

## FCC Test Report

### (PART 27)

**Report No.:** RF200902C02-7

**FCC ID:** V65E4830

**Test Model:** E4830

**Series Model:** E4830NC

**Received Date:** Sep. 09, 2020

**Test Date:** Sep. 12 ~ Sep. 26, 2020

**Issued Date:** Oct. 27, 2020

**Applicant:** Kyocera Corporation % Kyocera International, Inc.

**Address:** 8611 Balboa Avenue, San Diego, CA 92123

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Lin Kou Laboratories

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

**Test Location:** No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City  
33383, Taiwan

**FCC Registration /**  
**Designation Number:** 427177 / TW0011



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## Table of Contents

|                                                                  |           |
|------------------------------------------------------------------|-----------|
| <b>Release Control Record .....</b>                              | <b>4</b>  |
| <b>1 Certificate of Conformity .....</b>                         | <b>5</b>  |
| <b>2 Summary of Test Results.....</b>                            | <b>6</b>  |
| 2.1 Measurement Uncertainty.....                                 | 8         |
| 2.2 Test Site and Instruments .....                              | 9         |
| <b>3 General Information .....</b>                               | <b>10</b> |
| 3.1 General Description of EUT .....                             | 10        |
| 3.2 Configuration of System under Test.....                      | 12        |
| 3.2.1 Description of Support Units .....                         | 12        |
| 3.3 Test Mode Applicability and Tested Channel Detail .....      | 13        |
| 3.4 EUT Operating Conditions .....                               | 18        |
| 3.5 General Description of Applied Standards and references..... | 18        |
| <b>4 Test Types and Results .....</b>                            | <b>19</b> |
| 4.1 Output Power Measurement.....                                | 19        |
| 4.1.1 Limits of Output Power Measurement .....                   | 19        |
| 4.1.2 Test Procedures.....                                       | 19        |
| 4.1.3 Test Setup.....                                            | 20        |
| 4.1.4 Test Results .....                                         | 21        |
| 4.2 Modulation Characteristics Measurement .....                 | 34        |
| 4.2.1 Limits of Modulation Characteristics .....                 | 34        |
| 4.2.2 Test Setup.....                                            | 34        |
| 4.2.3 Test Procedure .....                                       | 34        |
| 4.2.4 Test Results .....                                         | 35        |
| 4.3 Frequency Stability Measurement .....                        | 35        |
| 4.3.1 Limits of Frequency Stability Measurement .....            | 35        |
| 4.3.2 Test Procedure .....                                       | 35        |
| 4.3.3 Test Setup.....                                            | 35        |
| 4.3.4 Test Results .....                                         | 35        |
| 4.4 Occupied Bandwidth Measurement.....                          | 35        |
| 4.4.1 Limits of Occupied Bandwidth Measurement .....             | 35        |
| 4.4.2 Test Procedure .....                                       | 35        |
| 4.4.3 Test Setup.....                                            | 35        |
| 4.4.4 Test Result .....                                          | 35        |
| 4.5 Band Edge Measurement .....                                  | 35        |
| 4.5.1 Limits of Band Edge Measurement .....                      | 35        |
| 4.5.2 Test Setup.....                                            | 35        |
| 4.5.3 Test Procedures.....                                       | 35        |
| 4.5.4 Test Results .....                                         | 35        |
| 4.6 Peak to Average Ratio .....                                  | 35        |
| 4.6.1 Limits of Peak to Average Ratio Measurement .....          | 35        |
| 4.6.2 Test Setup.....                                            | 35        |
| 4.6.3 Test Procedures.....                                       | 35        |
| 4.6.4 Test Results .....                                         | 35        |
| 4.7 Conducted Spurious Emissions .....                           | 35        |
| 4.7.1 Limits of Conducted Spurious Emissions Measurement.....    | 35        |
| 4.7.2 Test Setup.....                                            | 35        |
| 4.7.3 Test Procedure .....                                       | 35        |
| 4.7.4 Test Results .....                                         | 35        |
| 4.8 Radiated Emission Measurement.....                           | 35        |
| 4.8.1 Limits of Radiated Emission Measurement .....              | 35        |
| 4.8.2 Test Procedure .....                                       | 35        |
| 4.8.3 Deviation from Test Standard .....                         | 35        |
| 4.8.4 Test Setup.....                                            | 35        |

|                                                                 |           |
|-----------------------------------------------------------------|-----------|
| 4.8.5 Test Results .....                                        | 35        |
| <b>5 Pictures of Test Arrangements.....</b>                     | <b>35</b> |
| <b>Appendix – Information of the Testing Laboratories .....</b> | <b>35</b> |

### Release Control Record

| Issue No.     | Description      | Date Issued   |
|---------------|------------------|---------------|
| RF200902C02-7 | Original Release | Oct. 27, 2020 |

## 1 Certificate of Conformity

**Product:** Feature Phone

**Brand:** Kyocera

**Test Model:** E4830

**Series Model:** E4830NC

**Sample Status:** Identical Prototype

**Applicant:** Kyocera Corporation % Kyocera International, Inc.

**Test Date:** Sep. 12 ~ Sep. 26, 2020

**Standards:** FCC Part 27, Subpart C, H, L

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

**Prepared by :**



**Date:** Oct. 27, 2020

Gina Liu / Specialist

**Approved by :**



**Date:** Oct. 27, 2020

Dylan Chiou / Senior Project Engineer

## 2 Summary of Test Results

| Applied Standard: FCC Part 27 & Part 2 (WCDMA) |                                     |        |                                                                                     |
|------------------------------------------------|-------------------------------------|--------|-------------------------------------------------------------------------------------|
| FCC Clause                                     | Test Item                           | Result | Remarks                                                                             |
| 2.1046<br>27.50(d)(4)                          | Equivalent Isotropic Radiated Power | Pass   | Meet the requirement of limit.                                                      |
| 2.1047                                         | Modulation Characteristics          | Pass   | Meet the requirement.                                                               |
| 2.1055<br>27.54                                | Frequency Stability                 | Pass   | Meet the requirement of limit.                                                      |
| 2.1049                                         | Occupied Bandwidth                  | Pass   | Meet the requirement of limit.                                                      |
| 27.50(d)(5)                                    | Peak to Average Ratio               | Pass   | Meet the requirement of limit.                                                      |
| 27.53(h)                                       | Band Edge Measurements              | Pass   | Meet the requirement of limit.                                                      |
| 2.1051<br>27.53(h)                             | Conducted Spurious Emissions        | Pass   | Meet the requirement of limit.                                                      |
| 2.1053<br>27.53(h)                             | Radiated Spurious Emissions         | Pass   | Meet the requirement of limit.<br>Minimum passing margin is -38.87 dB at 91.29 MHz. |

| Applied Standard: FCC Part 27 & Part 2 (LTE 4) |                              |        |                                                                                        |
|------------------------------------------------|------------------------------|--------|----------------------------------------------------------------------------------------|
| FCC Clause                                     | Test Item                    | Result | Remarks                                                                                |
| 2.1046<br>27.50(d)(4)                          | Maximum Peak Output Power    | Pass   | Meet the requirement of limit.                                                         |
| 2.1047                                         | Modulation Characteristics   | Pass   | Meet the requirement.                                                                  |
| 2.1055<br>27.54                                | Frequency Stability          | Pass   | Meet the requirement of limit.                                                         |
| 2.1049                                         | Occupied Bandwidth           | Pass   | Meet the requirement of limit.                                                         |
| 27.50(d)(5)                                    | Peak to Average Ratio        | Pass   | Meet the requirement of limit.                                                         |
| 27.53(h)                                       | Band Edge Measurements       | Pass   | Meet the requirement of limit.                                                         |
| 2.1051<br>27.53(h)                             | Conducted Spurious Emissions | Pass   | Meet the requirement of limit.                                                         |
| 2.1053<br>27.53(h)                             | Radiated Spurious Emissions  | Pass   | Meet the requirement of limit.<br>Minimum passing margin is -22.42 dB at 10470.00 MHz. |

| Applied Standard: FCC Part 27 & Part 2 (LTE 12) |                              |        |                                                                                     |
|-------------------------------------------------|------------------------------|--------|-------------------------------------------------------------------------------------|
| FCC Clause                                      | Test Item                    | Result | Remarks                                                                             |
| 2.1046<br>27.50(c)(10)                          | Maximum Peak Output Power    | Pass   | Meet the requirement of limit.                                                      |
| 2.1047                                          | Modulation Characteristics   | Pass   | Meet the requirement.                                                               |
| 2.1055<br>27.54                                 | Frequency Stability          | Pass   | Meet the requirement of limit.                                                      |
| 2.1049                                          | Occupied Bandwidth           | Pass   | Meet the requirement of limit.                                                      |
| ---                                             | Peak to Average Ratio        | Pass   | Meet the requirement of limit.                                                      |
| 27.53(g)                                        | Band Edge Measurements       | Pass   | Meet the requirement of limit.                                                      |
| 2.1051<br>27.53(g)                              | Conducted Spurious Emissions | Pass   | Meet the requirement of limit.                                                      |
| 2.1053<br>27.53(g)                              | Radiated Spurious Emissions  | Pass   | Meet the requirement of limit.<br>Minimum passing margin is -41.08 dB at 90.48 MHz. |

| Applied Standard: FCC Part 27 & Part 2 (LTE 66) |                              |        |                                                                                        |
|-------------------------------------------------|------------------------------|--------|----------------------------------------------------------------------------------------|
| FCC Clause                                      | Test Item                    | Result | Remarks                                                                                |
| 2.1046<br>27.50(d)(4)                           | Maximum Peak Output Power    | Pass   | Meet the requirement of limit.                                                         |
| 2.1047                                          | Modulation Characteristics   | Pass   | Meet the requirement.                                                                  |
| 2.1055<br>27.54                                 | Frequency Stability          | Pass   | Meet the requirement of limit.                                                         |
| 2.1049                                          | Occupied Bandwidth           | Pass   | Meet the requirement of limit.                                                         |
| 27.50(d)(5)                                     | Peak to Average Ratio        | Pass   | Meet the requirement of limit.                                                         |
| 27.53(h)                                        | Band Edge Measurements       | Pass   | Meet the requirement of limit.                                                         |
| 2.1051<br>27.53(h)                              | Conducted Spurious Emissions | Pass   | Meet the requirement of limit.                                                         |
| 2.1053<br>27.53(h)                              | Radiated Spurious Emissions  | Pass   | Meet the requirement of limit.<br>Minimum passing margin is -18.31 dB at 12390.00 MHz. |

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

## 2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| Measurement                    | Frequency          | Expanded Uncertainty<br>(k=2) ( $\pm$ ) |
|--------------------------------|--------------------|-----------------------------------------|
| Radiated Emissions up to 1 GHz | 9 kHz ~ 30 MHz     | 3.0400 dB                               |
|                                | 30 MHz ~ 200 MHz   | 2.0153 dB                               |
|                                | 200 MHz ~ 1000 MHz | 2.0224 dB                               |
| Radiated Emissions above 1 GHz | 1 GHz ~ 18 GHz     | 1.0121 dB                               |
|                                | 18 GHz ~ 40 GHz    | 1.1508 dB                               |

## 2.2 Test Site and Instruments

| Description & Manufacturer                     | Model No.        | Serial No.                                                        | Date of Calibration | Due Date of Calibration |
|------------------------------------------------|------------------|-------------------------------------------------------------------|---------------------|-------------------------|
| Test Receiver<br>Agilent Technologies          | N9038A           | MY52260177                                                        | Aug. 24, 2020       | Aug. 23, 2021           |
| Spectrum Analyzer<br>ROHDE & SCHWARZ           | FSU43            | 101261                                                            | Apr. 16, 2020       | Apr. 15, 2021           |
| HORN Antenna<br>ETS-Lindgren                   | 3117             | 00143293                                                          | Nov. 24, 2019       | Nov. 23, 2020           |
| BILOG Antenna<br>SCHWARZBECK                   | VULB 9168        | 9168-616                                                          | Nov. 12, 2019       | Nov. 11, 2020           |
| HORN Antenna<br>SCHWARZBECK                    | BBHA 9170        | 9170-480                                                          | Nov. 24, 2019       | Nov. 23, 2020           |
| Fixed Attenuator<br>Mini-Circuits              | MDCS18N-10       | MDCS18N-10-01                                                     | Apr. 14, 2020       | Apr. 13, 2021           |
| MXG Vector signal<br>generator<br>Agilent      | N5182B           | MY53050430                                                        | Nov. 25, 2019       | Nov. 24, 2020           |
| Preamplifier<br>Agilent                        | 310N             | 187226                                                            | Jun. 17, 2020       | Jun. 16, 2021           |
| Preamplifier<br>Agilent                        | 83017A           | MY39501357                                                        | Jun. 17, 2020       | Jun. 16, 2021           |
| RF signal cable<br>ETS-LINDGREN                | 5D-FB            | Cable-CH1-01(RFC<br>-SMS-100-SMS-12<br>0+RFC-SMS-100-S<br>MS-400) | Jun. 17, 2020       | Jun. 16, 2021           |
| RF signal cable<br>ETS-LINDGREN                | 8D-FB            | Cable-CH1-02(RFC<br>-SMS-100-SMS-24)                              | Jun. 17, 2020       | Jun. 17, 2021           |
| Boresight Antenna Fixture                      | FBA-01           | FBA-SIP01                                                         | NA                  | NA                      |
| Software<br>BV ADT                             | E3<br>8.130425b  | NA                                                                | NA                  | NA                      |
| Antenna Tower<br>MF                            | NA               | NA                                                                | NA                  | NA                      |
| Turn Table<br>MF                               | NA               | NA                                                                | NA                  | NA                      |
| Antenna Tower & Turn<br>Table Controller<br>MF | MF-7802          | NA                                                                | NA                  | NA                      |
| Communications<br>Tester-Wireless<br>Agilent   | 8960 Series 10   | MY53201073                                                        | Jul. 01, 2019       | Jun. 30, 2021           |
| Radio Communication<br>Analyzer<br>Anritsu     | MT8820C          | 6201300640                                                        | Aug. 19, 2019       | Aug. 18, 2021           |
| Temperature & Humidity<br>Chamber              | GTH-120-40-CP-AR | MAA1306-019                                                       | Sep. 09, 2020       | Sep. 08, 2021           |
| DC Power Supply<br>Topward                     | 33010D           | 807748                                                            | NA                  | NA                      |

Note: 1. The calibration interval of the above test instruments is 12 / 24 months and the calibrations are traceable to NML/ROC and NIST/USA.  
2. The test was performed in HsinTien Chamber 1.

### 3 General Information

#### 3.1 General Description of EUT

|                            |                                                          |                     |
|----------------------------|----------------------------------------------------------|---------------------|
| <b>Product</b>             | Feature Phone                                            |                     |
| <b>Brand</b>               | Kyocera                                                  |                     |
| <b>Test Model</b>          | E4830                                                    |                     |
| <b>Series Model</b>        | E4830NC                                                  |                     |
| <b>Status of EUT</b>       | Identical Prototype                                      |                     |
| <b>Power Supply Rating</b> | 3.8 Vdc (Battery)<br>5.0 Vdc (adapter or host equipment) |                     |
| <b>Modulation Type</b>     | WCDMA                                                    | QPSK                |
|                            | LTE                                                      | QPSK, 16QAM         |
| <b>Frequency Range</b>     | WCDMA                                                    | 1712.4 ~ 1752.6 MHz |
|                            | LTE Band 4 (Channel Bandwidth: 1.4 MHz)                  | 1710.7 ~ 1754.3 MHz |
|                            | LTE Band 4 (Channel Bandwidth: 3 MHz)                    | 1711.5 ~ 1753.5 MHz |
|                            | LTE Band 4 (Channel Bandwidth: 5 MHz)                    | 1712.5 ~ 1752.5 MHz |
|                            | LTE Band 4 (Channel Bandwidth: 10 MHz)                   | 1715.0 ~ 1750.0 MHz |
|                            | LTE Band 4 (Channel Bandwidth: 15 MHz)                   | 1717.5 ~ 1747.5 MHz |
|                            | LTE Band 4 (Channel Bandwidth: 20 MHz)                   | 1720.0 ~ 1745.0 MHz |
|                            | LTE Band 12 (Channel Bandwidth: 1.4 MHz)                 | 699.7 ~ 715.3 MHz   |
|                            | LTE Band 12 (Channel Bandwidth: 3 MHz)                   | 700.5 ~ 714.5 MHz   |
|                            | LTE Band 12 (Channel Bandwidth: 5 MHz)                   | 701.5 ~ 713.5 MHz   |
|                            | LTE Band 12 (Channel Bandwidth: 10 MHz)                  | 704.0 ~ 711.0 MHz   |
|                            | LTE Band 66 (Channel Bandwidth: 1.4 MHz)                 | 1710.7 ~ 1779.3 MHz |
|                            | LTE Band 66 (Channel Bandwidth: 3 MHz)                   | 1711.5 ~ 1778.5 MHz |
|                            | LTE Band 66 (Channel Bandwidth: 5 MHz)                   | 1712.5 ~ 1777.5 MHz |
|                            | LTE Band 66 (Channel Bandwidth: 10 MHz)                  | 1715.0 ~ 1775.0 MHz |
|                            | LTE Band 66 (Channel Bandwidth: 15 MHz)                  | 1717.5 ~ 1772.5 MHz |
|                            | LTE Band 66 (Channel Bandwidth: 20 MHz)                  | 1720.0 ~ 1770.0 MHz |
| <b>Emission Designator</b> | WCDMA                                                    | 4M15F9W             |
|                            | LTE Band 4 (Channel Bandwidth: 1.4 MHz)                  | 1M09D7W             |
|                            | LTE Band 4 (Channel Bandwidth: 3 MHz)                    | 2M70G7D             |
|                            | LTE Band 4 (Channel Bandwidth: 5 MHz)                    | 4M49D7W             |
|                            | LTE Band 4 (Channel Bandwidth: 10 MHz)                   | 8M96G7D             |
|                            | LTE Band 4 (Channel Bandwidth: 15 MHz)                   | 13M4G7D             |
|                            | LTE Band 4 (Channel Bandwidth: 20 MHz)                   | 17M9D7W             |
|                            | LTE Band 12 (Channel Bandwidth: 1.4 MHz)                 | 1M09D7W             |
|                            | LTE Band 12 (Channel Bandwidth: 3 MHz)                   | 2M70G7D             |
|                            | LTE Band 12 (Channel Bandwidth: 5 MHz)                   | 4M49G7D             |
|                            | LTE Band 12 (Channel Bandwidth: 10 MHz)                  | 8M96D7W             |
|                            | LTE Band 66 (Channel Bandwidth: 1.4 MHz)                 | 1M09G7D             |
|                            | LTE Band 66 (Channel Bandwidth: 3 MHz)                   | 2M70G7D             |
|                            | LTE Band 66 (Channel Bandwidth: 5 MHz)                   | 4M50G7D             |
|                            | LTE Band 66 (Channel Bandwidth: 10 MHz)                  | 8M95D7W             |
|                            | LTE Band 66 (Channel Bandwidth: 15 MHz)                  | 13M4G7D             |

|                            |                                          |           |
|----------------------------|------------------------------------------|-----------|
|                            | LTE Band 66 (Channel Bandwidth: 20 MHz)  | 17M9D7W   |
| <b>Max. ERP Power</b>      | LTE Band 12 (Channel Bandwidth: 1.4 MHz) | 199.48 mW |
|                            | LTE Band 12 (Channel Bandwidth: 3 MHz)   | 201.33 mW |
|                            | LTE Band 12 (Channel Bandwidth: 5 MHz)   | 203.19 mW |
|                            | LTE Band 12 (Channel Bandwidth: 10 MHz)  | 205.45 mW |
|                            |                                          |           |
| <b>Max. EIRP Power</b>     | WCDMA                                    | 494.88 mW |
|                            | LTE Band 4 (Channel Bandwidth: 1.4 MHz)  | 423.16 mW |
|                            | LTE Band 4 (Channel Bandwidth: 3 MHz)    | 427.07 mW |
|                            | LTE Band 4 (Channel Bandwidth: 5 MHz)    | 430.03 mW |
|                            | LTE Band 4 (Channel Bandwidth: 10 MHz)   | 434.01 mW |
|                            | LTE Band 4 (Channel Bandwidth: 15 MHz)   | 437.02 mW |
|                            | LTE Band 4 (Channel Bandwidth: 20 MHz)   | 441.06 mW |
|                            | LTE Band 66 (Channel Bandwidth: 1.4 MHz) | 470.98 mW |
|                            | LTE Band 66 (Channel Bandwidth: 3 MHz)   | 475.34 mW |
|                            | LTE Band 66 (Channel Bandwidth: 5 MHz)   | 478.63 mW |
|                            | LTE Band 66 (Channel Bandwidth: 10 MHz)  | 483.06 mW |
|                            | LTE Band 66 (Channel Bandwidth: 15 MHz)  | 487.53 mW |
|                            | LTE Band 66 (Channel Bandwidth: 20 MHz)  | 490.91 mW |
| <b>Antenna Type</b>        | Monopole Antenna                         |           |
| <b>Antenna Gain</b>        | WCDMA                                    | 2.95 dBi  |
|                            | LTE Band 4                               | 2.95 dBi  |
|                            | LTE Band 12                              | -0.93 dBi |
|                            | LTE Band 66                              | 2.95 dBi  |
| <b>Accessory Device</b>    | Refer to Note as below                   |           |
| <b>Data Cable Supplied</b> | Refer to Note as below                   |           |

Note:

1. All models are listed as below. (Test Model: E4830)

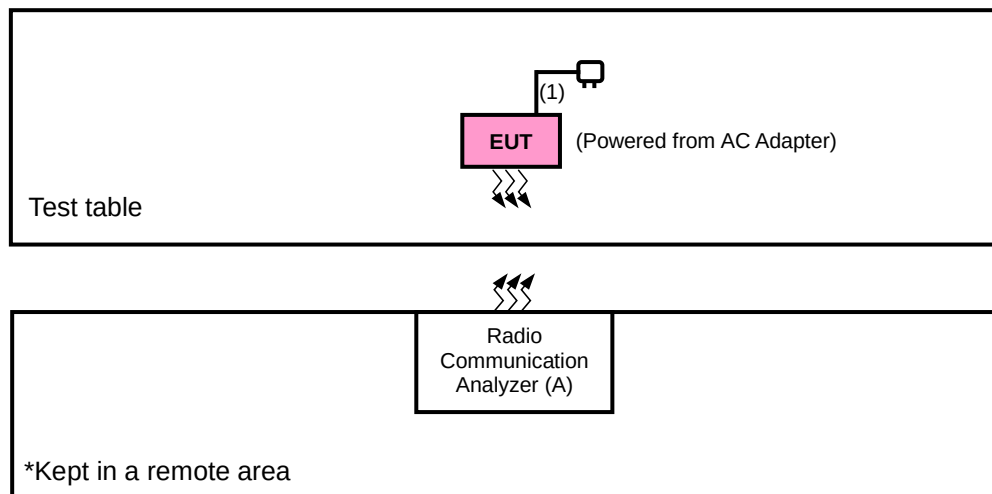
| Brand   | Model   | Difference     |
|---------|---------|----------------|
| Kyocera | E4830   | with Camera    |
|         | E4830NC | without Camera |

2. The EUT contains following accessory devices.

| Product   | Brand   | Model      | Description                                               |
|-----------|---------|------------|-----------------------------------------------------------|
| Adapter   | Kyocera | SCP-47ADT  | I/P: 100-240 Vac, 50/60 Hz, 200 mA<br>O/P: 5 Vdc, 1000 mA |
| Battery   | Kyocera | SCP-73LBPS | 3.8 Vdc, Min/Typ 1720/1770 mAh                            |
| USB Cable | KYOCERA | SCP-26SDC  | 1.0 meter, Shielded, w/o core                             |

3. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.
4. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

### 3.2 Configuration of System under Test



#### 3.2.1 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| ID | Product                      | Brand   | Model No. | Serial No. | FCC ID | Remarks |
|----|------------------------------|---------|-----------|------------|--------|---------|
| A. | Radio Communication Analyzer | Anritsu | MT8820C   | 6201300640 | N/A    | --      |

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as communication partner to transfer data.

| ID | Cable Descriptions | Qty. | Length (m) | Shielding (Yes/No) | Cores (Qty.) | Remarks              |
|----|--------------------|------|------------|--------------------|--------------|----------------------|
| 1. | USB Cable          | 1    | 1.0        | Y                  | 0            | Accessory of the EUT |

### 3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis, and antenna ports

The worst case was found when positioned as the table below. Following channel(s) was (were) selected for the final test as listed below:

| Band        | ERP / EIRP | Radiated Emission |
|-------------|------------|-------------------|
| WCDMA       | X-plane    | X-plane           |
| LTE Band 4  | X-plane    | X-plane           |
| LTE Band 12 | X-plane    | X-plane           |
| LTE Band 66 | X-plane    | X-plane           |

#### WCDMA

| EUT Configure Mode | Test Item                  | Available Channel | Tested Channel   | Mode  |
|--------------------|----------------------------|-------------------|------------------|-------|
| -                  | EIRP                       | 1312 to 1513      | 1312, 1413, 1513 | WCDMA |
| -                  | Modulation Characteristics | 1312 to 1513      | 1413             | WCDMA |
| -                  | Frequency Stability        | 1312 to 1513      | 1312, 1513       | WCDMA |
| -                  | Occupied Bandwidth         | 1312 to 1513      | 1312, 1413, 1513 | WCDMA |
| -                  | Band Edge                  | 1312 to 1513      | 1312, 1513       | WCDMA |
| -                  | Peak to Average Ratio      | 1312 to 1513      | 1312, 1413, 1513 | WCDMA |
| -                  | Conducted Emission         | 1312 to 1513      | 1312, 1413, 1513 | WCDMA |
| -                  | Radiated Emission          | 1312 to 1513      | 1312, 1413, 1513 | WCDMA |

#### LTE Band 4

| EUT Configure Mode | Test Item                  | Available Channel | Tested Channel      | Channel Bandwidth | Modulation  | Mode                 |
|--------------------|----------------------------|-------------------|---------------------|-------------------|-------------|----------------------|
| -                  | EIRP                       | 19957 to 20393    | 19957, 20175, 20393 | 1.4 MHz           | QPSK, 16QAM | 3 RB / 1 RB Offset   |
|                    |                            | 19965 to 20385    | 19965, 20175, 20385 | 3 MHz             | QPSK, 16QAM | 1 RB / 0 RB Offset   |
|                    |                            | 19975 to 20375    | 19975, 20175, 20375 | 5 MHz             | QPSK, 16QAM | 1 RB / 0 RB Offset   |
|                    |                            | 20000 to 20350    | 20000, 20175, 20350 | 10 MHz            | QPSK, 16QAM | 1 RB / 0 RB Offset   |
|                    |                            | 20025 to 20325    | 20025, 20175, 20325 | 15 MHz            | QPSK, 16QAM | 1 RB / 0 RB Offset   |
|                    |                            | 20050 to 20300    | 20050, 20175, 20300 | 20 MHz            | QPSK, 16QAM | 1 RB / 0 RB Offset   |
| -                  | Modulation Characteristics | 20050 to 20300    | 20175               | 20 MHz            | QPSK, 16QAM | 100 RB / 0 RB Offset |
| -                  | Frequency Stability        | 19957 to 20393    | 19957, 20393        | 1.4 MHz           | QPSK        | 6 RB / 0 RB Offset   |
|                    |                            | 19965 to 20385    | 19965, 20385        | 3 MHz             | QPSK        | 15 RB / 0 RB Offset  |
|                    |                            | 19975 to 20375    | 19975, 20375        | 5 MHz             | QPSK        | 25 RB / 0 RB Offset  |
|                    |                            | 20000 to 20350    | 20000, 20350        | 10 MHz            | QPSK        | 50 RB / 0 RB Offset  |
|                    |                            | 20025 to 20325    | 20025, 20325        | 15 MHz            | QPSK        | 75 RB / 0 RB Offset  |
|                    |                            | 20050 to 20300    | 20050, 20300        | 20 MHz            | QPSK        | 100 RB / 0 RB Offset |

| EUT Configure Mode | Test Item             | Available Channel | Tested Channel      | Channel Bandwidth | Modulation  | Mode                 |
|--------------------|-----------------------|-------------------|---------------------|-------------------|-------------|----------------------|
| -                  | Occupied Bandwidth    | 19957 to 20393    | 19957, 20175, 20393 | 1.4 MHz           | QPSK, 16QAM | 6 RB / 0 RB Offset   |
|                    |                       | 19965 to 20385    | 19965, 20175, 20385 | 3 MHz             | QPSK, 16QAM | 15 RB / 0 RB Offset  |
|                    |                       | 19975 to 20375    | 19975, 20175, 20375 | 5 MHz             | QPSK, 16QAM | 25 RB / 0 RB Offset  |
|                    |                       | 20000 to 20350    | 20000, 20175, 20350 | 10 MHz            | QPSK, 16QAM | 50 RB / 0 RB Offset  |
|                    |                       | 20025 to 20325    | 20025, 20175, 20325 | 15 MHz            | QPSK, 16QAM | 75 RB / 0 RB Offset  |
|                    |                       | 20050 to 20300    | 20050, 20175, 20300 | 20 MHz            | QPSK, 16QAM | 100 RB / 0 RB Offset |
| -                  | Peak to Average Ratio | 19957 to 20393    | 19957, 20175, 20393 | 1.4 MHz           | QPSK, 16QAM | 3 RB / 1 RB Offset   |
|                    |                       | 19965 to 20385    | 19965, 20175, 20385 | 3 MHz             | QPSK, 16QAM | 1 RB / 0 RB Offset   |
|                    |                       | 19975 to 20375    | 19975, 20175, 20375 | 5 MHz             | QPSK, 16QAM | 1 RB / 0 RB Offset   |
|                    |                       | 20000 to 20350    | 20000, 20175, 20350 | 10 MHz            | QPSK, 16QAM | 1 RB / 0 RB Offset   |
|                    |                       | 20025 to 20325    | 20025, 20175, 20325 | 15 MHz            | QPSK, 16QAM | 1 RB / 0 RB Offset   |
|                    |                       | 20050 to 20300    | 20050, 20175, 20300 | 20 MHz            | QPSK, 16QAM | 1 RB / 0 RB Offset   |
| -                  | Band Edge             | 19957 to 20393    | 19957               | 1.4 MHz           | QPSK        | 1 RB / 0 RB Offset   |
|                    |                       |                   |                     |                   |             | 6 RB / 0 RB Offset   |
|                    |                       |                   | 20393               | 1.4 MHz           | QPSK        | 1 RB / 5 RB Offset   |
|                    |                       |                   |                     |                   |             | 6 RB / 0 RB Offset   |
|                    |                       | 19965 to 20385    | 19965               | 3 MHz             | QPSK        | 1 RB / 0 RB Offset   |
|                    |                       |                   |                     |                   |             | 15 RB / 0 RB Offset  |
|                    |                       |                   | 20385               | 3 MHz             | QPSK        | 1 RB / 14 RB Offset  |
|                    |                       |                   |                     |                   |             | 15 RB / 0 RB Offset  |
|                    |                       | 19975 to 20375    | 19975               | 5 MHz             | QPSK        | 1 RB / 0 RB Offset   |
|                    |                       |                   |                     |                   |             | 25 RB / 0 RB Offset  |
|                    |                       |                   | 20375               | 5 MHz             | QPSK        | 1 RB / 24 RB Offset  |
|                    |                       |                   |                     |                   |             | 25 RB / 0 RB Offset  |
|                    |                       | 20000 to 20350    | 20000               | 10 MHz            | QPSK        | 1 RB / 0 RB Offset   |
|                    |                       |                   |                     |                   |             | 50 RB / 0 RB Offset  |
|                    |                       |                   | 20350               | 10 MHz            | QPSK        | 1 RB / 49 RB Offset  |
|                    |                       |                   |                     |                   |             | 50 RB / 0 RB Offset  |
|                    |                       | 20025 to 20325    | 20025               | 15 MHz            | QPSK        | 1 RB / 0 RB Offset   |
|                    |                       |                   |                     |                   |             | 75 RB / 0 RB Offset  |
|                    |                       |                   | 20325               | 15 MHz            | QPSK        | 1 RB / 74 RB Offset  |
|                    |                       |                   |                     |                   |             | 75 RB / 0 RB Offset  |
|                    |                       | 20050 to 20300    | 20050               | 20 MHz            | QPSK        | 1 RB / 0 RB Offset   |
|                    |                       |                   |                     |                   |             | 100 RB / 0 RB Offset |
|                    |                       |                   | 20300               | 20 MHz            | QPSK        | 1 RB / 99 RB Offset  |
|                    |                       |                   |                     |                   |             | 100 RB / 0 RB Offset |
| -                  | Conducted Emission    | 19957 to 20393    | 19957, 20175, 20393 | 1.4 MHz           | QPSK        | 3 RB / 1 RB Offset   |
|                    |                       | 19965 to 20385    | 19965, 20175, 20385 | 3 MHz             | QPSK        | 1 RB / 0 RB Offset   |
|                    |                       | 19975 to 20375    | 19975, 20175, 20375 | 5 MHz             | QPSK        | 1 RB / 0 RB Offset   |
|                    |                       | 20000 to 20350    | 20000, 20175, 20350 | 10 MHz            | QPSK        | 1 RB / 0 RB Offset   |
|                    |                       | 20025 to 20325    | 20025, 20175, 20325 | 15 MHz            | QPSK        | 1 RB / 0 RB Offset   |
|                    |                       | 20050 to 20300    | 20050, 20175, 20300 | 20 MHz            | QPSK        | 1 RB / 0 RB Offset   |
| -                  | Radiated Emission     | 19957 to 20393    | 19957, 20175, 20393 | 1.4 MHz           | QPSK        | 3 RB / 1 RB Offset   |
|                    |                       | 19975 to 20375    | 19975, 20175, 20375 | 5 MHz             | QPSK        | 1 RB / 0 RB Offset   |
|                    |                       | 20050 to 20300    | 20050, 20175, 20300 | 20 MHz            | QPSK        | 1 RB / 0 RB Offset   |

**Note:**

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation. Therefore, only EIRP, modulation characteristics, occupied bandwidth and peak to average ratio items had been tested under QPSK, 16QAM mode, the other items were performed

under QPSK mode only.

2. For radiated emission above 1 GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5 MHz & highest channel bandwidth for final test.
3. For radiated emissions below 1 GHz, select the worst radiated emission channel for final testing.

#### LTE Band 12

| EUT Configure Mode | Test Item                  | Available Channel | Tested Channel      | Channel Bandwidth | Modulation  | Mode                |
|--------------------|----------------------------|-------------------|---------------------|-------------------|-------------|---------------------|
| -                  | ERP                        | 23017 to 23173    | 23017, 23095, 23173 | 1.4 MHz           | QPSK, 16QAM | 3 RB / 0 RB Offset  |
|                    |                            | 23025 to 23165    | 23025, 23095, 23165 | 3 MHz             | QPSK, 16QAM | 1 RB / 0 RB Offset  |
|                    |                            | 23035 to 23155    | 23035, 23095, 23155 | 5 MHz             | QPSK, 16QAM | 1 RB / 0 RB Offset  |
|                    |                            | 23060 to 23130    | 23060, 23095, 23130 | 10 MHz            | QPSK, 16QAM | 1 RB / 0 RB Offset  |
| -                  | Modulation Characteristics | 23060 to 23130    | 23095               | 10 MHz            | QPSK, 16QAM | 50 RB / 0 RB Offset |
| -                  | Frequency Stability        | 23017 to 23173    | 23017, 23173        | 1.4 MHz           | QPSK        | 6 RB / 0 RB Offset  |
|                    |                            | 23025 to 23165    | 23025, 23165        | 3 MHz             | QPSK        | 15 RB / 0 RB Offset |
|                    |                            | 23035 to 23155    | 23035, 23155        | 5 MHz             | QPSK        | 25 RB / 0 RB Offset |
|                    |                            | 23060 to 23130    | 23060, 23130        | 10 MHz            | QPSK        | 50 RB / 0 RB Offset |
| -                  | Occupied Bandwidth         | 23017 to 23173    | 23017, 23095, 23173 | 1.4 MHz           | QPSK, 16QAM | 6 RB / 0 RB Offset  |
|                    |                            | 23025 to 23165    | 23025, 23095, 23165 | 3 MHz             | QPSK, 16QAM | 15 RB / 0 RB Offset |
|                    |                            | 23035 to 23155    | 23035, 23095, 23155 | 5 MHz             | QPSK, 16QAM | 25 RB / 0 RB Offset |
|                    |                            | 23060 to 23130    | 23060, 23095, 23130 | 10 MHz            | QPSK, 16QAM | 50 RB / 0 RB Offset |
| -                  | Peak to Average Ratio      | 23017 to 23173    | 23017, 23095, 23173 | 1.4 MHz           | QPSK, 16QAM | 3 RB / 0 RB Offset  |
|                    |                            | 23025 to 23165    | 23025, 23095, 23165 | 3 MHz             | QPSK, 16QAM | 1 RB / 0 RB Offset  |
|                    |                            | 23035 to 23155    | 23035, 23095, 23155 | 5 MHz             | QPSK, 16QAM | 1 RB / 0 RB Offset  |
|                    |                            | 23060 to 23130    | 23060, 23095, 23130 | 10 MHz            | QPSK, 16QAM | 1 RB / 0 RB Offset  |
| -                  | Band Edge                  | 23017 to 23173    | 23017               | 1.4 MHz           | QPSK        | 1 RB / 0 RB Offset  |
|                    |                            |                   | 23173               | 1.4 MHz           | QPSK        | 6 RB / 0 RB Offset  |
|                    |                            | 23025 to 23165    | 23025               | 3 MHz             | QPSK        | 1 RB / 5 RB Offset  |
|                    |                            |                   | 23165               | 3 MHz             | QPSK        | 6 RB / 0 RB Offset  |
|                    |                            | 23035 to 23155    | 23035               | 5 MHz             | QPSK        | 1 RB / 0 RB Offset  |
|                    |                            |                   | 23155               | 5 MHz             | QPSK        | 15 RB / 0 RB Offset |
|                    |                            | 23060 to 23130    | 23060               | 10 MHz            | QPSK        | 1 RB / 14 RB Offset |
|                    |                            |                   | 23130               | 10 MHz            | QPSK        | 15 RB / 0 RB Offset |
|                    |                            | 23017 to 23173    | 23017, 23095, 23173 | 1.4 MHz           | QPSK        | 1 RB / 0 RB Offset  |
|                    |                            |                   | 23025, 23095, 23165 | 3 MHz             | QPSK        | 50 RB / 0 RB Offset |
|                    |                            | 23035 to 23155    | 23035, 23095, 23155 | 5 MHz             | QPSK        | 1 RB / 49 RB Offset |
|                    |                            | 23060 to 23130    | 23060, 23095, 23130 | 10 MHz            | QPSK        | 50 RB / 0 RB Offset |
| -                  | Conducted Emission         | 23017 to 23173    | 23017, 23095, 23173 | 1.4 MHz           | QPSK        | 3 RB / 0 RB Offset  |
|                    |                            | 23025 to 23165    | 23025, 23095, 23165 | 3 MHz             | QPSK        | 1 RB / 0 RB Offset  |
|                    |                            | 23035 to 23155    | 23035, 23095, 23155 | 5 MHz             | QPSK        | 1 RB / 0 RB Offset  |
|                    |                            | 23060 to 23130    | 23060, 23095, 23130 | 10 MHz            | QPSK        | 1 RB / 0 RB Offset  |
| -                  | Radiated Emission          | 23017 to 23173    | 23017, 23095, 23173 | 1.4 MHz           | QPSK        | 3 RB / 0 RB Offset  |
|                    |                            | 23035 to 23155    | 23035, 23095, 23155 | 5 MHz             | QPSK        | 1 RB / 0 RB Offset  |
|                    |                            | 23060 to 23130    | 23060, 23095, 23130 | 10 MHz            | QPSK        | 1 RB / 0 RB Offset  |

**Note:**

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation. Therefore, only ERP, modulation characteristics, occupied bandwidth and peak to average ratio items had been tested under QPSK, 16QAM mode, the other items were performed under QPSK mode only.
2. For radiated emission above 1 GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5 MHz & highest channel bandwidth for final test.
3. For radiated emissions below 1 GHz, select the worst radiated emission channel for final testing.

**LTE Band 66**

| EUT Configure Mode | Test Item                  | Available Channel | Tested Channel         | Channel Bandwidth | Modulation  | Mode                 |
|--------------------|----------------------------|-------------------|------------------------|-------------------|-------------|----------------------|
| -                  | EIRP                       | 131979 to 132665  | 131979, 132322, 132665 | 1.4 MHz           | QPSK, 16QAM | 1 RB / 2 RB Offset   |
|                    |                            | 131987 to 132657  | 131987, 132322, 132657 | 3 MHz             | QPSK, 16QAM | 1 RB / 7 RB Offset   |
|                    |                            | 131997 to 132647  | 131997, 132322, 132647 | 5 MHz             | QPSK, 16QAM | 1 RB / 12 RB Offset  |
|                    |                            | 132022 to 132622  | 132022, 132322, 132622 | 10 MHz            | QPSK, 16QAM | 1 RB / 24 RB Offset  |
|                    |                            | 132047 to 132597  | 132047, 132322, 132597 | 15 MHz            | QPSK, 16QAM | 1 RB / 37 RB Offset  |
|                    |                            | 132072 to 132572  | 132072, 132322, 132572 | 20 MHz            | QPSK, 16QAM | 1 RB / 0 RB Offset   |
| -                  | Modulation Characteristics | 132072 to 132572  | 132322                 | 20 MHz            | QPSK, 16QAM | 100 RB / 0 RB Offset |
| -                  | Frequency Stability        | 131979 to 132665  | 131979, 132665         | 1.4 MHz           | QPSK        | 6 RB / 0 RB Offset   |
|                    |                            | 131987 to 132657  | 131987, 132657         | 3 MHz             | QPSK        | 15 RB / 0 RB Offset  |
|                    |                            | 131997 to 132647  | 131997, 132647         | 5 MHz             | QPSK        | 25 RB / 0 RB Offset  |
|                    |                            | 132022 to 132622  | 132022, 132622         | 10 MHz            | QPSK        | 50 RB / 0 RB Offset  |
|                    |                            | 132047 to 132597  | 132047, 132597         | 15 MHz            | QPSK        | 75 RB / 0 RB Offset  |
|                    |                            | 132072 to 132572  | 132072, 132572         | 20 MHz            | QPSK        | 100 RB / 0 RB Offset |
| -                  | Occupied Bandwidth         | 131979 to 132665  | 131979, 132322, 132665 | 1.4 MHz           | QPSK, 16QAM | 6 RB / 0 RB Offset   |
|                    |                            | 131987 to 132657  | 131987, 132322, 132657 | 3 MHz             | QPSK, 16QAM | 15 RB / 0 RB Offset  |
|                    |                            | 131997 to 132647  | 131997, 132322, 132647 | 5 MHz             | QPSK, 16QAM | 25 RB / 0 RB Offset  |
|                    |                            | 132022 to 132622  | 132022, 132322, 132622 | 10 MHz            | QPSK, 16QAM | 50 RB / 0 RB Offset  |
|                    |                            | 132047 to 132597  | 132047, 132322, 132597 | 15 MHz            | QPSK, 16QAM | 75 RB / 0 RB Offset  |
|                    |                            | 132072 to 132572  | 132072, 132322, 132572 | 20 MHz            | QPSK, 16QAM | 100 RB / 0 RB Offset |
| -                  | Peak to Average Ratio      | 131979 to 132665  | 131979, 132322, 132665 | 1.4 MHz           | QPSK, 16QAM | 1 RB / 2 RB Offset   |
|                    |                            | 131987 to 132657  | 131987, 132322, 132657 | 3 MHz             | QPSK, 16QAM | 1 RB / 7 RB Offset   |
|                    |                            | 131997 to 132647  | 131997, 132322, 132647 | 5 MHz             | QPSK, 16QAM | 1 RB / 12 RB Offset  |
|                    |                            | 132022 to 132622  | 132022, 132322, 132622 | 10 MHz            | QPSK, 16QAM | 1 RB / 24 RB Offset  |
|                    |                            | 132047 to 132597  | 132047, 132322, 132597 | 15 MHz            | QPSK, 16QAM | 1 RB / 37 RB Offset  |
|                    |                            | 132072 to 132572  | 132072, 132322, 132572 | 20 MHz            | QPSK, 16QAM | 1 RB / 0 RB Offset   |

| EUT Configure Mode | Test Item          | Available Channel | Tested Channel         | Channel Bandwidth | Modulation | Mode                 |
|--------------------|--------------------|-------------------|------------------------|-------------------|------------|----------------------|
| -                  | Band Edge          | 131979 to 132665  | 131979                 | 1.4 MHz           | QPSK       | 1 RB / 0 RB Offset   |
|                    |                    |                   |                        |                   |            | 6 RB / 0 RB Offset   |
|                    |                    | 131987 to 132657  | 132665                 | 1.4 MHz           | QPSK       | 1 RB / 5 RB Offset   |
|                    |                    |                   |                        |                   |            | 6 RB / 0 RB Offset   |
|                    |                    | 131987 to 132657  | 131987                 | 3 MHz             | QPSK       | 1 RB / 0 RB Offset   |
|                    |                    |                   |                        |                   |            | 15 RB / 0 RB Offset  |
|                    |                    | 131987 to 132657  | 132657                 | 3 MHz             | QPSK       | 1 RB / 14 RB Offset  |
|                    |                    |                   |                        |                   |            | 15 RB / 0 RB Offset  |
|                    |                    | 131997 to 132647  | 131997                 | 5 MHz             | QPSK       | 1 RB / 0 RB Offset   |
|                    |                    |                   |                        |                   |            | 25 RB / 0 RB Offset  |
|                    |                    | 131997 to 132647  | 132647                 | 5 MHz             | QPSK       | 1 RB / 24 RB Offset  |
|                    |                    |                   |                        |                   |            | 25 RB / 0 RB Offset  |
|                    |                    | 132022 to 132622  | 132022                 | 10 MHz            | QPSK       | 1 RB / 0 RB Offset   |
|                    |                    |                   |                        |                   |            | 50 RB / 0 RB Offset  |
|                    |                    | 132022 to 132622  | 132622                 | 10 MHz            | QPSK       | 1 RB / 49 RB Offset  |
|                    |                    |                   |                        |                   |            | 50 RB / 0 RB Offset  |
| -                  | Conducted Emission | 132047 to 132597  | 132047                 | 15 MHz            | QPSK       | 1 RB / 0 RB Offset   |
|                    |                    |                   |                        |                   |            | 75 RB / 0 RB Offset  |
|                    |                    | 132047 to 132597  | 132597                 | 15 MHz            | QPSK       | 1 RB / 74 RB Offset  |
|                    |                    |                   |                        |                   |            | 75 RB / 0 RB Offset  |
|                    |                    | 132072 to 132572  | 132072                 | 20 MHz            | QPSK       | 1 RB / 0 RB Offset   |
|                    |                    |                   |                        |                   |            | 100 RB / 0 RB Offset |
| -                  | Radiated Emission  | 132072 to 132572  | 132572                 | 20 MHz            | QPSK       | 1 RB / 99 RB Offset  |
|                    |                    |                   |                        |                   |            | 100 RB / 0 RB Offset |
|                    |                    | 132072 to 132572  |                        |                   |            |                      |
| -                  | Conducted Emission | 131979 to 132665  | 131979, 132322, 132665 | 1.4 MHz           | QPSK       | 1 RB / 2 RB Offset   |
|                    |                    | 131987 to 132657  | 131987, 132322, 132657 | 3 MHz             | QPSK       | 1 RB / 7 RB Offset   |
|                    |                    | 131997 to 132647  | 131997, 132322, 132647 | 5 MHz             | QPSK       | 1 RB / 12 RB Offset  |
|                    |                    | 132022 to 132622  | 132022, 132322, 132622 | 10 MHz            | QPSK       | 1 RB / 24 RB Offset  |
|                    |                    | 132047 to 132597  | 132047, 132322, 132597 | 15 MHz            | QPSK       | 1 RB / 37 RB Offset  |
|                    |                    | 132072 to 132572  | 132072, 132322, 132572 | 20 MHz            | QPSK       | 1 RB / 0 RB Offset   |
| -                  | Radiated Emission  | 131979 to 132665  | 131979, 132322, 132665 | 1.4 MHz           | QPSK       | 1 RB / 2 RB Offset   |
|                    |                    | 131997 to 132647  | 131997, 132322, 132647 | 5 MHz             | QPSK       | 1 RB / 12 RB Offset  |
|                    |                    | 132072 to 132572  | 132072, 132322, 132572 | 20 MHz            | QPSK       | 1 RB / 0 RB Offset   |

**Note:**

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation. Therefore, only EIRP, modulation characteristics, occupied bandwidth and peak to average ratio items had been tested under QPSK, 16QAM mode, the other items were performed under QPSK mode only.
2. For radiated emission above 1 GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5 MHz & highest channel bandwidth for final test.
3. For radiated emissions below 1 GHz, select the worst radiated emission channel for final testing.

**Test Condition:**

| Test Item                  | Environmental Conditions | Input Power    | Tested By |
|----------------------------|--------------------------|----------------|-----------|
| ERP / EIRP                 | 25 deg. C, 65 % RH       | 120 Vac, 60 Hz | Karl Lee  |
| Modulation Characteristics | 25 deg. C, 65 % RH       | 120 Vac, 60 Hz | Wayne Lin |
| Frequency Stability        | 25 deg. C, 65 % RH       | 3.8Vdc         | Wayne Lin |
| Occupied Bandwidth         | 25 deg. C, 65 % RH       | 120 Vac, 60 Hz | Wayne Lin |
| Band Edge                  | 25 deg. C, 65 % RH       | 120 Vac, 60 Hz | Wayne Lin |
| Peak to Average Ratio      | 25 deg. C, 65 % RH       | 120 Vac, 60 Hz | Wayne Lin |
| Conducted Emission         | 25 deg. C, 65 % RH       | 120 Vac, 60 Hz | Wayne Lin |
| Radiated Emission          | 25 deg. C, 65 % RH       | 120 Vac, 60 Hz | Karl Lee  |

### 3.4 EUT Operating Conditions

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

### 3.5 General Description of Applied Standards and references

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and references:

**Test Standard:**

**FCC 47 CFR Part 2**

**FCC 47 CFR Part 27**

**ANSI 63.26-2015**

**Note:** All test items have been performed and recorded as per the above standards.

**References Test Guidance:**

**KDB 971168 D01 Power Meas License Digital Systems v03r01**

**ANSI/TIA/EIA-603-E 2016**

**3GPP TS 36.521-1 V16.3.0 (2019-12)**

**Note:** All test items have been performed as a reference to the above KDB test guidance.

## 4 Test Types and Results

### 4.1 Output Power Measurement

#### 4.1.1 Limits of Output Power Measurement

Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

Portable stations (hand-held devices) operating in the 746-757 MHz, 776-788 MHz and 805-806 MHz band are limited to 3 watts ERP

Portable stations (hand-held device) operating 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.

#### 4.1.2 Test Procedures

##### **EIRP / ERP Measurement:**

- a. All measurements were done at low, middle and high operational frequency range. RBW is 5 MHz 、 10 MHz 、 15 MHz 、 20 MHz for LTE mode, VBW  $\geq 3 \times$  RBW.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- c.  $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$ . E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,  $E.R.P \text{ power} = E.I.R.P \text{ power} - 2.15 \text{ dB}$ .

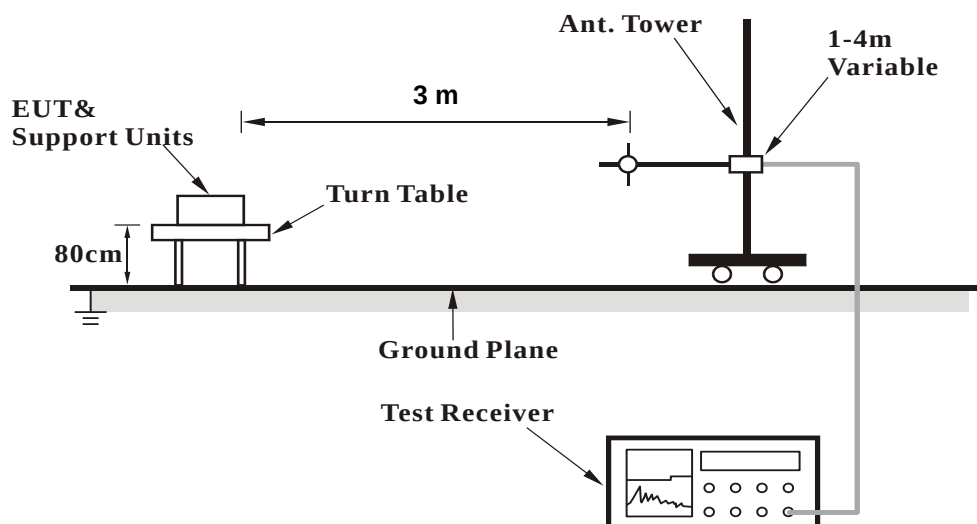
##### **Conducted Power Measurement:**

- a. The EUT was set up for the maximum power with WCDMA and LTE link data modulation and link up with simulator.
- b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

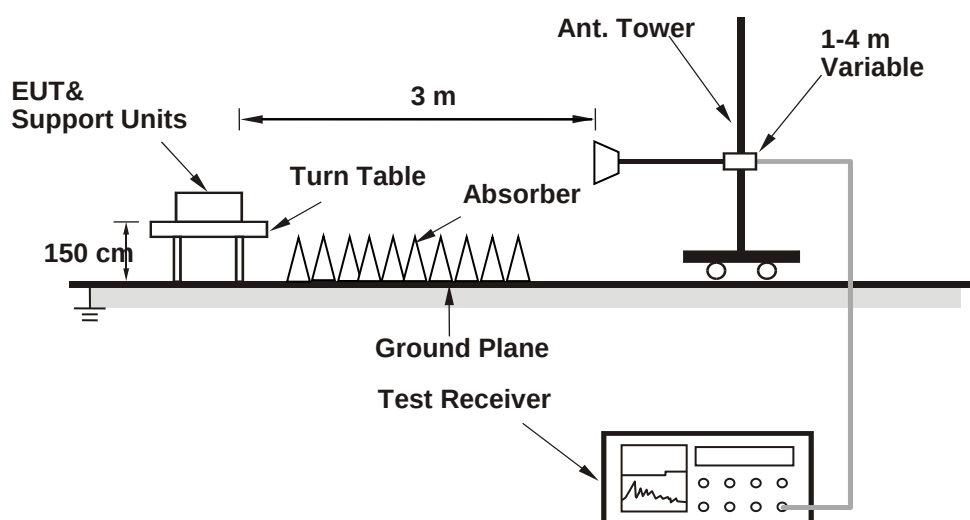
#### 4.1.3 Test Setup

##### EIRP / ERP Measurement:

<Radiated Emission below or equal 1 GHz>

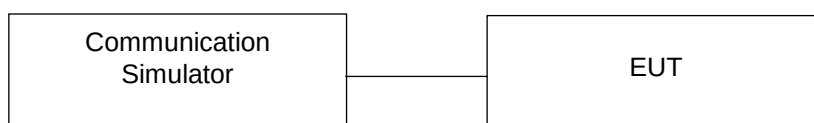


<Radiated Emission above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

##### Conducted Power Measurement:



#### 4.1.4 Test Results

##### Conducted Output Power (dBm)

| Band               | WCDMA IV |        |        |
|--------------------|----------|--------|--------|
| Channel            | 1312     | 1413   | 1513   |
| Frequency (MHz)    | 1712.4   | 1732.6 | 1752.6 |
| RMC 12.2K          | 24.02    | 24.01  | 23.99  |
| HSDPA Subtest-1    | 23.07    | 23.10  | 23.05  |
| HSDPA Subtest-2    | 23.27    | 23.29  | 23.28  |
| HSDPA Subtest-3    | 22.79    | 22.79  | 22.79  |
| HSDPA Subtest-4    | 22.80    | 22.85  | 22.83  |
| DC-HSDPA Subtest-1 | 22.99    | 23.02  | 22.93  |
| DC-HSDPA Subtest-2 | 23.14    | 23.17  | 23.12  |
| DC-HSDPA Subtest-3 | 22.73    | 22.79  | 22.70  |
| DC-HSDPA Subtest-4 | 22.61    | 22.70  | 22.62  |
| HSUPA Subtest-1    | 23.57    | 23.57  | 23.47  |
| HSUPA Subtest-2    | 22.91    | 22.91  | 22.82  |
| HSUPA Subtest-3    | 22.45    | 22.54  | 22.45  |
| HSUPA Subtest-4    | 22.81    | 22.85  | 22.79  |
| HSUPA Subtest-5    | 23.66    | 23.68  | 23.63  |

| LTE Band 4 |           |                 |           |        |        |        |               |       |           |                 |           |        |        |        |               |       |   |
|------------|-----------|-----------------|-----------|--------|--------|--------|---------------|-------|-----------|-----------------|-----------|--------|--------|--------|---------------|-------|---|
| BW         | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW    | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |       |   |
|            |           | Channel         |           | 20050  | 20175  | 20300  |               |       |           | Channel         |           | 20025  | 20175  | 20325  |               |       |   |
|            |           | Frequency (MHz) |           | 1720.0 | 1732.5 | 1745.0 |               |       |           | Frequency (MHz) |           | 1717.5 | 1732.5 | 1747.5 |               |       |   |
| 20M        | QPSK      | 1               | 0         | 23.34  | 23.55  | 23.54  | 0             | 15M   | QPSK      | 1               | 0         | 23.25  | 23.47  | 23.53  | 0             |       |   |
|            |           | 1               | 50        | 23.15  | 23.36  | 23.33  | 0             |       |           | 1               | 37        | 23.05  | 23.31  | 23.29  | 0             |       |   |
|            |           | 1               | 99        | 23.00  | 23.21  | 23.18  | 0             |       |           | 1               | 74        | 22.92  | 23.11  | 23.08  | 0             |       |   |
|            |           | 50              | 0         | 22.12  | 22.33  | 22.30  | 1             |       |           | 36              | 0         | 22.06  | 22.32  | 22.23  | 1             |       |   |
|            |           | 50              | 25        | 22.17  | 22.38  | 22.35  | 1             |       |           | 36              | 19        | 22.14  | 22.29  | 22.35  | 1             |       |   |
|            |           | 50              | 50        | 22.15  | 22.36  | 22.33  | 1             |       |           | 36              | 39        | 22.07  | 22.33  | 22.31  | 1             |       |   |
|            | 16QAM     | 100             | 0         | 22.21  | 22.42  | 22.39  | 1             |       | 75        | 0               | 22.20     | 22.33  | 22.29  | 1      |               |       |   |
|            |           | 1               | 0         | 22.11  | 21.98  | 21.95  | 1             |       | 16QAM     | 1               | 0         | 22.10  | 21.94  | 21.92  | 1             |       |   |
|            |           | 1               | 50        | 22.06  | 22.11  | 22.08  | 1             |       |           | 1               | 37        | 21.99  | 22.06  | 22.04  | 1             |       |   |
|            |           | 1               | 99        | 21.92  | 22.13  | 22.10  | 1             |       |           | 1               | 74        | 21.93  | 22.04  | 22.05  | 1             |       |   |
|            |           | 50              | 0         | 21.08  | 21.29  | 21.26  | 2             |       |           | 36              | 0         | 21.07  | 21.23  | 21.21  | 2             |       |   |
|            |           | 50              | 25        | 21.12  | 21.33  | 21.30  | 2             |       |           | 36              | 19        | 21.05  | 21.29  | 21.24  | 2             |       |   |
| 10M        | QPSK      | 50              | 50        | 21.15  | 21.36  | 21.33  | 2             | 5M    |           | QPSK            | 36        | 39     | 21.07  | 21.30  | 21.28         | 2     |   |
|            |           | 100             | 0         | 20.93  | 21.14  | 21.11  | 2             |       | 75        |                 | 0         | 20.93  | 21.04  | 21.04  | 2             |       |   |
|            |           | 16QAM           | 1         | 0      | 23.31  | 23.45  | 23.54         |       | 0         |                 | 16QAM     | 1      | 0      | 23.31  | 23.55         | 23.53 | 0 |
|            |           |                 | 1         | 24     | 23.13  | 23.34  | 23.24         |       | 0         |                 |           | 1      | 12     | 23.06  | 23.27         | 23.28 | 0 |
|            |           |                 | 1         | 49     | 22.92  | 23.14  | 23.08         |       | 0         |                 |           | 1      | 24     | 22.93  | 23.20         | 23.16 | 0 |
|            |           |                 | 25        | 0      | 22.06  | 22.24  | 22.26         |       | 1         |                 |           | 12     | 0      | 22.05  | 22.32         | 22.28 | 1 |
|            | 25        |                 | 12        | 22.07  | 22.30  | 22.34  | 1             |       | 12        | 6               |           | 22.17  | 22.38  | 22.32  | 1             |       |   |
|            | 25        |                 | 25        | 22.06  | 22.27  | 22.29  | 1             |       | 12        | 13              |           | 22.09  | 22.29  | 22.24  | 1             |       |   |
|            | 16QAM     | 50              | 0         | 22.15  | 22.41  | 22.39  | 1             |       | 16QAM     | 25              | 0         | 22.21  | 22.33  | 22.33  | 1             |       |   |
|            |           | 1               | 0         | 22.09  | 21.94  | 21.91  | 1             |       |           | 1               | 0         | 22.06  | 21.96  | 21.94  | 1             |       |   |
|            |           | 1               | 24        | 22.02  | 22.10  | 22.04  | 1             |       |           | 1               | 12        | 22.03  | 22.01  | 22.01  | 1             |       |   |
|            |           | 1               | 49        | 21.91  | 22.13  | 22.03  | 1             |       |           | 1               | 24        | 21.92  | 22.09  | 22.01  | 1             |       |   |
|            |           | 25              | 0         | 21.04  | 21.27  | 21.18  | 2             |       |           | 12              | 0         | 21.08  | 21.20  | 21.26  | 2             |       |   |
|            |           | 25              | 12        | 21.07  | 21.25  | 21.25  | 2             |       |           | 12              | 6         | 21.05  | 21.25  | 21.27  | 2             |       |   |
|            | 3M        | QPSK            | 25        | 25     | 21.12  | 21.27  | 21.30         |       | 2         | 1.4M            | QPSK      | 12     | 13     | 21.09  | 21.30         | 21.23 | 2 |
| 50         |           |                 | 0         | 20.94  | 21.11  | 21.02  | 2             | 25    | 0         |                 |           | 21.03  | 21.09  | 21.03  | 2             |       |   |
| 16QAM      |           |                 | 1         | 0      | 23.30  | 23.45  | 23.45         | 0     | 16QAM     |                 |           | 1      | 0      | 23.26  | 23.47         | 23.44 | 0 |
|            |           |                 | 1         | 7      | 23.10  | 23.27  | 23.32         | 0     |           |                 |           | 1      | 2      | 23.02  | 23.17         | 23.25 | 0 |
|            |           |                 | 1         | 14     | 22.92  | 23.19  | 23.10         | 0     |           |                 |           | 1      | 5      | 22.97  | 23.14         | 23.08 | 0 |
|            |           |                 | 8         | 0      | 22.11  | 22.26  | 22.27         | 1     |           |                 |           | 3      | 0      | 23.00  | 23.09         | 23.09 | 0 |
|            |           | 8               | 3         | 22.11  | 22.37  | 22.25  | 1             | 3     |           |                 | 1         | 23.00  | 23.35  | 23.13  | 0             |       |   |
|            |           | 8               | 7         | 22.09  | 22.34  | 22.33  | 1             | 3     |           |                 | 3         | 22.96  | 23.14  | 23.10  | 0             |       |   |
| 16QAM      |           | 15              | 0         | 22.12  | 22.35  | 22.33  | 1             | 16QAM | 6         |                 | 0         | 22.04  | 22.27  | 22.27  | 1             |       |   |
|            |           | 1               | 0         | 22.07  | 21.98  | 21.93  | 1             |       | 1         |                 | 0         | 21.95  | 21.92  | 21.92  | 1             |       |   |
|            |           | 1               | 7         | 21.99  | 22.05  | 21.98  | 1             |       | 1         |                 | 2         | 21.97  | 22.02  | 21.92  | 1             |       |   |
|            |           | 1               | 14        | 21.92  | 22.07  | 22.03  | 1             |       | 1         |                 | 5         | 21.93  | 21.98  | 21.91  | 1             |       |   |
|            | 8         | 0               | 20.98     | 21.29  | 21.21  | 2      | 3             |       | 0         | 21.96           | 22.23     | 22.20  | 1      |        |               |       |   |
|            | 8         | 3               | 21.02     | 21.32  | 21.21  | 2      | 3             |       | 1         | 21.98           | 22.15     | 22.29  | 1      |        |               |       |   |
| 1.4M       | 16QAM     | 8               | 7         | 21.12  | 21.36  | 21.29  | 2             | 16QAM | 3         | 3               | 22.04     | 22.27  | 22.21  | 1      |               |       |   |
|            |           | 15              | 0         | 20.91  | 21.09  | 21.04  | 2             |       | 6         | 0               | 20.98     | 21.02  | 21.05  | 2      |               |       |   |

| LTE Band 12 |           |                 |           |       |       |       |               |      |           |                 |           |       |       |       |               |
|-------------|-----------|-----------------|-----------|-------|-------|-------|---------------|------|-----------|-----------------|-----------|-------|-------|-------|---------------|
| BW          | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) |
|             |           | Channel         |           | 23060 | 23095 | 23130 |               |      |           | Channel         |           | 23035 | 23095 | 23155 |               |
|             |           | Frequency (MHz) |           | 704.0 | 707.5 | 711.0 |               |      |           | Frequency (MHz) |           | 701.5 | 707.5 | 713.5 |               |
| 10M         | QPSK      | 1               | 0         | 23.89 | 23.81 | 23.95 | 0             | 5M   | QPSK      | 1               | 0         | 23.83 | 23.81 | 23.85 | 0             |
|             |           | 1               | 24        | 23.80 | 23.72 | 23.86 | 0             |      |           | 1               | 12        | 23.73 | 23.71 | 23.83 | 0             |
|             |           | 1               | 49        | 23.66 | 23.58 | 23.72 | 0             |      |           | 1               | 24        | 23.62 | 23.51 | 23.64 | 0             |
|             |           | 25              | 0         | 22.77 | 22.69 | 22.83 | 1             |      |           | 12              | 0         | 22.77 | 22.61 | 22.75 | 1             |
|             |           | 25              | 12        | 22.72 | 22.64 | 22.78 | 1             |      |           | 12              | 6         | 22.71 | 22.54 | 22.78 | 1             |
|             |           | 25              | 25        | 22.61 | 22.53 | 22.67 | 1             |      |           | 12              | 13        | 22.51 | 22.52 | 22.59 | 1             |
|             |           | 50              | 0         | 22.63 | 22.55 | 22.69 | 1             |      |           | 25              | 0         | 22.57 | 22.51 | 22.63 | 1             |
|             | 16QAM     | 1               | 0         | 22.75 | 22.67 | 22.81 | 1             |      | 16QAM     | 1               | 0         | 22.75 | 22.58 | 22.73 | 1             |
|             |           | 1               | 24        | 22.36 | 22.28 | 22.42 | 1             |      |           | 1               | 12        | 22.31 | 22.28 | 22.37 | 1             |
|             |           | 1               | 49        | 22.39 | 22.31 | 22.45 | 1             |      |           | 1               | 24        | 22.35 | 22.23 | 22.35 | 1             |
|             |           | 25              | 0         | 21.76 | 21.68 | 21.82 | 2             |      |           | 12              | 0         | 21.67 | 21.59 | 21.79 | 2             |
|             |           | 25              | 12        | 21.68 | 21.60 | 21.74 | 2             |      |           | 12              | 6         | 21.65 | 21.57 | 21.69 | 2             |
|             |           | 25              | 25        | 21.80 | 21.72 | 21.86 | 2             |      |           | 12              | 13        | 21.76 | 21.69 | 21.76 | 2             |
|             |           | 50              | 0         | 21.68 | 21.60 | 21.74 | 2             |      |           | 25              | 0         | 21.65 | 21.56 | 21.74 | 2             |
| BW          | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low   | Mid   | High  | 3GPP MPR (dB) |
|             |           | Channel         |           | 23025 | 23095 | 23165 |               |      |           | Channel         |           | 23017 | 23095 | 23173 |               |
|             |           | Frequency (MHz) |           | 700.5 | 707.5 | 714.5 |               |      |           | Frequency (MHz) |           | 699.7 | 707.5 | 715.3 |               |
| 3M          | QPSK      | 1               | 0         | 23.82 | 23.78 | 23.93 | 0             | 1.4M | QPSK      | 1               | 0         | 23.71 | 23.78 | 23.92 | 0             |
|             |           | 1               | 7         | 23.77 | 23.62 | 23.77 | 0             |      |           | 1               | 2         | 23.69 | 23.56 | 23.69 | 0             |
|             |           | 1               | 14        | 23.58 | 23.48 | 23.72 | 0             |      |           | 1               | 5         | 23.60 | 23.47 | 23.59 | 0             |
|             |           | 8               | 0         | 22.75 | 22.61 | 22.78 | 1             |      |           | 3               | 0         | 23.66 | 23.56 | 23.74 | 0             |
|             |           | 8               | 3         | 22.70 | 22.59 | 22.76 | 1             |      |           | 3               | 1         | 23.57 | 23.50 | 23.55 | 0             |
|             |           | 8               | 7         | 22.59 | 22.49 | 22.60 | 1             |      |           | 3               | 3         | 23.40 | 23.33 | 23.63 | 0             |
|             |           | 15              | 0         | 22.62 | 22.49 | 22.66 | 1             |      |           | 6               | 0         | 22.56 | 22.42 | 22.63 | 1             |
|             | 16QAM     | 1               | 0         | 22.71 | 22.57 | 22.74 | 1             |      | 16QAM     | 1               | 0         | 22.64 | 22.63 | 22.62 | 1             |
|             |           | 1               | 7         | 22.35 | 22.25 | 22.38 | 1             |      |           | 1               | 2         | 22.35 | 22.25 | 22.21 | 1             |
|             |           | 1               | 14        | 22.30 | 22.30 | 22.37 | 1             |      |           | 1               | 5         | 22.28 | 22.21 | 22.30 | 1             |
|             |           | 8               | 0         | 21.71 | 21.64 | 21.75 | 2             |      |           | 3               | 0         | 22.60 | 22.66 | 22.70 | 1             |
|             |           | 8               | 3         | 21.66 | 21.57 | 21.73 | 2             |      |           | 3               | 1         | 22.55 | 22.40 | 22.55 | 1             |
|             |           | 8               | 7         | 21.73 | 21.68 | 21.79 | 2             |      |           | 3               | 3         | 22.80 | 22.61 | 22.72 | 1             |
|             |           | 15              | 0         | 21.63 | 21.56 | 21.68 | 2             |      |           | 6               | 0         | 21.54 | 21.41 | 21.69 | 2             |

| LTE Band 66 |           |                 |           |        |        |        |               |      |           |                 |           |        |        |        |               |
|-------------|-----------|-----------------|-----------|--------|--------|--------|---------------|------|-----------|-----------------|-----------|--------|--------|--------|---------------|
| BW          | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|             |           | Channel         |           | 132072 | 132322 | 132572 |               |      |           | Channel         |           | 132047 | 132322 | 132597 |               |
|             |           | Frequency (MHz) |           | 1720.0 | 1745.0 | 1770.0 |               |      |           | Frequency (MHz) |           | 1717.5 | 1745.0 | 1772.5 |               |
| 20M         | QPSK      | 1               | 0         | 23.59  | 23.87  | 23.74  | 0             | 15M  | QPSK      | 1               | 0         | 23.56  | 23.76  | 23.68  | 0             |
|             |           | 1               | 50        | 23.60  | 23.78  | 23.65  | 0             |      |           | 1               | 37        | 23.53  | 23.54  | 23.50  | 0             |
|             |           | 1               | 99        | 23.53  | 23.71  | 23.58  | 0             |      |           | 1               | 74        | 23.28  | 23.62  | 23.40  | 0             |
|             |           | 50              | 0         | 22.64  | 22.82  | 22.69  | 1             |      |           | 36              | 0         | 22.52  | 22.67  | 22.63  | 1             |
|             |           | 50              | 25        | 22.45  | 22.63  | 22.50  | 1             |      |           | 36              | 19        | 22.41  | 22.44  | 22.35  | 1             |
|             |           | 50              | 50        | 22.43  | 22.61  | 22.48  | 1             |      |           | 36              | 39        | 22.32  | 22.52  | 22.40  | 1             |
|             |           | 100             | 0         | 22.47  | 22.65  | 22.52  | 1             |      |           | 75              | 0         | 22.36  | 22.54  | 22.38  | 1             |
|             | 16QAM     | 1               | 0         | 22.70  | 22.88  | 22.75  | 1             |      | 16QAM     | 1               | 0         | 22.63  | 22.70  | 22.56  | 1             |
|             |           | 1               | 50        | 22.71  | 22.89  | 22.76  | 1             |      |           | 1               | 37        | 22.56  | 22.75  | 22.69  | 1             |
|             |           | 1               | 99        | 22.38  | 22.56  | 22.43  | 1             |      |           | 1               | 74        | 22.20  | 22.39  | 22.30  | 1             |
|             |           | 50              | 0         | 21.58  | 21.76  | 21.63  | 2             |      |           | 36              | 0         | 21.54  | 21.56  | 21.46  | 2             |
|             |           | 50              | 25        | 21.38  | 21.56  | 21.43  | 2             |      |           | 36              | 19        | 21.22  | 21.52  | 21.23  | 2             |
|             |           | 50              | 50        | 21.41  | 21.59  | 21.46  | 2             |      |           | 36              | 39        | 21.33  | 21.43  | 21.37  | 2             |
|             |           | 100             | 0         | 21.36  | 21.54  | 21.41  | 2             |      |           | 75              | 0         | 21.22  | 21.39  | 21.27  | 2             |
| BW          | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|             |           | Channel         |           | 132022 | 132322 | 132622 |               |      |           | Channel         |           | 131997 | 132322 | 132647 |               |
|             |           | Frequency (MHz) |           | 1715.0 | 1745.0 | 1775.0 |               |      |           | Frequency (MHz) |           | 1712.5 | 1745.0 | 1777.5 |               |
| 10M         | QPSK      | 1               | 0         | 23.43  | 23.71  | 23.62  | 0             | 5M   | QPSK      | 1               | 0         | 23.50  | 23.71  | 23.59  | 0             |
|             |           | 1               | 24        | 23.41  | 23.70  | 23.58  | 0             |      |           | 1               | 12        | 23.49  | 23.70  | 23.57  | 0             |
|             |           | 1               | 49        | 23.44  | 23.60  | 23.47  | 0             |      |           | 1               | 24        | 23.42  | 23.51  | 23.39  | 0             |
|             |           | 25              | 0         | 22.55  | 22.70  | 22.62  | 1             |      |           | 12              | 0         | 22.56  | 22.64  | 22.65  | 1             |
|             |           | 25              | 12        | 22.41  | 22.48  | 22.42  | 1             |      |           | 12              | 6         | 22.27  | 22.53  | 22.34  | 1             |
|             |           | 25              | 25        | 22.31  | 22.53  | 22.43  | 1             |      |           | 12              | 13        | 22.25  | 22.40  | 22.43  | 1             |
|             |           | 50              | 0         | 22.30  | 22.43  | 22.34  | 1             |      |           | 25              | 0         | 22.36  | 22.53  | 22.33  | 1             |
|             | 16QAM     | 1               | 0         | 22.66  | 22.70  | 22.62  | 1             |      | 16QAM     | 1               | 0         | 22.56  | 22.73  | 22.64  | 1             |
|             |           | 1               | 24        | 22.69  | 22.76  | 22.68  | 1             |      |           | 1               | 12        | 22.56  | 22.70  | 22.57  | 1             |
|             |           | 1               | 49        | 22.31  | 22.55  | 22.31  | 1             |      |           | 1               | 24        | 22.23  | 22.40  | 22.27  | 1             |
|             |           | 25              | 0         | 21.45  | 21.68  | 21.50  | 2             |      |           | 12              | 0         | 21.37  | 21.64  | 21.47  | 2             |
|             |           | 25              | 12        | 21.23  | 21.33  | 21.26  | 2             |      |           | 12              | 6         | 21.21  | 21.45  | 21.32  | 2             |
|             |           | 25              | 25        | 21.31  | 21.43  | 21.34  | 2             |      |           | 12              | 13        | 21.26  | 21.53  | 21.29  | 2             |
|             |           | 50              | 0         | 21.26  | 21.32  | 21.35  | 2             |      |           | 25              | 0         | 21.23  | 21.37  | 21.20  | 2             |
| BW          | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) | BW   | MCS Index | RB Size         | RB Offset | Low    | Mid    | High   | 3GPP MPR (dB) |
|             |           | Channel         |           | 131987 | 132322 | 132657 |               |      |           | Channel         |           | 131979 | 132322 | 132665 |               |
|             |           | Frequency (MHz) |           | 1711.5 | 1745.5 | 1778.5 |               |      |           | Frequency (MHz) |           | 1710.7 | 1745.0 | 1779.3 |               |
| 3M          | QPSK      | 1               | 0         | 23.49  | 23.80  | 23.60  | 0             | 1.4M | QPSK      | 1               | 0         | 23.55  | 23.81  | 23.50  | 0             |
|             |           | 1               | 7         | 23.48  | 23.60  | 23.53  | 0             |      |           | 1               | 2         | 23.50  | 23.67  | 23.50  | 0             |
|             |           | 1               | 14        | 23.46  | 23.54  | 23.50  | 0             |      |           | 1               | 5         | 23.39  | 23.67  | 23.36  | 0             |
|             |           | 8               | 0         | 22.52  | 22.73  | 22.53  | 1             |      |           | 3               | 0         | 23.58  | 23.75  | 23.50  | 0             |
|             |           | 8               | 3         | 22.36  | 22.51  | 22.32  | 1             |      |           | 3               | 1         | 23.43  | 23.46  | 23.27  | 0             |
|             |           | 8               | 7         | 22.36  | 22.39  | 22.35  | 1             |      |           | 3               | 3         | 23.32  | 23.55  | 23.39  | 0             |
|             |           | 15              | 0         | 22.27  | 22.45  | 22.38  | 1             |      |           | 6               | 0         | 22.30  | 22.49  | 22.38  | 1             |
|             | 16QAM     | 1               | 0         | 22.52  | 22.72  | 22.60  | 1             |      | 16QAM     | 1               | 0         | 22.53  | 22.77  | 22.69  | 1             |
|             |           | 1               | 7         | 22.55  | 22.74  | 22.70  | 1             |      |           | 1               | 2         | 22.61  | 22.86  | 22.68  | 1             |
|             |           | 1               | 14        | 22.28  | 22.33  | 22.34  | 1             |      |           | 1               | 5         | 22.25  | 22.47  | 22.31  | 1             |
|             |           | 8               | 0         | 21.42  | 21.55  | 21.42  | 2             |      |           | 3               | 0         | 22.54  | 22.62  | 22.48  | 1             |
|             |           | 8               | 3         | 21.19  | 21.44  | 21.24  | 2             |      |           | 3               | 1         | 22.22  | 22.47  | 22.36  | 1             |
|             |           | 8               | 7         | 21.26  | 21.38  | 21.36  | 2             |      |           | 3               | 3         | 22.35  | 22.53  | 22.27  | 1             |
|             |           | 15              | 0         | 21.19  | 21.41  | 21.17  | 2             |      |           | 6               | 0         | 21.23  | 21.36  | 21.39  | 2             |

**ERP Power (dBm)**

| LTE Band 12                        |         |                 |               |                        |           |          |                    |
|------------------------------------|---------|-----------------|---------------|------------------------|-----------|----------|--------------------|
| Channel Bandwidth: 1.4 MHz / QPSK  |         |                 |               |                        |           |          |                    |
| Plane                              | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | ERP (dBm) | ERP (mW) | Polarization (H/V) |
| X                                  | 23017   | 699.7           | -7.57         | 32.719                 | 23.00     | 199.48   | H                  |
|                                    | 23095   | 707.5           | -7.66         | 32.736                 | 22.93     | 196.16   |                    |
|                                    | 23173   | 715.3           | -7.64         | 32.591                 | 22.80     | 190.59   |                    |
|                                    | 23017   | 699.7           | -8.49         | 32.69                  | 22.05     | 160.32   | V                  |
|                                    | 23095   | 707.5           | -8.75         | 32.81                  | 21.91     | 155.24   |                    |
|                                    | 23173   | 715.3           | -8.79         | 32.74                  | 21.80     | 151.36   |                    |
| Channel Bandwidth: 1.4 MHz / 16QAM |         |                 |               |                        |           |          |                    |
| X                                  | 23017   | 699.7           | -8.57         | 32.719                 | 22.00     | 158.45   | H                  |
|                                    | 23095   | 707.5           | -8.66         | 32.736                 | 21.93     | 155.81   |                    |
|                                    | 23173   | 715.3           | -8.64         | 32.591                 | 21.80     | 151.39   |                    |
|                                    | 23017   | 699.7           | -9.50         | 32.69                  | 21.04     | 127.06   | V                  |
|                                    | 23095   | 707.5           | -9.76         | 32.81                  | 20.90     | 123.03   |                    |
|                                    | 23173   | 715.3           | -9.80         | 32.74                  | 20.79     | 119.95   |                    |

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

| LTE Band 12                      |         |                 |               |                        |           |          |                    |
|----------------------------------|---------|-----------------|---------------|------------------------|-----------|----------|--------------------|
| Channel Bandwidth: 3 MHz / QPSK  |         |                 |               |                        |           |          |                    |
| Plane                            | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | ERP (dBm) | ERP (mW) | Polarization (H/V) |
| X                                | 23025   | 700.5           | -7.53         | 32.719                 | 23.04     | 201.33   | H                  |
|                                  | 23095   | 707.5           | -7.62         | 32.736                 | 22.97     | 197.97   |                    |
|                                  | 23165   | 714.5           | -7.60         | 32.591                 | 22.84     | 192.35   |                    |
|                                  | 23025   | 700.5           | -8.45         | 32.69                  | 22.09     | 161.81   | V                  |
|                                  | 23095   | 707.5           | -8.71         | 32.81                  | 21.95     | 156.68   |                    |
|                                  | 23165   | 714.5           | -8.75         | 32.74                  | 21.84     | 152.76   |                    |
| Channel Bandwidth: 3 MHz / 16QAM |         |                 |               |                        |           |          |                    |
| X                                | 23025   | 700.5           | -8.54         | 32.719                 | 22.03     | 159.55   | H                  |
|                                  | 23095   | 707.5           | -8.62         | 32.736                 | 21.97     | 157.25   |                    |
|                                  | 23165   | 714.5           | -8.61         | 32.591                 | 21.83     | 152.44   |                    |
|                                  | 23025   | 700.5           | -9.45         | 32.69                  | 21.09     | 128.53   | V                  |
|                                  | 23095   | 707.5           | -9.72         | 32.81                  | 20.94     | 124.17   |                    |
|                                  | 23165   | 714.5           | -9.75         | 32.74                  | 20.84     | 121.34   |                    |

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

| LTE Band 12                      |         |                 |               |                        |           |          |                    |
|----------------------------------|---------|-----------------|---------------|------------------------|-----------|----------|--------------------|
| Channel Bandwidth: 5 MHz / QPSK  |         |                 |               |                        |           |          |                    |
| Plane                            | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | ERP (dBm) | ERP (mW) | Polarization (H/V) |
| X                                | 23035   | 701.5           | -7.49         | 32.719                 | 23.08     | 203.19   | H                  |
|                                  | 23095   | 707.5           | -7.58         | 32.736                 | 23.01     | 199.80   |                    |
|                                  | 23155   | 713.5           | -7.57         | 32.591                 | 22.87     | 193.69   |                    |
|                                  | 23035   | 701.5           | -8.42         | 32.69                  | 22.12     | 162.93   | V                  |
|                                  | 23095   | 707.5           | -8.68         | 32.81                  | 21.98     | 157.76   |                    |
|                                  | 23155   | 713.5           | -8.71         | 32.74                  | 21.88     | 154.17   |                    |
| Channel Bandwidth: 5 MHz / 16QAM |         |                 |               |                        |           |          |                    |
| X                                | 23035   | 701.5           | -8.50         | 32.719                 | 22.07     | 161.03   | H                  |
|                                  | 23095   | 707.5           | -8.58         | 32.736                 | 22.01     | 158.71   |                    |
|                                  | 23155   | 713.5           | -8.57         | 32.591                 | 21.87     | 153.85   |                    |
|                                  | 23035   | 701.5           | -9.42         | 32.69                  | 21.12     | 129.42   | V                  |
|                                  | 23095   | 707.5           | -9.69         | 32.81                  | 20.97     | 125.03   |                    |
|                                  | 23155   | 713.5           | -9.73         | 32.74                  | 20.86     | 121.90   |                    |

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

| LTE Band 12                       |         |                 |               |                        |           |          |                    |
|-----------------------------------|---------|-----------------|---------------|------------------------|-----------|----------|--------------------|
| Channel Bandwidth: 10 MHz / QPSK  |         |                 |               |                        |           |          |                    |
| Plane                             | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | ERP (dBm) | ERP (mW) | Polarization (H/V) |
| X                                 | 23060   | 704.0           | -7.45         | 32.727                 | 23.13     | 205.45   | H                  |
|                                   | 23095   | 707.5           | -7.54         | 32.739                 | 23.05     | 201.79   |                    |
|                                   | 23130   | 711.0           | -7.64         | 32.728                 | 22.94     | 196.70   |                    |
|                                   | 23060   | 704.0           | -8.44         | 32.75                  | 22.16     | 164.44   | V                  |
|                                   | 23095   | 707.5           | -8.65         | 32.81                  | 22.01     | 158.85   |                    |
|                                   | 23130   | 711.0           | -8.78         | 32.84                  | 21.91     | 155.24   |                    |
| Channel Bandwidth: 10 MHz / 16QAM |         |                 |               |                        |           |          |                    |
| X                                 | 23060   | 704.0           | -8.45         | 32.727                 | 22.13     | 163.19   | H                  |
|                                   | 23095   | 707.5           | -8.55         | 32.739                 | 22.04     | 159.92   |                    |
|                                   | 23130   | 711.0           | -8.65         | 32.728                 | 21.93     | 155.88   |                    |
|                                   | 23060   | 704.0           | -9.44         | 32.75                  | 21.16     | 130.62   | V                  |
|                                   | 23095   | 707.5           | -9.66         | 32.81                  | 21.00     | 125.89   |                    |
|                                   | 23130   | 711.0           | -9.78         | 32.84                  | 20.91     | 123.31   |                    |

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

### EIRP Power (dBm)

| WCDMA |         |                 |               |                        |            |           |                    |
|-------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Plane | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X     | 1312    | 1712.4          | -15.54        | 42.49                  | 26.95      | 494.88    | H                  |
|       | 1413    | 1732.6          | -15.51        | 42.33                  | 26.82      | 480.51    |                    |
|       | 1513    | 1752.6          | -15.36        | 42.10                  | 26.74      | 472.06    |                    |
|       | 1312    | 1712.4          | -20.21        | 42.99                  | 22.78      | 189.67    | V                  |
|       | 1413    | 1732.6          | -20.07        | 42.74                  | 22.67      | 184.93    |                    |
|       | 1513    | 1752.6          | -19.71        | 42.21                  | 22.50      | 177.83    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 4                         |         |                 |               |                        |            |           |                    |
|------------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 1.4 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                              | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                  | 19957   | 1710.7          | -16.22        | 42.49                  | 26.27      | 423.16    | H                  |
|                                    | 20175   | 1732.5          | -16.15        | 42.33                  | 26.18      | 414.67    |                    |
|                                    | 20393   | 1754.3          | -15.99        | 42.10                  | 26.11      | 408.32    |                    |
|                                    | 19957   | 1710.7          | -19.78        | 42.99                  | 23.21      | 209.41    | V                  |
|                                    | 20175   | 1732.5          | -19.71        | 42.74                  | 23.03      | 200.91    |                    |
|                                    | 20393   | 1754.3          | -19.27        | 42.21                  | 22.94      | 196.79    |                    |
| Channel Bandwidth: 1.4 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                  | 19957   | 1710.7          | -17.23        | 42.49                  | 25.26      | 335.35    | H                  |
|                                    | 20175   | 1732.5          | -17.16        | 42.33                  | 25.17      | 328.62    |                    |
|                                    | 20393   | 1754.3          | -17.00        | 42.10                  | 25.10      | 323.59    |                    |
|                                    | 19957   | 1710.7          | -20.78        | 42.99                  | 22.21      | 166.34    | V                  |
|                                    | 20175   | 1732.5          | -20.72        | 42.74                  | 22.02      | 159.22    |                    |
|                                    | 20393   | 1754.3          | -20.27        | 42.21                  | 21.94      | 156.31    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 4                       |         |                 |               |                        |            |           |                    |
|----------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 3 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                            | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                | 19965   | 1711.5          | -16.18        | 42.49                  | 26.31      | 427.07    | H                  |
|                                  | 20175   | 1732.5          | -16.11        | 42.33                  | 26.22      | 418.50    |                    |
|                                  | 20385   | 1753.5          | -15.96        | 42.10                  | 26.14      | 411.15    |                    |
|                                  | 19965   | 1711.5          | -19.74        | 42.99                  | 23.25      | 211.35    | V                  |
|                                  | 20175   | 1732.5          | -19.67        | 42.74                  | 23.07      | 202.77    |                    |
|                                  | 20385   | 1753.5          | -19.23        | 42.21                  | 22.98      | 198.61    |                    |
| Channel Bandwidth: 3 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                | 19965   | 1711.5          | -17.19        | 42.49                  | 25.30      | 338.45    | H                  |
|                                  | 20175   | 1732.5          | -17.11        | 42.33                  | 25.22      | 332.43    |                    |
|                                  | 20385   | 1753.5          | -16.96        | 42.10                  | 25.14      | 326.59    |                    |
|                                  | 19965   | 1711.5          | -20.74        | 42.99                  | 22.25      | 167.88    | V                  |
|                                  | 20175   | 1732.5          | -20.68        | 42.74                  | 22.06      | 160.69    |                    |
|                                  | 20385   | 1753.5          | -20.23        | 42.21                  | 21.98      | 157.76    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 4                       |         |                 |               |                        |            |           |                    |
|----------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 5 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                            | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                | 19975   | 1712.5          | -16.15        | 42.49                  | 26.34      | 430.03    | H                  |
|                                  | 20175   | 1732.5          | -16.08        | 42.33                  | 26.25      | 421.41    |                    |
|                                  | 20375   | 1752.5          | -15.93        | 42.10                  | 26.17      | 414.00    |                    |
|                                  | 19975   | 1712.5          | -19.70        | 42.99                  | 23.29      | 213.30    | V                  |
|                                  | 20175   | 1732.5          | -19.63        | 42.74                  | 23.11      | 204.64    |                    |
|                                  | 20375   | 1752.5          | -19.20        | 42.21                  | 23.01      | 199.99    |                    |
| Channel Bandwidth: 5 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                | 19975   | 1712.5          | -17.16        | 42.49                  | 25.33      | 340.80    | H                  |
|                                  | 20175   | 1732.5          | -17.08        | 42.33                  | 25.25      | 334.73    |                    |
|                                  | 20375   | 1752.5          | -16.93        | 42.10                  | 25.17      | 328.85    |                    |
|                                  | 19975   | 1712.5          | -20.71        | 42.99                  | 22.28      | 169.04    | V                  |
|                                  | 20175   | 1732.5          | -20.63        | 42.74                  | 22.11      | 162.55    |                    |
|                                  | 20375   | 1752.5          | -20.21        | 42.21                  | 22.00      | 158.49    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 4                        |         |                 |               |                        |            |           |                    |
|-----------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 10 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                             | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                 | 20000   | 1715.0          | -16.11        | 42.49                  | 26.38      | 434.01    | H                  |
|                                   | 20175   | 1732.5          | -16.04        | 42.33                  | 26.29      | 425.30    |                    |
|                                   | 20350   | 1750.0          | -15.89        | 42.10                  | 26.21      | 417.83    |                    |
|                                   | 20000   | 1715.0          | -19.67        | 42.99                  | 23.32      | 214.78    | V                  |
|                                   | 20175   | 1732.5          | -19.59        | 42.74                  | 23.15      | 206.54    |                    |
|                                   | 20350   | 1750.0          | -19.16        | 42.21                  | 23.05      | 201.84    |                    |
| Channel Bandwidth: 10 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                 | 20000   | 1715.0          | -17.11        | 42.49                  | 25.38      | 344.75    | H                  |
|                                   | 20175   | 1732.5          | -17.04        | 42.33                  | 25.29      | 337.83    |                    |
|                                   | 20350   | 1750.0          | -16.89        | 42.10                  | 25.21      | 331.89    |                    |
|                                   | 20000   | 1715.0          | -20.68        | 42.99                  | 22.31      | 170.22    | V                  |
|                                   | 20175   | 1732.5          | -20.60        | 42.74                  | 22.14      | 163.68    |                    |
|                                   | 20350   | 1750.0          | -20.16        | 42.21                  | 22.05      | 160.32    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 4                        |         |                 |               |                        |            |           |                    |
|-----------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 15 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                             | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                 | 20025   | 1717.5          | -16.08        | 42.49                  | 26.41      | 437.02    | H                  |
|                                   | 20175   | 1732.5          | -16.00        | 42.33                  | 26.33      | 429.24    |                    |
|                                   | 20325   | 1747.5          | -15.85        | 42.10                  | 26.25      | 421.70    |                    |
|                                   | 20025   | 1717.5          | -19.64        | 42.99                  | 23.35      | 216.27    | V                  |
|                                   | 20175   | 1732.5          | -19.55        | 42.74                  | 23.19      | 208.45    |                    |
|                                   | 20325   | 1747.5          | -19.12        | 42.21                  | 23.09      | 203.70    |                    |
| Channel Bandwidth: 15 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                 | 20025   | 1717.5          | -17.08        | 42.49                  | 25.41      | 347.14    | H                  |
|                                   | 20175   | 1732.5          | -17.01        | 42.33                  | 25.32      | 340.17    |                    |
|                                   | 20325   | 1747.5          | -16.85        | 42.10                  | 25.25      | 334.97    |                    |
|                                   | 20025   | 1717.5          | -20.64        | 42.99                  | 22.35      | 171.79    | V                  |
|                                   | 20175   | 1732.5          | -20.55        | 42.74                  | 22.19      | 165.58    |                    |
|                                   | 20325   | 1747.5          | -20.13        | 42.21                  | 22.08      | 161.44    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 4                        |         |                 |               |                        |            |           |                    |
|-----------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 20 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                             | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                 | 20050   | 1720.0          | -16.04        | 42.49                  | 26.45      | 441.06    | H                  |
|                                   | 20175   | 1732.5          | -15.96        | 42.33                  | 26.37      | 433.21    |                    |
|                                   | 20300   | 1745.0          | -15.82        | 42.10                  | 26.28      | 424.62    |                    |
|                                   | 20050   | 1720.0          | -19.60        | 42.99                  | 23.39      | 218.27    | V                  |
|                                   | 20175   | 1732.5          | -19.51        | 42.74                  | 23.23      | 210.38    |                    |
|                                   | 20300   | 1745.0          | -19.09        | 42.21                  | 23.12      | 205.12    |                    |
| Channel Bandwidth: 20 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                 | 20050   | 1720.0          | -17.04        | 42.49                  | 25.45      | 350.35    | H                  |
|                                   | 20175   | 1732.5          | -16.96        | 42.33                  | 25.37      | 344.11    |                    |
|                                   | 20300   | 1745.0          | -16.82        | 42.10                  | 25.28      | 337.29    |                    |
|                                   | 20050   | 1720.0          | -20.61        | 42.99                  | 22.38      | 172.98    | V                  |
|                                   | 20175   | 1732.5          | -20.52        | 42.74                  | 22.22      | 166.72    |                    |
|                                   | 20300   | 1745.0          | -20.10        | 42.21                  | 22.11      | 162.55    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 66                        |         |                 |               |                        |            |           |                    |
|------------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 1.4 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                              | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                  | 131979  | 1710.7          | -9.72         | 36.45                  | 26.73      | 470.98    | H                  |
|                                    | 132322  | 1745.0          | -10.18        | 36.80                  | 26.62      | 459.09    |                    |
|                                    | 132665  | 1779.3          | -10.45        | 36.94                  | 26.49      | 445.96    |                    |
|                                    | 131979  | 1710.7          | -14.74        | 37.28                  | 22.54      | 179.35    | V                  |
|                                    | 132322  | 1745.0          | -15.21        | 37.63                  | 22.42      | 174.58    |                    |
|                                    | 132665  | 1779.3          | -15.35        | 37.64                  | 22.29      | 169.43    |                    |
| Channel Bandwidth: 1.4 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                  | 131979  | 1710.7          | -10.72        | 36.45                  | 25.73      | 374.11    | H                  |
|                                    | 132322  | 1745.0          | -11.18        | 36.80                  | 25.62      | 364.67    |                    |
|                                    | 132665  | 1779.3          | -11.45        | 36.94                  | 25.49      | 354.24    |                    |
|                                    | 131979  | 1710.7          | -15.74        | 37.28                  | 21.54      | 142.46    | V                  |
|                                    | 132322  | 1745.0          | -16.22        | 37.63                  | 21.41      | 138.36    |                    |
|                                    | 132665  | 1779.3          | -16.35        | 37.64                  | 21.29      | 134.59    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 66                      |         |                 |               |                        |            |           |                    |
|----------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 3 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                            | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                | 131987  | 1711.5          | -9.68         | 36.45                  | 26.77      | 475.34    | H                  |
|                                  | 132322  | 1745.0          | -10.15        | 36.80                  | 26.65      | 462.27    |                    |
|                                  | 132657  | 1778.5          | -10.41        | 36.94                  | 26.53      | 450.09    |                    |
|                                  | 131987  | 1711.5          | -14.70        | 37.28                  | 22.58      | 181.01    | V                  |
|                                  | 132322  | 1745.0          | -15.17        | 37.63                  | 22.46      | 176.20    |                    |
|                                  | 132657  | 1778.5          | -15.31        | 37.64                  | 22.33      | 171.00    |                    |
| Channel Bandwidth: 3 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                | 131987  | 1711.5          | -10.69        | 36.45                  | 25.76      | 376.70    | H                  |
|                                  | 132322  | 1745.0          | -11.15        | 36.80                  | 25.65      | 367.20    |                    |
|                                  | 132657  | 1778.5          | -11.42        | 36.94                  | 25.52      | 356.70    |                    |
|                                  | 131987  | 1711.5          | -15.71        | 37.28                  | 21.57      | 143.45    | V                  |
|                                  | 132322  | 1745.0          | -16.17        | 37.63                  | 21.46      | 139.96    |                    |
|                                  | 132657  | 1778.5          | -16.32        | 37.64                  | 21.32      | 135.52    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 66                      |         |                 |               |                        |            |           |                    |
|----------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 5 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                            | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                | 131997  | 1712.5          | -9.65         | 36.45                  | 26.80      | 478.63    | H                  |
|                                  | 132322  | 1745.0          | -10.12        | 36.80                  | 26.68      | 465.48    |                    |
|                                  | 132647  | 1777.5          | -10.37        | 36.94                  | 26.57      | 454.26    |                    |
|                                  | 131997  | 1712.5          | -14.66        | 37.28                  | 22.62      | 182.68    | V                  |
|                                  | 132322  | 1745.0          | -15.14        | 37.63                  | 22.49      | 177.42    |                    |
|                                  | 132647  | 1777.5          | -15.28        | 37.64                  | 22.36      | 172.19    |                    |
| Channel Bandwidth: 5 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                | 131997  | 1712.5          | -10.66        | 36.45                  | 25.79      | 379.31    | H                  |
|                                  | 132322  | 1745.0          | -11.12        | 36.80                  | 25.68      | 369.74    |                    |
|                                  | 132647  | 1777.5          | -11.38        | 36.94                  | 25.56      | 360.00    |                    |
|                                  | 131997  | 1712.5          | -15.67        | 37.28                  | 21.61      | 144.78    | V                  |
|                                  | 132322  | 1745.0          | -16.14        | 37.63                  | 21.49      | 140.93    |                    |
|                                  | 132647  | 1777.5          | -16.28        | 37.64                  | 21.36      | 136.77    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 66                       |         |                 |               |                        |            |           |                    |
|-----------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 10 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                             | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                 | 132022  | 1715.0          | -9.80         | 36.64                  | 26.84      | 483.06    | H                  |
|                                   | 132322  | 1745.0          | -10.08        | 36.80                  | 26.72      | 469.35    |                    |
|                                   | 132622  | 1775.0          | -10.19        | 36.80                  | 26.61      | 458.14    |                    |
|                                   | 132022  | 1715.0          | -14.78        | 37.44                  | 22.66      | 184.46    | V                  |
|                                   | 132322  | 1745.0          | -15.10        | 37.63                  | 22.53      | 179.02    |                    |
|                                   | 132622  | 1775.0          | -15.24        | 37.64                  | 22.40      | 173.58    |                    |
| Channel Bandwidth: 10 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                 | 132022  | 1715.0          | -10.80        | 36.64                  | 25.84      | 383.71    | H                  |
|                                   | 132322  | 1745.0          | -11.09        | 36.80                  | 25.71      | 371.96    |                    |
|                                   | 132622  | 1775.0          | -11.20        | 36.80                  | 25.60      | 363.08    |                    |
|                                   | 132022  | 1715.0          | -15.78        | 37.44                  | 21.66      | 146.52    | V                  |
|                                   | 132322  | 1745.0          | -16.11        | 37.63                  | 21.52      | 141.87    |                    |
|                                   | 132622  | 1775.0          | -16.25        | 37.64                  | 21.39      | 137.56    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 66                       |         |                 |               |                        |            |           |                    |
|-----------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 15 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                             | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                 | 132047  | 1717.5          | -9.57         | 36.45                  | 26.88      | 487.53    | H                  |
|                                   | 132322  | 1745.0          | -10.04        | 36.80                  | 26.76      | 474.13    |                    |
|                                   | 132597  | 1772.5          | -10.30        | 36.94                  | 26.64      | 461.64    |                    |
|                                   | 132047  | 1717.5          | -14.59        | 37.28                  | 22.69      | 185.65    | V                  |
|                                   | 132322  | 1745.0          | -15.07        | 37.63                  | 22.56      | 180.30    |                    |
|                                   | 132597  | 1772.5          | -15.20        | 37.64                  | 22.44      | 175.39    |                    |
| Channel Bandwidth: 15 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                 | 132047  | 1717.5          | -10.57        | 36.45                  | 25.88      | 387.26    | H                  |
|                                   | 132322  | 1745.0          | -11.05        | 36.80                  | 25.75      | 375.75    |                    |
|                                   | 132597  | 1772.5          | -11.30        | 36.94                  | 25.64      | 366.69    |                    |
|                                   | 132047  | 1717.5          | -15.59        | 37.28                  | 21.69      | 147.47    | V                  |
|                                   | 132322  | 1745.0          | -16.08        | 37.63                  | 21.55      | 142.89    |                    |
|                                   | 132597  | 1772.5          | -16.21        | 37.64                  | 21.43      | 139.00    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

| LTE Band 66                       |         |                 |               |                        |            |           |                    |
|-----------------------------------|---------|-----------------|---------------|------------------------|------------|-----------|--------------------|
| Channel Bandwidth: 20 MHz / QPSK  |         |                 |               |                        |            |           |                    |
| Plane                             | Channel | Frequency (MHz) | Reading (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (mW) | Polarization (H/V) |
| X                                 | 132072  | 1720.0          | -9.54         | 36.45                  | 26.91      | 490.91    | H                  |
|                                   | 132322  | 1745.0          | -10.01        | 36.80                  | 26.79      | 477.42    |                    |
|                                   | 132572  | 1770.0          | -10.27        | 36.94                  | 26.67      | 464.84    |                    |
|                                   | 132072  | 1720.0          | -14.55        | 37.28                  | 22.73      | 187.37    | V                  |
|                                   | 132322  | 1745.0          | -15.03        | 37.63                  | 22.60      | 181.97    |                    |
|                                   | 132572  | 1770.0          | -15.16        | 37.64                  | 22.48      | 177.01    |                    |
| Channel Bandwidth: 20 MHz / 16QAM |         |                 |               |                        |            |           |                    |
| X                                 | 132072  | 1720.0          | -10.54        | 36.45                  | 25.91      | 389.94    | H                  |
|                                   | 132322  | 1745.0          | -11.01        | 36.80                  | 25.79      | 379.23    |                    |
|                                   | 132572  | 1770.0          | -11.28        | 36.94                  | 25.66      | 368.38    |                    |
|                                   | 132072  | 1720.0          | -15.55        | 37.28                  | 21.73      | 148.83    | V                  |
|                                   | 132322  | 1745.0          | -16.03        | 37.63                  | 21.60      | 144.54    |                    |
|                                   | 132572  | 1770.0          | -16.16        | 37.64                  | 21.48      | 140.60    |                    |

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

## 4.2 Modulation Characteristics Measurement

### 4.2.1 Limits of Modulation Characteristics

N/A

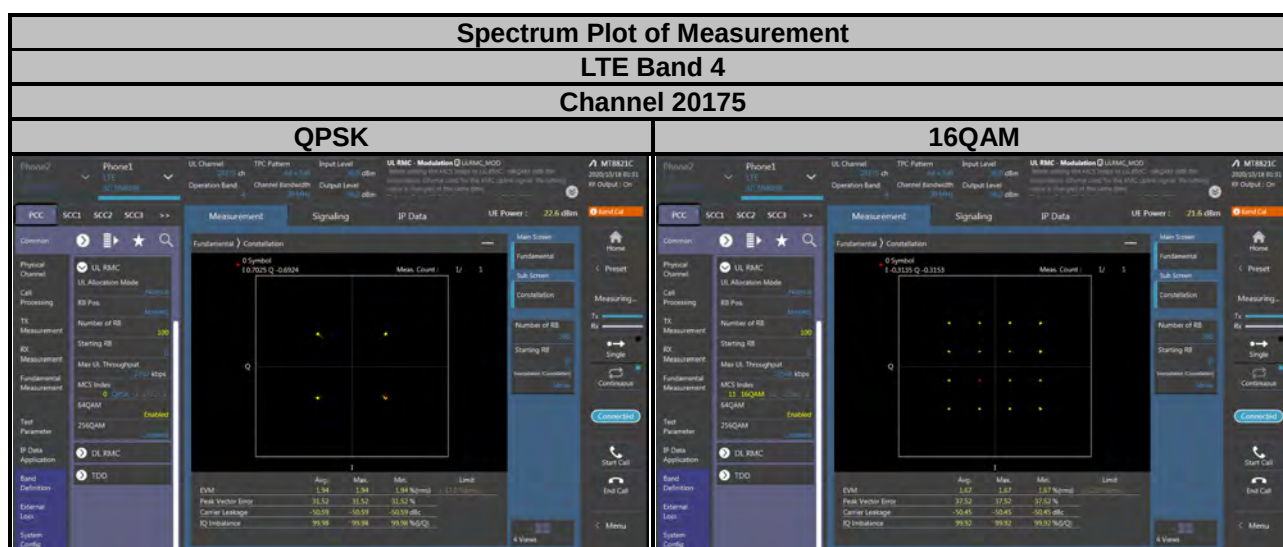
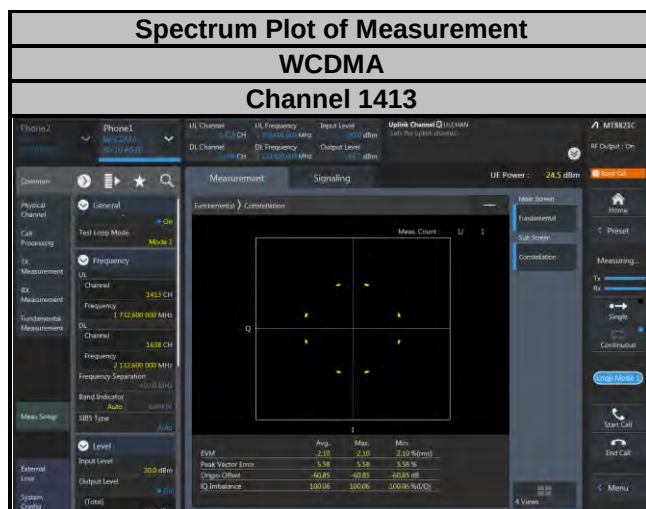
### 4.2.2 Test Setup



### 4.2.3 Test Procedure

Connect the EUT to Communication Simulator via the antenna connector. The frequency band is set as EUT supported Modulation and Channels, the EUT output is matched with 50 ohm load, the waveform quality and constellation of the EUT was tested.

#### 4.2.4 Test Results

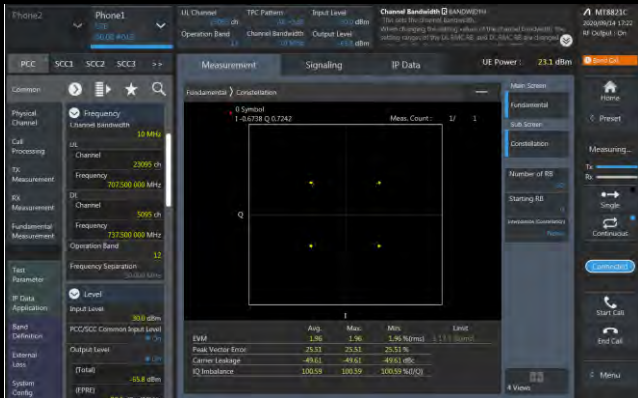


## Spectrum Plot of Measurement

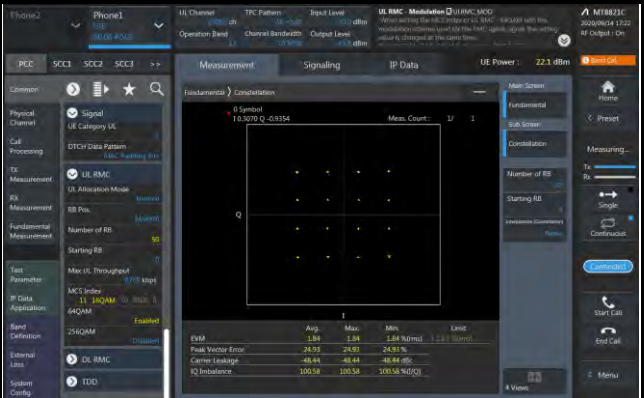
### LTE Band 12

### Channel 23095

#### QPSK



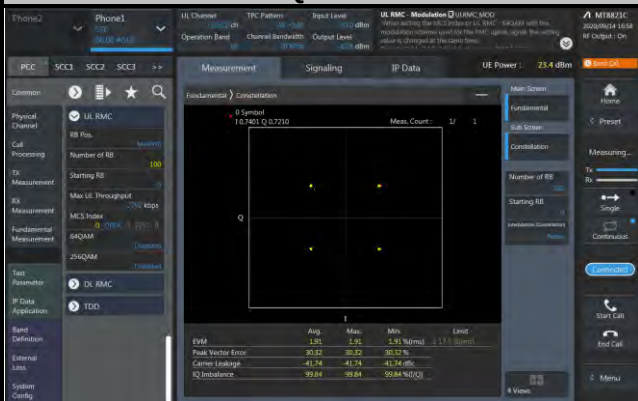
#### 16QAM



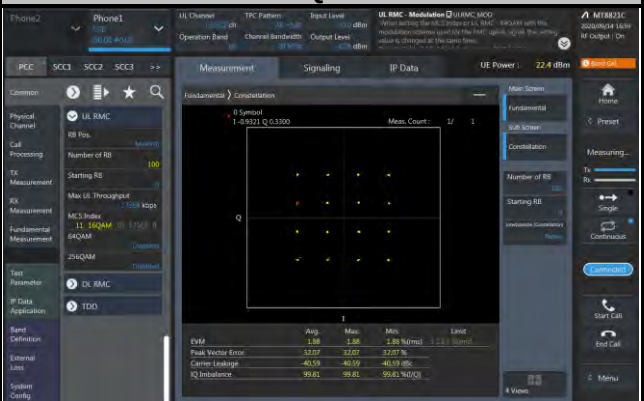
### LTE Band 66

### Channel 132322

#### QPSK



#### 16QAM



### 4.3 Frequency Stability Measurement

#### 4.3.1 Limits of Frequency Stability Measurement

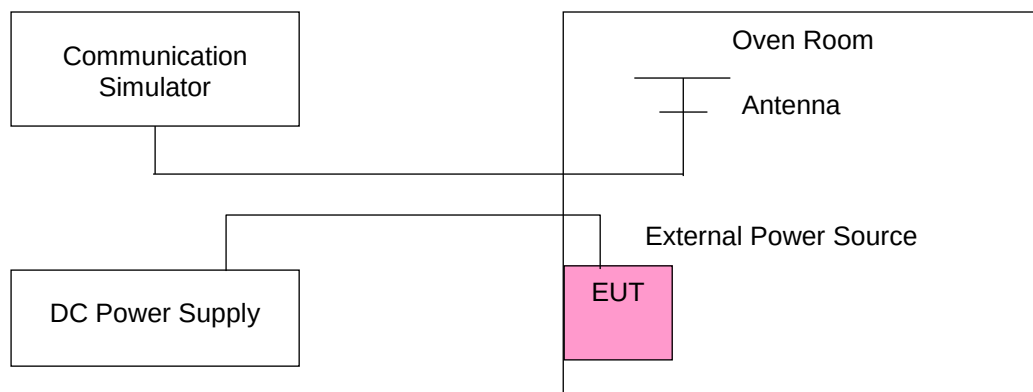
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

#### 4.3.2 Test Procedure

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the  $\pm 0.5^{\circ}\text{C}$  during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

**Note:** The frequency error was recorded frequency error from the communication simulator.

#### 4.3.3 Test Setup



#### 4.3.4 Test Results

##### Frequency Error vs. Voltage

| Voltage<br>(Volts) | WCDMA           |                       |                 |                       |
|--------------------|-----------------|-----------------------|-----------------|-----------------------|
|                    | Low Channel     |                       | High Channel    |                       |
|                    | Frequency (MHz) | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1712.400003     | 0.002                 | 1752.600002     | 0.001                 |
| 3.6                | 1712.400002     | 0.001                 | 1752.600002     | 0.001                 |
| 4.35               | 1712.400001     | 0.001                 | 1752.600004     | 0.002                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

##### Frequency Error vs. Temperature

| Temp. (°C) | WCDMA           |                       |                 |                       |
|------------|-----------------|-----------------------|-----------------|-----------------------|
|            | Low Channel     |                       | High Channel    |                       |
|            | Frequency (MHz) | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1712.400001     | 0.001                 | 1752.600001     | 0.001                 |
| -10        | 1712.400003     | 0.002                 | 1752.600002     | 0.001                 |
| 0          | 1712.400003     | 0.002                 | 1752.600003     | 0.002                 |
| 10         | 1712.400004     | 0.002                 | 1752.600004     | 0.002                 |
| 20         | 1712.399999     | -0.001                | 1752.599998     | -0.001                |
| 30         | 1712.399999     | -0.001                | 1752.599998     | -0.001                |
| 40         | 1712.399999     | -0.001                | 1752.599998     | -0.001                |
| 50         | 1712.399997     | -0.002                | 1752.599999     | -0.001                |
| 60         | 1712.399998     | -0.001                | 1752.599999     | -0.001                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 4                 |                       |                 |                       |
|--------------------|----------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 1.4 MHz |                       |                 |                       |
|                    | Low Channel                |                       | High Channel    |                       |
|                    | Frequency (MHz)            | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1710.700003                | 0.001                 | 1754.300003     | 0.001                 |
| 3.6                | 1710.700002                | 0.001                 | 1754.300002     | 0.001                 |
| 4.35               | 1710.700002                | 0.001                 | 1754.300003     | 0.001                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 4                 |                       |                 |                       |
|------------|----------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 1.4 MHz |                       |                 |                       |
|            | Low Channel                |                       | High Channel    |                       |
|            | Frequency (MHz)            | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1710.700003                | 0.002                 | 1754.300003     | 0.001                 |
| -10        | 1710.700003                | 0.002                 | 1754.300002     | 0.001                 |
| 0          | 1710.700001                | 0.001                 | 1754.300004     | 0.002                 |
| 10         | 1710.700001                | 0.001                 | 1754.300003     | 0.002                 |
| 20         | 1710.699998                | -0.001                | 1754.299996     | -0.002                |
| 30         | 1710.699999                | -0.001                | 1754.299998     | -0.001                |
| 40         | 1710.699997                | -0.002                | 1754.299998     | -0.001                |
| 50         | 1710.699999                | -0.001                | 1754.299997     | -0.002                |
| 60         | 1710.699999                | -0.001                | 1754.299996     | -0.002                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 4               |                       |                 |                       |
|--------------------|--------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 3 MHz |                       |                 |                       |
|                    | Low Channel              |                       | High Channel    |                       |
|                    | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1711.500003              | 0.002                 | 1753.500004     | 0.002                 |
| 3.6                | 1711.500003              | 0.002                 | 1753.500004     | 0.002                 |
| 4.35               | 1711.500003              | 0.002                 | 1753.500003     | 0.002                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 4               |                       |                 |                       |
|------------|--------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 3 MHz |                       |                 |                       |
|            | Low Channel              |                       | High Channel    |                       |
|            | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1711.500002              | 0.001                 | 1753.500002     | 0.001                 |
| -10        | 1711.500002              | 0.001                 | 1753.500003     | 0.001                 |
| 0          | 1711.500004              | 0.002                 | 1753.500002     | 0.001                 |
| 10         | 1711.500003              | 0.002                 | 1753.500003     | 0.002                 |
| 20         | 1711.499997              | -0.002                | 1753.499997     | -0.002                |
| 30         | 1711.499998              | -0.001                | 1753.499998     | -0.001                |
| 40         | 1711.499997              | -0.002                | 1753.499998     | -0.001                |
| 50         | 1711.499999              | -0.001                | 1753.499997     | -0.002                |
| 60         | 1711.499999              | -0.001                | 1753.499998     | -0.001                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 4               |                       |                 |                       |
|--------------------|--------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 5 MHz |                       |                 |                       |
|                    | Low Channel              |                       | High Channel    |                       |
|                    | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1712.500003              | 0.001                 | 1752.500002     | 0.001                 |
| 3.6                | 1712.500003              | 0.002                 | 1752.500004     | 0.002                 |
| 4.35               | 1712.500003              | 0.002                 | 1752.500003     | 0.002                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 4               |                       |                 |                       |
|------------|--------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 5 MHz |                       |                 |                       |
|            | Low Channel              |                       | High Channel    |                       |
|            | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1712.500003              | 0.002                 | 1752.500003     | 0.001                 |
| -10        | 1712.500002              | 0.001                 | 1752.500002     | 0.001                 |
| 0          | 1712.500003              | 0.002                 | 1752.500004     | 0.002                 |
| 10         | 1712.500002              | 0.001                 | 1752.500003     | 0.002                 |
| 20         | 1712.499999              | -0.001                | 1752.499998     | -0.001                |
| 30         | 1712.499999              | -0.001                | 1752.499998     | -0.001                |
| 40         | 1712.499997              | -0.002                | 1752.499996     | -0.002                |
| 50         | 1712.499997              | -0.002                | 1752.499998     | -0.001                |
| 60         | 1712.499997              | -0.002                | 1752.499996     | -0.002                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 4                |                       |                 |                       |
|--------------------|---------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 10 MHz |                       |                 |                       |
|                    | Low Channel               |                       | High Channel    |                       |
|                    | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1715.000002               | 0.001                 | 1750.000001     | 0.001                 |
| 3.6                | 1715.000003               | 0.002                 | 1750.000002     | 0.001                 |
| 4.35               | 1715.000002               | 0.001                 | 1750.000002     | 0.001                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 4                |                       |                 |                       |
|------------|---------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 10 MHz |                       |                 |                       |
|            | Low Channel               |                       | High Channel    |                       |
|            | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1715.000004               | 0.002                 | 1750.000004     | 0.002                 |
| -10        | 1715.000004               | 0.002                 | 1750.000004     | 0.002                 |
| 0          | 1715.000001               | 0.001                 | 1750.000001     | 0.001                 |
| 10         | 1715.000004               | 0.002                 | 1750.000002     | 0.001                 |
| 20         | 1714.999996               | -0.002                | 1749.999996     | -0.002                |
| 30         | 1714.999999               | -0.001                | 1749.999999     | -0.001                |
| 40         | 1714.999998               | -0.001                | 1749.999998     | -0.001                |
| 50         | 1714.999999               | -0.001                | 1749.999998     | -0.001                |
| 60         | 1714.999997               | -0.002                | 1749.999998     | -0.001                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 4                |                       |                 |                       |
|--------------------|---------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 15 MHz |                       |                 |                       |
|                    | Low Channel               |                       | High Channel    |                       |
|                    | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1717.500001               | 0.001                 | 1747.500002     | 0.001                 |
| 3.6                | 1717.500004               | 0.002                 | 1747.500004     | 0.002                 |
| 4.35               | 1717.500002               | 0.001                 | 1747.500004     | 0.002                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 4                |                       |                 |                       |
|------------|---------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 15 MHz |                       |                 |                       |
|            | Low Channel               |                       | High Channel    |                       |
|            | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1717.500004               | 0.002                 | 1747.500003     | 0.002                 |
| -10        | 1717.500002               | 0.001                 | 1747.500001     | 0.001                 |
| 0          | 1717.500001               | 0.001                 | 1747.500001     | 0.001                 |
| 10         | 1717.500002               | 0.001                 | 1747.500003     | 0.001                 |
| 20         | 1717.499998               | -0.001                | 1747.499999     | -0.001                |
| 30         | 1717.499996               | -0.002                | 1747.499996     | -0.002                |
| 40         | 1717.499997               | -0.002                | 1747.499998     | -0.001                |
| 50         | 1717.499999               | -0.001                | 1747.499998     | -0.001                |
| 60         | 1717.499997               | -0.002                | 1747.499999     | -0.001                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 4                |                       |                 |                       |
|--------------------|---------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 20 MHz |                       |                 |                       |
|                    | Low Channel               |                       | High Channel    |                       |
|                    | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1720.000004               | 0.002                 | 1745.000001     | 0.001                 |
| 3.6                | 1720.000003               | 0.002                 | 1745.000002     | 0.001                 |
| 4.35               | 1720.000004               | 0.002                 | 1745.000004     | 0.002                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 4                |                       |                 |                       |
|------------|---------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 20 MHz |                       |                 |                       |
|            | Low Channel               |                       | High Channel    |                       |
|            | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1720.000001               | 0.001                 | 1745.000003     | 0.002                 |
| -10        | 1720.000003               | 0.002                 | 1745.000003     | 0.002                 |
| 0          | 1720.000004               | 0.002                 | 1745.000003     | 0.002                 |
| 10         | 1720.000003               | 0.002                 | 1745.000004     | 0.002                 |
| 20         | 1719.999997               | -0.002                | 1744.999998     | -0.001                |
| 30         | 1719.999996               | -0.002                | 1744.999998     | -0.001                |
| 40         | 1719.999997               | -0.002                | 1744.999998     | -0.001                |
| 50         | 1719.999999               | -0.001                | 1744.999998     | -0.001                |
| 60         | 1719.999998               | -0.001                | 1744.999999     | -0.001                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 12                |                       |                 |                       |
|--------------------|----------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 1.4 MHz |                       |                 |                       |
|                    | Low Channel                |                       | High Channel    |                       |
|                    | Frequency (MHz)            | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 699.700002                 | 0.002                 | 715.300002      | 0.002                 |
| 3.6                | 699.700003                 | 0.004                 | 715.300002      | 0.003                 |
| 4.35               | 699.700004                 | 0.006                 | 715.300002      | 0.002                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 12                |                       |                 |                       |
|------------|----------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 1.4 MHz |                       |                 |                       |
|            | Low Channel                |                       | High Channel    |                       |
|            | Frequency (MHz)            | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 699.700001                 | 0.001                 | 715.300002      | 0.002                 |
| -10        | 699.700002                 | 0.002                 | 715.300003      | 0.005                 |
| 0          | 699.700004                 | 0.005                 | 715.300001      | 0.002                 |
| 10         | 699.700003                 | 0.004                 | 715.300002      | 0.003                 |
| 20         | 699.699997                 | -0.004                | 715.299998      | -0.003                |
| 30         | 699.699999                 | -0.002                | 715.299999      | -0.002                |
| 40         | 699.699998                 | -0.004                | 715.299997      | -0.004                |
| 50         | 699.699999                 | -0.001                | 715.299998      | -0.002                |
| 60         | 699.699997                 | -0.004                | 715.299999      | -0.002                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 12              |                       |                 |                       |
|--------------------|--------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 3 MHz |                       |                 |                       |
|                    | Low Channel              |                       | High Channel    |                       |
|                    | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 700.500002               | 0.003                 | 714.500002      | 0.003                 |
| 3.6                | 700.500003               | 0.005                 | 714.500004      | 0.006                 |
| 4.35               | 700.500004               | 0.005                 | 714.500002      | 0.003                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 12              |                       |                 |                       |
|------------|--------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 3 MHz |                       |                 |                       |
|            | Low Channel              |                       | High Channel    |                       |
|            | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 700.500003               | 0.004                 | 714.500001      | 0.002                 |
| -10        | 700.500002               | 0.003                 | 714.500001      | 0.001                 |
| 0          | 700.500004               | 0.005                 | 714.500002      | 0.003                 |
| 10         | 700.500001               | 0.001                 | 714.500001      | 0.002                 |
| 20         | 700.499997               | -0.004                | 714.499999      | -0.002                |
| 30         | 700.499999               | -0.002                | 714.499999      | -0.002                |
| 40         | 700.499997               | -0.004                | 714.499998      | -0.003                |
| 50         | 700.499997               | -0.004                | 714.499999      | -0.002                |
| 60         | 700.499996               | -0.005                | 714.499997      | -0.004                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 12              |                       |                 |                       |
|--------------------|--------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 5 MHz |                       |                 |                       |
|                    | Low Channel              |                       | High Channel    |                       |
|                    | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 701.500001               | 0.002                 | 713.500003      | 0.004                 |
| 3.6                | 701.500002               | 0.002                 | 713.500003      | 0.005                 |
| 4.35               | 701.500003               | 0.004                 | 713.500002      | 0.003                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 12              |                       |                 |                       |
|------------|--------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 5 MHz |                       |                 |                       |
|            | Low Channel              |                       | High Channel    |                       |
|            | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 701.500001               | 0.002                 | 713.500004      | 0.005                 |
| -10        | 701.500002               | 0.003                 | 713.500002      | 0.003                 |
| 0          | 701.500004               | 0.006                 | 713.500004      | 0.005                 |
| 10         | 701.500003               | 0.004                 | 713.500001      | 0.002                 |
| 20         | 701.499997               | -0.004                | 713.499999      | -0.001                |
| 30         | 701.499999               | -0.001                | 713.499997      | -0.004                |
| 40         | 701.499997               | -0.004                | 713.499999      | -0.002                |
| 50         | 701.499999               | -0.002                | 713.499996      | -0.006                |
| 60         | 701.499999               | -0.001                | 713.499999      | -0.002                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 12               |                       |                 |                       |
|--------------------|---------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 10 MHz |                       |                 |                       |
|                    | Low Channel               |                       | High Channel    |                       |
|                    | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 704.000001                | 0.001                 | 711.000003      | 0.004                 |
| 3.6                | 704.000004                | 0.005                 | 711.000001      | 0.002                 |
| 4.35               | 704.000004                | 0.006                 | 711.000003      | 0.004                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 12               |                       |                 |                       |
|------------|---------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 10 MHz |                       |                 |                       |
|            | Low Channel               |                       | High Channel    |                       |
|            | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 704.000003                | 0.004                 | 711.000003      | 0.004                 |
| -10        | 704.000002                | 0.003                 | 711.000002      | 0.003                 |
| 0          | 704.000004                | 0.006                 | 711.000003      | 0.004                 |
| 10         | 704.000003                | 0.004                 | 711.000001      | 0.002                 |
| 20         | 703.999997                | -0.004                | 710.999996      | -0.005                |
| 30         | 703.999996                | -0.005                | 710.999997      | -0.005                |
| 40         | 703.999999                | -0.002                | 710.999998      | -0.003                |
| 50         | 703.999996                | -0.006                | 710.999999      | -0.002                |
| 60         | 703.999996                | -0.006                | 710.999997      | -0.004                |

### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 66                |                       |                 |                       |
|--------------------|----------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 1.4 MHz |                       |                 |                       |
|                    | Low Channel                |                       | High Channel    |                       |
|                    | Frequency (MHz)            | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1710.700002                | 0.001                 | 1779.300002     | 0.001                 |
| 3.6                | 1710.700002                | 0.001                 | 1779.300002     | 0.001                 |
| 4.35               | 1710.700002                | 0.001                 | 1779.300004     | 0.002                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 66                |                       |                 |                       |
|------------|----------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 1.4 MHz |                       |                 |                       |
|            | Low Channel                |                       | High Channel    |                       |
|            | Frequency (MHz)            | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1710.700003                | 0.002                 | 1779.300002     | 0.001                 |
| -10        | 1710.700003                | 0.002                 | 1779.300001     | 0.001                 |
| 0          | 1710.700002                | 0.001                 | 1779.300003     | 0.002                 |
| 10         | 1710.700004                | 0.002                 | 1779.300003     | 0.001                 |
| 20         | 1710.699998                | -0.001                | 1779.299996     | -0.002                |
| 30         | 1710.699997                | -0.002                | 1779.299997     | -0.002                |
| 40         | 1710.699996                | -0.002                | 1779.299998     | -0.001                |
| 50         | 1710.699997                | -0.002                | 1779.299999     | -0.001                |
| 60         | 1710.699998                | -0.001                | 1779.299999     | -0.001                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 66              |                       |                 |                       |
|--------------------|--------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 3 MHz |                       |                 |                       |
|                    | Low Channel              |                       | High Channel    |                       |
|                    | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1711.500002              | 0.001                 | 1778.500002     | 0.001                 |
| 3.6                | 1711.500001              | 0.001                 | 1778.500002     | 0.001                 |
| 4.35               | 1711.500002              | 0.001                 | 1778.500002     | 0.001                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 66              |                       |                 |                       |
|------------|--------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 3 MHz |                       |                 |                       |
|            | Low Channel              |                       | High Channel    |                       |
|            | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1711.500002              | 0.001                 | 1778.500004     | 0.002                 |
| -10        | 1711.500002              | 0.001                 | 1778.500003     | 0.001                 |
| 0          | 1711.500003              | 0.002                 | 1778.500001     | 0.001                 |
| 10         | 1711.500003              | 0.002                 | 1778.500001     | 0.001                 |
| 20         | 1711.499997              | -0.002                | 1778.499997     | -0.002                |
| 30         | 1711.499996              | -0.002                | 1778.499998     | -0.001                |
| 40         | 1711.499997              | -0.002                | 1778.499996     | -0.002                |
| 50         | 1711.499999              | -0.001                | 1778.499996     | -0.002                |
| 60         | 1711.499998              | -0.001                | 1778.499998     | -0.001                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 66              |                       |                 |                       |
|--------------------|--------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 5 MHz |                       |                 |                       |
|                    | Low Channel              |                       | High Channel    |                       |
|                    | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1712.500002              | 0.001                 | 1777.500002     | 0.001                 |
| 3.6                | 1712.500001              | 0.001                 | 1777.500003     | 0.002                 |
| 4.35               | 1712.500002              | 0.001                 | 1777.500002     | 0.001                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 66              |                       |                 |                       |
|------------|--------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 5 MHz |                       |                 |                       |
|            | Low Channel              |                       | High Channel    |                       |
|            | Frequency (MHz)          | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1712.500003              | 0.002                 | 1777.500003     | 0.002                 |
| -10        | 1712.500003              | 0.002                 | 1777.500002     | 0.001                 |
| 0          | 1712.500003              | 0.002                 | 1777.500004     | 0.002                 |
| 10         | 1712.500002              | 0.001                 | 1777.500004     | 0.002                 |
| 20         | 1712.499999              | -0.001                | 1777.499997     | -0.002                |
| 30         | 1712.499998              | -0.001                | 1777.499999     | -0.001                |
| 40         | 1712.499997              | -0.002                | 1777.499996     | -0.002                |
| 50         | 1712.499999              | -0.001                | 1777.499998     | -0.001                |
| 60         | 1712.499996              | -0.002                | 1777.499998     | -0.001                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 66               |                       |                 |                       |
|--------------------|---------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 10 MHz |                       |                 |                       |
|                    | Low Channel               |                       | High Channel    |                       |
|                    | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1715.000003               | 0.002                 | 1775.000004     | 0.002                 |
| 3.6                | 1715.000002               | 0.001                 | 1775.000003     | 0.001                 |
| 4.35               | 1715.000004               | 0.002                 | 1775.000002     | 0.001                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 66               |                       |                 |                       |
|------------|---------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 10 MHz |                       |                 |                       |
|            | Low Channel               |                       | High Channel    |                       |
|            | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1715.000003               | 0.002                 | 1775.000002     | 0.001                 |
| -10        | 1715.000001               | 0.001                 | 1775.000002     | 0.001                 |
| 0          | 1715.000002               | 0.001                 | 1775.000003     | 0.002                 |
| 10         | 1715.000002               | 0.001                 | 1775.000002     | 0.001                 |
| 20         | 1714.999998               | -0.001                | 1774.999996     | -0.002                |
| 30         | 1714.999998               | -0.001                | 1774.999996     | -0.002                |
| 40         | 1714.999997               | -0.002                | 1774.999997     | -0.002                |
| 50         | 1714.999996               | -0.002                | 1774.999998     | -0.001                |
| 60         | 1714.999998               | -0.001                | 1774.999996     | -0.002                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 66               |                       |                 |                       |
|--------------------|---------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 15 MHz |                       |                 |                       |
|                    | Low Channel               |                       | High Channel    |                       |
|                    | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1717.500003               | 0.002                 | 1772.500003     | 0.001                 |
| 3.6                | 1717.500001               | 0.001                 | 1772.500003     | 0.001                 |
| 4.35               | 1717.500003               | 0.002                 | 1772.500004     | 0.002                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 66               |                       |                 |                       |
|------------|---------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 15 MHz |                       |                 |                       |
|            | Low Channel               |                       | High Channel    |                       |
|            | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1717.500002               | 0.001                 | 1772.500003     | 0.002                 |
| -10        | 1717.500002               | 0.001                 | 1772.500004     | 0.002                 |
| 0          | 1717.500001               | 0.001                 | 1772.500002     | 0.001                 |
| 10         | 1717.500004               | 0.002                 | 1772.500003     | 0.002                 |
| 20         | 1717.499997               | -0.002                | 1772.499998     | -0.001                |
| 30         | 1717.499997               | -0.002                | 1772.499998     | -0.001                |
| 40         | 1717.499998               | -0.001                | 1772.499996     | -0.002                |
| 50         | 1717.499996               | -0.002                | 1772.499999     | -0.001                |
| 60         | 1717.499997               | -0.002                | 1772.499997     | -0.002                |

#### Frequency Error vs. Voltage

| Voltage<br>(Volts) | LTE Band 66               |                       |                 |                       |
|--------------------|---------------------------|-----------------------|-----------------|-----------------------|
|                    | Channel Bandwidth: 20 MHz |                       |                 |                       |
|                    | Low Channel               |                       | High Channel    |                       |
|                    | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| 3.8                | 1720.000001               | 0.001                 | 1770.000003     | 0.001                 |
| 3.6                | 1720.000004               | 0.002                 | 1770.000003     | 0.002                 |
| 4.35               | 1720.000003               | 0.002                 | 1770.000003     | 0.002                 |

**Note:** The applicant defined the normal working voltage is from 3.6 Vdc to 4.35 Vdc.

#### Frequency Error vs. Temperature

| Temp. (°C) | LTE Band 66               |                       |                 |                       |
|------------|---------------------------|-----------------------|-----------------|-----------------------|
|            | Channel Bandwidth: 20 MHz |                       |                 |                       |
|            | Low Channel               |                       | High Channel    |                       |
|            | Frequency (MHz)           | Frequency Error (ppm) | Frequency (MHz) | Frequency Error (ppm) |
| -20        | 1720.000004               | 0.002                 | 1770.000001     | 0.001                 |
| -10        | 1720.000003               | 0.002                 | 1770.000003     | 0.002                 |
| 0          | 1720.000004               | 0.002                 | 1770.000003     | 0.001                 |
| 10         | 1720.000001               | 0.001                 | 1770.000003     | 0.002                 |
| 20         | 1719.999997               | -0.002                | 1769.999996     | -0.002                |
| 30         | 1719.999997               | -0.002                | 1769.999999     | -0.001                |
| 40         | 1719.999998               | -0.001                | 1769.999998     | -0.001                |
| 50         | 1719.999998               | -0.001                | 1769.999998     | -0.001                |
| 60         | 1719.999999               | -0.001                | 1769.999999     | -0.001                |

#### 4.4 Occupied Bandwidth Measurement

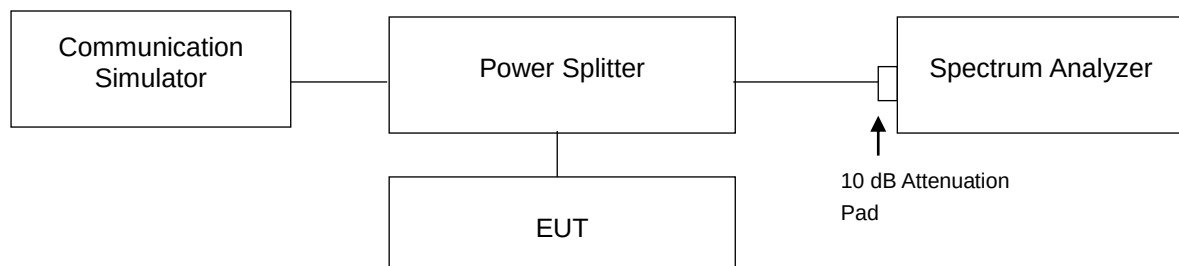
##### 4.4.1 Limits of Occupied Bandwidth Measurement

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

##### 4.4.2 Test Procedure

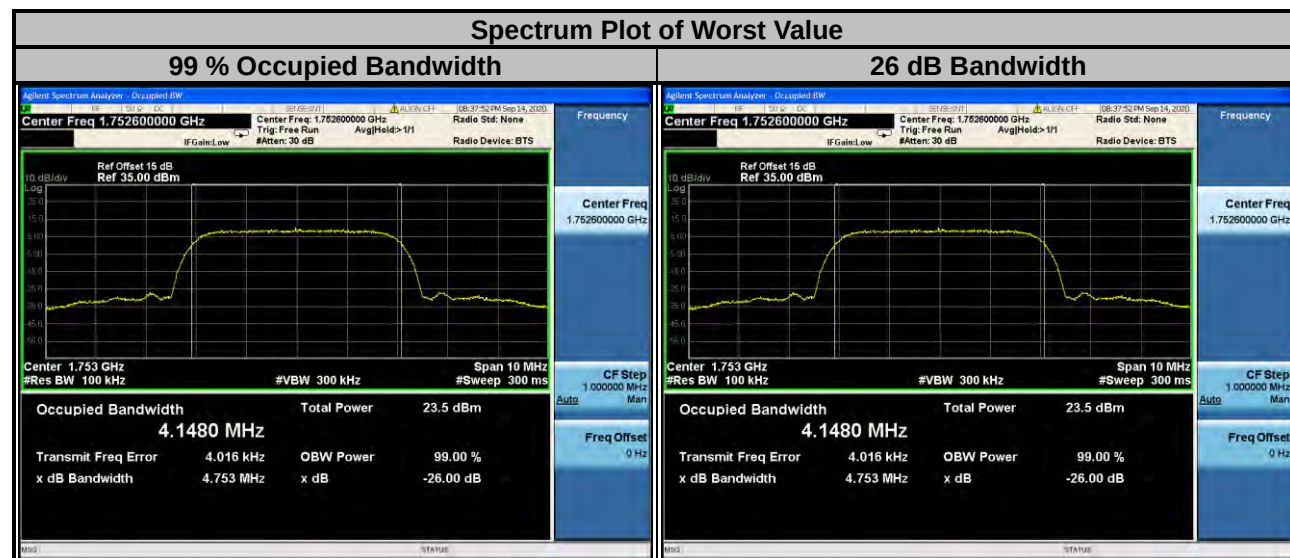
- The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

##### 4.4.3 Test Setup



#### 4.4.4 Test Result

| WCDMA   |                 |                               |                       |
|---------|-----------------|-------------------------------|-----------------------|
| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
| 1312    | 1712.4          | 4.1365                        | 4.707                 |
| 1413    | 1732.6          | 4.1392                        | 4.702                 |
| 1513    | 1752.6          | 4.1480                        | 4.753                 |



### LTE Band 4

#### Channel Bandwidth: 1.4 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 19957   | 1710.7          | 1.0890                        | 1.0910 | 1.267                 | 1.282 |
| 20175   | 1732.5          | 1.0884                        | 1.0908 | 1.270                 | 1.279 |
| 20393   | 1754.3          | 1.0897                        | 1.0906 | 1.294                 | 1.316 |

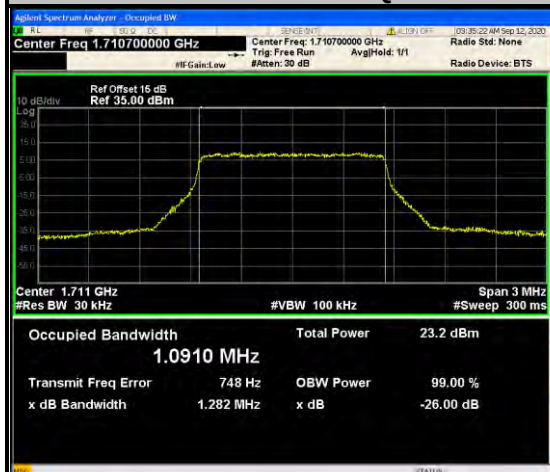
#### Channel Bandwidth: 3 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 19965   | 1711.5          | 2.6974                        | 2.6948 | 2.937                 | 2.924 |
| 20175   | 1732.5          | 2.6989                        | 2.6969 | 2.923                 | 2.930 |
| 20385   | 1753.5          | 2.6986                        | 2.6974 | 2.964                 | 2.978 |

### Spectrum Plot of Worst Value

#### 99 % Occupied Bandwidth

##### 1.4 MHz / 16QAM

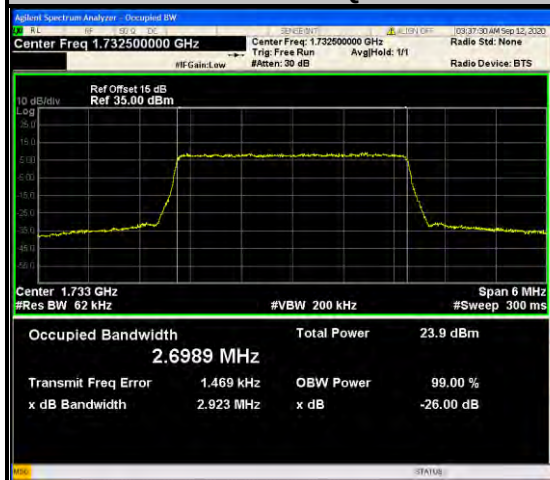


#### 26 dB Bandwidth

##### 1.4 MHz / 16QAM



##### 3 MHz / QPSK



##### 3 MHz / 16QAM



| LTE Band 4                |                 |                               |        |                       |       |
|---------------------------|-----------------|-------------------------------|--------|-----------------------|-------|
| Channel Bandwidth: 5 MHz  |                 |                               |        |                       |       |
| Channel                   | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|                           |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 19975                     | 1712.5          | 4.4863                        | 4.4908 | 4.840                 | 4.849 |
| 20175                     | 1732.5          | 4.4883                        | 4.4910 | 4.826                 | 4.833 |
| 20375                     | 1752.5          | 4.4895                        | 4.4906 | 4.893                 | 4.909 |
| Channel Bandwidth: 10 MHz |                 |                               |        |                       |       |
| Channel                   | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|                           |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 20000                     | 1715.0          | 8.9431                        | 8.9407 | 9.568                 | 9.547 |
| 20175                     | 1732.5          | 8.9581                        | 8.9548 | 9.577                 | 9.547 |
| 20350                     | 1750.0          | 8.9496                        | 8.9494 | 9.674                 | 9.611 |



### LTE Band 4

#### Channel Bandwidth: 15 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 20025   | 1717.5          | 13.407                        | 13.400 | 14.27                 | 14.25 |
| 20175   | 1732.5          | 13.439                        | 13.427 | 14.25                 | 14.25 |
| 20325   | 1747.5          | 13.42                         | 13.41  | 14.33                 | 14.29 |

#### Channel Bandwidth: 20 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 20050   | 1720.0          | 17.841                        | 17.866 | 19.02                 | 18.99 |
| 20175   | 1732.5          | 17.905                        | 17.932 | 19.08                 | 19.03 |
| 20300   | 1745.0          | 17.879                        | 17.898 | 19.06                 | 19.04 |

### Spectrum Plot of Worst Value

#### 99 % Occupied Bandwidth

##### 15 MHz / QPSK



#### 26 dB Bandwidth

##### 15 MHz / QPSK



##### 20 MHz / 16QAM



##### 20 MHz / QPSK



## LTE Band 12

### Channel Bandwidth: 1.4 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 23017   | 699.7           | 1.0879                        | 1.0903 | 1.246                 | 1.252 |
| 23095   | 707.5           | 1.0877                        | 1.0897 | 1.256                 | 1.253 |
| 23173   | 715.3           | 1.0874                        | 1.0888 | 1.242                 | 1.249 |

### Channel Bandwidth: 3 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 23025   | 700.5           | 2.6991                        | 2.6944 | 2.906                 | 2.921 |
| 23095   | 707.5           | 2.6981                        | 2.6950 | 2.902                 | 2.921 |
| 23165   | 714.5           | 2.6985                        | 2.6960 | 2.921                 | 2.922 |

## Spectrum Plot of Worst Value

### 99 % Occupied Bandwidth

#### 1.4 MHz / 16QAM



### 26 dB Bandwidth

#### 1.4 MHz / QPSK



### 3 MHz / QPSK



### 3 MHz / 16QAM



## LTE Band 12

### Channel Bandwidth: 5 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 23035   | 701.5           | 4.4845                        | 4.4861 | 4.791                 | 4.798 |
| 23095   | 707.5           | 4.4871                        | 4.4868 | 4.817                 | 4.814 |
| 23155   | 713.5           | 4.4850                        | 4.4865 | 4.822                 | 4.815 |

### Channel Bandwidth: 10 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 23060   | 704.0           | 8.9472                        | 8.9562 | 9.510                 | 9.505 |
| 23095   | 707.5           | 8.9520                        | 8.9531 | 9.496                 | 9.521 |
| 23130   | 711.0           | 8.9446                        | 8.9472 | 9.509                 | 9.506 |

## Spectrum Plot of Worst Value

### 99 % Occupied Bandwidth

#### 5 MHz / QPSK



### 26 dB Bandwidth

#### 5 MHz / QPSK



### 10 MHz / 16QAM



### 10 MHz / 16QAM



### LTE Band 66

#### Channel Bandwidth: 1.4 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 131979  | 1710.7          | 1.0905                        | 1.0892 | 1.253                 | 1.259 |
| 132322  | 1745.0          | 1.0907                        | 1.0901 | 1.252                 | 1.251 |
| 132665  | 1779.3          | 1.0909                        | 1.0885 | 1.252                 | 1.260 |

#### Channel Bandwidth: 3 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 131987  | 1711.5          | 2.6959                        | 2.6971 | 2.911                 | 2.919 |
| 132322  | 1745.0          | 2.6972                        | 2.6951 | 2.906                 | 2.917 |
| 132657  | 1778.5          | 2.6967                        | 2.6959 | 2.916                 | 2.929 |

### Spectrum Plot of Worst Value

#### 99 % Occupied Bandwidth

##### 1.4 MHz / QPSK



#### 26 dB Bandwidth

##### 1.4 MHz / QPSK



##### 3 MHz / QPSK



##### 3 MHz / QPSK



| LTE Band 66               |                 |                               |        |                       |       |
|---------------------------|-----------------|-------------------------------|--------|-----------------------|-------|
| Channel Bandwidth: 5 MHz  |                 |                               |        |                       |       |
| Channel                   | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|                           |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 131997                    | 1712.5          | 4.4963                        | 4.4897 | 4.842                 | 4.812 |
| 132322                    | 1745.0          | 4.4906                        | 4.4918 | 4.818                 | 4.811 |
| 132647                    | 1777.5          | 4.4919                        | 4.4898 | 4.826                 | 4.820 |
| Channel Bandwidth: 10 MHz |                 |                               |        |                       |       |
| Channel                   | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|                           |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 132022                    | 1715.0          | 8.9475                        | 8.9434 | 9.513                 | 9.503 |
| 132322                    | 1745.0          | 8.9480                        | 8.9523 | 9.505                 | 9.506 |
| 132622                    | 1775.0          | 8.9477                        | 8.9453 | 9.499                 | 9.500 |



## LTE Band 66

### Channel Bandwidth: 15 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 132047  | 1717.5          | 13.408                        | 13.398 | 14.21                 | 14.21 |
| 132322  | 1745.0          | 13.422                        | 13.412 | 14.21                 | 14.21 |
| 132597  | 1772.5          | 13.418                        | 13.410 | 14.21                 | 14.21 |

### Channel Bandwidth: 20 MHz

| Channel | Frequency (MHz) | 99 % Occupied Bandwidth (MHz) |        | 26 dB Bandwidth (MHz) |       |
|---------|-----------------|-------------------------------|--------|-----------------------|-------|
|         |                 | QPSK                          | 16QAM  | QPSK                  | 16QAM |
| 132072  | 1720.0          | 17.849                        | 17.868 | 18.98                 | 18.97 |
| 132322  | 1745.0          | 17.880                        | 17.888 | 18.99                 | 18.97 |
| 132572  | 1770.0          | 17.895                        | 17.907 | 19.01                 | 19.01 |

## Spectrum Plot of Worst Value

### 99 % Occupied Bandwidth

#### 15 MHz / QPSK



### 26 dB Bandwidth

#### 15 MHz / 16QAM



#### 20 MHz / 16QAM



#### 20 MHz / 16QAM



## 4.5 Band Edge Measurement

### 4.5.1 Limits of Band Edge Measurement

For operations in the 600 MHz 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.

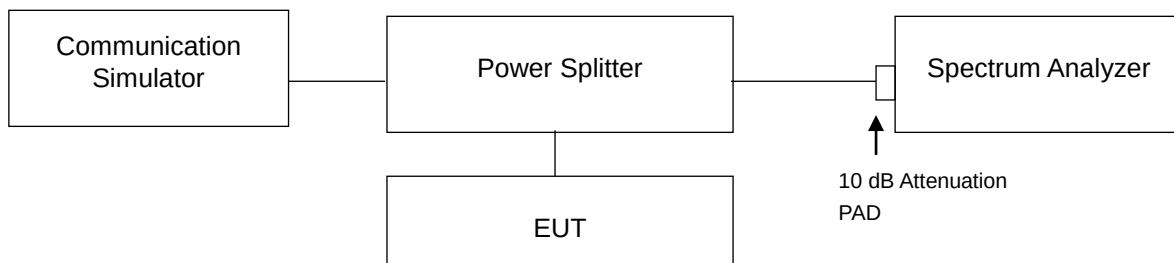
However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

For operations in the 746-758 MHz band and the 776-788 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.

On all frequencies between 763-775 MHz and 793-805 MHz, by a factor no less than  $65 + 10 \log (P)$  dB in a 6.25 kHz band segment, for mobile and portable stations.

According to FCC 27.53(h) 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 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  $43 + 10 \log (P)$  dB.

### 4.5.2 Test Setup



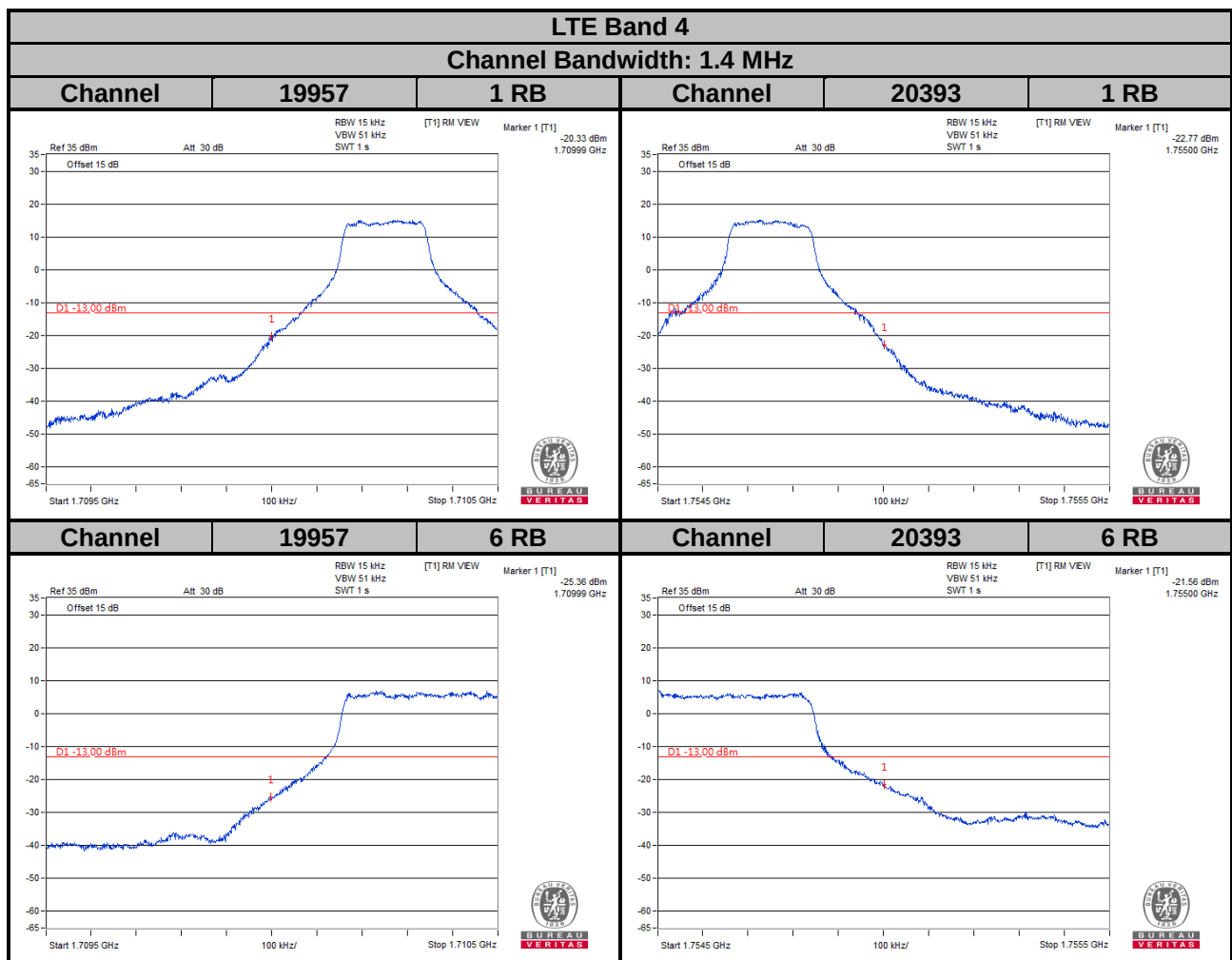
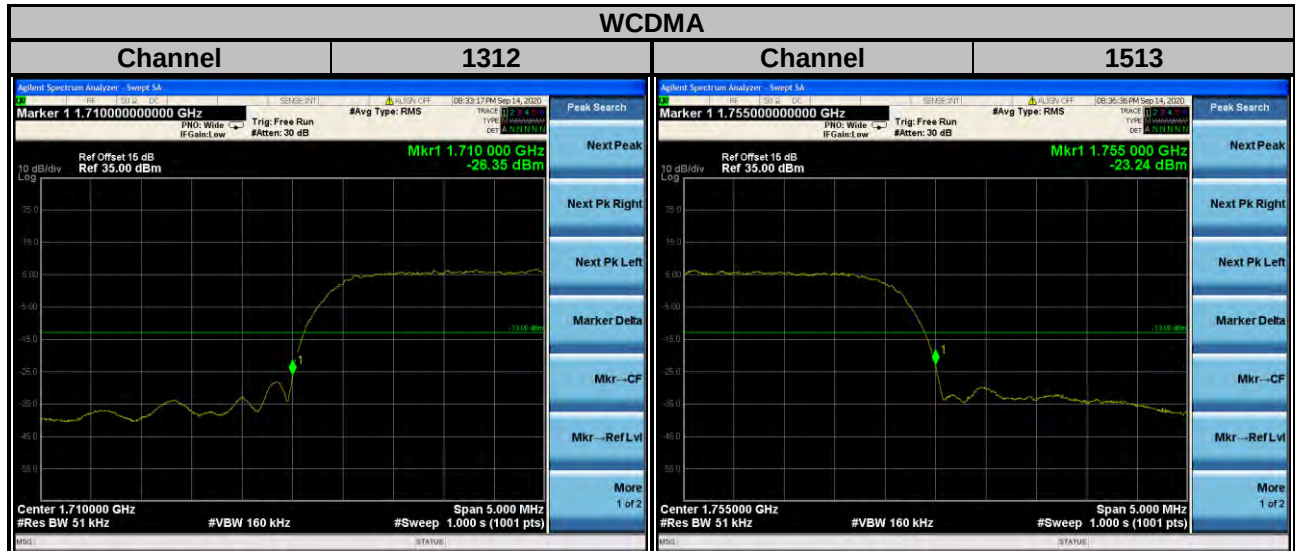
### 4.5.3 Test Procedures

- a. All measurements were done at low and high operational frequency range.
  - a. The center frequency of spectrum is the band edge frequency and span is 5 MHz. RB of the spectrum is 51 kHz and VB of the spectrum is 160 kHz (WCDMA).
  - b. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 15 kHz or 30 kHz and VB of the spectrum is 51 kHz or 100 kHz (LTE Bandwidth 1.4 MHz).
  - c. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 30 kHz and VB of the spectrum is 100 kHz (LTE Bandwidth 3 MHz).
  - d. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 51 kHz and VB of the spectrum is 160 kHz (LTE Bandwidth 5 MHz).
  - e. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 100 kHz and VB of the spectrum is 300 kHz (LTE Bandwidth 10 MHz).
  - f. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 150 kHz and VB of the spectrum is 470 kHz (LTE Bandwidth 15 MHz).
  - g. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is

200 kHz and VB of the spectrum is 1 MHz (LTE Bandwidth 20 MHz).

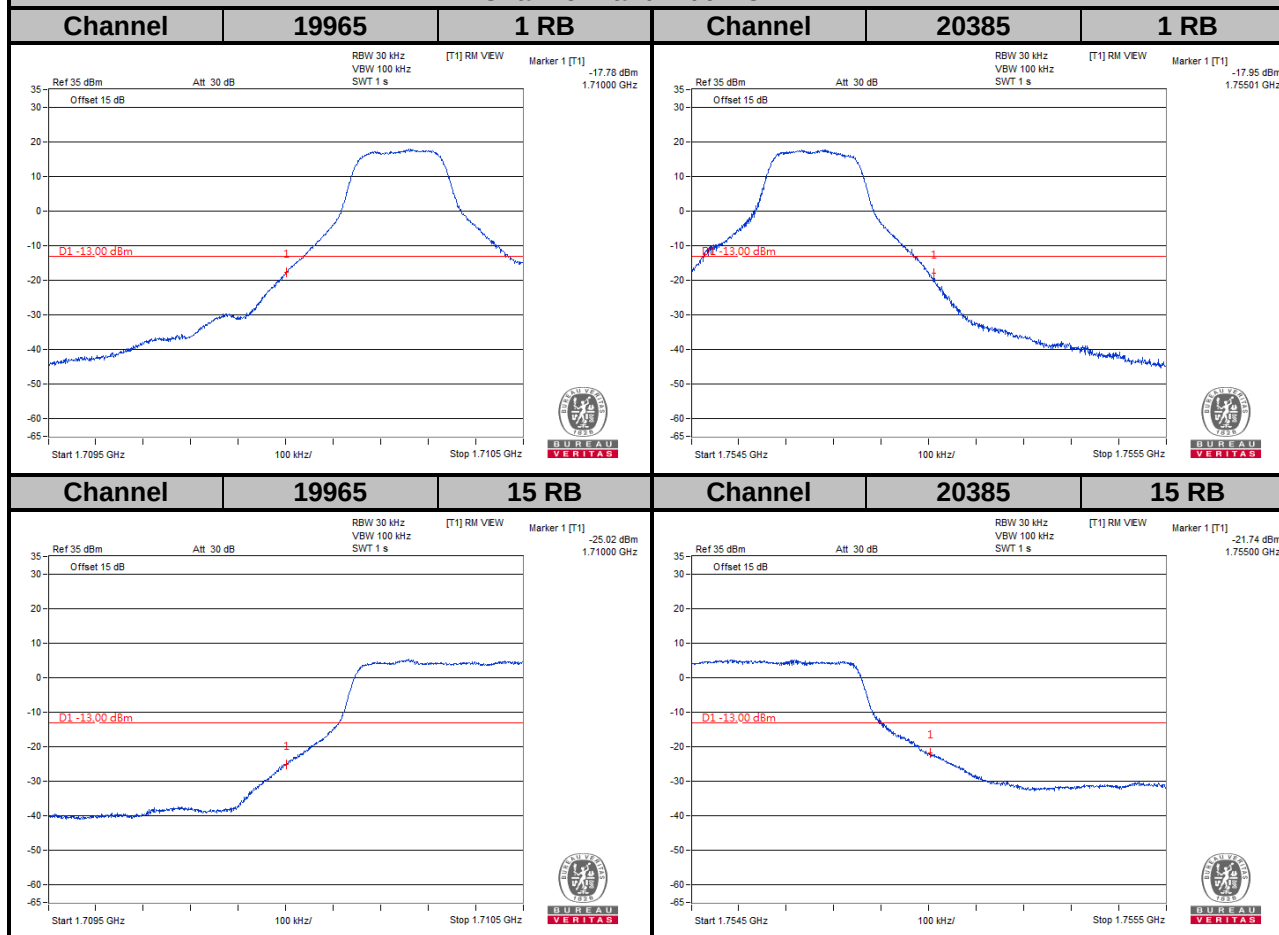
h. Record the max. trace plot into the test report.

#### 4.5.4 Test Results



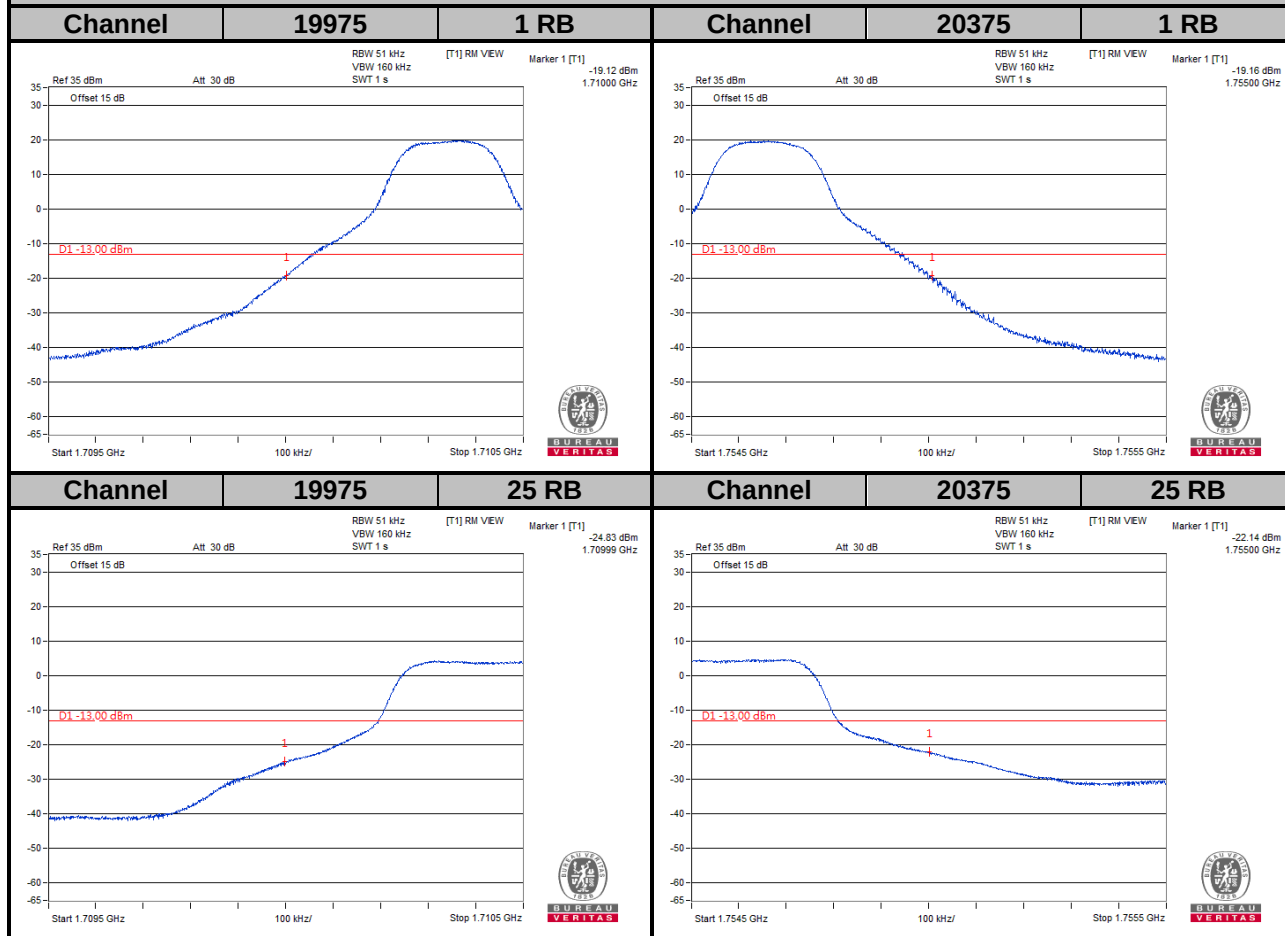
# LTE Band 4

Channel Bandwidth: 3 MHz



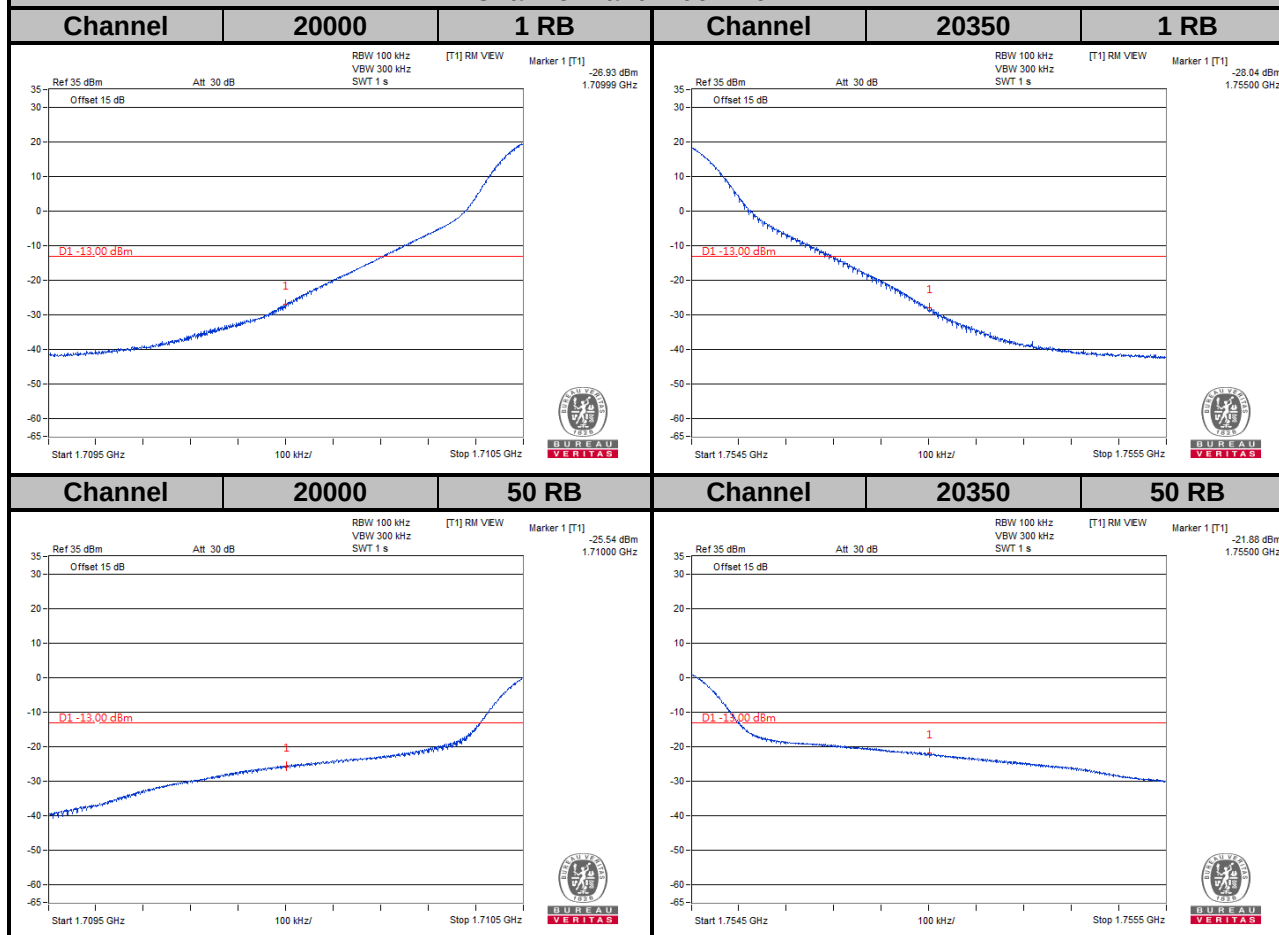
# LTE Band 4

Channel Bandwidth: 5 MHz



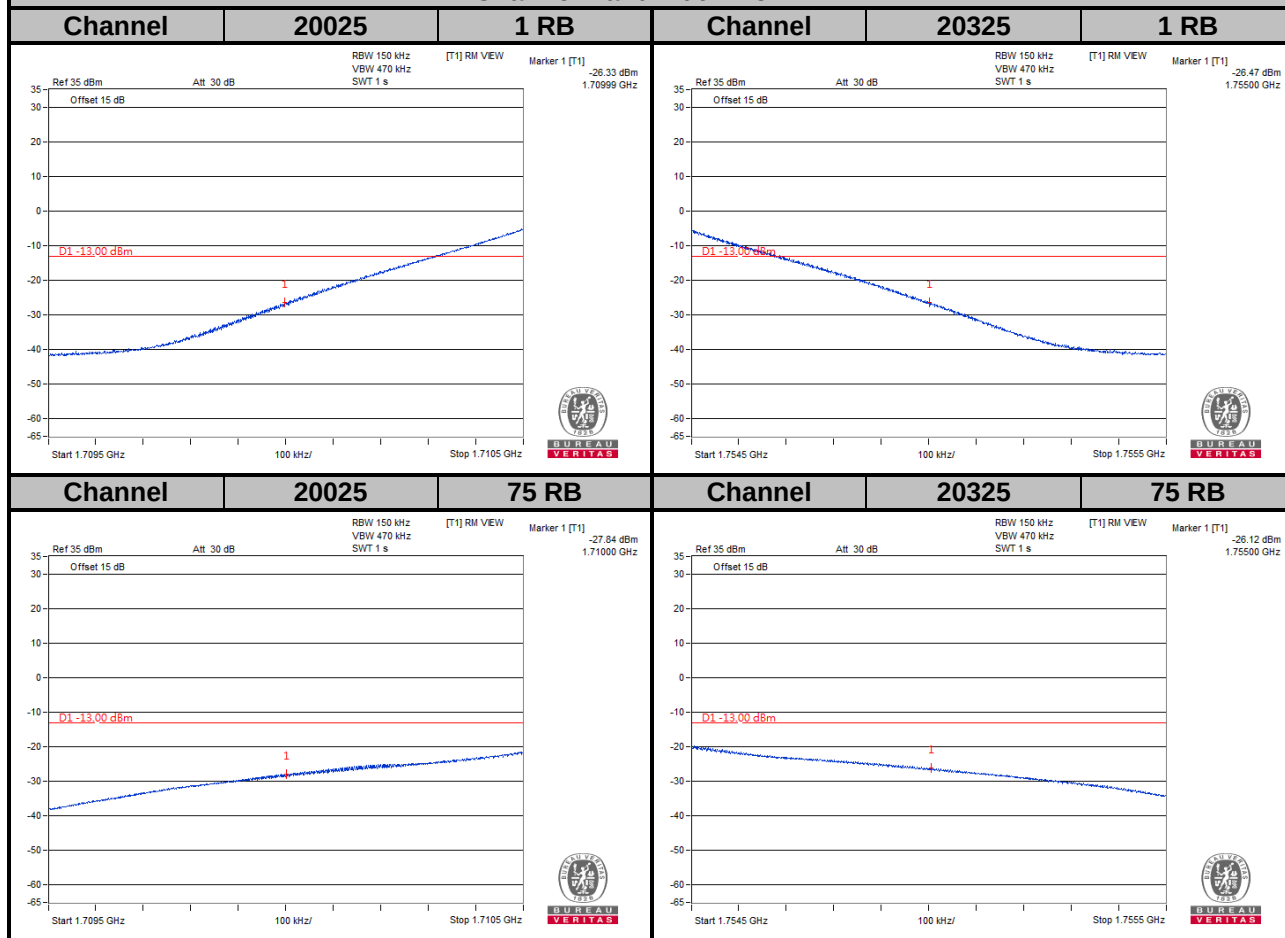
# LTE Band 4

Channel Bandwidth: 10 MHz



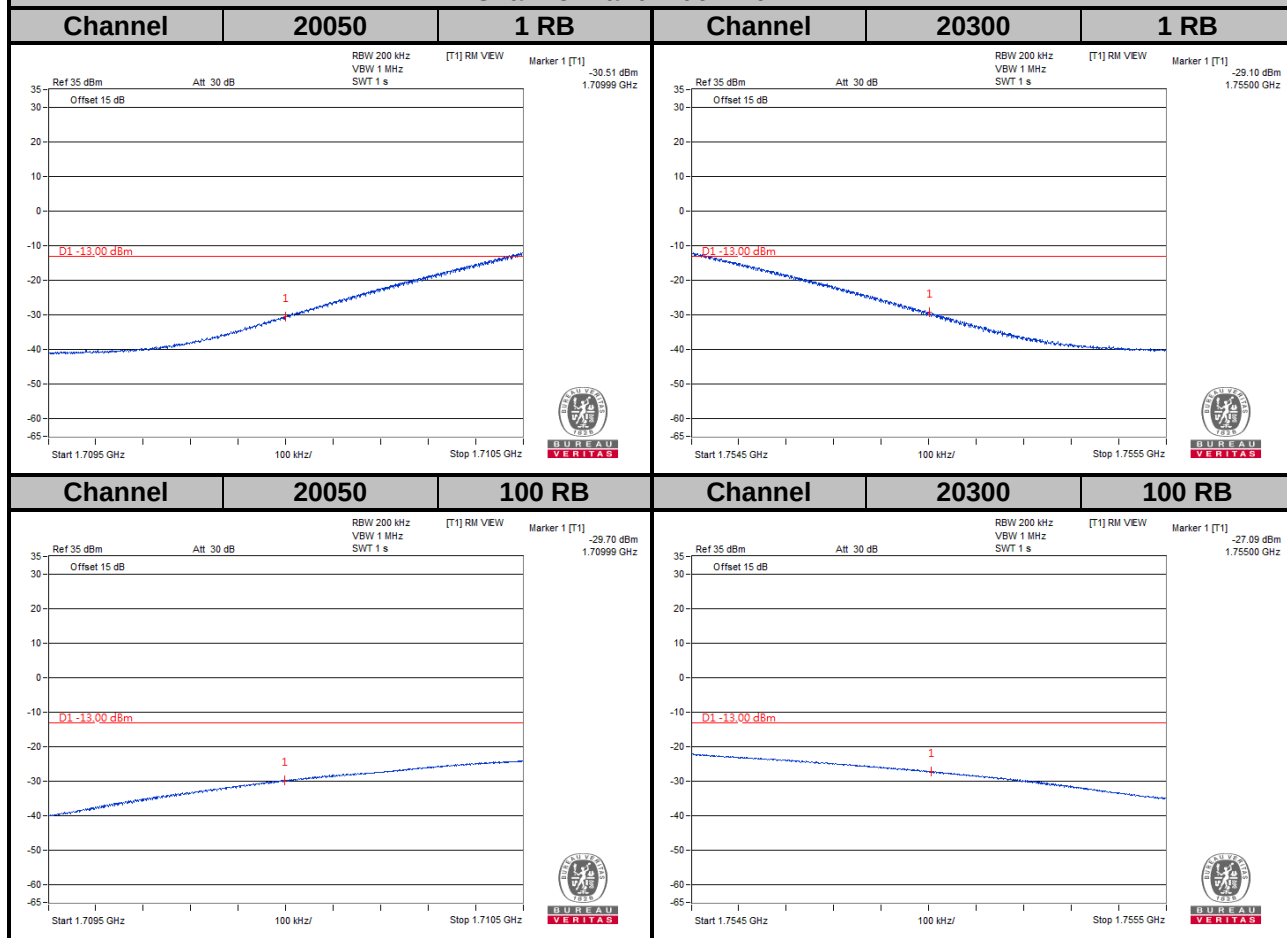
# LTE Band 4

Channel Bandwidth: 15 MHz



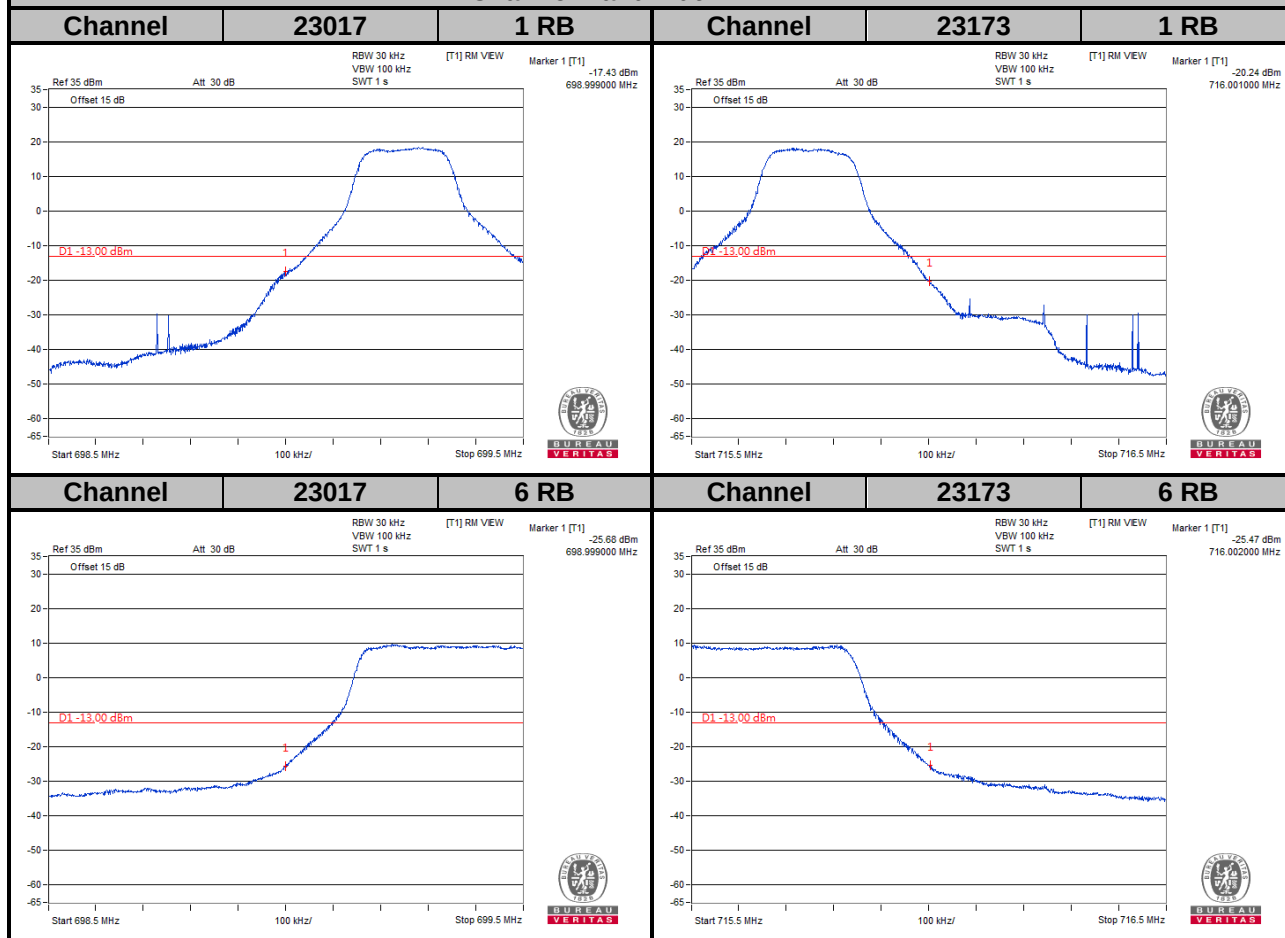
# LTE Band 4

Channel Bandwidth: 20 MHz



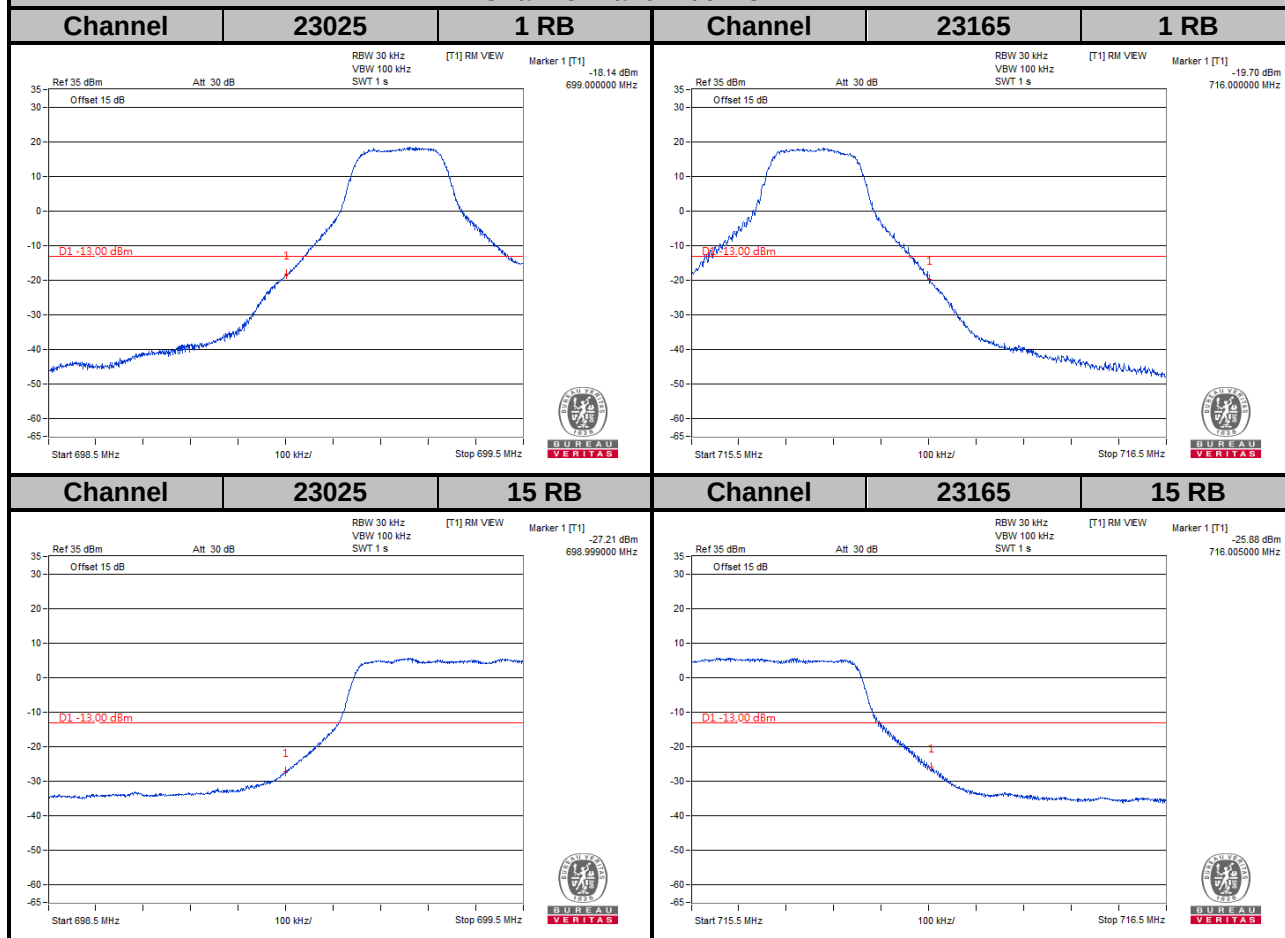
# LTE Band 12

Channel Bandwidth: 1.4 MHz



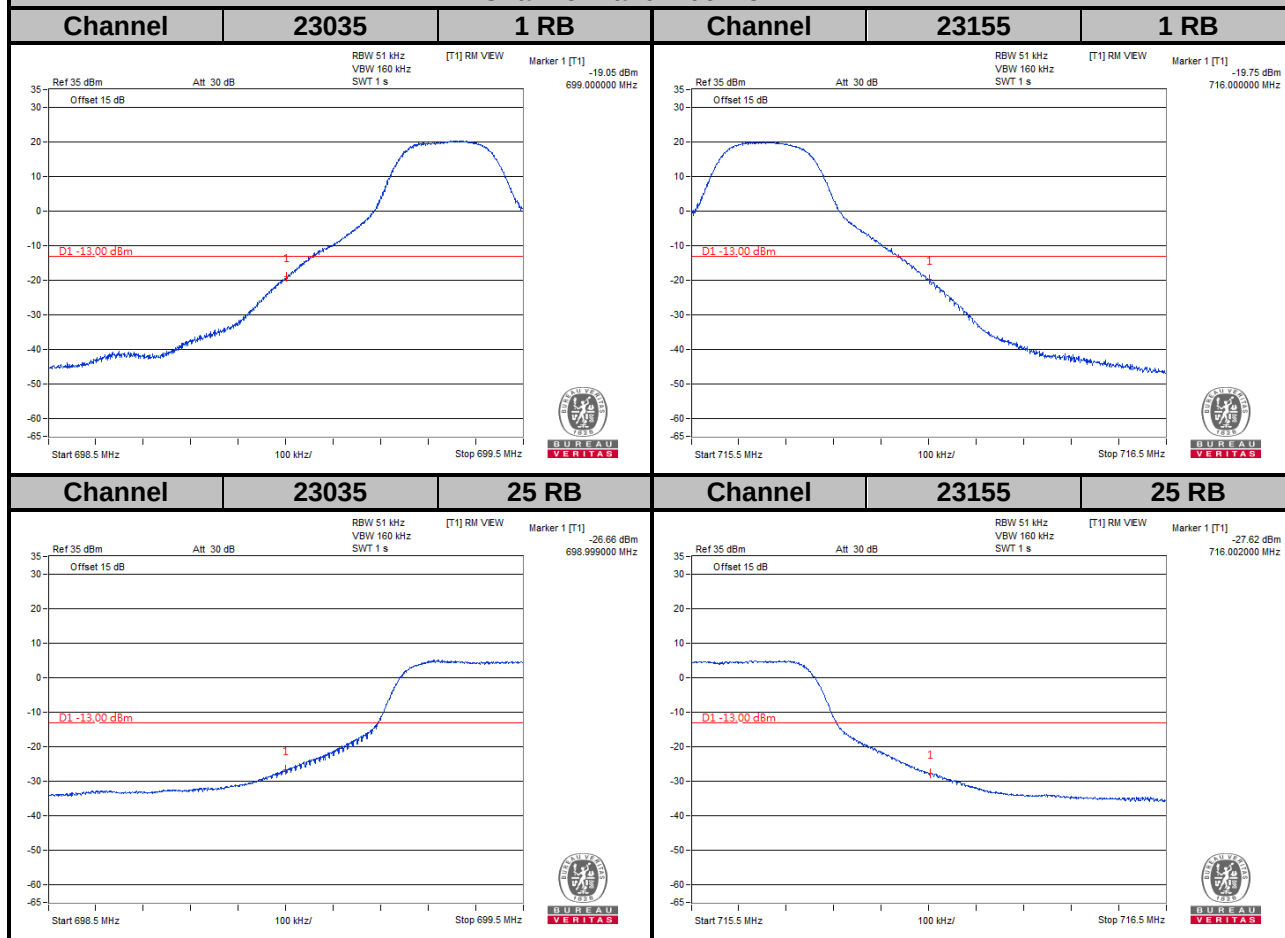
## LTE Band 12

Channel Bandwidth: 3 MHz



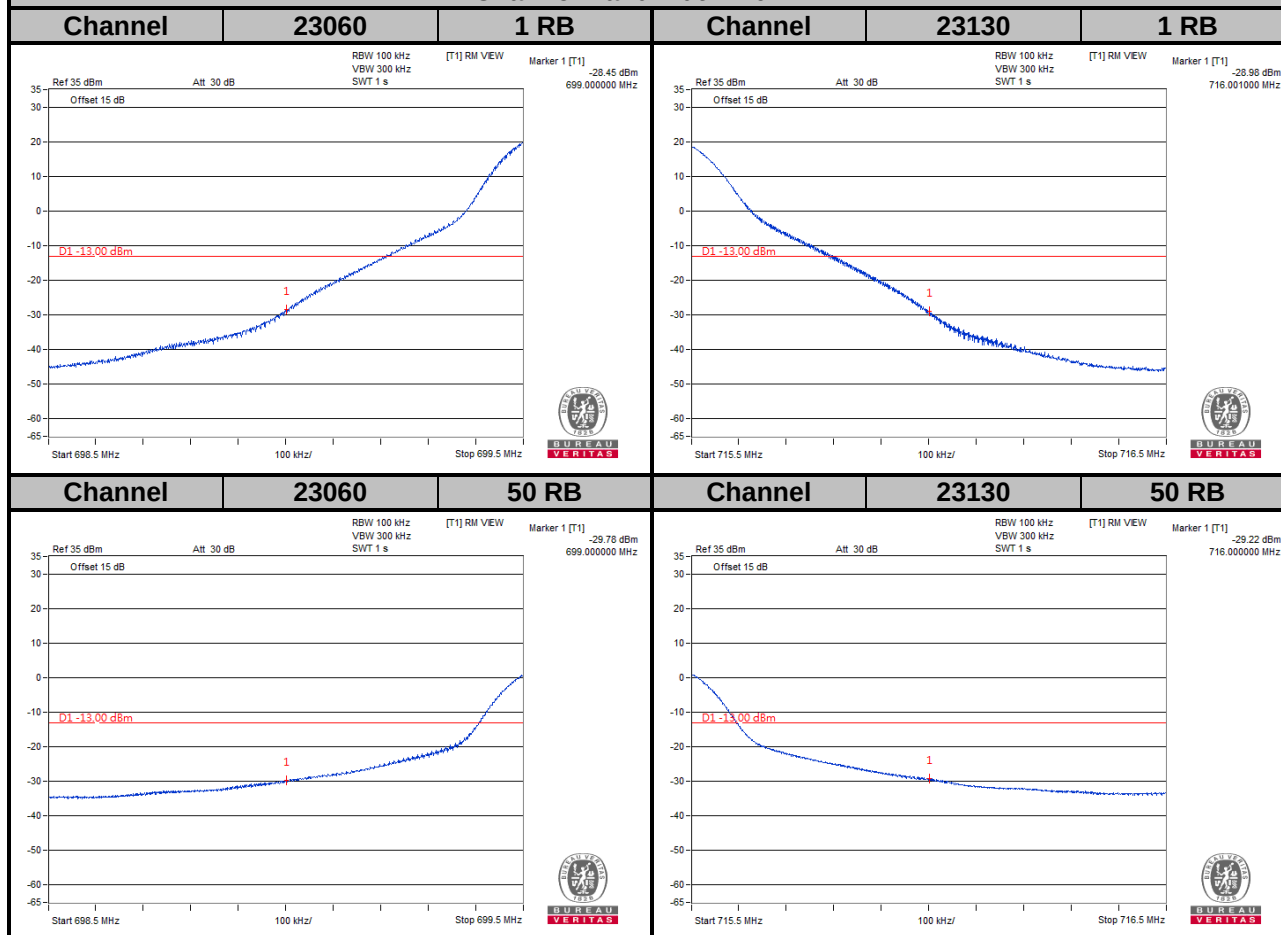
# LTE Band 12

Channel Bandwidth: 5 MHz



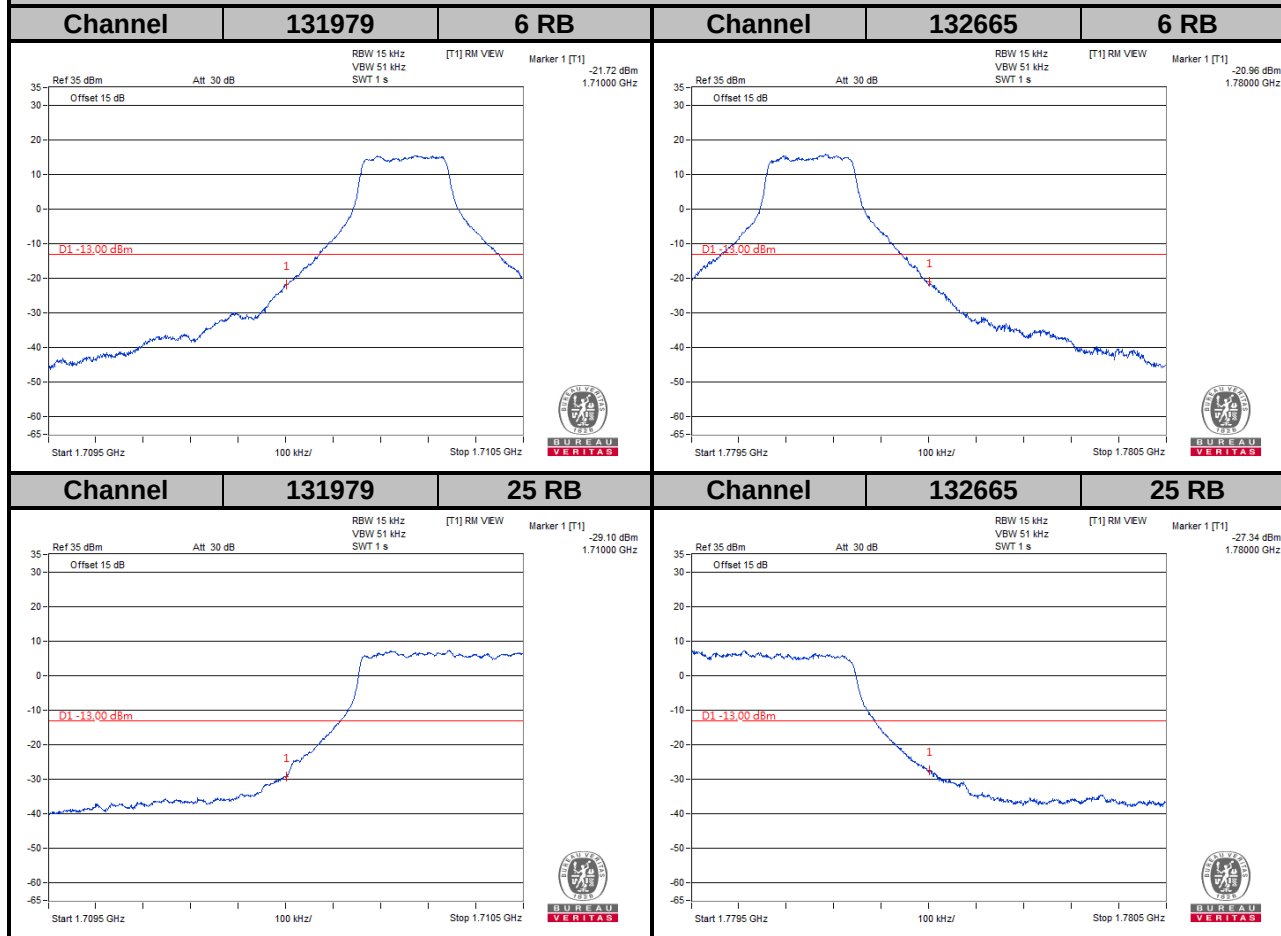
# LTE Band 12

Channel Bandwidth: 10 MHz



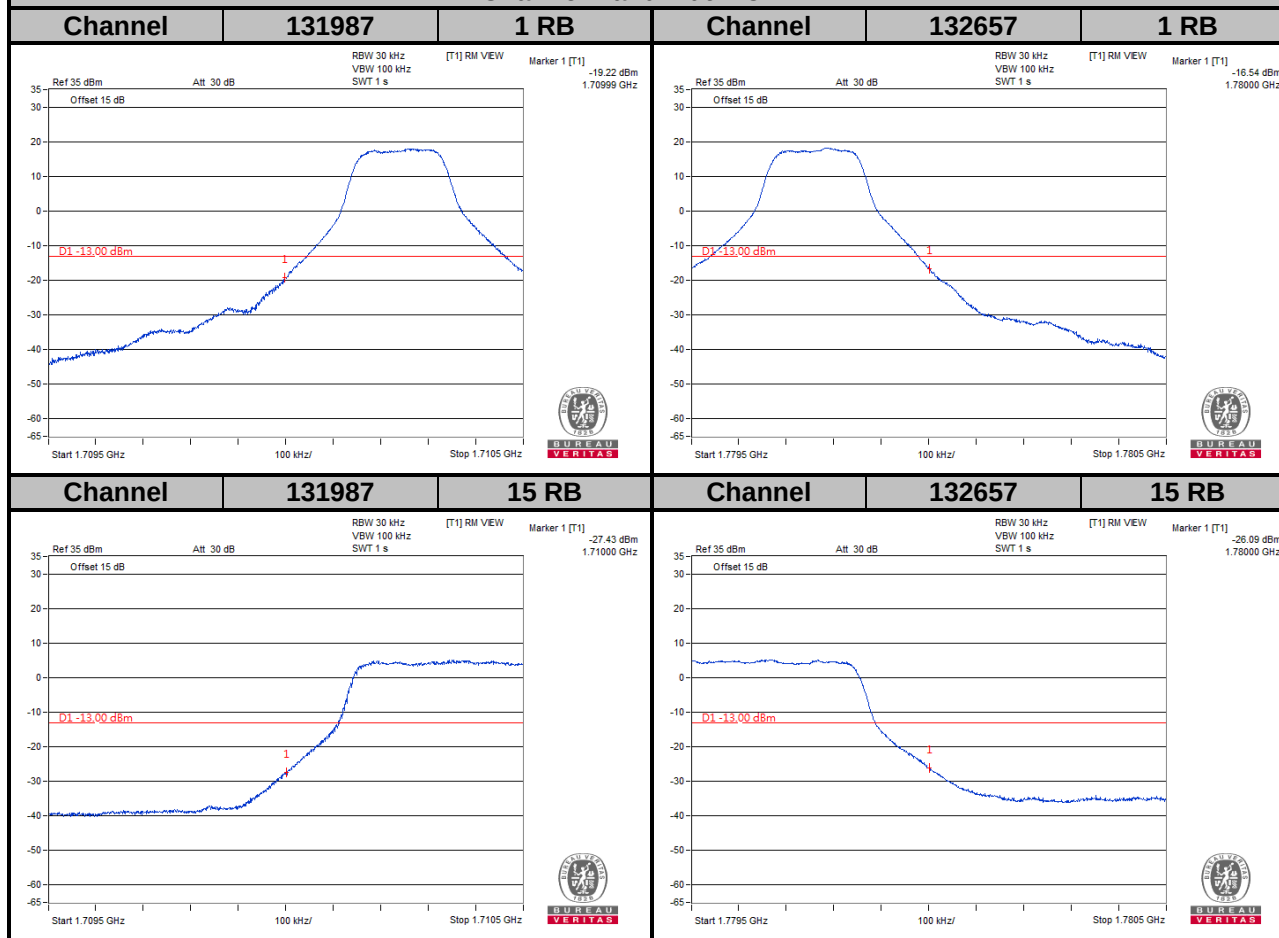
# LTE Band 66

Channel Bandwidth: 1.4 MHz



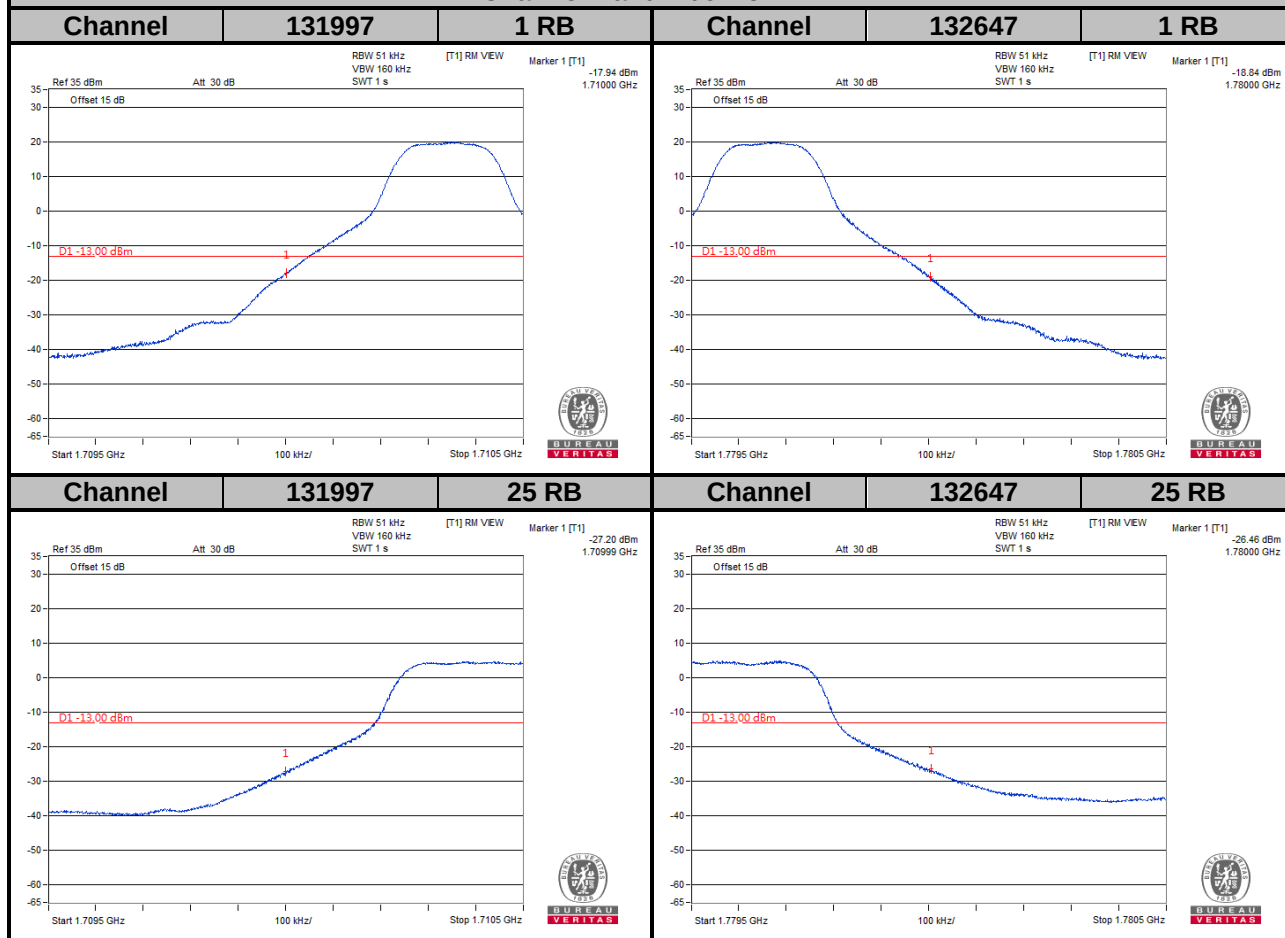
# LTE Band 66

Channel Bandwidth: 3 MHz



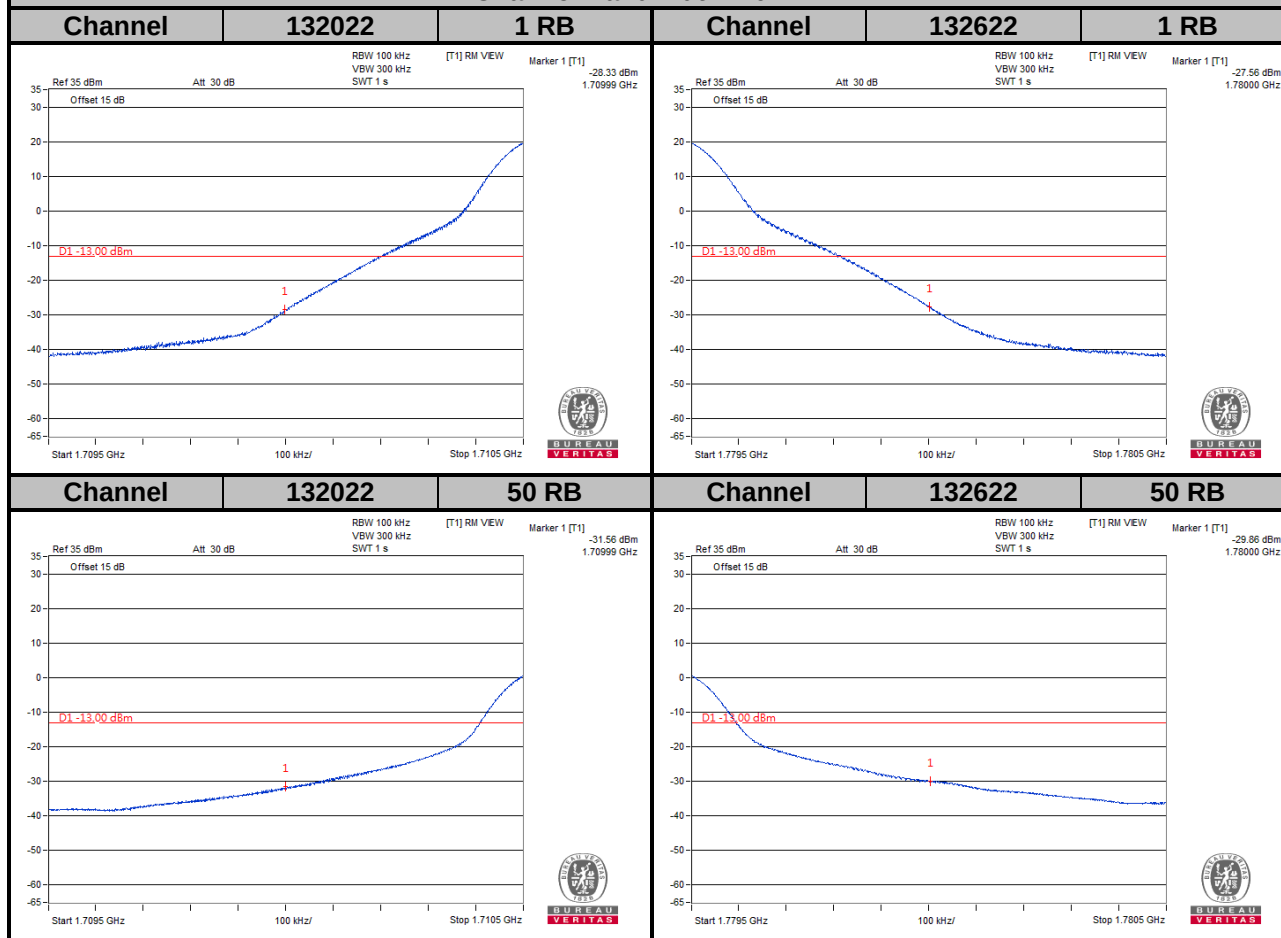
# LTE Band 66

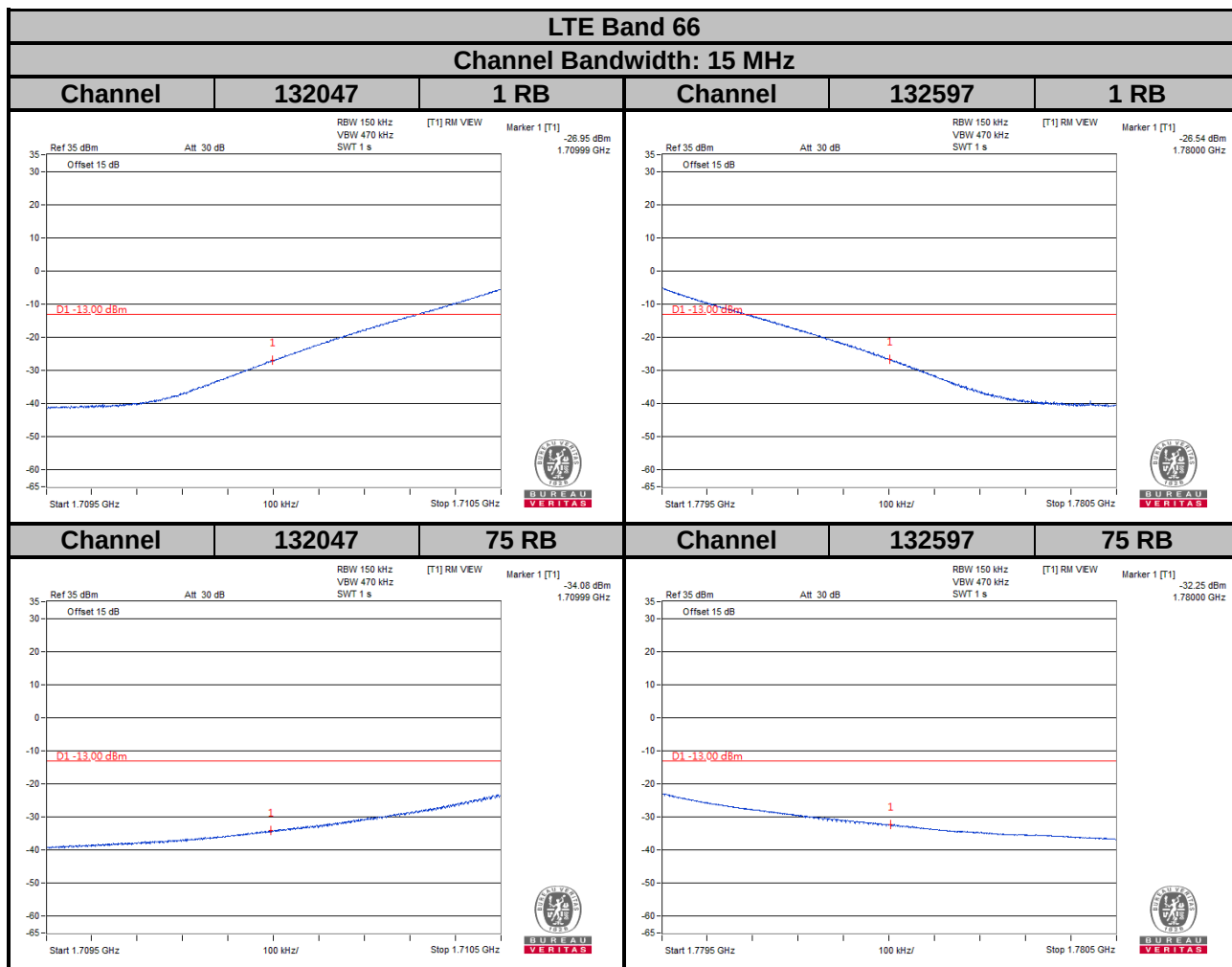
Channel Bandwidth: 5 MHz

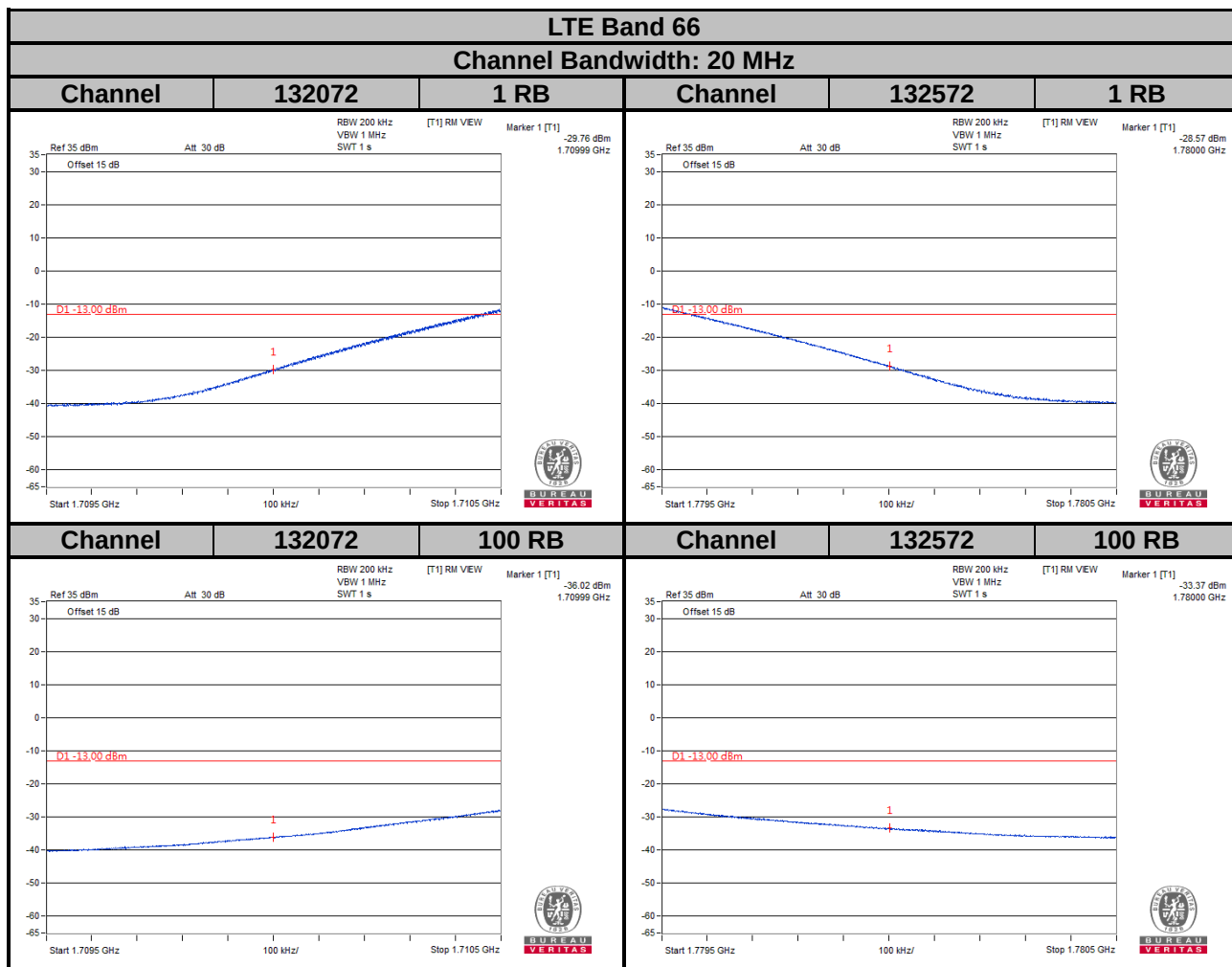


# LTE Band 66

Channel Bandwidth: 10 MHz





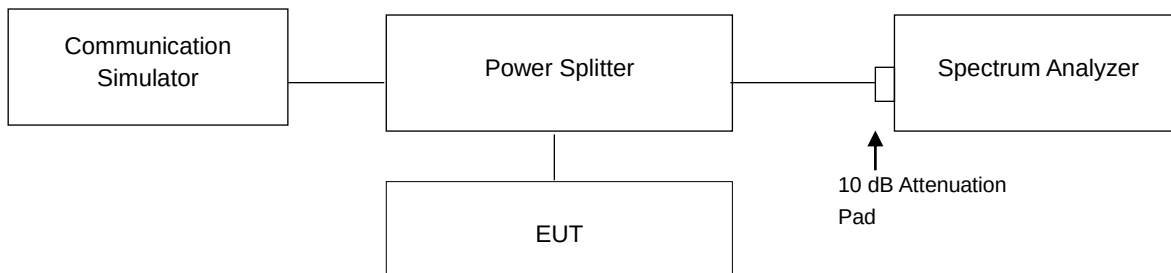


## 4.6 Peak to Average Ratio

### 4.6.1 Limits of Peak to Average Ratio Measurement

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

### 4.6.2 Test Setup

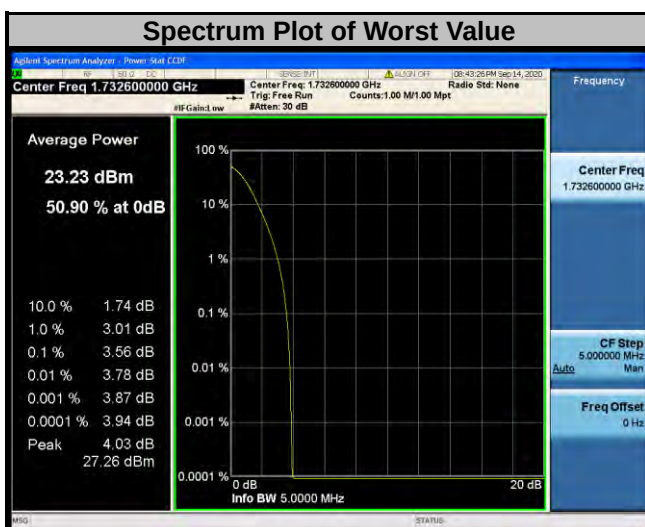


### 4.6.3 Test Procedures

1. Set resolution/measurement bandwidth  $\geq$  signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1 %.

### 4.6.4 Test Results

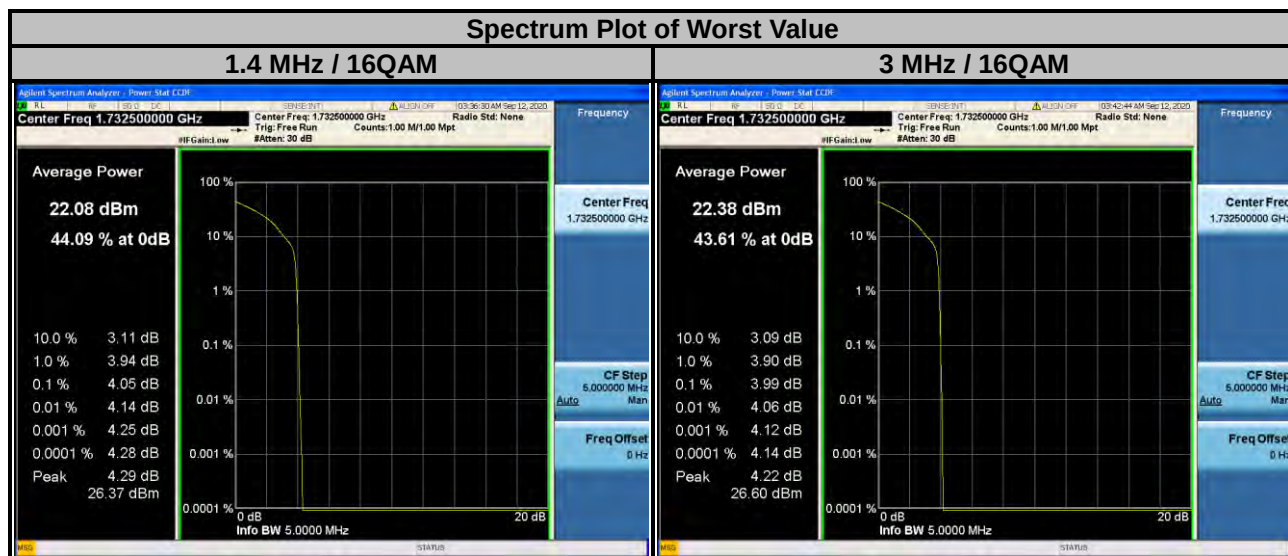
| WCDMA   |                 |                            |
|---------|-----------------|----------------------------|
| Channel | Frequency (MHz) | Peak to Average Ratio (dB) |
| 1312    | 1712.4          | 2.88                       |
| 1413    | 1732.6          | 3.56                       |
| 1513    | 1752.6          | 2.48                       |



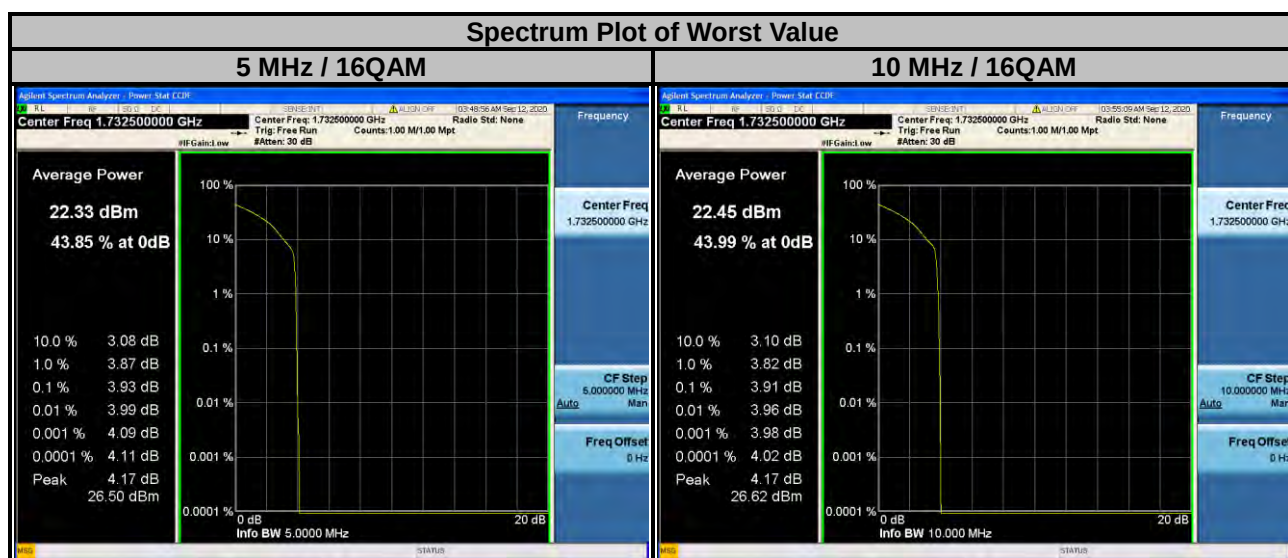
### LTE Band 4

| Channel Bandwidth: 1.4 MHz |                 |                            |       | Channel Bandwidth: 3 MHz |                 |                            |       |
|----------------------------|-----------------|----------------------------|-------|--------------------------|-----------------|----------------------------|-------|
| Channel                    | Frequency (MHz) | Peak to Average Ratio (dB) |       | Channel                  | Frequency (MHz) | Peak to Average Ratio (dB) |       |
|                            |                 | QPSK                       | 16QAM |                          |                 | QPSK                       | 16QAM |
| 19957                      | 1710.7          | 3.18                       | 3.93  | 19965                    | 1711.5          | 3.21                       | 3.93  |
| 20175                      | 1732.5          | 3.28                       | 4.05  | 20175                    | 1732.5          | 3.28                       | 3.99  |
| 20393                      | 1754.3          | 2.82                       | 3.41  | 20385                    | 1753.5          | 2.86                       | 3.42  |

### Spectrum Plot of Worst Value



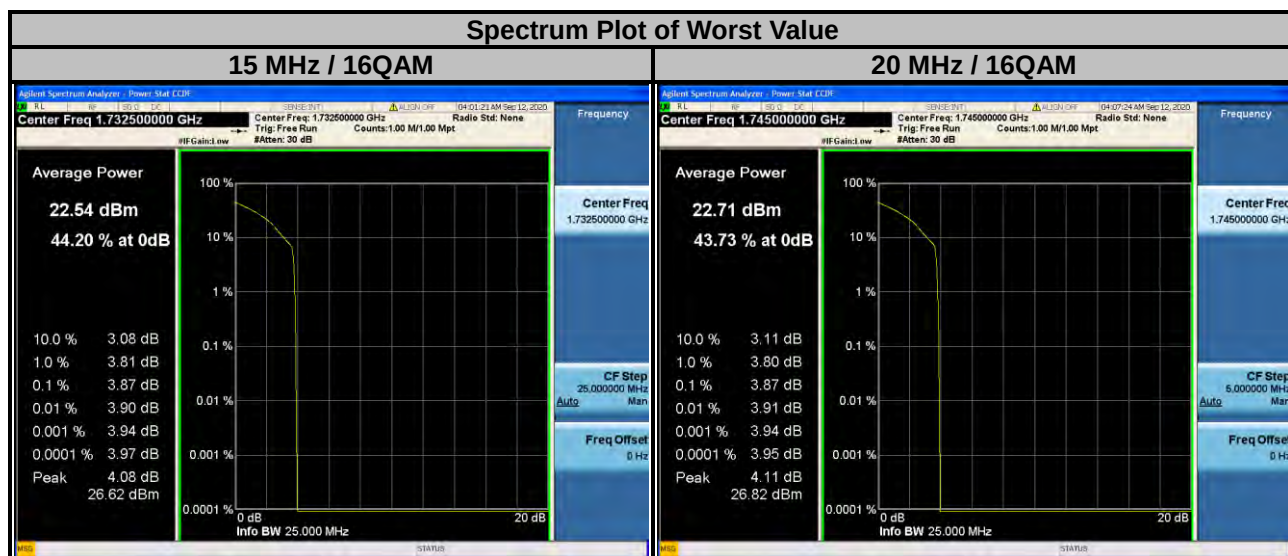
| LTE Band 4               |                 |                            |       |                           |                 |                            |       |
|--------------------------|-----------------|----------------------------|-------|---------------------------|-----------------|----------------------------|-------|
| Channel Bandwidth: 5 MHz |                 |                            |       | Channel Bandwidth: 10 MHz |                 |                            |       |
| Channel                  | Frequency (MHz) | Peak to Average Ratio (dB) |       | Channel                   | Frequency (MHz) | Peak to Average Ratio (dB) |       |
|                          |                 | QPSK                       | 16QAM |                           |                 | QPSK                       | 16QAM |
| 19975                    | 1712.5          | 3.20                       | 3.89  | 20000                     | 1715.0          | 3.12                       | 3.90  |
| 20175                    | 1732.5          | 3.18                       | 3.93  | 20175                     | 1732.5          | 3.17                       | 3.91  |
| 20375                    | 1752.5          | 2.82                       | 3.59  | 20350                     | 1750.0          | 3.07                       | 3.81  |



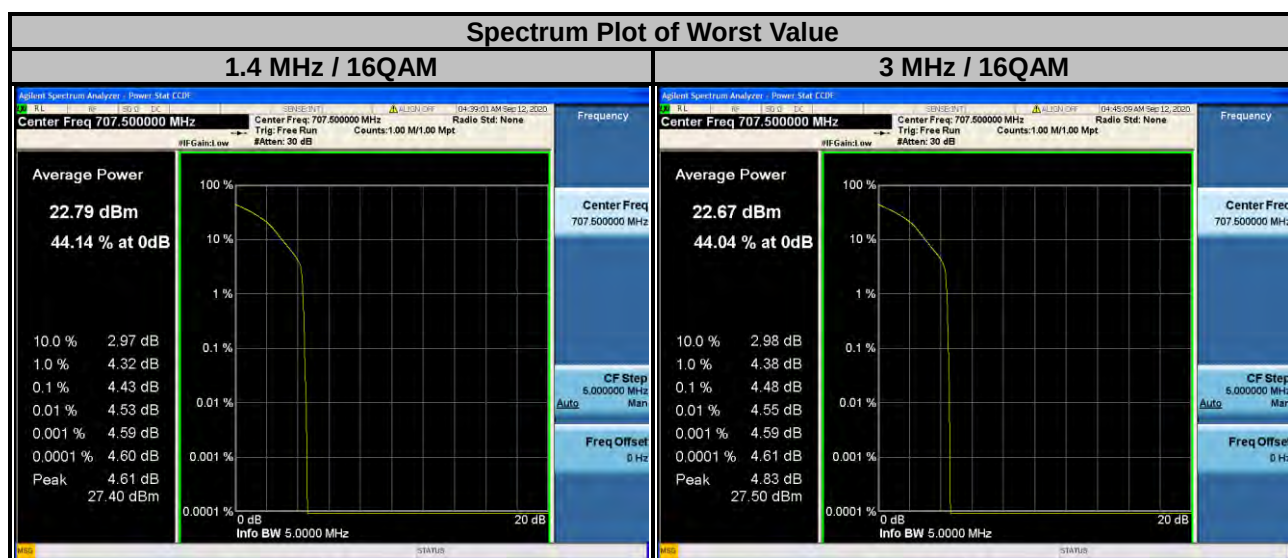
### LTE Band 4

| Channel Bandwidth: 15 MHz |                 |                            |       | Channel Bandwidth: 20 MHz |                 |                            |       |
|---------------------------|-----------------|----------------------------|-------|---------------------------|-----------------|----------------------------|-------|
| Channel                   | Frequency (MHz) | Peak to Average Ratio (dB) |       | Channel                   | Frequency (MHz) | Peak to Average Ratio (dB) |       |
|                           |                 | QPSK                       | 16QAM |                           |                 | QPSK                       | 16QAM |
| 20025                     | 1717.5          | 3.07                       | 3.83  | 20050                     | 1720.0          | 3.05                       | 3.85  |
| 20175                     | 1732.5          | 3.08                       | 3.87  | 20175                     | 1732.5          | 3.07                       | 3.75  |
| 20325                     | 1747.5          | 3.14                       | 3.82  | 20300                     | 1745.0          | 3.16                       | 3.87  |

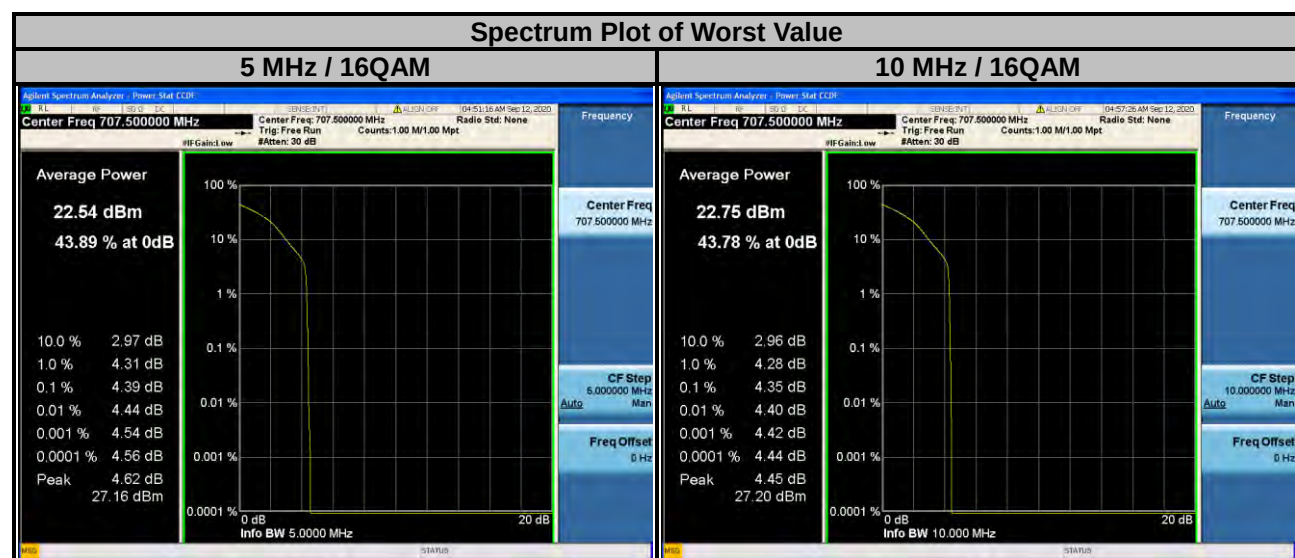
### Spectrum Plot of Worst Value



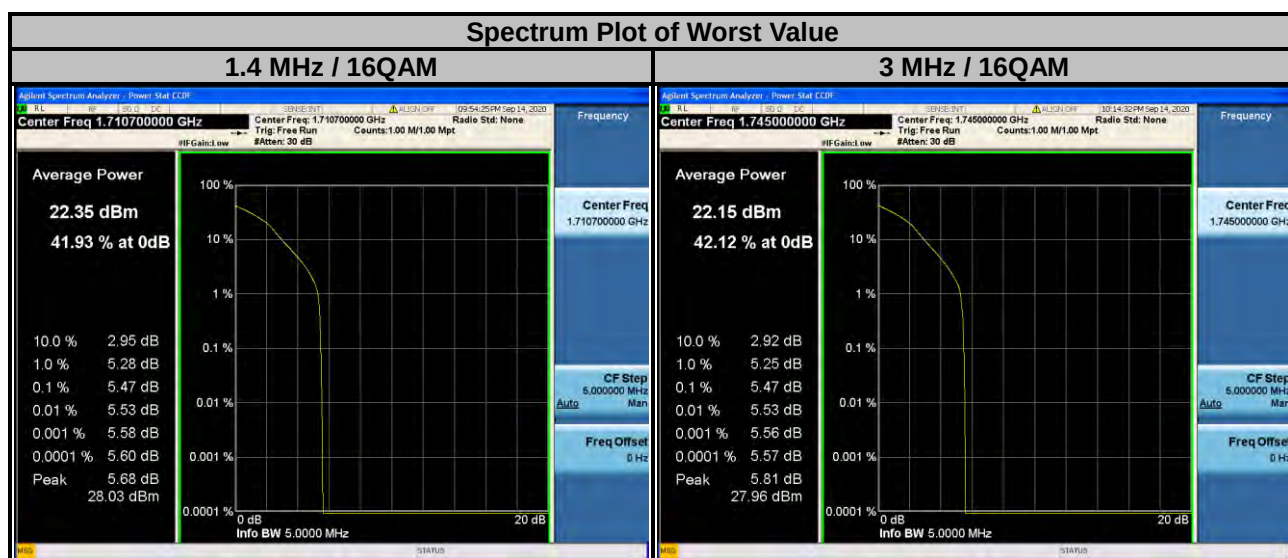
| LTE Band 12                |                 |                            |       |                          |                 |                            |       |
|----------------------------|-----------------|----------------------------|-------|--------------------------|-----------------|----------------------------|-------|
| Channel Bandwidth: 1.4 MHz |                 |                            |       | Channel Bandwidth: 3 MHz |                 |                            |       |
| Channel                    | Frequency (MHz) | Peak to Average Ratio (dB) |       | Channel                  | Frequency (MHz) | Peak to Average Ratio (dB) |       |
|                            |                 | QPSK                       | 16QAM |                          |                 | QPSK                       | 16QAM |
| 23017                      | 699.7           | 3.60                       | 4.41  | 23025                    | 700.5           | 3.59                       | 4.42  |
| 23095                      | 707.5           | 3.60                       | 4.43  | 23095                    | 707.5           | 3.63                       | 4.48  |
| 23173                      | 715.3           | 3.49                       | 4.41  | 23165                    | 714.5           | 3.52                       | 4.43  |



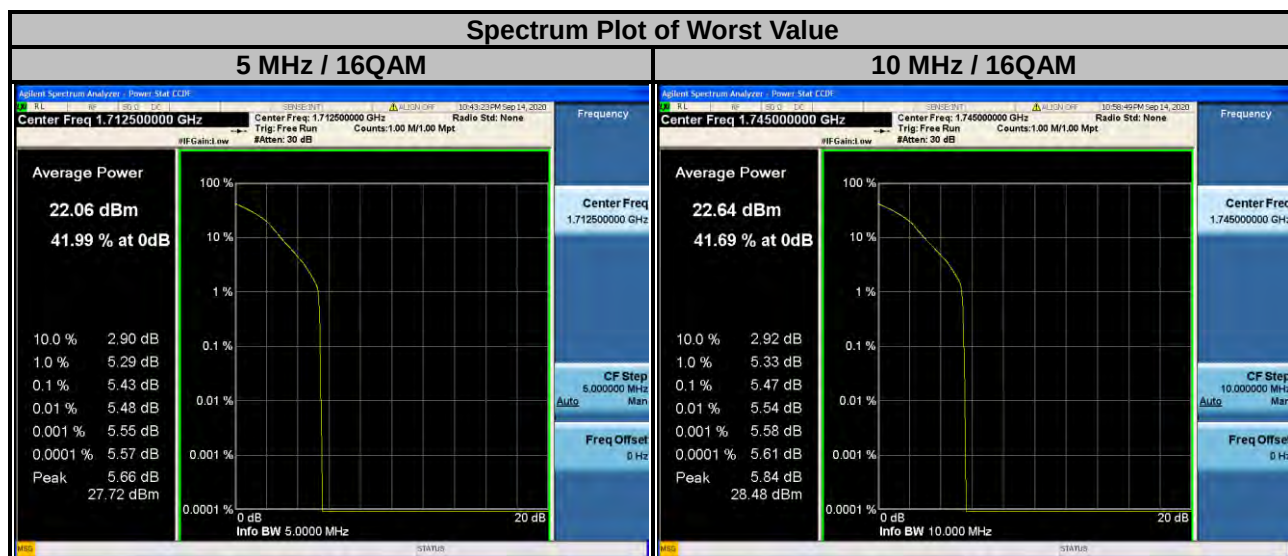
| LTE Band 12              |                 |                            |       |                           |                 |                            |       |
|--------------------------|-----------------|----------------------------|-------|---------------------------|-----------------|----------------------------|-------|
| Channel Bandwidth: 5 MHz |                 |                            |       | Channel Bandwidth: 10 MHz |                 |                            |       |
| Channel                  | Frequency (MHz) | Peak to Average Ratio (dB) |       | Channel                   | Frequency (MHz) | Peak to Average Ratio (dB) |       |
|                          |                 | QPSK                       | 16QAM |                           |                 | QPSK                       | 16QAM |
| 23035                    | 701.5           | 3.53                       | 4.36  | 23060                     | 704.0           | 3.55                       | 4.31  |
| 23095                    | 707.5           | 3.55                       | 4.39  | 23095                     | 707.5           | 3.58                       | 4.35  |
| 23155                    | 713.5           | 3.53                       | 4.35  | 23130                     | 711.0           | 3.55                       | 4.31  |



| LTE Band 66                |                 |                            |       |                          |                 |                            |       |
|----------------------------|-----------------|----------------------------|-------|--------------------------|-----------------|----------------------------|-------|
| Channel Bandwidth: 1.4 MHz |                 |                            |       | Channel Bandwidth: 3 MHz |                 |                            |       |
| Channel                    | Frequency (MHz) | Peak to Average Ratio (dB) |       | Channel                  | Frequency (MHz) | Peak to Average Ratio (dB) |       |
|                            |                 | QPSK                       | 16QAM |                          |                 | QPSK                       | 16QAM |
| 131979                     | 1710.7          | 4.49                       | 5.47  | 131987                   | 1711.5          | 4.30                       | 5.40  |
| 132322                     | 1745.0          | 4.55                       | 5.46  | 132322                   | 1745.0          | 4.49                       | 5.47  |
| 132665                     | 1779.3          | 3.96                       | 4.88  | 132657                   | 1778.5          | 4.06                       | 4.95  |



| LTE Band 66              |                 |                            |       |                           |                 |                            |       |
|--------------------------|-----------------|----------------------------|-------|---------------------------|-----------------|----------------------------|-------|
| Channel Bandwidth: 5 MHz |                 |                            |       | Channel Bandwidth: 10 MHz |                 |                            |       |
| Channel                  | Frequency (MHz) | Peak to Average Ratio (dB) |       | Channel                   | Frequency (MHz) | Peak to Average Ratio (dB) |       |
|                          |                 | QPSK                       | 16QAM |                           |                 | QPSK                       | 16QAM |
| 131997                   | 1712.5          | 4.40                       | 5.43  | 132022                    | 1715.0          | 4.34                       | 5.37  |
| 132322                   | 1745.0          | 4.55                       | 5.39  | 132322                    | 1745.0          | 4.65                       | 5.47  |
| 132647                   | 1777.5          | 4.13                       | 5.01  | 132622                    | 1775.0          | 4.31                       | 5.28  |



### LTE Band 66

#### Channel Bandwidth: 15 MHz

#### Channel Bandwidth: 20 MHz

| Channel | Frequency (MHz) | Peak to Average Ratio (dB) |       | Channel | Frequency (MHz) | Peak to Average Ratio (dB) |       |
|---------|-----------------|----------------------------|-------|---------|-----------------|----------------------------|-------|
|         |                 | QPSK                       | 16QAM |         |                 | QPSK                       | 16QAM |
| 132047  | 1717.5          | 4.33                       | 5.28  | 132072  | 1720.0          | 4.38                       | 5.31  |
| 132322  | 1745.0          | 4.62                       | 5.46  | 132322  | 1745.0          | 4.68                       | 5.54  |
| 132597  | 1772.5          | 4.43                       | 5.36  | 132572  | 1770.0          | 4.38                       | 5.23  |

### Spectrum Plot of Worst Value

#### 15 MHz / 16QAM

#### 20 MHz / 16QAM

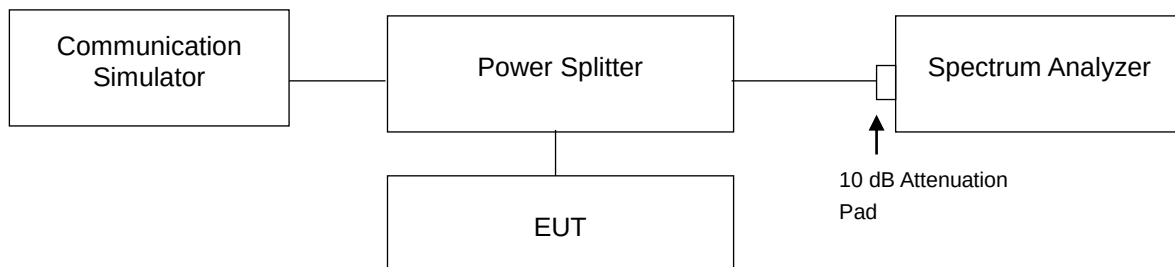


## 4.7 Conducted Spurious Emissions

### 4.7.1 Limits of Conducted Spurious Emissions Measurement

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB. The limit of emission is equal to -13 dBm.

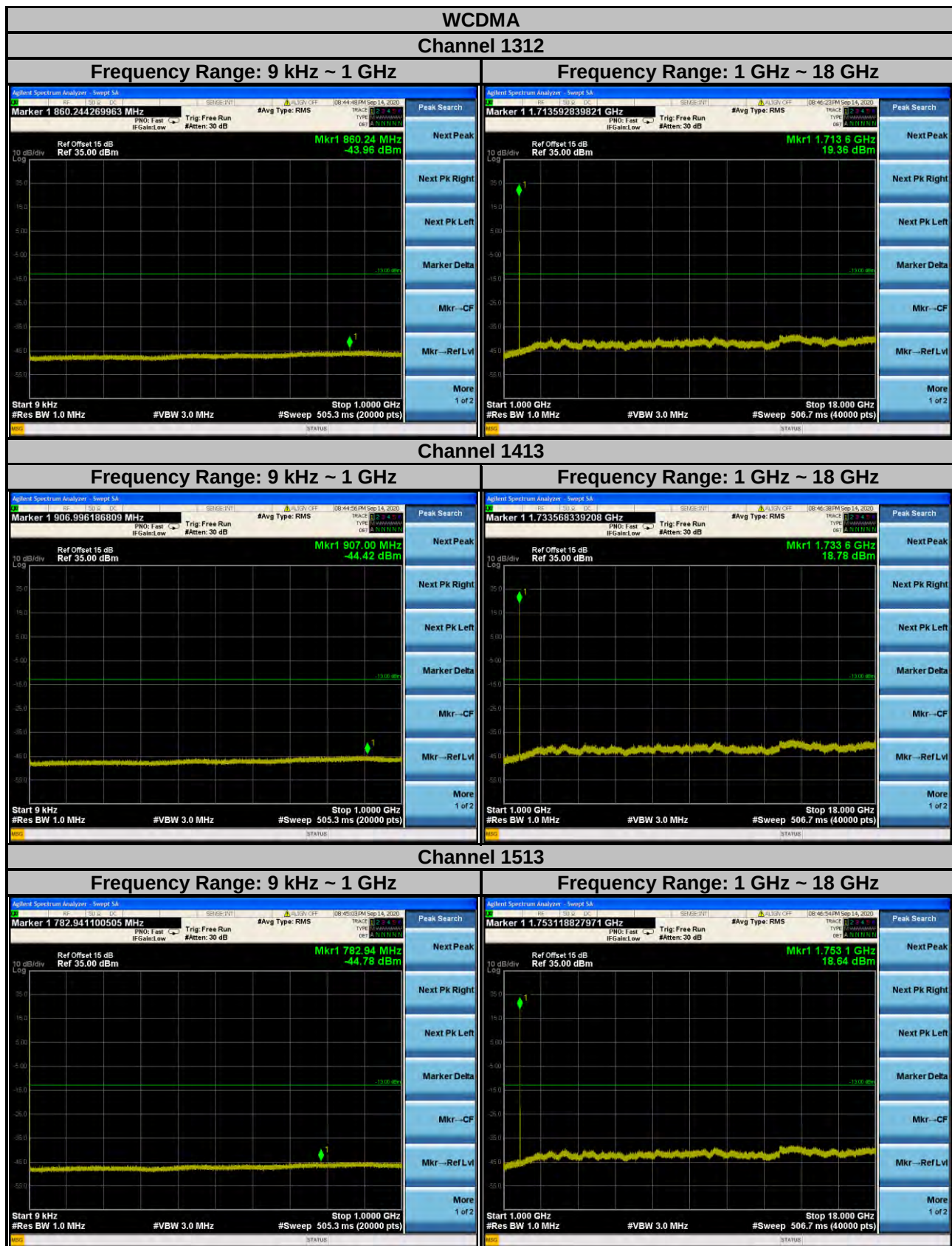
### 4.7.2 Test Setup



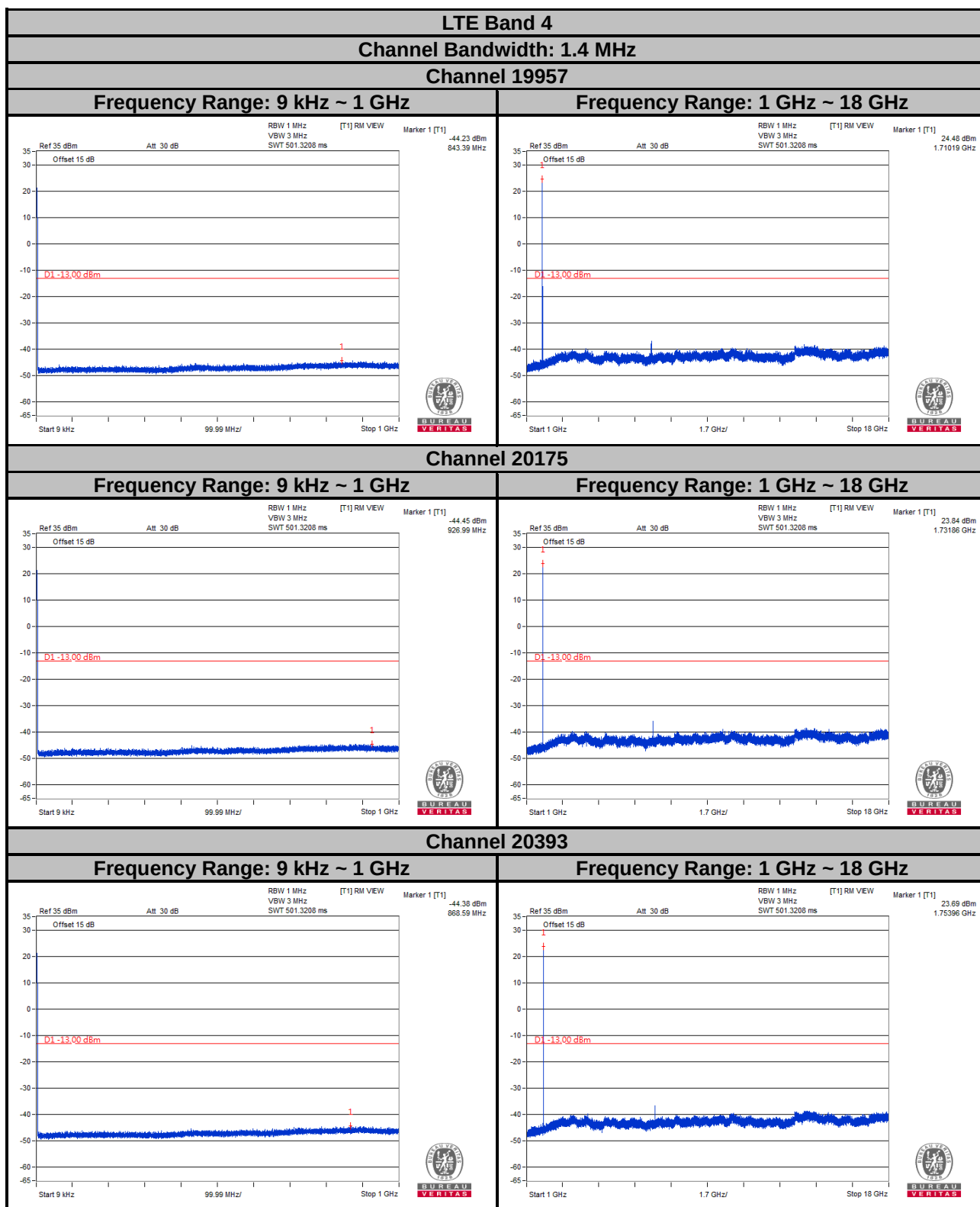
### 4.7.3 Test Procedure

- The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- Measuring frequency range is from 9 kHz to 1 GHz. 10 dB attenuation pad is connected with spectrum. RBW = 1 MHz and VBW = 3 MHz is used for conducted emission measurement.
- Measuring frequency range is from 1 GHz to 8 GHz / 18 GHz. 10 dB attenuation pad is connected with spectrum. RBW = 1 MHz and VBW = 3 MHz is used for conducted emission measurement.

#### 4.7.4 Test Results



Note: The signal over the limit at 9 kHz is from the spectrum analyzer.



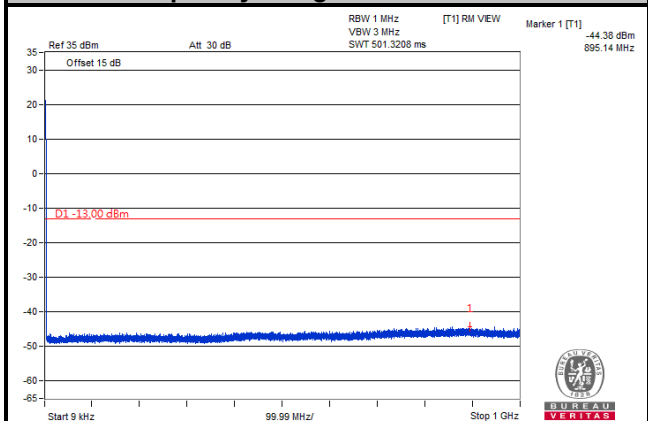
Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

## LTE Band 4

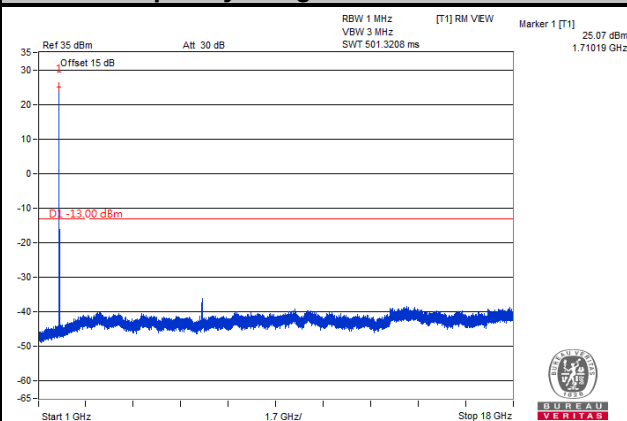
Channel Bandwidth: 3 MHz

Channel 19965

Frequency Range: 9 kHz ~ 1 GHz

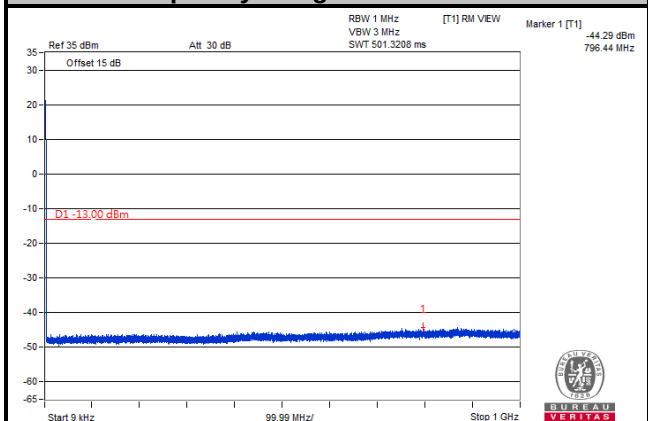


Frequency Range: 1 GHz ~ 18 GHz

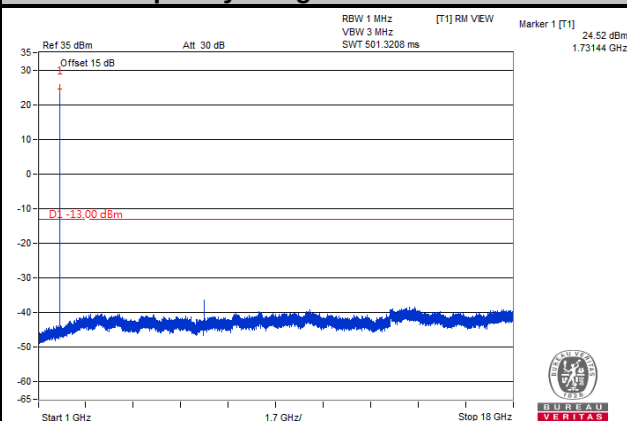


## Channel 20175

Frequency Range: 9 kHz ~ 1 GHz

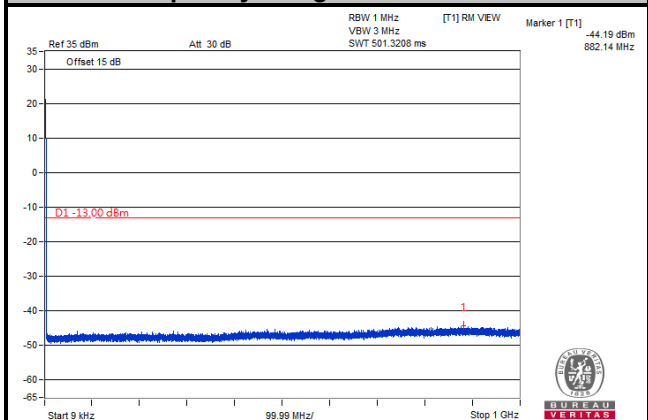


Frequency Range: 1 GHz ~ 18 GHz

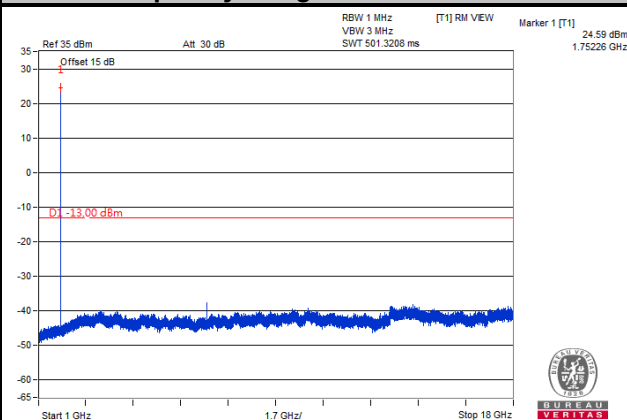


## Channel 20385

Frequency Range: 9 kHz ~ 1 GHz



Frequency Range: 1 GHz ~ 18 GHz



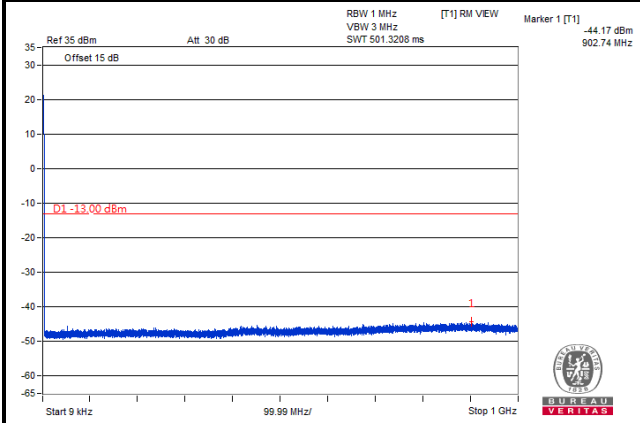
Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

### LTE Band 4

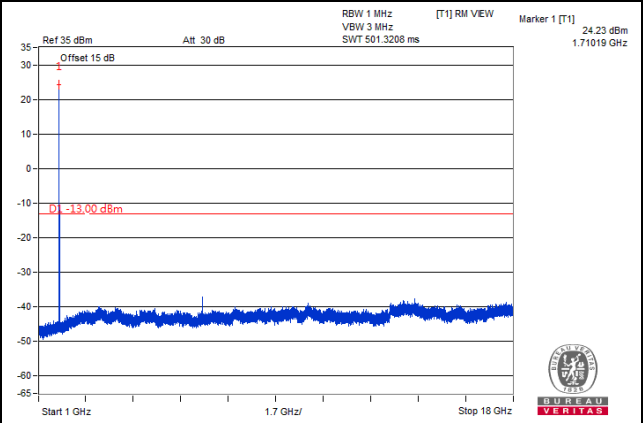
Channel Bandwidth: 5 MHz

Channel 19975

Frequency Range: 9 kHz ~ 1 GHz

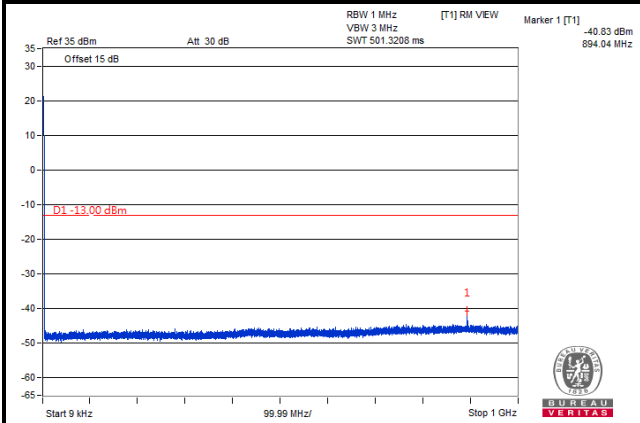


Frequency Range: 1 GHz ~ 18 GHz

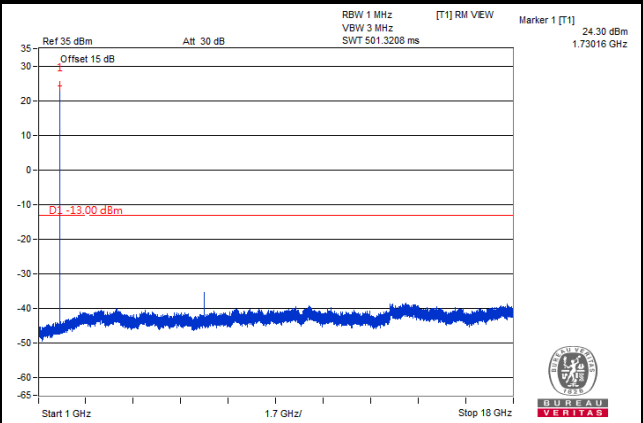


### Channel 20175

Frequency Range: 9 kHz ~ 1 GHz

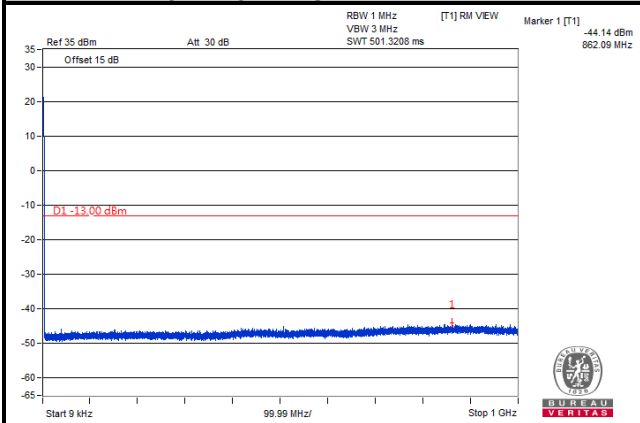


Frequency Range: 1 GHz ~ 18 GHz

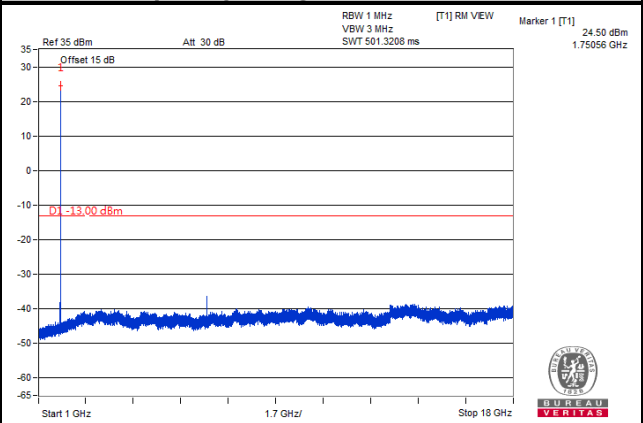


### Channel 20375

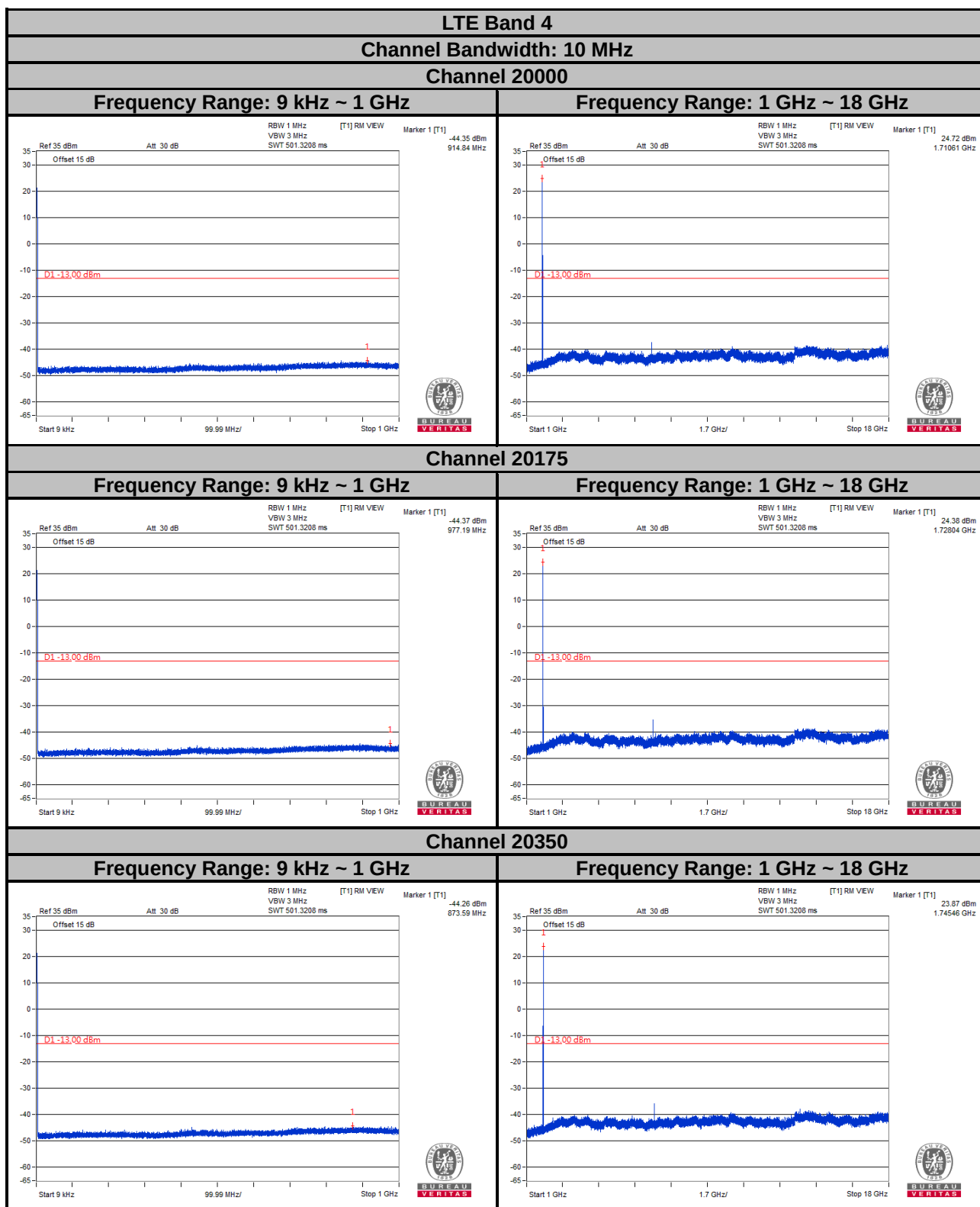
Frequency Range: 9 kHz ~ 1 GHz



Frequency Range: 1 GHz ~ 18 GHz



Note: The signal over the limit at 9 kHz is from the spectrum analyzer.



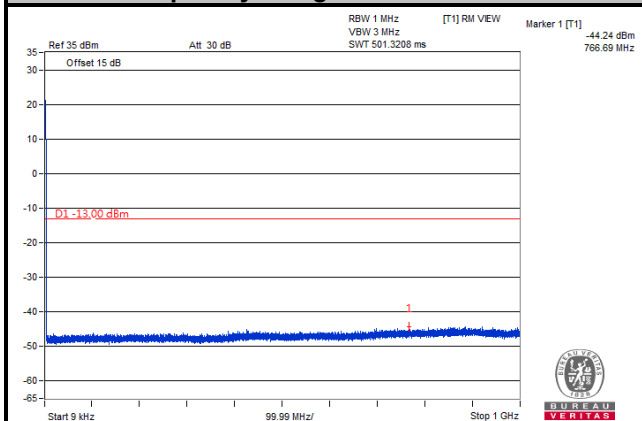
Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

# LTE Band 4

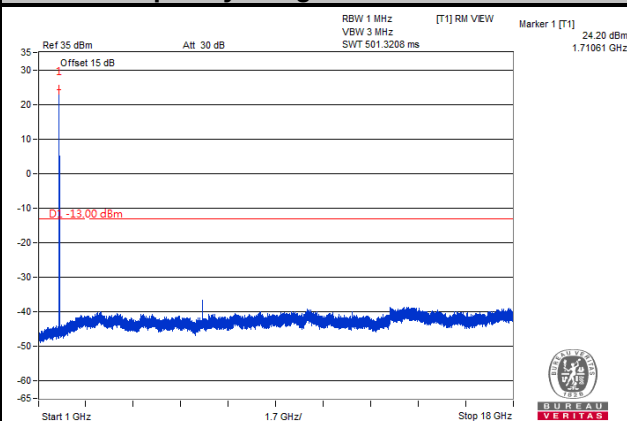
Channel Bandwidth: 15 MHz

Channel 20025

Frequency Range: 9 kHz ~ 1 GHz

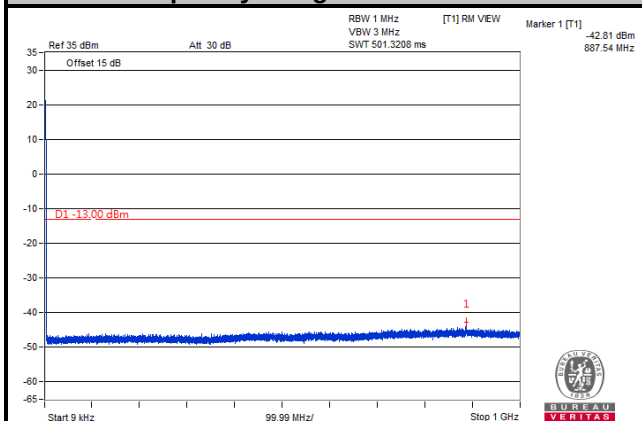


Frequency Range: 1 GHz ~ 18 GHz

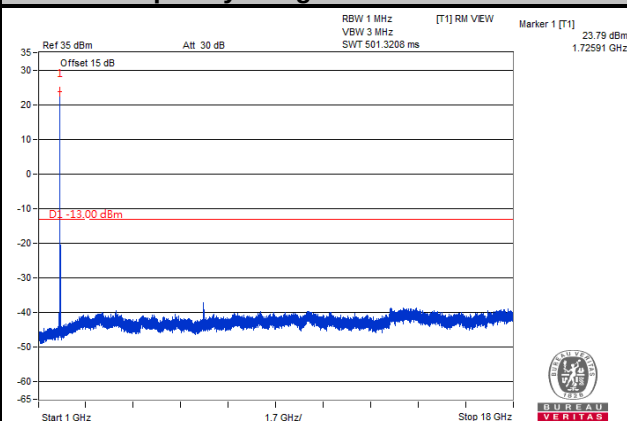


# Channel 20175

Frequency Range: 9 kHz ~ 1 GHz

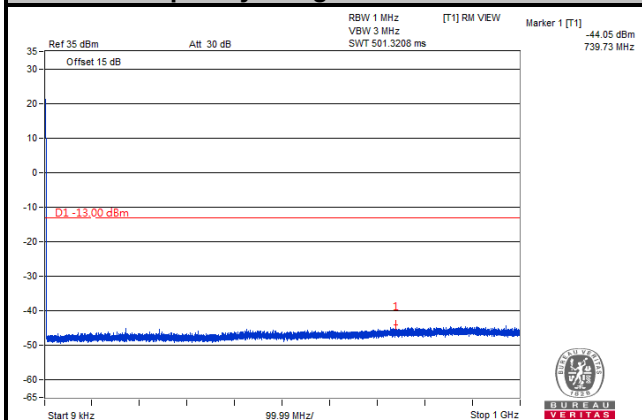


Frequency Range: 1 GHz ~ 18 GHz

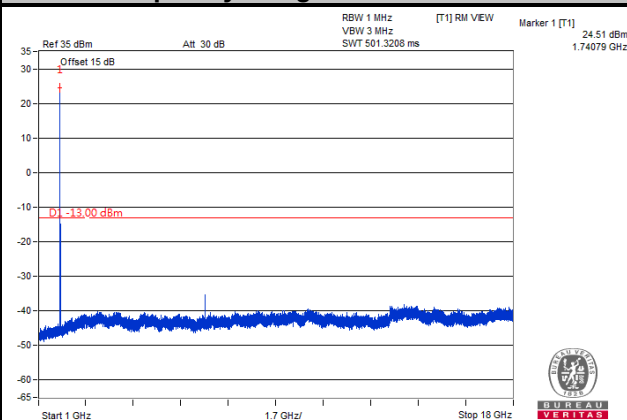


# Channel 20325

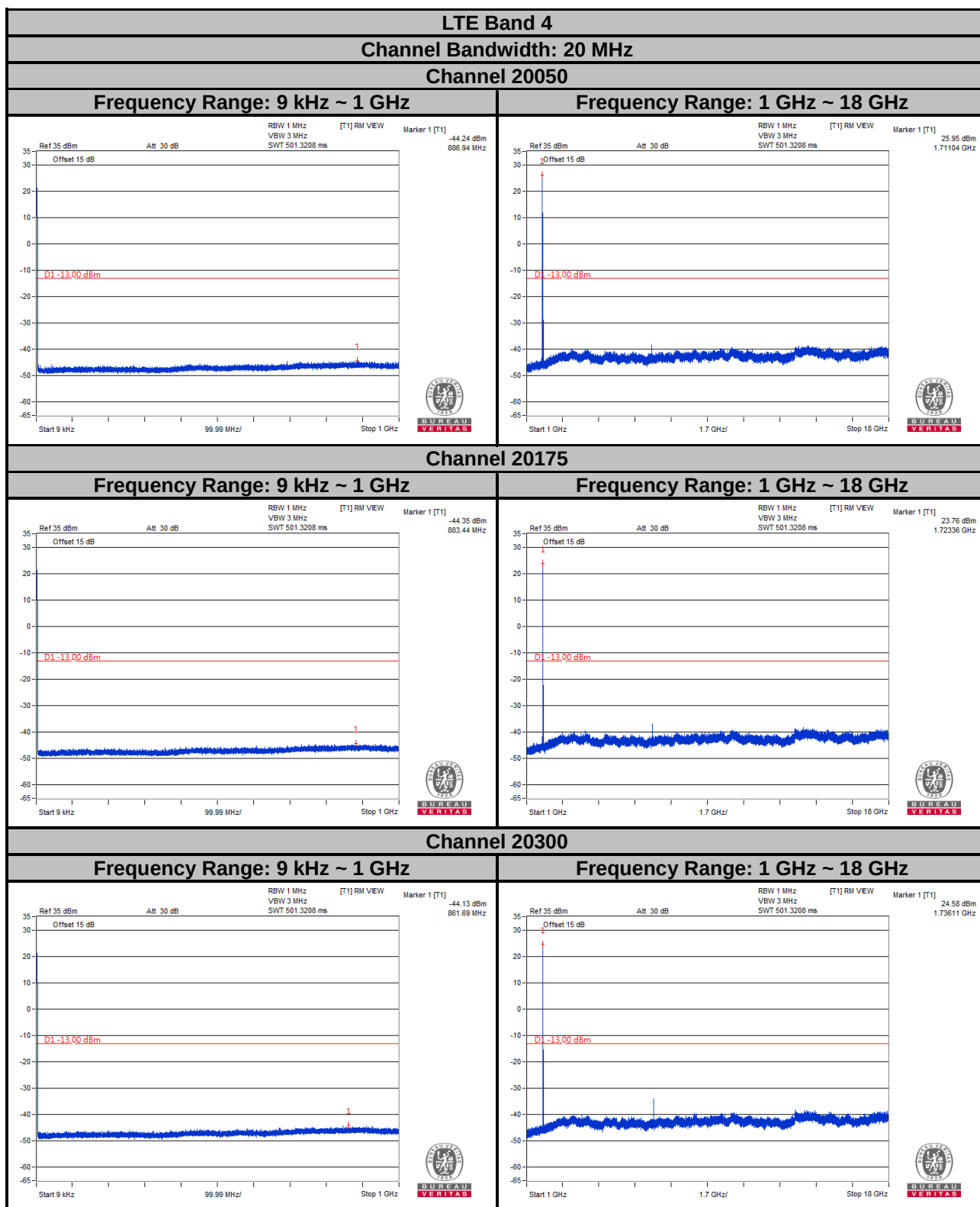
Frequency Range: 9 kHz ~ 1 GHz



Frequency Range: 1 GHz ~ 18 GHz



Note: The signal over the limit at 9 kHz is from the spectrum analyzer.



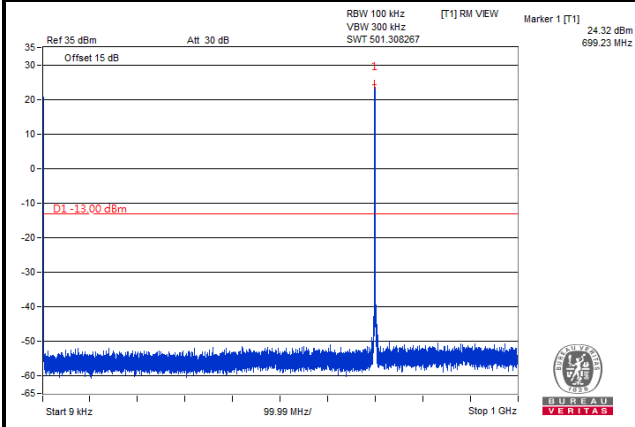
Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

## LTE Band 12

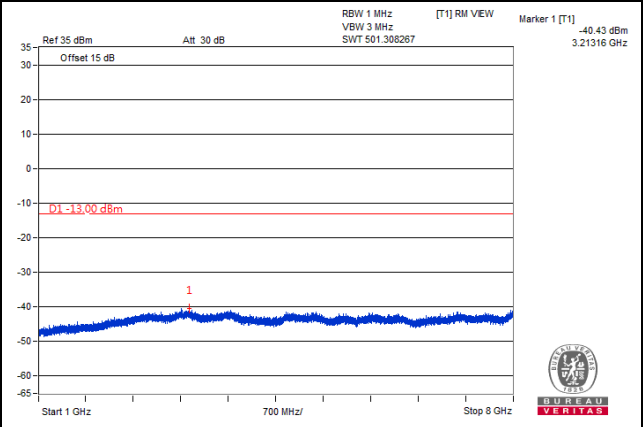
Channel Bandwidth: 1.4 MHz

Channel 23017

Frequency Range: 9 kHz ~ 1 GHz

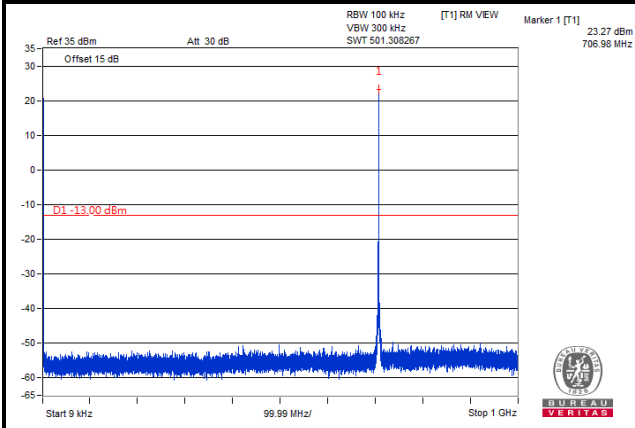


Frequency Range: 1 GHz ~ 8 GHz

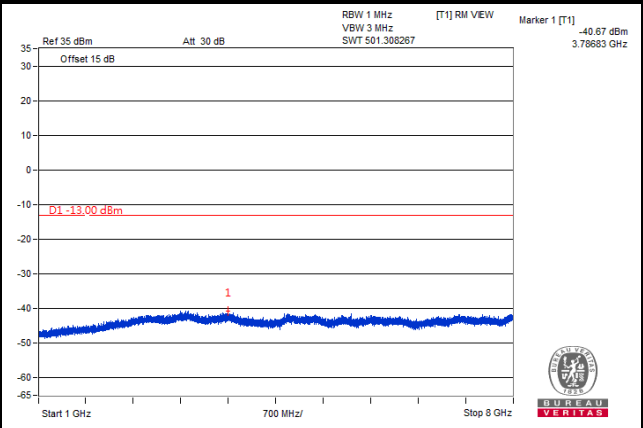


Channel 23095

Frequency Range: 9 kHz ~ 1 GHz

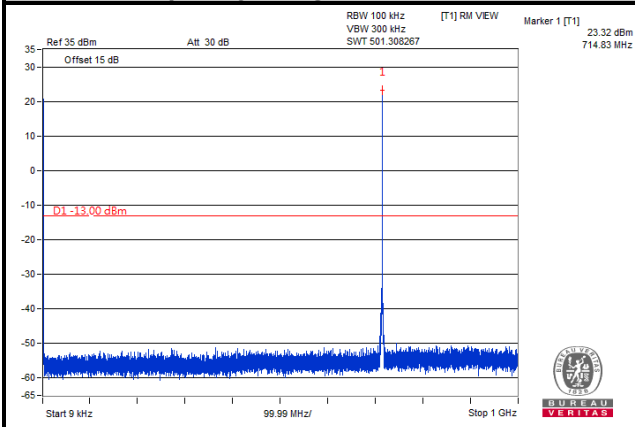


Frequency Range: 1 GHz ~ 8 GHz

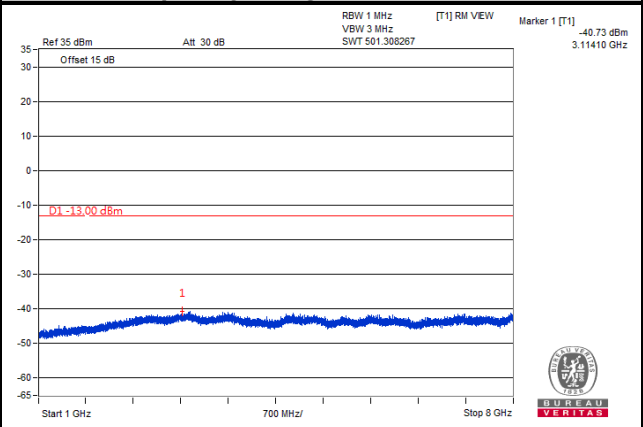


Channel 23173

Frequency Range: 9 kHz ~ 1 GHz



Frequency Range: 1 GHz ~ 8 GHz



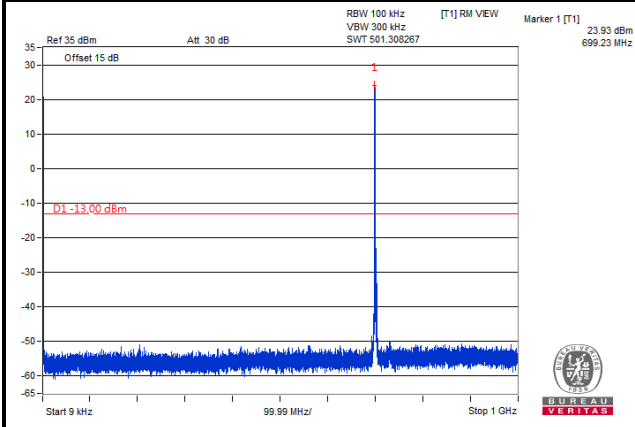
Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

## LTE Band 12

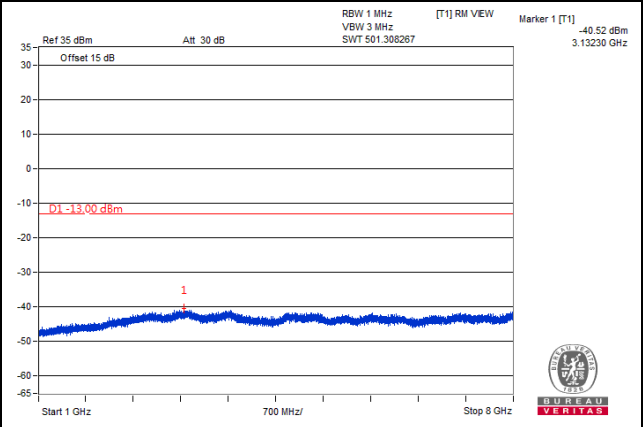
Channel Bandwidth: 3 MHz

Channel 23025

Frequency Range: 9 kHz ~ 1 GHz

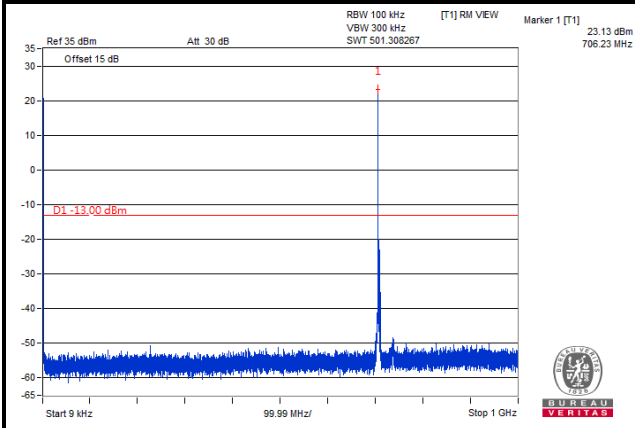


Frequency Range: 1 GHz ~ 8 GHz

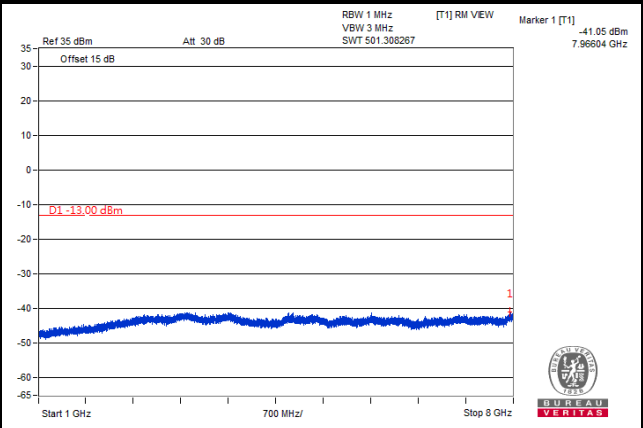


Channel 23095

Frequency Range: 9 kHz ~ 1 GHz

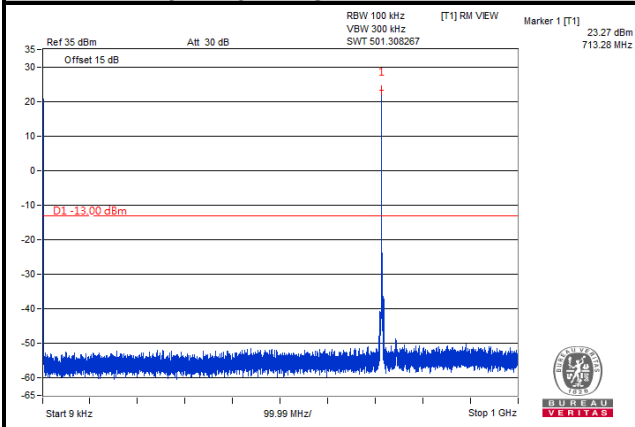


Frequency Range: 1 GHz ~ 8 GHz

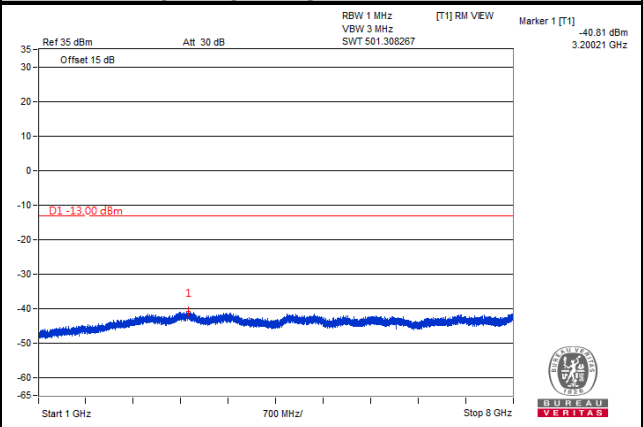


Channel 23165

Frequency Range: 9 kHz ~ 1 GHz



Frequency Range: 1 GHz ~ 8 GHz



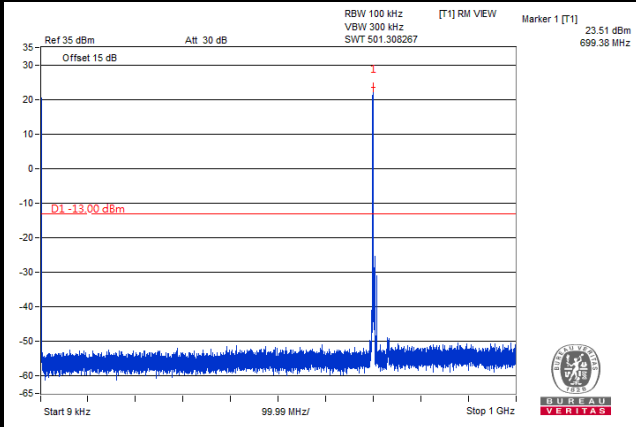
Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

## LTE Band 12

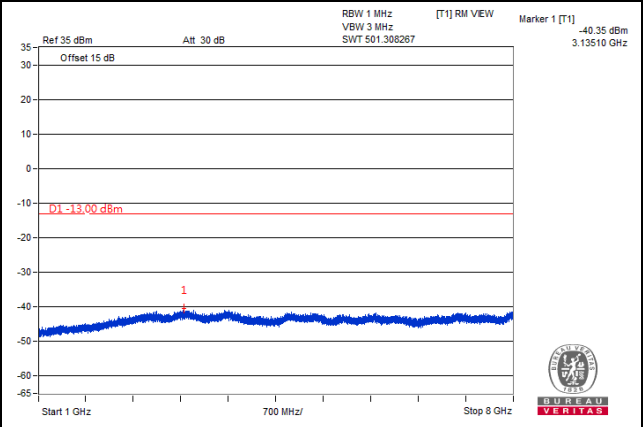
Channel Bandwidth: 5 MHz

Channel 23035

Frequency Range: 9 kHz ~ 1 GHz

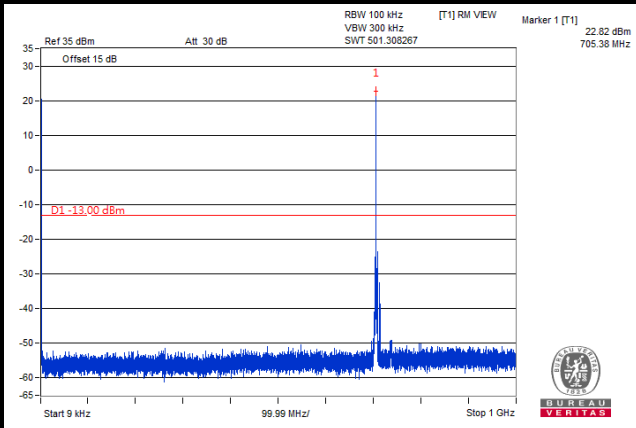


Frequency Range: 1 GHz ~ 8 GHz

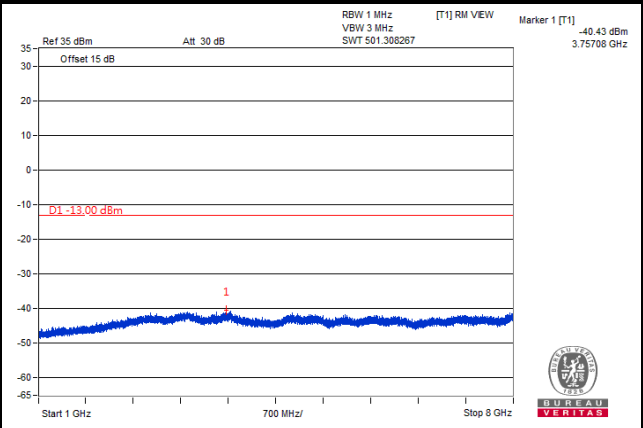


Channel 23095

Frequency Range: 9 kHz ~ 1 GHz

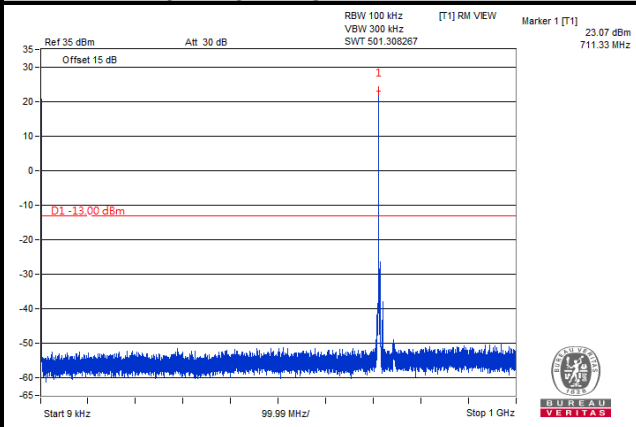


Frequency Range: 1 GHz ~ 8 GHz

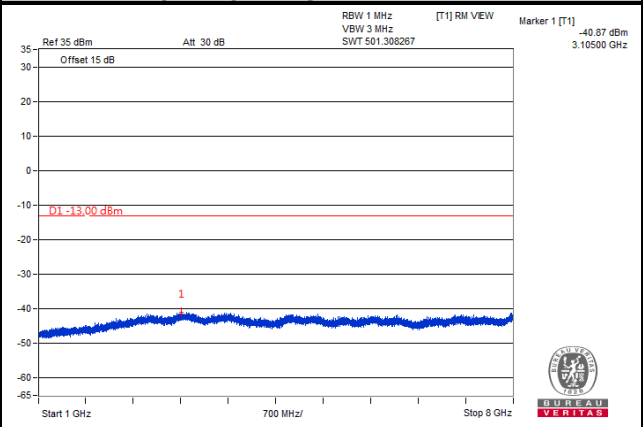


Channel 23155

Frequency Range: 9 kHz ~ 1 GHz



Frequency Range: 1 GHz ~ 8 GHz



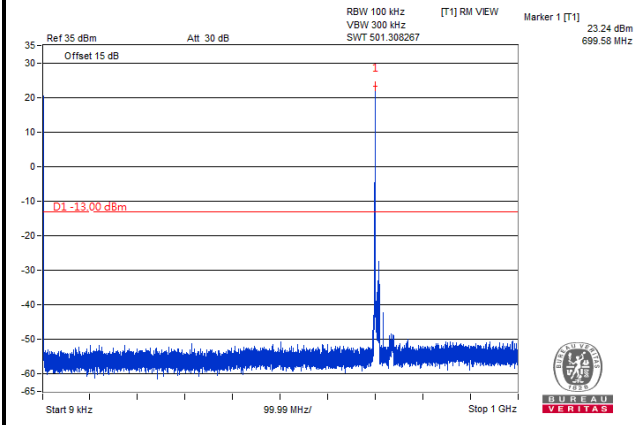
Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

## LTE Band 12

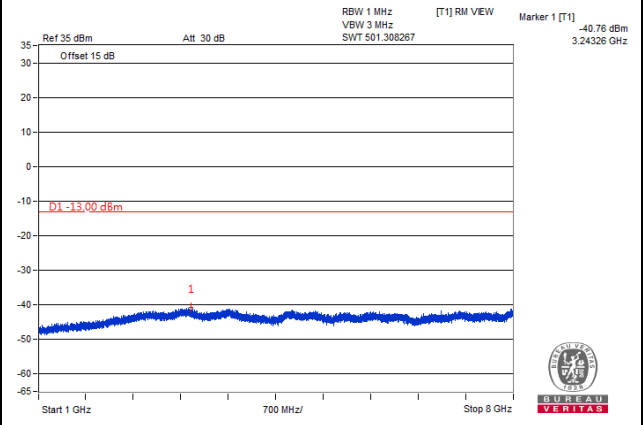
Channel Bandwidth: 10 MHz

Channel 23060

Frequency Range: 9 kHz ~ 1 GHz

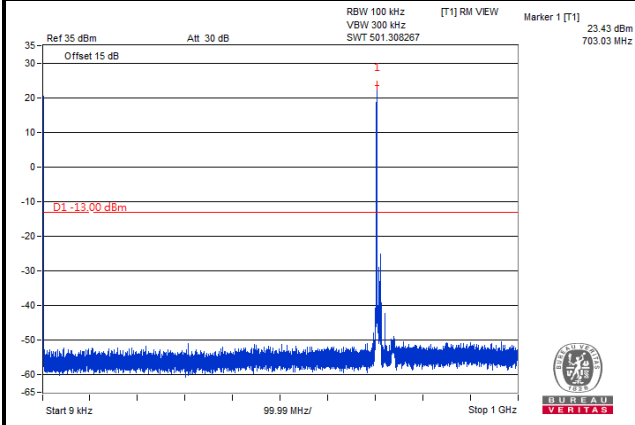


Frequency Range: 1 GHz ~ 8 GHz

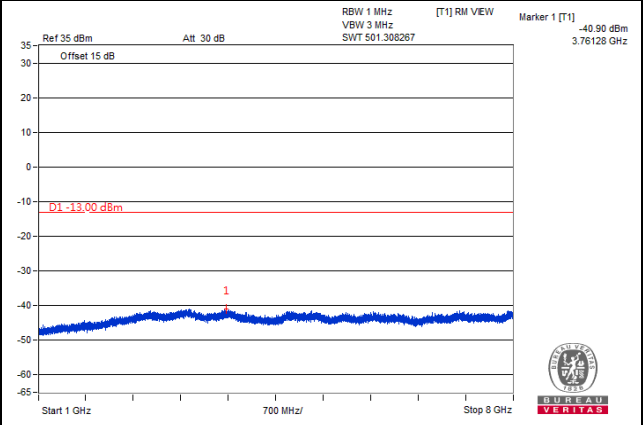


Channel 23095

Frequency Range: 9 kHz ~ 1 GHz

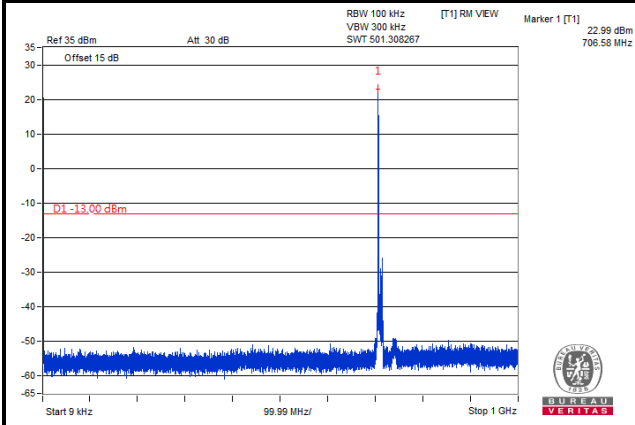


Frequency Range: 1 GHz ~ 8 GHz

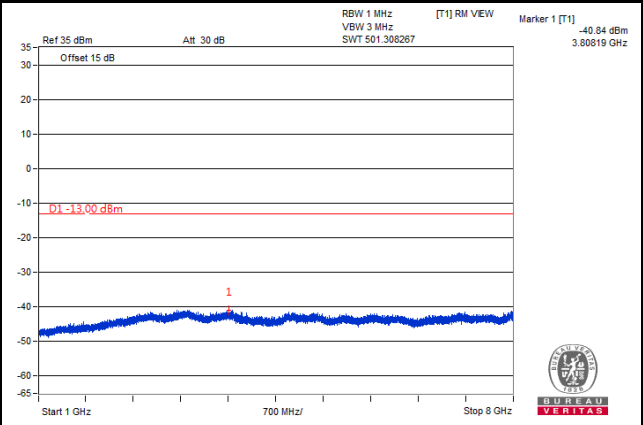


Channel 23130

Frequency Range: 9 kHz ~ 1 GHz



Frequency Range: 1 GHz ~ 8 GHz



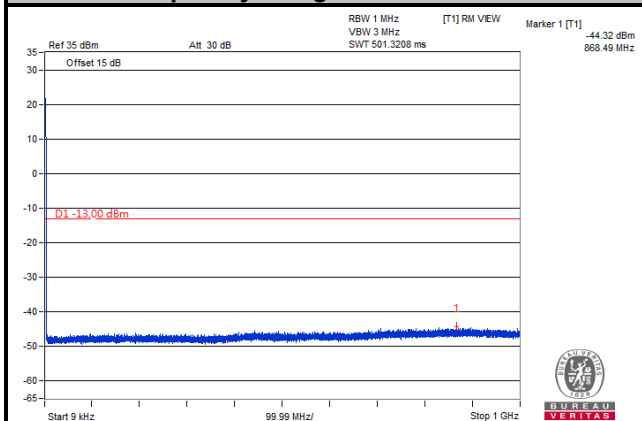
Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

# LTE Band 66

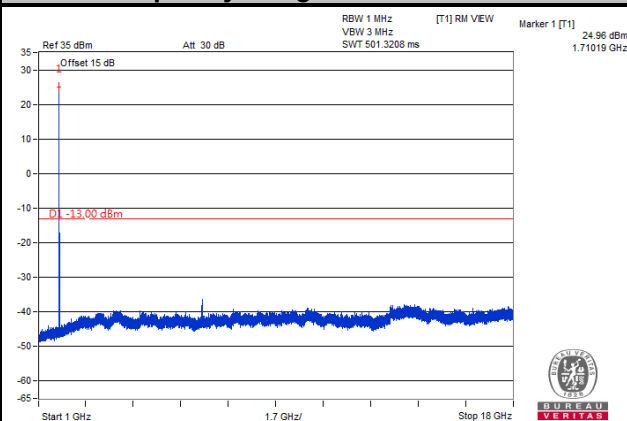
Channel Bandwidth: 1.4 MHz

Channel 131979

Frequency Range: 9 kHz ~ 1 GHz

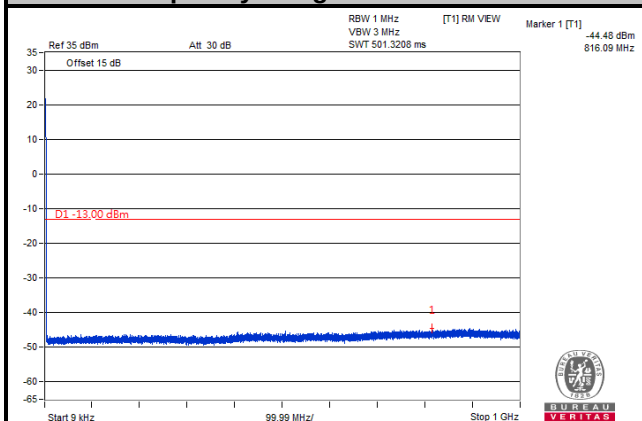


Frequency Range: 1 GHz ~ 18 GHz

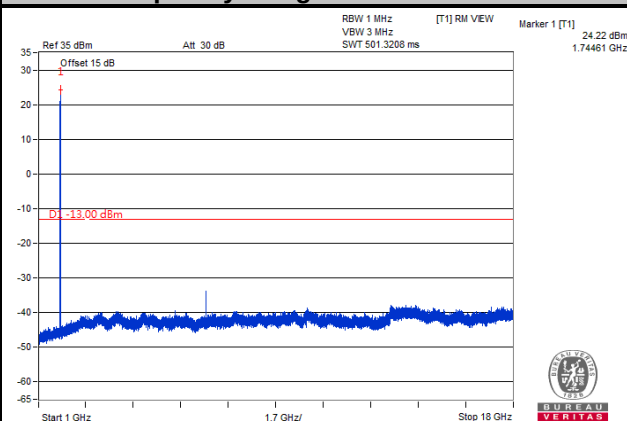


Channel 132322

Frequency Range: 9 kHz ~ 1 GHz

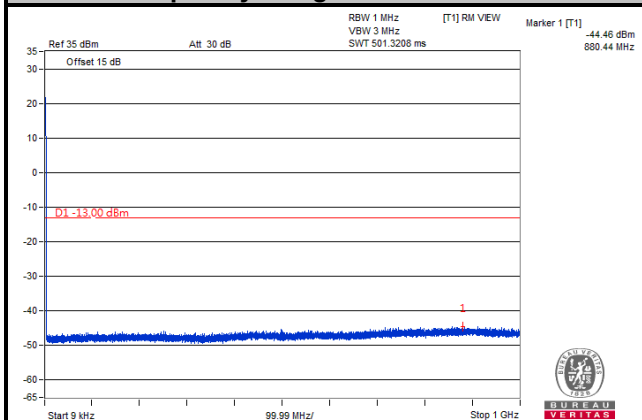


Frequency Range: 1 GHz ~ 18 GHz

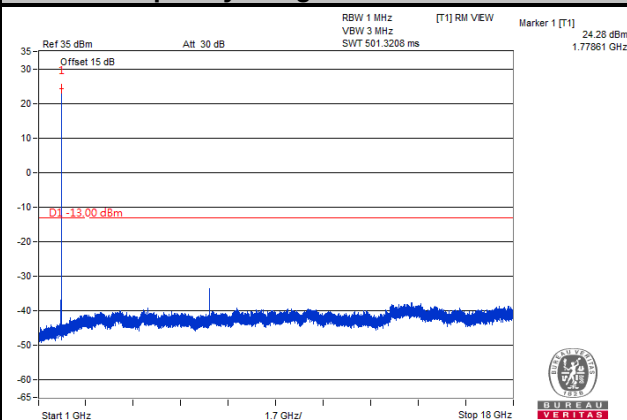


Channel 132665

Frequency Range: 9 kHz ~ 1 GHz



Frequency Range: 1 GHz ~ 18 GHz



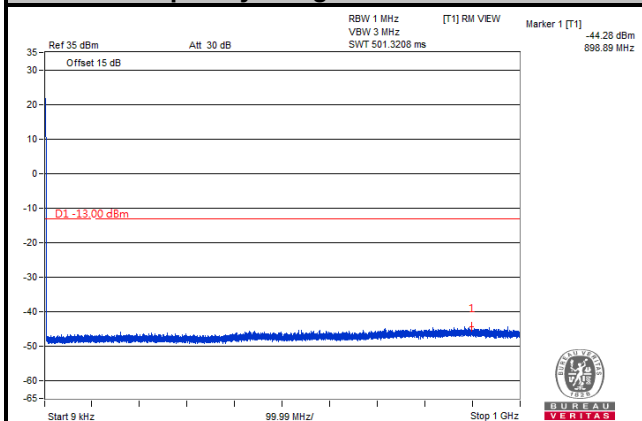
Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

# LTE Band 66

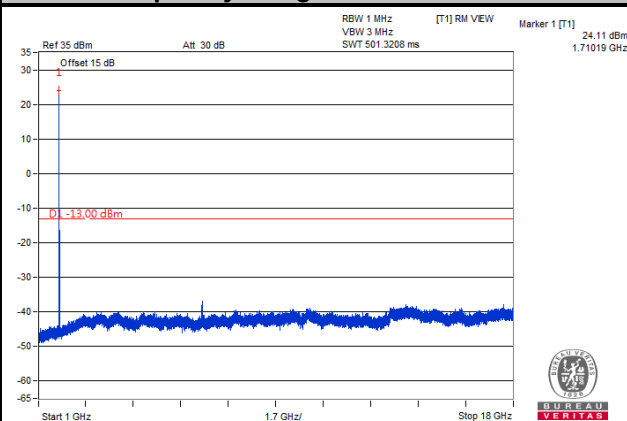
Channel Bandwidth: 3 MHz

Channel 131987

Frequency Range: 9 kHz ~ 1 GHz

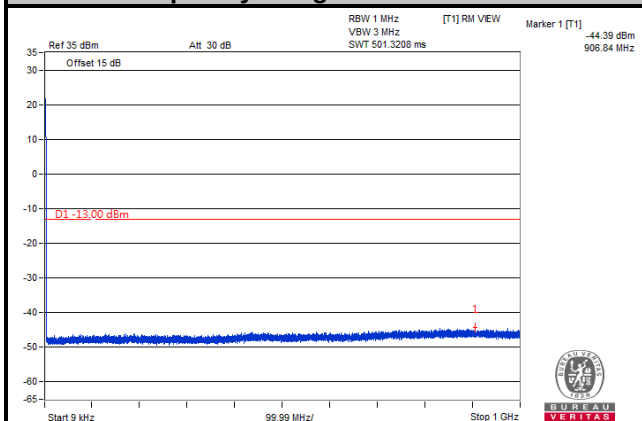


Frequency Range: 1 GHz ~ 18 GHz

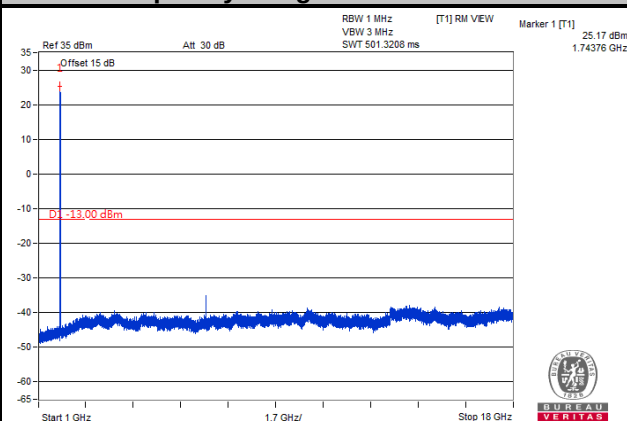


# Channel 132322

Frequency Range: 9 kHz ~ 1 GHz

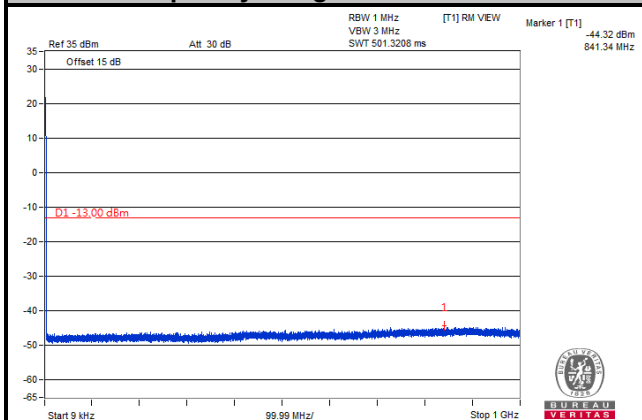


Frequency Range: 1 GHz ~ 18 GHz

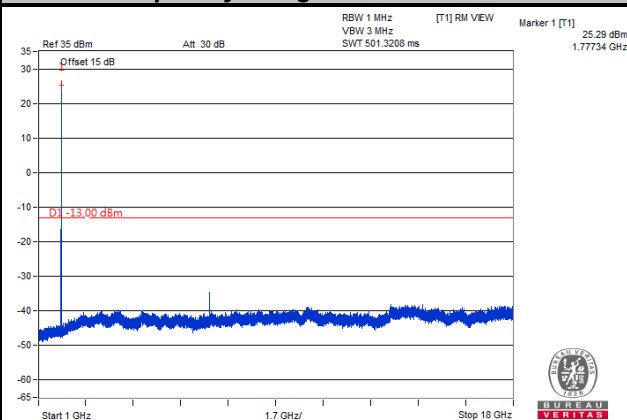


# Channel 132657

Frequency Range: 9 kHz ~ 1 GHz



Frequency Range: 1 GHz ~ 18 GHz



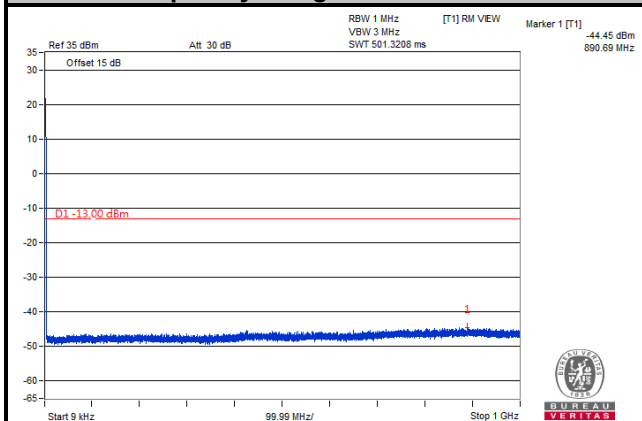
Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

# LTE Band 66

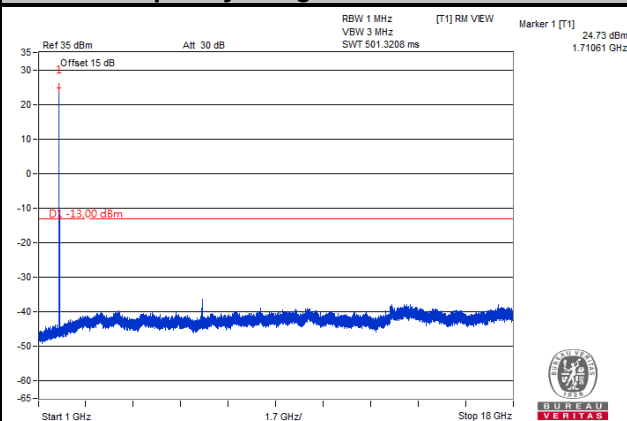
Channel Bandwidth: 5 MHz

Channel 131997

Frequency Range: 9 kHz ~ 1 GHz

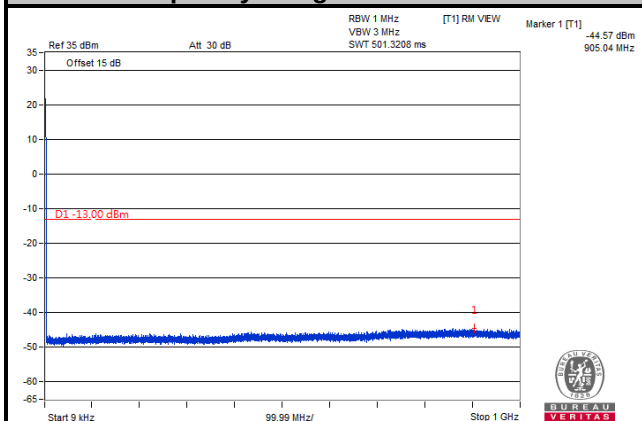


Frequency Range: 1 GHz ~ 18 GHz

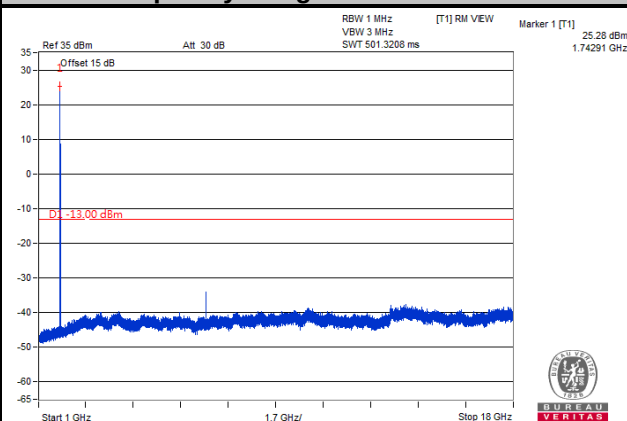


Channel 132322

Frequency Range: 9 kHz ~ 1 GHz

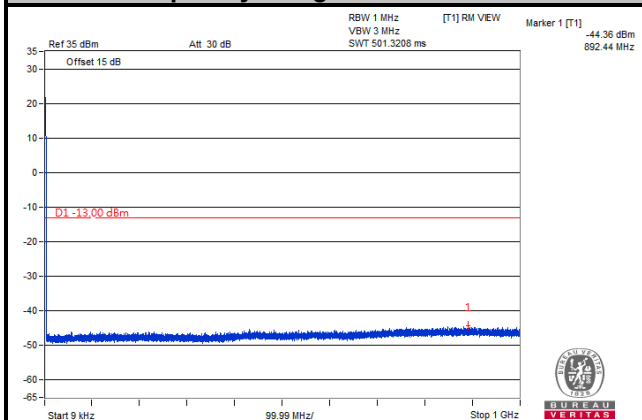


Frequency Range: 1 GHz ~ 18 GHz

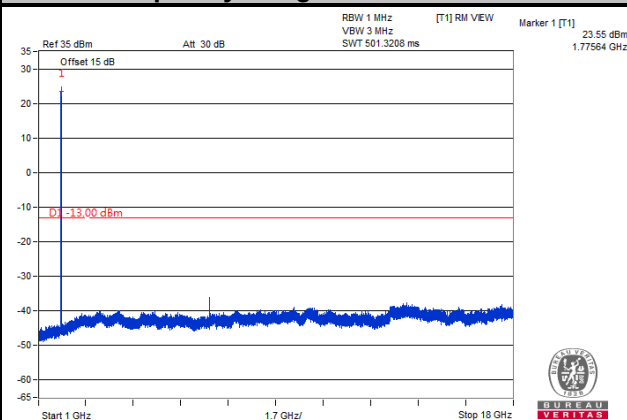


Channel 132647

Frequency Range: 9 kHz ~ 1 GHz



Frequency Range: 1 GHz ~ 18 GHz



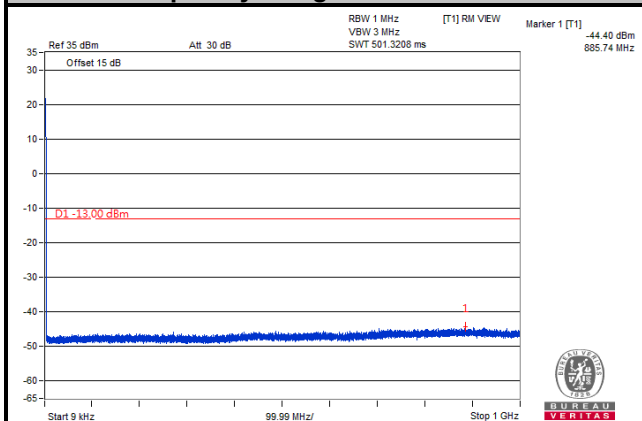
Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

# LTE Band 66

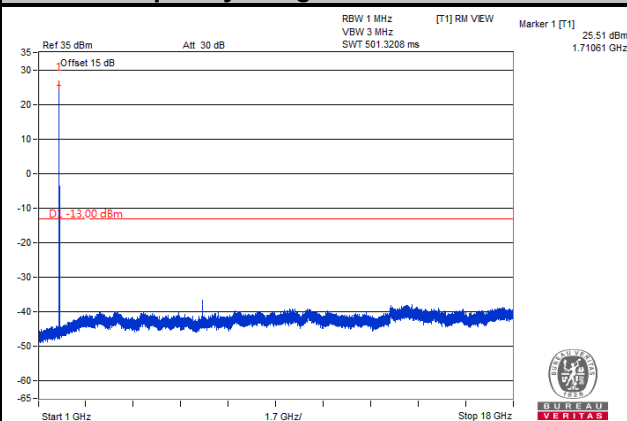
Channel Bandwidth: 10 MHz

Channel 132022

Frequency Range: 9 kHz ~ 1 GHz

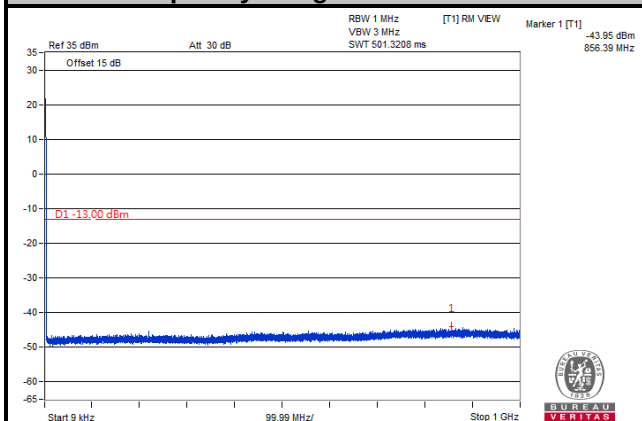


Frequency Range: 1 GHz ~ 18 GHz

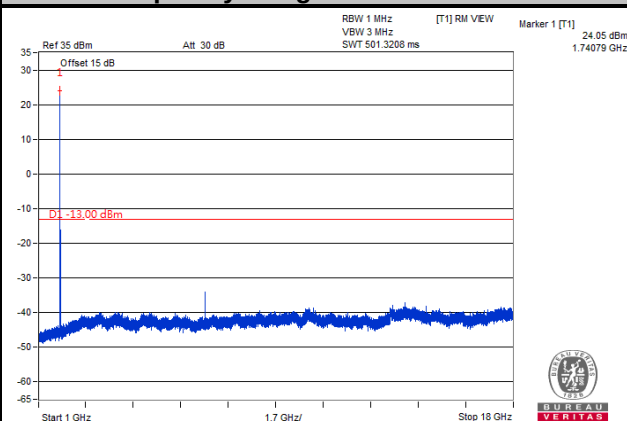


Channel 132322

Frequency Range: 9 kHz ~ 1 GHz

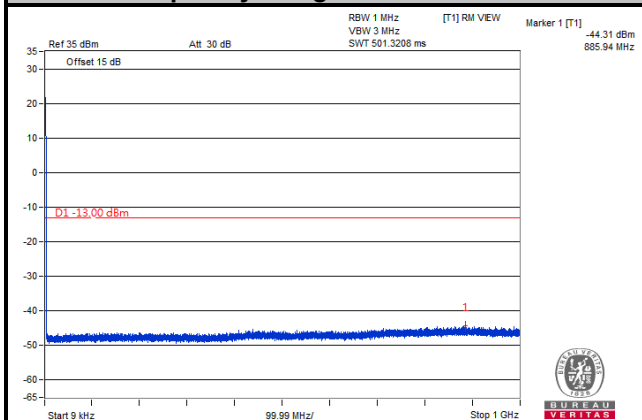


Frequency Range: 1 GHz ~ 18 GHz

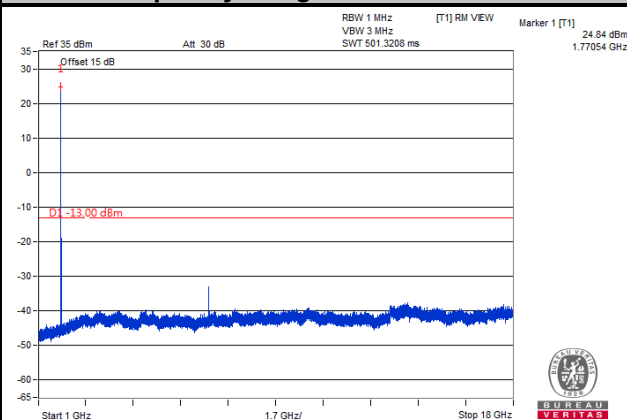


Channel 132622

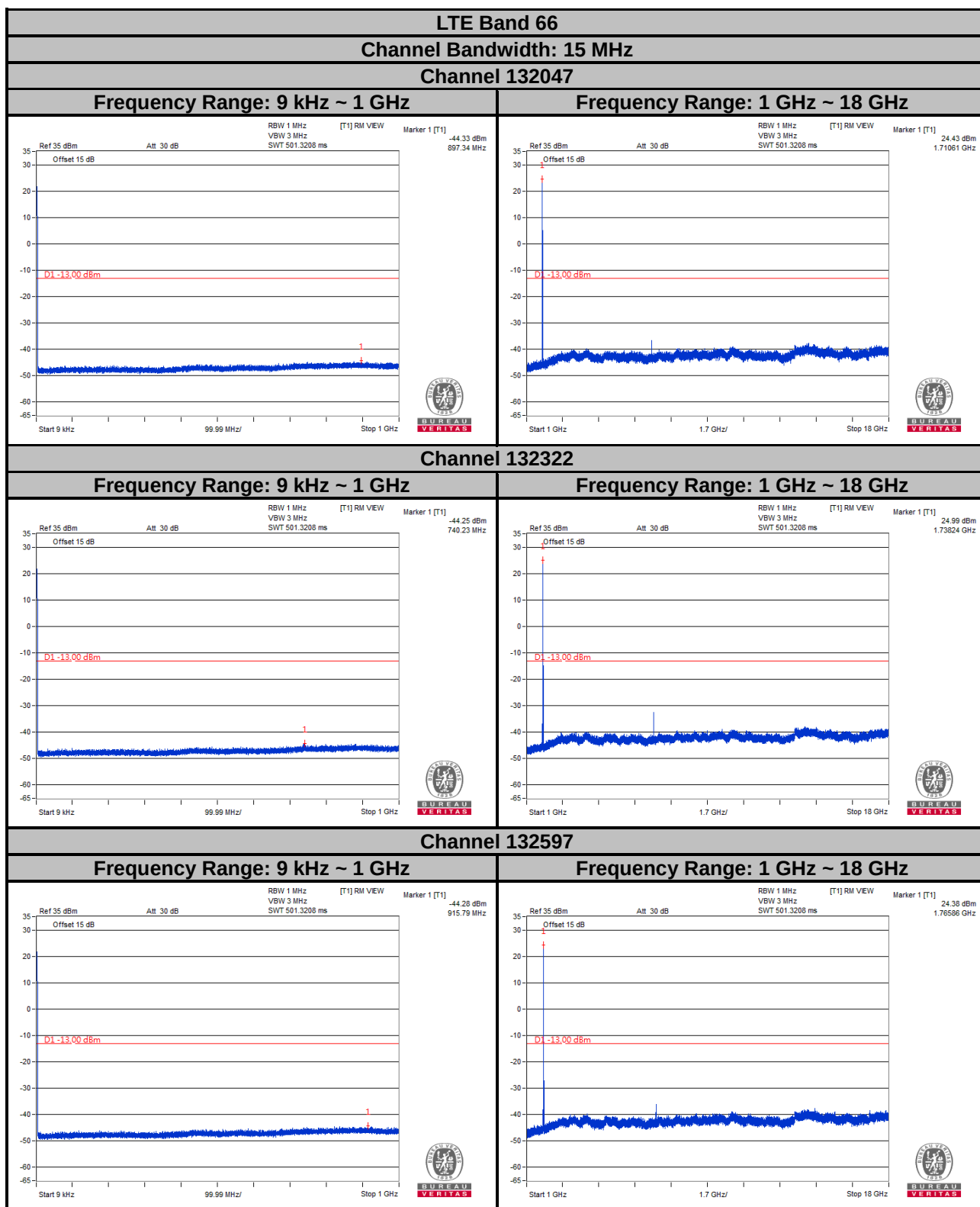
Frequency Range: 9 kHz ~ 1 GHz



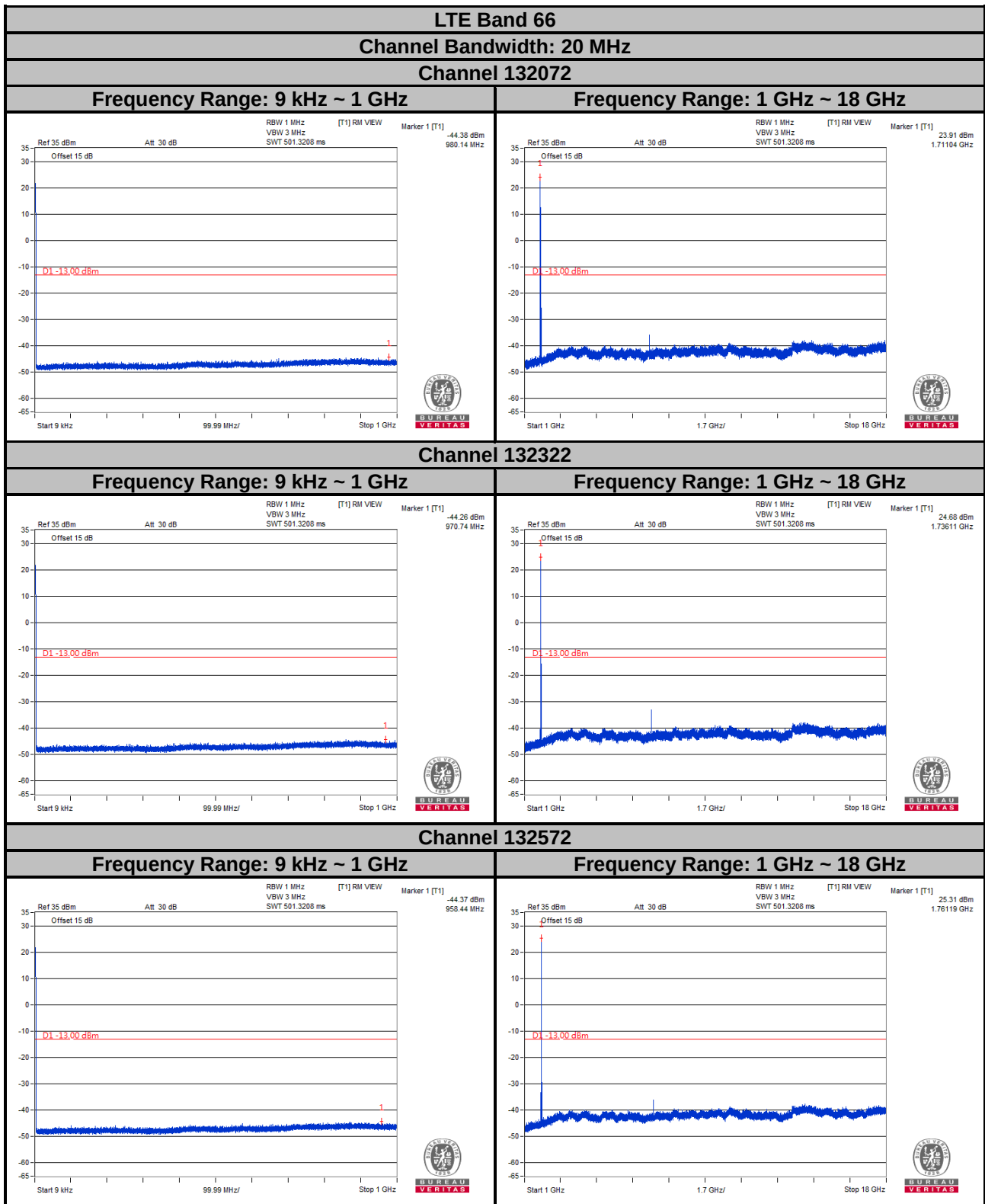
Frequency Range: 1 GHz ~ 18 GHz



Note: The signal over the limit at 9 kHz is from the spectrum analyzer.



Note: The signal over the limit at 9 kHz is from the spectrum analyzer.



Note: The signal over the limit at 9 kHz is from the spectrum analyzer.

## 4.8 Radiated Emission Measurement

### 4.8.1 Limits of Radiated Emission Measurement

- a. The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB. The limit of emission is equal to -13 dBm.

### 4.8.2 Test Procedure

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. ion horn.
- c. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,  $E.R.P \text{ power} = E.I.R.P \text{ power} - 2.15 \text{ dB}$ .

#### Note:

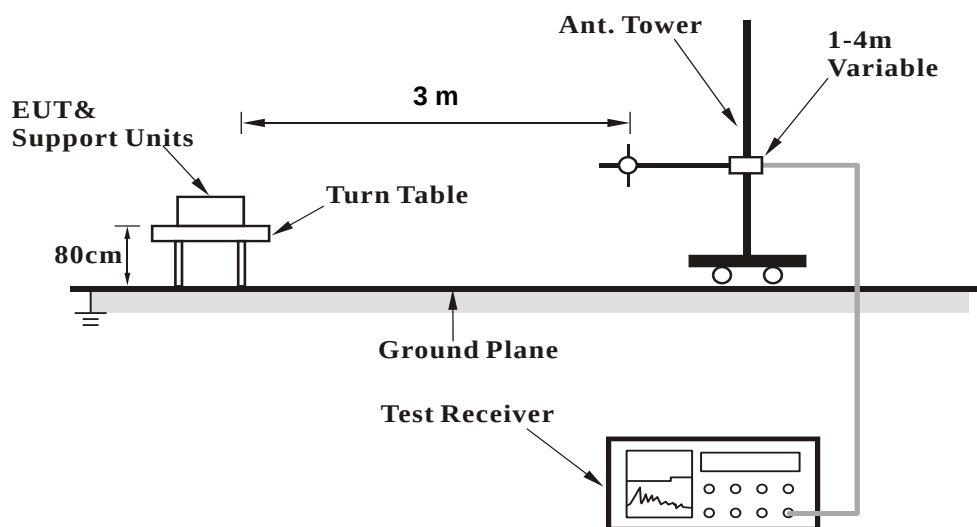
1. The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.
2. The emission levels were against the limit of frequency range 9 kHz ~ 30 MHz:  
The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

### 4.8.3 Deviation from Test Standard

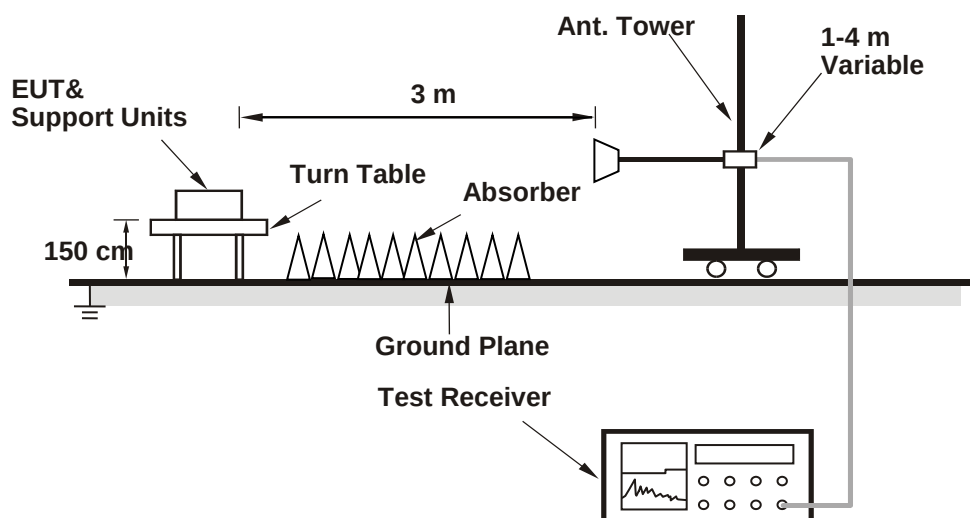
No deviation.

#### 4.8.4 Test Setup

##### <Radiated Emission below or equal 1 GHz>



##### <Radiated Emission above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### 4.8.5 Test Results

WCDMA:

Low Channel

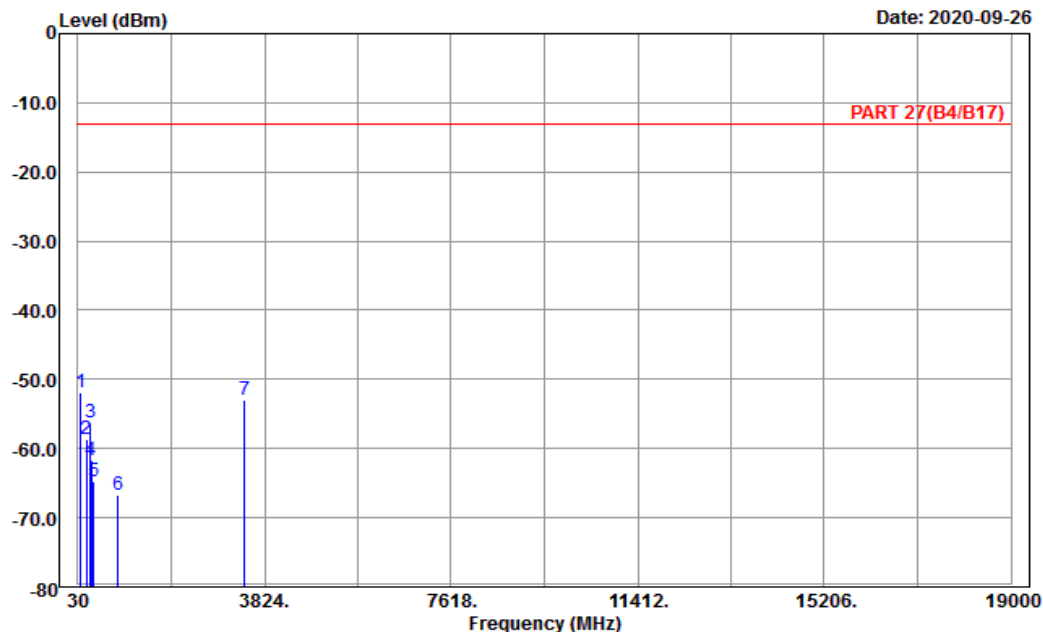


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7

Date: 2020-09-26



Site : 966 chamber 1

Condition: PART 27(B4/B17) Horizontal

Remark : Band IV\_Link\_L-Ch

Tested by: Karl Lee

|      | Freq    | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|---------|--------|------------|--------|------------|------------|--------|
|      | MHz     | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1 pp | 91.29   | -51.87 | -41.25     | -10.62 | -13.00     | -38.87     | Peak   |
| 2    | 197.40  | -58.70 | -52.61     | -6.09  | -13.00     | -45.70     | Peak   |
| 3    | 293.25  | -56.34 | -50.44     | -5.90  | -13.00     | -43.34     | Peak   |
| 4    | 306.30  | -61.75 | -55.87     | -5.88  | -13.00     | -48.75     | Peak   |
| 5    | 359.50  | -64.84 | -59.98     | -4.86  | -13.00     | -51.84     | Peak   |
| 6    | 853.70  | -66.75 | -68.31     | 1.56   | -13.00     | -53.75     | Peak   |
| 7    | 3424.80 | -52.89 | -67.26     | 14.37  | -13.00     | -39.89     | Peak   |

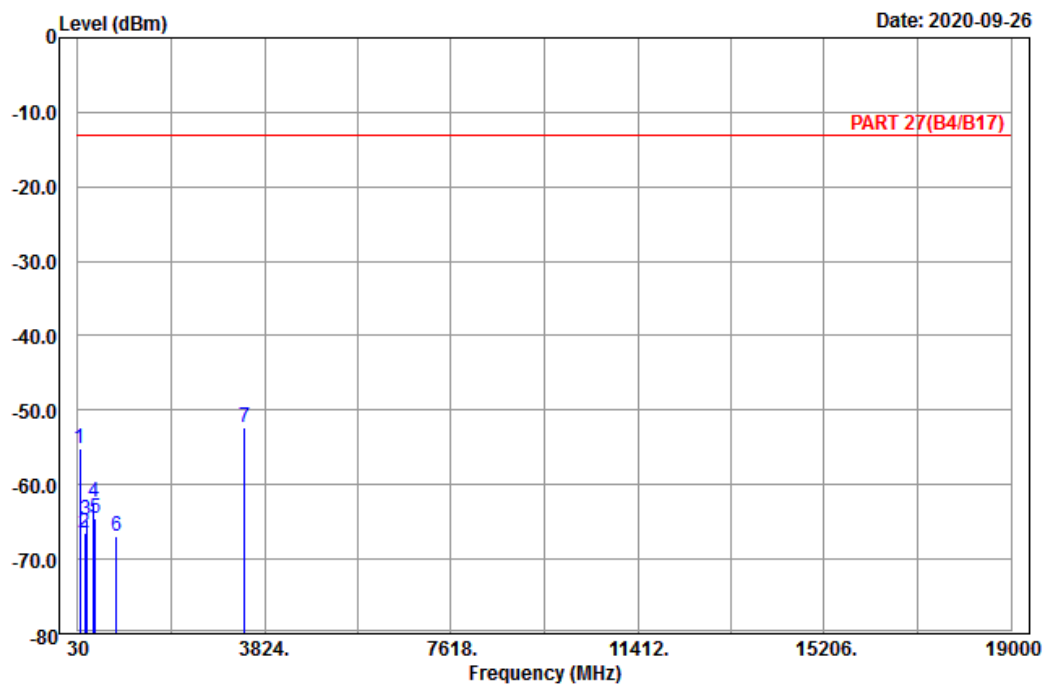


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : Band IV\_Link\_L-Ch  
Tested by: Karl Lee

|      | Freq    | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|---------|--------|------------|--------|------------|------------|--------|
|      | MHz     | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 77.52   | -55.16 | -43.14     | -12.02 | -13.00     | -42.16     | Peak   |
| 2    | 170.67  | -66.49 | -59.89     | -6.60  | -13.00     | -53.49     | Peak   |
| 3    | 201.99  | -64.79 | -58.63     | -6.16  | -13.00     | -51.79     | Peak   |
| 4    | 354.60  | -62.33 | -57.21     | -5.12  | -13.00     | -49.33     | Peak   |
| 5    | 390.30  | -64.57 | -61.31     | -3.26  | -13.00     | -51.57     | Peak   |
| 6    | 813.80  | -66.98 | -68.84     | 1.86   | -13.00     | -53.98     | Peak   |
| 7 pp | 3424.80 | -52.38 | -66.75     | 14.37  | -13.00     | -39.38     | Peak   |

# Middle Channel

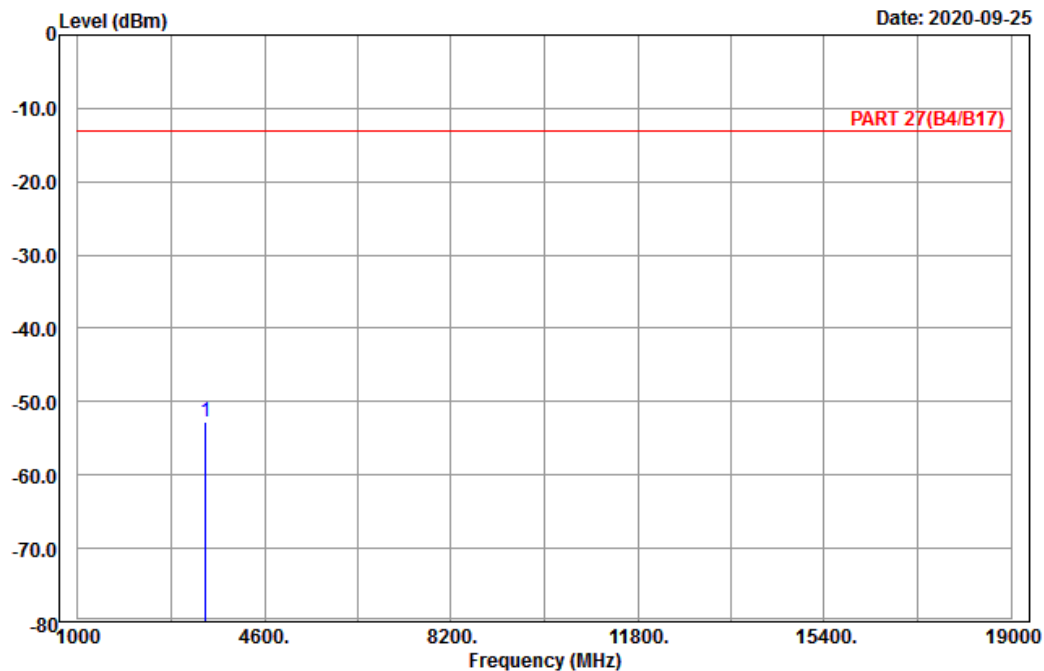


Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

A D T

Data: 9

Date: 2020-09-25



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Horizontal  
Remark : Band IV\_Link\_M-Ch  
Tested by: Karl Lee

|      | Freq    | Level  | Read<br>Level | Factor | Limit<br>Line | Over<br>Limit | Remark |
|------|---------|--------|---------------|--------|---------------|---------------|--------|
|      | MHz     | dBm    | dBm           | dB     | dBm           | dB            |        |
| 1 pp | 3465.20 | -52.84 | -67.18        | 14.34  | -13.00        | -39.84        | Peak   |

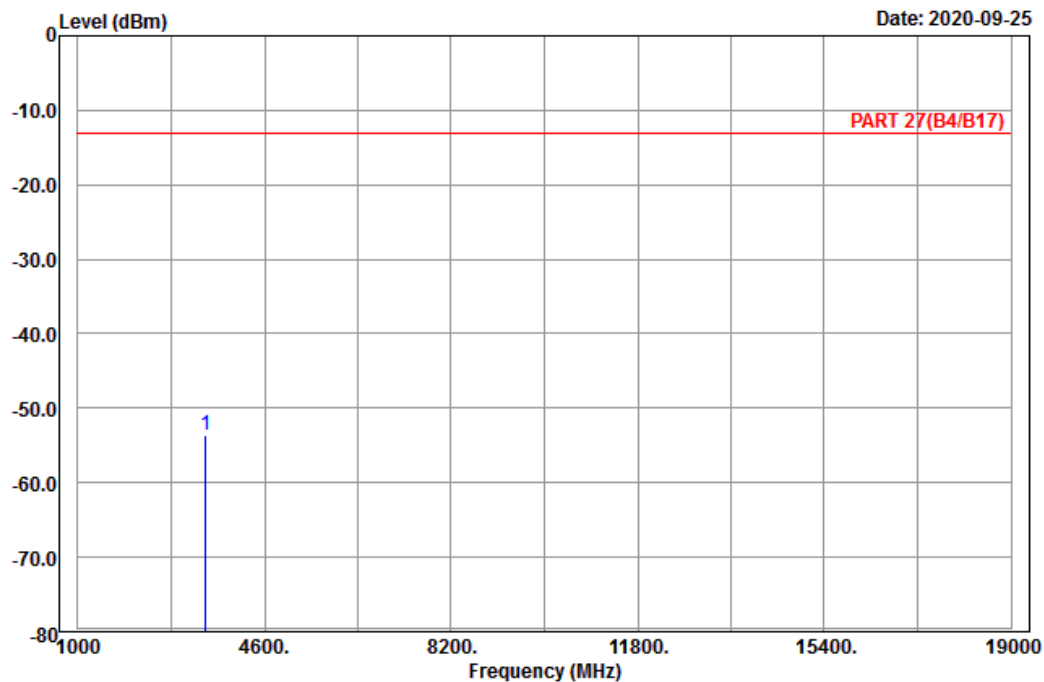


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2020-09-25



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : Band IV\_Link\_M-Ch  
Tested by: Karl Lee

|              |        | Read   |        | Limit  | Over   |        |
|--------------|--------|--------|--------|--------|--------|--------|
| Freq         | Level  | Level  | Factor | Line   | Limit  | Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB     |        |
| 1 pp 3465.20 | -53.69 | -68.03 | 14.34  | -13.00 | -40.69 | Peak   |

## High Channel

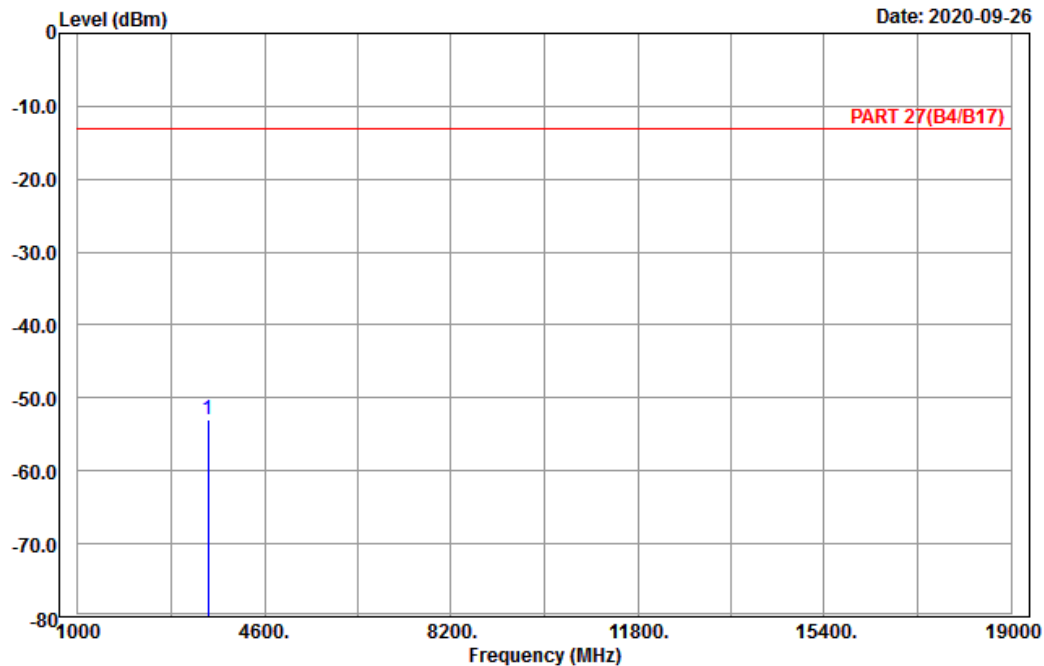


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Horizontal  
Remark : Band IV\_Link\_H-Ch  
Tested by: Karl Lee

| Freq | Level | Read  | Limit  | Over |       |
|------|-------|-------|--------|------|-------|
| MHz  | dBm   | Level | Factor | Line | Limit |
|      |       | dBm   | dB     | dBm  | dB    |

1 pp 3505.20 -53.01 -67.29 14.28 -13.00 -40.01 Peak

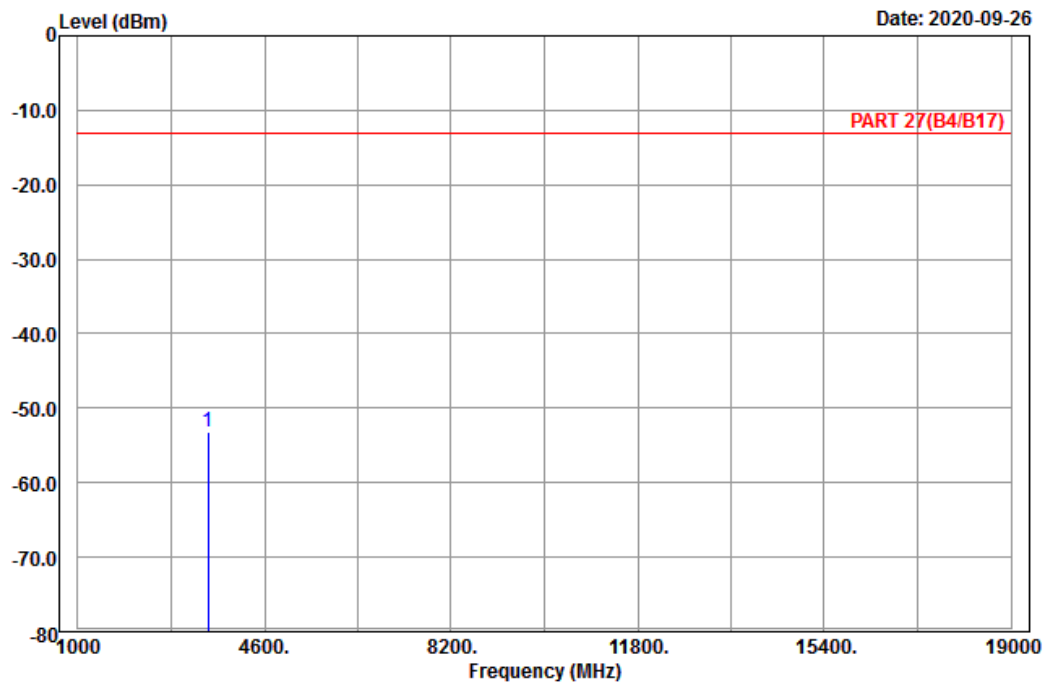


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : Band IV\_Link\_H-Ch  
Tested by: Karl Lee

|      | Freq    | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|---------|--------|------------|--------|------------|------------|--------|
|      | MHz     | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1 pp | 3505.20 | -53.16 | -67.44     | 14.28  | -13.00     | -40.16     | Peak   |

LTE Band 4  
Channel Bandwidth: 1.4 MHz / QPSK  
Low Channel

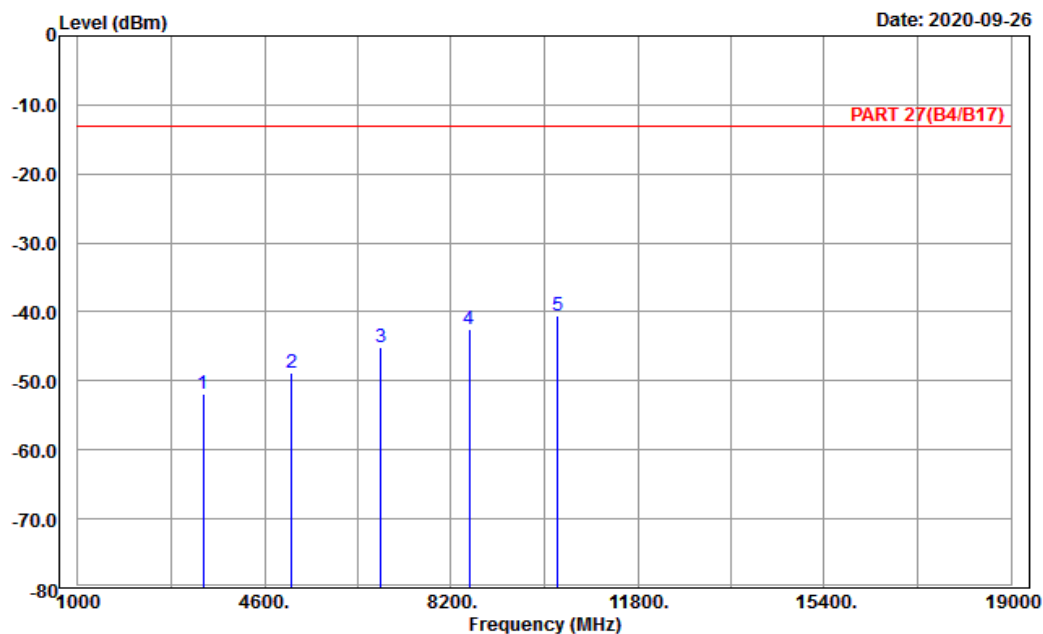


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Horizontal  
Remark : LTE\_Band 4\_Link\_L-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3421.40  | -51.78 | -66.15     | 14.37  | -13.00     | -38.78     | Peak   |
| 2    | 5132.10  | -48.75 | -68.56     | 19.81  | -13.00     | -35.75     | Peak   |
| 3    | 6842.80  | -45.12 | -67.84     | 22.72  | -13.00     | -32.12     | Peak   |
| 4    | 8553.50  | -42.56 | -66.60     | 24.04  | -13.00     | -29.56     | Peak   |
| 5 pp | 10264.20 | -40.44 | -67.03     | 26.59  | -13.00     | -27.44     | Peak   |

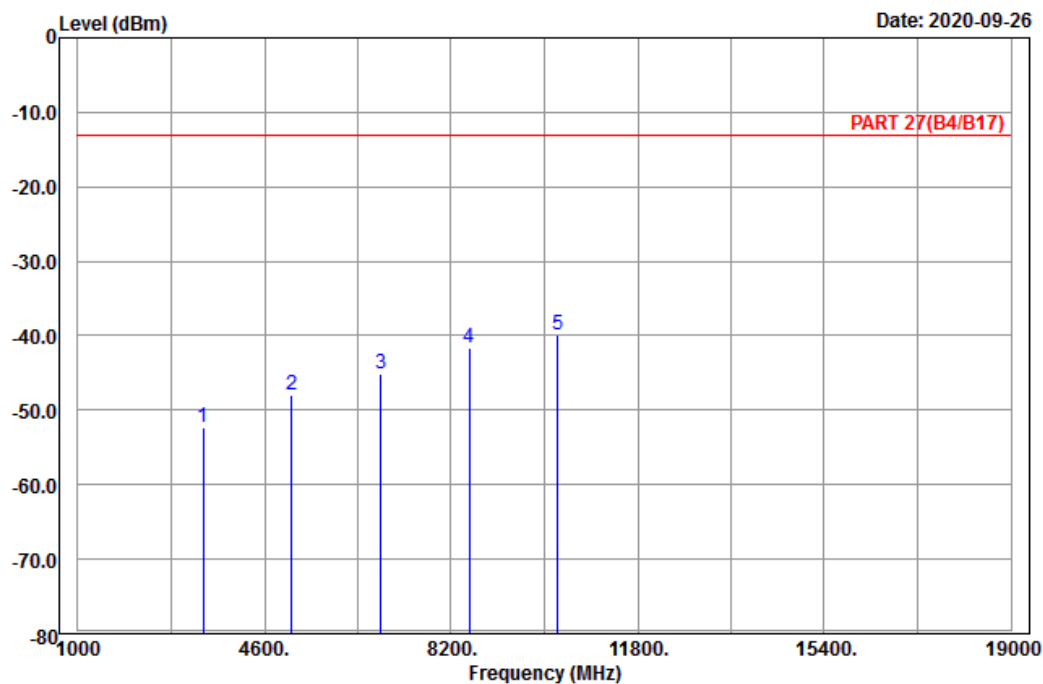


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : LTE\_Band 4\_Link\_L-Ch  
Tested by: Charles Hsiao

|   | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|---|----------|--------|------------|--------|------------|------------|--------|
|   | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1 | 3421.40  | -52.32 | -66.69     | 14.37  | -13.00     | -39.32     | Peak   |
| 2 | 5132.10  | -48.04 | -67.85     | 19.81  | -13.00     | -35.04     | Peak   |
| 3 | 6842.80  | -45.15 | -67.87     | 22.72  | -13.00     | -32.15     | Peak   |
| 4 | 8553.50  | -41.68 | -65.72     | 24.04  | -13.00     | -28.68     | Peak   |
| 5 | 10264.20 | -39.79 | -66.38     | 26.59  | -13.00     | -26.79     | Peak   |

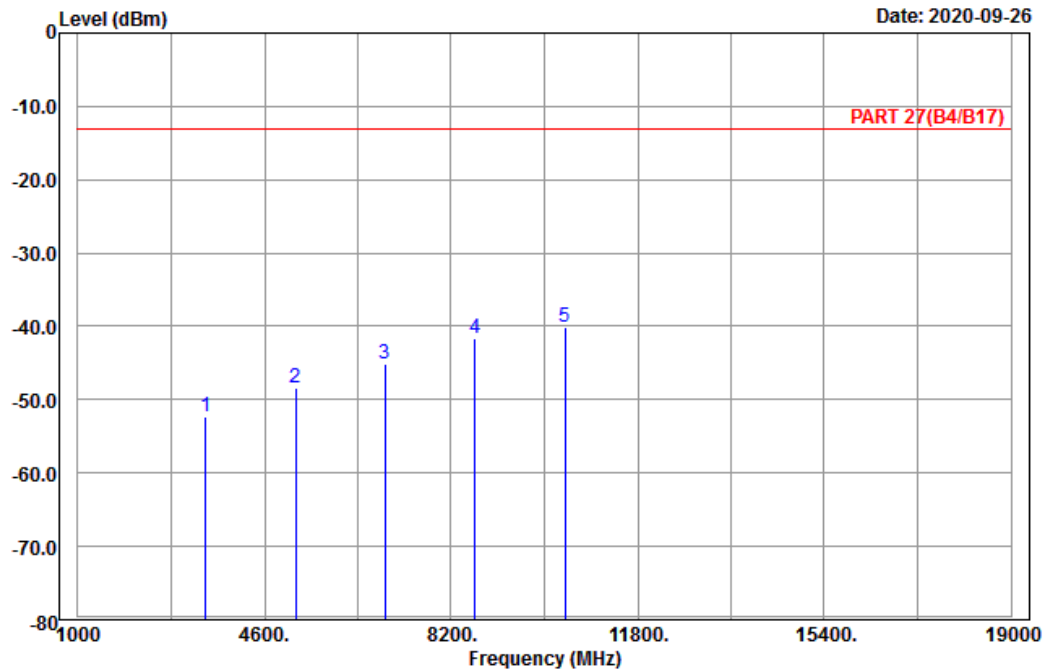
## Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Horizontal  
Remark : LTE\_Band 4\_Link\_M-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3465.00  | -52.37 | -66.71     | 14.34  | -13.00     | -39.37     | Peak   |
| 2    | 5197.50  | -48.49 | -68.61     | 20.12  | -13.00     | -35.49     | Peak   |
| 3    | 6930.00  | -45.08 | -67.95     | 22.87  | -13.00     | -32.08     | Peak   |
| 4    | 8662.50  | -41.62 | -65.83     | 24.21  | -13.00     | -28.62     | Peak   |
| 5 pp | 10395.00 | -40.00 | -66.76     | 26.76  | -13.00     | -27.00     | Peak   |

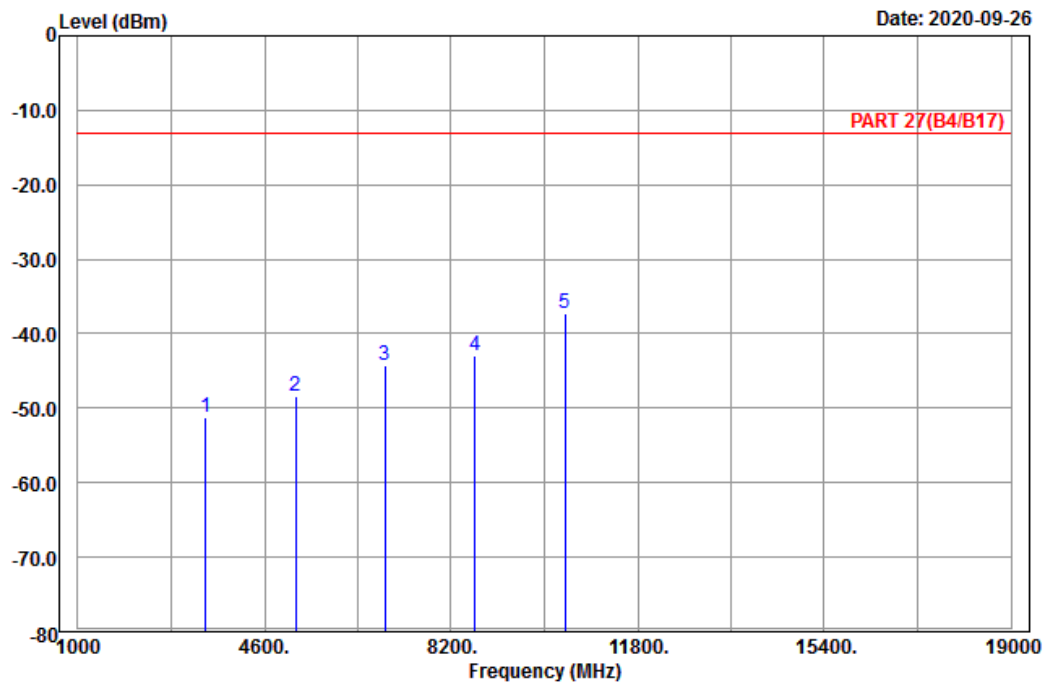


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : LTE\_Band 4\_Link\_M-Ch  
Tested by: Charles Hsiao

|   | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|---|----------|--------|------------|--------|------------|------------|--------|
|   | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1 | 3465.00  | -51.28 | -65.62     | 14.34  | -13.00     | -38.28     | Peak   |
| 2 | 5197.50  | -48.30 | -68.42     | 20.12  | -13.00     | -35.30     | Peak   |
| 3 | 6930.00  | -44.34 | -67.21     | 22.87  | -13.00     | -31.34     | Peak   |
| 4 | 8662.50  | -42.87 | -67.08     | 24.21  | -13.00     | -29.87     | Peak   |
| 5 | 10395.00 | -37.34 | -64.10     | 26.76  | -13.00     | -24.34     | Peak   |

## High Channel

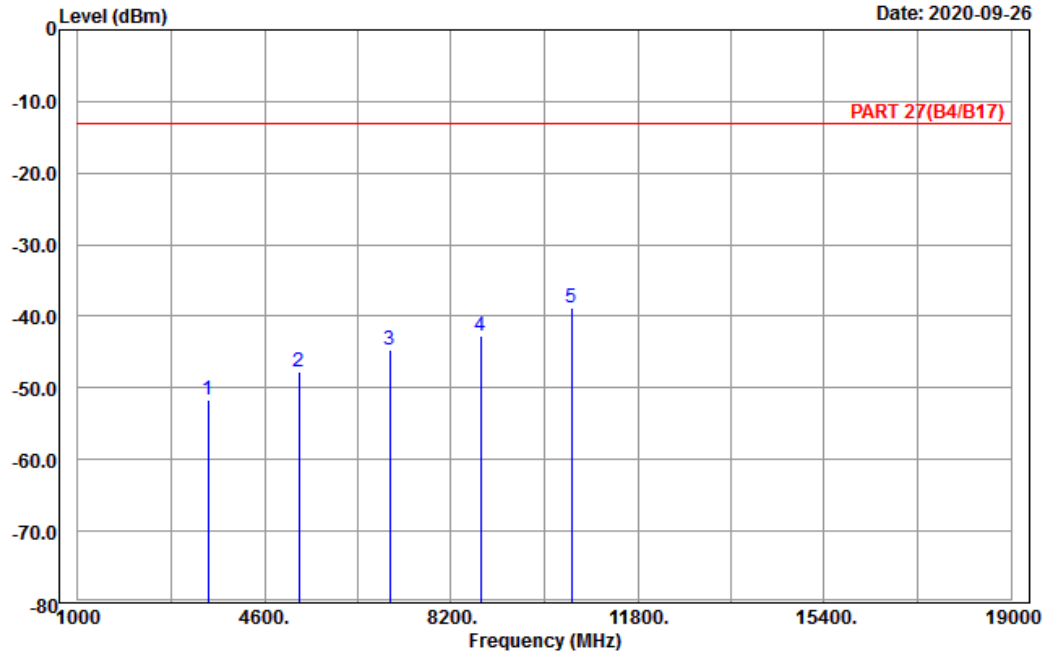


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7

Date: 2020-09-26



Site : 966 chamber 1

Condition: PART 27(B4/B17) Horizontal

Remark : LTE\_Band 4\_Link\_H-Ch

Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3508.60  | -51.59 | -65.87     | 14.28  | -13.00     | -38.59     | Peak   |
| 2    | 5262.90  | -47.72 | -67.92     | 20.20  | -13.00     | -34.72     | Peak   |
| 3    | 7017.20  | -44.64 | -67.25     | 22.61  | -13.00     | -31.64     | Peak   |
| 4    | 8771.50  | -42.64 | -67.20     | 24.56  | -13.00     | -29.64     | Peak   |
| 5 pp | 10525.80 | -38.81 | -65.46     | 26.65  | -13.00     | -25.81     | Peak   |

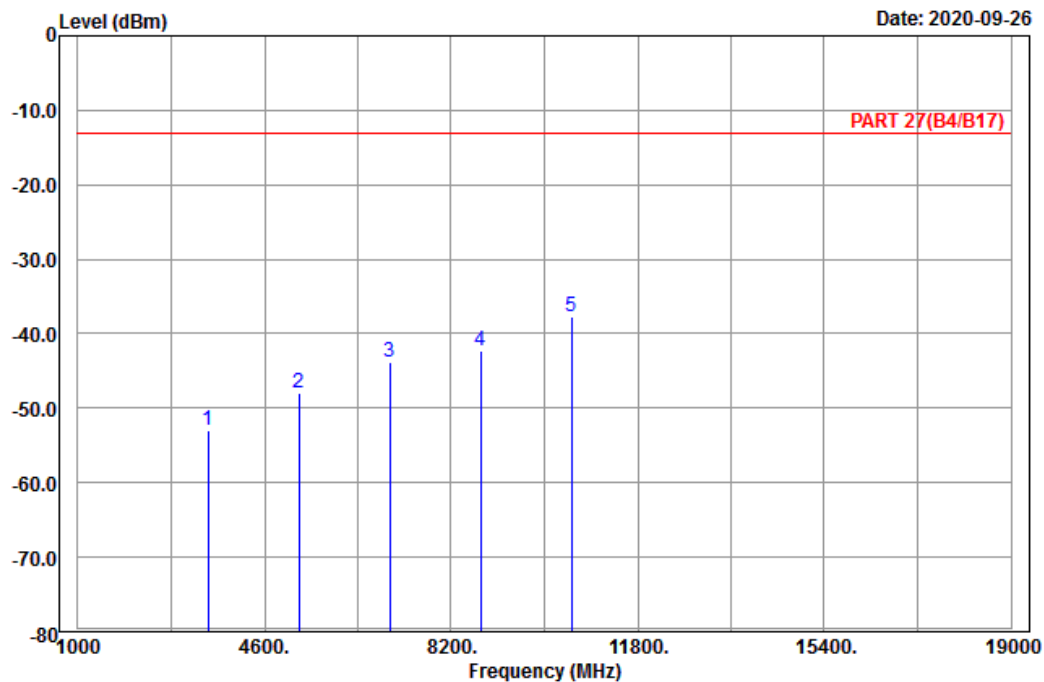


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : LTE\_Band 4\_Link\_H-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3508.60  | -52.97 | -67.25     | 14.28  | -13.00     | -39.97     | Peak   |
| 2    | 5262.90  | -47.92 | -68.12     | 20.20  | -13.00     | -34.92     | Peak   |
| 3    | 7017.20  | -43.76 | -66.37     | 22.61  | -13.00     | -30.76     | Peak   |
| 4    | 8771.50  | -42.31 | -66.87     | 24.56  | -13.00     | -29.31     | Peak   |
| 5 pp | 10525.80 | -37.75 | -64.40     | 26.65  | -13.00     | -24.75     | Peak   |

Channel Bandwidth: 5 MHz / QPSK  
Low Channel

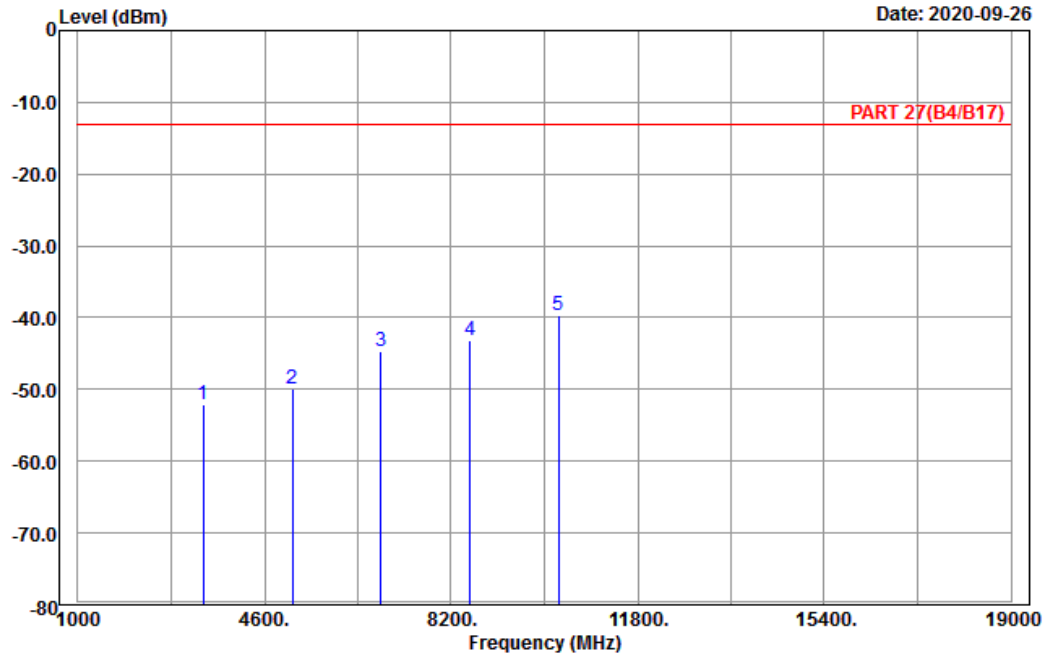


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Horizontal  
Remark : LTE\_Band 4\_Link\_L-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3425.00  | -52.13 | -66.50     | 14.37  | -13.00     | -39.13     | Peak   |
| 2    | 5137.50  | -49.84 | -69.65     | 19.81  | -13.00     | -36.84     | Peak   |
| 3    | 6850.00  | -44.77 | -67.49     | 22.72  | -13.00     | -31.77     | Peak   |
| 4    | 8562.50  | -43.20 | -67.24     | 24.04  | -13.00     | -30.20     | Peak   |
| 5 pp | 10275.00 | -39.58 | -66.17     | 26.59  | -13.00     | -26.58     | Peak   |

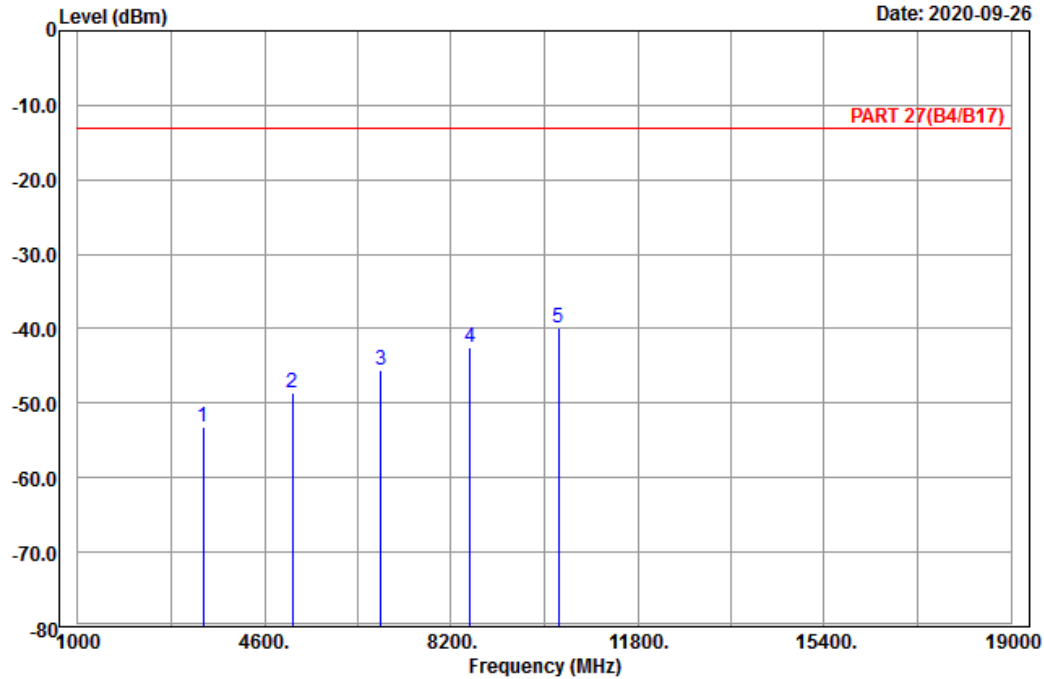


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : LTE\_Band 4\_Link\_L-Ch  
Tested by: Charles Hsiao

|   | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|---|----------|--------|------------|--------|------------|------------|--------|
|   | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1 | 3425.00  | -53.25 | -67.62     | 14.37  | -13.00     | -40.25     | Peak   |
| 2 | 5137.50  | -48.66 | -68.47     | 19.81  | -13.00     | -35.66     | Peak   |
| 3 | 6850.00  | -45.55 | -68.27     | 22.72  | -13.00     | -32.55     | Peak   |
| 4 | 8562.50  | -42.58 | -66.62     | 24.04  | -13.00     | -29.58     | Peak   |
| 5 | 10275.00 | -39.98 | -66.57     | 26.59  | -13.00     | -26.98     | Peak   |

# Middle Channel

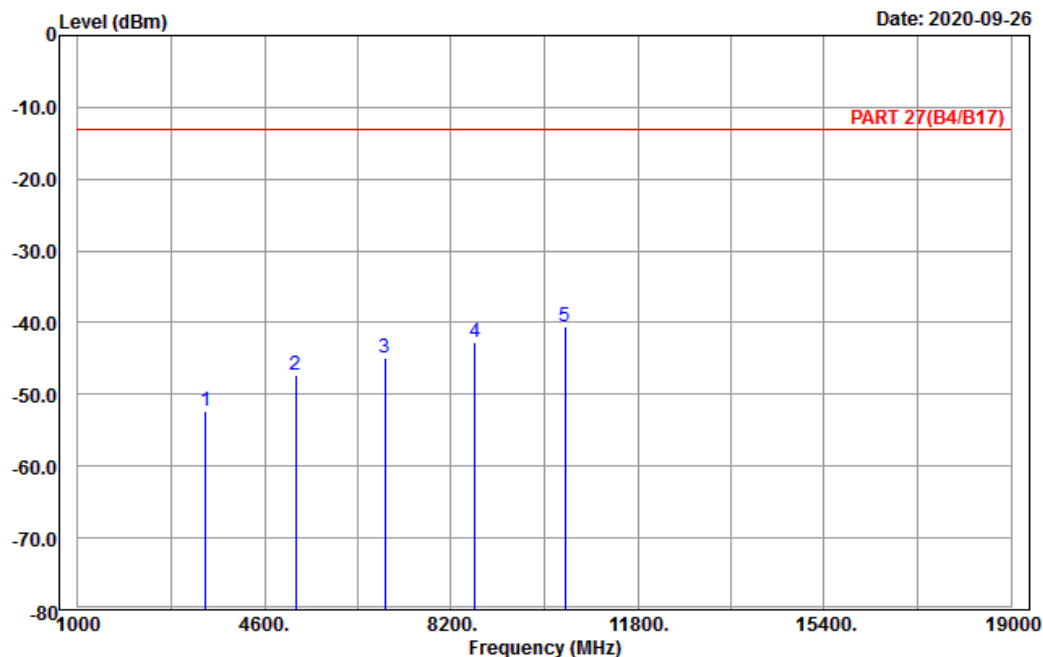


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2020-09-26



Site : 966 chamber 1

Condition: PART 27(B4/B17) Horizontal

Remark : LTE\_Band 4\_Link\_M-Ch

Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3465.00  | -52.25 | -66.59     | 14.34  | -13.00     | -39.25     | Peak   |
| 2    | 5197.50  | -47.40 | -67.52     | 20.12  | -13.00     | -34.40     | Peak   |
| 3    | 6930.00  | -44.88 | -67.75     | 22.87  | -13.00     | -31.88     | Peak   |
| 4    | 8662.50  | -42.77 | -66.98     | 24.21  | -13.00     | -29.77     | Peak   |
| 5 pp | 10395.00 | -40.50 | -67.26     | 26.76  | -13.00     | -27.50     | Peak   |

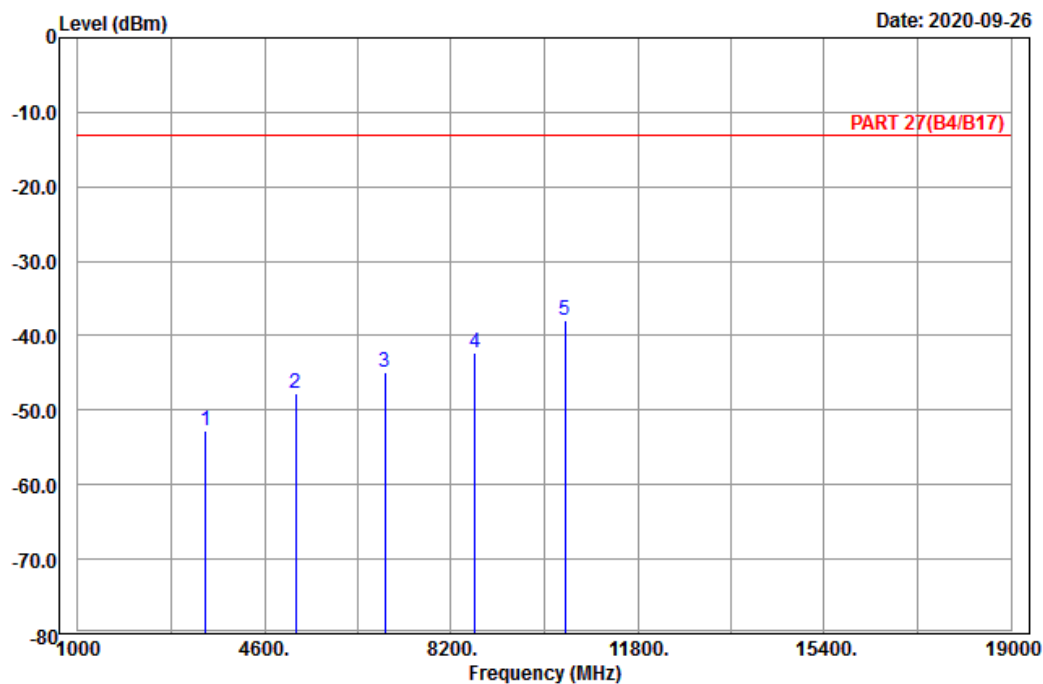


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : LTE\_Band 4\_Link\_M-Ch  
Tested by: Charles Hsiao

|   | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|---|----------|--------|------------|--------|------------|------------|--------|
|   | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1 | 3465.00  | -52.73 | -67.07     | 14.34  | -13.00     | -39.73     | Peak   |
| 2 | 5197.50  | -47.84 | -67.96     | 20.12  | -13.00     | -34.84     | Peak   |
| 3 | 6930.00  | -44.91 | -67.78     | 22.87  | -13.00     | -31.91     | Peak   |
| 4 | 8662.50  | -42.35 | -66.56     | 24.21  | -13.00     | -29.35     | Peak   |
| 5 | 10395.00 | -37.90 | -64.66     | 26.76  | -13.00     | -24.90     | Peak   |

## High Channel

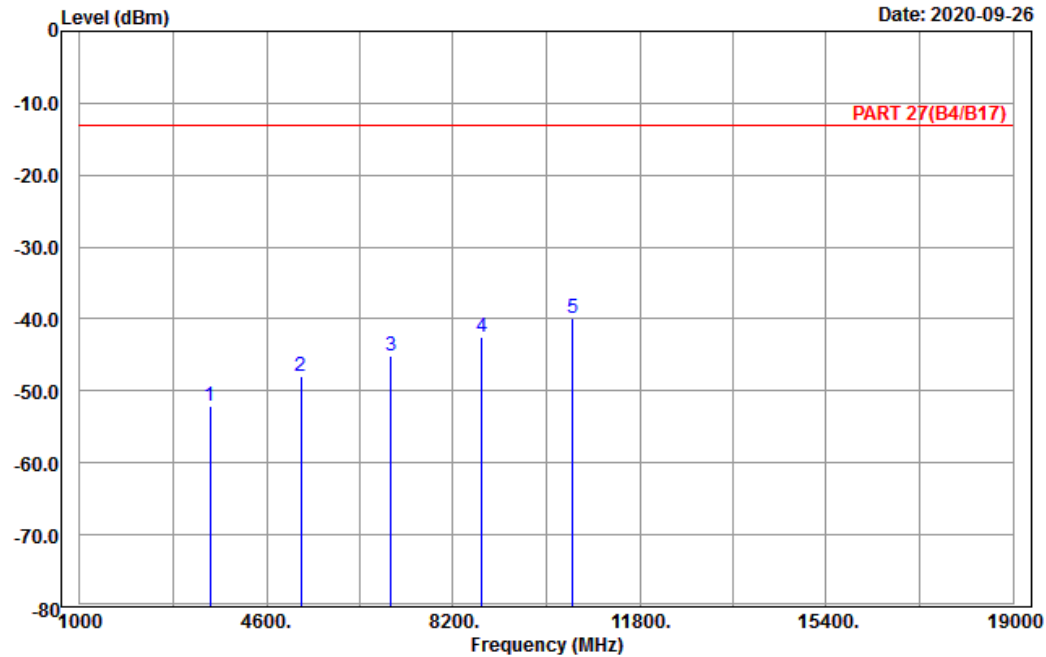


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2020-09-26



Site : 966 chamber 1

Condition: PART 27(B4/B17) Horizontal

Remark : LTE\_Band 4\_Link\_H-Ch

Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3505.00  | -52.02 | -66.30     | 14.28  | -13.00     | -39.02     | Peak   |
| 2    | 5257.50  | -47.86 | -68.06     | 20.20  | -13.00     | -34.86     | Peak   |
| 3    | 7010.00  | -45.17 | -67.78     | 22.61  | -13.00     | -32.17     | Peak   |
| 4    | 8762.50  | -42.53 | -67.03     | 24.50  | -13.00     | -29.53     | Peak   |
| 5 pp | 10515.00 | -39.97 | -66.62     | 26.65  | -13.00     | -26.97     | Peak   |

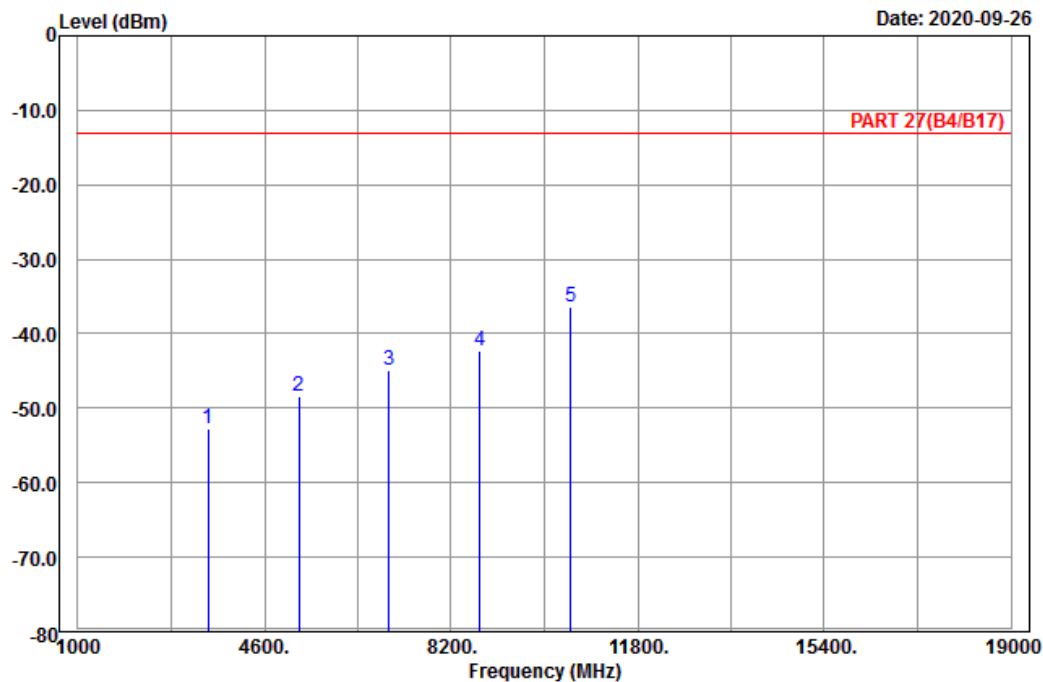


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : LTE\_Band 4\_Link\_H-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3505.00  | -52.82 | -67.10     | 14.28  | -13.00     | -39.82     | Peak   |
| 2    | 5257.50  | -48.43 | -68.63     | 20.20  | -13.00     | -35.43     | Peak   |
| 3    | 7010.00  | -44.84 | -67.45     | 22.61  | -13.00     | -31.84     | Peak   |
| 4    | 8762.50  | -42.34 | -66.84     | 24.50  | -13.00     | -29.34     | Peak   |
| 5 pp | 10515.00 | -36.30 | -62.95     | 26.65  | -13.00     | -23.30     | Peak   |

Channel Bandwidth: 20 MHz / QPSK  
Low Channel

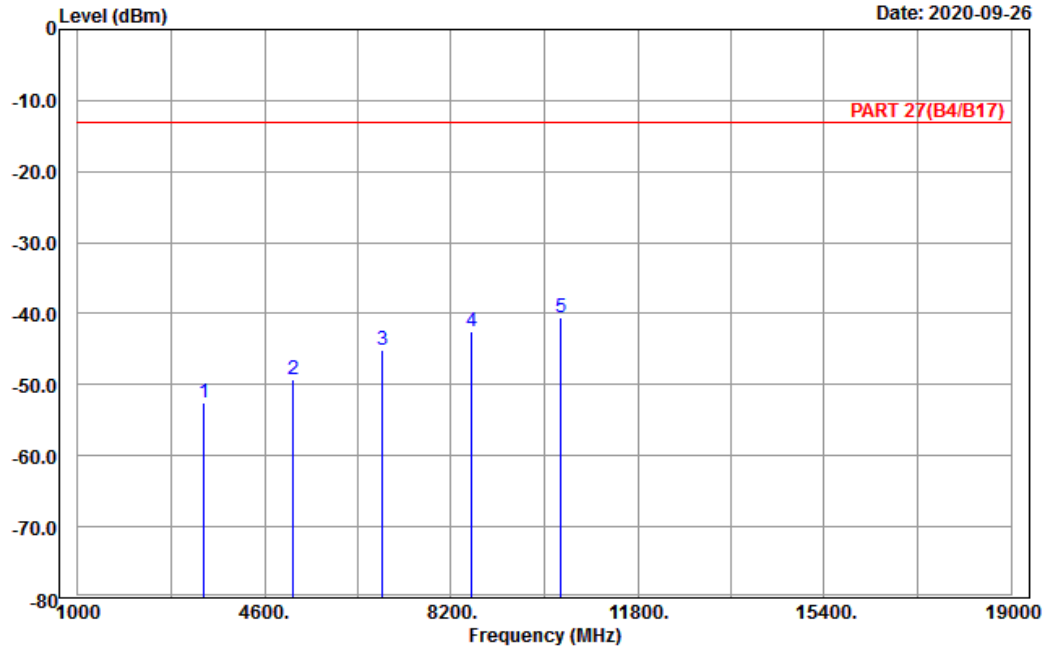


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Horizontal  
Remark : LTE\_Band 4\_Link\_L-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3440.00  | -52.64 | -66.99     | 14.35  | -13.00     | -39.64     | Peak   |
| 2    | 5160.00  | -49.17 | -69.09     | 19.92  | -13.00     | -36.17     | Peak   |
| 3    | 6880.00  | -45.16 | -67.96     | 22.80  | -13.00     | -32.16     | Peak   |
| 4    | 8600.00  | -42.52 | -66.62     | 24.10  | -13.00     | -29.52     | Peak   |
| 5 pp | 10320.00 | -40.53 | -67.20     | 26.67  | -13.00     | -27.53     | Peak   |

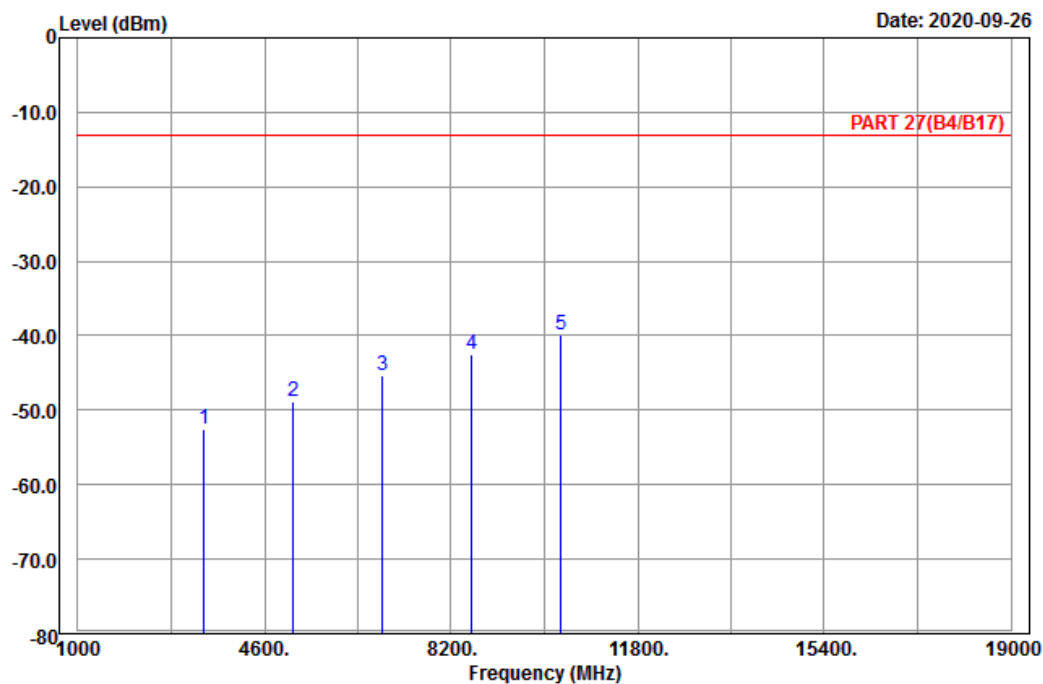


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : LTE\_Band 4\_Link\_L-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3440.00  | -52.45 | -66.80     | 14.35  | -13.00     | -39.45     | Peak   |
| 2    | 5160.00  | -48.90 | -68.82     | 19.92  | -13.00     | -35.90     | Peak   |
| 3    | 6880.00  | -45.35 | -68.15     | 22.80  | -13.00     | -32.35     | Peak   |
| 4    | 8600.00  | -42.50 | -66.60     | 24.10  | -13.00     | -29.50     | Peak   |
| 5 pp | 10320.00 | -39.80 | -66.47     | 26.67  | -13.00     | -26.80     | Peak   |

## Middle Channel

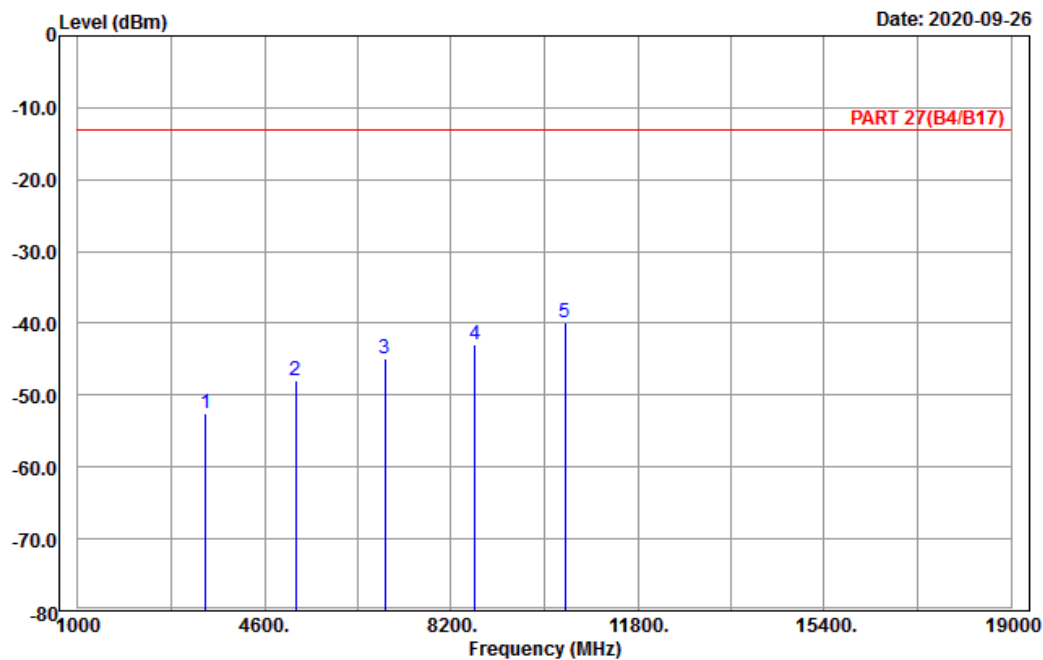


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2020-09-26



Site : 966 chamber 1

Condition: PART 27(B4/B17) Horizontal

Remark : LTE\_Band 4\_Link\_M-Ch

Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3465.00  | -52.53 | -66.87     | 14.34  | -13.00     | -39.53     | Peak   |
| 2    | 5197.50  | -48.05 | -68.17     | 20.12  | -13.00     | -35.05     | Peak   |
| 3    | 6930.00  | -44.95 | -67.82     | 22.87  | -13.00     | -31.95     | Peak   |
| 4    | 8662.50  | -42.90 | -67.11     | 24.21  | -13.00     | -29.90     | Peak   |
| 5 pp | 10395.00 | -39.79 | -66.55     | 26.76  | -13.00     | -26.79     | Peak   |

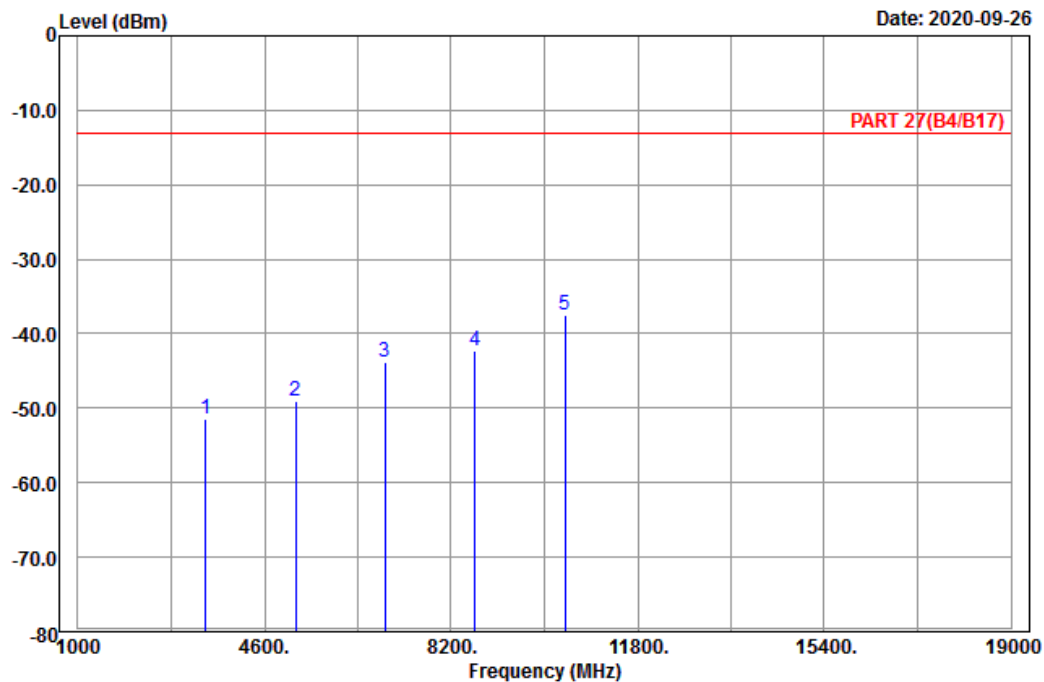


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : LTE\_Band 4\_Link\_M-Ch  
Tested by: Charles Hsiao

|   | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|---|----------|--------|------------|--------|------------|------------|--------|
|   | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1 | 3465.00  | -51.37 | -65.71     | 14.34  | -13.00     | -38.37     | Peak   |
| 2 | 5197.50  | -49.08 | -69.20     | 20.12  | -13.00     | -36.08     | Peak   |
| 3 | 6930.00  | -43.85 | -66.72     | 22.87  | -13.00     | -30.85     | Peak   |
| 4 | 8662.50  | -42.21 | -66.42     | 24.21  | -13.00     | -29.21     | Peak   |
| 5 | 10395.00 | -37.48 | -64.24     | 26.76  | -13.00     | -24.48     | Peak   |

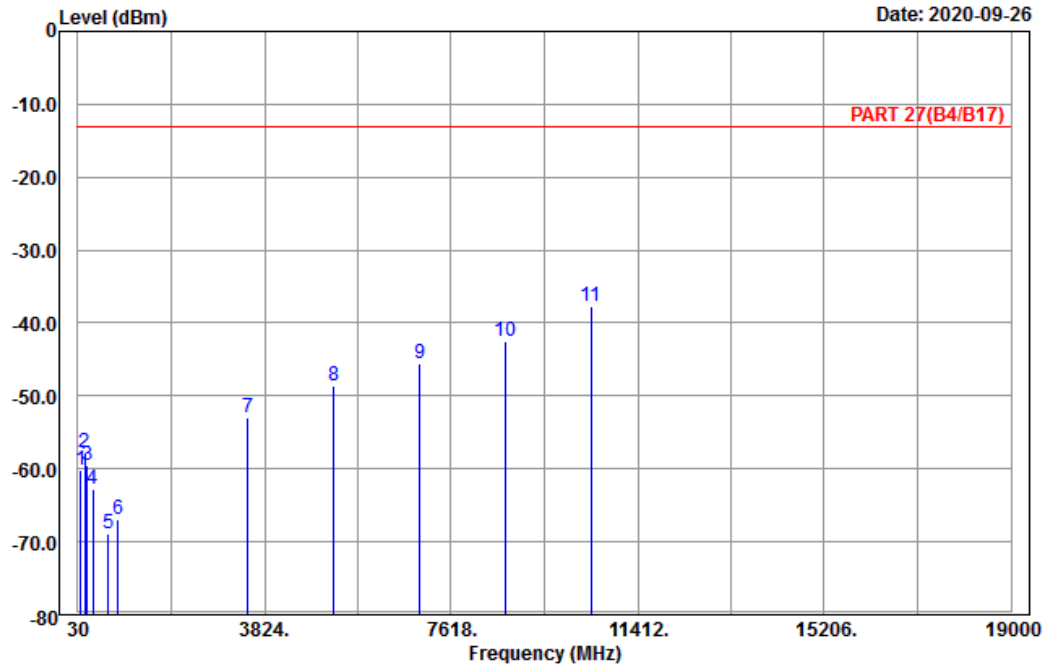
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : LTE\_Band 4\_Link\_H-Ch  
 Tested by: Charles Hsiao

|       | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|-------|----------|--------|------------|--------|------------|------------|--------|
|       | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1     | 91.02    | -60.20 | -49.58     | -10.62 | -13.00     | -47.20     | Peak   |
| 2     | 176.07   | -57.73 | -51.74     | -5.99  | -13.00     | -44.73     | Peak   |
| 3     | 214.14   | -59.53 | -53.54     | -5.99  | -13.00     | -46.53     | Peak   |
| 4     | 342.00   | -62.73 | -57.26     | -5.47  | -13.00     | -49.73     | Peak   |
| 5     | 654.90   | -68.92 | -68.76     | -0.16  | -13.00     | -55.92     | Peak   |
| 6     | 840.40   | -67.00 | -68.56     | 1.56   | -13.00     | -54.00     | Peak   |
| 7     | 3490.00  | -52.91 | -67.22     | 14.31  | -13.00     | -39.91     | Peak   |
| 8     | 5235.00  | -48.69 | -68.85     | 20.16  | -13.00     | -35.69     | Peak   |
| 9     | 6980.00  | -45.50 | -68.19     | 22.69  | -13.00     | -32.50     | Peak   |
| 10    | 8725.00  | -42.49 | -66.88     | 24.39  | -13.00     | -29.49     | Peak   |
| 11 pp | 10470.00 | -37.77 | -64.43     | 26.66  | -13.00     | -24.77     | Peak   |

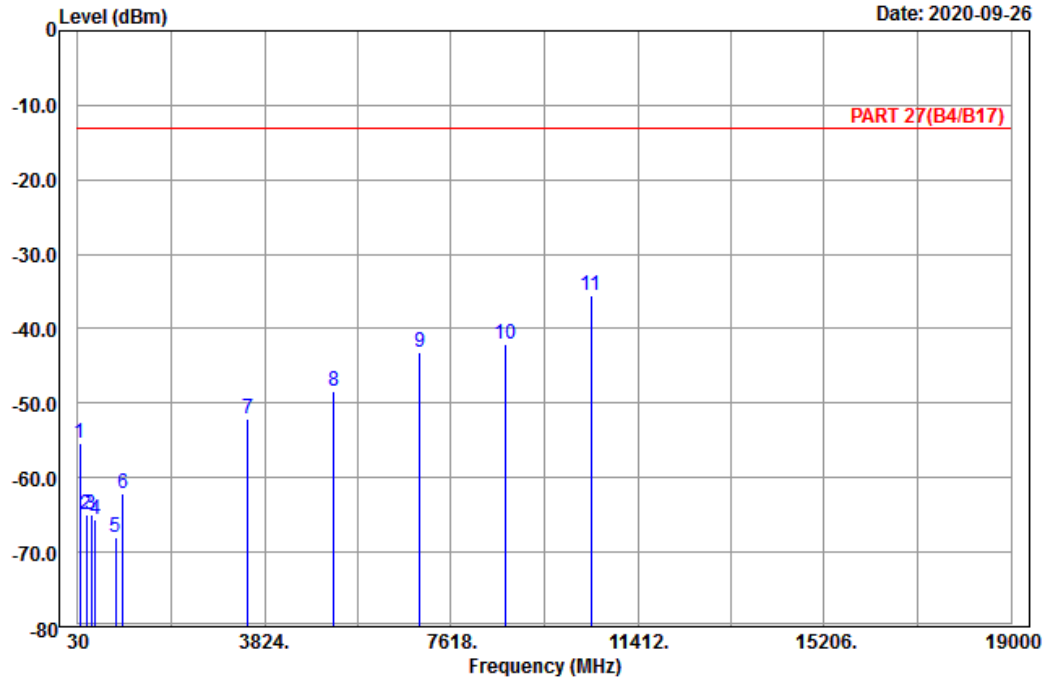


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Vertical  
Remark : LTE\_Band 4\_Link\_H-Ch  
Tested by: Charles Hsiao

|       | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|-------|----------|--------|------------|--------|------------|------------|--------|
|       | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1     | 76.71    | -55.31 | -43.21     | -12.10 | -13.00     | -42.31     | Peak   |
| 2     | 202.80   | -64.88 | -58.74     | -6.14  | -13.00     | -51.88     | Peak   |
| 3     | 298.92   | -65.05 | -59.10     | -5.95  | -13.00     | -52.05     | Peak   |
| 4     | 391.00   | -65.56 | -62.35     | -3.21  | -13.00     | -52.56     | Peak   |
| 5     | 792.10   | -67.95 | -69.45     | 1.50   | -13.00     | -54.95     | Peak   |
| 6     | 945.40   | -62.22 | -67.15     | 4.93   | -13.00     | -49.22     | Peak   |
| 7     | 3490.00  | -52.12 | -66.43     | 14.31  | -13.00     | -39.12     | Peak   |
| 8     | 5235.00  | -48.33 | -68.49     | 20.16  | -13.00     | -35.33     | Peak   |
| 9     | 6980.00  | -43.23 | -65.92     | 22.69  | -13.00     | -30.23     | Peak   |
| 10    | 8725.00  | -42.04 | -66.43     | 24.39  | -13.00     | -29.04     | Peak   |
| 11 pp | 10470.00 | -35.42 | -62.08     | 26.66  | -13.00     | -22.42     | Peak   |

LTE Band 12  
Channel Bandwidth: 1.4 MHz / QPSK  
Low Channel

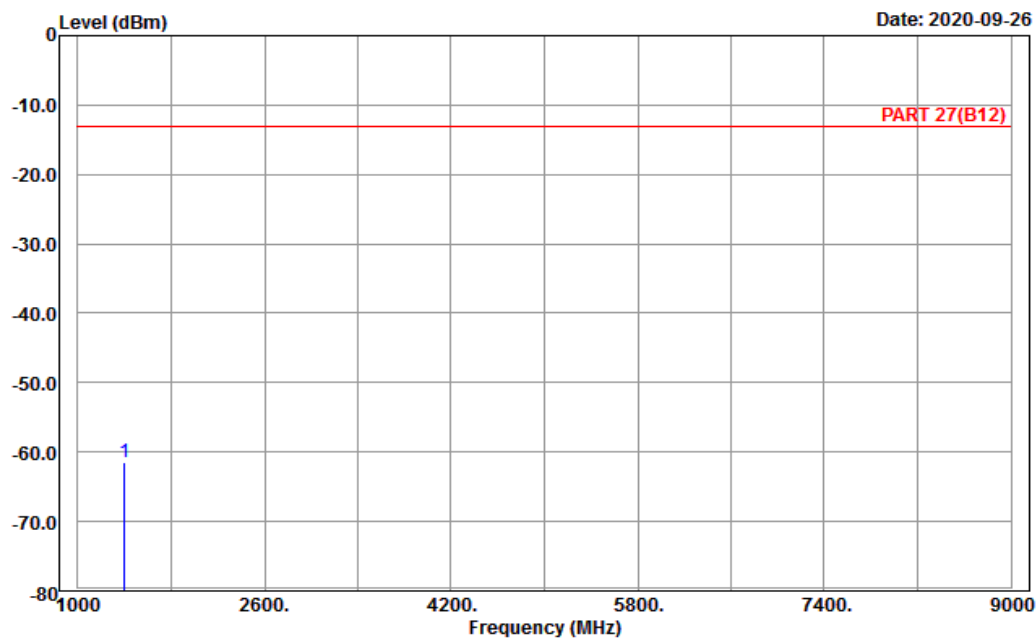


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Horizontal  
Remark : LTE\_Band 12\_Link\_L-Ch  
Tested by: Charles Hsiao

| Freq         | Level  | Read         | Limit | Over   | Remark      |
|--------------|--------|--------------|-------|--------|-------------|
|              |        | Level Factor |       |        |             |
| MHz          | dBm    | dBm          | dB    | dBm    | dB          |
| 1 pp 1399.40 | -61.50 | -67.60       | 6.10  | -13.00 | -48.50 Peak |

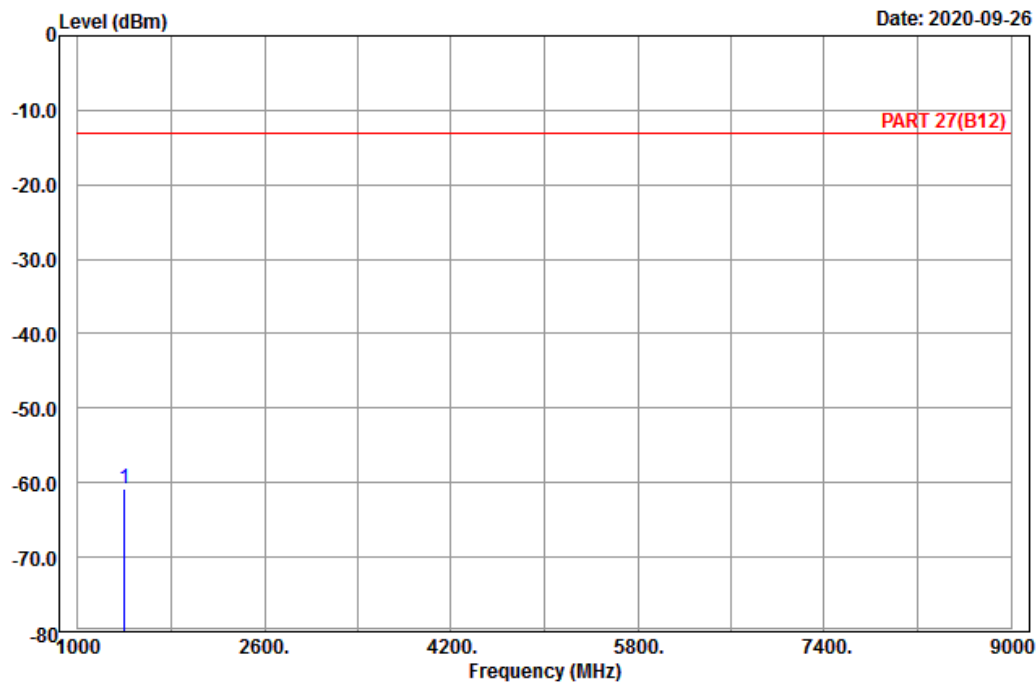


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Vertical  
Remark : LTE\_Band 12\_Link\_L-Ch  
Tested by: Charles Hsiao

|              |        | Read   | Limit  | Over   |              |
|--------------|--------|--------|--------|--------|--------------|
| Freq         | Level  | Level  | Factor | Line   | Limit Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB           |
| 1 pp 1399.40 | -60.86 | -66.96 | 6.10   | -13.00 | -47.86 Peak  |

## Middle Channel

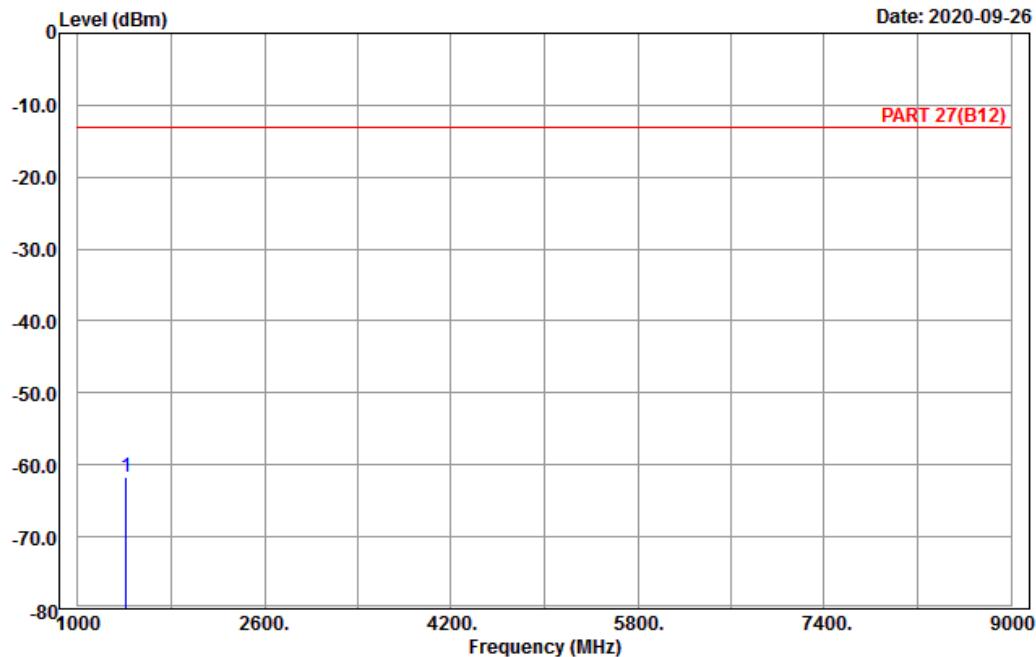


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Horizontal  
Remark : LTE\_Band 12\_Link\_M-Ch  
Tested by: Charles Hsiao

|   | Freq       | Level  | Read<br>Level | Factor | Limit<br>Line | Over<br>Limit | Remark |
|---|------------|--------|---------------|--------|---------------|---------------|--------|
|   | MHz        | dBm    | dBm           | dB     | dBm           | dB            |        |
| 1 | pp 1415.00 | -61.74 | -68.10        | 6.36   | -13.00        | -48.74        | Peak   |

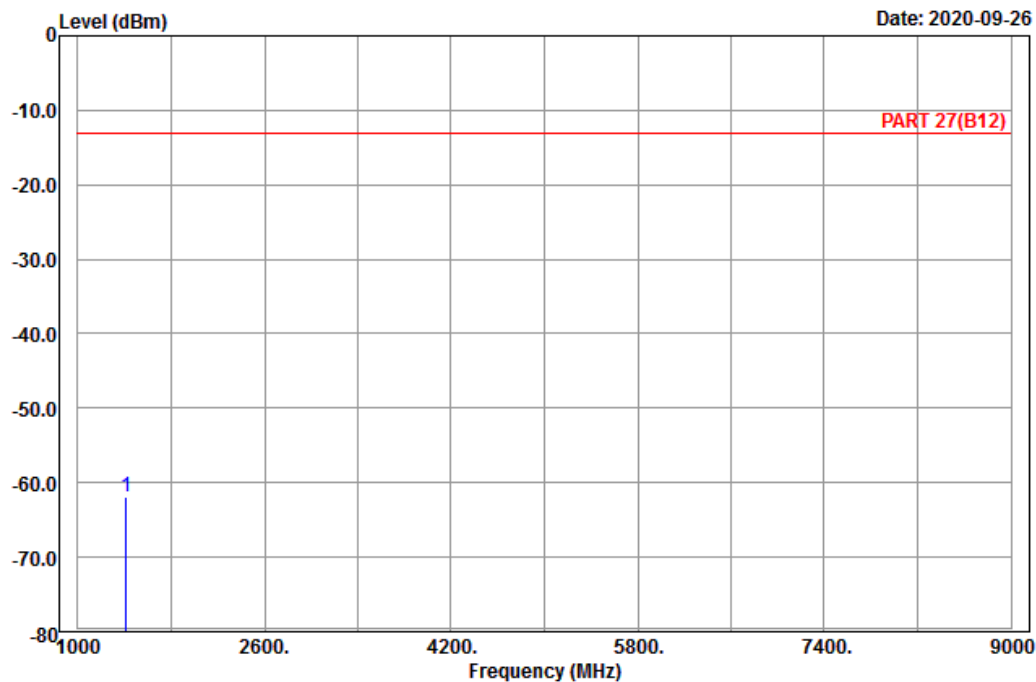


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Vertical  
Remark : LTE\_Band 12\_Link\_M-Ch  
Tested by: Charles Hsiao

|              |        | Read   | Limit  | Over   |              |
|--------------|--------|--------|--------|--------|--------------|
| Freq         | Level  | Level  | Factor | Line   | Limit Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB           |
| 1 pp 1415.00 | -61.90 | -68.26 | 6.36   | -13.00 | -48.90 Peak  |

## High Channel

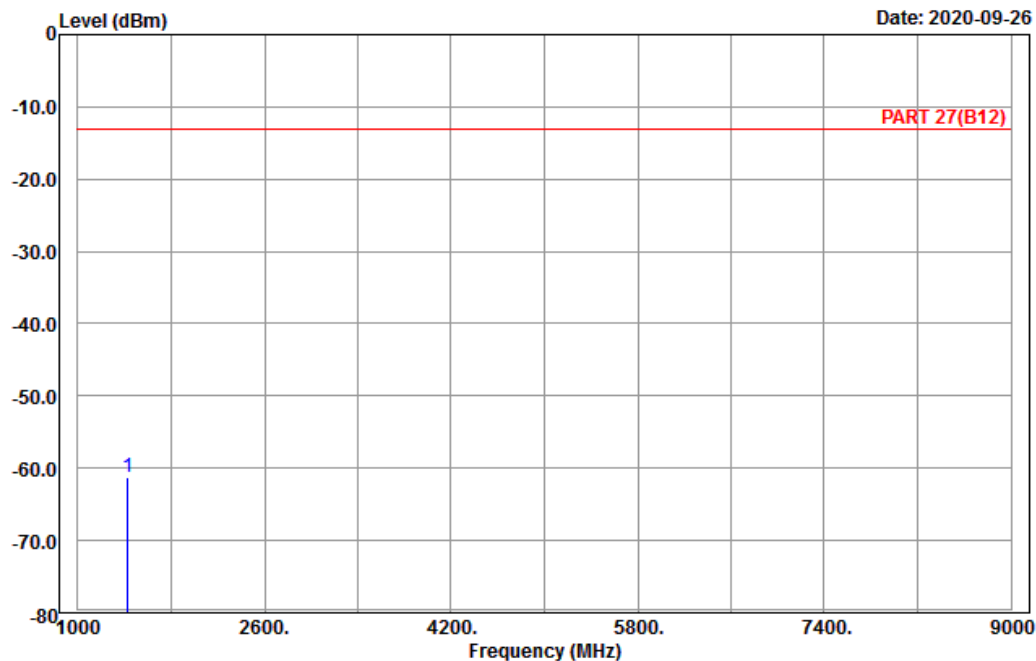


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Horizontal  
Remark : LTE\_Band 12\_Link\_H-Ch  
Tested by: Charles Hsiao

|              |        | Read   |        | Limit  | Over   |        |
|--------------|--------|--------|--------|--------|--------|--------|
| Freq         | Level  | Level  | Factor | Line   | Limit  | Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB     |        |
| 1 pp 1430.60 | -61.16 | -67.40 | 6.24   | -13.00 | -48.16 | Peak   |

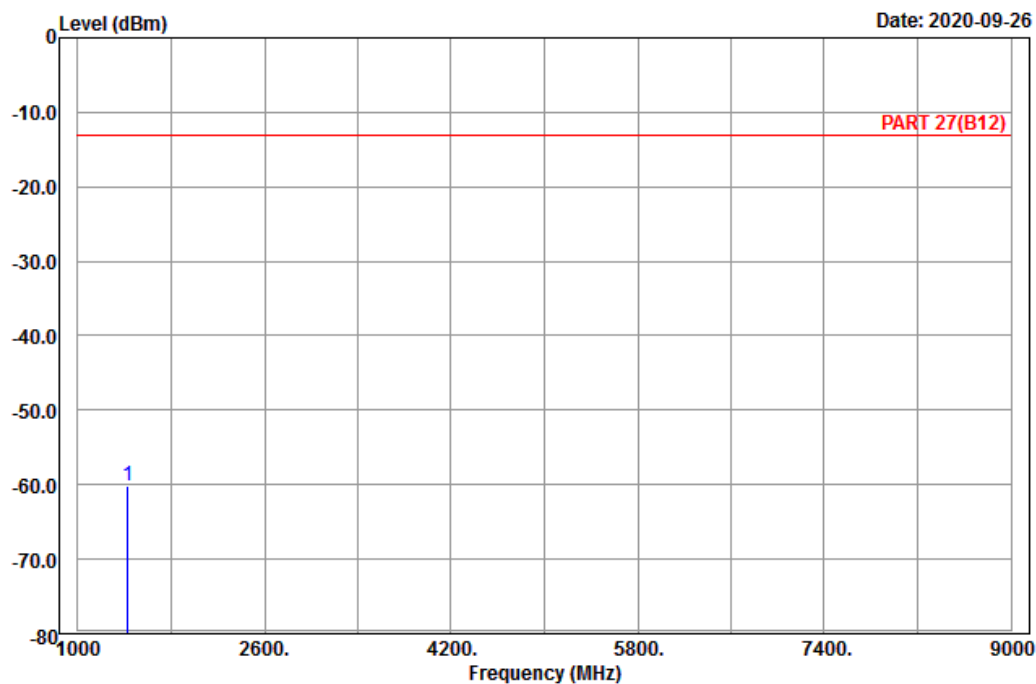


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Vertical  
Remark : LTE\_Band 12\_Link\_H-Ch  
Tested by: Charles Hsiao

|              |        | Read   | Limit  | Over   |              |
|--------------|--------|--------|--------|--------|--------------|
| Freq         | Level  | Level  | Factor | Line   | Limit Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB           |
| 1 pp 1430.60 | -60.15 | -66.39 | 6.24   | -13.00 | -47.15 Peak  |

Channel Bandwidth: 5 MHz / QPSK  
Low Channel

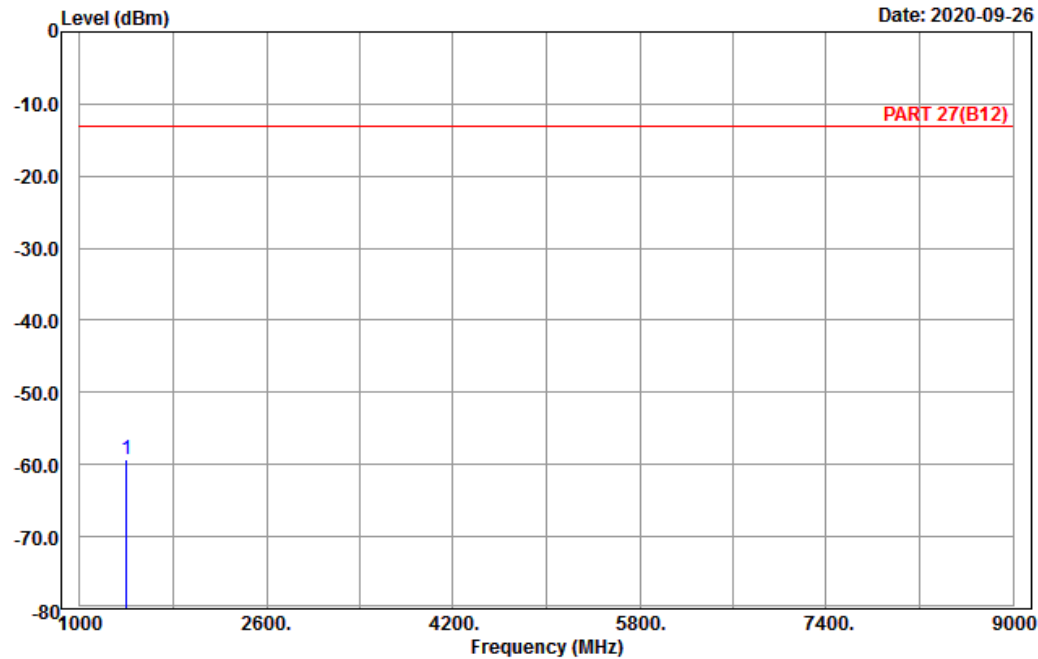


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Horizontal  
Remark : LTE\_Band 12\_Link\_L-Ch  
Tested by: Charles Hsiao

|      | Freq    | Level  | Read<br>Level | Factor | Limit<br>Line | Over<br>Limit | Remark |
|------|---------|--------|---------------|--------|---------------|---------------|--------|
|      | MHz     | dBm    | dBm           | dB     | dBm           | dB            |        |
| 1 pp | 1403.00 | -59.34 | -65.44        | 6.10   | -13.00        | -46.34        | Peak   |

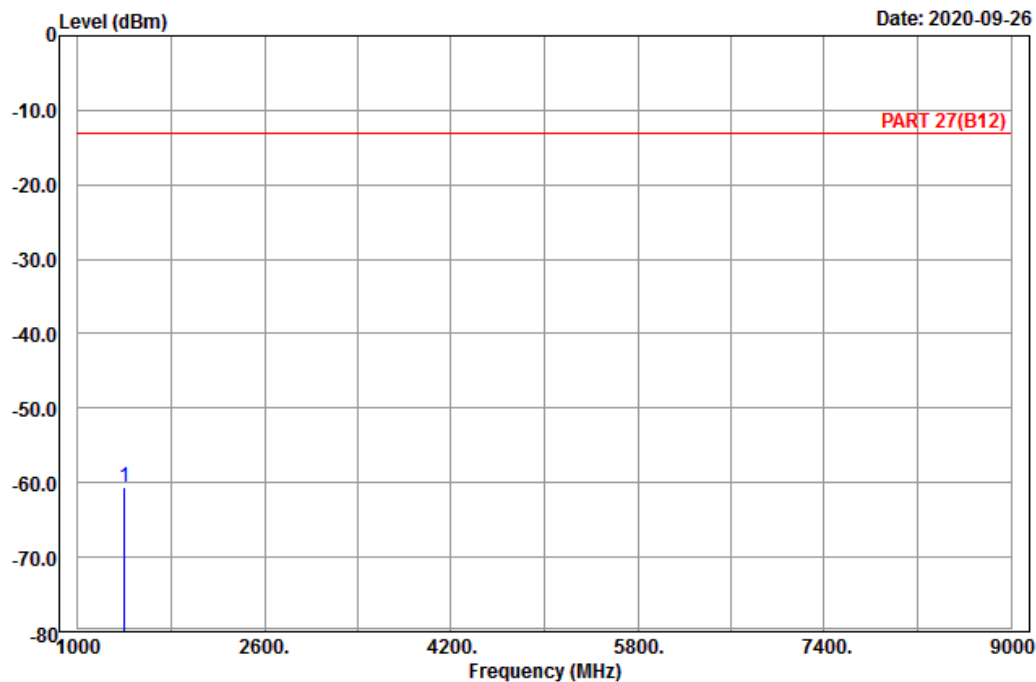


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Vertical  
Remark : LTE\_Band 12\_Link\_L-Ch  
Tested by: Charles Hsiao

|              |        | Read   | Limit  | Over   |              |
|--------------|--------|--------|--------|--------|--------------|
| Freq         | Level  | Level  | Factor | Line   | Limit Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB           |
| 1 pp 1403.00 | -60.65 | -66.75 | 6.10   | -13.00 | -47.65 Peak  |

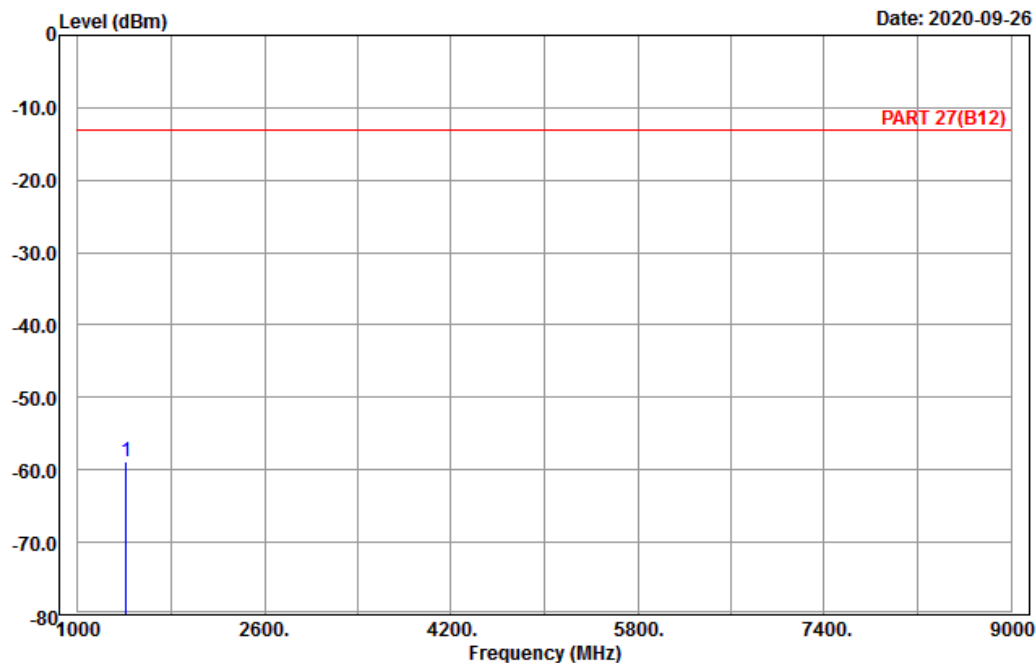
# Middle Channel



Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

A D T

Data: 3



Site : 966 chamber 1  
Condition: PART 27(B12) Horizontal  
Remark : LTE\_Band 12\_Link\_M-Ch  
Tested by: Charles Hsiao

|              |        | Read   |        | Limit  | Over   |        |
|--------------|--------|--------|--------|--------|--------|--------|
| Freq         | Level  | Level  | Factor | Line   | Limit  | Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB     |        |
| 1 pp 1415.00 | -58.90 | -65.26 | 6.36   | -13.00 | -45.90 | Peak   |

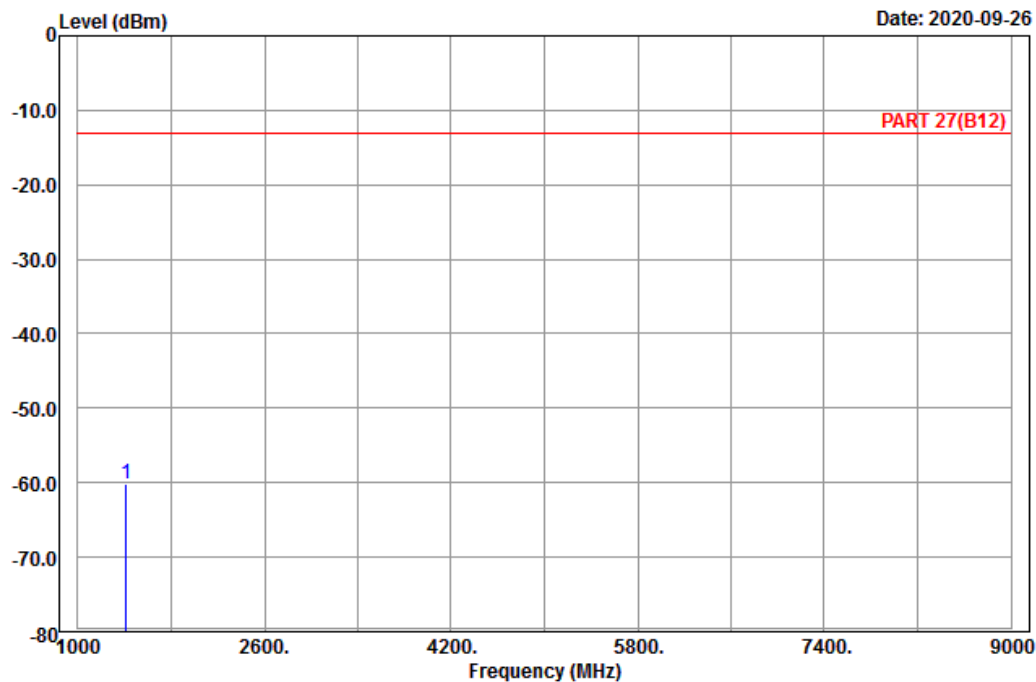


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Vertical  
Remark : LTE\_Band 12\_Link\_M-Ch  
Tested by: Charles Hsiao

|      | Freq    | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|---------|--------|------------|--------|------------|------------|--------|
|      | MHz     | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1 pp | 1415.00 | -60.21 | -66.57     | 6.36   | -13.00     | -47.21     | Peak   |

## High Channel

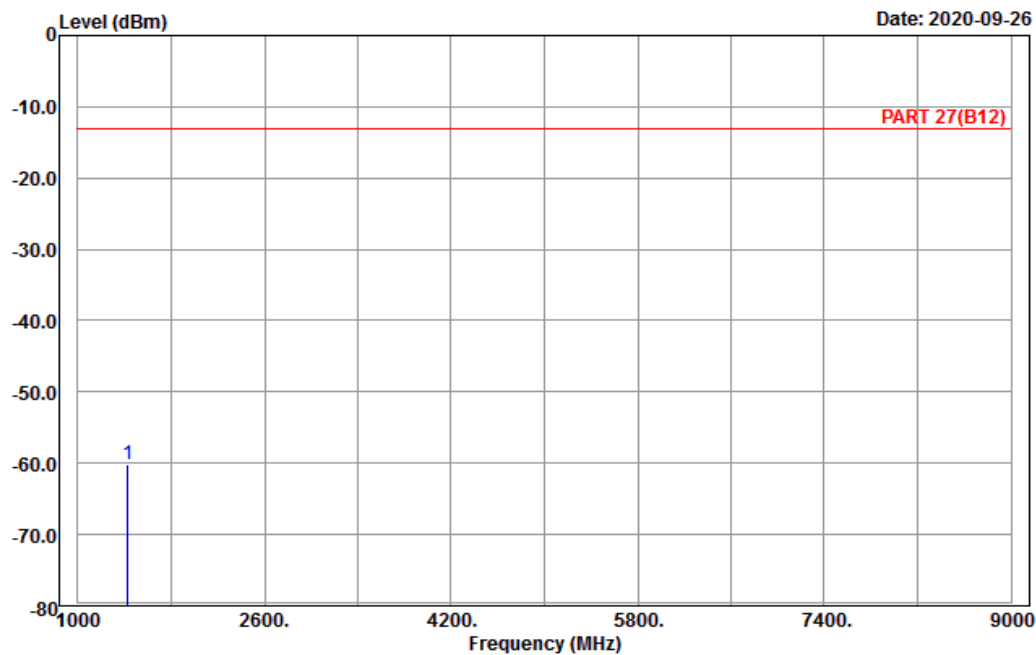


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Horizontal  
Remark : LTE\_Band 12\_Link\_H-Ch  
Tested by: Charles Hsiao

|              |        | Read   |        | Limit  | Over   |        |
|--------------|--------|--------|--------|--------|--------|--------|
| Freq         | Level  | Level  | Factor | Line   | Limit  | Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB     |        |
| 1 pp 1427.00 | -60.08 | -66.32 | 6.24   | -13.00 | -47.08 | Peak   |

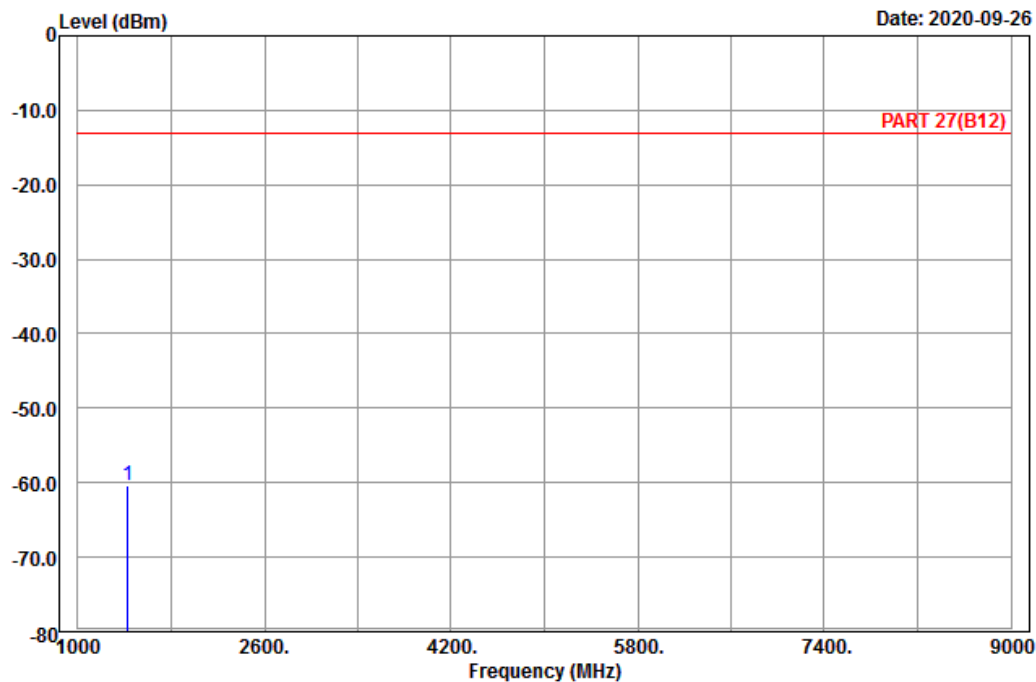


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Vertical  
Remark : LTE\_Band 12\_Link\_H-Ch  
Tested by: Charles Hsiao

|              |        | Read   |        | Limit  | Over   |        |
|--------------|--------|--------|--------|--------|--------|--------|
| Freq         | Level  | Level  | Factor | Line   | Limit  | Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB     |        |
| 1 pp 1427.00 | -60.28 | -66.52 | 6.24   | -13.00 | -47.28 | Peak   |

Channel Bandwidth: 10 MHz / QPSK

Low Channel

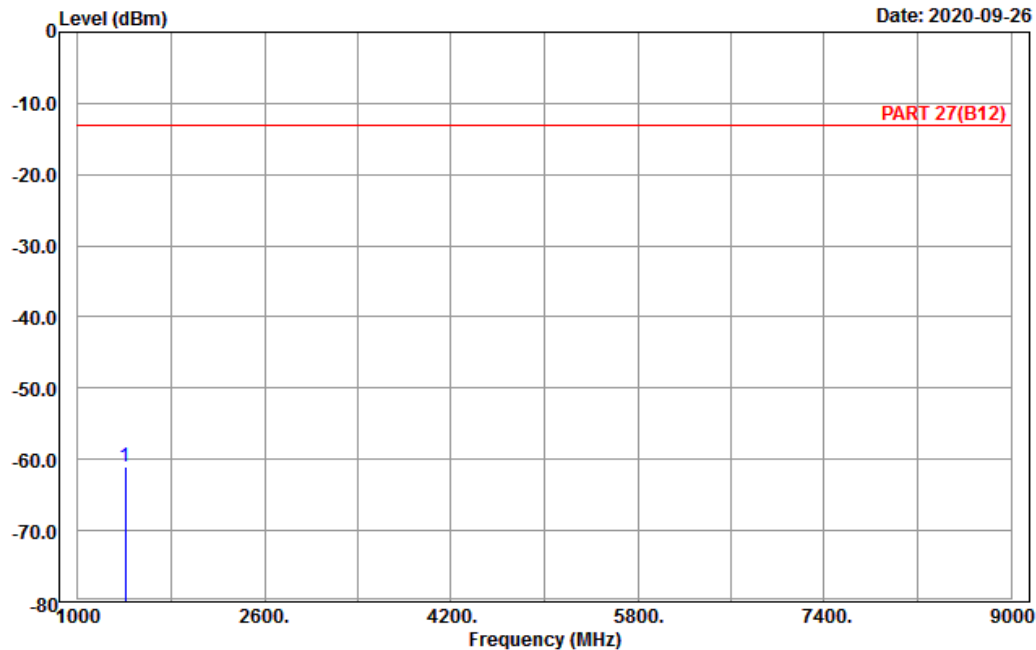


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2020-09-26



Site : 966 chamber 1

Condition: PART 27(B12) Horizontal

Remark : LTE\_Band 12\_Link\_L-Ch

Tested by: Charles Hsiao

|              |        | Read   |        | Limit  | Over   |        |
|--------------|--------|--------|--------|--------|--------|--------|
| Freq         | Level  | Level  | Factor | Line   | Limit  | Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB     |        |
| 1 pp 1408.00 | -61.12 | -67.48 | 6.36   | -13.00 | -48.12 | Peak   |

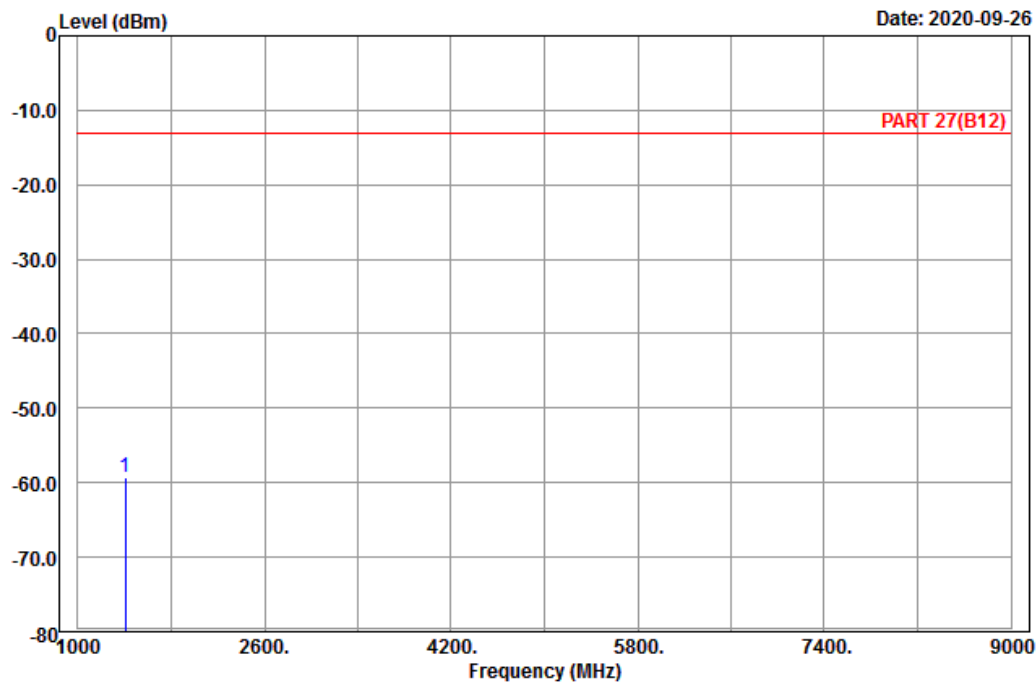


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Vertical  
Remark : LTE\_Band 12\_Link\_L-Ch  
Tested by: Charles Hsiao

|              |        | Read   | Limit  | Over   |              |
|--------------|--------|--------|--------|--------|--------------|
| Freq         | Level  | Level  | Factor | Line   | Limit Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB           |
| 1 pp 1408.00 | -59.33 | -65.69 | 6.36   | -13.00 | -46.33 Peak  |

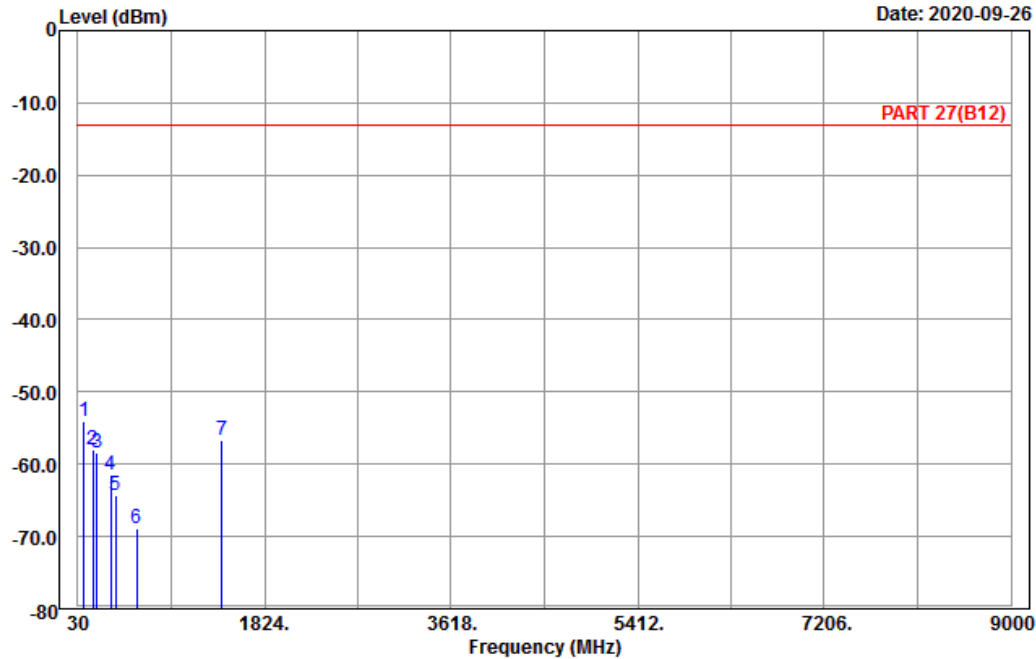
# Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7



Site : 966 chamber 1  
 Condition: PART 27(B12) Horizontal  
 Remark : LTE\_Band 12\_Link\_M-Ch  
 Tested by: Charles Hsiao

|      |         | Read   | Limit  | Over   |        |
|------|---------|--------|--------|--------|--------|
| Freq | Level   | Level  | Factor | Line   | Limit  |
| MHz  | dBm     | dBm    | dB     | dBm    | dB     |
| 1 pp | 90.48   | -54.08 | -43.41 | -10.67 | -13.00 |
| 2    | 177.96  | -58.03 | -52.25 | -5.78  | -13.00 |
| 3    | 212.25  | -58.48 | -52.47 | -6.01  | -13.00 |
| 4    | 348.30  | -61.55 | -56.15 | -5.40  | -13.00 |
| 5    | 391.70  | -64.35 | -61.20 | -3.15  | -13.00 |
| 6    | 596.80  | -68.85 | -69.12 | 0.27   | -13.00 |
| 7    | 1415.00 | -56.68 | -63.04 | 6.36   | -13.00 |

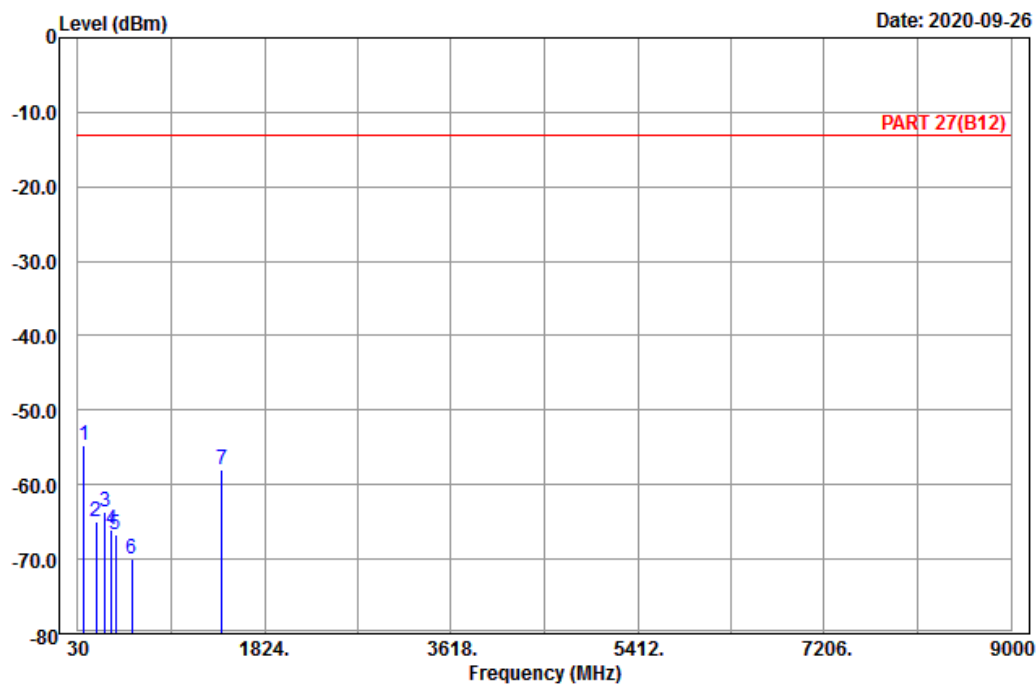


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Vertical  
Remark : LTE\_Band 12\_Link\_M-Ch  
Tested by: Charles Hsiao

|      | Freq    | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|---------|--------|------------|--------|------------|------------|--------|
|      | MHz     | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1 pp | 91.02   | -54.70 | -44.08     | -10.62 | -13.00     | -41.70     | Peak   |
| 2    | 203.07  | -65.02 | -58.88     | -6.14  | -13.00     | -52.02     | Peak   |
| 3    | 291.90  | -63.57 | -57.68     | -5.89  | -13.00     | -50.57     | Peak   |
| 4    | 354.60  | -66.05 | -60.93     | -5.12  | -13.00     | -53.05     | Peak   |
| 5    | 391.00  | -66.77 | -63.56     | -3.21  | -13.00     | -53.77     | Peak   |
| 6    | 552.00  | -70.06 | -68.48     | -1.58  | -13.00     | -57.06     | Peak   |
| 7    | 1415.00 | -57.90 | -64.26     | 6.36   | -13.00     | -44.90     | Peak   |

## High Channel

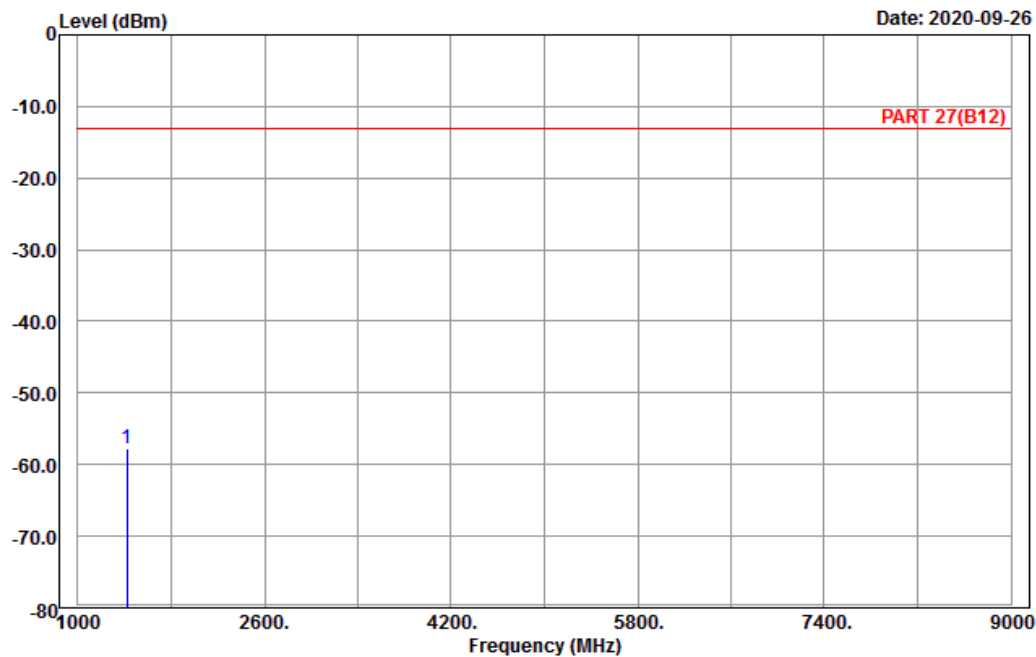


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Horizontal  
Remark : LTE\_Band 12\_Link\_H-Ch  
Tested by: Charles Hsiao

|              |        | Read   |        | Limit  | Over   |        |
|--------------|--------|--------|--------|--------|--------|--------|
| Freq         | Level  | Level  | Factor | Line   | Limit  | Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB     |        |
| 1 pp 1422.00 | -57.86 | -64.22 | 6.36   | -13.00 | -44.86 | Peak   |

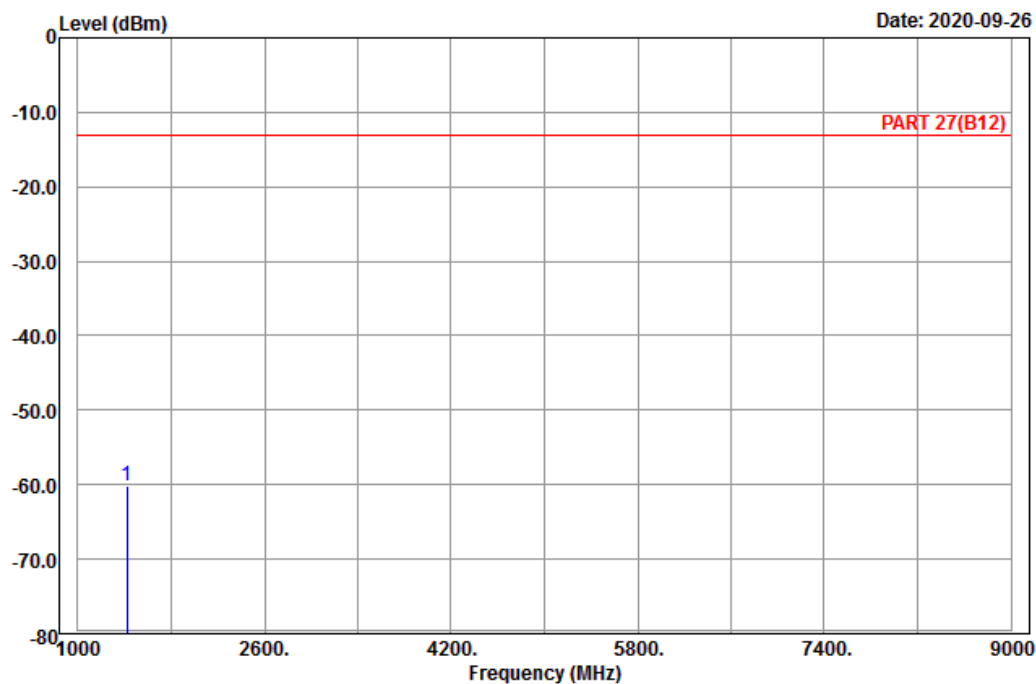


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 27(B12) Vertical  
Remark : LTE\_Band 12\_Link\_H-Ch  
Tested by: Charles Hsiao

|              |        | Read   |        | Limit  | Over   |        |
|--------------|--------|--------|--------|--------|--------|--------|
| Freq         | Level  | Level  | Factor | Line   | Limit  | Remark |
| MHz          | dBm    | dBm    | dB     | dBm    | dB     |        |
| 1 pp 1422.00 | -60.26 | -66.62 | 6.36   | -13.00 | -47.26 | Peak   |

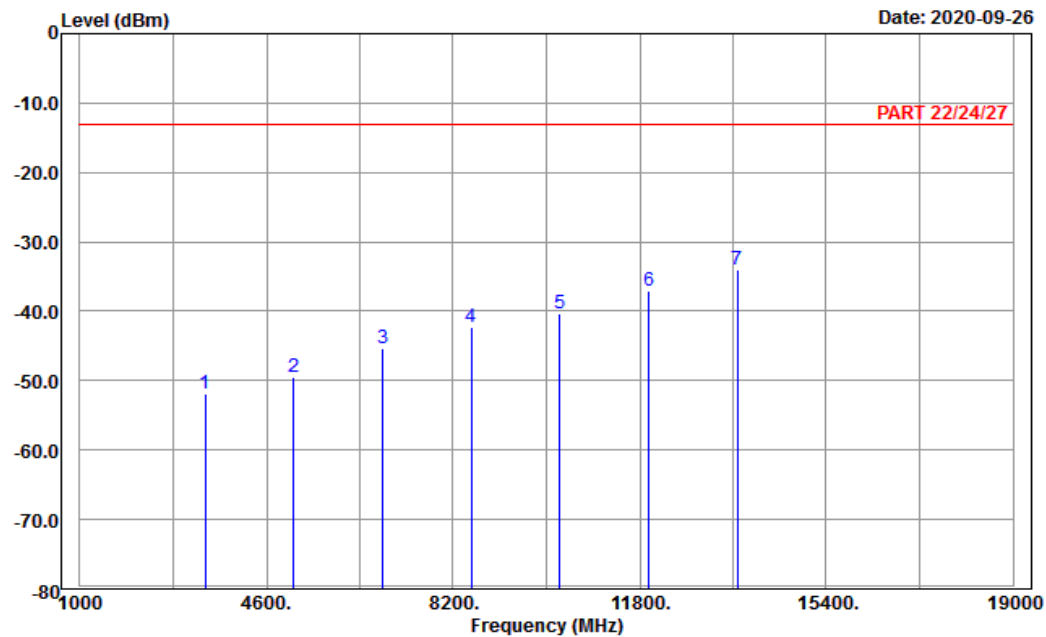
LTE Band 66:  
Channel Bandwidth: 1.4 MHz / QPSK  
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7



Site : 966 chamber 1  
Condition: PART 22/24/27 Horizontal  
Remark : LTE\_Band 66\_Link\_L-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read   | Factor | Limit  | Over   |        |
|------|----------|--------|--------|--------|--------|--------|--------|
|      | MHz      | dBm    | Level  | dB     | Line   | Limit  | Remark |
|      |          |        | dBm    |        | dBm    | dB     |        |
| 1    | 3421.40  | -51.86 | -66.23 | 14.37  | -13.00 | -38.86 | Peak   |
| 2    | 5132.10  | -49.55 | -69.36 | 19.81  | -13.00 | -36.55 | Peak   |
| 3    | 6842.80  | -45.35 | -68.07 | 22.72  | -13.00 | -32.35 | Peak   |
| 4    | 8553.50  | -42.30 | -66.34 | 24.04  | -13.00 | -29.30 | Peak   |
| 5    | 10264.20 | -40.31 | -66.90 | 26.59  | -13.00 | -27.31 | Peak   |
| 6    | 11974.90 | -37.13 | -65.83 | 28.70  | -13.00 | -24.13 | Peak   |
| 7 pp | 13685.60 | -34.01 | -65.19 | 31.18  | -13.00 | -21.01 | Peak   |

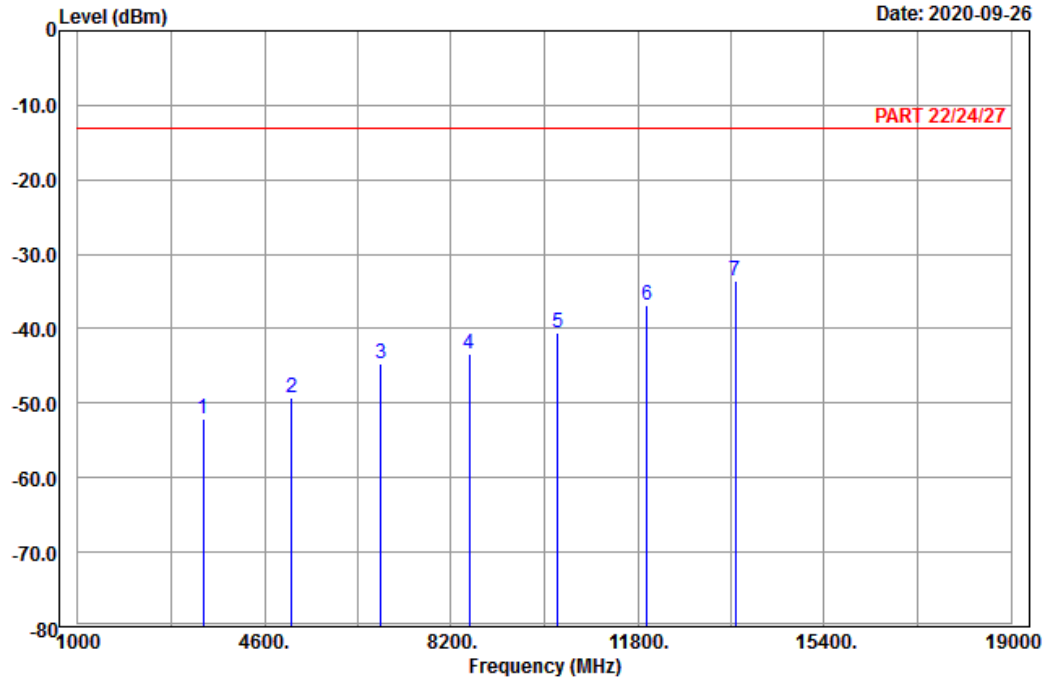


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 22/24/27 Vertical  
Remark : LTE\_Band 66\_Link\_L-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3421.40  | -52.07 | -66.44     | 14.37  | -13.00     | -39.07     | Peak   |
| 2    | 5132.10  | -49.35 | -69.16     | 19.81  | -13.00     | -36.35     | Peak   |
| 3    | 6842.80  | -44.74 | -67.46     | 22.72  | -13.00     | -31.74     | Peak   |
| 4    | 8553.50  | -43.35 | -67.39     | 24.04  | -13.00     | -30.35     | Peak   |
| 5    | 10264.20 | -40.47 | -67.06     | 26.59  | -13.00     | -27.47     | Peak   |
| 6    | 11974.90 | -36.77 | -65.47     | 28.70  | -13.00     | -23.77     | Peak   |
| 7 pp | 13685.60 | -33.51 | -64.69     | 31.18  | -13.00     | -20.51     | Peak   |

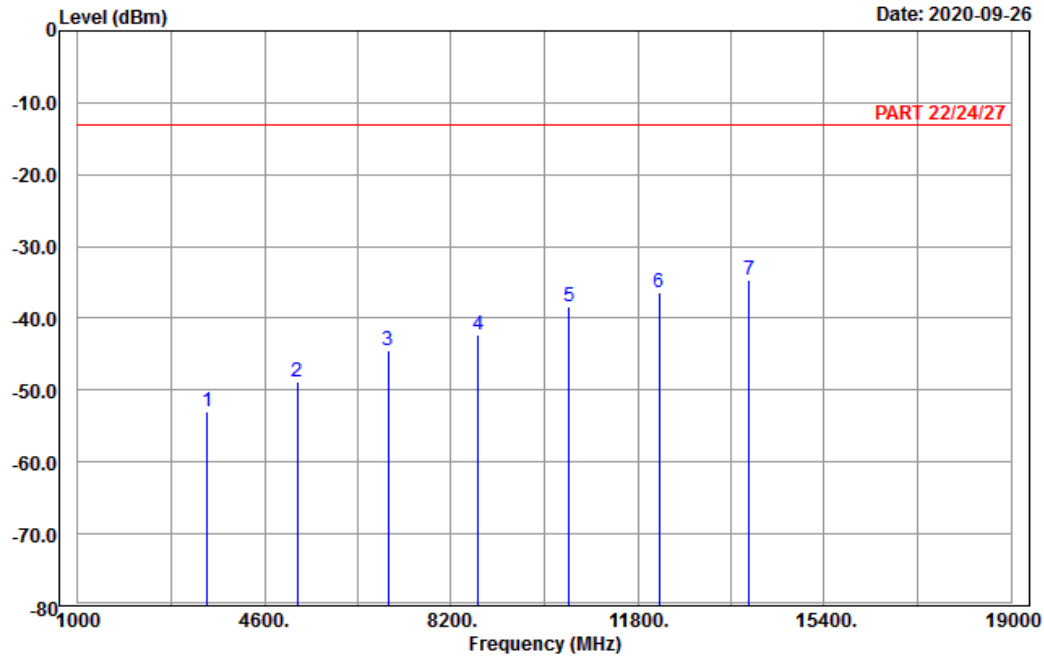
## Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 22/24/27 Horizontal  
 Remark : LTE\_Band 66\_Link\_M-Ch  
 Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3490.00  | -52.93 | -67.24     | 14.31  | -13.00     | -39.93     | Peak   |
| 2    | 5235.00  | -48.84 | -69.00     | 20.16  | -13.00     | -35.84     | Peak   |
| 3    | 6980.00  | -44.44 | -67.13     | 22.69  | -13.00     | -31.44     | Peak   |
| 4    | 8725.00  | -42.22 | -66.61     | 24.39  | -13.00     | -29.22     | Peak   |
| 5    | 10470.00 | -38.27 | -64.93     | 26.66  | -13.00     | -25.27     | Peak   |
| 6    | 12215.00 | -36.37 | -65.86     | 29.49  | -13.00     | -23.37     | Peak   |
| 7 pp | 13960.00 | -34.72 | -65.40     | 30.68  | -13.00     | -21.72     | Peak   |

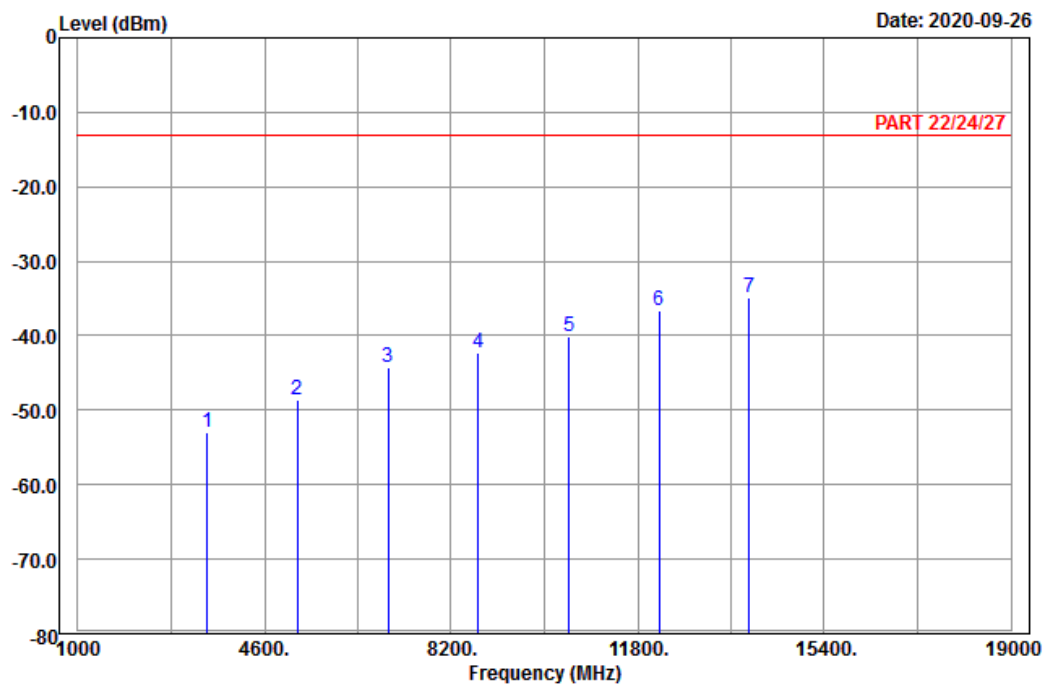


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 22/24/27 Vertical  
Remark : LTE\_Band 66\_Link\_M-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3490.00  | -52.94 | -67.25     | 14.31  | -13.00     | -39.94     | Peak   |
| 2    | 5235.00  | -48.64 | -68.80     | 20.16  | -13.00     | -35.64     | Peak   |
| 3    | 6980.00  | -44.27 | -66.96     | 22.69  | -13.00     | -31.27     | Peak   |
| 4    | 8725.00  | -42.27 | -66.66     | 24.39  | -13.00     | -29.27     | Peak   |
| 5    | 10470.00 | -40.20 | -66.86     | 26.66  | -13.00     | -27.20     | Peak   |
| 6    | 12215.00 | -36.70 | -66.19     | 29.49  | -13.00     | -23.70     | Peak   |
| 7 pp | 13960.00 | -34.88 | -65.56     | 30.68  | -13.00     | -21.88     | Peak   |

## High Channel

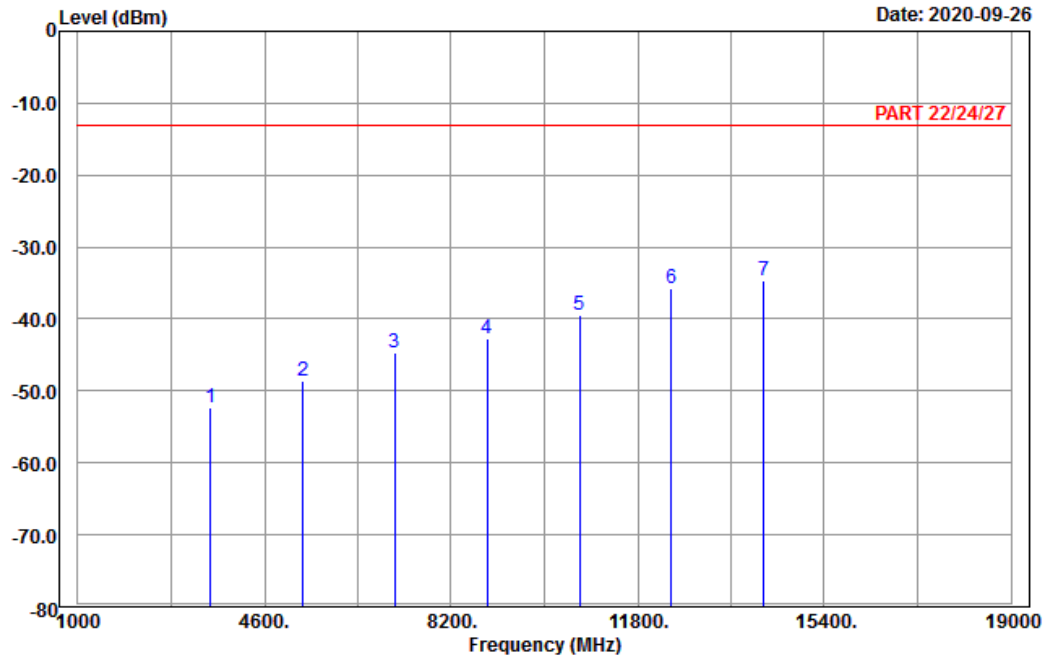


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 22/24/27 Horizontal  
Remark : LTE\_Band 66\_Link\_H-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3558.60  | -52.23 | -67.42     | 15.19  | -13.00     | -39.23     | Peak   |
| 2    | 5337.90  | -48.54 | -68.82     | 20.28  | -13.00     | -35.54     | Peak   |
| 3    | 7117.20  | -44.66 | -67.17     | 22.51  | -13.00     | -31.66     | Peak   |
| 4    | 8896.50  | -42.69 | -67.66     | 24.97  | -13.00     | -29.69     | Peak   |
| 5    | 10675.80 | -39.40 | -66.40     | 27.00  | -13.00     | -26.40     | Peak   |
| 6    | 12455.10 | -35.83 | -65.60     | 29.77  | -13.00     | -22.83     | Peak   |
| 7 pp | 14234.40 | -34.76 | -65.79     | 31.03  | -13.00     | -21.76     | Peak   |

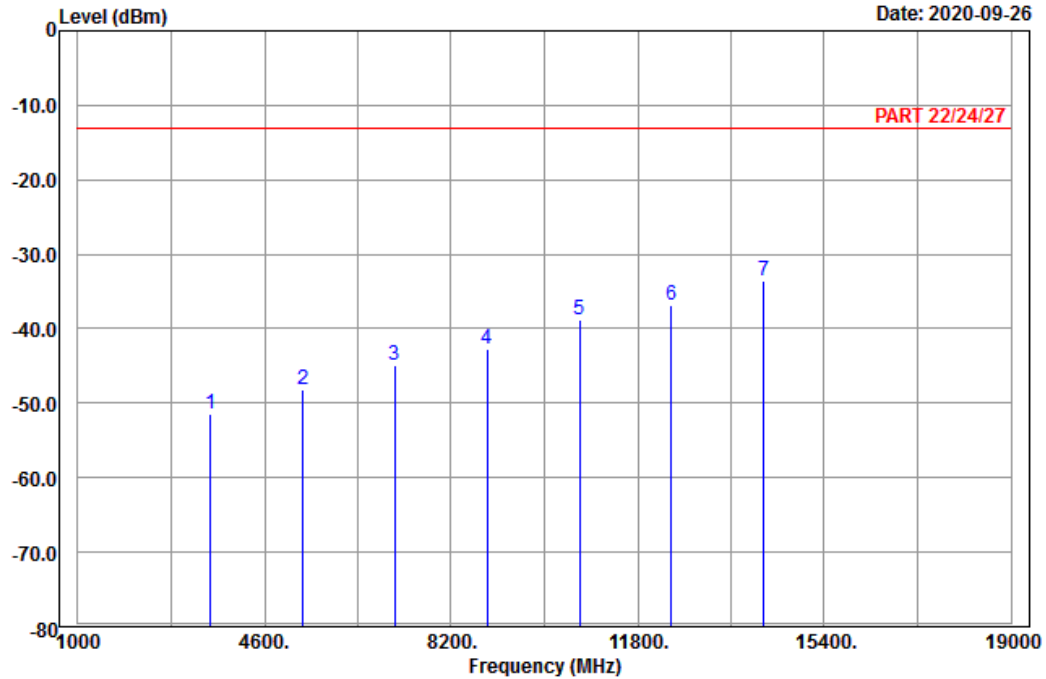


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 22/24/27 Vertical  
Remark : LTE\_Band 66\_Link\_H-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3558.60  | -51.38 | -66.57     | 15.19  | -13.00     | -38.38     | Peak   |
| 2    | 5337.90  | -48.26 | -68.54     | 20.28  | -13.00     | -35.26     | Peak   |
| 3    | 7117.20  | -44.87 | -67.38     | 22.51  | -13.00     | -31.87     | Peak   |
| 4    | 8896.50  | -42.78 | -67.75     | 24.97  | -13.00     | -29.78     | Peak   |
| 5    | 10675.80 | -38.89 | -65.89     | 27.00  | -13.00     | -25.89     | Peak   |
| 6    | 12455.10 | -36.84 | -66.61     | 29.77  | -13.00     | -23.84     | Peak   |
| 7 pp | 14234.40 | -33.62 | -64.65     | 31.03  | -13.00     | -20.62     | Peak   |

Channel Bandwidth: 5 MHz / QPSK

Low Channel

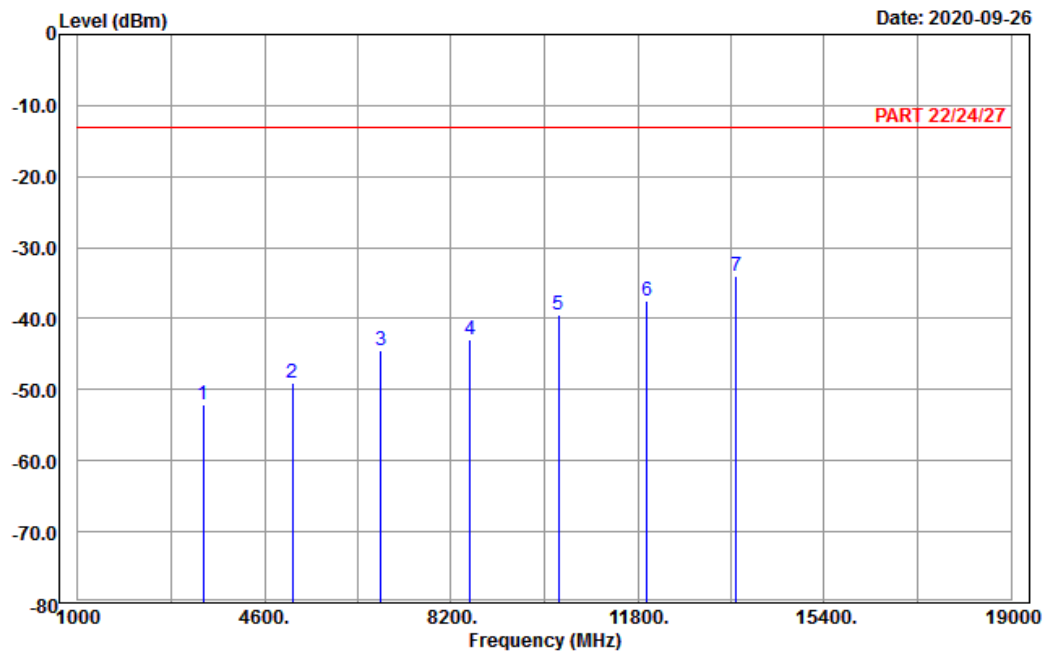


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7

Date: 2020-09-26



Site : 966 chamber 1

Condition: PART 22/24/27 Horizontal

Remark : LTE\_Band 66\_Link\_L-Ch

Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3425.00  | -52.06 | -66.43     | 14.37  | -13.00     | -39.06     | Peak   |
| 2    | 5137.50  | -48.95 | -68.76     | 19.81  | -13.00     | -35.95     | Peak   |
| 3    | 6850.00  | -44.57 | -67.29     | 22.72  | -13.00     | -31.57     | Peak   |
| 4    | 8562.50  | -43.01 | -67.05     | 24.04  | -13.00     | -30.01     | Peak   |
| 5    | 10275.00 | -39.41 | -66.00     | 26.59  | -13.00     | -26.41     | Peak   |
| 6    | 11987.50 | -37.51 | -66.21     | 28.70  | -13.00     | -24.51     | Peak   |
| 7 pp | 13700.00 | -33.95 | -65.11     | 31.16  | -13.00     | -20.95     | Peak   |

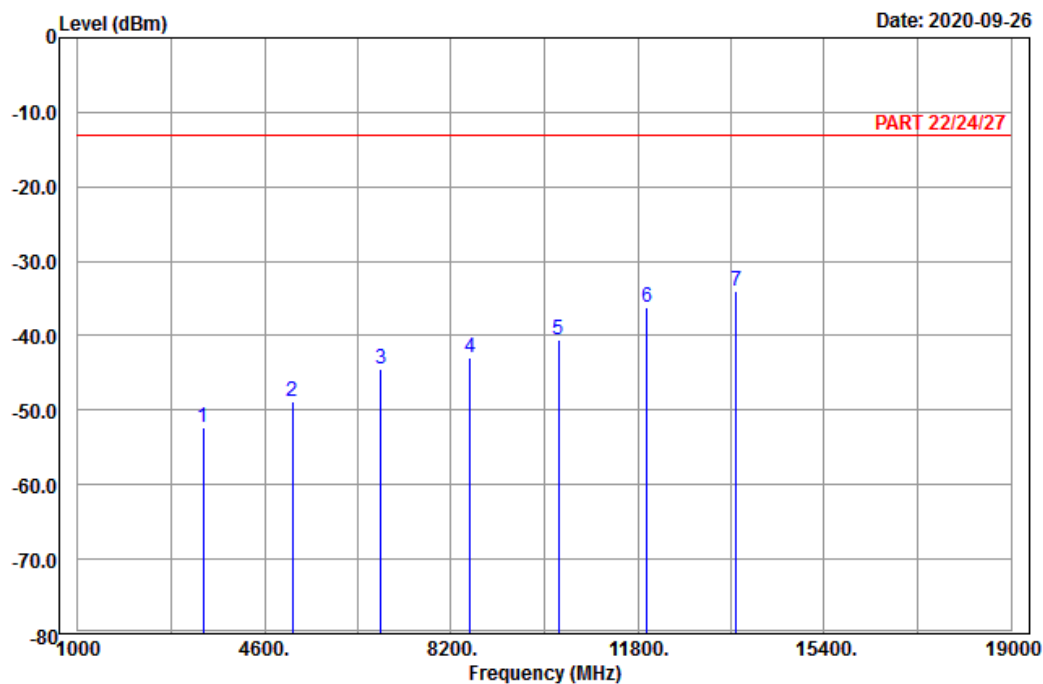


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 22/24/27 Vertical  
Remark : LTE\_Band 66\_Link\_L-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3425.00  | -52.39 | -66.76     | 14.37  | -13.00     | -39.39     | Peak   |
| 2    | 5137.50  | -48.74 | -68.55     | 19.81  | -13.00     | -35.74     | Peak   |
| 3    | 6850.00  | -44.50 | -67.22     | 22.72  | -13.00     | -31.50     | Peak   |
| 4    | 8562.50  | -43.04 | -67.08     | 24.04  | -13.00     | -30.04     | Peak   |
| 5    | 10275.00 | -40.48 | -67.07     | 26.59  | -13.00     | -27.48     | Peak   |
| 6    | 11987.50 | -36.29 | -64.99     | 28.70  | -13.00     | -23.29     | Peak   |
| 7 pp | 13700.00 | -33.91 | -65.07     | 31.16  | -13.00     | -20.91     | Peak   |

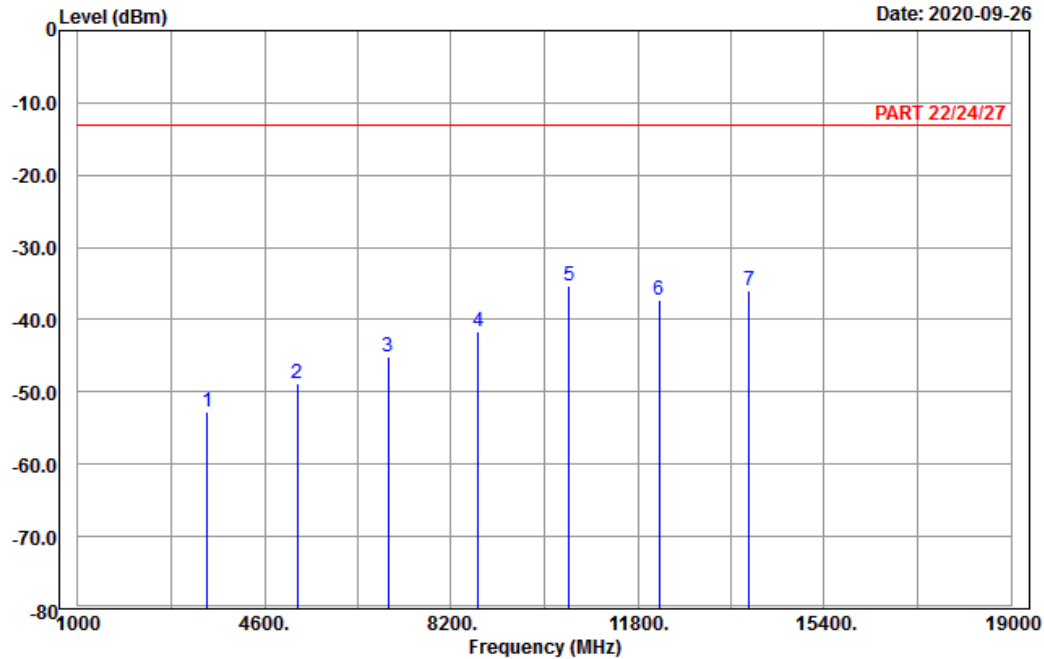
## Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7



Site : 966 chamber 1  
 Condition: PART 22/24/27 Horizontal  
 Remark : LTE\_Band 66\_Link\_M-Ch  
 Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3490.00  | -52.85 | -67.16     | 14.31  | -13.00     | -39.85     | Peak   |
| 2    | 5235.00  | -48.78 | -68.94     | 20.16  | -13.00     | -35.78     | Peak   |
| 3    | 6980.00  | -45.09 | -67.78     | 22.69  | -13.00     | -32.09     | Peak   |
| 4    | 8725.00  | -41.67 | -66.06     | 24.39  | -13.00     | -28.67     | Peak   |
| 5 pp | 10470.00 | -35.38 | -62.04     | 26.66  | -13.00     | -22.38     | Peak   |
| 6    | 12215.00 | -37.30 | -66.79     | 29.49  | -13.00     | -24.30     | Peak   |
| 7    | 13960.00 | -35.87 | -66.55     | 30.68  | -13.00     | -22.87     | Peak   |

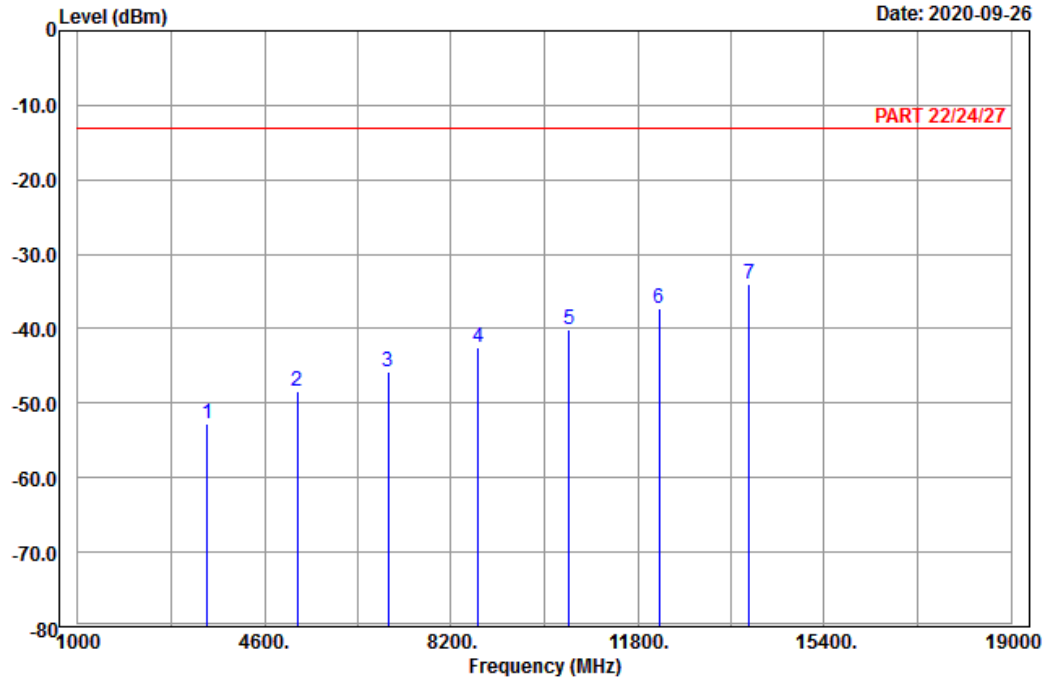


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 22/24/27 Vertical  
Remark : LTE\_Band 66\_Link\_M-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3490.00  | -52.64 | -66.95     | 14.31  | -13.00     | -39.64     | Peak   |
| 2    | 5235.00  | -48.38 | -68.54     | 20.16  | -13.00     | -35.38     | Peak   |
| 3    | 6980.00  | -45.85 | -68.54     | 22.69  | -13.00     | -32.85     | Peak   |
| 4    | 8725.00  | -42.41 | -66.80     | 24.39  | -13.00     | -29.41     | Peak   |
| 5    | 10470.00 | -40.15 | -66.81     | 26.66  | -13.00     | -27.15     | Peak   |
| 6    | 12215.00 | -37.28 | -66.77     | 29.49  | -13.00     | -24.28     | Peak   |
| 7 pp | 13960.00 | -33.90 | -64.58     | 30.68  | -13.00     | -20.90     | Peak   |

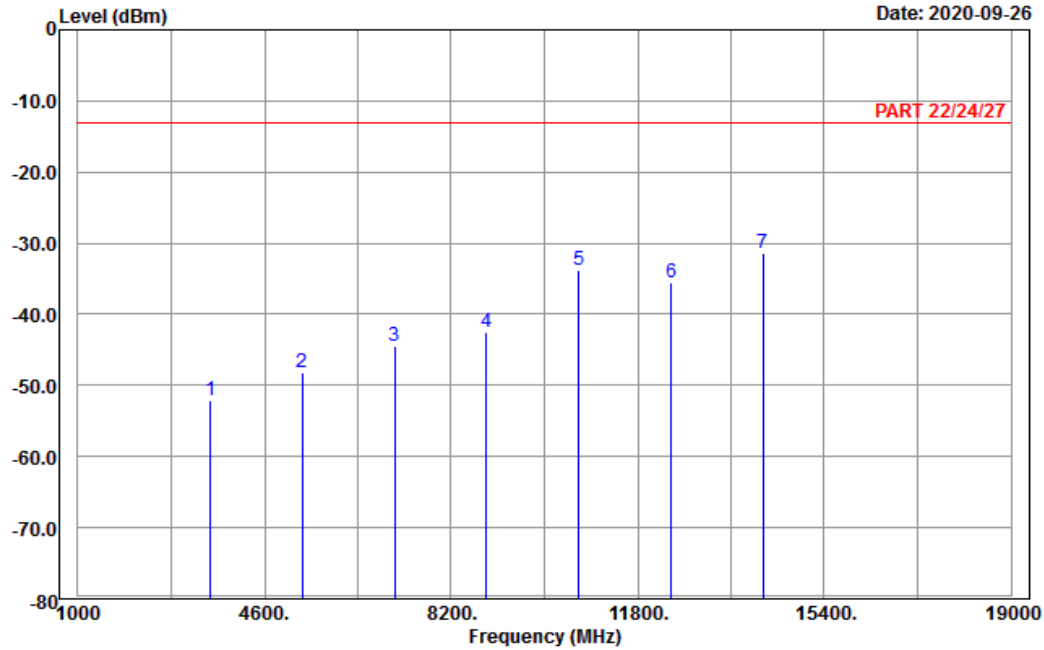
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3



Site : 966 chamber 1  
 Condition: PART 22/24/27 Horizontal  
 Remark : LTE\_Band 66\_Link\_H-Ch  
 Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3555.00  | -52.21 | -67.40     | 15.19  | -13.00     | -39.21     | Peak   |
| 2    | 5332.50  | -48.21 | -68.49     | 20.28  | -13.00     | -35.21     | Peak   |
| 3    | 7110.00  | -44.57 | -67.10     | 22.53  | -13.00     | -31.57     | Peak   |
| 4    | 8887.50  | -42.58 | -67.49     | 24.91  | -13.00     | -29.58     | Peak   |
| 5    | 10665.00 | -33.79 | -60.75     | 26.96  | -13.00     | -20.79     | Peak   |
| 6    | 12442.50 | -35.50 | -65.27     | 29.77  | -13.00     | -22.50     | Peak   |
| 7 pp | 14220.00 | -31.47 | -62.47     | 31.00  | -13.00     | -18.47     | Peak   |

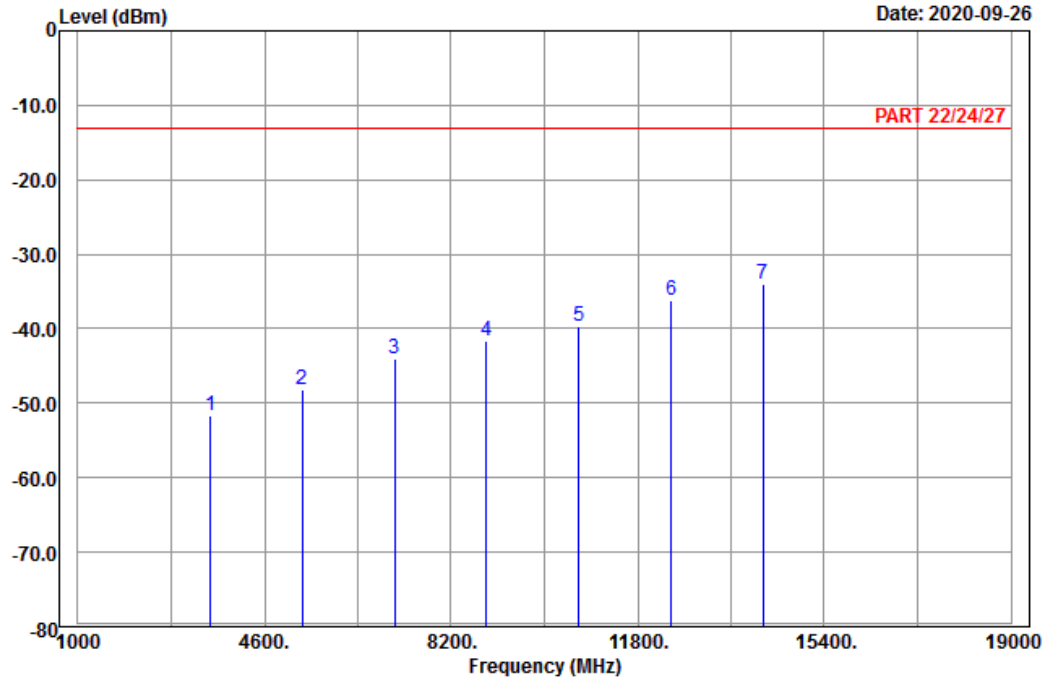


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 22/24/27 Vertical  
Remark : LTE\_Band 66\_Link\_H-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3555.00  | -51.61 | -66.80     | 15.19  | -13.00     | -38.61     | Peak   |
| 2    | 5332.50  | -48.19 | -68.47     | 20.28  | -13.00     | -35.19     | Peak   |
| 3    | 7110.00  | -44.06 | -66.59     | 22.53  | -13.00     | -31.06     | Peak   |
| 4    | 8887.50  | -41.60 | -66.51     | 24.91  | -13.00     | -28.60     | Peak   |
| 5    | 10665.00 | -39.66 | -66.62     | 26.96  | -13.00     | -26.66     | Peak   |
| 6    | 12442.50 | -36.08 | -65.85     | 29.77  | -13.00     | -23.08     | Peak   |
| 7 pp | 14220.00 | -34.02 | -65.02     | 31.00  | -13.00     | -21.02     | Peak   |

Channel Bandwidth: 20 MHz / QPSK

Low Channel

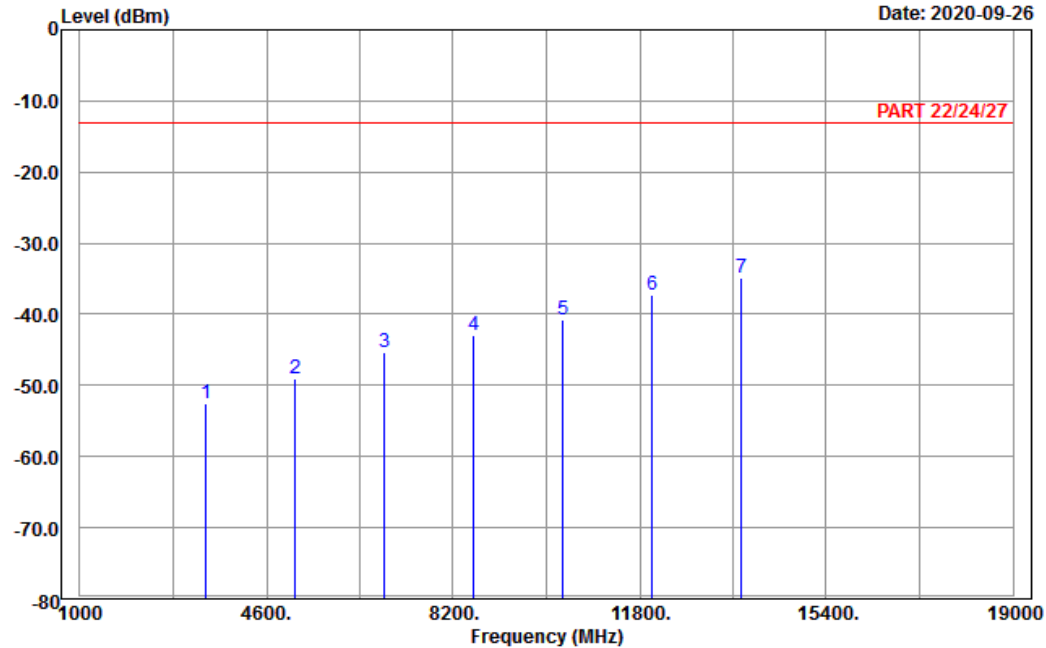


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7

Date: 2020-09-26



Site : 966 chamber 1

Condition: PART 22/24/27 Horizontal

Remark : LTE\_Band 66\_Link\_L-Ch

Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3440.00  | -52.58 | -66.93     | 14.35  | -13.00     | -39.58     | Peak   |
| 2    | 5160.00  | -49.03 | -68.95     | 19.92  | -13.00     | -36.03     | Peak   |
| 3    | 6880.00  | -45.41 | -68.21     | 22.80  | -13.00     | -32.41     | Peak   |
| 4    | 8600.00  | -42.85 | -66.95     | 24.10  | -13.00     | -29.85     | Peak   |
| 5    | 10320.00 | -40.80 | -67.47     | 26.67  | -13.00     | -27.80     | Peak   |
| 6    | 12040.00 | -37.23 | -66.15     | 28.92  | -13.00     | -24.23     | Peak   |
| 7 pp | 13760.00 | -34.78 | -65.86     | 31.08  | -13.00     | -21.78     | Peak   |

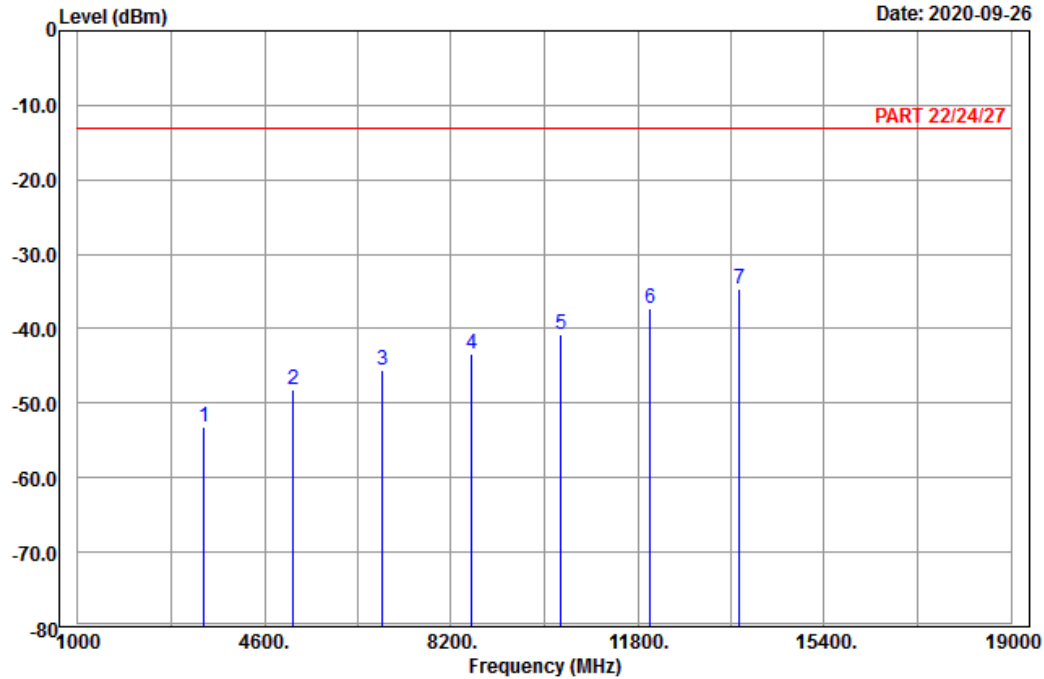


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 22/24/27 Vertical  
Remark : LTE\_Band 66\_Link\_L-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3440.00  | -53.15 | -67.50     | 14.35  | -13.00     | -40.15     | Peak   |
| 2    | 5160.00  | -48.28 | -68.20     | 19.92  | -13.00     | -35.28     | Peak   |
| 3    | 6880.00  | -45.54 | -68.34     | 22.80  | -13.00     | -32.54     | Peak   |
| 4    | 8600.00  | -43.37 | -67.47     | 24.10  | -13.00     | -30.37     | Peak   |
| 5    | 10320.00 | -40.70 | -67.37     | 26.67  | -13.00     | -27.70     | Peak   |
| 6    | 12040.00 | -37.17 | -66.09     | 28.92  | -13.00     | -24.17     | Peak   |
| 7 pp | 13760.00 | -34.59 | -65.67     | 31.08  | -13.00     | -21.59     | Peak   |

## Middle Channel

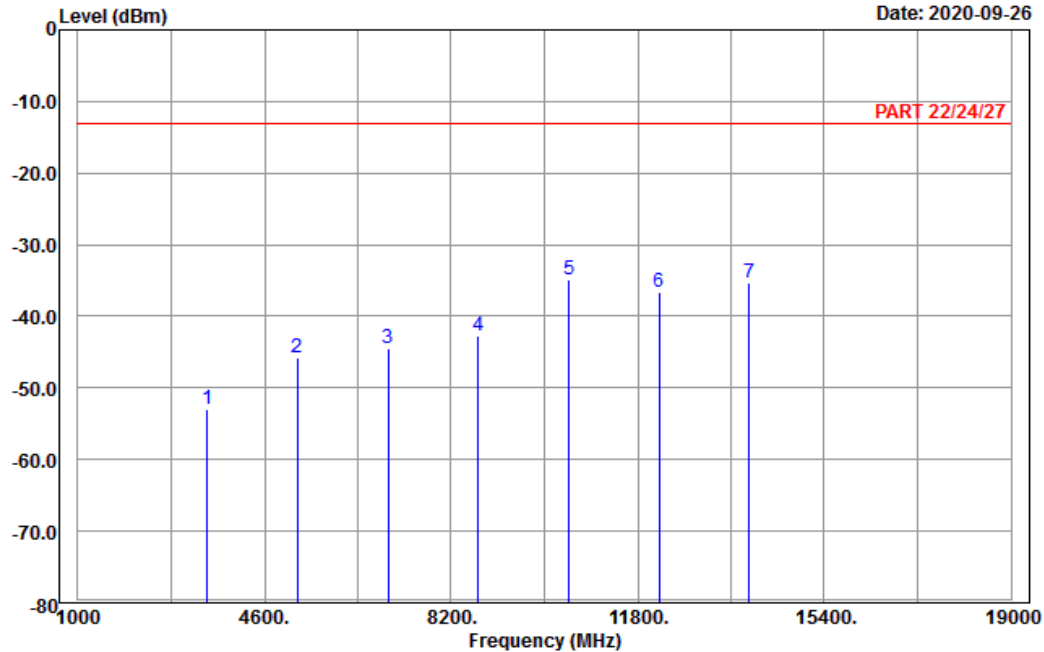


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7

Date: 2020-09-26



Site : 966 chamber 1

Condition: PART 22/24/27 Horizontal

Remark : LTE\_Band 66\_Link\_M-Ch

Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3490.00  | -53.05 | -67.36     | 14.31  | -13.00     | -40.05     | Peak   |
| 2    | 5235.00  | -45.71 | -65.87     | 20.16  | -13.00     | -32.71     | Peak   |
| 3    | 6980.00  | -44.48 | -67.17     | 22.69  | -13.00     | -31.48     | Peak   |
| 4    | 8725.00  | -42.63 | -67.02     | 24.39  | -13.00     | -29.63     | Peak   |
| 5 pp | 10470.00 | -34.85 | -61.51     | 26.66  | -13.00     | -21.85     | Peak   |
| 6    | 12215.00 | -36.58 | -66.07     | 29.49  | -13.00     | -23.58     | Peak   |
| 7    | 13960.00 | -35.22 | -65.90     | 30.68  | -13.00     | -22.22     | Peak   |

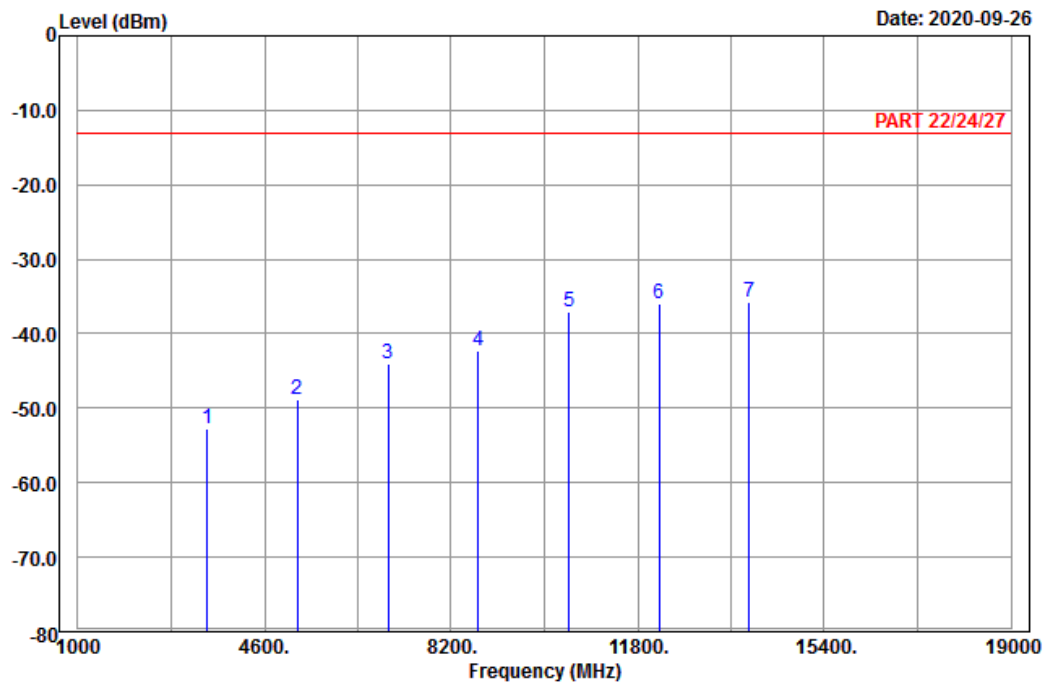


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 22/24/27 Vertical  
Remark : LTE\_Band 66\_Link\_M-Ch  
Tested by: Charles Hsiao

|      | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|------|----------|--------|------------|--------|------------|------------|--------|
|      | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1    | 3490.00  | -52.66 | -66.97     | 14.31  | -13.00     | -39.66     | Peak   |
| 2    | 5235.00  | -48.84 | -69.00     | 20.16  | -13.00     | -35.84     | Peak   |
| 3    | 6980.00  | -44.05 | -66.74     | 22.69  | -13.00     | -31.05     | Peak   |
| 4    | 8725.00  | -42.29 | -66.68     | 24.39  | -13.00     | -29.29     | Peak   |
| 5    | 10470.00 | -37.02 | -63.68     | 26.66  | -13.00     | -24.02     | Peak   |
| 6    | 12215.00 | -35.99 | -65.48     | 29.49  | -13.00     | -22.99     | Peak   |
| 7 pp | 13960.00 | -35.75 | -66.43     | 30.68  | -13.00     | -22.75     | Peak   |

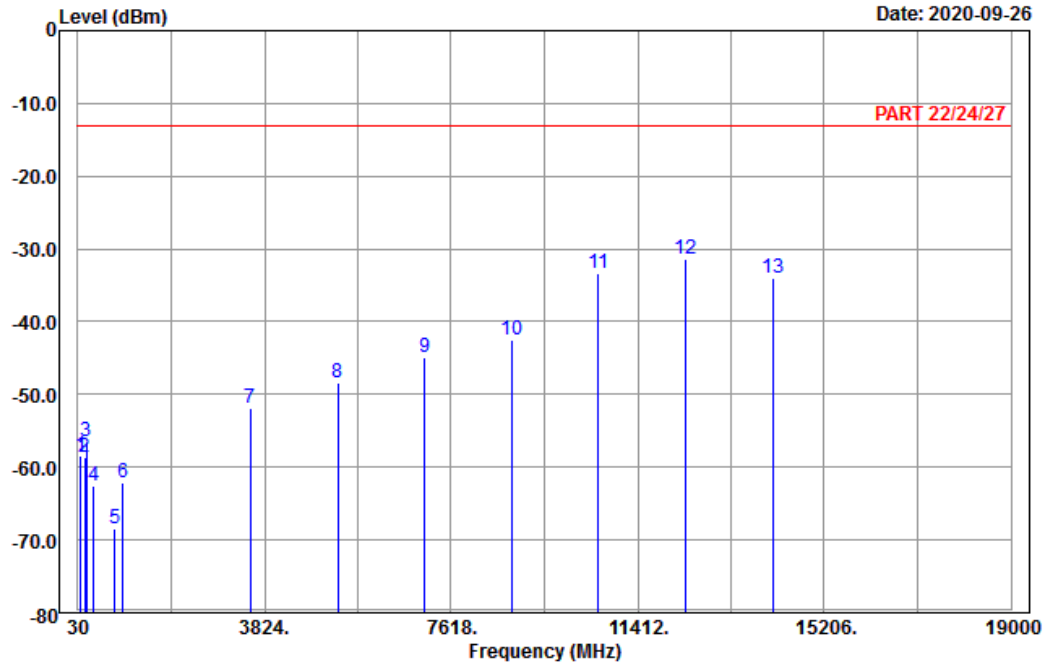
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1  
 Condition: PART 22/24/27 Horizontal  
 Remark : LTE\_Band 66\_Link\_H-Ch  
 Tested by: Charles Hsiao

|       | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|-------|----------|--------|------------|--------|------------|------------|--------|
|       | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1     | 90.75    | -58.51 | -47.89     | -10.62 | -13.00     | -45.51     | Peak   |
| 2     | 170.94   | -58.71 | -52.11     | -6.60  | -13.00     | -45.71     | Peak   |
| 3     | 210.63   | -56.42 | -50.38     | -6.04  | -13.00     | -43.42     | Peak   |
| 4     | 348.30   | -62.57 | -57.17     | -5.40  | -13.00     | -49.57     | Peak   |
| 5     | 774.60   | -68.40 | -68.75     | 0.35   | -13.00     | -55.40     | Peak   |
| 6     | 937.70   | -62.22 | -66.80     | 4.58   | -13.00     | -49.22     | Peak   |
| 7     | 3540.00  | -51.88 | -66.77     | 14.89  | -13.00     | -38.88     | Peak   |
| 8     | 5310.00  | -48.39 | -68.63     | 20.24  | -13.00     | -35.39     | Peak   |
| 9     | 7080.00  | -44.96 | -67.50     | 22.54  | -13.00     | -31.96     | Peak   |
| 10    | 8850.00  | -42.60 | -67.40     | 24.80  | -13.00     | -29.60     | Peak   |
| 11    | 10620.00 | -33.36 | -60.21     | 26.85  | -13.00     | -20.36     | Peak   |
| 12 pp | 12390.00 | -31.31 | -61.02     | 29.71  | -13.00     | -18.31     | Peak   |
| 13    | 14160.00 | -34.02 | -64.92     | 30.90  | -13.00     | -21.02     | Peak   |

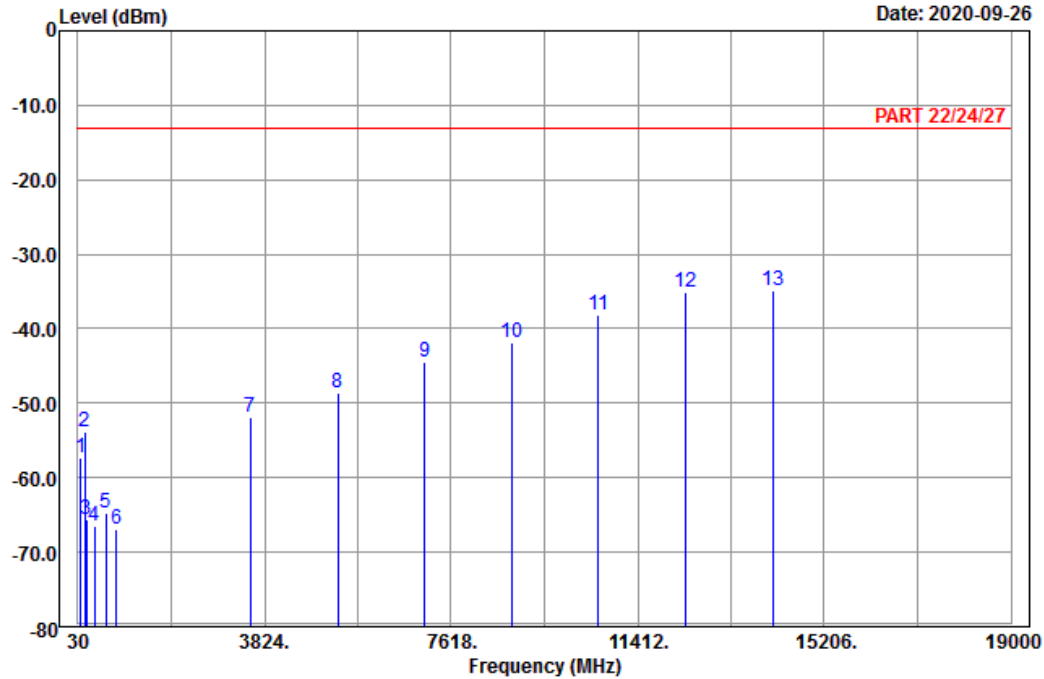


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2020-09-26



Site : 966 chamber 1  
Condition: PART 22/24/27 Vertical  
Remark : LTE\_Band 66\_Link\_H-Ch  
Tested by: Charles Hsiao

|    | Freq     | Level  | Read Level | Factor | Limit Line | Over Limit | Remark |
|----|----------|--------|------------|--------|------------|------------|--------|
|    | MHz      | dBm    | dBm        | dB     | dBm        | dB         |        |
| 1  | 91.56    | -57.40 | -46.78     | -10.62 | -13.00     | -44.40     | Peak   |
| 2  | 169.05   | -53.94 | -47.14     | -6.80  | -13.00     | -40.94     | Peak   |
| 3  | 207.66   | -65.60 | -59.52     | -6.08  | -13.00     | -52.60     | Peak   |
| 4  | 360.90   | -66.47 | -61.66     | -4.81  | -13.00     | -53.47     | Peak   |
| 5  | 603.10   | -64.75 | -65.14     | 0.39   | -13.00     | -51.75     | Peak   |
| 6  | 818.70   | -66.98 | -68.78     | 1.80   | -13.00     | -53.98     | Peak   |
| 7  | 3540.00  | -51.97 | -66.86     | 14.89  | -13.00     | -38.97     | Peak   |
| 8  | 5310.00  | -48.67 | -68.91     | 20.24  | -13.00     | -35.67     | Peak   |
| 9  | 7080.00  | -44.51 | -67.05     | 22.54  | -13.00     | -31.51     | Peak   |
| 10 | 8850.00  | -41.78 | -66.58     | 24.80  | -13.00     | -28.78     | Peak   |
| 11 | 10620.00 | -38.18 | -65.03     | 26.85  | -13.00     | -25.18     | Peak   |
| 12 | 12390.00 | -35.14 | -64.85     | 29.71  | -13.00     | -22.14     | Peak   |
| 13 | 14160.00 | -34.81 | -65.71     | 30.90  | -13.00     | -21.81     | Peak   |

## 5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

## Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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The address and road map of all our labs can be found in our web site also.

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