



REPORT No.: SZ22110262W06

# TEST REPORT

**APPLICANT** : Shenzhen Chainway Information  
Technology Co., Ltd

**PRODUCT NAME** : Mobile Data Terminal

**MODEL NAME** : MC21

**BRAND NAME** : CHAINWAY

**FCC ID** : 2AC6AMC21

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

**RECEIPT DATE** : 2022-12-01

**TEST DATE** : 2022-12-19 to 2023-04-20

**ISSUE DATE** : 2023-04-28



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| Change History |            |                   |
|----------------|------------|-------------------|
| Version        | Date       | Reason for change |
| 1.0            | 2023-04-28 | First edition     |
|                |            |                   |



# 1. Technical Information

**Note:** Provide by applicant.

## 1.1. Applicant and Manufacturer Information

|                              |                                                                                                                                    |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applicant:</b>            | Shenzhen Chainway Information Technology Co., Ltd                                                                                  |
| <b>Applicant Address:</b>    | 9F Building 2, Daqian Industrial Park, District 67, XingDong Community, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China |
| <b>Manufacturer:</b>         | Shenzhen Chainway Information Technology Co., Ltd                                                                                  |
| <b>Manufacturer Address:</b> | 9F Building 2, Daqian Industrial Park, District 67, XingDong Community, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China |

## 1.2. Equipment Under Test (EUT) Description

|                             |                                                     |                     |
|-----------------------------|-----------------------------------------------------|---------------------|
| <b>Product Name:</b>        | Mobile Data Terminal                                |                     |
| <b>Sample No.:</b>          | 10#                                                 |                     |
| <b>Hardware Version:</b>    | H253XO 8L2S HDI V00                                 |                     |
| <b>Software Version:</b>    | H253BOP_CW102.ALL.P0.A1.AD12.WVGA.2023010619.ATA.CN |                     |
| <b>Modulation Type:</b>     | QPSK, 16QAM                                         |                     |
| <b>Carrier Aggregation:</b> | Not Support                                         |                     |
| <b>Operation Band:</b>      | Band 2 / 4 / 5 / 7 / 12 / 17 / 38 / 40 / 41         |                     |
| <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 |



|                               |                        |                                         |
|-------------------------------|------------------------|-----------------------------------------|
| <b>Frequency Range:</b>       | LTE Band 38            | Tx: 2570MHz–2620MHz                     |
|                               |                        | Rx: 2570MHz–2620MHz                     |
|                               | LTE Band 40<br>Block A | Tx: 2305MHz–2315MHz                     |
|                               |                        | Rx: 2305MHz–2315MHz                     |
|                               | LTE Band 40<br>Block B | Tx: 2350MHz–2360MHz                     |
|                               |                        | Rx: 2350MHz–2360MHz                     |
| <b>Channel Bandwidth:</b>     | LTE Band 41            | Tx: 2496MHz –2690MHz                    |
|                               |                        | Rx: 2496MHz –2690MHz                    |
|                               | 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 38            | 5 MHz, 10MHz, 15MHz, 20MHz              |
|                               | LTE Band 40            | 5 MHz, 10MHz                            |
|                               | LTE Band 41            | 5 MHz, 10MHz, 15MHz, 20MHz              |
| <b>Antenna Type:</b>          | PIFA Antenna           |                                         |
| <b>Antenna Gain:</b>          | LTE Band 2             | 0.2dBi                                  |
|                               | LTE Band 4             | -0.7dBi                                 |
|                               | LTE Band 5             | -1.8dBi                                 |
|                               | LTE Band 7             | 1.9dBi                                  |
|                               | LTE Band 12            | -2.2dBi                                 |
|                               | LTE Band 17            | -2.1dBi                                 |
|                               | LTE Band 38            | 1.5dBi                                  |
|                               | LTE Band 40            | 2.4dBi                                  |
|                               | LTE Band 41            | 1.6dBi                                  |
| <b>Accessory Information:</b> | Battery                |                                         |
|                               | Brand Name:            | N/A                                     |
|                               | Model No.:             | MC21                                    |
|                               | Serial No.:            | N/A                                     |
|                               | Capacity:              | 5000mAh                                 |
|                               | Rated Voltage:         | 3.85V                                   |
|                               | Charge Limit:          | 4.4V                                    |
|                               | Manufacturer:          | SHENZHEN UTILITY ENERGY CO., LTD.       |



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|                               |               |                                              |
|-------------------------------|---------------|----------------------------------------------|
| <b>Accessory Information:</b> | AC Adapter    |                                              |
|                               | Brand Name:   | N/A                                          |
|                               | Model No.:    | NA010050020                                  |
|                               | Serial No.:   | N/A                                          |
|                               | Rated Output: | 5.0V $\pm$ 2.0A                              |
|                               | Rated Input:  | 100-240V $\sim$ 50/60Hz, 0.5A                |
|                               | Manufacturer: | SHENZHEN SHI YING YUAN ELECTRONICS<br>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          | 0.157                       | 0.128 | 18M0G7D                      | 18M0W7D |
| 15          | 0.157                       | 0.127 | 13M5G7D                      | 13M5W7D |
| 10          | 0.157                       | 0.129 | 9M01G7D                      | 8M96W7D |
| 5           | 0.155                       | 0.126 | 4M50G7D                      | 4M50W7D |
| 3           | 0.155                       | 0.126 | 2M69G7D                      | 2M70W7D |
| 1.4         | 0.156                       | 0.125 | 1M09G7D                      | 1M10W7D |
| LTE Band 4  | Maximum E.R.P./E.I.R.P. (W) |       | Emission Designator (99%OBW) |         |
| BW(MHz)     | QPSK                        | 16QAM | QPSK                         | 16QAM   |
| 20          | 0.129                       | 0.100 | 18M0G7D                      | 18M0W7D |
| 15          | 0.128                       | 0.099 | 13M5G7D                      | 13M5W7D |
| 10          | 0.128                       | 0.102 | 9M01G7D                      | 8M97W7D |
| 5           | 0.128                       | 0.104 | 4M50G7D                      | 4M50W7D |
| 3           | 0.127                       | 0.103 | 2M69G7D                      | 2M70W7D |
| 1.4         | 0.127                       | 0.102 | 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          | 0.068                       | 0.055 | 9M02G7D                      | 8M97W7D |
| 5           | 0.068                       | 0.054 | 4M50G7D                      | 4M51W7D |
| 3           | 0.068                       | 0.054 | 2M69G7D                      | 2M69W7D |
| 1.4         | 0.067                       | 0.054 | 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          | 0.147                       | 0.117 | 18M0G7D                      | 18M0W7D |
| 15          | 0.146                       | 0.115 | 13M5G7D                      | 13M5W7D |
| 10          | 0.145                       | 0.116 | 9M01G7D                      | 8M99W7D |
| 5           | 0.145                       | 0.118 | 4M51G7D                      | 4M50W7D |
| LTE Band 12 | Maximum E.R.P./E.I.R.P. (W) |       | Emission Designator (99%OBW) |         |
| BW(MHz)     | QPSK                        | 16QAM | QPSK                         | 16QAM   |
| 10          | 0.055                       | 0.045 | 9M04G7D                      | 8M99W7D |
| 5           | 0.054                       | 0.044 | 4M52G7D                      | 4M52W7D |
| 3           | 0.054                       | 0.044 | 2M69G7D                      | 2M69W7D |
| 1.4         | 0.054                       | 0.045 | 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                         | 0.056                              | 0.045 | 9M04G7D                             | 8M99W7D |
| 5                          | 0.056                              | 0.045 | 4M52G7D                             | 4M52W7D |
| <b>LTE Band 38</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                         | 0.212                              | 0.168 | 18M0G7D                             | 18M0W7D |
| 15                         | 0.210                              | 0.165 | 13M5G7D                             | 13M5W7D |
| 10                         | 0.209                              | 0.170 | 8M99G7D                             | 8M98W7D |
| 5                          | 0.209                              | 0.171 | 4M50G7D                             | 4M50W7D |
| <b>LTE Band 40 Block A</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                         | 0.258                              | 0.198 | 9M01G7D                             | 9M00W7D |
| 5                          | 0.257                              | 0.211 | 4M53G7D                             | 4M52W7D |
| <b>LTE Band 40 Block B</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                         | 0.253                              | 0.196 | 8M98G7D                             | 8M98W7D |
| 5                          | 0.254                              | 0.208 | 4M52G7D                             | 4M53W7D |
| <b>LTE Band 41</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                         | 0.226                              | 0.180 | 18M0G7D                             | 18M0W7D |
| 15                         | 0.224                              | 0.181 | 13M5G7D                             | 13M5W7D |
| 10                         | 0.224                              | 0.180 | 8M98G7D                             | 8M98W7D |
| 5                          | 0.223                              | 0.179 | 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(a)(3)<br>27.50(c)(10)<br>27.50(d)(4)<br>27.50(h)(2) | Transmitter<br>Conducted<br>Output Power<br>and<br>E.R.P./E.I.R.P. | Apr. 20, 2023    | Chen Hao<br>Li Huaijie | PASS   | No deviation                 |
| 2.1049                                                                                           | Occupied<br>Bandwidth                                              | Dec. 22, 2022    | Li Huaijie             | PASS   | No deviation                 |
| 2.1055<br>22.355<br>24.235<br>27.54                                                              | Frequency<br>Stability                                             | Dec. 16, 2022    | Li Huaijie             | PASS   | No deviation                 |
| 24.232(d),<br>27.50(d)(5)                                                                        | Peak to<br>Average Radio                                           | Dec. 26, 2022    | Li Huaijie             | PASS   | No deviation                 |
| 2.1051<br>22.917(a)<br>24.238(a)<br>27.53(a)(4)<br>27.53(g)<br>27.53(h)<br>27.53(m)(4)           | Conducted<br>Spurious<br>Emissions                                 | Dec. 19&26, 2022 | Li Huaijie             | PASS   | No deviation                 |
| 2.1051<br>22.917(a)                                                                              | Band Edge                                                          | Dec. 19&26, 2022 | Li Huaijie             | PASS   | No deviation                 |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                   |               |         |      |              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------|---------|------|--------------|
| 24.238(a)<br>27.53(a)(4)<br>27.53(g)<br>27.53(h)<br>27.53(m)(4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                   |               |         |      |              |
| 2.1053<br>22.917(a)<br>24.238(a)<br>27.53(a)(4)<br>27.53(g)<br>27.53(h)<br>27.53(m)(4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Radiated<br>Spurious<br>Emissions | Feb. 04, 2023 | Su Zhan | PASS | No deviation |
| <p><b>Note 1:</b> The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 and ANSI/TIA-603-E-2016.</p> <p><b>Note 2:</b> The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 28.0dB contains two parts that cable loss 18.0dB and Attenuator 10dB.</p> <p><b>Note 3:</b> 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.</p> <p><b>Note 4:</b> When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.</p> |                                   |               |         |      |              |

## 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 D&H&L&M 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, Fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat E.I.R.P.

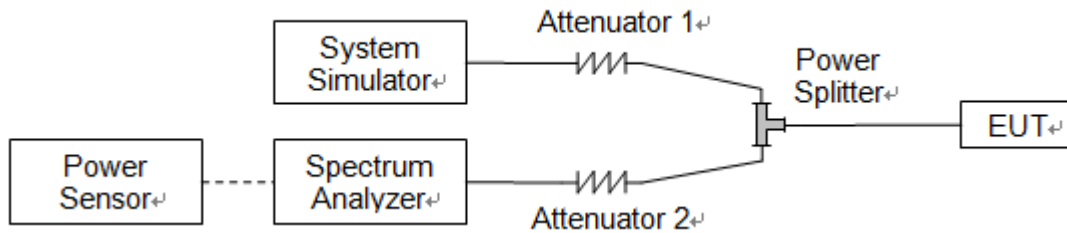
According to FCC section 22.913 (a)(2) for LTE Band 5, the E.R.P. of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC section 27.50 (h)(2) for LTE Band 7/38/41, 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, Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3watts E.R.P.

According to FCC section 27.50 (a)(3) for LTE Band 40, For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average E.I.R.P. must not exceed 50 mill watts within any 1 megahertz of authorized bandwidth

### 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         | 21.68                         | 21.76                            | 21.70                          |
| 20              | QPSK       | 1       | 49        | 21.57                         | 21.69                            | 21.52                          |
| 20              | QPSK       | 1       | 99        | 21.37                         | 21.66                            | 21.59                          |
| 20              | QPSK       | 50      | 0         | 20.46                         | 20.48                            | 20.43                          |
| 20              | QPSK       | 50      | 24        | 20.48                         | 20.51                            | 20.44                          |
| 20              | QPSK       | 50      | 50        | 20.58                         | 20.38                            | 20.57                          |
| 20              | QPSK       | 100     | 0         | 20.35                         | 20.62                            | 20.47                          |
| 20              | 16QAM      | 1       | 0         | 20.51                         | 20.86                            | 20.36                          |
| 20              | 16QAM      | 1       | 49        | 20.71                         | 20.64                            | 20.53                          |
| 20              | 16QAM      | 1       | 99        | 20.59                         | 20.62                            | 20.47                          |
| 20              | 16QAM      | 50      | 0         | 19.85                         | 19.90                            | 19.73                          |
| 20              | 16QAM      | 50      | 24        | 19.77                         | 19.70                            | 19.82                          |
| 20              | 16QAM      | 50      | 50        | 19.79                         | 19.83                            | 19.65                          |
| 20              | 16QAM      | 100     | 0         | 19.85                         | 19.71                            | 19.65                          |



| 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         | 21.55                         | 21.73                            | 21.59                          |
| 15              | QPSK       | 1       | 37        | 21.76                         | 21.55                            | 21.62                          |
| 15              | QPSK       | 1       | 74        | 21.57                         | 21.72                            | 21.48                          |
| 15              | QPSK       | 36      | 0         | 20.59                         | 20.52                            | 20.64                          |
| 15              | QPSK       | 36      | 20        | 20.54                         | 20.61                            | 20.58                          |
| 15              | QPSK       | 36      | 39        | 20.58                         | 20.39                            | 20.51                          |
| 15              | QPSK       | 75      | 0         | 20.40                         | 20.73                            | 20.45                          |
| 15              | 16QAM      | 1       | 0         | 20.58                         | 20.68                            | 20.52                          |
| 15              | 16QAM      | 1       | 37        | 20.59                         | 20.73                            | 20.54                          |
| 15              | 16QAM      | 1       | 74        | 20.51                         | 20.84                            | 20.54                          |
| 15              | 16QAM      | 36      | 0         | 19.68                         | 19.58                            | 19.57                          |
| 15              | 16QAM      | 36      | 20        | 19.44                         | 19.65                            | 19.45                          |
| 15              | 16QAM      | 36      | 39        | 19.61                         | 19.65                            | 19.69                          |
| 15              | 16QAM      | 75      | 0         | 19.49                         | 19.78                            | 19.80                          |



| 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         | 21.53                         | 21.75                            | 21.52                          |
| 10              | QPSK       | 1       | 25        | 21.41                         | 21.55                            | 21.68                          |
| 10              | QPSK       | 1       | 49        | 21.68                         | 21.51                            | 21.52                          |
| 10              | QPSK       | 25      | 0         | 20.58                         | 20.78                            | 20.76                          |
| 10              | QPSK       | 25      | 12        | 20.77                         | 20.64                            | 20.58                          |
| 10              | QPSK       | 25      | 25        | 20.63                         | 20.71                            | 20.52                          |
| 10              | QPSK       | 50      | 0         | 20.70                         | 20.40                            | 20.58                          |
| 10              | 16QAM      | 1       | 0         | 20.68                         | 20.90                            | 20.66                          |
| 10              | 16QAM      | 1       | 25        | 20.51                         | 20.67                            | 20.71                          |
| 10              | 16QAM      | 1       | 49        | 20.47                         | 20.55                            | 20.50                          |
| 10              | 16QAM      | 25      | 0         | 19.87                         | 19.89                            | 19.82                          |
| 10              | 16QAM      | 25      | 12        | 19.66                         | 19.71                            | 19.66                          |
| 10              | 16QAM      | 25      | 25        | 19.89                         | 19.49                            | 19.82                          |
| 10              | 16QAM      | 50      | 0         | 19.73                         | 19.52                            | 19.72                          |



| 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         |            |         |           | 18625                         | 18900                            | 19175                          |
| Frequency (MHz) |            |         |           | 1852.5                        | 1880                             | 1907.5                         |
| 5               | QPSK       | 1       | 0         | 21.58                         | 21.70                            | 21.56                          |
| 5               | QPSK       | 1       | 12        | 21.59                         | 21.62                            | 21.52                          |
| 5               | QPSK       | 1       | 24        | 21.63                         | 21.60                            | 21.61                          |
| 5               | QPSK       | 12      | 0         | 20.74                         | 20.72                            | 20.66                          |
| 5               | QPSK       | 12      | 7         | 20.56                         | 20.39                            | 20.66                          |
| 5               | QPSK       | 12      | 13        | 20.66                         | 20.45                            | 20.58                          |
| 5               | QPSK       | 25      | 0         | 20.55                         | 20.58                            | 20.49                          |
| 5               | 16QAM      | 1       | 0         | 20.79                         | 20.69                            | 20.42                          |
| 5               | 16QAM      | 1       | 12        | 20.56                         | 20.68                            | 20.51                          |
| 5               | 16QAM      | 1       | 24        | 20.70                         | 20.73                            | 20.49                          |
| 5               | 16QAM      | 12      | 0         | 19.61                         | 19.83                            | 19.73                          |
| 5               | 16QAM      | 12      | 7         | 19.67                         | 19.69                            | 19.42                          |
| 5               | 16QAM      | 12      | 13        | 19.76                         | 19.73                            | 19.80                          |
| 5               | 16QAM      | 25      | 0         | 19.46                         | 19.78                            | 19.57                          |



| 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         | 21.68                         | 21.71                            | 21.62                          |
| 3               | QPSK       | 1       | 8         | 21.64                         | 21.58                            | 21.47                          |
| 3               | QPSK       | 1       | 14        | 21.58                         | 21.68                            | 21.54                          |
| 3               | QPSK       | 8       | 0         | 20.53                         | 20.60                            | 20.40                          |
| 3               | QPSK       | 8       | 4         | 20.63                         | 20.51                            | 20.67                          |
| 3               | QPSK       | 8       | 7         | 20.59                         | 20.58                            | 20.35                          |
| 3               | QPSK       | 15      | 0         | 20.42                         | 20.59                            | 20.37                          |
| 3               | 16QAM      | 1       | 0         | 20.60                         | 20.64                            | 20.66                          |
| 3               | 16QAM      | 1       | 8         | 20.47                         | 20.51                            | 20.41                          |
| 3               | 16QAM      | 1       | 14        | 20.72                         | 20.79                            | 20.32                          |
| 3               | 16QAM      | 8       | 0         | 19.63                         | 19.96                            | 19.82                          |
| 3               | 16QAM      | 8       | 4         | 19.80                         | 19.61                            | 19.74                          |
| 3               | 16QAM      | 8       | 7         | 19.78                         | 19.59                            | 19.69                          |
| 3               | 16QAM      | 15      | 0         | 19.50                         | 19.52                            | 19.79                          |



| 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         | 21.55                         | 21.73                            | 21.65                          |
| 1.4             | QPSK       | 1       | 3         | 21.52                         | 21.51                            | 21.50                          |
| 1.4             | QPSK       | 1       | 5         | 21.65                         | 21.52                            | 21.69                          |
| 1.4             | QPSK       | 3       | 0         | 20.61                         | 20.53                            | 20.57                          |
| 1.4             | QPSK       | 3       | 1         | 20.77                         | 20.63                            | 20.64                          |
| 1.4             | QPSK       | 3       | 3         | 20.56                         | 20.58                            | 20.61                          |
| 1.4             | QPSK       | 6       | 0         | 20.54                         | 20.50                            | 20.47                          |
| 1.4             | 16QAM      | 1       | 0         | 20.70                         | 20.76                            | 20.38                          |
| 1.4             | 16QAM      | 1       | 3         | 20.59                         | 20.65                            | 20.57                          |
| 1.4             | 16QAM      | 1       | 5         | 20.51                         | 20.51                            | 20.54                          |
| 1.4             | 16QAM      | 3       | 0         | 19.85                         | 19.89                            | 19.60                          |
| 1.4             | 16QAM      | 3       | 1         | 19.68                         | 19.50                            | 19.74                          |
| 1.4             | 16QAM      | 3       | 3         | 19.54                         | 19.61                            | 19.81                          |
| 1.4             | 16QAM      | 6       | 0         | 19.75                         | 19.90                            | 19.54                          |



| 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            | 21.62                               | 21.80                                  | 21.68                                |
| 20              | QPSK       | 1          | 49           | 21.57                               | 21.62                                  | 21.67                                |
| 20              | QPSK       | 1          | 99           | 21.67                               | 21.47                                  | 21.55                                |
| 20              | QPSK       | 50         | 0            | 20.59                               | 20.66                                  | 20.50                                |
| 20              | QPSK       | 50         | 24           | 20.59                               | 20.41                                  | 20.65                                |
| 20              | QPSK       | 50         | 50           | 20.57                               | 20.53                                  | 20.69                                |
| 20              | QPSK       | 100        | 0            | 20.65                               | 20.47                                  | 20.43                                |
| 20              | 16QAM      | 1          | 0            | 20.45                               | 20.69                                  | 20.54                                |
| 20              | 16QAM      | 1          | 49           | 20.50                               | 20.57                                  | 20.48                                |
| 20              | 16QAM      | 1          | 99           | 20.68                               | 20.56                                  | 20.57                                |
| 20              | 16QAM      | 50         | 0            | 19.92                               | 19.80                                  | 19.75                                |
| 20              | 16QAM      | 50         | 24           | 19.83                               | 19.76                                  | 19.82                                |
| 20              | 16QAM      | 50         | 50           | 19.80                               | 19.91                                  | 19.83                                |
| 20              | 16QAM      | 100        | 0            | 19.66                               | 19.89                                  | 19.60                                |



| 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            | 21.69                               | 21.77                                  | 21.70                                |
| 15              | QPSK       | 1          | 37           | 21.64                               | 21.54                                  | 21.38                                |
| 15              | QPSK       | 1          | 74           | 21.57                               | 21.57                                  | 21.59                                |
| 15              | QPSK       | 36         | 0            | 20.43                               | 20.80                                  | 20.72                                |
| 15              | QPSK       | 36         | 20           | 20.57                               | 20.44                                  | 20.55                                |
| 15              | QPSK       | 36         | 39           | 20.52                               | 20.53                                  | 20.49                                |
| 15              | QPSK       | 75         | 0            | 20.67                               | 20.62                                  | 20.54                                |
| 15              | 16QAM      | 1          | 0            | 20.47                               | 20.54                                  | 20.66                                |
| 15              | 16QAM      | 1          | 37           | 20.62                               | 20.48                                  | 20.64                                |
| 15              | 16QAM      | 1          | 74           | 20.60                               | 20.57                                  | 20.54                                |
| 15              | 16QAM      | 36         | 0            | 19.87                               | 19.76                                  | 19.87                                |
| 15              | 16QAM      | 36         | 20           | 19.78                               | 19.75                                  | 19.55                                |
| 15              | 16QAM      | 36         | 39           | 19.81                               | 19.90                                  | 19.83                                |
| 15              | 16QAM      | 75         | 0            | 19.92                               | 19.75                                  | 19.70                                |



| 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            | 21.61                               | 21.77                                  | 21.59                                |
| 10              | QPSK       | 1          | 25           | 21.75                               | 21.53                                  | 21.40                                |
| 10              | QPSK       | 1          | 49           | 21.48                               | 21.56                                  | 21.45                                |
| 10              | QPSK       | 25         | 0            | 20.38                               | 20.66                                  | 20.63                                |
| 10              | QPSK       | 25         | 12           | 20.62                               | 20.75                                  | 20.44                                |
| 10              | QPSK       | 25         | 25           | 20.69                               | 20.72                                  | 20.60                                |
| 10              | QPSK       | 50         | 0            | 20.36                               | 20.43                                  | 20.43                                |
| 10              | 16QAM      | 1          | 0            | 20.80                               | 20.64                                  | 20.41                                |
| 10              | 16QAM      | 1          | 25           | 20.67                               | 20.67                                  | 20.77                                |
| 10              | 16QAM      | 1          | 49           | 20.80                               | 20.48                                  | 20.67                                |
| 10              | 16QAM      | 25         | 0            | 19.60                               | 19.75                                  | 19.67                                |
| 10              | 16QAM      | 25         | 12           | 19.48                               | 19.77                                  | 19.83                                |
| 10              | 16QAM      | 25         | 25           | 19.74                               | 19.73                                  | 19.74                                |
| 10              | 16QAM      | 50         | 0            | 19.78                               | 19.78                                  | 19.58                                |



| 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            | 21.51                               | 21.78                                  | 21.60                                |
| 5               | QPSK       | 1          | 12           | 21.74                               | 21.42                                  | 21.41                                |
| 5               | QPSK       | 1          | 24           | 21.38                               | 21.55                                  | 21.38                                |
| 5               | QPSK       | 12         | 0            | 20.52                               | 20.48                                  | 20.77                                |
| 5               | QPSK       | 12         | 7            | 20.80                               | 20.60                                  | 20.59                                |
| 5               | QPSK       | 12         | 13           | 20.59                               | 20.58                                  | 20.41                                |
| 5               | QPSK       | 25         | 0            | 20.51                               | 20.62                                  | 20.36                                |
| 5               | 16QAM      | 1          | 0            | 20.85                               | 20.89                                  | 20.62                                |
| 5               | 16QAM      | 1          | 12           | 20.54                               | 20.74                                  | 20.50                                |
| 5               | 16QAM      | 1          | 24           | 20.52                               | 20.56                                  | 20.51                                |
| 5               | 16QAM      | 12         | 0            | 19.85                               | 19.68                                  | 19.58                                |
| 5               | 16QAM      | 12         | 7            | 19.48                               | 19.79                                  | 19.73                                |
| 5               | 16QAM      | 12         | 13           | 19.63                               | 19.86                                  | 19.88                                |
| 5               | 16QAM      | 25         | 0            | 19.74                               | 19.65                                  | 19.86                                |



| 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            | 21.68                               | 21.75                                  | 21.57                                |
| 3               | QPSK       | 1          | 8            | 21.73                               | 21.66                                  | 21.60                                |
| 3               | QPSK       | 1          | 14           | 21.63                               | 21.54                                  | 21.69                                |
| 3               | QPSK       | 8          | 0            | 20.39                               | 20.50                                  | 20.61                                |
| 3               | QPSK       | 8          | 4            | 20.49                               | 20.70                                  | 20.42                                |
| 3               | QPSK       | 8          | 7            | 20.45                               | 20.64                                  | 20.50                                |
| 3               | QPSK       | 15         | 0            | 20.58                               | 20.57                                  | 20.39                                |
| 3               | 16QAM      | 1          | 0            | 20.51                               | 20.79                                  | 20.43                                |
| 3               | 16QAM      | 1          | 8            | 20.71                               | 20.52                                  | 20.62                                |
| 3               | 16QAM      | 1          | 14           | 20.47                               | 20.81                                  | 20.68                                |
| 3               | 16QAM      | 8          | 0            | 19.77                               | 19.95                                  | 19.64                                |
| 3               | 16QAM      | 8          | 4            | 19.73                               | 19.86                                  | 19.65                                |
| 3               | 16QAM      | 8          | 7            | 19.79                               | 19.90                                  | 19.80                                |
| 3               | 16QAM      | 15         | 0            | 19.77                               | 19.76                                  | 19.68                                |



| 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            | 21.67                               | 21.74                                  | 21.54                                |
| 1.4             | QPSK       | 1          | 3            | 21.47                               | 21.61                                  | 21.39                                |
| 1.4             | QPSK       | 1          | 5            | 21.70                               | 21.54                                  | 21.67                                |
| 1.4             | QPSK       | 3          | 0            | 20.57                               | 20.80                                  | 20.75                                |
| 1.4             | QPSK       | 3          | 1            | 20.77                               | 20.74                                  | 20.55                                |
| 1.4             | QPSK       | 3          | 3            | 20.73                               | 20.55                                  | 20.56                                |
| 1.4             | QPSK       | 6          | 0            | 20.48                               | 20.39                                  | 20.43                                |
| 1.4             | 16QAM      | 1          | 0            | 20.50                               | 20.65                                  | 20.50                                |
| 1.4             | 16QAM      | 1          | 3            | 20.47                               | 20.48                                  | 20.79                                |
| 1.4             | 16QAM      | 1          | 5            | 20.53                               | 20.54                                  | 20.42                                |
| 1.4             | 16QAM      | 3          | 0            | 19.62                               | 19.78                                  | 19.86                                |
| 1.4             | 16QAM      | 3          | 1            | 19.58                               | 19.94                                  | 19.84                                |
| 1.4             | 16QAM      | 3          | 3            | 20.00                               | 19.97                                  | 19.84                                |
| 1.4             | 16QAM      | 6          | 0            | 19.57                               | 19.76                                  | 19.71                                |



| 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            | 22.24                               | 22.30                                  | 22.21                                |
| 10              | QPSK       | 1       | 25           | 21.89                               | 22.05                                  | 21.96                                |
| 10              | QPSK       | 1       | 49           | 22.24                               | 21.93                                  | 22.09                                |
| 10              | QPSK       | 25      | 0            | 21.00                               | 21.24                                  | 20.99                                |
| 10              | QPSK       | 25      | 12           | 20.96                               | 20.87                                  | 20.90                                |
| 10              | QPSK       | 25      | 25           | 21.05                               | 20.89                                  | 21.15                                |
| 10              | QPSK       | 50      | 0            | 21.04                               | 21.05                                  | 21.19                                |
| 10              | 16QAM      | 1       | 0            | 21.30                               | 21.32                                  | 21.09                                |
| 10              | 16QAM      | 1       | 25           | 21.05                               | 21.16                                  | 21.21                                |
| 10              | 16QAM      | 1       | 49           | 21.00                               | 21.28                                  | 21.04                                |
| 10              | 16QAM      | 25      | 0            | 20.14                               | 20.40                                  | 20.26                                |
| 10              | 16QAM      | 25      | 12           | 20.04                               | 20.38                                  | 20.25                                |
| 10              | 16QAM      | 25      | 25           | 20.31                               | 20.36                                  | 20.24                                |
| 10              | 16QAM      | 50      | 0            | 20.13                               | 20.25                                  | 20.25                                |



| 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            | 22.18                               | 22.26                                  | 22.14                                |
| 5               | QPSK       | 1       | 12           | 22.07                               | 21.92                                  | 22.01                                |
| 5               | QPSK       | 1       | 24           | 22.18                               | 21.92                                  | 22.18                                |
| 5               | QPSK       | 12      | 0            | 21.18                               | 21.12                                  | 20.91                                |
| 5               | QPSK       | 12      | 7            | 20.94                               | 20.98                                  | 21.04                                |
| 5               | QPSK       | 12      | 13           | 21.11                               | 21.09                                  | 21.04                                |
| 5               | QPSK       | 25      | 0            | 21.09                               | 21.07                                  | 21.07                                |
| 5               | 16QAM      | 1       | 0            | 21.15                               | 21.17                                  | 20.87                                |
| 5               | 16QAM      | 1       | 12           | 20.84                               | 21.22                                  | 21.09                                |
| 5               | 16QAM      | 1       | 24           | 21.27                               | 21.15                                  | 20.82                                |
| 5               | 16QAM      | 12      | 0            | 20.14                               | 20.39                                  | 20.10                                |
| 5               | 16QAM      | 12      | 7            | 19.94                               | 20.29                                  | 20.24                                |
| 5               | 16QAM      | 12      | 13           | 20.22                               | 20.33                                  | 20.03                                |
| 5               | 16QAM      | 25      | 0            | 20.17                               | 20.16                                  | 20.29                                |



| 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            | 22.10                               | 22.25                                  | 22.13                                |
| 3               | QPSK       | 1       | 8            | 22.00                               | 22.13                                  | 21.92                                |
| 3               | QPSK       | 1       | 14           | 22.07                               | 22.17                                  | 22.02                                |
| 3               | QPSK       | 8       | 0            | 20.92                               | 21.13                                  | 21.20                                |
| 3               | QPSK       | 8       | 4            | 21.24                               | 21.21                                  | 21.09                                |
| 3               | QPSK       | 8       | 7            | 21.04                               | 21.06                                  | 21.10                                |
| 3               | QPSK       | 15      | 0            | 20.93                               | 20.99                                  | 20.99                                |
| 3               | 16QAM      | 1       | 0            | 20.96                               | 21.10                                  | 20.96                                |
| 3               | 16QAM      | 1       | 8            | 20.93                               | 21.11                                  | 21.07                                |
| 3               | 16QAM      | 1       | 14           | 21.30                               | 21.29                                  | 21.05                                |
| 3               | 16QAM      | 8       | 0            | 20.11                               | 20.17                                  | 20.24                                |
| 3               | 16QAM      | 8       | 4            | 19.94                               | 20.18                                  | 20.17                                |
| 3               | 16QAM      | 8       | 7            | 20.15                               | 20.12                                  | 20.36                                |
| 3               | 16QAM      | 15      | 0            | 20.15                               | 20.45                                  | 20.27                                |



| 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            | 22.15                               | 22.23                                  | 22.10                                |
| 1.4             | QPSK       | 1       | 3            | 22.14                               | 22.06                                  | 22.15                                |
| 1.4             | QPSK       | 1       | 5            | 22.09                               | 22.17                                  | 22.02                                |
| 1.4             | QPSK       | 3       | 0            | 21.09                               | 21.14                                  | 21.01                                |
| 1.4             | QPSK       | 3       | 1            | 21.30                               | 21.03                                  | 21.00                                |
| 1.4             | QPSK       | 3       | 3            | 21.14                               | 21.05                                  | 21.08                                |
| 1.4             | QPSK       | 6       | 0            | 20.91                               | 21.03                                  | 20.92                                |
| 1.4             | 16QAM      | 1       | 0            | 21.06                               | 21.10                                  | 20.99                                |
| 1.4             | 16QAM      | 1       | 3            | 21.02                               | 21.13                                  | 21.02                                |
| 1.4             | 16QAM      | 1       | 5            | 21.29                               | 21.06                                  | 20.87                                |
| 1.4             | 16QAM      | 3       | 0            | 20.26                               | 20.34                                  | 20.09                                |
| 1.4             | 16QAM      | 3       | 1            | 20.00                               | 20.18                                  | 20.11                                |
| 1.4             | 16QAM      | 3       | 3            | 20.16                               | 20.34                                  | 20.27                                |
| 1.4             | 16QAM      | 6       | 0            | 20.28                               | 20.41                                  | 20.39                                |



| 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            | 19.58                               | 19.77                                  | 19.60                                |
| 20              | QPSK       | 1          | 49           | 19.54                               | 19.67                                  | 19.47                                |
| 20              | QPSK       | 1          | 99           | 19.55                               | 19.54                                  | 19.40                                |
| 20              | QPSK       | 50         | 0            | 18.57                               | 18.65                                  | 18.43                                |
| 20              | QPSK       | 50         | 24           | 18.53                               | 18.57                                  | 18.58                                |
| 20              | QPSK       | 50         | 50           | 18.48                               | 18.62                                  | 18.57                                |
| 20              | QPSK       | 100        | 0            | 18.35                               | 18.64                                  | 18.66                                |
| 20              | 16QAM      | 1          | 0            | 18.79                               | 18.74                                  | 18.57                                |
| 20              | 16QAM      | 1          | 49           | 18.68                               | 18.48                                  | 18.75                                |
| 20              | 16QAM      | 1          | 99           | 18.49                               | 18.66                                  | 18.56                                |
| 20              | 16QAM      | 50         | 0            | 17.73                               | 17.73                                  | 17.86                                |
| 20              | 16QAM      | 50         | 24           | 17.71                               | 17.77                                  | 17.56                                |
| 20              | 16QAM      | 50         | 50           | 17.75                               | 17.73                                  | 17.49                                |
| 20              | 16QAM      | 100        | 0            | 17.86                               | 17.63                                  | 17.60                                |



| 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            | 19.62                               | 19.73                                  | 19.63                                |
| 15              | QPSK       | 1          | 37           | 19.51                               | 19.33                                  | 19.50                                |
| 15              | QPSK       | 1          | 74           | 19.46                               | 19.42                                  | 19.37                                |
| 15              | QPSK       | 36         | 0            | 18.71                               | 18.41                                  | 18.54                                |
| 15              | QPSK       | 36         | 20           | 18.44                               | 18.56                                  | 18.56                                |
| 15              | QPSK       | 36         | 39           | 18.75                               | 18.53                                  | 18.62                                |
| 15              | QPSK       | 75         | 0            | 18.43                               | 18.71                                  | 18.47                                |
| 15              | 16QAM      | 1          | 0            | 18.46                               | 18.58                                  | 18.71                                |
| 15              | 16QAM      | 1          | 37           | 18.39                               | 18.60                                  | 18.56                                |
| 15              | 16QAM      | 1          | 74           | 18.63                               | 18.69                                  | 18.51                                |
| 15              | 16QAM      | 36         | 0            | 17.60                               | 17.89                                  | 17.76                                |
| 15              | 16QAM      | 36         | 20           | 17.57                               | 17.84                                  | 17.57                                |
| 15              | 16QAM      | 36         | 39           | 17.66                               | 17.81                                  | 17.88                                |
| 15              | 16QAM      | 75         | 0            | 17.87                               | 17.78                                  | 17.61                                |



| 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         |            |            |              | 20800                               | 21100                                  | 21400                                |
| Frequency (MHz) |            |            |              | 2505                                | 2535                                   | 2565                                 |
| 10              | QPSK       | 1          | 0            | 19.53                               | 19.72                                  | 19.72                                |
| 10              | QPSK       | 1          | 25           | 19.48                               | 19.62                                  | 19.35                                |
| 10              | QPSK       | 1          | 49           | 19.50                               | 19.32                                  | 19.41                                |
| 10              | QPSK       | 25         | 0            | 18.66                               | 18.54                                  | 18.71                                |
| 10              | QPSK       | 25         | 12           | 18.51                               | 18.50                                  | 18.36                                |
| 10              | QPSK       | 25         | 25           | 18.39                               | 18.71                                  | 18.35                                |
| 10              | QPSK       | 50         | 0            | 18.49                               | 18.36                                  | 18.46                                |
| 10              | 16QAM      | 1          | 0            | 18.75                               | 18.60                                  | 18.48                                |
| 10              | 16QAM      | 1          | 25           | 18.38                               | 18.65                                  | 18.59                                |
| 10              | 16QAM      | 1          | 49           | 18.63                               | 18.58                                  | 18.31                                |
| 10              | 16QAM      | 25         | 0            | 17.85                               | 17.93                                  | 17.79                                |
| 10              | 16QAM      | 25         | 12           | 17.59                               | 17.89                                  | 17.82                                |
| 10              | 16QAM      | 25         | 25           | 17.86                               | 17.86                                  | 17.70                                |
| 10              | 16QAM      | 50         | 0            | 17.79                               | 17.85                                  | 17.63                                |



| 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            | 19.68                               | 19.71                                  | 19.59                                |
| 5               | QPSK       | 1          | 12           | 19.57                               | 19.42                                  | 19.51                                |
| 5               | QPSK       | 1          | 24           | 19.59                               | 19.39                                  | 19.38                                |
| 5               | QPSK       | 12         | 0            | 18.51                               | 18.52                                  | 18.65                                |
| 5               | QPSK       | 12         | 7            | 18.41                               | 18.56                                  | 18.65                                |
| 5               | QPSK       | 12         | 13           | 18.37                               | 18.56                                  | 18.63                                |
| 5               | QPSK       | 25         | 0            | 18.45                               | 18.69                                  | 18.63                                |
| 5               | 16QAM      | 1          | 0            | 18.77                               | 18.58                                  | 18.42                                |
| 5               | 16QAM      | 1          | 12           | 18.52                               | 18.70                                  | 18.39                                |
| 5               | 16QAM      | 1          | 24           | 18.50                               | 18.83                                  | 18.48                                |
| 5               | 16QAM      | 12         | 0            | 17.62                               | 17.87                                  | 17.56                                |
| 5               | 16QAM      | 12         | 7            | 17.57                               | 17.77                                  | 17.70                                |
| 5               | 16QAM      | 12         | 13           | 17.83                               | 17.83                                  | 17.52                                |
| 5               | 16QAM      | 25         | 0            | 17.85                               | 17.73                                  | 17.81                                |



| 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            | 21.65                               | 21.78                                  | 21.66                                |
| 10              | QPSK       | 1          | 25           | 21.43                               | 21.72                                  | 21.64                                |
| 10              | QPSK       | 1          | 49           | 21.57                               | 21.66                                  | 21.57                                |
| 10              | QPSK       | 25         | 0            | 20.51                               | 20.71                                  | 20.39                                |
| 10              | QPSK       | 25         | 12           | 20.67                               | 20.62                                  | 20.45                                |
| 10              | QPSK       | 25         | 25           | 20.47                               | 20.60                                  | 20.50                                |
| 10              | QPSK       | 50         | 0            | 20.33                               | 20.42                                  | 20.61                                |
| 10              | 16QAM      | 1          | 0            | 20.67                               | 20.89                                  | 20.60                                |
| 10              | 16QAM      | 1          | 25           | 20.44                               | 20.60                                  | 20.73                                |
| 10              | 16QAM      | 1          | 49           | 20.40                               | 20.75                                  | 20.51                                |
| 10              | 16QAM      | 25         | 0            | 19.84                               | 19.77                                  | 19.77                                |
| 10              | 16QAM      | 25         | 12           | 19.54                               | 19.65                                  | 19.73                                |
| 10              | 16QAM      | 25         | 25           | 19.83                               | 19.81                                  | 19.83                                |
| 10              | 16QAM      | 50         | 0            | 19.65                               | 19.63                                  | 19.75                                |



| 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            | 21.44                               | 21.69                                  | 21.44                                |
| 5               | QPSK       | 1          | 12           | 21.52                               | 21.64                                  | 21.51                                |
| 5               | QPSK       | 1          | 24           | 21.49                               | 21.38                                  | 21.64                                |
| 5               | QPSK       | 12         | 0            | 20.65                               | 20.57                                  | 20.43                                |
| 5               | QPSK       | 12         | 7            | 20.80                               | 20.40                                  | 20.58                                |
| 5               | QPSK       | 12         | 13           | 20.71                               | 20.39                                  | 20.71                                |
| 5               | QPSK       | 25         | 0            | 20.48                               | 20.50                                  | 20.48                                |
| 5               | 16QAM      | 1          | 0            | 20.63                               | 20.75                                  | 20.49                                |
| 5               | 16QAM      | 1          | 12           | 20.47                               | 20.60                                  | 20.76                                |
| 5               | 16QAM      | 1          | 24           | 20.77                               | 20.72                                  | 20.42                                |
| 5               | 16QAM      | 12         | 0            | 19.87                               | 19.80                                  | 19.86                                |
| 5               | 16QAM      | 12         | 7            | 19.55                               | 19.81                                  | 19.65                                |
| 5               | 16QAM      | 12         | 13           | 19.88                               | 19.65                                  | 19.53                                |
| 5               | 16QAM      | 25         | 0            | 19.65                               | 19.79                                  | 19.54                                |



| 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            | 21.52                               | 21.70                                  | 21.65                                |
| 3               | QPSK       | 1          | 8            | 21.52                               | 21.69                                  | 21.55                                |
| 3               | QPSK       | 1          | 14           | 21.66                               | 21.58                                  | 21.68                                |
| 3               | QPSK       | 8          | 0            | 20.51                               | 20.63                                  | 20.38                                |
| 3               | QPSK       | 8          | 4            | 20.75                               | 20.64                                  | 20.73                                |
| 3               | QPSK       | 8          | 7            | 20.47                               | 20.59                                  | 20.46                                |
| 3               | QPSK       | 15         | 0            | 20.47                               | 20.40                                  | 20.68                                |
| 3               | 16QAM      | 1          | 0            | 20.68                               | 20.78                                  | 20.41                                |
| 3               | 16QAM      | 1          | 8            | 20.35                               | 20.66                                  | 20.76                                |
| 3               | 16QAM      | 1          | 14           | 20.42                               | 20.46                                  | 20.65                                |
| 3               | 16QAM      | 8          | 0            | 19.82                               | 19.70                                  | 19.64                                |
| 3               | 16QAM      | 8          | 4            | 19.60                               | 19.92                                  | 19.53                                |
| 3               | 16QAM      | 8          | 7            | 19.89                               | 19.91                                  | 19.65                                |
| 3               | 16QAM      | 15         | 0            | 19.68                               | 19.73                                  | 19.67                                |



| 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            | 21.54                               | 21.70                                  | 21.60                                |
| 1.4             | QPSK       | 1          | 3            | 21.68                               | 21.62                                  | 21.35                                |
| 1.4             | QPSK       | 1          | 5            | 21.65                               | 21.66                                  | 21.31                                |
| 1.4             | QPSK       | 3          | 0            | 20.77                               | 20.69                                  | 20.58                                |
| 1.4             | QPSK       | 3          | 1            | 20.82                               | 20.76                                  | 20.50                                |
| 1.4             | QPSK       | 3          | 3            | 20.64                               | 20.57                                  | 20.50                                |
| 1.4             | QPSK       | 6          | 0            | 20.37                               | 20.42                                  | 20.29                                |
| 1.4             | 16QAM      | 1          | 0            | 20.56                               | 20.53                                  | 20.70                                |
| 1.4             | 16QAM      | 1          | 3            | 20.46                               | 20.54                                  | 20.55                                |
| 1.4             | 16QAM      | 1          | 5            | 20.64                               | 20.84                                  | 20.68                                |
| 1.4             | 16QAM      | 3          | 0            | 19.83                               | 20.06                                  | 19.80                                |
| 1.4             | 16QAM      | 3          | 1            | 19.66                               | 19.77                                  | 19.78                                |
| 1.4             | 16QAM      | 3          | 3            | 19.92                               | 19.65                                  | 19.89                                |
| 1.4             | 16QAM      | 6          | 0            | 19.74                               | 19.79                                  | 19.76                                |



| 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            | 21.46                               | 21.75                                  | 21.57                                |
| 10              | QPSK       | 1          | 25           | 21.46                               | 21.57                                  | 21.60                                |
| 10              | QPSK       | 1          | 49           | 21.67                               | 21.49                                  | 21.52                                |
| 10              | QPSK       | 25         | 0            | 20.70                               | 20.72                                  | 20.53                                |
| 10              | QPSK       | 25         | 12           | 20.48                               | 20.46                                  | 20.62                                |
| 10              | QPSK       | 25         | 25           | 20.40                               | 20.70                                  | 20.43                                |
| 10              | QPSK       | 50         | 0            | 20.34                               | 20.43                                  | 20.49                                |
| 10              | 16QAM      | 1          | 0            | 20.69                               | 20.55                                  | 20.59                                |
| 10              | 16QAM      | 1          | 25           | 20.69                               | 20.52                                  | 20.48                                |
| 10              | 16QAM      | 1          | 49           | 20.80                               | 20.80                                  | 20.47                                |
| 10              | 16QAM      | 25         | 0            | 19.91                               | 19.67                                  | 19.92                                |
| 10              | 16QAM      | 25         | 12           | 19.81                               | 19.67                                  | 19.74                                |
| 10              | 16QAM      | 25         | 25           | 19.91                               | 19.83                                  | 19.74                                |
| 10              | 16QAM      | 50         | 0            | 19.73                               | 19.84                                  | 19.54                                |



| 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            | 21.56                               | 21.74                                  | 21.61                                |
| 5               | QPSK       | 1          | 12           | 21.67                               | 21.42                                  | 21.63                                |
| 5               | QPSK       | 1          | 24           | 21.62                               | 21.63                                  | 21.70                                |
| 5               | QPSK       | 12         | 0            | 20.59                               | 20.71                                  | 20.77                                |
| 5               | QPSK       | 12         | 7            | 20.60                               | 20.74                                  | 20.54                                |
| 5               | QPSK       | 12         | 13           | 20.63                               | 20.44                                  | 20.42                                |
| 5               | QPSK       | 25         | 0            | 20.35                               | 20.52                                  | 20.60                                |
| 5               | 16QAM      | 1          | 0            | 20.75                               | 20.63                                  | 20.53                                |
| 5               | 16QAM      | 1          | 12           | 20.47                               | 20.74                                  | 20.66                                |
| 5               | 16QAM      | 1          | 24           | 20.57                               | 20.53                                  | 20.47                                |
| 5               | 16QAM      | 12         | 0            | 19.78                               | 19.80                                  | 19.73                                |
| 5               | 16QAM      | 12         | 7            | 19.65                               | 19.79                                  | 19.85                                |
| 5               | 16QAM      | 12         | 13           | 19.61                               | 19.74                                  | 19.55                                |
| 5               | 16QAM      | 25         | 0            | 19.56                               | 19.90                                  | 19.82                                |



| LTE Band 38     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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         |            |            |              | 37850                               | 38000                                  | 38150                                |
| Frequency (MHz) |            |            |              | 2580                                | 2595                                   | 2610                                 |
| 20              | QPSK       | 1          | 0            | 21.61                               | 21.76                                  | 21.72                                |
| 20              | QPSK       | 1          | 49           | 21.64                               | 21.70                                  | 21.56                                |
| 20              | QPSK       | 1          | 99           | 21.55                               | 21.58                                  | 21.66                                |
| 20              | QPSK       | 50         | 0            | 20.72                               | 20.75                                  | 20.68                                |
| 20              | QPSK       | 50         | 24           | 20.42                               | 20.70                                  | 20.52                                |
| 20              | QPSK       | 50         | 50           | 20.57                               | 20.51                                  | 20.55                                |
| 20              | QPSK       | 100        | 0            | 20.42                               | 20.66                                  | 20.56                                |
| 20              | 16QAM      | 1          | 0            | 20.57                               | 20.70                                  | 20.44                                |
| 20              | 16QAM      | 1          | 49           | 20.62                               | 20.76                                  | 20.52                                |
| 20              | 16QAM      | 1          | 99           | 20.46                               | 20.70                                  | 20.39                                |
| 20              | 16QAM      | 50         | 0            | 19.89                               | 19.83                                  | 19.69                                |
| 20              | 16QAM      | 50         | 24           | 19.64                               | 19.55                                  | 19.52                                |
| 20              | 16QAM      | 50         | 50           | 19.76                               | 19.78                                  | 19.80                                |
| 20              | 16QAM      | 100        | 0            | 19.65                               | 19.95                                  | 19.92                                |



| LTE Band 38     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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         |            |            |              | 37825                               | 38000                                  | 38175                                |
| Frequency (MHz) |            |            |              | 2577.5                              | 2595                                   | 2612.5                               |
| 15              | QPSK       | 1          | 0            | 21.63                               | 21.72                                  | 21.69                                |
| 15              | QPSK       | 1          | 37           | 21.62                               | 21.61                                  | 21.44                                |
| 15              | QPSK       | 1          | 74           | 21.64                               | 21.48                                  | 21.55                                |
| 15              | QPSK       | 36         | 0            | 20.63                               | 20.55                                  | 20.44                                |
| 15              | QPSK       | 36         | 20           | 20.74                               | 20.48                                  | 20.70                                |
| 15              | QPSK       | 36         | 39           | 20.70                               | 20.76                                  | 20.64                                |
| 15              | QPSK       | 75         | 0            | 20.51                               | 20.66                                  | 20.35                                |
| 15              | 16QAM      | 1          | 0            | 20.68                               | 20.65                                  | 20.67                                |
| 15              | 16QAM      | 1          | 37           | 20.67                               | 20.66                                  | 20.48                                |
| 15              | 16QAM      | 1          | 74           | 20.47                               | 20.65                                  | 20.68                                |
| 15              | 16QAM      | 36         | 0            | 19.66                               | 19.96                                  | 19.59                                |
| 15              | 16QAM      | 36         | 20           | 19.54                               | 19.72                                  | 19.55                                |
| 15              | 16QAM      | 36         | 39           | 19.66                               | 19.59                                  | 19.67                                |
| 15              | 16QAM      | 75         | 0            | 19.70                               | 19.82                                  | 19.81                                |



| LTE Band 38     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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         |            |            |              | 37800                               | 38000                                  | 38200                                |
| Frequency (MHz) |            |            |              | 2575                                | 2595                                   | 2615                                 |
| 10              | QPSK       | 1          | 0            | 21.55                               | 21.71                                  | 21.65                                |
| 10              | QPSK       | 1          | 25           | 21.60                               | 21.51                                  | 21.55                                |
| 10              | QPSK       | 1          | 49           | 21.61                               | 21.52                                  | 21.68                                |
| 10              | QPSK       | 25         | 0            | 20.57                               | 20.77                                  | 20.51                                |
| 10              | QPSK       | 25         | 12           | 20.68                               | 20.72                                  | 20.36                                |
| 10              | QPSK       | 25         | 25           | 20.70                               | 20.65                                  | 20.39                                |
| 10              | QPSK       | 50         | 0            | 20.56                               | 20.61                                  | 20.45                                |
| 10              | 16QAM      | 1          | 0            | 20.59                               | 20.65                                  | 20.42                                |
| 10              | 16QAM      | 1          | 25           | 20.39                               | 20.42                                  | 20.47                                |
| 10              | 16QAM      | 1          | 49           | 20.42                               | 20.81                                  | 20.36                                |
| 10              | 16QAM      | 25         | 0            | 19.89                               | 19.75                                  | 19.67                                |
| 10              | 16QAM      | 25         | 12           | 19.57                               | 19.69                                  | 19.52                                |
| 10              | 16QAM      | 25         | 25           | 19.82                               | 19.94                                  | 19.64                                |
| 10              | 16QAM      | 50         | 0            | 19.79                               | 19.63                                  | 19.74                                |



| LTE Band 38     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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         |            |            |              | 37775                               | 38000                                  | 38225                                |
| Frequency (MHz) |            |            |              | 2572.5                              | 2595                                   | 2617.5                               |
| 5               | QPSK       | 1          | 0            | 21.64                               | 21.70                                  | 21.54                                |
| 5               | QPSK       | 1          | 12           | 21.64                               | 21.45                                  | 21.61                                |
| 5               | QPSK       | 1          | 24           | 21.65                               | 21.52                                  | 21.44                                |
| 5               | QPSK       | 12         | 0            | 20.39                               | 20.44                                  | 20.49                                |
| 5               | QPSK       | 12         | 7            | 20.77                               | 20.76                                  | 20.41                                |
| 5               | QPSK       | 12         | 13           | 20.63                               | 20.38                                  | 20.58                                |
| 5               | QPSK       | 25         | 0            | 20.47                               | 20.51                                  | 20.66                                |
| 5               | 16QAM      | 1          | 0            | 20.83                               | 20.62                                  | 20.61                                |
| 5               | 16QAM      | 1          | 12           | 20.48                               | 20.68                                  | 20.59                                |
| 5               | 16QAM      | 1          | 24           | 20.75                               | 20.64                                  | 20.52                                |
| 5               | 16QAM      | 12         | 0            | 19.98                               | 19.91                                  | 19.88                                |
| 5               | 16QAM      | 12         | 7            | 19.60                               | 19.73                                  | 19.83                                |
| 5               | 16QAM      | 12         | 13           | 19.78                               | 19.62                                  | 19.78                                |
| 5               | 16QAM      | 25         | 0            | 19.83                               | 19.85                                  | 19.86                                |



| LTE Band 40, Block A |            |            |              |                                     |                                        |                                      |
|----------------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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              |            |            |              | /                                   | 38750                                  | /                                    |
| Frequency (MHz)      |            |            |              | /                                   | 2310                                   | /                                    |
| 10                   | QPSK       | 1          | 0            | /                                   | 21.72                                  | /                                    |
| 10                   | QPSK       | 1          | 25           | /                                   | 21.69                                  | /                                    |
| 10                   | QPSK       | 1          | 49           | /                                   | 21.61                                  | /                                    |
| 10                   | QPSK       | 25         | 0            | /                                   | 20.88                                  | /                                    |
| 10                   | QPSK       | 25         | 12           | /                                   | 20.66                                  | /                                    |
| 10                   | QPSK       | 25         | 25           | /                                   | 20.72                                  | /                                    |
| 10                   | QPSK       | 50         | 0            | /                                   | 20.56                                  | /                                    |
| 10                   | 16QAM      | 1          | 0            | /                                   | 20.57                                  | /                                    |
| 10                   | 16QAM      | 1          | 25           | /                                   | 20.45                                  | /                                    |
| 10                   | 16QAM      | 1          | 49           | /                                   | 19.86                                  | /                                    |
| 10                   | 16QAM      | 25         | 0            | /                                   | 19.62                                  | /                                    |
| 10                   | 16QAM      | 25         | 12           | /                                   | 19.75                                  | /                                    |
| 10                   | 16QAM      | 25         | 25           | /                                   | 19.55                                  | /                                    |
| 10                   | 16QAM      | 50         | 0            | /                                   | 19.68                                  | /                                    |



| LTE Band 40, Block A |            |            |              |                                     |                                        |                                      |
|----------------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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              |            |            |              | 38725                               | 38750                                  | 38775                                |
| Frequency (MHz)      |            |            |              | 2307.5                              | 2310                                   | 2312.5                               |
| 5                    | QPSK       | 1          | 0            | 21.65                               | 21.70                                  | 21.65                                |
| 5                    | QPSK       | 1          | 12           | 21.64                               | 21.55                                  | 21.58                                |
| 5                    | QPSK       | 1          | 24           | 21.62                               | 21.45                                  | 21.43                                |
| 5                    | QPSK       | 12         | 0            | 20.50                               | 20.47                                  | 20.39                                |
| 5                    | QPSK       | 12         | 7            | 20.55                               | 20.66                                  | 20.55                                |
| 5                    | QPSK       | 12         | 13           | 20.58                               | 20.48                                  | 20.64                                |
| 5                    | QPSK       | 25         | 0            | 20.45                               | 20.67                                  | 20.55                                |
| 5                    | 16QAM      | 1          | 0            | 20.84                               | 20.57                                  | 20.65                                |
| 5                    | 16QAM      | 1          | 12           | 20.65                               | 20.51                                  | 20.69                                |
| 5                    | 16QAM      | 1          | 24           | 20.73                               | 20.50                                  | 20.49                                |
| 5                    | 16QAM      | 12         | 0            | 19.83                               | 20.01                                  | 19.64                                |
| 5                    | 16QAM      | 12         | 7            | 19.69                               | 19.92                                  | 19.77                                |
| 5                    | 16QAM      | 12         | 13           | 19.61                               | 19.81                                  | 19.52                                |
| 5                    | 16QAM      | 25         | 0            | 19.89                               | 19.87                                  | 19.54                                |



| LTE Band 40, Block B |            |            |              |                                     |                                        |                                      |
|----------------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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              |            |            |              | /                                   | 39200                                  | /                                    |
| Frequency (MHz)      |            |            |              | /                                   | 2355                                   | /                                    |
| 10                   | QPSK       | 1          | 0            | /                                   | 21.63                                  | /                                    |
| 10                   | QPSK       | 1          | 25           | /                                   | 21.53                                  | /                                    |
| 10                   | QPSK       | 1          | 49           | /                                   | 21.61                                  | /                                    |
| 10                   | QPSK       | 25         | 0            | /                                   | 20.59                                  | /                                    |
| 10                   | QPSK       | 25         | 12           | /                                   | 20.47                                  | /                                    |
| 10                   | QPSK       | 25         | 25           | /                                   | 20.53                                  | /                                    |
| 10                   | QPSK       | 50         | 0            | /                                   | 20.50                                  | /                                    |
| 10                   | 16QAM      | 1          | 0            | /                                   | 20.46                                  | /                                    |
| 10                   | 16QAM      | 1          | 25           | /                                   | 20.53                                  | /                                    |
| 10                   | 16QAM      | 1          | 49           | /                                   | 20.46                                  | /                                    |
| 10                   | 16QAM      | 25         | 0            | /                                   | 19.67                                  | /                                    |
| 10                   | 16QAM      | 25         | 12           | /                                   | 19.69                                  | /                                    |
| 10                   | 16QAM      | 25         | 25           | /                                   | 19.71                                  | /                                    |
| 10                   | 16QAM      | 50         | 0            | /                                   | 19.62                                  | /                                    |



| LTE Band 40, Block B |            |            |              |                                     |                                        |                                      |
|----------------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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              |            |            |              | 39175                               | 39200                                  | 39225                                |
| Frequency (MHz)      |            |            |              | 2352.5                              | 2355                                   | 2357.5                               |
| 5                    | QPSK       | 1          | 0            | 21.59                               | 21.64                                  | 21.59                                |
| 5                    | QPSK       | 1          | 12           | 21.58                               | 21.49                                  | 21.52                                |
| 5                    | QPSK       | 1          | 24           | 21.56                               | 21.39                                  | 21.37                                |
| 5                    | QPSK       | 12         | 0            | 20.44                               | 20.41                                  | 20.33                                |
| 5                    | QPSK       | 12         | 7            | 20.49                               | 20.60                                  | 20.49                                |
| 5                    | QPSK       | 12         | 13           | 20.52                               | 20.42                                  | 20.58                                |
| 5                    | QPSK       | 25         | 0            | 20.39                               | 20.61                                  | 20.49                                |
| 5                    | 16QAM      | 1          | 0            | 20.78                               | 20.51                                  | 20.59                                |
| 5                    | 16QAM      | 1          | 12           | 20.59                               | 20.45                                  | 20.63                                |
| 5                    | 16QAM      | 1          | 24           | 20.67                               | 20.44                                  | 20.43                                |
| 5                    | 16QAM      | 12         | 0            | 19.77                               | 19.95                                  | 19.58                                |
| 5                    | 16QAM      | 12         | 7            | 19.63                               | 19.86                                  | 19.71                                |
| 5                    | 16QAM      | 12         | 13           | 19.55                               | 19.75                                  | 19.46                                |
| 5                    | 16QAM      | 25         | 0            | 19.83                               | 19.81                                  | 19.48                                |



| LTE Band 41     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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         |            |            |              | 39750                               | 40620                                  | 41490                                |
| Frequency (MHz) |            |            |              | 2506                                | 2593                                   | 2680                                 |
| 20              | QPSK       | 1          | 0            | 21.89                               | 21.95                                  | 21.82                                |
| 20              | QPSK       | 1          | 49           | 21.79                               | 21.59                                  | 21.74                                |
| 20              | QPSK       | 1          | 99           | 21.63                               | 21.79                                  | 21.53                                |
| 20              | QPSK       | 50         | 0            | 20.99                               | 20.79                                  | 20.80                                |
| 20              | QPSK       | 50         | 24           | 20.93                               | 20.69                                  | 20.86                                |
| 20              | QPSK       | 50         | 50           | 20.96                               | 21.06                                  | 20.97                                |
| 20              | QPSK       | 100        | 0            | 20.75                               | 20.87                                  | 20.78                                |
| 20              | 16QAM      | 1          | 0            | 20.86                               | 20.95                                  | 20.80                                |
| 20              | 16QAM      | 1          | 49           | 20.51                               | 20.73                                  | 20.75                                |
| 20              | 16QAM      | 1          | 99           | 20.75                               | 20.64                                  | 20.91                                |
| 20              | 16QAM      | 50         | 0            | 19.91                               | 19.94                                  | 19.89                                |
| 20              | 16QAM      | 50         | 24           | 19.93                               | 19.87                                  | 19.94                                |
| 20              | 16QAM      | 50         | 50           | 19.84                               | 19.90                                  | 19.74                                |
| 20              | 16QAM      | 100        | 0            | 19.96                               | 19.95                                  | 19.62                                |



| LTE Band 41     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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         |            |            |              | 39725                               | 40620                                  | 41515                                |
| Frequency (MHz) |            |            |              | 2503.5                              | 2593                                   | 2682.5                               |
| 15              | QPSK       | 1          | 0            | 21.80                               | 21.90                                  | 21.56                                |
| 15              | QPSK       | 1          | 37           | 21.50                               | 21.60                                  | 21.83                                |
| 15              | QPSK       | 1          | 74           | 21.49                               | 21.70                                  | 21.56                                |
| 15              | QPSK       | 36         | 0            | 21.07                               | 20.76                                  | 20.50                                |
| 15              | QPSK       | 36         | 20           | 20.87                               | 20.78                                  | 20.82                                |
| 15              | QPSK       | 36         | 39           | 20.83                               | 20.84                                  | 20.77                                |
| 15              | QPSK       | 75         | 0            | 20.68                               | 20.78                                  | 20.62                                |
| 15              | 16QAM      | 1          | 0            | 20.74                               | 20.94                                  | 20.73                                |
| 15              | 16QAM      | 1          | 37           | 20.89                               | 20.52                                  | 20.92                                |
| 15              | 16QAM      | 1          | 74           | 20.61                               | 20.98                                  | 20.61                                |
| 15              | 16QAM      | 36         | 0            | 19.95                               | 19.95                                  | 19.61                                |
| 15              | 16QAM      | 36         | 20           | 19.99                               | 19.98                                  | 19.81                                |
| 15              | 16QAM      | 36         | 39           | 19.73                               | 19.84                                  | 19.70                                |
| 15              | 16QAM      | 75         | 0            | 19.92                               | 19.85                                  | 19.86                                |



| LTE Band 41     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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         |            |            |              | 39700                               | 40620                                  | 41540                                |
| Frequency (MHz) |            |            |              | 2501                                | 2593                                   | 2685                                 |
| 10              | QPSK       | 1          | 0            | 21.66                               | 21.91                                  | 21.75                                |
| 10              | QPSK       | 1          | 25           | 21.63                               | 21.59                                  | 21.63                                |
| 10              | QPSK       | 1          | 49           | 21.68                               | 21.66                                  | 21.69                                |
| 10              | QPSK       | 25         | 0            | 20.91                               | 20.85                                  | 20.59                                |
| 10              | QPSK       | 25         | 12           | 20.84                               | 20.74                                  | 20.50                                |
| 10              | QPSK       | 25         | 25           | 20.96                               | 20.68                                  | 20.79                                |
| 10              | QPSK       | 50         | 0            | 20.54                               | 20.86                                  | 20.63                                |
| 10              | 16QAM      | 1          | 0            | 20.65                               | 20.86                                  | 20.84                                |
| 10              | 16QAM      | 1          | 25           | 20.67                               | 20.57                                  | 20.96                                |
| 10              | 16QAM      | 1          | 49           | 20.71                               | 20.74                                  | 20.91                                |
| 10              | 16QAM      | 25         | 0            | 19.81                               | 19.98                                  | 19.65                                |
| 10              | 16QAM      | 25         | 12           | 19.96                               | 19.88                                  | 19.90                                |
| 10              | 16QAM      | 25         | 25           | 19.98                               | 19.83                                  | 19.82                                |
| 10              | 16QAM      | 50         | 0            | 19.83                               | 19.71                                  | 19.82                                |



| LTE Band 41     |            |            |              |                                     |                                        |                                      |
|-----------------|------------|------------|--------------|-------------------------------------|----------------------------------------|--------------------------------------|
| 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         |            |            |              | 39675                               | 40620                                  | 41565                                |
| Frequency (MHz) |            |            |              | 2498.5                              | 2593                                   | 2687.5                               |
| 5               | QPSK       | 1          | 0            | 21.72                               | 21.88                                  | 21.69                                |
| 5               | QPSK       | 1          | 12           | 21.61                               | 21.59                                  | 21.86                                |
| 5               | QPSK       | 1          | 24           | 21.62                               | 21.59                                  | 21.63                                |
| 5               | QPSK       | 12         | 0            | 20.86                               | 20.82                                  | 20.74                                |
| 5               | QPSK       | 12         | 7            | 20.90                               | 20.75                                  | 20.60                                |
| 5               | QPSK       | 12         | 13           | 20.74                               | 20.93                                  | 20.91                                |
| 5               | QPSK       | 25         | 0            | 20.56                               | 20.73                                  | 20.69                                |
| 5               | 16QAM      | 1          | 0            | 20.67                               | 20.82                                  | 20.78                                |
| 5               | 16QAM      | 1          | 12           | 20.65                               | 20.70                                  | 20.79                                |
| 5               | 16QAM      | 1          | 24           | 20.60                               | 20.77                                  | 20.93                                |
| 5               | 16QAM      | 12         | 0            | 19.92                               | 19.95                                  | 19.56                                |
| 5               | 16QAM      | 12         | 7            | 19.89                               | 19.89                                  | 19.95                                |
| 5               | 16QAM      | 12         | 13           | 19.59                               | 19.70                                  | 19.69                                |
| 5               | 16QAM      | 25         | 0            | 19.94                               | 19.83                                  | 19.60                                |

**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         | 21.88             | 0.154 | 21.96              | 0.157 | 21.90            | 0.155 |
| 20              | QPSK       | 1       | 49        | 21.77             | 0.150 | 21.89              | 0.155 | 21.72            | 0.149 |
| 20              | QPSK       | 1       | 99        | 21.57             | 0.144 | 21.86              | 0.153 | 21.79            | 0.151 |
| 20              | QPSK       | 50      | 0         | 20.66             | 0.116 | 20.68              | 0.117 | 20.63            | 0.116 |
| 20              | QPSK       | 50      | 24        | 20.68             | 0.117 | 20.71              | 0.118 | 20.64            | 0.116 |
| 20              | QPSK       | 50      | 50        | 20.78             | 0.120 | 20.58              | 0.114 | 20.77            | 0.119 |
| 20              | QPSK       | 100     | 0         | 20.55             | 0.114 | 20.82              | 0.121 | 20.67            | 0.117 |
| 20              | 16QAM      | 1       | 0         | 20.71             | 0.118 | 21.06              | 0.128 | 20.56            | 0.114 |
| 20              | 16QAM      | 1       | 49        | 20.91             | 0.123 | 20.84              | 0.121 | 20.73            | 0.118 |
| 20              | 16QAM      | 1       | 99        | 20.79             | 0.120 | 20.82              | 0.121 | 20.67            | 0.117 |
| 20              | 16QAM      | 50      | 0         | 20.05             | 0.101 | 20.10              | 0.102 | 19.93            | 0.098 |
| 20              | 16QAM      | 50      | 24        | 19.97             | 0.099 | 19.90              | 0.098 | 20.02            | 0.100 |
| 20              | 16QAM      | 50      | 50        | 19.99             | 0.100 | 20.03              | 0.101 | 19.85            | 0.097 |
| 20              | 16QAM      | 100     | 0         | 20.05             | 0.101 | 19.91              | 0.098 | 19.85            | 0.097 |



| 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         | 21.75             | 0.150 | 21.93              | 0.156 | 21.79            | 0.151 |
| 15              | QPSK       | 1       | 37        | 21.96             | 0.157 | 21.75              | 0.150 | 21.82            | 0.152 |
| 15              | QPSK       | 1       | 74        | 21.77             | 0.150 | 21.92              | 0.156 | 21.68            | 0.147 |
| 15              | QPSK       | 36      | 0         | 20.79             | 0.120 | 20.72              | 0.118 | 20.84            | 0.121 |
| 15              | QPSK       | 36      | 20        | 20.74             | 0.119 | 20.81              | 0.121 | 20.78            | 0.120 |
| 15              | QPSK       | 36      | 39        | 20.78             | 0.120 | 20.59              | 0.115 | 20.71            | 0.118 |
| 15              | QPSK       | 75      | 0         | 20.60             | 0.115 | 20.93              | 0.124 | 20.65            | 0.116 |
| 15              | 16QAM      | 1       | 0         | 20.78             | 0.120 | 20.88              | 0.122 | 20.72            | 0.118 |
| 15              | 16QAM      | 1       | 37        | 20.79             | 0.120 | 20.93              | 0.124 | 20.74            | 0.119 |
| 15              | 16QAM      | 1       | 74        | 20.71             | 0.118 | 21.04              | 0.127 | 20.74            | 0.119 |
| 15              | 16QAM      | 36      | 0         | 19.88             | 0.097 | 19.78              | 0.095 | 19.77            | 0.095 |
| 15              | 16QAM      | 36      | 20        | 19.64             | 0.092 | 19.85              | 0.097 | 19.65            | 0.092 |
| 15              | 16QAM      | 36      | 39        | 19.81             | 0.096 | 19.85              | 0.097 | 19.89            | 0.097 |
| 15              | 16QAM      | 75      | 0         | 19.69             | 0.093 | 19.98              | 0.100 | 20.00            | 0.100 |



| 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         | 21.73             | 0.149 | 21.95              | 0.157 | 21.72            | 0.149 |
| 10              | QPSK       | 1       | 25        | 21.61             | 0.145 | 21.75              | 0.150 | 21.88            | 0.154 |
| 10              | QPSK       | 1       | 49        | 21.88             | 0.154 | 21.71              | 0.148 | 21.72            | 0.149 |
| 10              | QPSK       | 25      | 0         | 20.78             | 0.120 | 20.98              | 0.125 | 20.96            | 0.125 |
| 10              | QPSK       | 25      | 12        | 20.97             | 0.125 | 20.84              | 0.121 | 20.78            | 0.120 |
| 10              | QPSK       | 25      | 25        | 20.83             | 0.121 | 20.91              | 0.123 | 20.72            | 0.118 |
| 10              | QPSK       | 50      | 0         | 20.90             | 0.123 | 20.60              | 0.115 | 20.78            | 0.120 |
| 10              | 16QAM      | 1       | 0         | 20.88             | 0.122 | 21.10              | 0.129 | 20.86            | 0.122 |
| 10              | 16QAM      | 1       | 25        | 20.71             | 0.118 | 20.87              | 0.122 | 20.91            | 0.123 |
| 10              | 16QAM      | 1       | 49        | 20.67             | 0.117 | 20.75              | 0.119 | 20.70            | 0.117 |
| 10              | 16QAM      | 25      | 0         | 20.07             | 0.102 | 20.09              | 0.102 | 20.02            | 0.100 |
| 10              | 16QAM      | 25      | 12        | 19.86             | 0.097 | 19.91              | 0.098 | 19.86            | 0.097 |
| 10              | 16QAM      | 25      | 25        | 20.09             | 0.102 | 19.69              | 0.093 | 20.02            | 0.100 |
| 10              | 16QAM      | 50      | 0         | 19.93             | 0.098 | 19.72              | 0.094 | 19.92            | 0.098 |



| 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         | 21.78             | 0.151 | 21.90              | 0.155 | 21.76            | 0.150 |
| 5               | QPSK       | 1       | 12        | 21.79             | 0.151 | 21.82              | 0.152 | 21.72            | 0.149 |
| 5               | QPSK       | 1       | 24        | 21.83             | 0.152 | 21.80              | 0.151 | 21.81            | 0.152 |
| 5               | QPSK       | 12      | 0         | 20.94             | 0.124 | 20.92              | 0.124 | 20.86            | 0.122 |
| 5               | QPSK       | 12      | 7         | 20.76             | 0.119 | 20.59              | 0.115 | 20.86            | 0.122 |
| 5               | QPSK       | 12      | 13        | 20.86             | 0.122 | 20.65              | 0.116 | 20.78            | 0.120 |
| 5               | QPSK       | 25      | 0         | 20.75             | 0.119 | 20.78              | 0.120 | 20.69            | 0.117 |
| 5               | 16QAM      | 1       | 0         | 20.99             | 0.126 | 20.89              | 0.123 | 20.62            | 0.115 |
| 5               | 16QAM      | 1       | 12        | 20.76             | 0.119 | 20.88              | 0.122 | 20.71            | 0.118 |
| 5               | 16QAM      | 1       | 24        | 20.90             | 0.123 | 20.93              | 0.124 | 20.69            | 0.117 |
| 5               | 16QAM      | 12      | 0         | 19.81             | 0.096 | 20.03              | 0.101 | 19.93            | 0.098 |
| 5               | 16QAM      | 12      | 7         | 19.87             | 0.097 | 19.89              | 0.097 | 19.62            | 0.092 |
| 5               | 16QAM      | 12      | 13        | 19.96             | 0.099 | 19.93              | 0.098 | 20.00            | 0.100 |
| 5               | 16QAM      | 25      | 0         | 19.66             | 0.092 | 19.98              | 0.100 | 19.77            | 0.095 |



| 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         | 21.88             | 0.154 | 21.91              | 0.155 | 21.82            | 0.152 |
| 3               | QPSK       | 1       | 8         | 21.84             | 0.153 | 21.78              | 0.151 | 21.67            | 0.147 |
| 3               | QPSK       | 1       | 14        | 21.78             | 0.151 | 21.88              | 0.154 | 21.74            | 0.149 |
| 3               | QPSK       | 8       | 0         | 20.73             | 0.118 | 20.80              | 0.120 | 20.60            | 0.115 |
| 3               | QPSK       | 8       | 4         | 20.83             | 0.121 | 20.71              | 0.118 | 20.87            | 0.122 |
| 3               | QPSK       | 8       | 7         | 20.79             | 0.120 | 20.78              | 0.120 | 20.55            | 0.114 |
| 3               | QPSK       | 15      | 0         | 20.62             | 0.115 | 20.79              | 0.120 | 20.57            | 0.114 |
| 3               | 16QAM      | 1       | 0         | 20.80             | 0.120 | 20.84              | 0.121 | 20.86            | 0.122 |
| 3               | 16QAM      | 1       | 8         | 20.67             | 0.117 | 20.71              | 0.118 | 20.61            | 0.115 |
| 3               | 16QAM      | 1       | 14        | 20.92             | 0.124 | 20.99              | 0.126 | 20.52            | 0.113 |
| 3               | 16QAM      | 8       | 0         | 19.83             | 0.096 | 20.16              | 0.104 | 20.02            | 0.100 |
| 3               | 16QAM      | 8       | 4         | 20.00             | 0.100 | 19.81              | 0.096 | 19.94            | 0.099 |
| 3               | 16QAM      | 8       | 7         | 19.98             | 0.100 | 19.79              | 0.095 | 19.89            | 0.097 |
| 3               | 16QAM      | 15      | 0         | 19.70             | 0.093 | 19.72              | 0.094 | 19.99            | 0.100 |



| 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         | 21.75             | 0.150 | 21.93              | 0.156 | 21.85            | 0.153 |
| 1.4             | QPSK       | 1       | 3         | 21.72             | 0.149 | 21.71              | 0.148 | 21.70            | 0.148 |
| 1.4             | QPSK       | 1       | 5         | 21.85             | 0.153 | 21.72              | 0.149 | 21.89            | 0.155 |
| 1.4             | QPSK       | 3       | 0         | 20.81             | 0.121 | 20.73              | 0.118 | 20.77            | 0.119 |
| 1.4             | QPSK       | 3       | 1         | 20.97             | 0.125 | 20.83              | 0.121 | 20.84            | 0.121 |
| 1.4             | QPSK       | 3       | 3         | 20.76             | 0.119 | 20.78              | 0.120 | 20.81            | 0.121 |
| 1.4             | QPSK       | 6       | 0         | 20.74             | 0.119 | 20.70              | 0.117 | 20.67            | 0.117 |
| 1.4             | 16QAM      | 1       | 0         | 20.90             | 0.123 | 20.96              | 0.125 | 20.58            | 0.114 |
| 1.4             | 16QAM      | 1       | 3         | 20.79             | 0.120 | 20.85              | 0.122 | 20.77            | 0.119 |
| 1.4             | 16QAM      | 1       | 5         | 20.71             | 0.118 | 20.71              | 0.118 | 20.74            | 0.119 |
| 1.4             | 16QAM      | 3       | 0         | 20.05             | 0.101 | 20.09              | 0.102 | 19.80            | 0.095 |
| 1.4             | 16QAM      | 3       | 1         | 19.88             | 0.097 | 19.70              | 0.093 | 19.94            | 0.099 |
| 1.4             | 16QAM      | 3       | 3         | 19.74             | 0.094 | 19.81              | 0.096 | 20.01            | 0.100 |
| 1.4             | 16QAM      | 6       | 0         | 19.95             | 0.099 | 20.10              | 0.102 | 19.74            | 0.094 |



| 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            | 20.92              | 0.124 | 21.10                 | 0.129 | 20.98               | 0.125 |
| 20              | QPSK       | 1          | 49           | 20.87              | 0.122 | 20.92                 | 0.124 | 20.97               | 0.125 |
| 20              | QPSK       | 1          | 99           | 20.97              | 0.125 | 20.77                 | 0.119 | 20.85               | 0.122 |
| 20              | QPSK       | 50         | 0            | 19.89              | 0.097 | 19.96                 | 0.099 | 19.80               | 0.095 |
| 20              | QPSK       | 50         | 24           | 19.89              | 0.097 | 19.71                 | 0.094 | 19.95               | 0.099 |
| 20              | QPSK       | 50         | 50           | 19.87              | 0.097 | 19.83                 | 0.096 | 19.99               | 0.100 |
| 20              | QPSK       | 100        | 0            | 19.95              | 0.099 | 19.77                 | 0.095 | 19.73               | 0.094 |
| 20              | 16QAM      | 1          | 0            | 19.75              | 0.094 | 19.99                 | 0.100 | 19.84               | 0.096 |
| 20              | 16QAM      | 1          | 49           | 19.80              | 0.095 | 19.87                 | 0.097 | 19.78               | 0.095 |
| 20              | 16QAM      | 1          | 99           | 19.98              | 0.100 | 19.86                 | 0.097 | 19.87               | 0.097 |
| 20              | 16QAM      | 50         | 0            | 19.22              | 0.084 | 19.10                 | 0.081 | 19.05               | 0.080 |
| 20              | 16QAM      | 50         | 24           | 19.13              | 0.082 | 19.06                 | 0.081 | 19.12               | 0.082 |
| 20              | 16QAM      | 50         | 50           | 19.10              | 0.081 | 19.21                 | 0.083 | 19.13               | 0.082 |
| 20              | 16QAM      | 100        | 0            | 18.96              | 0.079 | 19.19                 | 0.083 | 18.90               | 0.078 |



| 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            | 20.99              | 0.126 | 21.07                 | 0.128 | 21.00               | 0.126 |
| 15              | QPSK       | 1          | 37           | 20.94              | 0.124 | 20.84                 | 0.121 | 20.68               | 0.117 |
| 15              | QPSK       | 1          | 74           | 20.87              | 0.122 | 20.87                 | 0.122 | 20.89               | 0.123 |
| 15              | QPSK       | 36         | 0            | 19.73              | 0.094 | 20.10                 | 0.102 | 20.02               | 0.100 |
| 15              | QPSK       | 36         | 20           | 19.87              | 0.097 | 19.74                 | 0.094 | 19.85               | 0.097 |
| 15              | QPSK       | 36         | 39           | 19.82              | 0.096 | 19.83                 | 0.096 | 19.79               | 0.095 |
| 15              | QPSK       | 75         | 0            | 19.97              | 0.099 | 19.92                 | 0.098 | 19.84               | 0.096 |
| 15              | 16QAM      | 1          | 0            | 19.77              | 0.095 | 19.84                 | 0.096 | 19.96               | 0.099 |
| 15              | 16QAM      | 1          | 37           | 19.92              | 0.098 | 19.78                 | 0.095 | 19.94               | 0.099 |
| 15              | 16QAM      | 1          | 74           | 19.90              | 0.098 | 19.87                 | 0.097 | 19.84               | 0.096 |
| 15              | 16QAM      | 36         | 0            | 19.17              | 0.083 | 19.06                 | 0.081 | 19.17               | 0.083 |
| 15              | 16QAM      | 36         | 20           | 19.08              | 0.081 | 19.05                 | 0.080 | 18.85               | 0.077 |
| 15              | 16QAM      | 36         | 39           | 19.11              | 0.081 | 19.20                 | 0.083 | 19.13               | 0.082 |
| 15              | 16QAM      | 75         | 0            | 19.22              | 0.084 | 19.05                 | 0.080 | 19.00               | 0.079 |



| 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            | 20.91              | 0.123 | 21.07                 | 0.128 | 20.89               | 0.123 |
| 10              | QPSK       | 1          | 25           | 21.05              | 0.127 | 20.83                 | 0.121 | 20.70               | 0.117 |
| 10              | QPSK       | 1          | 49           | 20.78              | 0.120 | 20.86                 | 0.122 | 20.75               | 0.119 |
| 10              | QPSK       | 25         | 0            | 19.68              | 0.093 | 19.96                 | 0.099 | 19.93               | 0.098 |
| 10              | QPSK       | 25         | 12           | 19.92              | 0.098 | 20.05                 | 0.101 | 19.74               | 0.094 |
| 10              | QPSK       | 25         | 25           | 19.99              | 0.100 | 20.02                 | 0.100 | 19.90               | 0.098 |
| 10              | QPSK       | 50         | 0            | 19.66              | 0.092 | 19.73                 | 0.094 | 19.73               | 0.094 |
| 10              | 16QAM      | 1          | 0            | 20.10              | 0.102 | 19.94                 | 0.099 | 19.71               | 0.094 |
| 10              | 16QAM      | 1          | 25           | 19.97              | 0.099 | 19.97                 | 0.099 | 20.07               | 0.102 |
| 10              | 16QAM      | 1          | 49           | 20.10              | 0.102 | 19.78                 | 0.095 | 19.97               | 0.099 |
| 10              | 16QAM      | 25         | 0            | 18.90              | 0.078 | 19.05                 | 0.080 | 18.97               | 0.079 |
| 10              | 16QAM      | 25         | 12           | 18.78              | 0.076 | 19.07                 | 0.081 | 19.13               | 0.082 |
| 10              | 16QAM      | 25         | 25           | 19.04              | 0.080 | 19.03                 | 0.080 | 19.04               | 0.080 |
| 10              | 16QAM      | 50         | 0            | 19.08              | 0.081 | 19.08                 | 0.081 | 18.88               | 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         |            |            |              | 19975              |       | 20175                 |       | 20375               |       |
| Frequency (MHz) |            |            |              | 1712.5             |       | 1732.5                |       | 1752.5              |       |
|                 |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 5               | QPSK       | 1          | 0            | 20.81              | 0.121 | 21.08                 | 0.128 | 20.90               | 0.123 |
| 5               | QPSK       | 1          | 12           | 21.04              | 0.127 | 20.72                 | 0.118 | 20.71               | 0.118 |
| 5               | QPSK       | 1          | 24           | 20.68              | 0.117 | 20.85                 | 0.122 | 20.68               | 0.117 |
| 5               | QPSK       | 12         | 0            | 19.82              | 0.096 | 19.78                 | 0.095 | 20.07               | 0.102 |
| 5               | QPSK       | 12         | 7            | 20.10              | 0.102 | 19.90                 | 0.098 | 19.89               | 0.097 |
| 5               | QPSK       | 12         | 13           | 19.89              | 0.097 | 19.88                 | 0.097 | 19.71               | 0.094 |
| 5               | QPSK       | 25         | 0            | 19.81              | 0.096 | 19.92                 | 0.098 | 19.66               | 0.092 |
| 5               | 16QAM      | 1          | 0            | 20.15              | 0.104 | 20.19                 | 0.104 | 19.92               | 0.098 |
| 5               | 16QAM      | 1          | 12           | 19.84              | 0.096 | 20.04                 | 0.101 | 19.80               | 0.095 |
| 5               | 16QAM      | 1          | 24           | 19.82              | 0.096 | 19.86                 | 0.097 | 19.81               | 0.096 |
| 5               | 16QAM      | 12         | 0            | 19.15              | 0.082 | 18.98                 | 0.079 | 18.88               | 0.077 |
| 5               | 16QAM      | 12         | 7            | 18.78              | 0.076 | 19.09                 | 0.081 | 19.03               | 0.080 |
| 5               | 16QAM      | 12         | 13           | 18.93              | 0.078 | 19.16                 | 0.082 | 19.18               | 0.083 |
| 5               | 16QAM      | 25         | 0            | 19.04              | 0.080 | 18.95                 | 0.079 | 19.16               | 0.082 |



| 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            | 20.98              | 0.125 | 21.05                 | 0.127 | 20.87               | 0.122 |
| 3               | QPSK       | 1          | 8            | 21.03              | 0.127 | 20.96                 | 0.125 | 20.90               | 0.123 |
| 3               | QPSK       | 1          | 14           | 20.93              | 0.124 | 20.84                 | 0.121 | 20.99               | 0.126 |
| 3               | QPSK       | 8          | 0            | 19.69              | 0.093 | 19.80                 | 0.095 | 19.91               | 0.098 |
| 3               | QPSK       | 8          | 4            | 19.79              | 0.095 | 20.00                 | 0.100 | 19.72               | 0.094 |
| 3               | QPSK       | 8          | 7            | 19.75              | 0.094 | 19.94                 | 0.099 | 19.80               | 0.095 |
| 3               | QPSK       | 15         | 0            | 19.88              | 0.097 | 19.87                 | 0.097 | 19.69               | 0.093 |
| 3               | 16QAM      | 1          | 0            | 19.81              | 0.096 | 20.09                 | 0.102 | 19.73               | 0.094 |
| 3               | 16QAM      | 1          | 8            | 20.01              | 0.100 | 19.82                 | 0.096 | 19.92               | 0.098 |
| 3               | 16QAM      | 1          | 14           | 19.77              | 0.095 | 20.11                 | 0.103 | 19.98               | 0.100 |
| 3               | 16QAM      | 8          | 0            | 19.07              | 0.081 | 19.25                 | 0.084 | 18.94               | 0.078 |
| 3               | 16QAM      | 8          | 4            | 19.03              | 0.080 | 19.16                 | 0.082 | 18.95               | 0.079 |
| 3               | 16QAM      | 8          | 7            | 19.09              | 0.081 | 19.20                 | 0.083 | 19.10               | 0.081 |
| 3               | 16QAM      | 15         | 0            | 19.07              | 0.081 | 19.06                 | 0.081 | 18.98               | 0.079 |



| 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            | 20.97              | 0.125 | 21.04                 | 0.127 | 20.84               | 0.121 |
| 1.4             | QPSK       | 1          | 3            | 20.77              | 0.119 | 20.91                 | 0.123 | 20.69               | 0.117 |
| 1.4             | QPSK       | 1          | 5            | 21.00              | 0.126 | 20.84                 | 0.121 | 20.97               | 0.125 |
| 1.4             | QPSK       | 3          | 0            | 19.87              | 0.097 | 20.10                 | 0.102 | 20.05               | 0.101 |
| 1.4             | QPSK       | 3          | 1            | 20.07              | 0.102 | 20.04                 | 0.101 | 19.85               | 0.097 |
| 1.4             | QPSK       | 3          | 3            | 20.03              | 0.101 | 19.85                 | 0.097 | 19.86               | 0.097 |
| 1.4             | QPSK       | 6          | 0            | 19.78              | 0.095 | 19.69                 | 0.093 | 19.73               | 0.094 |
| 1.4             | 16QAM      | 1          | 0            | 19.80              | 0.095 | 19.95                 | 0.099 | 19.80               | 0.095 |
| 1.4             | 16QAM      | 1          | 3            | 19.77              | 0.095 | 19.78                 | 0.095 | 20.09               | 0.102 |
| 1.4             | 16QAM      | 1          | 5            | 19.83              | 0.096 | 19.84                 | 0.096 | 19.72               | 0.094 |
| 1.4             | 16QAM      | 3          | 0            | 18.92              | 0.078 | 19.08                 | 0.081 | 19.16               | 0.082 |
| 1.4             | 16QAM      | 3          | 1            | 18.88              | 0.077 | 19.24                 | 0.084 | 19.14               | 0.082 |
| 1.4             | 16QAM      | 3          | 3            | 19.30              | 0.085 | 19.27                 | 0.085 | 19.14               | 0.082 |
| 1.4             | 16QAM      | 6          | 0            | 18.87              | 0.077 | 19.06                 | 0.081 | 19.01               | 0.080 |



| 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            | 18.29              | 0.067 | 18.35                 | 0.068 | 18.26               | 0.067 |
| 10              | QPSK       | 1       | 25           | 17.94              | 0.062 | 18.10                 | 0.065 | 18.01               | 0.063 |
| 10              | QPSK       | 1       | 49           | 18.29              | 0.067 | 17.98                 | 0.063 | 18.14               | 0.065 |
| 10              | QPSK       | 25      | 0            | 17.05              | 0.051 | 17.29                 | 0.054 | 17.04               | 0.051 |
| 10              | QPSK       | 25      | 12           | 17.01              | 0.050 | 16.92                 | 0.049 | 16.95               | 0.050 |
| 10              | QPSK       | 25      | 25           | 17.10              | 0.051 | 16.94                 | 0.049 | 17.20               | 0.052 |
| 10              | QPSK       | 50      | 0            | 17.09              | 0.051 | 17.10                 | 0.051 | 17.24               | 0.053 |
| 10              | 16QAM      | 1       | 0            | 17.35              | 0.054 | 17.37                 | 0.055 | 17.14               | 0.052 |
| 10              | 16QAM      | 1       | 25           | 17.10              | 0.051 | 17.21                 | 0.053 | 17.26               | 0.053 |
| 10              | 16QAM      | 1       | 49           | 17.05              | 0.051 | 17.33                 | 0.054 | 17.09               | 0.051 |
| 10              | 16QAM      | 25      | 0            | 16.19              | 0.042 | 16.45                 | 0.044 | 16.31               | 0.043 |
| 10              | 16QAM      | 25      | 12           | 16.09              | 0.041 | 16.43                 | 0.044 | 16.30               | 0.043 |
| 10              | 16QAM      | 25      | 25           | 16.36              | 0.043 | 16.41                 | 0.044 | 16.29               | 0.043 |
| 10              | 16QAM      | 50      | 0            | 16.18              | 0.041 | 16.30                 | 0.043 | 16.30               | 0.043 |



| 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            | 18.23              | 0.067 | 18.31                 | 0.068 | 18.19               | 0.066 |
| 5               | QPSK       | 1       | 12           | 18.12              | 0.065 | 17.97                 | 0.063 | 18.06               | 0.064 |
| 5               | QPSK       | 1       | 24           | 18.23              | 0.067 | 17.97                 | 0.063 | 18.23               | 0.067 |
| 5               | QPSK       | 12      | 0            | 17.23              | 0.053 | 17.17                 | 0.052 | 16.96               | 0.050 |
| 5               | QPSK       | 12      | 7            | 16.99              | 0.050 | 17.03                 | 0.050 | 17.09               | 0.051 |
| 5               | QPSK       | 12      | 13           | 17.16              | 0.052 | 17.14                 | 0.052 | 17.09               | 0.051 |
| 5               | QPSK       | 25      | 0            | 17.14              | 0.052 | 17.12                 | 0.052 | 17.12               | 0.052 |
| 5               | 16QAM      | 1       | 0            | 17.20              | 0.052 | 17.22                 | 0.053 | 16.92               | 0.049 |
| 5               | 16QAM      | 1       | 12           | 16.89              | 0.049 | 17.27                 | 0.053 | 17.14               | 0.052 |
| 5               | 16QAM      | 1       | 24           | 17.32              | 0.054 | 17.20                 | 0.052 | 16.87               | 0.049 |
| 5               | 16QAM      | 12      | 0            | 16.19              | 0.042 | 16.44                 | 0.044 | 16.15               | 0.041 |
| 5               | 16QAM      | 12      | 7            | 15.99              | 0.040 | 16.34                 | 0.043 | 16.29               | 0.043 |
| 5               | 16QAM      | 12      | 13           | 16.27              | 0.042 | 16.38                 | 0.043 | 16.08               | 0.041 |
| 5               | 16QAM      | 25      | 0            | 16.22              | 0.042 | 16.21                 | 0.042 | 16.34               | 0.043 |



| 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            | 18.15              | 0.065 | 18.30                 | 0.068 | 18.18               | 0.066 |
| 3               | QPSK       | 1       | 8            | 18.05              | 0.064 | 18.18                 | 0.066 | 17.97               | 0.063 |
| 3               | QPSK       | 1       | 14           | 18.12              | 0.065 | 18.22                 | 0.066 | 18.07               | 0.064 |
| 3               | QPSK       | 8       | 0            | 16.97              | 0.050 | 17.18                 | 0.052 | 17.25               | 0.053 |
| 3               | QPSK       | 8       | 4            | 17.29              | 0.054 | 17.26                 | 0.053 | 17.14               | 0.052 |
| 3               | QPSK       | 8       | 7            | 17.09              | 0.051 | 17.11                 | 0.051 | 17.15               | 0.052 |
| 3               | QPSK       | 15      | 0            | 16.98              | 0.050 | 17.04                 | 0.051 | 17.04               | 0.051 |
| 3               | 16QAM      | 1       | 0            | 17.01              | 0.050 | 17.15                 | 0.052 | 17.01               | 0.050 |
| 3               | 16QAM      | 1       | 8            | 16.98              | 0.050 | 17.16                 | 0.052 | 17.12               | 0.052 |
| 3               | 16QAM      | 1       | 14           | 17.35              | 0.054 | 17.34                 | 0.054 | 17.10               | 0.051 |
| 3               | 16QAM      | 8       | 0            | 16.16              | 0.041 | 16.22                 | 0.042 | 16.29               | 0.043 |
| 3               | 16QAM      | 8       | 4            | 15.99              | 0.040 | 16.23                 | 0.042 | 16.22               | 0.042 |
| 3               | 16QAM      | 8       | 7            | 16.20              | 0.042 | 16.17                 | 0.041 | 16.41               | 0.044 |
| 3               | 16QAM      | 15      | 0            | 16.20              | 0.042 | 16.50                 | 0.045 | 16.32               | 0.043 |



| 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         |            |         |              | 20407              |       | 20525                 |       | 20643               |       |
| Frequency (MHz) |            |         |              | 824.7              |       | 836.5                 |       | 848.3               |       |
|                 |            |         |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 1.4             | QPSK       | 1       | 0            | 18.20              | 0.066 | 18.28                 | 0.067 | 18.15               | 0.065 |
| 1.4             | QPSK       | 1       | 3            | 18.19              | 0.066 | 18.11                 | 0.065 | 18.20               | 0.066 |
| 1.4             | QPSK       | 1       | 5            | 18.14              | 0.065 | 18.22                 | 0.066 | 18.07               | 0.064 |
| 1.4             | QPSK       | 3       | 0            | 17.14              | 0.052 | 17.19                 | 0.052 | 17.06               | 0.051 |
| 1.4             | QPSK       | 3       | 1            | 17.35              | 0.054 | 17.08                 | 0.051 | 17.05               | 0.051 |
| 1.4             | QPSK       | 3       | 3            | 17.19              | 0.052 | 17.10                 | 0.051 | 17.13               | 0.052 |
| 1.4             | QPSK       | 6       | 0            | 16.96              | 0.050 | 17.08                 | 0.051 | 16.97               | 0.050 |
| 1.4             | 16QAM      | 1       | 0            | 17.11              | 0.051 | 17.15                 | 0.052 | 17.04               | 0.051 |
| 1.4             | 16QAM      | 1       | 3            | 17.07              | 0.051 | 17.18                 | 0.052 | 17.07               | 0.051 |
| 1.4             | 16QAM      | 1       | 5            | 17.34              | 0.054 | 17.11                 | 0.051 | 16.92               | 0.049 |
| 1.4             | 16QAM      | 3       | 0            | 16.31              | 0.043 | 16.39                 | 0.044 | 16.14               | 0.041 |
| 1.4             | 16QAM      | 3       | 1            | 16.05              | 0.040 | 16.23                 | 0.042 | 16.16               | 0.041 |
| 1.4             | 16QAM      | 3       | 3            | 16.21              | 0.042 | 16.39                 | 0.044 | 16.32               | 0.043 |
| 1.4             | 16QAM      | 6       | 0            | 16.33              | 0.043 | 16.46                 | 0.044 | 16.44               | 0.044 |



| 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            | 21.48              | 0.141 | 21.67                 | 0.147 | 21.50               | 0.141 |
| 20              | QPSK       | 1          | 49           | 21.44              | 0.139 | 21.57                 | 0.144 | 21.37               | 0.137 |
| 20              | QPSK       | 1          | 99           | 21.45              | 0.140 | 21.44                 | 0.139 | 21.30               | 0.135 |
| 20              | QPSK       | 50         | 0            | 20.47              | 0.111 | 20.55                 | 0.114 | 20.33               | 0.108 |
| 20              | QPSK       | 50         | 24           | 20.43              | 0.110 | 20.47                 | 0.111 | 20.48               | 0.112 |
| 20              | QPSK       | 50         | 50           | 20.38              | 0.109 | 20.52                 | 0.113 | 20.47               | 0.111 |
| 20              | QPSK       | 100        | 0            | 20.25              | 0.106 | 20.54                 | 0.113 | 20.56               | 0.114 |
| 20              | 16QAM      | 1          | 0            | 20.69              | 0.117 | 20.64                 | 0.116 | 20.47               | 0.111 |
| 20              | 16QAM      | 1          | 49           | 20.58              | 0.114 | 20.38                 | 0.109 | 20.65               | 0.116 |
| 20              | 16QAM      | 1          | 99           | 20.39              | 0.109 | 20.56                 | 0.114 | 20.46               | 0.111 |
| 20              | 16QAM      | 50         | 0            | 19.63              | 0.092 | 19.63                 | 0.092 | 19.76               | 0.095 |
| 20              | 16QAM      | 50         | 24           | 19.61              | 0.091 | 19.67                 | 0.093 | 19.46               | 0.088 |
| 20              | 16QAM      | 50         | 50           | 19.65              | 0.092 | 19.63                 | 0.092 | 19.39               | 0.087 |
| 20              | 16QAM      | 100        | 0            | 19.76              | 0.095 | 19.53                 | 0.090 | 19.50               | 0.089 |



| 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            | 21.52              | 0.142 | 21.63                 | 0.146 | 21.53               | 0.142 |
| 15              | QPSK       | 1          | 37           | 21.41              | 0.138 | 21.23                 | 0.133 | 21.40               | 0.138 |
| 15              | QPSK       | 1          | 74           | 21.36              | 0.137 | 21.32                 | 0.136 | 21.27               | 0.134 |
| 15              | QPSK       | 36         | 0            | 20.61              | 0.115 | 20.31                 | 0.107 | 20.44               | 0.111 |
| 15              | QPSK       | 36         | 20           | 20.34              | 0.108 | 20.46                 | 0.111 | 20.46               | 0.111 |
| 15              | QPSK       | 36         | 39           | 20.65              | 0.116 | 20.43                 | 0.110 | 20.52               | 0.113 |
| 15              | QPSK       | 75         | 0            | 20.33              | 0.108 | 20.61                 | 0.115 | 20.37               | 0.109 |
| 15              | 16QAM      | 1          | 0            | 20.36              | 0.109 | 20.48                 | 0.112 | 20.61               | 0.115 |
| 15              | 16QAM      | 1          | 37           | 20.29              | 0.107 | 20.50                 | 0.112 | 20.46               | 0.111 |
| 15              | 16QAM      | 1          | 74           | 20.53              | 0.113 | 20.59                 | 0.115 | 20.41               | 0.110 |
| 15              | 16QAM      | 36         | 0            | 19.50              | 0.089 | 19.79                 | 0.095 | 19.66               | 0.092 |
| 15              | 16QAM      | 36         | 20           | 19.47              | 0.089 | 19.74                 | 0.094 | 19.47               | 0.089 |
| 15              | 16QAM      | 36         | 39           | 19.56              | 0.090 | 19.71                 | 0.094 | 19.78               | 0.095 |
| 15              | 16QAM      | 75         | 0            | 19.77              | 0.095 | 19.68                 | 0.093 | 19.51               | 0.089 |



| 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            | 21.43              | 0.139 | 21.62                 | 0.145 | 21.62               | 0.145 |
| 10              | QPSK       | 1          | 25           | 21.38              | 0.137 | 21.52                 | 0.142 | 21.25               | 0.133 |
| 10              | QPSK       | 1          | 49           | 21.40              | 0.138 | 21.22                 | 0.132 | 21.31               | 0.135 |
| 10              | QPSK       | 25         | 0            | 20.56              | 0.114 | 20.44                 | 0.111 | 20.61               | 0.115 |
| 10              | QPSK       | 25         | 12           | 20.41              | 0.110 | 20.40                 | 0.110 | 20.26               | 0.106 |
| 10              | QPSK       | 25         | 25           | 20.29              | 0.107 | 20.61                 | 0.115 | 20.25               | 0.106 |
| 10              | QPSK       | 50         | 0            | 20.39              | 0.109 | 20.26                 | 0.106 | 20.36               | 0.109 |
| 10              | 16QAM      | 1          | 0            | 20.65              | 0.116 | 20.50                 | 0.112 | 20.38               | 0.109 |
| 10              | 16QAM      | 1          | 25           | 20.28              | 0.107 | 20.55                 | 0.114 | 20.49               | 0.112 |
| 10              | 16QAM      | 1          | 49           | 20.53              | 0.113 | 20.48                 | 0.112 | 20.21               | 0.105 |
| 10              | 16QAM      | 25         | 0            | 19.75              | 0.094 | 19.83                 | 0.096 | 19.69               | 0.093 |
| 10              | 16QAM      | 25         | 12           | 19.49              | 0.089 | 19.79                 | 0.095 | 19.72               | 0.094 |
| 10              | 16QAM      | 25         | 25           | 19.76              | 0.095 | 19.76                 | 0.095 | 19.60               | 0.091 |
| 10              | 16QAM      | 50         | 0            | 19.69              | 0.093 | 19.75                 | 0.094 | 19.53               | 0.090 |



| 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            | 21.58              | 0.144 | 21.61                 | 0.145 | 21.49               | 0.141 |
| 5               | QPSK       | 1          | 12           | 21.47              | 0.140 | 21.32                 | 0.136 | 21.41               | 0.138 |
| 5               | QPSK       | 1          | 24           | 21.49              | 0.141 | 21.29                 | 0.135 | 21.28               | 0.134 |
| 5               | QPSK       | 12         | 0            | 20.41              | 0.110 | 20.42                 | 0.110 | 20.55               | 0.114 |
| 5               | QPSK       | 12         | 7            | 20.31              | 0.107 | 20.46                 | 0.111 | 20.55               | 0.114 |
| 5               | QPSK       | 12         | 13           | 20.27              | 0.106 | 20.46                 | 0.111 | 20.53               | 0.113 |
| 5               | QPSK       | 25         | 0            | 20.35              | 0.108 | 20.59                 | 0.115 | 20.53               | 0.113 |
| 5               | 16QAM      | 1          | 0            | 20.67              | 0.117 | 20.48                 | 0.112 | 20.32               | 0.108 |
| 5               | 16QAM      | 1          | 12           | 20.42              | 0.110 | 20.60                 | 0.115 | 20.29               | 0.107 |
| 5               | 16QAM      | 1          | 24           | 20.40              | 0.110 | 20.73                 | 0.118 | 20.38               | 0.109 |
| 5               | 16QAM      | 12         | 0            | 19.52              | 0.090 | 19.77                 | 0.095 | 19.46               | 0.088 |
| 5               | 16QAM      | 12         | 7            | 19.47              | 0.089 | 19.67                 | 0.093 | 19.60               | 0.091 |
| 5               | 16QAM      | 12         | 13           | 19.73              | 0.094 | 19.73                 | 0.094 | 19.42               | 0.087 |
| 5               | 16QAM      | 25         | 0            | 19.75              | 0.094 | 19.63                 | 0.092 | 19.71               | 0.094 |



| LTE Band 12     |            |         |           | Measured E.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-----------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq. |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 23060           |       | 23095              |       | 23130            |       |
| Frequency (MHz) |            |         |           | 704             |       | 707.5              |       | 711              |       |
|                 |            |         |           | dBm             | W     | dBm                | W     | dBm              | W     |
| 10              | QPSK       | 1       | 0         | 17.30           | 0.054 | 17.43              | 0.055 | 17.31            | 0.054 |
| 10              | QPSK       | 1       | 25        | 17.08           | 0.051 | 17.37              | 0.055 | 17.29            | 0.054 |
| 10              | QPSK       | 1       | 49        | 17.22           | 0.053 | 17.31              | 0.054 | 17.22            | 0.053 |
| 10              | QPSK       | 25      | 0         | 16.16           | 0.041 | 16.36              | 0.043 | 16.04            | 0.040 |
| 10              | QPSK       | 25      | 12        | 16.32           | 0.043 | 16.27              | 0.042 | 16.10            | 0.041 |
| 10              | QPSK       | 25      | 25        | 16.12           | 0.041 | 16.25              | 0.042 | 16.15            | 0.041 |
| 10              | QPSK       | 50      | 0         | 15.98           | 0.040 | 16.07              | 0.040 | 16.26            | 0.042 |
| 10              | 16QAM      | 1       | 0         | 16.32           | 0.043 | 16.54              | 0.045 | 16.25            | 0.042 |
| 10              | 16QAM      | 1       | 25        | 16.09           | 0.041 | 16.25              | 0.042 | 16.38            | 0.043 |
| 10              | 16QAM      | 1       | 49        | 16.05           | 0.040 | 16.40              | 0.044 | 16.16            | 0.041 |
| 10              | 16QAM      | 25      | 0         | 15.49           | 0.035 | 15.42              | 0.035 | 15.42            | 0.035 |
| 10              | 16QAM      | 25      | 12        | 15.19           | 0.033 | 15.30              | 0.034 | 15.38            | 0.035 |
| 10              | 16QAM      | 25      | 25        | 15.48           | 0.035 | 15.46              | 0.035 | 15.48            | 0.035 |
| 10              | 16QAM      | 50      | 0         | 15.30           | 0.034 | 15.28              | 0.034 | 15.40            | 0.035 |



| 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            | 17.09              | 0.051 | 17.34                 | 0.054 | 17.09               | 0.051 |
| 5               | QPSK       | 1       | 12           | 17.17              | 0.052 | 17.29                 | 0.054 | 17.16               | 0.052 |
| 5               | QPSK       | 1       | 24           | 17.14              | 0.052 | 17.03                 | 0.050 | 17.29               | 0.054 |
| 5               | QPSK       | 12      | 0            | 16.30              | 0.043 | 16.22                 | 0.042 | 16.08               | 0.041 |
| 5               | QPSK       | 12      | 7            | 16.45              | 0.044 | 16.05                 | 0.040 | 16.23               | 0.042 |
| 5               | QPSK       | 12      | 13           | 16.36              | 0.043 | 16.04                 | 0.040 | 16.36               | 0.043 |
| 5               | QPSK       | 25      | 0            | 16.13              | 0.041 | 16.15                 | 0.041 | 16.13               | 0.041 |
| 5               | 16QAM      | 1       | 0            | 16.28              | 0.042 | 16.40                 | 0.044 | 16.14               | 0.041 |
| 5               | 16QAM      | 1       | 12           | 16.12              | 0.041 | 16.25                 | 0.042 | 16.41               | 0.044 |
| 5               | 16QAM      | 1       | 24           | 16.42              | 0.044 | 16.37                 | 0.043 | 16.07               | 0.040 |
| 5               | 16QAM      | 12      | 0            | 15.52              | 0.036 | 15.45                 | 0.035 | 15.51               | 0.036 |
| 5               | 16QAM      | 12      | 7            | 15.20              | 0.033 | 15.46                 | 0.035 | 15.30               | 0.034 |
| 5               | 16QAM      | 12      | 13           | 15.53              | 0.036 | 15.30                 | 0.034 | 15.18               | 0.033 |
| 5               | 16QAM      | 25      | 0            | 15.30              | 0.034 | 15.44                 | 0.035 | 15.19               | 0.033 |



| 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            | 17.17              | 0.052 | 17.35                 | 0.054 | 17.30               | 0.054 |
| 3               | QPSK       | 1       | 8            | 17.17              | 0.052 | 17.34                 | 0.054 | 17.20               | 0.052 |
| 3               | QPSK       | 1       | 14           | 17.31              | 0.054 | 17.23                 | 0.053 | 17.33               | 0.054 |
| 3               | QPSK       | 8       | 0            | 16.16              | 0.041 | 16.28                 | 0.042 | 16.03               | 0.040 |
| 3               | QPSK       | 8       | 4            | 16.40              | 0.044 | 16.29                 | 0.043 | 16.38               | 0.043 |
| 3               | QPSK       | 8       | 7            | 16.12              | 0.041 | 16.24                 | 0.042 | 16.11               | 0.041 |
| 3               | QPSK       | 15      | 0            | 16.12              | 0.041 | 16.05                 | 0.040 | 16.33               | 0.043 |
| 3               | 16QAM      | 1       | 0            | 16.33              | 0.043 | 16.43                 | 0.044 | 16.06               | 0.040 |
| 3               | 16QAM      | 1       | 8            | 16.00              | 0.040 | 16.31                 | 0.043 | 16.41               | 0.044 |
| 3               | 16QAM      | 1       | 14           | 16.07              | 0.040 | 16.11                 | 0.041 | 16.30               | 0.043 |
| 3               | 16QAM      | 8       | 0            | 15.47              | 0.035 | 15.35                 | 0.034 | 15.29               | 0.034 |
| 3               | 16QAM      | 8       | 4            | 15.25              | 0.033 | 15.57                 | 0.036 | 15.18               | 0.033 |
| 3               | 16QAM      | 8       | 7            | 15.54              | 0.036 | 15.56                 | 0.036 | 15.30               | 0.034 |
| 3               | 16QAM      | 15      | 0            | 15.33              | 0.034 | 15.38                 | 0.035 | 15.32               | 0.034 |



| 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            | 17.19              | 0.052 | 17.35                 | 0.054 | 17.25               | 0.053 |
| 1.4             | QPSK       | 1       | 3            | 17.33              | 0.054 | 17.27                 | 0.053 | 17.00               | 0.050 |
| 1.4             | QPSK       | 1       | 5            | 17.30              | 0.054 | 17.31                 | 0.054 | 16.96               | 0.050 |
| 1.4             | QPSK       | 3       | 0            | 16.42              | 0.044 | 16.34                 | 0.043 | 16.23               | 0.042 |
| 1.4             | QPSK       | 3       | 1            | 16.47              | 0.044 | 16.41                 | 0.044 | 16.15               | 0.041 |
| 1.4             | QPSK       | 3       | 3            | 16.29              | 0.043 | 16.22                 | 0.042 | 16.15               | 0.041 |
| 1.4             | QPSK       | 6       | 0            | 16.02              | 0.040 | 16.07                 | 0.040 | 15.94               | 0.039 |
| 1.4             | 16QAM      | 1       | 0            | 16.21              | 0.042 | 16.18                 | 0.041 | 16.35               | 0.043 |
| 1.4             | 16QAM      | 1       | 3            | 16.11              | 0.041 | 16.19                 | 0.042 | 16.20               | 0.042 |
| 1.4             | 16QAM      | 1       | 5            | 16.29              | 0.043 | 16.49                 | 0.045 | 16.33               | 0.043 |
| 1.4             | 16QAM      | 3       | 0            | 15.48              | 0.035 | 15.71                 | 0.037 | 15.45               | 0.035 |
| 1.4             | 16QAM      | 3       | 1            | 15.31              | 0.034 | 15.42                 | 0.035 | 15.43               | 0.035 |
| 1.4             | 16QAM      | 3       | 3            | 15.57              | 0.036 | 15.30                 | 0.034 | 15.54               | 0.036 |
| 1.4             | 16QAM      | 6       | 0            | 15.39              | 0.035 | 15.44                 | 0.035 | 15.41               | 0.035 |



| 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            | 17.21              | 0.053 | 17.50                 | 0.056 | 17.32               | 0.054 |
| 10              | QPSK       | 1       | 25           | 17.21              | 0.053 | 17.32                 | 0.054 | 17.35               | 0.054 |
| 10              | QPSK       | 1       | 49           | 17.42              | 0.055 | 17.24                 | 0.053 | 17.27               | 0.053 |
| 10              | QPSK       | 25      | 0            | 16.45              | 0.044 | 16.47                 | 0.044 | 16.28               | 0.042 |
| 10              | QPSK       | 25      | 12           | 16.23              | 0.042 | 16.21                 | 0.042 | 16.37               | 0.043 |
| 10              | QPSK       | 25      | 25           | 16.15              | 0.041 | 16.45                 | 0.044 | 16.18               | 0.041 |
| 10              | QPSK       | 50      | 0            | 16.09              | 0.041 | 16.18                 | 0.041 | 16.24               | 0.042 |
| 10              | 16QAM      | 1       | 0            | 16.44              | 0.044 | 16.30                 | 0.043 | 16.34               | 0.043 |
| 10              | 16QAM      | 1       | 25           | 16.44              | 0.044 | 16.27                 | 0.042 | 16.23               | 0.042 |
| 10              | 16QAM      | 1       | 49           | 16.55              | 0.045 | 16.55                 | 0.045 | 16.22               | 0.042 |
| 10              | 16QAM      | 25      | 0            | 15.66              | 0.037 | 15.42                 | 0.035 | 15.67               | 0.037 |
| 10              | 16QAM      | 25      | 12           | 15.56              | 0.036 | 15.42                 | 0.035 | 15.49               | 0.035 |
| 10              | 16QAM      | 25      | 25           | 15.66              | 0.037 | 15.58                 | 0.036 | 15.49               | 0.035 |
| 10              | 16QAM      | 50      | 0            | 15.48              | 0.035 | 15.59                 | 0.036 | 15.29               | 0.034 |



| 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            | 17.31              | 0.054 | 17.49                 | 0.056 | 17.36               | 0.054 |
| 5               | QPSK       | 1       | 12           | 17.42              | 0.055 | 17.17                 | 0.052 | 17.38               | 0.055 |
| 5               | QPSK       | 1       | 24           | 17.37              | 0.055 | 17.38                 | 0.055 | 17.45               | 0.056 |
| 5               | QPSK       | 12      | 0            | 16.34              | 0.043 | 16.46                 | 0.044 | 16.52               | 0.045 |
| 5               | QPSK       | 12      | 7            | 16.35              | 0.043 | 16.49                 | 0.045 | 16.29               | 0.043 |
| 5               | QPSK       | 12      | 13           | 16.38              | 0.043 | 16.19                 | 0.042 | 16.17               | 0.041 |
| 5               | QPSK       | 25      | 0            | 16.10              | 0.041 | 16.27                 | 0.042 | 16.35               | 0.043 |
| 5               | 16QAM      | 1       | 0            | 16.50              | 0.045 | 16.38                 | 0.043 | 16.28               | 0.042 |
| 5               | 16QAM      | 1       | 12           | 16.22              | 0.042 | 16.49                 | 0.045 | 16.41               | 0.044 |
| 5               | 16QAM      | 1       | 24           | 16.32              | 0.043 | 16.28                 | 0.042 | 16.22               | 0.042 |
| 5               | 16QAM      | 12      | 0            | 15.53              | 0.036 | 15.55                 | 0.036 | 15.48               | 0.035 |
| 5               | 16QAM      | 12      | 7            | 15.40              | 0.035 | 15.54                 | 0.036 | 15.60               | 0.036 |
| 5               | 16QAM      | 12      | 13           | 15.36              | 0.034 | 15.49                 | 0.035 | 15.30               | 0.034 |
| 5               | 16QAM      | 25      | 0            | 15.31              | 0.034 | 15.65                 | 0.037 | 15.57               | 0.036 |



| LTE Band 38     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 37850             |       | 38000              |       | 38150            |       |
| Frequency (MHz) |            |         |           | 2580              |       | 2595               |       | 2610             |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 20              | QPSK       | 1       | 0         | 23.11             | 0.205 | 23.26              | 0.212 | 23.22            | 0.210 |
| 20              | QPSK       | 1       | 49        | 23.14             | 0.206 | 23.20              | 0.209 | 23.06            | 0.202 |
| 20              | QPSK       | 1       | 99        | 23.05             | 0.202 | 23.08              | 0.203 | 23.16            | 0.207 |
| 20              | QPSK       | 50      | 0         | 22.22             | 0.167 | 22.25              | 0.168 | 22.18            | 0.165 |
| 20              | QPSK       | 50      | 24        | 21.92             | 0.156 | 22.20              | 0.166 | 22.02            | 0.159 |
| 20              | QPSK       | 50      | 50        | 22.07             | 0.161 | 22.01              | 0.159 | 22.05            | 0.160 |
| 20              | QPSK       | 100     | 0         | 21.92             | 0.156 | 22.16              | 0.164 | 22.06            | 0.161 |
| 20              | 16QAM      | 1       | 0         | 22.07             | 0.161 | 22.20              | 0.166 | 21.94            | 0.156 |
| 20              | 16QAM      | 1       | 49        | 22.12             | 0.163 | 22.26              | 0.168 | 22.02            | 0.159 |
| 20              | 16QAM      | 1       | 99        | 21.96             | 0.157 | 22.20              | 0.166 | 21.89            | 0.155 |
| 20              | 16QAM      | 50      | 0         | 21.39             | 0.138 | 21.33              | 0.136 | 21.19            | 0.132 |
| 20              | 16QAM      | 50      | 24        | 21.14             | 0.130 | 21.05              | 0.127 | 21.02            | 0.126 |
| 20              | 16QAM      | 50      | 50        | 21.26             | 0.134 | 21.28              | 0.134 | 21.30            | 0.135 |
| 20              | 16QAM      | 100     | 0         | 21.15             | 0.130 | 21.45              | 0.140 | 21.42            | 0.139 |



| LTE Band 38     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 37825             |       | 38000              |       | 38175            |       |
| Frequency (MHz) |            |         |           | 2577.5            |       | 2595               |       | 2612.5           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 15              | QPSK       | 1       | 0         | 23.13             | 0.206 | 23.22              | 0.210 | 23.19            | 0.208 |
| 15              | QPSK       | 1       | 37        | 23.12             | 0.205 | 23.11              | 0.205 | 22.94            | 0.197 |
| 15              | QPSK       | 1       | 74        | 23.14             | 0.206 | 22.98              | 0.199 | 23.05            | 0.202 |
| 15              | QPSK       | 36      | 0         | 22.13             | 0.163 | 22.05              | 0.160 | 21.94            | 0.156 |
| 15              | QPSK       | 36      | 20        | 22.24             | 0.167 | 21.98              | 0.158 | 22.20            | 0.166 |
| 15              | QPSK       | 36      | 39        | 22.20             | 0.166 | 22.26              | 0.168 | 22.14            | 0.164 |
| 15              | QPSK       | 75      | 0         | 22.01             | 0.159 | 22.16              | 0.164 | 21.85            | 0.153 |
| 15              | 16QAM      | 1       | 0         | 22.18             | 0.165 | 22.15              | 0.164 | 22.17            | 0.165 |
| 15              | 16QAM      | 1       | 37        | 22.17             | 0.165 | 22.16              | 0.164 | 21.98            | 0.158 |
| 15              | 16QAM      | 1       | 74        | 21.97             | 0.157 | 22.15              | 0.164 | 22.18            | 0.165 |
| 15              | 16QAM      | 36      | 0         | 21.16             | 0.131 | 21.46              | 0.140 | 21.09            | 0.129 |
| 15              | 16QAM      | 36      | 20        | 21.04             | 0.127 | 21.22              | 0.132 | 21.05            | 0.127 |
| 15              | 16QAM      | 36      | 39        | 21.16             | 0.131 | 21.09              | 0.129 | 21.17            | 0.131 |
| 15              | 16QAM      | 75      | 0         | 21.20             | 0.132 | 21.32              | 0.136 | 21.31            | 0.135 |



| LTE Band 38     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 37800             |       | 38000              |       | 38200            |       |
| Frequency (MHz) |            |         |           | 2575              |       | 2595               |       | 2615             |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 10              | QPSK       | 1       | 0         | 23.05             | 0.202 | 23.21              | 0.209 | 23.15            | 0.207 |
| 10              | QPSK       | 1       | 25        | 23.10             | 0.204 | 23.01              | 0.200 | 23.05            | 0.202 |
| 10              | QPSK       | 1       | 49        | 23.11             | 0.205 | 23.02              | 0.200 | 23.18            | 0.208 |
| 10              | QPSK       | 25      | 0         | 22.07             | 0.161 | 22.27              | 0.169 | 22.01            | 0.159 |
| 10              | QPSK       | 25      | 12        | 22.18             | 0.165 | 22.22              | 0.167 | 21.86            | 0.153 |
| 10              | QPSK       | 25      | 25        | 22.20             | 0.166 | 22.15              | 0.164 | 21.89            | 0.155 |
| 10              | QPSK       | 50      | 0         | 22.06             | 0.161 | 22.11              | 0.163 | 21.95            | 0.157 |
| 10              | 16QAM      | 1       | 0         | 22.09             | 0.162 | 22.15              | 0.164 | 21.92            | 0.156 |
| 10              | 16QAM      | 1       | 25        | 21.89             | 0.155 | 21.92              | 0.156 | 21.97            | 0.157 |
| 10              | 16QAM      | 1       | 49        | 21.92             | 0.156 | 22.31              | 0.170 | 21.86            | 0.153 |
| 10              | 16QAM      | 25      | 0         | 21.39             | 0.138 | 21.25              | 0.133 | 21.17            | 0.131 |
| 10              | 16QAM      | 25      | 12        | 21.07             | 0.128 | 21.19              | 0.132 | 21.02            | 0.126 |
| 10              | 16QAM      | 25      | 25        | 21.32             | 0.136 | 21.44              | 0.139 | 21.14            | 0.130 |
| 10              | 16QAM      | 50      | 0         | 21.29             | 0.135 | 21.13              | 0.130 | 21.24            | 0.133 |



| LTE Band 38     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 37775             |       | 38000              |       | 38225            |       |
| Frequency (MHz) |            |         |           | 2572.5            |       | 2595               |       | 2617.5           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 5               | QPSK       | 1       | 0         | 23.14             | 0.206 | 23.20              | 0.209 | 23.04            | 0.201 |
| 5               | QPSK       | 1       | 12        | 23.14             | 0.206 | 22.95              | 0.197 | 23.11            | 0.205 |
| 5               | QPSK       | 1       | 24        | 23.15             | 0.207 | 23.02              | 0.200 | 22.94            | 0.197 |
| 5               | QPSK       | 12      | 0         | 21.89             | 0.155 | 21.94              | 0.156 | 21.99            | 0.158 |
| 5               | QPSK       | 12      | 7         | 22.27             | 0.169 | 22.26              | 0.168 | 21.91            | 0.155 |
| 5               | QPSK       | 12      | 13        | 22.13             | 0.163 | 21.88              | 0.154 | 22.08            | 0.161 |
| 5               | QPSK       | 25      | 0         | 21.97             | 0.157 | 22.01              | 0.159 | 22.16            | 0.164 |
| 5               | 16QAM      | 1       | 0         | 22.33             | 0.171 | 22.12              | 0.163 | 22.11            | 0.163 |
| 5               | 16QAM      | 1       | 12        | 21.98             | 0.158 | 22.18              | 0.165 | 22.09            | 0.162 |
| 5               | 16QAM      | 1       | 24        | 22.25             | 0.168 | 22.14              | 0.164 | 22.02            | 0.159 |
| 5               | 16QAM      | 12      | 0         | 21.48             | 0.141 | 21.41              | 0.138 | 21.38            | 0.137 |
| 5               | 16QAM      | 12      | 7         | 21.10             | 0.129 | 21.23              | 0.133 | 21.33            | 0.136 |
| 5               | 16QAM      | 12      | 13        | 21.28             | 0.134 | 21.12              | 0.129 | 21.28            | 0.134 |
| 5               | 16QAM      | 25      | 0         | 21.33             | 0.136 | 21.35              | 0.136 | 21.36            | 0.137 |



| LTE Band 40, Block A |            |            |              | 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              |            |            |              | /                  |   | 38750                 |       | /                   |   |
| Frequency (MHz)      |            |            |              | /                  |   | 2310                  |       | /                   |   |
|                      |            |            |              | dBm                | W | dBm                   | W     | dBm                 | W |
| 10                   | QPSK       | 1          | 0            | /                  | / | 24.12                 | 0.258 | /                   | / |
| 10                   | QPSK       | 1          | 25           | /                  | / | 24.09                 | 0.256 | /                   | / |
| 10                   | QPSK       | 1          | 49           | /                  | / | 24.01                 | 0.252 | /                   | / |
| 10                   | QPSK       | 25         | 0            | /                  | / | 23.28                 | 0.213 | /                   | / |
| 10                   | QPSK       | 25         | 12           | /                  | / | 23.06                 | 0.202 | /                   | / |
| 10                   | QPSK       | 25         | 25           | /                  | / | 23.12                 | 0.205 | /                   | / |
| 10                   | QPSK       | 50         | 0            | /                  | / | 22.96                 | 0.198 | /                   | / |
| 10                   | 16QAM      | 1          | 0            | /                  | / | 22.97                 | 0.198 | /                   | / |
| 10                   | 16QAM      | 1          | 25           | /                  | / | 22.85                 | 0.193 | /                   | / |
| 10                   | 16QAM      | 1          | 49           | /                  | / | 22.26                 | 0.168 | /                   | / |
| 10                   | 16QAM      | 25         | 0            | /                  | / | 22.02                 | 0.159 | /                   | / |
| 10                   | 16QAM      | 25         | 12           | /                  | / | 22.15                 | 0.164 | /                   | / |
| 10                   | 16QAM      | 25         | 25           | /                  | / | 21.95                 | 0.157 | /                   | / |
| 10                   | 16QAM      | 50         | 0            | /                  | / | 22.08                 | 0.161 | /                   | / |



| LTE Band 40, Block A |            |            |              | 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              |            |            |              | 38725              |       | 38750                 |       | 38775               |       |
| Frequency (MHz)      |            |            |              | 2307.5             |       | 2310                  |       | 2312.5              |       |
|                      |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 5                    | QPSK       | 1          | 0            | 24.05              | 0.254 | 24.10                 | 0.257 | 24.05               | 0.254 |
| 5                    | QPSK       | 1          | 12           | 24.04              | 0.254 | 23.95                 | 0.248 | 23.98               | 0.250 |
| 5                    | QPSK       | 1          | 24           | 24.02              | 0.252 | 23.85                 | 0.243 | 23.83               | 0.242 |
| 5                    | QPSK       | 12         | 0            | 22.90              | 0.195 | 22.87                 | 0.194 | 22.79               | 0.190 |
| 5                    | QPSK       | 12         | 7            | 22.95              | 0.197 | 23.06                 | 0.202 | 22.95               | 0.197 |
| 5                    | QPSK       | 12         | 13           | 22.98              | 0.199 | 22.88                 | 0.194 | 23.04               | 0.201 |
| 5                    | QPSK       | 25         | 0            | 22.85              | 0.193 | 23.07                 | 0.203 | 22.95               | 0.197 |
| 5                    | 16QAM      | 1          | 0            | 23.24              | 0.211 | 22.97                 | 0.198 | 23.05               | 0.202 |
| 5                    | 16QAM      | 1          | 12           | 23.05              | 0.202 | 22.91                 | 0.195 | 23.09               | 0.204 |
| 5                    | 16QAM      | 1          | 24           | 23.13              | 0.206 | 22.90                 | 0.195 | 22.89               | 0.195 |
| 5                    | 16QAM      | 12         | 0            | 22.23              | 0.167 | 22.41                 | 0.174 | 22.04               | 0.160 |
| 5                    | 16QAM      | 12         | 7            | 22.09              | 0.162 | 22.32                 | 0.171 | 22.17               | 0.165 |
| 5                    | 16QAM      | 12         | 13           | 22.01              | 0.159 | 22.21                 | 0.166 | 21.92               | 0.156 |
| 5                    | 16QAM      | 25         | 0            | 22.29              | 0.169 | 22.27                 | 0.169 | 21.94               | 0.156 |



| LTE Band 40, Block B |            |            |              | 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              |            |            |              | /                  |   | 39200                 |       | /                   |   |
| Frequency (MHz)      |            |            |              | /                  |   | 2355                  |       | /                   |   |
|                      |            |            |              | dBm                | W | dBm                   | W     | dBm                 | W |
| 10                   | QPSK       | 1          | 0            | /                  | / | 24.03                 | 0.253 | /                   | / |
| 10                   | QPSK       | 1          | 25           | /                  | / | 23.93                 | 0.247 | /                   | / |
| 10                   | QPSK       | 1          | 49           | /                  | / | 24.01                 | 0.252 | /                   | / |
| 10                   | QPSK       | 25         | 0            | /                  | / | 22.99                 | 0.199 | /                   | / |
| 10                   | QPSK       | 25         | 12           | /                  | / | 22.87                 | 0.194 | /                   | / |
| 10                   | QPSK       | 25         | 25           | /                  | / | 22.93                 | 0.196 | /                   | / |
| 10                   | QPSK       | 50         | 0            | /                  | / | 22.90                 | 0.195 | /                   | / |
| 10                   | 16QAM      | 1          | 0            | /                  | / | 22.86                 | 0.193 | /                   | / |
| 10                   | 16QAM      | 1          | 25           | /                  | / | 22.93                 | 0.196 | /                   | / |
| 10                   | 16QAM      | 1          | 49           | /                  | / | 22.86                 | 0.193 | /                   | / |
| 10                   | 16QAM      | 25         | 0            | /                  | / | 22.07                 | 0.161 | /                   | / |
| 10                   | 16QAM      | 25         | 12           | /                  | / | 22.09                 | 0.162 | /                   | / |
| 10                   | 16QAM      | 25         | 25           | /                  | / | 22.11                 | 0.163 | /                   | / |
| 10                   | 16QAM      | 50         | 0            | /                  | / | 22.02                 | 0.159 | /                   | / |



| LTE Band 40, Block B |            |            |              | 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              |            |            |              | 39175              |       | 39200                 |       | 39225               |       |
| Frequency (MHz)      |            |            |              | 2352.5             |       | 2355                  |       | 2357.5              |       |
|                      |            |            |              | dBm                | W     | dBm                   | W     | dBm                 | W     |
| 5                    | QPSK       | 1          | 0            | 23.99              | 0.251 | 24.04                 | 0.254 | 23.99               | 0.251 |
| 5                    | QPSK       | 1          | 12           | 23.98              | 0.250 | 23.89                 | 0.245 | 23.92               | 0.247 |
| 5                    | QPSK       | 1          | 24           | 23.96              | 0.249 | 23.79                 | 0.239 | 23.77               | 0.238 |
| 5                    | QPSK       | 12         | 0            | 22.84              | 0.192 | 22.81                 | 0.191 | 22.73               | 0.187 |
| 5                    | QPSK       | 12         | 7            | 22.89              | 0.195 | 23.00                 | 0.200 | 22.89               | 0.195 |
| 5                    | QPSK       | 12         | 13           | 22.92              | 0.196 | 22.82                 | 0.191 | 22.98               | 0.199 |
| 5                    | QPSK       | 25         | 0            | 22.79              | 0.190 | 23.01                 | 0.200 | 22.89               | 0.195 |
| 5                    | 16QAM      | 1          | 0            | 23.18              | 0.208 | 22.91                 | 0.195 | 22.99               | 0.199 |
| 5                    | 16QAM      | 1          | 12           | 22.99              | 0.199 | 22.85                 | 0.193 | 23.03               | 0.201 |
| 5                    | 16QAM      | 1          | 24           | 23.07              | 0.203 | 22.84                 | 0.192 | 22.83               | 0.192 |
| 5                    | 16QAM      | 12         | 0            | 22.17              | 0.165 | 22.35                 | 0.172 | 21.98               | 0.158 |
| 5                    | 16QAM      | 12         | 7            | 22.03              | 0.160 | 22.26                 | 0.168 | 22.11               | 0.163 |
| 5                    | 16QAM      | 12         | 13           | 21.95              | 0.157 | 22.15                 | 0.164 | 21.86               | 0.153 |
| 5                    | 16QAM      | 25         | 0            | 22.23              | 0.167 | 22.21                 | 0.166 | 21.88               | 0.154 |



| LTE Band 41     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 39750             |       | 40620              |       | 41490            |       |
| Frequency (MHz) |            |         |           | 2506              |       | 2593               |       | 2680             |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 20              | QPSK       | 1       | 0         | 23.49             | 0.223 | 23.55              | 0.226 | 23.42            | 0.220 |
| 20              | QPSK       | 1       | 49        | 23.39             | 0.218 | 23.19              | 0.208 | 23.34            | 0.216 |
| 20              | QPSK       | 1       | 99        | 23.23             | 0.210 | 23.39              | 0.218 | 23.13            | 0.206 |
| 20              | QPSK       | 50      | 0         | 22.59             | 0.182 | 22.39              | 0.173 | 22.40            | 0.174 |
| 20              | QPSK       | 50      | 24        | 22.53             | 0.179 | 22.29              | 0.169 | 22.46            | 0.176 |
| 20              | QPSK       | 50      | 50        | 22.56             | 0.180 | 22.66              | 0.185 | 22.57            | 0.181 |
| 20              | QPSK       | 100     | 0         | 22.35             | 0.172 | 22.47              | 0.177 | 22.38            | 0.173 |
| 20              | 16QAM      | 1       | 0         | 22.46             | 0.176 | 22.55              | 0.180 | 22.40            | 0.174 |
| 20              | 16QAM      | 1       | 49        | 22.11             | 0.163 | 22.33              | 0.171 | 22.35            | 0.172 |
| 20              | 16QAM      | 1       | 99        | 22.35             | 0.172 | 22.24              | 0.167 | 22.51            | 0.178 |
| 20              | 16QAM      | 50      | 0         | 21.51             | 0.142 | 21.54              | 0.143 | 21.49            | 0.141 |
| 20              | 16QAM      | 50      | 24        | 21.53             | 0.142 | 21.47              | 0.140 | 21.54            | 0.143 |
| 20              | 16QAM      | 50      | 50        | 21.44             | 0.139 | 21.50              | 0.141 | 21.34            | 0.136 |
| 20              | 16QAM      | 100     | 0         | 21.56             | 0.143 | 21.55              | 0.143 | 21.22            | 0.132 |



| LTE Band 41     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 39725             |       | 40620              |       | 41515            |       |
| Frequency (MHz) |            |         |           | 2503.5            |       | 2593               |       | 2682.5           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 15              | QPSK       | 1       | 0         | 23.40             | 0.219 | 23.50              | 0.224 | 23.16            | 0.207 |
| 15              | QPSK       | 1       | 37        | 23.10             | 0.204 | 23.20              | 0.209 | 23.43            | 0.220 |
| 15              | QPSK       | 1       | 74        | 23.09             | 0.204 | 23.30              | 0.214 | 23.16            | 0.207 |
| 15              | QPSK       | 36      | 0         | 22.67             | 0.185 | 22.36              | 0.172 | 22.10            | 0.162 |
| 15              | QPSK       | 36      | 20        | 22.47             | 0.177 | 22.38              | 0.173 | 22.42            | 0.175 |
| 15              | QPSK       | 36      | 39        | 22.43             | 0.175 | 22.44              | 0.175 | 22.37            | 0.173 |
| 15              | QPSK       | 75      | 0         | 22.28             | 0.169 | 22.38              | 0.173 | 22.22            | 0.167 |
| 15              | 16QAM      | 1       | 0         | 22.34             | 0.171 | 22.54              | 0.179 | 22.33            | 0.171 |
| 15              | 16QAM      | 1       | 37        | 22.49             | 0.177 | 22.12              | 0.163 | 22.52            | 0.179 |
| 15              | 16QAM      | 1       | 74        | 22.21             | 0.166 | 22.58              | 0.181 | 22.21            | 0.166 |
| 15              | 16QAM      | 36      | 0         | 21.55             | 0.143 | 21.55              | 0.143 | 21.21            | 0.132 |
| 15              | 16QAM      | 36      | 20        | 21.59             | 0.144 | 21.58              | 0.144 | 21.41            | 0.138 |
| 15              | 16QAM      | 36      | 39        | 21.33             | 0.136 | 21.44              | 0.139 | 21.30            | 0.135 |
| 15              | 16QAM      | 75      | 0         | 21.52             | 0.142 | 21.45              | 0.140 | 21.46            | 0.140 |



| LTE Band 41     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 39700             |       | 40620              |       | 41540            |       |
| Frequency (MHz) |            |         |           | 2501              |       | 2593               |       | 2685             |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 10              | QPSK       | 1       | 0         | 23.26             | 0.212 | 23.51              | 0.224 | 23.35            | 0.216 |
| 10              | QPSK       | 1       | 25        | 23.23             | 0.210 | 23.19              | 0.208 | 23.23            | 0.210 |
| 10              | QPSK       | 1       | 49        | 23.28             | 0.213 | 23.26              | 0.212 | 23.29            | 0.213 |
| 10              | QPSK       | 25      | 0         | 22.51             | 0.178 | 22.45              | 0.176 | 22.19            | 0.166 |
| 10              | QPSK       | 25      | 12        | 22.44             | 0.175 | 22.34              | 0.171 | 22.10            | 0.162 |
| 10              | QPSK       | 25      | 25        | 22.56             | 0.180 | 22.28              | 0.169 | 22.39            | 0.173 |
| 10              | QPSK       | 50      | 0         | 22.14             | 0.164 | 22.46              | 0.176 | 22.23            | 0.167 |
| 10              | 16QAM      | 1       | 0         | 22.25             | 0.168 | 22.46              | 0.176 | 22.44            | 0.175 |
| 10              | 16QAM      | 1       | 25        | 22.27             | 0.169 | 22.17              | 0.165 | 22.56            | 0.180 |
| 10              | 16QAM      | 1       | 49        | 22.31             | 0.170 | 22.34              | 0.171 | 22.51            | 0.178 |
| 10              | 16QAM      | 25      | 0         | 21.41             | 0.138 | 21.58              | 0.144 | 21.25            | 0.133 |
| 10              | 16QAM      | 25      | 12        | 21.56             | 0.143 | 21.48              | 0.141 | 21.50            | 0.141 |
| 10              | 16QAM      | 25      | 25        | 21.58             | 0.144 | 21.43              | 0.139 | 21.42            | 0.139 |
| 10              | 16QAM      | 50      | 0         | 21.43             | 0.139 | 21.31              | 0.135 | 21.42            | 0.139 |



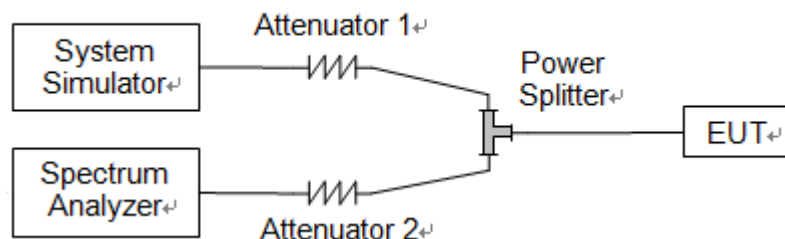
| LTE Band 41     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 39675             |       | 40620              |       | 41565            |       |
| Frequency (MHz) |            |         |           | 2498.5            |       | 2593               |       | 2687.5           |       |
|                 |            |         |           | dBm               | W     | dBm                | W     | dBm              | W     |
| 5               | QPSK       | 1       | 0         | 23.32             | 0.215 | 23.48              | 0.223 | 23.29            | 0.213 |
| 5               | QPSK       | 1       | 12        | 23.21             | 0.209 | 23.19              | 0.208 | 23.46            | 0.222 |
| 5               | QPSK       | 1       | 24        | 23.22             | 0.210 | 23.19              | 0.208 | 23.23            | 0.210 |
| 5               | QPSK       | 12      | 0         | 22.46             | 0.176 | 22.42              | 0.175 | 22.34            | 0.171 |
| 5               | QPSK       | 12      | 7         | 22.50             | 0.178 | 22.35              | 0.172 | 22.20            | 0.166 |
| 5               | QPSK       | 12      | 13        | 22.34             | 0.171 | 22.53              | 0.179 | 22.51            | 0.178 |
| 5               | QPSK       | 25      | 0         | 22.16             | 0.164 | 22.33              | 0.171 | 22.29            | 0.169 |
| 5               | 16QAM      | 1       | 0         | 22.27             | 0.169 | 22.42              | 0.175 | 22.38            | 0.173 |
| 5               | 16QAM      | 1       | 12        | 22.25             | 0.168 | 22.30              | 0.170 | 22.39            | 0.173 |
| 5               | 16QAM      | 1       | 24        | 22.20             | 0.166 | 22.37              | 0.173 | 22.53            | 0.179 |
| 5               | 16QAM      | 12      | 0         | 21.52             | 0.142 | 21.55              | 0.143 | 21.16            | 0.131 |
| 5               | 16QAM      | 12      | 7         | 21.49             | 0.141 | 21.49              | 0.141 | 21.55            | 0.143 |
| 5               | 16QAM      | 12      | 13        | 21.19             | 0.132 | 21.30              | 0.135 | 21.29            | 0.135 |
| 5               | 16QAM      | 25      | 0         | 21.54             | 0.143 | 21.43              | 0.139 | 21.20            | 0.132 |

## 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       | 1.09        | 1.26         |
|            | Low           | 16QAM      | 1.10        | 1.30         |
|            | Mid           | QPSK       | 1.09        | 1.27         |
|            | Mid           | 16QAM      | 1.10        | 1.28         |
|            | High          | QPSK       | 1.09        | 1.28         |
|            | High          | 16QAM      | 1.09        | 1.28         |
| 3          | Low           | QPSK       | 2.69        | 2.90         |
|            | Low           | 16QAM      | 2.69        | 2.93         |
|            | Mid           | QPSK       | 2.69        | 2.91         |
|            | Mid           | 16QAM      | 2.69        | 2.92         |
|            | High          | QPSK       | 2.69        | 2.92         |
|            | High          | 16QAM      | 2.70        | 2.93         |
| 5          | Low           | QPSK       | 4.50        | 4.93         |
|            | Low           | 16QAM      | 4.50        | 4.87         |
|            | Mid           | QPSK       | 4.49        | 4.90         |
|            | Mid           | 16QAM      | 4.48        | 4.91         |
|            | High          | QPSK       | 4.49        | 4.92         |
|            | High          | 16QAM      | 4.49        | 4.87         |
| 10         | Low           | QPSK       | 9.01        | 9.69         |
|            | Low           | 16QAM      | 8.96        | 9.65         |
|            | Mid           | QPSK       | 8.99        | 9.78         |
|            | Mid           | 16QAM      | 8.95        | 9.64         |
|            | High          | QPSK       | 9.00        | 9.97         |
|            | High          | 16QAM      | 8.95        | 9.64         |
| 15         | Low           | QPSK       | 13.47       | 14.56        |
|            | Low           | 16QAM      | 13.48       | 14.62        |
|            | Mid           | QPSK       | 13.49       | 14.55        |
|            | Mid           | 16QAM      | 13.45       | 14.54        |
|            | High          | QPSK       | 13.48       | 14.61        |
|            | High          | 16QAM      | 13.47       | 14.54        |
| 20         | Low           | QPSK       | 17.95       | 19.30        |
|            | Low           | 16QAM      | 17.97       | 19.41        |
|            | Mid           | QPSK       | 17.90       | 19.30        |
|            | Mid           | 16QAM      | 17.93       | 19.27        |
|            | High          | QPSK       | 17.98       | 19.45        |
|            | High          | 16QAM      | 17.99       | 19.33        |



| LTE Band 4 |               |            |             |              |
|------------|---------------|------------|-------------|--------------|
| BW(MHz)    | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 1.4        | Low           | QPSK       | 1.09        | 1.29         |
|            | Low           | 16QAM      | 1.10        | 1.28         |
|            | Mid           | QPSK       | 1.10        | 1.27         |
|            | Mid           | 16QAM      | 1.10        | 1.28         |
|            | High          | QPSK       | 1.10        | 1.27         |
|            | High          | 16QAM      | 1.10        | 1.29         |
| 3          | Low           | QPSK       | 2.69        | 2.92         |
|            | Low           | 16QAM      | 2.70        | 2.92         |
|            | Mid           | QPSK       | 2.69        | 2.92         |
|            | Mid           | 16QAM      | 2.69        | 2.93         |
|            | High          | QPSK       | 2.69        | 2.91         |
|            | High          | 16QAM      | 2.69        | 2.92         |
| 5          | Low           | QPSK       | 4.50        | 4.92         |
|            | Low           | 16QAM      | 4.50        | 4.92         |
|            | Mid           | QPSK       | 4.50        | 4.92         |
|            | Mid           | 16QAM      | 4.50        | 4.90         |
|            | High          | QPSK       | 4.49        | 4.91         |
|            | High          | 16QAM      | 4.50        | 4.93         |
| 10         | Low           | QPSK       | 9.01        | 9.80         |
|            | Low           | 16QAM      | 8.97        | 9.63         |
|            | Mid           | QPSK       | 8.97        | 9.69         |
|            | Mid           | 16QAM      | 8.96        | 9.70         |
|            | High          | QPSK       | 8.98        | 9.75         |
|            | High          | 16QAM      | 8.96        | 9.68         |
| 15         | Low           | QPSK       | 13.48       | 14.66        |
|            | Low           | 16QAM      | 13.49       | 14.64        |
|            | Mid           | QPSK       | 13.49       | 14.60        |
|            | Mid           | 16QAM      | 13.46       | 14.54        |
|            | High          | QPSK       | 13.50       | 14.59        |
|            | High          | 16QAM      | 13.48       | 14.62        |
| 20         | Low           | QPSK       | 17.99       | 19.44        |
|            | Low           | 16QAM      | 18.04       | 19.45        |
|            | Mid           | QPSK       | 17.88       | 19.35        |
|            | Mid           | 16QAM      | 17.92       | 19.22        |
|            | High          | QPSK       | 17.99       | 19.34        |
|            | High          | 16QAM      | 18.03       | 19.50        |



| LTE Band 5 |               |            |             |              |
|------------|---------------|------------|-------------|--------------|
| BW(MHz)    | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 1.4        | Low           | QPSK       | 1.09        | 1.27         |
|            | Low           | 16QAM      | 1.10        | 1.30         |
|            | Mid           | QPSK       | 1.09        | 1.28         |
|            | Mid           | 16QAM      | 1.10        | 1.31         |
|            | High          | QPSK       | 1.10        | 1.27         |
|            | High          | 16QAM      | 1.10        | 1.29         |
| 3          | Low           | QPSK       | 2.69        | 2.93         |
|            | Low           | 16QAM      | 2.69        | 2.93         |
|            | Mid           | QPSK       | 2.69        | 2.92         |
|            | Mid           | 16QAM      | 2.69        | 2.93         |
|            | High          | QPSK       | 2.69        | 2.93         |
|            | High          | 16QAM      | 2.69        | 2.93         |
| 5          | Low           | QPSK       | 4.50        | 4.92         |
|            | Low           | 16QAM      | 4.50        | 4.93         |
|            | Mid           | QPSK       | 4.50        | 4.94         |
|            | Mid           | 16QAM      | 4.51        | 4.95         |
|            | High          | QPSK       | 4.50        | 4.93         |
|            | High          | 16QAM      | 4.50        | 4.90         |
| 10         | Low           | QPSK       | 8.98        | 9.74         |
|            | Low           | 16QAM      | 8.97        | 9.69         |
|            | Mid           | QPSK       | 9.02        | 9.74         |
|            | Mid           | 16QAM      | 8.96        | 9.65         |
|            | High          | QPSK       | 9.00        | 9.74         |
|            | High          | 16QAM      | 8.96        | 9.72         |



| LTE Band 7 |               |            |             |              |
|------------|---------------|------------|-------------|--------------|
| BW(MHz)    | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 5          | Low           | QPSK       | 4.49        | 4.94         |
|            | Low           | 16QAM      | 4.50        | 4.92         |
|            | Mid           | QPSK       | 4.51        | 4.91         |
|            | Mid           | 16QAM      | 4.50        | 4.92         |
|            | High          | QPSK       | 4.49        | 4.94         |
|            | High          | 16QAM      | 4.50        | 4.92         |
| 10         | Low           | QPSK       | 9.00        | 9.78         |
|            | Low           | 16QAM      | 8.97        | 9.68         |
|            | Mid           | QPSK       | 9.01        | 9.76         |
|            | Mid           | 16QAM      | 8.99        | 9.67         |
|            | High          | QPSK       | 8.98        | 9.73         |
|            | High          | 16QAM      | 8.95        | 9.71         |
| 15         | Low           | QPSK       | 13.49       | 14.54        |
|            | Low           | 16QAM      | 13.48       | 14.59        |
|            | Mid           | QPSK       | 13.46       | 14.55        |
|            | Mid           | 16QAM      | 13.45       | 14.55        |
|            | High          | QPSK       | 13.50       | 14.54        |
|            | High          | 16QAM      | 13.47       | 14.63        |
| 20         | Low           | QPSK       | 17.98       | 19.41        |
|            | Low           | 16QAM      | 17.99       | 19.48        |
|            | Mid           | QPSK       | 17.91       | 19.34        |
|            | Mid           | 16QAM      | 17.93       | 19.29        |
|            | High          | QPSK       | 17.96       | 19.37        |
|            | High          | 16QAM      | 17.98       | 19.37        |



| LTE Band 12 |               |            |             |              |
|-------------|---------------|------------|-------------|--------------|
| BW(MHz)     | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 1.4         | Low           | QPSK       | 1.10        | 1.29         |
|             | Low           | 16QAM      | 1.10        | 1.31         |
|             | Mid           | QPSK       | 1.09        | 1.28         |
|             | Mid           | 16QAM      | 1.10        | 1.29         |
|             | High          | QPSK       | 1.09        | 1.28         |
|             | High          | 16QAM      | 1.10        | 1.30         |
| 3           | Low           | QPSK       | 2.69        | 2.92         |
|             | Low           | 16QAM      | 2.69        | 2.93         |
|             | Mid           | QPSK       | 2.69        | 2.91         |
|             | Mid           | 16QAM      | 2.69        | 2.93         |
|             | High          | QPSK       | 2.69        | 2.92         |
|             | High          | 16QAM      | 2.69        | 2.93         |
| 5           | Low           | QPSK       | 4.52        | 5.22         |
|             | Low           | 16QAM      | 4.52        | 5.14         |
|             | Mid           | QPSK       | 4.52        | 5.20         |
|             | Mid           | 16QAM      | 4.51        | 5.15         |
|             | High          | QPSK       | 4.52        | 5.18         |
|             | High          | 16QAM      | 4.52        | 5.20         |
| 10          | Low           | QPSK       | 9.04        | 10.14        |
|             | Low           | 16QAM      | 8.99        | 9.89         |
|             | Mid           | QPSK       | 9.03        | 9.96         |
|             | Mid           | 16QAM      | 8.98        | 9.97         |
|             | High          | QPSK       | 9.01        | 10.06        |
|             | High          | 16QAM      | 8.97        | 9.92         |



| LTE Band 17 |               |            |             |              |
|-------------|---------------|------------|-------------|--------------|
| BW(MHz)     | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 5           | Low           | QPSK       | 4.50        | 5.18         |
|             | Low           | 16QAM      | 4.52        | 5.18         |
|             | Mid           | QPSK       | 4.51        | 5.21         |
|             | Mid           | 16QAM      | 4.51        | 5.15         |
|             | High          | QPSK       | 4.52        | 5.22         |
|             | High          | 16QAM      | 4.51        | 5.10         |
| 10          | Low           | QPSK       | 9.03        | 10.05        |
|             | Low           | 16QAM      | 8.98        | 9.96         |
|             | Mid           | QPSK       | 8.99        | 10.11        |
|             | Mid           | 16QAM      | 8.98        | 9.93         |
|             | High          | QPSK       | 9.04        | 10.04        |
|             | High          | 16QAM      | 8.99        | 10.04        |



| LTE Band 38 |               |            |             |              |
|-------------|---------------|------------|-------------|--------------|
| BW(MHz)     | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 5           | Low           | QPSK       | 4.50        | 5.23         |
|             | Low           | 16QAM      | 4.50        | 5.02         |
|             | Mid           | QPSK       | 4.49        | 4.90         |
|             | Mid           | 16QAM      | 4.50        | 5.29         |
|             | High          | QPSK       | 4.50        | 5.22         |
|             | High          | 16QAM      | 4.50        | 4.96         |
| 10          | Low           | QPSK       | 8.98        | 9.99         |
|             | Low           | 16QAM      | 8.98        | 10.21        |
|             | Mid           | QPSK       | 8.99        | 9.81         |
|             | Mid           | 16QAM      | 8.98        | 9.99         |
|             | High          | QPSK       | 8.97        | 9.92         |
|             | High          | 16QAM      | 8.97        | 10.13        |
| 15          | Low           | QPSK       | 13.49       | 15.05        |
|             | Low           | 16QAM      | 13.50       | 15.11        |
|             | Mid           | QPSK       | 13.48       | 14.49        |
|             | Mid           | 16QAM      | 13.50       | 16.60        |
|             | High          | QPSK       | 13.51       | 15.33        |
|             | High          | 16QAM      | 13.47       | 14.80        |
| 20          | Low           | QPSK       | 17.95       | 19.52        |
|             | Low           | 16QAM      | 17.96       | 19.38        |
|             | Mid           | QPSK       | 17.95       | 19.33        |
|             | Mid           | 16QAM      | 17.96       | 19.73        |
|             | High          | QPSK       | 17.97       | 20.13        |
|             | High          | 16QAM      | 17.94       | 20.38        |

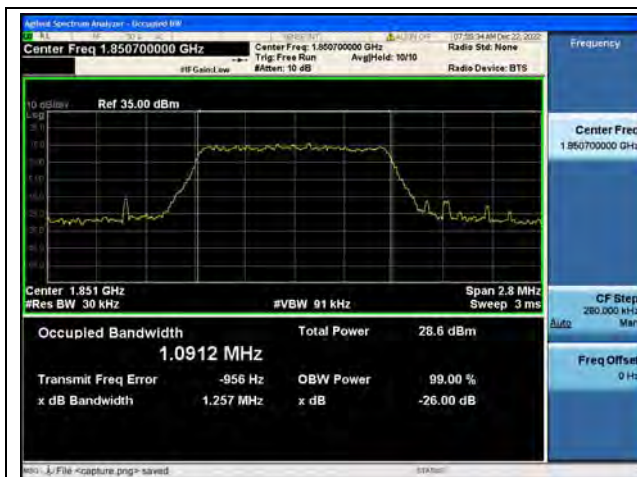


| LTE Band 40, Block A |               |            |             |              |
|----------------------|---------------|------------|-------------|--------------|
| BW(MHz)              | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 5                    | Low           | QPSK       | 4.51        | 5.24         |
|                      | Low           | 16QAM      | 4.52        | 5.12         |
|                      | Mid           | QPSK       | 4.52        | 5.38         |
|                      | Mid           | 16QAM      | 4.52        | 5.23         |
|                      | High          | QPSK       | 4.53        | 5.17         |
|                      | High          | 16QAM      | 4.52        | 5.22         |
| 10                   | Mid           | QPSK       | 9.01        | 10.10        |
|                      | Mid           | 16QAM      | 9.00        | 10.54        |

| LTE Band 40, Block B |               |            |             |              |
|----------------------|---------------|------------|-------------|--------------|
| BW(MHz)              | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 5                    | Low           | QPSK       | 4.52        | 5.19         |
|                      | Low           | 16QAM      | 4.53        | 5.13         |
|                      | Mid           | QPSK       | 4.52        | 5.15         |
|                      | Mid           | 16QAM      | 4.52        | 5.20         |
|                      | High          | QPSK       | 4.52        | 5.18         |
|                      | High          | 16QAM      | 4.52        | 5.21         |
| 10                   | Mid           | QPSK       | 8.98        | 10.19        |
|                      | Mid           | 16QAM      | 8.98        | 10.18        |



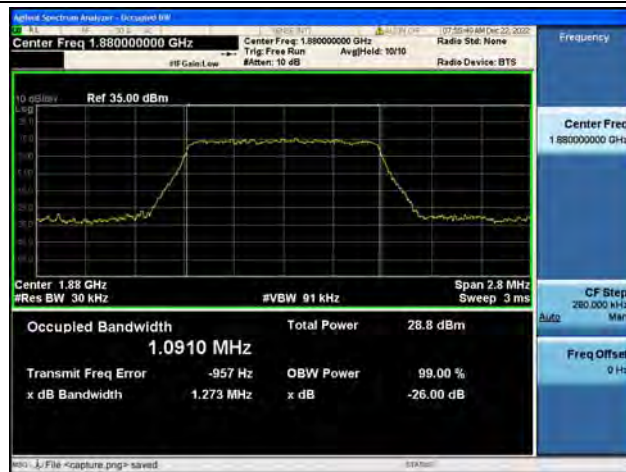
| LTE Band 41 |               |            |             |              |
|-------------|---------------|------------|-------------|--------------|
| BW(MHz)     | Channel Level | Modulation | 99% BW(MHz) | 26dB BW(MHz) |
| 5           | Low           | QPSK       | 4.50        | 4.94         |
|             | Low           | 16QAM      | 4.51        | 4.99         |
|             | Mid           | QPSK       | 4.49        | 5.05         |
|             | Mid           | 16QAM      | 4.51        | 5.19         |
|             | High          | QPSK       | 4.50        | 4.94         |
|             | High          | 16QAM      | 4.51        | 5.11         |
| 10          | Low           | QPSK       | 8.98        | 9.89         |
|             | Low           | 16QAM      | 8.98        | 9.88         |
|             | Mid           | QPSK       | 8.98        | 9.97         |
|             | Mid           | 16QAM      | 8.99        | 10.02        |
|             | High          | QPSK       | 8.98        | 9.89         |
|             | High          | 16QAM      | 8.98        | 9.80         |
| 15          | Low           | QPSK       | 13.48       | 14.64        |
|             | Low           | 16QAM      | 13.46       | 15.14        |
|             | Mid           | QPSK       | 13.50       | 14.78        |
|             | Mid           | 16QAM      | 13.48       | 14.75        |
|             | High          | QPSK       | 13.46       | 14.62        |
|             | High          | 16QAM      | 13.47       | 15.01        |
| 20          | Low           | QPSK       | 17.93       | 19.93        |
|             | Low           | 16QAM      | 17.97       | 19.90        |
|             | Mid           | QPSK       | 17.97       | 24.04        |
|             | Mid           | 16QAM      | 17.93       | 19.46        |
|             | High          | QPSK       | 17.93       | 19.35        |
|             | High          | 16QAM      | 17.95       | 19.28        |



Band2 / 1.4MHz / QPSK/ Low CH



Band2 / 1.4MHz / 16QAM/ Low CH



Band2 / 1.4MHz / QPSK/ Mid CH



Band2 / 1.4MHz / 16QAM/ Mid CH



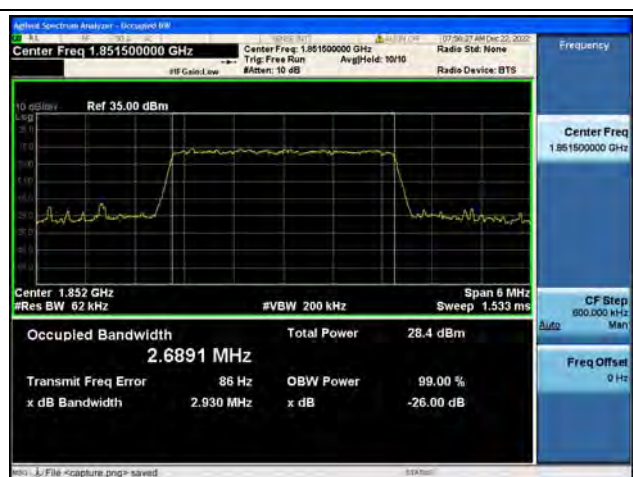
Band2 / 1.4MHz / QPSK/ High CH



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



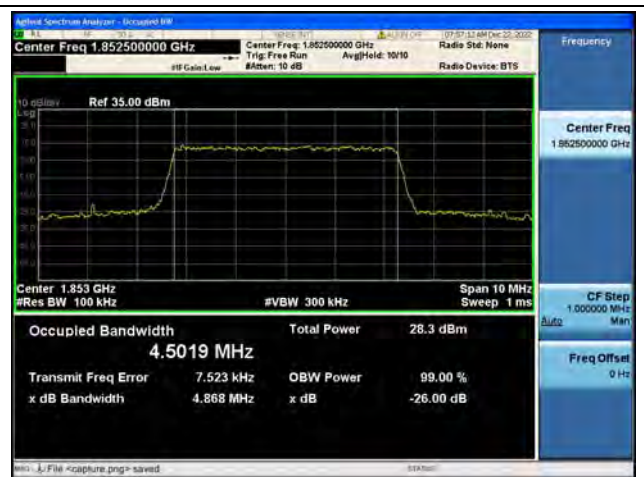
Band2 / 3MHz / QPSK/ High CH



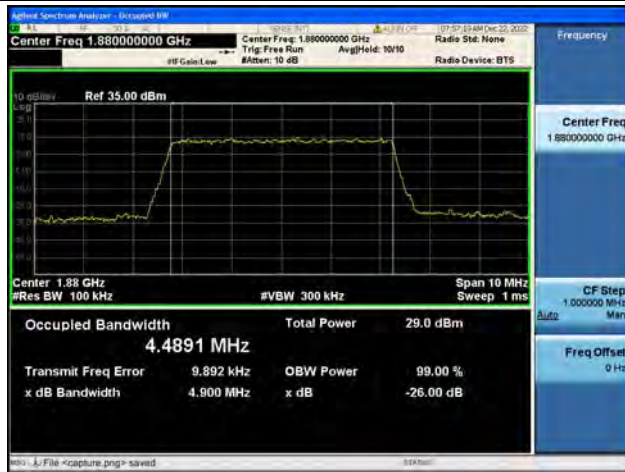
Band2 / 3MHz / 16QAM/ High CH



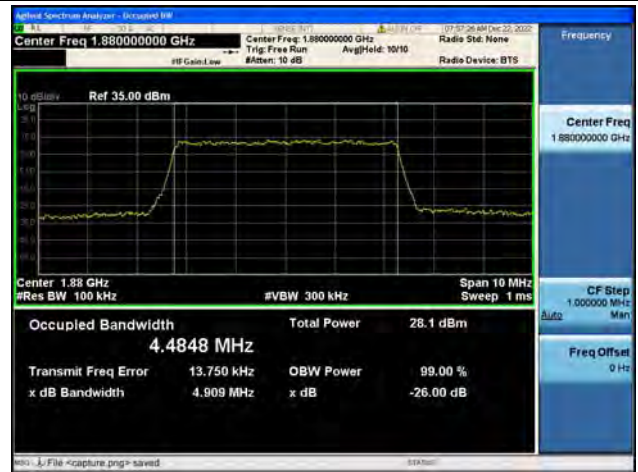
Band2 / 5MHz / QPSK/ Low CH



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



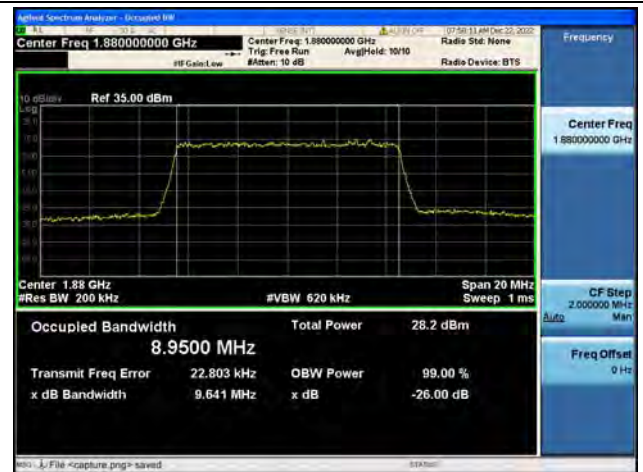
Band2 / 10MHz / QPSK/ Low CH



Band2 / 10MHz / 16QAM/ Low CH



Band2 / 10MHz / QPSK/ Mid CH



Band2 / 10MHz / 16QAM/ Mid CH



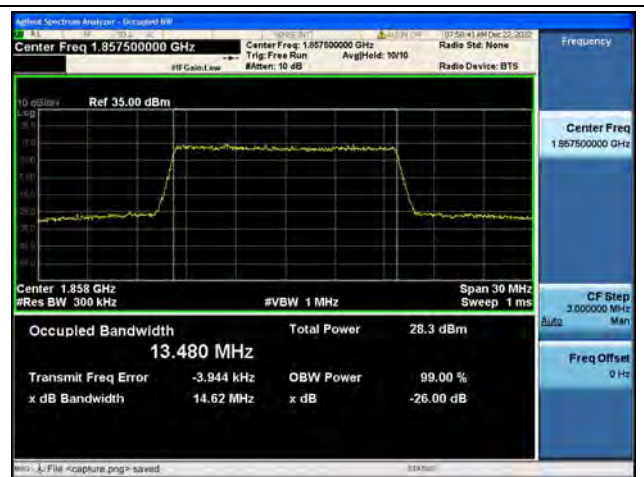
Band2 / 10MHz / QPSK/ High CH



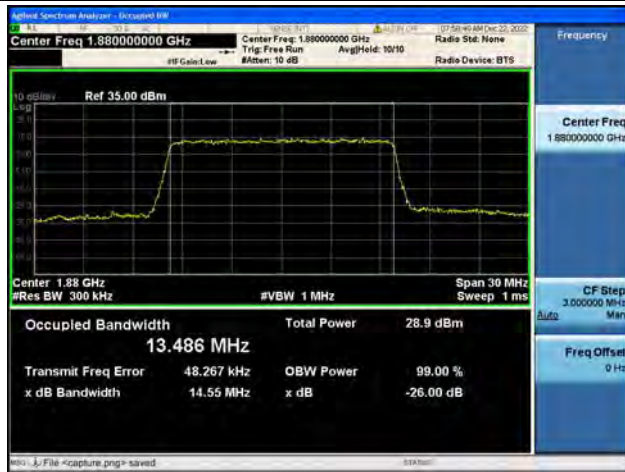
Band2 / 10MHz / 16QAM/ High CH



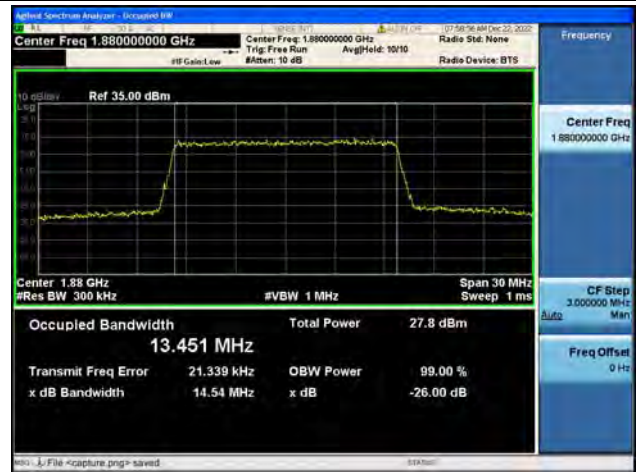
Band2 / 15MHz / QPSK/ Low CH



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



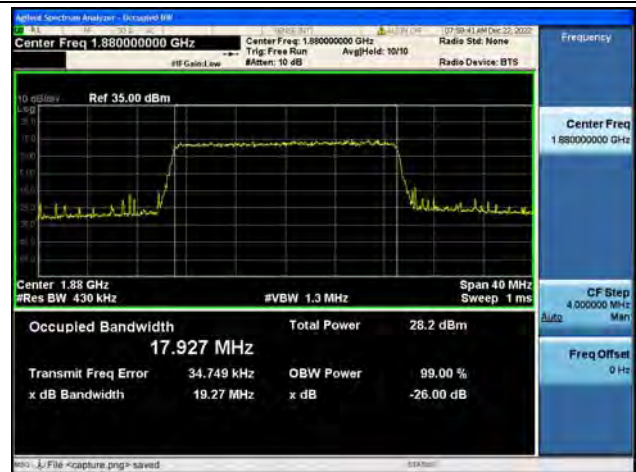
Band2 / 20MHz / QPSK/ Low CH



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



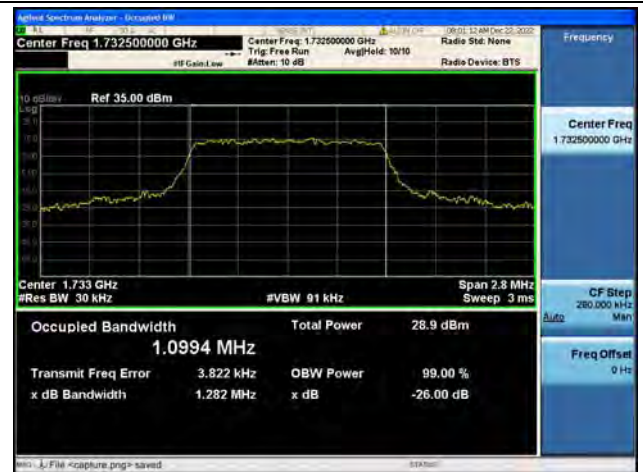
Band4 / 1.4MHz / QPSK/ Low CH



Band4 / 1.4MHz / 16QAM/ Low CH



Band4 / 1.4MHz / QPSK/ Mid CH



Band4 / 1.4MHz / 16QAM/ Mid CH



Band4 / 1.4MHz / QPSK/ High CH



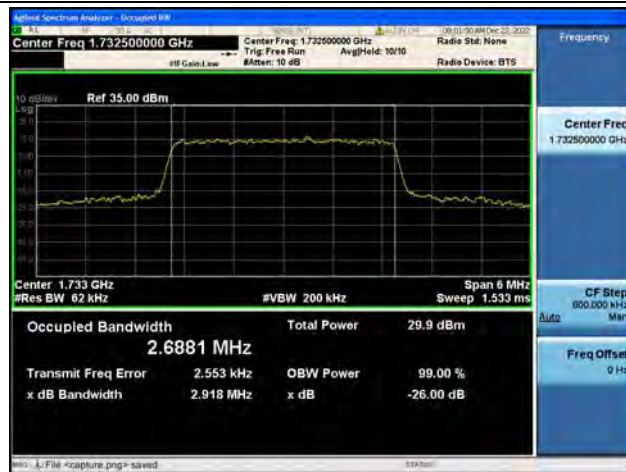
Band4 / 1.4MHz / 16QAM/ High CH



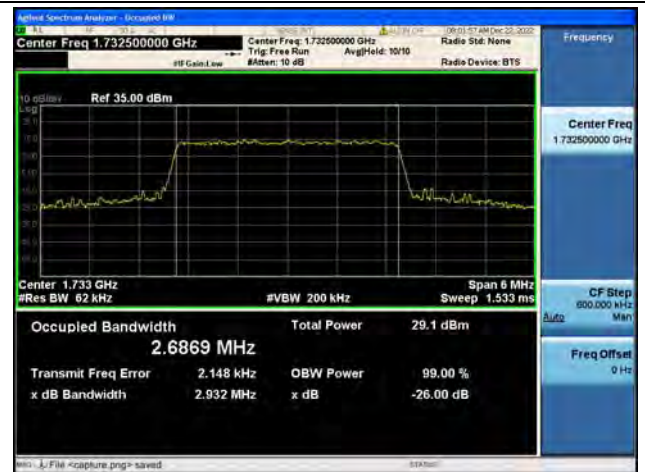
Band4 / 3MHz / QPSK/ Low CH



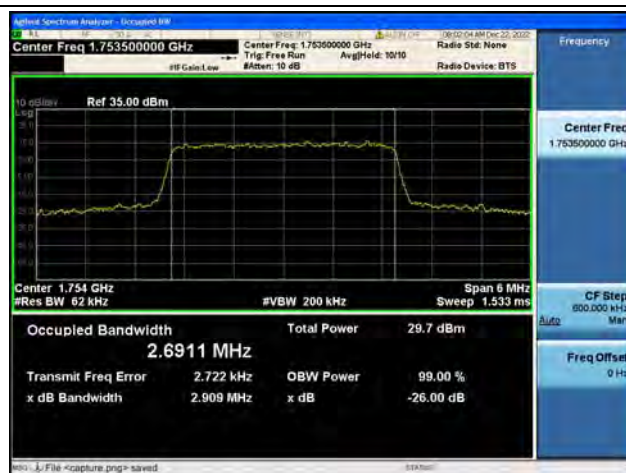
Band4 / 3MHz / 16QAM/ Low CH



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



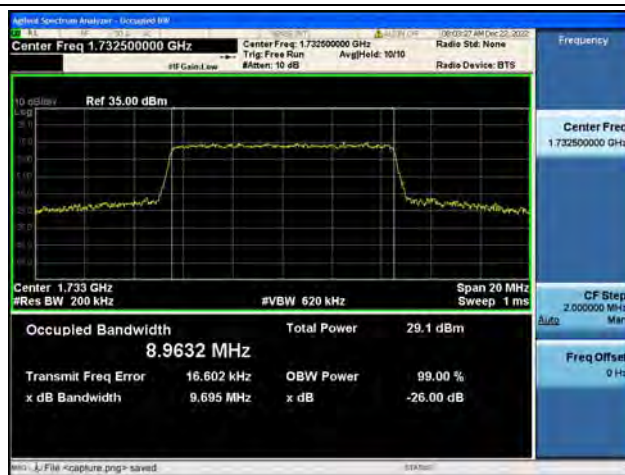
Band4 / 10MHz / QPSK/ Low CH



Band4 / 10MHz / 16QAM/ Low CH



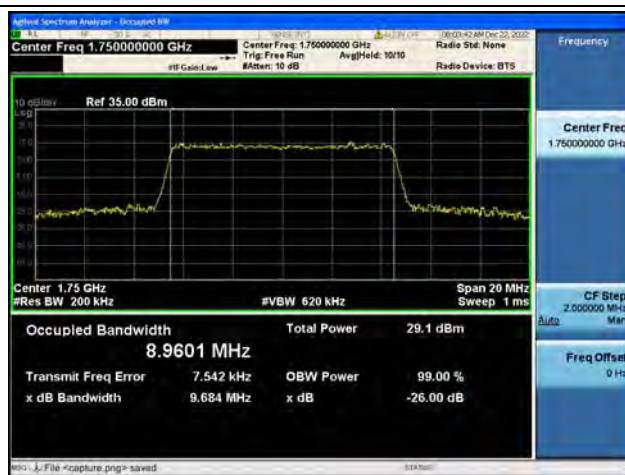
Band4 / 10MHz / QPSK/ Mid CH



Band4 / 10MHz / 16QAM/ Mid CH



Band4 / 10MHz / QPSK/ High CH



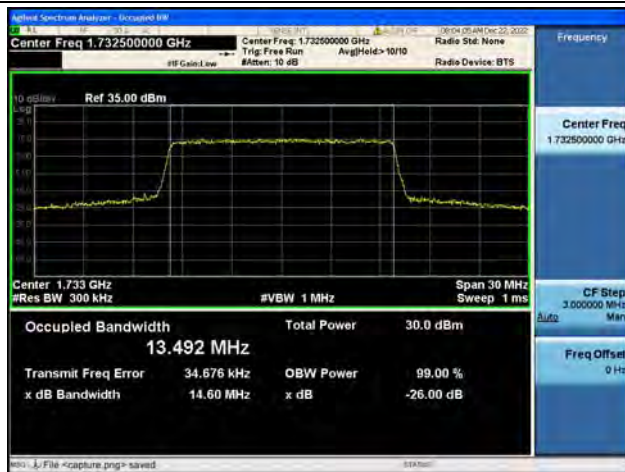
Band4 / 10MHz / 16QAM/ High CH



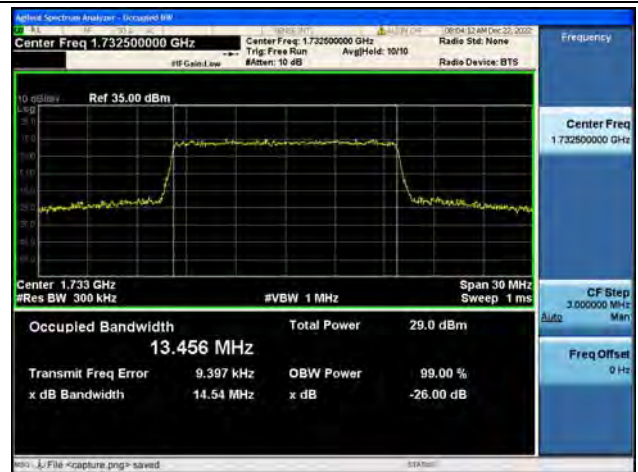
Band4 / 15MHz / QPSK/ Low CH



Band4 / 15MHz / 16QAM/ Low CH



Band4 / 15MHz / QPSK/ Mid CH



Band4 / 15MHz / 16QAM/ Mid CH



Band4 / 15MHz / QPSK/ High CH



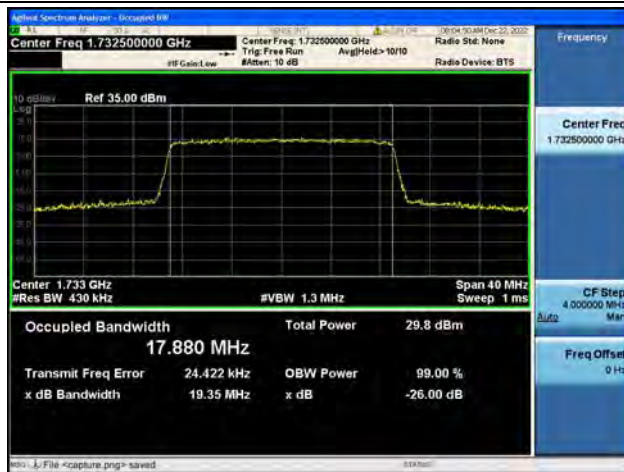
Band4 / 15MHz / 16QAM/ High CH



Band4 / 20MHz / QPSK/ Low CH



Band4 / 20MHz / 16QAM/ Low CH



Band4 / 20MHz / QPSK/ Mid CH



Band4 / 20MHz / 16QAM/ Mid CH



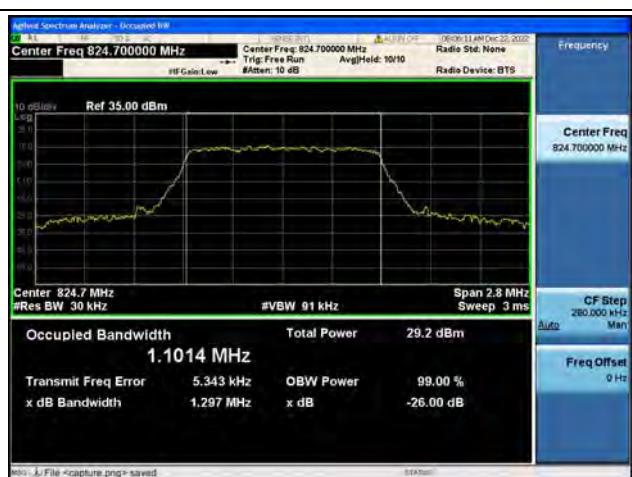
Band4 / 20MHz / QPSK/ High CH



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



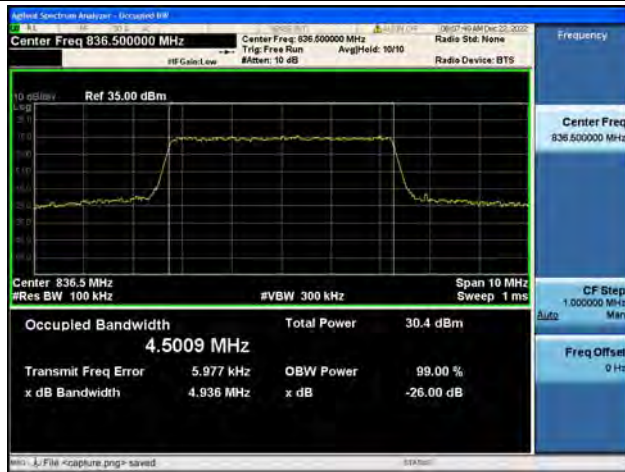
Band5 / 3MHz / 16QAM/ High CH



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



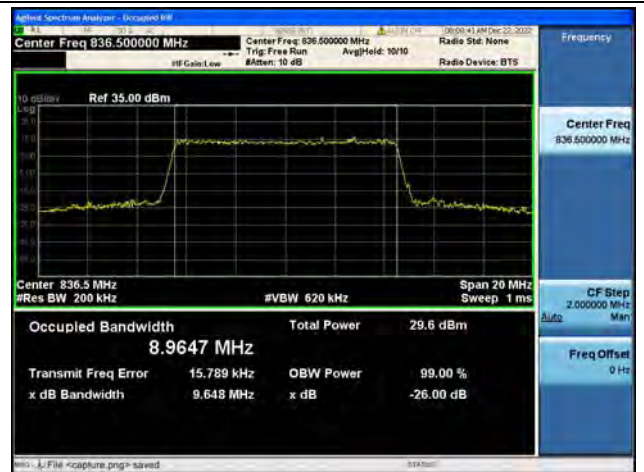
Band5 / 10MHz / QPSK/ Low CH



Band5 / 10MHz / 16QAM/ Low CH



Band5 / 10MHz / QPSK/ Mid CH



Band5 / 10MHz / 16QAM/ Mid CH



Band5 / 10MHz / QPSK/ High CH



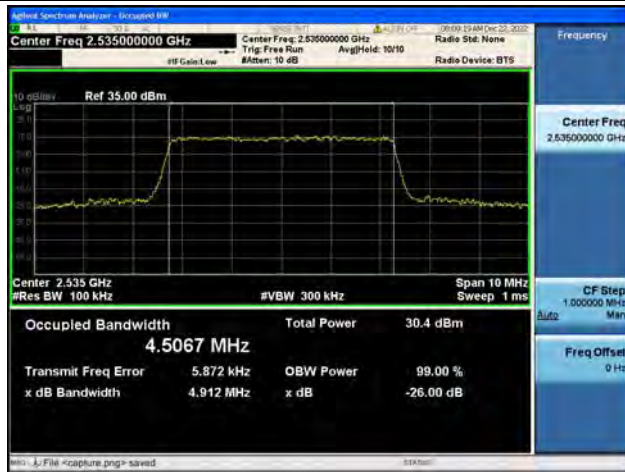
Band5 / 10MHz / 16QAM/ High CH



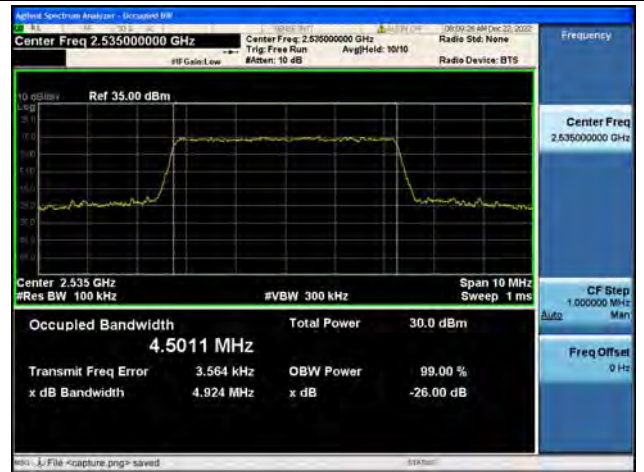
Band7 / 5MHz / QPSK/ Low CH



Band7 / 5MHz / 16QAM/ Low CH



Band7 / 5MHz / QPSK/ Mid CH



Band7 / 5MHz / 16QAM/ Mid CH



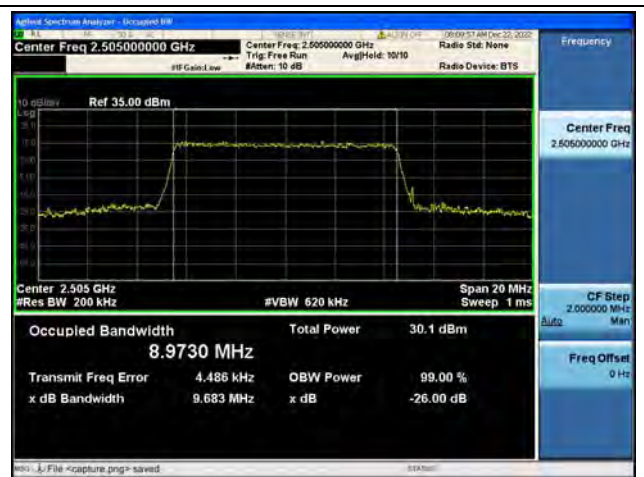
Band7 / 5MHz / QPSK/ High CH



Band7 / 5MHz / 16QAM/ High CH



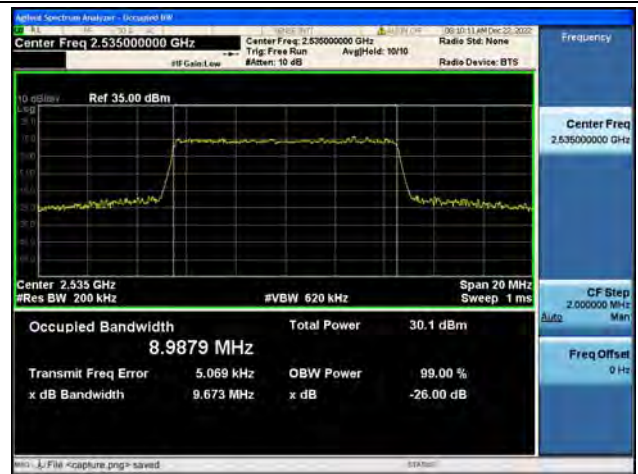
Band7 / 10MHz / QPSK/ Low CH



Band7 / 10MHz / 16QAM/ Low CH



Band7 / 10MHz / QPSK/ Mid CH



Band7 / 10MHz / 16QAM/ Mid CH



Band7 / 10MHz / QPSK/ High CH



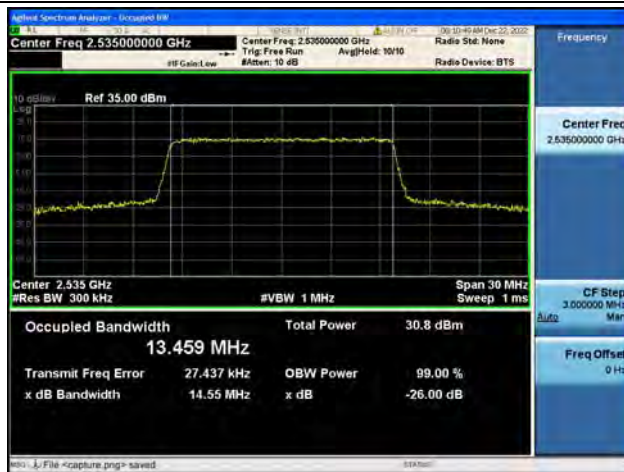
Band7 / 10MHz / 16QAM/ High CH



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



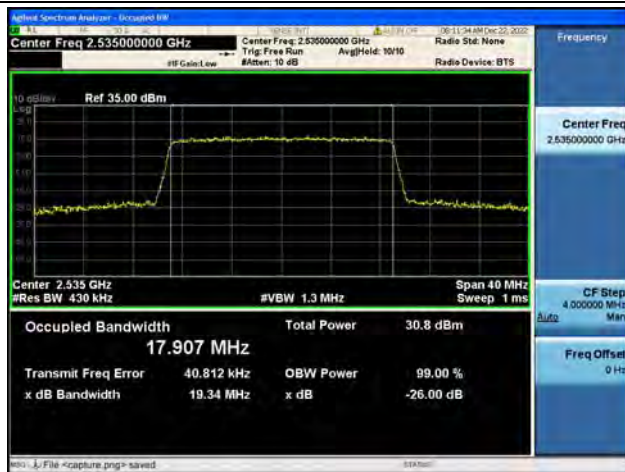
Band7 / 15MHz / 16QAM/ High CH



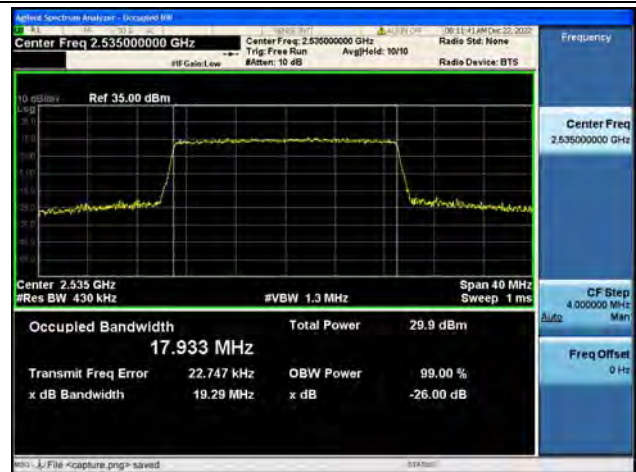
Band7 / 20MHz / QPSK/ Low CH



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



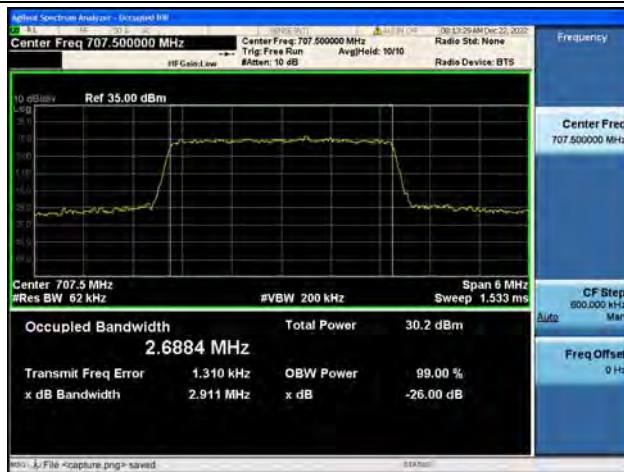
Band12 / 1.4MHz / 16QAM/ High CH



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



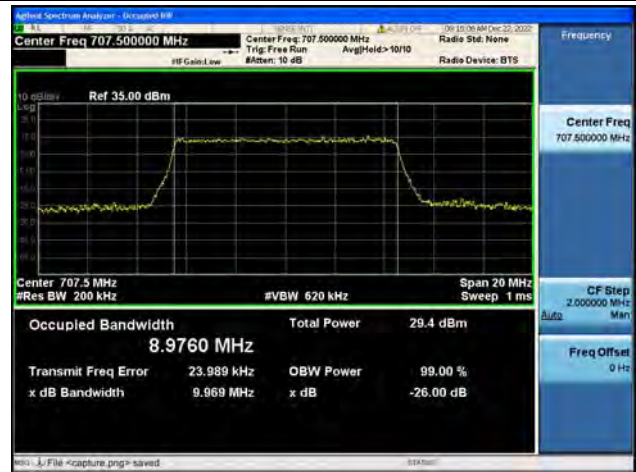
Band12 / 10MHz / QPSK/ Low CH



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



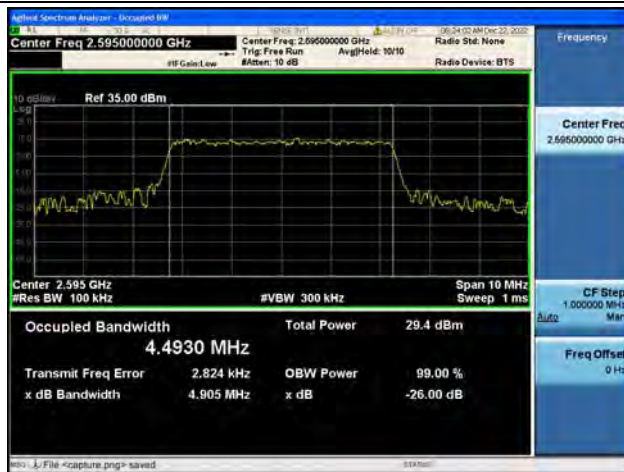
Band17 / 10MHz / 16QAM/ High CH



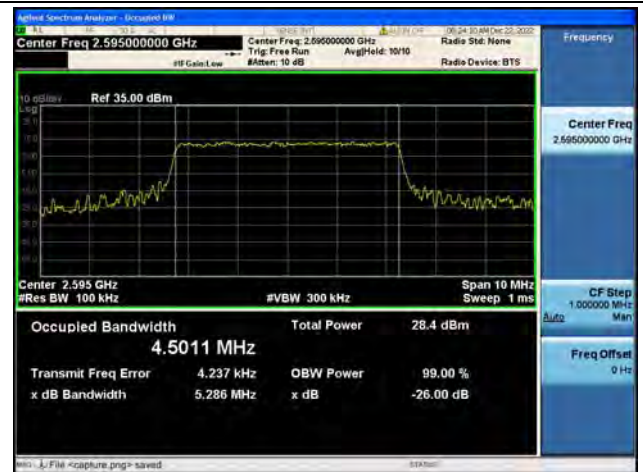
Band38 / 5MHz / QPSK/ Low CH



Band38 / 5MHz / 16QAM/ Low CH



Band38 / 5MHz / QPSK/ Mid CH



Band38 / 5MHz / 16QAM/ Mid CH



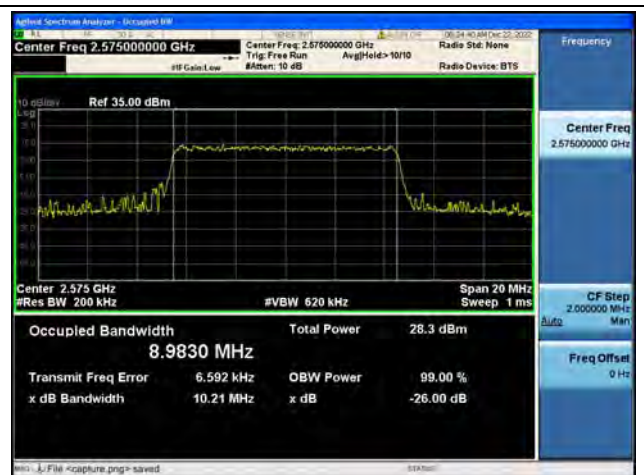
Band38 / 5MHz / QPSK/ High CH



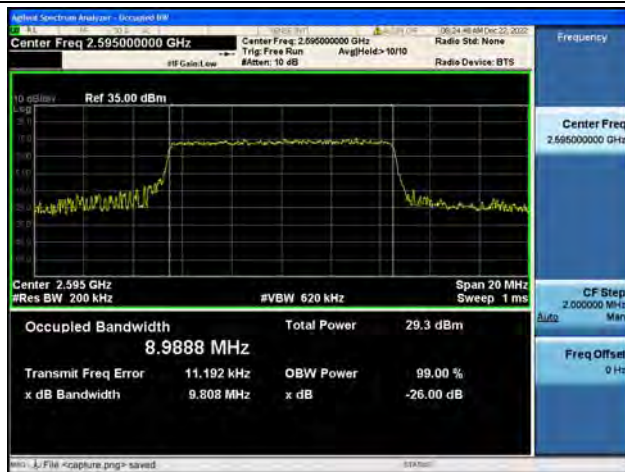
Band38 / 5MHz / 16QAM/ High CH



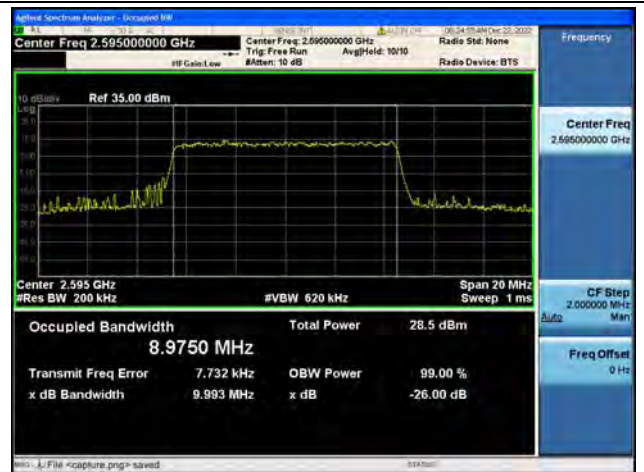
Band38 / 10MHz / QPSK/ Low CH



Band38 / 10MHz / 16QAM/ Low CH



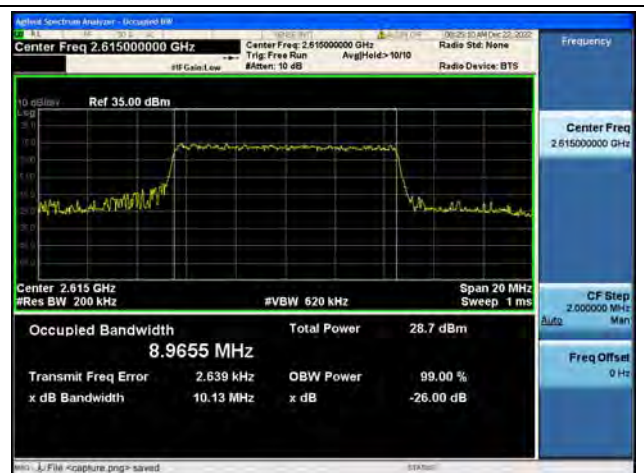
Band38 / 10MHz / QPSK/ Mid CH



Band38 / 10MHz / 16QAM/ Mid CH



Band38 / 10MHz / QPSK/ High CH



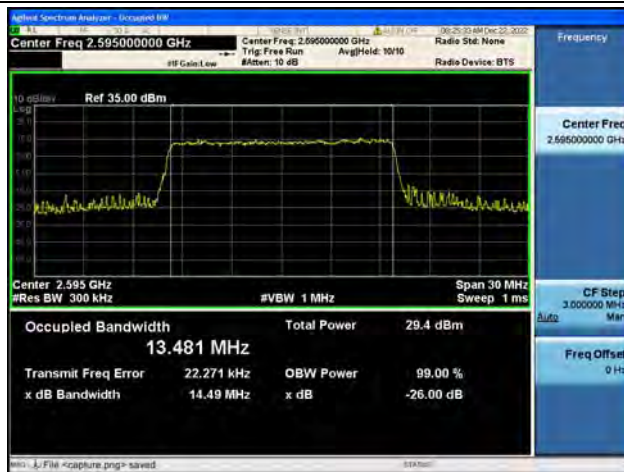
Band38 / 10MHz / 16QAM/ High CH



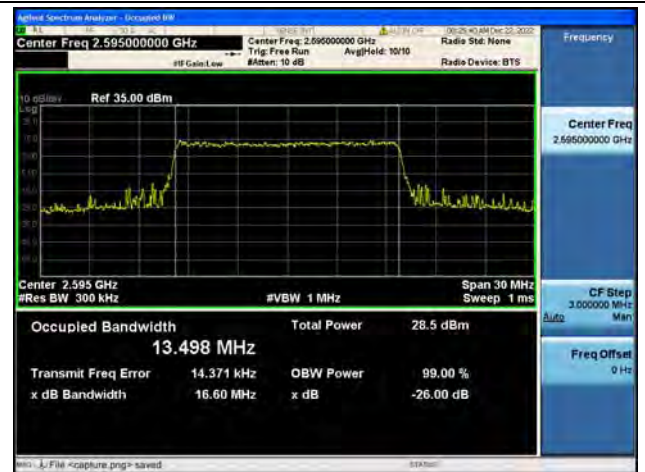
Band38 / 15MHz / QPSK/ Low CH



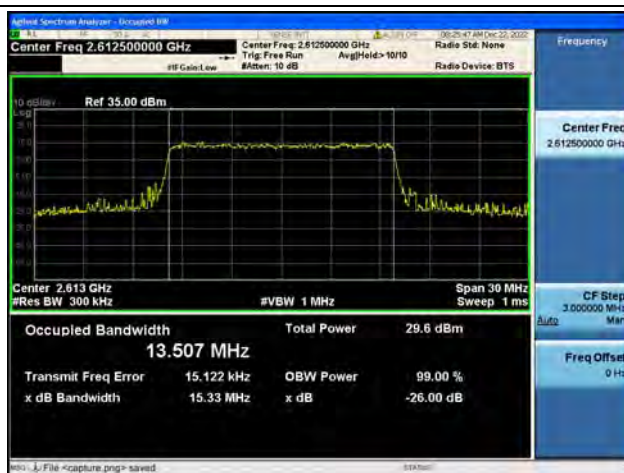
Band38 / 15MHz / 16QAM/ Low CH



Band38 / 15MHz / QPSK/ Mid CH



Band38 / 15MHz / 16QAM/ Mid CH



Band38 / 15MHz / QPSK/ High CH



Band38 / 15MHz / 16QAM/ High CH



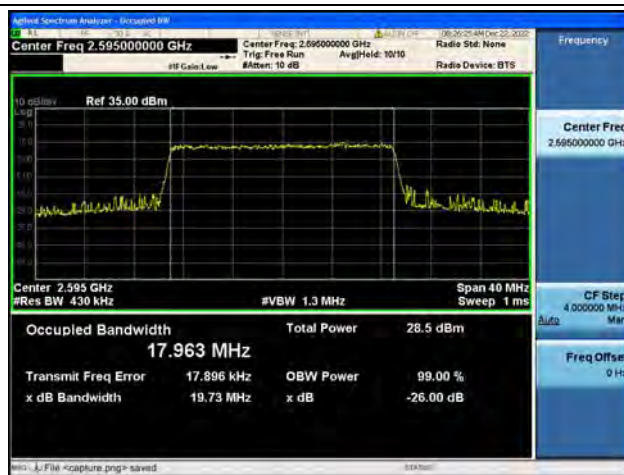
Band38 / 20MHz / QPSK/ Low CH



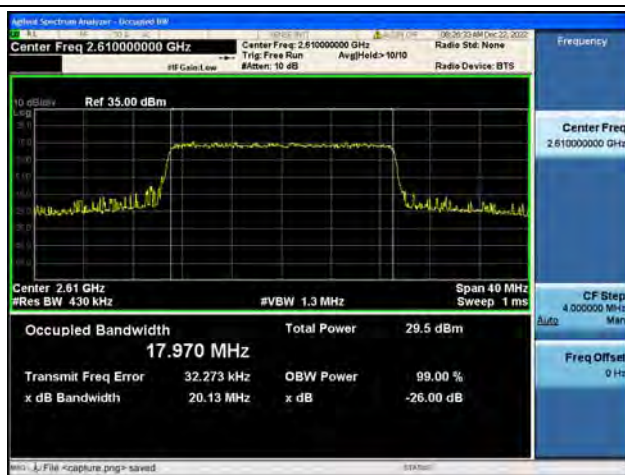
Band38 / 20MHz / 16QAM/ Low CH



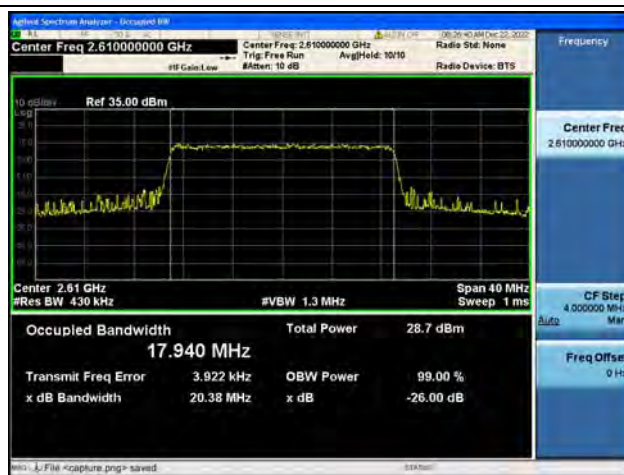
Band38 / 20MHz / QPSK/ Mid CH



Band38 / 20MHz / 16QAM/ Mid CH



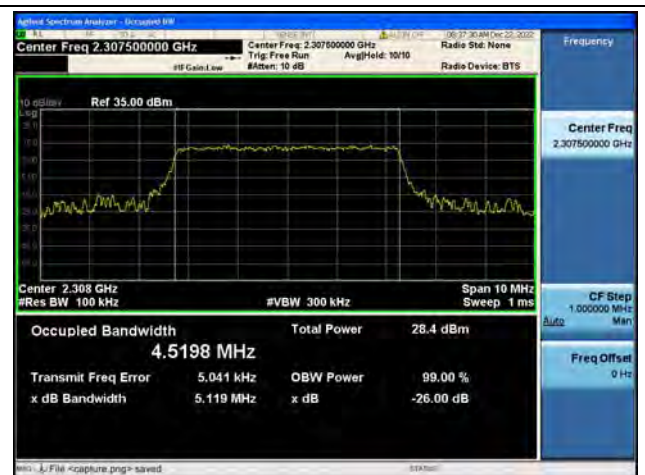
Band38 / 20MHz / QPSK/ High CH



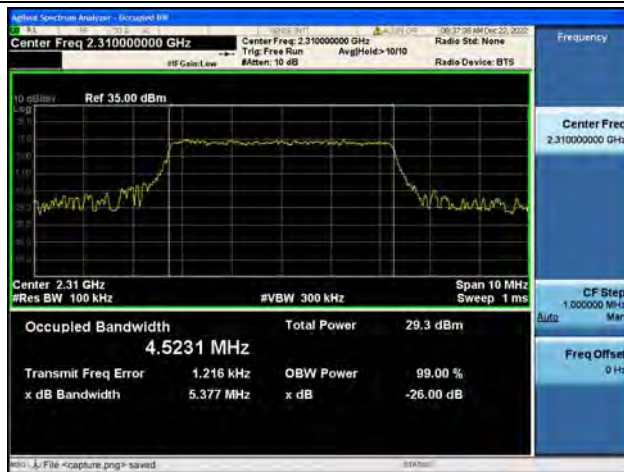
Band38 / 20MHz / 16QAM/ High CH



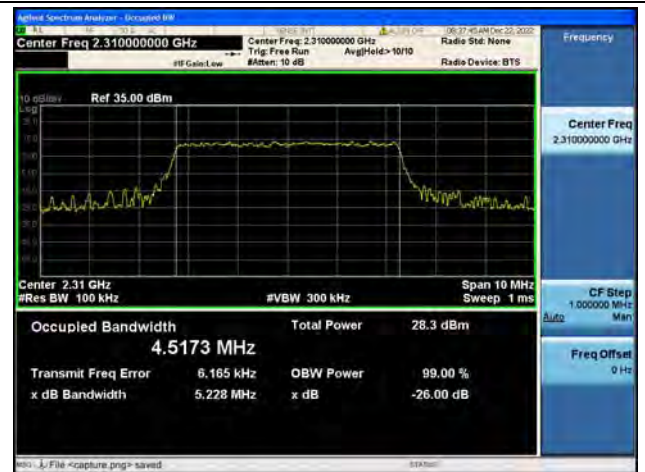
Band40-1 / 5MHz / QPSK/ Low CH



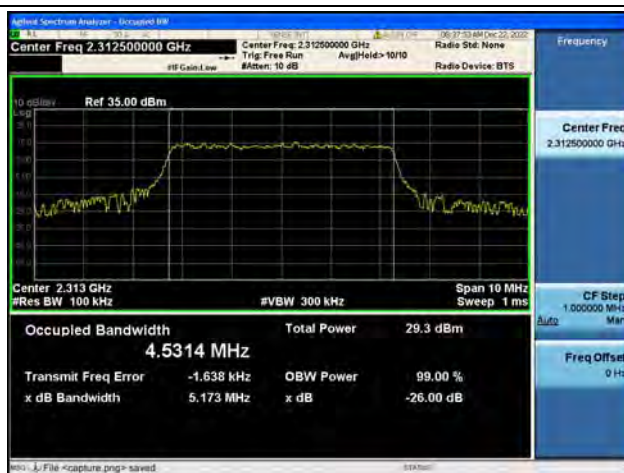
Band40-1 / 5MHz / 16QAM/ Low CH



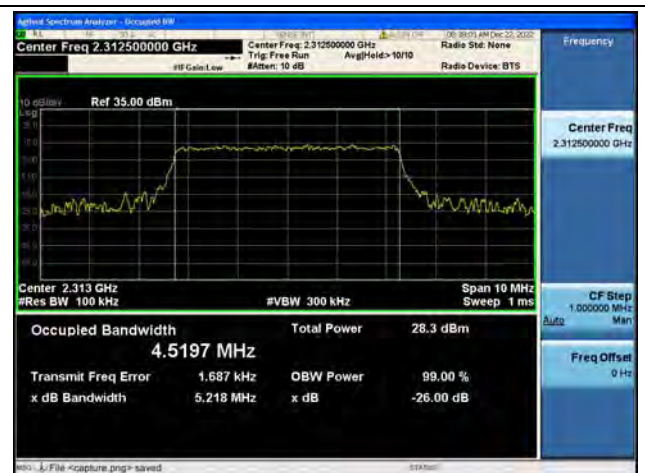
Band40-1 / 5MHz / QPSK/ Mid CH



Band40-1 / 5MHz / 16QAM/ Mid CH



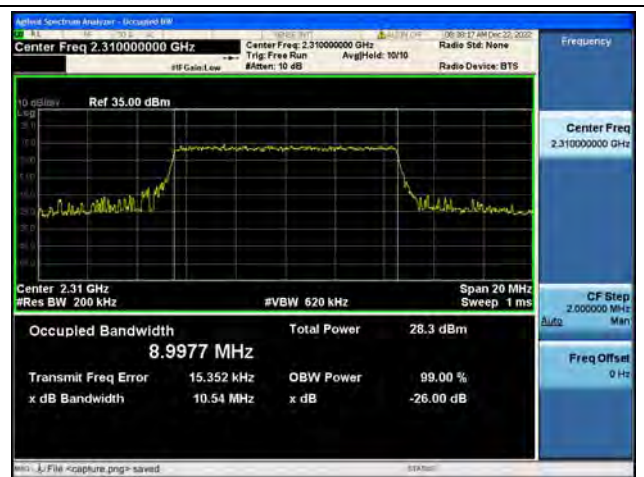
Band40-1 / 5MHz / QPSK/ High CH



Band40-1 / 5MHz / 16QAM/ High CH



Band40-1 / 10MHz / QPSK/ Mid CH



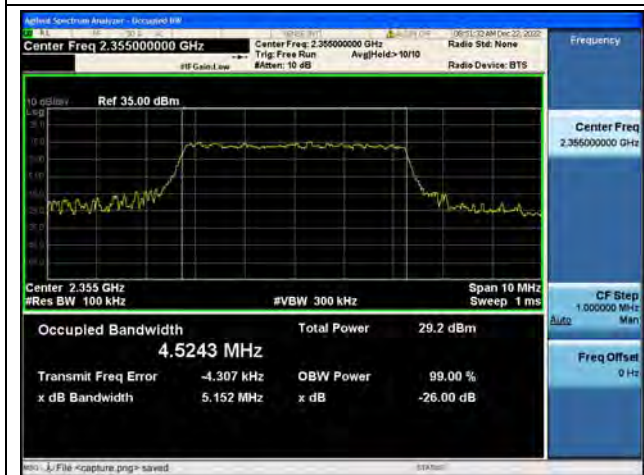
Band40-1 / 10MHz / 16QAM/ Mid CH



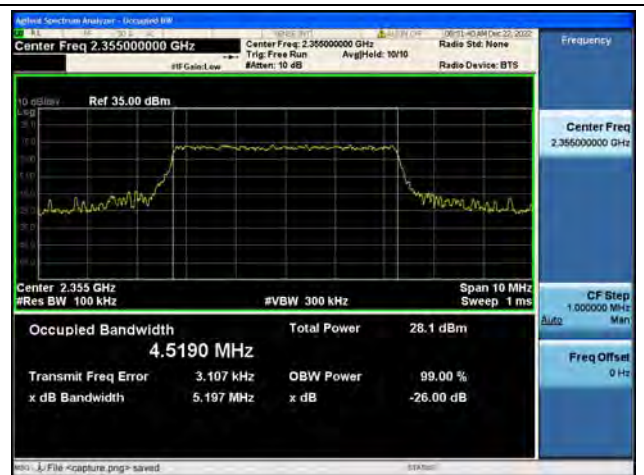
Band40-2 / 5MHz / QPSK/ Low CH



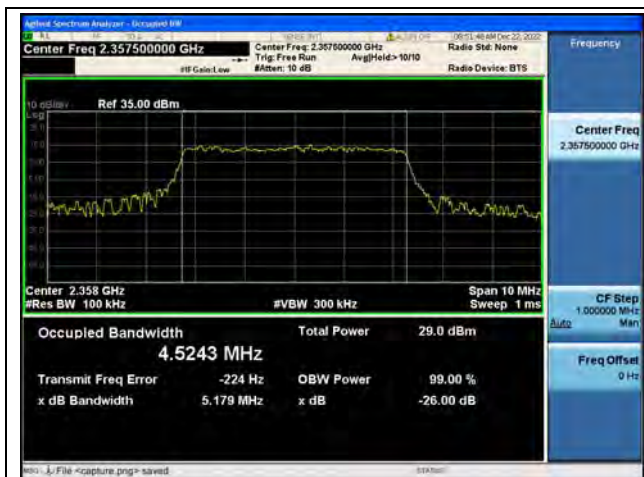
Band40-2 / 5MHz / 16QAM/ Low CH



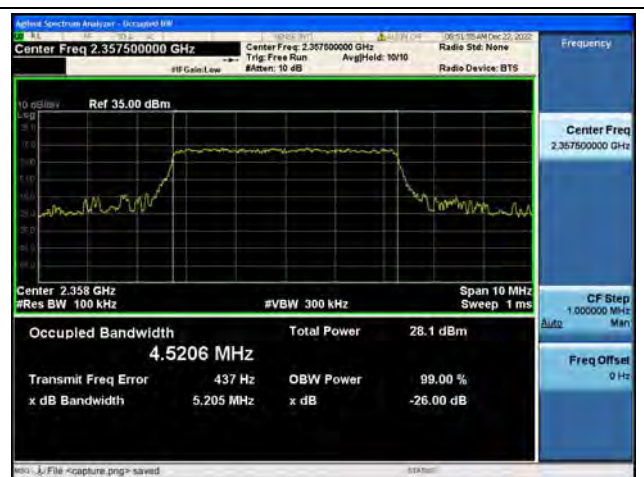
Band40-2 / 5MHz / QPSK/ Mid CH



Band40-2 / 5MHz / 16QAM/ Mid CH



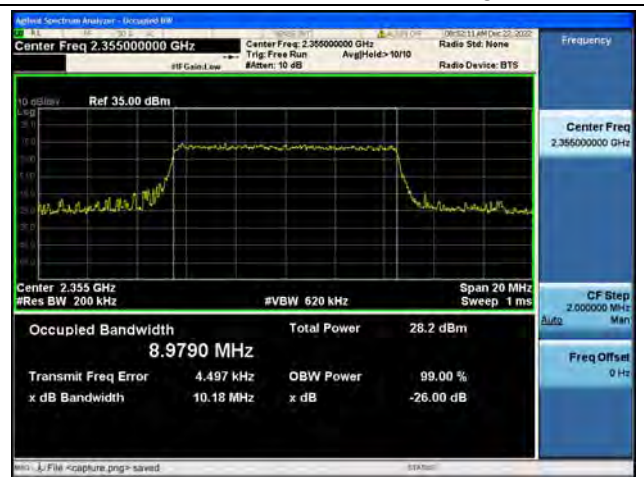
Band40-2 / 5MHz / QPSK/ High CH



Band40-2 / 5MHz / 16QAM/ High CH



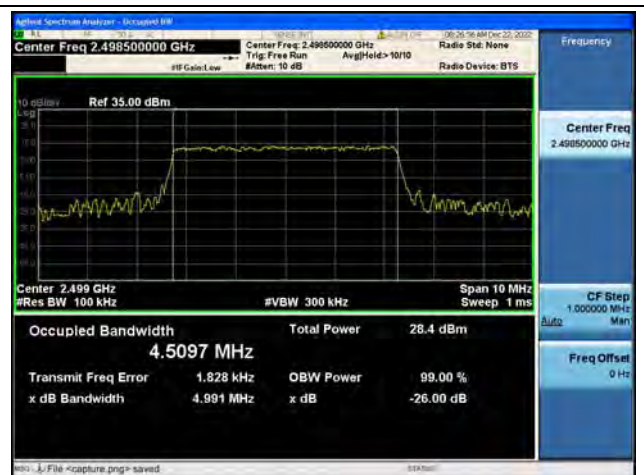
Band40-2 / 10MHz / QPSK/ Mid CH



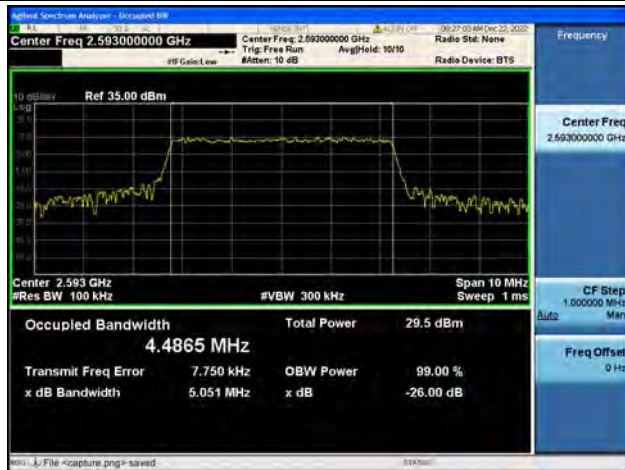
Band40-2 / 10MHz / 16QAM/ Mid CH



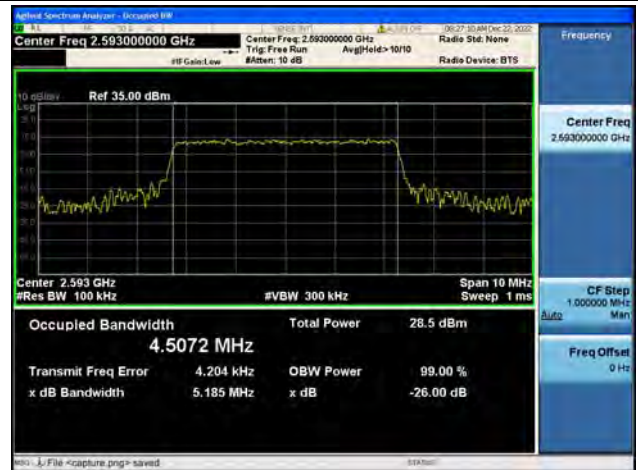
Band41 / 5MHz / QPSK/ Low CH



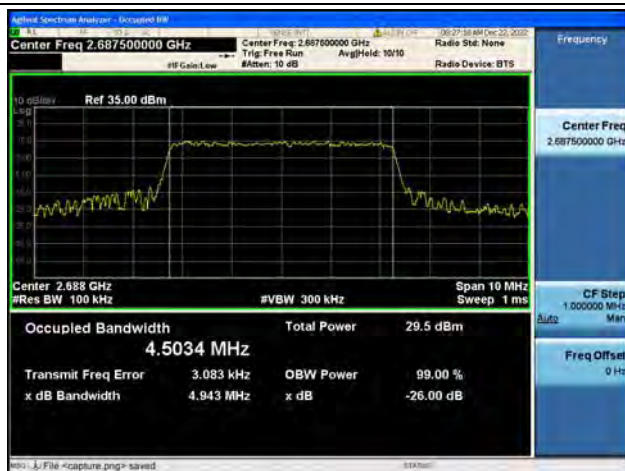
Band41 / 5MHz / 16QAM/ Low CH



Band41 / 5MHz / QPSK/ Mid CH



Band41 / 5MHz / 16QAM/ Mid CH



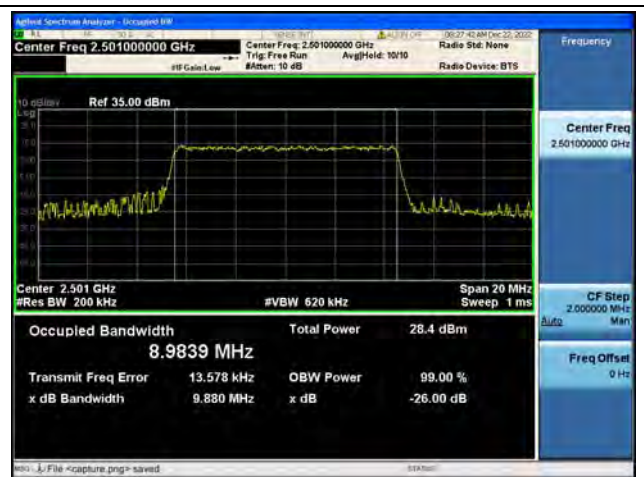
Band41 / 5MHz / QPSK/ High CH



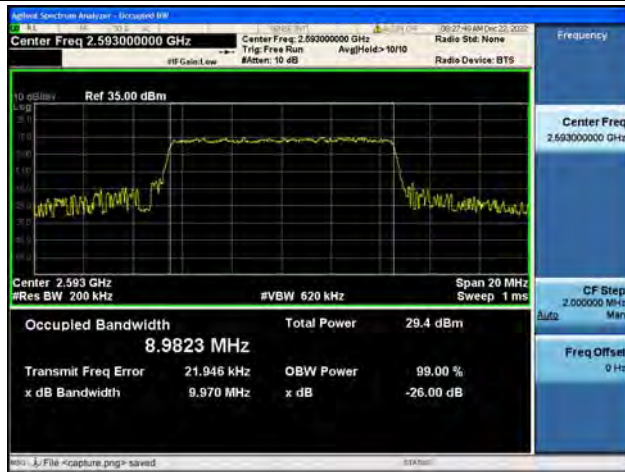
Band41 / 5MHz / 16QAM/ High CH



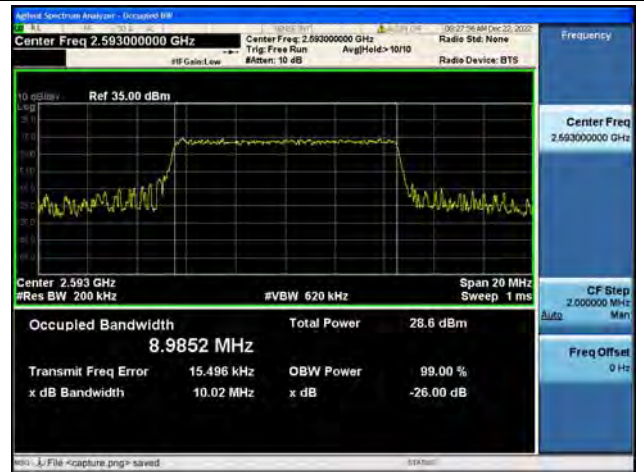
Band41 / 10MHz / QPSK/ Low CH



Band41 / 10MHz / 16QAM/ Low CH



Band41 / 10MHz / QPSK/ Mid CH



Band41 / 10MHz / 16QAM/ Mid CH



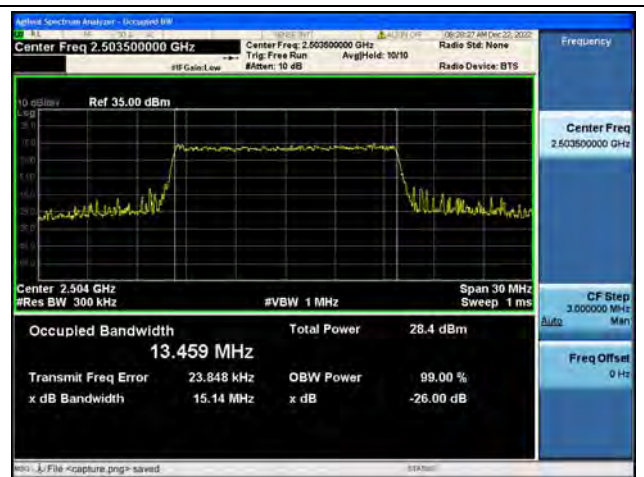
Band41 / 10MHz / QPSK/ High CH



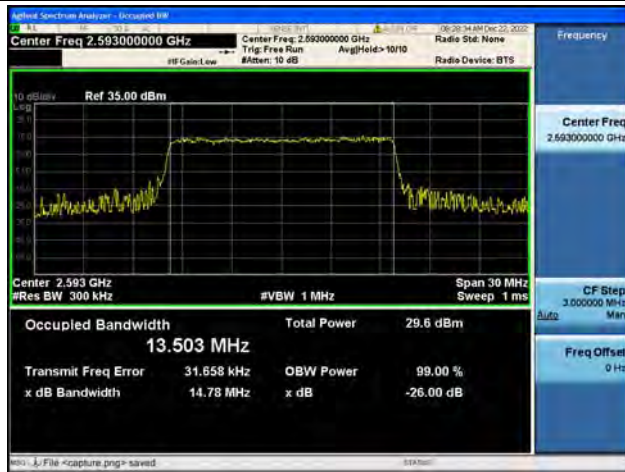
Band41 / 10MHz / 16QAM/ High CH



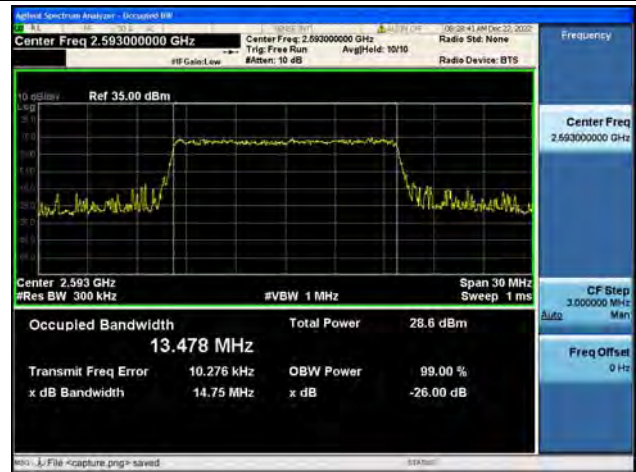
Band41 / 15MHz / QPSK/ Low CH



Band41 / 15MHz / 16QAM/ Low CH



Band41 / 15MHz / QPSK/ Mid CH



Band41 / 15MHz / 16QAM/ Mid CH



Band41 / 15MHz / QPSK/ High CH



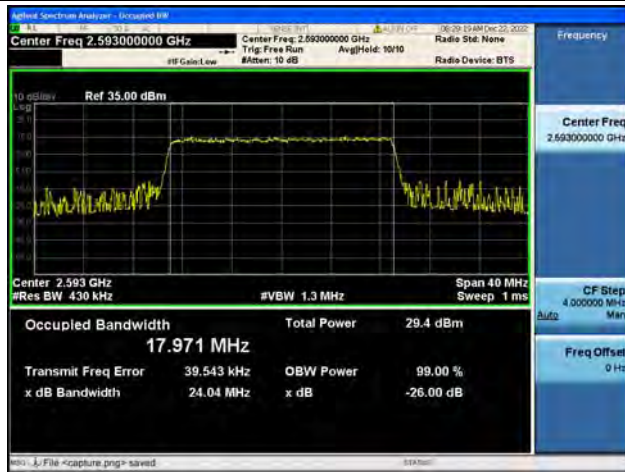
Band41 / 15MHz / 16QAM/ High CH



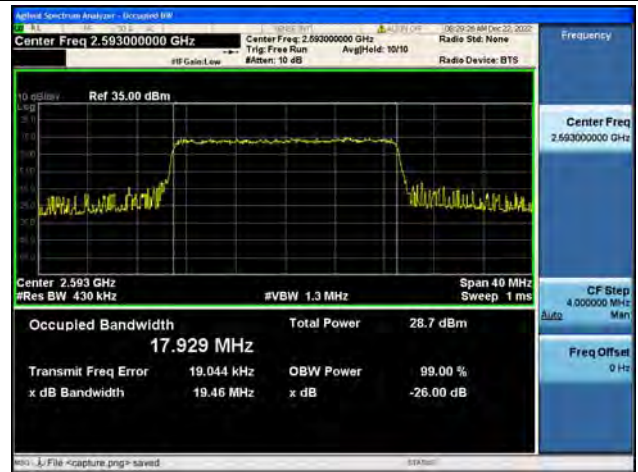
Band41 / 20MHz / QPSK/ Low CH



Band41 / 20MHz / 16QAM/ Low CH



Band41 / 20MHz / QPSK/ Mid CH



Band41 / 20MHz / 16QAM/ Mid CH



Band41 / 20MHz / QPSK/ High CH



Band41 / 20MHz / 16QAM/ High CH

## 2.3. Frequency Stability

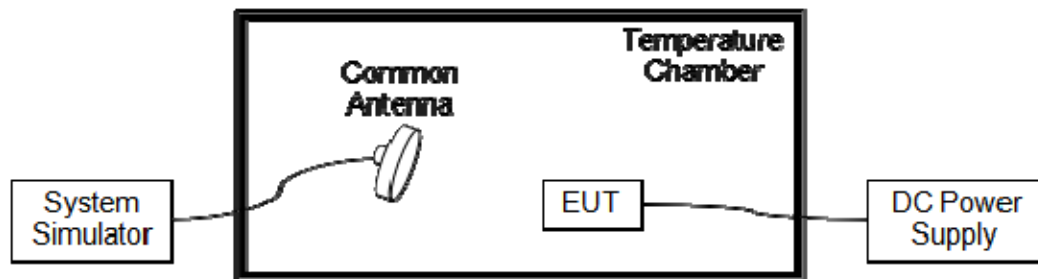
### 2.3.1. Requirement

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  $-20^{\circ}\text{C}$  to  $50^{\circ}\text{C}$ , 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 3.00V, 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) | 47            | 0.025           | PASS   |
| Normal                                                                                |             | -20      | 15            | 0.008           |        |
| Normal                                                                                |             | -10      | 15            | 0.008           |        |
| Normal                                                                                |             | 0        | -14           | -0.007          |        |
| Normal                                                                                |             | +10      | 32            | 0.017           |        |
| Normal                                                                                |             | +20      | 13            | 0.007           |        |
| Normal                                                                                |             | +30      | 24            | 0.013           |        |
| Normal                                                                                |             | +40      | -16           | -0.009          |        |
| Normal                                                                                |             | +50      | -17           | -0.009          |        |
| High                                                                                  | 4.40        | +20      | -16           | -0.009          |        |
| BATT.ENDPOINT                                                                         | 3.00        | +20      | 50            | 0.027           |        |

| 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) | 41            | 0.024           | PASS   |
| Normal                                                                                |             | -20      | 24            | 0.014           |        |
| Normal                                                                                |             | -10      | 17            | 0.010           |        |
| Normal                                                                                |             | 0        | -23           | -0.013          |        |
| Normal                                                                                |             | +10      | 41            | 0.024           |        |
| Normal                                                                                |             | +20      | 47            | 0.027           |        |
| Normal                                                                                |             | +30      | 49            | 0.028           |        |
| Normal                                                                                |             | +40      | 13            | 0.008           |        |
| Normal                                                                                |             | +50      | 16            | 0.009           |        |
| High                                                                                  | 4.40        | +20      | -17           | -0.010          |        |
| BATT.ENDPOINT                                                                         | 3.00        | +20      | 42            | 0.024           |        |



| 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) | 41            | 0.024           | PASS   |
| Normal                                                               |             | -20      | 24            | 0.014           |        |
| Normal                                                               |             | -10      | 17            | 0.010           |        |
| Normal                                                               |             | 0        | -23           | -0.013          |        |
| Normal                                                               |             | +10      | 41            | 0.024           |        |
| Normal                                                               |             | +20      | 47            | 0.027           |        |
| Normal                                                               |             | +30      | 49            | 0.028           |        |
| Normal                                                               |             | +40      | 13            | 0.008           |        |
| Normal                                                               |             | +50      | 16            | 0.009           |        |
| High                                                                 | 4.40        | +20      | -17           | -0.010          |        |
| BATT.ENDPOINT                                                        | 3.00        | +20      | 42            | 0.024           |        |

| 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) | 53            | 0.021           | PASS   |
| Normal                                                                              |             | -20      | -19           | -0.007          |        |
| Normal                                                                              |             | -10      | 38            | 0.015           |        |
| Normal                                                                              |             | 0        | 23            | 0.009           |        |
| Normal                                                                              |             | +10      | 17            | 0.007           |        |
| Normal                                                                              |             | +20      | 31            | 0.012           |        |
| Normal                                                                              |             | +30      | -20           | -0.008          |        |
| Normal                                                                              |             | +40      | -21           | -0.008          |        |
| Normal                                                                              |             | +50      | -23           | -0.009          |        |
| High                                                                                | 4.40        | +20      | 49            | 0.019           |        |
| BATT.ENDPOINT                                                                       | 3.00        | +20      | 17            | 0.007           |        |



| 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) | -20           | -0.028          | PASS   |
| Normal                                                                                |             | -20      | 17            | 0.024           |        |
| Normal                                                                                |             | -10      | 21            | 0.030           |        |
| Normal                                                                                |             | 0        | -20           | -0.028          |        |
| Normal                                                                                |             | +10      | 51            | 0.072           |        |
| Normal                                                                                |             | +20      | 38            | 0.054           |        |
| Normal                                                                                |             | +30      | 32            | 0.045           |        |
| Normal                                                                                |             | +40      | 20            | 0.028           |        |
| Normal                                                                                |             | +50      | -23           | -0.033          |        |
| High                                                                                  | 4.40        | +20      | 20            | 0.028           |        |
| BATT.ENDPOINT                                                                         | 3.00        | +20      | 14            | 0.020           |        |

| 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) | 15            | 0.021           | PASS   |
| Normal                                                                              |             | -20      | -21           | -0.030          |        |
| Normal                                                                              |             | -10      | -22           | -0.031          |        |
| Normal                                                                              |             | 0        | 14            | 0.020           |        |
| Normal                                                                              |             | +10      | 30            | 0.042           |        |
| Normal                                                                              |             | +20      | -18           | -0.025          |        |
| Normal                                                                              |             | +30      | -18           | -0.025          |        |
| Normal                                                                              |             | +40      | 20            | 0.028           |        |
| Normal                                                                              |             | +50      | 19            | 0.027           |        |
| High                                                                                | 4.40        | +20      | 21            | 0.030           |        |
| BATT.ENDPOINT                                                                       | 3.00        | +20      | 23            | 0.032           |        |



| LTE Band 38, QPSK, Channel 38000, Frequency 2595MHz<br>Limit =Within Authorized Band |             |          |               |                 |        |
|--------------------------------------------------------------------------------------|-------------|----------|---------------|-----------------|--------|
| Voltage (%)                                                                          | Power (VDC) | Temp(°C) | Fre. Dev.(Hz) | Deviation (ppm) | Result |
| Normal                                                                               | 3.85        | +20(Ref) | 15            | 0.021           | PASS   |
| Normal                                                                               |             | -20      | -21           | -0.030          |        |
| Normal                                                                               |             | -10      | -22           | -0.031          |        |
| Normal                                                                               |             | 0        | 14            | 0.020           |        |
| Normal                                                                               |             | +10      | 30            | 0.042           |        |
| Normal                                                                               |             | +20      | -18           | -0.025          |        |
| Normal                                                                               |             | +30      | -18           | -0.025          |        |
| Normal                                                                               |             | +40      | 20            | 0.028           |        |
| Normal                                                                               |             | +50      | 19            | 0.027           |        |
| High                                                                                 | 4.40        | +20      | 21            | 0.030           |        |
| BATT.ENDPOINT                                                                        | 3.00        | +20      | 23            | 0.032           |        |

| LTE Band 40, Block A, QPSK, Channel 38750, Frequency 2310MHz<br>Limit =Within Authorized Band |             |           |                |                 |        |
|-----------------------------------------------------------------------------------------------|-------------|-----------|----------------|-----------------|--------|
| Voltage (%)                                                                                   | Power (VDC) | Temp (°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| Normal                                                                                        | 3.85        | +20(Ref)  | 51             | 0.022           | PASS   |
| Normal                                                                                        |             | -20       | 24             | 0.010           |        |
| Normal                                                                                        |             | -10       | 13             | 0.006           |        |
| Normal                                                                                        |             | 0         | 13             | 0.006           |        |
| Normal                                                                                        |             | +10       | 39             | 0.017           |        |
| Normal                                                                                        |             | +20       | 35             | 0.015           |        |
| Normal                                                                                        |             | +30       | 33             | 0.014           |        |
| Normal                                                                                        |             | +40       | 51             | 0.022           |        |
| Normal                                                                                        |             | +50       | -23            | -0.010          |        |
| High                                                                                          | 4.40        | +20       | -19            | -0.008          |        |
| BATT.ENDPOINT                                                                                 | 3.00        | +20       | 43             | 0.019           |        |



| LTE Band 40 Block B, QPSK, Channel 39200, Frequency 2355MHz<br>Limit =Within Authorized Band |             |           |                |                 |        |
|----------------------------------------------------------------------------------------------|-------------|-----------|----------------|-----------------|--------|
| Voltage (%)                                                                                  | Power (VDC) | Temp (°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| Normal                                                                                       | 3.85        | +20(Ref)  | 23             | 0.010           | PASS   |
| Normal                                                                                       |             | -20       | -13            | -0.006          |        |
| Normal                                                                                       |             | -10       | 30             | 0.013           |        |
| Normal                                                                                       |             | 0         | 19             | 0.008           |        |
| Normal                                                                                       |             | +10       | -17            | -0.007          |        |
| Normal                                                                                       |             | +20       | 23             | 0.010           |        |
| Normal                                                                                       |             | +30       | 27             | 0.011           |        |
| Normal                                                                                       |             | +40       | 50             | 0.021           |        |
| Normal                                                                                       |             | +50       | -15            | -0.006          |        |
| High                                                                                         | 4.40        | +20       | 21             | 0.009           |        |
| BATT.ENDPOINT                                                                                | 3.00        | +20       | 34             | 0.014           |        |

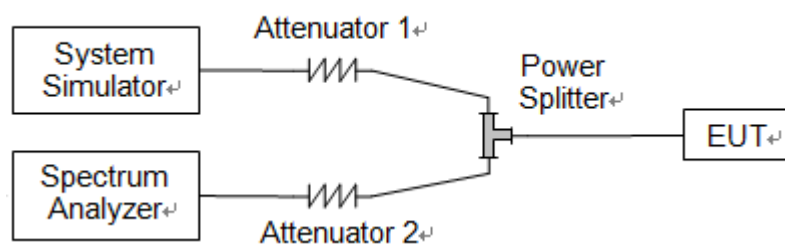
| LTE Band 41, QPSK, Channel 40620, Frequency 2593MHz<br>Limit =Within Authorized Band |             |          |               |                 |        |
|--------------------------------------------------------------------------------------|-------------|----------|---------------|-----------------|--------|
| Voltage (%)                                                                          | Power (VDC) | Temp(°C) | Fre. Dev.(Hz) | Deviation (ppm) | Result |
| Normal                                                                               | 3.85        | +20(Ref) | 22            | 0.008           | PASS   |
| Normal                                                                               |             | -20      | 15            | 0.006           |        |
| Normal                                                                               |             | -10      | 32            | 0.012           |        |
| Normal                                                                               |             | 0        | 18            | 0.007           |        |
| Normal                                                                               |             | +10      | 20            | 0.008           |        |
| Normal                                                                               |             | +20      | 39            | 0.015           |        |
| Normal                                                                               |             | +30      | 13            | 0.005           |        |
| Normal                                                                               |             | +40      | 37            | 0.014           |        |
| Normal                                                                               |             | +50      | 48            | 0.019           |        |
| High                                                                                 | 4.40        | +20      | 32            | 0.012           |        |
| BATT.ENDPOINT                                                                        | 3.00        | +20      | -14           | -0.005          |        |

## 2.4. Peak to Average Ratio

### 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       | 5.75          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.72          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.79          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.52          | <=13      | PASS    |
|            | High          | QPSK       | 5.88          | <=13      | PASS    |
|            | High          | 16QAM      | 6.60          | <=13      | PASS    |
| 3          | Low           | QPSK       | 5.97          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.76          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.69          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.50          | <=13      | PASS    |
|            | High          | QPSK       | 5.80          | <=13      | PASS    |
|            | High          | 16QAM      | 6.71          | <=13      | PASS    |
| 5          | Low           | QPSK       | 5.97          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.58          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.84          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.41          | <=13      | PASS    |
|            | High          | QPSK       | 5.91          | <=13      | PASS    |
|            | High          | 16QAM      | 6.50          | <=13      | PASS    |
| 10         | Low           | QPSK       | 5.98          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.56          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.87          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.48          | <=13      | PASS    |
|            | High          | QPSK       | 5.85          | <=13      | PASS    |
|            | High          | 16QAM      | 6.56          | <=13      | PASS    |
| 15         | Low           | QPSK       | 5.95          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.57          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.84          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.47          | <=13      | PASS    |
|            | High          | QPSK       | 5.95          | <=13      | PASS    |
|            | High          | 16QAM      | 6.52          | <=13      | PASS    |
| 20         | Low           | QPSK       | 6.05          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.62          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.80          | <=13      | PASS    |
|            | Mid           | 16QAM      | 6.51          | <=13      | PASS    |
|            | High          | QPSK       | 6.07          | <=13      | PASS    |
|            | High          | 16QAM      | 6.66          | <=13      | PASS    |



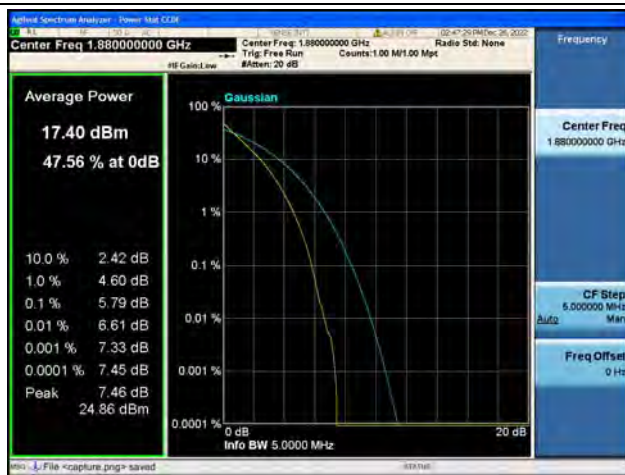
| LTE Band 4 |               |            |               |           |         |
|------------|---------------|------------|---------------|-----------|---------|
| BW(MHz)    | Channel Level | Modulation | PAR Radio(dB) | Limit(dB) | Verdict |
| 1.4        | Low           | QPSK       | 5.31          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.01          | <=13      | PASS    |
|            | Mid           | QPSK       | 4.46          | <=13      | PASS    |
|            | Mid           | 16QAM      | 5.24          | <=13      | PASS    |
|            | High          | QPSK       | 4.77          | <=13      | PASS    |
|            | High          | 16QAM      | 5.59          | <=13      | PASS    |
| 3          | Low           | QPSK       | 5.44          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.28          | <=13      | PASS    |
|            | Mid           | QPSK       | 4.59          | <=13      | PASS    |
|            | Mid           | 16QAM      | 5.45          | <=13      | PASS    |
|            | High          | QPSK       | 4.96          | <=13      | PASS    |
|            | High          | 16QAM      | 5.79          | <=13      | PASS    |
| 5          | Low           | QPSK       | 5.55          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.17          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.19          | <=13      | PASS    |
|            | Mid           | 16QAM      | 5.65          | <=13      | PASS    |
|            | High          | QPSK       | 5.28          | <=13      | PASS    |
|            | High          | 16QAM      | 5.98          | <=13      | PASS    |
| 10         | Low           | QPSK       | 5.67          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.18          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.02          | <=13      | PASS    |
|            | Mid           | 16QAM      | 5.70          | <=13      | PASS    |
|            | High          | QPSK       | 5.42          | <=13      | PASS    |
|            | High          | 16QAM      | 6.07          | <=13      | PASS    |
| 15         | Low           | QPSK       | 5.39          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.02          | <=13      | PASS    |
|            | Mid           | QPSK       | 4.80          | <=13      | PASS    |
|            | Mid           | 16QAM      | 5.56          | <=13      | PASS    |
|            | High          | QPSK       | 5.24          | <=13      | PASS    |
|            | High          | 16QAM      | 5.96          | <=13      | PASS    |
| 20         | Low           | QPSK       | 5.45          | <=13      | PASS    |
|            | Low           | 16QAM      | 6.00          | <=13      | PASS    |
|            | Mid           | QPSK       | 5.04          | <=13      | PASS    |
|            | Mid           | 16QAM      | 5.77          | <=13      | PASS    |
|            | High          | QPSK       | 5.36          | <=13      | PASS    |
|            | High          | 16QAM      | 5.98          | <=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



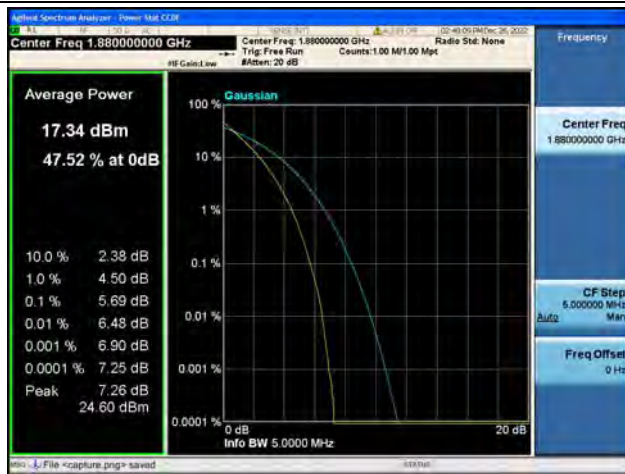
Band2 / 1.4MHz / High CH / 16QAM



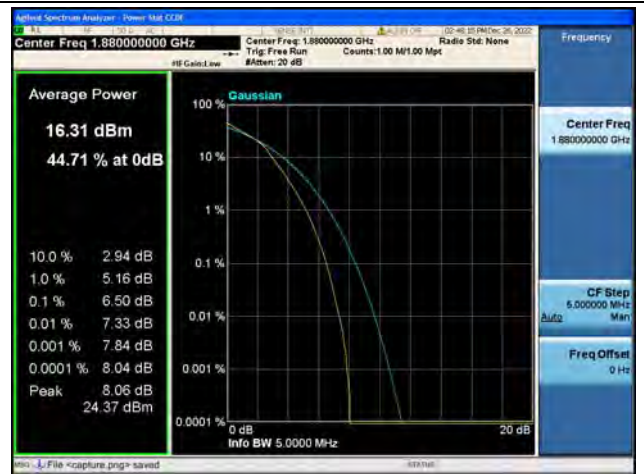
Band2 / 3MHz / Low CH / QPSK



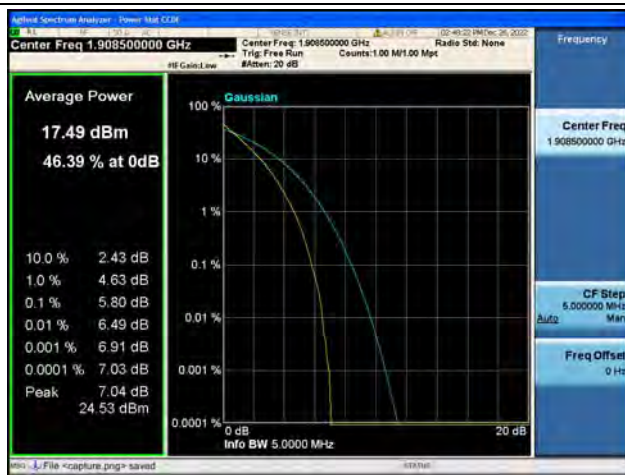
Band2 / 3MHz / Low CH / 16QAM



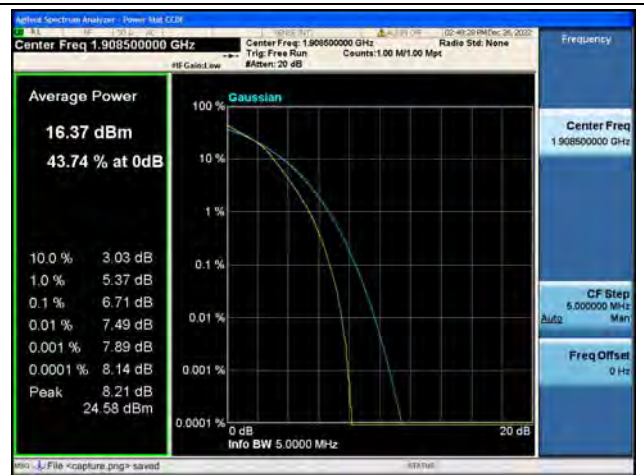
Band2 / 3MHz / Mid CH / QPSK



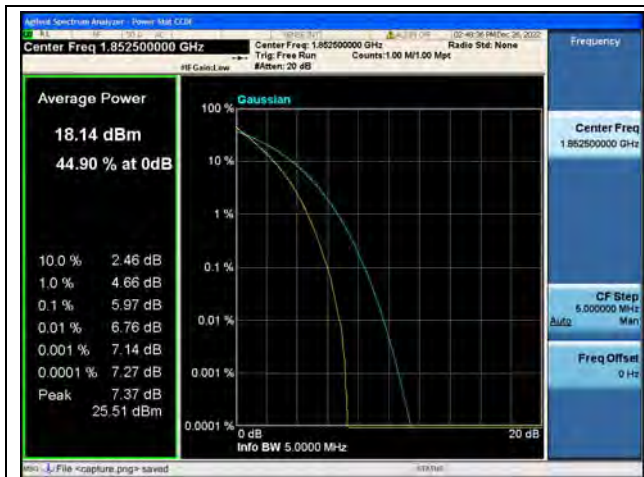
Band2 / 3MHz / Mid CH / 16QAM



Band2 / 3MHz / High CH / QPSK



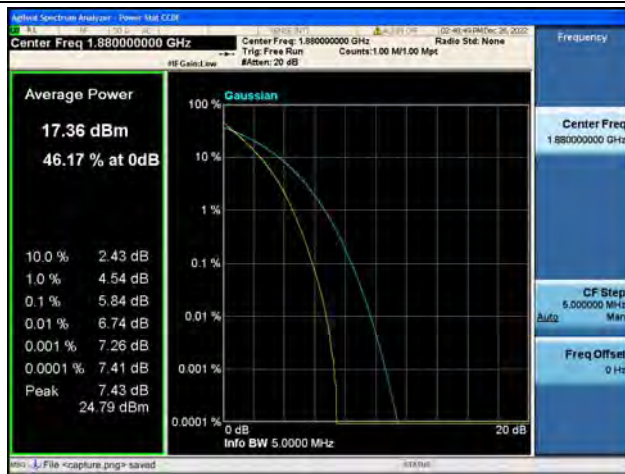
Band2 / 3MHz / High CH / 16QAM



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



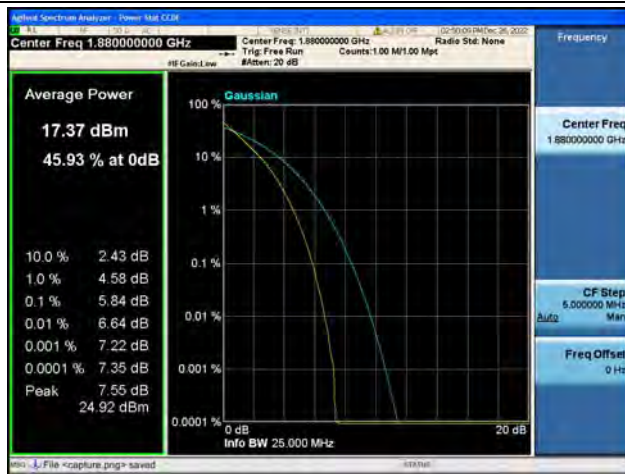
Band2 / 10MHz / High CH / 16QAM



Band2 / 15MHz / Low CH / QPSK



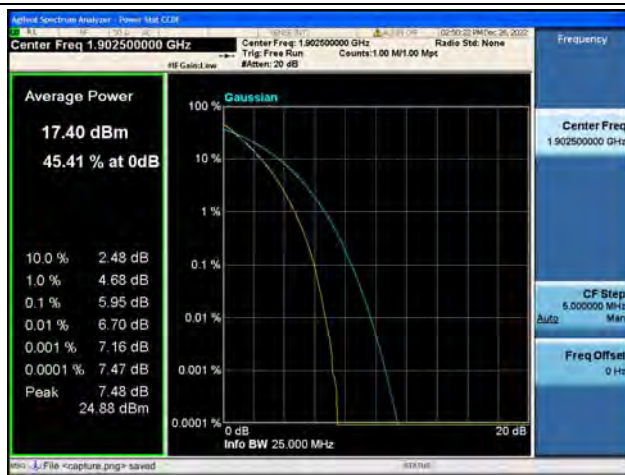
Band2 / 15MHz / Low CH / 16QAM



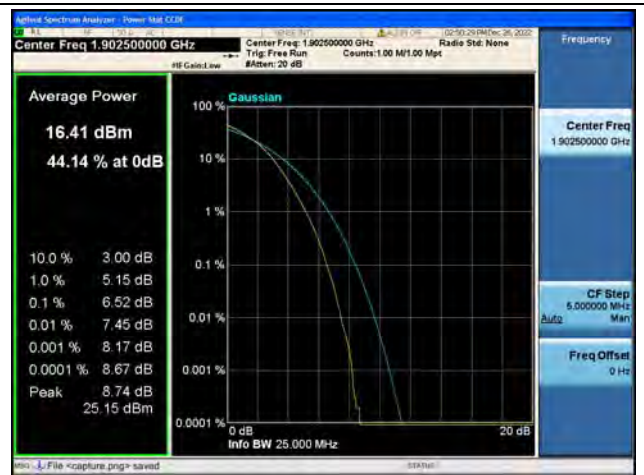
Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / High CH / QPSK



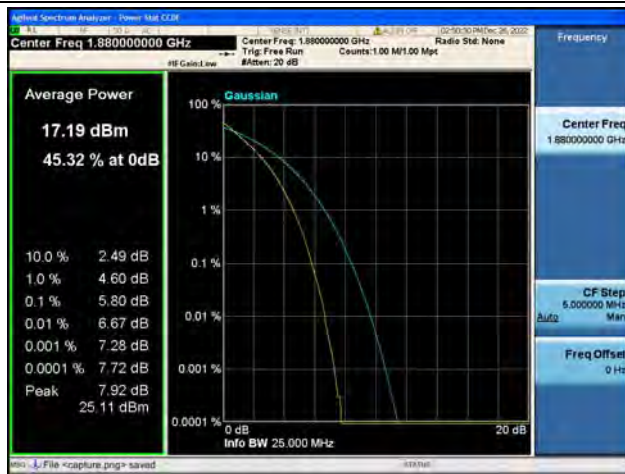
Band2 / 15MHz / High CH / 16QAM



Band2 / 20MHz / Low CH / QPSK



Band2 / 20MHz / Low CH / 16QAM



Band2 / 20MHz / Mid CH / QPSK



Band2 / 20MHz / Mid CH / 16QAM



Band2 / 20MHz / High CH / QPSK



Band2 / 20MHz / High CH / 16QAM



Band4 / 1.4MHz / Low CH / QPSK



Band4 / 1.4MHz / Low CH / 16QAM



Band4 / 1.4MHz / Mid CH / QPSK



Band4 / 1.4MHz / Mid CH / 16QAM



Band4 / 1.4MHz / High CH / QPSK



Band4 / 1.4MHz / High CH / 16QAM



Band4 / 3MHz / Low CH / QPSK



Band4 / 3MHz / Low CH / 16QAM



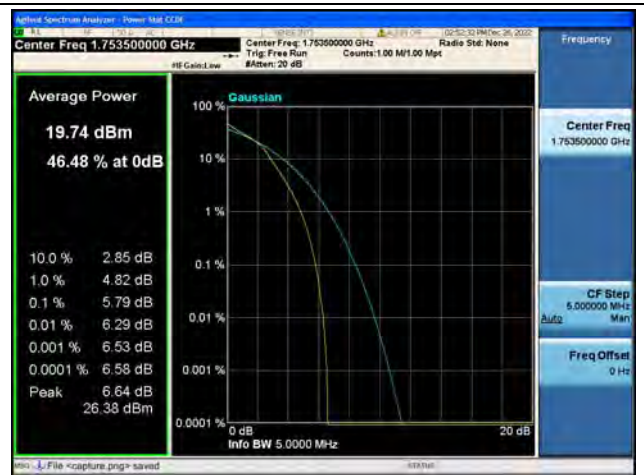
Band4 / 3MHz / Mid CH / QPSK



Band4 / 3MHz / Mid CH / 16QAM



Band4 / 3MHz / High CH / QPSK



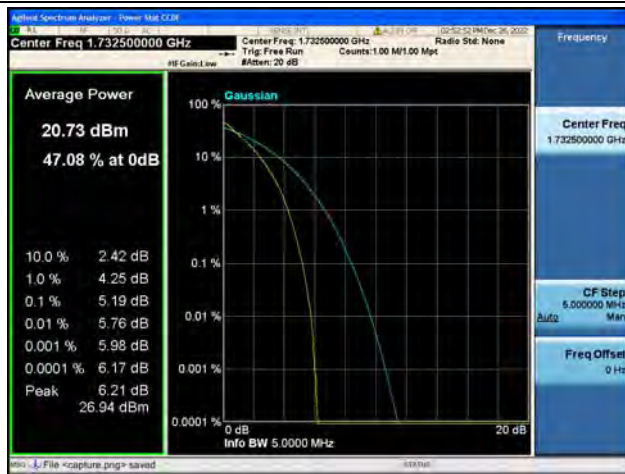
Band4 / 3MHz / High CH / 16QAM



Band4 / 5MHz / Low CH / QPSK



Band4 / 5MHz / Low CH / 16QAM



Band4 / 5MHz / Mid CH / QPSK



Band4 / 5MHz / Mid CH / 16QAM



Band4 / 5MHz / High CH / QPSK



Band4 / 5MHz / High CH / 16QAM



Band4 / 10MHz / Low CH / QPSK



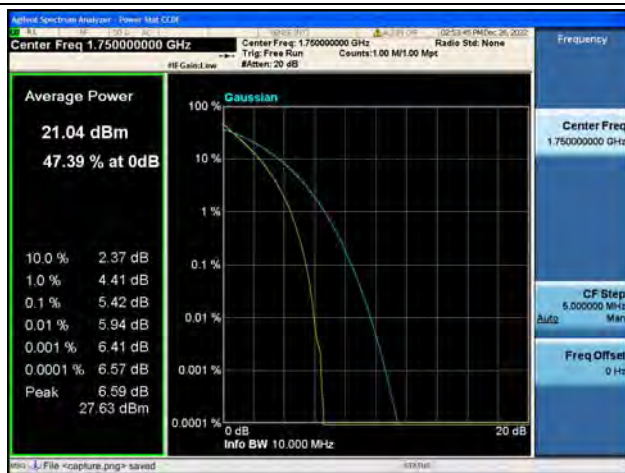
Band4 / 10MHz / Low CH / 16QAM



Band4 / 10MHz / Mid CH / QPSK



Band4 / 10MHz / Mid CH / 16QAM



Band4 / 10MHz / High CH / QPSK



Band4 / 10MHz / High CH / 16QAM



Band4 / 15MHz / Low CH / QPSK



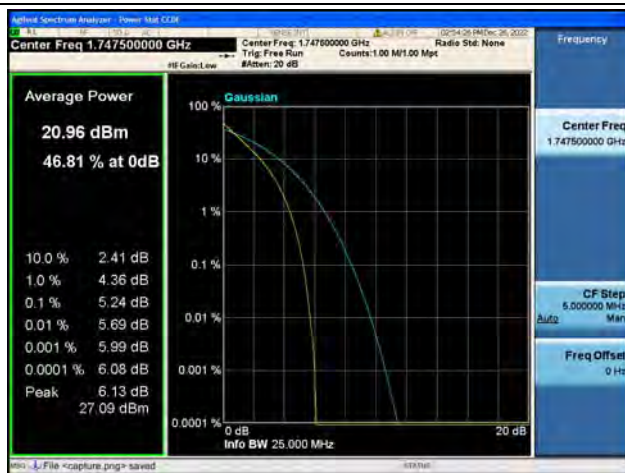
Band4 / 15MHz / Low CH / 16QAM



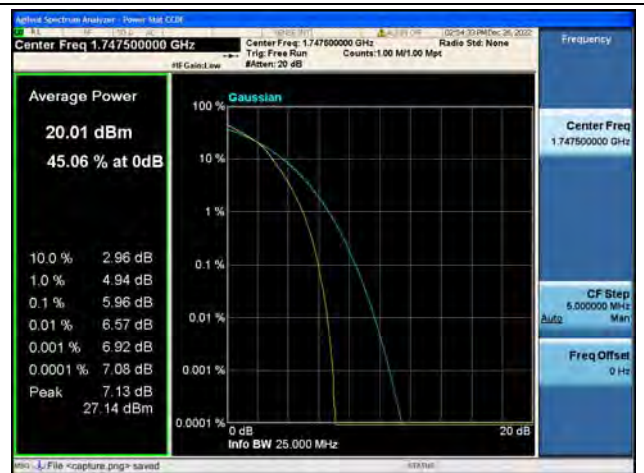
Band4 / 15MHz / Mid CH / QPSK



Band4 / 15MHz / Mid CH / 16QAM



Band4 / 15MHz / High CH / QPSK



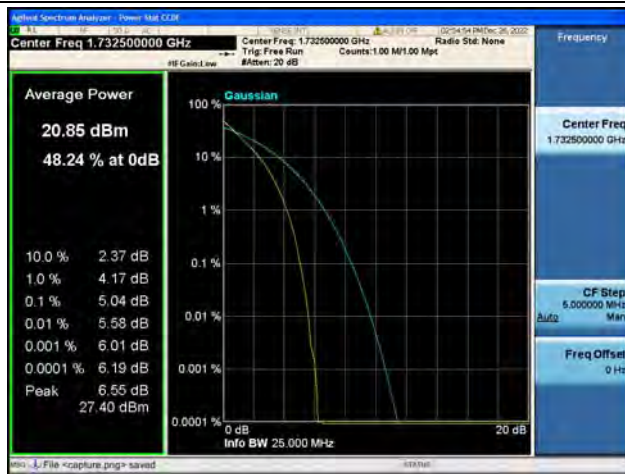
Band4 / 15MHz / High CH / 16QAM



Band4 / 20MHz / Low CH / QPSK



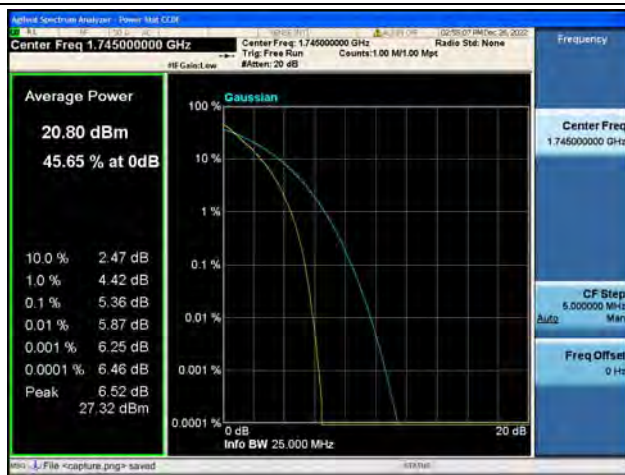
Band4 / 20MHz / Low CH / 16QAM



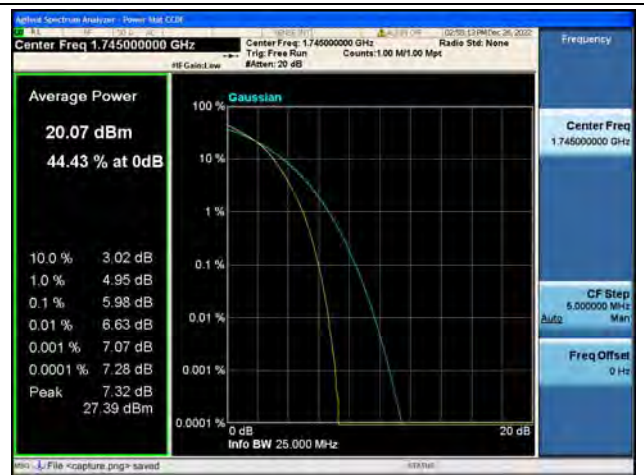
Band4 / 20MHz / Mid CH / QPSK



Band4 / 20MHz / Mid CH / 16QAM



Band4 / 20MHz / High CH / QPSK



Band4 / 20MHz / High CH / 16QAM

## 2.5. Conducted Spurious Emissions

### 2.5.1. Requirement

According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. This calculated to be -13dBm.

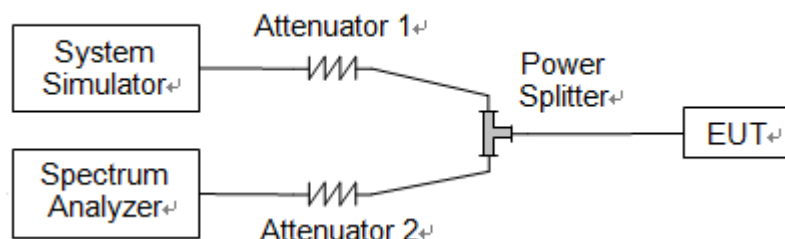
Additional requirement for LTE Band 7/38/41:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $55 + 10 \log(P)$  dB. This calculated to be -25dBm.

Additional requirement for LTE Band 40:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $70 + 10 \log(P)$  dB. This calculated to be -40dBm.

### 2.5.2. 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.

### 2.5.3. Test Procedure

KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.



## 2.5.4. Test Result

