



REPORT No. : SZ23040220W02

# TEST REPORT

**APPLICANT** : BLU Products, Inc.

**PRODUCT NAME** : Smart Phone

**MODEL NAME** : G53

**BRAND NAME** : BLU

**FCC ID** : YHLBLUG53

**STANDARD(S)** : 47 CFR Part 2  
47 CFR Part 22, Subpart H  
47 CFR Part 24, Subpart E  
47 CFR Part 27, Subpart H&L&M&N

**RECEIPT DATE** : 2023-04-18

**TEST DATE** : 2023-04-26 to 2023-05-25

**ISSUE DATE** : 2023-06-13

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| Change History |            |                   |
|----------------|------------|-------------------|
| Version        | Date       | Reason for change |
| 1.0            | 2023-06-13 | First edition     |
|                |            |                   |



# 1. Technical Information

**Note:** Provide by applicant.

## 1.1. Applicant and Manufacturer Information

|                              |                                                      |
|------------------------------|------------------------------------------------------|
| <b>Applicant:</b>            | BLU Products, Inc.                                   |
| <b>Applicant Address:</b>    | 8600 NW 36th Street, Suite #200 Doral, FL 33166, USA |
| <b>Manufacturer:</b>         | BLU Products, Inc.                                   |
| <b>Manufacturer Address:</b> | 8600 NW 36th Street, Suite #200 Doral, FL 33166, USA |

## 1.2. Equipment Under Test (EUT) Description

|                             |                                                |                      |
|-----------------------------|------------------------------------------------|----------------------|
| <b>Product Name:</b>        | Smart Phone                                    |                      |
| <b>Sample No.:</b>          | 5#                                             |                      |
| <b>Hardware Version:</b>    | FS310-MB-V5.0                                  |                      |
| <b>Software Version:</b>    | BLU_G0850_V13.0.02.00_GENERIC_03-04-2023_10:05 |                      |
| <b>Modulation Type:</b>     | QPSK, 16QAM, 64QAM(DL)                         |                      |
| <b>Carrier Aggregation:</b> | Not Support                                    |                      |
| <b>Operation Band:</b>      | Band 2 / 4 / 5 / 7 / 12 / 17 / 66 / 71         |                      |
| <b>Frequency Range:</b>     | LTE Band 2                                     | Tx: 1850MHz–1910MHz  |
|                             |                                                | Rx: 1930MHz–1990MHz  |
|                             | LTE Band 4                                     | Tx: 1710MHz–1755MHz  |
|                             |                                                | Rx: 2110MHz–2155MHz  |
|                             | LTE Band 5                                     | Tx: 824MHz–849MHz    |
|                             |                                                | Rx: 869MHz–894MHz    |
|                             | LTE Band 7                                     | Tx: 2500MHz–2570MHz  |
|                             |                                                | Rx: 2620MHz–2690MHz  |
|                             | LTE Band 12                                    | Tx: 699MHz - 716MHz  |
|                             |                                                | Rx: 729MHz – 746MHz  |
|                             | LTE Band 17                                    | Tx: 704MHz - 716MHz  |
|                             |                                                | Rx: 734MHz – 746MHz  |
|                             | LTE Band 66                                    | Tx: 1710MHz –1780MHz |
|                             |                                                | Rx: 2110MHz –2200MHz |
|                             | LTE Band 71                                    | Tx: 663MHz –698MHz   |
|                             |                                                | Rx: 617MHz –652MHz   |



|                               |                |                                                    |
|-------------------------------|----------------|----------------------------------------------------|
| <b>Channel Bandwidth:</b>     | LTE Band 2     | 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz            |
|                               | LTE Band 4     | 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz            |
|                               | LTE Band 5     | 1.4MHz, 3MHz, 5MHz, 10MHz                          |
|                               | LTE Band 7     | 5 MHz, 10MHz, 15MHz, 20MHz                         |
|                               | LTE Band 12    | 1.4MHz, 3 MHz, 5 MHz, 10MHz                        |
|                               | LTE Band 17    | 5 MHz, 10MHz                                       |
|                               | LTE Band 66    | 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz            |
|                               | LTE Band 71    | 5MHz, 10MHz, 15MHz, 20MHz                          |
| <b>Antenna Type:</b>          | PIFA Antenna   |                                                    |
| <b>Antenna Gain:</b>          | LTE Band 2     | 1.30dBi                                            |
|                               | LTE Band 4     | -0.60dBi                                           |
|                               | LTE Band 5     | -2.30dBi                                           |
|                               | LTE Band 7     | -1.50dBi                                           |
|                               | LTE Band 12    | -2.70dBi                                           |
|                               | LTE Band 17    | -2.70dBi                                           |
|                               | LTE Band 66    | -0.60dBi                                           |
|                               | LTE Band 71    | -2.30dBi                                           |
| <b>Accessory Information:</b> | Battery        |                                                    |
|                               | Brand Name:    | BLU                                                |
|                               | Model No.:     | C966548500P                                        |
|                               | Serial No.:    | N/A                                                |
|                               | Capacity:      | 5000mAh                                            |
|                               | Rated Voltage: | 3.85V                                              |
|                               | Charge Limit:  | 4.4V                                               |
|                               | Manufacturer:  | Shenzhen Jiuliyuan Electronic Technology Co., Ltd. |
|                               | AC Adapter     |                                                    |
|                               | Brand Name:    | BLU                                                |
|                               | Model No.:     | US-WW-2001                                         |
|                               | Serial No.:    | N/A                                                |
|                               | Rated Output:  | 5V $\Rightarrow$ 2000mA                            |
|                               | Rated Input:   | 100-240V $\sim$ 50/60Hz, 0.4A                      |
|                               | Manufacturer:  | SHENZHEN NANBANG ELECTRONICS CO., LTD              |

**Note 1:** For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

### 1.3. Maximum E.R.P./E.I.R.P. and Emission Designator

| LTE Band 2  | Maximum E.R.P./E.I.R.P. (W) |       | Emission Designator (99%OBW) |         |
|-------------|-----------------------------|-------|------------------------------|---------|
| BW(MHz)     | QPSK                        | 16QAM | QPSK                         | 16QAM   |
| 20          | 0.129                       | 0.102 | 18M0G7D                      | 18M0W7D |
| 15          | 0.128                       | 0.104 | 13M5G7D                      | 13M5W7D |
| 10          | 0.128                       | 0.103 | 9M00G7D                      | 8M98W7D |
| 5           | 0.127                       | 0.104 | 4M50G7D                      | 4M50W7D |
| 3           | 0.128                       | 0.102 | 2M72G7D                      | 2M72W7D |
| 1.4         | 0.128                       | 0.103 | 1M10G7D                      | 1M10W7D |
| LTE Band 4  | Maximum E.R.P./E.I.R.P. (W) |       | Emission Designator (99%OBW) |         |
| BW(MHz)     | QPSK                        | 16QAM | QPSK                         | 16QAM   |
| 20          | 0.105                       | 0.086 | 18M0G7D                      | 18M0W7D |
| 15          | 0.104                       | 0.085 | 13M5G7D                      | 13M5W7D |
| 10          | 0.104                       | 0.085 | 9M01G7D                      | 8M98W7D |
| 5           | 0.104                       | 0.085 | 4M50G7D                      | 4M51W7D |
| 3           | 0.104                       | 0.084 | 2M72G7D                      | 2M71W7D |
| 1.4         | 0.103                       | 0.085 | 1M10G7D                      | 1M10W7D |
| LTE Band 5  | Maximum E.R.P./E.I.R.P. (W) |       | Emission Designator (99%OBW) |         |
| BW(MHz)     | QPSK                        | 16QAM | QPSK                         | 16QAM   |
| 10          | 0.066                       | 0.053 | 9M00G7D                      | 8M98W7D |
| 5           | 0.065                       | 0.053 | 4M50G7D                      | 4M50W7D |
| 3           | 0.065                       | 0.054 | 2M72G7D                      | 2M72W7D |
| 1.4         | 0.065                       | 0.055 | 1M10G7D                      | 1M10W7D |
| LTE Band 7  | Maximum E.R.P./E.I.R.P. (W) |       | Emission Designator (99%OBW) |         |
| BW(MHz)     | QPSK                        | 16QAM | QPSK                         | 16QAM   |
| 20          | 0.082                       | 0.068 | 18M0G7D                      | 18M0W7D |
| 15          | 0.081                       | 0.068 | 13M5G7D                      | 13M5W7D |
| 10          | 0.081                       | 0.066 | 9M02G7D                      | 8M99W7D |
| 5           | 0.081                       | 0.066 | 4M50G7D                      | 4M51W7D |
| LTE Band 12 | Maximum E.R.P./E.I.R.P. (W) |       | Emission Designator (99%OBW) |         |
| BW(MHz)     | QPSK                        | 16QAM | QPSK                         | 16QAM   |
| 10          | 0.063                       | 0.050 | 9M04G7D                      | 8M98W7D |
| 5           | 0.062                       | 0.050 | 4M50G7D                      | 4M51W7D |
| 3           | 0.062                       | 0.050 | 2M72G7D                      | 2M72W7D |
| 1.4         | 0.062                       | 0.050 | 1M10G7D                      | 1M10W7D |



| <b>LTE Band 17</b> | <b>Maximum E.R.P./E.I.R.P. (W)</b> |       | <b>Emission Designator (99%OBW)</b> |         |
|--------------------|------------------------------------|-------|-------------------------------------|---------|
| BW(MHz)            | QPSK                               | 16QAM | QPSK                                | 16QAM   |
| 10                 | 0.062                              | 0.050 | 9M02G7D                             | 8M98W7D |
| 5                  | 0.062                              | 0.050 | 4M50G7D                             | 4M50W7D |
| <b>LTE Band 66</b> | <b>Maximum E.R.P./E.I.R.P. (W)</b> |       | <b>Emission Designator (99%OBW)</b> |         |
| BW(MHz)            | QPSK                               | 16QAM | QPSK                                | 16QAM   |
| 20                 | 0.106                              | 0.083 | 18M0G7D                             | 18M0W7D |
| 15                 | 0.105                              | 0.086 | 13M5G7D                             | 13M5W7D |
| 10                 | 0.104                              | 0.086 | 9M01G7D                             | 8M98W7D |
| 5                  | 0.104                              | 0.083 | 4M50G7D                             | 4M50W7D |
| 3                  | 0.104                              | 0.084 | 2M72G7D                             | 2M72W7D |
| 1.4                | 0.104                              | 0.085 | 1M10G7D                             | 1M10W7D |
| <b>LTE Band 71</b> | <b>Maximum E.R.P./E.I.R.P. (W)</b> |       | <b>Emission Designator (99%OBW)</b> |         |
| BW(MHz)            | QPSK                               | 16QAM | QPSK                                | 16QAM   |
| 20                 | 0.069                              | 0.056 | 18M0G7D                             | 18M1W7D |
| 15                 | 0.069                              | 0.056 | 13M5G7D                             | 13M5W7D |
| 10                 | 0.069                              | 0.055 | 9M03G7D                             | 8M99W7D |
| 5                  | 0.069                              | 0.055 | 4M50G7D                             | 4M51W7D |



## 1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2, Part 22, Part 24, Part 27 for the EUT FCC ID Certification:

| No. | Identity       | Document Title                                                                |
|-----|----------------|-------------------------------------------------------------------------------|
| 1   | 47 CFR Part 2  | Frequency Allocations and Radio Treaty Matters; General Rules and Regulations |
| 2   | 47 CFR Part 22 | Public Mobile Services                                                        |
| 3   | 47 CFR Part 24 | Personal Communications Services                                              |
| 4   | 47 CFR Part 27 | Miscellaneous Wireless Communications Services                                |

Test detailed items/section required by FCC rules and results are as below:

| Section                                                                           | Description                                            | Test Date     | Test Engineer          | Result | Method Determination /Remark |
|-----------------------------------------------------------------------------------|--------------------------------------------------------|---------------|------------------------|--------|------------------------------|
| 2.1046<br>22.913(a)(2)<br>24.232(c)<br>27.50(c)(10)<br>27.50(d)(4)<br>27.50(h)(2) | Transmitter Conducted Output Power and E.R.P./E.I.R.P. | Apr. 27, 2023 | Chen Hao<br>Li Huaijie | PASS   | No deviation                 |
| 2.1049                                                                            | Occupied Bandwidth                                     | Apr. 26, 2023 | Li Huaijie             | PASS   | No deviation                 |
| 2.1055<br>22.355<br>24.235<br>27.54                                               | Frequency Stability                                    | Apr. 27, 2023 | Li Huaijie             | PASS   | No deviation                 |
| 24.232(d),<br>27.50(d)(5)                                                         | Peak to Average Radio                                  | Apr. 27, 2023 | Li Huaijie             | PASS   | No deviation                 |
| 2.1051<br>22.917(a)<br>24.238(a)<br>27.53(g)<br>27.53(h)<br>27.53(m)(4)           | Conducted Spurious Emissions                           | Apr. 26, 2023 | Li Huaijie             | PASS   | No deviation                 |
| 2.1051<br>22.917(a)<br>24.238(a)<br>27.53(g)                                      | Band Edge                                              | Apr. 26, 2023 | Li Huaijie             | PASS   | No deviation                 |



|                                                                         |                                   |              |             |      |              |
|-------------------------------------------------------------------------|-----------------------------------|--------------|-------------|------|--------------|
| 27.53(h)<br>27.53(m)(4)                                                 |                                   |              |             |      |              |
| 2.1053<br>22.917(a)<br>24.238(a)<br>27.53(g)<br>27.53(h)<br>27.53(m)(4) | Radiated<br>Spurious<br>Emissions | May 25, 2023 | Gao Jianrou | PASS | No deviation |

**Note 1:** The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 and ANSI/TIA-603-E-2016.

**Note 2:** The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 24.5dB contains two parts that cable loss 14.5dB and Attenuator 10dB.

**Note 3:** Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.

**Note 4:** When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.

## 1.5. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

|                             |        |
|-----------------------------|--------|
| Temperature (°C):           | 15-35  |
| Relative Humidity (%):      | 30-60  |
| Atmospheric Pressure (kPa): | 86-106 |





## **2.47 CFR Part 2, Part 22H, Part 24E, Part 27 H&L&M&N Requirements**

### **2.1. Transmitter Conducted Output Power and E.R.P./E.I.R.P.**

#### **2.1.1. Requirement**

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

According to FCC section 24.232 (c) for LTE Band 2, Mobile and portable stations are limited to 2 watts E.I.R.P. and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

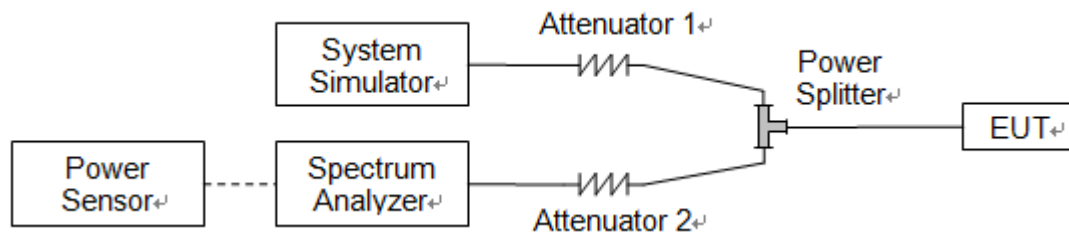
According to FCC section 27.50 (d)(4) for LTE Band 4/66, Fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat E.I.R.P.

According to FCC section 22.913 (a)(2) for LTE Band 5, the E.R.P. of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC section 27.50 (h)(2) for LTE Band 7, Mobile and other user stations. Mobile stations are limited to 2 watts E.I.R.P. All user stations are limited to 2 watts transmitter output power.

According to FCC section 27.50 (c)(10) for LTE Band 12/17/71, Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3watts E.R.P.

### 2.1.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

### 2.1.3. Test Procedure

KDB 971168 D01v03 Section 5.2 and ANSI/TIA-603-E-2016.

E.I.R.P. (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

E.R.P. (dBm) = E.I.R.P. (dBm) - 2.15

**2.1.4. Result****Conducted Output Power:**

| LTE Band 2      |            |         |           |                               |                                  |                                |
|-----------------|------------|---------|-----------|-------------------------------|----------------------------------|--------------------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High Ch. / Freq. |
| Channel         |            |         |           | 18700                         | 18900                            | 19100                          |
| Frequency (MHz) |            |         |           | 1860                          | 1880                             | 1900                           |
| 20              | QPSK       | 1       | 0         | 19.73                         | 19.79                            | 19.75                          |
| 20              | QPSK       | 1       | 49        | 19.64                         | 19.58                            | 19.46                          |
| 20              | QPSK       | 1       | 99        | 19.63                         | 19.44                            | 19.58                          |
| 20              | QPSK       | 50      | 0         | 18.75                         | 18.84                            | 18.68                          |
| 20              | QPSK       | 50      | 24        | 18.68                         | 18.65                            | 18.74                          |
| 20              | QPSK       | 50      | 50        | 18.61                         | 18.58                            | 18.53                          |
| 20              | QPSK       | 100     | 0         | 18.56                         | 18.61                            | 18.48                          |
| 20              | 16QAM      | 1       | 0         | 18.62                         | 18.79                            | 18.61                          |
| 20              | 16QAM      | 1       | 49        | 18.55                         | 18.44                            | 18.77                          |
| 20              | 16QAM      | 1       | 99        | 18.51                         | 18.65                            | 18.61                          |
| 20              | 16QAM      | 50      | 0         | 17.76                         | 17.87                            | 17.86                          |
| 20              | 16QAM      | 50      | 24        | 17.64                         | 17.45                            | 17.89                          |
| 20              | 16QAM      | 50      | 50        | 17.66                         | 17.75                            | 17.70                          |
| 20              | 16QAM      | 100     | 0         | 17.65                         | 17.58                            | 17.66                          |



| LTE Band 2      |            |         |           |                               |                                  |                                |
|-----------------|------------|---------|-----------|-------------------------------|----------------------------------|--------------------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High Ch. / Freq. |
| Channel         |            |         |           | 18675                         | 18900                            | 19125                          |
| Frequency (MHz) |            |         |           | 1857.5                        | 1880                             | 1902.5                         |
| 15              | QPSK       | 1       | 0         | 19.66                         | 19.76                            | 19.65                          |
| 15              | QPSK       | 1       | 37        | 19.63                         | 19.65                            | 19.48                          |
| 15              | QPSK       | 1       | 74        | 19.43                         | 19.59                            | 19.56                          |
| 15              | QPSK       | 36      | 0         | 18.76                         | 18.79                            | 18.84                          |
| 15              | QPSK       | 36      | 20        | 18.80                         | 18.57                            | 18.64                          |
| 15              | QPSK       | 36      | 39        | 18.66                         | 18.59                            | 18.43                          |
| 15              | QPSK       | 75      | 0         | 18.55                         | 18.52                            | 18.53                          |
| 15              | 16QAM      | 1       | 0         | 18.73                         | 18.70                            | 18.72                          |
| 15              | 16QAM      | 1       | 37        | 18.62                         | 18.59                            | 18.87                          |
| 15              | 16QAM      | 1       | 74        | 18.57                         | 18.79                            | 18.78                          |
| 15              | 16QAM      | 36      | 0         | 17.91                         | 17.80                            | 17.75                          |
| 15              | 16QAM      | 36      | 20        | 17.55                         | 17.68                            | 17.90                          |
| 15              | 16QAM      | 36      | 39        | 17.74                         | 17.73                            | 17.56                          |
| 15              | 16QAM      | 75      | 0         | 17.50                         | 17.56                            | 17.71                          |



| LTE Band 2      |            |         |           |                               |                                  |                                |
|-----------------|------------|---------|-----------|-------------------------------|----------------------------------|--------------------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High Ch. / Freq. |
| Channel         |            |         |           | 18650                         | 18900                            | 19150                          |
| Frequency (MHz) |            |         |           | 1855                          | 1880                             | 1905                           |
| 10              | QPSK       | 1       | 0         | 19.59                         | 19.77                            | 19.60                          |
| 10              | QPSK       | 1       | 25        | 19.51                         | 19.66                            | 19.38                          |
| 10              | QPSK       | 1       | 49        | 19.62                         | 19.67                            | 19.72                          |
| 10              | QPSK       | 25      | 0         | 18.48                         | 18.68                            | 18.81                          |
| 10              | QPSK       | 25      | 12        | 18.75                         | 18.72                            | 18.70                          |
| 10              | QPSK       | 25      | 25        | 18.66                         | 18.56                            | 18.71                          |
| 10              | QPSK       | 50      | 0         | 18.63                         | 18.50                            | 18.61                          |
| 10              | 16QAM      | 1       | 0         | 18.66                         | 18.82                            | 18.48                          |
| 10              | 16QAM      | 1       | 25        | 18.52                         | 18.45                            | 18.77                          |
| 10              | 16QAM      | 1       | 49        | 18.53                         | 18.54                            | 18.58                          |
| 10              | 16QAM      | 25      | 0         | 17.83                         | 17.84                            | 17.73                          |
| 10              | 16QAM      | 25      | 12        | 17.51                         | 17.70                            | 17.62                          |
| 10              | 16QAM      | 25      | 25        | 17.83                         | 17.61                            | 17.67                          |
| 10              | 16QAM      | 50      | 0         | 17.79                         | 17.49                            | 17.67                          |



| LTE Band 2      |            |         |           |                               |                                  |                                |
|-----------------|------------|---------|-----------|-------------------------------|----------------------------------|--------------------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High Ch. / Freq. |
| Channel         |            |         |           | 18625                         | 18900                            | 19175                          |
| Frequency (MHz) |            |         |           | 1852.5                        | 1880                             | 1907.5                         |
| 5               | QPSK       | 1       | 0         | 19.62                         | 19.75                            | 19.66                          |
| 5               | QPSK       | 1       | 12        | 19.48                         | 19.68                            | 19.59                          |
| 5               | QPSK       | 1       | 24        | 19.56                         | 19.50                            | 19.69                          |
| 5               | QPSK       | 12      | 0         | 18.55                         | 18.73                            | 18.81                          |
| 5               | QPSK       | 12      | 7         | 18.82                         | 18.81                            | 18.55                          |
| 5               | QPSK       | 12      | 13        | 18.81                         | 18.68                            | 18.44                          |
| 5               | QPSK       | 25      | 0         | 18.54                         | 18.74                            | 18.76                          |
| 5               | 16QAM      | 1       | 0         | 18.88                         | 18.73                            | 18.72                          |
| 5               | 16QAM      | 1       | 12        | 18.62                         | 18.72                            | 18.73                          |
| 5               | 16QAM      | 1       | 24        | 18.51                         | 18.56                            | 18.79                          |
| 5               | 16QAM      | 12      | 0         | 17.76                         | 17.75                            | 17.75                          |
| 5               | 16QAM      | 12      | 7         | 17.61                         | 17.72                            | 17.86                          |
| 5               | 16QAM      | 12      | 13        | 17.74                         | 17.67                            | 17.68                          |
| 5               | 16QAM      | 25      | 0         | 17.47                         | 17.51                            | 17.71                          |



| LTE Band 2      |            |         |           |                               |                                  |                                |
|-----------------|------------|---------|-----------|-------------------------------|----------------------------------|--------------------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High Ch. / Freq. |
| Channel         |            |         |           | 18615                         | 18900                            | 19185                          |
| Frequency (MHz) |            |         |           | 1851.5                        | 1880                             | 1908.5                         |
| 3               | QPSK       | 1       | 0         | 19.59                         | 19.76                            | 19.69                          |
| 3               | QPSK       | 1       | 8         | 19.55                         | 19.73                            | 19.61                          |
| 3               | QPSK       | 1       | 14        | 19.70                         | 19.66                            | 19.66                          |
| 3               | QPSK       | 8       | 0         | 18.68                         | 18.60                            | 18.75                          |
| 3               | QPSK       | 8       | 4         | 18.84                         | 18.73                            | 18.83                          |
| 3               | QPSK       | 8       | 7         | 18.54                         | 18.57                            | 18.54                          |
| 3               | QPSK       | 15      | 0         | 18.62                         | 18.61                            | 18.67                          |
| 3               | 16QAM      | 1       | 0         | 18.64                         | 18.73                            | 18.58                          |
| 3               | 16QAM      | 1       | 8         | 18.65                         | 18.53                            | 18.60                          |
| 3               | 16QAM      | 1       | 14        | 18.78                         | 18.59                            | 18.69                          |
| 3               | 16QAM      | 8       | 0         | 17.62                         | 17.87                            | 17.84                          |
| 3               | 16QAM      | 8       | 4         | 17.72                         | 17.60                            | 17.61                          |
| 3               | 16QAM      | 8       | 7         | 17.62                         | 17.62                            | 17.66                          |
| 3               | 16QAM      | 15      | 0         | 17.59                         | 17.60                            | 17.72                          |



| LTE Band 2      |            |         |           |                               |                                  |                                |
|-----------------|------------|---------|-----------|-------------------------------|----------------------------------|--------------------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High Ch. / Freq. |
| Channel         |            |         |           | 18607                         | 18900                            | 19193                          |
| Frequency (MHz) |            |         |           | 1850.7                        | 1880                             | 1909.3                         |
| 1.4             | QPSK       | 1       | 0         | 19.52                         | 19.75                            | 19.57                          |
| 1.4             | QPSK       | 1       | 3         | 19.61                         | 19.77                            | 19.65                          |
| 1.4             | QPSK       | 1       | 5         | 19.59                         | 19.69                            | 19.46                          |
| 1.4             | QPSK       | 3       | 0         | 18.53                         | 18.79                            | 18.59                          |
| 1.4             | QPSK       | 3       | 1         | 18.58                         | 18.52                            | 18.66                          |
| 1.4             | QPSK       | 3       | 3         | 18.66                         | 18.64                            | 18.72                          |
| 1.4             | QPSK       | 6       | 0         | 18.63                         | 18.78                            | 18.67                          |
| 1.4             | 16QAM      | 1       | 0         | 18.73                         | 18.83                            | 18.80                          |
| 1.4             | 16QAM      | 1       | 3         | 18.61                         | 18.63                            | 18.59                          |
| 1.4             | 16QAM      | 1       | 5         | 18.50                         | 18.83                            | 18.57                          |
| 1.4             | 16QAM      | 3       | 0         | 17.75                         | 17.64                            | 17.87                          |
| 1.4             | 16QAM      | 3       | 1         | 17.65                         | 17.58                            | 17.66                          |
| 1.4             | 16QAM      | 3       | 3         | 17.86                         | 17.72                            | 17.57                          |
| 1.4             | 16QAM      | 6       | 0         | 17.62                         | 17.64                            | 17.56                          |





| LTE Band 4      |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 20050                               | 20175                                  | 20300                                |
| Frequency (MHz) |            |            |              | 1720                                | 1732.5                                 | 1745                                 |
| 20              | QPSK       | 1          | 0            | 20.77                               | 20.80                                  | 20.76                                |
| 20              | QPSK       | 1          | 49           | 20.70                               | 20.75                                  | 20.68                                |
| 20              | QPSK       | 1          | 99           | 20.64                               | 20.59                                  | 20.69                                |
| 20              | QPSK       | 50         | 0            | 19.76                               | 19.73                                  | 19.95                                |
| 20              | QPSK       | 50         | 24           | 19.92                               | 19.83                                  | 19.97                                |
| 20              | QPSK       | 50         | 50           | 19.67                               | 19.75                                  | 19.64                                |
| 20              | QPSK       | 100        | 0            | 19.77                               | 19.60                                  | 19.73                                |
| 20              | 16QAM      | 1          | 0            | 19.92                               | 19.77                                  | 19.86                                |
| 20              | 16QAM      | 1          | 49           | 19.62                               | 19.73                                  | 19.87                                |
| 20              | 16QAM      | 1          | 99           | 19.67                               | 19.63                                  | 19.90                                |
| 20              | 16QAM      | 50         | 0            | 18.86                               | 18.86                                  | 18.73                                |
| 20              | 16QAM      | 50         | 24           | 18.69                               | 18.64                                  | 18.76                                |
| 20              | 16QAM      | 50         | 50           | 18.79                               | 18.55                                  | 18.78                                |
| 20              | 16QAM      | 100        | 0            | 18.88                               | 18.63                                  | 18.79                                |



| LTE Band 4      |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 20025                               | 20175                                  | 20325                                |
| Frequency (MHz) |            |            |              | 1717.5                              | 1732.5                                 | 1747.5                               |
| 15              | QPSK       | 1          | 0            | 20.62                               | 20.78                                  | 20.73                                |
| 15              | QPSK       | 1          | 37           | 20.63                               | 20.70                                  | 20.73                                |
| 15              | QPSK       | 1          | 74           | 20.78                               | 20.61                                  | 20.74                                |
| 15              | QPSK       | 36         | 0            | 19.85                               | 19.80                                  | 19.82                                |
| 15              | QPSK       | 36         | 20           | 19.95                               | 19.76                                  | 19.83                                |
| 15              | QPSK       | 36         | 39           | 19.66                               | 19.83                                  | 19.74                                |
| 15              | QPSK       | 75         | 0            | 19.58                               | 19.61                                  | 19.60                                |
| 15              | 16QAM      | 1          | 0            | 19.78                               | 19.84                                  | 19.87                                |
| 15              | 16QAM      | 1          | 37           | 19.81                               | 19.84                                  | 19.73                                |
| 15              | 16QAM      | 1          | 74           | 19.81                               | 19.71                                  | 19.59                                |
| 15              | 16QAM      | 36         | 0            | 18.96                               | 18.93                                  | 19.05                                |
| 15              | 16QAM      | 36         | 20           | 18.82                               | 18.77                                  | 18.71                                |
| 15              | 16QAM      | 36         | 39           | 18.70                               | 18.71                                  | 18.67                                |
| 15              | 16QAM      | 75         | 0            | 18.86                               | 18.63                                  | 18.93                                |



| LTE Band 4      |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 20000                               | 20175                                  | 20350                                |
| Frequency (MHz) |            |            |              | 1715                                | 1732.5                                 | 1750                                 |
| 10              | QPSK       | 1          | 0            | 20.76                               | 20.77                                  | 20.69                                |
| 10              | QPSK       | 1          | 25           | 20.74                               | 20.69                                  | 20.69                                |
| 10              | QPSK       | 1          | 49           | 20.68                               | 20.71                                  | 20.55                                |
| 10              | QPSK       | 25         | 0            | 19.79                               | 19.96                                  | 19.92                                |
| 10              | QPSK       | 25         | 12           | 19.87                               | 19.80                                  | 19.84                                |
| 10              | QPSK       | 25         | 25           | 19.67                               | 19.65                                  | 19.86                                |
| 10              | QPSK       | 50         | 0            | 19.61                               | 19.75                                  | 19.60                                |
| 10              | 16QAM      | 1          | 0            | 19.79                               | 19.80                                  | 19.77                                |
| 10              | 16QAM      | 1          | 25           | 19.84                               | 19.55                                  | 19.71                                |
| 10              | 16QAM      | 1          | 49           | 19.88                               | 19.81                                  | 19.63                                |
| 10              | 16QAM      | 25         | 0            | 18.72                               | 18.65                                  | 18.85                                |
| 10              | 16QAM      | 25         | 12           | 18.71                               | 18.69                                  | 18.82                                |
| 10              | 16QAM      | 25         | 25           | 18.84                               | 18.63                                  | 18.82                                |
| 10              | 16QAM      | 50         | 0            | 18.75                               | 18.67                                  | 18.95                                |



| LTE Band 4      |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 19975                               | 20175                                  | 20375                                |
| Frequency (MHz) |            |            |              | 1712.5                              | 1732.5                                 | 1752.5                               |
| 5               | QPSK       | 1          | 0            | 20.73                               | 20.76                                  | 20.63                                |
| 5               | QPSK       | 1          | 12           | 20.55                               | 20.58                                  | 20.53                                |
| 5               | QPSK       | 1          | 24           | 20.67                               | 20.59                                  | 20.67                                |
| 5               | QPSK       | 12         | 0            | 19.83                               | 19.88                                  | 19.79                                |
| 5               | QPSK       | 12         | 7            | 19.72                               | 19.76                                  | 19.88                                |
| 5               | QPSK       | 12         | 13           | 19.71                               | 19.54                                  | 19.76                                |
| 5               | QPSK       | 25         | 0            | 19.56                               | 19.91                                  | 19.85                                |
| 5               | 16QAM      | 1          | 0            | 19.79                               | 19.86                                  | 19.71                                |
| 5               | 16QAM      | 1          | 12           | 19.63                               | 19.72                                  | 19.75                                |
| 5               | 16QAM      | 1          | 24           | 19.75                               | 19.61                                  | 19.91                                |
| 5               | 16QAM      | 12         | 0            | 18.81                               | 18.86                                  | 18.82                                |
| 5               | 16QAM      | 12         | 7            | 18.80                               | 18.69                                  | 18.92                                |
| 5               | 16QAM      | 12         | 13           | 18.75                               | 18.60                                  | 18.66                                |
| 5               | 16QAM      | 25         | 0            | 18.68                               | 18.76                                  | 18.91                                |



| LTE Band 4      |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 19965                               | 20175                                  | 20385                                |
| Frequency (MHz) |            |            |              | 1711.5                              | 1732.5                                 | 1753.5                               |
| 3               | QPSK       | 1          | 0            | 20.74                               | 20.75                                  | 20.61                                |
| 3               | QPSK       | 1          | 8            | 20.54                               | 20.66                                  | 20.47                                |
| 3               | QPSK       | 1          | 14           | 20.69                               | 20.68                                  | 20.60                                |
| 3               | QPSK       | 8          | 0            | 19.71                               | 19.79                                  | 19.73                                |
| 3               | QPSK       | 8          | 4            | 19.78                               | 19.60                                  | 19.71                                |
| 3               | QPSK       | 8          | 7            | 19.64                               | 19.50                                  | 19.51                                |
| 3               | QPSK       | 15         | 0            | 19.71                               | 19.73                                  | 19.55                                |
| 3               | 16QAM      | 1          | 0            | 19.70                               | 19.86                                  | 19.72                                |
| 3               | 16QAM      | 1          | 8            | 19.72                               | 19.84                                  | 19.71                                |
| 3               | 16QAM      | 1          | 14           | 19.81                               | 19.86                                  | 19.77                                |
| 3               | 16QAM      | 8          | 0            | 19.04                               | 18.96                                  | 18.77                                |
| 3               | 16QAM      | 8          | 4            | 18.88                               | 18.73                                  | 18.96                                |
| 3               | 16QAM      | 8          | 7            | 18.89                               | 18.72                                  | 18.81                                |
| 3               | 16QAM      | 15         | 0            | 18.54                               | 18.80                                  | 18.82                                |



| LTE Band 4      |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 19957                               | 20175                                  | 20393                                |
| Frequency (MHz) |            |            |              | 1710.7                              | 1732.5                                 | 1754.3                               |
| 1.4             | QPSK       | 1          | 0            | 20.71                               | 20.74                                  | 20.68                                |
| 1.4             | QPSK       | 1          | 3            | 20.57                               | 20.62                                  | 20.60                                |
| 1.4             | QPSK       | 1          | 5            | 20.57                               | 20.63                                  | 20.61                                |
| 1.4             | QPSK       | 3          | 0            | 19.68                               | 19.82                                  | 19.86                                |
| 1.4             | QPSK       | 3          | 1            | 19.73                               | 19.63                                  | 19.64                                |
| 1.4             | QPSK       | 3          | 3            | 19.79                               | 19.53                                  | 19.66                                |
| 1.4             | QPSK       | 6          | 0            | 19.46                               | 19.85                                  | 19.73                                |
| 1.4             | 16QAM      | 1          | 0            | 19.77                               | 19.76                                  | 19.64                                |
| 1.4             | 16QAM      | 1          | 3            | 19.71                               | 19.76                                  | 19.74                                |
| 1.4             | 16QAM      | 1          | 5            | 19.90                               | 19.86                                  | 19.59                                |
| 1.4             | 16QAM      | 3          | 0            | 18.74                               | 18.67                                  | 18.81                                |
| 1.4             | 16QAM      | 3          | 1            | 18.82                               | 18.86                                  | 18.74                                |
| 1.4             | 16QAM      | 3          | 3            | 18.70                               | 18.56                                  | 18.80                                |
| 1.4             | 16QAM      | 6          | 0            | 18.77                               | 18.68                                  | 18.92                                |



| LTE Band 5      |            |         |              |                                     |                                        |                                      |
|-----------------|------------|---------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |         |              | 20450                               | 20525                                  | 20600                                |
| Frequency (MHz) |            |         |              | 829                                 | 836.5                                  | 844                                  |
| 10              | QPSK       | 1       | 0            | 22.55                               | 22.65                                  | 22.56                                |
| 10              | QPSK       | 1       | 25           | 22.46                               | 22.45                                  | 22.51                                |
| 10              | QPSK       | 1       | 49           | 22.55                               | 22.42                                  | 22.54                                |
| 10              | QPSK       | 25      | 0            | 21.58                               | 21.66                                  | 21.57                                |
| 10              | QPSK       | 25      | 12           | 21.50                               | 21.48                                  | 21.56                                |
| 10              | QPSK       | 25      | 25           | 21.53                               | 21.42                                  | 21.42                                |
| 10              | QPSK       | 50      | 0            | 21.28                               | 21.51                                  | 21.38                                |
| 10              | 16QAM      | 1       | 0            | 21.57                               | 21.64                                  | 21.57                                |
| 10              | 16QAM      | 1       | 25           | 21.55                               | 21.66                                  | 21.48                                |
| 10              | 16QAM      | 1       | 49           | 21.40                               | 21.54                                  | 21.56                                |
| 10              | 16QAM      | 25      | 0            | 20.71                               | 20.55                                  | 20.64                                |
| 10              | 16QAM      | 25      | 12           | 20.49                               | 20.44                                  | 20.51                                |
| 10              | 16QAM      | 25      | 25           | 20.73                               | 20.40                                  | 20.47                                |
| 10              | 16QAM      | 50      | 0            | 20.50                               | 20.56                                  | 20.44                                |



| LTE Band 5      |            |         |              |                                     |                                        |                                      |
|-----------------|------------|---------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |         |              | 20425                               | 20525                                  | 20625                                |
| Frequency (MHz) |            |         |              | 826.5                               | 836.5                                  | 846.5                                |
| 5               | QPSK       | 1       | 0            | 22.58                               | 22.58                                  | 22.50                                |
| 5               | QPSK       | 1       | 12           | 22.40                               | 22.56                                  | 22.45                                |
| 5               | QPSK       | 1       | 24           | 22.58                               | 22.28                                  | 22.32                                |
| 5               | QPSK       | 12      | 0            | 21.38                               | 21.65                                  | 21.69                                |
| 5               | QPSK       | 12      | 7            | 21.72                               | 21.72                                  | 21.48                                |
| 5               | QPSK       | 12      | 13           | 21.48                               | 21.48                                  | 21.65                                |
| 5               | QPSK       | 25      | 0            | 21.46                               | 21.47                                  | 21.56                                |
| 5               | 16QAM      | 1       | 0            | 21.73                               | 21.65                                  | 21.55                                |
| 5               | 16QAM      | 1       | 12           | 21.56                               | 21.41                                  | 21.70                                |
| 5               | 16QAM      | 1       | 24           | 21.39                               | 21.52                                  | 21.69                                |
| 5               | 16QAM      | 12      | 0            | 20.59                               | 20.52                                  | 20.63                                |
| 5               | 16QAM      | 12      | 7            | 20.56                               | 20.34                                  | 20.54                                |
| 5               | 16QAM      | 12      | 13           | 20.52                               | 20.57                                  | 20.64                                |
| 5               | 16QAM      | 25      | 0            | 20.61                               | 20.49                                  | 20.55                                |





| LTE Band 5      |            |         |              |                                     |                                        |                                      |
|-----------------|------------|---------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |         |              | 20415                               | 20525                                  | 20635                                |
| Frequency (MHz) |            |         |              | 825.5                               | 836.5                                  | 847.5                                |
| 3               | QPSK       | 1       | 0            | 22.57                               | 22.60                                  | 22.44                                |
| 3               | QPSK       | 1       | 8            | 22.42                               | 22.50                                  | 22.54                                |
| 3               | QPSK       | 1       | 14           | 22.45                               | 22.56                                  | 22.38                                |
| 3               | QPSK       | 8       | 0            | 21.44                               | 21.55                                  | 21.62                                |
| 3               | QPSK       | 8       | 4            | 21.70                               | 21.66                                  | 21.62                                |
| 3               | QPSK       | 8       | 7            | 21.70                               | 21.53                                  | 21.51                                |
| 3               | QPSK       | 15      | 0            | 21.35                               | 21.57                                  | 21.59                                |
| 3               | 16QAM      | 1       | 0            | 21.72                               | 21.73                                  | 21.62                                |
| 3               | 16QAM      | 1       | 8            | 21.74                               | 21.50                                  | 21.75                                |
| 3               | 16QAM      | 1       | 14           | 21.69                               | 21.64                                  | 21.60                                |
| 3               | 16QAM      | 8       | 0            | 20.71                               | 20.73                                  | 20.79                                |
| 3               | 16QAM      | 8       | 4            | 20.60                               | 20.37                                  | 20.69                                |
| 3               | 16QAM      | 8       | 7            | 20.68                               | 20.36                                  | 20.63                                |
| 3               | 16QAM      | 15      | 0            | 20.64                               | 20.52                                  | 20.76                                |



| LTE Band 5      |            |         |              |                                     |                                        |                                      |
|-----------------|------------|---------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |         |              | 20407                               | 20525                                  | 20643                                |
| Frequency (MHz) |            |         |              | 824.7                               | 836.5                                  | 848.3                                |
| 1.4             | QPSK       | 1       | 0            | 22.56                               | 22.59                                  | 22.57                                |
| 1.4             | QPSK       | 1       | 3            | 22.37                               | 22.53                                  | 22.52                                |
| 1.4             | QPSK       | 1       | 5            | 22.51                               | 22.54                                  | 22.45                                |
| 1.4             | QPSK       | 3       | 0            | 21.52                               | 21.57                                  | 21.56                                |
| 1.4             | QPSK       | 3       | 1            | 21.64                               | 21.70                                  | 21.50                                |
| 1.4             | QPSK       | 3       | 3            | 21.53                               | 21.56                                  | 21.53                                |
| 1.4             | QPSK       | 6       | 0            | 21.39                               | 21.62                                  | 21.38                                |
| 1.4             | 16QAM      | 1       | 0            | 21.67                               | 21.53                                  | 21.46                                |
| 1.4             | 16QAM      | 1       | 3            | 21.65                               | 21.61                                  | 21.83                                |
| 1.4             | 16QAM      | 1       | 5            | 21.48                               | 21.54                                  | 21.45                                |
| 1.4             | 16QAM      | 3       | 0            | 20.79                               | 20.50                                  | 20.59                                |
| 1.4             | 16QAM      | 3       | 1            | 20.50                               | 20.44                                  | 20.70                                |
| 1.4             | 16QAM      | 3       | 3            | 20.61                               | 20.38                                  | 20.66                                |
| 1.4             | 16QAM      | 6       | 0            | 20.40                               | 20.48                                  | 20.57                                |



| LTE Band 7      |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 20850                               | 21100                                  | 21350                                |
| Frequency (MHz) |            |            |              | 2510                                | 2535                                   | 2560                                 |
| 20              | QPSK       | 1          | 0            | 20.55                               | 20.62                                  | 20.60                                |
| 20              | QPSK       | 1          | 49           | 20.59                               | 20.36                                  | 20.52                                |
| 20              | QPSK       | 1          | 99           | 20.44                               | 20.57                                  | 20.35                                |
| 20              | QPSK       | 50         | 0            | 19.71                               | 19.78                                  | 19.75                                |
| 20              | QPSK       | 50         | 24           | 19.74                               | 19.47                                  | 19.76                                |
| 20              | QPSK       | 50         | 50           | 19.69                               | 19.37                                  | 19.39                                |
| 20              | QPSK       | 100        | 0            | 19.59                               | 19.64                                  | 19.66                                |
| 20              | 16QAM      | 1          | 0            | 19.63                               | 19.81                                  | 19.51                                |
| 20              | 16QAM      | 1          | 49           | 19.54                               | 19.41                                  | 19.78                                |
| 20              | 16QAM      | 1          | 99           | 19.69                               | 19.68                                  | 19.59                                |
| 20              | 16QAM      | 50         | 0            | 18.80                               | 18.44                                  | 18.70                                |
| 20              | 16QAM      | 50         | 24           | 18.65                               | 18.60                                  | 18.74                                |
| 20              | 16QAM      | 50         | 50           | 18.80                               | 18.60                                  | 18.64                                |
| 20              | 16QAM      | 100        | 0            | 18.48                               | 18.56                                  | 18.76                                |



| LTE Band 7      |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 20825                               | 21100                                  | 21375                                |
| Frequency (MHz) |            |            |              | 2507.5                              | 2535                                   | 2562.5                               |
| 15              | QPSK       | 1          | 0            | 20.46                               | 20.59                                  | 20.45                                |
| 15              | QPSK       | 1          | 37           | 20.40                               | 20.54                                  | 20.50                                |
| 15              | QPSK       | 1          | 74           | 20.38                               | 20.25                                  | 20.39                                |
| 15              | QPSK       | 36         | 0            | 19.47                               | 19.62                                  | 19.53                                |
| 15              | QPSK       | 36         | 20           | 19.54                               | 19.59                                  | 19.70                                |
| 15              | QPSK       | 36         | 39           | 19.54                               | 19.42                                  | 19.56                                |
| 15              | QPSK       | 75         | 0            | 19.57                               | 19.54                                  | 19.48                                |
| 15              | 16QAM      | 1          | 0            | 19.77                               | 19.55                                  | 19.56                                |
| 15              | 16QAM      | 1          | 37           | 19.60                               | 19.68                                  | 19.82                                |
| 15              | 16QAM      | 1          | 74           | 19.59                               | 19.63                                  | 19.60                                |
| 15              | 16QAM      | 36         | 0            | 18.69                               | 18.64                                  | 18.88                                |
| 15              | 16QAM      | 36         | 20           | 18.46                               | 18.60                                  | 18.60                                |
| 15              | 16QAM      | 36         | 39           | 18.48                               | 18.47                                  | 18.63                                |
| 15              | 16QAM      | 75         | 0            | 18.62                               | 18.70                                  | 18.57                                |



| LTE Band 7      |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 20800                               | 21100                                  | 21400                                |
| Frequency (MHz) |            |            |              | 2505                                | 2535                                   | 2565                                 |
| 10              | QPSK       | 1          | 0            | 20.47                               | 20.58                                  | 20.54                                |
| 10              | QPSK       | 1          | 25           | 20.54                               | 20.41                                  | 20.51                                |
| 10              | QPSK       | 1          | 49           | 20.51                               | 20.41                                  | 20.37                                |
| 10              | QPSK       | 25         | 0            | 19.64                               | 19.48                                  | 19.50                                |
| 10              | QPSK       | 25         | 12           | 19.50                               | 19.37                                  | 19.53                                |
| 10              | QPSK       | 25         | 25           | 19.75                               | 19.63                                  | 19.43                                |
| 10              | QPSK       | 50         | 0            | 19.25                               | 19.57                                  | 19.62                                |
| 10              | 16QAM      | 1          | 0            | 19.57                               | 19.68                                  | 19.66                                |
| 10              | 16QAM      | 1          | 25           | 19.72                               | 19.59                                  | 19.72                                |
| 10              | 16QAM      | 1          | 49           | 19.62                               | 19.43                                  | 19.40                                |
| 10              | 16QAM      | 25         | 0            | 18.60                               | 18.79                                  | 18.80                                |
| 10              | 16QAM      | 25         | 12           | 18.56                               | 18.43                                  | 18.73                                |
| 10              | 16QAM      | 25         | 25           | 18.78                               | 18.57                                  | 18.61                                |
| 10              | 16QAM      | 50         | 0            | 18.52                               | 18.53                                  | 18.61                                |



| LTE Band 7      |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 20775                               | 21100                                  | 21425                                |
| Frequency (MHz) |            |            |              | 2502.5                              | 2535                                   | 2567.5                               |
| 5               | QPSK       | 1          | 0            | 20.52                               | 20.60                                  | 20.45                                |
| 5               | QPSK       | 1          | 12           | 20.46                               | 20.59                                  | 20.54                                |
| 5               | QPSK       | 1          | 24           | 20.58                               | 20.39                                  | 20.56                                |
| 5               | QPSK       | 12         | 0            | 19.58                               | 19.73                                  | 19.71                                |
| 5               | QPSK       | 12         | 7            | 19.45                               | 19.57                                  | 19.71                                |
| 5               | QPSK       | 12         | 13           | 19.55                               | 19.35                                  | 19.53                                |
| 5               | QPSK       | 25         | 0            | 19.54                               | 19.66                                  | 19.56                                |
| 5               | 16QAM      | 1          | 0            | 19.55                               | 19.59                                  | 19.68                                |
| 5               | 16QAM      | 1          | 12           | 19.50                               | 19.57                                  | 19.57                                |
| 5               | 16QAM      | 1          | 24           | 19.71                               | 19.53                                  | 19.59                                |
| 5               | 16QAM      | 12         | 0            | 18.57                               | 18.76                                  | 18.79                                |
| 5               | 16QAM      | 12         | 7            | 18.41                               | 18.59                                  | 18.59                                |
| 5               | 16QAM      | 12         | 13           | 18.75                               | 18.53                                  | 18.61                                |
| 5               | 16QAM      | 25         | 0            | 18.63                               | 18.43                                  | 18.46                                |



| LTE Band 12     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 23060                               | 23095                                  | 23130                                |
| Frequency (MHz) |            |            |              | 704                                 | 707.5                                  | 711                                  |
| 10              | QPSK       | 1          | 0            | 22.69                               | 22.83                                  | 22.68                                |
| 10              | QPSK       | 1          | 25           | 22.64                               | 22.70                                  | 22.61                                |
| 10              | QPSK       | 1          | 49           | 22.61                               | 22.60                                  | 22.59                                |
| 10              | QPSK       | 25         | 0            | 21.65                               | 21.88                                  | 21.77                                |
| 10              | QPSK       | 25         | 12           | 21.77                               | 21.53                                  | 21.57                                |
| 10              | QPSK       | 25         | 25           | 21.69                               | 21.69                                  | 21.59                                |
| 10              | QPSK       | 50         | 0            | 21.43                               | 21.55                                  | 21.57                                |
| 10              | 16QAM      | 1          | 0            | 21.69                               | 21.87                                  | 21.53                                |
| 10              | 16QAM      | 1          | 25           | 21.69                               | 21.69                                  | 21.86                                |
| 10              | 16QAM      | 1          | 49           | 21.79                               | 21.66                                  | 21.83                                |
| 10              | 16QAM      | 25         | 0            | 20.85                               | 20.78                                  | 20.68                                |
| 10              | 16QAM      | 25         | 12           | 20.78                               | 20.47                                  | 20.84                                |
| 10              | 16QAM      | 25         | 25           | 20.58                               | 20.63                                  | 20.64                                |
| 10              | 16QAM      | 50         | 0            | 20.56                               | 20.81                                  | 20.73                                |



| LTE Band 12     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 23035                               | 23095                                  | 23155                                |
| Frequency (MHz) |            |            |              | 701.5                               | 707.5                                  | 713.5                                |
| 5               | QPSK       | 1          | 0            | 22.55                               | 22.80                                  | 22.66                                |
| 5               | QPSK       | 1          | 12           | 22.66                               | 22.62                                  | 22.42                                |
| 5               | QPSK       | 1          | 24           | 22.49                               | 22.55                                  | 22.51                                |
| 5               | QPSK       | 12         | 0            | 21.64                               | 21.88                                  | 21.68                                |
| 5               | QPSK       | 12         | 7            | 21.79                               | 21.55                                  | 21.81                                |
| 5               | QPSK       | 12         | 13           | 21.57                               | 21.68                                  | 21.71                                |
| 5               | QPSK       | 25         | 0            | 21.65                               | 21.56                                  | 21.52                                |
| 5               | 16QAM      | 1          | 0            | 21.75                               | 21.84                                  | 21.52                                |
| 5               | 16QAM      | 1          | 12           | 21.57                               | 21.60                                  | 21.77                                |
| 5               | 16QAM      | 1          | 24           | 21.78                               | 21.60                                  | 21.69                                |
| 5               | 16QAM      | 12         | 0            | 20.74                               | 20.82                                  | 20.91                                |
| 5               | 16QAM      | 12         | 7            | 20.57                               | 20.56                                  | 20.75                                |
| 5               | 16QAM      | 12         | 13           | 20.86                               | 20.57                                  | 20.84                                |
| 5               | 16QAM      | 25         | 0            | 20.53                               | 20.63                                  | 20.56                                |





| LTE Band 12     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 23025                               | 23095                                  | 23165                                |
| Frequency (MHz) |            |            |              | 700.5                               | 707.5                                  | 714.5                                |
| 3               | QPSK       | 1          | 0            | 22.69                               | 22.77                                  | 22.68                                |
| 3               | QPSK       | 1          | 8            | 22.63                               | 22.54                                  | 22.54                                |
| 3               | QPSK       | 1          | 14           | 22.55                               | 22.50                                  | 22.57                                |
| 3               | QPSK       | 8          | 0            | 21.59                               | 21.76                                  | 21.89                                |
| 3               | QPSK       | 8          | 4            | 21.70                               | 21.65                                  | 21.59                                |
| 3               | QPSK       | 8          | 7            | 21.89                               | 21.45                                  | 21.62                                |
| 3               | QPSK       | 15         | 0            | 21.62                               | 21.74                                  | 21.60                                |
| 3               | 16QAM      | 1          | 0            | 21.80                               | 21.85                                  | 21.64                                |
| 3               | 16QAM      | 1          | 8            | 21.70                               | 21.46                                  | 21.66                                |
| 3               | 16QAM      | 1          | 14           | 21.71                               | 21.80                                  | 21.67                                |
| 3               | 16QAM      | 8          | 0            | 20.76                               | 20.61                                  | 20.94                                |
| 3               | 16QAM      | 8          | 4            | 20.80                               | 20.78                                  | 20.89                                |
| 3               | 16QAM      | 8          | 7            | 20.69                               | 20.56                                  | 20.61                                |
| 3               | 16QAM      | 15         | 0            | 20.66                               | 20.67                                  | 20.90                                |



| LTE Band 12     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 23017                               | 23095                                  | 23173                                |
| Frequency (MHz) |            |            |              | 699.7                               | 707.5                                  | 715.3                                |
| 1.4             | QPSK       | 1          | 0            | 22.65                               | 22.79                                  | 22.62                                |
| 1.4             | QPSK       | 1          | 3            | 22.62                               | 22.57                                  | 22.59                                |
| 1.4             | QPSK       | 1          | 5            | 22.60                               | 22.60                                  | 22.53                                |
| 1.4             | QPSK       | 3          | 0            | 21.51                               | 21.72                                  | 21.80                                |
| 1.4             | QPSK       | 3          | 1            | 21.84                               | 21.69                                  | 21.58                                |
| 1.4             | QPSK       | 3          | 3            | 21.81                               | 21.63                                  | 21.57                                |
| 1.4             | QPSK       | 6          | 0            | 21.53                               | 21.57                                  | 21.47                                |
| 1.4             | 16QAM      | 1          | 0            | 21.71                               | 21.66                                  | 21.65                                |
| 1.4             | 16QAM      | 1          | 3            | 21.82                               | 21.81                                  | 21.70                                |
| 1.4             | 16QAM      | 1          | 5            | 21.51                               | 21.62                                  | 21.60                                |
| 1.4             | 16QAM      | 3          | 0            | 20.67                               | 20.67                                  | 20.73                                |
| 1.4             | 16QAM      | 3          | 1            | 20.59                               | 20.53                                  | 20.80                                |
| 1.4             | 16QAM      | 3          | 3            | 20.58                               | 20.63                                  | 20.69                                |
| 1.4             | 16QAM      | 6          | 0            | 20.46                               | 20.54                                  | 20.69                                |



| LTE Band 17     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 23780                               | 23790                                  | 23800                                |
| Frequency (MHz) |            |            |              | 709                                 | 710                                    | 711                                  |
| 10              | QPSK       | 1          | 0            | 22.73                               | 22.78                                  | 22.75                                |
| 10              | QPSK       | 1          | 25           | 22.69                               | 22.59                                  | 22.57                                |
| 10              | QPSK       | 1          | 49           | 22.60                               | 22.63                                  | 22.49                                |
| 10              | QPSK       | 25         | 0            | 21.58                               | 21.76                                  | 21.83                                |
| 10              | QPSK       | 25         | 12           | 21.86                               | 21.56                                  | 21.61                                |
| 10              | QPSK       | 25         | 25           | 21.91                               | 21.66                                  | 21.61                                |
| 10              | QPSK       | 50         | 0            | 21.49                               | 21.53                                  | 21.58                                |
| 10              | 16QAM      | 1          | 0            | 21.85                               | 21.67                                  | 21.76                                |
| 10              | 16QAM      | 1          | 25           | 21.61                               | 21.76                                  | 21.64                                |
| 10              | 16QAM      | 1          | 49           | 21.65                               | 21.53                                  | 21.79                                |
| 10              | 16QAM      | 25         | 0            | 20.86                               | 20.64                                  | 20.85                                |
| 10              | 16QAM      | 25         | 12           | 20.71                               | 20.53                                  | 20.87                                |
| 10              | 16QAM      | 25         | 25           | 20.79                               | 20.73                                  | 20.69                                |
| 10              | 16QAM      | 50         | 0            | 20.62                               | 20.75                                  | 20.90                                |



| LTE Band 17     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 23755                               | 23790                                  | 23825                                |
| Frequency (MHz) |            |            |              | 706.5                               | 710                                    | 713.5                                |
| 5               | QPSK       | 1          | 0            | 22.69                               | 22.74                                  | 22.53                                |
| 5               | QPSK       | 1          | 12           | 22.58                               | 22.57                                  | 22.63                                |
| 5               | QPSK       | 1          | 24           | 22.63                               | 22.63                                  | 22.69                                |
| 5               | QPSK       | 12         | 0            | 21.70                               | 21.76                                  | 21.81                                |
| 5               | QPSK       | 12         | 7            | 21.60                               | 21.74                                  | 21.86                                |
| 5               | QPSK       | 12         | 13           | 21.56                               | 21.68                                  | 21.76                                |
| 5               | QPSK       | 25         | 0            | 21.43                               | 21.60                                  | 21.59                                |
| 5               | 16QAM      | 1          | 0            | 21.67                               | 21.82                                  | 21.59                                |
| 5               | 16QAM      | 1          | 12           | 21.74                               | 21.48                                  | 21.63                                |
| 5               | 16QAM      | 1          | 24           | 21.55                               | 21.62                                  | 21.77                                |
| 5               | 16QAM      | 12         | 0            | 20.73                               | 20.72                                  | 20.72                                |
| 5               | 16QAM      | 12         | 7            | 20.71                               | 20.57                                  | 20.74                                |
| 5               | 16QAM      | 12         | 13           | 20.85                               | 20.77                                  | 20.77                                |
| 5               | 16QAM      | 25         | 0            | 20.76                               | 20.76                                  | 20.69                                |



| LTE Band 66     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 132072                              | 132322                                 | 132572                               |
| Frequency (MHz) |            |            |              | 1720                                | 1745                                   | 1770                                 |
| 20              | QPSK       | 1          | 0            | 20.77                               | 20.85                                  | 20.79                                |
| 20              | QPSK       | 1          | 49           | 20.64                               | 20.58                                  | 20.49                                |
| 20              | QPSK       | 1          | 99           | 20.53                               | 20.57                                  | 20.54                                |
| 20              | QPSK       | 50         | 0            | 19.79                               | 19.81                                  | 19.74                                |
| 20              | QPSK       | 50         | 24           | 19.66                               | 19.65                                  | 19.79                                |
| 20              | QPSK       | 50         | 50           | 19.63                               | 19.43                                  | 19.62                                |
| 20              | QPSK       | 100        | 0            | 19.59                               | 19.83                                  | 19.53                                |
| 20              | 16QAM      | 1          | 0            | 19.75                               | 19.80                                  | 19.52                                |
| 20              | 16QAM      | 1          | 49           | 19.58                               | 19.46                                  | 19.71                                |
| 20              | 16QAM      | 1          | 99           | 19.48                               | 19.66                                  | 19.70                                |
| 20              | 16QAM      | 50         | 0            | 18.87                               | 18.87                                  | 18.78                                |
| 20              | 16QAM      | 50         | 24           | 18.56                               | 18.56                                  | 18.73                                |
| 20              | 16QAM      | 50         | 50           | 18.80                               | 18.75                                  | 18.52                                |
| 20              | 16QAM      | 100        | 0            | 18.58                               | 18.54                                  | 18.87                                |



| LTE Band 66     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 132047                              | 132322                                 | 132597                               |
| Frequency (MHz) |            |            |              | 1717.5                              | 1745                                   | 1772.5                               |
| 15              | QPSK       | 1          | 0            | 20.72                               | 20.80                                  | 20.73                                |
| 15              | QPSK       | 1          | 37           | 20.46                               | 20.52                                  | 20.69                                |
| 15              | QPSK       | 1          | 74           | 20.52                               | 20.55                                  | 20.48                                |
| 15              | QPSK       | 36         | 0            | 19.74                               | 19.69                                  | 19.90                                |
| 15              | QPSK       | 36         | 20           | 19.71                               | 19.52                                  | 19.80                                |
| 15              | QPSK       | 36         | 39           | 19.75                               | 19.64                                  | 19.49                                |
| 15              | QPSK       | 75         | 0            | 19.71                               | 19.61                                  | 19.53                                |
| 15              | 16QAM      | 1          | 0            | 19.93                               | 19.80                                  | 19.50                                |
| 15              | 16QAM      | 1          | 37           | 19.72                               | 19.49                                  | 19.87                                |
| 15              | 16QAM      | 1          | 74           | 19.52                               | 19.56                                  | 19.52                                |
| 15              | 16QAM      | 36         | 0            | 18.95                               | 18.79                                  | 18.89                                |
| 15              | 16QAM      | 36         | 20           | 18.73                               | 18.78                                  | 18.65                                |
| 15              | 16QAM      | 36         | 39           | 18.90                               | 18.45                                  | 18.57                                |
| 15              | 16QAM      | 75         | 0            | 18.54                               | 18.69                                  | 18.65                                |



| LTE Band 66     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 132022                              | 132322                                 | 132622                               |
| Frequency (MHz) |            |            |              | 1715                                | 1745                                   | 1775                                 |
| 10              | QPSK       | 1          | 0            | 20.57                               | 20.79                                  | 20.67                                |
| 10              | QPSK       | 1          | 25           | 20.60                               | 20.58                                  | 20.56                                |
| 10              | QPSK       | 1          | 49           | 20.66                               | 20.72                                  | 20.47                                |
| 10              | QPSK       | 25         | 0            | 19.76                               | 19.86                                  | 19.86                                |
| 10              | QPSK       | 25         | 12           | 19.87                               | 19.69                                  | 19.74                                |
| 10              | QPSK       | 25         | 25           | 19.58                               | 19.70                                  | 19.65                                |
| 10              | QPSK       | 50         | 0            | 19.40                               | 19.64                                  | 19.50                                |
| 10              | 16QAM      | 1          | 0            | 19.70                               | 19.94                                  | 19.57                                |
| 10              | 16QAM      | 1          | 25           | 19.59                               | 19.50                                  | 19.73                                |
| 10              | 16QAM      | 1          | 49           | 19.50                               | 19.54                                  | 19.84                                |
| 10              | 16QAM      | 25         | 0            | 18.84                               | 18.82                                  | 18.88                                |
| 10              | 16QAM      | 25         | 12           | 18.66                               | 18.72                                  | 18.95                                |
| 10              | 16QAM      | 25         | 25           | 18.62                               | 18.53                                  | 18.49                                |
| 10              | 16QAM      | 50         | 0            | 18.50                               | 18.66                                  | 18.84                                |



| LTE Band 66     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 131997                              | 132322                                 | 132647                               |
| Frequency (MHz) |            |            |              | 1712.5                              | 1745                                   | 1777.5                               |
| 5               | QPSK       | 1          | 0            | 20.67                               | 20.77                                  | 20.67                                |
| 5               | QPSK       | 1          | 12           | 20.66                               | 20.74                                  | 20.58                                |
| 5               | QPSK       | 1          | 24           | 20.66                               | 20.52                                  | 20.52                                |
| 5               | QPSK       | 12         | 0            | 19.50                               | 19.81                                  | 19.76                                |
| 5               | QPSK       | 12         | 7            | 19.58                               | 19.72                                  | 19.90                                |
| 5               | QPSK       | 12         | 13           | 19.56                               | 19.64                                  | 19.70                                |
| 5               | QPSK       | 25         | 0            | 19.50                               | 19.56                                  | 19.62                                |
| 5               | 16QAM      | 1          | 0            | 19.78                               | 19.71                                  | 19.63                                |
| 5               | 16QAM      | 1          | 12           | 19.71                               | 19.54                                  | 19.81                                |
| 5               | 16QAM      | 1          | 24           | 19.75                               | 19.61                                  | 19.52                                |
| 5               | 16QAM      | 12         | 0            | 18.64                               | 18.80                                  | 18.69                                |
| 5               | 16QAM      | 12         | 7            | 18.48                               | 18.45                                  | 18.59                                |
| 5               | 16QAM      | 12         | 13           | 18.71                               | 18.64                                  | 18.53                                |
| 5               | 16QAM      | 25         | 0            | 18.57                               | 18.58                                  | 18.85                                |





| LTE Band 66     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 131987                              | 132322                                 | 132657                               |
| Frequency (MHz) |            |            |              | 1711.5                              | 1745                                   | 1778.5                               |
| 3               | QPSK       | 1          | 0            | 20.73                               | 20.76                                  | 20.65                                |
| 3               | QPSK       | 1          | 8            | 20.57                               | 20.75                                  | 20.63                                |
| 3               | QPSK       | 1          | 14           | 20.65                               | 20.68                                  | 20.45                                |
| 3               | QPSK       | 8          | 0            | 19.59                               | 19.74                                  | 19.83                                |
| 3               | QPSK       | 8          | 4            | 19.73                               | 19.63                                  | 19.63                                |
| 3               | QPSK       | 8          | 7            | 19.70                               | 19.68                                  | 19.72                                |
| 3               | QPSK       | 15         | 0            | 19.65                               | 19.68                                  | 19.64                                |
| 3               | 16QAM      | 1          | 0            | 19.63                               | 19.75                                  | 19.66                                |
| 3               | 16QAM      | 1          | 8            | 19.62                               | 19.71                                  | 19.84                                |
| 3               | 16QAM      | 1          | 14           | 19.57                               | 19.81                                  | 19.66                                |
| 3               | 16QAM      | 8          | 0            | 18.89                               | 18.91                                  | 18.70                                |
| 3               | 16QAM      | 8          | 4            | 18.68                               | 18.53                                  | 18.94                                |
| 3               | 16QAM      | 8          | 7            | 18.72                               | 18.69                                  | 18.76                                |
| 3               | 16QAM      | 15         | 0            | 18.65                               | 18.62                                  | 18.82                                |



| LTE Band 66     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Average Power<br>Low<br>Ch. / Freq. | Average Power<br>Middle<br>Ch. / Freq. | Average Power<br>High<br>Ch. / Freq. |
| Channel         |            |            |              | 131979                              | 132322                                 | 132665                               |
| Frequency (MHz) |            |            |              | 1710.7                              | 1745                                   | 1779.3                               |
| 1.4             | QPSK       | 1          | 0            | 20.54                               | 20.78                                  | 20.54                                |
| 1.4             | QPSK       | 1          | 3            | 20.49                               | 20.66                                  | 20.44                                |
| 1.4             | QPSK       | 1          | 5            | 20.55                               | 20.55                                  | 20.55                                |
| 1.4             | QPSK       | 3          | 0            | 19.80                               | 19.64                                  | 19.69                                |
| 1.4             | QPSK       | 3          | 1            | 19.81                               | 19.52                                  | 19.68                                |
| 1.4             | QPSK       | 3          | 3            | 19.59                               | 19.54                                  | 19.55                                |
| 1.4             | QPSK       | 6          | 0            | 19.59                               | 19.79                                  | 19.64                                |
| 1.4             | 16QAM      | 1          | 0            | 19.72                               | 19.91                                  | 19.65                                |
| 1.4             | 16QAM      | 1          | 3            | 19.77                               | 19.71                                  | 19.88                                |
| 1.4             | 16QAM      | 1          | 5            | 19.63                               | 19.83                                  | 19.51                                |
| 1.4             | 16QAM      | 3          | 0            | 18.86                               | 18.66                                  | 18.87                                |
| 1.4             | 16QAM      | 3          | 1            | 18.66                               | 18.63                                  | 18.64                                |
| 1.4             | 16QAM      | 3          | 3            | 18.59                               | 18.79                                  | 18.81                                |
| 1.4             | 16QAM      | 6          | 0            | 18.67                               | 18.74                                  | 18.90                                |



| LTE Band 71     |            |         |           |                               |                                  |                                |
|-----------------|------------|---------|-----------|-------------------------------|----------------------------------|--------------------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High Ch. / Freq. |
| Channel         |            |         |           | 133222                        | 133322                           | 133372                         |
| Frequency (MHz) |            |         |           | 673                           | 683                              | 688                            |
| 20              | QPSK       | 1       | 0         | 22.82                         | 22.86                            | 22.74                          |
| 20              | QPSK       | 1       | 49        | 22.68                         | 22.63                            | 22.47                          |
| 20              | QPSK       | 1       | 99        | 22.54                         | 22.66                            | 22.75                          |
| 20              | QPSK       | 50      | 0         | 21.66                         | 21.85                            | 21.76                          |
| 20              | QPSK       | 50      | 24        | 21.83                         | 21.73                            | 21.59                          |
| 20              | QPSK       | 50      | 50        | 21.61                         | 21.55                            | 21.78                          |
| 20              | QPSK       | 100     | 0         | 21.59                         | 21.71                            | 21.65                          |
| 20              | 16QAM      | 1       | 0         | 21.86                         | 21.89                            | 21.77                          |
| 20              | 16QAM      | 1       | 49        | 21.62                         | 21.58                            | 21.93                          |
| 20              | 16QAM      | 1       | 99        | 21.54                         | 21.79                            | 21.71                          |
| 20              | 16QAM      | 50      | 0         | 20.82                         | 20.56                            | 20.87                          |
| 20              | 16QAM      | 50      | 24        | 20.59                         | 20.47                            | 20.94                          |
| 20              | 16QAM      | 50      | 50        | 20.89                         | 20.62                            | 20.69                          |
| 20              | 16QAM      | 100     | 0         | 20.59                         | 20.81                            | 20.82                          |



| LTE Band 71     |            |         |           |                               |                                  |                                |
|-----------------|------------|---------|-----------|-------------------------------|----------------------------------|--------------------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High Ch. / Freq. |
| Channel         |            |         |           | 133197                        | 133297                           | 133397                         |
| Frequency (MHz) |            |         |           | 670.5                         | 680.5                            | 690.5                          |
| 15              | QPSK       | 1       | 0         | 22.70                         | 22.82                            | 22.67                          |
| 15              | QPSK       | 1       | 37        | 22.68                         | 22.57                            | 22.43                          |
| 15              | QPSK       | 1       | 74        | 22.57                         | 22.58                            | 22.62                          |
| 15              | QPSK       | 36      | 0         | 21.53                         | 21.65                            | 21.75                          |
| 15              | QPSK       | 36      | 20        | 21.86                         | 21.51                            | 21.78                          |
| 15              | QPSK       | 36      | 39        | 21.80                         | 21.47                            | 21.76                          |
| 15              | QPSK       | 75      | 0         | 21.46                         | 21.76                            | 21.77                          |
| 15              | 16QAM      | 1       | 0         | 21.66                         | 21.87                            | 21.67                          |
| 15              | 16QAM      | 1       | 37        | 21.56                         | 21.71                            | 21.95                          |
| 15              | 16QAM      | 1       | 74        | 21.51                         | 21.86                            | 21.56                          |
| 15              | 16QAM      | 36      | 0         | 20.87                         | 20.88                            | 20.89                          |
| 15              | 16QAM      | 36      | 20        | 20.48                         | 20.47                            | 20.68                          |
| 15              | 16QAM      | 36      | 39        | 20.57                         | 20.62                            | 20.55                          |
| 15              | 16QAM      | 75      | 0         | 20.71                         | 20.63                            | 20.85                          |



| LTE Band 71     |            |         |           |                               |                                  |                                |
|-----------------|------------|---------|-----------|-------------------------------|----------------------------------|--------------------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High Ch. / Freq. |
| Channel         |            |         |           | 133172                        | 133272                           | 133422                         |
| Frequency (MHz) |            |         |           | 668                           | 678                              | 693                            |
| 10              | QPSK       | 1       | 0         | 22.66                         | 22.83                            | 22.57                          |
| 10              | QPSK       | 1       | 25        | 22.51                         | 22.65                            | 22.62                          |
| 10              | QPSK       | 1       | 49        | 22.63                         | 22.53                            | 22.50                          |
| 10              | QPSK       | 25      | 0         | 21.58                         | 21.70                            | 21.91                          |
| 10              | QPSK       | 25      | 12        | 21.79                         | 21.67                            | 21.75                          |
| 10              | QPSK       | 25      | 25        | 21.61                         | 21.75                            | 21.44                          |
| 10              | QPSK       | 50      | 0         | 21.50                         | 21.77                            | 21.77                          |
| 10              | 16QAM      | 1       | 0         | 21.70                         | 21.82                            | 21.77                          |
| 10              | 16QAM      | 1       | 25        | 21.74                         | 21.46                            | 21.82                          |
| 10              | 16QAM      | 1       | 49        | 21.74                         | 21.61                            | 21.80                          |
| 10              | 16QAM      | 25      | 0         | 20.81                         | 20.56                            | 20.73                          |
| 10              | 16QAM      | 25      | 12        | 20.55                         | 20.64                            | 20.64                          |
| 10              | 16QAM      | 25      | 25        | 20.72                         | 20.50                            | 20.55                          |
| 10              | 16QAM      | 50      | 0         | 20.57                         | 20.50                            | 20.71                          |



| LTE Band 71     |            |         |           |                               |                                  |                                |
|-----------------|------------|---------|-----------|-------------------------------|----------------------------------|--------------------------------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High Ch. / Freq. |
| Channel         |            |         |           | 133147                        | 133247                           | 133447                         |
| Frequency (MHz) |            |         |           | 665.5                         | 675.5                            | 695.5                          |
| 5               | QPSK       | 1       | 0         | 22.72                         | 22.84                            | 22.55                          |
| 5               | QPSK       | 1       | 12        | 22.47                         | 22.72                            | 22.56                          |
| 5               | QPSK       | 1       | 24        | 22.46                         | 22.72                            | 22.51                          |
| 5               | QPSK       | 12      | 0         | 21.63                         | 21.66                            | 21.84                          |
| 5               | QPSK       | 12      | 7         | 21.59                         | 21.65                            | 21.76                          |
| 5               | QPSK       | 12      | 13        | 21.85                         | 21.58                            | 21.56                          |
| 5               | QPSK       | 25      | 0         | 21.43                         | 21.57                            | 21.61                          |
| 5               | 16QAM      | 1       | 0         | 21.65                         | 21.68                            | 21.74                          |
| 5               | 16QAM      | 1       | 12        | 21.78                         | 21.77                            | 21.84                          |
| 5               | 16QAM      | 1       | 24        | 21.73                         | 21.77                            | 21.77                          |
| 5               | 16QAM      | 12      | 0         | 20.77                         | 20.71                            | 20.70                          |
| 5               | 16QAM      | 12      | 7         | 20.76                         | 20.68                            | 20.93                          |
| 5               | 16QAM      | 12      | 13        | 20.84                         | 20.67                            | 20.52                          |
| 5               | 16QAM      | 25      | 0         | 20.58                         | 20.79                            | 20.62                          |

**Effective Radiated Power and Effective Isotropic Radiated Power**

| LTE Band 2      |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 18700             |       | 18900              |       | 19100            |       |
| Frequency (MHz) |            |         |           | 1860              |       | 1880               |       | 1900             |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 20              | QPSK       | 1       | 0         | 21.03             | 0.127 | 21.09              | 0.129 | 21.05            | 0.127 |
| 20              | QPSK       | 1       | 49        | 20.94             | 0.124 | 20.88              | 0.122 | 20.76            | 0.119 |
| 20              | QPSK       | 1       | 99        | 20.93             | 0.124 | 20.74              | 0.119 | 20.88            | 0.122 |
| 20              | QPSK       | 50      | 0         | 20.05             | 0.101 | 20.14              | 0.103 | 19.98            | 0.100 |
| 20              | QPSK       | 50      | 24        | 19.98             | 0.100 | 19.95              | 0.099 | 20.04            | 0.101 |
| 20              | QPSK       | 50      | 50        | 19.91             | 0.098 | 19.88              | 0.097 | 19.83            | 0.096 |
| 20              | QPSK       | 100     | 0         | 19.86             | 0.097 | 19.91              | 0.098 | 19.78            | 0.095 |
| 20              | 16QAM      | 1       | 0         | 19.92             | 0.098 | 20.09              | 0.102 | 19.91            | 0.098 |
| 20              | 16QAM      | 1       | 49        | 19.85             | 0.097 | 19.74              | 0.094 | 20.07            | 0.102 |
| 20              | 16QAM      | 1       | 99        | 19.81             | 0.096 | 19.95              | 0.099 | 19.91            | 0.098 |
| 20              | 16QAM      | 50      | 0         | 19.06             | 0.081 | 19.17              | 0.083 | 19.16            | 0.082 |
| 20              | 16QAM      | 50      | 24        | 18.94             | 0.078 | 18.75              | 0.075 | 19.19            | 0.083 |
| 20              | 16QAM      | 50      | 50        | 18.96             | 0.079 | 19.05              | 0.080 | 19.00            | 0.079 |
| 20              | 16QAM      | 100     | 0         | 18.95             | 0.079 | 18.88              | 0.077 | 18.96            | 0.079 |



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| LTE Band 2      |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 18675             |       | 18900              |       | 19125            |       |
| Frequency (MHz) |            |         |           | 1857.5            |       | 1880               |       | 1902.5           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 15              | QPSK       | 1       | 0         | 20.96             | 0.125 | 21.06              | 0.128 | 20.95            | 0.124 |
| 15              | QPSK       | 1       | 37        | 20.93             | 0.124 | 20.95              | 0.124 | 20.78            | 0.120 |
| 15              | QPSK       | 1       | 74        | 20.73             | 0.118 | 20.89              | 0.123 | 20.86            | 0.122 |
| 15              | QPSK       | 36      | 0         | 20.06             | 0.101 | 20.09              | 0.102 | 20.14            | 0.103 |
| 15              | QPSK       | 36      | 20        | 20.10             | 0.102 | 19.87              | 0.097 | 19.94            | 0.099 |
| 15              | QPSK       | 36      | 39        | 19.96             | 0.099 | 19.89              | 0.097 | 19.73            | 0.094 |
| 15              | QPSK       | 75      | 0         | 19.85             | 0.097 | 19.82              | 0.096 | 19.83            | 0.096 |
| 15              | 16QAM      | 1       | 0         | 20.03             | 0.101 | 20.00              | 0.100 | 20.02            | 0.100 |
| 15              | 16QAM      | 1       | 37        | 19.92             | 0.098 | 19.89              | 0.097 | 20.17            | 0.104 |
| 15              | 16QAM      | 1       | 74        | 19.87             | 0.097 | 20.09              | 0.102 | 20.08            | 0.102 |
| 15              | 16QAM      | 36      | 0         | 19.21             | 0.083 | 19.10              | 0.081 | 19.05            | 0.080 |
| 15              | 16QAM      | 36      | 20        | 18.85             | 0.077 | 18.98              | 0.079 | 19.20            | 0.083 |
| 15              | 16QAM      | 36      | 39        | 19.04             | 0.080 | 19.03              | 0.080 | 18.86            | 0.077 |
| 15              | 16QAM      | 75      | 0         | 18.80             | 0.076 | 18.86              | 0.077 | 19.01            | 0.080 |





| LTE Band 2      |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 18650             |       | 18900              |       | 19150            |       |
| Frequency (MHz) |            |         |           | 1855              |       | 1880               |       | 1905             |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 10              | QPSK       | 1       | 0         | 20.89             | 0.123 | 21.07              | 0.128 | 20.90            | 0.123 |
| 10              | QPSK       | 1       | 25        | 20.81             | 0.121 | 20.96              | 0.125 | 20.68            | 0.117 |
| 10              | QPSK       | 1       | 49        | 20.92             | 0.124 | 20.97              | 0.125 | 21.02            | 0.126 |
| 10              | QPSK       | 25      | 0         | 19.78             | 0.095 | 19.98              | 0.100 | 20.11            | 0.103 |
| 10              | QPSK       | 25      | 12        | 20.05             | 0.101 | 20.02              | 0.100 | 20.00            | 0.100 |
| 10              | QPSK       | 25      | 25        | 19.96             | 0.099 | 19.86              | 0.097 | 20.01            | 0.100 |
| 10              | QPSK       | 50      | 0         | 19.93             | 0.098 | 19.80              | 0.095 | 19.91            | 0.098 |
| 10              | 16QAM      | 1       | 0         | 19.96             | 0.099 | 20.12              | 0.103 | 19.78            | 0.095 |
| 10              | 16QAM      | 1       | 25        | 19.82             | 0.096 | 19.75              | 0.094 | 20.07            | 0.102 |
| 10              | 16QAM      | 1       | 49        | 19.83             | 0.096 | 19.84              | 0.096 | 19.88            | 0.097 |
| 10              | 16QAM      | 25      | 0         | 19.13             | 0.082 | 19.14              | 0.082 | 19.03            | 0.080 |
| 10              | 16QAM      | 25      | 12        | 18.81             | 0.076 | 19.00              | 0.079 | 18.92            | 0.078 |
| 10              | 16QAM      | 25      | 25        | 19.13             | 0.082 | 18.91              | 0.078 | 18.97            | 0.079 |
| 10              | 16QAM      | 50      | 0         | 19.09             | 0.081 | 18.79              | 0.076 | 18.97            | 0.079 |



| LTE Band 2      |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 18625             |       | 18900              |       | 19175            |       |
| Frequency (MHz) |            |         |           | 1852.5            |       | 1880               |       | 1907.5           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 5               | QPSK       | 1       | 0         | 20.92             | 0.124 | 21.05              | 0.127 | 20.96            | 0.125 |
| 5               | QPSK       | 1       | 12        | 20.78             | 0.120 | 20.98              | 0.125 | 20.89            | 0.123 |
| 5               | QPSK       | 1       | 24        | 20.86             | 0.122 | 20.80              | 0.120 | 20.99            | 0.126 |
| 5               | QPSK       | 12      | 0         | 19.85             | 0.097 | 20.03              | 0.101 | 20.11            | 0.103 |
| 5               | QPSK       | 12      | 7         | 20.12             | 0.103 | 20.11              | 0.103 | 19.85            | 0.097 |
| 5               | QPSK       | 12      | 13        | 20.11             | 0.103 | 19.98              | 0.100 | 19.74            | 0.094 |
| 5               | QPSK       | 25      | 0         | 19.84             | 0.096 | 20.04              | 0.101 | 20.06            | 0.101 |
| 5               | 16QAM      | 1       | 0         | 20.18             | 0.104 | 20.03              | 0.101 | 20.02            | 0.100 |
| 5               | 16QAM      | 1       | 12        | 19.92             | 0.098 | 20.02              | 0.100 | 20.03            | 0.101 |
| 5               | 16QAM      | 1       | 24        | 19.81             | 0.096 | 19.86              | 0.097 | 20.09            | 0.102 |
| 5               | 16QAM      | 12      | 0         | 19.06             | 0.081 | 19.05              | 0.080 | 19.05            | 0.080 |
| 5               | 16QAM      | 12      | 7         | 18.91             | 0.078 | 19.02              | 0.080 | 19.16            | 0.082 |
| 5               | 16QAM      | 12      | 13        | 19.04             | 0.080 | 18.97              | 0.079 | 18.98            | 0.079 |
| 5               | 16QAM      | 25      | 0         | 18.77             | 0.075 | 18.81              | 0.076 | 19.01            | 0.080 |



| LTE Band 2      |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 18615             |       | 18900              |       | 19185            |       |
| Frequency (MHz) |            |         |           | 1851.5            |       | 1880               |       | 1908.5           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 3               | QPSK       | 1       | 0         | 20.89             | 0.123 | 21.06              | 0.128 | 20.99            | 0.126 |
| 3               | QPSK       | 1       | 8         | 20.85             | 0.122 | 21.03              | 0.127 | 20.91            | 0.123 |
| 3               | QPSK       | 1       | 14        | 21.00             | 0.126 | 20.96              | 0.125 | 20.96            | 0.125 |
| 3               | QPSK       | 8       | 0         | 19.98             | 0.100 | 19.90              | 0.098 | 20.05            | 0.101 |
| 3               | QPSK       | 8       | 4         | 20.14             | 0.103 | 20.03              | 0.101 | 20.13            | 0.103 |
| 3               | QPSK       | 8       | 7         | 19.84             | 0.096 | 19.87              | 0.097 | 19.84            | 0.096 |
| 3               | QPSK       | 15      | 0         | 19.92             | 0.098 | 19.91              | 0.098 | 19.97            | 0.099 |
| 3               | 16QAM      | 1       | 0         | 19.94             | 0.099 | 20.03              | 0.101 | 19.88            | 0.097 |
| 3               | 16QAM      | 1       | 8         | 19.95             | 0.099 | 19.83              | 0.096 | 19.90            | 0.098 |
| 3               | 16QAM      | 1       | 14        | 20.08             | 0.102 | 19.89              | 0.097 | 19.99            | 0.100 |
| 3               | 16QAM      | 8       | 0         | 18.92             | 0.078 | 19.17              | 0.083 | 19.14            | 0.082 |
| 3               | 16QAM      | 8       | 4         | 19.02             | 0.080 | 18.90              | 0.078 | 18.91            | 0.078 |
| 3               | 16QAM      | 8       | 7         | 18.92             | 0.078 | 18.92              | 0.078 | 18.96            | 0.079 |
| 3               | 16QAM      | 15      | 0         | 18.89             | 0.077 | 18.90              | 0.078 | 19.02            | 0.080 |



| LTE Band 2      |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 18607             |       | 18900              |       | 19193            |       |
| Frequency (MHz) |            |         |           | 1850.7            |       | 1880               |       | 1909.3           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 1.4             | QPSK       | 1       | 0         | 20.82             | 0.121 | 21.05              | 0.127 | 20.87            | 0.122 |
| 1.4             | QPSK       | 1       | 3         | 20.91             | 0.123 | 21.07              | 0.128 | 20.95            | 0.124 |
| 1.4             | QPSK       | 1       | 5         | 20.89             | 0.123 | 20.99              | 0.126 | 20.76            | 0.119 |
| 1.4             | QPSK       | 3       | 0         | 19.83             | 0.096 | 20.09              | 0.102 | 19.89            | 0.097 |
| 1.4             | QPSK       | 3       | 1         | 19.88             | 0.097 | 19.82              | 0.096 | 19.96            | 0.099 |
| 1.4             | QPSK       | 3       | 3         | 19.96             | 0.099 | 19.94              | 0.099 | 20.02            | 0.100 |
| 1.4             | QPSK       | 6       | 0         | 19.93             | 0.098 | 20.08              | 0.102 | 19.97            | 0.099 |
| 1.4             | 16QAM      | 1       | 0         | 20.03             | 0.101 | 20.13              | 0.103 | 20.10            | 0.102 |
| 1.4             | 16QAM      | 1       | 3         | 19.91             | 0.098 | 19.93              | 0.098 | 19.89            | 0.097 |
| 1.4             | 16QAM      | 1       | 5         | 19.80             | 0.095 | 20.13              | 0.103 | 19.87            | 0.097 |
| 1.4             | 16QAM      | 3       | 0         | 19.05             | 0.080 | 18.94              | 0.078 | 19.17            | 0.083 |
| 1.4             | 16QAM      | 3       | 1         | 18.95             | 0.079 | 18.88              | 0.077 | 18.96            | 0.079 |
| 1.4             | 16QAM      | 3       | 3         | 19.16             | 0.082 | 19.02              | 0.080 | 18.87            | 0.077 |
| 1.4             | 16QAM      | 6       | 0         | 18.92             | 0.078 | 18.94              | 0.078 | 18.86            | 0.077 |



| LTE Band 4      |            |            |              | Measured E.I.R.P.  |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 20050              |       | 20175                 |       | 20300               |       |
| Frequency (MHz) |            |            |              | 1720               |       | 1732.5                |       | 1745                |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 20              | QPSK       | 1          | 0            | 20.17              | 0.104 | 20.20                 | 0.105 | 20.16               | 0.104 |
| 20              | QPSK       | 1          | 49           | 20.10              | 0.102 | 20.15                 | 0.104 | 20.08               | 0.102 |
| 20              | QPSK       | 1          | 99           | 20.04              | 0.101 | 19.99                 | 0.100 | 20.09               | 0.102 |
| 20              | QPSK       | 50         | 0            | 19.16              | 0.082 | 19.13                 | 0.082 | 19.35               | 0.086 |
| 20              | QPSK       | 50         | 24           | 19.32              | 0.086 | 19.23                 | 0.084 | 19.37               | 0.086 |
| 20              | QPSK       | 50         | 50           | 19.07              | 0.081 | 19.15                 | 0.082 | 19.04               | 0.080 |
| 20              | QPSK       | 100        | 0            | 19.17              | 0.083 | 19.00                 | 0.079 | 19.13               | 0.082 |
| 20              | 16QAM      | 1          | 0            | 19.32              | 0.086 | 19.17                 | 0.083 | 19.26               | 0.084 |
| 20              | 16QAM      | 1          | 49           | 19.02              | 0.080 | 19.13                 | 0.082 | 19.27               | 0.085 |
| 20              | 16QAM      | 1          | 99           | 19.07              | 0.081 | 19.03                 | 0.080 | 19.30               | 0.085 |
| 20              | 16QAM      | 50         | 0            | 18.26              | 0.067 | 18.26                 | 0.067 | 18.13               | 0.065 |
| 20              | 16QAM      | 50         | 24           | 18.09              | 0.064 | 18.04                 | 0.064 | 18.16               | 0.065 |
| 20              | 16QAM      | 50         | 50           | 18.19              | 0.066 | 17.95                 | 0.062 | 18.18               | 0.066 |
| 20              | 16QAM      | 100        | 0            | 18.28              | 0.067 | 18.03                 | 0.064 | 18.19               | 0.066 |



| LTE Band 4      |            |            |              | Measured E.I.R.P.  |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 20025              |       | 20175                 |       | 20325               |       |
| Frequency (MHz) |            |            |              | 1717.5             |       | 1732.5                |       | 1747.5              |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 15              | QPSK       | 1          | 0            | 20.02              | 0.100 | 20.18                 | 0.104 | 20.13               | 0.103 |
| 15              | QPSK       | 1          | 37           | 20.03              | 0.101 | 20.10                 | 0.102 | 20.13               | 0.103 |
| 15              | QPSK       | 1          | 74           | 20.18              | 0.104 | 20.01                 | 0.100 | 20.14               | 0.103 |
| 15              | QPSK       | 36         | 0            | 19.25              | 0.084 | 19.20                 | 0.083 | 19.22               | 0.084 |
| 15              | QPSK       | 36         | 20           | 19.35              | 0.086 | 19.16                 | 0.082 | 19.23               | 0.084 |
| 15              | QPSK       | 36         | 39           | 19.06              | 0.081 | 19.23                 | 0.084 | 19.14               | 0.082 |
| 15              | QPSK       | 75         | 0            | 18.98              | 0.079 | 19.01                 | 0.080 | 19.00               | 0.079 |
| 15              | 16QAM      | 1          | 0            | 19.18              | 0.083 | 19.24                 | 0.084 | 19.27               | 0.085 |
| 15              | 16QAM      | 1          | 37           | 19.21              | 0.083 | 19.24                 | 0.084 | 19.13               | 0.082 |
| 15              | 16QAM      | 1          | 74           | 19.21              | 0.083 | 19.11                 | 0.081 | 18.99               | 0.079 |
| 15              | 16QAM      | 36         | 0            | 18.36              | 0.069 | 18.33                 | 0.068 | 18.45               | 0.070 |
| 15              | 16QAM      | 36         | 20           | 18.22              | 0.066 | 18.17                 | 0.066 | 18.11               | 0.065 |
| 15              | 16QAM      | 36         | 39           | 18.10              | 0.065 | 18.11                 | 0.065 | 18.07               | 0.064 |
| 15              | 16QAM      | 75         | 0            | 18.26              | 0.067 | 18.03                 | 0.064 | 18.33               | 0.068 |



| LTE Band 4      |            |            |              | Measured E.I.R.P.  |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 20000              |       | 20175                 |       | 20350               |       |
| Frequency (MHz) |            |            |              | 1715               |       | 1732.5                |       | 1750                |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 10              | QPSK       | 1          | 0            | 20.16              | 0.104 | 20.17                 | 0.104 | 20.09               | 0.102 |
| 10              | QPSK       | 1          | 25           | 20.14              | 0.103 | 20.09                 | 0.102 | 20.09               | 0.102 |
| 10              | QPSK       | 1          | 49           | 20.08              | 0.102 | 20.11                 | 0.103 | 19.95               | 0.099 |
| 10              | QPSK       | 25         | 0            | 19.19              | 0.083 | 19.36                 | 0.086 | 19.32               | 0.086 |
| 10              | QPSK       | 25         | 12           | 19.27              | 0.085 | 19.20                 | 0.083 | 19.24               | 0.084 |
| 10              | QPSK       | 25         | 25           | 19.07              | 0.081 | 19.05                 | 0.080 | 19.26               | 0.084 |
| 10              | QPSK       | 50         | 0            | 19.01              | 0.080 | 19.15                 | 0.082 | 19.00               | 0.079 |
| 10              | 16QAM      | 1          | 0            | 19.19              | 0.083 | 19.20                 | 0.083 | 19.17               | 0.083 |
| 10              | 16QAM      | 1          | 25           | 19.24              | 0.084 | 18.95                 | 0.079 | 19.11               | 0.081 |
| 10              | 16QAM      | 1          | 49           | 19.28              | 0.085 | 19.21                 | 0.083 | 19.03               | 0.080 |
| 10              | 16QAM      | 25         | 0            | 18.12              | 0.065 | 18.05                 | 0.064 | 18.25               | 0.067 |
| 10              | 16QAM      | 25         | 12           | 18.11              | 0.065 | 18.09                 | 0.064 | 18.22               | 0.066 |
| 10              | 16QAM      | 25         | 25           | 18.24              | 0.067 | 18.03                 | 0.064 | 18.22               | 0.066 |
| 10              | 16QAM      | 50         | 0            | 18.15              | 0.065 | 18.07                 | 0.064 | 18.35               | 0.068 |



| LTE Band 4      |            |            |              | Measured E.I.R.P.  |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 19975              |       | 20175                 |       | 20375               |       |
| Frequency (MHz) |            |            |              | 1712.5             |       | 1732.5                |       | 1752.5              |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 5               | QPSK       | 1          | 0            | 20.13              | 0.103 | 20.16                 | 0.104 | 20.03               | 0.101 |
| 5               | QPSK       | 1          | 12           | 19.95              | 0.099 | 19.98                 | 0.100 | 19.93               | 0.098 |
| 5               | QPSK       | 1          | 24           | 20.07              | 0.102 | 19.99                 | 0.100 | 20.07               | 0.102 |
| 5               | QPSK       | 12         | 0            | 19.23              | 0.084 | 19.28                 | 0.085 | 19.19               | 0.083 |
| 5               | QPSK       | 12         | 7            | 19.12              | 0.082 | 19.16                 | 0.082 | 19.28               | 0.085 |
| 5               | QPSK       | 12         | 13           | 19.11              | 0.081 | 18.94                 | 0.078 | 19.16               | 0.082 |
| 5               | QPSK       | 25         | 0            | 18.96              | 0.079 | 19.31                 | 0.085 | 19.25               | 0.084 |
| 5               | 16QAM      | 1          | 0            | 19.19              | 0.083 | 19.26                 | 0.084 | 19.11               | 0.081 |
| 5               | 16QAM      | 1          | 12           | 19.03              | 0.080 | 19.12                 | 0.082 | 19.15               | 0.082 |
| 5               | 16QAM      | 1          | 24           | 19.15              | 0.082 | 19.01                 | 0.080 | 19.31               | 0.085 |
| 5               | 16QAM      | 12         | 0            | 18.21              | 0.066 | 18.26                 | 0.067 | 18.22               | 0.066 |
| 5               | 16QAM      | 12         | 7            | 18.20              | 0.066 | 18.09                 | 0.064 | 18.32               | 0.068 |
| 5               | 16QAM      | 12         | 13           | 18.15              | 0.065 | 18.00                 | 0.063 | 18.06               | 0.064 |
| 5               | 16QAM      | 25         | 0            | 18.08              | 0.064 | 18.16                 | 0.065 | 18.31               | 0.068 |





| LTE Band 4      |            |            |              | Measured E.I.R.P.  |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 19965              |       | 20175                 |       | 20385               |       |
| Frequency (MHz) |            |            |              | 1711.5             |       | 1732.5                |       | 1753.5              |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 3               | QPSK       | 1          | 0            | 20.14              | 0.103 | 20.15                 | 0.104 | 20.01               | 0.100 |
| 3               | QPSK       | 1          | 8            | 19.94              | 0.099 | 20.06                 | 0.101 | 19.87               | 0.097 |
| 3               | QPSK       | 1          | 14           | 20.09              | 0.102 | 20.08                 | 0.102 | 20.00               | 0.100 |
| 3               | QPSK       | 8          | 0            | 19.11              | 0.081 | 19.19                 | 0.083 | 19.13               | 0.082 |
| 3               | QPSK       | 8          | 4            | 19.18              | 0.083 | 19.00                 | 0.079 | 19.11               | 0.081 |
| 3               | QPSK       | 8          | 7            | 19.04              | 0.080 | 18.90                 | 0.078 | 18.91               | 0.078 |
| 3               | QPSK       | 15         | 0            | 19.11              | 0.081 | 19.13                 | 0.082 | 18.95               | 0.079 |
| 3               | 16QAM      | 1          | 0            | 19.10              | 0.081 | 19.26                 | 0.084 | 19.12               | 0.082 |
| 3               | 16QAM      | 1          | 8            | 19.12              | 0.082 | 19.24                 | 0.084 | 19.11               | 0.081 |
| 3               | 16QAM      | 1          | 14           | 19.21              | 0.083 | 19.26                 | 0.084 | 19.17               | 0.083 |
| 3               | 16QAM      | 8          | 0            | 18.44              | 0.070 | 18.36                 | 0.069 | 18.17               | 0.066 |
| 3               | 16QAM      | 8          | 4            | 18.28              | 0.067 | 18.13                 | 0.065 | 18.36               | 0.069 |
| 3               | 16QAM      | 8          | 7            | 18.29              | 0.067 | 18.12                 | 0.065 | 18.21               | 0.066 |
| 3               | 16QAM      | 15         | 0            | 17.94              | 0.062 | 18.20                 | 0.066 | 18.22               | 0.066 |



| LTE Band 4      |            |            |              | Measured E.I.R.P.  |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 19957              |       | 20175                 |       | 20393               |       |
| Frequency (MHz) |            |            |              | 1710.7             |       | 1732.5                |       | 1754.3              |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 1.4             | QPSK       | 1          | 0            | 20.11              | 0.103 | 20.14                 | 0.103 | 20.08               | 0.102 |
| 1.4             | QPSK       | 1          | 3            | 19.97              | 0.099 | 20.02                 | 0.100 | 20.00               | 0.100 |
| 1.4             | QPSK       | 1          | 5            | 19.97              | 0.099 | 20.03                 | 0.101 | 20.01               | 0.100 |
| 1.4             | QPSK       | 3          | 0            | 19.08              | 0.081 | 19.22                 | 0.084 | 19.26               | 0.084 |
| 1.4             | QPSK       | 3          | 1            | 19.13              | 0.082 | 19.03                 | 0.080 | 19.04               | 0.080 |
| 1.4             | QPSK       | 3          | 3            | 19.19              | 0.083 | 18.93                 | 0.078 | 19.06               | 0.081 |
| 1.4             | QPSK       | 6          | 0            | 18.86              | 0.077 | 19.25                 | 0.084 | 19.13               | 0.082 |
| 1.4             | 16QAM      | 1          | 0            | 19.17              | 0.083 | 19.16                 | 0.082 | 19.04               | 0.080 |
| 1.4             | 16QAM      | 1          | 3            | 19.11              | 0.081 | 19.16                 | 0.082 | 19.14               | 0.082 |
| 1.4             | 16QAM      | 1          | 5            | 19.30              | 0.085 | 19.26                 | 0.084 | 18.99               | 0.079 |
| 1.4             | 16QAM      | 3          | 0            | 18.14              | 0.065 | 18.07                 | 0.064 | 18.21               | 0.066 |
| 1.4             | 16QAM      | 3          | 1            | 18.22              | 0.066 | 18.26                 | 0.067 | 18.14               | 0.065 |
| 1.4             | 16QAM      | 3          | 3            | 18.10              | 0.065 | 17.96                 | 0.063 | 18.20               | 0.066 |
| 1.4             | 16QAM      | 6          | 0            | 18.17              | 0.066 | 18.08                 | 0.064 | 18.32               | 0.068 |



| LTE Band 5      |            |         |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|---------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |         |              | 20450              |       | 20525                 |       | 20600               |       |
| Frequency (MHz) |            |         |              | 829                |       | 836.5                 |       | 844                 |       |
|                 |            |         |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 10              | QPSK       | 1       | 0            | 18.10              | 0.065 | 18.20                 | 0.066 | 18.11               | 0.065 |
| 10              | QPSK       | 1       | 25           | 18.01              | 0.063 | 18.00                 | 0.063 | 18.06               | 0.064 |
| 10              | QPSK       | 1       | 49           | 18.10              | 0.065 | 17.97                 | 0.063 | 18.09               | 0.064 |
| 10              | QPSK       | 25      | 0            | 17.13              | 0.052 | 17.21                 | 0.053 | 17.12               | 0.052 |
| 10              | QPSK       | 25      | 12           | 17.05              | 0.051 | 17.03                 | 0.050 | 17.11               | 0.051 |
| 10              | QPSK       | 25      | 25           | 17.08              | 0.051 | 16.97                 | 0.050 | 16.97               | 0.050 |
| 10              | QPSK       | 50      | 0            | 16.83              | 0.048 | 17.06                 | 0.051 | 16.93               | 0.049 |
| 10              | 16QAM      | 1       | 0            | 17.12              | 0.052 | 17.19                 | 0.052 | 17.12               | 0.052 |
| 10              | 16QAM      | 1       | 25           | 17.10              | 0.051 | 17.21                 | 0.053 | 17.03               | 0.050 |
| 10              | 16QAM      | 1       | 49           | 16.95              | 0.050 | 17.09                 | 0.051 | 17.11               | 0.051 |
| 10              | 16QAM      | 25      | 0            | 16.26              | 0.042 | 16.10                 | 0.041 | 16.19               | 0.042 |
| 10              | 16QAM      | 25      | 12           | 16.04              | 0.040 | 15.99                 | 0.040 | 16.06               | 0.040 |
| 10              | 16QAM      | 25      | 25           | 16.28              | 0.042 | 15.95                 | 0.039 | 16.02               | 0.040 |
| 10              | 16QAM      | 50      | 0            | 16.05              | 0.040 | 16.11                 | 0.041 | 15.99               | 0.040 |



| LTE Band 5      |            |         |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|---------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |         |              | 20425              |       | 20525                 |       | 20625               |       |
| Frequency (MHz) |            |         |              | 826.5              |       | 836.5                 |       | 846.5               |       |
|                 |            |         |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 5               | QPSK       | 1       | 0            | 18.13              | 0.065 | 18.13                 | 0.065 | 18.05               | 0.064 |
| 5               | QPSK       | 1       | 12           | 17.95              | 0.062 | 18.11                 | 0.065 | 18.00               | 0.063 |
| 5               | QPSK       | 1       | 24           | 18.13              | 0.065 | 17.83                 | 0.061 | 17.87               | 0.061 |
| 5               | QPSK       | 12      | 0            | 16.93              | 0.049 | 17.20                 | 0.052 | 17.24               | 0.053 |
| 5               | QPSK       | 12      | 7            | 17.27              | 0.053 | 17.27                 | 0.053 | 17.03               | 0.050 |
| 5               | QPSK       | 12      | 13           | 17.03              | 0.050 | 17.03                 | 0.050 | 17.20               | 0.052 |
| 5               | QPSK       | 25      | 0            | 17.01              | 0.050 | 17.02                 | 0.050 | 17.11               | 0.051 |
| 5               | 16QAM      | 1       | 0            | 17.28              | 0.053 | 17.20                 | 0.052 | 17.10               | 0.051 |
| 5               | 16QAM      | 1       | 12           | 17.11              | 0.051 | 16.96                 | 0.050 | 17.25               | 0.053 |
| 5               | 16QAM      | 1       | 24           | 16.94              | 0.049 | 17.07                 | 0.051 | 17.24               | 0.053 |
| 5               | 16QAM      | 12      | 0            | 16.14              | 0.041 | 16.07                 | 0.040 | 16.18               | 0.041 |
| 5               | 16QAM      | 12      | 7            | 16.11              | 0.041 | 15.89                 | 0.039 | 16.09               | 0.041 |
| 5               | 16QAM      | 12      | 13           | 16.07              | 0.040 | 16.12                 | 0.041 | 16.19               | 0.042 |
| 5               | 16QAM      | 25      | 0            | 16.16              | 0.041 | 16.04                 | 0.040 | 16.10               | 0.041 |



| LTE Band 5      |            |         |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|---------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |         |              | 20415              |       | 20525                 |       | 20635               |       |
| Frequency (MHz) |            |         |              | 825.5              |       | 836.5                 |       | 847.5               |       |
|                 |            |         |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 3               | QPSK       | 1       | 0            | 18.12              | 0.065 | 18.15                 | 0.065 | 17.99               | 0.063 |
| 3               | QPSK       | 1       | 8            | 17.97              | 0.063 | 18.05                 | 0.064 | 18.09               | 0.064 |
| 3               | QPSK       | 1       | 14           | 18.00              | 0.063 | 18.11                 | 0.065 | 17.93               | 0.062 |
| 3               | QPSK       | 8       | 0            | 16.99              | 0.050 | 17.10                 | 0.051 | 17.17               | 0.052 |
| 3               | QPSK       | 8       | 4            | 17.25              | 0.053 | 17.21                 | 0.053 | 17.17               | 0.052 |
| 3               | QPSK       | 8       | 7            | 17.25              | 0.053 | 17.08                 | 0.051 | 17.06               | 0.051 |
| 3               | QPSK       | 15      | 0            | 16.90              | 0.049 | 17.12                 | 0.052 | 17.14               | 0.052 |
| 3               | 16QAM      | 1       | 0            | 17.27              | 0.053 | 17.28                 | 0.053 | 17.17               | 0.052 |
| 3               | 16QAM      | 1       | 8            | 17.29              | 0.054 | 17.05                 | 0.051 | 17.30               | 0.054 |
| 3               | 16QAM      | 1       | 14           | 17.24              | 0.053 | 17.19                 | 0.052 | 17.15               | 0.052 |
| 3               | 16QAM      | 8       | 0            | 16.26              | 0.042 | 16.28                 | 0.042 | 16.34               | 0.043 |
| 3               | 16QAM      | 8       | 4            | 16.15              | 0.041 | 15.92                 | 0.039 | 16.24               | 0.042 |
| 3               | 16QAM      | 8       | 7            | 16.23              | 0.042 | 15.91                 | 0.039 | 16.18               | 0.041 |
| 3               | 16QAM      | 15      | 0            | 16.19              | 0.042 | 16.07                 | 0.040 | 16.31               | 0.043 |



| LTE Band 5      |            |         |           | Measured E.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-----------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq. |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 20407           |       | 20525              |       | 20643            |       |
| Frequency (MHz) |            |         |           | 824.7           |       | 836.5              |       | 848.3            |       |
|                 |            |         |           | dBm             | W     | dBm                | W     | dBm              | W     |
| 1.4             | QPSK       | 1       | 0         | 18.11           | 0.065 | 18.14              | 0.065 | 18.12            | 0.065 |
| 1.4             | QPSK       | 1       | 3         | 17.92           | 0.062 | 18.08              | 0.064 | 18.07            | 0.064 |
| 1.4             | QPSK       | 1       | 5         | 18.06           | 0.064 | 18.09              | 0.064 | 18.00            | 0.063 |
| 1.4             | QPSK       | 3       | 0         | 17.07           | 0.051 | 17.12              | 0.052 | 17.11            | 0.051 |
| 1.4             | QPSK       | 3       | 1         | 17.19           | 0.052 | 17.25              | 0.053 | 17.05            | 0.051 |
| 1.4             | QPSK       | 3       | 3         | 17.08           | 0.051 | 17.11              | 0.051 | 17.08            | 0.051 |
| 1.4             | QPSK       | 6       | 0         | 16.94           | 0.049 | 17.17              | 0.052 | 16.93            | 0.049 |
| 1.4             | 16QAM      | 1       | 0         | 17.22           | 0.053 | 17.08              | 0.051 | 17.01            | 0.050 |
| 1.4             | 16QAM      | 1       | 3         | 17.20           | 0.052 | 17.16              | 0.052 | 17.38            | 0.055 |
| 1.4             | 16QAM      | 1       | 5         | 17.03           | 0.050 | 17.09              | 0.051 | 17.00            | 0.050 |
| 1.4             | 16QAM      | 3       | 0         | 16.34           | 0.043 | 16.05              | 0.040 | 16.14            | 0.041 |
| 1.4             | 16QAM      | 3       | 1         | 16.05           | 0.040 | 15.99              | 0.040 | 16.25            | 0.042 |
| 1.4             | 16QAM      | 3       | 3         | 16.16           | 0.041 | 15.93              | 0.039 | 16.21            | 0.042 |
| 1.4             | 16QAM      | 6       | 0         | 15.95           | 0.039 | 16.03              | 0.040 | 16.12            | 0.041 |



| LTE Band 7      |            |            |              | Measured E.I.R.P.  |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 20850              |       | 21100                 |       | 21350               |       |
| Frequency (MHz) |            |            |              | 2510               |       | 2535                  |       | 2560                |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 20              | QPSK       | 1          | 0            | 19.05              | 0.080 | 19.12                 | 0.082 | 19.10               | 0.081 |
| 20              | QPSK       | 1          | 49           | 19.09              | 0.081 | 18.86                 | 0.077 | 19.02               | 0.080 |
| 20              | QPSK       | 1          | 99           | 18.94              | 0.078 | 19.07                 | 0.081 | 18.85               | 0.077 |
| 20              | QPSK       | 50         | 0            | 18.21              | 0.066 | 18.28                 | 0.067 | 18.25               | 0.067 |
| 20              | QPSK       | 50         | 24           | 18.24              | 0.067 | 17.97                 | 0.063 | 18.26               | 0.067 |
| 20              | QPSK       | 50         | 50           | 18.19              | 0.066 | 17.87                 | 0.061 | 17.89               | 0.062 |
| 20              | QPSK       | 100        | 0            | 18.09              | 0.064 | 18.14                 | 0.065 | 18.16               | 0.065 |
| 20              | 16QAM      | 1          | 0            | 18.13              | 0.065 | 18.31                 | 0.068 | 18.01               | 0.063 |
| 20              | 16QAM      | 1          | 49           | 18.04              | 0.064 | 17.91                 | 0.062 | 18.28               | 0.067 |
| 20              | 16QAM      | 1          | 99           | 18.19              | 0.066 | 18.18                 | 0.066 | 18.09               | 0.064 |
| 20              | 16QAM      | 50         | 0            | 17.30              | 0.054 | 16.94                 | 0.049 | 17.20               | 0.052 |
| 20              | 16QAM      | 50         | 24           | 17.15              | 0.052 | 17.10                 | 0.051 | 17.24               | 0.053 |
| 20              | 16QAM      | 50         | 50           | 17.30              | 0.054 | 17.10                 | 0.051 | 17.14               | 0.052 |
| 20              | 16QAM      | 100        | 0            | 16.98              | 0.050 | 17.06                 | 0.051 | 17.26               | 0.053 |



| LTE Band 7      |            |            |              | Measured E.I.R.P.  |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 20825              |       | 21100                 |       | 21375               |       |
| Frequency (MHz) |            |            |              | 2507.5             |       | 2535                  |       | 2562.5              |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 15              | QPSK       | 1          | 0            | 18.96              | 0.079 | 19.09                 | 0.081 | 18.95               | 0.079 |
| 15              | QPSK       | 1          | 37           | 18.90              | 0.078 | 19.04                 | 0.080 | 19.00               | 0.079 |
| 15              | QPSK       | 1          | 74           | 18.88              | 0.077 | 18.75                 | 0.075 | 18.89               | 0.077 |
| 15              | QPSK       | 36         | 0            | 17.97              | 0.063 | 18.12                 | 0.065 | 18.03               | 0.064 |
| 15              | QPSK       | 36         | 20           | 18.04              | 0.064 | 18.09                 | 0.064 | 18.20               | 0.066 |
| 15              | QPSK       | 36         | 39           | 18.04              | 0.064 | 17.92                 | 0.062 | 18.06               | 0.064 |
| 15              | QPSK       | 75         | 0            | 18.07              | 0.064 | 18.04                 | 0.064 | 17.98               | 0.063 |
| 15              | 16QAM      | 1          | 0            | 18.27              | 0.067 | 18.05                 | 0.064 | 18.06               | 0.064 |
| 15              | 16QAM      | 1          | 37           | 18.10              | 0.065 | 18.18                 | 0.066 | 18.32               | 0.068 |
| 15              | 16QAM      | 1          | 74           | 18.09              | 0.064 | 18.13                 | 0.065 | 18.10               | 0.065 |
| 15              | 16QAM      | 36         | 0            | 17.19              | 0.052 | 17.14                 | 0.052 | 17.38               | 0.055 |
| 15              | 16QAM      | 36         | 20           | 16.96              | 0.050 | 17.10                 | 0.051 | 17.10               | 0.051 |
| 15              | 16QAM      | 36         | 39           | 16.98              | 0.050 | 16.97                 | 0.050 | 17.13               | 0.052 |
| 15              | 16QAM      | 75         | 0            | 17.12              | 0.052 | 17.20                 | 0.052 | 17.07               | 0.051 |





| LTE Band 7      |            |            |              | Measured E.I.R.P.  |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 20800              |       | 21100                 |       | 21400               |       |
| Frequency (MHz) |            |            |              | 2505               |       | 2535                  |       | 2565                |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 10              | QPSK       | 1          | 0            | 18.97              | 0.079 | 19.08                 | 0.081 | 19.04               | 0.080 |
| 10              | QPSK       | 1          | 25           | 19.04              | 0.080 | 18.91                 | 0.078 | 19.01               | 0.080 |
| 10              | QPSK       | 1          | 49           | 19.01              | 0.080 | 18.91                 | 0.078 | 18.87               | 0.077 |
| 10              | QPSK       | 25         | 0            | 18.14              | 0.065 | 17.98                 | 0.063 | 18.00               | 0.063 |
| 10              | QPSK       | 25         | 12           | 18.00              | 0.063 | 17.87                 | 0.061 | 18.03               | 0.064 |
| 10              | QPSK       | 25         | 25           | 18.25              | 0.067 | 18.13                 | 0.065 | 17.93               | 0.062 |
| 10              | QPSK       | 50         | 0            | 17.75              | 0.060 | 18.07                 | 0.064 | 18.12               | 0.065 |
| 10              | 16QAM      | 1          | 0            | 18.07              | 0.064 | 18.18                 | 0.066 | 18.16               | 0.065 |
| 10              | 16QAM      | 1          | 25           | 18.22              | 0.066 | 18.09                 | 0.064 | 18.22               | 0.066 |
| 10              | 16QAM      | 1          | 49           | 18.12              | 0.065 | 17.93                 | 0.062 | 17.90               | 0.062 |
| 10              | 16QAM      | 25         | 0            | 17.10              | 0.051 | 17.29                 | 0.054 | 17.30               | 0.054 |
| 10              | 16QAM      | 25         | 12           | 17.06              | 0.051 | 16.93                 | 0.049 | 17.23               | 0.053 |
| 10              | 16QAM      | 25         | 25           | 17.28              | 0.053 | 17.07                 | 0.051 | 17.11               | 0.051 |
| 10              | 16QAM      | 50         | 0            | 17.02              | 0.050 | 17.03                 | 0.050 | 17.11               | 0.051 |



| LTE Band 7      |            |            |              | Measured E.I.R.P.  |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 20775              |       | 21100                 |       | 21425               |       |
| Frequency (MHz) |            |            |              | 2502.5             |       | 2535                  |       | 2567.5              |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 5               | QPSK       | 1          | 0            | 19.02              | 0.080 | 19.10                 | 0.081 | 18.95               | 0.079 |
| 5               | QPSK       | 1          | 12           | 18.96              | 0.079 | 19.09                 | 0.081 | 19.04               | 0.080 |
| 5               | QPSK       | 1          | 24           | 19.08              | 0.081 | 18.89                 | 0.077 | 19.06               | 0.081 |
| 5               | QPSK       | 12         | 0            | 18.08              | 0.064 | 18.23                 | 0.067 | 18.21               | 0.066 |
| 5               | QPSK       | 12         | 7            | 17.95              | 0.062 | 18.07                 | 0.064 | 18.21               | 0.066 |
| 5               | QPSK       | 12         | 13           | 18.05              | 0.064 | 17.85                 | 0.061 | 18.03               | 0.064 |
| 5               | QPSK       | 25         | 0            | 18.04              | 0.064 | 18.16                 | 0.065 | 18.06               | 0.064 |
| 5               | 16QAM      | 1          | 0            | 18.05              | 0.064 | 18.09                 | 0.064 | 18.18               | 0.066 |
| 5               | 16QAM      | 1          | 12           | 18.00              | 0.063 | 18.07                 | 0.064 | 18.07               | 0.064 |
| 5               | 16QAM      | 1          | 24           | 18.21              | 0.066 | 18.03                 | 0.064 | 18.09               | 0.064 |
| 5               | 16QAM      | 12         | 0            | 17.07              | 0.051 | 17.26                 | 0.053 | 17.29               | 0.054 |
| 5               | 16QAM      | 12         | 7            | 16.91              | 0.049 | 17.09                 | 0.051 | 17.09               | 0.051 |
| 5               | 16QAM      | 12         | 13           | 17.25              | 0.053 | 17.03                 | 0.050 | 17.11               | 0.051 |
| 5               | 16QAM      | 25         | 0            | 17.13              | 0.052 | 16.93                 | 0.049 | 16.96               | 0.050 |



| LTE Band 12     |            |         |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|---------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |         |              | 23060              |       | 23095                 |       | 23130               |       |
| Frequency (MHz) |            |         |              | 704                |       | 707.5                 |       | 711                 |       |
|                 |            |         |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 10              | QPSK       | 1       | 0            | 17.84              | 0.061 | 17.98                 | 0.063 | 17.83               | 0.061 |
| 10              | QPSK       | 1       | 25           | 17.79              | 0.060 | 17.85                 | 0.061 | 17.76               | 0.060 |
| 10              | QPSK       | 1       | 49           | 17.76              | 0.060 | 17.75                 | 0.060 | 17.74               | 0.059 |
| 10              | QPSK       | 25      | 0            | 16.80              | 0.048 | 17.03                 | 0.050 | 16.92               | 0.049 |
| 10              | QPSK       | 25      | 12           | 16.92              | 0.049 | 16.68                 | 0.047 | 16.72               | 0.047 |
| 10              | QPSK       | 25      | 25           | 16.84              | 0.048 | 16.84                 | 0.048 | 16.74               | 0.047 |
| 10              | QPSK       | 50      | 0            | 16.58              | 0.045 | 16.70                 | 0.047 | 16.72               | 0.047 |
| 10              | 16QAM      | 1       | 0            | 16.84              | 0.048 | 17.02                 | 0.050 | 16.68               | 0.047 |
| 10              | 16QAM      | 1       | 25           | 16.84              | 0.048 | 16.84                 | 0.048 | 17.01               | 0.050 |
| 10              | 16QAM      | 1       | 49           | 16.94              | 0.049 | 16.81                 | 0.048 | 16.98               | 0.050 |
| 10              | 16QAM      | 25      | 0            | 16.00              | 0.040 | 15.93                 | 0.039 | 15.83               | 0.038 |
| 10              | 16QAM      | 25      | 12           | 15.93              | 0.039 | 15.62                 | 0.036 | 15.99               | 0.040 |
| 10              | 16QAM      | 25      | 25           | 15.73              | 0.037 | 15.78                 | 0.038 | 15.79               | 0.038 |
| 10              | 16QAM      | 50      | 0            | 15.71              | 0.037 | 15.96                 | 0.039 | 15.88               | 0.039 |



| LTE Band 12     |            |         |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|---------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |         |              | 23035              |       | 23095                 |       | 23155               |       |
| Frequency (MHz) |            |         |              | 701.5              |       | 707.5                 |       | 713.5               |       |
|                 |            |         |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 5               | QPSK       | 1       | 0            | 17.70              | 0.059 | 17.95                 | 0.062 | 17.81               | 0.060 |
| 5               | QPSK       | 1       | 12           | 17.81              | 0.060 | 17.77                 | 0.060 | 17.57               | 0.057 |
| 5               | QPSK       | 1       | 24           | 17.64              | 0.058 | 17.70                 | 0.059 | 17.66               | 0.058 |
| 5               | QPSK       | 12      | 0            | 16.79              | 0.048 | 17.03                 | 0.050 | 16.83               | 0.048 |
| 5               | QPSK       | 12      | 7            | 16.94              | 0.049 | 16.70                 | 0.047 | 16.96               | 0.050 |
| 5               | QPSK       | 12      | 13           | 16.72              | 0.047 | 16.83                 | 0.048 | 16.86               | 0.049 |
| 5               | QPSK       | 25      | 0            | 16.80              | 0.048 | 16.71                 | 0.047 | 16.67               | 0.046 |
| 5               | 16QAM      | 1       | 0            | 16.90              | 0.049 | 16.99                 | 0.050 | 16.67               | 0.046 |
| 5               | 16QAM      | 1       | 12           | 16.72              | 0.047 | 16.75                 | 0.047 | 16.92               | 0.049 |
| 5               | 16QAM      | 1       | 24           | 16.93              | 0.049 | 16.75                 | 0.047 | 16.84               | 0.048 |
| 5               | 16QAM      | 12      | 0            | 15.89              | 0.039 | 15.97                 | 0.040 | 16.06               | 0.040 |
| 5               | 16QAM      | 12      | 7            | 15.72              | 0.037 | 15.71                 | 0.037 | 15.90               | 0.039 |
| 5               | 16QAM      | 12      | 13           | 16.01              | 0.040 | 15.72                 | 0.037 | 15.99               | 0.040 |
| 5               | 16QAM      | 25      | 0            | 15.68              | 0.037 | 15.78                 | 0.038 | 15.71               | 0.037 |



| LTE Band 12     |            |         |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|---------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |         |              | 23025              |       | 23095                 |       | 23165               |       |
| Frequency (MHz) |            |         |              | 700.5              |       | 707.5                 |       | 714.5               |       |
|                 |            |         |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 3               | QPSK       | 1       | 0            | 17.84              | 0.061 | 17.92                 | 0.062 | 17.83               | 0.061 |
| 3               | QPSK       | 1       | 8            | 17.78              | 0.060 | 17.69                 | 0.059 | 17.69               | 0.059 |
| 3               | QPSK       | 1       | 14           | 17.70              | 0.059 | 17.65                 | 0.058 | 17.72               | 0.059 |
| 3               | QPSK       | 8       | 0            | 16.74              | 0.047 | 16.91                 | 0.049 | 17.04               | 0.051 |
| 3               | QPSK       | 8       | 4            | 16.85              | 0.048 | 16.80                 | 0.048 | 16.74               | 0.047 |
| 3               | QPSK       | 8       | 7            | 17.04              | 0.051 | 16.60                 | 0.046 | 16.77               | 0.048 |
| 3               | QPSK       | 15      | 0            | 16.77              | 0.048 | 16.89                 | 0.049 | 16.75               | 0.047 |
| 3               | 16QAM      | 1       | 0            | 16.95              | 0.050 | 17.00                 | 0.050 | 16.79               | 0.048 |
| 3               | 16QAM      | 1       | 8            | 16.85              | 0.048 | 16.61                 | 0.046 | 16.81               | 0.048 |
| 3               | 16QAM      | 1       | 14           | 16.86              | 0.049 | 16.95                 | 0.050 | 16.82               | 0.048 |
| 3               | 16QAM      | 8       | 0            | 15.91              | 0.039 | 15.76                 | 0.038 | 16.09               | 0.041 |
| 3               | 16QAM      | 8       | 4            | 15.95              | 0.039 | 15.93                 | 0.039 | 16.04               | 0.040 |
| 3               | 16QAM      | 8       | 7            | 15.84              | 0.038 | 15.71                 | 0.037 | 15.76               | 0.038 |
| 3               | 16QAM      | 15      | 0            | 15.81              | 0.038 | 15.82                 | 0.038 | 16.05               | 0.040 |



| LTE Band 12     |            |         |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|---------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |         |              | 23017              |       | 23095                 |       | 23173               |       |
| Frequency (MHz) |            |         |              | 699.7              |       | 707.5                 |       | 715.3               |       |
|                 |            |         |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 1.4             | QPSK       | 1       | 0            | 17.80              | 0.060 | 17.94                 | 0.062 | 17.77               | 0.060 |
| 1.4             | QPSK       | 1       | 3            | 17.77              | 0.060 | 17.72                 | 0.059 | 17.74               | 0.059 |
| 1.4             | QPSK       | 1       | 5            | 17.75              | 0.060 | 17.75                 | 0.060 | 17.68               | 0.059 |
| 1.4             | QPSK       | 3       | 0            | 16.66              | 0.046 | 16.87                 | 0.049 | 16.95               | 0.050 |
| 1.4             | QPSK       | 3       | 1            | 16.99              | 0.050 | 16.84                 | 0.048 | 16.73               | 0.047 |
| 1.4             | QPSK       | 3       | 3            | 16.96              | 0.050 | 16.78                 | 0.048 | 16.72               | 0.047 |
| 1.4             | QPSK       | 6       | 0            | 16.68              | 0.047 | 16.72                 | 0.047 | 16.62               | 0.046 |
| 1.4             | 16QAM      | 1       | 0            | 16.86              | 0.049 | 16.81                 | 0.048 | 16.80               | 0.048 |
| 1.4             | 16QAM      | 1       | 3            | 16.97              | 0.050 | 16.96                 | 0.050 | 16.85               | 0.048 |
| 1.4             | 16QAM      | 1       | 5            | 16.66              | 0.046 | 16.77                 | 0.048 | 16.75               | 0.047 |
| 1.4             | 16QAM      | 3       | 0            | 15.82              | 0.038 | 15.82                 | 0.038 | 15.88               | 0.039 |
| 1.4             | 16QAM      | 3       | 1            | 15.74              | 0.037 | 15.68                 | 0.037 | 15.95               | 0.039 |
| 1.4             | 16QAM      | 3       | 3            | 15.73              | 0.037 | 15.78                 | 0.038 | 15.84               | 0.038 |
| 1.4             | 16QAM      | 6       | 0            | 15.61              | 0.036 | 15.69                 | 0.037 | 15.84               | 0.038 |



| LTE Band 17     |            |         |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|---------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |         |              | 23780              |       | 23790                 |       | 23800               |       |
| Frequency (MHz) |            |         |              | 709                |       | 710                   |       | 711                 |       |
|                 |            |         |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 10              | QPSK       | 1       | 0            | 17.88              | 0.061 | 17.93                 | 0.062 | 17.90               | 0.062 |
| 10              | QPSK       | 1       | 25           | 17.84              | 0.061 | 17.74                 | 0.059 | 17.72               | 0.059 |
| 10              | QPSK       | 1       | 49           | 17.75              | 0.060 | 17.78                 | 0.060 | 17.64               | 0.058 |
| 10              | QPSK       | 25      | 0            | 16.73              | 0.047 | 16.91                 | 0.049 | 16.98               | 0.050 |
| 10              | QPSK       | 25      | 12           | 17.01              | 0.050 | 16.71                 | 0.047 | 16.76               | 0.047 |
| 10              | QPSK       | 25      | 25           | 17.06              | 0.051 | 16.81                 | 0.048 | 16.76               | 0.047 |
| 10              | QPSK       | 50      | 0            | 16.64              | 0.046 | 16.68                 | 0.047 | 16.73               | 0.047 |
| 10              | 16QAM      | 1       | 0            | 17.00              | 0.050 | 16.82                 | 0.048 | 16.91               | 0.049 |
| 10              | 16QAM      | 1       | 25           | 16.76              | 0.047 | 16.91                 | 0.049 | 16.79               | 0.048 |
| 10              | 16QAM      | 1       | 49           | 16.80              | 0.048 | 16.68                 | 0.047 | 16.94               | 0.049 |
| 10              | 16QAM      | 25      | 0            | 16.01              | 0.040 | 15.79                 | 0.038 | 16.00               | 0.040 |
| 10              | 16QAM      | 25      | 12           | 15.86              | 0.039 | 15.68                 | 0.037 | 16.02               | 0.040 |
| 10              | 16QAM      | 25      | 25           | 15.94              | 0.039 | 15.88                 | 0.039 | 15.84               | 0.038 |
| 10              | 16QAM      | 50      | 0            | 15.77              | 0.038 | 15.90                 | 0.039 | 16.05               | 0.040 |



| LTE Band 17     |            |         |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|---------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |         |              | 23755              |       | 23790                 |       | 23825               |       |
| Frequency (MHz) |            |         |              | 706.5              |       | 710                   |       | 713.5               |       |
|                 |            |         |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 5               | QPSK       | 1       | 0            | 17.84              | 0.061 | 17.89                 | 0.062 | 17.68               | 0.059 |
| 5               | QPSK       | 1       | 12           | 17.73              | 0.059 | 17.72                 | 0.059 | 17.78               | 0.060 |
| 5               | QPSK       | 1       | 24           | 17.78              | 0.060 | 17.78                 | 0.060 | 17.84               | 0.061 |
| 5               | QPSK       | 12      | 0            | 16.85              | 0.048 | 16.91                 | 0.049 | 16.96               | 0.050 |
| 5               | QPSK       | 12      | 7            | 16.75              | 0.047 | 16.89                 | 0.049 | 17.01               | 0.050 |
| 5               | QPSK       | 12      | 13           | 16.71              | 0.047 | 16.83                 | 0.048 | 16.91               | 0.049 |
| 5               | QPSK       | 25      | 0            | 16.58              | 0.045 | 16.75                 | 0.047 | 16.74               | 0.047 |
| 5               | 16QAM      | 1       | 0            | 16.82              | 0.048 | 16.97                 | 0.050 | 16.74               | 0.047 |
| 5               | 16QAM      | 1       | 12           | 16.89              | 0.049 | 16.63                 | 0.046 | 16.78               | 0.048 |
| 5               | 16QAM      | 1       | 24           | 16.70              | 0.047 | 16.77                 | 0.048 | 16.92               | 0.049 |
| 5               | 16QAM      | 12      | 0            | 15.88              | 0.039 | 15.87                 | 0.039 | 15.87               | 0.039 |
| 5               | 16QAM      | 12      | 7            | 15.86              | 0.039 | 15.72                 | 0.037 | 15.89               | 0.039 |
| 5               | 16QAM      | 12      | 13           | 16.00              | 0.040 | 15.92                 | 0.039 | 15.92               | 0.039 |
| 5               | 16QAM      | 25      | 0            | 15.91              | 0.039 | 15.91                 | 0.039 | 15.84               | 0.038 |





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| LTE Band 66     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 132072            |       | 132322             |       | 132572           |       |
| Frequency (MHz) |            |         |           | 1720              |       | 1745               |       | 1770             |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 20              | QPSK       | 1       | 0         | 20.17             | 0.104 | 20.25              | 0.106 | 20.19            | 0.104 |
| 20              | QPSK       | 1       | 49        | 20.04             | 0.101 | 19.98              | 0.100 | 19.89            | 0.097 |
| 20              | QPSK       | 1       | 99        | 19.93             | 0.098 | 19.97              | 0.099 | 19.94            | 0.099 |
| 20              | QPSK       | 50      | 0         | 19.19             | 0.083 | 19.21              | 0.083 | 19.14            | 0.082 |
| 20              | QPSK       | 50      | 24        | 19.06             | 0.081 | 19.05              | 0.080 | 19.19            | 0.083 |
| 20              | QPSK       | 50      | 50        | 19.03             | 0.080 | 18.83              | 0.076 | 19.02            | 0.080 |
| 20              | QPSK       | 100     | 0         | 18.99             | 0.079 | 19.23              | 0.084 | 18.93            | 0.078 |
| 20              | 16QAM      | 1       | 0         | 19.15             | 0.082 | 19.20              | 0.083 | 18.92            | 0.078 |
| 20              | 16QAM      | 1       | 49        | 18.98             | 0.079 | 18.86              | 0.077 | 19.11            | 0.081 |
| 20              | 16QAM      | 1       | 99        | 18.88             | 0.077 | 19.06              | 0.081 | 19.10            | 0.081 |
| 20              | 16QAM      | 50      | 0         | 18.27             | 0.067 | 18.27              | 0.067 | 18.18            | 0.066 |
| 20              | 16QAM      | 50      | 24        | 17.96             | 0.063 | 17.96              | 0.063 | 18.13            | 0.065 |
| 20              | 16QAM      | 50      | 50        | 18.20             | 0.066 | 18.15              | 0.065 | 17.92            | 0.062 |
| 20              | 16QAM      | 100     | 0         | 17.98             | 0.063 | 17.94              | 0.062 | 18.27            | 0.067 |



| LTE Band 66     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 132047            |       | 132322             |       | 132597           |       |
| Frequency (MHz) |            |         |           | 1717.5            |       | 1745               |       | 1772.5           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 15              | QPSK       | 1       | 0         | 20.12             | 0.103 | 20.20              | 0.105 | 20.13            | 0.103 |
| 15              | QPSK       | 1       | 37        | 19.86             | 0.097 | 19.92              | 0.098 | 20.09            | 0.102 |
| 15              | QPSK       | 1       | 74        | 19.92             | 0.098 | 19.95              | 0.099 | 19.88            | 0.097 |
| 15              | QPSK       | 36      | 0         | 19.14             | 0.082 | 19.09              | 0.081 | 19.30            | 0.085 |
| 15              | QPSK       | 36      | 20        | 19.11             | 0.081 | 18.92              | 0.078 | 19.20            | 0.083 |
| 15              | QPSK       | 36      | 39        | 19.15             | 0.082 | 19.04              | 0.080 | 18.89            | 0.077 |
| 15              | QPSK       | 75      | 0         | 19.11             | 0.081 | 19.01              | 0.080 | 18.93            | 0.078 |
| 15              | 16QAM      | 1       | 0         | 19.33             | 0.086 | 19.20              | 0.083 | 18.90            | 0.078 |
| 15              | 16QAM      | 1       | 37        | 19.12             | 0.082 | 18.89              | 0.077 | 19.27            | 0.085 |
| 15              | 16QAM      | 1       | 74        | 18.92             | 0.078 | 18.96              | 0.079 | 18.92            | 0.078 |
| 15              | 16QAM      | 36      | 0         | 18.35             | 0.068 | 18.19              | 0.066 | 18.29            | 0.067 |
| 15              | 16QAM      | 36      | 20        | 18.13             | 0.065 | 18.18              | 0.066 | 18.05            | 0.064 |
| 15              | 16QAM      | 36      | 39        | 18.30             | 0.068 | 17.85              | 0.061 | 17.97            | 0.063 |
| 15              | 16QAM      | 75      | 0         | 17.94             | 0.062 | 18.09              | 0.064 | 18.05            | 0.064 |



| LTE Band 66     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 132022            |       | 132322             |       | 132622           |       |
| Frequency (MHz) |            |         |           | 1715              |       | 1745               |       | 1775             |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 10              | QPSK       | 1       | 0         | 19.97             | 0.099 | 20.19              | 0.104 | 20.07            | 0.102 |
| 10              | QPSK       | 1       | 25        | 20.00             | 0.100 | 19.98              | 0.100 | 19.96            | 0.099 |
| 10              | QPSK       | 1       | 49        | 20.06             | 0.101 | 20.12              | 0.103 | 19.87            | 0.097 |
| 10              | QPSK       | 25      | 0         | 19.16             | 0.082 | 19.26              | 0.084 | 19.26            | 0.084 |
| 10              | QPSK       | 25      | 12        | 19.27             | 0.085 | 19.09              | 0.081 | 19.14            | 0.082 |
| 10              | QPSK       | 25      | 25        | 18.98             | 0.079 | 19.10              | 0.081 | 19.05            | 0.080 |
| 10              | QPSK       | 50      | 0         | 18.80             | 0.076 | 19.04              | 0.080 | 18.90            | 0.078 |
| 10              | 16QAM      | 1       | 0         | 19.10             | 0.081 | 19.34              | 0.086 | 18.97            | 0.079 |
| 10              | 16QAM      | 1       | 25        | 18.99             | 0.079 | 18.90              | 0.078 | 19.13            | 0.082 |
| 10              | 16QAM      | 1       | 49        | 18.90             | 0.078 | 18.94              | 0.078 | 19.24            | 0.084 |
| 10              | 16QAM      | 25      | 0         | 18.24             | 0.067 | 18.22              | 0.066 | 18.28            | 0.067 |
| 10              | 16QAM      | 25      | 12        | 18.06             | 0.064 | 18.12              | 0.065 | 18.35            | 0.068 |
| 10              | 16QAM      | 25      | 25        | 18.02             | 0.063 | 17.93              | 0.062 | 17.89            | 0.062 |
| 10              | 16QAM      | 50      | 0         | 17.90             | 0.062 | 18.06              | 0.064 | 18.24            | 0.067 |



| LTE Band 66     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 131997            |       | 132322             |       | 132647           |       |
| Frequency (MHz) |            |         |           | 1712.5            |       | 1745               |       | 1777.5           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 5               | QPSK       | 1       | 0         | 20.07             | 0.102 | 20.17              | 0.104 | 20.07            | 0.102 |
| 5               | QPSK       | 1       | 12        | 20.06             | 0.101 | 20.14              | 0.103 | 19.98            | 0.100 |
| 5               | QPSK       | 1       | 24        | 20.06             | 0.101 | 19.92              | 0.098 | 19.92            | 0.098 |
| 5               | QPSK       | 12      | 0         | 18.90             | 0.078 | 19.21              | 0.083 | 19.16            | 0.082 |
| 5               | QPSK       | 12      | 7         | 18.98             | 0.079 | 19.12              | 0.082 | 19.30            | 0.085 |
| 5               | QPSK       | 12      | 13        | 18.96             | 0.079 | 19.04              | 0.080 | 19.10            | 0.081 |
| 5               | QPSK       | 25      | 0         | 18.90             | 0.078 | 18.96              | 0.079 | 19.02            | 0.080 |
| 5               | 16QAM      | 1       | 0         | 19.18             | 0.083 | 19.11              | 0.081 | 19.03            | 0.080 |
| 5               | 16QAM      | 1       | 12        | 19.11             | 0.081 | 18.94              | 0.078 | 19.21            | 0.083 |
| 5               | 16QAM      | 1       | 24        | 19.15             | 0.082 | 19.01              | 0.080 | 18.92            | 0.078 |
| 5               | 16QAM      | 12      | 0         | 18.04             | 0.064 | 18.20              | 0.066 | 18.09            | 0.064 |
| 5               | 16QAM      | 12      | 7         | 17.88             | 0.061 | 17.85              | 0.061 | 17.99            | 0.063 |
| 5               | 16QAM      | 12      | 13        | 18.11             | 0.065 | 18.04              | 0.064 | 17.93            | 0.062 |
| 5               | 16QAM      | 25      | 0         | 17.97             | 0.063 | 17.98              | 0.063 | 18.25            | 0.067 |



| LTE Band 66     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 131987            |       | 132322             |       | 132657           |       |
| Frequency (MHz) |            |         |           | 1711.5            |       | 1745               |       | 1778.5           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 3               | QPSK       | 1       | 0         | 20.13             | 0.103 | 20.16              | 0.104 | 20.05            | 0.101 |
| 3               | QPSK       | 1       | 8         | 19.97             | 0.099 | 20.15              | 0.104 | 20.03            | 0.101 |
| 3               | QPSK       | 1       | 14        | 20.05             | 0.101 | 20.08              | 0.102 | 19.85            | 0.097 |
| 3               | QPSK       | 8       | 0         | 18.99             | 0.079 | 19.14              | 0.082 | 19.23            | 0.084 |
| 3               | QPSK       | 8       | 4         | 19.13             | 0.082 | 19.03              | 0.080 | 19.03            | 0.080 |
| 3               | QPSK       | 8       | 7         | 19.10             | 0.081 | 19.08              | 0.081 | 19.12            | 0.082 |
| 3               | QPSK       | 15      | 0         | 19.05             | 0.080 | 19.08              | 0.081 | 19.04            | 0.080 |
| 3               | 16QAM      | 1       | 0         | 19.03             | 0.080 | 19.15              | 0.082 | 19.06            | 0.081 |
| 3               | 16QAM      | 1       | 8         | 19.02             | 0.080 | 19.11              | 0.081 | 19.24            | 0.084 |
| 3               | 16QAM      | 1       | 14        | 18.97             | 0.079 | 19.21              | 0.083 | 19.06            | 0.081 |
| 3               | 16QAM      | 8       | 0         | 18.29             | 0.067 | 18.31              | 0.068 | 18.10            | 0.065 |
| 3               | 16QAM      | 8       | 4         | 18.08             | 0.064 | 17.93              | 0.062 | 18.34            | 0.068 |
| 3               | 16QAM      | 8       | 7         | 18.12             | 0.065 | 18.09              | 0.064 | 18.16            | 0.065 |
| 3               | 16QAM      | 15      | 0         | 18.05             | 0.064 | 18.02              | 0.063 | 18.22            | 0.066 |



| LTE Band 66     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 131979            |       | 132322             |       | 132665           |       |
| Frequency (MHz) |            |         |           | 1710.7            |       | 1745               |       | 1779.3           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 1.4             | QPSK       | 1       | 0         | 19.94             | 0.099 | 20.18              | 0.104 | 19.94            | 0.099 |
| 1.4             | QPSK       | 1       | 3         | 19.89             | 0.097 | 20.06              | 0.101 | 19.84            | 0.096 |
| 1.4             | QPSK       | 1       | 5         | 19.95             | 0.099 | 19.95              | 0.099 | 19.95            | 0.099 |
| 1.4             | QPSK       | 3       | 0         | 19.20             | 0.083 | 19.04              | 0.080 | 19.09            | 0.081 |
| 1.4             | QPSK       | 3       | 1         | 19.21             | 0.083 | 18.92              | 0.078 | 19.08            | 0.081 |
| 1.4             | QPSK       | 3       | 3         | 18.99             | 0.079 | 18.94              | 0.078 | 18.95            | 0.079 |
| 1.4             | QPSK       | 6       | 0         | 18.99             | 0.079 | 19.19              | 0.083 | 19.04            | 0.080 |
| 1.4             | 16QAM      | 1       | 0         | 19.12             | 0.082 | 19.31              | 0.085 | 19.05            | 0.080 |
| 1.4             | 16QAM      | 1       | 3         | 19.17             | 0.083 | 19.11              | 0.081 | 19.28            | 0.085 |
| 1.4             | 16QAM      | 1       | 5         | 19.03             | 0.080 | 19.23              | 0.084 | 18.91            | 0.078 |
| 1.4             | 16QAM      | 3       | 0         | 18.26             | 0.067 | 18.06              | 0.064 | 18.27            | 0.067 |
| 1.4             | 16QAM      | 3       | 1         | 18.06             | 0.064 | 18.03              | 0.064 | 18.04            | 0.064 |
| 1.4             | 16QAM      | 3       | 3         | 17.99             | 0.063 | 18.19              | 0.066 | 18.21            | 0.066 |
| 1.4             | 16QAM      | 6       | 0         | 18.07             | 0.064 | 18.14              | 0.065 | 18.30            | 0.068 |



| LTE Band 71     |            |            |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 133222             |       | 133322                |       | 133372              |       |
| Frequency (MHz) |            |            |              | 673                |       | 683                   |       | 688                 |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 20              | QPSK       | 1          | 0            | 18.37              | 0.069 | 18.41                 | 0.069 | 18.29               | 0.067 |
| 20              | QPSK       | 1          | 49           | 18.23              | 0.067 | 18.18                 | 0.066 | 18.02               | 0.063 |
| 20              | QPSK       | 1          | 99           | 18.09              | 0.064 | 18.21                 | 0.066 | 18.30               | 0.068 |
| 20              | QPSK       | 50         | 0            | 17.21              | 0.053 | 17.40                 | 0.055 | 17.31               | 0.054 |
| 20              | QPSK       | 50         | 24           | 17.38              | 0.055 | 17.28                 | 0.053 | 17.14               | 0.052 |
| 20              | QPSK       | 50         | 50           | 17.16              | 0.052 | 17.10                 | 0.051 | 17.33               | 0.054 |
| 20              | QPSK       | 100        | 0            | 17.14              | 0.052 | 17.26                 | 0.053 | 17.20               | 0.052 |
| 20              | 16QAM      | 1          | 0            | 17.41              | 0.055 | 17.44                 | 0.055 | 17.32               | 0.054 |
| 20              | 16QAM      | 1          | 49           | 17.17              | 0.052 | 17.13                 | 0.052 | 17.48               | 0.056 |
| 20              | 16QAM      | 1          | 99           | 17.09              | 0.051 | 17.34                 | 0.054 | 17.26               | 0.053 |
| 20              | 16QAM      | 50         | 0            | 16.37              | 0.043 | 16.11                 | 0.041 | 16.42               | 0.044 |
| 20              | 16QAM      | 50         | 24           | 16.14              | 0.041 | 16.02                 | 0.040 | 16.49               | 0.045 |
| 20              | 16QAM      | 50         | 50           | 16.44              | 0.044 | 16.17                 | 0.041 | 16.24               | 0.042 |
| 20              | 16QAM      | 100        | 0            | 16.14              | 0.041 | 16.36                 | 0.043 | 16.37               | 0.043 |



| LTE Band 71     |            |            |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 133197             |       | 133297                |       | 133397              |       |
| Frequency (MHz) |            |            |              | 670.5              |       | 680.5                 |       | 690.5               |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 15              | QPSK       | 1          | 0            | 18.25              | 0.067 | 18.37                 | 0.069 | 18.22               | 0.066 |
| 15              | QPSK       | 1          | 37           | 18.23              | 0.067 | 18.12                 | 0.065 | 17.98               | 0.063 |
| 15              | QPSK       | 1          | 74           | 18.12              | 0.065 | 18.13                 | 0.065 | 18.17               | 0.066 |
| 15              | QPSK       | 36         | 0            | 17.08              | 0.051 | 17.20                 | 0.052 | 17.30               | 0.054 |
| 15              | QPSK       | 36         | 20           | 17.41              | 0.055 | 17.06                 | 0.051 | 17.33               | 0.054 |
| 15              | QPSK       | 36         | 39           | 17.35              | 0.054 | 17.02                 | 0.050 | 17.31               | 0.054 |
| 15              | QPSK       | 75         | 0            | 17.01              | 0.050 | 17.31                 | 0.054 | 17.32               | 0.054 |
| 15              | 16QAM      | 1          | 0            | 17.21              | 0.053 | 17.42                 | 0.055 | 17.22               | 0.053 |
| 15              | 16QAM      | 1          | 37           | 17.11              | 0.051 | 17.26                 | 0.053 | 17.50               | 0.056 |
| 15              | 16QAM      | 1          | 74           | 17.06              | 0.051 | 17.41                 | 0.055 | 17.11               | 0.051 |
| 15              | 16QAM      | 36         | 0            | 16.42              | 0.044 | 16.43                 | 0.044 | 16.44               | 0.044 |
| 15              | 16QAM      | 36         | 20           | 16.03              | 0.040 | 16.02                 | 0.040 | 16.23               | 0.042 |
| 15              | 16QAM      | 36         | 39           | 16.12              | 0.041 | 16.17                 | 0.041 | 16.10               | 0.041 |
| 15              | 16QAM      | 75         | 0            | 16.26              | 0.042 | 16.18                 | 0.041 | 16.40               | 0.044 |





| LTE Band 71     |            |            |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 133172             |       | 133297                |       | 133422              |       |
| Frequency (MHz) |            |            |              | 668                |       | 680.5                 |       | 693                 |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 10              | QPSK       | 1          | 0            | 18.21              | 0.066 | 18.38                 | 0.069 | 18.12               | 0.065 |
| 10              | QPSK       | 1          | 25           | 18.06              | 0.064 | 18.20                 | 0.066 | 18.17               | 0.066 |
| 10              | QPSK       | 1          | 49           | 18.18              | 0.066 | 18.08                 | 0.064 | 18.05               | 0.064 |
| 10              | QPSK       | 25         | 0            | 17.13              | 0.052 | 17.25                 | 0.053 | 17.46               | 0.056 |
| 10              | QPSK       | 25         | 12           | 17.34              | 0.054 | 17.22                 | 0.053 | 17.30               | 0.054 |
| 10              | QPSK       | 25         | 25           | 17.16              | 0.052 | 17.30                 | 0.054 | 16.99               | 0.050 |
| 10              | QPSK       | 50         | 0            | 17.05              | 0.051 | 17.32                 | 0.054 | 17.32               | 0.054 |
| 10              | 16QAM      | 1          | 0            | 17.25              | 0.053 | 17.37                 | 0.055 | 17.32               | 0.054 |
| 10              | 16QAM      | 1          | 25           | 17.29              | 0.054 | 17.01                 | 0.050 | 17.37               | 0.055 |
| 10              | 16QAM      | 1          | 49           | 17.29              | 0.054 | 17.16                 | 0.052 | 17.35               | 0.054 |
| 10              | 16QAM      | 25         | 0            | 16.36              | 0.043 | 16.11                 | 0.041 | 16.28               | 0.042 |
| 10              | 16QAM      | 25         | 12           | 16.10              | 0.041 | 16.19                 | 0.042 | 16.19               | 0.042 |
| 10              | 16QAM      | 25         | 25           | 16.27              | 0.042 | 16.05                 | 0.040 | 16.10               | 0.041 |
| 10              | 16QAM      | 50         | 0            | 16.12              | 0.041 | 16.05                 | 0.040 | 16.26               | 0.042 |



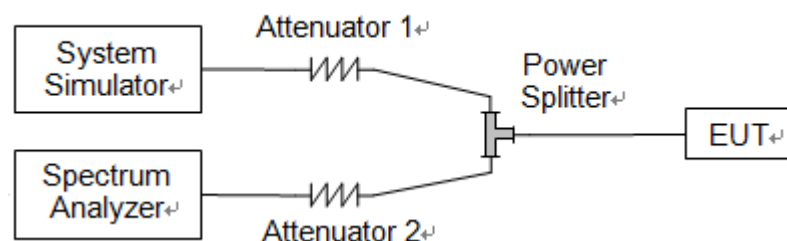
| LTE Band 71     |            |            |              | Measured E.R.P.    |       |                       |       |                     |       |
|-----------------|------------|------------|--------------|--------------------|-------|-----------------------|-------|---------------------|-------|
| BW<br>[MHz]     | Modulation | RB<br>Size | RB<br>Offset | Low<br>Ch. / Freq. |       | Middle<br>Ch. / Freq. |       | High<br>Ch. / Freq. |       |
| Channel         |            |            |              | 133147             |       | 133297                |       | 133447              |       |
| Frequency (MHz) |            |            |              | 665.5              |       | 680.5                 |       | 695.5               |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 5               | QPSK       | 1          | 0            | 18.27              | 0.067 | 18.39                 | 0.069 | 18.10               | 0.065 |
| 5               | QPSK       | 1          | 12           | 18.02              | 0.063 | 18.27                 | 0.067 | 18.11               | 0.065 |
| 5               | QPSK       | 1          | 24           | 18.01              | 0.063 | 18.27                 | 0.067 | 18.06               | 0.064 |
| 5               | QPSK       | 12         | 0            | 17.18              | 0.052 | 17.21                 | 0.053 | 17.39               | 0.055 |
| 5               | QPSK       | 12         | 7            | 17.14              | 0.052 | 17.20                 | 0.052 | 17.31               | 0.054 |
| 5               | QPSK       | 12         | 13           | 17.40              | 0.055 | 17.13                 | 0.052 | 17.11               | 0.051 |
| 5               | QPSK       | 25         | 0            | 16.98              | 0.050 | 17.12                 | 0.052 | 17.16               | 0.052 |
| 5               | 16QAM      | 1          | 0            | 17.20              | 0.052 | 17.23                 | 0.053 | 17.29               | 0.054 |
| 5               | 16QAM      | 1          | 12           | 17.33              | 0.054 | 17.32                 | 0.054 | 17.39               | 0.055 |
| 5               | 16QAM      | 1          | 24           | 17.28              | 0.053 | 17.32                 | 0.054 | 17.32               | 0.054 |
| 5               | 16QAM      | 12         | 0            | 16.32              | 0.043 | 16.26                 | 0.042 | 16.25               | 0.042 |
| 5               | 16QAM      | 12         | 7            | 16.31              | 0.043 | 16.23                 | 0.042 | 16.48               | 0.044 |
| 5               | 16QAM      | 12         | 13           | 16.39              | 0.044 | 16.22                 | 0.042 | 16.07               | 0.040 |
| 5               | 16QAM      | 25         | 0            | 16.13              | 0.041 | 16.34                 | 0.043 | 16.17               | 0.041 |

## 2.2. Occupied Bandwidth

### 2.2.1. Requirement

According to FCC section 2.1049, the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Occupied bandwidth is also known as the 99% emission bandwidth.

### 2.2.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

### 2.2.3. Test Procedure

KDB 971168 D01v03 Section 4.1 and ANSI/TIA-603-E-2016.

### 2.2.4. Test Result



| LTE Band 2 |               |            |             |              |
|------------|---------------|------------|-------------|--------------|
| BW(MHz)    | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 1.4        | Low           | QPSK       | 1.10        | 1.24         |
|            | Low           | 16QAM      | 1.10        | 1.25         |
|            | Mid           | QPSK       | 1.10        | 1.25         |
|            | Mid           | 16QAM      | 1.10        | 1.26         |
|            | High          | QPSK       | 1.10        | 1.25         |
|            | High          | 16QAM      | 1.10        | 1.25         |
| 3          | Low           | QPSK       | 2.71        | 3.03         |
|            | Low           | 16QAM      | 2.72        | 3.06         |
|            | Mid           | QPSK       | 2.72        | 3.05         |
|            | Mid           | 16QAM      | 2.71        | 3.06         |
|            | High          | QPSK       | 2.71        | 3.07         |
|            | High          | 16QAM      | 2.71        | 3.07         |
| 5          | Low           | QPSK       | 4.50        | 4.96         |
|            | Low           | 16QAM      | 4.50        | 4.99         |
|            | Mid           | QPSK       | 4.50        | 4.99         |
|            | Mid           | 16QAM      | 4.50        | 4.99         |
|            | High          | QPSK       | 4.50        | 4.99         |
|            | High          | 16QAM      | 4.50        | 4.96         |
| 10         | Low           | QPSK       | 9.00        | 9.87         |
|            | Low           | 16QAM      | 8.98        | 9.84         |
|            | Mid           | QPSK       | 9.00        | 9.81         |
|            | Mid           | 16QAM      | 8.97        | 9.86         |
|            | High          | QPSK       | 8.99        | 9.83         |
|            | High          | 16QAM      | 8.97        | 9.84         |
| 15         | Low           | QPSK       | 13.49       | 14.89        |
|            | Low           | 16QAM      | 13.50       | 14.97        |
|            | Mid           | QPSK       | 13.45       | 14.92        |
|            | Mid           | 16QAM      | 13.50       | 14.99        |
|            | High          | QPSK       | 13.48       | 14.86        |
|            | High          | 16QAM      | 13.49       | 14.94        |
| 20         | Low           | QPSK       | 17.98       | 19.78        |
|            | Low           | 16QAM      | 18.01       | 19.73        |
|            | Mid           | QPSK       | 18.01       | 19.65        |
|            | Mid           | 16QAM      | 18.02       | 19.74        |
|            | High          | QPSK       | 17.99       | 19.80        |
|            | High          | 16QAM      | 17.98       | 19.62        |



| LTE Band 4 |               |            |             |              |
|------------|---------------|------------|-------------|--------------|
| BW(MHz)    | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 1.4        | Low           | QPSK       | 1.10        | 1.24         |
|            | Low           | 16QAM      | 1.10        | 1.25         |
|            | Mid           | QPSK       | 1.10        | 1.24         |
|            | Mid           | 16QAM      | 1.10        | 1.25         |
|            | High          | QPSK       | 1.10        | 1.24         |
|            | High          | 16QAM      | 1.10        | 1.25         |
| 3          | Low           | QPSK       | 2.72        | 3.05         |
|            | Low           | 16QAM      | 2.71        | 3.06         |
|            | Mid           | QPSK       | 2.71        | 3.04         |
|            | Mid           | 16QAM      | 2.70        | 3.04         |
|            | High          | QPSK       | 2.71        | 3.04         |
|            | High          | 16QAM      | 2.71        | 3.04         |
| 5          | Low           | QPSK       | 4.50        | 4.95         |
|            | Low           | 16QAM      | 4.50        | 5.01         |
|            | Mid           | QPSK       | 4.49        | 4.98         |
|            | Mid           | 16QAM      | 4.50        | 4.97         |
|            | High          | QPSK       | 4.49        | 4.97         |
|            | High          | 16QAM      | 4.51        | 5.00         |
| 10         | Low           | QPSK       | 9.00        | 9.84         |
|            | Low           | 16QAM      | 8.97        | 9.81         |
|            | Mid           | QPSK       | 9.01        | 9.89         |
|            | Mid           | 16QAM      | 8.97        | 9.84         |
|            | High          | QPSK       | 9.01        | 9.85         |
|            | High          | 16QAM      | 8.98        | 9.76         |
| 15         | Low           | QPSK       | 13.47       | 14.85        |
|            | Low           | 16QAM      | 13.47       | 14.95        |
|            | Mid           | QPSK       | 13.49       | 14.91        |
|            | Mid           | 16QAM      | 13.48       | 14.89        |
|            | High          | QPSK       | 13.50       | 14.89        |
|            | High          | 16QAM      | 13.50       | 15.00        |
| 20         | Low           | QPSK       | 17.97       | 19.65        |
|            | Low           | 16QAM      | 17.98       | 19.76        |
|            | Mid           | QPSK       | 17.96       | 19.78        |
|            | Mid           | 16QAM      | 18.00       | 19.87        |
|            | High          | QPSK       | 18.00       | 20.41        |
|            | High          | 16QAM      | 18.02       | 19.77        |



| LTE Band 5 |               |            |             |              |
|------------|---------------|------------|-------------|--------------|
| BW(MHz)    | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 1.4        | Low           | QPSK       | 1.10        | 1.25         |
|            | Low           | 16QAM      | 1.10        | 1.25         |
|            | Mid           | QPSK       | 1.09        | 1.25         |
|            | Mid           | 16QAM      | 1.10        | 1.25         |
|            | High          | QPSK       | 1.10        | 1.25         |
|            | High          | 16QAM      | 1.10        | 1.26         |
| 3          | Low           | QPSK       | 2.71        | 3.03         |
|            | Low           | 16QAM      | 2.72        | 3.05         |
|            | Mid           | QPSK       | 2.72        | 3.04         |
|            | Mid           | 16QAM      | 2.71        | 3.04         |
|            | High          | QPSK       | 2.72        | 3.06         |
|            | High          | 16QAM      | 2.72        | 3.06         |
| 5          | Low           | QPSK       | 4.49        | 4.97         |
|            | Low           | 16QAM      | 4.50        | 4.96         |
|            | Mid           | QPSK       | 4.50        | 4.97         |
|            | Mid           | 16QAM      | 4.50        | 4.97         |
|            | High          | QPSK       | 4.50        | 4.96         |
|            | High          | 16QAM      | 4.50        | 4.95         |
| 10         | Low           | QPSK       | 8.99        | 9.92         |
|            | Low           | 16QAM      | 8.95        | 9.79         |
|            | Mid           | QPSK       | 8.98        | 9.89         |
|            | Mid           | 16QAM      | 8.98        | 9.85         |
|            | High          | QPSK       | 9.00        | 9.86         |
|            | High          | 16QAM      | 8.98        | 9.81         |



| LTE Band 7 |               |            |             |              |
|------------|---------------|------------|-------------|--------------|
| BW(MHz)    | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 5          | Low           | QPSK       | 4.49        | 4.98         |
|            | Low           | 16QAM      | 4.51        | 4.99         |
|            | Mid           | QPSK       | 4.50        | 4.97         |
|            | Mid           | 16QAM      | 4.51        | 4.97         |
|            | High          | QPSK       | 4.50        | 4.96         |
|            | High          | 16QAM      | 4.50        | 4.99         |
| 10         | Low           | QPSK       | 9.02        | 9.91         |
|            | Low           | 16QAM      | 8.99        | 9.83         |
|            | Mid           | QPSK       | 9.01        | 9.94         |
|            | Mid           | 16QAM      | 8.98        | 9.83         |
|            | High          | QPSK       | 9.01        | 9.93         |
|            | High          | 16QAM      | 8.97        | 9.85         |
| 15         | Low           | QPSK       | 13.48       | 14.89        |
|            | Low           | 16QAM      | 13.50       | 14.93        |
|            | Mid           | QPSK       | 13.52       | 14.89        |
|            | Mid           | 16QAM      | 13.48       | 14.88        |
|            | High          | QPSK       | 13.49       | 14.83        |
|            | High          | 16QAM      | 13.48       | 14.91        |
| 20         | Low           | QPSK       | 18.00       | 19.80        |
|            | Low           | 16QAM      | 18.03       | 19.70        |
|            | Mid           | QPSK       | 17.96       | 19.84        |
|            | Mid           | 16QAM      | 18.04       | 19.82        |
|            | High          | QPSK       | 17.94       | 19.73        |
|            | High          | 16QAM      | 17.97       | 19.71        |



| LTE Band 12 |               |            |             |              |
|-------------|---------------|------------|-------------|--------------|
| BW(MHz)     | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 1.4         | Low           | QPSK       | 1.10        | 1.25         |
|             | Low           | 16QAM      | 1.10        | 1.23         |
|             | Mid           | QPSK       | 1.10        | 1.24         |
|             | Mid           | 16QAM      | 1.10        | 1.25         |
|             | High          | QPSK       | 1.10        | 1.25         |
|             | High          | 16QAM      | 1.10        | 1.25         |
| 3           | Low           | QPSK       | 2.72        | 3.05         |
|             | Low           | 16QAM      | 2.72        | 3.05         |
|             | Mid           | QPSK       | 2.71        | 3.03         |
|             | Mid           | 16QAM      | 2.71        | 3.03         |
|             | High          | QPSK       | 2.71        | 3.04         |
|             | High          | 16QAM      | 2.72        | 3.05         |
| 5           | Low           | QPSK       | 4.50        | 4.98         |
|             | Low           | 16QAM      | 4.50        | 4.98         |
|             | Mid           | QPSK       | 4.49        | 4.97         |
|             | Mid           | 16QAM      | 4.50        | 5.00         |
|             | High          | QPSK       | 4.50        | 4.97         |
|             | High          | 16QAM      | 4.51        | 4.99         |
| 10          | Low           | QPSK       | 9.04        | 9.81         |
|             | Low           | 16QAM      | 8.98        | 9.76         |
|             | Mid           | QPSK       | 9.01        | 9.90         |
|             | Mid           | 16QAM      | 8.97        | 9.85         |
|             | High          | QPSK       | 9.02        | 9.81         |
|             | High          | 16QAM      | 8.98        | 9.83         |





| LTE Band 17 |               |            |             |              |
|-------------|---------------|------------|-------------|--------------|
| BW(MHz)     | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 5           | Low           | QPSK       | 4.49        | 4.96         |
|             | Low           | 16QAM      | 4.50        | 4.98         |
|             | Mid           | QPSK       | 4.50        | 4.98         |
|             | Mid           | 16QAM      | 4.49        | 4.97         |
|             | High          | QPSK       | 4.50        | 4.95         |
|             | High          | 16QAM      | 4.50        | 5.00         |
| 10          | Low           | QPSK       | 9.00        | 9.80         |
|             | Low           | 16QAM      | 8.98        | 9.81         |
|             | Mid           | QPSK       | 9.02        | 9.91         |
|             | Mid           | 16QAM      | 8.97        | 9.80         |
|             | High          | QPSK       | 9.01        | 9.87         |
|             | High          | 16QAM      | 8.98        | 9.83         |



| LTE Band 66 |               |            |             |              |
|-------------|---------------|------------|-------------|--------------|
| BW(MHz)     | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 1.4         | Low           | QPSK       | 1.09        | 1.24         |
|             | Low           | 16QAM      | 1.10        | 1.25         |
|             | Mid           | QPSK       | 1.09        | 1.24         |
|             | Mid           | 16QAM      | 1.10        | 1.25         |
|             | High          | QPSK       | 1.10        | 1.25         |
|             | High          | 16QAM      | 1.10        | 1.25         |
| 3           | Low           | QPSK       | 2.71        | 3.05         |
|             | Low           | 16QAM      | 2.72        | 3.04         |
|             | Mid           | QPSK       | 2.72        | 3.04         |
|             | Mid           | 16QAM      | 2.72        | 3.06         |
|             | High          | QPSK       | 2.71        | 3.05         |
|             | High          | 16QAM      | 2.71        | 3.03         |
| 5           | Low           | QPSK       | 4.50        | 4.96         |
|             | Low           | 16QAM      | 4.50        | 4.99         |
|             | Mid           | QPSK       | 4.50        | 4.96         |
|             | Mid           | 16QAM      | 4.50        | 4.96         |
|             | High          | QPSK       | 4.50        | 4.95         |
|             | High          | 16QAM      | 4.50        | 4.98         |
| 10          | Low           | QPSK       | 8.99        | 9.81         |
|             | Low           | 16QAM      | 8.97        | 9.85         |
|             | Mid           | QPSK       | 9.01        | 9.81         |
|             | Mid           | 16QAM      | 8.97        | 9.85         |
|             | High          | QPSK       | 9.00        | 9.88         |
|             | High          | 16QAM      | 8.98        | 9.90         |
| 15          | Low           | QPSK       | 13.48       | 14.82        |
|             | Low           | 16QAM      | 13.48       | 14.87        |
|             | Mid           | QPSK       | 13.50       | 15.02        |
|             | Mid           | 16QAM      | 13.50       | 14.94        |
|             | High          | QPSK       | 13.49       | 14.89        |
|             | High          | 16QAM      | 13.49       | 14.98        |
| 20          | Low           | QPSK       | 17.97       | 19.82        |
|             | Low           | 16QAM      | 17.98       | 19.80        |
|             | Mid           | QPSK       | 18.00       | 19.75        |
|             | Mid           | 16QAM      | 18.02       | 19.79        |
|             | High          | QPSK       | 17.96       | 19.62        |
|             | High          | 16QAM      | 17.97       | 19.74        |



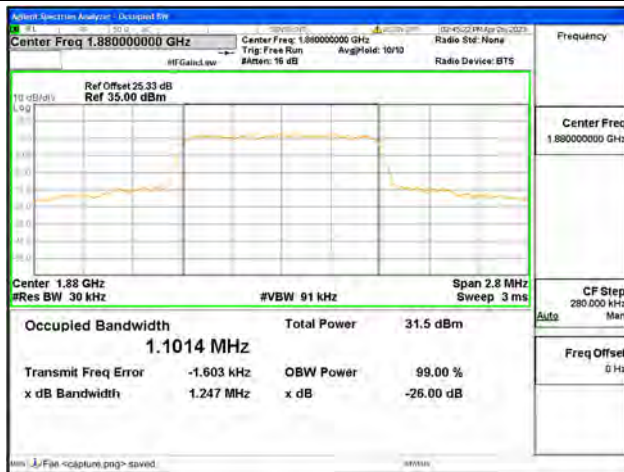
| LTE Band 71 |               |            |             |              |
|-------------|---------------|------------|-------------|--------------|
| BW(MHz)     | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 5           | Low           | QPSK       | 4.48        | 4.95         |
|             | Low           | 16QAM      | 4.49        | 4.97         |
|             | Mid           | QPSK       | 4.49        | 4.96         |
|             | Mid           | 16QAM      | 4.51        | 4.98         |
|             | High          | QPSK       | 4.50        | 4.95         |
|             | High          | 16QAM      | 4.50        | 4.98         |
| 10          | Low           | QPSK       | 8.99        | 9.79         |
|             | Low           | 16QAM      | 8.93        | 9.81         |
|             | Mid           | QPSK       | 9.00        | 9.80         |
|             | Mid           | 16QAM      | 8.96        | 9.80         |
|             | High          | QPSK       | 9.03        | 9.82         |
|             | High          | 16QAM      | 8.99        | 9.84         |
| 15          | Low           | QPSK       | 13.47       | 14.78        |
|             | Low           | 16QAM      | 13.47       | 14.83        |
|             | Mid           | QPSK       | 13.47       | 14.79        |
|             | Mid           | 16QAM      | 13.45       | 14.75        |
|             | High          | QPSK       | 13.50       | 14.86        |
|             | High          | 16QAM      | 13.49       | 15.02        |
| 20          | Low           | QPSK       | 18.03       | 19.78        |
|             | Low           | 16QAM      | 18.05       | 19.68        |
|             | Mid           | QPSK       | 17.91       | 19.74        |
|             | Mid           | 16QAM      | 17.96       | 19.64        |
|             | High          | QPSK       | 17.94       | 19.74        |
|             | High          | 16QAM      | 17.98       | 19.72        |



Band2 / 1.4MHz / QPSK/ Low CH



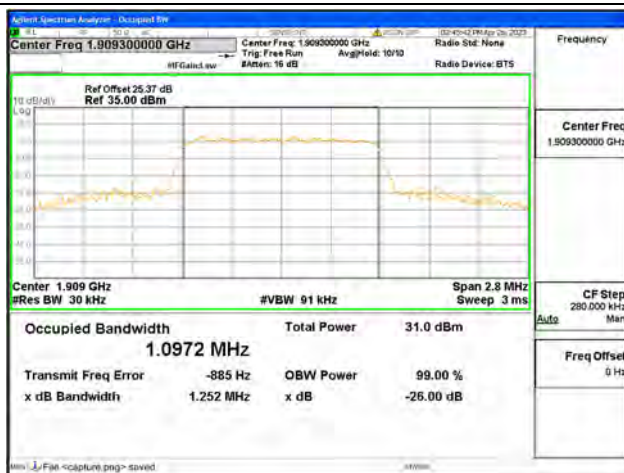
Band2 / 1.4MHz / 16QAM/ Low CH



Band2 / 1.4MHz / QPSK/ Mid CH



Band2 / 1.4MHz / 16QAM/ Mid CH



Band2 / 1.4MHz / QPSK/ High CH



Band2 / 1.4MHz / 16QAM/ High CH





Band2 / 3MHz / QPSK/ Low CH



Band2 / 3MHz / 16QAM/ Low CH



Band2 / 3MHz / QPSK/ Mid CH



Band2 / 3MHz / 16QAM/ Mid CH



Band2 / 3MHz / QPSK/ High CH



Band2 / 3MHz / 16QAM/ High CH



Band2 / 5MHz / QPSK/ Low CH



Band2 / 5MHz / 16QAM/ Low CH



Band2 / 5MHz / QPSK/ Mid CH



Band2 / 5MHz / 16QAM/ Mid CH



Band2 / 5MHz / QPSK/ High CH



Band2 / 5MHz / 16QAM/ High CH

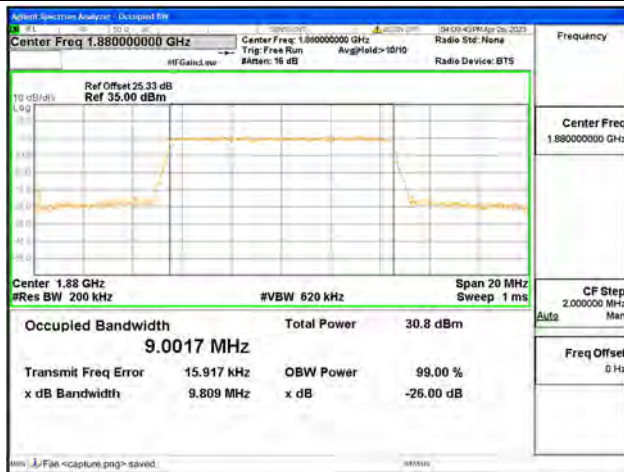




Band2 / 10MHz / QPSK/ Low CH



Band2 / 10MHz / 16QAM/ Low CH



Band2 / 10MHz / QPSK/ Mid CH



Band2 / 10MHz / 16QAM/ Mid CH



Band2 / 10MHz / QPSK/ High CH



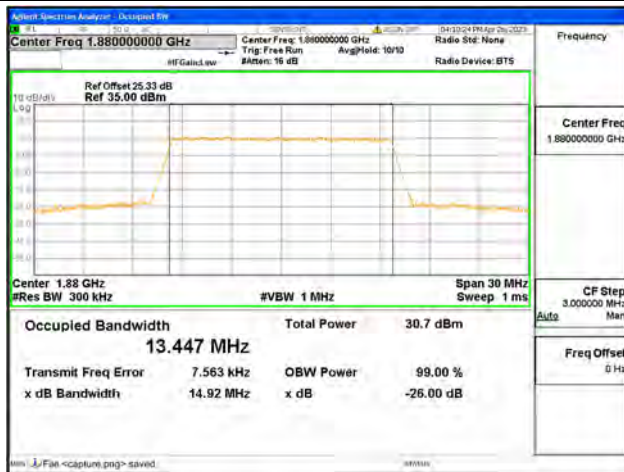
Band2 / 10MHz / 16QAM/ High CH



Band2 / 15MHz / QPSK/ Low CH



Band2 / 15MHz / 16QAM/ Low CH



Band2 / 15MHz / QPSK/ Mid CH



Band2 / 15MHz / 16QAM/ Mid CH



Band2 / 15MHz / QPSK/ High CH



Band2 / 15MHz / 16QAM/ High CH

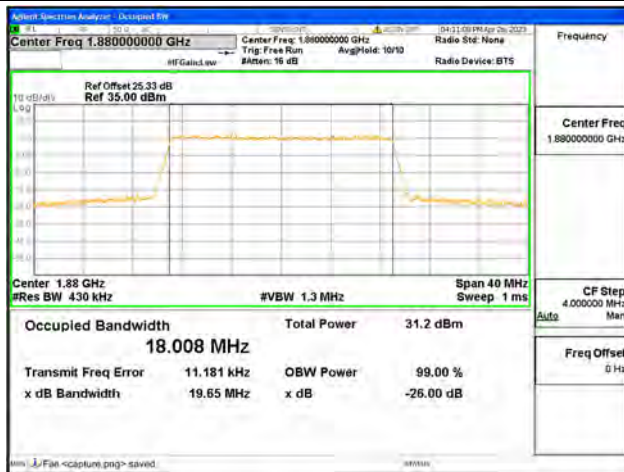




Band2 / 20MHz / QPSK/ Low CH



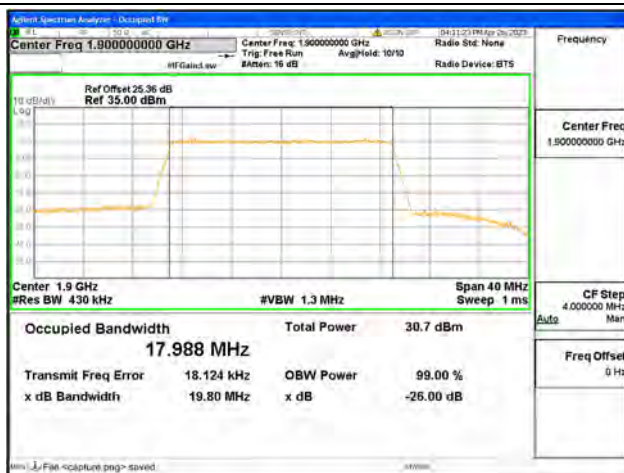
Band2 / 20MHz / 16QAM/ Low CH



Band2 / 20MHz / QPSK/ Mid CH



Band2 / 20MHz / 16QAM/ Mid CH



Band2 / 20MHz / QPSK/ High CH



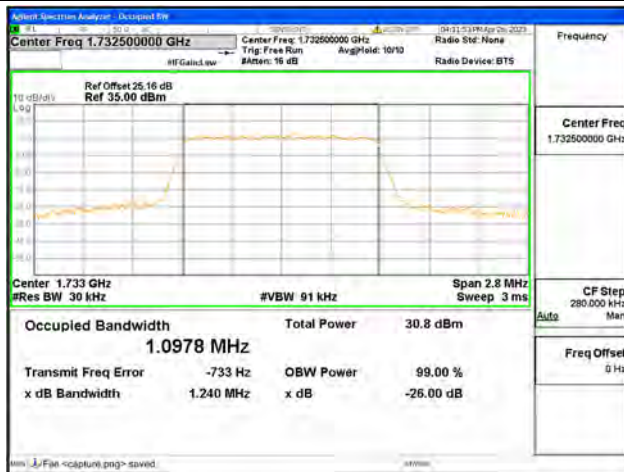
Band2 / 20MHz / 16QAM/ High CH



Band4 / 1.4MHz / QPSK/ Low CH



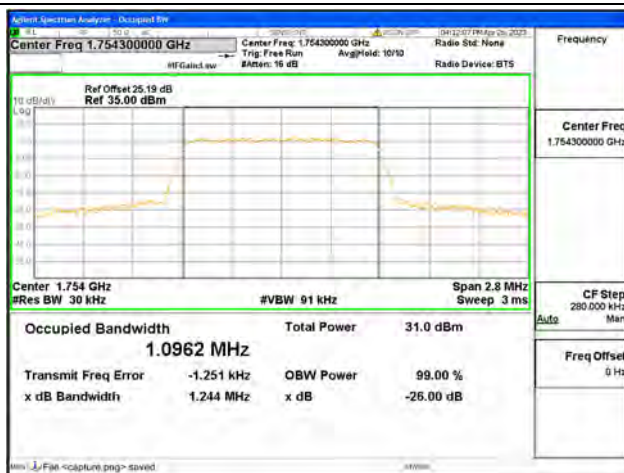
Band4 / 1.4MHz / 16QAM/ Low CH



Band4 / 1.4MHz / QPSK/ Mid CH



Band4 / 1.4MHz / 16QAM/ Mid CH



Band4 / 1.4MHz / QPSK/ High CH



Band4 / 1.4MHz / 16QAM/ High CH

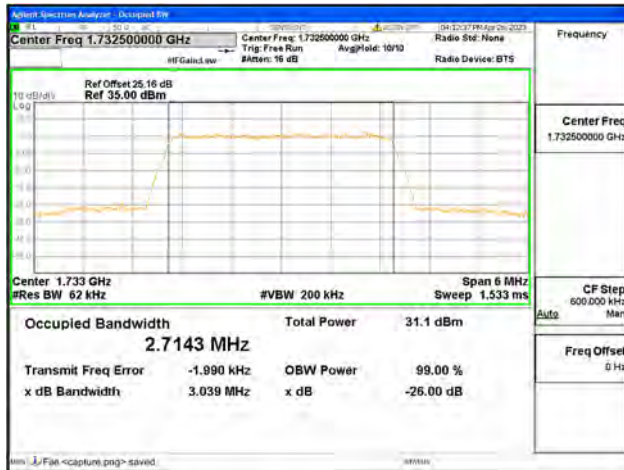




Band4 / 3MHz / QPSK/ Low CH



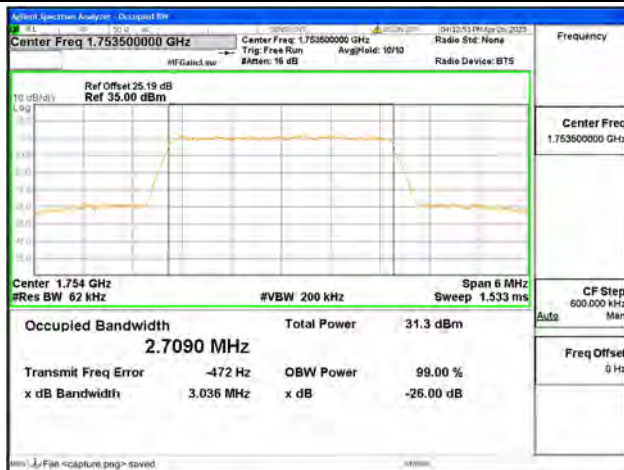
Band4 / 3MHz / 16QAM/ Low CH



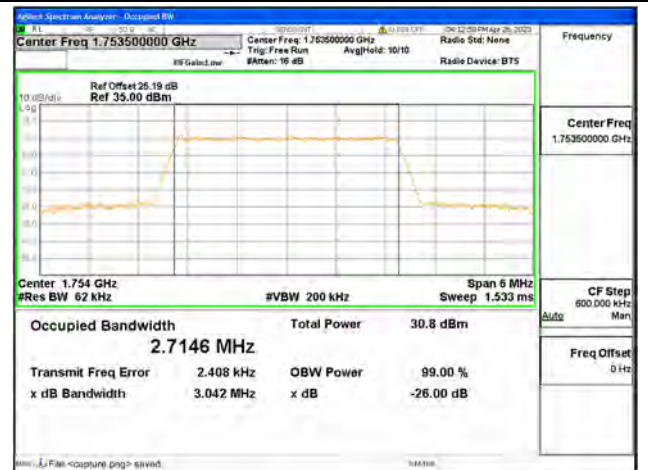
Band4 / 3MHz / QPSK/ Mid CH



Band4 / 3MHz / 16QAM/ Mid CH



Band4 / 3MHz / QPSK/ High CH



Band4 / 3MHz / 16QAM/ High CH



Band4 / 5MHz / QPSK/ Low CH



Band4 / 5MHz / 16QAM/ Low CH



Band4 / 5MHz / QPSK/ Mid CH



Band4 / 5MHz / 16QAM/ Mid CH



Band4 / 5MHz / QPSK/ High CH



Band4 / 5MHz / 16QAM/ High CH





Band4 / 10MHz / QPSK/ Low CH



Band4 / 10MHz / 16QAM/ Low CH



Band4 / 10MHz / QPSK/ Mid CH



Band4 / 10MHz / 16QAM/ Mid CH



Band4 / 10MHz / QPSK/ High CH



Band4 / 10MHz / 16QAM/ High CH



Band4 / 15MHz / QPSK/ Low CH



Band4 / 15MHz / 16QAM/ Low CH



Band4 / 15MHz / QPSK/ Mid CH



Band4 / 15MHz / 16QAM/ Mid CH



Band4 / 15MHz / QPSK/ High CH



Band4 / 15MHz / 16QAM/ High CH





Band4 / 20MHz / QPSK/ Low CH



Band4 / 20MHz / 16QAM/ Low CH



Band4 / 20MHz / QPSK/ Mid CH



Band4 / 20MHz / 16QAM/ Mid CH



Band4 / 20MHz / QPSK/ High CH



Band4 / 20MHz / 16QAM/ High CH



Band5 / 1.4MHz / QPSK/ Low CH



Band5 / 1.4MHz / 16QAM/ Low CH



Band5 / 1.4MHz / QPSK/ Mid CH



Band5 / 1.4MHz / 16QAM/ Mid CH



Band5 / 1.4MHz / QPSK/ High CH



Band5 / 1.4MHz / 16QAM/ High CH





Band5 / 3MHz / QPSK/ Low CH



Band5 / 3MHz / 16QAM/ Low CH



Band5 / 3MHz / QPSK/ Mid CH



Band5 / 3MHz / 16QAM/ Mid CH



Band5 / 3MHz / QPSK/ High CH



Band5 / 3MHz / 16QAM/ High CH



Band5 / 5MHz / QPSK/ Low CH



Band5 / 5MHz / 16QAM/ Low CH



Band5 / 5MHz / QPSK/ Mid CH



Band5 / 5MHz / 16QAM/ Mid CH



Band5 / 5MHz / QPSK/ High CH

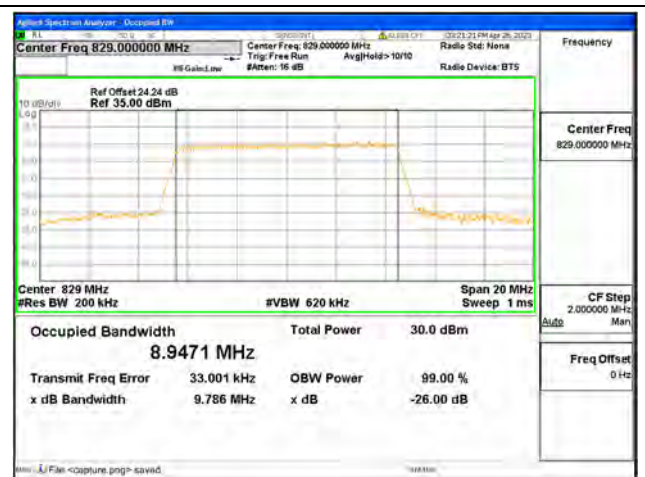


Band5 / 5MHz / 16QAM/ High CH





Band5 / 10MHz / QPSK/ Low CH



Band5 / 10MHz / 16QAM/ Low CH



Band5 / 10MHz / QPSK/ Mid CH



Band5 / 10MHz / 16QAM/ Mid CH



Band5 / 10MHz / QPSK/ High CH



Band5 / 10MHz / 16QAM/ High CH



Band7 / 5MHz / QPSK/ Low CH



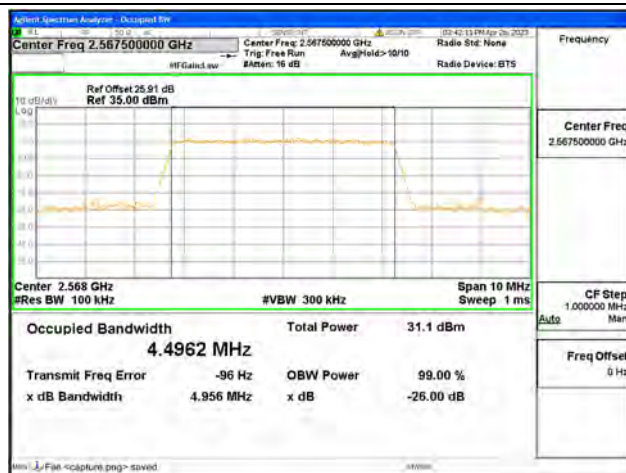
Band7 / 5MHz / 16QAM/ Low CH



Band7 / 5MHz / QPSK/ Mid CH



Band7 / 5MHz / 16QAM/ Mid CH



Band7 / 5MHz / QPSK/ High CH



Band7 / 5MHz / 16QAM/ High CH

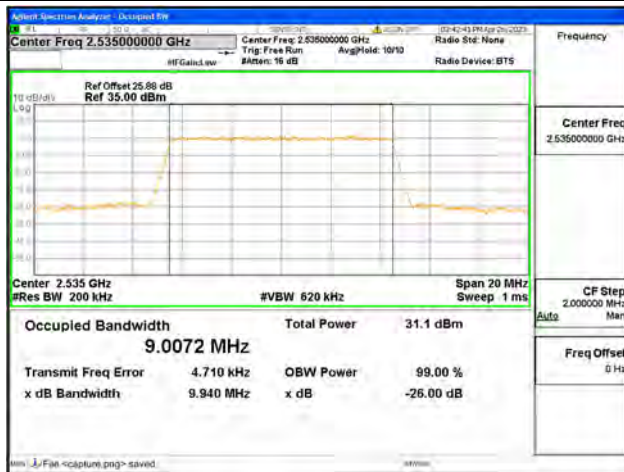




Band7 / 10MHz / QPSK/ Low CH



Band7 / 10MHz / 16QAM/ Low CH



Band7 / 10MHz / QPSK/ Mid CH



Band7 / 10MHz / 16QAM/ Mid CH



Band7 / 10MHz / QPSK/ High CH



Band7 / 10MHz / 16QAM/ High CH



Band7 / 15MHz / QPSK/ Low CH



Band7 / 15MHz / 16QAM/ Low CH



Band7 / 15MHz / QPSK/ Mid CH



Band7 / 15MHz / 16QAM/ Mid CH



Band7 / 15MHz / QPSK/ High CH



Band7 / 15MHz / 16QAM/ High CH

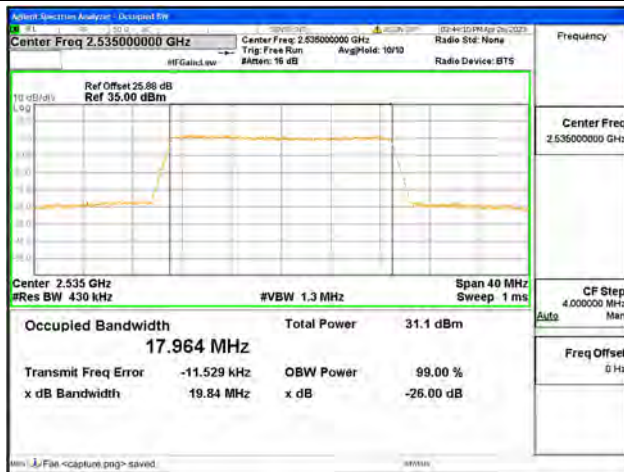




Band7 / 20MHz / QPSK/ Low CH



Band7 / 20MHz / 16QAM/ Low CH



Band7 / 20MHz / QPSK/ Mid CH



Band7 / 20MHz / 16QAM/ Mid CH



Band7 / 20MHz / QPSK/ High CH



Band7 / 20MHz / 16QAM/ High CH





Band12 / 1.4MHz / QPSK/ Low CH



Band12 / 1.4MHz / 16QAM/ Low CH



Band12 / 1.4MHz / QPSK/ Mid CH



Band12 / 1.4MHz / 16QAM/ Mid CH



Band12 / 1.4MHz / QPSK/ High CH



Band12 / 1.4MHz / 16QAM/ High CH



Band12 / 3MHz / QPSK/ Low CH



Band12 / 3MHz / 16QAM/ Low CH



Band12 / 3MHz / QPSK/ Mid CH



Band12 / 3MHz / 16QAM/ Mid CH



Band12 / 3MHz / QPSK/ High CH



Band12 / 3MHz / 16QAM/ High CH





Band12 / 5MHz / QPSK/ Low CH



Band12 / 5MHz / 16QAM/ Low CH



Band12 / 5MHz / QPSK/ Mid CH



Band12 / 5MHz / 16QAM/ Mid CH



Band12 / 5MHz / QPSK/ High CH



Band12 / 5MHz / 16QAM/ High CH



Band12 / 10MHz / QPSK/ Low CH



Band12 / 10MHz / 16QAM/ Low CH



Band12 / 10MHz / QPSK/ Mid CH



Band12 / 10MHz / 16QAM/ Mid CH



Band12 / 10MHz / QPSK/ High CH



Band12 / 10MHz / 16QAM/ High CH





Band17 / 5MHz / QPSK/ Low CH



Band17 / 5MHz / 16QAM/ Low CH



Band17 / 5MHz / QPSK/ Mid CH



Band17 / 5MHz / 16QAM/ Mid CH



Band17 / 5MHz / QPSK/ High CH



Band17 / 5MHz / 16QAM/ High CH



Band17 / 10MHz / QPSK/ Low CH



Band17 / 10MHz / 16QAM/ Low CH



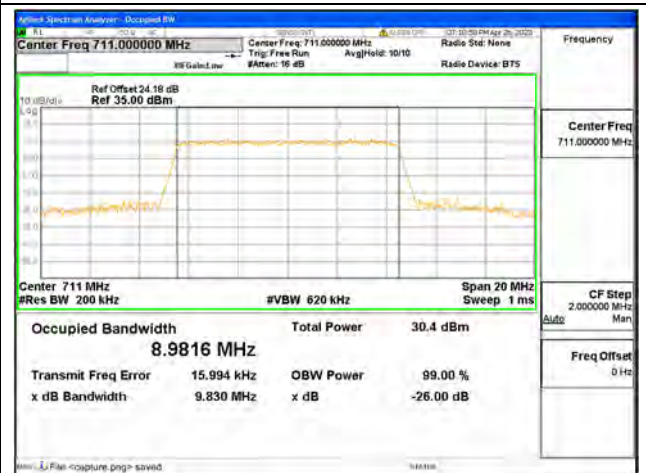
Band17 / 10MHz / QPSK/ Mid CH



Band17 / 10MHz / 16QAM/ Mid CH



Band17 / 10MHz / QPSK/ High CH



Band17 / 10MHz / 16QAM/ High CH





Band66 / 1.4MHz / QPSK/ Low CH



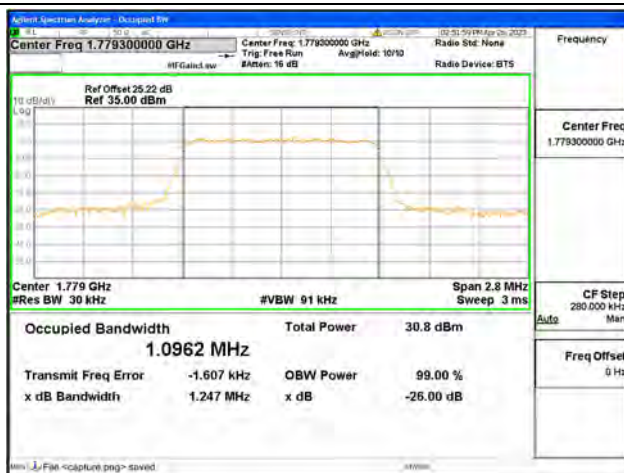
Band66 / 1.4MHz / 16QAM/ Low CH



Band66 / 1.4MHz / QPSK/ Mid CH



Band66 / 1.4MHz / 16QAM/ Mid CH



Band66 / 1.4MHz / QPSK/ High CH



Band66 / 1.4MHz / 16QAM/ High CH



Band66 / 3MHz / QPSK/ Low CH



Band66 / 3MHz / 16QAM/ Low CH



Band66 / 3MHz / QPSK/ Mid CH



Band66 / 3MHz / 16QAM/ Mid CH



Band66 / 3MHz / QPSK/ High CH

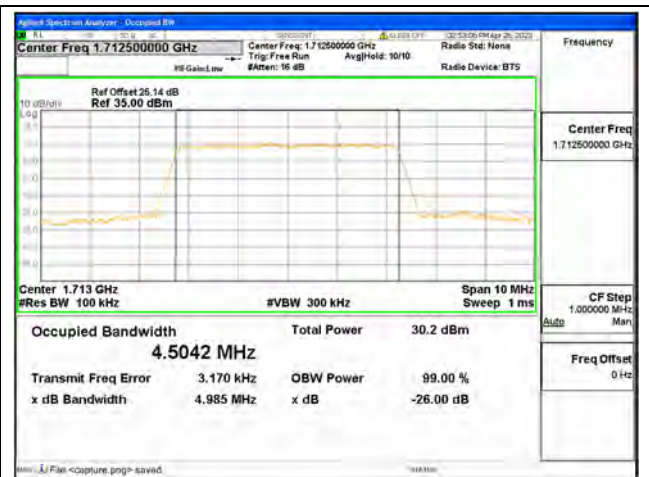


Band66 / 3MHz / 16QAM/ High CH





Band66 / 5MHz / QPSK/ Low CH



Band66 / 5MHz / 16QAM/ Low CH



Band66 / 5MHz / QPSK/ Mid CH



Band66 / 5MHz / 16QAM/ Mid CH



Band66 / 5MHz / QPSK/ High CH



Band66 / 5MHz / 16QAM/ High CH



Band66 / 10MHz / QPSK/ Low CH



Band66 / 10MHz / 16QAM/ Low CH



Band66 / 10MHz / QPSK/ Mid CH



Band66 / 10MHz / 16QAM/ Mid CH



Band66 / 10MHz / QPSK/ High CH



Band66 / 10MHz / 16QAM/ High CH





Band66 / 15MHz / QPSK/ Low CH



Band66 / 15MHz / 16QAM/ Low CH



Band66 / 15MHz / QPSK/ Mid CH



Band66 / 15MHz / 16QAM/ Mid CH



Band66 / 15MHz / QPSK/ High CH



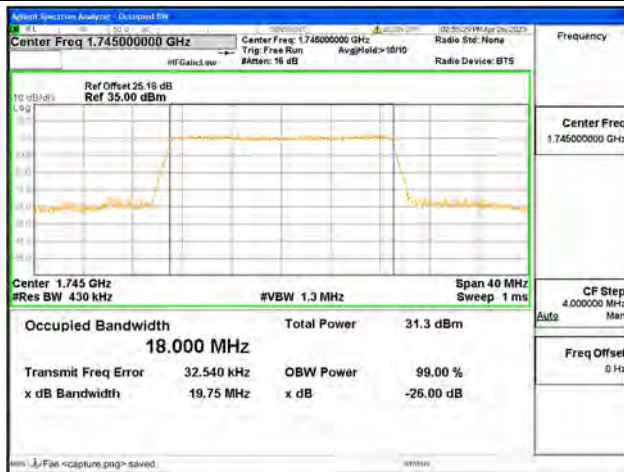
Band66 / 15MHz / 16QAM/ High CH



Band66 / 20MHz / QPSK/ Low CH



Band66 / 20MHz / 16QAM/ Low CH



Band66 / 20MHz / QPSK/ Mid CH



Band66 / 20MHz / 16QAM/ Mid CH



Band66 / 20MHz / QPSK/ High CH



Band66 / 20MHz / 16QAM/ High CH





Band71 / 5MHz / QPSK/ Low CH



Band71 / 5MHz / 16QAM/ Low CH



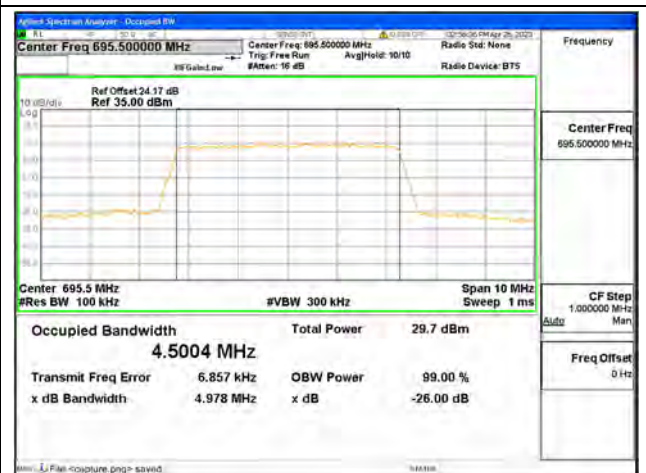
Band71 / 5MHz / QPSK/ Mid CH



Band71 / 5MHz / 16QAM/ Mid CH



Band71 / 5MHz / QPSK/ High CH



Band71 / 5MHz / 16QAM/ High CH



Band71 / 10MHz / QPSK/ Low CH



Band71 / 10MHz / 16QAM/ Low CH



Band71 / 10MHz / QPSK/ Mid CH



Band71 / 10MHz / 16QAM/ Mid CH



Band71 / 10MHz / QPSK/ High CH



Band71 / 10MHz / 16QAM/ High CH





Band71 / 15MHz / QPSK/ Low CH



Band71 / 15MHz / 16QAM/ Low CH



Band71 / 15MHz / QPSK/ Mid CH



Band71 / 15MHz / 16QAM/ Mid CH



Band71 / 15MHz / QPSK/ High CH



Band71 / 15MHz / 16QAM/ High CH



Band71 / 20MHz / QPSK/ Low CH



Band71 / 20MHz / 16QAM/ Low CH



Band71 / 20MHz / QPSK/ Mid CH



Band71 / 20MHz / 16QAM/ Mid CH



Band71 / 20MHz / QPSK/ High CH



Band71 / 20MHz / 16QAM/ High CH



## 2.3. Frequency Stability

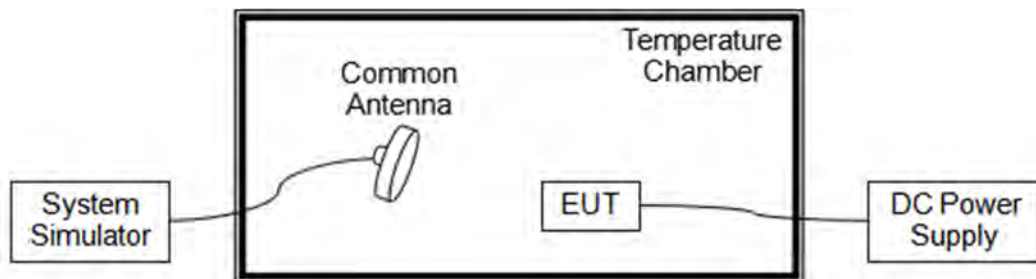
### 2.3.1. Requirement

According to FCC section 2.1055, 24.235, 27.54, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

- (a) The temperature is varied from  $-30^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  at intervals of not more than  $10^{\circ}\text{C}$ .
- (b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

**Note:** The operating temperature of EUT is from  $-10^{\circ}\text{C}$  to  $55^{\circ}\text{C}$ , which are specified by the applicant.

### 2.3.2. Test Description



The EUT which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power. A call is established between the EUT and the SS via a Common Antenna.

### 2.3.3. Test Procedure

KDB 971168 D01v03 Section 9.0 and ANSI/TIA-603-E-2016.



**2.3.4. Test Result**

The nominal, highest and lowest extreme voltages are separately 3.85V, 4.40V and 3.60V, which are specified by the applicant; the normal temperature here used is 20°C.

| LTE Band 2, QPSK, Channel 18900, Frequency 1880.0MHz<br>Limit =Within Authorized Band |             |          |                |                 |        |
|---------------------------------------------------------------------------------------|-------------|----------|----------------|-----------------|--------|
| Voltage (%)                                                                           | Power (VDC) | Temp(°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| Normal                                                                                | 3.85        | +20(Ref) | 17             | 0.009           | PASS   |
| Normal                                                                                |             | -10      | 20             | <b>0.011</b>    |        |
| Normal                                                                                |             | 0        | -13            | -0.007          |        |
| Normal                                                                                |             | +10      | -15            | -0.008          |        |
| Normal                                                                                |             | +20      | 17             | 0.009           |        |
| Normal                                                                                |             | +30      | -16            | -0.009          |        |
| Normal                                                                                |             | +40      | -7             | -0.004          |        |
| Normal                                                                                |             | +50      | 19             | 0.010           |        |
| Normal                                                                                |             | +55      | 20             | <b>0.011</b>    |        |
| High                                                                                  | 4.40        | +20      | 12             | 0.006           |        |
| BATT.ENDPOINT                                                                         | 3.60        | +20      | 16             | 0.009           |        |

| LTE Band 4, QPSK, Channel 20175, Frequency 1732.5MHz<br>Limit =Within Authorized Band |             |          |                |                 |        |
|---------------------------------------------------------------------------------------|-------------|----------|----------------|-----------------|--------|
| Voltage (%)                                                                           | Power (VDC) | Temp(°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| Normal                                                                                | 3.85        | +20(Ref) | 16             | 0.009           | PASS   |
| Normal                                                                                |             | -10      | 13             | 0.008           |        |
| Normal                                                                                |             | 0        | -14            | -0.008          |        |
| Normal                                                                                |             | +10      | 20             | <b>0.012</b>    |        |
| Normal                                                                                |             | +20      | 17             | 0.010           |        |
| Normal                                                                                |             | +30      | 2              | 0.001           |        |
| Normal                                                                                |             | +40      | 13             | 0.008           |        |
| Normal                                                                                |             | +50      | 13             | 0.008           |        |
| Normal                                                                                |             | +55      | 14             | 0.008           |        |
| High                                                                                  | 4.40        | +20      | 20             | <b>0.012</b>    |        |
| BATT.ENDPOINT                                                                         | 3.60        | +20      | 18             | 0.010           |        |



| LTE Band 5, QPSK, Channel 20525, Frequency 836.5MHz<br>Limit=±2.5ppm |             |          |                |                 |        |
|----------------------------------------------------------------------|-------------|----------|----------------|-----------------|--------|
| Voltage (%)                                                          | Power (VDC) | Temp(°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| Normal                                                               | 3.85        | +20(Ref) | 19             | 0.023           | PASS   |
| Normal                                                               |             | -10      | -3             | -0.004          |        |
| Normal                                                               |             | 0        | 15             | 0.018           |        |
| Normal                                                               |             | +10      | 17             | 0.020           |        |
| Normal                                                               |             | +20      | 3              | 0.004           |        |
| Normal                                                               |             | +30      | 13             | 0.016           |        |
| Normal                                                               |             | +40      | 17             | 0.020           |        |
| Normal                                                               |             | +50      | -4             | -0.005          |        |
| Normal                                                               |             | +55      | 20             | <b>0.024</b>    |        |
| High                                                                 | 4.40        | +20      | -16            | -0.019          |        |
| BATT.ENDPOINT                                                        | 3.60        | +20      | -19            | -0.023          |        |

| LTE Band 7, QPSK, Channel 21100, Frequency 2535MHz<br>Limit= Within Authorized Band |             |          |                |                 |        |
|-------------------------------------------------------------------------------------|-------------|----------|----------------|-----------------|--------|
| Voltage (%)                                                                         | Power (VDC) | Temp(°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| Normal                                                                              | 3.85        | +20(Ref) | 17             | 0.007           | PASS   |
| Normal                                                                              |             | -10      | -21            | -0.008          |        |
| Normal                                                                              |             | 0        | -21            | -0.008          |        |
| Normal                                                                              |             | +10      | -4             | -0.002          |        |
| Normal                                                                              |             | +20      | 16             | 0.006           |        |
| Normal                                                                              |             | +30      | 18             | 0.007           |        |
| Normal                                                                              |             | +40      | 16             | 0.006           |        |
| Normal                                                                              |             | +50      | 18             | 0.007           |        |
| Normal                                                                              |             | +55      | 21             | <b>0.008</b>    |        |
| High                                                                                | 4.40        | +20      | 13             | 0.005           |        |
| BATT.ENDPOINT                                                                       | 3.60        | +20      | 14             | 0.006           |        |



| LTE Band 12, QPSK, Channel 23095, Frequency 707.5MHz<br>Limit =Within Authorized Band |             |          |                |                 |        |
|---------------------------------------------------------------------------------------|-------------|----------|----------------|-----------------|--------|
| Voltage (%)                                                                           | Power (VDC) | Temp(°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| Normal                                                                                | 3.85        | +20(Ref) | 17             | 0.024           | PASS   |
| Normal                                                                                |             | -10      | 17             | 0.024           |        |
| Normal                                                                                |             | 0        | 17             | 0.024           |        |
| Normal                                                                                |             | +10      | 14             | 0.020           |        |
| Normal                                                                                |             | +20      | 15             | 0.021           |        |
| Normal                                                                                |             | +30      | 16             | 0.023           |        |
| Normal                                                                                |             | +40      | 16             | 0.023           |        |
| Normal                                                                                |             | +50      | 20             | <b>0.028</b>    |        |
| Normal                                                                                |             | +55      | 11             | 0.016           |        |
| High                                                                                  | 4.40        | +20      | 15             | 0.021           |        |
| BATT.ENDPOINT                                                                         | 3.60        | +20      | 8              | 0.011           |        |

| LTE Band 17, QPSK, Channel 23790, Frequency 710MHz<br>Limit =Within Authorized Band |             |          |                |                 |        |
|-------------------------------------------------------------------------------------|-------------|----------|----------------|-----------------|--------|
| Voltage (%)                                                                         | Power (VDC) | Temp(°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| Normal                                                                              | 3.85        | +20(Ref) | 17             | 0.024           | PASS   |
| Normal                                                                              |             | -10      | 16             | 0.023           |        |
| Normal                                                                              |             | 0        | 20             | <b>0.028</b>    |        |
| Normal                                                                              |             | +10      | 17             | 0.024           |        |
| Normal                                                                              |             | +20      | 18             | 0.025           |        |
| Normal                                                                              |             | +30      | -14            | -0.020          |        |
| Normal                                                                              |             | +40      | -10            | -0.014          |        |
| Normal                                                                              |             | +50      | 17             | 0.024           |        |
| Normal                                                                              |             | +55      | 14             | 0.020           |        |
| High                                                                                | 4.40        | +20      | 14             | 0.020           |        |
| BATT.ENDPOINT                                                                       | 3.60        | +20      | 12             | 0.017           |        |



| LTE Band 66, QPSK, Channel 132322, Frequency 1745MHz<br>Limit =Within Authorized Band |             |           |                |                 |        |
|---------------------------------------------------------------------------------------|-------------|-----------|----------------|-----------------|--------|
| Voltage (%)                                                                           | Power (VDC) | Temp (°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| Normal                                                                                | 3.85        | +20(Ref)  | 17             | 0.010           | PASS   |
| Normal                                                                                |             | -10       | 23             | <b>0.013</b>    |        |
| Normal                                                                                |             | 0         | 1              | 0.001           |        |
| Normal                                                                                |             | +10       | 20             | 0.011           |        |
| Normal                                                                                |             | +20       | 14             | 0.008           |        |
| Normal                                                                                |             | +30       | -13            | -0.007          |        |
| Normal                                                                                |             | +40       | 11             | 0.006           |        |
| Normal                                                                                |             | +50       | 18             | 0.010           |        |
| Normal                                                                                |             | +55       | 9              | 0.005           |        |
| High                                                                                  | 4.40        | +20       | 19             | 0.011           |        |
| BATT.ENDPOINT                                                                         | 3.60        | +20       | 19             | 0.011           |        |

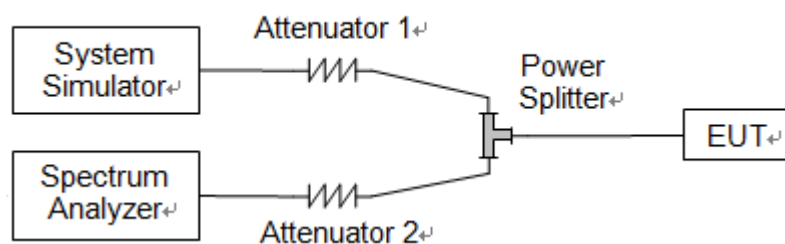
| LTE Band 71, QPSK, Channel 133322, Frequency 683.0MHz<br>Limit =Within Authorized Band |             |           |                |                 |        |
|----------------------------------------------------------------------------------------|-------------|-----------|----------------|-----------------|--------|
| Voltage (%)                                                                            | Power (VDC) | Temp (°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| Normal                                                                                 | 3.85        | +20(Ref)  | 19             | 0.028           | PASS   |
| Normal                                                                                 |             | -10       | -18            | -0.026          |        |
| Normal                                                                                 |             | 0         | -3             | -0.004          |        |
| Normal                                                                                 |             | +10       | 13             | 0.019           |        |
| Normal                                                                                 |             | +20       | 17             | 0.025           |        |
| Normal                                                                                 |             | +30       | -23            | -0.034          |        |
| Normal                                                                                 |             | +40       | 18             | 0.026           |        |
| Normal                                                                                 |             | +50       | 21             | 0.031           |        |
| Normal                                                                                 |             | +55       | 23             | <b>0.034</b>    |        |
| High                                                                                   | 4.40        | +20       | 9              | 0.013           |        |
| BATT.ENDPOINT                                                                          | 3.60        | +20       | 13             | 0.019           |        |

## 2.4. Peak to Average Radio

### 2.4.1. Requirement

According to FCC section 24.232(d) and 27.50(d), the peak to average ratio (PAR) of the transmission may not exceed 13dB.

### 2.4.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

### 2.4.3. Test Procedure

KDB 971168 D01v03 Section 5.7 and ANSI/TIA-603-E-2016.

### 2.4.4. Test Result

Record the maximum PAPR level associated with a probability of 0.1%.





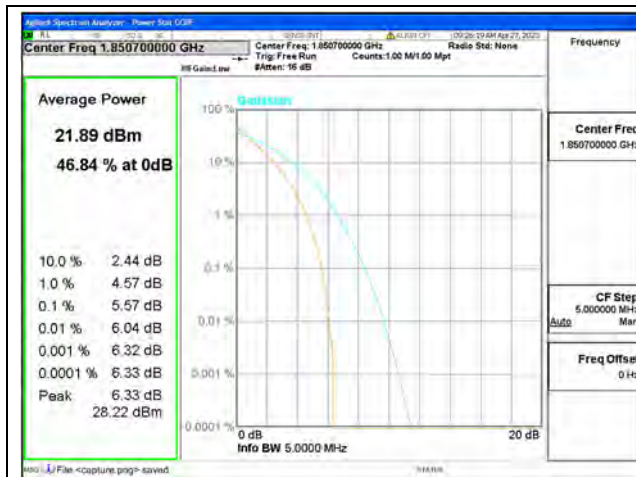
| LTE Band 2 |               |            |               |           |         |
|------------|---------------|------------|---------------|-----------|---------|
| BW(MHz)    | Channel Level | Modulation | PAR Radio(dB) | Limit(dB) | Verdict |
| 1.4        | Low           | QPSK       | 5.57          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.38          | <=13      | PASS    |
|            | Mid           | QPSK       | 4.28          | <=13      | PASS    |
|            | Mid           | 16QAM      | 5.01          | <=13      | PASS    |
|            | High          | QPSK       | 5.15          | <=13      | PASS    |
|            | High          | 16QAM      | 5.87          | <=13      | PASS    |
| 3          | Low           | QPSK       | 5.59          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.33          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.20          | <=13      | PASS    |
|            | Mid           | 16QAM      | 5.99          | <=13      | PASS    |
|            | High          | QPSK       | 4.24          | <=13      | PASS    |
|            | High          | 16QAM      | 5.91          | <=13      | PASS    |
| 5          | Low           | QPSK       | 5.61          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.26          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.30          | <=13      | PASS    |
|            | Mid           | 16QAM      | 5.92          | <=13      | PASS    |
|            | High          | QPSK       | 5.39          | <=13      | PASS    |
|            | High          | 16QAM      | 5.93          | <=13      | PASS    |
| 10         | Low           | QPSK       | 5.79          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.35          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.53          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.12          | <=13      | PASS    |
|            | High          | QPSK       | 5.52          | <=13      | PASS    |
|            | High          | 16QAM      | 6.21          | <=13      | PASS    |
| 15         | Low           | QPSK       | 5.65          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.32          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.30          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.00          | <=13      | PASS    |
|            | High          | QPSK       | 5.53          | <=13      | PASS    |
|            | High          | 16QAM      | 6.23          | <=13      | PASS    |
| 20         | Low           | QPSK       | 5.67          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.39          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.47          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.14          | <=13      | PASS    |
|            | High          | QPSK       | 5.56          | <=13      | PASS    |
|            | High          | 16QAM      | 6.27          | <=13      | PASS    |



| LTE Band 4 |               |            |               |           |         |
|------------|---------------|------------|---------------|-----------|---------|
| BW(MHz)    | Channel Level | Modulation | PAR Radio(dB) | Limit(dB) | Verdict |
| 1.4        | Low           | QPSK       | 5.62          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.45          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.64          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.45          | <=13      | PASS    |
|            | High          | QPSK       | 5.47          | <=13      | PASS    |
|            | High          | 16QAM      | 6.37          | <=13      | PASS    |
| 3          | Low           | QPSK       | 5.66          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.43          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.69          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.70          | <=13      | PASS    |
|            | High          | QPSK       | 5.41          | <=13      | PASS    |
|            | High          | 16QAM      | 6.27          | <=13      | PASS    |
| 5          | Low           | QPSK       | 5.65          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.28          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.61          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.27          | <=13      | PASS    |
|            | High          | QPSK       | 5.54          | <=13      | PASS    |
|            | High          | 16QAM      | 6.22          | <=13      | PASS    |
| 10         | Low           | QPSK       | 5.67          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.33          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.72          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.34          | <=13      | PASS    |
|            | High          | QPSK       | 5.65          | <=13      | PASS    |
|            | High          | 16QAM      | 6.32          | <=13      | PASS    |
| 15         | Low           | QPSK       | 5.57          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.27          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.63          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.28          | <=13      | PASS    |
|            | High          | QPSK       | 5.56          | <=13      | PASS    |
|            | High          | 16QAM      | 6.23          | <=13      | PASS    |
| 20         | Low           | QPSK       | 5.62          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.32          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.64          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.35          | <=13      | PASS    |
|            | High          | QPSK       | 5.68          | <=13      | PASS    |
|            | High          | 16QAM      | 6.36          | <=13      | PASS    |



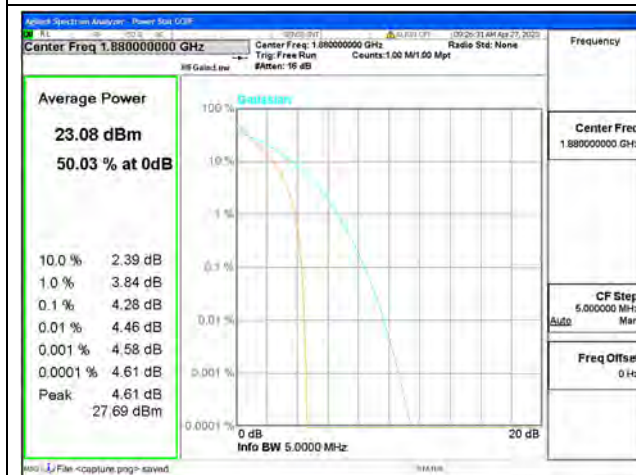
| LTE Band 66 |               |            |               |           |         |
|-------------|---------------|------------|---------------|-----------|---------|
| BW(MHz)     | Channel Level | Modulation | PAR Radio(dB) | Limit(dB) | Verdict |
| 1.4         | Low           | QPSK       | 5.68          | <=13      | PASS    |
|             | Low           | 16QAM      | 6.40          | <=13      | PASS    |
|             | Mid           | QPSK       | 5.67          | <=13      | PASS    |
|             | Mid           | 16QAM      | 6.51          | <=13      | PASS    |
|             | High          | QPSK       | 5.54          | <=13      | PASS    |
|             | High          | 16QAM      | 6.73          | <=13      | PASS    |
| 3           | Low           | QPSK       | 5.66          | <=13      | PASS    |
|             | Low           | 16QAM      | 6.45          | <=13      | PASS    |
|             | Mid           | QPSK       | 5.63          | <=13      | PASS    |
|             | Mid           | 16QAM      | 6.50          | <=13      | PASS    |
|             | High          | QPSK       | 5.50          | <=13      | PASS    |
|             | High          | 16QAM      | 6.30          | <=13      | PASS    |
| 5           | Low           | QPSK       | 5.60          | <=13      | PASS    |
|             | Low           | 16QAM      | 6.32          | <=13      | PASS    |
|             | Mid           | QPSK       | 5.60          | <=13      | PASS    |
|             | Mid           | 16QAM      | 6.35          | <=13      | PASS    |
|             | High          | QPSK       | 5.51          | <=13      | PASS    |
|             | High          | 16QAM      | 6.20          | <=13      | PASS    |
| 10          | Low           | QPSK       | 5.67          | <=13      | PASS    |
|             | Low           | 16QAM      | 6.28          | <=13      | PASS    |
|             | Mid           | QPSK       | 5.77          | <=13      | PASS    |
|             | Mid           | 16QAM      | 6.35          | <=13      | PASS    |
|             | High          | QPSK       | 5.52          | <=13      | PASS    |
|             | High          | 16QAM      | 6.26          | <=13      | PASS    |
| 15          | Low           | QPSK       | 5.59          | <=13      | PASS    |
|             | Low           | 16QAM      | 6.24          | <=13      | PASS    |
|             | Mid           | QPSK       | 5.61          | <=13      | PASS    |
|             | Mid           | 16QAM      | 6.28          | <=13      | PASS    |
|             | High          | QPSK       | 5.29          | <=13      | PASS    |
|             | High          | 16QAM      | 5.99          | <=13      | PASS    |
| 20          | Low           | QPSK       | 5.62          | <=13      | PASS    |
|             | Low           | 16QAM      | 6.33          | <=13      | PASS    |
|             | Mid           | QPSK       | 5.68          | <=13      | PASS    |
|             | Mid           | 16QAM      | 6.34          | <=13      | PASS    |
|             | High          | QPSK       | 5.37          | <=13      | PASS    |
|             | High          | 16QAM      | 6.08          | <=13      | PASS    |



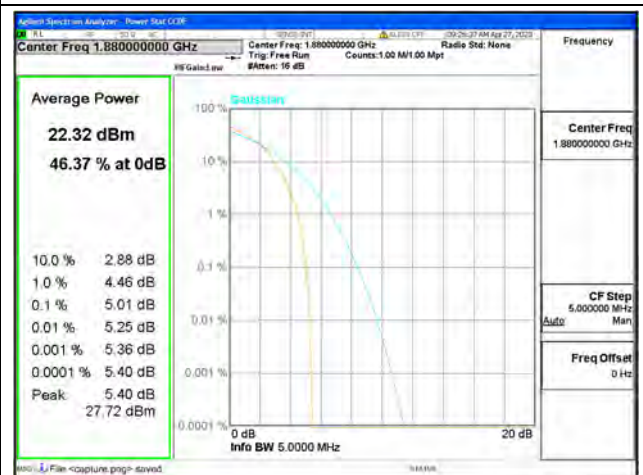
Band2 / 1.4MHz / Low CH / QPSK



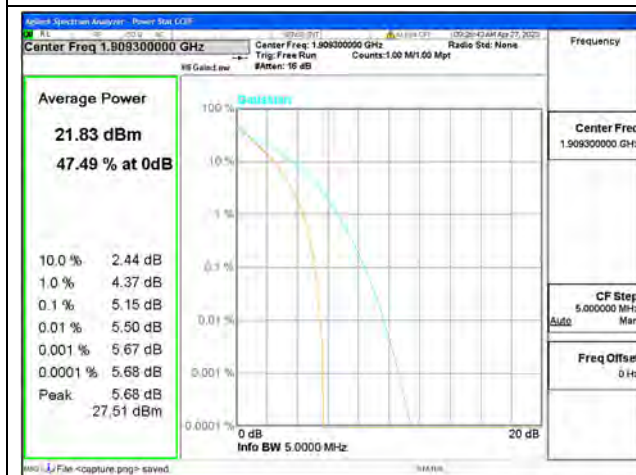
Band2 / 1.4MHz / Low CH / 16QAM



Band2 / 1.4MHz / Mid CH / QPSK



Band2 / 1.4MHz / Mid CH / 16QAM

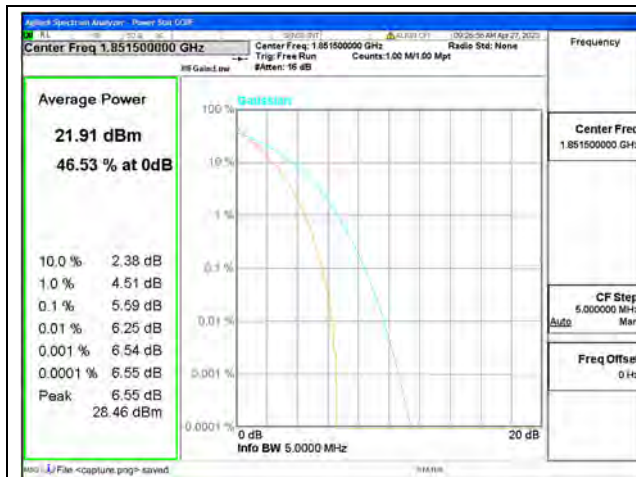


Band2 / 1.4MHz / High CH / QPSK



Band2 / 1.4MHz / High CH / 16QAM

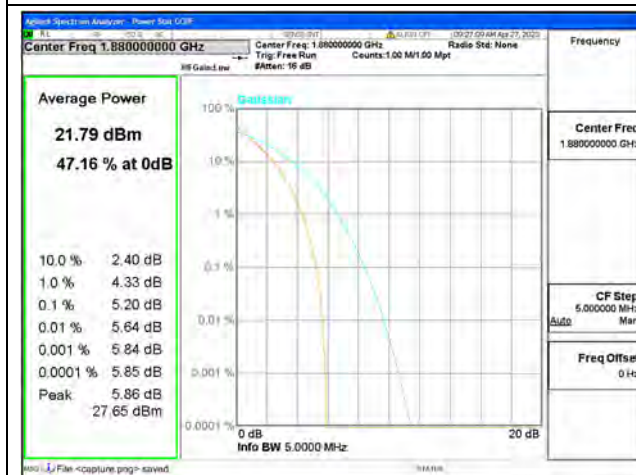




Band2 / 3MHz / Low CH / QPSK



Band2 / 3MHz / Low CH / 16QAM



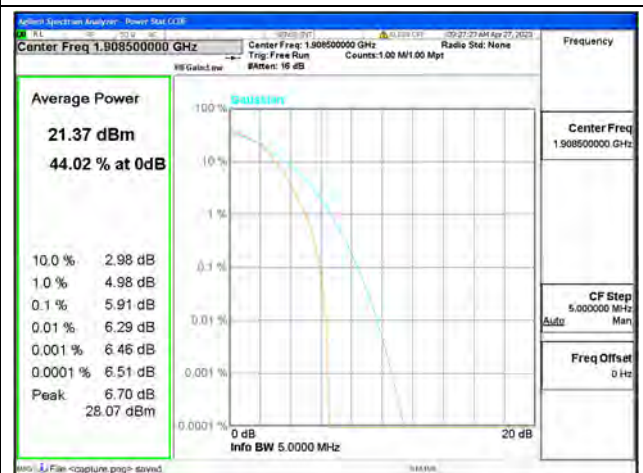
Band2 / 3MHz / Mid CH / QPSK



Band2 / 3MHz / Mid CH / 16QAM



Band2 / 3MHz / High CH / QPSK



Band2 / 3MHz / High CH / 16QAM

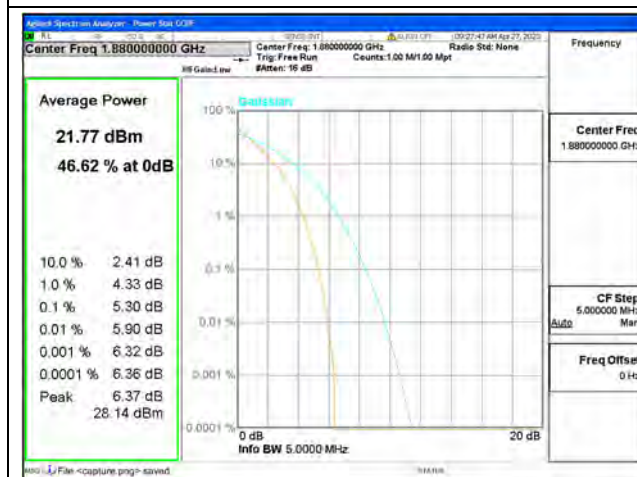




Band2 / 5MHz / Low CH / QPSK



Band2 / 5MHz / Low CH / 16QAM



Band2 / 5MHz / Mid CH / QPSK



Band2 / 5MHz / Mid CH / 16QAM



Band2 / 5MHz / High CH / QPSK



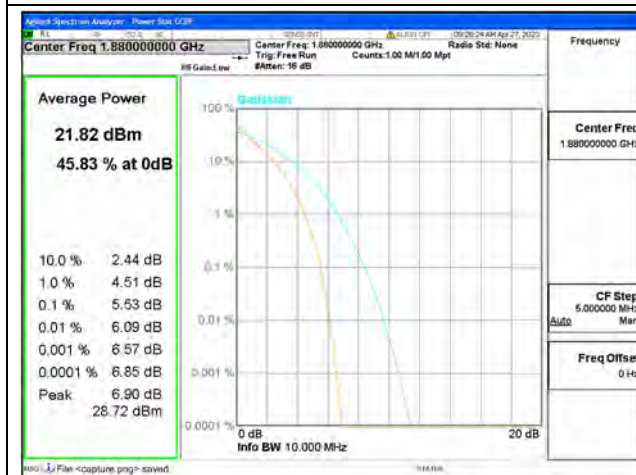
Band2 / 5MHz / High CH / 16QAM



Band2 / 10MHz / Low CH / QPSK



Band2 / 10MHz / Low CH / 16QAM



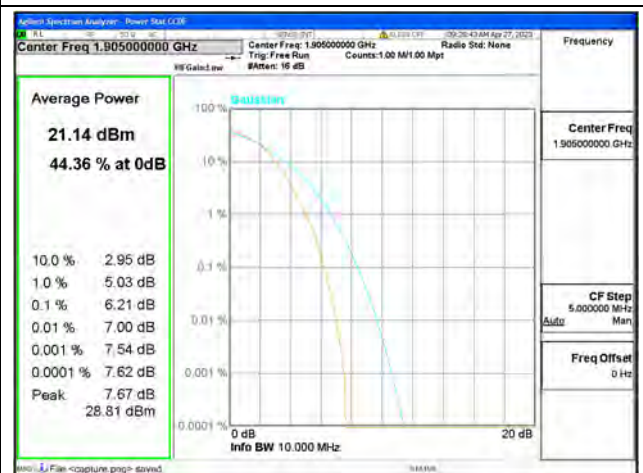
Band2 / 10MHz / Mid CH / QPSK



Band2 / 10MHz / Mid CH / 16QAM



Band2 / 10MHz / High CH / QPSK



Band2 / 10MHz / High CH / 16QAM