      | 0         | 20.26                | 20.46   | 20.61   | 20.45   | 20.34   | 21.50   |
|                                |            | 12      | 6         | 20.36                | 20.49   | 20.64   | 20.45   | 20.44   | 21.50   |
|                                |            | 12      | 13        | 20.40                | 20.45   | 20.66   | 20.47   | 20.36   | 21.50   |
|                                | 16QAM      | 25      | 0         | 20.29                | 20.49   | 20.64   | 20.36   | 20.35   | 21.50   |
|                                |            | 1       | 0         | 20.69                | 20.64   | 20.74   | 20.61   | 20.15   | 21.50   |
|                                |            | 1       | 13        | 20.69                | 20.59   | 20.70   | 20.69   | 20.41   | 21.50   |
|                                |            | 1       | 24        | 20.67                | 20.61   | 20.69   | 20.47   | 20.34   | 21.50   |
|                                |            | 12      | 0         | 20.16                | 20.64   | 20.50   | 20.19   | 20.09   | 21.50   |
|                                |            | 12      | 6         | 20.28                | 20.58   | 20.59   | 20.26   | 20.25   | 21.50   |
|                                | 64QAM      | 12      | 13        | 20.30                | 20.55   | 20.53   | 20.25   | 20.15   | 21.50   |
|                                |            | 25      | 0         | 20.23                | 20.42   | 20.58   | 20.30   | 20.08   | 21.50   |
|                                |            | 1       | 0         | 19.80                | 19.80   | 19.81   | 19.73   | 19.89   | 21.00   |
|                                |            | 1       | 13        | 19.91                | 19.91   | 19.81   | 19.93   | 19.82   | 21.00   |
|                                |            | 1       | 24        | 19.92                | 19.80   | 19.83   | 19.80   | 19.89   | 21.00   |
|                                |            | 12      | 0         | 19.49                | 19.64   | 19.50   | 19.54   | 19.55   | 21.00   |
|                                | 256QAM     | 12      | 6         | 19.32                | 19.40   | 19.45   | 19.45   | 19.51   | 21.00   |
|                                |            | 12      | 13        | 19.37                | 19.43   | 19.54   | 19.53   | 19.39   | 21.00   |
|                                |            | 25      | 0         | 19.33                | 19.51   | 19.55   | 19.41   | 19.36   | 21.00   |
|                                |            | 1       | 0         | 19.73                | 19.67   | 19.81   | 19.60   | 19.80   | 21.00   |
|                                |            | 1       | 13        | 19.68                | 19.74   | 19.67   | 19.69   | 19.78   | 21.00   |
|                                |            | 1       | 24        | 19.53                | 19.62   | 19.69   | 19.57   | 19.66   | 21.00   |
|                                |            | 12      | 0         | 19.73                | 19.81   | 19.61   | 19.52   | 19.72   | 21.00   |
|                                |            | 12      | 6         | 19.79                | 19.73   | 19.69   | 19.56   | 19.53   | 21.00   |
|                                |            | 12      | 13        | 19.65                | 19.70   | 19.77   | 19.78   | 19.63   | 21.00   |
|                                |            | 25      | 0         | 19.44                | 19.55   | 19.60   | 19.52   | 19.59   | 21.00   |
| Bandwidth                      | Modulation | RB size | RB offset | Channel              | Channel | Channel | Channel | Channel | Tune up |
|                                |            |         |           | 39700                | 40160   | 40620   | 41080   | 41540   |         |
| 10MHz                          | QPSK       | 1       | 0         | 20.18                | 20.34   | 20.59   | 20.40   | 20.09   | 21.50   |
|                                |            | 1       | 25        | 20.32                | 20.39   | 20.72   | 20.61   | 20.43   | 21.50   |
|                                |            | 1       | 49        | 20.28                | 20.38   | 20.65   | 20.26   | 20.35   | 21.50   |
|                                |            | 25      | 0         | 20.25                | 20.48   | 20.53   | 20.39   | 20.31   | 21.50   |
|                                |            | 25      | 13        | 20.36                | 20.47   | 20.65   | 20.40   | 20.45   | 21.50   |
|                                |            | 25      | 25        | 20.39                | 20.40   | 20.63   | 20.51   | 20.45   | 21.50   |
|                                | 16QAM      | 50      | 0         | 20.28                | 20.39   | 20.53   | 20.42   | 20.26   | 21.50   |
|                                |            | 1       | 0         | 20.59                | 20.72   | 20.71   | 20.59   | 20.13   | 21.50   |
|                                |            | 1       | 25        | 20.72                | 20.65   | 20.69   | 20.62   | 20.38   | 21.50   |
|                                |            | 1       | 49        | 20.60                | 20.72   | 20.67   | 20.40   | 20.34   | 21.50   |
|                                |            | 25      | 0         | 20.18                | 20.61   | 20.57   | 20.21   | 20.00   | 21.50   |
|                                |            | 25      | 13        | 20.28                | 20.55   | 20.55   | 20.23   | 20.22   | 21.50   |
|                                | 64QAM      | 25      | 25        | 20.21                | 20.56   | 20.59   | 20.18   | 20.17   | 21.50   |
|                                |            | 50      | 0         | 20.20                | 20.44   | 20.57   | 20.34   | 20.04   | 21.50   |
|                                |            | 1       | 0         | 19.77                | 19.72   | 19.74   | 19.75   | 19.87   | 21.00   |
|                                |            | 1       | 25        | 19.85                | 19.92   | 19.89   | 19.87   | 19.91   | 21.00   |
|                                |            | 1       | 49        | 19.88                | 19.86   | 19.95   | 19.81   | 19.84   | 21.00   |
|                                |            | 25      | 0         | 19.59                | 19.67   | 19.51   | 19.54   | 19.48   | 21.00   |
|                                | 256QAM     | 25      | 13        | 19.42                | 19.32   | 19.44   | 19.42   | 19.50   | 21.00   |
|                                |            | 25      | 25        | 19.43                | 19.46   | 19.54   | 19.55   | 19.41   | 21.00   |
|                                |            | 50      | 0         | 19.44                | 19.48   | 19.46   | 19.51   | 19.33   | 21.00   |
|                                |            | 1       | 0         | 19.77                | 19.77   | 19.84   | 19.65   | 19.65   | 21.00   |
|                                |            | 1       | 25        | 19.65                | 19.63   | 19.84   | 19.63   | 19.67   | 21.00   |
|                                |            | 1       | 49        | 19.60                | 19.57   | 19.74   | 19.75   | 19.54   | 21.00   |



|           |            | 25      | 0         | 19.69   | 19.68   | 19.62   | 19.65   | 19.64   | 21.00   |
|-----------|------------|---------|-----------|---------|---------|---------|---------|---------|---------|
|           |            | 25      | 13        | 19.66   | 19.62   | 19.65   | 19.58   | 19.68   | 21.00   |
|           |            | 25      | 25        | 19.56   | 19.64   | 19.69   | 19.78   | 19.59   | 21.00   |
|           |            | 50      | 0         | 19.50   | 19.58   | 19.57   | 19.62   | 19.54   | 21.00   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Channel | Channel | Tune up |
|           |            |         |           | 39725   | 40173   | 40620   | 41068   | 41515   |         |
| 15MHz     | QPSK       | 1       | 0         | 20.23   | 20.30   | 20.59   | 20.42   | 20.13   | 21.50   |
|           |            | 1       | 38        | 20.31   | 20.41   | 20.72   | 20.67   | 20.47   | 21.50   |
|           |            | 1       | 74        | 20.33   | 20.35   | 20.67   | 20.25   | 20.37   | 21.50   |
|           |            | 36      | 0         | 20.26   | 20.40   | 20.54   | 20.41   | 20.37   | 21.50   |
|           |            | 36      | 18        | 20.35   | 20.41   | 20.61   | 20.42   | 20.42   | 21.50   |
|           |            | 36      | 39        | 20.39   | 20.48   | 20.67   | 20.42   | 20.41   | 21.50   |
|           | 16QAM      | 75      | 0         | 20.34   | 20.49   | 20.63   | 20.44   | 20.28   | 21.50   |
|           |            | 1       | 0         | 20.63   | 20.70   | 20.74   | 20.54   | 20.19   | 21.50   |
|           |            | 1       | 38        | 20.69   | 20.69   | 20.71   | 20.68   | 20.37   | 21.50   |
|           |            | 1       | 74        | 20.68   | 20.68   | 20.75   | 20.39   | 20.32   | 21.50   |
|           |            | 36      | 0         | 20.27   | 20.59   | 20.59   | 20.15   | 20.07   | 21.50   |
|           |            | 36      | 18        | 20.36   | 20.64   | 20.59   | 20.34   | 20.24   | 21.50   |
|           | 64QAM      | 36      | 39        | 20.24   | 20.61   | 20.55   | 20.24   | 20.16   | 21.50   |
|           |            | 75      | 0         | 20.20   | 20.49   | 20.55   | 20.29   | 20.06   | 21.50   |
|           |            | 1       | 0         | 19.75   | 19.68   | 19.79   | 19.76   | 19.79   | 21.00   |
|           |            | 1       | 38        | 19.86   | 19.88   | 19.80   | 19.92   | 19.88   | 21.00   |
|           |            | 1       | 74        | 19.86   | 19.86   | 19.84   | 19.87   | 19.83   | 21.00   |
|           |            | 36      | 0         | 19.47   | 19.65   | 19.56   | 19.46   | 19.47   | 21.00   |
|           | 256QAM     | 36      | 18        | 19.42   | 19.32   | 19.52   | 19.36   | 19.43   | 21.00   |
|           |            | 36      | 39        | 19.44   | 19.53   | 19.44   | 19.59   | 19.37   | 21.00   |
|           |            | 75      | 0         | 19.33   | 19.50   | 19.44   | 19.49   | 19.36   | 21.00   |
|           |            | 1       | 0         | 19.62   | 19.73   | 19.72   | 19.67   | 19.81   | 21.00   |
|           |            | 1       | 38        | 19.58   | 19.72   | 19.83   | 19.83   | 19.73   | 21.00   |
|           |            | 1       | 74        | 19.59   | 19.73   | 19.62   | 19.61   | 19.72   | 21.00   |
| 20MHz     | QPSK       | 36      | 0         | 19.71   | 19.74   | 19.68   | 19.73   | 19.61   | 21.00   |
|           |            | 36      | 18        | 19.77   | 19.67   | 19.50   | 19.58   | 19.54   | 21.00   |
|           |            | 36      | 39        | 19.70   | 19.56   | 19.58   | 19.76   | 19.74   | 21.00   |
|           |            | 75      | 0         | 19.55   | 19.54   | 19.64   | 19.63   | 19.70   | 21.00   |
|           | 16QAM      | 1       | 0         | 20.31   | 20.41   | 20.71   | 20.49   | 20.14   | 21.50   |
|           |            | 1       | 50        | 20.43   | 20.46   | 20.74   | 20.77   | 20.52   | 21.50   |
|           |            | 1       | 99        | 20.37   | 20.45   | 20.72   | 20.31   | 20.41   | 21.50   |
|           |            | 50      | 0         | 20.33   | 20.49   | 20.62   | 20.48   | 20.39   | 21.50   |
|           |            | 50      | 25        | 20.42   | 20.50   | 20.70   | 20.51   | 20.47   | 21.50   |
|           |            | 50      | 50        | 20.41   | 20.53   | 20.69   | 20.55   | 20.46   | 21.50   |
|           | 64QAM      | 100     | 0         | 20.40   | 20.52   | 20.65   | 20.47   | 20.38   | 21.50   |
|           |            | 1       | 0         | 20.72   | 20.73   | 20.73   | 20.67   | 20.23   | 21.50   |
|           |            | 1       | 50        | 20.71   | 20.70   | 20.70   | 20.72   | 20.47   | 21.50   |
|           |            | 1       | 99        | 20.72   | 20.73   | 20.70   | 20.49   | 20.42   | 21.50   |
|           |            | 50      | 0         | 20.29   | 20.69   | 20.61   | 20.25   | 20.12   | 21.50   |
|           |            | 50      | 25        | 20.40   | 20.68   | 20.63   | 20.36   | 20.32   | 21.50   |
|           | 256QAM     | 50      | 50        | 20.32   | 20.62   | 20.64   | 20.27   | 20.19   | 21.50   |
|           |            | 100     | 0         | 20.32   | 20.53   | 20.61   | 20.36   | 20.12   | 21.50   |
|           |            | 1       | 0         | 19.81   | 19.81   | 19.85   | 19.83   | 19.90   | 21.00   |
|           |            | 1       | 50        | 19.98   | 19.96   | 19.93   | 19.96   | 19.94   | 21.00   |
|           |            | 1       | 99        | 19.99   | 19.90   | 19.96   | 19.90   | 19.91   | 21.00   |
|           |            | 50      | 0         | 19.60   | 19.68   | 19.63   | 19.55   | 19.60   | 21.00   |
|           | 16QAM      | 50      | 25        | 19.45   | 19.44   | 19.55   | 19.46   | 19.56   | 21.00   |
|           |            | 50      | 50        | 19.46   | 19.55   | 19.57   | 19.62   | 19.47   | 21.00   |
|           |            | 100     | 0         | 19.46   | 19.60   | 19.56   | 19.54   | 19.45   | 21.00   |
|           |            | 1       | 0         | 19.67   | 19.70   | 19.77   | 19.70   | 19.72   | 21.00   |
|           |            | 1       | 50        | 19.68   | 19.64   | 19.72   | 19.72   | 19.66   | 21.00   |
|           |            | 1       | 99        | 19.61   | 19.66   | 19.70   | 19.66   | 19.62   | 21.00   |
|           | 256QAM     | 50      | 0         | 19.62   | 19.70   | 19.68   | 19.62   | 19.60   | 21.00   |
|           |            | 50      | 25        | 19.68   | 19.64   | 19.60   | 19.59   | 19.56   | 21.00   |
|           |            | 50      | 50        | 19.66   | 19.61   | 19.65   | 19.69   | 19.62   | 21.00   |
|           |            | 100     | 0         | 19.50   | 19.58   | 19.66   | 19.62   | 19.60   | 21.00   |

| LTE Band 48(3550~3700) |            |         |           | Conducted Power(dBm) |         |         |         |         |
|------------------------|------------|---------|-----------|----------------------|---------|---------|---------|---------|
| Bandwidth              | Modulation | RB size | RB offset | Channel              | Channel | Channel | Channel | Tune up |
|                        |            |         |           | 55265                | 55748   | 56232   | 56715   |         |
| 5MHz                   | QPSK       | 1       | 0         | 16.74                | 16.51   | 16.63   | 16.51   | 17.50   |
|                        |            | 1       | 13        | 16.63                | 16.73   | 16.74   | 16.53   | 17.50   |
|                        |            | 1       | 24        | 16.60                | 16.54   | 16.74   | 16.63   | 17.50   |
|                        |            | 12      | 0         | 16.67                | 16.71   | 16.60   | 16.62   | 17.50   |
|                        |            | 12      | 6         | 16.62                | 16.63   | 16.50   | 16.56   | 17.50   |
|                        |            | 12      | 13        | 16.71                | 16.72   | 16.62   | 16.61   | 17.50   |
|                        |            | 25      | 0         | 16.67                | 16.57   | 16.64   | 16.75   | 17.50   |
|                        | 16QAM      | 1       | 0         | 16.76                | 16.56   | 16.60   | 16.73   | 17.50   |

|        |           |            |         |           |         |         |         |         |         |
|--------|-----------|------------|---------|-----------|---------|---------|---------|---------|---------|
|        |           | 1          | 13      | 16.62     | 16.71   | 16.74   | 16.61   | 17.50   |         |
|        |           | 1          | 24      | 16.71     | 16.70   | 16.58   | 16.73   | 17.50   |         |
|        |           | 12         | 0       | 16.65     | 16.74   | 16.70   | 16.66   | 17.50   |         |
|        |           | 12         | 6       | 16.71     | 16.70   | 16.68   | 16.75   | 17.50   |         |
|        |           | 12         | 13      | 16.75     | 16.65   | 16.61   | 16.57   | 17.50   |         |
|        |           | 25         | 0       | 16.68     | 16.70   | 16.72   | 16.73   | 17.50   |         |
|        | 64QAM     | 1          | 0       | 16.47     | 16.54   | 16.63   | 16.72   | 17.50   |         |
|        |           | 1          | 13      | 16.54     | 16.63   | 16.63   | 16.56   | 17.50   |         |
|        |           | 1          | 24      | 16.71     | 16.69   | 16.60   | 16.56   | 17.50   |         |
|        |           | 12         | 0       | 16.74     | 16.75   | 16.51   | 16.70   | 17.50   |         |
|        |           | 12         | 6       | 16.72     | 16.72   | 16.69   | 16.76   | 17.50   |         |
|        |           | 12         | 13      | 16.67     | 16.72   | 16.71   | 16.68   | 17.50   |         |
|        | 256QAM    | 25         | 0       | 16.70     | 16.70   | 16.66   | 16.76   | 17.50   |         |
|        |           | 1          | 0       | 16.56     | 16.43   | 16.57   | 16.58   | 17.50   |         |
|        |           | 1          | 13      | 16.46     | 16.61   | 16.65   | 16.66   | 17.50   |         |
|        |           | 1          | 24      | 16.64     | 16.54   | 16.76   | 16.69   | 17.50   |         |
|        |           | 12         | 0       | 16.58     | 16.73   | 16.63   | 16.51   | 17.50   |         |
|        |           | 12         | 6       | 16.71     | 16.74   | 16.67   | 16.65   | 17.50   |         |
|        | 12        | 13         | 16.58   | 16.76     | 16.58   | 16.57   | 17.50   |         |         |
|        | 25        | 0          | 16.56   | 16.60     | 16.70   | 16.59   | 17.50   |         |         |
|        | Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Channel | Tune up |
|        | 55290     | 55757      | 56223   | 56690     |         |         |         |         |         |
|        | 10MHz     | QPSK       | 1       | 0         | 16.67   | 16.52   | 16.53   | 16.53   | 17.50   |
|        |           |            | 1       | 25        | 16.75   | 16.64   | 16.74   | 16.47   | 17.50   |
| 1      |           |            | 49      | 16.59     | 16.62   | 16.65   | 16.67   | 17.50   |         |
| 25     |           |            | 0       | 16.52     | 16.64   | 16.76   | 16.67   | 17.50   |         |
| 25     |           |            | 13      | 16.70     | 16.72   | 16.75   | 16.57   | 17.50   |         |
| 25     |           |            | 25      | 16.67     | 16.68   | 16.72   | 16.76   | 17.50   |         |
| 16QAM  |           | 50         | 0       | 16.64     | 16.55   | 16.76   | 16.63   | 17.50   |         |
|        |           | 1          | 0       | 16.77     | 16.72   | 16.71   | 16.61   | 17.50   |         |
|        |           | 1          | 25      | 16.73     | 16.52   | 16.68   | 16.77   | 17.50   |         |
|        |           | 1          | 49      | 16.51     | 16.74   | 16.68   | 16.75   | 17.50   |         |
|        |           | 25         | 0       | 16.61     | 16.71   | 16.67   | 16.65   | 17.50   |         |
|        |           | 25         | 13      | 16.62     | 16.75   | 16.72   | 16.67   | 17.50   |         |
| 64QAM  |           | 25         | 25      | 16.76     | 16.62   | 16.72   | 16.73   | 17.50   |         |
|        |           | 50         | 0       | 16.62     | 16.75   | 16.76   | 16.66   | 17.50   |         |
|        |           | 1          | 0       | 16.35     | 16.38   | 16.60   | 16.60   | 17.50   |         |
|        |           | 1          | 25      | 16.51     | 16.61   | 16.50   | 16.53   | 17.50   |         |
|        |           | 1          | 49      | 16.69     | 16.67   | 16.61   | 16.67   | 17.50   |         |
|        |           | 25         | 0       | 16.66     | 16.67   | 16.58   | 16.77   | 17.50   |         |
| 256QAM |           | 25         | 13      | 16.74     | 16.68   | 16.72   | 16.57   | 17.50   |         |
|        |           | 25         | 25      | 16.75     | 16.75   | 16.63   | 16.70   | 17.50   |         |
|        |           | 50         | 0       | 16.70     | 16.63   | 16.66   | 16.77   | 17.50   |         |
|        |           | 1          | 0       | 16.43     | 16.46   | 16.71   | 16.55   | 17.50   |         |
|        |           | 1          | 25      | 16.65     | 16.50   | 16.63   | 16.59   | 17.50   |         |
|        |           | 1          | 49      | 16.56     | 16.61   | 16.67   | 16.67   | 17.50   |         |
|        |           | 25         | 0       | 16.68     | 16.70   | 16.70   | 16.52   | 17.50   |         |
|        |           | 25         | 13      | 16.69     | 16.77   | 16.76   | 16.69   | 17.50   |         |
|        | 25        | 25         | 16.76   | 16.74     | 16.60   | 16.65   | 17.50   |         |         |
|        | 50        | 0          | 16.46   | 16.59     | 16.54   | 16.49   | 17.50   |         |         |
|        | Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Channel | Tune up |
|        | 55315     | 55765      | 56215   | 56665     |         |         |         |         |         |
| 15MHz  | QPSK      | 1          | 0       | 16.61     | 16.50   | 16.51   | 16.51   | 17.50   |         |
|        |           | 1          | 38      | 16.66     | 16.66   | 16.73   | 16.50   | 17.50   |         |
|        |           | 1          | 74      | 16.65     | 16.67   | 16.52   | 16.64   | 17.50   |         |
|        |           | 36         | 0       | 16.73     | 16.50   | 16.61   | 16.65   | 17.50   |         |
|        |           | 36         | 18      | 16.59     | 16.74   | 16.51   | 16.68   | 17.50   |         |
|        |           | 36         | 39      | 16.68     | 16.73   | 16.76   | 16.73   | 17.50   |         |
|        | 16QAM     | 75         | 0       | 16.70     | 16.70   | 16.69   | 16.72   | 17.50   |         |
|        |           | 1          | 0       | 16.74     | 16.54   | 16.55   | 16.49   | 17.50   |         |
|        |           | 1          | 38      | 16.72     | 16.70   | 16.58   | 16.65   | 17.50   |         |
|        |           | 1          | 74      | 16.57     | 16.66   | 16.73   | 16.76   | 17.50   |         |
|        |           | 36         | 0       | 16.69     | 16.54   | 16.66   | 16.61   | 17.50   |         |
|        |           | 36         | 18      | 16.61     | 16.65   | 16.70   | 16.59   | 17.50   |         |
|        | 64QAM     | 36         | 39      | 16.75     | 16.68   | 16.49   | 16.62   | 17.50   |         |
|        |           | 75         | 0       | 16.61     | 16.75   | 16.57   | 16.75   | 17.50   |         |
|        |           | 1          | 0       | 16.43     | 16.48   | 16.54   | 16.63   | 17.50   |         |
|        |           | 1          | 38      | 16.50     | 16.70   | 16.64   | 16.67   | 17.50   |         |
|        |           | 1          | 74      | 16.72     | 16.67   | 16.71   | 16.59   | 17.50   |         |
|        |           | 36         | 0       | 16.66     | 16.73   | 16.52   | 16.65   | 17.50   |         |
|        | 256QAM    | 36         | 18      | 16.73     | 16.73   | 16.69   | 16.74   | 17.50   |         |
|        |           | 36         | 39      | 16.73     | 16.70   | 16.75   | 16.60   | 17.50   |         |
|        |           | 75         | 0       | 16.71     | 16.69   | 16.72   | 16.62   | 17.50   |         |
|        |           | 1          | 0       | 16.60     | 16.36   | 16.74   | 16.50   | 17.50   |         |
|        |           | 1          | 38      | 16.60     | 16.48   | 16.75   | 16.63   | 17.50   |         |
|        |           | 1          | 74      | 16.69     | 16.61   | 16.69   | 16.67   | 17.50   |         |
|        |           | 36         | 0       | 16.65     | 16.67   | 16.53   | 16.54   | 17.50   |         |

|           |            |         |           |         |         |         |         |         |
|-----------|------------|---------|-----------|---------|---------|---------|---------|---------|
|           |            | 36      | 18        | 16.55   | 16.74   | 16.60   | 16.59   | 17.50   |
|           |            | 36      | 39        | 16.65   | 16.70   | 16.75   | 16.57   | 17.50   |
|           |            | 75      | 0         | 16.58   | 16.52   | 16.54   | 16.49   | 17.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Channel | Tune up |
|           |            |         |           | 55340   | 55773   | 56207   | 56640   |         |
| 20MHz     | QPSK       | 1       | 0         | 16.69   | 16.73   | 16.77   | 16.72   | 17.50   |
|           |            | 1       | 50        | 16.71   | 16.77   | 16.78   | 16.76   | 17.50   |
|           |            | 1       | 99        | 16.70   | 16.69   | 16.71   | 16.75   | 17.50   |
|           |            | 50      | 0         | 16.68   | 16.66   | 16.65   | 16.69   | 17.50   |
|           |            | 50      | 25        | 16.72   | 16.70   | 16.75   | 16.71   | 17.50   |
|           |            | 50      | 50        | 16.70   | 16.68   | 16.71   | 16.70   | 17.50   |
|           |            | 100     | 0         | 16.68   | 16.66   | 16.69   | 16.64   | 17.50   |
|           | 16QAM      | 1       | 0         | 16.66   | 16.58   | 16.63   | 16.67   | 17.50   |
|           |            | 1       | 50        | 16.71   | 16.67   | 16.72   | 16.68   | 17.50   |
|           |            | 1       | 99        | 16.61   | 16.72   | 16.74   | 16.66   | 17.50   |
|           |            | 50      | 0         | 16.71   | 16.73   | 16.67   | 16.61   | 17.50   |
|           |            | 50      | 25        | 16.73   | 16.73   | 16.62   | 16.76   | 17.50   |
|           |            | 50      | 50        | 16.75   | 16.72   | 16.65   | 16.73   | 17.50   |
|           |            | 100     | 0         | 16.67   | 16.70   | 16.66   | 16.74   | 17.50   |
|           | 64QAM      | 1       | 0         | 16.50   | 16.61   | 16.62   | 16.76   | 17.50   |
|           |            | 1       | 50        | 16.64   | 16.60   | 16.54   | 16.71   | 17.50   |
|           |            | 1       | 99        | 16.70   | 16.73   | 16.71   | 16.70   | 17.50   |
|           |            | 50      | 0         | 16.69   | 16.71   | 16.60   | 16.71   | 17.50   |
|           |            | 50      | 25        | 16.70   | 16.74   | 16.65   | 16.70   | 17.50   |
|           |            | 50      | 50        | 16.72   | 16.77   | 16.70   | 16.71   | 17.50   |
|           |            | 100     | 0         | 16.73   | 16.73   | 16.73   | 16.72   | 17.50   |
|           | 256QAM     | 1       | 0         | 16.50   | 16.44   | 16.63   | 16.60   | 17.50   |
|           |            | 1       | 50        | 16.55   | 16.57   | 16.70   | 16.68   | 17.50   |
|           |            | 1       | 99        | 16.58   | 16.62   | 16.64   | 16.65   | 17.50   |
|           |            | 50      | 0         | 16.57   | 16.63   | 16.61   | 16.60   | 17.50   |
|           |            | 50      | 25        | 16.60   | 16.65   | 16.67   | 16.68   | 17.50   |
|           |            | 50      | 50        | 16.64   | 16.67   | 16.66   | 16.63   | 17.50   |
|           |            | 100     | 0         | 16.55   | 16.57   | 16.64   | 16.58   | 17.50   |

| LTE Band 66 |            |         |           | Conducted Power(dBm) |         |         |         |
|-------------|------------|---------|-----------|----------------------|---------|---------|---------|
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|             |            |         |           | 131979               | 132322  | 132665  |         |
| 1.4MHz      | QPSK       | 1       | 0         | 19.79                | 19.93   | 19.86   | 20.50   |
|             |            | 1       | 2         | 19.87                | 19.91   | 19.94   | 20.50   |
|             |            | 1       | 5         | 19.89                | 19.83   | 19.91   | 20.50   |
|             |            | 3       | 0         | 19.82                | 19.79   | 19.83   | 20.50   |
|             |            | 3       | 1         | 19.93                | 19.94   | 19.86   | 20.50   |
|             |            | 3       | 3         | 19.86                | 19.84   | 19.92   | 20.50   |
|             | 16QAM      | 6       | 0         | 19.90                | 19.81   | 19.87   | 20.50   |
|             |            | 1       | 0         | 19.83                | 19.87   | 19.87   | 20.50   |
|             |            | 1       | 2         | 19.92                | 19.92   | 19.92   | 20.50   |
|             |            | 1       | 5         | 19.86                | 19.95   | 19.81   | 20.50   |
|             |            | 3       | 0         | 19.78                | 19.76   | 19.86   | 20.50   |
|             |            | 3       | 1         | 19.81                | 19.88   | 19.86   | 20.50   |
|             |            | 3       | 3         | 19.71                | 19.89   | 19.94   | 20.50   |
|             | 64QAM      | 6       | 0         | 19.91                | 19.89   | 19.82   | 20.50   |
|             |            | 1       | 0         | 19.50                | 19.51   | 19.64   | 20.50   |
|             |            | 1       | 2         | 19.62                | 19.43   | 19.64   | 20.50   |
|             |            | 1       | 5         | 19.62                | 19.64   | 19.68   | 20.50   |
|             |            | 3       | 0         | 19.33                | 19.25   | 19.19   | 20.50   |
|             |            | 3       | 1         | 19.19                | 19.28   | 19.20   | 20.50   |
|             |            | 3       | 3         | 19.36                | 19.32   | 19.32   | 20.50   |
|             | 256QAM     | 6       | 0         | 19.26                | 19.28   | 19.24   | 20.50   |
|             |            | 1       | 0         | 18.65                | 18.81   | 18.74   | 19.50   |
|             |            | 1       | 2         | 18.78                | 18.68   | 18.86   | 19.50   |
|             |            | 1       | 5         | 18.61                | 18.58   | 18.81   | 19.50   |
|             |            | 3       | 0         | 18.41                | 18.51   | 18.57   | 19.50   |
|             |            | 3       | 1         | 18.64                | 18.50   | 18.77   | 19.50   |
|             |            | 3       | 3         | 18.61                | 18.52   | 18.81   | 19.50   |
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|             |            |         |           | 131987               | 132322  | 132657  |         |
| 3MHz        | QPSK       | 1       | 0         | 19.77                | 19.91   | 19.94   | 20.50   |
|             |            | 1       | 7         | 19.92                | 19.92   | 19.89   | 20.50   |
|             |            | 1       | 14        | 19.93                | 19.89   | 19.93   | 20.50   |
|             |            | 8       | 0         | 19.87                | 19.81   | 19.89   | 20.50   |
|             |            | 8       | 4         | 19.83                | 19.94   | 19.88   | 20.50   |
|             |            | 8       | 7         | 19.80                | 19.84   | 19.92   | 20.50   |
|             |            | 15      | 0         | 19.85                | 19.82   | 19.92   | 20.50   |
|             | 16QAM      | 1       | 0         | 19.89                | 19.94   | 19.88   | 20.50   |
|             |            | 1       | 7         | 19.84                | 19.89   | 19.91   | 20.50   |

|           |            |            |           |           |         |         |         |         |
|-----------|------------|------------|-----------|-----------|---------|---------|---------|---------|
|           |            | 1          | 14        | 19.83     | 19.94   | 19.83   | 20.50   |         |
|           |            | 8          | 0         | 19.85     | 19.86   | 19.90   | 20.50   |         |
|           |            | 8          | 4         | 19.83     | 19.81   | 19.95   | 20.50   |         |
|           |            | 8          | 7         | 19.81     | 19.79   | 19.80   | 20.50   |         |
|           |            | 15         | 0         | 19.89     | 19.79   | 19.80   | 20.50   |         |
|           |            | 1          | 0         | 19.57     | 19.55   | 19.63   | 20.50   |         |
|           |            | 1          | 7         | 19.50     | 19.44   | 19.50   | 20.50   |         |
|           |            | 1          | 14        | 19.72     | 19.58   | 19.70   | 20.50   |         |
|           |            | 8          | 0         | 19.32     | 19.12   | 19.19   | 20.50   |         |
|           |            | 8          | 4         | 19.32     | 19.20   | 19.24   | 20.50   |         |
|           |            | 8          | 7         | 19.31     | 19.31   | 19.35   | 20.50   |         |
|           |            | 15         | 0         | 19.32     | 19.23   | 19.13   | 20.50   |         |
|           |            | 1          | 0         | 18.66     | 18.76   | 18.76   | 19.50   |         |
|           |            | 1          | 7         | 18.59     | 18.67   | 18.75   | 19.50   |         |
|           |            | 1          | 14        | 18.54     | 18.57   | 18.91   | 19.50   |         |
|           | 64QAM      | 8          | 0         | 18.59     | 18.56   | 18.61   | 19.50   |         |
|           |            | 8          | 4         | 18.64     | 18.69   | 18.63   | 19.50   |         |
|           |            | 8          | 7         | 18.41     | 18.70   | 18.62   | 19.50   |         |
|           |            | 15         | 0         | 18.48     | 18.59   | 18.66   | 19.50   |         |
| 256QAM    |            | 1          | 0         | 18.66     | 18.76   | 18.76   | 19.50   |         |
|           | 1          | 7          | 18.59     | 18.67     | 18.75   | 19.50   |         |         |
|           | 1          | 14         | 18.54     | 18.57     | 18.91   | 19.50   |         |         |
|           | 8          | 0          | 18.59     | 18.56     | 18.61   | 19.50   |         |         |
|           | 8          | 4          | 18.64     | 18.69     | 18.63   | 19.50   |         |         |
|           | 8          | 7          | 18.41     | 18.70     | 18.62   | 19.50   |         |         |
| 15        | 0          | 18.48      | 18.59     | 18.66     | 19.50   |         |         |         |
| Bandwidth | Modulation | RB size    | RB offset | Channel   | Channel | Channel | Tune up |         |
|           |            |            |           | 131997    | 132322  | 132647  |         |         |
| 5MHz      | QPSK       | 1          | 0         | 19.77     | 19.97   | 19.91   | 20.50   |         |
|           |            | 1          | 13        | 19.86     | 19.90   | 19.88   | 20.50   |         |
|           |            | 1          | 24        | 19.80     | 19.91   | 19.84   | 20.50   |         |
|           |            | 12         | 0         | 19.84     | 19.83   | 19.87   | 20.50   |         |
|           |            | 12         | 6         | 19.89     | 19.91   | 19.89   | 20.50   |         |
|           |            | 12         | 13        | 19.82     | 19.80   | 19.91   | 20.50   |         |
|           | 16QAM      | 25         | 0         | 19.94     | 19.77   | 19.93   | 20.50   |         |
|           |            | 1          | 0         | 19.83     | 19.92   | 19.83   | 20.50   |         |
|           |            | 1          | 13        | 19.96     | 19.90   | 19.94   | 20.50   |         |
|           |            | 1          | 24        | 19.83     | 19.95   | 19.93   | 20.50   |         |
|           |            | 12         | 0         | 19.87     | 19.77   | 19.83   | 20.50   |         |
|           |            | 12         | 6         | 19.86     | 19.85   | 19.91   | 20.50   |         |
|           | 64QAM      | 12         | 13        | 19.80     | 19.92   | 19.93   | 20.50   |         |
|           |            | 25         | 0         | 19.82     | 19.88   | 19.86   | 20.50   |         |
|           |            | 1          | 0         | 19.50     | 19.50   | 19.66   | 20.50   |         |
|           |            | 1          | 13        | 19.50     | 19.50   | 19.61   | 20.50   |         |
|           |            | 1          | 24        | 19.67     | 19.61   | 19.71   | 20.50   |         |
|           |            | 12         | 0         | 19.33     | 19.24   | 19.16   | 20.50   |         |
|           | 256QAM     | 12         | 6         | 19.26     | 19.31   | 19.19   | 20.50   |         |
|           |            | 12         | 13        | 19.39     | 19.31   | 19.30   | 20.50   |         |
|           |            | 25         | 0         | 19.33     | 19.19   | 19.19   | 20.50   |         |
|           |            | 1          | 0         | 18.62     | 18.72   | 18.85   | 19.50   |         |
|           |            | 1          | 13        | 18.67     | 18.70   | 18.74   | 19.50   |         |
|           |            | 1          | 24        | 18.65     | 18.54   | 18.76   | 19.50   |         |
| 256QAM    | 12         | 0          | 18.50     | 18.61     | 18.61   | 19.50   |         |         |
|           | 12         | 6          | 18.57     | 18.61     | 18.70   | 19.50   |         |         |
|           | 12         | 13         | 18.51     | 18.48     | 18.79   | 19.50   |         |         |
|           | 25         | 0          | 18.64     | 18.63     | 18.77   | 19.50   |         |         |
|           | Bandwidth  | Modulation | RB size   | RB offset | Channel | Channel | Channel | Tune up |
|           |            |            |           |           | 132022  | 132322  | 132622  |         |
| 10MHz     | QPSK       | 1          | 0         | 19.73     | 19.92   | 19.84   | 20.50   |         |
|           |            | 1          | 25        | 19.91     | 19.92   | 19.91   | 20.50   |         |
|           |            | 1          | 49        | 19.92     | 19.88   | 19.81   | 20.50   |         |
|           |            | 25         | 0         | 19.83     | 19.82   | 19.83   | 20.50   |         |
|           |            | 25         | 13        | 19.95     | 19.91   | 19.83   | 20.50   |         |
|           |            | 25         | 25        | 19.89     | 19.83   | 19.83   | 20.50   |         |
|           | 16QAM      | 50         | 0         | 19.87     | 19.88   | 19.81   | 20.50   |         |
|           |            | 1          | 0         | 19.90     | 19.92   | 19.90   | 20.50   |         |
|           |            | 1          | 25        | 19.85     | 19.90   | 19.93   | 20.50   |         |
|           |            | 1          | 49        | 19.89     | 19.86   | 19.87   | 20.50   |         |
|           |            | 25         | 0         | 19.78     | 19.83   | 19.87   | 20.50   |         |
|           |            | 25         | 13        | 19.84     | 19.92   | 19.91   | 20.50   |         |
|           | 64QAM      | 25         | 25        | 19.75     | 19.88   | 19.81   | 20.50   |         |
|           |            | 50         | 0         | 19.82     | 19.80   | 19.81   | 20.50   |         |
|           |            | 1          | 0         | 19.58     | 19.52   | 19.64   | 20.50   |         |
|           |            | 1          | 25        | 19.48     | 19.43   | 19.59   | 20.50   |         |
|           |            | 1          | 49        | 19.61     | 19.70   | 19.74   | 20.50   |         |
|           |            | 25         | 0         | 19.34     | 19.14   | 19.22   | 20.50   |         |
|           | 256QAM     | 25         | 13        | 19.25     | 19.30   | 19.26   | 20.50   |         |
|           |            | 25         | 25        | 19.39     | 19.24   | 19.35   | 20.50   |         |
|           |            | 50         | 0         | 19.23     | 19.17   | 19.12   | 20.50   |         |
|           |            | 1          | 0         | 18.73     | 18.61   | 18.79   | 19.50   |         |
|           |            | 1          | 25        | 18.70     | 18.81   | 18.85   | 19.50   |         |
|           |            | 1          | 49        | 18.65     | 18.59   | 18.84   | 19.50   |         |
| 256QAM    | 25         | 0          | 18.41     | 18.53     | 18.59   | 19.50   |         |         |
|           | 25         | 13         | 18.46     | 18.54     | 18.82   | 19.50   |         |         |

|           |            | 25      | 25        | 18.43             | 18.67             | 18.69             | 19.50   |
|-----------|------------|---------|-----------|-------------------|-------------------|-------------------|---------|
|           |            | 50      | 0         | 18.57             | 18.53             | 18.70             | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel<br>132047 | Channel<br>132322 | Channel<br>132597 | Tune up |
| 15MHz     | QPSK       | 1       | 0         | 19.84             | 19.89             | 19.90             | 20.50   |
|           |            | 1       | 38        | 19.93             | 19.96             | 19.86             | 20.50   |
|           |            | 1       | 74        | 19.90             | 19.89             | 19.85             | 20.50   |
|           |            | 36      | 0         | 19.81             | 19.86             | 19.81             | 20.50   |
|           |            | 36      | 18        | 19.92             | 19.87             | 19.95             | 20.50   |
|           |            | 36      | 39        | 19.86             | 19.90             | 19.94             | 20.50   |
|           |            | 75      | 0         | 19.87             | 19.89             | 19.82             | 20.50   |
|           | 16QAM      | 1       | 0         | 19.83             | 19.94             | 19.82             | 20.50   |
|           |            | 1       | 38        | 19.90             | 19.94             | 19.92             | 20.50   |
|           |            | 1       | 74        | 19.94             | 19.89             | 19.85             | 20.50   |
|           |            | 36      | 0         | 19.84             | 19.81             | 19.91             | 20.50   |
|           |            | 36      | 18        | 19.79             | 19.88             | 19.91             | 20.50   |
|           |            | 36      | 39        | 19.70             | 19.79             | 19.82             | 20.50   |
|           |            | 75      | 0         | 19.86             | 19.85             | 19.84             | 20.50   |
|           | 64QAM      | 1       | 0         | 19.58             | 19.54             | 19.59             | 20.50   |
|           |            | 1       | 38        | 19.59             | 19.44             | 19.57             | 20.50   |
|           |            | 1       | 74        | 19.70             | 19.71             | 19.77             | 20.50   |
|           |            | 36      | 0         | 19.34             | 19.21             | 19.13             | 20.50   |
|           |            | 36      | 18        | 19.29             | 19.31             | 19.22             | 20.50   |
|           |            | 36      | 39        | 19.39             | 19.22             | 19.34             | 20.50   |
|           |            | 75      | 0         | 19.25             | 19.27             | 19.22             | 20.50   |
|           | 256QAM     | 1       | 0         | 18.63             | 18.81             | 18.91             | 19.50   |
|           |            | 1       | 38        | 18.70             | 18.86             | 18.80             | 19.50   |
|           |            | 1       | 74        | 18.74             | 18.61             | 18.77             | 19.50   |
|           |            | 36      | 0         | 18.47             | 18.47             | 18.57             | 19.50   |
|           |            | 36      | 18        | 18.50             | 18.59             | 18.72             | 19.50   |
|           |            | 36      | 39        | 18.62             | 18.51             | 18.71             | 19.50   |
|           |            | 75      | 0         | 18.66             | 18.48             | 18.76             | 19.50   |
| Bandwidth | Modulation | RB size | RB offset | Channel<br>132072 | Channel<br>132322 | Channel<br>132572 | Tune up |
| 20MHz     | QPSK       | 1       | 0         | 19.88             | 19.95             | 19.98             | 20.50   |
|           |            | 1       | 50        | 19.94             | 19.99             | 19.96             | 20.50   |
|           |            | 1       | 99        | 19.94             | 19.92             | 19.94             | 20.50   |
|           |            | 50      | 0         | 19.91             | 19.94             | 19.90             | 20.50   |
|           |            | 50      | 25        | 19.94             | 19.96             | 19.97             | 20.50   |
|           |            | 50      | 50        | 19.92             | 19.95             | 19.93             | 20.50   |
|           |            | 100     | 0         | 19.96             | 19.91             | 19.94             | 20.50   |
|           | 16QAM      | 1       | 0         | 19.91             | 19.97             | 19.92             | 20.50   |
|           |            | 1       | 50        | 19.97             | 19.93             | 19.90             | 20.50   |
|           |            | 1       | 99        | 19.97             | 19.96             | 19.96             | 20.50   |
|           |            | 50      | 0         | 19.93             | 19.91             | 19.96             | 20.50   |
|           |            | 50      | 25        | 19.87             | 19.93             | 19.90             | 20.50   |
|           |            | 50      | 50        | 19.84             | 19.94             | 19.95             | 20.50   |
|           |            | 100     | 0         | 19.97             | 19.92             | 19.91             | 20.50   |
|           | 64QAM      | 1       | 0         | 19.60             | 19.64             | 19.72             | 20.50   |
|           |            | 1       | 50        | 19.63             | 19.56             | 19.65             | 20.50   |
|           |            | 1       | 99        | 19.74             | 19.73             | 19.80             | 20.50   |
|           |            | 50      | 0         | 19.35             | 19.26             | 19.23             | 20.50   |
|           |            | 50      | 25        | 19.33             | 19.35             | 19.32             | 20.50   |
|           |            | 50      | 50        | 19.42             | 19.37             | 19.42             | 20.50   |
|           |            | 100     | 0         | 19.36             | 19.31             | 19.26             | 20.50   |
|           | 256QAM     | 1       | 0         | 18.70             | 18.70             | 18.80             | 19.50   |
|           |            | 1       | 50        | 18.68             | 18.75             | 18.78             | 19.50   |
|           |            | 1       | 99        | 18.62             | 18.64             | 18.85             | 19.50   |
|           |            | 50      | 0         | 18.50             | 18.54             | 18.67             | 19.50   |
|           |            | 50      | 25        | 18.55             | 18.60             | 18.70             | 19.50   |
|           |            | 50      | 50        | 18.51             | 18.58             | 18.69             | 19.50   |
|           |            | 100     | 0         | 18.54             | 18.57             | 18.71             | 19.50   |

## LTE Ant3:

| LTE Band 5 |            |         |           | Conducted Power(dBm) |         |         |         |
|------------|------------|---------|-----------|----------------------|---------|---------|---------|
| Bandwidth  | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|            |            |         |           | 20407                | 20525   | 20643   |         |
| 1.4MHz     | QPSK       | 1       | 0         | 22.07                | 22.13   | 22.15   | 23.50   |
|            |            | 1       | 2         | 22.20                | 22.19   | 22.12   | 23.50   |
|            |            | 1       | 5         | 22.09                | 22.13   | 22.12   | 23.50   |
|            |            | 3       | 0         | 22.04                | 22.17   | 22.08   | 23.50   |
|            |            | 3       | 2         | 22.10                | 22.20   | 22.11   | 23.50   |
|            |            | 3       | 3         | 22.18                | 22.15   | 22.20   | 23.50   |
|            |            | 6       | 0         | 22.16                | 22.16   | 22.14   | 23.50   |
|            | 16QAM      | 1       | 0         | 22.13                | 22.18   | 22.12   | 23.50   |
|            |            | 1       | 2         | 22.16                | 22.15   | 22.23   | 23.50   |
|            |            | 1       | 5         | 22.16                | 22.22   | 22.22   | 23.50   |
|            |            | 3       | 0         | 21.18                | 21.23   | 21.12   | 22.50   |
|            |            | 3       | 2         | 21.04                | 21.21   | 21.12   | 22.50   |
|            |            | 3       | 3         | 21.15                | 21.18   | 21.19   | 22.50   |
|            |            | 6       | 0         | 21.11                | 21.10   | 21.11   | 22.50   |
|            | 64QAM      | 1       | 0         | 21.07                | 21.14   | 20.98   | 22.50   |
|            |            | 1       | 2         | 21.07                | 21.05   | 21.05   | 22.50   |
|            |            | 1       | 5         | 20.95                | 20.94   | 20.84   | 22.50   |
|            |            | 3       | 0         | 20.63                | 20.49   | 20.68   | 21.50   |
|            |            | 3       | 2         | 20.55                | 20.50   | 20.61   | 21.50   |
|            |            | 3       | 3         | 20.58                | 20.37   | 20.61   | 21.50   |
|            |            | 6       | 0         | 20.61                | 20.49   | 20.69   | 21.50   |
|            | 256QAM     | 1       | 0         | 18.65                | 18.93   | 18.67   | 20.00   |
|            |            | 1       | 2         | 18.64                | 18.79   | 18.80   | 20.00   |
|            |            | 1       | 5         | 18.61                | 18.86   | 18.76   | 20.00   |
|            |            | 3       | 0         | 18.54                | 18.81   | 18.59   | 20.00   |
|            |            | 3       | 2         | 18.69                | 18.82   | 18.58   | 20.00   |
|            |            | 3       | 3         | 18.70                | 18.75   | 18.78   | 20.00   |
|            |            | 6       | 0         | 18.72                | 18.73   | 18.63   | 20.00   |
| Bandwidth  | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|            |            |         |           | 20415                | 20525   | 20635   |         |
| 3MHz       | QPSK       | 1       | 0         | 22.38                | 22.44   | 22.46   | 23.50   |
|            |            | 1       | 7         | 22.51                | 22.50   | 22.43   | 23.50   |
|            |            | 1       | 14        | 22.40                | 22.44   | 22.43   | 23.50   |
|            |            | 8       | 0         | 22.36                | 22.49   | 22.40   | 23.50   |
|            |            | 8       | 4         | 22.42                | 22.52   | 22.43   | 23.50   |
|            |            | 8       | 7         | 22.50                | 22.47   | 22.52   | 23.50   |
|            |            | 15      | 0         | 22.48                | 22.48   | 22.46   | 23.50   |
|            | 16QAM      | 1       | 0         | 22.45                | 22.50   | 22.44   | 23.50   |
|            |            | 1       | 7         | 22.48                | 22.47   | 22.55   | 23.50   |
|            |            | 1       | 14        | 22.48                | 22.54   | 22.54   | 23.50   |
|            |            | 8       | 0         | 21.50                | 21.55   | 21.44   | 22.50   |
|            |            | 8       | 4         | 21.36                | 21.53   | 21.44   | 22.50   |
|            |            | 8       | 7         | 21.47                | 21.50   | 21.51   | 22.50   |
|            |            | 15      | 0         | 21.43                | 21.42   | 21.43   | 22.50   |
|            | 64QAM      | 1       | 0         | 21.39                | 21.46   | 21.30   | 22.50   |
|            |            | 1       | 7         | 21.39                | 21.37   | 21.37   | 22.50   |
|            |            | 1       | 14        | 21.27                | 21.26   | 21.16   | 22.50   |
|            |            | 8       | 0         | 20.58                | 20.56   | 20.64   | 21.50   |
|            |            | 8       | 4         | 20.61                | 20.39   | 20.66   | 21.50   |
|            |            | 8       | 7         | 20.58                | 20.41   | 20.57   | 21.50   |
|            |            | 15      | 0         | 20.62                | 20.45   | 20.59   | 21.50   |
|            | 256QAM     | 1       | 0         | 18.68                | 18.87   | 18.77   | 20.00   |
|            |            | 1       | 7         | 18.73                | 18.87   | 18.72   | 20.00   |
|            |            | 1       | 14        | 18.71                | 18.72   | 18.66   | 20.00   |
|            |            | 8       | 0         | 18.54                | 18.75   | 18.60   | 20.00   |
|            |            | 8       | 4         | 18.74                | 18.79   | 18.66   | 20.00   |
|            |            | 8       | 7         | 18.60                | 18.82   | 18.71   | 20.00   |
|            |            | 15      | 0         | 18.63                | 18.77   | 18.69   | 20.00   |
| Bandwidth  | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|            |            |         |           | 20425                | 20525   | 20625   |         |
| 5MHz       | QPSK       | 1       | 0         | 22.48                | 22.48   | 22.42   | 23.50   |
|            |            | 1       | 13        | 22.47                | 22.54   | 22.43   | 23.50   |
|            |            | 1       | 24        | 22.39                | 22.45   | 22.47   | 23.50   |
|            |            | 12      | 0         | 22.43                | 22.53   | 22.44   | 23.50   |
|            |            | 12      | 6         | 22.46                | 22.50   | 22.47   | 23.50   |
|            |            | 12      | 13        | 22.49                | 22.48   | 22.52   | 23.50   |
|            |            | 25      | 0         | 22.44                | 22.44   | 22.38   | 23.50   |
|            | 16QAM      | 1       | 0         | 22.50                | 22.50   | 22.48   | 23.50   |
|            |            | 1       | 13        | 22.55                | 22.51   | 22.46   | 23.50   |
|            |            | 1       | 24        | 22.53                | 22.56   | 22.50   | 23.50   |
|            |            | 12      | 0         | 21.51                | 21.55   | 21.45   | 22.50   |

|           |            |         |           |         |         |         |         |
|-----------|------------|---------|-----------|---------|---------|---------|---------|
|           |            | 12      | 6         | 21.35   | 21.55   | 21.42   | 22.50   |
|           |            | 12      | 13        | 21.40   | 21.61   | 21.50   | 22.50   |
|           |            | 25      | 0         | 21.47   | 21.46   | 21.32   | 22.50   |
|           | 64QAM      | 1       | 0         | 21.31   | 21.51   | 21.37   | 22.50   |
|           |            | 1       | 13        | 21.41   | 21.33   | 21.38   | 22.50   |
|           |            | 1       | 24        | 21.32   | 21.26   | 21.26   | 22.50   |
|           |            | 12      | 0         | 20.63   | 20.46   | 20.63   | 21.50   |
|           |            | 12      | 6         | 20.67   | 20.45   | 20.65   | 21.50   |
|           |            | 12      | 13        | 20.59   | 20.41   | 20.58   | 21.50   |
|           |            | 25      | 0         | 20.70   | 20.43   | 20.68   | 21.50   |
|           | 256QAM     | 1       | 0         | 18.57   | 18.78   | 18.73   | 20.00   |
|           |            | 1       | 13        | 18.65   | 18.81   | 18.79   | 20.00   |
|           |            | 1       | 24        | 18.74   | 18.76   | 18.79   | 20.00   |
|           |            | 12      | 0         | 18.52   | 18.86   | 18.75   | 20.00   |
|           |            | 12      | 6         | 18.62   | 18.78   | 18.57   | 20.00   |
|           |            | 12      | 13        | 18.73   | 18.80   | 18.64   | 20.00   |
|           |            | 25      | 0         | 18.64   | 18.78   | 18.61   | 20.00   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Tune up |
|           |            |         |           | 20450   | 20525   | 20600   |         |
| 10MHz     | QPSK       | 1       | 0         | 22.51   | 22.51   | 22.49   | 23.50   |
|           |            | 1       | 25        | 22.54   | 22.57   | 22.52   | 23.50   |
|           |            | 1       | 49        | 22.50   | 22.50   | 22.53   | 23.50   |
|           |            | 25      | 0         | 22.46   | 22.56   | 22.47   | 23.50   |
|           |            | 25      | 13        | 22.54   | 22.60   | 22.55   | 23.50   |
|           |            | 25      | 25        | 22.54   | 22.59   | 22.54   | 23.50   |
|           |            | 50      | 0         | 22.57   | 22.54   | 22.49   | 23.50   |
|           | 16QAM      | 1       | 0         | 22.55   | 22.58   | 22.54   | 23.50   |
|           |            | 1       | 25        | 22.60   | 22.56   | 22.58   | 23.50   |
|           |            | 1       | 49        | 22.56   | 22.59   | 22.59   | 23.50   |
|           |            | 25      | 0         | 21.54   | 21.56   | 21.49   | 22.50   |
|           |            | 25      | 13        | 21.47   | 21.58   | 21.51   | 22.50   |
|           |            | 25      | 25        | 21.51   | 21.62   | 21.55   | 22.50   |
|           |            | 50      | 0         | 21.50   | 21.54   | 21.45   | 22.50   |
|           | 64QAM      | 1       | 0         | 21.44   | 21.55   | 21.43   | 22.50   |
|           |            | 1       | 25        | 21.46   | 21.43   | 21.47   | 22.50   |
|           |            | 1       | 49        | 21.37   | 21.36   | 21.27   | 22.50   |
|           |            | 25      | 0         | 20.71   | 20.57   | 20.74   | 21.50   |
|           |            | 25      | 13        | 20.68   | 20.51   | 20.71   | 21.50   |
|           |            | 25      | 25        | 20.64   | 20.49   | 20.68   | 21.50   |
|           |            | 50      | 0         | 20.71   | 20.52   | 20.71   | 21.50   |
|           | 256QAM     | 1       | 0         | 18.61   | 18.83   | 18.71   | 20.00   |
|           |            | 1       | 25        | 18.64   | 18.84   | 18.78   | 20.00   |
|           |            | 1       | 49        | 18.69   | 18.80   | 18.70   | 20.00   |
|           |            | 25      | 0         | 18.55   | 18.76   | 18.65   | 20.00   |
|           |            | 25      | 13        | 18.64   | 18.77   | 18.62   | 20.00   |
|           |            | 25      | 25        | 18.66   | 18.75   | 18.69   | 20.00   |
|           |            | 50      | 0         | 18.66   | 18.80   | 18.62   | 20.00   |

| LTE Band 12 |            |         |           | Conducted Power(dBm) |         |         |         |
|-------------|------------|---------|-----------|----------------------|---------|---------|---------|
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|             |            |         |           | 23017                | 23095   | 23173   |         |
| 1.4MHz      | QPSK       | 1       | 0         | 21.96                | 21.88   | 21.94   | 23.00   |
|             |            | 1       | 2         | 21.94                | 21.92   | 21.91   | 23.00   |
|             |            | 1       | 5         | 21.79                | 21.82   | 21.82   | 23.00   |
|             |            | 3       | 0         | 21.85                | 21.85   | 21.83   | 23.00   |
|             |            | 3       | 2         | 21.89                | 21.97   | 21.79   | 23.00   |
|             |            | 3       | 3         | 21.94                | 21.91   | 21.83   | 23.00   |
|             |            | 6       | 0         | 21.76                | 21.89   | 21.76   | 23.00   |
|             | 16QAM      | 1       | 0         | 21.81                | 21.83   | 21.92   | 23.00   |
|             |            | 1       | 2         | 21.96                | 21.91   | 21.85   | 23.00   |
|             |            | 1       | 5         | 21.86                | 21.86   | 21.86   | 23.00   |
|             |            | 3       | 0         | 21.82                | 21.80   | 21.77   | 23.00   |
|             |            | 3       | 2         | 21.81                | 21.89   | 21.85   | 23.00   |
|             |            | 3       | 3         | 21.78                | 21.97   | 21.74   | 23.00   |
|             |            | 6       | 0         | 21.77                | 21.90   | 21.76   | 23.00   |
|             | 64QAM      | 1       | 0         | 21.70                | 21.73   | 21.81   | 23.00   |
|             |            | 1       | 2         | 21.72                | 21.71   | 21.72   | 23.00   |
|             |            | 1       | 5         | 21.65                | 21.72   | 21.67   | 23.00   |
|             |            | 3       | 0         | 20.49                | 20.48   | 20.43   | 22.00   |
|             |            | 3       | 2         | 20.57                | 20.39   | 20.43   | 22.00   |
|             |            | 3       | 3         | 20.52                | 20.44   | 20.63   | 22.00   |
|             |            | 6       | 0         | 20.53                | 20.44   | 20.50   | 22.00   |
|             | 256QAM     | 1       | 0         | 18.64                | 18.61   | 18.63   | 20.00   |
|             |            | 1       | 2         | 18.62                | 18.70   | 18.69   | 20.00   |
|             |            | 1       | 5         | 18.65                | 18.76   | 18.68   | 20.00   |
|             |            | 3       | 0         | 18.63                | 18.56   | 18.60   | 20.00   |

|           |            | 3       | 2         | 18.51   | 18.61   | 18.66   | 20.00   |
|-----------|------------|---------|-----------|---------|---------|---------|---------|
|           |            | 3       | 3         | 18.73   | 18.67   | 18.71   | 20.00   |
|           |            | 6       | 0         | 18.64   | 18.54   | 18.51   | 20.00   |
| Bandwidth | Modulation | RB size | RB offset | Channel | Channel | Channel | Tune up |
|           |            |         |           | 23025   | 23095   | 23165   |         |
| 3MHz      | QPSK       | 1       | 0         | 21.90   | 21.83   | 21.98   | 23.00   |
|           |            | 1       | 7         | 21.91   | 21.88   | 21.92   | 23.00   |
|           |            | 1       | 14        | 21.79   | 21.91   | 21.90   | 23.00   |
|           |            | 8       | 0         | 21.92   | 21.90   | 21.87   | 23.00   |
|           |            | 8       | 4         | 21.82   | 21.91   | 21.85   | 23.00   |
|           |            | 8       | 7         | 21.88   | 21.92   | 21.81   | 23.00   |
|           | 16QAM      | 15      | 0         | 21.74   | 21.83   | 21.84   | 23.00   |
|           |            | 1       | 0         | 21.77   | 21.89   | 21.87   | 23.00   |
|           |            | 1       | 7         | 21.92   | 21.89   | 21.78   | 23.00   |
|           |            | 1       | 14        | 21.82   | 21.96   | 21.83   | 23.00   |
|           |            | 8       | 0         | 21.86   | 21.77   | 21.82   | 23.00   |
|           |            | 8       | 4         | 21.80   | 21.85   | 21.87   | 23.00   |
|           | 64QAM      | 8       | 7         | 21.75   | 21.96   | 21.79   | 23.00   |
|           |            | 15      | 0         | 21.77   | 21.83   | 21.77   | 23.00   |
|           |            | 1       | 0         | 21.79   | 21.72   | 21.80   | 23.00   |
|           |            | 1       | 7         | 21.68   | 21.68   | 21.73   | 23.00   |
|           |            | 1       | 14        | 21.63   | 21.64   | 21.56   | 23.00   |
|           |            | 8       | 0         | 20.55   | 20.49   | 20.45   | 22.00   |
|           | 256QAM     | 8       | 4         | 20.60   | 20.37   | 20.55   | 22.00   |
|           |            | 8       | 7         | 20.51   | 20.50   | 20.57   | 22.00   |
|           |            | 15      | 0         | 20.64   | 20.45   | 20.54   | 22.00   |
|           |            | 1       | 0         | 18.58   | 18.69   | 18.63   | 20.00   |
|           |            | 1       | 7         | 18.66   | 18.69   | 18.74   | 20.00   |
|           |            | 1       | 14        | 18.57   | 18.78   | 18.71   | 20.00   |
| 5MHz      | QPSK       | 8       | 0         | 18.63   | 18.69   | 18.68   | 20.00   |
|           |            | 8       | 4         | 18.63   | 18.55   | 18.59   | 20.00   |
|           |            | 8       | 7         | 18.59   | 18.63   | 18.76   | 20.00   |
|           |            | 15      | 0         | 18.69   | 18.66   | 18.54   | 20.00   |
|           | 16QAM      | 1       | 0         | 21.91   | 21.85   | 21.98   | 23.00   |
|           |            | 1       | 13        | 21.92   | 21.99   | 21.92   | 23.00   |
|           |            | 1       | 24        | 21.84   | 21.87   | 21.91   | 23.00   |
|           |            | 12      | 0         | 21.91   | 21.97   | 21.84   | 23.00   |
|           |            | 12      | 6         | 21.91   | 21.95   | 21.90   | 23.00   |
|           |            | 12      | 13        | 21.93   | 21.94   | 21.88   | 23.00   |
|           | 64QAM      | 25      | 0         | 21.77   | 21.84   | 21.76   | 23.00   |
|           |            | 1       | 0         | 21.79   | 21.82   | 21.94   | 23.00   |
|           |            | 1       | 13        | 21.97   | 21.87   | 21.75   | 23.00   |
|           |            | 1       | 24        | 21.91   | 21.94   | 21.77   | 23.00   |
|           |            | 12      | 0         | 21.82   | 21.84   | 21.88   | 23.00   |
|           |            | 12      | 6         | 21.72   | 21.80   | 21.81   | 23.00   |
|           | 256QAM     | 12      | 13        | 21.83   | 21.88   | 21.77   | 23.00   |
|           |            | 25      | 0         | 21.77   | 21.94   | 21.85   | 23.00   |
|           |            | 1       | 0         | 21.70   | 21.80   | 21.79   | 23.00   |
|           |            | 1       | 13        | 21.71   | 21.75   | 21.80   | 23.00   |
|           |            | 1       | 24        | 21.58   | 21.65   | 21.57   | 23.00   |
|           |            | 12      | 0         | 20.54   | 20.54   | 20.44   | 22.00   |
| 10MHz     | QPSK       | 12      | 6         | 20.65   | 20.42   | 20.45   | 22.00   |
|           |            | 12      | 13        | 20.57   | 20.44   | 20.62   | 22.00   |
|           |            | 25      | 0         | 20.52   | 20.41   | 20.54   | 22.00   |
|           |            | 1       | 0         | 18.60   | 18.66   | 18.61   | 20.00   |
|           |            | 1       | 13        | 18.67   | 18.78   | 18.74   | 20.00   |
|           |            | 1       | 24        | 18.71   | 18.78   | 18.76   | 20.00   |
|           | 16QAM      | 12      | 0         | 18.48   | 18.73   | 18.68   | 20.00   |
|           |            | 12      | 6         | 18.61   | 18.63   | 18.66   | 20.00   |
|           |            | 12      | 13        | 18.66   | 18.61   | 18.64   | 20.00   |
|           |            | 25      | 0         | 18.71   | 18.55   | 18.65   | 20.00   |
|           |            | 1       | 0         | 21.97   | 21.96   | 22.00   | 23.00   |
|           |            | 1       | 25        | 22.00   | 22.06   | 21.95   | 23.00   |
|           | QPSK       | 1       | 49        | 21.89   | 21.94   | 21.92   | 23.00   |
|           |            | 25      | 0         | 21.96   | 21.98   | 21.88   | 23.00   |
|           |            | 25      | 13        | 21.95   | 22.00   | 21.91   | 23.00   |
|           |            | 25      | 25        | 21.96   | 21.97   | 21.93   | 23.00   |
|           |            | 50      | 0         | 21.84   | 21.95   | 21.85   | 23.00   |
|           |            | 1       | 0         | 21.86   | 21.95   | 21.96   | 23.00   |
|           | 16QAM      | 1       | 25        | 21.99   | 21.98   | 21.86   | 23.00   |
|           |            | 1       | 49        | 21.93   | 21.97   | 21.87   | 23.00   |
|           |            | 25      | 0         | 21.91   | 21.89   | 21.90   | 23.00   |
|           |            | 25      | 13        | 21.85   | 21.91   | 21.91   | 23.00   |



|  |        |    |    |       |       |       |       |
|--|--------|----|----|-------|-------|-------|-------|
|  |        | 25 | 25 | 21.88 | 21.98 | 21.83 | 23.00 |
|  |        | 50 | 0  | 21.90 | 21.96 | 21.86 | 23.00 |
|  | 64QAM  | 1  | 0  | 21.83 | 21.81 | 21.86 | 23.00 |
|  |        | 1  | 25 | 21.77 | 21.77 | 21.82 | 23.00 |
|  |        | 1  | 49 | 21.71 | 21.75 | 21.69 | 23.00 |
|  |        | 25 | 0  | 20.60 | 20.56 | 20.55 | 22.00 |
|  |        | 25 | 13 | 20.67 | 20.49 | 20.56 | 22.00 |
|  |        | 25 | 25 | 20.59 | 20.54 | 20.67 | 22.00 |
|  |        | 50 | 0  | 20.65 | 20.52 | 20.57 | 22.00 |
|  | 256QAM | 1  | 0  | 18.65 | 18.67 | 18.66 | 20.00 |
|  |        | 1  | 25 | 18.66 | 18.68 | 18.65 | 20.00 |
|  |        | 1  | 49 | 18.64 | 18.77 | 18.70 | 20.00 |
|  |        | 25 | 0  | 18.54 | 18.63 | 18.60 | 20.00 |
|  |        | 25 | 13 | 18.55 | 18.58 | 18.57 | 20.00 |
|  |        | 25 | 25 | 18.63 | 18.67 | 18.66 | 20.00 |
|  |        | 50 | 0  | 18.66 | 18.61 | 18.58 | 20.00 |

| LTE Band 13 |            |         |           | Conducted Power(dBm) |         |         |         |
|-------------|------------|---------|-----------|----------------------|---------|---------|---------|
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|             |            |         |           | 23205                | 23230   | 23255   |         |
| 5MHz        | QPSK       | 1       | 0         | 23.80                | 23.79   | 23.82   | 24.50   |
|             |            | 1       | 13        | 23.86                | 23.87   | 23.85   | 24.50   |
|             |            | 1       | 24        | 23.84                | 23.81   | 23.84   | 24.50   |
|             |            | 12      | 0         | 22.65                | 22.70   | 22.71   | 23.50   |
|             |            | 12      | 6         | 22.71                | 22.69   | 22.66   | 23.50   |
|             |            | 12      | 13        | 22.67                | 22.74   | 22.72   | 23.50   |
|             | 16QAM      | 25      | 0         | 22.64                | 22.72   | 22.71   | 23.50   |
|             |            | 1       | 0         | 22.91                | 22.93   | 22.86   | 23.50   |
|             |            | 1       | 13        | 22.90                | 22.96   | 22.93   | 23.50   |
|             |            | 1       | 24        | 22.89                | 22.97   | 22.90   | 23.50   |
|             |            | 12      | 0         | 21.70                | 21.78   | 21.72   | 23.00   |
|             |            | 12      | 6         | 21.72                | 21.79   | 21.74   | 23.00   |
|             | 64QAM      | 12      | 13        | 21.69                | 21.76   | 21.70   | 23.00   |
|             |            | 25      | 0         | 21.68                | 21.75   | 21.69   | 23.00   |
|             |            | 1       | 0         | 22.82                | 22.81   | 22.67   | 23.00   |
|             |            | 1       | 13        | 22.59                | 22.70   | 22.71   | 23.00   |
|             |            | 1       | 24        | 22.72                | 22.59   | 22.80   | 23.00   |
|             |            | 12      | 0         | 21.74                | 21.59   | 21.62   | 22.00   |
|             | 256QAM     | 12      | 6         | 21.67                | 21.59   | 21.65   | 22.00   |
|             |            | 12      | 13        | 21.58                | 21.61   | 21.70   | 22.00   |
|             |            | 25      | 0         | 21.66                | 21.61   | 21.65   | 22.00   |
|             |            | 1       | 0         | 18.65                | 18.76   | 18.65   | 19.50   |
|             |            | 1       | 13        | 18.98                | 18.89   | 18.98   | 19.50   |
|             |            | 1       | 24        | 18.88                | 18.84   | 18.86   | 19.50   |
| 10MHz       | QPSK       | 12      | 0         | 18.94                | 18.91   | 18.76   | 19.50   |
|             |            | 12      | 6         | 18.79                | 18.88   | 18.82   | 19.50   |
|             |            | 12      | 13        | 18.85                | 18.81   | 18.73   | 19.50   |
|             |            | 25      | 0         | 18.85                | 18.87   | 18.74   | 19.50   |
|             | 16QAM      | 1       | 0         | /                    | 23.81   | /       | 24.50   |
|             |            | 1       | 25        | /                    | 23.90   | /       | 24.50   |
|             |            | 1       | 49        | /                    | 23.82   | /       | 24.50   |
|             |            | 25      | 0         | /                    | 22.66   | /       | 23.50   |
|             |            | 25      | 13        | /                    | 22.77   | /       | 23.50   |
|             |            | 25      | 25        | /                    | 22.63   | /       | 23.50   |
|             | 64QAM      | 50      | 0         | /                    | 22.61   | /       | 23.50   |
|             |            | 1       | 0         | /                    | 22.87   | /       | 23.50   |
|             |            | 1       | 25        | /                    | 22.91   | /       | 23.50   |
|             |            | 1       | 49        | /                    | 22.88   | /       | 23.50   |
|             |            | 25      | 0         | /                    | 21.73   | /       | 23.00   |
|             |            | 25      | 13        | /                    | 21.75   | /       | 23.00   |
|             | 256QAM     | 25      | 25        | /                    | 21.74   | /       | 23.00   |
|             |            | 50      | 0         | /                    | 21.79   | /       | 23.00   |
|             |            | 1       | 0         | /                    | 22.81   | /       | 23.00   |
|             |            | 1       | 25        | /                    | 22.69   | /       | 23.00   |
|             |            | 1       | 49        | /                    | 22.74   | /       | 23.00   |
|             |            | 25      | 0         | /                    | 21.66   | /       | 22.00   |
|             | 256QAM     | 25      | 13        | /                    | 21.69   | /       | 22.00   |
|             |            | 25      | 25        | /                    | 21.71   | /       | 22.00   |
|             |            | 50      | 0         | /                    | 21.63   | /       | 22.00   |
|             |            | 1       | 0         | /                    | 18.72   | /       | 19.50   |
|             |            | 1       | 25        | /                    | 18.95   | /       | 19.50   |
|             |            | 1       | 49        | /                    | 18.85   | /       | 19.50   |

|  |  |    |    |   |       |   |       |
|--|--|----|----|---|-------|---|-------|
|  |  | 25 | 25 | / | 18.75 | / | 19.50 |
|  |  | 50 | 0  | / | 18.77 | / | 19.50 |

| LTE Band 14 |            |         |           | Conducted Power(dBm) |                  |                  |         |
|-------------|------------|---------|-----------|----------------------|------------------|------------------|---------|
| Bandwidth   | Modulation | RB size | RB offset | Channel<br>23305     | Channel<br>23330 | Channel<br>23355 | Tune up |
| 5MHz        | QPSK       | 1       | 0         | 23.47                | 23.38            | 23.45            | 24.00   |
|             |            | 1       | 13        | 23.48                | 23.38            | 23.49            | 24.00   |
|             |            | 1       | 24        | 23.38                | 23.30            | 23.42            | 24.00   |
|             |            | 12      | 0         | 22.37                | 22.40            | 22.48            | 23.00   |
|             |            | 12      | 6         | 22.44                | 22.49            | 22.42            | 23.00   |
|             |            | 12      | 13        | 22.48                | 22.28            | 22.45            | 23.00   |
|             | 16QAM      | 25      | 0         | 22.41                | 22.49            | 22.43            | 23.00   |
|             |            | 1       | 0         | 22.68                | 22.73            | 22.70            | 23.00   |
|             |            | 1       | 13        | 22.83                | 22.72            | 22.72            | 23.00   |
|             |            | 1       | 24        | 22.68                | 22.84            | 22.75            | 23.00   |
|             |            | 12      | 0         | 21.56                | 21.43            | 21.57            | 23.00   |
|             |            | 12      | 6         | 21.49                | 21.51            | 21.52            | 23.00   |
|             | 64QAM      | 12      | 13        | 21.56                | 21.36            | 21.53            | 23.00   |
|             |            | 25      | 0         | 21.50                | 21.33            | 21.50            | 23.00   |
|             |            | 1       | 0         | 22.36                | 22.32            | 22.33            | 23.00   |
|             |            | 1       | 13        | 22.45                | 22.35            | 22.29            | 23.00   |
|             |            | 1       | 24        | 22.25                | 22.19            | 22.26            | 23.00   |
|             |            | 12      | 0         | 21.13                | 21.18            | 21.31            | 22.00   |
|             | 256QAM     | 12      | 6         | 21.12                | 21.16            | 21.18            | 22.00   |
|             |            | 12      | 13        | 21.27                | 21.37            | 21.26            | 22.00   |
|             |            | 25      | 0         | 21.13                | 21.15            | 21.02            | 22.00   |
|             |            | 1       | 0         | 18.13                | 18.11            | 18.14            | 19.00   |
|             |            | 1       | 13        | 18.29                | 18.27            | 18.36            | 19.00   |
|             |            | 1       | 24        | 18.26                | 18.26            | 18.33            | 19.00   |
|             |            | 12      | 0         | 18.08                | 18.16            | 18.10            | 19.00   |
|             |            | 12      | 6         | 18.11                | 18.18            | 18.16            | 19.00   |
|             |            | 12      | 13        | 18.04                | 18.15            | 18.10            | 19.00   |
|             |            | 25      | 0         | 18.05                | 18.01            | 18.08            | 19.00   |
| Bandwidth   | Modulation | RB size | RB offset | Channel              | Channel          | Channel          | Tune up |
| 10MHz       | QPSK       | 1       | 0         | /                    | 23330            | /                | 24.00   |
|             |            | 1       | 25        | /                    | <b>23.53</b>     | /                | 24.00   |
|             |            | 1       | 49        | /                    | 23.42            | /                | 24.00   |
|             |            | 25      | 0         | /                    | 22.42            | /                | 23.00   |
|             |            | 25      | 13        | /                    | <b>22.45</b>     | /                | 23.00   |
|             |            | 25      | 25        | /                    | 22.41            | /                | 23.00   |
|             | 16QAM      | 50      | 0         | /                    | 22.44            | /                | 23.00   |
|             |            | 1       | 0         | /                    | 22.83            | /                | 23.00   |
|             |            | 1       | 25        | /                    | 22.85            | /                | 23.00   |
|             |            | 1       | 49        | /                    | 22.79            | /                | 23.00   |
|             |            | 25      | 0         | /                    | 21.49            | /                | 23.00   |
|             |            | 25      | 13        | /                    | 21.49            | /                | 23.00   |
|             | 64QAM      | 25      | 25        | /                    | 21.48            | /                | 23.00   |
|             |            | 50      | 0         | /                    | 21.47            | /                | 23.00   |
|             |            | 1       | 0         | /                    | 22.30            | /                | 23.00   |
|             |            | 1       | 25        | /                    | 22.38            | /                | 23.00   |
|             |            | 1       | 49        | /                    | 22.33            | /                | 23.00   |
|             |            | 25      | 0         | /                    | 21.24            | /                | 22.00   |
|             | 256QAM     | 25      | 13        | /                    | 21.27            | /                | 22.00   |
|             |            | 25      | 25        | /                    | 21.31            | /                | 22.00   |
|             |            | 50      | 0         | /                    | 21.16            | /                | 22.00   |
|             |            | 1       | 0         | /                    | 18.08            | /                | 19.00   |
|             |            | 1       | 25        | /                    | 18.31            | /                | 19.00   |
|             |            | 1       | 49        | /                    | 18.24            | /                | 19.00   |
|             |            | 25      | 0         | /                    | 18.13            | /                | 19.00   |
|             |            | 25      | 13        | /                    | 18.14            | /                | 19.00   |
|             |            | 25      | 25        | /                    | 18.11            | /                | 19.00   |
|             |            | 50      | 0         | /                    | 18.09            | /                | 19.00   |

| LTE Band 71 |            |         |           | Conducted Power(dBm) |                   |                   |         |
|-------------|------------|---------|-----------|----------------------|-------------------|-------------------|---------|
| Bandwidth   | Modulation | RB size | RB offset | Channel<br>133147    | Channel<br>133297 | Channel<br>133447 | Tune up |
| 5MHz        | QPSK       | 1       | 0         | 23.54                | 23.58             | 23.42             | 25.00   |
|             |            | 1       | 13        | 23.66                | 23.72             | 23.59             | 25.00   |
|             |            | 1       | 24        | 23.63                | 23.52             | 23.77             | 25.00   |
|             |            | 12      | 0         | 22.62                | 22.46             | 22.68             | 24.00   |
|             |            | 12      | 6         | 22.51                | 22.70             | 22.64             | 24.00   |
|             |            | 12      | 13        | 22.58                | 22.59             | 22.70             | 24.00   |
|             |            | 25      | 0         | 22.64                | 22.63             | 22.62             | 24.00   |
|             | 16QAM      | 1       | 0         | 22.66                | 22.76             | 22.92             | 24.00   |

|           |            | 1       | 13        | 22.70             | 22.84             | 22.90             | 24.00   |
|-----------|------------|---------|-----------|-------------------|-------------------|-------------------|---------|
|           |            | 1       | 24        | 22.70             | 22.80             | 22.80             | 24.00   |
|           |            | 12      | 0         | 21.57             | 21.54             | 21.67             | 23.00   |
|           |            | 12      | 6         | 21.62             | 21.79             | 21.56             | 23.00   |
|           |            | 12      | 13        | 21.65             | 21.59             | 21.66             | 23.00   |
|           |            | 25      | 0         | 22.79             | 21.59             | 21.66             | 23.00   |
|           |            | 1       | 0         | 22.57             | 22.64             | 22.60             | 23.00   |
|           |            | 1       | 13        | 22.62             | 22.66             | 22.68             | 23.00   |
|           |            | 1       | 24        | 22.69             | 22.74             | 22.65             | 23.00   |
|           |            | 12      | 0         | 21.56             | 21.48             | 21.67             | 22.00   |
|           | 64QAM      | 12      | 6         | 21.70             | 21.58             | 21.63             | 22.00   |
|           |            | 12      | 13        | 21.65             | 21.74             | 21.65             | 22.00   |
|           |            | 25      | 0         | 21.55             | 21.55             | 21.60             | 22.00   |
|           |            | 1       | 0         | 18.34             | 18.34             | 18.19             | 20.00   |
|           |            | 1       | 13        | 18.50             | 18.55             | 18.40             | 20.00   |
|           | 256QAM     | 1       | 24        | 18.54             | 18.49             | 18.54             | 20.00   |
|           |            | 12      | 0         | 18.47             | 18.51             | 18.35             | 20.00   |
|           |            | 12      | 6         | 18.61             | 18.60             | 18.57             | 20.00   |
|           |            | 12      | 13        | 18.55             | 18.54             | 18.57             | 20.00   |
|           |            | 25      | 0         | 18.47             | 18.53             | 18.54             | 20.00   |
| Bandwidth | Modulation | RB size | RB offset | Channel<br>133172 | Channel<br>133297 | Channel<br>133422 | Tune up |
| 10MHz     | QPSK       | 1       | 0         | 23.52             | 23.52             | 23.55             | 25.00   |
|           |            | 1       | 25        | 23.72             | 23.59             | 23.68             | 25.00   |
|           |            | 1       | 49        | 23.60             | 23.57             | 23.67             | 25.00   |
|           |            | 25      | 0         | 22.54             | 22.47             | 22.64             | 24.00   |
|           |            | 25      | 13        | 22.66             | 22.55             | 22.58             | 24.00   |
|           |            | 25      | 25        | 22.49             | 22.59             | 22.59             | 24.00   |
|           |            | 50      | 0         | 22.71             | 22.51             | 22.72             | 24.00   |
|           | 16QAM      | 1       | 0         | 22.79             | 22.71             | 22.87             | 24.00   |
|           |            | 1       | 25        | 22.63             | 22.78             | 22.94             | 24.00   |
|           |            | 1       | 49        | 22.68             | 22.90             | 23.01             | 24.00   |
|           |            | 25      | 0         | 21.67             | 21.72             | 21.76             | 23.00   |
|           |            | 25      | 13        | 21.66             | 21.58             | 21.76             | 23.00   |
|           |            | 25      | 25        | 21.59             | 21.62             | 21.77             | 23.00   |
|           |            | 50      | 0         | 22.74             | 21.75             | 21.76             | 23.00   |
|           | 64QAM      | 1       | 0         | 22.68             | 22.78             | 22.78             | 23.00   |
|           |            | 1       | 25        | 22.60             | 22.76             | 22.87             | 23.00   |
|           |            | 1       | 49        | 22.62             | 22.86             | 22.77             | 23.00   |
|           |            | 25      | 0         | 21.74             | 21.69             | 21.51             | 22.00   |
|           |            | 25      | 13        | 21.56             | 21.61             | 21.60             | 22.00   |
|           |            | 25      | 25        | 21.58             | 21.74             | 21.60             | 22.00   |
|           |            | 50      | 0         | 21.63             | 21.66             | 21.72             | 22.00   |
|           | 256QAM     | 1       | 0         | 18.20             | 18.43             | 18.34             | 20.00   |
|           |            | 1       | 25        | 18.52             | 18.47             | 18.46             | 20.00   |
|           |            | 1       | 49        | 18.46             | 18.62             | 18.58             | 20.00   |
|           |            | 25      | 0         | 18.42             | 18.35             | 18.48             | 20.00   |
|           |            | 25      | 13        | 18.48             | 18.45             | 18.53             | 20.00   |
|           |            | 25      | 25        | 18.44             | 18.53             | 18.52             | 20.00   |
|           |            | 50      | 0         | 18.50             | 18.43             | 18.53             | 20.00   |
| Bandwidth | Modulation | RB size | RB offset | Channel<br>133197 | Channel<br>133297 | Channel<br>133397 | Tune up |
| 15MHz     | QPSK       | 1       | 0         | 23.42             | 23.74             | 23.63             | 25.00   |
|           |            | 1       | 38        | 23.73             | 23.60             | 23.64             | 25.00   |
|           |            | 1       | 74        | 23.74             | 23.67             | 23.71             | 25.00   |
|           |            | 36      | 0         | 22.53             | 22.64             | 22.65             | 24.00   |
|           |            | 36      | 18        | 22.56             | 22.72             | 22.58             | 24.00   |
|           |            | 36      | 39        | 22.55             | 22.71             | 22.53             | 24.00   |
|           |            | 75      | 0         | 22.66             | 22.70             | 22.82             | 24.00   |
|           | 16QAM      | 1       | 0         | 22.82             | 22.83             | 22.82             | 24.00   |
|           |            | 1       | 38        | 22.77             | 22.73             | 23.01             | 24.00   |
|           |            | 1       | 74        | 22.77             | 22.72             | 22.92             | 24.00   |
|           |            | 36      | 0         | 21.50             | 21.62             | 21.67             | 23.00   |
|           |            | 36      | 18        | 21.66             | 21.80             | 21.77             | 23.00   |
|           |            | 36      | 39        | 21.74             | 21.68             | 21.75             | 23.00   |
|           |            | 75      | 0         | 22.82             | 21.81             | 21.74             | 23.00   |
|           | 64QAM      | 1       | 0         | 22.72             | 22.58             | 22.69             | 23.00   |
|           |            | 1       | 38        | 22.68             | 22.82             | 22.85             | 23.00   |
|           |            | 1       | 74        | 22.71             | 22.87             | 22.59             | 23.00   |
|           |            | 36      | 0         | 21.73             | 21.48             | 21.69             | 22.00   |
|           |            | 36      | 18        | 21.57             | 21.62             | 21.52             | 22.00   |
|           |            | 36      | 39        | 21.59             | 21.71             | 21.58             | 22.00   |
|           |            | 75      | 0         | 21.71             | 21.55             | 21.61             | 22.00   |
|           | 256QAM     | 1       | 0         | 18.31             | 18.36             | 18.19             | 20.00   |
|           |            | 1       | 38        | 18.45             | 18.48             | 18.48             | 20.00   |
|           |            | 1       | 74        | 18.62             | 18.54             | 18.47             | 20.00   |
|           |            | 36      | 0         | 18.49             | 18.43             | 18.33             | 20.00   |

|           |            |         |           |              |              |              |         |
|-----------|------------|---------|-----------|--------------|--------------|--------------|---------|
| Bandwidth | Modulation | 36      | 18        | 18.45        | 18.54        | 18.50        | 20.00   |
|           |            | 36      | 39        | 18.55        | 18.61        | 18.46        | 20.00   |
|           |            | 75      | 0         | 18.41        | 18.47        | 18.37        | 20.00   |
|           |            | RB size | RB offset | Channel      | Channel      | Channel      | Tune up |
| 20MHz     | QPSK       | 1       | 0         | 133222       | 133322       | 133372       | 25.00   |
|           |            | 1       | 50        | 23.56        | 23.66        | 23.57        | 25.00   |
|           |            | 1       | 99        | <b>23.88</b> | <b>23.89</b> | <b>23.68</b> | 25.00   |
|           |            | 50      | 0         | 23.66        | 23.64        | 23.69        | 25.00   |
|           |            | 50      | 25        | 22.55        | 22.58        | 22.66        | 24.00   |
|           |            | 50      | 50        | <b>22.61</b> | <b>22.70</b> | <b>22.69</b> | 24.00   |
|           |            | 100     | 0         | 22.59        | 22.64        | 22.68        | 24.00   |
|           | 16QAM      | 1       | 0         | 22.70        | <b>22.76</b> | 22.75        | 24.00   |
|           |            | 1       | 50        | 22.80        | 22.79        | 22.92        | 24.00   |
|           |            | 1       | 99        | 22.77        | 22.82        | 22.98        | 24.00   |
|           |            | 50      | 0         | 22.83        | 22.85        | 22.93        | 24.00   |
|           |            | 50      | 25        | 21.64        | 21.66        | 21.68        | 23.00   |
|           |            | 50      | 50        | 21.68        | 21.72        | 21.71        | 23.00   |
|           |            | 100     | 0         | 21.71        | 21.69        | 21.74        | 23.00   |
|           | 64QAM      | 1       | 0         | 22.74        | 21.73        | 21.76        | 23.00   |
|           |            | 1       | 50        | 22.69        | 22.72        | 22.74        | 23.00   |
|           |            | 1       | 99        | 22.72        | 22.74        | 22.79        | 23.00   |
|           |            | 50      | 0         | 22.76        | 22.79        | 22.72        | 23.00   |
|           |            | 50      | 25        | 21.67        | 21.63        | 21.61        | 22.00   |
|           |            | 50      | 50        | 21.64        | 21.73        | 21.67        | 22.00   |
|           |            | 100     | 0         | 21.70        | 21.77        | 21.69        | 22.00   |
|           | 256QAM     | 1       | 0         | 21.68        | 21.67        | 21.70        | 22.00   |
|           |            | 1       | 50        | 18.28        | 18.33        | 18.27        | 20.00   |
|           |            | 1       | 99        | 18.45        | 18.48        | 18.46        | 20.00   |
|           |            | 50      | 0         | 18.54        | 18.56        | 18.53        | 20.00   |
|           |            | 50      | 25        | 18.40        | 18.42        | 18.39        | 20.00   |
|           |            | 50      | 50        | 18.51        | 18.52        | 18.48        | 20.00   |
|           |            | 100     | 0         | 18.47        | 18.53        | 18.50        | 20.00   |
|           |            | 100     | 0         | 18.46        | 18.50        | 18.44        | 20.00   |

## 5G NR Ant0:

| N2        |                         |         |           | Conducted Power(dBm) |              |         |         |
|-----------|-------------------------|---------|-----------|----------------------|--------------|---------|---------|
| SCS 15kHz |                         |         |           |                      |              |         |         |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 20MHz     | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | 372000               | 376000       | 380000  | 20.00   |
|           |                         | 1       | 53        | 19.15                | 19.18        | 19.06   | 20.00   |
|           |                         | 1       | 104       | 19.11                | 19.13        | 19.07   | 20.00   |
|           |                         | 50      | 0         | 19.14                | 19.05        | 19.09   | 20.00   |
|           |                         | 50      | 28        | 19.08                | 19.01        | 18.86   | 20.00   |
|           |                         | 50      | 56        | 18.90                | 18.99        | 18.89   | 20.00   |
|           |                         | 100     | 0         | 18.96                | 19.03        | 18.90   | 20.00   |
|           | DFT-s-OFDM<br>QPSK      | 1       | 1         | 19.05                | 19.05        | 19.00   | 20.00   |
|           |                         | 1       | 53        | 19.17                | <b>19.29</b> | 19.17   | 20.00   |
|           |                         | 1       | 104       | 19.14                | 19.18        | 19.11   | 20.00   |
|           |                         | 50      | 0         | 19.01                | 19.13        | 19.17   | 20.00   |
|           |                         | 50      | 28        | 19.05                | <b>19.25</b> | 19.13   | 20.00   |
|           |                         | 50      | 56        | 19.03                | 19.24        | 19.14   | 20.00   |
|           |                         | 100     | 0         | 19.12                | 19.21        | 19.09   | 20.00   |
|           | DFT-s-OFDM<br>16QAM     | 1       | 1         | 18.98                | 19.22        | 19.16   | 20.00   |
|           | DFT-s-OFDM<br>64QAM     | 1       | 1         | 18.96                | 19.12        | 19.10   | 20.00   |
|           | DFT-s-OFDM<br>256QAM    | 1       | 1         | 19.11                | 19.21        | 19.13   | 20.00   |
|           | DFT-s-OFDM<br>256QAM    | 1       | 1         | 19.13                | 19.11        | 19.09   | 20.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 20MHz     | CP-OFDM QPSK            | 1       | 1         | 372000               | 376000       | 380000  | 20.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 15MHz     | DFT-s-OFDM<br>QPSK      | 1       | 1         | 371500               | 376000       | 380500  | 20.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 10MHz     | DFT-s-OFDM<br>QPSK      | 1       | 1         | 371000               | 376000       | 381000  | 20.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 5MHz      | DFT-s-OFDM<br>QPSK      | 1       | 1         | 370500               | 376000       | 381500  | 20.00   |

| N5        |                         |         |           | Conducted Power(dBm) |         |         |         |
|-----------|-------------------------|---------|-----------|----------------------|---------|---------|---------|
| SCS 15kHz |                         |         |           |                      |         |         |         |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|           |                         |         |           | 166800               | 167300  | 167800  |         |
| 20MHz     | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | 23.21                | 23.23   | 23.12   | 25.00   |
|           |                         | 1       | 53        | 23.66                | 23.63   | 23.59   | 25.00   |
|           |                         | 1       | 104       | 23.65                | 23.65   | 23.71   | 25.00   |
|           |                         | 50      | 0         | 23.12                | 23.05   | 23.02   | 24.00   |
|           |                         | 50      | 28        | 23.58                | 23.49   | 23.49   | 25.00   |
|           |                         | 50      | 56        | 23.11                | 23.07   | 23.16   | 24.00   |
|           |                         | 100     | 0         | 23.09                | 23.15   | 22.99   | 24.00   |
|           | DFT-s-OFDM<br>QPSK      | 1       | 1         | 23.60                | 23.66   | 23.63   | 25.00   |
|           |                         | 1       | 53        | 23.64                | 23.65   | 23.64   | 25.00   |
|           |                         | 1       | 104       | 23.57                | 23.58   | 23.55   | 25.00   |
|           |                         | 50      | 0         | 22.68                | 22.60   | 22.75   | 24.00   |
|           |                         | 50      | 28        | 23.66                | 23.75   | 23.72   | 25.00   |
|           |                         | 50      | 56        | 22.69                | 22.74   | 22.72   | 24.00   |
|           |                         | 100     | 0         | 22.65                | 22.59   | 22.61   | 24.00   |
|           | DFT-s-OFDM<br>16QAM     | 1       | 1         | 22.57                | 22.57   | 22.57   | 24.00   |
|           | DFT-s-OFDM<br>64QAM     | 1       | 1         | 21.31                | 21.22   | 21.38   | 23.00   |
|           | DFT-s-OFDM<br>256QAM    | 1       | 1         | 19.15                | 19.21   | 19.25   | 21.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|           |                         |         |           | 166800               | 167300  | 167800  |         |
| 20MHz     | CP-OFDM<br>QPSK         | 1       | 1         | 22.11                | 22.18   | 22.14   | 23.50   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|           |                         |         |           | 166300               | 167300  | 168300  |         |
| 15MHz     | DFT-s-OFDM<br>QPSK      | 1       | 1         | 23.64                | 23.52   | 23.59   | 25.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|           |                         |         |           | 165800               | 167300  | 168800  |         |
| 10MHz     | DFT-s-OFDM<br>QPSK      | 1       | 1         | 23.57                | 23.45   | 23.54   | 25.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|           |                         |         |           | 165300               | 167300  | 169300  |         |
| 5MHz      | DFT-s-OFDM<br>QPSK      | 1       | 1         | 23.60                | 23.47   | 23.56   | 25.00   |

| N41 Class2/3 |                         |                      |           | Conducted Power(dBm) |         |         |         |         |         |         |
|--------------|-------------------------|----------------------|-----------|----------------------|---------|---------|---------|---------|---------|---------|
| SCS 30kHz    |                         |                      |           |                      |         |         |         |         |         |         |
| Bandwidth    | Modulation              | RB size              | RB offset | Channel              | Channel | Channel | Channel | Channel | Tune up |         |
|              |                         |                      |           | 509202               | 513900  | 518598  | 523302  | 528000  |         |         |
| 100MHz       | DFT-s-OFDM<br>PI/2 BPSK | 1                    | 1         | 14.20                | 14.05   | 14.08   | 14.05   | 14.16   | 15.00   |         |
|              |                         | 1                    | 137       | 14.20                | 14.28   | 14.25   | 14.17   | 14.15   | 15.00   |         |
|              |                         | 1                    | 271       | 14.22                | 14.34   | 14.22   | 14.22   | 14.24   | 15.00   |         |
|              |                         | 135                  | 0         | 14.21                | 14.20   | 14.15   | 14.16   | 14.19   | 15.00   |         |
|              |                         | 135                  | 69        | 14.17                | 14.24   | 14.18   | 14.21   | 14.22   | 15.00   |         |
|              |                         | 135                  | 138       | 14.18                | 14.20   | 14.17   | 14.20   | 14.15   | 15.00   |         |
|              |                         | 270                  | 0         | 14.10                | 14.20   | 14.12   | 14.09   | 14.23   | 15.00   |         |
|              | DFT-s-OFDM<br>QPSK      | 1                    | 1         | 14.20                | 14.19   | 14.24   | 14.22   | 14.18   | 15.00   |         |
|              |                         | 1                    | 137       | 14.14                | 14.16   | 14.20   | 14.21   | 14.17   | 15.00   |         |
|              |                         | 1                    | 271       | 14.18                | 14.11   | 14.17   | 14.14   | 14.01   | 15.00   |         |
|              |                         | 135                  | 0         | 14.15                | 14.09   | 14.16   | 14.18   | 14.16   | 15.00   |         |
|              |                         | 135                  | 69        | 14.25                | 14.24   | 14.28   | 14.19   | 14.18   | 15.00   |         |
|              |                         | 135                  | 138       | 14.20                | 14.21   | 14.17   | 13.94   | 13.71   | 15.00   |         |
|              | DFT-s-OFDM<br>16QAM     | 1                    | 1         | 14.13                | 14.04   | 14.02   | 14.01   | 14.00   | 15.00   |         |
|              |                         | DFT-s-OFDM<br>64QAM  | 1         | 1                    | 14.27   | 14.25   | 14.25   | 14.21   | 14.15   | 15.00   |
|              |                         | DFT-s-OFDM<br>256QAM | 1         | 1                    | 14.21   | 14.17   | 14.11   | 14.15   | 14.16   | 15.00   |
|              | Bandwidth               | Modulation           | RB size   | RB offset            | Channel | Channel | Channel | Channel | Channel | Tune up |
| 100MHz       | CP-OFDM<br>QPSK         | 1                    | 1         | 509202               | 513900  | 518598  | 523302  | 528000  | 15.00   |         |
| Bandwidth    | Modulation              | RB size              | RB offset | Channel              | Channel | Channel | Channel | Channel | Tune up |         |
| 90MHz        | DFT-s-OFDM<br>QPSK      | 1                    | 1         | 508200               | 513402  | 518598  | 523800  | 528996  | 15.00   |         |

| Bandwidth | Modulation         | RB size | RB offset | Channel<br>507204 | Channel<br>512904 | Channel<br>518598 | Channel<br>524298 | Channel<br>529998 | Tune up |
|-----------|--------------------|---------|-----------|-------------------|-------------------|-------------------|-------------------|-------------------|---------|
| 80MHz     | DFT-s-OFDM<br>QPSK | 1       | 1         | 14.16             | 14.11             | 14.17             | 14.22             | 14.19             | 15.00   |
| Bandwidth | Modulation         | RB size | RB offset | Channel<br>505200 | Channel<br>511902 | Channel<br>518598 | Channel<br>525300 | Channel<br>531996 | Tune up |
| 60MHz     | DFT-s-OFDM<br>QPSK | 1       | 1         | 14.28             | 14.09             | 14.17             | 14.28             | 14.20             | 15.00   |
| Bandwidth | Modulation         | RB size | RB offset | Channel<br>504204 | Channel<br>511404 | Channel<br>518598 | Channel<br>525798 | Channel<br>532998 | Tune up |
| 50MHz     | DFT-s-OFDM<br>QPSK | 1       | 1         | 14.32             | 14.25             | 14.23             | 14.19             | 14.11             | 15.00   |
| Bandwidth | Modulation         | RB size | RB offset | Channel<br>503202 | Channel<br>510900 | Channel<br>518598 | Channel<br>526302 | Channel<br>534000 | Tune up |
| 40MHz     | DFT-s-OFDM<br>QPSK | 1       | 1         | 14.19             | 14.11             | 14.26             | 14.15             | 14.23             | 15.00   |
| Bandwidth | Modulation         | RB size | RB offset | Channel<br>502200 | Channel<br>510402 | Channel<br>518598 | Channel<br>526800 | Channel<br>534996 | Tune up |
| 30MHz     | DFT-s-OFDM<br>QPSK | 1       | 1         | 14.13             | 14.21             | 14.27             | 14.09             | 14.16             | 15.00   |
| Bandwidth | Modulation         | RB size | RB offset | Channel<br>501204 | Channel<br>509904 | Channel<br>518598 | Channel<br>527298 | Channel<br>535998 | Tune up |
| 20MHz     | DFT-s-OFDM<br>QPSK | 1       | 1         | 14.22             | 14.28             | 14.23             | 14.13             | 14.24             | 15.00   |

| N66       |                         |         |           | Conducted Power(dBm) |                   |                   |         |
|-----------|-------------------------|---------|-----------|----------------------|-------------------|-------------------|---------|
| SCS 15kHz |                         |         |           | Channel<br>346000    | Channel<br>349000 | Channel<br>352000 | Tune up |
| Bandwidth | Modulation              | RB size | RB offset | Channel<br>346000    | Channel<br>349000 | Channel<br>352000 | Tune up |
| 40MHz     | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | 18.53                | 18.53             | 18.65             | 19.50   |
|           |                         | 1       | 108       | 18.50                | 18.54             | 18.66             | 19.50   |
|           |                         | 1       | 214       | 18.48                | 18.25             | 18.56             | 19.50   |
|           |                         | 108     | 0         | 18.68                | 18.48             | 18.62             | 19.50   |
|           |                         | 108     | 54        | 18.53                | 18.53             | 18.68             | 19.50   |
|           |                         | 108     | 108       | 18.65                | 18.54             | 18.61             | 19.50   |
|           | DFT-s-OFDM<br>QPSK      | 216     | 0         | 18.61                | 18.51             | 18.50             | 19.50   |
|           |                         | 1       | 1         | 18.56                | 18.66             | 18.54             | 19.50   |
|           |                         | 1       | 108       | 18.54                | 18.49             | 18.48             | 19.50   |
|           |                         | 1       | 214       | 18.51                | 18.55             | 18.53             | 19.50   |
|           |                         | 108     | 0         | 18.47                | 18.51             | 18.46             | 19.50   |
|           |                         | 108     | 54        | 18.49                | 18.55             | 18.52             | 19.50   |
|           |                         | 108     | 108       | 18.51                | 18.53             | 18.50             | 19.50   |
|           |                         | 216     | 0         | 18.52                | 18.50             | 18.46             | 19.50   |
|           | DFT-s-OFDM<br>16QAM     | 1       | 1         | 18.41                | 18.45             | 18.48             | 19.50   |
|           | DFT-s-OFDM<br>64QAM     | 1       | 1         | 18.44                | 18.55             | 18.42             | 19.50   |
|           | DFT-s-OFDM<br>256QAM    | 1       | 1         | 18.48                | 18.53             | 18.50             | 19.50   |
| Bandwidth | Modulation              | RB size | RB offset | Channel<br>346000    | Channel<br>349000 | Channel<br>352000 | Tune up |
| 40MHz     | CP-OFDM QPSK            | 1       | 1         | 18.49                | 18.54             | 18.43             | 19.50   |
| Bandwidth | Modulation              | RB size | RB offset | Channel<br>345000    | Channel<br>349000 | Channel<br>353000 | Tune up |
| 30MHz     | DFT-s-OFDM<br>QPSK      | 1       | 1         | 18.51                | 18.53             | 18.49             | 19.50   |
| Bandwidth | Modulation              | RB size | RB offset | Channel<br>344000    | Channel<br>349000 | Channel<br>354000 | Tune up |
| 20MHz     | DFT-s-OFDM<br>QPSK      | 1       | 1         | 18.45                | 18.49             | 18.51             | 19.50   |
| Bandwidth | Modulation              | RB size | RB offset | Channel<br>343500    | Channel<br>349000 | Channel<br>354500 | Tune up |
| 15MHz     | DFT-s-OFDM<br>QPSK      | 1       | 1         | 18.53                | 18.55             | 18.46             | 19.50   |
| Bandwidth | Modulation              | RB size | RB offset | Channel<br>343000    | Channel<br>349000 | Channel<br>355000 | Tune up |
| 10MHz     | DFT-s-OFDM<br>QPSK      | 1       | 1         | 18.52                | 18.47             | 18.49             | 19.50   |
| Bandwidth | Modulation              | RB size | RB offset | Channel<br>342500    | Channel<br>349000 | Channel<br>355500 | Tune up |
| 5MHz      | DFT-s-OFDM<br>QPSK      | 1       | 1         | 18.53                | 18.51             | 18.43             | 19.50   |

| N77 Class2/3         |                         |         |           | Conducted Power(dBm) |         |         |         |
|----------------------|-------------------------|---------|-----------|----------------------|---------|---------|---------|
| SCS 30kHz(3450~3550) |                         |         |           | Channel              | Channel | Channel | Tune up |
| Bandwidth            | Modulation              | RB size | RB offset | /                    | 633334  | /       |         |
| 100MHz               | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | /                    | 17.16   | /       | 18.00   |
|                      |                         | 1       | 137       | /                    | 17.17   | /       | 18.00   |
|                      |                         | 1       | 271       | /                    | 17.53   | /       | 18.00   |
|                      |                         | 135     | 0         | /                    | 17.16   | /       | 18.00   |
|                      |                         | 135     | 69        | /                    | 17.14   | /       | 18.00   |
|                      |                         | 135     | 138       | /                    | 17.21   | /       | 18.00   |
|                      |                         | 270     | 0         | /                    | 17.16   | /       | 18.00   |
|                      | DFT-s-OFDM<br>QPSK      | 1       | 1         | /                    | 17.28   | /       | 18.00   |
|                      |                         | 1       | 137       | /                    | 17.27   | /       | 18.00   |
|                      |                         | 1       | 271       | /                    | 17.60   | /       | 18.00   |
|                      |                         | 135     | 0         | /                    | 17.16   | /       | 18.00   |
|                      |                         | 135     | 69        | /                    | 17.18   | /       | 18.00   |
|                      |                         | 135     | 138       | /                    | 17.15   | /       | 18.00   |
|                      |                         | 270     | 0         | /                    | 17.14   | /       | 18.00   |
|                      | DFT-s-OFDM<br>16QAM     | 1       | 1         | /                    | 17.15   | /       | 18.00   |
|                      | DFT-s-OFDM<br>64QAM     | 1       | 1         | /                    | 17.29   | /       | 18.00   |
|                      | DFT-s-OFDM<br>256QAM    | 1       | 1         | /                    | 17.20   | /       | 18.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 100MHz               | CP-OFDM QPSK            | 1       | 1         | /                    | 633334  | /       | 18.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 90MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 17.45                | 17.51   | 17.49   | 18.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 80MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 17.50                | 17.42   | 17.38   | 18.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 60MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 17.51                | 17.55   | 17.43   | 18.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 50MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 17.48                | 17.44   | 17.46   | 18.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 40MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 17.42                | 17.50   | 17.48   | 18.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 20MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 17.39                | 17.45   | 17.51   | 18.00   |

| N77 Class2/3         |                         |         |           | Conducted Power(dBm) |         |         |         |         |         |         |
|----------------------|-------------------------|---------|-----------|----------------------|---------|---------|---------|---------|---------|---------|
| SCS 30kHz(3700~3980) |                         |         |           | Channel              | Channel | Channel | Channel | Channel | Channel | Tune up |
| Bandwidth            | Modulation              | RB size | RB offset | 650000               | 652400  | 654800  | 657200  | 659600  | 662000  |         |
| 100MHz               | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | 17.12                | 17.08   | 17.07   | 17.08   | 17.22   | 17.18   | 18.00   |
|                      |                         | 1       | 137       | 17.25                | 17.17   | 17.16   | 17.23   | 17.18   | 17.28   | 18.00   |
|                      |                         | 1       | 271       | 17.45                | 17.49   | 17.47   | 17.43   | 17.46   | 17.49   | 18.00   |
|                      |                         | 135     | 0         | 17.06                | 17.11   | 17.06   | 17.11   | 17.13   | 17.17   | 18.00   |
|                      |                         | 135     | 69        | 17.10                | 17.12   | 17.05   | 17.15   | 17.19   | 17.21   | 18.00   |
|                      |                         | 135     | 138       | 17.11                | 17.07   | 17.12   | 17.09   | 17.09   | 17.12   | 18.00   |
|                      |                         | 270     | 0         | 17.07                | 17.12   | 17.19   | 17.11   | 17.17   | 17.13   | 18.00   |
|                      | DFT-s-OFDM<br>QPSK      | 1       | 1         | 17.08                | 17.09   | 17.16   | 17.10   | 17.13   | 17.22   | 18.00   |
|                      |                         | 1       | 137       | 17.21                | 17.16   | 17.24   | 17.25   | 17.26   | 17.27   | 18.00   |
|                      |                         | 1       | 271       | 17.46                | 17.52   | 17.56   | 17.48   | 17.52   | 17.39   | 18.00   |
|                      |                         | 135     | 0         | 17.10                | 17.13   | 17.15   | 17.13   | 17.15   | 17.19   | 18.00   |
|                      |                         | 135     | 69        | 17.18                | 17.17   | 17.23   | 17.16   | 17.19   | 17.20   | 18.00   |
|                      |                         | 135     | 138       | 17.12                | 17.11   | 17.14   | 17.14   | 17.17   | 17.11   | 18.00   |
|                      |                         | 270     | 0         | 17.05                | 17.14   | 17.17   | 17.13   | 17.18   | 17.11   | 18.00   |
|                      | DFT-s-OFDM<br>16QAM     | 1       | 1         | 17.26                | 17.24   | 17.05   | 17.27   | 17.32   | 17.35   | 18.00   |
|                      | DFT-s-OFDM<br>64QAM     | 1       | 1         | 17.25                | 17.19   | 17.16   | 17.21   | 17.28   | 17.26   | 18.00   |
|                      | DFT-s-OFDM<br>256QAM    | 1       | 1         | 17.11                | 17.05   | 17.09   | 17.12   | 17.14   | 17.08   | 18.00   |

| Bandwidth | Modulation      | RB size | RB offset | Channel<br>650000 | Channel<br>652400 | Channel<br>654800 | Channel<br>657200 | Channel<br>659600 | Channel<br>662000 | Tune up |
|-----------|-----------------|---------|-----------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------|
| 100MHz    | CP-OFDM QPSK    | 1       | 1         | 17.01             | 16.94             | 17.08             | 16.99             | 16.92             | 16.97             | 18.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>649668 | Channel<br>652200 | Channel<br>654734 | Channel<br>657268 | Channel<br>659800 | Channel<br>662332 | Tune up |
| 90MHz     | DFT-s-OFDM QPSK | 1       | 1         | 17.32             | 17.41             | 17.47             | 17.40             | 17.46             | 17.39             | 18.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>649334 | Channel<br>652000 | Channel<br>654668 | Channel<br>657334 | Channel<br>660000 | Channel<br>662666 | Tune up |
| 80MHz     | DFT-s-OFDM QPSK | 1       | 1         | 17.29             | 17.38             | 17.46             | 17.33             | 17.41             | 17.47             | 18.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>648668 | Channel<br>651600 | Channel<br>654534 | Channel<br>657468 | Channel<br>660400 | Channel<br>663332 | Tune up |
| 60MHz     | DFT-s-OFDM QPSK | 1       | 1         | 17.35             | 17.39             | 17.45             | 17.44             | 17.37             | 17.33             | 18.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>648334 | Channel<br>651400 | Channel<br>654468 | Channel<br>657534 | Channel<br>660600 | Channel<br>663666 | Tune up |
| 50MHz     | DFT-s-OFDM QPSK | 1       | 1         | 17.29             | 17.38             | 17.41             | 17.46             | 17.35             | 17.48             | 18.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>648000 | Channel<br>651200 | Channel<br>654400 | Channel<br>657600 | Channel<br>660800 | Channel<br>664000 | Tune up |
| 40MHz     | DFT-s-OFDM QPSK | 1       | 1         | 17.38             | 17.42             | 17.37             | 17.46             | 17.33             | 17.41             | 18.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>647334 | Channel<br>650800 | Channel<br>654268 | Channel<br>657734 | Channel<br>661200 | Channel<br>664666 | Tune up |
| 20MHz     | DFT-s-OFDM QPSK | 1       | 1         | 17.42             | 17.38             | 17.42             | 17.46             | 17.45             | 17.34             | 18.00   |

### 5G NR Ant3:

| N5        |                         |         |           | Conducted Power(dBm) |         |         |         |
|-----------|-------------------------|---------|-----------|----------------------|---------|---------|---------|
| SCS 15kHz |                         |         |           |                      |         |         |         |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|           |                         |         |           | 166800               | 167300  | 167800  |         |
| 20MHz     | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | 23.03                | 23.06   | 23.00   | 24.00   |
|           |                         | 1       | 53        | 23.00                | 23.03   | 23.03   | 24.00   |
|           |                         | 1       | 104       | 22.96                | 23.07   | 22.99   | 24.00   |
|           |                         | 50      | 0         | 23.12                | 23.10   | 23.12   | 24.00   |
|           |                         | 50      | 28        | 23.14                | 23.12   | 23.10   | 24.00   |
|           |                         | 50      | 56        | 23.15                | 23.07   | 23.11   | 24.00   |
|           |                         | 100     | 0         | 23.03                | 23.13   | 22.96   | 24.00   |
|           | DFT-s-OFDM<br>QPSK      | 1       | 1         | 23.07                | 23.15   | 23.12   | 24.00   |
|           |                         | 1       | 53        | 23.12                | 23.05   | 23.10   | 24.00   |
|           |                         | 1       | 104       | 22.96                | 22.98   | 22.91   | 24.00   |
|           |                         | 50      | 0         | 23.03                | 23.10   | 23.05   | 24.00   |
|           |                         | 50      | 28        | 23.11                | 23.12   | 23.07   | 24.00   |
|           |                         | 50      | 56        | 23.05                | 23.07   | 23.02   | 24.00   |
|           | 100                     | 0       | 23.03     | 23.05                | 22.99   | 24.00   |         |
|           | DFT-s-OFDM<br>16QAM     | 1       | 1         | 23.12                | 23.14   | 23.09   | 24.00   |
|           | DFT-s-OFDM<br>64QAM     | 1       | 1         | 21.77                | 21.73   | 21.66   | 22.50   |
|           | DFT-s-OFDM<br>256QAM    | 1       | 1         | 19.44                | 19.53   | 19.42   | 20.50   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 20MHz     | CP-OFDM QPSK            | 1       | 1         | 166800               | 167300  | 167800  |         |
|           |                         |         |           | 22.17                | 22.21   | 22.19   | 23.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|           |                         |         |           | 166300               | 167300  | 168300  |         |
| 15MHz     | DFT-s-OFDM QPSK         | 1       | 1         | 22.99                | 23.06   | 23.10   | 24.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|           |                         |         |           | 165800               | 167300  | 168800  |         |
| 10MHz     | DFT-s-OFDM QPSK         | 1       | 1         | 23.07                | 23.05   | 23.03   | 24.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
|           |                         |         |           | 165300               | 167300  | 169300  |         |
| 5MHz      | DFT-s-OFDM QPSK         | 1       | 1         | 23.03                | 23.02   | 23.08   | 24.00   |



| N14       |                         |         |           | Conducted Power(dBm) |              |         |         |
|-----------|-------------------------|---------|-----------|----------------------|--------------|---------|---------|
| SCS 15kHz |                         |         |           |                      |              |         |         |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 10MHz     | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | /                    | 158600       | /       | 25.00   |
|           |                         | 1       | 26        | /                    | 23.69        | /       | 25.00   |
|           |                         | 1       | 50        | /                    | 23.68        | /       | 25.00   |
|           |                         | 25      | 0         | /                    | 23.65        | /       | 25.00   |
|           |                         | 25      | 14        | /                    | 23.14        | /       | 24.00   |
|           |                         | 25      | 27        | /                    | 23.61        | /       | 25.00   |
|           |                         | 50      | 0         | /                    | 23.19        | /       | 24.00   |
|           | DFT-s-OFDM<br>QPSK      | 1       | 1         | /                    | 23.18        | /       | 24.00   |
|           |                         | 1       | 26        | /                    | <b>23.86</b> | /       | 25.00   |
|           |                         | 1       | 50        | /                    | 23.77        | /       | 25.00   |
|           |                         | 1       | 50        | /                    | 23.75        | /       | 25.00   |
|           |                         | 25      | 0         | /                    | 22.70        | /       | 24.00   |
|           |                         | 25      | 14        | /                    | <b>23.85</b> | /       | 25.00   |
|           |                         | 25      | 27        | /                    | 22.66        | /       | 24.00   |
|           |                         | 50      | 0         | /                    | <b>22.73</b> | /       | 24.00   |
|           | DFT-s-OFDM<br>16QAM     | 1       | 1         | /                    | 22.55        | /       | 24.00   |
|           | DFT-s-OFDM<br>64QAM     | 1       | 1         | /                    | 21.45        | /       | 23.00   |
|           | DFT-s-OFDM<br>256QAM    | 1       | 1         | /                    | 19.13        | /       | 21.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 10MHz     | CP-OFDM QPSK            | 1       | 1         | /                    | 158600       | /       | 23.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 5MHz      | DFT-s-OFDM<br>QPSK      | 1       | 1         | 158100               | 158600       | 159100  | 25.00   |

| N71       |                         |         |           | Conducted Power(dBm) |              |         |         |
|-----------|-------------------------|---------|-----------|----------------------|--------------|---------|---------|
| SCS 15kHz |                         |         |           |                      |              |         |         |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 20MHz     | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | 134600               | 136100       | 137600  | 22.50   |
|           |                         | 1       | 53        | 21.69                | 21.74        | 21.63   | 22.50   |
|           |                         | 1       | 104       | 21.75                | 21.70        | 21.74   | 22.50   |
|           |                         | 50      | 0         | 21.73                | 21.72        | 21.65   | 22.50   |
|           |                         | 50      | 28        | 21.71                | 21.74        | 21.72   | 22.50   |
|           |                         | 50      | 56        | 21.72                | 21.75        | 21.75   | 22.50   |
|           |                         | 100     | 0         | 21.73                | 21.70        | 21.76   | 22.50   |
|           | DFT-s-OFDM<br>QPSK      | 1       | 1         | 21.71                | 21.71        | 21.74   | 22.50   |
|           |                         | 1       | 53        | 21.75                | <b>21.77</b> | 21.74   | 22.50   |
|           |                         | 1       | 104       | 21.73                | 21.72        | 21.72   | 22.50   |
|           |                         | 50      | 0         | 21.71                | 21.71        | 21.56   | 22.50   |
|           |                         | 50      | 28        | 21.62                | 21.69        | 21.63   | 22.50   |
|           |                         | 50      | 56        | 21.66                | <b>21.70</b> | 21.68   | 22.50   |
|           |                         | 100     | 0         | 21.64                | 21.68        | 21.62   | 22.50   |
|           | DFT-s-OFDM<br>16QAM     | 1       | 1         | 21.74                | 21.70        | 21.66   | 22.50   |
|           | DFT-s-OFDM<br>64QAM     | 1       | 1         | 21.69                | 21.73        | 21.65   | 22.50   |
|           | DFT-s-OFDM<br>256QAM    | 1       | 1         | 21.37                | 21.34        | 21.39   | 22.00   |
|           | DFT-s-OFDM<br>256QAM    | 1       | 1         | 19.20                | 19.17        | 19.21   | 20.00   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 20MHz     | CP-OFDM QPSK            | 1       | 1         | 134600               | 136100       | 137600  | 22.50   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 15MHz     | DFT-s-OFDM<br>QPSK      | 1       | 1         | 134100               | 136100       | 138100  | 22.50   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 10MHz     | DFT-s-OFDM<br>QPSK      | 1       | 1         | 133600               | 136100       | 138600  | 22.50   |
| Bandwidth | Modulation              | RB size | RB offset | Channel              | Channel      | Channel | Tune up |
| 5MHz      | DFT-s-OFDM<br>QPSK      | 1       | 1         | 133100               | 136100       | 139100  | 22.50   |

| N77                  |                         |         |           | Conducted Power(dBm) |         |         |         |
|----------------------|-------------------------|---------|-----------|----------------------|---------|---------|---------|
| SCS 30kHz(3450~3550) |                         |         |           | Channel              | Channel | Channel | Tune up |
| Bandwidth            | Modulation              | RB size | RB offset | /                    | 633334  | /       |         |
| 100MHz               | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | /                    | 13.64   | /       | 15.00   |
|                      |                         | 1       | 137       | /                    | 13.62   | /       | 15.00   |
|                      |                         | 1       | 271       | /                    | 14.11   | /       | 15.00   |
|                      |                         | 135     | 0         | /                    | 13.64   | /       | 15.00   |
|                      |                         | 135     | 69        | /                    | 13.61   | /       | 15.00   |
|                      |                         | 135     | 138       | /                    | 13.60   | /       | 15.00   |
|                      |                         | 270     | 0         | /                    | 13.61   | /       | 15.00   |
|                      | DFT-s-OFDM<br>QPSK      | 1       | 1         | /                    | 13.65   | /       | 15.00   |
|                      |                         | 1       | 137       | /                    | 13.69   | /       | 15.00   |
|                      |                         | 1       | 271       | /                    | 14.13   | /       | 15.00   |
|                      |                         | 135     | 0         | /                    | 13.58   | /       | 15.00   |
|                      |                         | 135     | 69        | /                    | 13.78   | /       | 15.00   |
|                      |                         | 135     | 138       | /                    | 13.66   | /       | 15.00   |
|                      |                         | 270     | 0         | /                    | 13.60   | /       | 15.00   |
|                      | DFT-s-OFDM<br>16QAM     | 1       | 1         | /                    | 13.79   | /       | 15.00   |
|                      | DFT-s-OFDM<br>64QAM     | 1       | 1         | /                    | 13.75   | /       | 15.00   |
|                      | DFT-s-OFDM<br>256QAM    | 1       | 1         | /                    | 13.66   | /       | 15.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 100MHz               | CP-OFDM QPSK            | 1       | 1         | /                    | 13.85   | /       | 15.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 90MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 13.70                | 13.61   | 13.65   | 15.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 80MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 13.65                | 13.60   | 13.59   | 15.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 60MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 13.57                | 13.63   | 13.56   | 15.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 50MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 13.62                | 13.59   | 13.61   | 15.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 40MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 13.67                | 13.60   | 13.58   | 15.00   |
| Bandwidth            | Modulation              | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 20MHz                | DFT-s-OFDM<br>QPSK      | 1       | 1         | 13.65                | 13.63   | 13.66   | 15.00   |

| N77                  |                         |         |           | Conducted Power(dBm) |         |         |         |         |         |         |
|----------------------|-------------------------|---------|-----------|----------------------|---------|---------|---------|---------|---------|---------|
| SCS 30kHz(3700~3980) |                         |         |           | Channel              | Channel | Channel | Channel | Channel | Channel | Tune up |
| Bandwidth            | Modulation              | RB size | RB offset | 650000               | 652400  | 654800  | 657200  | 659600  | 662000  |         |
| 100MHz               | DFT-s-OFDM<br>PI/2 BPSK | 1       | 1         | 13.75                | 13.66   | 13.65   | 13.64   | 13.65   | 13.72   | 15.00   |
|                      |                         | 1       | 137       | 13.96                | 13.62   | 13.60   | 13.76   | 13.85   | 13.96   | 15.00   |
|                      |                         | 1       | 271       | 14.17                | 13.97   | 14.01   | 14.05   | 14.14   | 14.16   | 15.00   |
|                      |                         | 135     | 0         | 13.96                | 13.62   | 13.61   | 13.62   | 13.69   | 13.78   | 15.00   |
|                      |                         | 135     | 69        | 14.00                | 13.61   | 13.57   | 13.64   | 13.72   | 13.87   | 15.00   |
|                      |                         | 135     | 138       | 14.01                | 13.57   | 13.56   | 13.66   | 13.67   | 13.64   | 15.00   |
|                      |                         | 270     | 0         | 13.97                | 13.53   | 13.54   | 13.60   | 13.68   | 13.69   | 15.00   |
|                      | DFT-s-OFDM<br>QPSK      | 1       | 1         | 13.82                | 13.67   | 13.56   | 13.66   | 13.69   | 13.79   | 15.00   |
|                      |                         | 1       | 137       | 13.98                | 13.63   | 13.66   | 13.78   | 13.89   | 13.95   | 15.00   |
|                      |                         | 1       | 271       | 14.20                | 14.08   | 14.21   | 14.11   | 14.15   | 14.19   | 15.00   |
|                      |                         | 135     | 0         | 13.80                | 13.62   | 13.57   | 13.62   | 13.67   | 13.86   | 15.00   |
|                      |                         | 135     | 69        | 13.84                | 13.66   | 13.89   | 13.68   | 13.81   | 13.87   | 15.00   |
|                      |                         | 135     | 138       | 13.83                | 13.51   | 13.57   | 13.58   | 13.68   | 13.67   | 15.00   |
|                      |                         | 270     | 0         | 13.96                | 13.56   | 13.55   | 13.67   | 13.73   | 13.71   | 15.00   |
|                      | DFT-s-OFDM<br>16QAM     | 1       | 1         | 13.89                | 13.52   | 13.76   | 13.79   | 13.81   | 13.92   | 15.00   |
|                      | DFT-s-OFDM<br>64QAM     | 1       | 1         | 13.91                | 13.77   | 13.75   | 13.76   | 13.73   | 13.87   | 15.00   |
|                      | DFT-s-OFDM<br>256QAM    | 1       | 1         | 13.77                | 13.61   | 13.62   | 13.57   | 13.64   | 13.77   | 15.00   |

| Bandwidth | Modulation      | RB size | RB offset | Channel<br>650000 | Channel<br>652400 | Channel<br>654800 | Channel<br>657200 | Channel<br>659600 | Channel<br>662000 | Tune up |
|-----------|-----------------|---------|-----------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------|
| 100MHz    | CP-OFDM QPSK    | 1       | 1         | 13.76             | 13.81             | 13.79             | 13.87             | 13.75             | 13.83             | 15.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>649668 | Channel<br>652200 | Channel<br>654734 | Channel<br>657268 | Channel<br>659800 | Channel<br>662332 | Tune up |
| 90MHz     | DFT-s-OFDM QPSK | 1       | 1         | 13.71             | 13.62             | 13.59             | 13.73             | 13.66             | 13.72             | 15.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>649334 | Channel<br>652000 | Channel<br>654668 | Channel<br>657334 | Channel<br>660000 | Channel<br>662666 | Tune up |
| 80MHz     | DFT-s-OFDM QPSK | 1       | 1         | 13.65             | 13.64             | 13.66             | 13.77             | 13.72             | 13.70             | 15.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>648668 | Channel<br>651600 | Channel<br>654534 | Channel<br>657468 | Channel<br>660400 | Channel<br>663332 | Tune up |
| 60MHz     | DFT-s-OFDM QPSK | 1       | 1         | 13.60             | 13.71             | 13.74             | 13.71             | 13.65             | 13.67             | 15.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>648334 | Channel<br>651400 | Channel<br>654468 | Channel<br>657534 | Channel<br>660600 | Channel<br>663666 | Tune up |
| 50MHz     | DFT-s-OFDM QPSK | 1       | 1         | 13.74             | 13.78             | 13.64             | 13.68             | 13.75             | 13.61             | 15.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>648000 | Channel<br>651200 | Channel<br>654400 | Channel<br>657600 | Channel<br>660800 | Channel<br>664000 | Tune up |
| 40MHz     | DFT-s-OFDM QPSK | 1       | 1         | 13.70             | 13.66             | 13.78             | 13.63             | 13.64             | 13.73             | 15.00   |
| Bandwidth | Modulation      | RB size | RB offset | Channel<br>647334 | Channel<br>650800 | Channel<br>654268 | Channel<br>657734 | Channel<br>661200 | Channel<br>664666 | Tune up |
| 20MHz     | DFT-s-OFDM QPSK | 1       | 1         | 13.77             | 13.76             | 13.65             | 13.72             | 13.68             | 13.63             | 15.00   |

### 5G NR MIMO:

| N77 MIMO Class 1.5/2/3 |                |         |           | Conducted Power(dBm) |         |         |         |
|------------------------|----------------|---------|-----------|----------------------|---------|---------|---------|
| SCS 30kHz(3450~3550)   |                |         |           |                      |         |         |         |
| Bandwidth              | Modulation     | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 100MHz                 | CP-OFDM QPSK   | 1       | 1         | /                    | 633334  | /       | 18.00   |
|                        |                | 1       | 137       | /                    | 16.38   | /       | 18.00   |
|                        |                | 1       | 271       | /                    | 16.25   | /       | 18.00   |
|                        |                | 135     | 0         | /                    | 16.45   | /       | 18.00   |
|                        |                | 135     | 69        | /                    | 16.68   | /       | 18.00   |
|                        |                | 135     | 138       | /                    | 16.74   | /       | 18.00   |
|                        |                | 270     | 0         | /                    | 16.68   | /       | 18.00   |
|                        | CP-OFDM 16QAM  | 1       | 1         | /                    | 16.70   | /       | 18.00   |
|                        | CP-OFDM 64QAM  | 1       | 1         | /                    | 16.30   | /       | 18.00   |
|                        | CP-OFDM 256QAM | 1       | 1         | /                    | 16.25   | /       | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 90MHz                  | CP-OFDM QPSK   | 1       | 1         | 633000               | 633334  | 633668  | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 80MHz                  | CP-OFDM QPSK   | 1       | 1         | 632668               | 633334  | 634000  | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 60MHz                  | CP-OFDM QPSK   | 1       | 1         | 632000               | 633334  | 634668  | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 50MHz                  | CP-OFDM QPSK   | 1       | 1         | 631668               | 633334  | 635000  | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 40MHz                  | CP-OFDM QPSK   | 1       | 1         | 631334               | 633334  | 635334  | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel              | Channel | Channel | Tune up |
| 20MHz                  | CP-OFDM QPSK   | 1       | 1         | 630668               | 633334  | 636000  | 18.00   |

| N77 MIMO Class 1.5/2/3 |                |         |           |         | Conducted Power(dBm) |         |         |         |         |         |
|------------------------|----------------|---------|-----------|---------|----------------------|---------|---------|---------|---------|---------|
| SCS 30kHz(3700–3980)   |                |         |           |         |                      |         |         |         |         |         |
| Bandwidth              | Modulation     | RB size | RB offset | Channel | Channel              | Channel | Channel | Channel | Channel | Tune up |
|                        |                |         |           | 650000  | 652400               | 654800  | 657200  | 659600  | 662000  |         |
| 100MHz                 | CP-OFDM QPSK   | 1       | 1         | 16.41   | 16.53                | 17.13   | 16.71   | 16.99   | 16.93   | 18.00   |
|                        |                | 1       | 137       | 16.57   | 16.50                | 16.65   | 16.68   | 17.02   | 17.04   | 18.00   |
|                        |                | 1       | 271       | 16.74   | 16.71                | 17.16   | 16.74   | 17.08   | 17.10   | 18.00   |
|                        |                | 135     | 0         | 16.79   | 16.96                | 17.18   | 16.58   | 16.87   | 16.58   | 18.00   |
|                        |                | 135     | 69        | 16.85   | 17.01                | 17.19   | 16.65   | 17.03   | 16.64   | 18.00   |
|                        |                | 135     | 138       | 16.81   | 16.94                | 17.10   | 16.60   | 16.85   | 16.61   | 18.00   |
|                        | 270            | 0       | 16.95     | 16.93   | 17.16                | 16.55   | 16.77   | 16.52   | 18.00   |         |
|                        | CP-OFDM 16QAM  | 1       | 1         | 16.88   | 16.90                | 17.06   | 16.73   | 16.80   | 16.89   | 18.00   |
|                        | CP-OFDM 64QAM  | 1       | 1         | 16.92   | 16.86                | 16.99   | 16.71   | 16.74   | 16.94   | 18.00   |
|                        | CP-OFDM 256QAM | 1       | 1         | 16.83   | 16.97                | 17.11   | 16.65   | 16.89   | 17.05   | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel | Channel              | Channel | Channel | Channel | Channel | Tune up |
| 90MHz                  | CP-OFDM QPSK   | 1       | 1         | 649668  | 652200               | 654734  | 657268  | 659800  | 662332  | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel | Channel              | Channel | Channel | Channel | Channel | Tune up |
| 80MHz                  | CP-OFDM QPSK   | 1       | 1         | 649334  | 652000               | 654668  | 657334  | 660000  | 662666  | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel | Channel              | Channel | Channel | Channel | Channel | Tune up |
| 60MHz                  | CP-OFDM QPSK   | 1       | 1         | 648668  | 651600               | 654534  | 657468  | 660400  | 663332  | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel | Channel              | Channel | Channel | Channel | Channel | Tune up |
| 50MHz                  | CP-OFDM QPSK   | 1       | 1         | 648334  | 651400               | 654468  | 657534  | 660600  | 663666  | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel | Channel              | Channel | Channel | Channel | Channel | Tune up |
| 40MHz                  | CP-OFDM QPSK   | 1       | 1         | 648000  | 651200               | 654400  | 657600  | 660800  | 664000  | 18.00   |
| Bandwidth              | Modulation     | RB size | RB offset | Channel | Channel              | Channel | Channel | Channel | Channel | Tune up |
| 20MHz                  | CP-OFDM QPSK   | 1       | 1         | 647334  | 650800               | 654268  | 657734  | 661200  | 664666  | 18.00   |