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## Report On

Application for Grant of Equipment Authorization of the  
Inseego Corp.

MIFI8000 Wireless Hotspot Modem

FCC CFR 47 Part 2 and 27: 2018

RSS-139 Issue 3: 2015

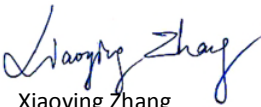
RSS-130 Issue 2: 2019

RSS-199 Issue 3: 2016

**Report No. 72142923B**

**May 2019**



|                           |                                                                                                                                                                                                           |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>REPORT ON</b>          | Radio Testing of the<br>Inseego Corp.<br>MIFI8000 Wireless Hotspot Modem                                                                                                                                  |
| <b>TEST REPORT NUMBER</b> | 72142923B                                                                                                                                                                                                 |
| <b>PREPARED FOR</b>       | Inseego Corp.<br>9605 Scranton Road, Suite 300<br>San Diego, CA 92121<br>USA                                                                                                                              |
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| <b>PREPARED BY</b>        | <br>Xiaoying Zhang<br><b>Name</b><br>Authorized Signatory<br>Title: EMC/Wireless Test Engineer                           |
| <b>APPROVED BY</b>        | <br>Ferdinand S. Custodio<br><b>Name</b><br>Authorized Signatory<br>Title: Senior EMC Test Engineer/Wireless Team Lead |
| <b>DATED</b>              | May 16, 2019                                                                                                                                                                                              |



## Revision History

| 72142923B<br>Inseego Corp.<br>MIFI8000 Wireless Hotspot Modem |              |                 |        |                   |                    |
|---------------------------------------------------------------|--------------|-----------------|--------|-------------------|--------------------|
| DATE                                                          | OLD REVISION | NEW REVISION    | REASON | PAGES<br>AFFECTED | APPROVED BY        |
| 05/16/2019                                                    | -            | Initial Release |        |                   | Ferdinand Custodio |
|                                                               |              |                 |        |                   |                    |
|                                                               |              |                 |        |                   |                    |
|                                                               |              |                 |        |                   |                    |
|                                                               |              |                 |        |                   |                    |

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## **SECTION 1**

### **REPORT SUMMARY**

Radio Testing of the  
Inseego Corp.  
MIFI8000 Wireless Hotspot Modem



## 1.1 INTRODUCTION

The information contained in this report is intended to show verification of the Inseego Corp. MIFI8000 Wireless Hotspot Modem to the requirements of the following:

- FCC CFR 47 Part 2 and 27: 2018
- RSS-139 Issue 3: 2015
- RSS-130 Issue 2: 2019
- RSS-199 Issue 3: 2016

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objective                     | To perform Radio Testing to determine the Equipment Under Test's (EUT's) compliance with the Test Specification, for the series of tests carried out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Manufacturer                  | Inseego Corp.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Product Marketing Name        | MiFi 8000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Model Number(s)               | MIFI8000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| FCC ID Number                 | PKRISGMIFI8000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| IC Number                     | 3229A-MIFI8000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Serial Number(s)              | AT071218B00062 (MIFI8000)<br>AZ280418A00044 (MIFI8800L)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Number of Samples Tested      | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Test Specification/Issue/Date | <ul style="list-style-type: none"><li>• FCC CRF 47 Part 2 and 27 (October 1, 2018)</li><li>• RSS-139 Issue 3: July 2015 – Advanced Wireless Services (AWS) Equipment Operating in the Bands 1710-1780 MHz and 2110-2180 MHz</li><li>• KDB412172 D01 Determining ERP and EIRP v01r01 August 07, 2015: Guidelines for determining the Effective Radiated Power (ERP) and Equivalent Isotropically Radiated Power (EIRP) of an RF transmitting system</li><li>• KDB971168 D01 Power Meas License Digital Systems v03r01: April 9 2018: Measurement guidance for certification of licensed digital transmitters</li><li>• RSS-130 Issue 2: February 2019 – Mobile Broadband Services (MBS) Equipment Operating in the Frequency Bands 617-652 MHz, 663-698 MHz, 698-756 MHz and 777-787 MHz</li><li>• RSS-199 Issue 3: December 2016 – Broadband Radio Service (BRS) Equipment Operating in the Band 2500-2690 MHz</li><li>• RSS-Gen Issue 5 Amendment1: March 2019 - General Requirements for Compliance of Radio Apparatus</li><li>• ANSI C63.26-2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services</li><li>• 3GPP TS 36.521-1 Version 15.2.0 Release 15: Evolved Universal Terrestrial Radio Access (E-UTRA); User</li></ul> |



Equipment (UE) Conformance Specification Radio  
Transmission and Reception; Part 1: Conformance Testing

- 3GPP TS 36.508 Version 15.3.0 Release 15: Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common Test Environments for User Equipment (UE) Conformance Testing

Start of Test July 06, 2018

Finish of Test May 12, 2019

Name of Engineer(s) Xiaoying Zhang

- Related Document(s)
- Supporting documents for EUT certification are separate exhibits.
  - 72139211B\_MIFI8800L\_FCC Part 27\_LTE Band 4 7 13 and 66\_RSS 130 RSS 139 RSS 199\_Test Report.pdf

## 1.2 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out in accordance with FCC CFR 47 Part 2 and 27: 2018 with cross-reference to the corresponding ISSED RSS standard is shown below.

| Section | FCC Part Sections(s)                                                            | RSS Section(s)                                    | Test Description                     | Result    |
|---------|---------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------|-----------|
| 2.1     | 2.1046                                                                          | -                                                 | Transmitter Conducted Output Power   | Compliant |
| 2.2     | 2.1046<br>27.50(h)(2)                                                           | RSS-139 (6.5)<br>RSS-199 (4.4)                    | Equivalent Isotropic Radiated Power  | Compliant |
| 2.3     | 2.1046<br>27.50 (b)(10)<br>27.50 (c)(10)<br>27.50 (h)(2)                        | RSS-130 (4.6.3)                                   | Effective Radiated Power             | Compliant |
| 2.4     | 2.1049<br>27.53(h)(3)<br>27.53(m)(6)                                            | RSS-Gen (6.7)<br>RSS-139 (6.6)<br>RSS-199 (4.5)   | Occupied Bandwidth                   | Compliant |
| 2.5     | 27.50 (d)(5)                                                                    | RSS-139 (6.5)<br>RSS-130 (4.6.1)<br>RSS-199 (4.4) | Peak-Average Ratio                   | Compliant |
| 2.6     | 2.1051<br>27.53(g)<br>27.53(h)(1)(3)<br>27.53(m)(4)(6)<br>27.53(c)(2)           | RSS-139 (6.6)<br>RSS-130 (4.7.1)<br>RSS-199 (4.5) | Band Edge                            | Compliant |
| 2.7     | 2.1051<br>27.53(g)<br>27.53(h)(1)(3)<br>27.53(m)(4)(6)<br>27.53(c)(2)(4)(5)&(f) | RSS-139 (6.6)<br>RSS-130 (4.7.1)<br>RSS-199 (4.5) | Conducted Spurious Emissions         | Compliant |
| 2.8     | 2.1053<br>27.53(g)<br>27.53(h)(1)<br>27.53(m)(4)<br>27.53(c)(2)                 | RSS-139 (6.6)<br>RSS-130 (4.7.1)<br>RSS-199 (4.5) | Field Strength of Spurious Radiation | Compliant |



|      |                 |                                                 |                                |           |
|------|-----------------|-------------------------------------------------|--------------------------------|-----------|
| 2.9  | 2.1055<br>27.54 | RSS-139 (6.4)<br>RSS-130 (4.5)<br>RSS-199 (4.3) | Frequency Stability            | Compliant |
| -    | -               | RSS-Gen 7.4                                     | Receiver Spurious Emissions    | N/A*      |
| 2.10 | -               | RSS-GEN 8.8                                     | Power Line Conducted Emissions | Compliant |

N/A\* Not Applicable. No stand-alone receiver.



### 1.3 PRODUCT INFORMATION

#### 1.3.1 EUT General Description

The Equipment Under Test (EUT) was an Inseego Corp. MIFI8000 Wireless Hotspot Modem. The EUT is a Wireless Hotspot Modem supporting 2G/3G/4G Technologies. The EUT comes with a USB Port.

#### 1.3.2 Technical Description

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EUT Description                     | Wireless Hotspot Modem                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Product Marketing Name              | MiFi 8000                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Model Number(s)                     | MIFI8000                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Rated Voltage                       | 3.7V, 4400mAh (Rechargeable Li-Ion battery pack)<br>Input 100-240VAC, Output 5V (External AC-DC Power Adapter)                                                                                                                                                                                                                                                                                                                                    |
| Mode Verified                       | *LTE Band 4: 1710-1755 MHz<br>*LTE Band 7: 2500-2570 MHz<br>*LTE Band 13: 777-787 MHz<br>*LTE Band 66: 1710-1780 MHz<br>(* All the test data for LTE Band 4, 7, 13 and 66 are from previous testing of model MIFI8800L which shares the same board and architecture with the only exception of different cell bands support)<br>WCDMA Band 4: 1710-1755 MHz<br>LTE Band 12: 698-716 MHz<br>LTE Band 17: 704-716 MHz<br>LTE Band 41: 2496-2690 MHz |
| Capability                          | WCDMA Band 2, 4, 5, LTE Band 2, 4, 5, 7, 12, 13, 14, 17, 25, 26, 41, 48, 66 and 802.11 a/b/g/n/ac                                                                                                                                                                                                                                                                                                                                                 |
| Primary Unit (EUT)                  | <input type="checkbox"/> Production<br><input checked="" type="checkbox"/> Pre-Production<br><input type="checkbox"/> Engineering                                                                                                                                                                                                                                                                                                                 |
| Manufacturer Declared Voltage Range | 3.3 V – 4.3 VDC                                                                                                                                                                                                                                                                                                                                                                                                                                   |

(Client declaration, max.  
antenna gain covered under  
this test report)

| Bands        | Frequency(ies) | Antenna Gains |
|--------------|----------------|---------------|
| WCDMA Band 4 | 1710-1755 MHz  | 0.0 dBi       |
| LTE Band 4   | 1710-1755 MHz  | 0.0 dBi       |
| LTE Band 7   | 2500-2570 MHz  | 2.3 dBi       |
| LTE Band 12  | 698-716 MHz    | -2.0 dBi      |
| LTE Band 13  | 777-787 MHz    | -0.6 dBi      |
| LTE Band 17  | 704-716 MHz    | -2.1 dBi      |
| LTE Band 41  | 2496-2690 MHz  | 1.7 dBi       |
| LTE Band 66  | 1710-1780 MHz  | 0.0 dBi       |

### 1.3.3 Transmit Frequency Table

| Technology / Band | Tx Frequency (MHz) | Emission Designator | EIRP             |                 |
|-------------------|--------------------|---------------------|------------------|-----------------|
|                   |                    |                     | Max. Power (dBm) | Max. Power (mW) |
| WCDMA Band 4      | 1710-1755          | 4M13F9W             | 23.89            | 24.49           |

| Technology / Band | Modulation | Bandwidth (MHz) | Tx Frequency (MHz) | Emission Designator | EIRP             |                 |
|-------------------|------------|-----------------|--------------------|---------------------|------------------|-----------------|
|                   |            |                 |                    |                     | Max. Power (dBm) | Max. Power (mW) |
| LTE Band 41       | QPSK       | 5               | 2496 - 2690        | 4M48G7D             | 24.07            | 255.27          |
|                   |            | 10              | 2496 - 2690        | 8M96G7D             | 24.06            | 254.68          |
|                   |            | 15              | 2496 - 2690        | 13M5G7D             | 24.09            | 256.45          |
|                   |            | 20              | 2496 - 2690        | 17M8G7D             | 23.08            | 203.24          |
|                   | 16QAM      | 5               | 2496 - 2690        | 4M47W7D             | 23.14            | 206.06          |
|                   |            | 10              | 2496 - 2690        | 8M96W7D             | 23.21            | 209.41          |
|                   |            | 15              | 2496 - 2690        | 13M5W7D             | 23.32            | 214.78          |
|                   |            | 20              | 2496 - 2690        | 17M9W7D             | 22.08            | 161.44          |



| Technology / Band | Modulation | Bandwidth (MHz) | Tx Frequency (MHz) | Emission Designator | EIRP             |                 |
|-------------------|------------|-----------------|--------------------|---------------------|------------------|-----------------|
|                   |            |                 |                    |                     | Max. Power (dBm) | Max. Power (mW) |
| LTE Band 4        | QPSK       | 1.4             | 1710-1750          | 1M09G7D             | 23.92            | 246.6           |
|                   |            | 3               | 1710-1750          | 2M70G7D             | 23.94            | 247.74          |
|                   |            | 5               | 1710-1750          | 4M50G7D             | 23.95            | 248.31          |
|                   |            | 10              | 1710-1750          | 8M99G7D             | 23.93            | 247.17          |
|                   |            | 15              | 1710-1750          | 13M5G7D             | 23.99            | 250.61          |
|                   |            | 20              | 1710-1750          | 17M9G7D             | 23.99            | 250.61          |
|                   | 16QAM      | 1.4             | 1710-1750          | 1M10W7D             | 22.65            | 184.08          |
|                   |            | 3               | 1710-1750          | 2M70W7D             | 22.69            | 185.78          |
|                   |            | 5               | 1710-1750          | 4M49W7D             | 22.84            | 192.31          |
|                   |            | 10              | 1710-1750          | 8M98W7D             | 22.75            | 188.36          |
|                   |            | 15              | 1710-1750          | 13M5W7D             | 23.19            | 208.45          |
|                   |            | 20              | 1710-1750          | 17M9W7D             | 23.18            | 207.97          |
| LTE Band 7        | QPSK       | 5               | 2500-2570          | 4M48G7D             | 25.99            | 397.19          |
|                   |            | 10              | 2500-2570          | 8M97G7D             | 25.38            | 345.14          |
|                   |            | 15              | 2500-2570          | 13M4G7D             | 25.42            | 348.34          |
|                   |            | 20              | 2500-2570          | 17M9G7D             | 25.37            | 344.35          |
|                   | 16QAM      | 5               | 2500-2570          | 4M49W7D             | 25.35            | 342.77          |
|                   |            | 10              | 2500-2570          | 8M96W7D             | 24.65            | 291.74          |
|                   |            | 15              | 2500-2570          | 13M5W7D             | 24.65            | 291.74          |
|                   |            | 20              | 2500-2570          | 17M9W7D             | 24.59            | 287.74          |
|                   |            | 10              | 777-787            | 8M91W7D             | 22.45            | 107.15          |
|                   |            | 1.4             | 1710-1780          | 1M10G7D             | 23.94            | 247.74          |
| LTE Band 66       | QPSK       | 3               | 1710-1780          | 2M70G7D             | 23.91            | 246.04          |
|                   |            | 5               | 1710-1780          | 4M50G7D             | 23.95            | 248.31          |
|                   |            | 10              | 1710-1780          | 8M98G7D             | 24.0             | 251.19          |
|                   |            | 15              | 1710-1780          | 13M5G7D             | 23.92            | 246.60          |
|                   |            | 20              | 1710-1780          | 18M0G7D             | 23.98            | 250.03          |
|                   |            | 1.4             | 1710-1780          | 1M09W7D             | 22.75            | 188.36          |
|                   | 16QAM      | 3               | 1710-1780          | 2M70W7D             | 22.71            | 186.64          |
|                   |            | 5               | 1710-1780          | 4M48W7D             | 23.02            | 200.45          |
|                   |            | 10              | 1710-1780          | 8M97W7D             | 22.74            | 187.93          |
|                   |            | 15              | 1710-1780          | 13M5W7D             | 22.83            | 191.87          |
|                   |            | 20              | 1710-1780          | 18M0W7D             | 22.8             | 190.55          |

| Technology / Band | Modulation | Bandwidth (MHz) | Tx Frequency (MHz) | Emission Designator | ERP              |                 |
|-------------------|------------|-----------------|--------------------|---------------------|------------------|-----------------|
|                   |            |                 |                    |                     | Max. Power (dBm) | Max. Power (mW) |
| LTE Band 12       | QPSK       | 1.4             | 699 - 716          | 1M09G7D             | 19.83            | 96.16           |
|                   |            | 3               | 699 - 716          | 2M70G7D             | 19.79            | 95.28           |
|                   |            | 5               | 699 - 716          | 4M50G7D             | 19.83            | 96.16           |
|                   |            | 10              | 699 - 716          | 8M98G7D             | 19.73            | 93.97           |
|                   | 16QAM      | 1.4             | 699 - 716          | 1M09W7D             | 18.86            | 76.91           |
|                   |            | 3               | 699 - 716          | 2M70W7D             | 18.86            | 76.91           |
|                   |            | 5               | 699 - 716          | 4M49W7D             | 19.05            | 80.35           |
|                   |            | 10              | 699 - 716          | 8M97W7D             | 18.89            | 77.45           |

| Technology / Band | Modulation | Bandwidth (MHz) | Tx Frequency (MHz) | Emission Designator | ERP              |                 |
|-------------------|------------|-----------------|--------------------|---------------------|------------------|-----------------|
|                   |            |                 |                    |                     | Max. Power (dBm) | Max. Power (mW) |
| LTE Band 17       | QPSK       | 5               | 704 - 716          | 4M49G7D             | 19.63            | 91.83           |
|                   |            | 10              | 704 - 716          | 8M94G7D             | 19.61            | 91.41           |
|                   | 16QAM      | 5               | 704 - 716          | 4M48W7D             | 18.84            | 76.56           |
|                   |            | 10              | 704 - 716          | 8M94W7D             | 18.81            | 76.03           |

| Technology / Band | Modulation | Bandwidth (MHz) | Tx Frequency (MHz) | Emission Designator | ERP              |                 |
|-------------------|------------|-----------------|--------------------|---------------------|------------------|-----------------|
|                   |            |                 |                    |                     | Max. Power (dBm) | Max. Power (mW) |
| LTE Band 13       | QPSK       | 5               | 777-787            | 4M46G7D             | 21.2             | 131.83          |
|                   |            | 10              | 777-787            | 8M92G7D             | 21.18            | 131.22          |
|                   | 16QAM      | 5               | 777-787            | 4M47W7D             | 20.47            | 111.43          |
|                   |            | 10              | 777-787            | 8M91W7D             | 20.3             | 107.15          |



#### 1.4 EUT TEST CONFIGURATION

##### 1.4.1 Test Configuration Description

| Test Configuration | Description                                                                                                                                                                  |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A                  | Conducted antenna port measurement. EUT Transmits at max power and is powered by the internal battery and/or USB via AC Adapter.                                             |
| B                  | Radiated test setup / case spurious emissions. The EUT is connected to the call box in radiated way or connect to the call box with antenna port terminated by the call box. |

##### 1.4.2 EUT Exercise Software

EUT is controlled by a CMW 500 Wideband Radio Communication Tester. There is no other test software used during verification.

##### 1.4.3 Support Equipment and I/O cables

| Manufacturer  | Equipment/Cable              | Description                                                                                   |
|---------------|------------------------------|-----------------------------------------------------------------------------------------------|
| Inseego Corp. | USB Cable                    | Standard USB Type A to USB Type C                                                             |
| Inseego Corp. | External AC-DC Power Adapter | Model: SSW-2783, PN: 40123126.01<br>Input: 100-240VAC, 50/60Hz, 0.5A<br>Output: 5VDC, max. 2A |

##### 1.4.4 Mode of Operation for Inter-Band Carrier Aggregation

The Test frequencies for E-UTRA PCell and SCell for CA intra-band operation during the test is set according to 3GPP TS 36.508 Version 15.3.0 Release 15 as follows:

| E-UTRA CA Configuration CA_41C |                                       |         |                 |                           |         |                 |                           |
|--------------------------------|---------------------------------------|---------|-----------------|---------------------------|---------|-----------------|---------------------------|
| Range                          | CC Combinations / N <sub>RB_agg</sub> | CC1     |                 |                           | CC2     |                 |                           |
|                                |                                       | BW (RB) | N <sub>UL</sub> | Frequency of Uplink (MHz) | BW (RB) | N <sub>UL</sub> | Frequency of Uplink (MHz) |
| Low                            | 25+100                                | 25      | 39683           | 2499.3                    | 100     | 39800           | 2511                      |
|                                |                                       | 100     | 39750           | 2506                      | 25      | 39867           | 2517.7                    |
|                                | 50+75                                 | 50      | 39703           | 2501.3                    | 75      | 39823           | 2513.3                    |
|                                |                                       | 75      | 39725           | 2503.5                    | 50      | 39845           | 2515.5                    |
|                                | 50+100                                | 50      | 39705           | 2501.5                    | 100     | 39849           | 2515.9                    |
|                                |                                       | 100     | 39750           | 2506                      | 50      | 39894           | 2520.4                    |
|                                | 75+75                                 | 75      | 39725           | 2503.5                    | 100     | 39875           | 2518.5                    |
|                                |                                       | 75      | 39728           | 2503.8                    | 100     | 39899           | 2520.9                    |
|                                | 75+100                                | 100     | 39750           | 2506                      | 75      | 39921           | 2523.1                    |
|                                |                                       | 100     | 39750           | 2506                      | 75      | 39948           | 2525.8                    |

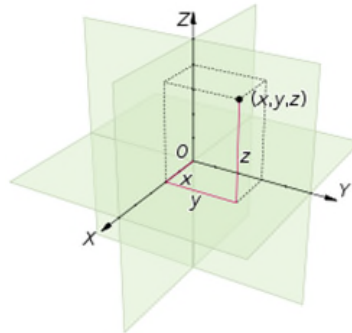
#### 1.4.5 Worst Case Configuration

Worst-case configuration used in this test report as per output power measurements:

| Technology / Band | Test Configuration                                            |
|-------------------|---------------------------------------------------------------|
| WCDMA Band 4      | Connection Setup: Test Mode,<br>Type: RMC, Test Mode: No Loop |

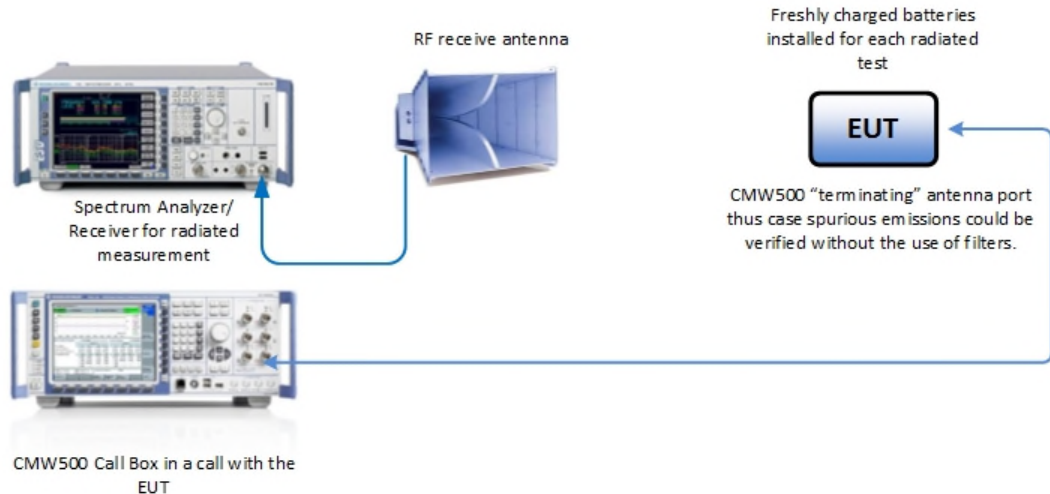
| Band         | Channel BW      | Modulation | RB Size/Offset |
|--------------|-----------------|------------|----------------|
| LTE Band 12  | 5 MHz           | QPSK       | 1/12           |
| LTE Band 17  | 5 MHz           | QPSK       | 1/12           |
| LTE Band 41  | 15 MHz          | QPSK       | 1/0            |
| LTE Band 41C | 10 MHz + 15 MHz | QPSK       | 1/49 + 1/0     |
| LTE Band 4   | 20 MHz          | QPSK       | 1/0            |
| LTE Band 7   | 5 MHz           | QPSK       | 1/13           |
| LTE Band 13  | 5 MHz           | QPSK       | 1/13           |
| LTE Band 66  | 10 MHz          | QPSK       | 1/0            |

For radiated measurements X, Y, and Z orientations were verified. The verification was determined “Y” as worst case configuration.

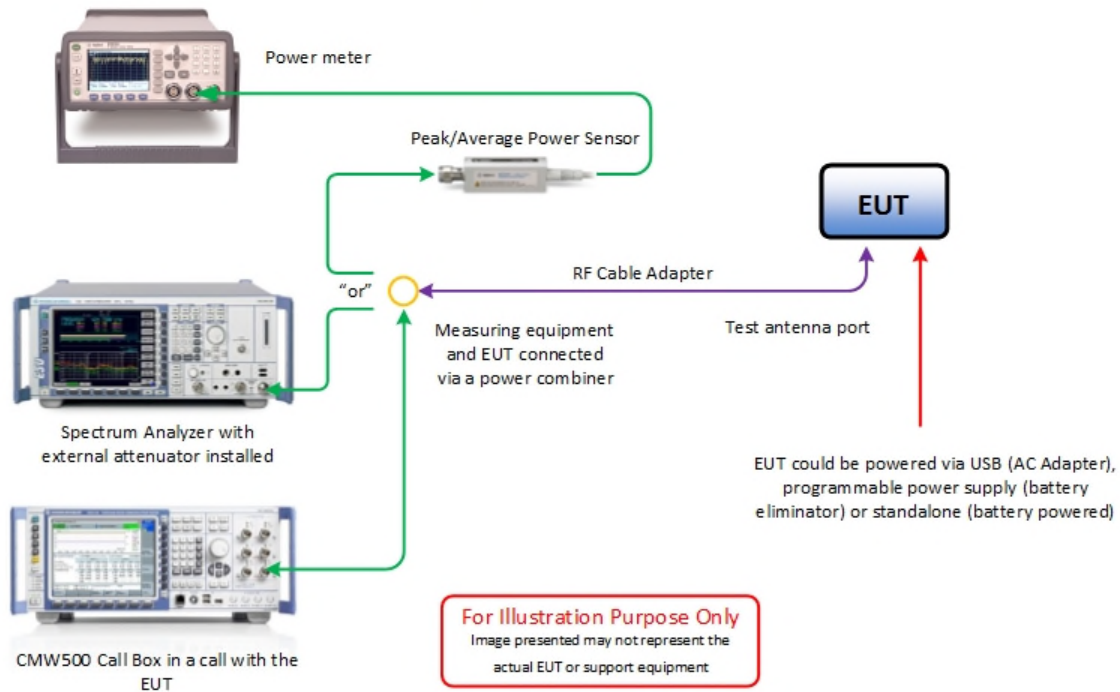


#### 1.4.6 Simplified Test Configuration Diagram

##### Radiated Test Configuration



##### Conducted (Antenna Port) Test Configuration





## 1.5 DEVIATIONS FROM THE STANDARD

No deviations from the applicable test standards or test plan were made during testing.

## 1.6 MODIFICATION RECORD

| Description of Modification                                          | Modification Fitted By | Date Modification Fitted |
|----------------------------------------------------------------------|------------------------|--------------------------|
| Serial Number: AT071218B00062 (MIFI8000), AZ280418A00044 (MIFI8800L) |                        |                          |
| None                                                                 | —                      | —                        |

The table above details modifications made to the EUT during the test programme. The modifications incorporated during each test (if relevant) are recorded on the appropriate test pages.

## 1.7 TEST METHODOLOGY

All measurements contained in this report were conducted with ANSI C63.26-2015, American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services.

For conducted and radiated emissions the equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted according to the Operating Instructions provided by the manufacturer/client.

## 1.8 TEST FACILITY LOCATION

### 1.8.1 TÜV SÜD America Inc. (Mira Mesa)

10040 Mesa Rim Road, San Diego, CA 92121-2912 (32.901268,-117.177681). Phone: 858 678 1400 FAX: 858 546 0364

### 1.8.2 TÜV SÜD America Inc. (Rancho Bernardo)

16936 Via Del Campo, San Diego, CA 92127-1708 (33.018644,-117.092409). Phone: (858) 678-1400 Fax: (858) 546-0364.

## 1.9 TEST FACILITY REGISTRATION

### 1.9.1 FCC – Designation No.: US1146

TUV SUD America Inc. (San Diego), is an accredited test facility with the site description report on file and has met all the requirements specified in §2.948 of the FCC rules. The acceptance letter from the FCC is maintained in our files and the Designation is US1146.



**1.9.2 Innovation, Science and Economic Development Canada (IC) Registration No.: 3067A-1 & 22806-1**

The 10m Semi-anechoic chamber of TUV SUD America Inc. (San Diego Rancho Bernardo) has been registered by Certification and Engineering Bureau of Innovation, Science and Economic Development Canada for radio equipment testing with Registration No. 3067A-1.

The 3m Semi-anechoic chamber of TUV SUD America Inc. (San Diego Mira Mesa) has been registered by Certification and Engineering Bureau of Innovation, Science and Economic Development Canada for radio equipment testing with Registration No. 22806-1.

**1.9.3 BSMI – Laboratory Code: SL2-IN-E-028R (US0102)**

TUV Product Service Inc. (San Diego) is a recognized EMC testing laboratory by the BSMI under the MRA (Mutual Recognition Arrangement) with the United States. Accreditation includes CNS 13438 up to 6GHz.

**1.9.4 NCC (National Communications Commission - US0102)**

TUV SUD America Inc. (San Diego) is listed as a Foreign Recognized Telecommunication Equipment Testing Laboratory and is accredited to ISO/IEC 17025 (A2LA Certificate No.2955.13) which under APEC TEL MRA Phase 1 was designated as a Conformity Assessment Body competent to perform testing of equipment subject to the Technical Regulations covered under its scope of accreditation including RTTE01, PLMN01 and PLMN08 for TTE type of testing and LP002 for Low-Power RF Device type of testing.

**1.9.5 VCCI – Registration No. A-0280 and A-0281**

TUV SUD America Inc. (San Diego) is a VCCI registered measurement facility which includes radiated field strength measurement, radiated field strength measurement above 1GHz, mains port interference measurement and telecommunication port interference measurement.

**1.9.6 RRA – Identification No. US0102**

TUV SUD America Inc. (San Diego) is National Radio Research Agency (RRA) recognized laboratory under Phase I of the APEC Tel MRA.

**1.9.7 OFCA – U.S. Identification No. US0102**

TUV SUD America Inc. (San Diego) is recognized by Office of the Communications Authority (OFCA) under Appendix B, Phase I of the APEC Tel MRA.



## 1.10 SAMPLE CALCULATIONS

### 1.10.1 WCDMA Emission Designator

Emission Designator = 4M15F9W  
 WCDMA BW = 4.15 MHz  
 F = Frequency Modulation  
 9= Composite Digital Info  
 W = Combination (Audio/Data)

### 1.10.2 LTE Emission Designator (QPSK)

Emission Designator = 4M51G7D  
 G = Phase Modulation  
 7= Quantized/Digital Info  
 D = Data Transmission, telemetry, telecommand

### 1.10.3 LTE Emission Designator (16QAM)

Emission Designator = 4M50W7D  
 W = Frequency Modulation  
 7= Quantized/Digital Info  
 D = Data Transmission, telemetry, telecommand

### 1.10.4 Spurious Radiated Emission (below 1GHz)

| Measuring equipment raw measurement (dBμV) @ 30 MHz   |                            |       | 24.4  |
|-------------------------------------------------------|----------------------------|-------|-------|
| Correction Factor (dB)                                | Asset# 1066 (cable)        | 0.3   | -12.6 |
|                                                       | Asset# 1172 (cable)        | 0.3   |       |
|                                                       | Asset# 1016 (preamplifier) | -30.7 |       |
|                                                       | Asset# 1175(cable)         | 0.3   |       |
|                                                       | Asset# 1002 (antenna)      | 17.2  |       |
| Reported QuasiPeak Final Measurement (dBμV/m) @ 30MHz |                            |       | 11.8  |

### 1.10.5 Spurious Radiated Emission – Substitution Method

Example = 84dBμV/m @ 1413 MHz (numerical sample only)

The field strength reading of 84dBμV/m @ 1413 MHz (2<sup>nd</sup> Harmonic of 706.5 MHz) is the maximized measurement when the EUT is on the turntable measured at 3 meters. The gain of the substituted antenna is 7.8dBi while the transmit cable loss is 1.0 dB (cable between signal generator and the substituted antenna). The signal generator level is adjusted until the 84dBμV/m level at the receiving end is replicated (identical test setup, i.e. same antenna, cable/s and preamp). If the adjusted signal generator level is -18dBm, then we have the following for both EIRP and ERP as required:

$$\begin{aligned}
 P_{\text{EIRP}} &= -18 \text{ dBm} + 7.8 \text{ dBi} - 1 \text{ dB} \\
 &= 11.2 \text{ dBm} \\
 P_{\text{ERP}} &= P_{\text{EIRP}} - 2.15 \text{ dB} \\
 &= 11.2 \text{ dBm} - 2.15 \text{ dB} \\
 &= 9.05 \text{ dBm}
 \end{aligned}$$



## **SECTION 2**

### **TEST DETAILS**

Radio Testing of the  
Inseego Corp.  
MIFI8000 Wireless Hotspot Modem



## **2.1 TRANSMITTER CONDUCTED POWER MEASUREMENTS**

### **2.1.1 Specification Reference**

FCC 47 CFR Part 2, Clause 2.1046

### **2.1.2 Standard Applicable**

The conducted power measurements were made in accordance to FCC Part 2 Clause 2.1046.

FCC 47 CFR Part 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 § 2.1033(c)(8). The electrical characteristics of the radio frequency load attached to the output terminals when this test is made shall be stated.

(c) For measurements conducted pursuant to paragraphs (a) and (b) of this section, all calculations and methods used by the applicant for determining carrier power or peak envelope power, as appropriate, on the basis of measured power in the radio frequency load attached to the transmitter output terminals shall be shown. Under the test conditions specified, no components of the emission spectrum shall exceed the limits specified in the applicable rule parts as necessary for meeting occupied bandwidth or emission limitations.

### **2.1.3 Equipment Under Test and Modification State**

Serial No: AT071218B00062 (MIFI8000), AZ280418A00044 (MIFI8800L) / Test Configuration A

### **2.1.4 Date of Test/Initial of test personnel who performed the test**

February 25, 26, April 03, and May 10, 2019 / XYZ

June 18, 19 and July 19, 2018 / XYZ

### **2.1.5 Test Equipment Used**

The major items of test equipment used for the above tests are identified in Section 3.1.

### **2.1.6 Environmental Conditions/ Test Location**

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

|                     |                 |
|---------------------|-----------------|
| Ambient Temperature | 21.2 - 25.7°C   |
| Relative Humidity   | 35.0 - 51.6%    |
| ATM Pressure        | 98.5 - 99.3 kPa |

## 2.1.7 Additional Observations

- This is a conducted test using Power Meter.
- The path loss was measured and entered as a level offset.
- Low, Middle and High channels for all bandwidths with different RB size and RB offset and modulations were verified and reported.

## 2.1.8 Test Results

| Band         | Channel     | Frequency (MHz) | Average Max Power (dBm) | Peak Max Power (dBm) |
|--------------|-------------|-----------------|-------------------------|----------------------|
| WCDMA Band 4 | 1312        | 1712.4          | 23.54                   | 26.58                |
|              | 1413        | 1732.6          | 23.62                   | 26.89                |
|              | <b>1513</b> | <b>1752.6</b>   | <b>23.89</b>            | <b>27.14</b>         |

| LTE Band 12     |         |                 |            |          |           |                     |                  |
|-----------------|---------|-----------------|------------|----------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB   | RB Start  | Average Power (dBm) | Peak Power (dBm) |
| 1.4             | 23017   | 699.7           | QPSK       | <b>1</b> | <b>3</b>  | <b>23.98</b>        | <b>26.86</b>     |
|                 | 23095   | 707.5           |            | 1        | 3         | 23.80               | 27.09            |
|                 | 23173   | 715.3           |            | 1        | 3         | 23.74               | 26.82            |
|                 | 23.17   | 699.7           | 16QAM      | <b>1</b> | <b>3</b>  | <b>23.01</b>        | <b>27.03</b>     |
|                 | 23095   | 707.5           |            | 1        | 3         | 22.85               | 28.04            |
|                 | 23173   | 715.3           |            | 1        | 3         | 22.74               | 27.25            |
| 3               | 23025   | 700.5           | QPSK       | <b>1</b> | <b>7</b>  | <b>23.94</b>        | <b>23.73</b>     |
|                 | 23095   | 707.5           |            | 1        | 7         | 23.83               | 27.0             |
|                 | 23165   | 714.5           |            | 1        | 7         | 23.75               | 26.69            |
|                 | 23025   | 700.5           | 16QAM      | 1        | 7         | 22.92               | 27.06            |
|                 | 23095   | 707.5           |            | <b>1</b> | <b>7</b>  | <b>23.01</b>        | <b>27.84</b>     |
|                 | 23165   | 714.5           |            | 1        | 7         | 22.82               | 27.17            |
| 5               | 23035   | 701.5           | QPSK       | <b>1</b> | <b>12</b> | <b>23.98</b>        | <b>27.18</b>     |
|                 | 23095   | 707.5           |            | 1        | 12        | 23.90               | 27.15            |
|                 | 23155   | 713.5           |            | 1        | 12        | 23.84               | 26.77            |
|                 | 23035   | 701.5           | 16QAM      | 1        | 0         | 23.04               | 27.10            |
|                 | 23095   | 707.5           |            | <b>1</b> | <b>0</b>  | <b>23.20</b>        | <b>28.07</b>     |
|                 | 23155   | 713.5           |            | 1        | 0         | 22.89               | 27.22            |
| 10              | 23060   | 704             | QPSK       | 1        | 49        | 23.84               | 27.09            |
|                 | 23095   | 707.5           |            | 1        | 49        | 23.77               | 26.78            |
|                 | 23130   | 711             |            | <b>1</b> | <b>49</b> | <b>23.88</b>        | <b>27.07</b>     |
|                 | 23060   | 704             | 16QAM      | 1        | 25        | 22.95               | 27.93            |
|                 | 23095   | 707.5           |            | <b>1</b> | <b>25</b> | <b>23.04</b>        | <b>27.94</b>     |
|                 | 23130   | 711             |            | 1        | 25        | 22.87               | 27.28            |



| LTE Band 17     |         |                 |            |          |           |                     |                  |
|-----------------|---------|-----------------|------------|----------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB   | RB Start  | Average Power (dBm) | Peak Power (dBm) |
| 5               | 23755   | 706.5           | QPSK       | 1        | 12        | 23.87               | 27.09            |
|                 | 23790   | 710             |            | <b>1</b> | <b>12</b> | <b>23.88</b>        | <b>27.01</b>     |
|                 | 23825   | 713.5           |            | 1        | 12        | 23.87               | 26.73            |
|                 | 23755   | 706.5           | 16QAM      | <b>1</b> | <b>12</b> | <b>23.09</b>        | <b>27.90</b>     |
|                 | 23790   | 710             |            | 1        | 12        | 23.01               | 27.55            |
|                 | 23825   | 713.5           |            | 1        | 12        | 23.07               | 27.04            |
| 10              | 23780   | 709             | QPSK       | <b>1</b> | <b>25</b> | <b>23.86</b>        | <b>27.13</b>     |
|                 | 23790   | 710             |            | 1        | 25        | 23.81               | 27.13            |
|                 | 23800   | 711             |            | 1        | 25        | 23.85               | 26.87            |
|                 | 23780   | 709             | 16QAM      | 1        | 25        | 22.95               | 28.0             |
|                 | 23790   | 710             |            | <b>1</b> | <b>25</b> | <b>23.06</b>        | <b>27.94</b>     |
|                 | 23800   | 711             |            | 1        | 25        | 22.93               | 27.22            |

| LTE Band 41     |         |                 |            |          |           |                     |                  |
|-----------------|---------|-----------------|------------|----------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB   | RB Start  | Average Power (dBm) | Peak Power (dBm) |
| 5               | 39675   | 2498.5          | QPSK       | 1        | 12        | 21.40               | 29.20            |
|                 | 40620   | 2593            |            | 1        | 12        | 20.88               | 28.54            |
|                 | 41565   | 2687.5          |            | <b>1</b> | <b>12</b> | <b>22.37</b>        | <b>30.07</b>     |
|                 | 39675   | 2498.5          | 16QAM      | 1        | 12        | 20.38               | 29.60            |
|                 | 40620   | 2593            |            | 1        | 12        | 20.21               | 28.94            |
|                 | 41565   | 2687.5          |            | <b>1</b> | <b>12</b> | <b>21.44</b>        | <b>30.46</b>     |
| 10              | 39700   | 2501            | QPSK       | 1        | 0         | 21.19               | 29.29            |
|                 | 40620   | 2593            |            | 1        | 0         | 20.97               | 28.50            |
|                 | 41540   | 2685            |            | <b>1</b> | <b>0</b>  | <b>22.36</b>        | <b>30.25</b>     |
|                 | 39700   | 2501            | 16QAM      | 1        | 0         | 20.11               | 29.27            |
|                 | 40620   | 2593            |            | 1        | 0         | 20.05               | 28.92            |
|                 | 41540   | 2685            |            | <b>1</b> | <b>0</b>  | <b>21.51</b>        | <b>30.69</b>     |
| 15              | 39725   | 2503.5          | QPSK       | 1        | 0         | 21.06               | 28.84            |
|                 | 40620   | 2593            |            | 1        | 0         | 21.15               | 28.76            |
|                 | 41515   | 2682.5          |            | <b>1</b> | <b>0</b>  | <b>22.39</b>        | <b>30.12</b>     |
|                 | 39725   | 2503.5          | 16QAM      | 1        | 0         | 20.25               | 29.33            |
|                 | 40620   | 2593            |            | 1        | 0         | 20.15               | 28.97            |
|                 | 41515   | 2682.5          |            | <b>1</b> | <b>0</b>  | <b>21.62</b>        | <b>30.75</b>     |
| 20              | 39750   | 2506            | QPSK       | 1        | 0         | 21.33               | 29.08            |
|                 | 40620   | 2593            |            | <b>1</b> | <b>0</b>  | <b>21.38</b>        | <b>28.74</b>     |
|                 | 41490   | 2680            |            | 1        | 0         | 21.32               | 29.29            |
|                 | 39750   | 2506            | 16QAM      | 1        | 0         | 20.37               | 29.49            |
|                 | 40620   | 2593            |            | 1        | 0         | 20.29               | 29.01            |
|                 | 41490   | 2680            |            | <b>1</b> | <b>0</b>  | <b>20.38</b>        | <b>29.88</b>     |

| CA_41C          |            |                |        |           |                |        |           |                     |                  |
|-----------------|------------|----------------|--------|-----------|----------------|--------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Modulation | PCC Freq (MHz) | No. RB | RB Offset | SCC Freq (MHz) | No. RB | RB Offset | Average Power (dBm) | Peak Power (dBm) |
| 25+100          | QPSK       | 2499.3         | 1      | 24        | 2511           | 1      | 0         | 21.45               | 29.94            |
|                 |            |                | 25     | 0         |                | 100    | 0         | 19.52               | 28.43            |
|                 |            | 2583.8         | 1      | 24        | 2595.5         | 1      | 0         | 21.18               | 29.40            |
|                 |            |                | 25     | 0         |                | 100    | 0         | 19.21               | 28.85            |
|                 |            | 2668.3         | 1      | 24        | 2680           | 1      | 0         | 20.92               | 29.44            |
|                 |            |                | 25     | 0         |                | 100    | 0         | 18.88               | 27.93            |
|                 | 16QAM      | 2499.3         | 1      | 24        | 2511           | 1      | 0         | 20.75               | 30.39            |
|                 |            |                | 25     | 0         |                | 100    | 0         | 18.60               | 28.98            |
|                 |            | 2583.8         | 1      | 24        | 2595.5         | 1      | 0         | 20.51               | 29.54            |
|                 |            |                | 25     | 0         |                | 100    | 0         | 18.76               | 29.03            |
|                 |            | 2668.3         | 1      | 24        | 2680           | 1      | 0         | 20.02               | 29.23            |
|                 |            |                | 25     | 0         |                | 100    | 0         | 17.95               | 27.62            |
| 100+25          | QPSK       | 2506           | 1      | 99        | 2517.7         | 1      | 0         | 21.38               | 29.30            |
|                 |            |                | 100    | 0         |                | 25     | 0         | 19.42               | 29.23            |
|                 |            | 2590.5         | 1      | 99        | 2602.2         | 1      | 0         | 21.09               | 29.58            |
|                 |            |                | 100    | 0         |                | 25     | 0         | 19.10               | 28.14            |
|                 |            | 2675           | 1      | 99        | 2686.7         | 1      | 0         | 20.75               | 29.69            |
|                 |            |                | 100    | 0         |                | 25     | 0         | 18.79               | 28.36            |
|                 | 16QAM      | 2506           | 1      | 99        | 2517.7         | 1      | 0         | 20.67               | 29.65            |
|                 |            |                | 100    | 0         |                | 25     | 0         | 18.50               | 28.66            |
|                 |            | 2590.5         | 1      | 99        | 2602.2         | 1      | 0         | 20.26               | 29.29            |
|                 |            |                | 100    | 0         |                | 25     | 0         | 18.17               | 28.05            |
|                 |            | 2675           | 1      | 99        | 2686.7         | 1      | 0         | 19.93               | 29.20            |
|                 |            |                | 100    | 0         |                | 25     | 0         | 17.89               | 28.04            |

| CA_41C          |            |                |        |           |                |        |           |                     |                  |
|-----------------|------------|----------------|--------|-----------|----------------|--------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Modulation | PCC Freq (MHz) | No. RB | RB Offset | SCC Freq (MHz) | No. RB | RB Offset | Average Power (dBm) | Peak Power (dBm) |
| 50+75           | QPSK       | 2501.3         | 1      | 49        | 2513.3         | 1      | 0         | 21.47               | 31.30            |
|                 |            |                | 50     | 0         |                | 75     | 0         | 19.44               | 28.60            |
|                 |            | 2585.9         | 1      | 49        | 2597.9         | 1      | 0         | 20.90               | 30.28            |
|                 |            |                | 50     | 0         |                | 75     | 0         | 19.04               | 28.04            |
|                 |            | 2670.5         | 1      | 49        | 2682.5         | 1      | 0         | 20.71               | 30.02            |
|                 |            |                | 50     | 0         |                | 75     | 0         | 18.67               | 29.15            |
|                 | 16QAM      | 2501.3         | 1      | 49        | 2513.3         | 1      | 0         | 20.61               | 30.66            |
|                 |            |                | 50     | 0         |                | 75     | 0         | 18.54               | 28.54            |
|                 |            | 2585.9         | 1      | 49        | 2597.9         | 1      | 0         | 20.01               | 30.65            |
|                 |            |                | 50     | 0         |                | 75     | 0         | 18.15               | 27.91            |
|                 |            | 2670.5         | 1      | 49        | 2682.5         | 1      | 0         | 19.91               | 30.28            |
|                 |            |                | 50     | 0         |                | 75     | 0         | 17.84               | 29.82            |
| 75+50           | QPSK       | 2503.5         | 1      | 74        | 2515.5         | 1      | 0         | 21.30               | 31.18            |
|                 |            |                | 75     | 0         |                | 50     | 0         | 19.27               | 29.47            |
|                 |            | 2588.1         | 1      | 74        | 2600.1         | 1      | 0         | 20.99               | 29.85            |
|                 |            |                | 75     | 0         |                | 50     | 0         | 18.94               | 28.62            |
|                 |            | 2672.7         | 1      | 74        | 2684.7         | 1      | 0         | 20.61               | 30.28            |
|                 |            |                | 75     | 0         |                | 50     | 0         | 18.60               | 29.18            |
|                 | 16QAM      | 2503.5         | 1      | 74        | 2515.5         | 1      | 0         | 20.44               | 30.67            |
|                 |            |                | 75     | 0         |                | 50     | 0         | 18.36               | 29.02            |
|                 |            | 2588.1         | 1      | 74        | 2600.1         | 1      | 0         | 20.23               | 29.82            |
|                 |            |                | 75     | 0         |                | 50     | 0         | 18.02               | 28.48            |
|                 |            | 2672.7         | 1      | 74        | 2684.7         | 1      | 0         | 19.75               | 30.01            |
|                 |            |                | 75     | 0         |                | 50     | 0         | 17.83               | 29.12            |

| CA_41C          |            |                |        |           |                |        |           |                     |                  |
|-----------------|------------|----------------|--------|-----------|----------------|--------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Modulation | PCC Freq (MHz) | No. RB | RB Offset | SCC Freq (MHz) | No. RB | RB Offset | Average Power (dBm) | Peak Power (dBm) |
| 50+100          | QPSK       | 2501.5         | 1      | 49        | 2515.9         | 1      | 0         | 21.24               | 31.08            |
|                 |            |                | 50     | 0         |                | 100    | 0         | 19.26               | 29.84            |
|                 |            | 2583.6         | 1      | 49        | 2598           | 1      | 0         | 20.91               | 30.62            |
|                 |            |                | 50     | 0         |                | 100    | 0         | 19.01               | 29.52            |
|                 |            | 2665.6         | 1      | 49        | 2680           | 1      | 0         | 20.75               | 30.27            |
|                 |            |                | 50     | 0         |                | 100    | 0         | 18.70               | 29.07            |
|                 | 16QAM      | 2501.5         | 1      | 49        | 2515.9         | 1      | 0         | 20.35               | 30.36            |
|                 |            |                | 50     | 0         |                | 100    | 0         | 18.35               | 29.69            |
|                 |            | 2583.6         | 1      | 49        | 2598           | 1      | 0         | 20.10               | 30.78            |
|                 |            |                | 50     | 0         |                | 100    | 0         | 18.14               | 29.55            |
|                 |            | 2665.6         | 1      | 49        | 2680           | 1      | 0         | 19.90               | 30.24            |
|                 |            |                | 50     | 0         |                | 100    | 0         | 17.91               | 29.30            |
| 100+50          | QPSK       | 2506           | 1      | 99        | 2520.4         | 1      | 0         | 21.25               | 30.24            |
|                 |            |                | 100    | 0         |                | 50     | 0         | 19.29               | 30.17            |
|                 |            | 2588.1         | 1      | 99        | 2602.5         | 1      | 0         | 20.94               | 30.37            |
|                 |            |                | 100    | 0         |                | 50     | 0         | 18.96               | 29.43            |
|                 |            | 2670.1         | 1      | 99        | 2684.5         | 1      | 0         | 20.71               | 30.64            |
|                 |            |                | 100    | 0         |                | 50     | 0         | 18.82               | 29.01            |
|                 | 16QAM      | 2506           | 1      | 99        | 2520.4         | 1      | 0         | 20.45               | 30.74            |
|                 |            |                | 100    | 0         |                | 50     | 0         | 18.39               | 29.91            |
|                 |            | 2588.1         | 1      | 99        | 2602.5         | 1      | 0         | 20.06               | 29.45            |
|                 |            |                | 100    | 0         |                | 50     | 0         | 18.06               | 28.73            |
|                 |            | 2670.1         | 1      | 99        | 2684.5         | 1      | 0         | 19.97               | 29.92            |
|                 |            |                | 100    | 0         |                | 50     | 0         | 17.92               | 29.05            |

| CA_41C          |            |                |        |           |                |        |           |                     |                  |
|-----------------|------------|----------------|--------|-----------|----------------|--------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Modulation | PCC Freq (MHz) | No. RB | RB Offset | SCC Freq (MHz) | No. RB | RB Offset | Average Power (dBm) | Peak Power (dBm) |
| 75+75           | QPSK       | 2503.5         | 1      | 74        | 2518.5         | 1      | 0         | 21.17               | 31.21            |
|                 |            |                | 75     | 0         |                | 75     | 0         | 19.59               | 30.71            |
|                 |            | 2585.5         | 1      | 74        | 2600.5         | 1      | 0         | 20.72               | 30.14            |
|                 |            |                | 75     | 0         |                | 75     | 0         | 18.87               | 29.72            |
|                 |            | 2667.5         | 1      | 74        | 2682.5         | 1      | 0         | 20.64               | 30.09            |
|                 |            |                | 75     | 0         |                | 75     | 0         | 18.17               | 29.35            |
|                 | 16QAM      | 2503.5         | 1      | 74        | 2518.5         | 1      | 0         | 20.25               | 30.54            |
|                 |            |                | 75     | 0         |                | 75     | 0         | 18.95               | 30.25            |
|                 |            | 2585.5         | 1      | 74        | 2600.5         | 1      | 0         | 20.07               | 30.7             |
|                 |            |                | 75     | 0         |                | 75     | 0         | 18.0                | 29.44            |
|                 |            | 2667.5         | 1      | 74        | 2682.5         | 1      | 0         | 19.76               | 30.73            |
|                 |            |                | 75     | 0         |                | 75     | 0         | 17.64               | 29.22            |

| CA_41C          |            |                |        |           |                |        |           |                     |                  |
|-----------------|------------|----------------|--------|-----------|----------------|--------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Modulation | PCC Freq (MHz) | No. RB | RB Offset | SCC Freq (MHz) | No. RB | RB Offset | Average Power (dBm) | Peak Power (dBm) |
| 75+100          | QPSK       | 2503.8         | 1      | 74        | 2520.9         | 1      | 0         | 19.66               | 29.6             |
|                 |            |                | 75     | 0         |                | 100    | 0         | 18.18               | 29.36            |
|                 |            | 2583.3         | 1      | 74        | 2600.4         | 1      | 0         | 20.89               | 30.55            |
|                 |            |                | 75     | 0         |                | 100    | 0         | 19.08               | 29.93            |
|                 |            | 2662.9         | 1      | 74        | 2680           | 1      | 0         | 20.74               | 30.41            |
|                 |            |                | 75     | 0         |                | 100    | 0         | 18.62               | 29.38            |
|                 | 16QAM      | 2503.8         | 1      | 74        | 2520.9         | 1      | 0         | 19.76               | 30.10            |
|                 |            |                | 75     | 0         |                | 100    | 0         | 17.73               | 28.64            |
|                 |            | 2583.3         | 1      | 74        | 2600.4         | 1      | 0         | 20.21               | 30.96            |
|                 |            |                | 75     | 0         |                | 100    | 0         | 18.18               | 29.05            |
|                 |            | 2662.9         | 1      | 74        | 2680           | 1      | 0         | 20.08               | 31.63            |
|                 |            |                | 75     | 0         |                | 100    | 0         | 17.68               | 28.71            |
| 100+75          | QPSK       | 2506           | 1      | 99        | 2523.1         | 1      | 0         | 21.16               | 30.85            |
|                 |            |                | 100    | 0         |                | 75     | 0         | 19.01               | 30.01            |
|                 |            | 2585.6         | 1      | 99        | 2602.7         | 1      | 0         | 20.87               | 30.23            |
|                 |            |                | 100    | 0         |                | 75     | 0         | 19.07               | 29.48            |
|                 |            | 2665.1         | 1      | 99        | 2682.2         | 1      | 0         | 20.75               | 30.47            |
|                 |            |                | 100    | 0         |                | 75     | 0         | 18.26               | 28.49            |
|                 | 16QAM      | 2506           | 1      | 99        | 2523.1         | 1      | 0         | 20.32               | 30.25            |
|                 |            |                | 100    | 0         |                | 75     | 0         | 18.08               | 29.99            |
|                 |            | 2585.6         | 1      | 99        | 2602.7         | 1      | 0         | 20.01               | 30.42            |
|                 |            |                | 100    | 0         |                | 75     | 0         | 18.10               | 29.26            |
|                 |            | 2665.1         | 1      | 99        | 2682.2         | 1      | 0         | 19.96               | 30.44            |
|                 |            |                | 100    | 0         |                | 75     | 0         | 17.47               | 28.74            |

| CA_41C          |            |                |        |           |                |        |           |                     |                  |
|-----------------|------------|----------------|--------|-----------|----------------|--------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Modulation | PCC Freq (MHz) | No. RB | RB Offset | SCC Freq (MHz) | No. RB | RB Offset | Average Power (dBm) | Peak Power (dBm) |
| 100+100         | QPSK       | 2506           | 1      | 99        | 2525.8         | 1      | 0         | 21.46               | 30.48            |
|                 |            |                | 100    | 0         |                | 100    | 0         | 19.39               | 28.96            |
|                 |            | 2583.1         | 1      | 99        | 2602.9         | 1      | 0         | 21.01               | 21.18            |
|                 |            |                | 100    | 0         |                | 100    | 0         | 19.10               | 28.30            |
|                 |            | 2660.2         | 1      | 99        | 2680           | 1      | 0         | 20.80               | 30.67            |
|                 |            |                | 100    | 0         |                | 100    | 0         | 18.69               | 28.72            |
|                 | 16QAM      | 2506           | 1      | 99        | 2525.8         | 1      | 0         | 20.73               | 30.46            |
|                 |            |                | 100    | 0         |                | 100    | 0         | 18.49               | 29.81            |
|                 |            | 2583.1         | 1      | 99        | 2602.9         | 1      | 0         | 20.17               | 29.26            |
|                 |            |                | 100    | 0         |                | 100    | 0         | 18.20               | 29.18            |
|                 |            | 2660.2         | 1      | 99        | 2680           | 1      | 0         | 19.98               | 30.86            |
|                 |            |                | 100    | 0         |                | 100    | 0         | 17.79               | 28.95            |



| LTE Band 4      |         |                 |            |        |          |                     |                  |
|-----------------|---------|-----------------|------------|--------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 1.4             | 19957   | 1710.7          | QPSK       | 1      | 0        | 23.89               | 25.59            |
|                 |         |                 |            | 1      | 3        | 23.92               | 25.6             |
|                 |         |                 |            | 1      | 5        | 23.87               | 25.68            |
|                 |         |                 |            | 6      | 0        | 23.43               | 26.32            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.63               | 25.69            |
|                 |         |                 |            | 1      | 3        | 22.65               | 25.83            |
|                 |         |                 |            | 1      | 5        | 22.61               | 25.79            |
|                 |         |                 |            | 6      | 0        | 22.21               | 26.57            |
|                 | 20175   | 1732.5          | QPSK       | 1      | 0        | 23.13               | 26.34            |
|                 |         |                 |            | 1      | 3        | 23.17               | 26.24            |
|                 |         |                 |            | 1      | 5        | 23.11               | 26.22            |
|                 |         |                 |            | 6      | 0        | 22.8                | 26.29            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.14               | 26.51            |
|                 |         |                 |            | 1      | 3        | 22.19               | 26.61            |
|                 |         |                 |            | 1      | 5        | 23.16               | 26.55            |
|                 |         |                 |            | 6      | 0        | 21.73               | 26.14            |
|                 | 20393   | 1754.3          | QPSK       | 1      | 0        | 23.02               | 25.89            |
|                 |         |                 |            | 1      | 3        | 23.05               | 25.91            |
|                 |         |                 |            | 1      | 5        | 22.99               | 26.03            |
|                 |         |                 |            | 6      | 0        | 22.54               | 26.76            |
|                 |         |                 | 16QAM      | 1      | 0        | 21.99               | 26.18            |
|                 |         |                 |            | 1      | 3        | 22.05               | 26.35            |
|                 |         |                 |            | 1      | 5        | 21.95               | 26.37            |
|                 |         |                 |            | 6      | 0        | 21.58               | 27.07            |

| LTE Band 4      |         |                 |            |        |          |                     |                  |
|-----------------|---------|-----------------|------------|--------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 3               | 19965   | 1711.5          | QPSK       | 1      | 0        | 23.94               | 25.61            |
|                 |         |                 |            | 1      | 8        | 23.9                | 25.62            |
|                 |         |                 |            | 1      | 14       | 23.76               | 25.76            |
|                 |         |                 |            | 15     | 0        | 23.14               | 26.28            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.69               | 25.64            |
|                 |         |                 |            | 1      | 8        | 22.63               | 25.83            |
|                 |         |                 |            | 1      | 14       | 22.48               | 25.9             |
|                 |         |                 |            | 15     | 0        | 22.09               | 26.54            |
|                 | 20175   | 1732.5          | QPSK       | 1      | 0        | 23.12               | 26.14            |
|                 |         |                 |            | 1      | 8        | 23.12               | 26.15            |
|                 |         |                 |            | 1      | 14       | 23.06               | 26.14            |
|                 |         |                 |            | 15     | 0        | 22.76               | 26.28            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.22               | 26.48            |
|                 |         |                 |            | 1      | 8        | 22.22               | 26.67            |
|                 |         |                 |            | 1      | 14       | 22.18               | 26.48            |
|                 |         |                 |            | 15     | 0        | 21.76               | 26.08            |
|                 | 20385   | 1753.5          | QPSK       | 1      | 0        | 23.1                | 25.63            |
|                 |         |                 |            | 1      | 8        | 23.06               | 25.73            |
|                 |         |                 |            | 1      | 14       | 22.97               | 25.88            |
|                 |         |                 |            | 15     | 0        | 22.66               | 26.79            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.02               | 25.95            |
|                 |         |                 |            | 1      | 8        | 22.01               | 26.01            |
|                 |         |                 |            | 1      | 14       | 22.0                | 26.26            |
|                 |         |                 |            | 15     | 0        | 21.64               | 27.03            |

| LTE Band 4      |         |                 |            |        |          |                     |                  |
|-----------------|---------|-----------------|------------|--------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 5               | 19975   | 1712.5          | QPSK       | 1      | 0        | 23.95               | 25.62            |
|                 |         |                 |            | 1      | 13       | 23.77               | 25.77            |
|                 |         |                 |            | 1      | 24       | 23.66               | 26.04            |
|                 |         |                 |            | 25     | 0        | 23.11               | 26.6             |
|                 |         |                 | 16QAM      | 1      | 0        | 22.84               | 25.65            |
|                 |         |                 |            | 1      | 13       | 22.74               | 25.89            |
|                 |         |                 |            | 1      | 24       | 22.71               | 26.27            |
|                 |         |                 |            | 25     | 0        | 22.11               | 26.78            |
|                 | 20175   | 1732.5          | QPSK       | 1      | 0        | 23.17               | 26.14            |
|                 |         |                 |            | 1      | 13       | 23.18               | 26.16            |
|                 |         |                 |            | 1      | 24       | 23.09               | 26.16            |
|                 |         |                 |            | 25     | 0        | 22.71               | 26.26            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.3                | 26.6             |
|                 |         |                 |            | 1      | 13       | 22.3                | 26.65            |
|                 |         |                 |            | 1      | 24       | 22.23               | 26.55            |
|                 |         |                 |            | 25     | 0        | 21.63               | 26.11            |
|                 | 20375   | 1752.5          | QPSK       | 1      | 0        | 23.13               | 25.52            |
|                 |         |                 |            | 1      | 13       | 23.1                | 25.68            |
|                 |         |                 |            | 1      | 24       | 22.99               | 25.93            |
|                 |         |                 |            | 25     | 0        | 22.6                | 26.63            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.04               | 25.80            |
|                 |         |                 |            | 1      | 13       | 22.04               | 26.04            |
|                 |         |                 |            | 1      | 24       | 21.98               | 26.36            |
|                 |         |                 |            | 25     | 0        | 21.63               | 26.82            |

| LTE Band 4      |         |                 |            |        |          |                     |                  |
|-----------------|---------|-----------------|------------|--------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 10              | 20000   | 1715            | QPSK       | 1      | 0        | 23.93               | 25.68            |
|                 |         |                 |            | 1      | 25       | 23.6                | 26.25            |
|                 |         |                 |            | 1      | 49       | 23.4                | 26.62            |
|                 |         |                 |            | 50     | 0        | 23.2                | 27.03            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.71               | 25.88            |
|                 |         |                 |            | 1      | 25       | 22.42               | 26.57            |
|                 |         |                 |            | 1      | 49       | 22.33               | 27.21            |
|                 |         |                 |            | 50     | 0        | 22.24               | 27.38            |
|                 | 20175   | 1732.5          | QPSK       | 1      | 0        | 23.77               | 26.67            |
|                 |         |                 |            | 1      | 25       | 23.58               | 26.59            |
|                 |         |                 |            | 1      | 49       | 23.55               | 26.58            |
|                 |         |                 |            | 50     | 0        | 22.72               | 26.34            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.75               | 27.08            |
|                 |         |                 |            | 1      | 25       | 22.57               | 27.07            |
|                 |         |                 |            | 1      | 49       | 22.5                | 26.98            |
|                 |         |                 |            | 50     | 0        | 21.67               | 26.52            |
|                 | 20350   | 1750            | QPSK       | 1      | 0        | 23.67               | 25.91            |
|                 |         |                 |            | 1      | 25       | 23.54               | 29.95            |
|                 |         |                 |            | 1      | 49       | 23.43               | 26.4             |
|                 |         |                 |            | 50     | 0        | 22.57               | 26.42            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.63               | 26.15            |
|                 |         |                 |            | 1      | 25       | 22.52               | 26.38            |
|                 |         |                 |            | 1      | 49       | 22.53               | 26.82            |
|                 |         |                 |            | 50     | 0        | 21.64               | 26.65            |

| LTE Band 4      |         |                 |            |        |          |                     |                  |
|-----------------|---------|-----------------|------------|--------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 15              | 20025   | 1717.5          | QPSK       | 1      | 0        | 23.99               | 25.79            |
|                 |         |                 |            | 1      | 38       | 23.92               | 27.08            |
|                 |         |                 |            | 1      | 74       | 23.71               | 26.82            |
|                 |         |                 |            | 75     | 0        | 22.99               | 27.47            |
|                 |         |                 | 16QAM      | 1      | 0        | 23.19               | 26.41            |
|                 |         |                 |            | 1      | 38       | 23.05               | 27.59            |
|                 |         |                 |            | 1      | 74       | 22.84               | 27.08            |
|                 |         |                 |            | 75     | 0        | 22.08               | 28.04            |
|                 | 20175   | 1732.5          | QPSK       | 1      | 0        | 23.85               | 26.6             |
|                 |         |                 |            | 1      | 38       | 23.55               | 26.61            |
|                 |         |                 |            | 1      | 74       | 23.53               | 26.52            |
|                 |         |                 |            | 75     | 0        | 22.73               | 26.7             |
|                 |         |                 | 16QAM      | 1      | 0        | 22.88               | 27.02            |
|                 |         |                 |            | 1      | 38       | 22.65               | 27.15            |
|                 |         |                 |            | 1      | 74       | 22.63               | 27.02            |
|                 |         |                 |            | 75     | 0        | 21.8                | 26.6             |
|                 | 20325   | 1747.5          | QPSK       | 1      | 0        | 23.66               | 26.33            |
|                 |         |                 |            | 1      | 38       | 23.5                | 26.04            |
|                 |         |                 |            | 1      | 74       | 23.41               | 26.44            |
|                 |         |                 |            | 75     | 0        | 22.65               | 26.6             |
|                 |         |                 | 16QAM      | 1      | 0        | 22.73               | 26.69            |
|                 |         |                 |            | 1      | 38       | 22.46               | 26.35            |
|                 |         |                 |            | 1      | 74       | 22.53               | 26.89            |
|                 |         |                 |            | 75     | 0        | 21.74               | 26.86            |

| LTE Band 4      |         |                 |            |          |          |                     |                  |
|-----------------|---------|-----------------|------------|----------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB   | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 20              | 20050   | 1720            | QPSK       | <b>1</b> | <b>0</b> | <b>23.99</b>        | <b>26.15</b>     |
|                 |         |                 |            | 1        | 50       | 23.74               | 27.13            |
|                 |         |                 |            | 1        | 99       | 23.58               | 26.65            |
|                 |         |                 |            | 100      | 0        | 22.99               | 27.21            |
|                 |         |                 | 16QAM      | <b>1</b> | <b>0</b> | <b>23.18</b>        | <b>26.87</b>     |
|                 |         |                 |            | 1        | 50       | 22.88               | 27.95            |
|                 |         |                 |            | 1        | 99       | 22.54               | 26.21            |
|                 |         |                 |            | 100      | 0        | 22.02               | 27.84            |
|                 | 20175   | 1732.5          | QPSK       | <b>1</b> | <b>0</b> | <b>23.86</b>        | <b>27.18</b>     |
|                 |         |                 |            | 1        | 50       | 23.55               | 26.69            |
|                 |         |                 |            | 1        | 99       | 23.52               | 26.56            |
|                 |         |                 |            | 100      | 0        | 22.81               | 26.88            |
|                 |         |                 | 16QAM      | <b>1</b> | <b>0</b> | <b>23.05</b>        | <b>27.63</b>     |
|                 |         |                 |            | 1        | 50       | 22.62               | 26.34            |
|                 |         |                 |            | 1        | 99       | 22.71               | 27.18            |
|                 |         |                 |            | 100      | 0        | 21.72               | 26.91            |
|                 | 20300   | 1745            | QPSK       | <b>1</b> | <b>0</b> | <b>23.24</b>        | <b>26.27</b>     |
|                 |         |                 |            | 1        | 50       | 23.06               | 25.77            |
|                 |         |                 |            | 1        | 99       | 22.97               | 26.11            |
|                 |         |                 |            | 100      | 0        | 22.65               | 26.85            |
|                 |         |                 | 16QAM      | <b>1</b> | <b>0</b> | <b>22.25</b>        | <b>26.74</b>     |
|                 |         |                 |            | 1        | 50       | 21.98               | 26.12            |
|                 |         |                 |            | 1        | 99       | 22.02               | 26.69            |
|                 |         |                 |            | 100      | 0        | 21.72               | 27.16            |

| LTE Band 7      |         |                 |            |          |           |                     |                  |
|-----------------|---------|-----------------|------------|----------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB   | RB Start  | Average Power (dBm) | Peak Power (dBm) |
| 5               | 20775   | 2502.5          | QPSK       | 1        | 0         | 21.51               | 25.05            |
|                 |         |                 |            | <b>1</b> | <b>13</b> | <b>21.77</b>        | <b>25.22</b>     |
|                 |         |                 |            | 1        | 24        | 21.69               | 25.21            |
|                 |         |                 |            | 25       | 0         | 21.84               | 27.22            |
|                 |         |                 | 16QAM      | 1        | 0         | 21.04               | 26.35            |
|                 |         |                 |            | <b>1</b> | <b>13</b> | <b>21.29</b>        | <b>26.44</b>     |
|                 |         |                 |            | 1        | 24        | 21.17               | 26.36            |
|                 |         |                 |            | 25       | 0         | 21.02               | 27.84            |
|                 | 21100   | 2535            | QPSK       | 1        | 0         | 23.62               | 27.51            |
|                 |         |                 |            | <b>1</b> | <b>13</b> | <b>23.69</b>        | <b>27.43</b>     |
|                 |         |                 |            | 1        | 24        | 23.59               | 27.36            |
|                 |         |                 |            | 25       | 0         | 22.72               | 28.51            |
|                 |         |                 | 16QAM      | 1        | 0         | 23.01               | 28.58            |
|                 |         |                 |            | <b>1</b> | <b>13</b> | <b>23.05</b>        | <b>28.47</b>     |
|                 |         |                 |            | 1        | 24        | 22.9                | 28.43            |
|                 |         |                 |            | 25       | 0         | 21.82               | 29.19            |
|                 | 21425   | 2567.5          | QPSK       | <b>1</b> | <b>0</b>  | <b>22.99</b>        | <b>26.66</b>     |
|                 |         |                 |            | 1        | 13        | 22.98               | 26.54            |
|                 |         |                 |            | 1        | 24        | 22.63               | 26.28            |
|                 |         |                 |            | 25       | 0         | 22.2                | 27.49            |
|                 |         |                 | 16QAM      | <b>1</b> | <b>0</b>  | <b>22.29</b>        | <b>27.63</b>     |
|                 |         |                 |            | 1        | 13        | 22.29               | 27.57            |
|                 |         |                 |            | 1        | 24        | 21.96               | 27.31            |
|                 |         |                 |            | 25       | 0         | 21.27               | 28.02            |

| LTE Band 7      |         |                 |            |          |           |                     |                  |
|-----------------|---------|-----------------|------------|----------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB   | RB Start  | Average Power (dBm) | Peak Power (dBm) |
| 10              | 20800   | 2505            | QPSK       | 1        | 0         | 21.63               | 25.14            |
|                 |         |                 |            | <b>1</b> | <b>25</b> | <b>21.93</b>        | <b>25.38</b>     |
|                 |         |                 |            | 1        | 49        | 21.81               | 25.31            |
|                 |         |                 |            | 50       | 0         | 21.92               | 27.24            |
|                 |         |                 | 16QAM      | 1        | 0         | 20.79               | 26.3             |
|                 |         |                 |            | <b>1</b> | <b>25</b> | <b>21.13</b>        | <b>26.41</b>     |
|                 |         |                 |            | 1        | 49        | 21.02               | 26.34            |
|                 |         |                 |            | 50       | 0         | 20.97               | 27.41            |
|                 | 21100   | 2535            | QPSK       | 1        | 0         | 22.76               | 26.46            |
|                 |         |                 |            | <b>1</b> | <b>25</b> | <b>23.06</b>        | <b>26.72</b>     |
|                 |         |                 |            | 1        | 49        | 22.87               | 26.55            |
|                 |         |                 |            | 50       | 0         | 22.52               | 28.32            |
|                 |         |                 | 16QAM      | 1        | 0         | 22.05               | 27.66            |
|                 |         |                 |            | <b>1</b> | <b>25</b> | <b>22.35</b>        | <b>27.91</b>     |
|                 |         |                 |            | 1        | 49        | 22.15               | 27.56            |
|                 |         |                 |            | 50       | 0         | 21.63               | 28.37            |
|                 | 21400   | 2565            | QPSK       | 1        | 0         | 23.03               | 26.66            |
|                 |         |                 |            | <b>1</b> | <b>25</b> | <b>23.08</b>        | <b>26.64</b>     |
|                 |         |                 |            | 1        | 49        | 22.49               | 26.15            |
|                 |         |                 |            | 50       | 0         | 22.28               | 27.98            |
|                 |         |                 | 16QAM      | 1        | 0         | 22.24               | 27.66            |
|                 |         |                 |            | <b>1</b> | <b>25</b> | <b>22.29</b>        | <b>27.63</b>     |
|                 |         |                 |            | 1        | 49        | 21.68               | 27.13            |
|                 |         |                 |            | 50       | 0         | 21.35               | 28.16            |

| LTE Band 7      |         |                 |            |          |           |                     |                  |
|-----------------|---------|-----------------|------------|----------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB   | RB Start  | Average Power (dBm) | Peak Power (dBm) |
| 15              | 20825   | 2507.5          | QPSK       | 1        | 0         | 21.57               | 25.04            |
|                 |         |                 |            | <b>1</b> | <b>38</b> | <b>22.0</b>         | <b>25.44</b>     |
|                 |         |                 |            | 1        | 74        | 20.82               | 24.27            |
|                 |         |                 |            | 75       | 0         | 21.85               | 27.24            |
|                 |         |                 | 16QAM      | 1        | 0         | 20.82               | 26.11            |
|                 |         |                 |            | <b>1</b> | <b>38</b> | <b>21.29</b>        | <b>26.51</b>     |
|                 |         |                 |            | 1        | 74        | 20.09               | 25.37            |
|                 |         |                 |            | 75       | 0         | 21.03               | 27.77            |
|                 | 21100   | 2535            | QPSK       | 1        | 0         | 22.63               | 26.29            |
|                 |         |                 |            | <b>1</b> | <b>38</b> | <b>23.03</b>        | <b>26.69</b>     |
|                 |         |                 |            | 1        | 74        | 22.77               | 26.35            |
|                 |         |                 |            | 75       | 0         | 22.52               | 28.26            |
|                 |         |                 | 16QAM      | 1        | 0         | 21.93               | 27.44            |
|                 |         |                 |            | <b>1</b> | <b>38</b> | <b>22.35</b>        | <b>27.82</b>     |
|                 |         |                 |            | 1        | 74        | 22.07               | 27.44            |
|                 |         |                 |            | 75       | 0         | 21.57               | 28.45            |
|                 | 21375   | 2562.5          | QPSK       | 1        | 0         | 23.03               | 26.63            |
|                 |         |                 |            | <b>1</b> | <b>38</b> | <b>23.12</b>        | <b>26.74</b>     |
|                 |         |                 |            | 1        | 74        | 22.37               | 26.02            |
|                 |         |                 |            | 75       | 0         | 22.22               | 28.07            |
|                 |         |                 | 16QAM      | 1        | 0         | 22.16               | 27.69            |
|                 |         |                 |            | <b>1</b> | <b>38</b> | <b>22.26</b>        | <b>27.84</b>     |
|                 |         |                 |            | 1        | 74        | 21.50               | 27.10            |
|                 |         |                 |            | 75       | 0         | 21.3                | 28.19            |

| LTE Band 7      |         |                 |            |          |           |                     |                  |
|-----------------|---------|-----------------|------------|----------|-----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB   | RB Start  | Average Power (dBm) | Peak Power (dBm) |
| 20              | 20850   | 2510            | QPSK       | 1        | 0         | 21.27               | 24.72            |
|                 |         |                 |            | <b>1</b> | <b>50</b> | <b>22.05</b>        | <b>25.5</b>      |
|                 |         |                 |            | 1        | 99        | 21.68               | 25.27            |
|                 |         |                 |            | 100      | 0         | 21.9                | 27.35            |
|                 |         |                 | 16QAM      | 1        | 0         | 20.46               | 25.86            |
|                 |         |                 |            | <b>1</b> | <b>50</b> | <b>21.28</b>        | <b>26.5</b>      |
|                 |         |                 |            | 1        | 99        | 20.84               | 26.33            |
|                 |         |                 |            | 100      | 0         | 21.04               | 27.49            |
|                 | 21100   | 2535            | QPSK       | 1        | 0         | 22.28               | 25.91            |
|                 |         |                 |            | <b>1</b> | <b>50</b> | <b>22.98</b>        | <b>26.64</b>     |
|                 |         |                 |            | 1        | 99        | 22.46               | 26.0             |
|                 |         |                 |            | 100      | 0         | 22.61               | 28.01            |
|                 |         |                 | 16QAM      | 1        | 0         | 21.57               | 27.19            |
|                 |         |                 |            | <b>1</b> | <b>50</b> | <b>22.29</b>        | <b>27.75</b>     |
|                 |         |                 |            | 1        | 99        | 21.74               | 27.11            |
|                 |         |                 |            | 100      | 0         | 21.72               | 28.71            |
|                 | 21350   | 2560            | QPSK       | 1        | 0         | 22.65               | 26.21            |
|                 |         |                 |            | <b>1</b> | <b>50</b> | <b>23.07</b>        | <b>26.76</b>     |
|                 |         |                 |            | 1        | 99        | 22.09               | 25.78            |
|                 |         |                 |            | 100      | 0         | 22.26               | 27.62            |
|                 |         |                 | 16QAM      | 1        | 0         | 21.84               | 27.33            |
|                 |         |                 |            | <b>1</b> | <b>50</b> | <b>22.26</b>        | <b>27.81</b>     |
|                 |         |                 |            | 1        | 99        | 21.22               | 26.83            |
|                 |         |                 |            | 100      | 0         | 21.36               | 28.51            |

| LTE Band 13     |         |                 |            |        |          |                     |                  |
|-----------------|---------|-----------------|------------|--------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 5               | 23205   | 779.5           | QPSK       | 1      | 0        | 23.82               | 27.08            |
|                 |         |                 |            | 1      | 13       | 23.82               | 27.17            |
|                 |         |                 |            | 1      | 24       | 23.82               | 27.28            |
|                 |         |                 |            | 25     | 0        | 23.13               | 28.0             |
|                 |         |                 | 16QAM      | 1      | 0        | 22.99               | 27.61            |
|                 |         |                 |            | 1      | 13       | 23.01               | 27.89            |
|                 |         |                 |            | 1      | 24       | 23.01               | 27.92            |
|                 |         |                 |            | 25     | 0        | 22.18               | 28.78            |
|                 | 23230   | 782             | QPSK       | 1      | 0        | 23.95               | 27.39            |
|                 |         |                 |            | 1      | 13       | 23.93               | 27.34            |
|                 |         |                 |            | 1      | 24       | 23.88               | 27.32            |
|                 |         |                 |            | 25     | 0        | 23.19               | 28.1             |
|                 |         |                 | 16QAM      | 1      | 0        | 22.98               | 28.07            |
|                 |         |                 |            | 1      | 13       | 23.08               | 28.01            |
|                 |         |                 |            | 1      | 24       | 22.97               | 28.06            |
|                 |         |                 |            | 25     | 0        | 22.25               | 28.42            |
|                 | 23255   | 784.5           | QPSK       | 1      | 0        | 23.95               | 27.41            |
|                 |         |                 |            | 1      | 13       | 23.86               | 27.13            |
|                 |         |                 |            | 1      | 24       | 23.77               | 27.2             |
|                 |         |                 |            | 25     | 0        | 23.0                | 28.22            |
|                 |         |                 | 16QAM      | 1      | 0        | 23.22               | 28.05            |
|                 |         |                 |            | 1      | 13       | 23.1                | 27.83            |
|                 |         |                 |            | 1      | 24       | 23.03               | 27.88            |
|                 |         |                 |            | 25     | 0        | 22.24               | 28.32            |

| LTE Band 13     |         |                 |            |        |          |                     |                  |
|-----------------|---------|-----------------|------------|--------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 10              | 23230   | 782             | QPSK       | 1      | 0        | 23.93               | 27.15            |
|                 |         |                 |            | 1      | 25       | 23.82               | 27.21            |
|                 |         |                 |            | 1      | 49       | 23.72               | 27.1             |
|                 |         |                 |            | 50     | 0        | 23.12               | 28.07            |
|                 |         |                 | 16QAM      | 1      | 0        | 23.05               | 27.71            |
|                 |         |                 |            | 1      | 25       | 23.0                | 27.92            |
|                 |         |                 |            | 1      | 49       | 22.89               | 27.88            |
|                 |         |                 |            | 50     | 0        | 22.18               | 28.19            |

| LTE Band 66     |         |                 |            |          |          |                     |                  |
|-----------------|---------|-----------------|------------|----------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB   | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 1.4             | 131979  | 1710.7          | QPSK       | 1        | 0        | 23.91               | 25.83            |
|                 |         |                 |            | <b>1</b> | <b>3</b> | <b>23.94</b>        | <b>25.87</b>     |
|                 |         |                 |            | 1        | 5        | 23.9                | 25.91            |
|                 |         |                 |            | 6        | 0        | 23.41               | 26.54            |
|                 |         |                 | 16QAM      | 1        | 0        | 22.72               | 26.06            |
|                 |         |                 |            | <b>1</b> | <b>3</b> | <b>22.75</b>        | <b>26.11</b>     |
|                 |         |                 |            | 1        | 5        | 22.7                | 26.12            |
|                 |         |                 |            | 6        | 0        | 22.21               | 26.75            |
|                 | 132322  | 1745            | QPSK       | 1        | 0        | 23.05               | 25.62            |
|                 |         |                 |            | <b>1</b> | <b>3</b> | <b>23.11</b>        | <b>25.51</b>     |
|                 |         |                 |            | 1        | 5        | 22.98               | 25.64            |
|                 |         |                 |            | 6        | 0        | 22.46               | 26.49            |
|                 |         |                 | 16QAM      | 1        | 0        | 21.9                | 26.08            |
|                 |         |                 |            | <b>1</b> | <b>3</b> | <b>21.95</b>        | <b>26.14</b>     |
|                 |         |                 |            | 1        | 5        | 21.86               | 26.01            |
|                 |         |                 |            | 6        | 0        | 21.43               | 26.73            |
|                 | 132665  | 1779.3          | QPSK       | 1        | 0        | 22.84               | 25.86            |
|                 |         |                 |            | <b>1</b> | <b>3</b> | <b>22.87</b>        | <b>25.84</b>     |
|                 |         |                 |            | 1        | 5        | 22.8                | 25.94            |
|                 |         |                 |            | 6        | 0        | 22.33               | 26.82            |
|                 |         |                 | 16QAM      | 1        | 0        | 21.77               | 26.12            |
|                 |         |                 |            | <b>1</b> | <b>3</b> | <b>21.87</b>        | <b>26.18</b>     |
|                 |         |                 |            | 1        | 5        | 21.8                | 26.29            |
|                 |         |                 |            | 6        | 0        | 21.38               | 27.18            |

| LTE Band 66     |         |                 |            |        |          |                     |                  |
|-----------------|---------|-----------------|------------|--------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 3               | 131987  | 1711.5          | QPSK       | 1      | 0        | 23.91               | 25.92            |
|                 |         |                 |            | 1      | 8        | 23.85               | 26.05            |
|                 |         |                 |            | 1      | 14       | 23.84               | 26.22            |
|                 |         |                 |            | 15     | 0        | 23.26               | 26.75            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.71               | 26.08            |
|                 |         |                 |            | 1      | 8        | 22.71               | 26.25            |
|                 |         |                 |            | 1      | 14       | 22.71               | 26.45            |
|                 |         |                 |            | 15     | 0        | 22.26               | 26.98            |
|                 | 132322  | 1745            | QPSK       | 1      | 0        | 23.03               | 25.62            |
|                 |         |                 |            | 1      | 8        | 22.96               | 25.57            |
|                 |         |                 |            | 1      | 14       | 22.97               | 25.62            |
|                 |         |                 |            | 15     | 0        | 22.42               | 26.8             |
|                 |         |                 | 16QAM      | 1      | 0        | 21.94               | 25.96            |
|                 |         |                 |            | 1      | 8        | 21.91               | 25.97            |
|                 |         |                 |            | 1      | 14       | 21.88               | 25.98            |
|                 |         |                 |            | 15     | 0        | 21.5                | 26.96            |
|                 | 132657  | 1778.5          | QPSK       | 1      | 0        | 22.84               | 25.79            |
|                 |         |                 |            | 1      | 8        | 22.78               | 25.84            |
|                 |         |                 |            | 1      | 14       | 22.73               | 25.96            |
|                 |         |                 |            | 15     | 0        | 22.39               | 26.8             |
|                 |         |                 | 16QAM      | 1      | 0        | 21.93               | 26.18            |
|                 |         |                 |            | 1      | 8        | 21.91               | 26.29            |
|                 |         |                 |            | 1      | 14       | 21.89               | 26.42            |
|                 |         |                 |            | 15     | 0        | 21.43               | 26.87            |

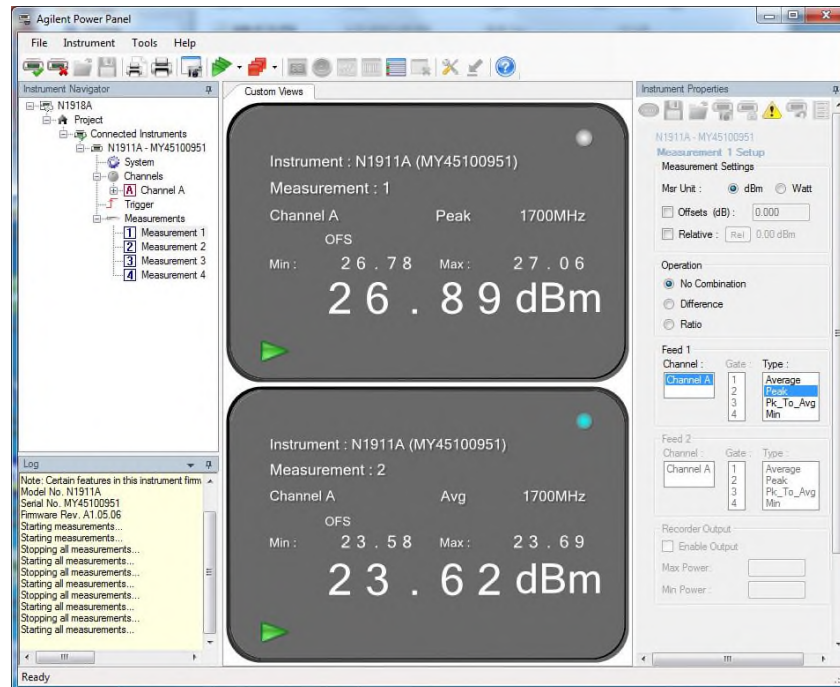
| LTE Band 66     |         |                 |            |        |          |                     |                  |
|-----------------|---------|-----------------|------------|--------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 5               | 131997  | 1712.5          | QPSK       | 1      | 0        | 23.95               | 26.48            |
|                 |         |                 |            | 1      | 13       | 23.92               | 26.63            |
|                 |         |                 |            | 1      | 24       | 23.73               | 26.82            |
|                 |         |                 |            | 25     | 0        | 23.24               | 26.85            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.97               | 26.71            |
|                 |         |                 |            | 1      | 13       | 23.02               | 27.1             |
|                 |         |                 |            | 1      | 24       | 22.84               | 27.28            |
|                 |         |                 |            | 25     | 0        | 22.24               | 26.93            |
|                 | 132322  | 1745            | QPSK       | 1      | 0        | 23.12               | 26.21            |
|                 |         |                 |            | 1      | 13       | 23.11               | 26.05            |
|                 |         |                 |            | 1      | 24       | 23.01               | 26.04            |
|                 |         |                 |            | 25     | 0        | 22.56               | 26.28            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.15               | 26.62            |
|                 |         |                 |            | 1      | 13       | 22.15               | 26.47            |
|                 |         |                 |            | 1      | 24       | 22.1                | 26.52            |
|                 |         |                 |            | 25     | 0        | 21.62               | 26.65            |
|                 | 132647  | 1777.5          | QPSK       | 1      | 0        | 23.06               | 26.21            |
|                 |         |                 |            | 1      | 13       | 23.03               | 26.26            |
|                 |         |                 |            | 1      | 24       | 22.98               | 26.24            |
|                 |         |                 |            | 25     | 0        | 22.53               | 27.0             |
|                 |         |                 | 16QAM      | 1      | 0        | 22.23               | 26.47            |
|                 |         |                 |            | 1      | 13       | 22.28               | 26.81            |
|                 |         |                 |            | 1      | 24       | 22.17               | 26.96            |
|                 |         |                 |            | 25     | 0        | 21.61               | 27.35            |

| LTE Band 66     |         |                 |            |          |          |                     |                  |
|-----------------|---------|-----------------|------------|----------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB   | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 10              | 132022  | 1715            | QPSK       | <b>1</b> | <b>0</b> | <b>24.0</b>         | <b>25.79</b>     |
|                 |         |                 |            | 1        | 25       | 23.61               | 26.32            |
|                 |         |                 |            | 1        | 49       | 23.43               | 26.66            |
|                 |         |                 |            | 50       | 0        | 23.24               | 27.37            |
|                 |         |                 | 16QAM      | <b>1</b> | <b>0</b> | <b>22.74</b>        | <b>25.99</b>     |
|                 |         |                 |            | 1        | 25       | 22.58               | 26.68            |
|                 |         |                 |            | 1        | 49       | 22.54               | 27.34            |
|                 |         |                 |            | 50       | 0        | 22.25               | 27.59            |
|                 | 132322  | 1745            | QPSK       | <b>1</b> | <b>0</b> | <b>23.19</b>        | <b>25.76</b>     |
|                 |         |                 |            | 1        | 25       | 22.97               | 25.49            |
|                 |         |                 |            | 1        | 49       | 22.95               | 25.55            |
|                 |         |                 |            | 50       | 0        | 22.54               | 26.56            |
|                 |         |                 | 16QAM      | <b>1</b> | <b>0</b> | <b>22.11</b>        | <b>26.28</b>     |
|                 |         |                 |            | 1        | 25       | 21.86               | 25.86            |
|                 |         |                 |            | 1        | 49       | 21.86               | 25.97            |
|                 |         |                 |            | 50       | 0        | 21.61               | 26.7             |
|                 | 132622  | 1775            | QPSK       | <b>1</b> | <b>0</b> | <b>22.94</b>        | <b>26.14</b>     |
|                 |         |                 |            | 1        | 25       | 22.84               | 25.72            |
|                 |         |                 |            | 1        | 49       | 22.76               | 25.85            |
|                 |         |                 |            | 50       | 0        | 22.49               | 27.07            |
|                 |         |                 | 16QAM      | <b>1</b> | <b>0</b> | <b>22.1</b>         | <b>26.77</b>     |
|                 |         |                 |            | 1        | 25       | 21.94               | 26.19            |
|                 |         |                 |            | 1        | 49       | 21.92               | 26.18            |
|                 |         |                 |            | 50       | 0        | 21.58               | 27.29            |

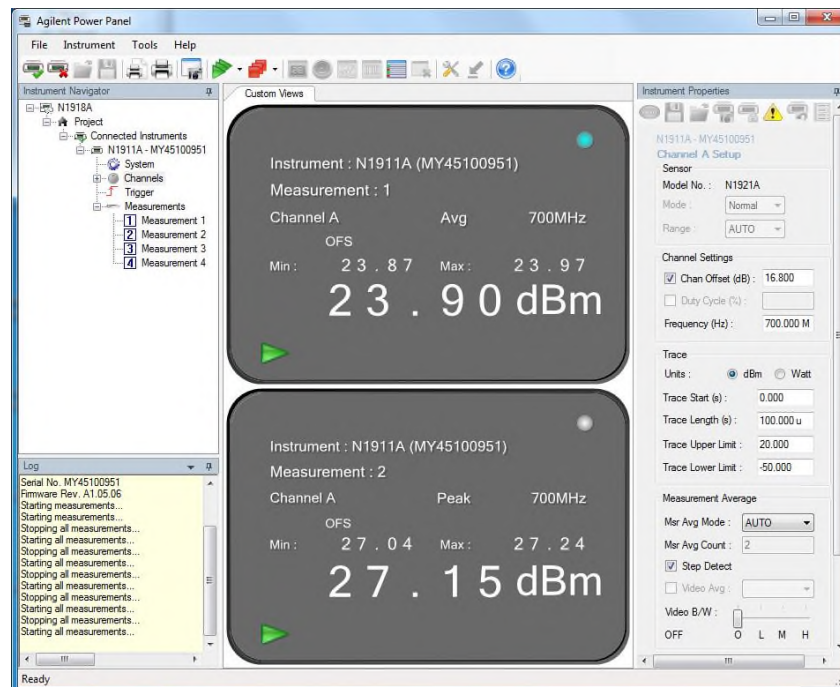
| LTE Band 66     |         |                 |            |        |          |                     |                  |
|-----------------|---------|-----------------|------------|--------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 15              | 132047  | 1717.5          | QPSK       | 1      | 0        | 23.92               | 25.99            |
|                 |         |                 |            | 1      | 38       | 23.52               | 26.7             |
|                 |         |                 |            | 1      | 74       | 23.43               | 26.44            |
|                 |         |                 |            | 75     | 0        | 23.19               | 27.64            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.83               | 26.26            |
|                 |         |                 |            | 1      | 38       | 22.68               | 27.31            |
|                 |         |                 |            | 1      | 74       | 22.51               | 26.81            |
|                 |         |                 |            | 75     | 0        | 22.26               | 27.76            |
|                 | 132322  | 1745            | QPSK       | 1      | 0        | 23.2                | 26.17            |
|                 |         |                 |            | 1      | 38       | 22.93               | 25.62            |
|                 |         |                 |            | 1      | 74       | 22.89               | 25.85            |
|                 |         |                 |            | 75     | 0        | 22.63               | 26.78            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.32               | 26.64            |
|                 |         |                 |            | 1      | 38       | 21.97               | 26.02            |
|                 |         |                 |            | 1      | 74       | 22.0                | 26.32            |
|                 |         |                 |            | 75     | 0        | 21.7                | 27.01            |
|                 | 132597  | 1772.5          | QPSK       | 1      | 0        | 23.04               | 26.07            |
|                 |         |                 |            | 1      | 38       | 22.8                | 26.01            |
|                 |         |                 |            | 1      | 74       | 22.8                | 25.92            |
|                 |         |                 |            | 75     | 0        | 22.54               | 27.44            |
|                 |         |                 | 16QAM      | 1      | 0        | 21.97               | 25.68            |
|                 |         |                 |            | 1      | 38       | 21.86               | 26.72            |
|                 |         |                 |            | 1      | 74       | 21.82               | 26.41            |
|                 |         |                 |            | 75     | 0        | 21.65               | 27.51            |

| LTE Band 66     |         |                 |            |        |          |                     |                  |
|-----------------|---------|-----------------|------------|--------|----------|---------------------|------------------|
| Bandwidth (MHz) | Channel | Frequency (MHz) | Modulation | No. RB | RB Start | Average Power (dBm) | Peak Power (dBm) |
| 20              | 132072  | 1720            | QPSK       | 1      | 0        | 23.98               | 26.26            |
|                 |         |                 |            | 1      | 50       | 23.44               | 26.78            |
|                 |         |                 |            | 1      | 99       | 23.34               | 26.34            |
|                 |         |                 |            | 100    | 0        | 23.12               | 27.39            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.8                | 26.6             |
|                 |         |                 |            | 1      | 50       | 22.48               | 27.52            |
|                 |         |                 |            | 1      | 99       | 22.21               | 25.68            |
|                 |         |                 |            | 100    | 0        | 22.11               | 27.8             |
|                 | 132322  | 1745            | QPSK       | 1      | 0        | 23.41               | 26.37            |
|                 |         |                 |            | 1      | 50       | 22.95               | 25.84            |
|                 |         |                 |            | 1      | 99       | 22.86               | 26.08            |
|                 |         |                 |            | 100    | 0        | 22.56               | 26.9             |
|                 |         |                 | 16QAM      | 1      | 0        | 22.4                | 26.75            |
|                 |         |                 |            | 1      | 50       | 21.93               | 26.22            |
|                 |         |                 |            | 1      | 99       | 21.95               | 26.75            |
|                 |         |                 |            | 100    | 0        | 21.61               | 27.14            |
|                 | 132572  | 1770            | QPSK       | 1      | 0        | 22.98               | 26.31            |
|                 |         |                 |            | 1      | 50       | 22.91               | 26.07            |
|                 |         |                 |            | 1      | 99       | 22.85               | 26.05            |
|                 |         |                 |            | 100    | 0        | 22.45               | 26.91            |
|                 |         |                 | 16QAM      | 1      | 0        | 22.23               | 26.71            |
|                 |         |                 |            | 1      | 50       | 22.05               | 26.44            |
|                 |         |                 |            | 1      | 99       | 22.01               | 26.6             |
|                 |         |                 |            | 100    | 0        | 21.49               | 26.77            |

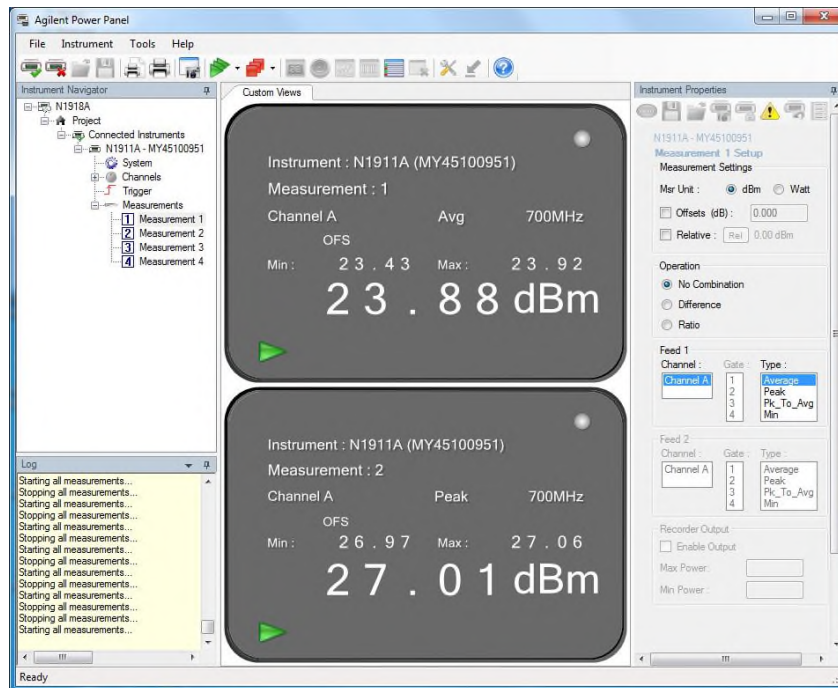
## 2.1.9 Sample Test Measurement Screen



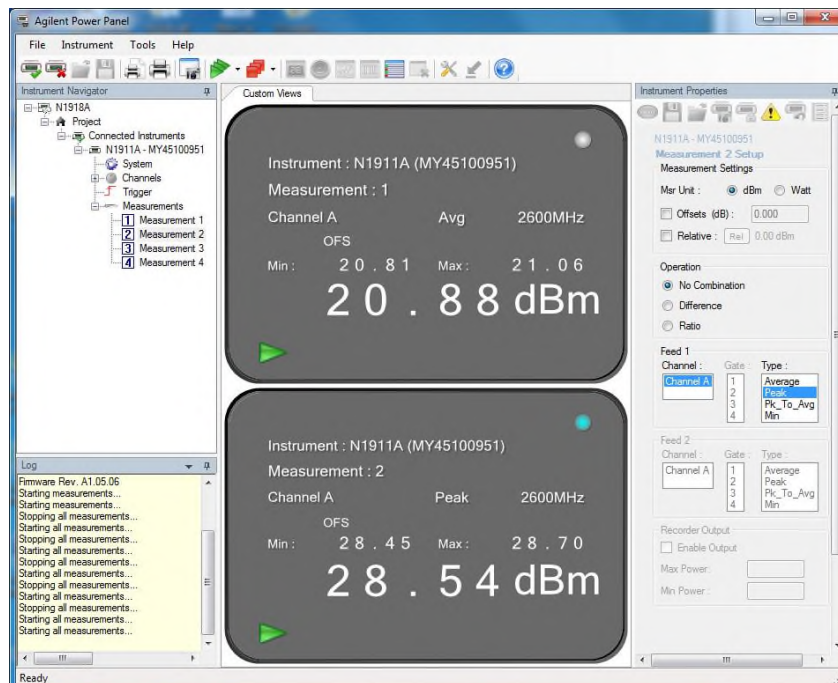
WCDMA Band 4 Middle Channel



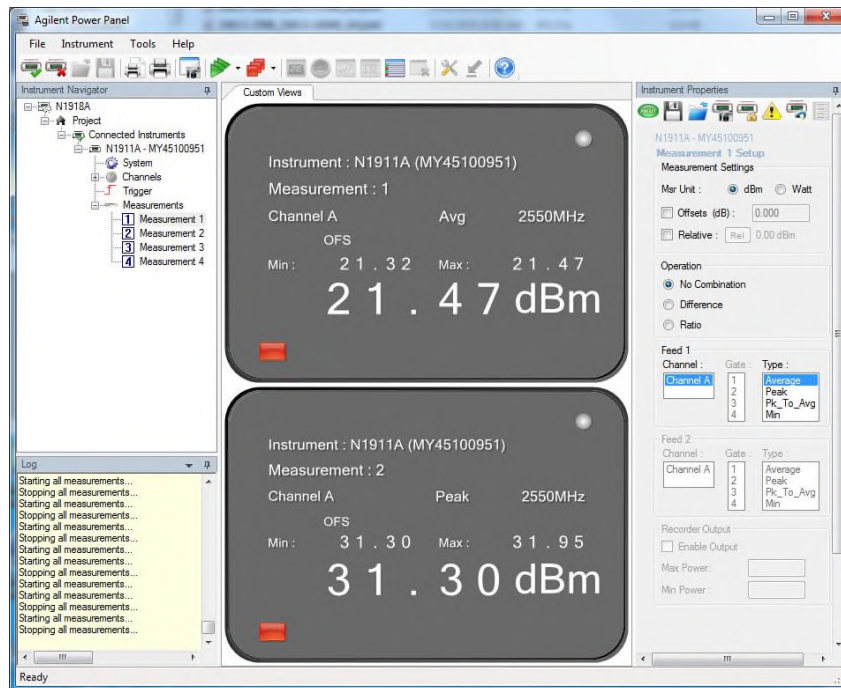
LTE Band 12\_5 MH Bandwidth Middle Channel QPSK 1 RB 0 Offset



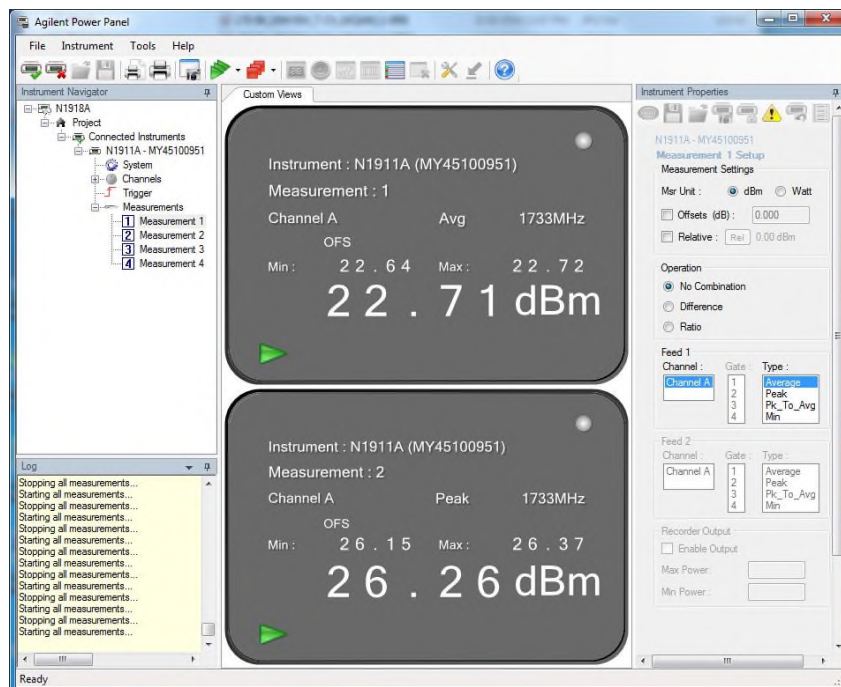
**LTE Band 17\_5 MHz Bandwidth Middle Channel QPSK 1 RB 12 Offset**



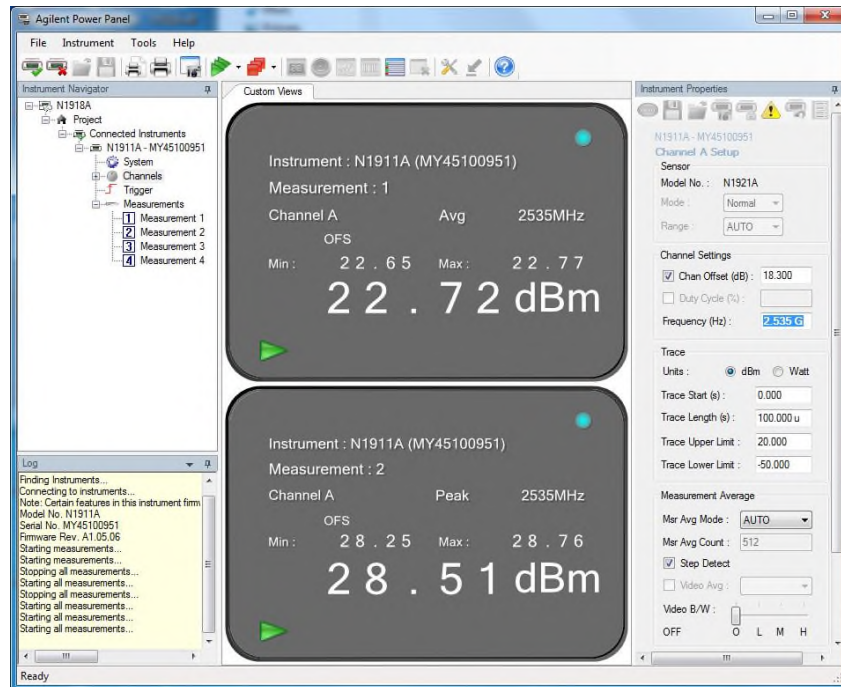
**LTE Band 41\_5 MHz Bandwidth Middle Channel QPSK 1 RB 12 Offset**



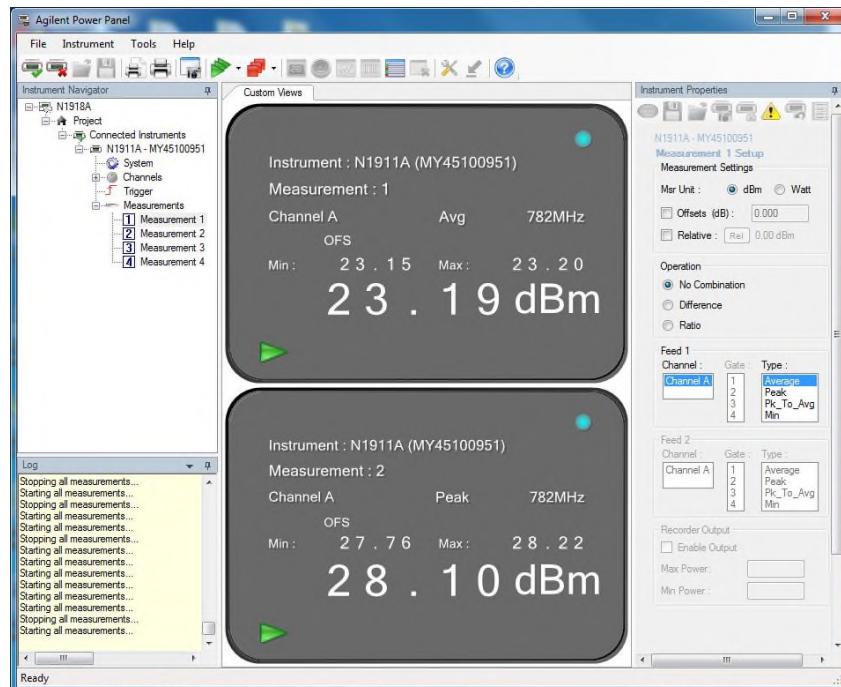
**LTE Band 41C\_10 MH BW 2501.3 MHz 1 RB 49 offset and 15 MHz BW 2513.3 MHz 1 RB 0 offset QPSK**



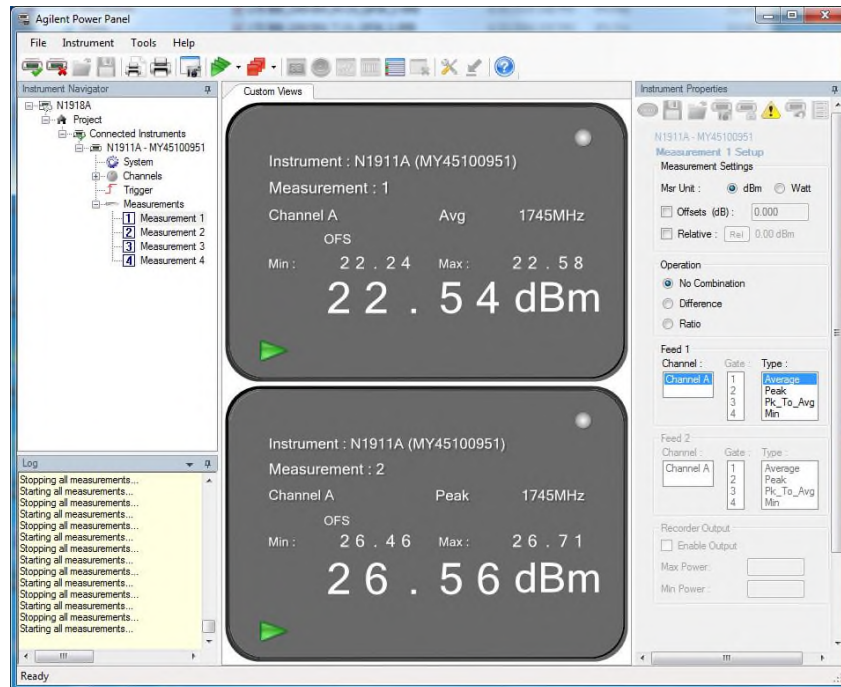
**LTE Band 4\_5 MH Bandwidth Middle Chanel QPSK Full RB**



**LTE Band 7\_10 MH Bandwidth Middle Chanel QPSK Full RB**



**LTE Band 13\_5 MH Bandwidth Middle Chanel QPSK Full RB**



LTE Band 66\_10 MH Bandwidth Middle Channel QPSK Full RB



## **2.2 EQUIVALENT ISOTROPIC RADIATED POWER**

### **2.2.1 Specification Reference**

FCC 47 CFR Part 2, Clause 2.1046  
FCC 47 CFR Part 27, Clause 27.50 (h)(2)  
RSS-139, Clause 6.5  
RSS-199, Clause 4.4

### **2.2.2 Standard Applicable**

FCC 47 CFR Part 27.50(h)  
(2) Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

RSS-139, Clause 6.5:  
The equivalent isotropically radiated power (e.i.r.p.) for Mobile and portable transmitters shall not exceed one watt.

RSS-199, Clause 4.4:  
For mobile subscriber equipment, the e.i.r.p. shall not exceed 2 W.

### **2.2.3 Equipment Under Test**

Serial No: AT071218B00062 (MIFI8000), AZ280418A00044 (MIFI8800L), Test Configuration (N/A, calculation only)

### **2.2.4 Date of Verification/Initial of test personnel who performed the calculation**

February 25, 26, and April 03, 2019 / XYZ  
June 18, 19 and July 19, 2018 / XYZ

### **2.2.5 Additional Observations**

- EIRP was calculated as per Section 1.2 and 1.3 of KDB412172 D01 (Determining ERP and EIRP v01r01).
- Calculation formula in logarithmic terms:

$$\text{EIRP} = P_T + G_T - L_c$$

Where:

$P_T$  = transmitter conducted output power dBm (Section 2.1 of this test report)

$G_T$  = gain of the transmitting antenna, in dBi (EIRP)

$L_c$  = signal attenuation in the connecting cable between the transmitter and antenna, in dB (Power measurement performed directly at the primary antenna port. The loss between the LTE module and the primary antenna port is considered negligible).

- For LTE Bands, only the worst case RB size and RB offset presented.

## 2.2.6 Test Results

| WCDMA Band 4    |                         |                    |              |              |             |             |
|-----------------|-------------------------|--------------------|--------------|--------------|-------------|-------------|
| Frequency (MHz) | Max Power Average (dBm) | Antenna Gain (dBi) | EIRP         |              |             |             |
|                 |                         |                    | (dBm)        | (mW)         | Limit (dBm) | Margin (dB) |
| 1712.4          | 23.54                   | 0.0                | 23.54        | 22.59        | 33          | 9.46        |
| 1732.6          | 23.62                   | 0.0                | 23.62        | 23.01        | 33          | 9.38        |
| <b>1752.6</b>   | <b>23.89</b>            | <b>0.0</b>         | <b>23.89</b> | <b>24.49</b> | <b>33</b>   | <b>9.11</b> |

| LTE Band 41 |                 |                |              |                 |                        |                    |              |             |              |
|-------------|-----------------|----------------|--------------|-----------------|------------------------|--------------------|--------------|-------------|--------------|
| Modulation  | Bandwidth (MHz) | RB Size/Offset | Channels     | Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm)   | Limit (dBm) | Margin (dBm) |
| QPSK        | 5               | 1 / 12         | 39675        | 2498.5          | 21.40                  | 1.7                | 23.1         | 33          | 9.9          |
|             |                 | 1 / 12         | 40620        | 2593            | 20.88                  | 1.7                | 22.58        | 33          | 10.42        |
|             |                 | <b>1 / 12</b>  | <b>41565</b> | <b>2687.5</b>   | <b>22.37</b>           | <b>1.7</b>         | <b>24.07</b> | <b>33</b>   | <b>8.93</b>  |
|             | 10              | 1 / 0          | 39700        | 2501            | 21.19                  | 1.7                | 22.89        | 33          | 10.11        |
|             |                 | 1 / 0          | 40620        | 2593            | 20.97                  | 1.7                | 22.67        | 33          | 10.33        |
|             |                 | <b>1 / 0</b>   | <b>41540</b> | <b>2685</b>     | <b>22.36</b>           | <b>1.7</b>         | <b>24.06</b> | <b>33</b>   | <b>8.94</b>  |
|             | 15              | 1 / 0          | 39725        | 2503.5          | 21.06                  | 1.7                | 22.76        | 33          | 10.24        |
|             |                 | 1 / 0          | 40620        | 2593            | 21.15                  | 1.7                | 22.85        | 33          | 10.15        |
|             |                 | <b>1 / 0</b>   | <b>41515</b> | <b>2682.5</b>   | <b>22.39</b>           | <b>1.7</b>         | <b>24.09</b> | <b>33</b>   | <b>8.91</b>  |
|             | 20              | 1 / 0          | 39750        | 2506            | 21.33                  | 1.7                | 23.03        | 33          | 9.97         |
|             |                 | <b>1 / 0</b>   | <b>40620</b> | <b>2593</b>     | <b>21.38</b>           | <b>1.7</b>         | <b>23.08</b> | <b>33</b>   | <b>9.92</b>  |
|             |                 | 1 / 0          | 41490        | 2680            | 21.32                  | 1.7                | 23.02        | 33          | 9.98         |
| 16QAM       | 5               | 1 / 12         | 39675        | 2498.5          | 20.38                  | 1.7                | 22.08        | 33          | 10.92        |
|             |                 | 1 / 12         | 40620        | 2593            | 20.21                  | 1.7                | 21.91        | 33          | 11.09        |
|             |                 | <b>1 / 12</b>  | <b>41565</b> | <b>2687.5</b>   | <b>21.44</b>           | <b>1.7</b>         | <b>23.14</b> | <b>33</b>   | <b>9.86</b>  |
|             | 10              | 1 / 0          | 39700        | 2501            | 20.11                  | 1.7                | 21.81        | 33          | 11.19        |
|             |                 | 1 / 0          | 40620        | 2593            | 20.05                  | 1.7                | 21.75        | 33          | 11.25        |
|             |                 | <b>1 / 0</b>   | <b>41540</b> | <b>2685</b>     | <b>21.51</b>           | <b>1.7</b>         | <b>23.21</b> | <b>33</b>   | <b>9.79</b>  |
|             | 15              | 1 / 0          | 39725        | 2503.5          | 20.25                  | 1.7                | 21.95        | 33          | 11.05        |
|             |                 | 1 / 0          | 40620        | 2593            | 20.15                  | 1.7                | 21.85        | 33          | 11.15        |
|             |                 | <b>1 / 0</b>   | <b>41515</b> | <b>2682.5</b>   | <b>21.62</b>           | <b>1.7</b>         | <b>23.32</b> | <b>33</b>   | <b>9.68</b>  |
|             | 20              | 1 / 0          | 39750        | 2506            | 20.37                  | 1.7                | 22.07        | 33          | 10.93        |
|             |                 | 1 / 0          | 40620        | 2593            | 20.29                  | 1.7                | 21.99        | 33          | 11.01        |
|             |                 | <b>1 / 0</b>   | <b>41490</b> | <b>2680</b>     | <b>20.38</b>           | <b>1.7</b>         | <b>22.08</b> | <b>33</b>   | <b>10.92</b> |

| LTE Band 41C |                 |                  |                     |                     |                        |                    |            |             |              |
|--------------|-----------------|------------------|---------------------|---------------------|------------------------|--------------------|------------|-------------|--------------|
| Modulation   | Bandwidth (MHz) | RB Size/Offset   | PCC Frequency (MHz) | SCC Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
| QPSK         | 5 + 20          | 1 / 24 + 1 / 0   | 2499.3              | 2511                | 21.45                  | 1.7                | 23.15      | 33          | 9.85         |
|              |                 | 25 / 0 + 100 / 0 | 2499.3              | 2511                | 19.52                  | 1.7                | 21.22      | 33          | 11.78        |
|              |                 | 1 / 24 + 1 / 0   | 2583.8              | 2595.5              | 21.18                  | 1.7                | 22.88      | 33          | 10.12        |
|              |                 | 25 / 0 + 100 / 0 | 2583.8              | 2595.5              | 19.21                  | 1.7                | 20.91      | 33          | 12.09        |
|              |                 | 1 / 24 + 1 / 0   | 2668.3              | 2680                | 20.92                  | 1.7                | 22.62      | 33          | 10.38        |
|              |                 | 25 / 0 + 100 / 0 | 2668.3              | 2680                | 18.88                  | 1.7                | 20.58      | 33          | 12.42        |
| 16QAM        | 5 + 20          | 1 / 24 + 1 / 0   | 2499.3              | 2511                | 20.75                  | 1.7                | 22.45      | 33          | 10.55        |
|              |                 | 25 / 0 + 100 / 0 | 2499.3              | 2511                | 18.60                  | 1.7                | 20.3       | 33          | 12.7         |
|              |                 | 1 / 24 + 1 / 0   | 2583.8              | 2595.5              | 20.51                  | 1.7                | 22.21      | 33          | 10.79        |
|              |                 | 25 / 0 + 100 / 0 | 2583.8              | 2595.5              | 18.76                  | 1.7                | 20.46      | 33          | 12.54        |
|              |                 | 1 / 24 + 1 / 0   | 2668.3              | 2680                | 20.02                  | 1.7                | 21.72      | 33          | 11.28        |
|              |                 | 25 / 0 + 100 / 0 | 2668.3              | 2680                | 17.95                  | 1.7                | 19.65      | 33          | 13.35        |
| QPSK         | 20 + 5          | 1 / 100 + 1 / 0  | 2506                | 2517.7              | 21.38                  | 1.7                | 23.08      | 33          | 9.92         |
|              |                 | 100 / 0 + 25 / 0 | 2506                | 2517.7              | 19.42                  | 1.7                | 21.12      | 33          | 11.88        |
|              |                 | 1 / 100 + 1 / 0  | 2590.5              | 2602.2              | 21.09                  | 1.7                | 22.79      | 33          | 10.21        |
|              |                 | 100 / 0 + 25 / 0 | 2590.5              | 2602.2              | 19.10                  | 1.7                | 20.8       | 33          | 12.2         |
|              |                 | 1 / 100 + 1 / 0  | 2675                | 2686.7              | 20.75                  | 1.7                | 22.45      | 33          | 10.55        |
|              |                 | 100 / 0 + 25 / 0 | 2675                | 2686.7              | 18.79                  | 1.7                | 20.49      | 33          | 12.51        |
| 16QAM        | 20 + 5          | 1 / 100 + 1 / 0  | 2506                | 2517.7              | 20.67                  | 1.7                | 22.37      | 33          | 10.63        |
|              |                 | 100 / 0 + 25 / 0 | 2506                | 2517.7              | 18.50                  | 1.7                | 20.2       | 33          | 12.8         |
|              |                 | 1 / 100 + 1 / 0  | 2590.5              | 2602.2              | 20.26                  | 1.7                | 21.96      | 33          | 11.04        |
|              |                 | 100 / 0 + 25 / 0 | 2590.5              | 2602.2              | 18.17                  | 1.7                | 19.87      | 33          | 13.13        |
|              |                 | 1 / 100 + 1 / 0  | 2675                | 2686.7              | 19.93                  | 1.7                | 21.63      | 33          | 11.37        |
|              |                 | 100 / 0 + 25 / 0 | 2675                | 2686.7              | 17.89                  | 1.7                | 19.59      | 33          | 13.41        |



| LTE Band 41C |                 |                 |                     |                     |                        |                    |            |             |              |
|--------------|-----------------|-----------------|---------------------|---------------------|------------------------|--------------------|------------|-------------|--------------|
| Modulation   | Bandwidth (MHz) | RB Size/Offset  | PCC Frequency (MHz) | SCC Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
| QPSK         | 10 + 15         | 1 / 49 + 1 / 0  | 2501.3              | 2513.3              | 21.47                  | 1.7                | 23.17      | 33          | 9.83         |
|              |                 | 50 / 0 + 75 / 0 | 2501.3              | 2513.3              | 19.44                  | 1.7                | 21.14      | 33          | 11.86        |
|              |                 | 1 / 49 + 1 / 0  | 2585.9              | 2597.9              | 20.90                  | 1.7                | 22.6       | 33          | 10.4         |
|              |                 | 50 / 0 + 75 / 0 | 2585.9              | 2597.9              | 19.04                  | 1.7                | 20.74      | 33          | 12.26        |
|              |                 | 1 / 49 + 1 / 0  | 2670.5              | 2682.5              | 20.71                  | 1.7                | 22.41      | 33          | 10.59        |
|              |                 | 50 / 0 + 75 / 0 | 2670.5              | 2682.5              | 18.67                  | 1.7                | 20.37      | 33          | 12.63        |
| 16QAM        | 10 + 15         | 1 / 49 + 1 / 0  | 2501.3              | 2513.3              | 20.61                  | 1.7                | 22.31      | 33          | 10.69        |
|              |                 | 50 / 0 + 75 / 0 | 2501.3              | 2513.3              | 18.54                  | 1.7                | 20.24      | 33          | 12.76        |
|              |                 | 1 / 49 + 1 / 0  | 2585.9              | 2597.9              | 20.01                  | 1.7                | 21.71      | 33          | 11.29        |
|              |                 | 50 / 0 + 75 / 0 | 2585.9              | 2597.9              | 18.15                  | 1.7                | 19.85      | 33          | 13.15        |
|              |                 | 1 / 49 + 1 / 0  | 2670.5              | 2682.5              | 19.91                  | 1.7                | 21.61      | 33          | 11.39        |
|              |                 | 50 / 0 + 75 / 0 | 2670.5              | 2682.5              | 17.84                  | 1.7                | 19.54      | 33          | 13.46        |
| QPSK         | 15 + 10         | 1 / 74 + 1 / 0  | 2503.5              | 2515.5              | 21.30                  | 1.7                | 23         | 33          | 10           |
|              |                 | 75 / 0 + 50 / 0 | 2503.5              | 2515.5              | 19.27                  | 1.7                | 20.97      | 33          | 12.03        |
|              |                 | 1 / 74 + 1 / 0  | 2588.1              | 2600.1              | 20.99                  | 1.7                | 22.69      | 33          | 10.31        |
|              |                 | 75 / 0 + 50 / 0 | 2588.1              | 2600.1              | 18.94                  | 1.7                | 20.64      | 33          | 12.36        |
|              |                 | 1 / 74 + 1 / 0  | 2672.7              | 2515.5              | 20.61                  | 1.7                | 22.31      | 33          | 10.69        |
|              |                 | 75 / 0 + 50 / 0 | 2672.7              | 2515.5              | 18.60                  | 1.7                | 20.3       | 33          | 12.7         |
| 16QAM        | 15 + 10         | 1 / 74 + 1 / 0  | 2503.5              | 2515.5              | 20.44                  | 1.7                | 22.14      | 33          | 10.86        |
|              |                 | 75 / 0 + 50 / 0 | 2503.5              | 2515.5              | 18.36                  | 1.7                | 20.06      | 33          | 12.94        |
|              |                 | 1 / 74 + 1 / 0  | 2588.1              | 2600.1              | 20.23                  | 1.7                | 21.93      | 33          | 11.07        |
|              |                 | 75 / 0 + 50 / 0 | 2588.1              | 2600.1              | 18.02                  | 1.7                | 19.72      | 33          | 13.28        |
|              |                 | 1 / 74 + 1 / 0  | 2672.7              | 2515.5              | 19.75                  | 1.7                | 21.45      | 33          | 11.55        |
|              |                 | 75 / 0 + 50 / 0 | 2672.7              | 2515.5              | 17.83                  | 1.7                | 19.53      | 33          | 13.47        |

| LTE Band 41C |                 |                  |                     |                     |                        |                    |            |             |              |
|--------------|-----------------|------------------|---------------------|---------------------|------------------------|--------------------|------------|-------------|--------------|
| Modulation   | Bandwidth (MHz) | RB Size/Offset   | PCC Frequency (MHz) | SCC Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
| QPSK         | 10 + 20         | 1 / 49 + 1 / 0   | 2501.5              | 2515.9              | 21.24                  | 1.7                | 22.94      | 33          | 10.06        |
|              |                 | 50 / 0 + 100 / 0 | 2501.5              | 2515.9              | 19.26                  | 1.7                | 20.96      | 33          | 12.04        |
|              |                 | 1 / 49 + 1 / 0   | 2583.6              | 2598                | 20.91                  | 1.7                | 22.61      | 33          | 10.39        |
|              |                 | 50 / 0 + 100 / 0 | 2583.6              | 2598                | 19.01                  | 1.7                | 20.71      | 33          | 12.29        |
|              |                 | 1 / 49 + 1 / 0   | 2665.6              | 2680                | 20.75                  | 1.7                | 22.45      | 33          | 10.55        |
|              |                 | 50 / 0 + 100 / 0 | 2665.6              | 2680                | 18.70                  | 1.7                | 20.4       | 33          | 12.6         |
| 16QAM        | 10 + 20         | 1 / 49 + 1 / 0   | 2501.5              | 2515.9              | 20.35                  | 1.7                | 22.05      | 33          | 10.95        |
|              |                 | 50 / 0 + 100 / 0 | 2501.5              | 2515.9              | 18.35                  | 1.7                | 20.05      | 33          | 12.95        |
|              |                 | 1 / 49 + 1 / 0   | 2583.6              | 2598                | 20.10                  | 1.7                | 21.8       | 33          | 11.2         |
|              |                 | 50 / 0 + 100 / 0 | 2583.6              | 2598                | 18.14                  | 1.7                | 19.84      | 33          | 13.16        |
|              |                 | 1 / 49 + 1 / 0   | 2665.6              | 2680                | 19.90                  | 1.7                | 21.6       | 33          | 11.4         |
|              |                 | 50 / 0 + 100 / 0 | 2665.6              | 2680                | 17.91                  | 1.7                | 19.61      | 33          | 13.39        |
| QPSK         | 20 + 10         | 1 / 99 + 1 / 0   | 2506                | 2520.4              | 21.25                  | 1.7                | 22.95      | 33          | 10.05        |
|              |                 | 100 / 0 + 50 / 0 | 2506                | 2520.4              | 19.29                  | 1.7                | 20.99      | 33          | 12.01        |
|              |                 | 1 / 99 + 1 / 0   | 2588.1              | 2602.5              | 20.94                  | 1.7                | 22.64      | 33          | 10.36        |
|              |                 | 100 / 0 + 50 / 0 | 2588.1              | 2602.5              | 18.96                  | 1.7                | 20.66      | 33          | 12.34        |
|              |                 | 1 / 99 + 1 / 0   | 2670.1              | 2684.5              | 20.71                  | 1.7                | 22.41      | 33          | 10.59        |
|              |                 | 100 / 0 + 50 / 0 | 2670.1              | 2684.5              | 18.82                  | 1.7                | 20.52      | 33          | 12.48        |
| 16QAM        | 20 + 10         | 1 / 99 + 1 / 0   | 2506                | 2520.4              | 20.45                  | 1.7                | 22.15      | 33          | 10.85        |
|              |                 | 100 / 0 + 50 / 0 | 2506                | 2520.4              | 18.39                  | 1.7                | 20.09      | 33          | 12.91        |
|              |                 | 1 / 99 + 1 / 0   | 2588.1              | 2602.5              | 20.06                  | 1.7                | 21.76      | 33          | 11.24        |
|              |                 | 100 / 0 + 50 / 0 | 2588.1              | 2602.5              | 18.06                  | 1.7                | 19.76      | 33          | 13.24        |
|              |                 | 1 / 99 + 1 / 0   | 2670.1              | 2684.5              | 19.97                  | 1.7                | 21.67      | 33          | 11.33        |
|              |                 | 100 / 0 + 50 / 0 | 2670.1              | 2684.5              | 17.92                  | 1.7                | 19.62      | 33          | 13.38        |

| LTE Band 41C |                 |                 |                     |                     |                        |                    |            |             |              |
|--------------|-----------------|-----------------|---------------------|---------------------|------------------------|--------------------|------------|-------------|--------------|
| Modulation   | Bandwidth (MHz) | RB Size/Offset  | PCC Frequency (MHz) | SCC Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
| QPSK         | 15 + 15         | 1 / 74 + 1 / 0  | 2503.5              | 2518.5              | 21.17                  | 1.7                | 22.87      | 33          | 10.13        |
|              |                 | 75 / 0 + 75 / 0 | 2503.5              | 2518.5              | 19.59                  | 1.7                | 21.29      | 33          | 11.71        |
|              |                 | 1 / 74 + 1 / 0  | 2585.5              | 2600.5              | 20.72                  | 1.7                | 22.42      | 33          | 10.58        |
|              |                 | 75 / 0 + 75 / 0 | 2585.5              | 2600.5              | 18.87                  | 1.7                | 20.57      | 33          | 12.43        |
|              |                 | 1 / 74 + 1 / 0  | 2667.5              | 2682.5              | 20.64                  | 1.7                | 22.34      | 33          | 10.66        |
|              |                 | 75 / 0 + 75 / 0 | 2667.5              | 2682.5              | 18.17                  | 1.7                | 19.87      | 33          | 13.13        |
| 16QAM        | 15 + 15         | 1 / 74 + 1 / 0  | 2503.5              | 2518.5              | 20.25                  | 1.7                | 21.95      | 33          | 11.05        |
|              |                 | 75 / 0 + 75 / 0 | 2503.5              | 2518.5              | 18.95                  | 1.7                | 20.65      | 33          | 12.35        |
|              |                 | 1 / 74 + 1 / 0  | 2585.5              | 2600.5              | 20.07                  | 1.7                | 21.77      | 33          | 11.23        |
|              |                 | 75 / 0 + 75 / 0 | 2585.5              | 2600.5              | 18.0                   | 1.7                | 19.7       | 33          | 13.3         |
|              |                 | 1 / 74 + 1 / 0  | 2667.5              | 2682.5              | 19.76                  | 1.7                | 21.46      | 33          | 11.54        |
|              |                 | 75 / 0 + 75 / 0 | 2667.5              | 2682.5              | 17.64                  | 1.7                | 19.34      | 33          | 13.66        |

| LTE Band 41C |                 |                  |                     |                     |                        |                    |            |             |              |
|--------------|-----------------|------------------|---------------------|---------------------|------------------------|--------------------|------------|-------------|--------------|
| Modulation   | Bandwidth (MHz) | RB Size/Offset   | PCC Frequency (MHz) | SCC Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
| QPSK         | 15 + 20         | 1 / 74 + 1 / 0   | 2503.8              | 2520.9              | 19.66                  | 1.7                | 21.36      | 33          | 11.64        |
|              |                 | 75 / 0 + 100 / 0 | 2503.8              | 2520.9              | 18.18                  | 1.7                | 19.88      | 33          | 13.12        |
|              |                 | 1 / 74 + 1 / 0   | 2583.3              | 2600.4              | 20.89                  | 1.7                | 22.59      | 33          | 10.41        |
|              |                 | 75 / 0 + 100 / 0 | 2583.3              | 2600.4              | 19.08                  | 1.7                | 20.78      | 33          | 12.22        |
|              |                 | 1 / 74 + 1 / 0   | 2662.9              | 2680                | 20.74                  | 1.7                | 22.44      | 33          | 10.56        |
|              |                 | 75 / 0 + 100 / 0 | 2662.9              | 2680                | 18.62                  | 1.7                | 20.32      | 33          | 12.68        |
| 16QAM        | 15 + 20         | 1 / 74 + 1 / 0   | 2503.8              | 2520.9              | 19.76                  | 1.7                | 21.46      | 33          | 11.54        |
|              |                 | 75 / 0 + 100 / 0 | 2503.8              | 2520.9              | 17.73                  | 1.7                | 19.43      | 33          | 13.57        |
|              |                 | 1 / 74 + 1 / 0   | 2583.3              | 2600.4              | 20.21                  | 1.7                | 21.91      | 33          | 11.09        |
|              |                 | 75 / 0 + 100 / 0 | 2583.3              | 2600.4              | 18.18                  | 1.7                | 19.88      | 33          | 13.12        |
|              |                 | 1 / 74 + 1 / 0   | 2662.9              | 2680                | 20.08                  | 1.7                | 21.78      | 33          | 11.22        |
|              |                 | 75 / 0 + 100 / 0 | 2662.9              | 2680                | 17.68                  | 1.7                | 19.38      | 33          | 13.62        |
| QPSK         | 20 + 15         | 1 / 99 + 1 / 0   | 2506                | 2523.1              | 21.16                  | 1.7                | 22.86      | 33          | 10.14        |
|              |                 | 100 / 0 + 75 / 0 | 2506                | 2523.1              | 19.01                  | 1.7                | 20.71      | 33          | 12.29        |
|              |                 | 1 / 99 + 1 / 0   | 2585.6              | 2602.7              | 20.87                  | 1.7                | 22.57      | 33          | 10.43        |
|              |                 | 100 / 0 + 75 / 0 | 2585.6              | 2602.7              | 19.07                  | 1.7                | 20.77      | 33          | 12.23        |
|              |                 | 1 / 99 + 1 / 0   | 2665.1              | 2682.2              | 20.75                  | 1.7                | 22.45      | 33          | 10.55        |
|              |                 | 100 / 0 + 75 / 0 | 2665.1              | 2682.2              | 18.26                  | 1.7                | 19.96      | 33          | 13.04        |
| 16QAM        | 20 + 15         | 1 / 99 + 1 / 0   | 2506                | 2523.1              | 20.32                  | 1.7                | 22.02      | 33          | 10.98        |
|              |                 | 100 / 0 + 75 / 0 | 2506                | 2523.1              | 18.08                  | 1.7                | 19.78      | 33          | 13.22        |
|              |                 | 1 / 99 + 1 / 0   | 2585.6              | 2602.7              | 20.01                  | 1.7                | 21.71      | 33          | 11.29        |
|              |                 | 100 / 0 + 75 / 0 | 2585.6              | 2602.7              | 18.10                  | 1.7                | 19.8       | 33          | 13.2         |
|              |                 | 1 / 99 + 1 / 0   | 2665.1              | 2682.2              | 19.96                  | 1.7                | 21.66      | 33          | 11.34        |
|              |                 | 100 / 0 + 75 / 0 | 2665.1              | 2682.2              | 17.47                  | 1.7                | 19.17      | 33          | 13.83        |

| LTE Band 41C |                 |                   |                     |                     |                        |                    |            |             |              |
|--------------|-----------------|-------------------|---------------------|---------------------|------------------------|--------------------|------------|-------------|--------------|
| Modulation   | Bandwidth (MHz) | RB Size/Offset    | PCC Frequency (MHz) | SCC Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
| QPSK         | 20 + 20         | 1 / 99 + 1 / 0    | 2506                | 2525.8              | 21.46                  | 1.7                | 23.16      | 33          | 9.84         |
|              |                 | 100 / 0 + 100 / 0 | 2506                | 2525.8              | 19.39                  | 1.7                | 21.09      | 33          | 11.91        |
|              |                 | 1 / 99 + 1 / 0    | 2583.1              | 2602.9              | 21.01                  | 1.7                | 22.71      | 33          | 10.29        |
|              |                 | 100 / 0 + 100 / 0 | 2583.1              | 2602.9              | 19.10                  | 1.7                | 20.8       | 33          | 12.2         |
|              |                 | 1 / 99 + 1 / 0    | 2660.2              | 2680                | 20.80                  | 1.7                | 22.5       | 33          | 10.5         |
|              |                 | 100 / 0 + 100 / 0 | 2660.2              | 2680                | 18.69                  | 1.7                | 20.39      | 33          | 12.61        |
| 16QAM        | 20 + 20         | 1 / 99 + 1 / 0    | 2506                | 2525.8              | 20.73                  | 1.7                | 22.43      | 33          | 10.57        |
|              |                 | 100 / 0 + 100 / 0 | 2506                | 2525.8              | 18.49                  | 1.7                | 20.19      | 33          | 12.81        |
|              |                 | 1 / 99 + 1 / 0    | 2583.1              | 2602.9              | 20.17                  | 1.7                | 21.87      | 33          | 11.13        |
|              |                 | 100 / 0 + 100 / 0 | 2583.1              | 2602.9              | 18.20                  | 1.7                | 19.9       | 33          | 13.1         |
|              |                 | 1 / 99 + 1 / 0    | 2660.2              | 2680                | 19.98                  | 1.7                | 21.68      | 33          | 11.32        |
|              |                 | 100 / 0 + 100 / 0 | 2660.2              | 2680                | 17.79                  | 1.7                | 19.49      | 33          | 13.51        |

| LTE Band 4 |                 |                |          |                 |                        |                    |            |             |              |
|------------|-----------------|----------------|----------|-----------------|------------------------|--------------------|------------|-------------|--------------|
| Modulation | Bandwidth (MHz) | RB Size/Offset | Channels | Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
| QPSK       | 1.4             | 1 / 3          | 19957    | 1710.7          | 23.92                  | 0.0                | 23.92      | 33          | 9.08         |
|            |                 | 1 / 3          | 20175    | 1732.5          | 23.17                  | 0.0                | 23.17      | 33          | 9.83         |
|            |                 | 1 / 3          | 20393    | 1754.3          | 23.05                  | 0.0                | 23.05      | 33          | 9.95         |
|            | 3               | 1 / 0          | 19965    | 1711.5          | 23.94                  | 0.0                | 23.94      | 33          | 9.06         |
|            |                 | 1 / 8          | 20175    | 1732.5          | 23.12                  | 0.0                | 23.12      | 33          | 9.88         |
|            |                 | 1 / 0          | 20385    | 1753.5          | 23.1                   | 0.0                | 23.1       | 33          | 9.9          |
|            | 5               | 1 / 0          | 19975    | 1712.5          | 23.95                  | 0.0                | 23.95      | 33          | 9.05         |
|            |                 | 1 / 13         | 20175    | 1732.5          | 23.18                  | 0.0                | 23.18      | 33          | 9.82         |
|            |                 | 1 / 0          | 20375    | 1752.5          | 23.13                  | 0.0                | 23.13      | 33          | 9.87         |
|            | 10              | 1 / 0          | 20000    | 1715.0          | 23.93                  | 0.0                | 23.93      | 33          | 9.07         |
|            |                 | 1 / 0          | 20175    | 1732.5          | 23.77                  | 0.0                | 23.77      | 33          | 9.23         |
|            |                 | 1 / 0          | 20350    | 1750.0          | 23.67                  | 0.0                | 23.67      | 33          | 9.33         |
|            | 15              | 1 / 0          | 20025    | 1717.5          | 23.99                  | 0.0                | 23.99      | 33          | 9.01         |
|            |                 | 1 / 0          | 20175    | 1732.5          | 23.85                  | 0.0                | 23.85      | 33          | 9.15         |
|            |                 | 1 / 0          | 20325    | 1747.5          | 23.66                  | 0.0                | 23.66      | 33          | 9.34         |
|            | 20              | 1 / 0          | 20050    | 1720.0          | 23.99                  | 0.0                | 23.99      | 33          | 9.01         |
|            |                 | 1 / 0          | 20175    | 1732.5          | 23.86                  | 0.0                | 23.86      | 33          | 9.14         |
|            |                 | 1 / 0          | 20300    | 1745.0          | 23.24                  | 0.0                | 23.24      | 33          | 9.76         |



| LTE Band 4 |                 |                |          |                 |                        |                    |            |             |              |
|------------|-----------------|----------------|----------|-----------------|------------------------|--------------------|------------|-------------|--------------|
| Modulation | Bandwidth (MHz) | RB Size/Offset | Channels | Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
| 16QAM      | 1.4             | 1 / 3          | 19957    | 1710.7          | 22.65                  | 0.0                | 22.65      | 33          | 10.35        |
|            |                 | 1 / 3          | 20175    | 1732.5          | 22.19                  | 0.0                | 22.19      | 33          | 10.81        |
|            |                 | 1 / 3          | 20393    | 1754.3          | 22.05                  | 0.0                | 22.05      | 33          | 10.95        |
|            | 3               | 1 / 0          | 19965    | 1711.5          | 22.69                  | 0.0                | 22.69      | 33          | 10.31        |
|            |                 | 1 / 8          | 20175    | 1732.5          | 22.22                  | 0.0                | 22.22      | 33          | 10.78        |
|            |                 | 1 / 0          | 20385    | 1753.5          | 22.02                  | 0.0                | 22.02      | 33          | 10.98        |
|            | 5               | 1 / 0          | 19975    | 1712.5          | 22.84                  | 0.0                | 22.84      | 33          | 10.16        |
|            |                 | 1 / 13         | 20175    | 1732.5          | 22.3                   | 0.0                | 22.3       | 33          | 10.7         |
|            |                 | 1 / 0          | 20375    | 1752.5          | 22.04                  | 0.0                | 22.04      | 33          | 10.96        |
|            | 10              | 1 / 0          | 20000    | 1715.0          | 22.71                  | 0.0                | 22.71      | 33          | 10.29        |
|            |                 | 1 / 0          | 20175    | 1732.5          | 22.75                  | 0.0                | 22.75      | 33          | 10.25        |
|            |                 | 1 / 0          | 20350    | 1750.0          | 22.63                  | 0.0                | 22.63      | 33          | 10.37        |
|            | 15              | 1 / 0          | 20025    | 1717.5          | 23.19                  | 0.0                | 23.19      | 33          | 9.81         |
|            |                 | 1 / 0          | 20175    | 1732.5          | 22.88                  | 0.0                | 22.88      | 33          | 10.12        |
|            |                 | 1 / 0          | 20325    | 1747.5          | 22.73                  | 0.0                | 22.73      | 33          | 10.27        |
|            | 20              | 1 / 0          | 20050    | 1720.0          | 23.18                  | 0.0                | 23.18      | 33          | 9.82         |
|            |                 | 1 / 0          | 20175    | 1732.5          | 23.05                  | 0.0                | 23.05      | 33          | 9.95         |
|            |                 | 1 / 0          | 20300    | 1745.0          | 22.25                  | 0.0                | 22.25      | 33          | 10.75        |



| LTE Band 7 |                 |                |              |                 |                        |                    |              |             |              |
|------------|-----------------|----------------|--------------|-----------------|------------------------|--------------------|--------------|-------------|--------------|
| Modulation | Bandwidth (MHz) | RB Size/Offset | Channels     | Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm)   | Limit (dBm) | Margin (dBm) |
| QPSK       | 5               | 1 / 13         | 20775        | 2502.5          | 21.77                  | 2.3                | 24.07        | 33          | 8.93         |
|            |                 | <b>1 / 13</b>  | <b>21100</b> | <b>2535</b>     | <b>23.69</b>           | <b>2.3</b>         | <b>25.99</b> | <b>33</b>   | <b>7.01</b>  |
|            |                 | 1 / 0          | 21425        | 2567.5          | 22.99                  | 2.3                | 25.29        | 33          | 7.71         |
|            | 10              | 1 / 25         | 20800        | 2505            | 21.93                  | 2.3                | 24.23        | 33          | 8.77         |
|            |                 | 1 / 25         | 21100        | 2535            | 23.06                  | 2.3                | 25.36        | 33          | 7.64         |
|            |                 | <b>1 / 25</b>  | <b>21400</b> | <b>2565</b>     | <b>23.08</b>           | <b>2.3</b>         | <b>25.38</b> | <b>33</b>   | <b>7.62</b>  |
|            | 15              | 1 / 38         | 20825        | 2507.5          | 22.0                   | 2.3                | 24.3         | 33          | 8.7          |
|            |                 | 1 / 38         | 21100        | 2535            | 23.03                  | 2.3                | 25.33        | 33          | 7.67         |
|            |                 | <b>1 / 38</b>  | <b>21375</b> | <b>2562.5</b>   | <b>23.12</b>           | <b>2.3</b>         | <b>25.42</b> | <b>33</b>   | <b>7.58</b>  |
|            | 20              | 1 / 50         | 20850        | 2510            | 22.05                  | 2.3                | 24.35        | 33          | 8.65         |
|            |                 | 1 / 50         | 21100        | 2535            | 22.98                  | 2.3                | 25.28        | 33          | 7.72         |
|            |                 | <b>1 / 50</b>  | <b>21350</b> | <b>2560</b>     | <b>23.07</b>           | <b>2.3</b>         | <b>25.37</b> | <b>33</b>   | <b>7.63</b>  |
| 16QAM      | 5               | 1 / 13         | 20775        | 2502.5          | 21.29                  | 2.3                | 23.59        | 33          | 9.41         |
|            |                 | <b>1 / 13</b>  | <b>21100</b> | <b>2535</b>     | <b>23.05</b>           | <b>2.3</b>         | <b>25.35</b> | <b>33</b>   | <b>7.65</b>  |
|            |                 | 1 / 0          | 21425        | 2567.5          | 22.29                  | 2.3                | 24.59        | 33          | 8.41         |
|            | 10              | 1 / 25         | 20800        | 2505            | 21.13                  | 2.3                | 23.43        | 33          | 9.57         |
|            |                 | <b>1 / 25</b>  | <b>21100</b> | <b>2535</b>     | <b>22.35</b>           | <b>2.3</b>         | <b>24.65</b> | <b>33</b>   | <b>8.35</b>  |
|            |                 | 1 / 25         | 21400        | 2565            | 22.29                  | 2.3                | 24.59        | 33          | 8.41         |
|            | 15              | 1 / 38         | 20825        | 2507.5          | 21.29                  | 2.3                | 23.59        | 33          | 9.41         |
|            |                 | <b>1 / 38</b>  | <b>21100</b> | <b>2535</b>     | <b>22.35</b>           | <b>2.3</b>         | <b>24.65</b> | <b>33</b>   | <b>8.35</b>  |
|            |                 | 1 / 38         | 21375        | 2562.5          | 22.26                  | 2.3                | 24.56        | 33          | 8.44         |
|            | 20              | 1 / 50         | 20850        | 2510            | 21.28                  | 2.3                | 23.58        | 33          | 9.42         |
|            |                 | <b>1 / 50</b>  | <b>21100</b> | <b>2535</b>     | <b>22.29</b>           | <b>2.3</b>         | <b>24.59</b> | <b>33</b>   | <b>8.41</b>  |
|            |                 | 1 / 50         | 21350        | 2560            | 22.26                  | 2.3                | 24.56        | 33          | 8.44         |



| LTE Band 66 |                 |                |          |                 |                        |                    |            |             |              |
|-------------|-----------------|----------------|----------|-----------------|------------------------|--------------------|------------|-------------|--------------|
| Modulation  | Bandwidth (MHz) | RB Size/Offset | Channels | Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
| QPSK        | 1.4             | 1 / 3          | 131979   | 1710.7          | 23.94                  | 0.0                | 23.94      | 33          | 9.06         |
|             |                 | 1 / 3          | 132322   | 1745            | 23.11                  | 0.0                | 23.11      | 33          | 9.89         |
|             |                 | 1 / 3          | 132665   | 1779.3          | 22.87                  | 0.0                | 22.87      | 33          | 10.13        |
|             | 3               | 1 / 0          | 131987   | 1711.5          | 23.91                  | 0.0                | 23.91      | 33          | 9.09         |
|             |                 | 1 / 0          | 132322   | 1745            | 23.03                  | 0.0                | 23.03      | 33          | 9.97         |
|             |                 | 1 / 0          | 132657   | 1778.5          | 22.84                  | 0.0                | 22.84      | 33          | 10.16        |
|             | 5               | 1 / 0          | 131997   | 1712.5          | 23.95                  | 0.0                | 23.95      | 33          | 9.05         |
|             |                 | 1 / 0          | 132322   | 1745            | 23.12                  | 0.0                | 23.12      | 33          | 9.88         |
|             |                 | 1 / 0          | 132647   | 1777.5          | 23.06                  | 0.0                | 23.06      | 33          | 9.94         |
|             | 10              | 1 / 0          | 132022   | 1715            | 24.0                   | 0.0                | 24.0       | 33          | 9            |
|             |                 | 1 / 0          | 132322   | 1745            | 23.19                  | 0.0                | 23.19      | 33          | 9.81         |
|             |                 | 1 / 0          | 132622   | 1775            | 22.94                  | 0.0                | 22.94      | 33          | 10.06        |
|             | 15              | 1 / 0          | 132047   | 1717.5          | 23.92                  | 0.0                | 23.92      | 33          | 9.08         |
|             |                 | 1 / 0          | 132322   | 1745            | 23.2                   | 0.0                | 23.2       | 33          | 9.8          |
|             |                 | 1 / 0          | 132597   | 1772.5          | 23.04                  | 0.0                | 23.04      | 33          | 9.96         |
|             | 20              | 1 / 0          | 132072   | 1720            | 23.98                  | 0.0                | 23.98      | 33          | 9.02         |
|             |                 | 1 / 0          | 132322   | 1745            | 23.41                  | 0.0                | 23.41      | 33          | 9.59         |
|             |                 | 1 / 0          | 132572   | 1770            | 22.98                  | 0.0                | 22.98      | 33          | 10.02        |



| LTE Band 66 |                 |                |          |                 |                        |                    |            |             |              |
|-------------|-----------------|----------------|----------|-----------------|------------------------|--------------------|------------|-------------|--------------|
| Modulation  | Bandwidth (MHz) | RB Size/Offset | Channels | Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
| 16QAM       | 1.4             | 1 / 3          | 131979   | 1710.7          | 22.75                  | 0.0                | 22.75      | 33          | 10.25        |
|             |                 | 1 / 3          | 132322   | 1745            | 21.95                  | 0.0                | 21.95      | 33          | 11.05        |
|             |                 | 1 / 3          | 132665   | 1779.3          | 21.87                  | 0.0                | 21.87      | 33          | 11.13        |
|             | 3               | 1 / 0          | 131987   | 1711.5          | 22.71                  | 0.0                | 22.71      | 33          | 10.29        |
|             |                 | 1 / 0          | 132322   | 1745            | 21.94                  | 0.0                | 21.94      | 33          | 11.06        |
|             |                 | 1 / 0          | 132657   | 1778.5          | 21.93                  | 0.0                | 21.93      | 33          | 11.07        |
|             | 5               | 1 / 13         | 131997   | 1712.5          | 23.02                  | 0.0                | 23.02      | 33          | 9.98         |
|             |                 | 1 / 0          | 132322   | 1745            | 22.15                  | 0.0                | 22.15      | 33          | 10.85        |
|             |                 | 1 / 13         | 132647   | 1777.5          | 22.28                  | 0.0                | 22.28      | 33          | 10.72        |
|             | 10              | 1 / 0          | 132022   | 1715            | 22.74                  | 0.0                | 22.74      | 33          | 10.26        |
|             |                 | 1 / 0          | 132322   | 1745            | 22.11                  | 0.0                | 22.11      | 33          | 10.89        |
|             |                 | 1 / 0          | 132622   | 1775            | 22.1                   | 0.0                | 22.1       | 33          | 10.9         |
|             | 15              | 1 / 0          | 132047   | 1717.5          | 22.83                  | 0.0                | 22.83      | 33          | 10.17        |
|             |                 | 1 / 0          | 132322   | 1745            | 22.32                  | 0.0                | 22.32      | 33          | 10.68        |
|             |                 | 1 / 0          | 132597   | 1772.5          | 21.97                  | 0.0                | 21.97      | 33          | 11.03        |
|             | 20              | 1 / 0          | 132072   | 1720            | 22.8                   | 0.0                | 22.8       | 33          | 10.2         |
|             |                 | 1 / 0          | 132322   | 1745            | 22.4                   | 0.0                | 22.4       | 33          | 10.6         |
|             |                 | 1 / 0          | 132572   | 1770            | 22.23                  | 0.0                | 22.23      | 33          | 10.77        |



## **2.3 EFFECTIVE RADIATED POWER**

### **2.3.1 Specification Reference**

FCC 47 CFR Part 2, Clause 2.1046  
FCC 47 CFR Part 27, Clause 27.50 (c)(10)  
FCC 47 CFR Part 27, Clause 27.50 (b)(10)  
RSS-130, Clause 4.6.3

### **2.3.2 Standard Applicable**

FCC 47 CFR Part 27.50(b)  
(10) Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

FCC 47 CFR Part 27.50(c)  
(10) Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

RSS-130, Clause 4.6.3 Frequency bands 698-756 MHz and 777-787 MHz  
The e.r.p. shall not exceed 30 watts for mobile equipment and outdoor fixed subscriber equipment. The e.r.p. shall not exceed 3 watts for portable equipment and indoor fixed subscriber equipment.

### **2.3.3 Equipment Under Test**

Serial No: AT071218B00062 (MIFI8000), AZ280418A00044 (MIFI8800L), Test Configuration (N/A, calculation only)

### **2.3.4 Date of Verification/Initial of test personnel who performed the calculation**

February 25, 2019 / XYZ  
June 18, 2018 / XYZ

### **2.3.5 Additional Observations**

- ERP was calculated as per Section 1.2 and 1.3 of KDB412172 D01 (Determining ERP and EIRP v01r01).
- Calculation formula in logarithmic terms:

$$\text{ERP} = P_T + G_T - L_c - 2.15\text{dB}$$

Where:

$P_T$  = transmitter conducted output power dBm (Section 2.1 of this test report)  
 $G_T$  = gain of the transmitting antenna, in dBi (EIRP - the -2.15 in the formula is to convert EIRP to ERP);  
 $L_c$  = signal attenuation in the connecting cable between the transmitter and antenna, in dB (Power measurement performed directly at the primary antenna port. The loss between the LTE module and the primary antenna port is considered negligible).

- Only the worst-case RB size and RB offset presented.

## 2.3.6 Test Results

| LTE Band 12 |                 |                |              |                 |                        |                    |              |             |              |
|-------------|-----------------|----------------|--------------|-----------------|------------------------|--------------------|--------------|-------------|--------------|
| Modulation  | Bandwidth (MHz) | RB Size/Offset | Channels     | Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | ERP (dBm)    | Limit (dBm) | Margin (dBm) |
| QPSK        | 1.4             | <b>1 / 3</b>   | <b>23017</b> | <b>699.7</b>    | <b>23.98</b>           | <b>-2.0</b>        | <b>19.83</b> | <b>34.8</b> | <b>14.97</b> |
|             |                 | 1 / 3          | 23095        | 707.5           | 23.80                  | -2.0               | 19.65        | 34.8        | 15.15        |
|             |                 | 1 / 3          | 23173        | 715.3           | 23.74                  | -2.0               | 19.59        | 34.8        | 15.21        |
|             | 3               | <b>1 / 7</b>   | <b>23025</b> | <b>700.5</b>    | <b>23.94</b>           | <b>-2.0</b>        | <b>19.79</b> | <b>34.8</b> | <b>15.01</b> |
|             |                 | 1 / 7          | 23095        | 707.5           | 23.83                  | -2.0               | 19.68        | 34.8        | 15.12        |
|             |                 | 1 / 7          | 23165        | 714.5           | 23.75                  | -2.0               | 19.6         | 34.8        | 15.2         |
|             | 5               | <b>1 / 12</b>  | <b>23035</b> | <b>701.5</b>    | <b>23.98</b>           | <b>-2.0</b>        | <b>19.83</b> | <b>34.8</b> | <b>14.97</b> |
|             |                 | 1 / 12         | 23095        | 707.5           | 23.90                  | -2.0               | 19.75        | 34.8        | 15.05        |
|             |                 | 1 / 12         | 23155        | 713.5           | 23.84                  | -2.0               | 19.69        | 34.8        | 15.11        |
|             | 10              | 1 / 49         | 23060        | 704             | 23.84                  | -2.0               | 19.69        | 34.8        | 15.11        |
|             |                 | 1 / 49         | 23095        | 707.5           | 23.77                  | -2.0               | 19.62        | 34.8        | 15.18        |
|             |                 | <b>1 / 49</b>  | <b>23130</b> | <b>711</b>      | <b>23.88</b>           | <b>-2.0</b>        | <b>19.73</b> | <b>34.8</b> | <b>15.07</b> |
| 16QAM       | 1.4             | <b>1 / 3</b>   | <b>23017</b> | <b>699.7</b>    | <b>23.01</b>           | <b>-2.0</b>        | <b>18.86</b> | <b>34.8</b> | <b>15.94</b> |
|             |                 | 1 / 3          | 23095        | 707.5           | 22.85                  | -2.0               | 18.7         | 34.8        | 16.1         |
|             |                 | 1 / 3          | 23173        | 715.3           | 22.74                  | -2.0               | 18.59        | 34.8        | 16.21        |
|             | 3               | 1 / 7          | 23025        | 700.5           | 22.92                  | -2.0               | 18.77        | 34.8        | 16.03        |
|             |                 | <b>1 / 7</b>   | <b>23095</b> | <b>707.5</b>    | <b>23.01</b>           | <b>-2.0</b>        | <b>18.86</b> | <b>34.8</b> | <b>15.94</b> |
|             |                 | 1 / 7          | 23165        | 714.5           | 22.82                  | -2.0               | 18.67        | 34.8        | 16.13        |
|             | 5               | 1 / 0          | 23035        | 701.5           | 23.04                  | -2.0               | 18.89        | 34.8        | 15.91        |
|             |                 | <b>1 / 0</b>   | <b>23095</b> | <b>707.5</b>    | <b>23.20</b>           | <b>-2.0</b>        | <b>19.05</b> | <b>34.8</b> | <b>15.75</b> |
|             |                 | 1 / 0          | 23155        | 713.5           | 22.89                  | -2.0               | 18.74        | 34.8        | 16.06        |
|             | 10              | 1 / 25         | 23060        | 704             | 22.95                  | -2.0               | 18.8         | 34.8        | 16           |
|             |                 | <b>1 / 25</b>  | <b>23095</b> | <b>707.5</b>    | <b>23.04</b>           | <b>-2.0</b>        | <b>18.89</b> | <b>34.8</b> | <b>15.91</b> |
|             |                 | 1 / 25         | 23130        | 711             | 22.87                  | -2.0               | 18.72        | 34.8        | 16.08        |



| LTE Band 17 |                 |                |              |                 |                        |                    |              |             |              |
|-------------|-----------------|----------------|--------------|-----------------|------------------------|--------------------|--------------|-------------|--------------|
| Modulation  | Bandwidth (MHz) | RB Size/Offset | Channels     | Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | ERP (dBm)    | Limit (dBm) | Margin (dBm) |
| QPSK        | 5               | 1 / 12         | 23755        | 706.5           | 23.87                  | -2.1               | 19.62        | 34.8        | 15.18        |
|             |                 | <b>1 / 12</b>  | <b>23790</b> | <b>710</b>      | <b>23.88</b>           | <b>-2.1</b>        | <b>19.63</b> | <b>34.8</b> | <b>15.17</b> |
|             |                 | 1 / 12         | 23825        | 713.5           | 23.87                  | -2.1               | 19.62        | 34.8        | 15.18        |
|             | 10              | <b>1 / 25</b>  | <b>23780</b> | <b>709</b>      | <b>23.86</b>           | <b>-2.1</b>        | <b>19.61</b> | <b>34.8</b> | <b>15.19</b> |
|             |                 | 1 / 25         | 23790        | 710             | 23.81                  | -2.1               | 19.56        | 34.8        | 15.24        |
|             |                 | 1 / 25         | 23800        | 711             | 23.85                  | -2.1               | 19.6         | 34.8        | 15.2         |
| 16QAM       | 5               | <b>1 / 12</b>  | <b>23755</b> | <b>706.5</b>    | <b>23.09</b>           | <b>-2.1</b>        | <b>18.84</b> | <b>34.8</b> | <b>15.96</b> |
|             |                 | 1 / 12         | 23790        | 710             | 23.01                  | -2.1               | 18.76        | 34.8        | 16.04        |
|             |                 | 1 / 12         | 23825        | 713.5           | 23.07                  | -2.1               | 18.82        | 34.8        | 15.98        |
|             | 10              | 1 / 25         | 23780        | 709             | 22.95                  | -2.1               | 18.7         | 34.8        | 16.1         |
|             |                 | <b>1 / 25</b>  | <b>23790</b> | <b>710</b>      | <b>23.06</b>           | <b>-2.1</b>        | <b>18.81</b> | <b>34.8</b> | <b>15.99</b> |
|             |                 | 1 / 25         | 23800        | 711             | 22.93                  | -2.1               | 18.68        | 34.8        | 16.12        |

| LTE Band 13 |                 |                |              |                 |                        |                    |              |              |              |
|-------------|-----------------|----------------|--------------|-----------------|------------------------|--------------------|--------------|--------------|--------------|
| Modulation  | Bandwidth (MHz) | RB Size/Offset | Channels     | Frequency (MHz) | Tx Average Power (dBm) | Antenna Gain (dBi) | ERP (dBm)    | Limit (dBm)  | Margin (dBm) |
| QPSK        | 5               | 1 / 24         | 23205        | 779.5           | 23.82                  | -0.6               | 21.07        | 34.77        | 13.7         |
|             |                 | 1 / 0          | 23230        | 782             | 23.95                  | -0.6               | 21.2         | 34.77        | 13.57        |
|             |                 | <b>1 / 0</b>   | <b>23255</b> | <b>784.5</b>    | <b>23.95</b>           | <b>-0.6</b>        | <b>21.2</b>  | <b>34.77</b> | <b>13.57</b> |
|             | 10              | -              | -            | -               | -                      | -                  | -            | -            | -            |
|             |                 | <b>1 / 0</b>   | <b>23230</b> | <b>782</b>      | <b>23.93</b>           | <b>-0.6</b>        | <b>21.18</b> | <b>34.77</b> | <b>13.59</b> |
|             |                 | -              | -            | -               | -                      | -                  | -            | -            | -            |
| 16QAM       | 5               | 1 / 24         | 23205        | 779.5           | 23.01                  | -0.6               | 20.26        | 34.77        | 14.51        |
|             |                 | 1 / 13         | 23230        | 782             | 23.08                  | -0.6               | 20.33        | 34.77        | 14.44        |
|             |                 | <b>1 / 0</b>   | <b>23255</b> | <b>784.5</b>    | <b>23.22</b>           | <b>-0.6</b>        | <b>20.47</b> | <b>34.77</b> | <b>14.3</b>  |
|             | 10              | -              | -            | -               | -                      | -                  | -            | -            | -            |
|             |                 | <b>1 / 0</b>   | <b>23230</b> | <b>782</b>      | <b>23.05</b>           | <b>-0.6</b>        | <b>20.3</b>  | <b>34.77</b> | <b>14.47</b> |
|             |                 | -              | -            | -               | -                      | -                  | -            | -            | -            |



## **2.4 OCCUPIED BANDWIDTH**

### **2.4.1 Specification Reference**

FCC 47 CFR Part 2, Clause 2.1049  
FCC 47 CFR Part 27, Clause 27.53 (h)(3)  
FCC 47 CFR Part 27, Clause 27.53 (m)(6)  
RSS-GEN, Clause 6.7

### **2.4.2 Standard Applicable**

The transmitted signal bandwidth shall be reported as the 99% emission bandwidth, that 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.

26dB Bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated by at least 26 dB below the transmitter power.

### **2.4.3 Equipment Under Test and Modification State**

Serial No: AT071218B00062 (MIFI8000), AZ280418A00044 (MIFI8800L) / Test Configuration A

### **2.4.4 Date of Test/Initial of test personnel who performed the test**

February 25 and 27, April 05, 2019 / XYZ  
June 07, 11 and 12, 2018 / XYZ

### **2.4.5 Test Equipment Used**

The major items of test equipment used for the above tests are identified in Section 3.1.

### **2.4.6 Environmental Conditions/ Test Location**

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

|                     |                |
|---------------------|----------------|
| Ambient Temperature | 21.2 - 24.8°C  |
| Relative Humidity   | 35.0 - 53.3%   |
| ATM Pressure        | 99.0 - 99.6kPa |

### **2.4.7 Additional Observations**

- This is a conducted test. Both 26dB bandwidth and 99% bandwidth presented.
- Using the occupied bandwidth measurement function in the spectrum analyzer, the 99% occupied bandwidth was measured.
- The 26dB bandwidth was measured in accordance with ANSI C63.26 clause 5.4.3 using the ndB measurement function in the spectrum analyzer.
- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.

- The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
- The resolution bandwidth (RBW) shall be in the range of 1% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be at least 3x RBW.
- Low, Middle and High channels for all bandwidths and modulations were verified. Test results of Middle channel were presented as representative.

#### 2.4.8 Test Results

| Band         | Channel | Frequency | 99% OBW (MHz) | 26dB BW (MHz) |
|--------------|---------|-----------|---------------|---------------|
| WCDMA Band 4 | 1413    | 1732.6    | 4.13          | 4.69          |

| LTE Band 12 |                 |         |                 |               |               |
|-------------|-----------------|---------|-----------------|---------------|---------------|
| Modulation  | Bandwidth (MHz) | Channel | Frequency (MHz) | 99% OBW (MHz) | 26dB BW (MHz) |
| QPSK        | 1.4             | 23095   | 707.5           | 1.088         | 1.27          |
|             | 3               |         |                 | 2.696         | 3.01          |
|             | 5               |         |                 | 4.499         | 4.97          |
|             | 10              |         |                 | 8.977         | 9.72          |
| 16QAM       | 1.4             | 23095   | 707.5           | 1.091         | 1.24          |
|             | 3               |         |                 | 2.696         | 3.0           |
|             | 5               |         |                 | 4.485         | 4.88          |
|             | 10              |         |                 | 8.967         | 9.55          |

| LTE Band 17 |                 |         |                 |               |               |
|-------------|-----------------|---------|-----------------|---------------|---------------|
| Modulation  | Bandwidth (MHz) | Channel | Frequency (MHz) | 99% OBW (MHz) | 26dB BW (MHz) |
| QPSK        | 5               | 23790   | 710             | 4.491         | 4.88          |
|             | 10              |         |                 | 8.941         | 9.81          |
| 16QAM       | 5               | 23790   | 710             | 4.476         | 4.93          |
|             | 10              |         |                 | 8.938         | 9.68          |

| LTE Band 41 |                 |         |                 |               |               |
|-------------|-----------------|---------|-----------------|---------------|---------------|
| Modulation  | Bandwidth (MHz) | Channel | Frequency (MHz) | 99% OBW (MHz) | 26dB BW (MHz) |
| QPSK        | 5               | 40620   | 2593            | 4.48          | 4.95          |
|             | 10              |         |                 | 8.96          | 9.64          |
|             | 15              |         |                 | 13.46         | 14.59         |
|             | 20              |         |                 | 17.81         | 19.02         |
| 16QAM       | 5               | 40620   | 2593            | 4.47          | 4.91          |
|             | 10              |         |                 | 8.96          | 9.64          |
|             | 15              |         |                 | 13.45         | 14.65         |
|             | 20              |         |                 | 17.87         | 19.36         |

| LTE Band 4        |                        |                |                        |                      |                      |
|-------------------|------------------------|----------------|------------------------|----------------------|----------------------|
| <i>Modulation</i> | <i>Bandwidth (MHz)</i> | <i>Channel</i> | <i>Frequency (MHz)</i> | <i>99% OBW (MHz)</i> | <i>26dB BW (MHz)</i> |
| QPSK              | 1.4                    | 20175          | 1732.5                 | 1.09                 | 1.29                 |
|                   | 3                      |                |                        | 2.70                 | 3.40                 |
|                   | 5                      |                |                        | 4.50                 | 5.01                 |
|                   | 10                     |                |                        | 8.99                 | 9.94                 |
|                   | 15                     |                |                        | 13.49                | 14.98                |
|                   | 20                     |                |                        | 17.88                | 19.19                |
| 16QAM             | 1.4                    | 20175          | 1732.5                 | 1.10                 | 1.29                 |
|                   | 3                      |                |                        | 2.70                 | 3.23                 |
|                   | 5                      |                |                        | 4.49                 | 4.95                 |
|                   | 10                     |                |                        | 8.98                 | 9.77                 |
|                   | 15                     |                |                        | 13.45                | 14.59                |
|                   | 20                     |                |                        | 17.88                | 19.19                |

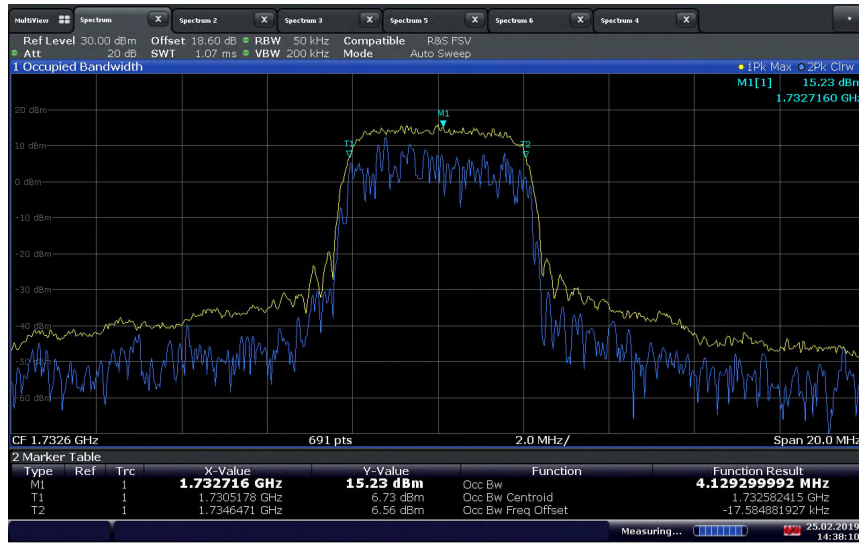
| LTE Band 7        |                        |                |                        |                      |                      |
|-------------------|------------------------|----------------|------------------------|----------------------|----------------------|
| <i>Modulation</i> | <i>Bandwidth (MHz)</i> | <i>Channel</i> | <i>Frequency (MHz)</i> | <i>99% OBW (MHz)</i> | <i>26dB BW (MHz)</i> |
| QPSK              | 5                      | 21100          | 2535.0                 | 4.48                 | 4.93                 |
|                   | 10                     |                |                        | 8.97                 | 9.72                 |
|                   | 15                     |                |                        | 13.44                | 14.65                |
|                   | 20                     |                |                        | 17.92                | 19.28                |
| 16QAM             | 5                      | 21100          | 2535.0                 | 4.49                 | 4.93                 |
|                   | 10                     |                |                        | 8.96                 | 9.72                 |
|                   | 15                     |                |                        | 13.46                | 14.59                |
|                   | 20                     |                |                        | 17.93                | 19.28                |

| LTE Band 13       |                        |                |                        |                      |                      |
|-------------------|------------------------|----------------|------------------------|----------------------|----------------------|
| <i>Modulation</i> | <i>Bandwidth (MHz)</i> | <i>Channel</i> | <i>Frequency (MHz)</i> | <i>99% OBW (MHz)</i> | <i>26dB BW (MHz)</i> |
| QPSK              | 5                      | 23230          | 782.0                  | 4.46                 | 4.86                 |
|                   | 10                     |                |                        | 8.92                 | 9.68                 |
| 16QAM             | 5                      | 23230          | 782.0                  | 4.47                 | 4.88                 |
|                   | 10                     |                |                        | 8.91                 | 9.64                 |

| LTE Band 66       |                        |                |                        |                      |                      |
|-------------------|------------------------|----------------|------------------------|----------------------|----------------------|
| <i>Modulation</i> | <i>Bandwidth (MHz)</i> | <i>Channel</i> | <i>Frequency (MHz)</i> | <i>99% OBW (MHz)</i> | <i>26dB BW (MHz)</i> |
| QPSK              | 1.4                    | 132322         | 1745.0                 | 1.10                 | 1.25                 |
|                   | 3                      |                |                        | 2.70                 | 3.04                 |
|                   | 5                      |                |                        | 4.50                 | 4.97                 |
|                   | 10                     |                |                        | 8.98                 | 9.90                 |
|                   | 15                     |                |                        | 13.51                | 14.98                |
|                   | 20                     |                |                        | 17.97                | 19.54                |
| 16QAM             | 1.4                    | 132322         | 1745.0                 | 1.09                 | 1.22                 |
|                   | 3                      |                |                        | 2.70                 | 3.00                 |
|                   | 5                      |                |                        | 4.48                 | 4.91                 |
|                   | 10                     |                |                        | 8.97                 | 9.81                 |
|                   | 15                     |                |                        | 13.51                | 14.85                |
|                   | 20                     |                |                        | 17.97                | 19.45                |

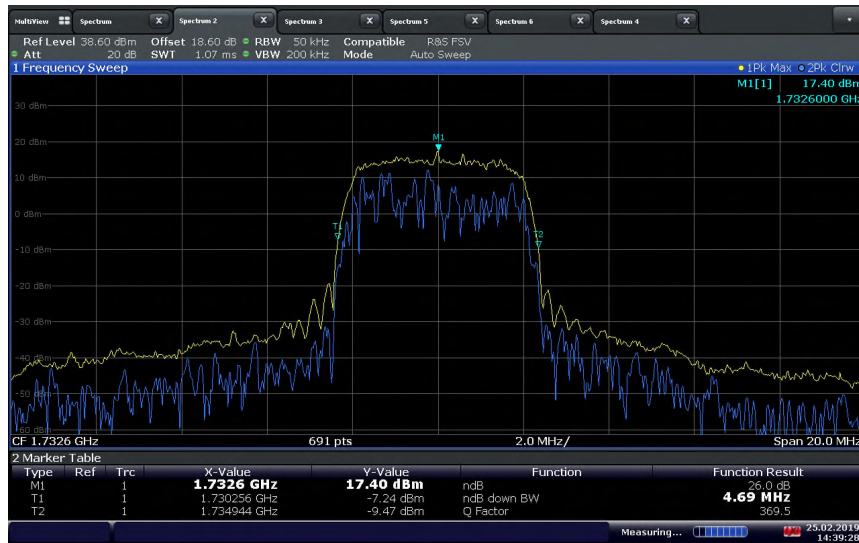
## 2.4.9 Example Test Plots

### WCDMA Band 4 / Middle Channel 1732.6 MHz / 99%OBW



14:38:11 25.02.2019

### WCDMA Band 4 / Middle Channel 1732.6 MHz / 26dB OBW



14:39:28 25.02.2019

**LTE Band 12 (5 MHz BW) / Middle Channel 707.5 MHz / QPSK / 99%OBW**



11:19:15 27.02.2019

**LTE Band 12 (5 MHz BW) / Middle Channel 707.5 MHz / QPSK / 26dB OBW**



11:19:59 27.02.2019

### LTE Band 17 (5 MHz BW) / Middle Channel 710 MHz / QPSK / 99%OBW



10:35:44 27.02.2019

### LTE Band 17 (5 MHz BW) / Middle Channel 710 MHz / QPSK / 26dB OBW



10:36:32 27.02.2019

### LTE Band 41 (5 MHz BW) / Middle Channel 2593 MHz / QPSK / 99%OBW



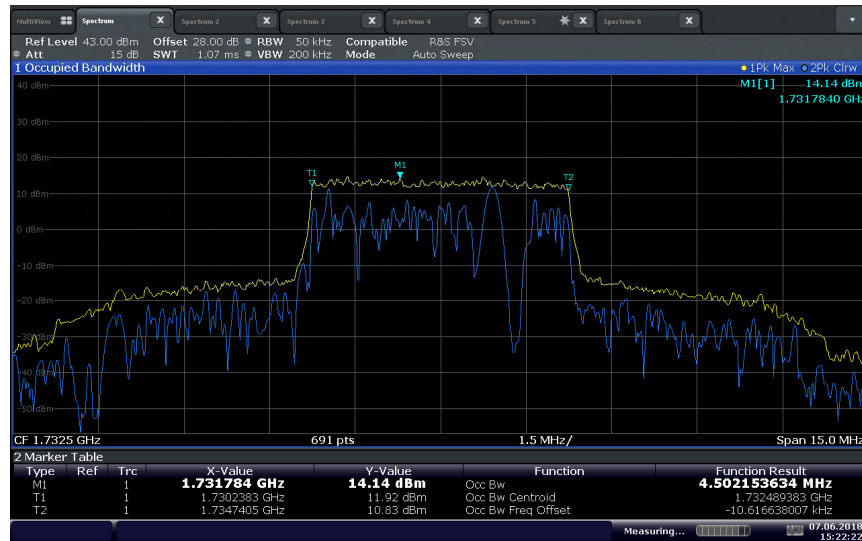
15:53:06 05.04.2019

### LTE Band 41 (5 MHz BW) / Middle Channel 2593 MHz / QPSK / 26dB OBW



15:40:43 05.04.2019

**LTE Band 4 (5 MHz BW) / Middle Channel 1732.5 MHz / QPSK / 99%OBW**



15:22:22 07.06.2018

**LTE Band 4 (5 MHz BW) / Middle Channel 1732.5 MHz / QPSK / 26dB BW**



15:23:09 07.06.2018

**LTE Band 7 (5 MHz BW) / Middle Channel 2535.0 MHz / QPSK / 99%OBW**



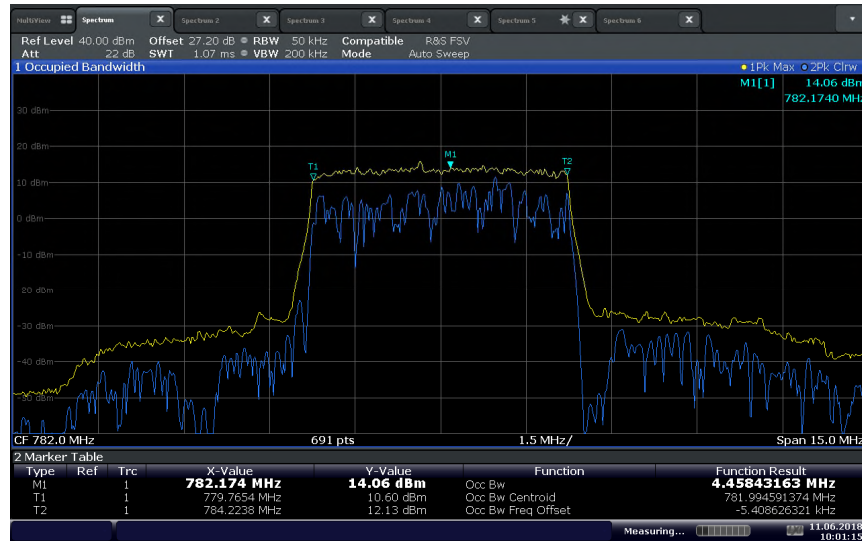
14:45:03 12.06.2018

**LTE Band 7 (5 MHz BW) / Middle Channel 2535.0 MHz / QPSK / 26dB BW**



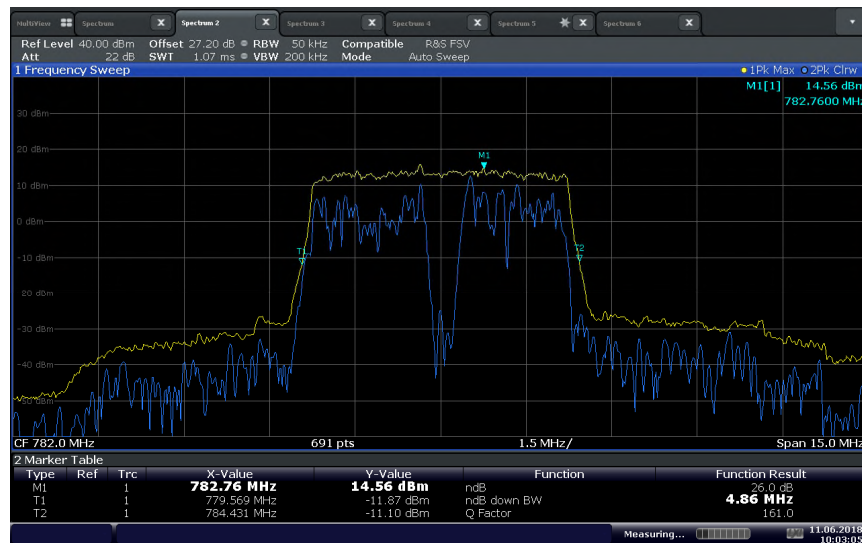
14:44:30 12.06.2018

### LTE Band 13 (5 MHz BW) / Middle Channel 782.0 MHz / QPSK / 99%OBW



10:01:15 11.06.2018

### LTE Band 13 (5 MHz BW) / Middle Channel 782.0 MHz / QPSK / 26dB BW



10:03:06 11.06.2018

**LTE Band 66 (5 MHz BW) / Middle Channel 1745.0 MHz / QPSK / 99%OBW**



13:29:46 11.06.2018

**LTE Band 66 (5 MHz BW) / Middle Channel 1745.0 MHz / QPSK / 26dB BW**



13:30:26 11.06.2018



## **2.5 PEAK-AVERAGE POWER RATIO**

### **2.5.1 Specification Reference**

FCC 47 CFR Part 27, Clause 27.50 (d)(5)  
RSS-139, Clause 6.5  
RSS-130, Clause 4.6.1  
RSS-199, Clause 4.4

### **2.5.2 Standard Applicable**

FCC 47 CFR Part 27.50(d):

(5) Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13dB.

RSS-130, RSS-139, and RSS-199:

The transmitter's peak-to-average power ratio (PAPR) shall not exceed 13 dB for more than 0.1% of the time using a signal corresponding to the highest PAPR during periods of continuous transmission.

### **2.5.3 Equipment Under Test and Modification State**

Serial No: AT071218B00062 (MIFI8000), AZ280418A00044 (MIFI8800L) / Test Configuration A

### **2.5.4 Date of Test/Initial of test personnel who performed the test**

February 25 and 27, March 05, 2019 / XYZ  
June 11, 13 and 14, 2018 / XYZ

### **2.5.5 Test Equipment Used**

The major items of test equipment used for the above tests are identified in Section 3.1.

### **2.5.6 Environmental Conditions/ Test Location**

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

|                     |                |
|---------------------|----------------|
| Ambient Temperature | 21.2 - 26.2°C  |
| Relative Humidity   | 35.0 - 54.2%   |
| ATM Pressure        | 98.5 - 99.6kPa |

#### 2.5.7 Additional Observations

- This is a conducted test.
- As per FCC KDB 971168 D01 v03r01 clause 5.7, the PAPR was measured in accordance with ANSI C63.26 clause 5.2.3.4.
- Measurement was done using the Spectrum Analyzer's Complementary Cumulative Distribution Function (CCDF) measurement profile. The built-in function is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth (crest factor or peak-to-average ratio) A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth.
- Low, Middle and High channels for all bandwidths and modulations were verified.
- The path loss for was measured and entered as a level offset.
- There are no measured PAR levels greater than 13dB. EUT complies.

#### 2.5.8 Test Results

| Band         | Channels | Frequency (MHz) | PAR (dB) | Limit for PAR (dB) |
|--------------|----------|-----------------|----------|--------------------|
| WCDMA Band 4 | 1312     | 1712.4          | 3.61     | 13                 |
|              | 1413     | 1732.6          | 3.29     | 13                 |
|              | 1513     | 1752.6          | 3.18     | 13                 |

| LTE Band 12 |                 |          |                 |          |                    |
|-------------|-----------------|----------|-----------------|----------|--------------------|
| Modulation  | Bandwidth (MHz) | Channels | Frequency (MHz) | PAR (dB) | Limit for PAR (dB) |
| QPSK        | 1.4             | 23017    | 699.7           | 3.10     | 13                 |
|             |                 | 23095    | 707.5           | 4.90     | 13                 |
|             |                 | 23173    | 715.3           | 4.32     | 13                 |
|             | 3               | 23025    | 700.5           | 3.27     | 13                 |
|             |                 | 23095    | 707.5           | 4.74     | 13                 |
|             |                 | 23165    | 714.5           | 3.49     | 13                 |
|             | 5               | 23035    | 701.5           | 4.29     | 13                 |
|             |                 | 23095    | 707.5           | 4.90     | 13                 |
|             |                 | 23155    | 713.5           | 3.88     | 13                 |
|             | 10              | 23060    | 704             | 4.75     | 13                 |
|             |                 | 23095    | 707.5           | 4.93     | 13                 |
|             |                 | 23130    | 711             | 4.35     | 13                 |
| 16QAM       | 1.4             | 23017    | 699.7           | 4.23     | 13                 |
|             |                 | 23095    | 707.5           | 6.39     | 13                 |
|             |                 | 23173    | 715.3           | 4.75     | 13                 |
|             | 3               | 23025    | 700.5           | 4.36     | 13                 |
|             |                 | 23095    | 707.5           | 5.99     | 13                 |
|             |                 | 23165    | 714.5           | 4.64     | 13                 |
|             | 5               | 23035    | 701.5           | 5.41     | 13                 |
|             |                 | 23095    | 707.5           | 6.24     | 13                 |
|             |                 | 23155    | 713.5           | 4.87     | 13                 |
|             | 10              | 23060    | 704             | 5.71     | 13                 |
|             |                 | 23095    | 707.5           | 6.0      | 13                 |
|             |                 | 23130    | 711             | 5.38     | 13                 |

| LTE Band 17 |                 |          |                 |          |                    |
|-------------|-----------------|----------|-----------------|----------|--------------------|
| Modulation  | Bandwidth (MHz) | Channels | Frequency (MHz) | PAR (dB) | Limit for PAR (dB) |
| QPSK        | 5               | 23755    | 706.5           | 4.74     | 13                 |
|             |                 | 23790    | 710             | 4.01     | 13                 |
|             |                 | 23825    | 713.5           | 3.61     | 13                 |
|             | 10              | 23780    | 709             | 4.73     | 13                 |
|             |                 | 23790    | 710             | 4.22     | 13                 |
|             |                 | 23800    | 711             | 4.40     | 13                 |
| 16QAM       | 5               | 23755    | 706.5           | 6.48     | 13                 |
|             |                 | 23790    | 710             | 5.13     | 13                 |
|             |                 | 23825    | 713.5           | 4.44     | 13                 |
|             | 10              | 23780    | 709             | 5.96     | 13                 |
|             |                 | 23790    | 710             | 5.35     | 13                 |
|             |                 | 23800    | 711             | 5.56     | 13                 |

| LTE Band 41 |                 |          |                 |          |                    |
|-------------|-----------------|----------|-----------------|----------|--------------------|
| Modulation  | Bandwidth (MHz) | Channels | Frequency (MHz) | PAR (dB) | Limit for PAR (dB) |
| QPSK        | 5               | 39675    | 2498.5          | 8.20     | 13                 |
|             |                 | 40620    | 2593            | 7.23     | 13                 |
|             |                 | 41565    | 2687.5          | 7.95     | 13                 |
|             | 10              | 39675    | 2498.5          | 7.80     | 13                 |
|             |                 | 40620    | 2593            | 7.16     | 13                 |
|             |                 | 41565    | 2687.5          | 8.71     | 13                 |
|             | 15              | 39700    | 2501            | 8.0      | 13                 |
|             |                 | 40620    | 2593            | 7.30     | 13                 |
|             |                 | 41540    | 2685            | 7.84     | 13                 |
|             | 20              | 39700    | 2501            | 8.08     | 13                 |
|             |                 | 40620    | 2593            | 8.28     | 13                 |
|             |                 | 41540    | 2685            | 7.71     | 13                 |
| 16QAM       | 5               | 39725    | 2503.5          | 9.04     | 13                 |
|             |                 | 40620    | 2593            | 9.31     | 13                 |
|             |                 | 41515    | 2682.5          | 9.61     | 13                 |
|             | 10              | 39725    | 2503.5          | 8.91     | 13                 |
|             |                 | 40620    | 2593            | 8.37     | 13                 |
|             |                 | 41515    | 2682.5          | 8.80     | 13                 |
|             | 15              | 39750    | 2506            | 8.92     | 13                 |
|             |                 | 40620    | 2593            | 8.60     | 13                 |
|             |                 | 41490    | 2680            | 8.90     | 13                 |
|             | 20              | 39750    | 2506            | 9.22     | 13                 |
|             |                 | 40620    | 2593            | 9.11     | 13                 |
|             |                 | 41490    | 2680            | 9.0      | 13                 |

| LTE Band 4 |                 |          |                 |          |                    |
|------------|-----------------|----------|-----------------|----------|--------------------|
| Modulation | Bandwidth (MHz) | Channels | Frequency (MHz) | PAR (dB) | Limit for PAR (dB) |
| QPSK       | 1.4             | 19957    | 1710.7          | 3.06     | 13                 |
|            |                 | 20175    | 1732.5          | 3.15     | 13                 |
|            |                 | 20393    | 1754.3          | 4.47     | 13                 |
|            | 3               | 19965    | 1711.5          | 3.19     | 13                 |
|            |                 | 20175    | 1732.5          | 3.13     | 13                 |
|            |                 | 20385    | 1753.5          | 4.03     | 13                 |
|            | 5               | 19975    | 1712.5          | 3.84     | 13                 |
|            |                 | 20175    | 1732.5          | 3.08     | 13                 |
|            |                 | 20375    | 1752.5          | 4.7      | 13                 |
|            | 10              | 20000    | 1715            | 4.98     | 13                 |
|            |                 | 20175    | 1732.5          | 4.81     | 13                 |
|            |                 | 20350    | 1750            | 4.71     | 13                 |
|            | 15              | 20025    | 1717.5          | 5.41     | 13                 |
|            |                 | 20175    | 1732.5          | 5.64     | 13                 |
|            |                 | 20325    | 1747.5          | 5.55     | 13                 |
|            | 20              | 20050    | 1720            | 6.44     | 13                 |
|            |                 | 20175    | 1732.5          | 6.64     | 13                 |
|            |                 | 20300    | 1745            | 6.74     | 13                 |
| 16QAM      | 1.4             | 19957    | 1710.7          | 4.6      | 13                 |
|            |                 | 20175    | 1732.5          | 4.32     | 13                 |
|            |                 | 20393    | 1754.3          | 5.69     | 13                 |
|            | 3               | 19965    | 1711.5          | 4.43     | 13                 |
|            |                 | 20175    | 1732.5          | 4.32     | 13                 |
|            |                 | 20385    | 1753.5          | 5.34     | 13                 |
|            | 5               | 19975    | 1712.5          | 5.07     | 13                 |
|            |                 | 20175    | 1732.5          | 4.19     | 13                 |
|            |                 | 20375    | 1752.5          | 5.66     | 13                 |
|            | 10              | 20000    | 1715            | 5.96     | 13                 |
|            |                 | 20175    | 1732.5          | 5.53     | 13                 |
|            |                 | 20350    | 1750            | 5.96     | 13                 |
|            | 15              | 20025    | 1717.5          | 7.03     | 13                 |
|            |                 | 20175    | 1732.5          | 6.81     | 13                 |
|            |                 | 20325    | 1747.5          | 6.37     | 13                 |
|            | 20              | 20050    | 1720            | 7.77     | 13                 |
|            |                 | 20175    | 1732.5          | 7.72     | 13                 |
|            |                 | 20300    | 1745            | 7.99     | 13                 |

| LTE Band 7 |                 |          |                 |          |                    |
|------------|-----------------|----------|-----------------|----------|--------------------|
| Modulation | Bandwidth (MHz) | Channels | Frequency (MHz) | PAR (dB) | Limit for PAR (dB) |
| QPSK       | 5               | 20775    | 2502.5          | 5.96     | 13                 |
|            |                 | 21100    | 2535            | 6.12     | 13                 |
|            |                 | 21425    | 2567.5          | 5.43     | 13                 |
|            | 10              | 20800    | 2505            | 5.64     | 13                 |
|            |                 | 21100    | 2535            | 5.8      | 13                 |
|            |                 | 21400    | 2565            | 5.65     | 13                 |
|            | 15              | 20825    | 2507.5          | 5.65     | 13                 |
|            |                 | 21100    | 2535            | 5.65     | 13                 |
|            |                 | 21375    | 2562.5          | 5.82     | 13                 |
|            | 20              | 20850    | 2510            | 6.73     | 13                 |
|            |                 | 21100    | 2535            | 6.5      | 13                 |
|            |                 | 21350    | 2560            | 6.72     | 13                 |
| 16QAM      | 5               | 20775    | 2502.5          | 7.04     | 13                 |
|            |                 | 21100    | 2535            | 7.32     | 13                 |
|            |                 | 21425    | 2567.5          | 6.62     | 13                 |
|            | 10              | 20800    | 2505            | 6.9      | 13                 |
|            |                 | 21100    | 2535            | 7.33     | 13                 |
|            |                 | 21400    | 2565            | 7.03     | 13                 |
|            | 15              | 20825    | 2507.5          | 7.15     | 13                 |
|            |                 | 21100    | 2535            | 7.73     | 13                 |
|            |                 | 21375    | 2562.5          | 7.07     | 13                 |
|            | 20              | 20850    | 2510            | 7.55     | 13                 |
|            |                 | 21100    | 2535            | 8.05     | 13                 |
|            |                 | 21350    | 2560            | 8.02     | 13                 |

| LTE Band 13 |                 |          |                 |          |                    |
|-------------|-----------------|----------|-----------------|----------|--------------------|
| Modulation  | Bandwidth (MHz) | Channels | Frequency (MHz) | PAR (dB) | Limit for PAR (dB) |
| QPSK        | 5               | 23205    | 779.5           | 5.23     | 13                 |
|             |                 | 23230    | 782             | 4.83     | 13                 |
|             |                 | 23255    | 784.5           | 5.64     | 13                 |
|             | 10              | -        | -               | -        | 13                 |
|             |                 | 23230    | 782             | 5.01     | 13                 |
|             |                 | -        | -               | -        | 13                 |
| 16QAM       | 5               | 23205    | 779.5           | 6.48     | 13                 |
|             |                 | 23230    | 782             | 6.33     | 13                 |
|             |                 | 23255    | 784.5           | 6.65     | 13                 |
|             | 10              | -        | -               | -        | 13                 |
|             |                 | 23230    | 782             | 6.59     | 13                 |
|             |                 | -        | -               | -        | 13                 |

| LTE Band 66 |                 |          |                 |          |                    |
|-------------|-----------------|----------|-----------------|----------|--------------------|
| Modulation  | Bandwidth (MHz) | Channels | Frequency (MHz) | PAR (dB) | Limit for PAR (dB) |
| QPSK        | 1.4             | 131979   | 1710.7          | 2.92     | 13                 |
|             |                 | 132322   | 1745            | 3.8      | 13                 |
|             |                 | 132665   | 1779.3          | 4.23     | 13                 |
|             | 3               | 131987   | 1711.5          | 2.91     | 13                 |
|             |                 | 132322   | 1745            | 3.64     | 13                 |
|             |                 | 132657   | 1778.5          | 3.86     | 13                 |
|             | 5               | 131997   | 1712.5          | 3.86     | 13                 |
|             |                 | 132322   | 1745            | 4.3      | 13                 |
|             |                 | 132647   | 1777.5          | 4.6      | 13                 |
|             | 10              | 132022   | 1715            | 4.76     | 13                 |
|             |                 | 132322   | 1745            | 4.78     | 13                 |
|             |                 | 132622   | 1775            | 4.93     | 13                 |
|             | 15              | 132047   | 1717.5          | 5.41     | 13                 |
|             |                 | 132322   | 1745            | 5.62     | 13                 |
|             |                 | 132597   | 1772.5          | 5.78     | 13                 |
|             | 20              | 132072   | 1720            | 6.85     | 13                 |
|             |                 | 132322   | 1745            | 6.56     | 13                 |
|             |                 | 132572   | 1770            | 6.57     | 13                 |
| 16QAM       | 1.4             | 131979   | 1710.7          | 4.39     | 13                 |
|             |                 | 132322   | 1745            | 5.19     | 13                 |
|             |                 | 132665   | 1779.3          | 5.45     | 13                 |
|             | 3               | 131987   | 1711.5          | 4.28     | 13                 |
|             |                 | 132322   | 1745            | 4.77     | 13                 |
|             |                 | 132657   | 1778.5          | 5.04     | 13                 |
|             | 5               | 131997   | 1712.5          | 4.84     | 13                 |
|             |                 | 132322   | 1745            | 4.55     | 13                 |
|             |                 | 132647   | 1777.5          | 5.56     | 13                 |
|             | 10              | 132022   | 1715            | 6.15     | 13                 |
|             |                 | 132322   | 1745            | 5.89     | 13                 |
|             |                 | 132622   | 1775            | 6.24     | 13                 |
|             | 15              | 132047   | 1717.5          | 6.81     | 13                 |
|             |                 | 132322   | 1745            | 6.95     | 13                 |
|             |                 | 132597   | 1772.5          | 7.11     | 13                 |
|             | 20              | 132072   | 1720            | 7.89     | 13                 |
|             |                 | 132322   | 1745            | 8.02     | 13                 |
|             |                 | 132572   | 1770            | 7.6      | 13                 |

## 2.5.9 Example Test Plots

### WCDMA Band 4 / Middle Channel 1732.6 MHz



### LTE Band 12 (5 MHz BW) / Middle Channel 707.5 MHz / QPSK



### LTE Band 17 (5 MHz BW) / Middle Channel 710 MHz / QPSK



13:30:49 27.02.2019

### LTE Band 41 (5 MHz BW) / Middle Channel 2593 MHz / QPSK



15:46:29 05.04.2019

### LTE Band 4 (5 MHz BW) / Middle Channel 1732.5 MHz / QPSK



### LTE Band 7 (5 MHz BW) / Middle Channel 2535 MHz / QPSK



### LTE Band 13 (5 MHz BW) / Middle Channel 782 MHz / QPSK



15:04:55 13.06.2018

### LTE Band 66 (5 MHz BW) / Middle Channel 1745 MHz / QPSK



15:48:15 13.06.2018



## **2.6 SPURIOUS EMISSION AT BAND EDGE**

### **2.6.1 Specification Reference**

FCC 47 CFR Part 2, Clause 2.1051  
FCC 47 CFR Part 27, Clause 27.53(h)(1)(3)  
FCC 47 CFR Part 27, Clause 27.53(g)  
FCC 47 CFR Part 27, Clause 27.53(c)(2)  
RSS-139, Clause 6.6  
RSS-130, Clause 4.7.1  
RSS-199, Clause 4.5

### **2.6.2 Standard Applicable**

FCC 47 CFR Part 27.53

(h) AWS emission limits – (1) General protection levels. Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB.

(g) For operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log(P)$  dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

(c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log_{10}(P)$  dB.

RSS-139, Clause 6.6:

(i) In the first 1.0 MHz bands immediately outside and adjacent to the equipment's smallest operating frequency block, which can contain the equipment's occupied bandwidth, the emission power per any 1% of the emission bandwidth shall be attenuated below the transmitter output power P (dBW), by at least  $43 + 10 \log_{10} p$  (watts) dB.

RSS-130:

4.7.1 The unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least  $43 + 10 \log_{10} p$  (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.



RSS-199, Clause 4.5:

In the 1 MHz band immediately outside and adjacent to the channel edge, the unwanted emission power shall be measured with a resolution bandwidth of at 1% of the occupied bandwidth for base station and fixed subscriber equipment, and 2% for mobile subscriber equipment. Beyond the 1 MHz band, a resolution bandwidth of 1 MHz shall be used.

(b) for mobile subscriber equipment, the power of any unwanted emissions measured as above shall be attenuated (in dB) below the transmitter power, P (dBW), by at least:

(i)  $40 + 10 \log_{10} p$  from the channel edges to 5 MHz away.

(ii)  $43 + 10 \log_{10} p$  between 5 MHz and X MHz from the channel edges, and

(iii)  $55 + 10 \log_{10} p$  at X MHz and beyond from the channel edges

Note: X is 6 MHz or the equipment occupied bandwidth, whichever is greater

### 2.6.3 Equipment Under Test and Modification State

Serial No: AT071218B00062 (MIFI8000), AZ280418A00044 (MIFI8800L) / Test Configuration A

### 2.6.4 Date of Test/Initial of test personnel who performed the test

February 25 and 27, April 8 and 9, 2019 / XYZ

July 16, 17 and 20, 2018 / XYZ

### 2.6.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

### 2.6.6 Environmental Conditions/ Test Location

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

|                     |                |
|---------------------|----------------|
| Ambient Temperature | 21.2 - 26.4°C  |
| Relative Humidity   | 35.0 - 56.4%   |
| ATM Pressure        | 98.9 - 99.6kPa |

### 2.6.7 Additional Observations

- This is a conducted test.
- The path loss were measured and entered as a level offset.
- RBW is set to minimum 1% (for band 4, 12, 13, 17 and 66) or 2% (for band 7, 38, 41) of EBW and VBW is set to  $>3 \times \text{RBW}$  in the 1 MHz (for band 4, 7 and 66) or 100 kHz (for band 12, 13, 17) band immediately outside and adjacent to the channel edge.
- For Band 4 and 66, RBW was set 1% of the Emission Bandwidth for emissions more than 1.0 MHz outside the equipment's operating frequency block, and the limit is set to:  
 $-13 + 10 \lg (\text{RBW}_{\text{used}}/1 \text{ MHz}) \text{ dBm}$ .
- For LTE Band 12, 13, 17, RBW was set 1% of the Emission Bandwidth for emissions more than 100 kHz outside the equipment's operating frequency block, and the limit is set to:  
 $-13 + 10 \lg (\text{RBW}_{\text{used}}/100 \text{ kHz}) \text{ dBm}$ .
- For LTE Band 7, 38, 41, RBW was set 2% of the Emission Bandwidth and for emissions more than 1.0 MHz and less than 5 MHz outside the equipment's operating frequency block, the limit is set to:  
 $-10 + 10 \lg (\text{RBW}_{\text{used}}/1 \text{ MHz}) \text{ dBm}$ .
- Only worst case configuration for all technologies presented in this test report.

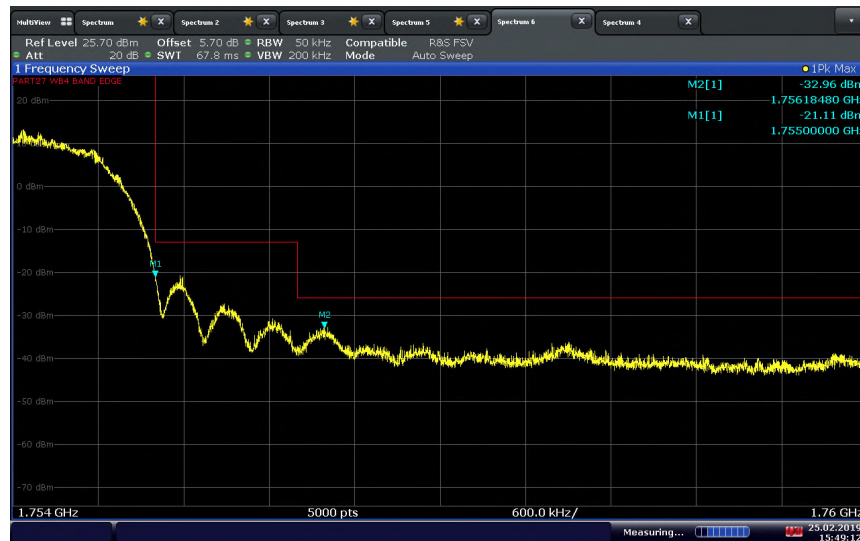
## 2.6.8 Test Results

### WCDMA Band 4 / Low Channel 1712.4 MHz / Band Edge @1710 MHz



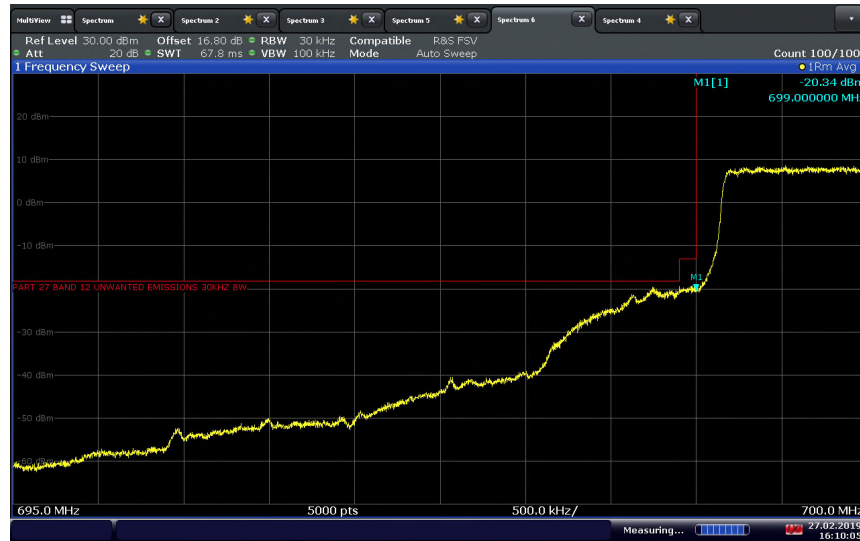
15:46:31 25.02.2019

### WCDMA Band 4 / High Channel 1752.6 MHz / Band Edge @1755 MHz



15:49:12 25.02.2019

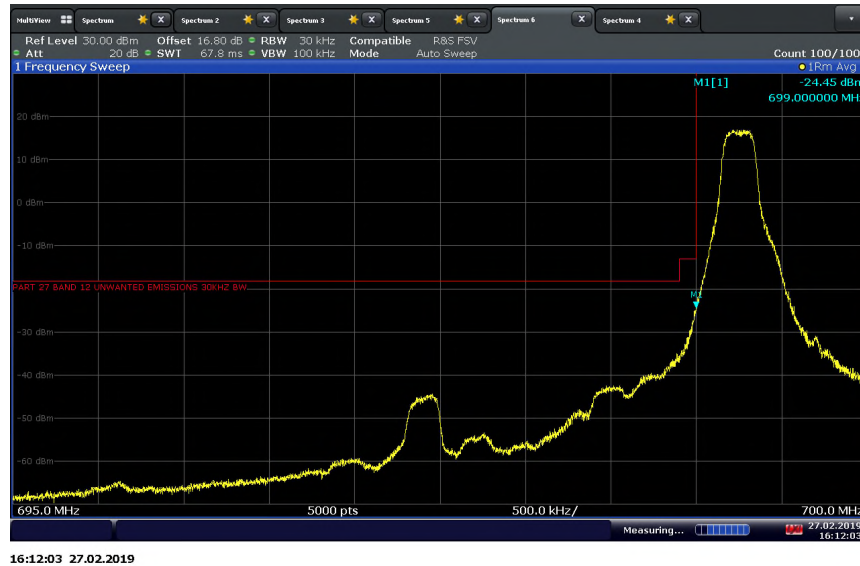
**LTE Band 12 (1.4 MHz BW)/QPSK/Low Channel 699.7 MHz/Full RB Band Edge @699 MHz**



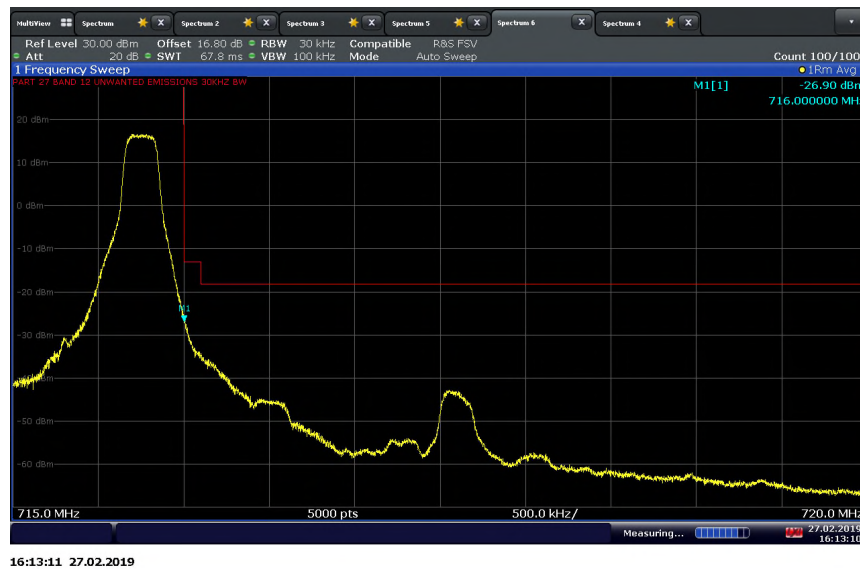
**LTE Band 12 (1.4 MHz BW)/QPSK/High Channel 715.3 MHz/Full RB Band Edge @716 MHz**



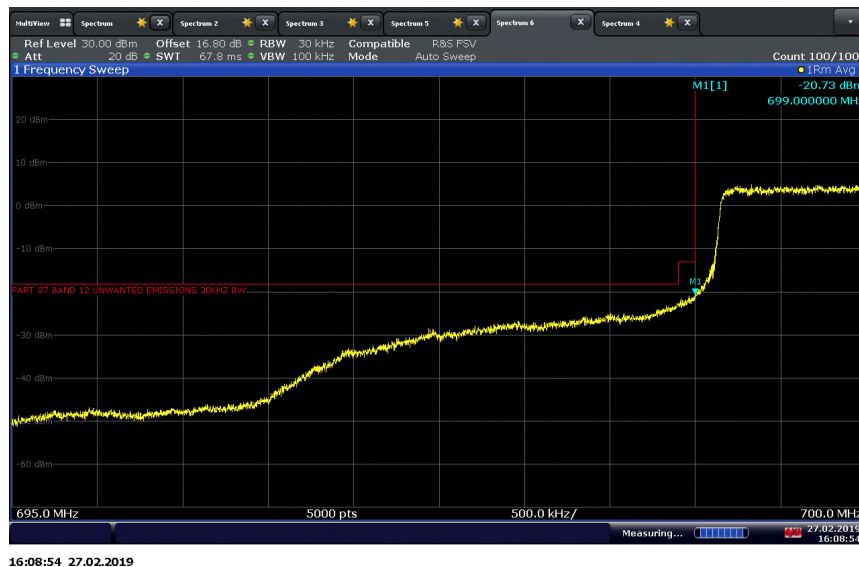
LTE Band 12 (1.4 MHz BW)/QPSK/Low Channel 699.7 MHz/1 RB 0 offset Band Edge @699 MHz



LTE Band 12 (1.4 MHz BW)/QPSK/High Channel 715.3 MHz/1 RB 5 offset Band Edge @716 MHz



**LTE Band 12 (3 MHz BW)/QPSK/Low Channel 700.5 MHz/Full RB Band Edge @699 MHz**



**LTE Band 12 (3 MHz BW)/QPSK/High Channel 714.5 MHz/Full RB Band Edge @716 MHz**



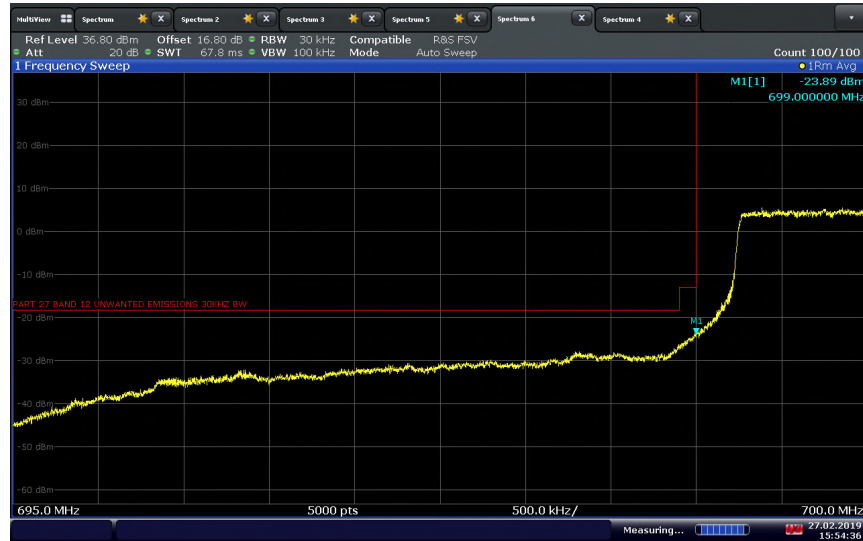
LTE Band 12 (3 MHz BW)/QPSK/Low Channel 700.5 MHz/1 RB 0 offset Band Edge @699 MHz



LTE Band 12 (3 MHz BW)/QPSK/High Channel 714.5 MHz/1 RB 14 offset Band Edge @716 MHz



**LTE Band 12 (5 MHz BW)/QPSK/Low Channel 701.5 MHz/Full RB Band Edge @699 MHz**



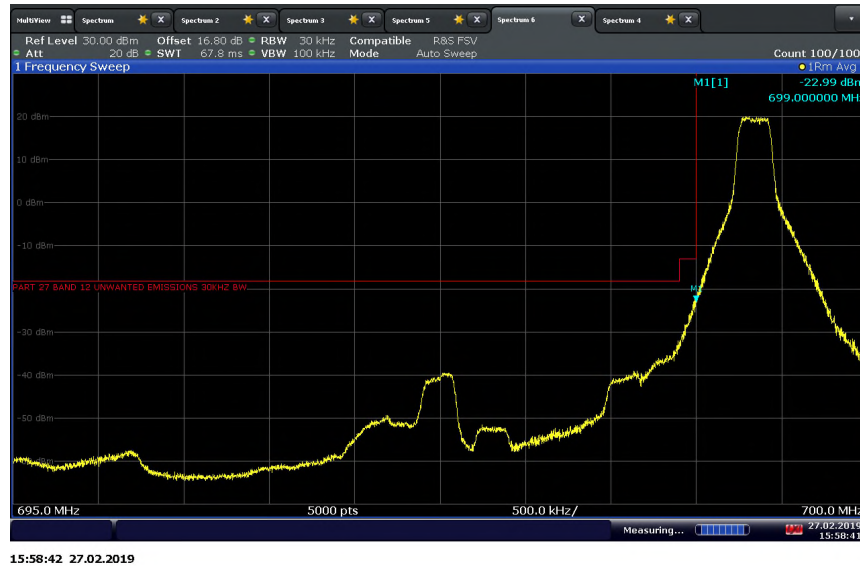
15:54:36 27.02.2019

**LTE Band 12 (5 MHz BW)/QPSK/High Channel 713.5 MHz/Full RB Band Edge @716 MHz**

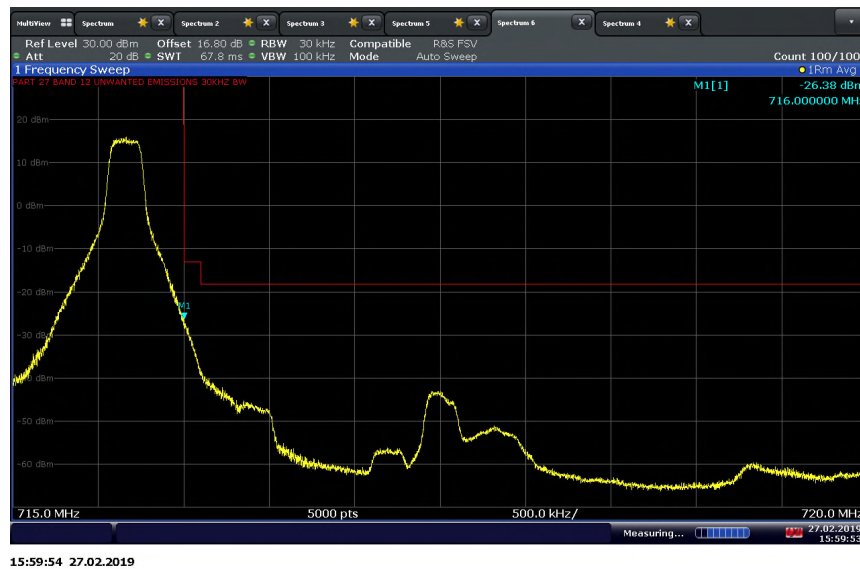


16:02:21 27.02.2019

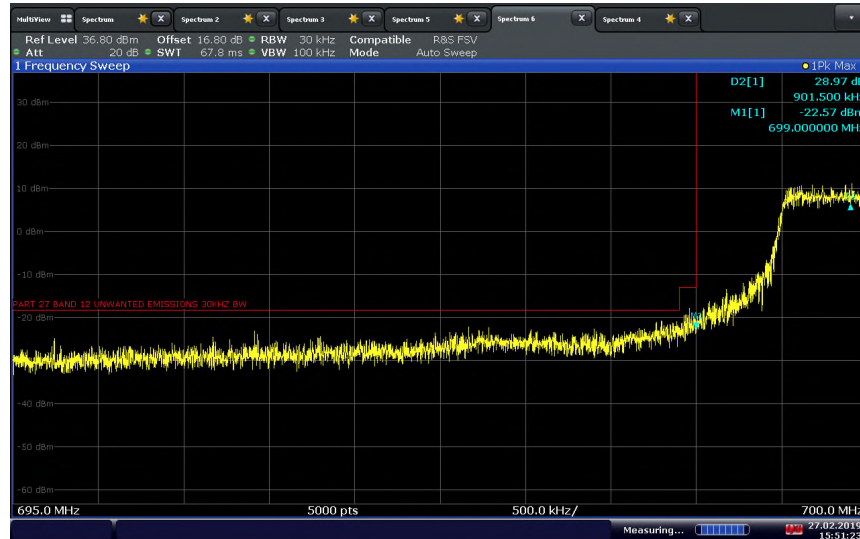
**LTE Band 12 (5 MHz BW)/QPSK/Low Channel 701.5 MHz/1 RB 0 offset Band Edge @699 MHz**



**LTE Band 12 (5 MHz BW)/QPSK/High Channel 713.5 MHz/1 RB 24 offset Band Edge @716 MHz**

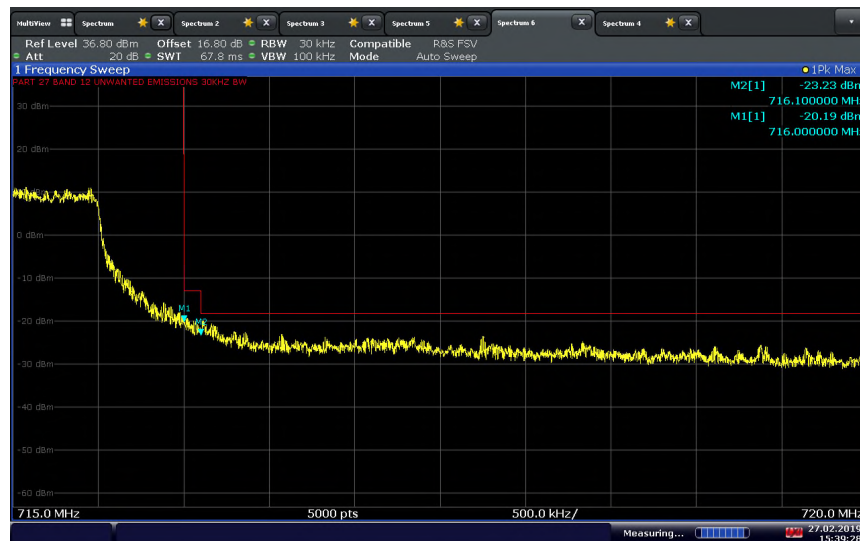


### LTE Band 12 (10 MHz BW)/QPSK/Low Channel 704 MHz/Full RB Band Edge @699 MHz



15:51:24 27.02.2019

### LTE Band 12 (10 MHz BW)/QPSK/High Channel 711 MHz/Full RB Band Edge @716 MHz

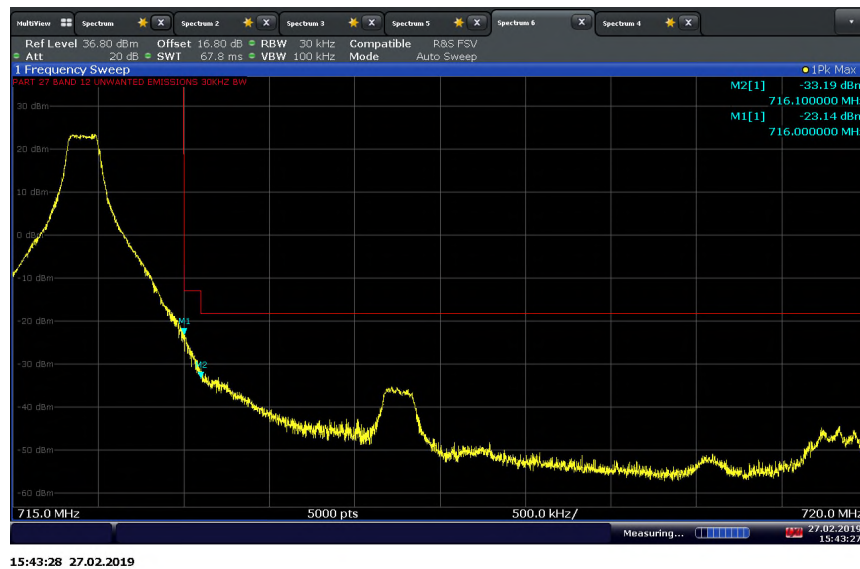


15:39:28 27.02.2019

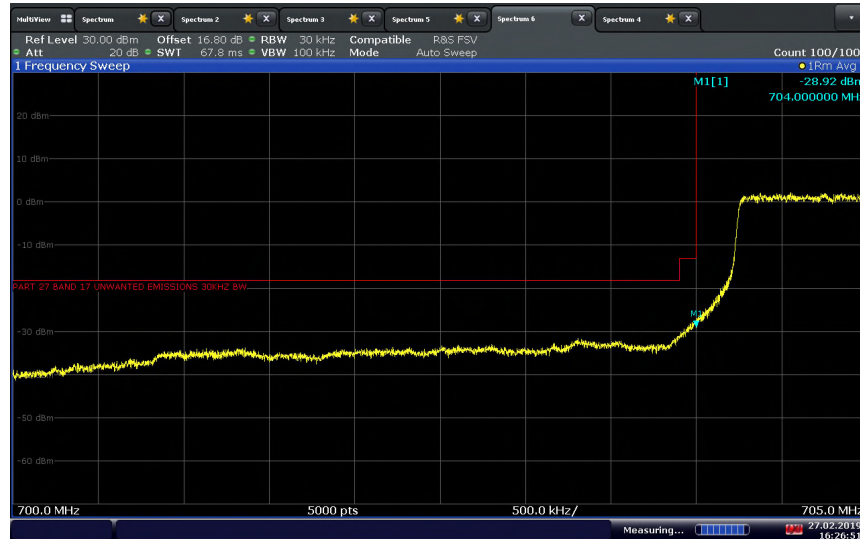
LTE Band 12 (10 MHz BW)/QPSK/Low Channel 704 MHz/1 RB 0 offset Band Edge @699 MHz



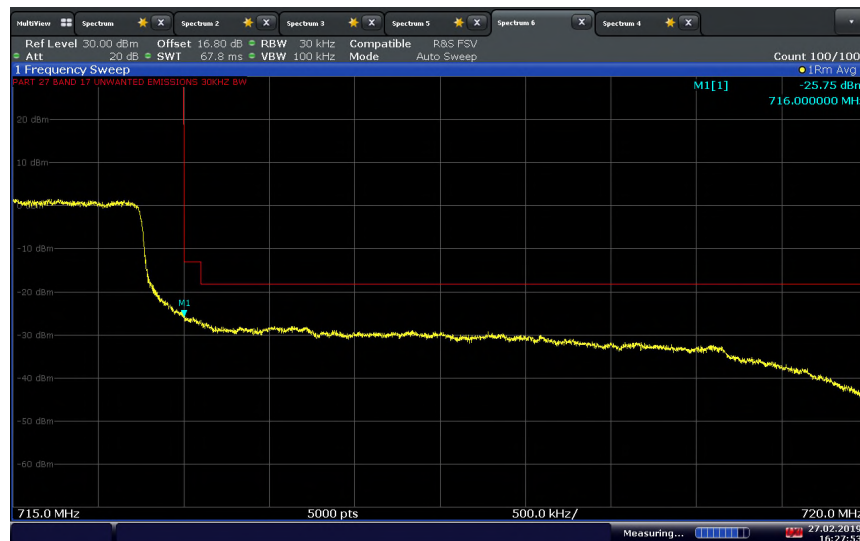
LTE Band 12 (10 MHz BW)/QPSK/High Channel 711 MHz/1 RB 49 offset Band Edge @716 MHz



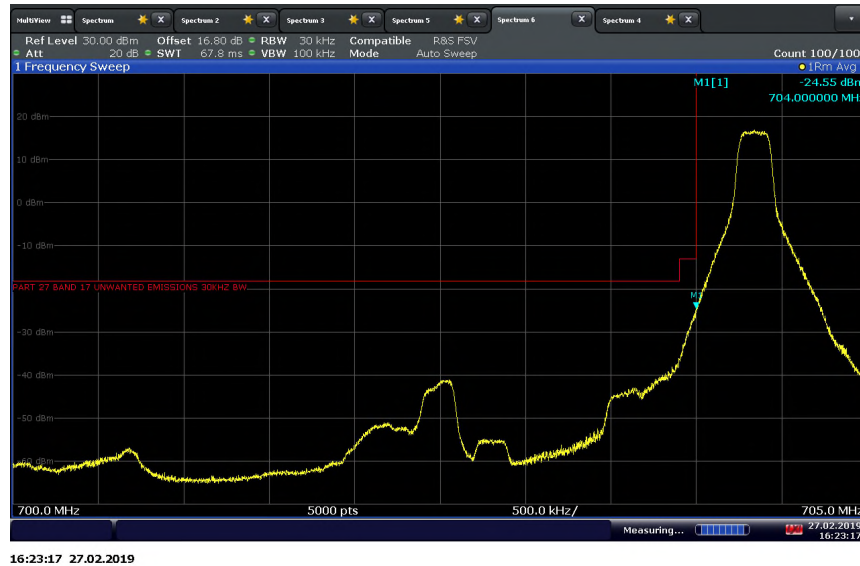
LTE Band 17 (5 MHz BW)/QPSK/Low Channel 706.5 MHz/Full RB Band Edge @704 MHz



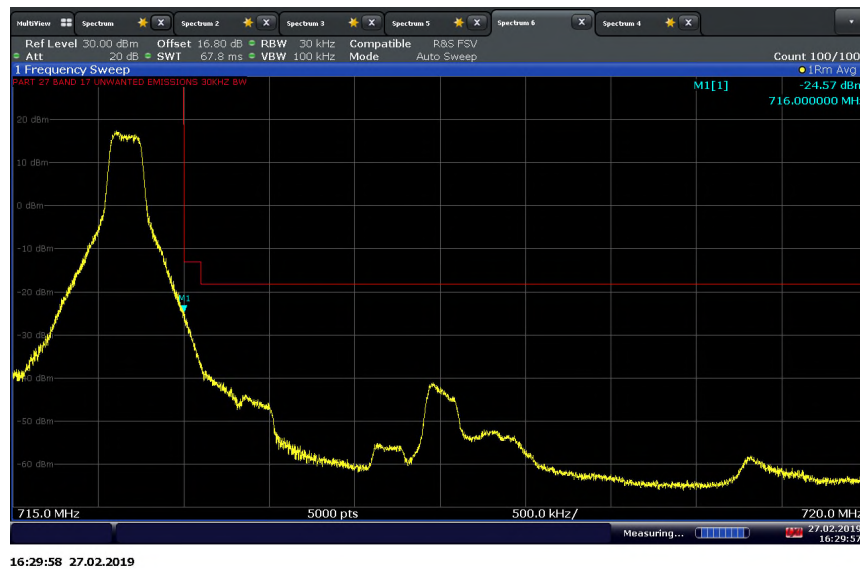
LTE Band 17 (5 MHz BW)/QPSK/High Channel 713.5 MHz/Full RB Band Edge @716 MHz



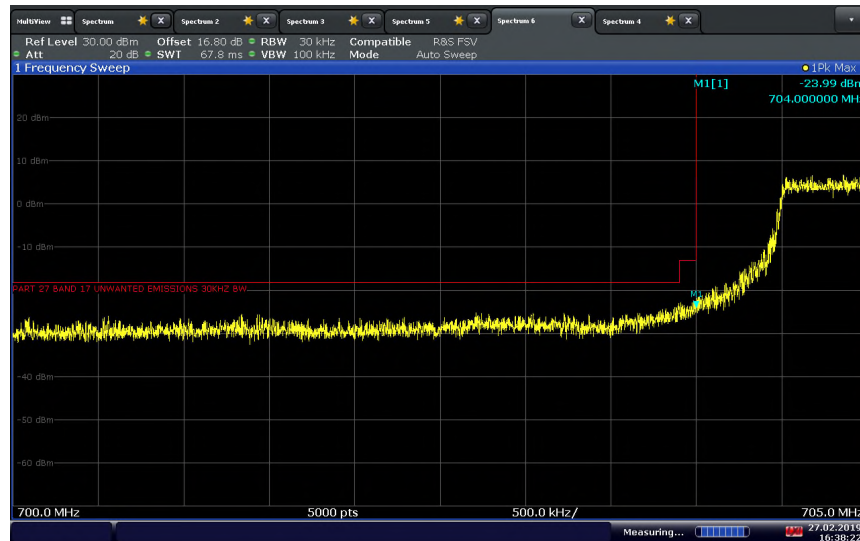
**LTE Band 17 (5 MHz BW)/QPSK/Low Channel 706.5 MHz/1 RB 0 offset Band Edge @704 MHz**



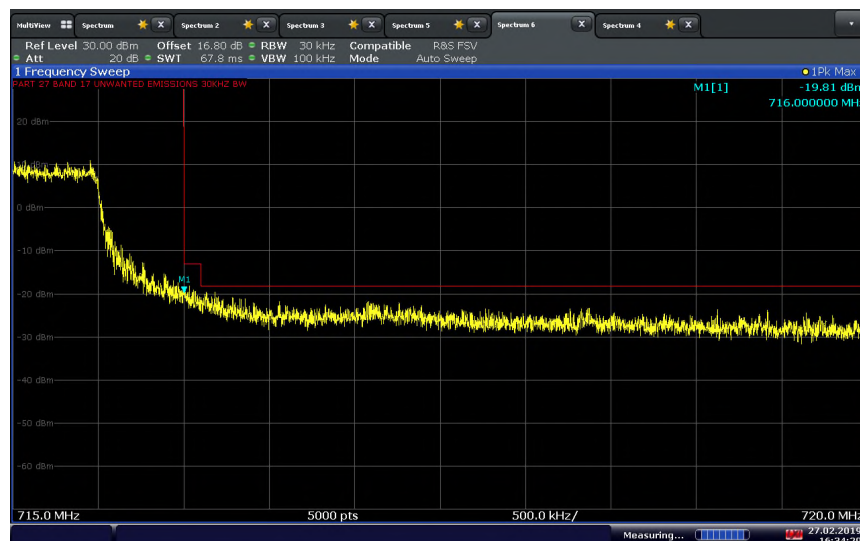
**LTE Band 17 (5 MHz BW)/QPSK/High Channel 713.5 MHz/1 RB 24 offset Band Edge @716 MHz**



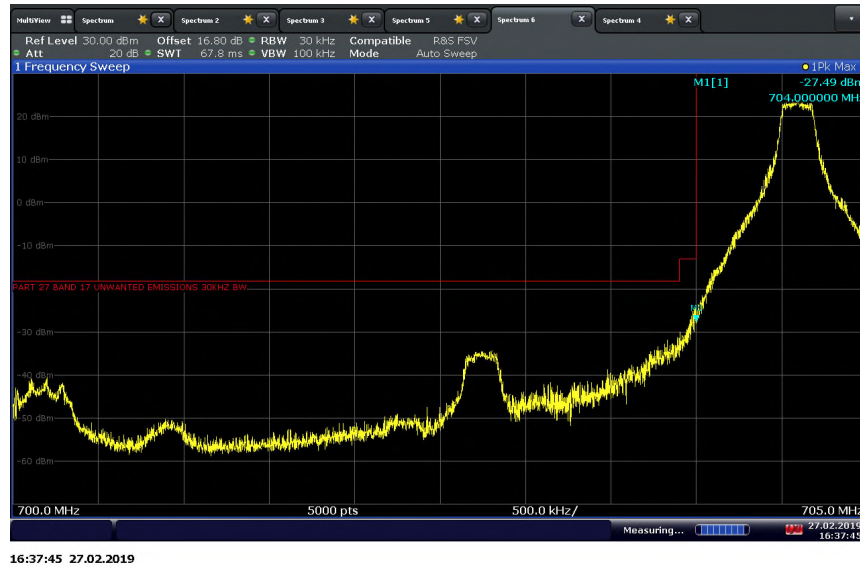
LTE Band 17 (10 MHz BW)/QPSK/Low Channel 709 MHz/Full RB Band Edge @704 MHz



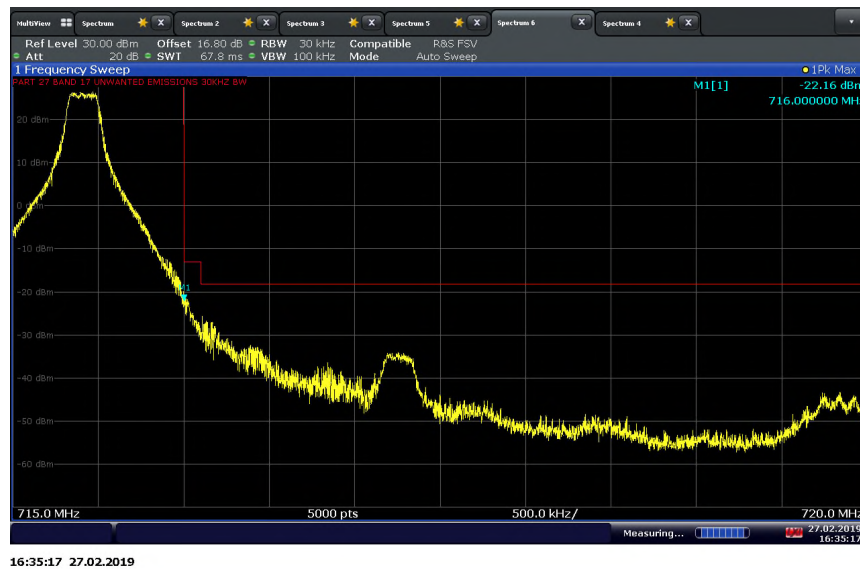
LTE Band 17 (10 MHz BW)/QPSK/High Channel 711 MHz/Full RB Band Edge @716 MHz



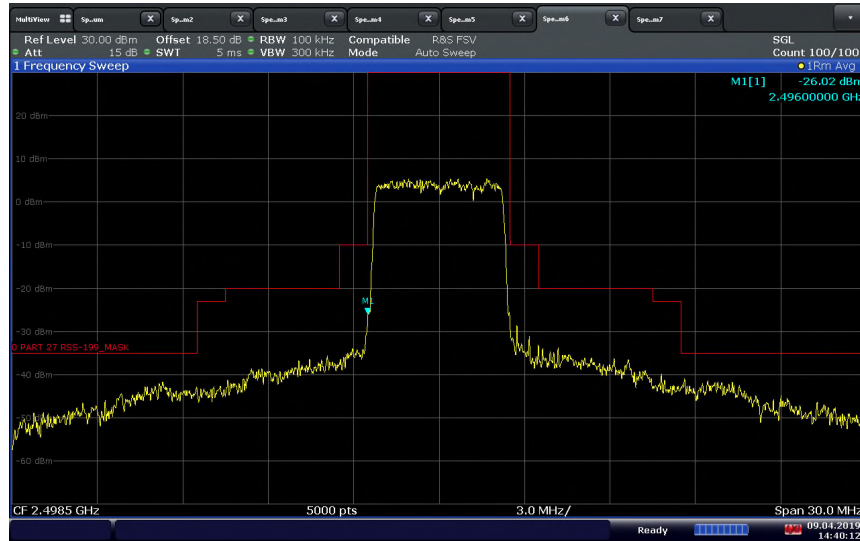
**LTE Band 17 (10 MHz BW)/QPSK/Low Channel 709 MHz/1 RB 0 offset Band Edge @704 MHz**



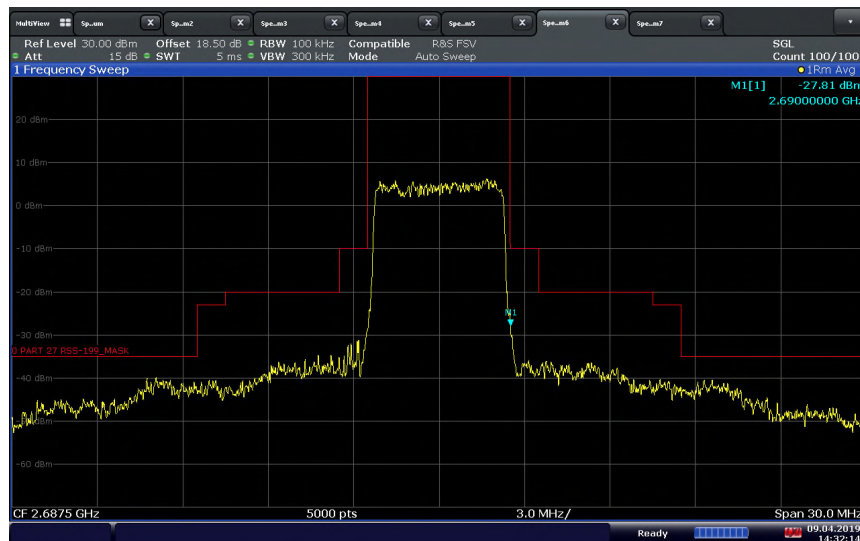
**LTE Band 17 (10 MHz BW)/QPSK/High Channel 711 MHz/1 RB 49 offset Band Edge @716 MHz**



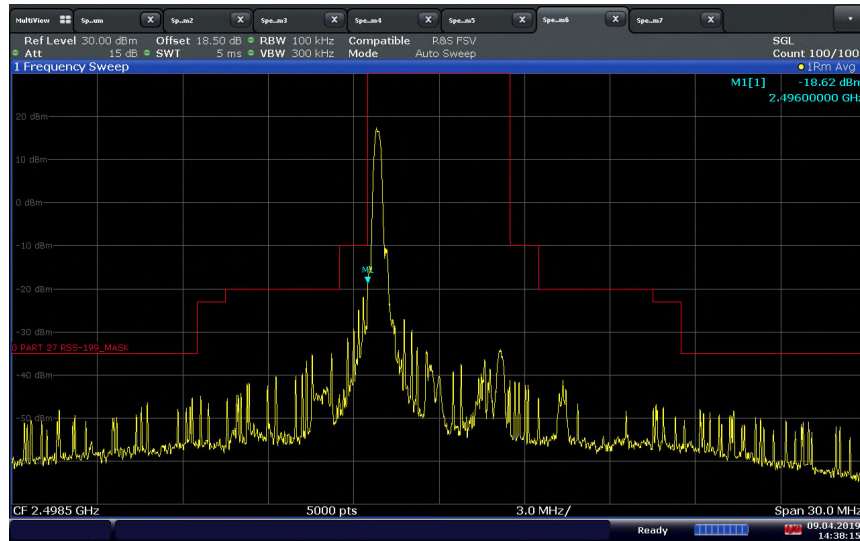
**LTE Band 41 (5 MHz BW)/QPSK/Low Channel 2498.5 MHz/Full RB Band Edge @2496 MHz**



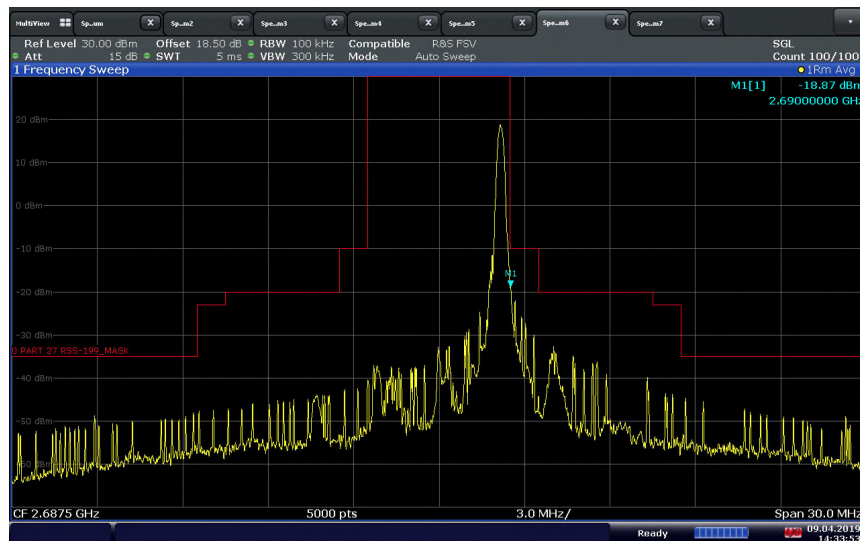
**LTE Band 41 (5 MHz BW)/QPSK/High Channel 2687.5 MHz/Full RB Band Edge @2690 MHz**



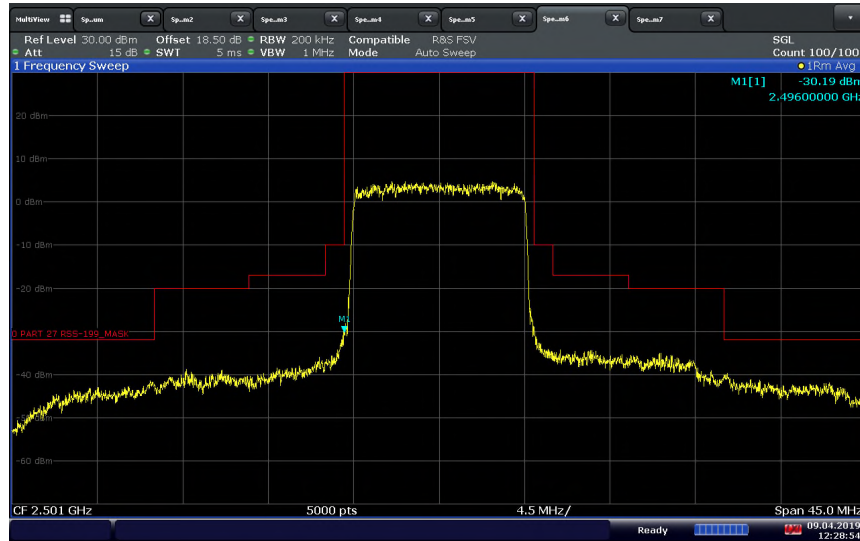
**LTE Band 41 (5 MHz BW)/QPSK/Low Channel 2498.5 MHz/1 RB 0 offset Band Edge @2496 MHz**



**LTE Band 41 (5 MHz BW)/QPSK/High Channel 2687.5 MHz/1 RB 49 offset Band Edge @2690 MHz**

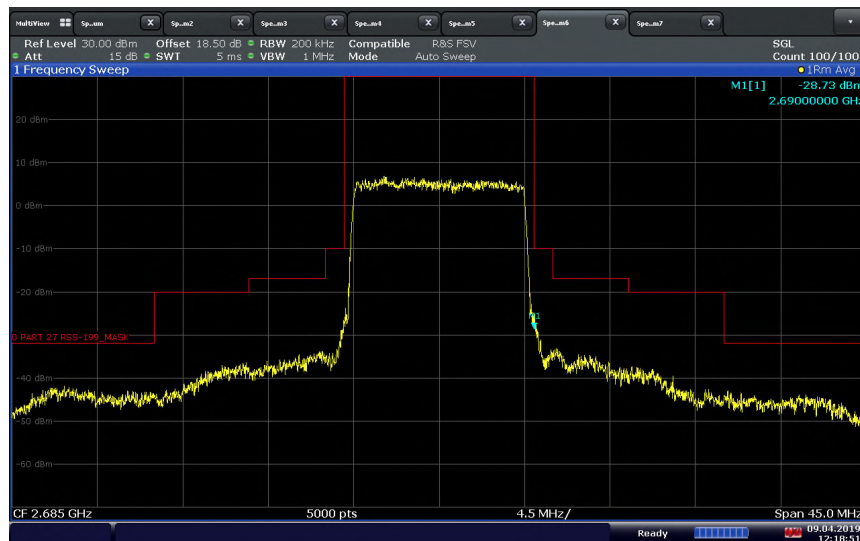


**LTE Band 41 (10 MHz BW)/QPSK/Low Channel 2501 MHz/Full RB Band Edge @2496 MHz**



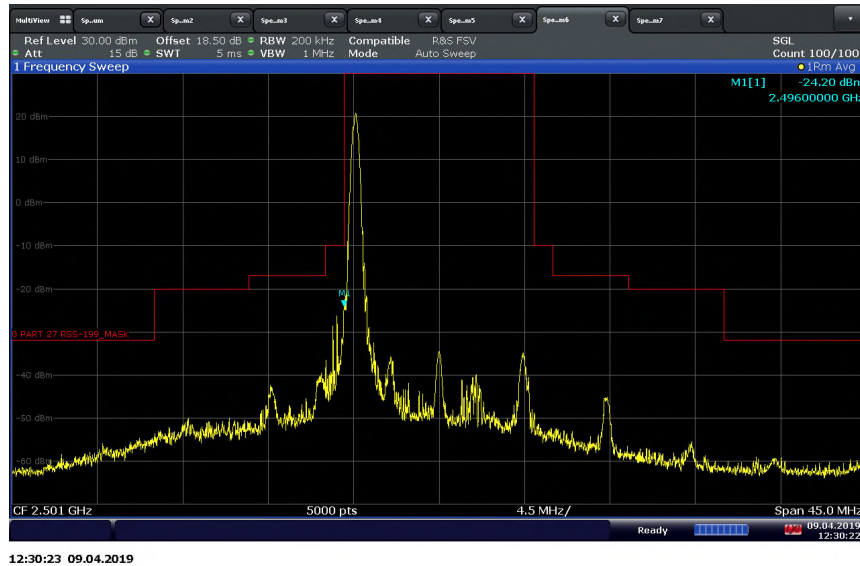
12:28:55 09.04.2019

**LTE Band 41 (10 MHz BW)/QPSK/High Channel 2685 MHz/Full RB Band Edge @2690 MHz**

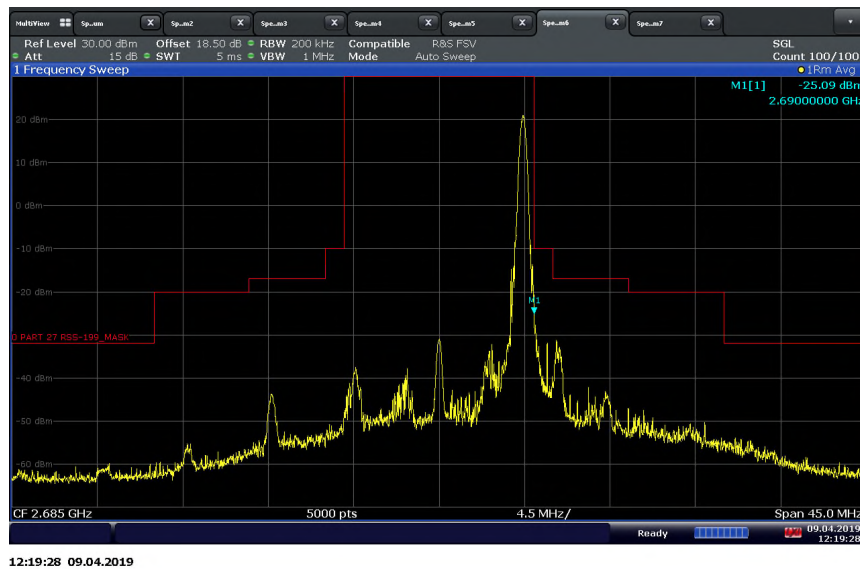


12:18:52 09.04.2019

**LTE Band 41 (10 MHz BW)/QPSK/Low Channel 2501 MHz/1 RB 0 offset Band Edge @2496 MHz**



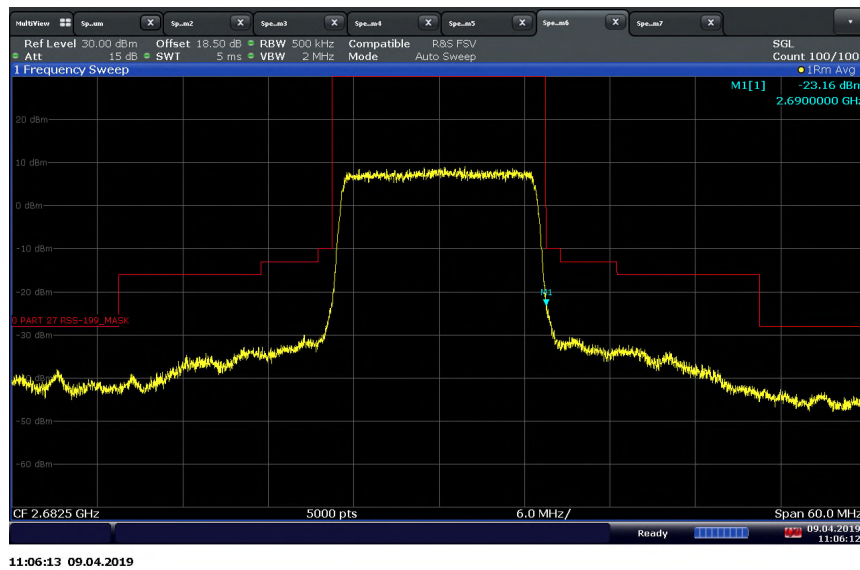
**LTE Band 41 (10 MHz BW)/QPSK/High Channel 2685 MHz/1 RB 49 offset Band Edge @2690 MHz**



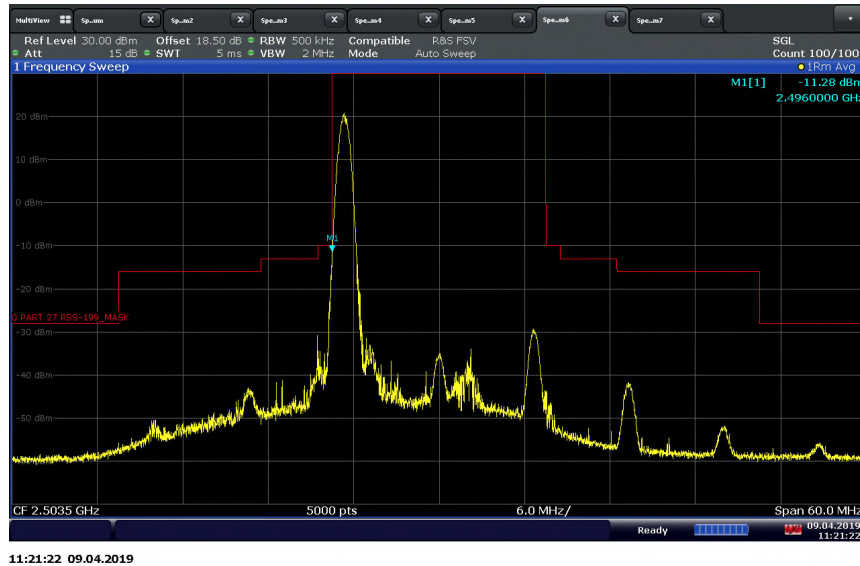
**LTE Band 41 (15 MHz BW)/QPSK/Low Channel 2503.5 MHz/Full RB Band Edge @2496 MHz**



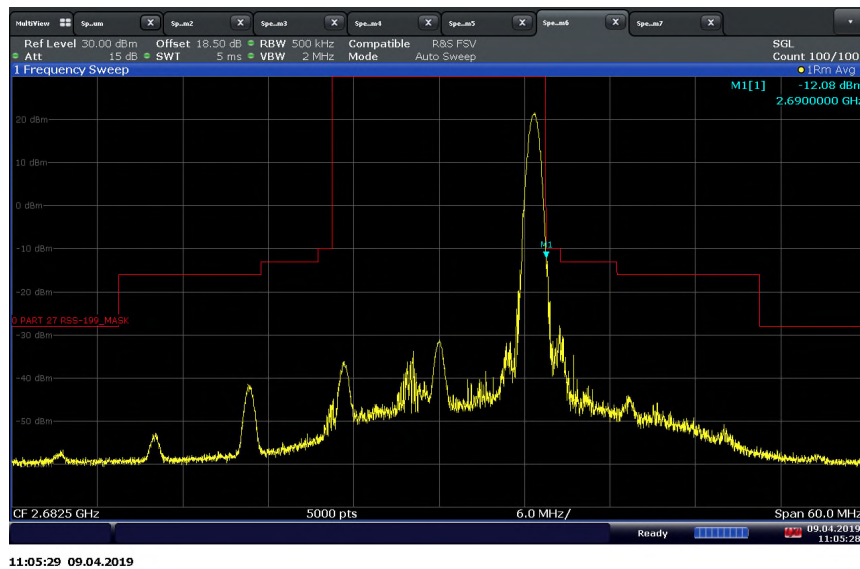
**LTE Band 41 (15 MHz BW)/QPSK/High Channel 2682.5 MHz/Full RB Band Edge @2690 MHz**



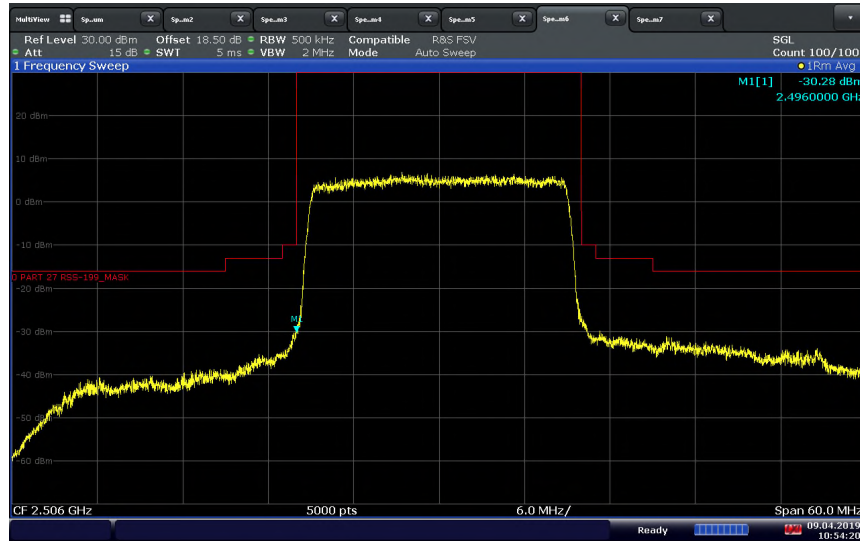
**LTE Band 41 (15 MHz BW)/QPSK/Low Channel 2503.5 MHz/1 RB 0 offset Band Edge @2496 MHz**



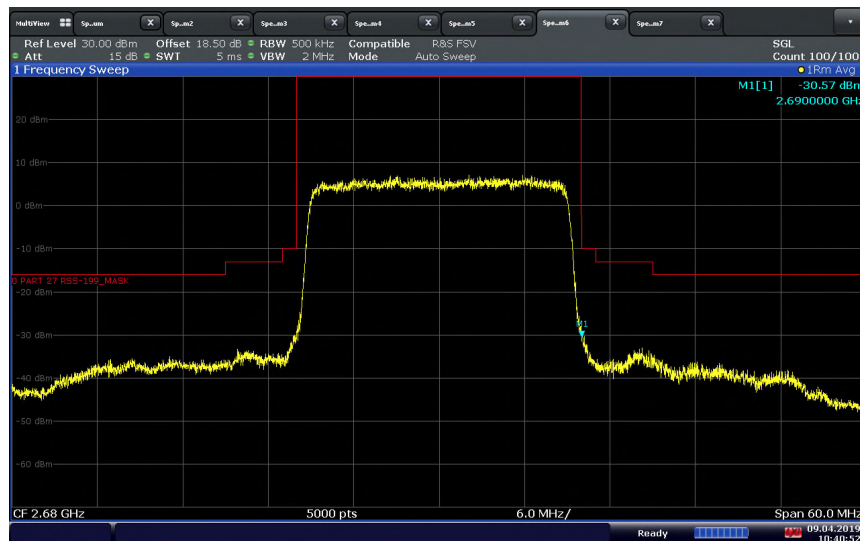
**LTE Band 41 (15 MHz BW)/QPSK/High Channel 2682.5 MHz/1 RB 74 offset Band Edge @2690 MHz**



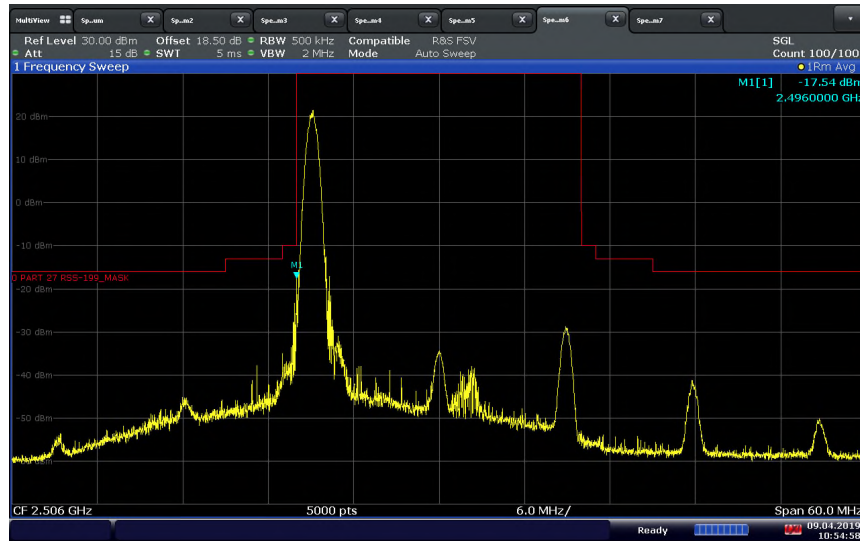
**LTE Band 41 (20 MHz BW)/QPSK/Low Channel 2506 MHz/Full RB Band Edge @2496 MHz**



**LTE Band 41 (20 MHz BW)/QPSK/High Channel 2680 MHz/Full RB Band Edge @2690 MHz**



**LTE Band 41 (20 MHz BW)/QPSK/Low Channel 2506 MHz/1 RB 0 offset Band Edge @2496 MHz**



**LTE Band 41 (20 MHz BW)/QPSK/High Channel 2680 MHz/1 RB 99 offset Band Edge @2690 MHz**

