



# 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

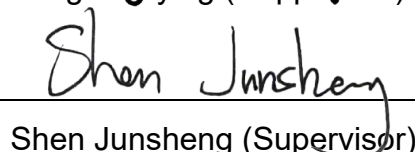
**TEST DATE** : 2022-12-19 to 2023-04-20

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

Edited by:

  
Zeng Xiaoying (Rapporteur)

Approved by:

  
Shen Junsheng (Supervisor)

**NOTE:** This document is issued by Shenzhen Morlab Communications Technology Co., Ltd., the test report shall not be reproduced except in full without prior written permission of the company. The test results apply only to the particular sample(s) tested and to the specific tests carried out which is available on request for validation and information confirmed at our website.





# DIRECTORY

- 1. Technical Information ..... 3**
- 1.1. Applicant and Manufacturer Information ..... 3**
- 1.2. Equipment Under Test (EUT) Description ..... 3**
- 1.3. Maximum E.R.P./E.I.R.P. and Emission Designator ..... 6**
- 1.4. Test Standards and Results ..... 8**
- 1.5. Environmental Conditions ..... 9**
- 2. 47 CFR Part 2, Part 22H, Part 24E, Part 27 D&H&L&M Requirements ..... 10**
- 2.1. Transmitter Conducted Output Power and E.R.P./E.I.R.P. .... 10**
- 2.2. Occupied Bandwidth ..... 88**
- 2.3. Frequency Stability ..... 135**
- 2.4. Peak to Average Ratio ..... 141**
- 2.5. Conducted Spurious Emissions ..... 156**
- 2.6. Band Edge ..... 209**
- 2.7. Radiated Spurious Emissions ..... 250**
- Annex A Test Uncertainty ..... 283**
- Annex B Testing Laboratory Information ..... 284**

| 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 Block A  | Tx: 2305MHz–2315MHz                     |
|                               |                      | Rx: 2305MHz–2315MHz                     |
|                               | LTE Band 40 Block B  | Tx: 2350MHz–2360MHz                     |
| Rx: 2350MHz–2360MHz           |                      |   |
| LTE Band 41                   | Tx: 2496MHz –2690MHz |   |
|                               | Rx: 2496MHz –2690MHz |   |
| <b>Channel Bandwidth:</b>     | LTE Band 2           | 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz |
|                               | LTE Band 4           | 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz |
|                               | LTE Band 5           | 1.4MHz, 3MHz, 5MHz, 10MHz               |
|                               | LTE Band 7           | 5 MHz, 10MHz, 15MHz, 20MHz              |
|                               | LTE Band 12          | 1.4MHz, 3 MHz, 5 MHz, 10MHz             |
|                               | LTE Band 17          | 5 MHz, 10MHz                            |
|                               | LTE Band 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.       |



|                               |               |  |
|-------------------------------|---------------|--|
| <b>Accessory Information:</b> | AC Adapter    |  |
|                               | Brand Name:   | N/A  |
|                               | Model No.:    | NA010050020                                  |
|                               | Serial No.:   | N/A  |
|                               | Rated Output: | 5.0V $\overline{\text{---}}$ 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

| <b>LTE Band 2</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                 |  | 0.157                              | 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 |
| <b>LTE Band 4</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                 |  | 0.129                              | 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 |
| <b>LTE Band 5</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                 |  | 0.068                              | 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 |
| <b>LTE Band 7</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                 |  | 0.147                              | 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 |
| <b>LTE Band 12</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                 |  | 0.055                              | 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 |

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

**Note 2:** The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 28.0dB contains two parts that cable loss 18.0dB and Attenuator 10dB.

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

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

### 1.5. Environmental Conditions

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

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



## **2.47 CFR Part 2, Part 22H, Part 24E, Part 27 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.

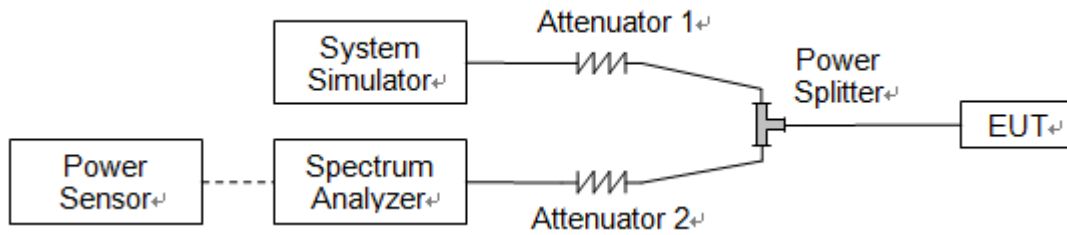
According to FCC section 22.913 (a)(2) for LTE Band 5, the E.R.P. of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

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:**

| <b>LTE Band 2</b> |            |         |           |                               |                                  |                                |
|-------------------|------------|---------|-----------|-------------------------------|----------------------------------|--------------------------------|
| 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]             | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]             | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]             | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]             | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Average Power Low Ch. / Freq. | Average Power Middle Ch. / Freq. | Average Power High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq. |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq. |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq. |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq. |       | Middle Ch. / Freq. |       | High Ch. / Freq. |       |
| Channel         |            |         |           | 20407           |       | 20525              |       | 20643            |       |
| Frequency (MHz) |            |         |           | 824.7           |       | 836.5              |       | 848.3            |       |
|                 |            |         |           | dBm             | W     | dBm                | W     | dBm              | W     |
| 1.4             | QPSK       | 1       | 0         | 18.20           | 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq. |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq. |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq. |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq. |       | Middle Ch. / Freq. |       | High 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 [MHz]        | Modulation | RB Size | RB Offset | Low Ch. / Freq. |       | Middle Ch. / Freq. |       | High 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 [MHz]             | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |   | Middle Ch. / Freq. |       | High 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 [MHz]             | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 [MHz]             | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |   | Middle Ch. / Freq. |       | High 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 [MHz]             | Modulation | RB Size | RB Offset | Low Ch. / Freq.   |       | Middle Ch. / Freq. |       | High 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 |



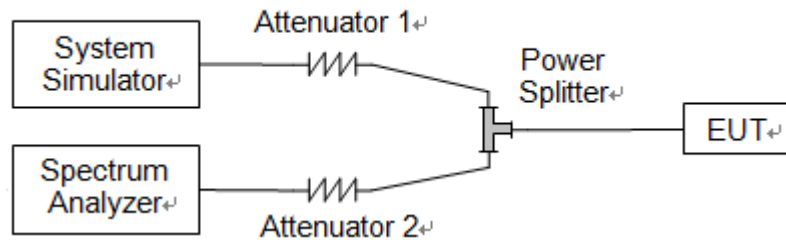
| LTE Band 41     |            |         |           | Measured E.I.R.P. |       |                    |       |                  |       |
|-----------------|------------|---------|-----------|-------------------|-------|--------------------|-------|------------------|-------|
| BW [MHz]        | Modulation | 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



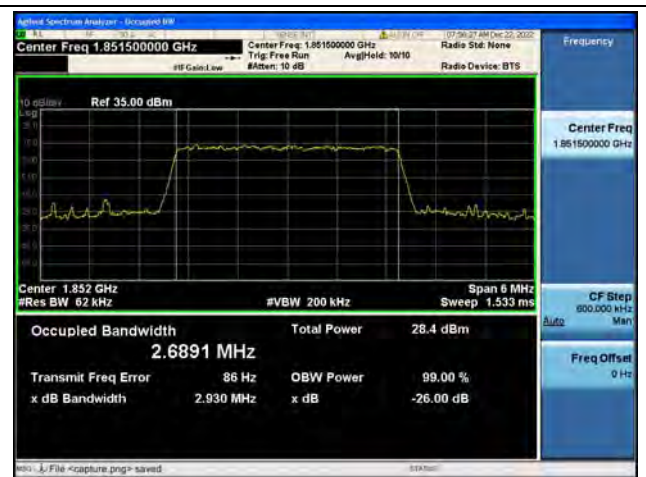
Band2 / 1.4MHz / QPSK/ High CH



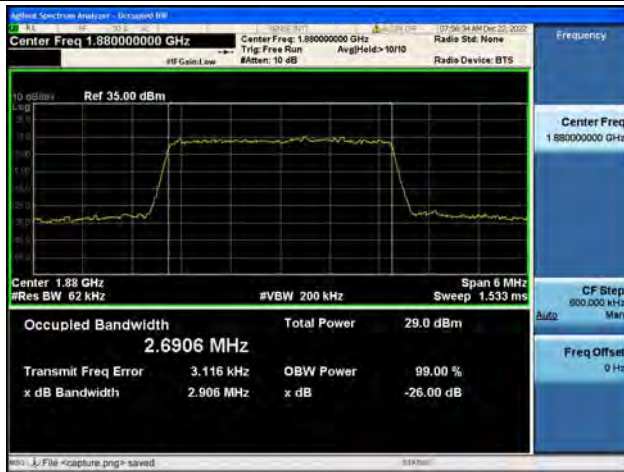
Band2 / 1.4MHz / 16QAM/ High CH



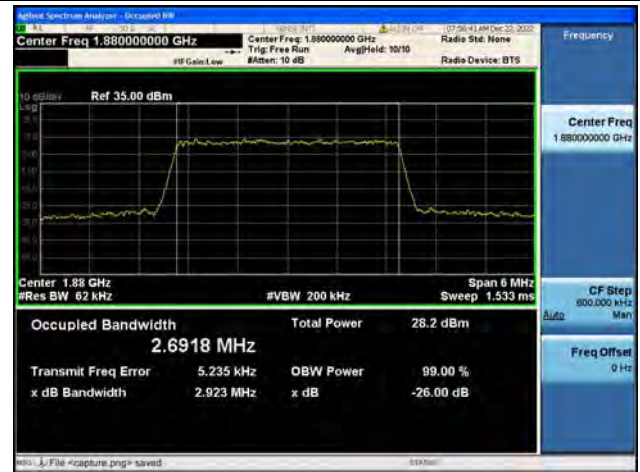
Band2 / 3MHz / QPSK/ Low CH



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 / 10MHz / QPSK/ Low CH



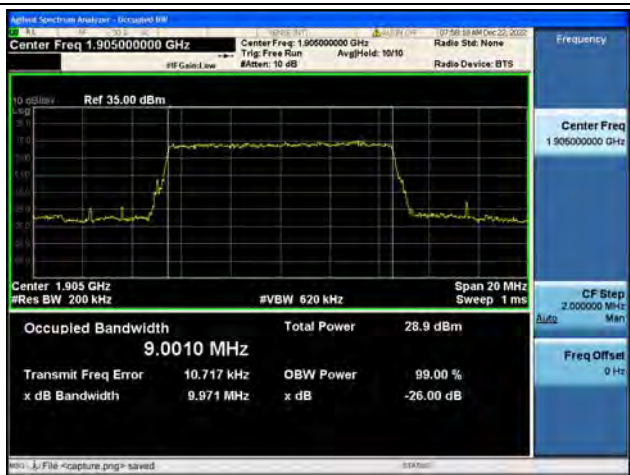
Band2 / 10MHz / 16QAM/ Low CH



Band2 / 10MHz / QPSK/ Mid CH



Band2 / 10MHz / 16QAM/ Mid CH



Band2 / 10MHz / QPSK/ High CH



Band2 / 10MHz / 16QAM/ High CH

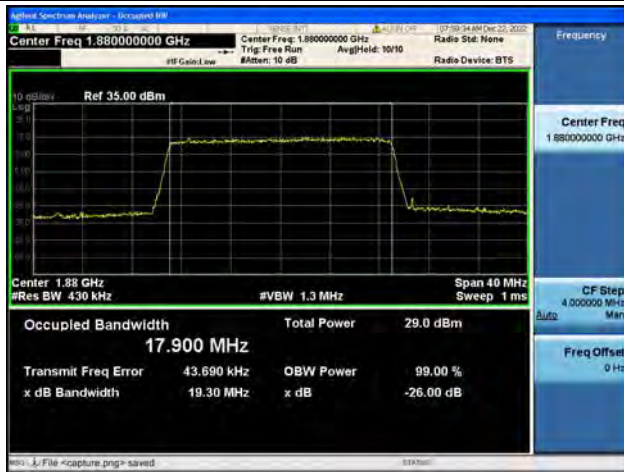




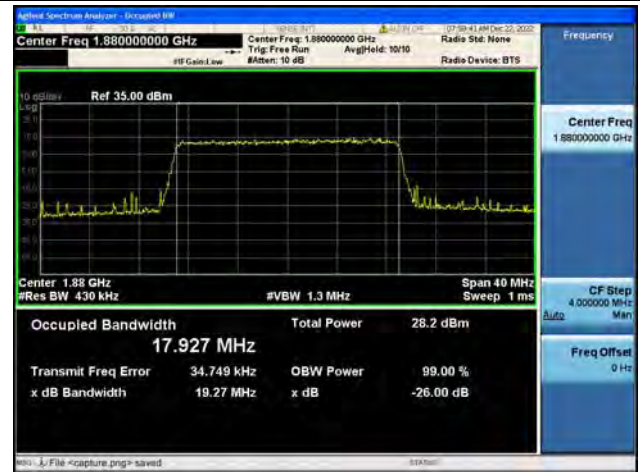
Band2 / 20MHz / QPSK/ Low CH



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



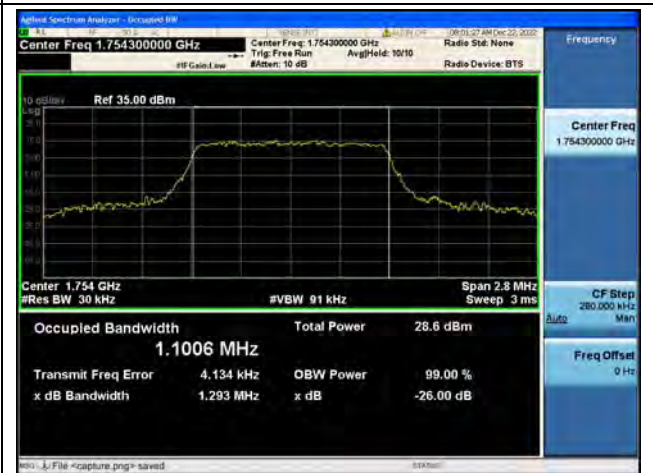
Band4 / 1.4MHz / QPSK/ Mid CH



Band4 / 1.4MHz / 16QAM/ Mid CH



Band4 / 1.4MHz / QPSK/ High CH



Band4 / 1.4MHz / 16QAM/ High CH

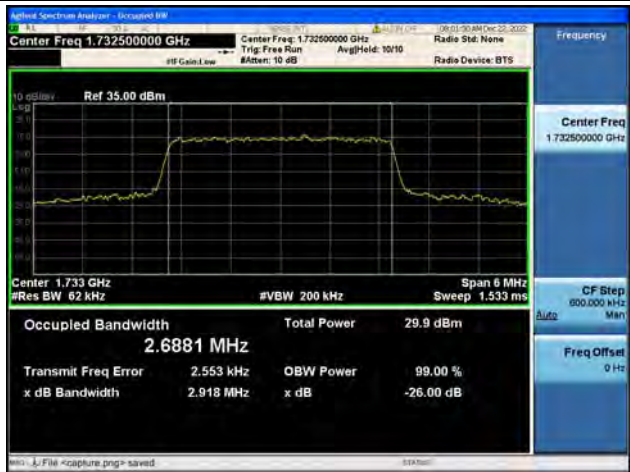




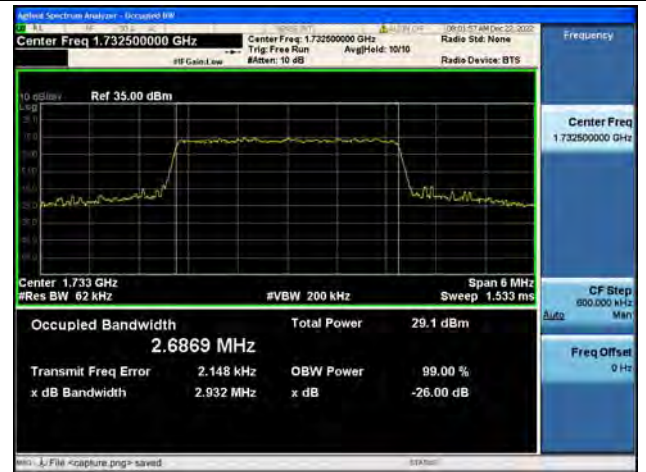
Band4 / 3MHz / QPSK/ Low CH



Band4 / 3MHz / 16QAM/ Low CH



Band4 / 3MHz / QPSK/ Mid CH



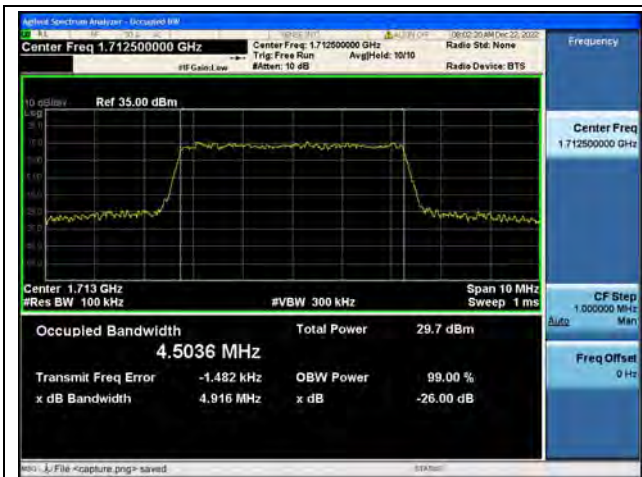
Band4 / 3MHz / 16QAM/ Mid CH



Band4 / 3MHz / QPSK/ High CH



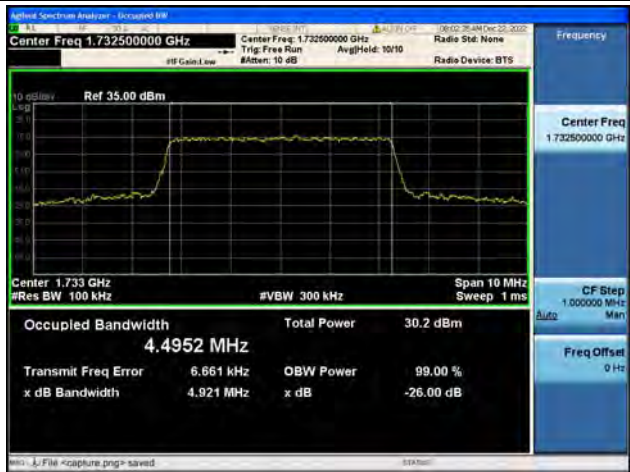
Band4 / 3MHz / 16QAM/ High CH



Band4 / 5MHz / QPSK/ Low CH



Band4 / 5MHz / 16QAM/ Low CH



Band4 / 5MHz / QPSK/ Mid CH



Band4 / 5MHz / 16QAM/ Mid CH



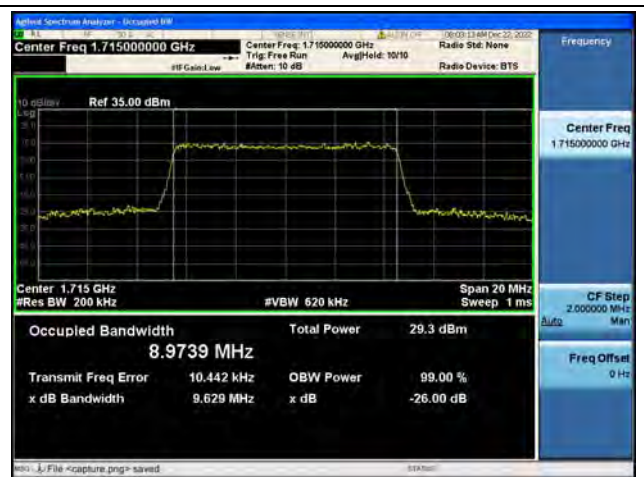
Band4 / 5MHz / QPSK/ High CH



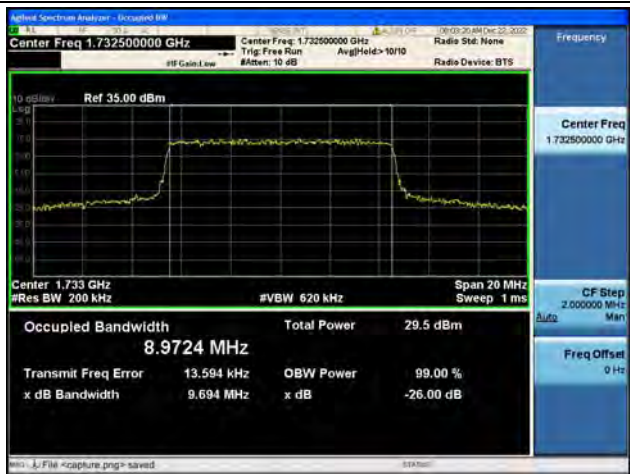
Band4 / 5MHz / 16QAM/ High CH



Band4 / 10MHz / QPSK/ Low CH



Band4 / 10MHz / 16QAM/ Low CH



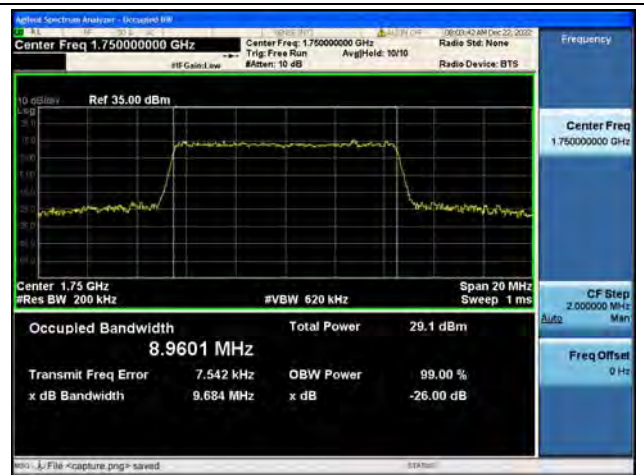
Band4 / 10MHz / QPSK/ Mid CH



Band4 / 10MHz / 16QAM/ Mid CH



Band4 / 10MHz / QPSK/ High CH



Band4 / 10MHz / 16QAM/ High CH



Band4 / 15MHz / QPSK/ Low CH



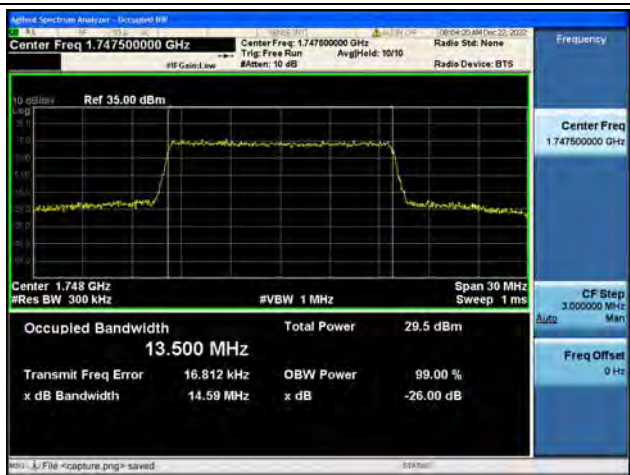
Band4 / 15MHz / 16QAM/ Low CH



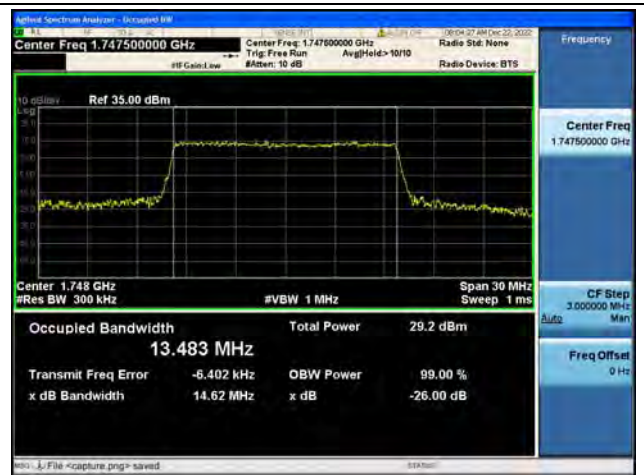
Band4 / 15MHz / QPSK/ Mid CH



Band4 / 15MHz / 16QAM/ Mid CH



Band4 / 15MHz / QPSK/ High CH



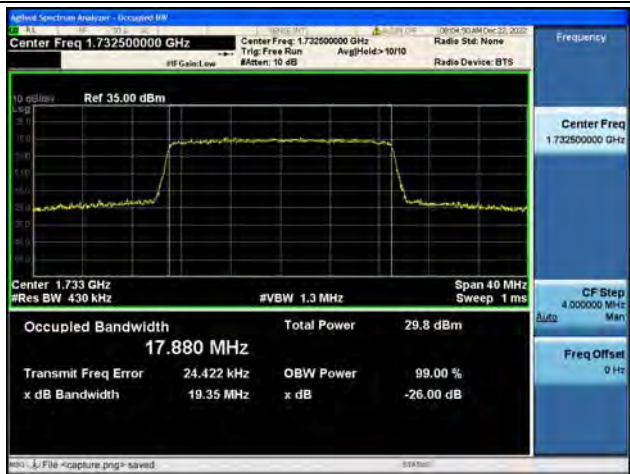
Band4 / 15MHz / 16QAM/ High CH



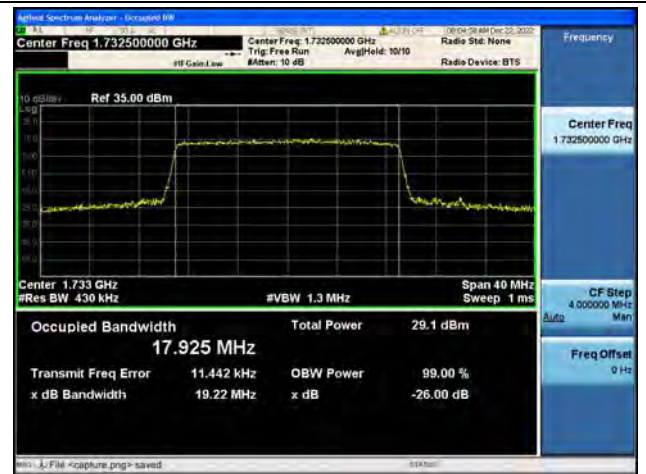
Band4 / 20MHz / QPSK/ Low CH



Band4 / 20MHz / 16QAM/ Low CH



Band4 / 20MHz / QPSK/ Mid CH



Band4 / 20MHz / 16QAM/ Mid CH



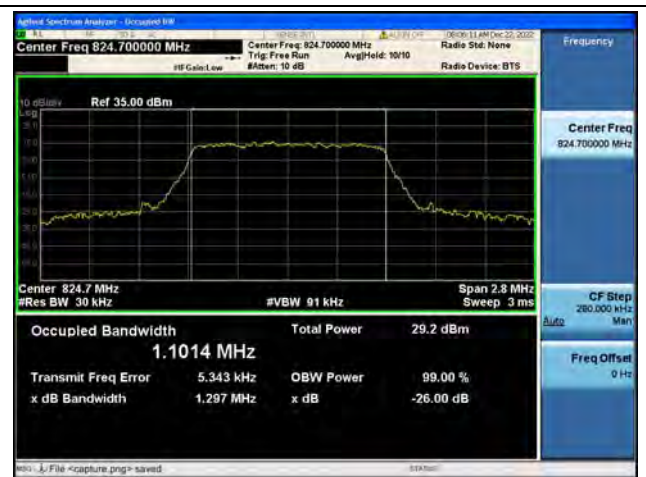
Band4 / 20MHz / QPSK/ High CH



Band4 / 20MHz / 16QAM/ High CH



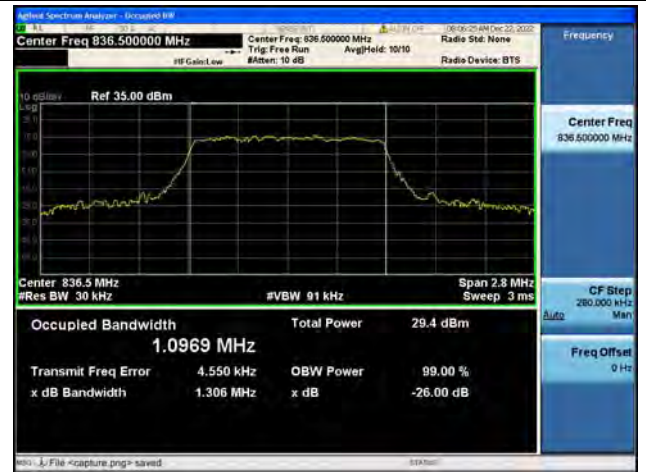
Band5 / 1.4MHz / QPSK/ Low CH



Band5 / 1.4MHz / 16QAM/ Low CH



Band5 / 1.4MHz / QPSK/ Mid CH



Band5 / 1.4MHz / 16QAM/ Mid CH



Band5 / 1.4MHz / QPSK/ High CH



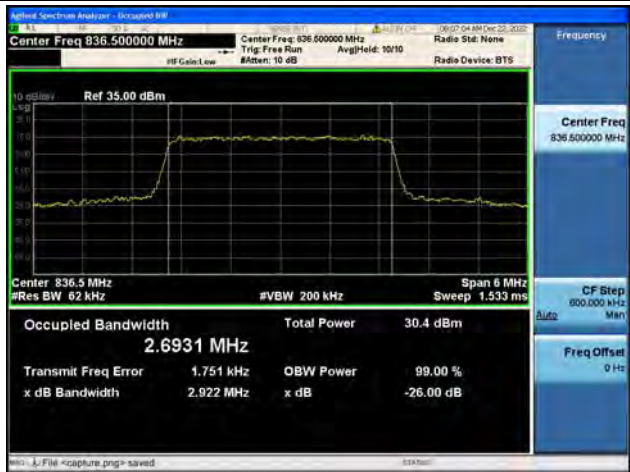
Band5 / 1.4MHz / 16QAM/ High CH



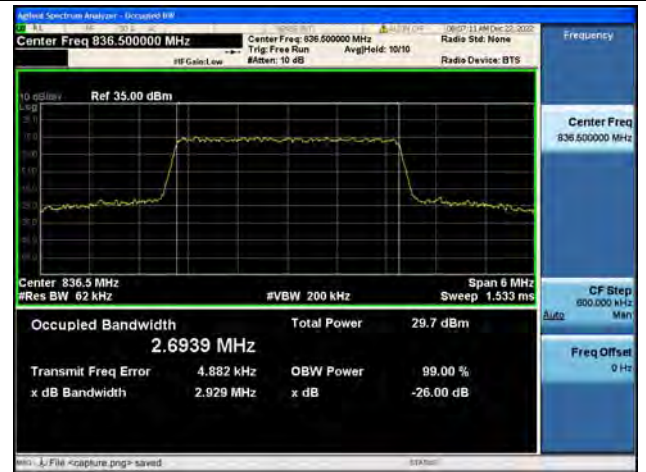
Band5 / 3MHz / QPSK/ Low CH



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



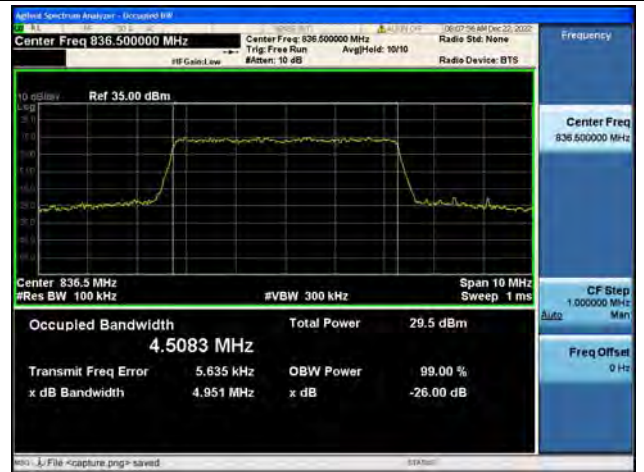
Band5 / 5MHz / QPSK/ Low CH



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





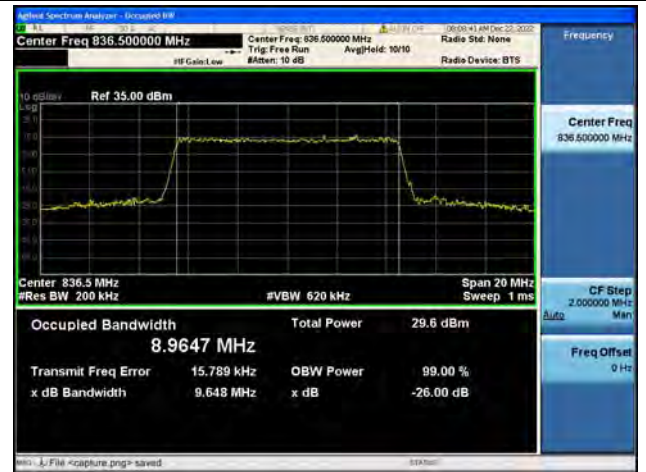
Band5 / 10MHz / QPSK/ Low CH



Band5 / 10MHz / 16QAM/ Low CH



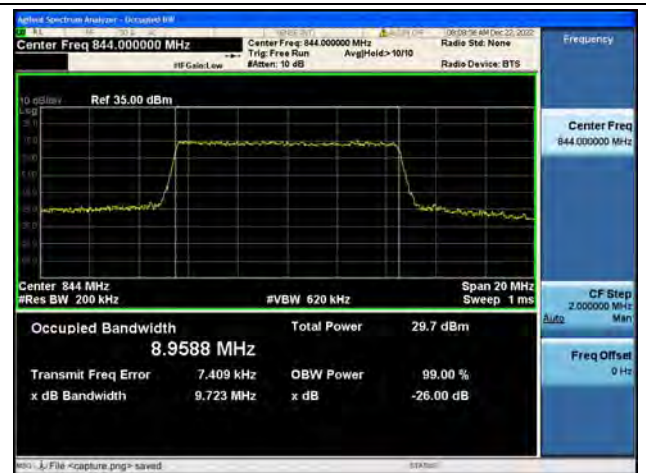
Band5 / 10MHz / QPSK/ Mid CH



Band5 / 10MHz / 16QAM/ Mid CH



Band5 / 10MHz / QPSK/ High CH



Band5 / 10MHz / 16QAM/ High CH



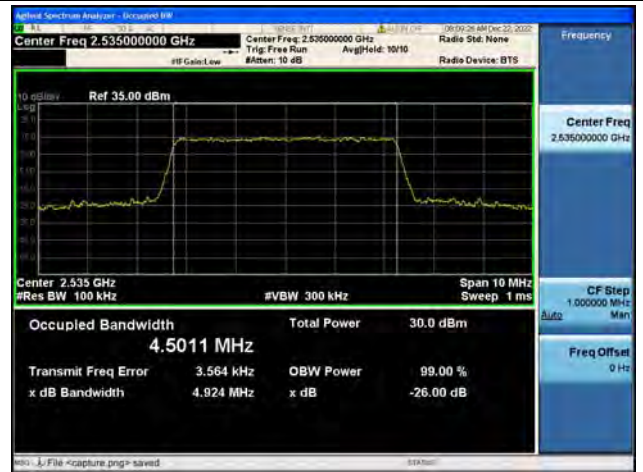
Band7 / 5MHz / QPSK/ Low CH



Band7 / 5MHz / 16QAM/ Low CH



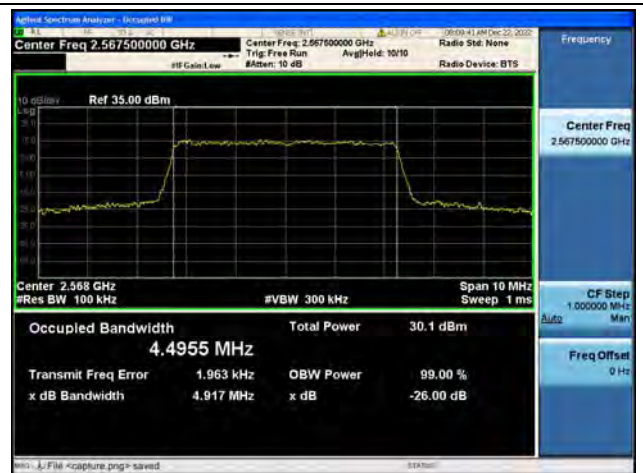
Band7 / 5MHz / QPSK/ Mid CH



Band7 / 5MHz / 16QAM/ Mid CH



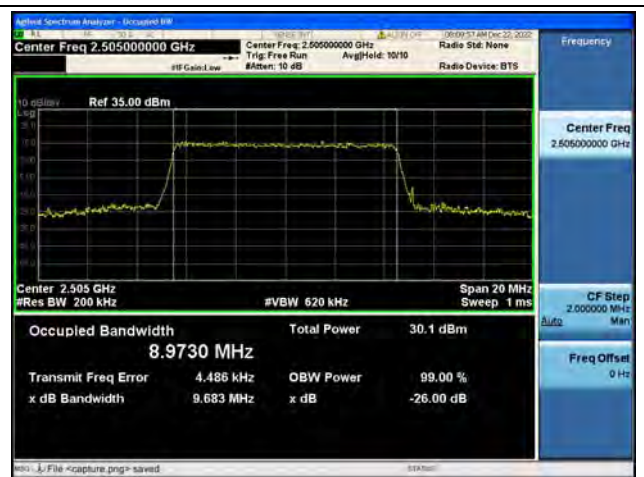
Band7 / 5MHz / QPSK/ High CH



Band7 / 5MHz / 16QAM/ High CH



Band7 / 10MHz / QPSK/ Low CH



Band7 / 10MHz / 16QAM/ Low CH



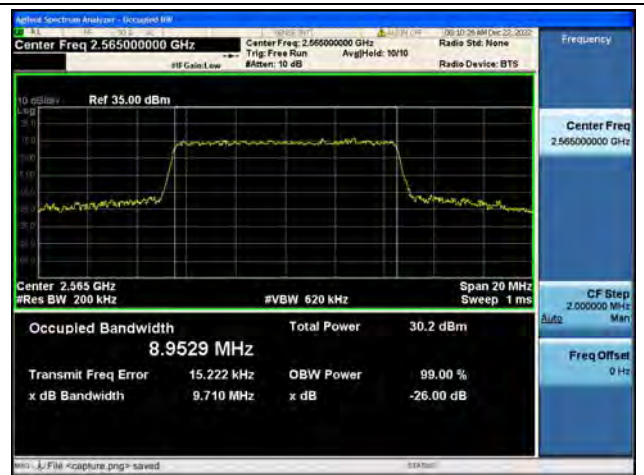
Band7 / 10MHz / QPSK/ Mid CH



Band7 / 10MHz / 16QAM/ Mid CH



Band7 / 10MHz / QPSK/ High CH



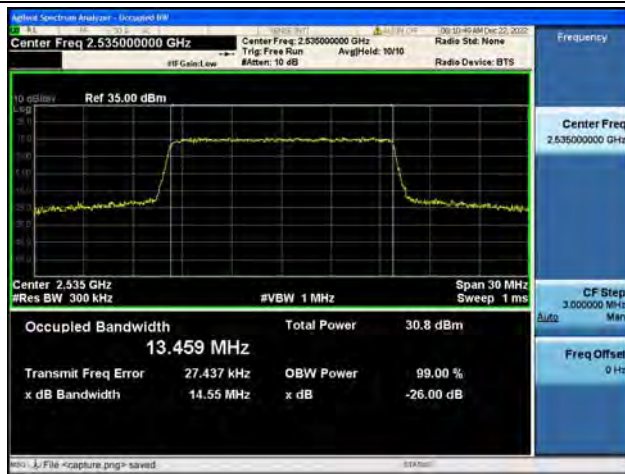
Band7 / 10MHz / 16QAM/ High CH



Band7 / 15MHz / QPSK/ Low CH



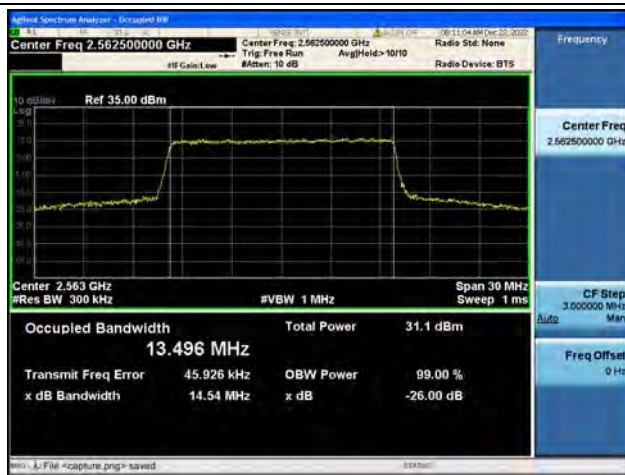
Band7 / 15MHz / 16QAM/ Low CH



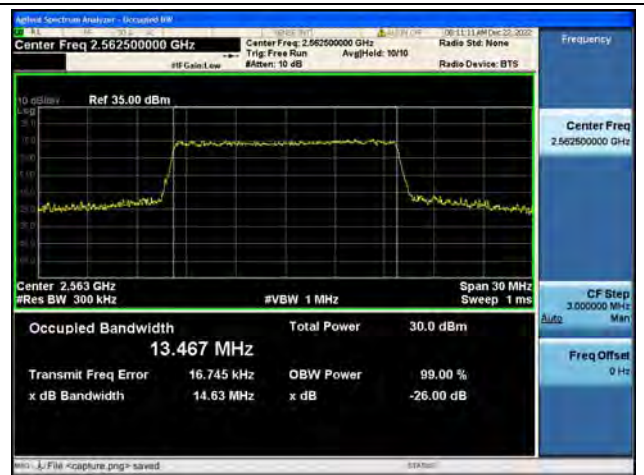
Band7 / 15MHz / QPSK/ Mid CH



Band7 / 15MHz / 16QAM/ Mid CH



Band7 / 15MHz / QPSK/ High CH



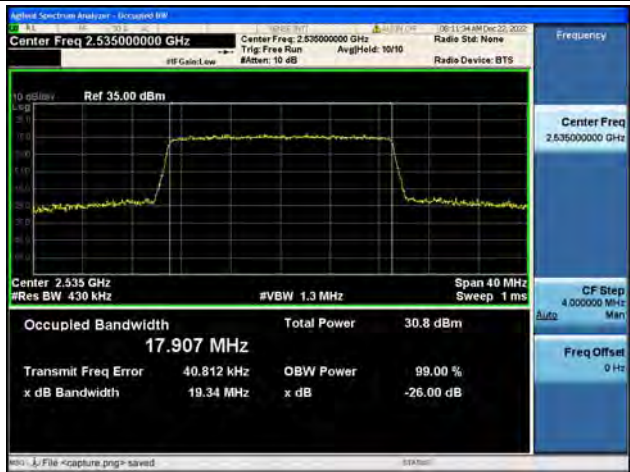
Band7 / 15MHz / 16QAM/ High CH



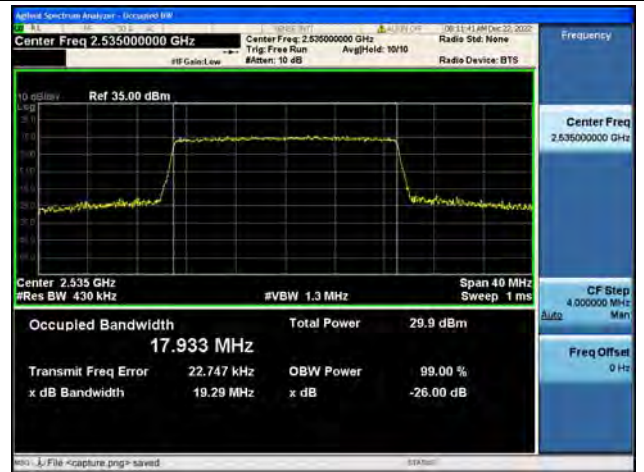
Band7 / 20MHz / QPSK/ Low CH



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



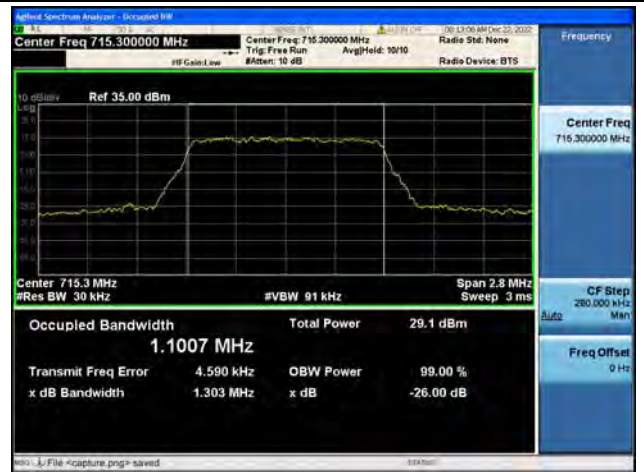
Band12 / 1.4MHz / QPSK/ Mid CH



Band12 / 1.4MHz / 16QAM/ Mid CH



Band12 / 1.4MHz / QPSK/ High CH



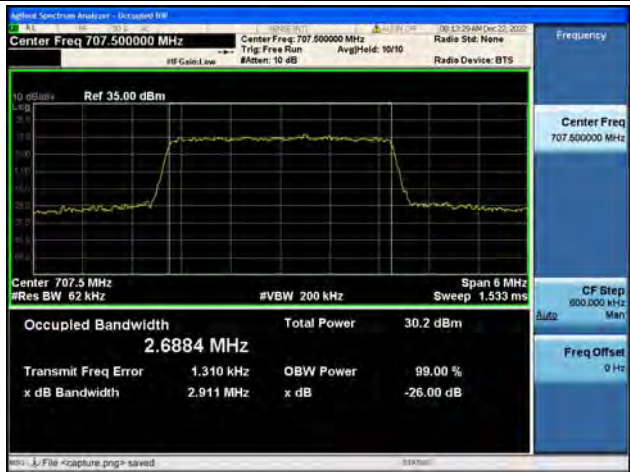
Band12 / 1.4MHz / 16QAM/ High CH



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

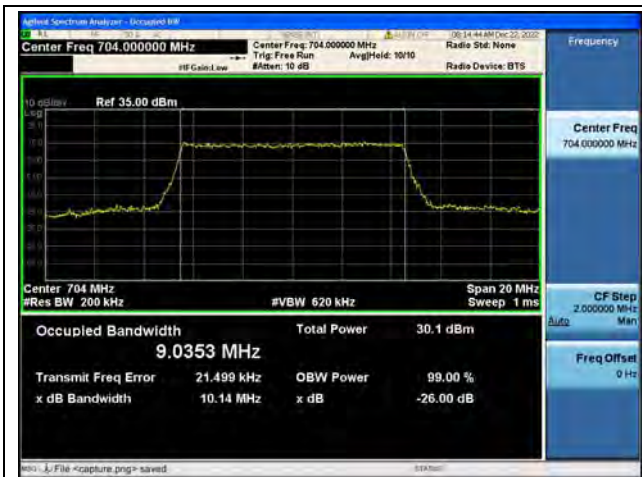


Band12 / 5MHz / QPSK/ High CH



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



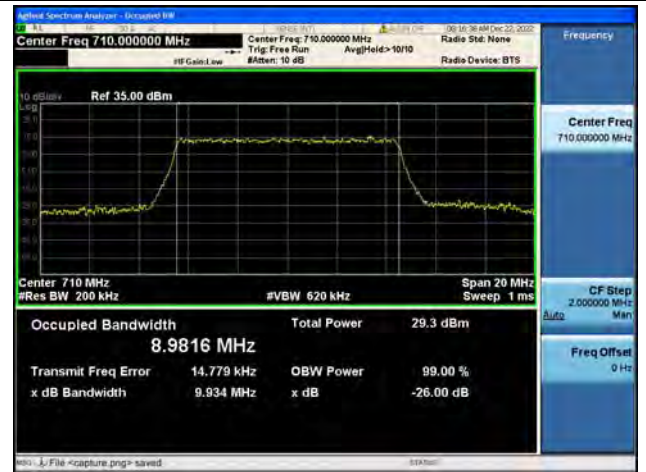
Band17 / 10MHz / QPSK/ Low CH



Band17 / 10MHz / 16QAM/ Low CH



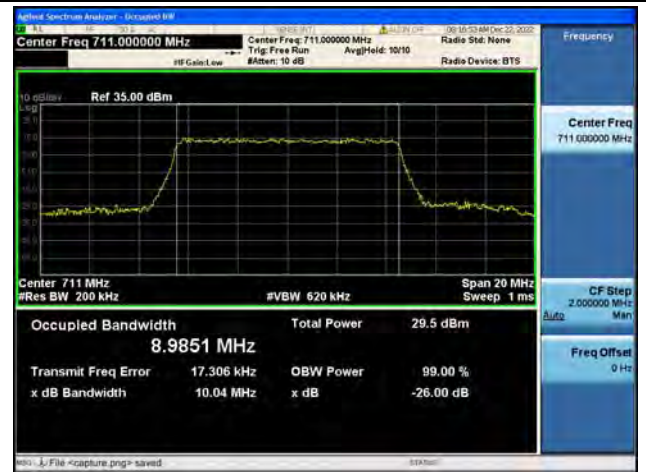
Band17 / 10MHz / QPSK/ Mid CH



Band17 / 10MHz / 16QAM/ Mid CH



Band17 / 10MHz / QPSK/ High CH



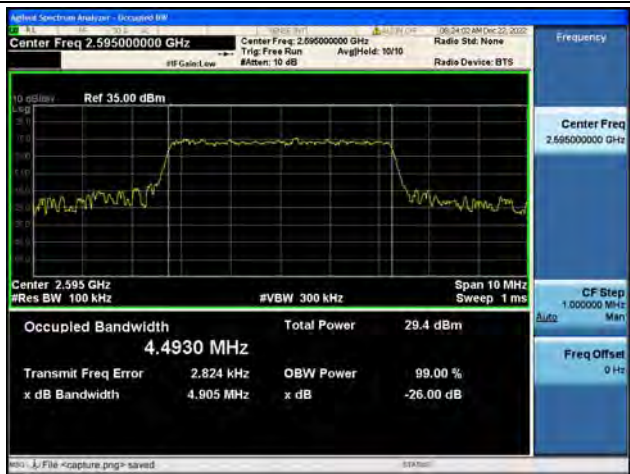
Band17 / 10MHz / 16QAM/ High CH



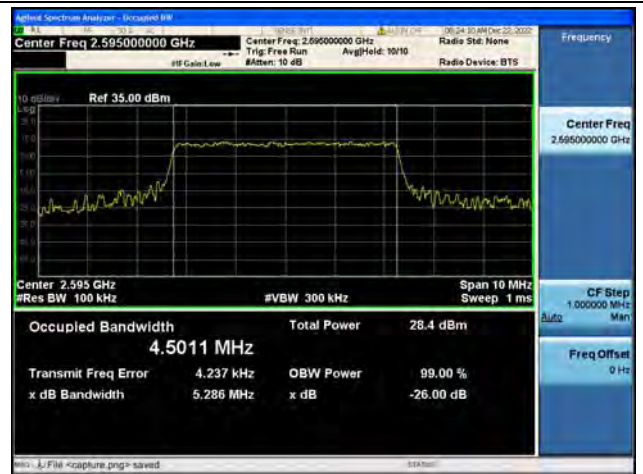
Band38 / 5MHz / QPSK/ Low CH



Band38 / 5MHz / 16QAM/ Low CH



Band38 / 5MHz / QPSK/ Mid CH



Band38 / 5MHz / 16QAM/ Mid CH



Band38 / 5MHz / QPSK/ High CH



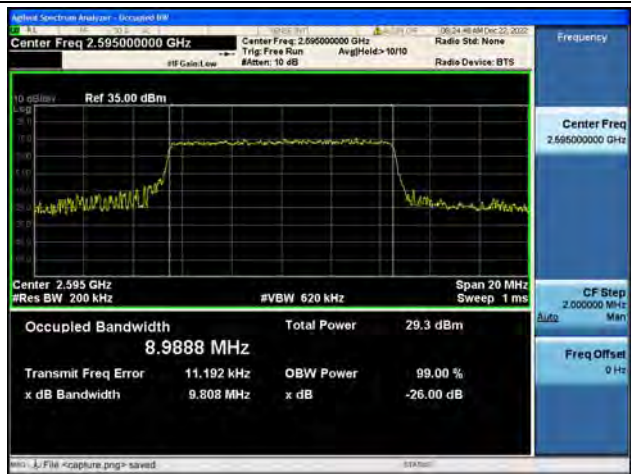
Band38 / 5MHz / 16QAM/ High CH



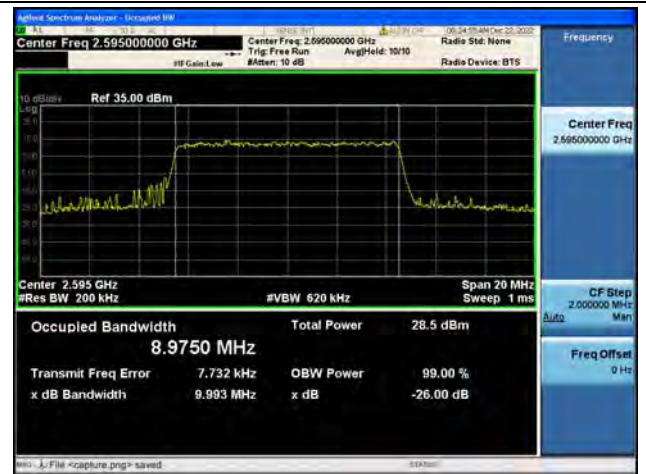
Band38 / 10MHz / QPSK/ Low CH



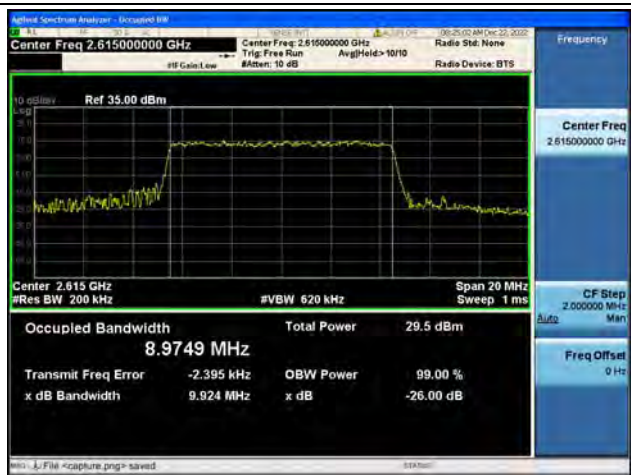
Band38 / 10MHz / 16QAM/ Low CH



Band38 / 10MHz / QPSK/ Mid CH



Band38 / 10MHz / 16QAM/ Mid CH



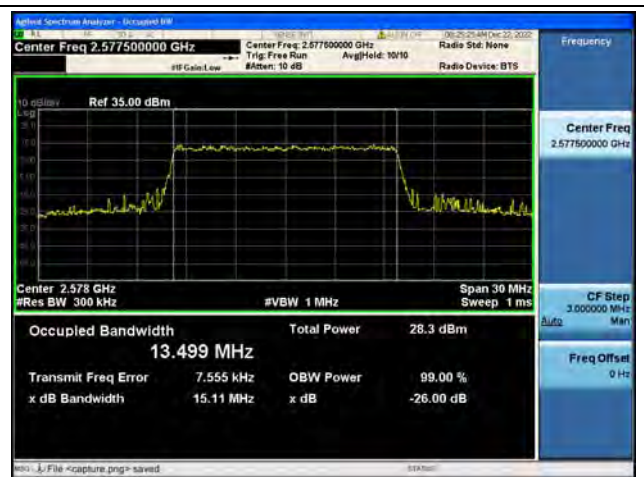
Band38 / 10MHz / QPSK/ High CH



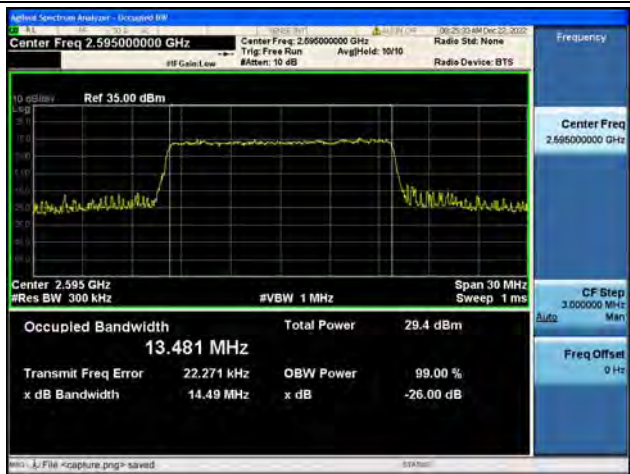
Band38 / 10MHz / 16QAM/ High CH



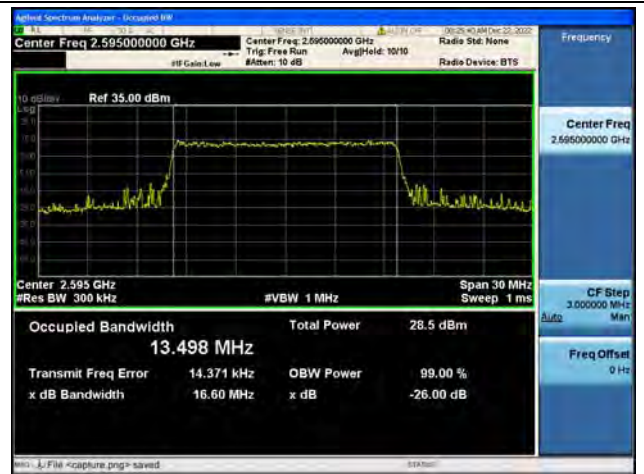
Band38 / 15MHz / QPSK/ Low CH



Band38 / 15MHz / 16QAM/ Low CH



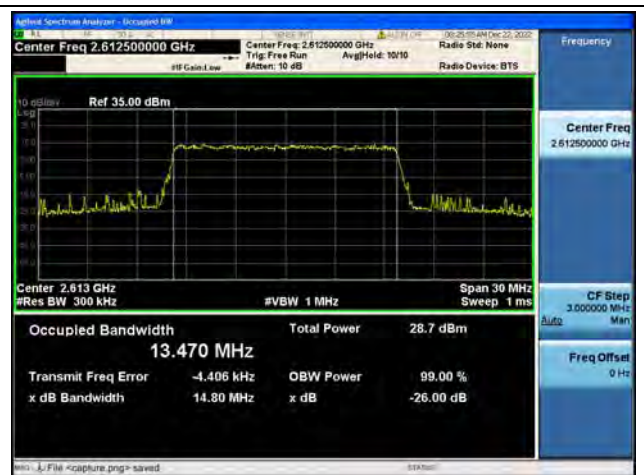
Band38 / 15MHz / QPSK/ Mid CH



Band38 / 15MHz / 16QAM/ Mid CH



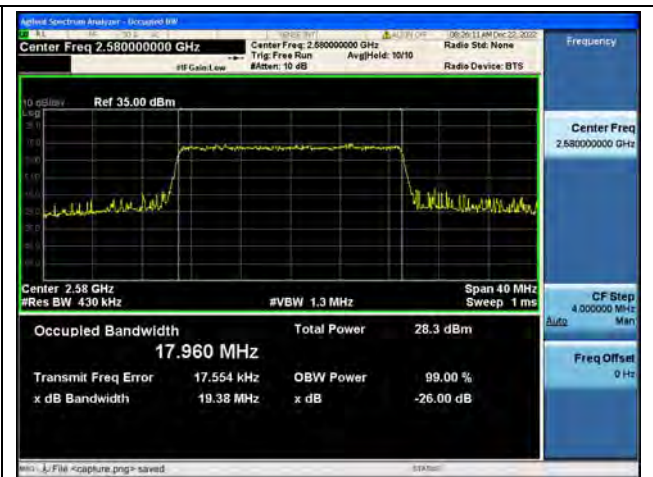
Band38 / 15MHz / QPSK/ High CH



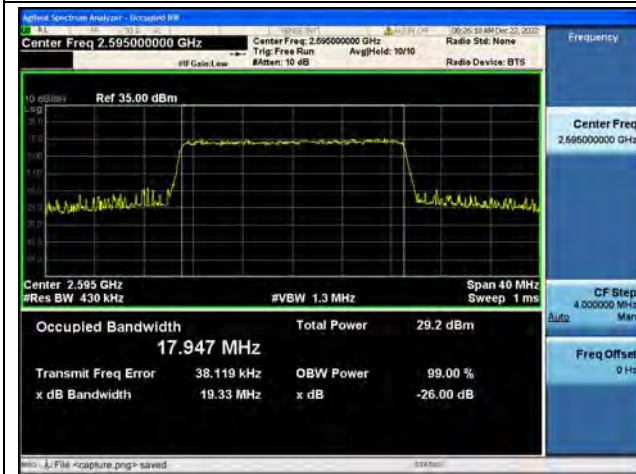
Band38 / 15MHz / 16QAM/ High CH



Band38 / 20MHz / QPSK/ Low CH



Band38 / 20MHz / 16QAM/ Low CH



Band38 / 20MHz / QPSK/ Mid CH



Band38 / 20MHz / 16QAM/ Mid CH



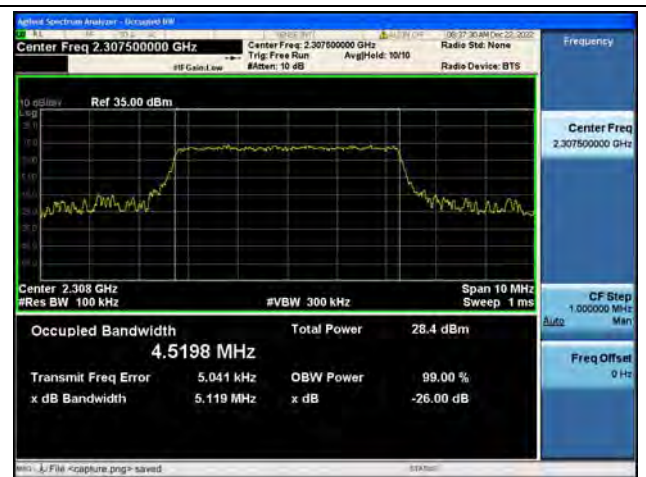
Band38 / 20MHz / QPSK/ High CH



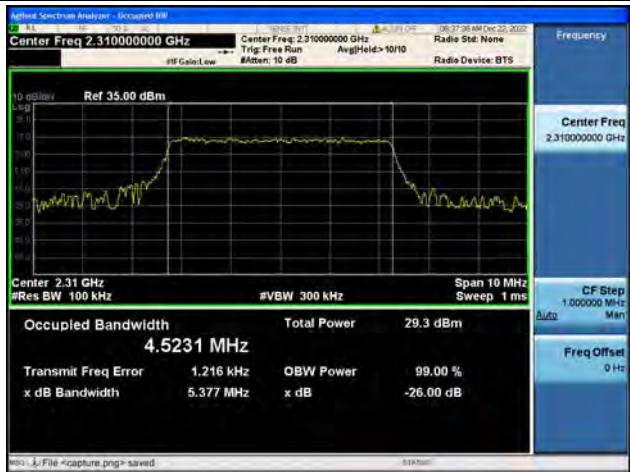
Band38 / 20MHz / 16QAM/ High CH



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

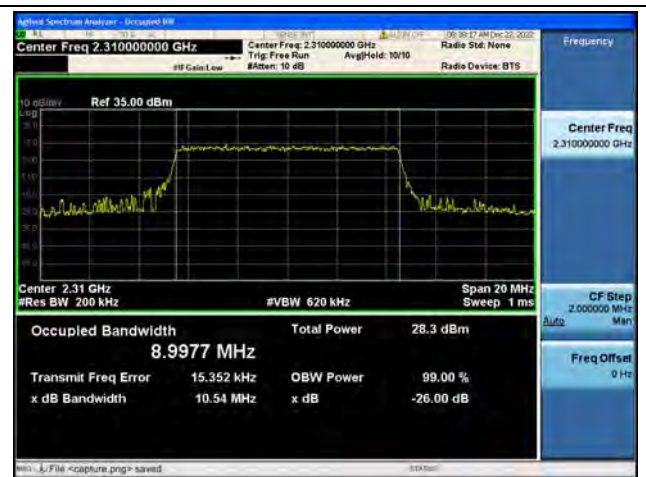


Band40-1 / 5MHz / 16QAM/ High CH

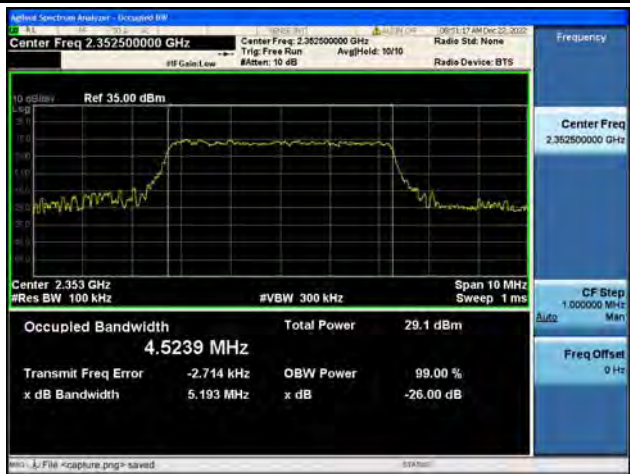




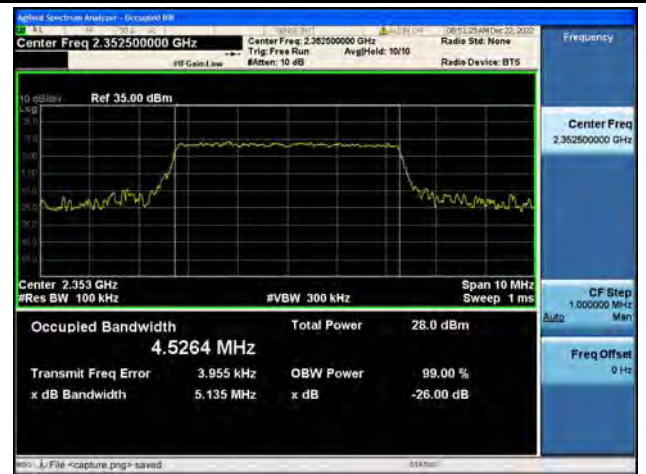
Band40-1 / 10MHz / QPSK/ Mid CH



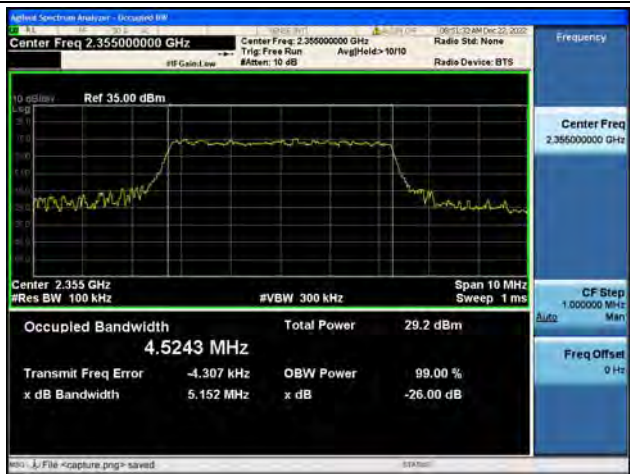
Band40-1 / 10MHz / 16QAM/ Mid CH



Band40-2 / 5MHz / QPSK/ Low CH



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



Band40-2 / 5MHz / QPSK/ Mid CH



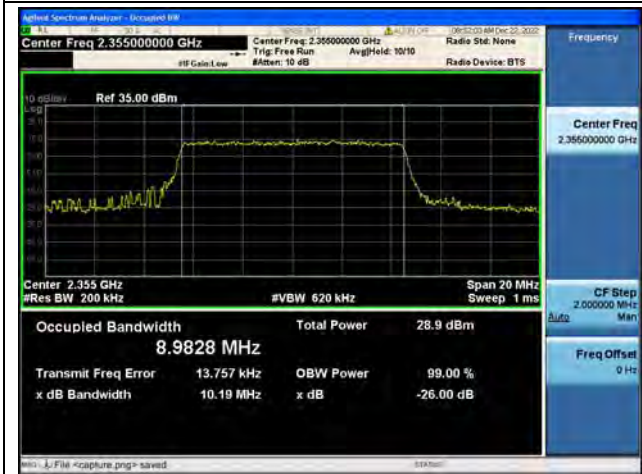
Band40-2 / 5MHz / 16QAM/ Mid CH



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



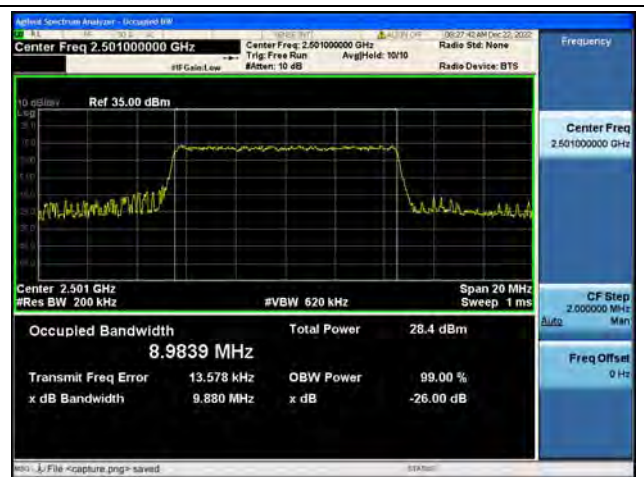
Band41 / 5MHz / QPSK/ High CH



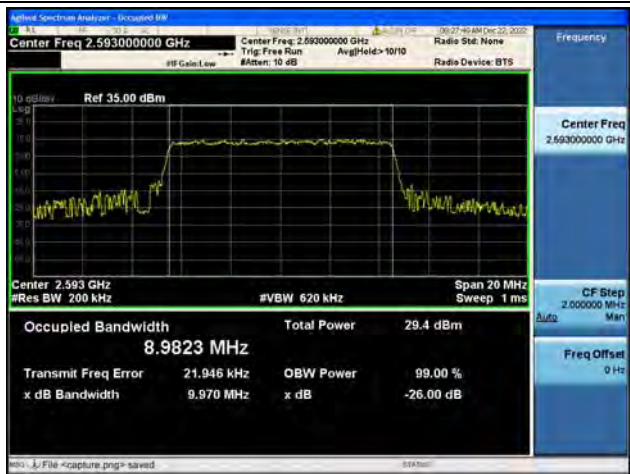
Band41 / 5MHz / 16QAM/ High CH



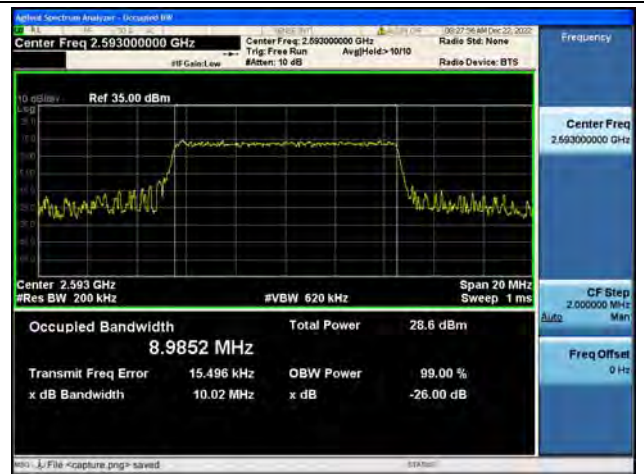
Band41 / 10MHz / QPSK/ Low CH



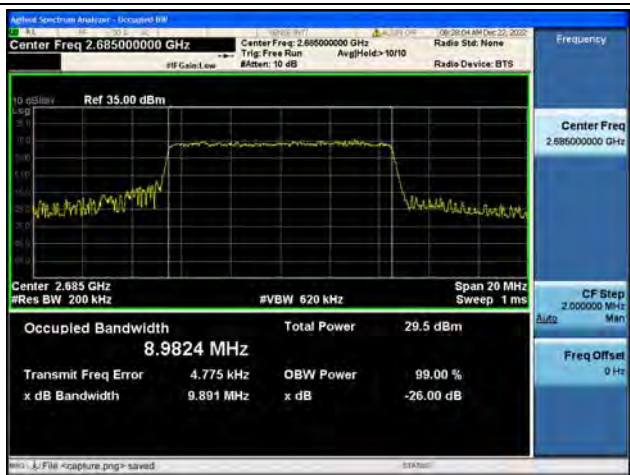
Band41 / 10MHz / 16QAM/ Low CH



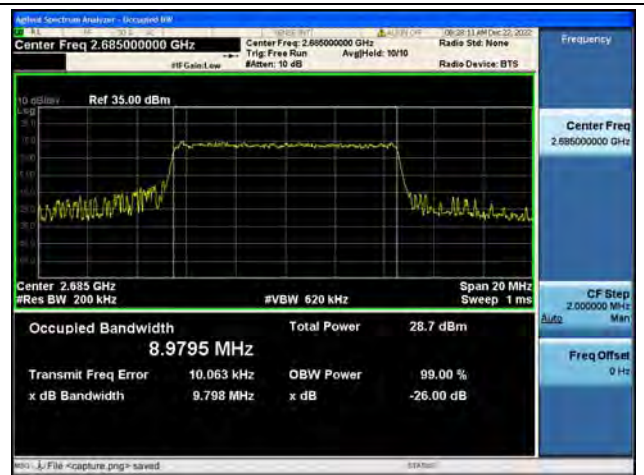
Band41 / 10MHz / QPSK/ Mid CH



Band41 / 10MHz / 16QAM/ Mid CH



Band41 / 10MHz / QPSK/ High CH



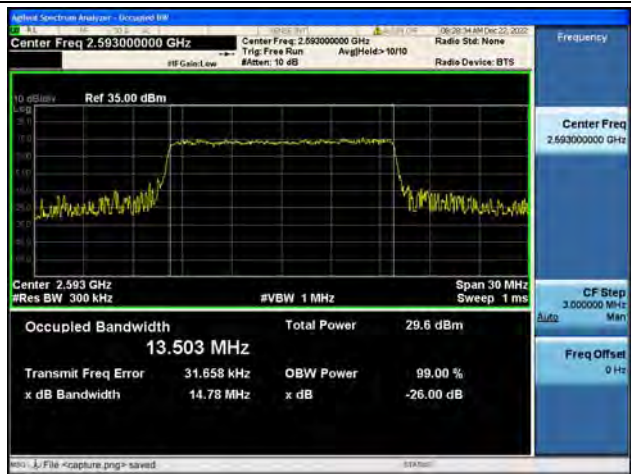
Band41 / 10MHz / 16QAM/ High CH



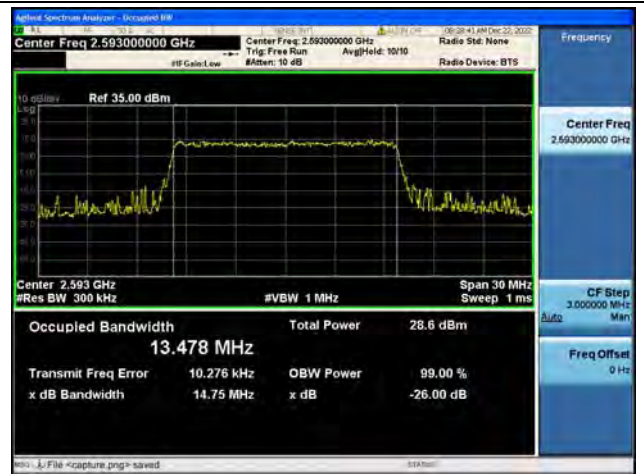
Band41 / 15MHz / QPSK/ Low CH



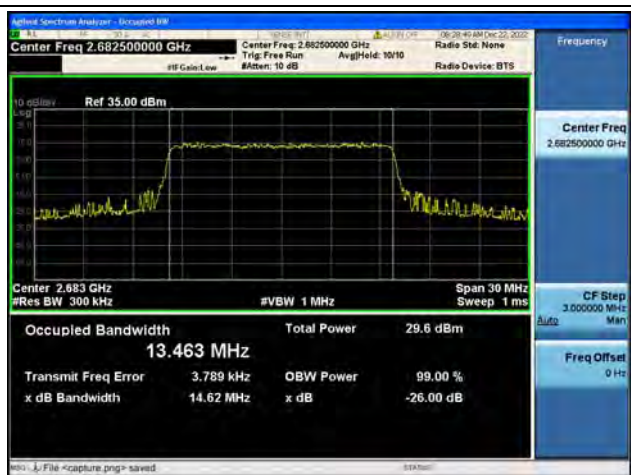
Band41 / 15MHz / 16QAM/ Low CH



Band41 / 15MHz / QPSK/ Mid CH



Band41 / 15MHz / 16QAM/ Mid CH



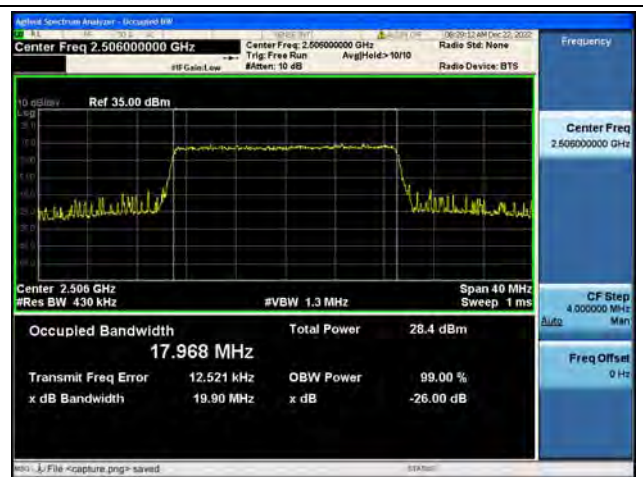
Band41 / 15MHz / QPSK/ High CH



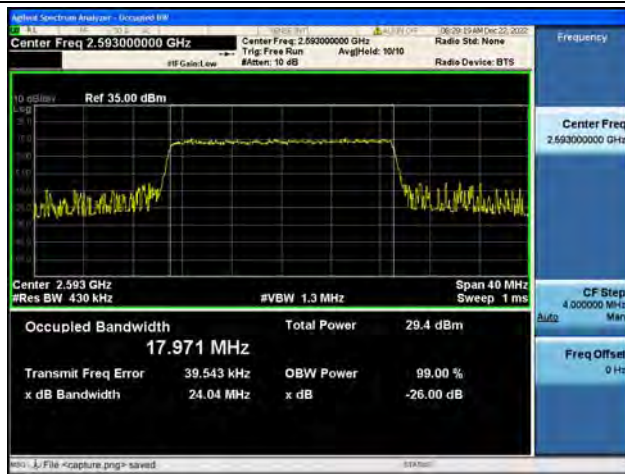
Band41 / 15MHz / 16QAM/ High CH



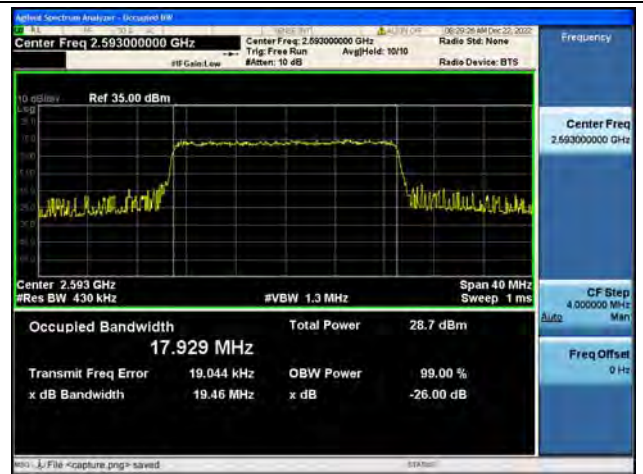
Band41 / 20MHz / QPSK/ Low CH



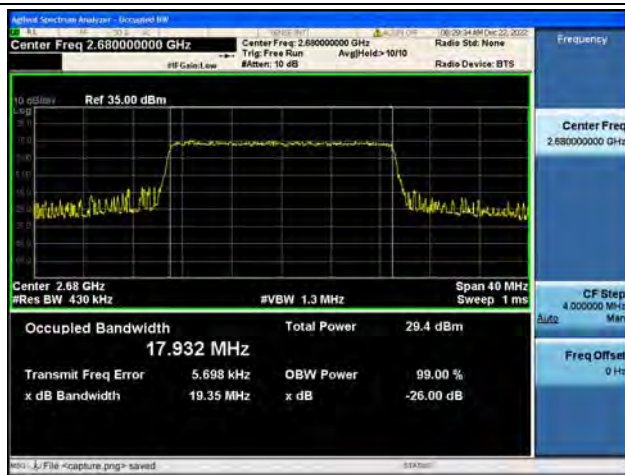
Band41 / 20MHz / 16QAM/ Low CH



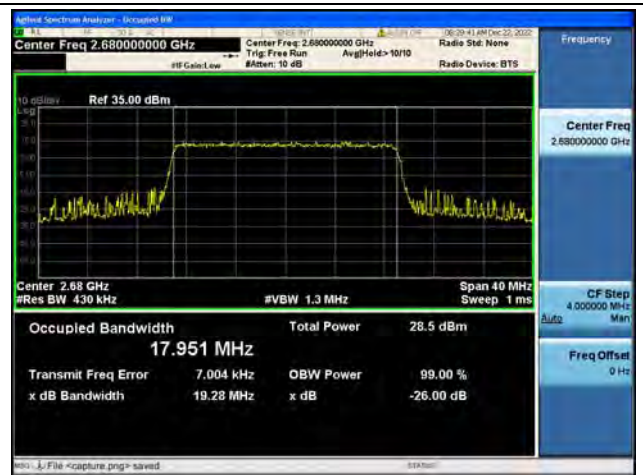
Band41 / 20MHz / QPSK/ Mid CH



Band41 / 20MHz / 16QAM/ Mid CH



Band41 / 20MHz / QPSK/ High CH



Band41 / 20MHz / 16QAM/ High CH

## 2.3. Frequency Stability

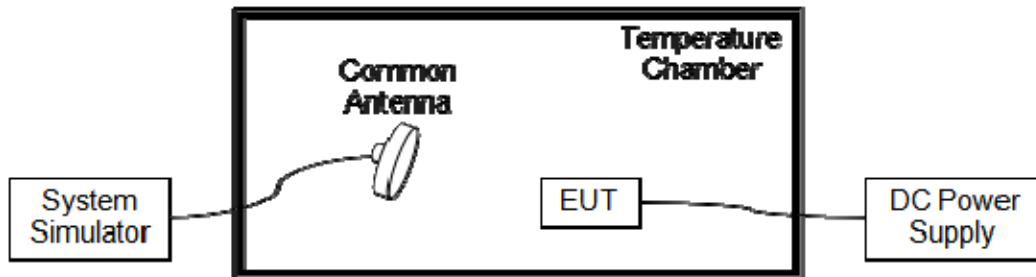
### 2.3.1. Requirement

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.

| <b>LTE Band 2, QPSK, Channel 18900, Frequency 1880.0MHz</b> |                    |                 |                      |                        |               |
|---|--------------------|-----------------|----------------------|------------------------|---------------|
| <b>Limit =Within Authorized Band</b>                        |                    |                 |                      |                        |               |
| <b>Voltage (%)</b>  | <b>Power (VDC)</b> | <b>Temp(°C)</b> | <b>Fre. Dev.(Hz)</b> | <b>Deviation (ppm)</b> | <b>Result</b> |
| 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                    |               |
| BATT.ENDPOINT   | 3.00               | +20             | 50                   | 0.027                  |               |

| <b>LTE Band 4, QPSK, Channel 20175, Frequency 1732.5MHz</b> |                    |                 |                      |                        |               |
|---|--------------------|-----------------|----------------------|------------------------|---------------|
| <b>Limit =Within Authorized Band</b>                        |                    |                 |                      |                        |               |
| <b>Voltage (%)</b>  | <b>Power (VDC)</b> | <b>Temp(°C)</b> | <b>Fre. Dev.(Hz)</b> | <b>Deviation (ppm)</b> | <b>Result</b> |
| 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                    |               |
| BATT.ENDPOINT   | 3.00               | +20             | 42                   | 0.024                  |               |





| LTE Band 5, QPSK, Channel 20525, Frequency 836.5MHz |             |          |               |                 |        |
|---|-------------|----------|---------------|-----------------|--------|
| 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 |             |          |               |                 |        |
|--|-------------|----------|---------------|-----------------|--------|
| 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 |             |          |               |                 |        |
|--|-------------|----------|---------------|-----------------|--------|
| 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 |             |          |               |                 |        |
|--|-------------|----------|---------------|-----------------|--------|
| 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 |             |          |               |                 |        |
|---|-------------|----------|---------------|-----------------|--------|
| 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 |             |           |                |                 |        |
|--|-------------|-----------|----------------|-----------------|--------|
| 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 |             |           |                |                 |        |
|---|-------------|-----------|----------------|-----------------|--------|
| 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           |        |

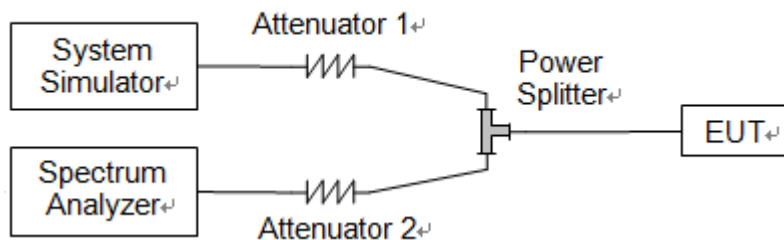
| LTE Band 41, QPSK, Channel 40620, Frequency 2593MHz |             |          |               |                 |        |
|---|-------------|----------|---------------|-----------------|--------|
| Limit =Within Authorized Band                       |             |          |               |                 |        |
| 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

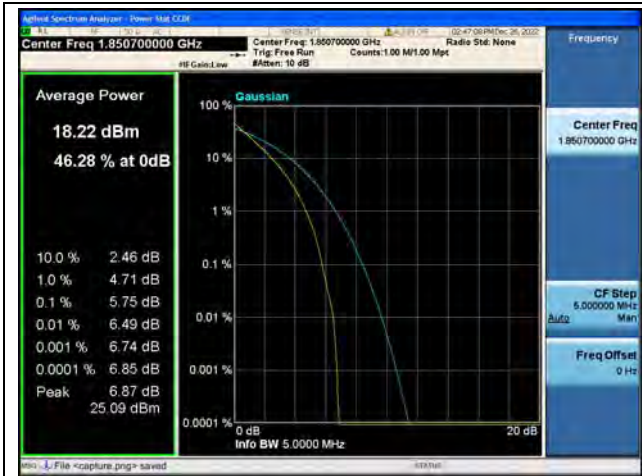
Record the maximum PAPR level associated with a probability of 0.1%.



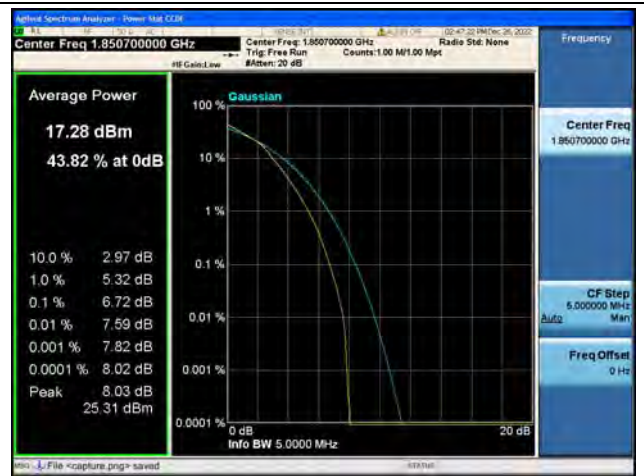
| LTE Band 2 |               |            |               |           |         |
|------------|---------------|------------|---------------|-----------|---------|
| BW(MHz)    | Channel Level | Modulation | PAR Radio(dB) | Limit(dB) | Verdict |
| 1.4        | Low           | QPSK       | 5.75          | <=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    |



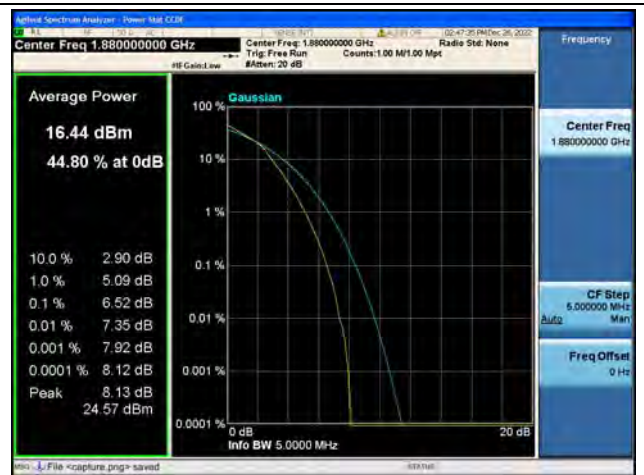
Band2 / 1.4MHz / Low CH / QPSK



Band2 / 1.4MHz / Low CH / 16QAM



Band2 / 1.4MHz / Mid CH / QPSK



Band2 / 1.4MHz / Mid CH / 16QAM

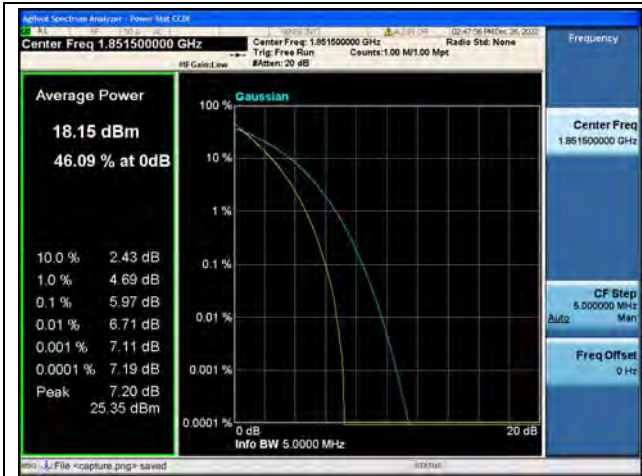


Band2 / 1.4MHz / High CH / QPSK

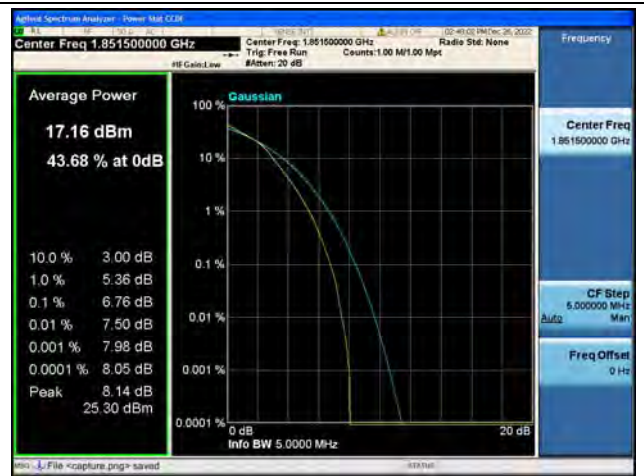


Band2 / 1.4MHz / High CH / 16QAM

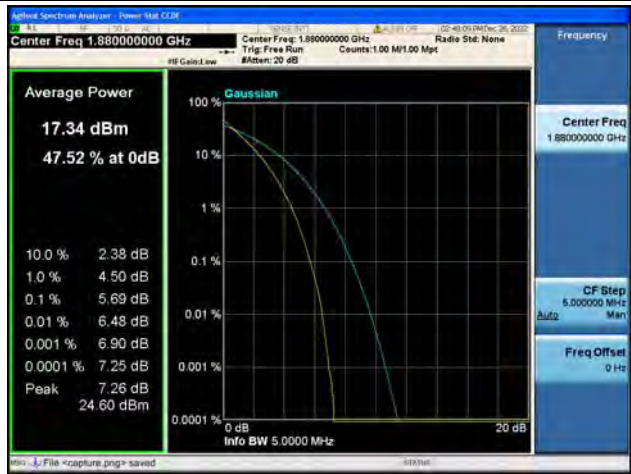




Band2 / 3MHz / Low CH / QPSK



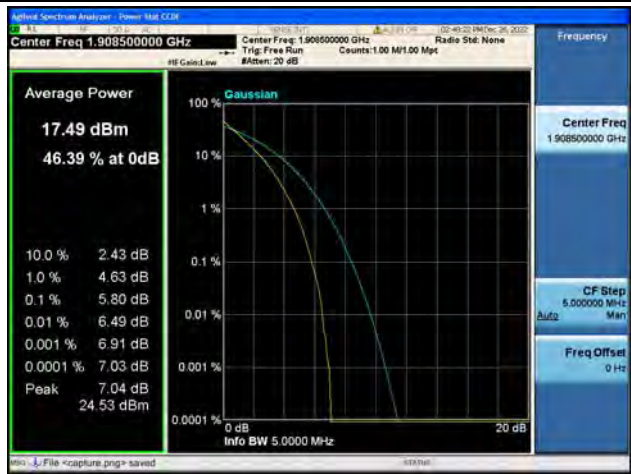
Band2 / 3MHz / Low CH / 16QAM



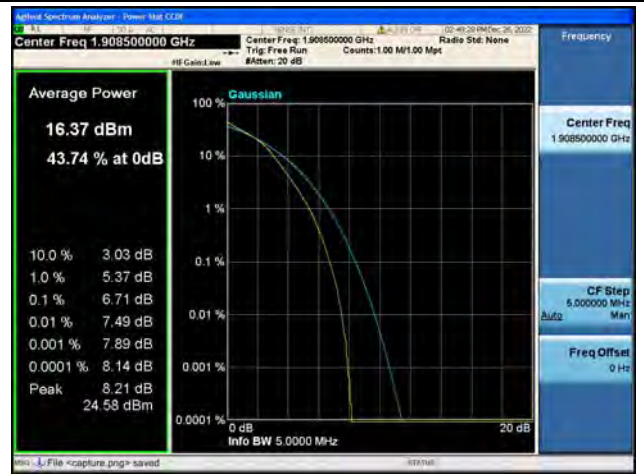
Band2 / 3MHz / Mid CH / QPSK



Band2 / 3MHz / Mid CH / 16QAM



Band2 / 3MHz / High CH / QPSK



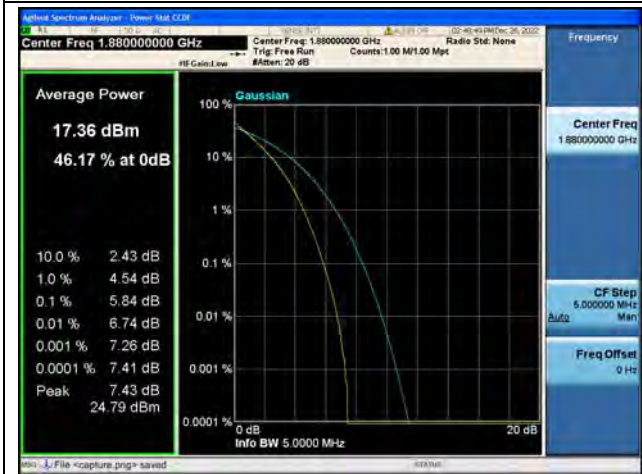
Band2 / 3MHz / High CH / 16QAM



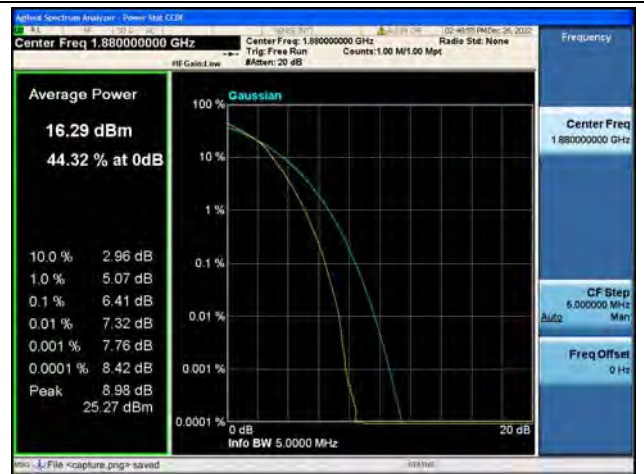
Band2 / 5MHz / Low CH / QPSK



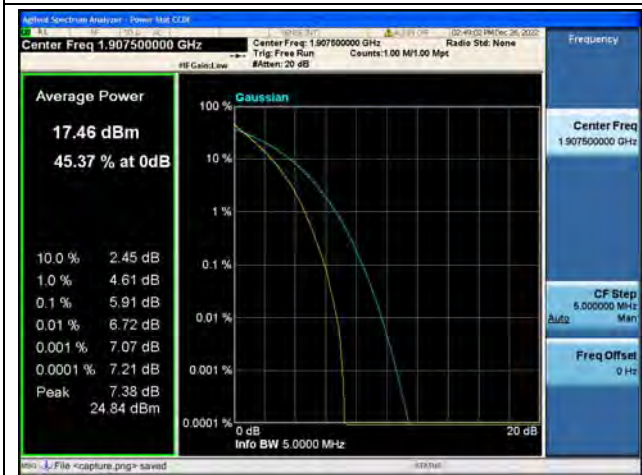
Band2 / 5MHz / Low CH / 16QAM



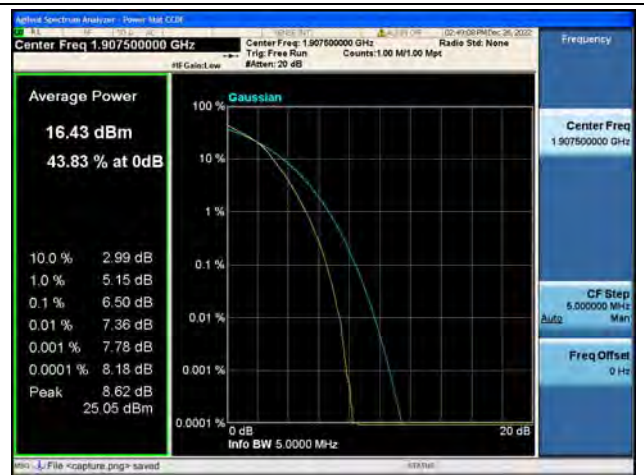
Band2 / 5MHz / Mid CH / QPSK



Band2 / 5MHz / Mid CH / 16QAM



Band2 / 5MHz / High CH / QPSK



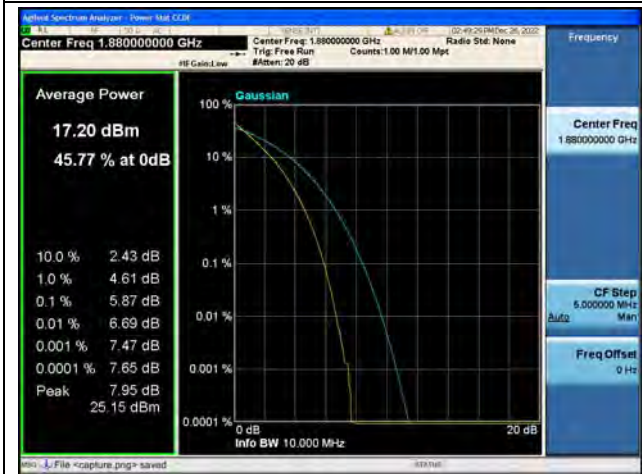
Band2 / 5MHz / High CH / 16QAM



Band2 / 10MHz / Low CH / QPSK



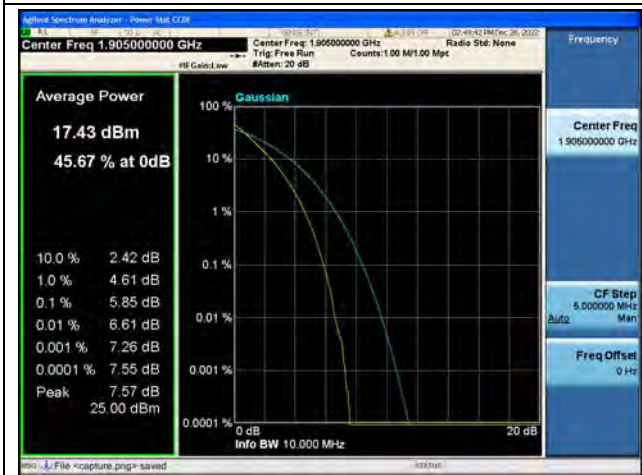
Band2 / 10MHz / Low CH / 16QAM



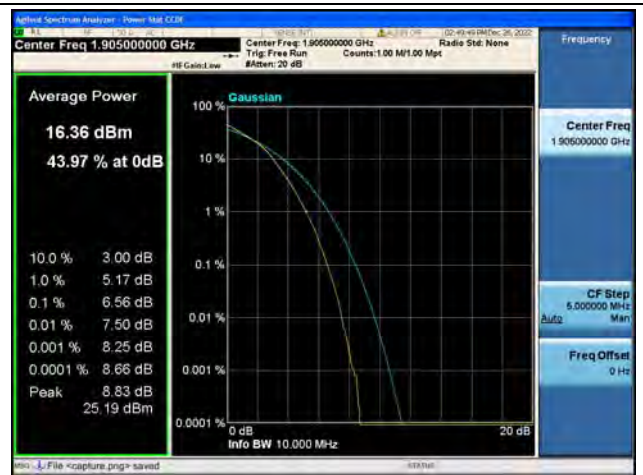
Band2 / 10MHz / Mid CH / QPSK



Band2 / 10MHz / Mid CH / 16QAM



Band2 / 10MHz / High CH / QPSK



Band2 / 10MHz / High CH / 16QAM



Band2 / 15MHz / Low CH / QPSK



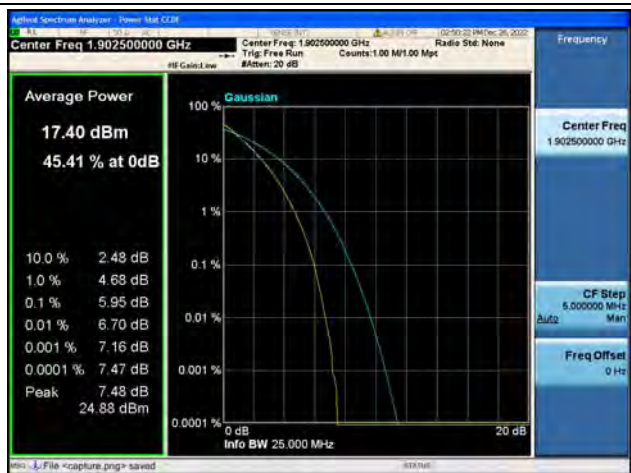
Band2 / 15MHz / Low CH / 16QAM



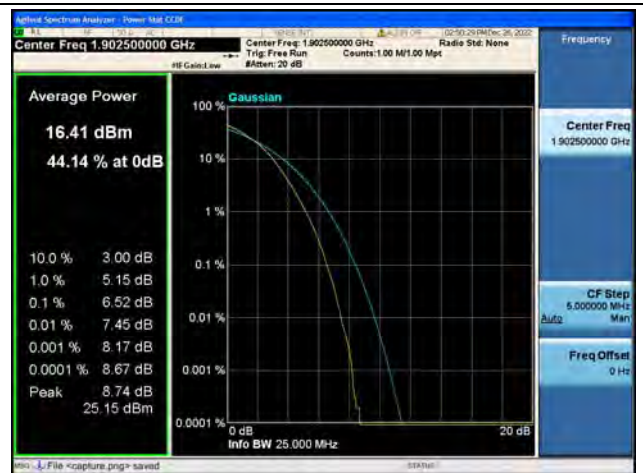
Band2 / 15MHz / Mid CH / QPSK



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



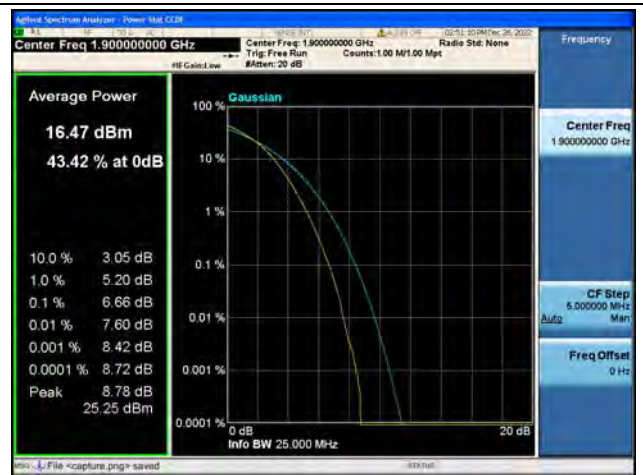
Band2 / 20MHz / Mid CH / QPSK



Band2 / 20MHz / Mid CH / 16QAM



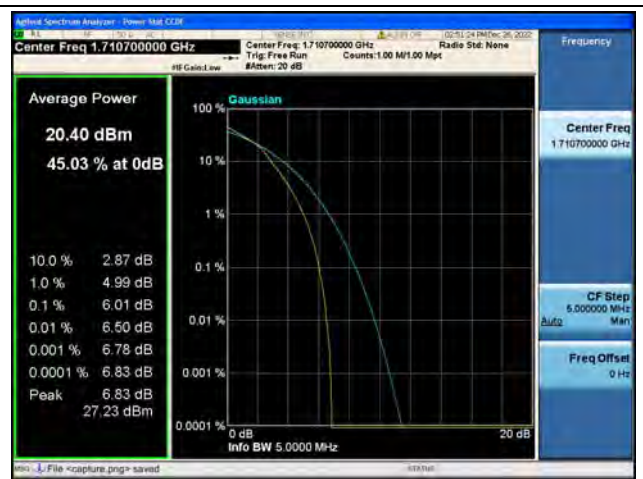
Band2 / 20MHz / High CH / QPSK



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



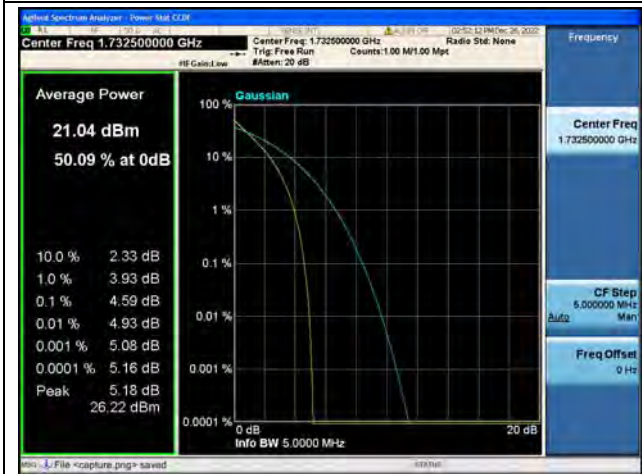
Band4 / 1.4MHz / High CH / 16QAM



Band4 / 3MHz / Low CH / QPSK



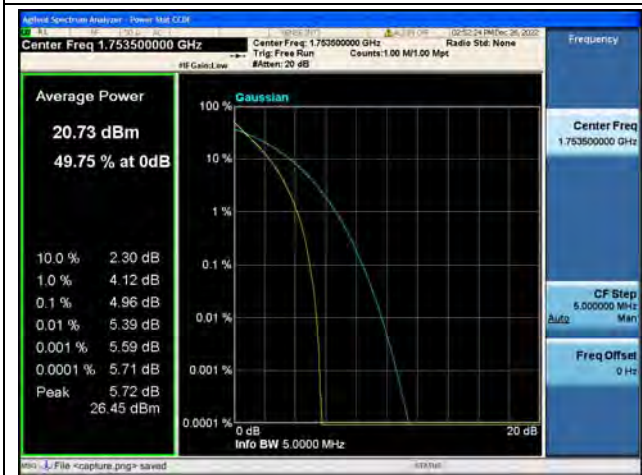
Band4 / 3MHz / Low CH / 16QAM



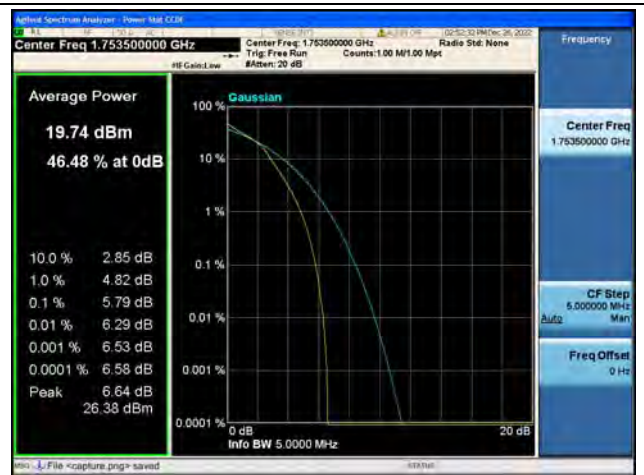
Band4 / 3MHz / Mid CH / QPSK



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



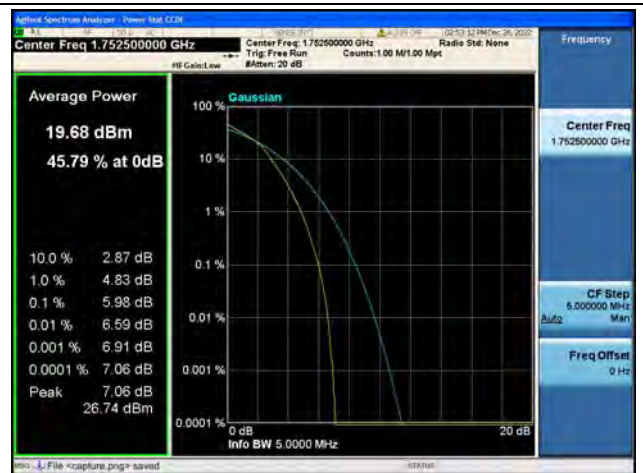
Band4 / 5MHz / Mid CH / QPSK



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



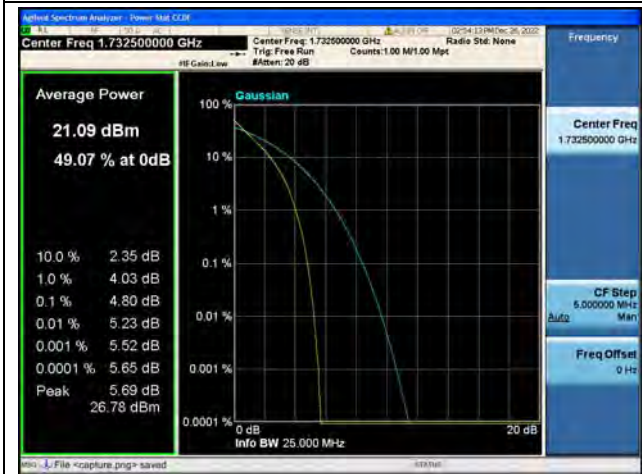
Band4 / 10MHz / High CH / 16QAM



Band4 / 15MHz / Low CH / QPSK



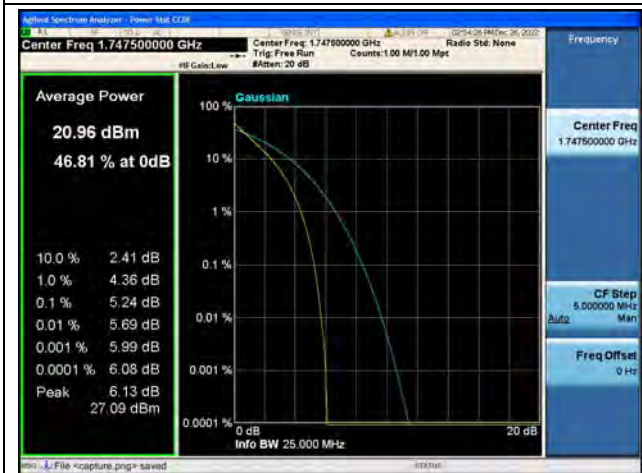
Band4 / 15MHz / Low CH / 16QAM



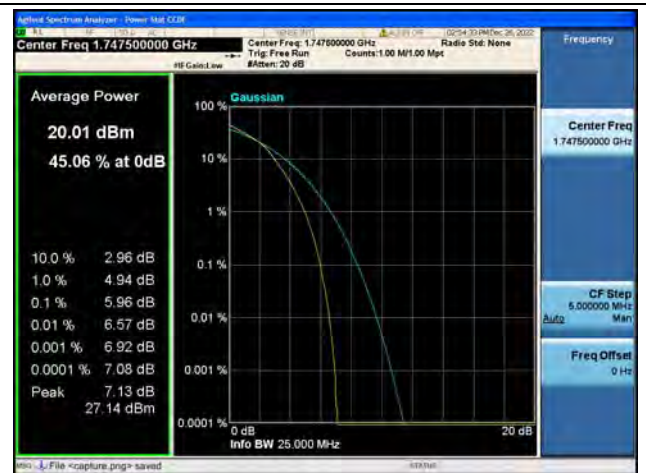
Band4 / 15MHz / Mid CH / QPSK



Band4 / 15MHz / Mid CH / 16QAM



Band4 / 15MHz / High CH / QPSK



Band4 / 15MHz / High CH / 16QAM



Band4 / 20MHz / Low CH / QPSK



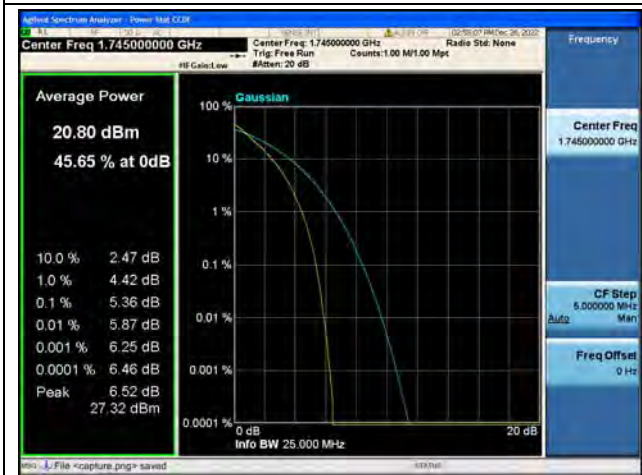
Band4 / 20MHz / Low CH / 16QAM



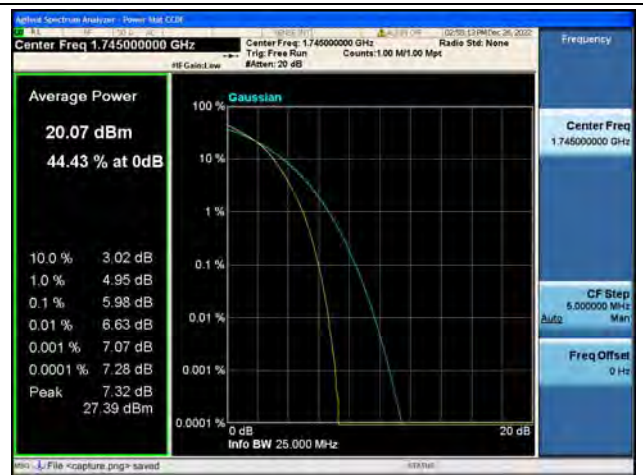
Band4 / 20MHz / Mid CH / QPSK



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.

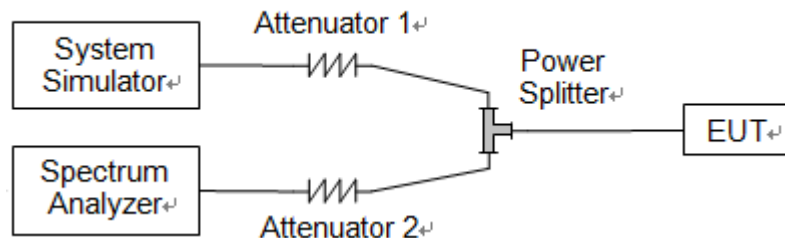
Additional requirement for LTE Band 7/38/41:

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



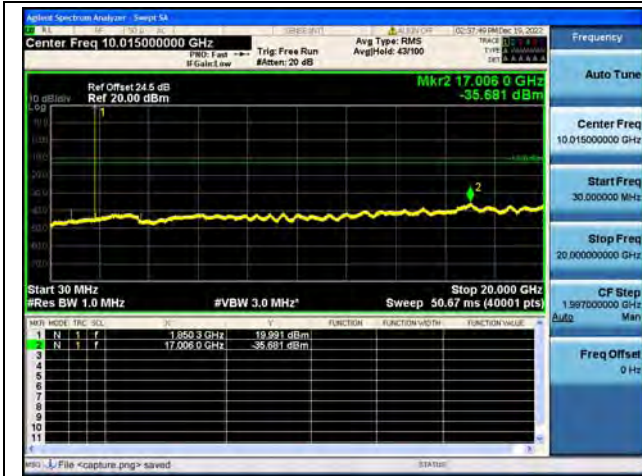
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum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

### 2.5.3. Test Procedure

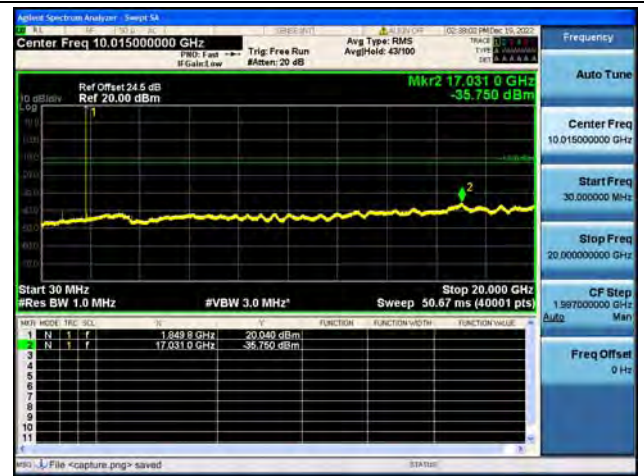
KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.



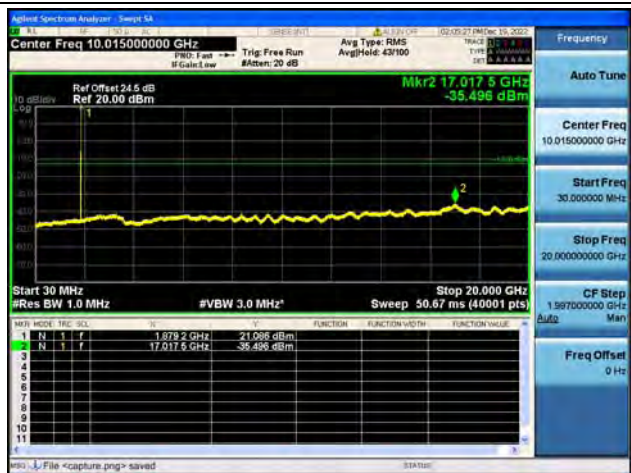
2.5.4. Test Result



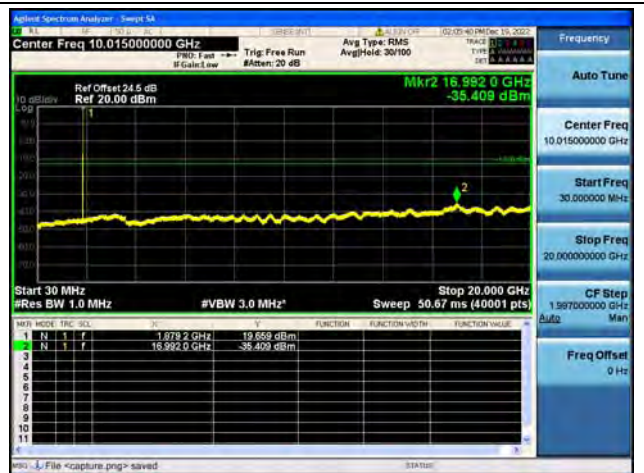
Band2 / 1.4MHz / Low CH / QPSK



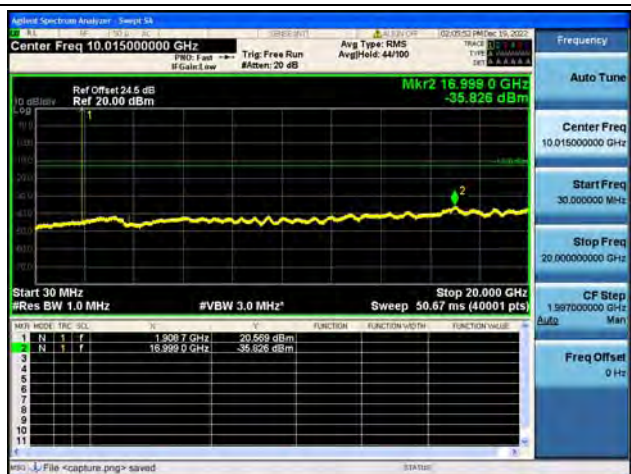
Band2 / 1.4MHz / Low CH / 16QAM



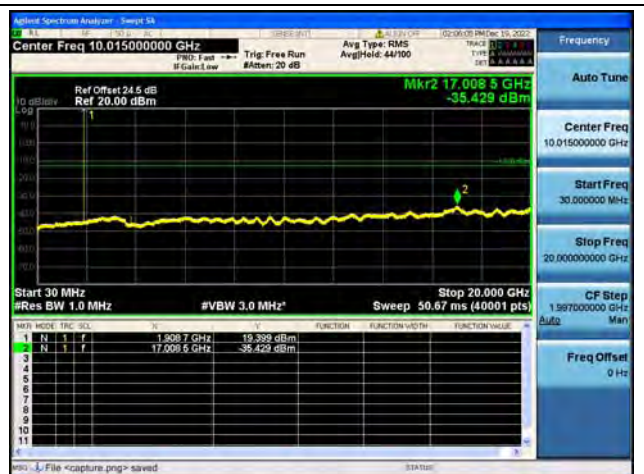
Band2 / 1.4MHz / Mid CH / QPSK



Band2 / 1.4MHz / Mid CH / 16QAM



Band2 / 1.4MHz / High CH / QPSK



Band2 / 1.4MHz / High CH / 16QAM