

# FCC TEST REPORT

## (PART 27)

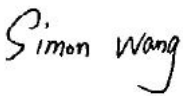
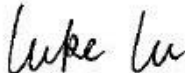
|            |                                                             |
|------------|-------------------------------------------------------------|
| Applicant: | CPSpeed CO.,LTD.                                            |
| Address:   | 3505 stLuke's Tower,8-1 Akashi-cho, Chuo-ku, Tokyo 104-0044 |

|                           |                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------|
| Manufacturer or Supplier: | MeiG Smart Technology Co., Ltd                                                               |
| Address:                  | 2nd Floor,Office Building,No.5 Lingxia Road,Fenghuang,Fuyong Street,Bao'an District,Shenzhen |
| Product:                  | Speed Wi-Fi DOCK 5G 01                                                                       |
| Brand Name:               | CPSpeed                                                                                      |
| Model Name:               | CPS01                                                                                        |
| FCC ID:                   | 2BMKV-CPS01                                                                                  |
| Date of tests:            | Nov. 12, 2024~Dec. 12, 2024                                                                  |

The tests have been carried out according to the requirements of the following standard:

- ☒ FCC Part 27    ☒ ANSI/TIA/EIA-603-D  
☒ FCC Part 2    ☒ ANSI/TIA/EIA-603-E    ☒ ANSI C63.26-2015

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

|                                                                                                            |                                                                                                              |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Prepared by Simon Wang<br>Engineer / Mobile Department                                                     | Approved by Luke Lu<br>Manager / Mobile Department                                                           |
| <br>Date: Dec. 12, 2024 | <br>Date: Dec. 12, 2024 |

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



Test Report No.: W7L-P24090006RF06

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## RELEASE CONTROL RECORD

| ISSUE NO.         | REASON FOR CHANGE | DATE ISSUED   |
|-------------------|-------------------|---------------|
| W7L-P24090006RF06 | Original release  | Dec. 12, 2024 |

## 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC PART 27 & PART 2  |                                                                    |            |           |
|-----------------------------------------|--------------------------------------------------------------------|------------|-----------|
| STANDARD SECTION                        | TEST TYPE AND LIMIT                                                | RESULT     | TEST LAB* |
| §2.1046                                 | Conducted Output Power                                             | Compliance | A         |
| §27.50(c)(10)                           | Effective Radiated Power<br>(Band 17)                              | Compliance | A         |
| §27.50(h)(2)                            | Equivalent Isotropically Radiated Power<br>(Band 41) (Band 41C)    | Compliance | A         |
| §2.1055<br>§27.54                       | Frequency Stability                                                | Compliance | A         |
| §2.1049                                 | Occupied Bandwidth                                                 | Compliance | A         |
| §2.1051<br>§27.53(g)<br>§27.53(m)(4)(6) | Conducted Band Edge Measurements<br>(Band 17) (Band 41) (Band 41C) | Compliance | A         |
| §2.1051<br>§27.53(g)<br>§27.53(m)(4)(6) | Conducted Spurious Emissions<br>(Band 17) (Band 41) (Band 41C)     | Compliance | A         |
| §2.1053<br>§27.53(g)<br>§27.53(m)(4)(6) | Radiated Spurious Emissions<br>(Band 17) (Band 41) (Band 41C)      | Compliance | A         |
| NA                                      | Peak to average ratio                                              | Compliance | A         |

**NOTE:** The worst-case scenario for all measurements is based on an engineering evaluation made on different modulations. Then, QPSK and 16QAM were observed as the worst mode to LTE bands respectively and set for all conducted and radiated. Output power measurements were measured on QPSK, 16QAM and 64QAM modulations, and tests other than output power are performed only in worse-case QPSK and 16QAM modulations.



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**\*Test Lab Information Reference**

**Lab A:**

BV 7Layers Communications Technology (Shenzhen) Co., Ltd

**Lab Address:**

Room B37, Warehouse A5, No.3 Chiwan 4th Road, Zhaoshang Street, Nanshan District Shenzhen,  
Guangdong, People's Republic of China

**Accredited Test Lab Cert 3939.01**

**The FCC Site Registration No. : 525120; Designation No. : CN1171;**

## 1.1 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                                      | UNCERTAINTY           |
|--------------------------------------------------|-----------------------|
| Frequency Stability                              | $\pm 76.97\text{Hz}$  |
| Radiated emissions (9KHz~30MHz)                  | $\pm 2.68\text{dB}$   |
| Radiated emissions & Radiated Power (30MHz~1GHz) | $\pm 4.98\text{dB}$   |
| Radiated emissions & Radiated Power (1GHz ~6GHz) | $\pm 4.70\text{dB}$   |
| Radiated emissions (6GHz ~18GHz)                 | $\pm 4.60\text{dB}$   |
| Radiated emissions (18GHz ~40GHz)                | $\pm 4.12\text{dB}$   |
| Conducted emissions                              | $\pm 4.01\text{dB}$   |
| Occupied Channel Bandwidth                       | $\pm 43.58\text{KHz}$ |
| Conducted Output power                           | $\pm 2.06\text{dB}$   |
| Band Edge Measurements                           | $\pm 4.70\text{dB}$   |

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

## 1.2 TEST SITE AND INSTRUMENTS

| Equipment                                   | Manufacturer      | Model No.                       | Serial No.                          | Last Cal.  | Next Cal.  |
|---------------------------------------------|-------------------|---------------------------------|-------------------------------------|------------|------------|
| MXE EMI Receiver                            | KEYSIGHT          | N9038A-544                      | MY54450026                          | Mar. 27,24 | Mar. 26,25 |
| EXA Signal Analyzer                         | KEYSIGHT          | N9010A-544                      | MY54510355                          | May.09,24  | May.08,25  |
| Loop Antenna                                | Schwarzbeck       | FMZB 1519B                      | 00173                               | Sep.01,24  | Aut.31,25  |
| Bilog Antenna                               | ETS-LINDGRE<br>N  | 3143B                           | 00161965                            | Feb. 17,24 | Feb. 16,25 |
| Horn Antenna                                | ETS-LINDGRE<br>N  | 3117                            | 00168692                            | Feb. 17,24 | Feb. 16,25 |
| Horn Antenna<br>(18GHz-40GHz)               | N/A               | QWH-SL-18-40-K-<br>SG/QMS-00361 | 15433                               | Sep.02, 24 | Sep.01, 25 |
| Radio Communication<br>Analyzer             | ANRITSU           | MT8820C                         | 6201465426                          | Feb. 13,24 | Feb. 12,25 |
| Signal Pre-Amplifier                        | EMSI              | EMC 9135                        | 980249                              | May. 05,24 | May. 04,25 |
| Signal Pre-Amplifier                        | EMSI              | EMC 012645B                     | 980257                              | May.09,24  | May.08,25  |
| Signal Pre-Amplifier                        | EMSI              | EMC 184045B                     | 980259                              | Feb. 16,24 | Feb.15,25  |
| 3m<br>Semi-anechoic<br>Chamber              | ETS-LINDGRE<br>N  | 9m*6m*6m                        | Euroshieldpn-<br>CT0001143-121<br>6 | Nov. 14,23 | Nov. 13,26 |
| Test Software                               | E3                | V 9.160323                      | N/A                                 | N/A        | N/A        |
| Test Software                               | JS1120            | 3.1.36                          | N/A                                 | N/A        | N/A        |
| 10dB Attenuator                             | JFW/USA           | 50HF-010-SMA                    | 50HF-010-SMA                        | May. 05,24 | May. 04,25 |
| Power Meter                                 | Anritsu           | ML2495A                         | 1506002                             | Feb. 13,24 | Feb. 12,25 |
| Power Sensor                                | Anritsu           | MA2411B                         | 1339352                             | Feb. 13,24 | Feb. 12,25 |
| Temperature Chamber                         | ESPEC             | SH-242                          | 93000855                            | May. 05,24 | May. 04,25 |
| MXG<br>Analog Microwave<br>Signal Generator | KEYSIGHT          | N5183A                          | MY50143024                          | Feb. 13,24 | Feb. 12,25 |
| Base station R&S<br>CMW500                  | Rohde&Schwa<br>rz | CMW500                          | 153085                              | May.09,24  | May.08,25  |
| DC Source                                   | Kikusui/JP        | PMX18-5A                        | N/A                                 | Aug. 10,24 | Aug. 09,25 |
| Power Divider                               | COM-MW            | ZPD8-2M0-40G-1<br>942           | 04223131                            | Oct.08.24  | Oct.07.25  |

- NOTE:**
1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
  2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
  3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
  4. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

## 2 GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

|                              |                                                                |                       |
|------------------------------|----------------------------------------------------------------|-----------------------|
| <b>PRODUCT</b>               | Speed Wi-Fi DOCK 5G 01                                         |                       |
| <b>BRAND NAME</b>            | CPSpeed                                                        |                       |
| <b>MODEL NAME</b>            | CPS01                                                          |                       |
| <b>NOMINAL VOLTAGE</b>       | 5.0Vdc(adapter or host equipment)<br>3.85Vdc (Li-ion, battery) |                       |
| <b>MODULATION TECHNOLOGY</b> | LTE                                                            | QPSK, 16QAM, 64QAM    |
| <b>FREQUENCY RANGE</b>       | LTE Band 17<br>Channel Bandwidth: 5MHz                         | 706.5MHz ~ 713.5MHz   |
|                              | LTE Band 17<br>Channel Bandwidth: 10MHz                        | 709MHz ~ 711 MHz      |
|                              | LTE Band 41<br>Channel Bandwidth: 5MHz                         | 2547.5MHz ~ 2652.5MHz |
|                              | LTE Band 41<br>Channel Bandwidth: 10MHz                        | 2550MHz ~ 2650MHz     |
|                              | LTE Band 41<br>Channel Bandwidth: 15MHz                        | 2552.5MHz ~ 2647.5MHz |
|                              | LTE Band 41<br>Channel Bandwidth: 20MHz                        | 2555MHz ~ 2645MHz     |
|                              | LTE Band CA_41C<br>Channel Bandwidth:<br>5MHz+20MHz            | 2548.3MHz ~ 2645MHz   |
|                              | LTE Band CA_41C<br>Channel Bandwidth:<br>10MHz+15MHz           | 2550.3MHz ~ 2647.5MHz |
|                              | LTE Band CA_41C<br>Channel Bandwidth:<br>10MHz+20MHz           | 2550.5MHz ~ 2645MHz   |
|                              | LTE Band CA_41C<br>Channel<br>Bandwidth:15MHz+10MHz            | 2552.5MHz ~ 2649.7MHz |
|                              | LTE Band CA_41C<br>Channel<br>Bandwidth15MHz+15MHz             | 2552.5MHz ~ 2647.5MHz |
|                              | LTE Band CA_41C<br>Channel Bandwidth:<br>15MHz+20MHz           | 2552.8MHz ~ 2645MHz   |
|                              | LTE Band CA_41C<br>Channel Bandwidth:<br>20MHz+5MHz            | 2555MHz ~ 2651.7MHz   |
|                              | LTE Band CA_41C<br>Channel Bandwidth:<br>20MHz+10MHz           | 2555MHz ~ 2649.5MHz   |



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|                            |                                                      |                     |
|----------------------------|------------------------------------------------------|---------------------|
|                            | LTE Band CA_41C<br>Channel Bandwidth:<br>20MHz+15MHz | 2555MHz ~ 2647.2MHz |
|                            | LTE Band CA_41C<br>Channel Bandwidth:<br>20MHz+20MHz | 2555MHz ~ 2645MHz   |
| <b>MAX. EIRP POWER</b>     | LTE Band 17<br>Channel Bandwidth: 5MHz               | 138.04mW            |
|                            | LTE Band 17<br>Channel Bandwidth: 10MHz              | 138.36mW            |
|                            | LTE Band 41(HPUE)<br>Channel Bandwidth: 5MHz         | 285.76mW            |
|                            | LTE Band 41(HPUE)<br>Channel Bandwidth: 10MHz        | 287.08mW            |
|                            | LTE Band 41(HPUE)<br>Channel Bandwidth: 15MHz        | 286.42mW            |
|                            | LTE Band 41(HPUE)<br>Channel Bandwidth: 20MHz        | 289.07mW            |
|                            | LTE Band CA_41C<br>Channel Bandwidth: 20M+20M        | 283.79mW            |
|                            | LTE Band CA_41C<br>Channel Bandwidth: 20M+15M        | 279.90mW            |
|                            | LTE Band CA_41C<br>Channel Bandwidth: 15M+20M        | 283.14mW            |
|                            | LTE Band CA_41C<br>Channel Bandwidth: 20M+10M        | 279.25mW            |
|                            | LTE Band CA_41C<br>Channel Bandwidth: 10M+20M        | 281.19mW            |
|                            | LTE Band CA_41C<br>Channel Bandwidth: 15M+15M        | 277.33mW            |
|                            | LTE Band CA_41C<br>Channel Bandwidth: 15M+10M        | 275.42mW            |
|                            | LTE Band CA_41C<br>Channel Bandwidth: 10M+15M        | 281.84mW            |
|                            | LTE Band CA_41C<br>Channel Bandwidth: 20M+5M         | 281.84mW            |
|                            | LTE Band CA_41C<br>Channel Bandwidth: 5M+20M         | 279.90mW            |
| <b>EMISSION DESIGNATOR</b> | LTE Band 17<br>Channel Bandwidth: 5MHz               | QPSK: 4M53G7D       |
|                            |                                                      | 16QAM: 4M53W7D      |
|                            | LTE Band 17<br>Channel Bandwidth: 10MHz              | QPSK: 9M00G7D       |
|                            |                                                      | 16QAM: 9M00W7D      |
|                            | LTE Band 41<br>Channel Bandwidth: 5MHz               | QPSK: 4M52G7D       |
|                            |                                                      | 16QAM: 4M53W7D      |
|                            | LTE Band 41<br>Channel Bandwidth: 10MHz              | QPSK: 9M01G7D       |
|                            |                                                      | 16QAM: 9M00W7D      |
|                            | LTE Band 41<br>Channel Bandwidth: 15MHz              | QPSK: 13M5G7D       |
|                            |                                                      | 16QAM: 13M5W7D      |



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|                                                      |                                                                                                                            |                |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------|
|                                                      | LTE Band 41<br>Channel Bandwidth: 20MHz                                                                                    | QPSK: 18M0G7D  |
|                                                      |                                                                                                                            | 16QAM: 18M0W7D |
|                                                      | LTE Band CA_41C<br>Channel Bandwidth:<br>5MHz+20MHz                                                                        | QPSK: 23M0G7D  |
|                                                      |                                                                                                                            | 16QAM: 22M9W7D |
|                                                      | LTE Band CA_41C<br>Channel Bandwidth:<br>20MHz+5MHz                                                                        | QPSK: 23M0G7D  |
|                                                      |                                                                                                                            | 16QAM: 23M0W7D |
|                                                      | LTE Band CA_41C<br>Channel Bandwidth:<br>10MHz+15MHz                                                                       | QPSK: 23M2G7D  |
|                                                      |                                                                                                                            | 16QAM: 23M2W7D |
|                                                      | LTE Band CA_41C<br>Channel Bandwidth:<br>15MHz+10MHz                                                                       | QPSK: 23M2G7D  |
|                                                      |                                                                                                                            | 16QAM: 23M2W7D |
|                                                      | LTE Band CA_41C<br>Channel Bandwidth:<br>15MHz+15MHz                                                                       | QPSK: 28M4G7D  |
|                                                      |                                                                                                                            | 16QAM: 28M4W7D |
|                                                      | LTE Band CA_41C<br>Channel Bandwidth:<br>10MHz+20MHz                                                                       | QPSK: 52M6G7D  |
|                                                      |                                                                                                                            | 16QAM: 54M2W7D |
| LTE Band CA_41C<br>Channel Bandwidth:<br>15MHz+20MHz | QPSK: 32M8G7D                                                                                                              |                |
|                                                      | 16QAM: 32M7W7D                                                                                                             |                |
| LTE Band CA_41C<br>Channel Bandwidth:<br>20MHz+10MHz | QPSK: 27M9G7D                                                                                                              |                |
|                                                      | 16QAM: 27M9W7D                                                                                                             |                |
| LTE Band CA_41C<br>Channel Bandwidth:<br>20MHz+15MHz | QPSK: 32M7G7D                                                                                                              |                |
|                                                      | 16QAM: 32M7W7D                                                                                                             |                |
| LTE Band CA_41C<br>Channel Bandwidth:<br>20MHz+20MHz | QPSK: 37M7G7D                                                                                                              |                |
|                                                      | 16QAM: 37M7W7D                                                                                                             |                |
| ANTENNA TYPE                                         | Ant 0:<br>IFA/Monopole Antenna with 0.6dBi gain for LTE B17<br>Ant 2:<br>IFA/Monopole Antenna with 1.2dBi gain for LTE B41 |                |
| HW VERSION                                           | CPS01_V1.03                                                                                                                |                |
| SW VERSION                                           | CPS01_D.0.5_EQ101                                                                                                          |                |
| I/O PORTS                                            | Refer to user's manual                                                                                                     |                |
| CABLE SUPPLIED                                       | N/A                                                                                                                        |                |
| EXTREME TEMPERATURE                                  | 0-35 °C                                                                                                                    |                |
| EXTREME VOLTAGE                                      | 3.6V - 4.3V                                                                                                                |                |

**NOTE:**

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. The EUT incorporates a SISO function. Physically, the EUT LTE B17 provides one completed transmitter and two receiver. The EUT LTE B41 provides one completed transmitter and four receiver.

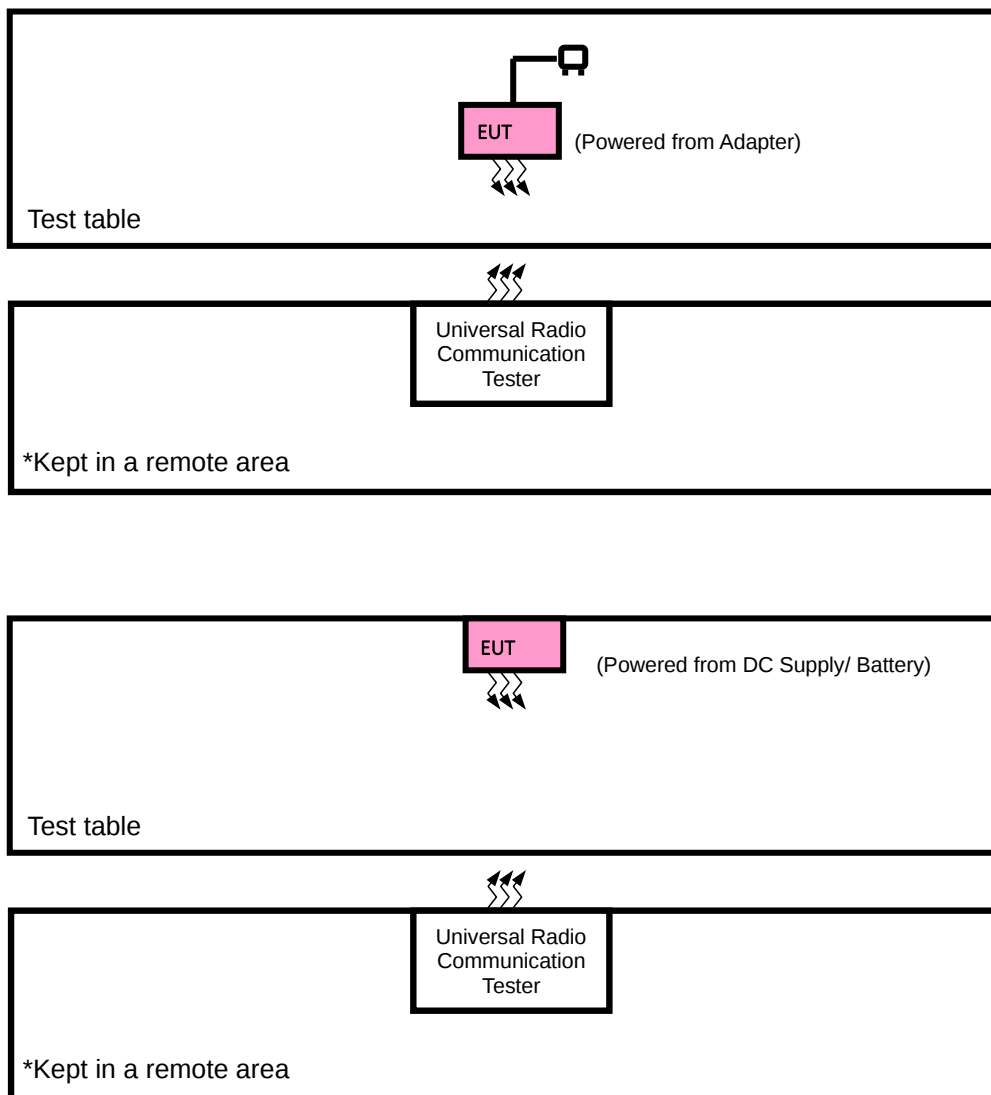
| MODULATION MODE | TX FUNCTION |
|-----------------|-------------|
| LTE B17         | 1TX/2RX     |
| LTE B41         | 1TX/4RX     |

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.
5. Output power measurements were measured on QPSK, 16QAM and 64QAM modulations. And tests other than output power are performed only in worst-case QPSK and 16QAM modes.
6. **List of Accessory:**

| ACCESSORIES  | BRAND   | MANUFACTURER                                      | MODEL           | SPECIFICATION                                                                                                      |
|--------------|---------|---------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------|
| LCD Panel 1  | ZZW     | Shenzhen Zoneway Technology Co., Ltd              | ZZW240QBS-1499A | N/A                                                                                                                |
| LCD Panel 2  | Rouxian | Chongqing Rouxian Intelligent Technology Co., Ltd | 24JS1199-QT     | N/A                                                                                                                |
| LCD Panel 3  | Yiou    | Hubei Yiou Electronics Co., Ltd.                  | TBD             | N/A                                                                                                                |
| Battery 1    | BYD     | Shenzhen BYD Lithium Battery Company Limited      | CPS01-CSL345683 | Capacity: 5400mAh                                                                                                  |
| Battery 2    | ATL     | Dongguan Amperex Technology Limited               | CPS01-345683    | Capacity: 5400mAh                                                                                                  |
| AC Adapter 1 | N/A     | N/A                                               | N/A             | I/P: 100-240Vac, 500mA, 50-60Hz, O/P: 5 Vdc, 2.5A (Normal charge)<br>O/P: 9Vdc, 1.7A or 12Vdc, 1.25A (Fast Charge) |
| AC Adapter 2 | N/A     | N/A                                               | N/A             | I/P: 100-240Vac, 500mA, 50-60Hz, O/P: 5 Vdc, 2.5A (Normal charge)<br>O/P: 9Vdc, 1.7A or 12Vdc, 1.25A (Fast Charge) |

## 2.2 CONFIGURATION OF SYSTEM UNDER TEST

### FOR RADIATION EMISSION TEST



## 2.3 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.

| NO. | PRODUCT | BRAND | MODEL NO. | SERIAL NO. | FCC ID |
|-----|---------|-------|-----------|------------|--------|
| 1   | N/A     | N/A   | N/A       | N/A        | N/A    |

| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|-----|-----------------------------------------------------|
| 1   | N/A                                                 |

## 2.4 TEST ITEM AND TEST CONFIGURATION

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 on Y-plane for EIRP and X-axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

| EUT CONFIGURE MODE | DESCRIPTION                             |
|--------------------|-----------------------------------------|
| A                  | EUT + Adapter + USB Cable with LTE link |
| B                  | EUT + DC Supply with LTE link           |

**LTE BAND 17**

| EUT<br>CONFIGURE<br>MODE | TEST ITEM                   | AVAILABLE<br>CHANNEL | TESTED CHANNEL         | CHANNEL<br>BANDWIDTH | MODULATION           | MODE                                                             |
|--------------------------|-----------------------------|----------------------|------------------------|----------------------|----------------------|------------------------------------------------------------------|
| A                        | ERP                         | 23755 to 23825       | 23755, 23790,<br>23825 | 5MHz                 | QPSK,16QAM,<br>64QAM | 1 RB / 0 RB Offset                                               |
|                          |                             | 23780 to 23800       | 23780, 23790,<br>23800 | 10MHz                | QPSK,16QAM,<br>64QAM | 1 RB / 0 RB Offset                                               |
| B                        | FREQUENCY<br>STABILITY      | 23780 to 23800       | 23780,23800            | 10MHz                | QPSK,16QAM           | 50 RB / 0 RB Offset                                              |
| A                        | OCCUPIED<br>BANDWIDTH       | 23755 to 23825       | 23755, 23790,<br>23825 | 5MHz                 | QPSK,16QAM           | 25 RB / 0 RB Offset                                              |
|                          |                             | 23780 to 23800       | 23780, 23790,<br>23800 | 10MHz                | QPSK,16QAM           | 50 RB / 0 RB Offset                                              |
| A                        | PEAK TO<br>AVERAGE<br>RATIO | 23755 to 23825       | 23755, 23790,<br>23825 | 5MHz                 | QPSK,16QAM           | 1 RB / 0 RB Offset<br>100 RB / 0 RB<br>Offset                    |
|                          |                             | 23780 to 23800       | 23780, 23790,<br>23800 | 10MHz                | QPSK,16QAM           | 1 RB / 0 RB Offset<br>100 RB / 0 RB<br>Offset                    |
| A                        | BAND EDGE                   | 23755 to 23825       | 23755                  | 5MHz                 | QPSK,16QAM           | 1 RB / 0 RB Offset<br>25 RB / 0 RB Offset                        |
|                          |                             |                      | 23825                  | 5MHz                 | QPSK,16QAM           | 1 RB / 24 RB Offset<br>25 RB / 0 RB Offset                       |
|                          |                             | 23780 to 23800       | 23780                  | 10MHz                | QPSK,16QAM           | 1 RB / 0 RB Offset<br>50 RB / 0 RB Offset                        |
|                          |                             |                      | 23800                  | 10MHz                | QPSK,16QAM           | 1 RB / 49 RB Offset<br>50 RB / 0 RB Offset                       |
|                          |                             |                      |                        |                      |                      |                                                                  |
|                          |                             |                      |                        |                      |                      |                                                                  |
| A                        | CONDUCTED<br>EMISSION       | 23755 to 23825       | 23755, 23790,<br>23825 | 5MHz                 | QPSK,16QAM           | 1 RB / 0 RB Offset<br>25 RB / 0 RB Offset<br>1 RB / 24 RB Offset |
|                          |                             |                      |                        |                      |                      |                                                                  |
|                          |                             | 23780 to 23800       | 23780, 23790,<br>23800 | 10MHz                | QPSK,16QAM           | 1 RB / 0 RB Offset<br>50 RB / 0 RB Offset<br>1 RB / 49 RB Offset |
|                          |                             |                      |                        |                      |                      |                                                                  |
| A                        | RADIATED<br>EMISSION        | 23755 to 23825       | 23790                  | 5MHz                 | QPSK                 | 1 RB / 0 RB Offset                                               |
|                          |                             | 23780 to 23800       | 23780, 23790,<br>23800 | 10MHz                | 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.
2. Output power measurements were measured on QPSK,16QAM and 64QAM modulations. And tests other than output power are performed only in worst-case QPSK and 16QAM modes.

| LTE BAND 41 MODE         |                       |                      |                     |                      |                   |                                            |
|--------------------------|-----------------------|----------------------|---------------------|----------------------|-------------------|--------------------------------------------|
| EUT<br>CONFIGURE<br>MODE | TEST ITEM             | AVAILABLE<br>CHANNEL | TESTED<br>CHANNEL   | CHANNEL<br>BANDWIDTH | MODULATION        | MODE                                       |
| A                        | EIRP                  | 40165 to 41215       | 40165, 40690, 41215 | 5MHz                 | QPSK,16QAM, 64QAM | 1 RB / 0 RB Offset                         |
|                          |                       | 40190 to 41190       | 40190, 40690, 41540 | 10MHz                | QPSK,16QAM, 64QAM | 1 RB / 0 RB Offset                         |
|                          |                       | 40215 to 41165       | 40215 40690, 41165  | 15MHz                | QPSK,16QAM, 64QAM | 1 RB / 0 RB Offset                         |
|                          |                       | 40240 to 41140       | 40240 40690, 41140  | 20MHz                | QPSK,16QAM, 64QAM | 1 RB / 0 RB Offset                         |
| B                        | FREQUENCY STABILITY   | 40190 to 41190       | 40190, 40690, 41540 | 10MHz                | QPSK, 16QAM       | 1 RB / 0 RB Offset                         |
| A                        | OCCUPIED BANDWIDTH    | 40165 to 41215       | 40165, 40690, 41215 | 5MHz                 | QPSK, 16QAM       | 25 RB / 0 RB Offset                        |
|                          |                       | 40190 to 41190       | 40190, 40690, 41540 | 10MHz                | QPSK, 16QAM       | 50 RB / 0 RB Offset                        |
|                          |                       | 40215 to 41165       | 40215 40690, 41165  | 15MHz                | QPSK, 16QAM       | 75 RB / 0 RB Offset                        |
|                          |                       | 40240 to 41140       | 40240 40690, 41140  | 20MHz                | QPSK, 16QAM       | 100 RB / 0 RB Offset                       |
| A                        | PEAK TO AVERAGE RATIO | 40165 to 41215       | 40165, 40690, 41215 | 5MHz                 | QPSK, 16QAM       | 1 RB / 0 RB Offset<br>25 RB / 0 RB Offset  |
|                          |                       | 40190 to 41190       | 40190, 40690, 41540 | 10MHz                | QPSK, 16QAM       | 1 RB / 0 RB Offset<br>50 RB / 0 RB Offset  |
|                          |                       | 40215 to 41165       | 40215 40690, 41165  | 15MHz                | QPSK, 16QAM       | 1 RB / 0 RB Offset<br>75 RB / 0 RB Offset  |
|                          |                       | 40240 to 41140       | 40240 40690, 41140  | 20MHz                | QPSK, 16QAM       | 1 RB / 0 RB Offset<br>100 RB / 0 RB Offset |
| A                        | BAND EDGE             | 39675 to 41565       | 39675               | 5MHz                 | QPSK, 16QAM       | 1 RB / 0 RB Offset<br>25 RB / 0 RB Offset  |
|                          |                       |                      | 41565               | 5MHz                 | QPSK, 16QAM       | 1 RB / 24 RB Offset<br>25 RB / 0 RB Offset |
|                          |                       | 39700 to 41540       | 39700               | 10MHz                | QPSK, 16QAM       | 1 RB / 0 RB Offset<br>50 RB / 0 RB Offset  |
|                          |                       |                      | 41540               | 10MHz                | QPSK, 16QAM       | 1 RB / 49 RB Offset<br>50 RB / 0 RB Offset |
|                          |                       |                      |                     |                      |                   |                                            |
|                          |                       |                      |                     |                      |                   |                                            |
|                          |                       | 39725 to 41515       | 39725               | 15MHz                | QPSK, 16QAM       | 1 RB / 0 RB Offset                         |
|                          |                       |                      |                     |                      |                   |                                            |

|          |                             |                   |                        |       |              |                         |
|----------|-----------------------------|-------------------|------------------------|-------|--------------|-------------------------|
|          |                             |                   | 41515                  | 15MHz | QPSK, 16QAM  | 75 RB / 0 RB<br>Offset  |
|          |                             |                   |                        |       |              | 1 RB / 74 RB<br>Offset  |
|          |                             |                   |                        |       |              | 75 RB / 0 RB<br>Offset  |
|          |                             | 39750 to<br>41490 | 39750                  | 20MHz | QPSK, 16QAM  | 1 RB / 0 RB<br>Offset   |
|          |                             |                   |                        |       |              | 100 RB / 0 RB<br>Offset |
|          |                             |                   | 41490                  | 20MHz | QPSK, 16QAM  | 1 RB / 99 RB<br>Offset  |
| <b>A</b> | CONDCUDE<br>TED<br>EMISSION | 39675 to<br>41565 | 39675, 40620,<br>41565 | 5MHz  | QPSK, 16QAM  | 1 RB / 0 RB<br>Offset   |
|          |                             | 39700 to<br>41540 | 39700,<br>40620,41540  | 10MHz | QPSK, 16QAM  | 1 RB / 0RB<br>Offset    |
|          |                             | 39725 to<br>41515 | 39725, 40620,<br>41515 | 15MHz | QPSK, 16QAM  | 1 RB / 0 RB<br>Offset   |
|          |                             | 39750 to<br>41490 | 39750, 40620,<br>41490 | 20MHz | QPSK, 16QAM, | 1 RB / 0 RB<br>Offset   |
| <b>A</b> | RADIATED<br>EMISSION        | 39675 to<br>41565 | 40620                  | 5MHz  | QPSK         | 1 RB / 0 RB<br>Offset   |
|          |                             | 39700 to<br>41540 | 40190,40620,4119<br>0  | 10MHz | QPSK         | 1 RB / 0RB<br>Offset    |
|          |                             | 39725 to<br>41515 | 40620                  | 15MHz | QPSK         | 1 RB / 0 RB<br>Offset   |
|          |                             | 39750 to<br>41490 | 40620                  | 20MHz | QPSK         | 1 RB / 0 RB<br>Offset   |

**Note:**

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. Output power measurements were measured on QPSK,16QAM and 64QAM modulations.And tests other than output power are performed only in worst-case QPSK and 16QAM modes.

| LTE BAND CA_41C MODE     |                    |                             |                             |                   |                      |                    |                                       |                   |
|--------------------------|--------------------|-----------------------------|-----------------------------|-------------------|----------------------|--------------------|---------------------------------------|-------------------|
| EUT<br>CONFIGURE<br>MODE | TEST ITEM          | AVAILABLE<br>PCC<br>CHANNEL | AVAILABLE<br>SCC<br>CHANNEL | TESTED<br>CHANNEL | CHANNEL<br>BANDWIDTH | MODULATION         | MODE(PCC)                             | MODE(SCC)         |
| A                        | EIRP               | 40240 to 40991              | 40411 to 41162              | Low, Middle, High | 20MHz+15MHz          | QPSK, 16QAM, 64QAM | 1RB/ 99RB Offset                      | 1RB/ 0RB Offset   |
|                          |                    | 40218 to 40969              | 40389 to 41140              | Low, Middle, High | 15MHz+20MHz          | QPSK, 16QAM, 64QAM | 1RB/ 74RB Offset                      | 1RB/ 0RB Offset   |
|                          |                    | 40240 to 41041              | 40384 to 41185              | Low, Middle, High | 20MHz+10MHz          | QPSK, 16QAM, 64QAM | 1RB/ 99RB Offset                      | 1RB/ 0RB Offset   |
|                          |                    | 40195 to 40996              | 40339 to 41140              | Low, Middle, High | 10MHz+20MHz          | QPSK, 16QAM, 64QAM | 1RB/ 49RB Offset                      | 1RB/ 0RB Offset   |
|                          |                    | 40215 to 41015              | 40365 to 41165              | Low, Middle, High | 15MHz+15MHz          | QPSK, 16QAM, 64QAM | 1RB/ 74RB Offset                      | 1RB/ 0RB Offset   |
|                          |                    | 40215 to 41067              | 40335 to 41187              | Low, Middle, High | 15MHz+10MHz          | QPSK, 16QAM, 64QAM | 1RB / 74RB Offset                     | 1RB / 0RB Offset  |
|                          |                    | 40193 to 41045              | 40313 to 41165              | Low, Middle, High | 10MHz+15MHz          | QPSK, 16QAM, 64QAM | 1RB/ 49RB Offset                      | 1RB/ 0RB Offset   |
|                          |                    | 40240 to 41090              | 40357 to 41207              | Low, Middle, High | 20MHz +5MHz          | QPSK, 16QAM, 64QAM | 1RB/ 99RB Offset                      | 1RB/ 0RB Offset   |
|                          |                    | 40173 to 41023              | 40290 to 41140              | Low, Middle, High | 5MHz +20MHz          | QPSK, 16QAM, 64QAM | 1RB/ 24RB Offset                      | 1RB/ 0RB Offset   |
|                          |                    | 40240 to 40942              | 40438 to 41140              | Low, Middle, High | 20MHz+20MHz          | QPSK, 16QAM, 64QAM | 1RB / 99RB Offset<br>1RB / 0RB Offset | 1RB/ 0RB Offset   |
| A                        | OCCUPIED BANDWIDTH | 40240 to 40991              | 40411 to 41162              | Low, Middle, High | 20MHz+15MHz          | QPSK, 16QAM        | 100RB/ 0RB Offset                     | 75RB/ 0RB Offset  |
|                          |                    | 40218 to 40969              | 40389 to 41140              | Low, Middle, High | 15MHz+20MHz          | QPSK, 16QAM        | 75RB/ 0RB Offset                      | 100RB/ 0RB Offset |
|                          |                    | 40240 to 41041              | 40384 to 41185              | Low, Middle, High | 20MHz+10MHz          | QPSK, 16QAM        | 100RB/ 0RB Offset                     | 50RB/ 0RB Offset  |
|                          |                    | 40195 to 40996              | 40339 to 41140              | Low, Middle, High | 10MHz+20MHz          | QPSK, 16QAM        | 50RB/ 0RB Offset                      | 100RB/ 0RB Offset |
|                          |                    | 40215 to 41015              | 40365 to 41165              | Low, Middle, High | 15MHz +15MHz         | QPSK, 16QAM        | 75RB/ 0RB Offset                      | 75RB/ 0RB Offset  |
|                          |                    | 40215 to 41067              | 40335 to 41187              | Low, Middle, High | 15MHz +10MHz         | QPSK, 16QAM        | 75RB/ 0RB Offset                      | 50RB/ 0RB Offset  |
|                          |                    | 40193 to 41045              | 40313 to 41165              | Low, Middle, High | 10MHz +15MHz         | QPSK, 16QAM        | 50RB/ 0RB Offset                      | 75RB/ 0RB Offset  |
|                          |                    | 40240 to 41090              | 40357 to 41207              | Low, Middle, High | 20MHz +5MHz          | QPSK, 16QAM        | 100RB/ 0RB Offset                     | 25RB/ 0RB Offset  |
|                          |                    | 40173 to 41023              | 40290 to 41140              | Low, Middle, High | 5MHz +20MHz          | QPSK, 16QAM        | 25RB/ 0RB Offset                      | 100RB/ 0RB Offset |
|                          |                    | 40240 to 40942              | 40438 to 41140              | Low, Middle, High | 20MHz +20MHz         | QPSK, 16QAM        | 100RB/ 0RB Offset                     | 100RB/ 0RB Offset |
| A                        | BAND EDGE          | 40240 to 40942              | 40438 to 41140              | Low               | 20MHz+20MHz          | QPSK, 16QAM,       | 1RB/ 0RB Offset                       | 1RB/ 99RB Offset  |
|                          |                    |                             |                             | Low               | 20MHz+20MHz          |                    | 1RB/ 99RB Offset                      | 1RB/ 0RB Offset   |
|                          |                    |                             | High                        | 20MHz+20MHz       | 100RB/ 0RB Offset    |                    | 100RB/ 0RB Offset                     |                   |
|                          |                    |                             |                             |                   | 1RB/ 0RB Offset      |                    | 1RB/ 99RB Offset                      |                   |



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VERITAS

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|   |                       |                   |                   |                      |             |             | 1RB/ 99RB<br>Offset  | 1RB/ 0RB<br>Offset   |
|---|-----------------------|-------------------|-------------------|----------------------|-------------|-------------|----------------------|----------------------|
|   |                       |                   |                   |                      |             |             | 100RB/ 0RB<br>Offset | 100RB/ 0RB<br>Offset |
| A | CONDUCTED<br>EMISSION | 40240 to<br>40942 | 40438 to<br>41140 | Low, Middle,<br>High | 20MHz+20MHz | QPSK, 16QAM | 1RB/ 99RB<br>Offset  | 1RB/ 0RB<br>Offset   |
| A | RADIATED<br>EMISSION  | 40240 to<br>40942 | 40438 to<br>41140 | Middle               | 20MHz+20MHz | QPSK        | 1RB / 99RB<br>Offset | 1RB/ 0RB<br>Offset   |

**Note:**

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. Output power measurements were measured on QPSK,16QAM and 64QAM modulations.And tests other than output power are performed only in worst-case QPSK and 16QAM modes.

**TEST CONDITION:**

| TEST ITEM             | ENVIRONMENTAL CONDITIONS | INPUT POWER         | TESTED BY |
|-----------------------|--------------------------|---------------------|-----------|
| ERP&EIRP              | 23deg. C, 70%RH          | DC 5V By Adapter    | Jace Hu   |
| FREQUENCY STABILITY   | 23deg. C, 70%RH          | DC 3.85V By Battery | James Fu  |
| OCCUPIED BANDWIDTH    | 23deg. C, 70%RH          | DC5V By Adapter     | James Fu  |
| BAND EDGE             | 23deg. C, 70%RH          | DC 5V By Adapter    | James Fu  |
| CONDUCTED EMISSION    | 23deg. C, 70%RH          | DC5V By Adapter     | James Fu  |
| RADIATED EMISSION     | 23deg. C, 70%RH          | DC5V By Adapter     | Jace Hu   |
| PEAK TO AVERAGE RATIO | 23deg. C, 70%RH          | DC5V By Adapter     | James Fu  |



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## 2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

**FCC 47 CFR Part 2**

**FCC 47 CFR Part 27**

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

**ANSI/TIA/EIA-603-D**

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

**ANSI C63.26-2015**

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

### 3 TEST TYPES AND RESULTS

#### 3.1 OUTPUT POWER MEASUREMENT

##### 3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

§27.50(h)(2) :

The radiated peak output power shall be according to the specific rule Part 27.50(h)(2) that “User stations are limited to 2 watts” and 27.50(i) specific that “Peak transmit power must be measure over any interval of continuous transmission using instrumentation calibration in terms of rms-equivalent voltage.

§27.50(c)(10):

Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

##### 3.1.2 TEST PROCEDURES

###### EIRP MEASUREMENT:

Per KDB 971168 D01 Power Meas License Digital Systems v03r01 or subclause 5.2.5.5 of ANSI C63.26-2015, the relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T - L_C$$

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively  
(expressed in the same units as  $P_{\text{Meas}}$ , typically dBW or dBm);

$P_{\text{Meas}}$  = measured transmitter output power or PSD, in dBm or dBW;

$G_T$  = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

$L_C$  = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

###### CONDUCTED POWER MEASUREMENT:

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

### 3.1.3 TEST SETUP

#### CONDUCTED POWER MEASUREMENT:



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

### 3.1.4 TEST RESULTS

#### CONDUCTED OUTPUT POWER (dBm)

LTE Band 17

| Band/BW | Modulation | RB Size | RB Offset | Low CH 23755        | Mid CH 23790      | High CH 23825       |
|---------|------------|---------|-----------|---------------------|-------------------|---------------------|
|         |            |         |           | Frequency 706.5 MHz | Frequency 710 MHz | Frequency 713.5 MHz |
| 17/ 5   | QPSK       | 1       | 0         | 22.65               | 22.95             | 22.74               |
|         |            | 1       | 12        | 22.79               | 22.93             | 22.88               |
|         |            | 1       | 24        | 22.69               | 22.73             | 22.57               |
|         |            | 12      | 0         | 21.89               | 21.91             | 21.76               |
|         |            | 12      | 6         | 21.86               | 21.73             | 21.78               |
|         |            | 12      | 13        | 21.86               | 21.67             | 21.59               |
|         |            | 25      | 0         | 21.72               | 21.85             | 21.73               |
|         | 16QAM      | 1       | 0         | 21.79               | 21.92             | 21.76               |
|         |            | 1       | 12        | 21.77               | 21.90             | 22.15               |
|         |            | 1       | 24        | 21.70               | 22.16             | 22.13               |
|         |            | 12      | 0         | 20.57               | 20.87             | 20.68               |
|         |            | 12      | 6         | 20.71               | 20.70             | 20.59               |
|         |            | 12      | 13        | 21.13               | 21.00             | 20.83               |
|         |            | 25      | 0         | 20.81               | 20.92             | 20.66               |
|         | 64QAM      | 1       | 0         | 20.70               | 20.86             | 20.60               |
|         |            | 1       | 12        | 20.93               | 21.04             | 20.79               |
|         |            | 1       | 24        | 20.70               | 21.09             | 21.07               |
|         |            | 12      | 0         | 19.68               | 19.96             | 19.96               |
|         |            | 12      | 6         | 19.76               | 19.89             | 19.63               |
|         |            | 12      | 13        | 19.96               | 19.97             | 19.91               |
|         |            | 25      | 0         | 19.78               | 19.84             | 19.65               |
| Band/BW | Modulation | RB Size | RB Offset | Low CH 23780        | Mid CH 23790      | High CH 23800       |
|         |            |         |           | Frequency 709 MHz   | Frequency 710 MHz | Frequency 711 MHz   |
| 17/ 10  | QPSK       | 1       | 0         | 22.87               | 22.90             | 22.89               |
|         |            | 1       | 24        | 22.92               | 22.96             | 22.94               |
|         |            | 1       | 49        | 22.83               | 22.93             | 22.85               |
|         |            | 25      | 0         | 21.82               | 21.89             | 21.86               |
|         |            | 25      | 12        | 21.91               | 21.99             | 21.95               |
|         |            | 25      | 25        | 21.89               | 21.94             | 21.84               |
|         |            | 50      | 0         | 21.73               | 21.96             | 21.95               |
|         | 16QAM      | 1       | 0         | 21.95               | 22.02             | 21.94               |
|         |            | 1       | 24        | 21.86               | 22.09             | 22.09               |
|         |            | 1       | 49        | 21.94               | 22.08             | 22.14               |
|         |            | 25      | 0         | 20.85               | 20.92             | 20.75               |
|         |            | 25      | 12        | 20.96               | 20.95             | 20.78               |
|         |            | 25      | 25        | 21.08               | 21.04             | 20.94               |
|         |            | 50      | 0         | 20.94               | 20.94             | 20.75               |
|         | 64QAM      | 1       | 0         | 20.85               | 21.03             | 20.77               |
|         |            | 1       | 24        | 20.85               | 21.07             | 20.99               |
|         |            | 1       | 49        | 20.89               | 21.12             | 21.18               |
|         |            | 25      | 0         | 19.88               | 19.91             | 19.91               |
|         |            | 25      | 12        | 19.88               | 19.96             | 19.79               |
|         |            | 25      | 25        | 20.03               | 20.01             | 19.97               |
|         |            | 50      | 0         | 19.79               | 19.92             | 19.70               |

| LTE Band 41 PC3 |            |         |           |                       |                     |                       |
|-----------------|------------|---------|-----------|-----------------------|---------------------|-----------------------|
| Band/BW         | Modulation | RB Size | RB Offset | Low CH (40165)        | Mid CH (40690)      | High CH (41215)       |
|                 |            |         |           | Frequency (2547.5)MHz | Frequency (2600)MHz | Frequency (2652.5)MHz |
| 41/ 5           | QPSK       | 1       | 0         | 23.22                 | 23.13               | 23.15                 |
|                 |            | 1       | 12        | 23.30                 | 23.20               | 23.06                 |
|                 |            | 1       | 24        | 23.36                 | 23.28               | 23.36                 |
|                 |            | 12      | 0         | 22.07                 | 22.28               | 22.04                 |
|                 |            | 12      | 6         | 22.09                 | 22.40               | 22.04                 |
|                 |            | 12      | 13        | 22.06                 | 22.43               | 22.18                 |
|                 |            | 25      | 0         | 22.07                 | 22.30               | 22.27                 |
|                 | 16QAM      | 1       | 0         | 22.19                 | 22.11               | 22.10                 |
|                 |            | 1       | 12        | 22.05                 | 22.12               | 22.03                 |
|                 |            | 1       | 24        | 22.20                 | 22.48               | 22.31                 |
|                 |            | 12      | 0         | 21.11                 | 21.15               | 21.12                 |
|                 |            | 12      | 6         | 21.16                 | 21.42               | 21.14                 |
|                 |            | 12      | 13        | 21.39                 | 21.41               | 21.31                 |
|                 |            | 25      | 0         | 21.11                 | 21.16               | 21.06                 |
|                 | 64QAM      | 1       | 0         | 21.22                 | 21.29               | 21.10                 |
|                 |            | 1       | 12        | 21.40                 | 21.36               | 21.26                 |
|                 |            | 1       | 24        | 21.28                 | 21.70               | 21.44                 |
|                 |            | 12      | 0         | 20.25                 | 20.26               | 20.54                 |
|                 |            | 12      | 6         | 20.17                 | 20.23               | 20.12                 |
|                 |            | 12      | 13        | 20.13                 | 20.38               | 20.10                 |
|                 |            | 25      | 0         | 20.27                 | 20.25               | 20.01                 |
| Band/BW         | Modulation | RB Size | RB Offset | Low CH (40190)        | Mid CH (40690)      | High CH (41190)       |
|                 |            |         |           | Frequency (2550)MHz   | Frequency (2600)MHz | Frequency (2650)MHz   |
| 41/ 10          | QPSK       | 1       | 0         | 23.18                 | 23.14               | 23.30                 |
|                 |            | 1       | 24        | 23.15                 | 23.38               | 23.16                 |
|                 |            | 1       | 49        | 23.32                 | 23.31               | 23.29                 |
|                 |            | 25      | 0         | 22.10                 | 22.25               | 22.07                 |
|                 |            | 25      | 12        | 22.28                 | 22.06               | 22.09                 |
|                 |            | 25      | 25        | 22.09                 | 22.34               | 22.03                 |
|                 |            | 50      | 0         | 22.11                 | 22.02               | 22.25                 |
|                 | 16QAM      | 1       | 0         | 22.13                 | 22.17               | 22.02                 |
|                 |            | 1       | 24        | 22.03                 | 22.06               | 22.07                 |
|                 |            | 1       | 49        | 22.40                 | 22.33               | 22.41                 |
|                 |            | 25      | 0         | 21.10                 | 21.15               | 21.13                 |
|                 |            | 25      | 12        | 21.19                 | 21.46               | 21.08                 |
|                 |            | 25      | 25        | 21.30                 | 21.33               | 21.04                 |
|                 |            | 50      | 0         | 21.14                 | 21.37               | 21.02                 |
|                 | 64QAM      | 1       | 0         | 21.08                 | 21.44               | 21.22                 |
|                 |            | 1       | 24        | 21.33                 | 21.50               | 21.44                 |
|                 |            | 1       | 49        | 21.56                 | 21.62               | 21.45                 |
|                 |            | 25      | 0         | 20.23                 | 20.39               | 20.23                 |
|                 |            | 25      | 12        | 20.30                 | 20.26               | 20.10                 |
|                 |            | 25      | 25        | 20.24                 | 20.10               | 20.05                 |
|                 |            | 50      | 0         | 20.08                 | 20.21               | 20.02                 |



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| LTE Band 41 PC3 |            |         |           |                       |                     |                       |
|-----------------|------------|---------|-----------|-----------------------|---------------------|-----------------------|
| Band/BW         | Modulation | RB Size | RB Offset | Low CH (40215)        | Mid CH (40690)      | High CH(41165)        |
|                 |            |         |           | Frequency (2552.5)MHz | Frequency (2600)MHz | Frequency (2647.5)MHz |
| 41/ 15          | QPSK       | 1       | 0         | 23.27                 | 23.25               | 23.27                 |
|                 |            | 1       | 37        | 23.07                 | 23.35               | 23.27                 |
|                 |            | 1       | 74        | 23.06                 | 23.37               | 23.19                 |
|                 |            | 36      | 0         | 22.09                 | 22.14               | 22.26                 |
|                 |            | 36      | 19        | 22.35                 | 22.43               | 22.13                 |
|                 |            | 36      | 39        | 22.25                 | 22.03               | 22.04                 |
|                 |            | 75      | 0         | 22.33                 | 22.34               | 22.03                 |
|                 | 16QAM      | 1       | 0         | 22.07                 | 22.20               | 22.04                 |
|                 |            | 1       | 37        | 22.03                 | 22.18               | 22.30                 |
|                 |            | 1       | 74        | 22.41                 | 22.21               | 22.16                 |
|                 |            | 36      | 0         | 21.16                 | 21.28               | 21.25                 |
|                 |            | 36      | 19        | 21.25                 | 21.08               | 21.23                 |
|                 |            | 36      | 39        | 21.27                 | 21.44               | 21.13                 |
|                 |            | 75      | 0         | 21.12                 | 21.34               | 21.02                 |
|                 | 64QAM      | 1       | 0         | 21.18                 | 21.17               | 21.08                 |
|                 |            | 1       | 37        | 21.45                 | 21.51               | 21.47                 |
|                 |            | 1       | 74        | 21.41                 | 21.32               | 21.18                 |
|                 |            | 36      | 0         | 20.16                 | 20.16               | 20.49                 |
|                 |            | 36      | 19        | 20.04                 | 20.20               | 20.03                 |
|                 |            | 36      | 39        | 20.02                 | 20.37               | 20.05                 |
|                 |            | 75      | 0         | 20.23                 | 20.36               | 20.04                 |
| Band/BW         | Modulation | RB Size | RB Offset | Low CH(40240)         | Mid CH (40690)      | High CH(41140)        |
|                 |            |         |           | Frequency (2555)MHz   | Frequency (2600)MHz | Frequency (2645)MHz   |
| 41/ 20          | QPSK       | 1       | 0         | 23.30                 | 23.33               | 23.26                 |
|                 |            | 1       | 50        | 23.25                 | 23.29               | 23.22                 |
|                 |            | 1       | 99        | 23.31                 | 23.41               | 23.32                 |
|                 |            | 50      | 0         | 22.25                 | 22.29               | 22.25                 |
|                 |            | 50      | 25        | 22.27                 | 22.37               | 22.28                 |
|                 |            | 50      | 50        | 22.26                 | 22.36               | 22.25                 |
|                 |            | 100     | 0         | 22.25                 | 22.34               | 22.27                 |
|                 | 16QAM      | 1       | 0         | 22.15                 | 22.30               | 22.04                 |
|                 |            | 1       | 50        | 22.06                 | 22.35               | 22.31                 |
|                 |            | 1       | 99        | 22.46                 | 22.46               | 22.36                 |
|                 |            | 50      | 0         | 21.17                 | 21.38               | 21.36                 |
|                 |            | 50      | 25        | 21.19                 | 21.31               | 21.24                 |
|                 |            | 50      | 50        | 21.36                 | 21.43               | 21.25                 |
|                 |            | 100     | 0         | 21.21                 | 21.31               | 21.19                 |
|                 | 64QAM      | 1       | 0         | 21.15                 | 21.44               | 21.26                 |
|                 |            | 1       | 50        | 21.53                 | 21.51               | 21.53                 |
|                 |            | 1       | 99        | 21.48                 | 21.55               | 21.38                 |
|                 |            | 50      | 0         | 20.36                 | 20.36               | 20.47                 |
|                 |            | 50      | 25        | 20.24                 | 20.38               | 20.11                 |
|                 |            | 50      | 50        | 20.17                 | 20.38               | 20.14                 |
|                 |            | 100     | 0         | 20.19                 | 20.38               | 20.09                 |



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| LTE Band 41 PC2 |            |         |           |                       |                     |                       |
|-----------------|------------|---------|-----------|-----------------------|---------------------|-----------------------|
| Band/BW         | Modulation | RB Size | RB Offset | Low CH (40165)        | Mid CH (40690)      | High CH (41215)       |
|                 |            |         |           | Frequency (2547.5)MHz | Frequency (2600)MHz | Frequency (2652.5)MHz |
| 41/ 5           | QPSK       | 1       | 0         | 25.16                 | 25.36               | 25.29                 |
|                 |            | 1       | 12        | 25.03                 | 25.20               | 25.24                 |
|                 |            | 1       | 24        | 25.36                 | 25.23               | 25.26                 |
|                 |            | 12      | 0         | 24.29                 | 24.20               | 24.14                 |
|                 |            | 12      | 6         | 24.34                 | 24.22               | 24.23                 |
|                 |            | 12      | 13        | 24.27                 | 24.28               | 24.11                 |
|                 |            | 25      | 0         | 24.13                 | 24.19               | 24.19                 |
|                 | 16QAM      | 1       | 0         | 24.28                 | 24.38               | 24.48                 |
|                 |            | 1       | 12        | 24.56                 | 24.40               | 24.40                 |
|                 |            | 1       | 24        | 24.13                 | 24.49               | 24.16                 |
|                 |            | 12      | 0         | 23.37                 | 23.29               | 23.45                 |
|                 |            | 12      | 6         | 23.24                 | 23.52               | 23.31                 |
|                 |            | 12      | 13        | 23.33                 | 23.53               | 23.41                 |
|                 |            | 25      | 0         | 23.19                 | 23.41               | 23.42                 |
|                 | 64QAM      | 1       | 0         | 23.64                 | 23.73               | 23.22                 |
|                 |            | 1       | 12        | 23.44                 | 23.64               | 23.47                 |
|                 |            | 1       | 24        | 23.30                 | 23.62               | 23.31                 |
|                 |            | 12      | 0         | 22.34                 | 22.36               | 22.30                 |
|                 |            | 12      | 6         | 22.55                 | 22.46               | 22.23                 |
|                 |            | 12      | 13        | 22.11                 | 22.59               | 22.39                 |
|                 |            | 25      | 0         | 22.43                 | 22.25               | 22.46                 |
| Band/BW         | Modulation | RB Size | RB Offset | Low CH (40190)        | Mid CH (40690)      | High CH (41190)       |
|                 |            |         |           | Frequency (2550)MHz   | Frequency (2600)MHz | Frequency (2650)MHz   |
| 41/ 10          | QPSK       | 1       | 0         | 25.20                 | 25.25               | 25.16                 |
|                 |            | 1       | 24        | 25.11                 | 25.23               | 25.26                 |
|                 |            | 1       | 49        | 25.30                 | 25.42               | 25.29                 |
|                 |            | 25      | 0         | 24.13                 | 24.24               | 24.17                 |
|                 |            | 25      | 12        | 24.33                 | 24.35               | 24.29                 |
|                 |            | 25      | 25        | 24.29                 | 24.30               | 24.19                 |
|                 |            | 50      | 0         | 24.30                 | 24.24               | 24.20                 |
|                 | 16QAM      | 1       | 0         | 24.19                 | 24.41               | 24.46                 |
|                 |            | 1       | 24        | 24.53                 | 24.48               | 24.30                 |
|                 |            | 1       | 49        | 24.30                 | 24.53               | 24.33                 |
|                 |            | 25      | 0         | 23.31                 | 23.28               | 23.48                 |
|                 |            | 25      | 12        | 23.22                 | 23.41               | 23.31                 |
|                 |            | 25      | 25        | 23.44                 | 23.58               | 23.39                 |
|                 |            | 50      | 0         | 23.31                 | 23.38               | 23.52                 |
|                 | 64QAM      | 1       | 0         | 23.61                 | 23.61               | 23.14                 |
|                 |            | 1       | 24        | 23.60                 | 23.56               | 23.38                 |
|                 |            | 1       | 49        | 23.33                 | 23.49               | 23.33                 |
|                 |            | 25      | 0         | 22.42                 | 22.34               | 22.28                 |
|                 |            | 25      | 12        | 22.51                 | 22.45               | 22.25                 |
|                 |            | 25      | 25        | 22.24                 | 22.62               | 22.30                 |
|                 |            | 50      | 0         | 22.46                 | 22.24               | 22.45                 |



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| LTE Band 41 PC2 |            |         |           |                       |                     |                       |
|-----------------|------------|---------|-----------|-----------------------|---------------------|-----------------------|
| Band/BW         | Modulation | RB Size | RB Offset | Low CH (40215)        | Mid CH (40690)      | High CH(41165)        |
|                 |            |         |           | Frequency (2552.5)MHz | Frequency (2600)MHz | Frequency (2647.5)MHz |
| 41/ 15          | QPSK       | 1       | 0         | 25.25                 | 25.38               | 25.23                 |
|                 |            | 1       | 37        | 25.23                 | 25.32               | 25.24                 |
|                 |            | 1       | 74        | 25.40                 | 25.25               | 25.35                 |
|                 |            | 36      | 0         | 24.14                 | 24.24               | 24.20                 |
|                 |            | 36      | 19        | 24.30                 | 24.40               | 24.25                 |
|                 |            | 36      | 39        | 24.31                 | 24.20               | 24.21                 |
|                 |            | 75      | 0         | 24.11                 | 24.33               | 24.34                 |
|                 | 16QAM      | 1       | 0         | 24.23                 | 24.40               | 24.41                 |
|                 |            | 1       | 37        | 24.61                 | 24.35               | 24.41                 |
|                 |            | 1       | 74        | 24.22                 | 24.44               | 24.21                 |
|                 |            | 36      | 0         | 23.47                 | 23.40               | 23.40                 |
|                 |            | 36      | 19        | 23.08                 | 23.44               | 23.20                 |
|                 |            | 36      | 39        | 23.44                 | 23.50               | 23.50                 |
|                 |            | 75      | 0         | 23.35                 | 23.56               | 23.47                 |
|                 | 64QAM      | 1       | 0         | 23.57                 | 23.62               | 23.26                 |
|                 |            | 1       | 37        | 23.49                 | 23.73               | 23.49                 |
|                 |            | 1       | 74        | 23.36                 | 23.61               | 23.18                 |
|                 |            | 36      | 0         | 22.30                 | 22.25               | 22.33                 |
|                 |            | 36      | 19        | 22.53                 | 22.57               | 22.41                 |
|                 |            | 36      | 39        | 22.28                 | 22.63               | 22.40                 |
|                 |            | 75      | 0         | 22.38                 | 22.35               | 22.45                 |
| Band/BW         | Modulation | RB Size | RB Offset | Low CH(40240)         | Mid CH (40690)      | High CH(41140)        |
|                 |            |         |           | Frequency (2555)MHz   | Frequency (2600)MHz | Frequency (2645)MHz   |
| 41/ 20          | QPSK       | 1       | 0         | 25.34                 | 25.41               | 25.33                 |
|                 |            | 1       | 50        | 25.21                 | 25.40               | 25.40                 |
|                 |            | 1       | 99        | 25.41                 | 25.44               | 25.42                 |
|                 |            | 50      | 0         | 24.34                 | 24.40               | 24.31                 |
|                 |            | 50      | 25        | 24.36                 | 24.41               | 24.38                 |
|                 |            | 50      | 50        | 24.35                 | 24.39               | 24.31                 |
|                 |            | 100     | 0         | 24.32                 | 24.37               | 24.35                 |
|                 | 16QAM      | 1       | 0         | 24.29                 | 24.44               | 24.61                 |
|                 |            | 1       | 50        | 24.69                 | 24.52               | 24.48                 |
|                 |            | 1       | 99        | 24.34                 | 24.64               | 24.35                 |
|                 |            | 50      | 0         | 23.48                 | 23.45               | 23.60                 |
|                 |            | 50      | 25        | 23.27                 | 23.59               | 23.38                 |
|                 |            | 50      | 50        | 23.50                 | 23.65               | 23.51                 |
|                 |            | 100     | 0         | 23.36                 | 23.58               | 23.58                 |
|                 | 64QAM      | 1       | 0         | 23.65                 | 23.79               | 23.32                 |
|                 |            | 1       | 50        | 23.62                 | 23.75               | 23.56                 |
|                 |            | 1       | 99        | 23.40                 | 23.64               | 23.37                 |
|                 |            | 50      | 0         | 22.46                 | 22.42               | 22.45                 |
|                 |            | 50      | 25        | 22.60                 | 22.62               | 22.42                 |
|                 |            | 50      | 50        | 22.29                 | 22.68               | 22.47                 |
|                 |            | 100     | 0         | 22.57                 | 22.41               | 22.48                 |

| CA_41C Ant2(2545 - 2655)              |                     |             |                     |            |         |           |         |           |                      |
|---------------------------------------|---------------------|-------------|---------------------|------------|---------|-----------|---------|-----------|----------------------|
| Combination 20MHz+20MHz (100RB+100RB) |                     |             |                     |            |         |           |         |           |                      |
| PCC Channel                           | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) |
|                                       |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |
| 40240                                 | 2555                | 40438       | 2574.8              | QPSK       | 1       | 99        | 1       | 0         | 23.24                |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.31                |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.39                |
| 40591                                 | 2590.1              | 40789       | 2609.9              | QPSK       | 1       | 99        | 1       | 0         | <b>23.33</b>         |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.46                |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.44                |
| 40942                                 | 2625.2              | 41140       | 2645                | QPSK       | 1       | 99        | 1       | 0         | 23.27                |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.28                |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.30                |
| Combination 20MHz+15MHz (100RB+75RB)  |                     |             |                     |            |         |           |         |           |                      |
| PCC Channel                           | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) |
|                                       |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |
| 40240                                 | 2555                | 40411       | 2572.1              | QPSK       | 1       | 99        | 1       | 0         | 23.22                |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.18                |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.37                |
| 40616                                 | 2592.6              | 40787       | 2609.7              | QPSK       | 1       | 99        | 1       | 0         | 23.27                |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.31                |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.40                |
| 40991                                 | 2630.1              | 41162       | 2647.2              | QPSK       | 1       | 99        | 1       | 0         | 23.15                |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.17                |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.15                |
| Combination 15MHz+20MHz (75RB+100RB)  |                     |             |                     |            |         |           |         |           |                      |
| PCC Channel                           | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) |
|                                       |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |
| 40218                                 | 2552.8              | 40389       | 2569.9              | QPSK       | 1       | 74        | 1       | 0         | 23.10                |
|                                       |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.22                |
|                                       |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.28                |
| 40593                                 | 2590.3              | 40764       | 2607.4              | QPSK       | 1       | 74        | 1       | 0         | 23.32                |
|                                       |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.44                |
|                                       |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.42                |
| 40969                                 | 2627.9              | 41140       | 2645                | QPSK       | 1       | 74        | 1       | 0         | 23.20                |
|                                       |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.25                |
|                                       |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.28                |
| Combination 15MHz+15MHz (75RB+75RB)   |                     |             |                     |            |         |           |         |           |                      |
| PCC Channel                           | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) |
|                                       |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |
| 40215                                 | 2552.5              | 40365       | 2567.5              | QPSK       | 1       | 74        | 1       | 0         | 23.12                |
|                                       |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.19                |
|                                       |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.36                |
| 40615                                 | 2592.5              | 40765       | 2607.5              | QPSK       | 1       | 74        | 1       | 0         | 23.23                |
|                                       |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.44                |
|                                       |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.40                |
| 41015                                 | 2632.5              | 41165       | 2647.5              | QPSK       | 1       | 74        | 1       | 0         | 23.18                |
|                                       |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.15                |
|                                       |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.20                |



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| Combination 20MHz+10MHz (100RB+50RB) |                     |             |                     |            |         |           |         |           |                      |
|--------------------------------------|---------------------|-------------|---------------------|------------|---------|-----------|---------|-----------|----------------------|
| PCC Channel                          | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) |
|                                      |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |
| 40240                                | 2555                | 40384       | 2569.4              | QPSK       | 1       | 99        | 1       | 0         | 23.09                |
|                                      |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.24                |
|                                      |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.34                |
| 40641                                | 2595.1              | 40785       | 2609.5              | QPSK       | 1       | 99        | 1       | 0         | 23.26                |
|                                      |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.33                |
|                                      |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.36                |
| 41041                                | 2635.1              | 41185       | 2649.5              | QPSK       | 1       | 99        | 1       | 0         | 23.16                |
|                                      |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.16                |
|                                      |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.21                |
| Combination 10MHz+20MHz (50RB+100RB) |                     |             |                     |            |         |           |         |           |                      |
| PCC Channel                          | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) |
|                                      |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |
| 40195                                | 2550.5              | 40339       | 2564.9              | QPSK       | 1       | 49        | 1       | 0         | 23.14                |
|                                      |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.19                |
|                                      |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.26                |
| 40596                                | 2590.6              | 40740       | 2605                | QPSK       | 1       | 49        | 1       | 0         | 23.29                |
|                                      |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.39                |
|                                      |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.32                |
| 40996                                | 2630.6              | 41140       | 2645                | QPSK       | 1       | 49        | 1       | 0         | 23.15                |
|                                      |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.23                |
|                                      |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.18                |
| Combination 15MHz+10MHz (75RB+50RB)  |                     |             |                     |            |         |           |         |           |                      |
| PCC Channel                          | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) |
|                                      |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |
| 40215                                | 2552.5              | 40335       | 2564.5              | QPSK       | 1       | 74        | 1       | 0         | 23.15                |
|                                      |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.26                |
|                                      |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.26                |
| 40641                                | 2595.1              | 40761       | 2607.1              | QPSK       | 1       | 74        | 1       | 0         | 23.20                |
|                                      |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.31                |
|                                      |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.43                |
| 41067                                | 2637.7              | 41187       | 2649.7              | QPSK       | 1       | 74        | 1       | 0         | 23.12                |
|                                      |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.13                |
|                                      |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.15                |
| Combination 10MHz+15MHz (50RB+75RB)  |                     |             |                     |            |         |           |         |           |                      |
| PCC Channel                          | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) |
|                                      |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |
| 40193                                | 2550.3              | 40313       | 2562.3              | QPSK       | 1       | 49        | 1       | 0         | 23.11                |
|                                      |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.21                |
|                                      |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.27                |
| 40619                                | 2592.9              | 40739       | 2604.9              | QPSK       | 1       | 49        | 1       | 0         | 23.30                |
|                                      |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.43                |
|                                      |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.40                |
| 41045                                | 2635.5              | 41165       | 2647.5              | QPSK       | 1       | 49        | 1       | 0         | 23.20                |
|                                      |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.27                |
|                                      |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.22                |



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**Test Report No.: W7L-P24090006RF06**

| Combination 20MHz+5MHz (100RB+25RB) |                     |             |                     |            |         |           |         |           |                      |
|-------------------------------------|---------------------|-------------|---------------------|------------|---------|-----------|---------|-----------|----------------------|
| PCC Channel                         | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) |
|                                     |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |
| 40240                               | 2555                | 40357       | 2566.7              | QPSK       | 1       | 99        | 1       | 0         | 23.22                |
|                                     |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.27                |
|                                     |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.27                |
| 40665                               | 2597.5              | 40782       | 2609.2              | QPSK       | 1       | 99        | 1       | 0         | 23.30                |
|                                     |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.34                |
|                                     |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.43                |
| 41090                               | 2640                | 41207       | 2651.7              | QPSK       | 1       | 99        | 1       | 0         | 23.25                |
|                                     |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.15                |
|                                     |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.20                |
| Combination 5MHz+20MHz (25RB+100RB) |                     |             |                     |            |         |           |         |           |                      |
| PCC Channel                         | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) |
|                                     |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |
| 40173                               | 2548.3              | 40290       | 2560                | QPSK       | 1       | 24        | 1       | 0         | 23.19                |
|                                     |                     |             |                     | 16QAM      | 1       | 24        | 1       | 0         | 22.16                |
|                                     |                     |             |                     | 64QAM      | 1       | 24        | 1       | 0         | 21.29                |
| 40598                               | 2590.8              | 40715       | 2602.5              | QPSK       | 1       | 24        | 1       | 0         | 23.27                |
|                                     |                     |             |                     | 16QAM      | 1       | 24        | 1       | 0         | 22.42                |
|                                     |                     |             |                     | 64QAM      | 1       | 24        | 1       | 0         | 21.30                |
| 41023                               | 2633.3              | 41140       | 2645                | QPSK       | 1       | 24        | 1       | 0         | 23.16                |
|                                     |                     |             |                     | 16QAM      | 1       | 24        | 1       | 0         | 22.18                |
|                                     |                     |             |                     | 64QAM      | 1       | 24        | 1       | 0         | 21.20                |

**EIRP**

**LTE BAND 17**

**CHANNEL BANDWIDTH: 5MHz QPSK**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | ERP (dBm) | ERP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|-----------|----------|-----------|
| 23755   | 706.5           | 22.79                 | 0.6                                 | 21.24     | 133.05   | 3         |
| 23790   | 710             | 22.95                 | 0.6                                 | 21.4      | 138.04   | 3         |
| 23825   | 713.5           | 22.88                 | 0.6                                 | 21.33     | 135.83   | 3         |

**CHANNEL BANDWIDTH: 5MHz 16QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | ERP (dBm) | ERP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|-----------|----------|-----------|
| 23755   | 706.5           | 21.79                 | 0.6                                 | 20.24     | 105.68   | 3         |
| 23790   | 710             | 22.16                 | 0.6                                 | 20.61     | 115.08   | 3         |
| 23825   | 713.5           | 22.15                 | 0.6                                 | 20.6      | 114.82   | 3         |

**CHANNEL BANDWIDTH: 5MHz 64QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | ERP (dBm) | ERP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|-----------|----------|-----------|
| 23755   | 706.5           | 20.93                 | 0.6                                 | 19.38     | 86.7     | 3         |
| 23790   | 710             | 21.09                 | 0.6                                 | 19.54     | 89.95    | 3         |
| 23825   | 713.5           | 21.07                 | 0.6                                 | 19.52     | 89.54    | 3         |

**CHANNEL BANDWIDTH: 10MHz QPSK**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | ERP (dBm) | ERP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|-----------|----------|-----------|
| 23780   | 709             | 22.92                 | 0.6                                 | 21.37     | 137.09   | 3         |
| 23790   | 710             | 22.96                 | 0.6                                 | 21.41     | 138.36   | 3         |
| 23800   | 711             | 22.94                 | 0.6                                 | 21.39     | 137.72   | 3         |

**CHANNEL BANDWIDTH: 10MHz 16QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | ERP (dBm) | ERP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|-----------|----------|-----------|
| 23780   | 709             | 21.95                 | 0.6                                 | 20.4      | 109.65   | 3         |
| 23790   | 710             | 22.09                 | 0.6                                 | 20.54     | 113.24   | 3         |
| 23800   | 711             | 22.14                 | 0.6                                 | 20.59     | 114.55   | 3         |

**CHANNEL BANDWIDTH: 10MHz 64QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | ERP (dBm) | ERP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|-----------|----------|-----------|
| 23780   | 709             | 20.89                 | 0.6                                 | 19.34     | 85.9     | 3         |
| 23790   | 710             | 21.12                 | 0.6                                 | 19.57     | 90.57    | 3         |
| 23800   | 711             | 21.18                 | 0.6                                 | 19.63     | 91.83    | 3         |

**REMARKS:** ERP Output Power (dBm) = EIRP (dBm) -2.15(dB).

**LTE BAND 41 (2.6G Band)**

**5MHz QPSK**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40165   | 2547.5          | 23.36                 | 1.2                                 | 24.56      | 285.76    | 2         |
| 40690   | 2600            | 23.28                 | 1.2                                 | 24.48      | 280.54    | 2         |
| 41215   | 2652.5          | 23.36                 | 1.2                                 | 24.56      | 285.76    | 2         |

**5MHz 16QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40165   | 2547.5          | 22.2                  | 1.2                                 | 23.4       | 218.78    | 2         |
| 40690   | 2600            | 22.48                 | 1.2                                 | 23.68      | 233.35    | 2         |
| 41215   | 2652.5          | 22.31                 | 1.2                                 | 23.51      | 224.39    | 2         |

**5MHz 64QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40165   | 2547.5          | 21.4                  | 1.2                                 | 22.6       | 181.97    | 2         |
| 40690   | 2600            | 21.7                  | 1.2                                 | 22.9       | 194.98    | 2         |
| 41215   | 2652.5          | 21.44                 | 1.2                                 | 22.64      | 183.65    | 2         |

**10MHz QPSK**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40190   | 2550            | 23.32                 | 1.2                                 | 24.52      | 283.14    | 2         |
| 40690   | 2600            | 23.38                 | 1.2                                 | 24.58      | 287.08    | 2         |
| 41190   | 2650            | 23.3                  | 1.2                                 | 24.5       | 281.84    | 2         |

**10MHz 16QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40190   | 2550            | 22.4                  | 1.2                                 | 23.6       | 229.09    | 2         |
| 40690   | 2600            | 22.33                 | 1.2                                 | 23.53      | 225.42    | 2         |
| 41190   | 2650            | 22.41                 | 1.2                                 | 23.61      | 229.61    | 2         |

**10MHz 64QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40190   | 2550            | 21.56                 | 1.2                                 | 22.76      | 188.8     | 2         |
| 40690   | 2600            | 21.62                 | 1.2                                 | 22.82      | 191.43    | 2         |
| 41190   | 2650            | 21.45                 | 1.2                                 | 22.65      | 184.08    | 2         |

| 15MHz QPSK |                 |                       |                                     |            |           |           |
|------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel    | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40215      | 2552.5          | 23.27                 | 1.2                                 | 24.47      | 279.9     | 2         |
| 40690      | 2600            | 23.37                 | 1.2                                 | 24.57      | 286.42    | 2         |
| 41165      | 2647.5          | 23.27                 | 1.2                                 | 24.47      | 279.9     | 2         |

| 15MHz 16QAM |                 |                       |                                     |            |           |           |
|-------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel     | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40215       | 2552.5          | 22.41                 | 1.2                                 | 23.61      | 229.61    | 2         |
| 40690       | 2600            | 22.21                 | 1.2                                 | 23.41      | 219.28    | 2         |
| 41165       | 2647.5          | 22.3                  | 1.2                                 | 23.5       | 223.87    | 2         |

| 15MHz 64QAM |                 |                       |                                     |            |           |           |
|-------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel     | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40215       | 2552.5          | 21.45                 | 1.2                                 | 22.65      | 184.08    | 2         |
| 40690       | 2600            | 21.51                 | 1.2                                 | 22.71      | 186.64    | 2         |
| 41165       | 2647.5          | 21.47                 | 1.2                                 | 22.67      | 184.93    | 2         |

| 20MHz QPSK |                 |                       |                                     |            |           |           |
|------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel    | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40240      | 2555            | 23.31                 | 1.2                                 | 24.51      | 282.49    | 2         |
| 40690      | 2600            | 23.41                 | 1.2                                 | 24.61      | 289.07    | 2         |
| 41140      | 2645            | 23.32                 | 1.2                                 | 24.52      | 283.14    | 2         |

| 20MHz 16QAM |                 |                       |                                     |            |           |           |
|-------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel     | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40240       | 2555            | 22.46                 | 1.2                                 | 23.66      | 232.27    | 2         |
| 40690       | 2600            | 22.46                 | 1.2                                 | 23.66      | 232.27    | 2         |
| 41140       | 2645            | 22.36                 | 1.2                                 | 23.56      | 226.99    | 2         |

| 20 MHz 64QAM |                 |                       |                                     |            |           |           |
|--------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel      | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40240        | 2555            | 21.53                 | 1.2                                 | 22.73      | 187.5     | 2         |
| 40690        | 2600            | 21.55                 | 1.2                                 | 22.75      | 188.36    | 2         |
| 41140        | 2645            | 21.53                 | 1.2                                 | 22.73      | 187.5     | 2         |

**LTE BAND 41 (2.6G Band) HPUE**

**5MHz QPSK**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40165   | 2547.5          | 25.36                 | 1.2                                 | 26.56      | 452.9     | 2         |
| 40690   | 2600            | 25.36                 | 1.2                                 | 26.56      | 452.9     | 2         |
| 41215   | 2652.5          | 25.29                 | 1.2                                 | 26.49      | 445.66    | 2         |

**5MHz 16QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40165   | 2547.5          | 24.56                 | 1.2                                 | 25.76      | 376.7     | 2         |
| 40690   | 2600            | 24.49                 | 1.2                                 | 25.69      | 370.68    | 2         |
| 41215   | 2652.5          | 24.48                 | 1.2                                 | 25.68      | 369.83    | 2         |

**5MHz 64QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40165   | 2547.5          | 23.64                 | 1.2                                 | 24.84      | 304.79    | 2         |
| 40690   | 2600            | 23.73                 | 1.2                                 | 24.93      | 311.17    | 2         |
| 41215   | 2652.5          | 23.47                 | 1.2                                 | 24.67      | 293.09    | 2         |

**10MHz QPSK**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40190   | 2550            | 25.3                  | 1.2                                 | 26.5       | 446.68    | 2         |
| 40690   | 2600            | 25.42                 | 1.2                                 | 26.62      | 459.2     | 2         |
| 41190   | 2650            | 25.29                 | 1.2                                 | 26.49      | 445.66    | 2         |

**10MHz 16QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40190   | 2550            | 24.53                 | 1.2                                 | 25.73      | 374.11    | 2         |
| 40690   | 2600            | 24.53                 | 1.2                                 | 25.73      | 374.11    | 2         |
| 41190   | 2650            | 24.46                 | 1.2                                 | 25.66      | 368.13    | 2         |

**10MHz 64QAM**

| Channel | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 40190   | 2550            | 23.61                 | 1.2                                 | 24.81      | 302.69    | 2         |
| 40690   | 2600            | 23.61                 | 1.2                                 | 24.81      | 302.69    | 2         |
| 41190   | 2650            | 23.38                 | 1.2                                 | 24.58      | 287.08    | 2         |

| 15MHz QPSK |                 |                       |                                     |            |           |           |
|------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel    | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40215      | 2552.5          | 25.4                  | 1.2                                 | 26.6       | 457.09    | 2         |
| 40690      | 2600            | 25.38                 | 1.2                                 | 26.58      | 454.99    | 2         |
| 41165      | 2647.5          | 25.35                 | 1.2                                 | 26.55      | 451.86    | 2         |

| 15MHz 16QAM |                 |                       |                                     |            |           |           |
|-------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel     | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40215       | 2552.5          | 24.61                 | 1.2                                 | 25.81      | 381.07    | 2         |
| 40690       | 2600            | 24.44                 | 1.2                                 | 25.64      | 366.44    | 2         |
| 41165       | 2647.5          | 24.41                 | 1.2                                 | 25.61      | 363.92    | 2         |

| 15MHz 64QAM |                 |                       |                                     |            |           |           |
|-------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel     | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40215       | 2552.5          | 23.57                 | 1.2                                 | 24.77      | 299.92    | 2         |
| 40690       | 2600            | 23.73                 | 1.2                                 | 24.93      | 311.17    | 2         |
| 41165       | 2647.5          | 23.49                 | 1.2                                 | 24.69      | 294.44    | 2         |

| 20MHz QPSK |                 |                       |                                     |            |           |           |
|------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel    | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40240      | 2555            | 25.41                 | 1.2                                 | 26.61      | 458.14    | 2         |
| 40690      | 2600            | 25.44                 | 1.2                                 | 26.64      | 461.32    | 2         |
| 41140      | 2645            | 25.42                 | 1.2                                 | 26.62      | 459.2     | 2         |

| 20MHz 16QAM |                 |                       |                                     |            |           |           |
|-------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel     | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40240       | 2555            | 24.69                 | 1.2                                 | 25.89      | 388.15    | 2         |
| 40690       | 2600            | 24.64                 | 1.2                                 | 25.84      | 383.71    | 2         |
| 41140       | 2645            | 24.61                 | 1.2                                 | 25.81      | 381.07    | 2         |

| 20 MHz 64QAM |                 |                       |                                     |            |           |           |
|--------------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| Channel      | Frequency (MHz) | Conducted Power (dBm) | G <sub>T</sub> -L <sub>C</sub> (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
| 40240        | 2555            | 23.65                 | 1.2                                 | 24.85      | 305.49    | 2         |
| 40690        | 2600            | 23.79                 | 1.2                                 | 24.99      | 315.5     | 2         |
| 41140        | 2645            | 23.56                 | 1.2                                 | 24.76      | 299.23    | 2         |



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VERITAS

Test Report No.: W7L-P24090006RF06

# CA 41CEIRP

CA\_41C Ant2(2545 - 2655)

| Combination 20MHz+20MHz (100RB+100RB) |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
|---------------------------------------|---------------------|-------------|---------------------|------------|---------|-----------|---------|-----------|----------------------|------------|-----------|----------|-----------|
| PCC Channel                           | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) | Gain (dBi) | EIRP(dBm) | EIRP(mW) | Limit (W) |
|                                       |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |            |           |          |           |
| 40240                                 | 2555                | 40438       | 2574.8              | QPSK       | 1       | 99        | 1       | 0         | 23.24                | 1.20       | 24.44     | 277.97   | 2         |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.31                | 1.20       | 23.51     | 224.39   | 2         |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.39                | 1.20       | 22.59     | 181.55   | 2         |
| 40591                                 | 2590.1              | 40789       | 2609.9              | QPSK       | 1       | 99        | 1       | 0         | 23.33                | 1.20       | 24.53     | 283.79   | 2         |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.46                | 1.20       | 23.66     | 232.27   | 2         |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.44                | 1.20       | 22.64     | 183.65   | 2         |
| 40942                                 | 2625.2              | 41140       | 2645                | QPSK       | 1       | 99        | 1       | 0         | 23.27                | 1.20       | 24.47     | 279.90   | 2         |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.28                | 1.20       | 23.48     | 222.84   | 2         |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.30                | 1.20       | 22.50     | 177.83   | 2         |
| Combination 20MHz+15MHz (100RB+75RB)  |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
| PCC Channel                           | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) | Gain (dBi) | EIRP(dBm) | EIRP(mW) | Limit (W) |
|                                       |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |            |           |          |           |
| 40240                                 | 2555                | 40411       | 2572.1              | QPSK       | 1       | 99        | 1       | 0         | 23.22                | 1.20       | 24.42     | 276.69   | 2         |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.18                | 1.20       | 23.38     | 217.77   | 2         |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.37                | 1.20       | 22.57     | 180.72   | 2         |
| 40616                                 | 2592.6              | 40787       | 2609.7              | QPSK       | 1       | 99        | 1       | 0         | 23.27                | 1.20       | 24.47     | 279.90   | 2         |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.31                | 1.20       | 23.51     | 224.39   | 2         |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.40                | 1.20       | 22.60     | 181.97   | 2         |
| 40991                                 | 2630.1              | 41162       | 2647.2              | QPSK       | 1       | 99        | 1       | 0         | 23.15                | 1.20       | 24.35     | 272.27   | 2         |
|                                       |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.17                | 1.20       | 23.37     | 217.27   | 2         |
|                                       |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.15                | 1.20       | 22.35     | 171.79   | 2         |



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| CA_41C Ant2(2545 - 2655)             |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
|--------------------------------------|---------------------|-------------|---------------------|------------|---------|-----------|---------|-----------|----------------------|------------|-----------|----------|-----------|
| Combination 15MHz+20MHz (75RB+100RB) |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
| PCC Channel                          | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) | Gain (dBi) | EIRP(dBm) | EIRP(mW) | Limit (W) |
|                                      |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |            |           |          |           |
| 40218                                | 2552.8              | 40389       | 2569.9              | QPSK       | 1       | 74        | 1       | 0         | 23.10                | 1.20       | 24.30     | 269.15   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.22                | 1.20       | 23.42     | 219.79   | 2         |
|                                      |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.28                | 1.20       | 22.48     | 177.01   | 2         |
| 40593                                | 2590.3              | 40764       | 2607.4              | QPSK       | 1       | 74        | 1       | 0         | 23.32                | 1.20       | 24.52     | 283.14   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.44                | 1.20       | 23.64     | 231.21   | 2         |
|                                      |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.42                | 1.20       | 22.62     | 182.81   | 2         |
| 40969                                | 2627.9              | 41140       | 2645                | QPSK       | 1       | 74        | 1       | 0         | 23.20                | 1.20       | 24.40     | 275.42   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.25                | 1.20       | 23.45     | 221.31   | 2         |
|                                      |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.28                | 1.20       | 22.48     | 177.01   | 2         |
| Combination 15MHz+15MHz (75RB+75RB)  |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
| PCC Channel                          | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) | Gain (dBi) | EIRP(dBm) | EIRP(mW) | Limit (W) |
|                                      |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |            |           |          |           |
| 40215                                | 2552.5              | 40365       | 2567.5              | QPSK       | 1       | 74        | 1       | 0         | 23.12                | 1.20       | 24.32     | 270.40   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.19                | 1.20       | 23.39     | 218.27   | 2         |
|                                      |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.36                | 1.20       | 22.56     | 180.30   | 2         |
| 40615                                | 2592.5              | 40765       | 2607.5              | QPSK       | 1       | 74        | 1       | 0         | 23.23                | 1.20       | 24.43     | 277.33   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.44                | 1.20       | 23.64     | 231.21   | 2         |
|                                      |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.40                | 1.20       | 22.60     | 181.97   | 2         |
| 41015                                | 2632.5              | 41165       | 2647.5              | QPSK       | 1       | 74        | 1       | 0         | 23.18                | 1.20       | 24.38     | 274.16   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.15                | 1.20       | 23.35     | 216.27   | 2         |
|                                      |                     |             |                     | 64OAM      | 1       | 74        | 1       | 0         | 21.20                | 1.20       | 22.40     | 173.78   | 2         |



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| CA_41C Ant2(2545 - 2655)             |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
|--------------------------------------|---------------------|-------------|---------------------|------------|---------|-----------|---------|-----------|----------------------|------------|-----------|----------|-----------|
| Combination 20MHz+10MHz (100RB+50RB) |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
| PCC Channel                          | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) | Gain (dBi) | EIRP(dBm) | EIRP(mW) | Limit (W) |
|                                      |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |            |           |          |           |
| 40240                                | 2555                | 40384       | 2569.4              | QPSK       | 1       | 99        | 1       | 0         | 23.09                | 1.20       | 24.29     | 268.53   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.24                | 1.20       | 23.44     | 220.80   | 2         |
|                                      |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.34                | 1.20       | 22.54     | 179.47   | 2         |
| 40641                                | 2595.1              | 40785       | 2609.5              | QPSK       | 1       | 99        | 1       | 0         | 23.26                | 1.20       | 24.46     | 279.25   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.33                | 1.20       | 23.53     | 225.42   | 2         |
|                                      |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.36                | 1.20       | 22.56     | 180.30   | 2         |
| 41041                                | 2635.1              | 41185       | 2649.5              | QPSK       | 1       | 99        | 1       | 0         | 23.16                | 1.20       | 24.36     | 272.90   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.16                | 1.20       | 23.36     | 216.77   | 2         |
|                                      |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.21                | 1.20       | 22.41     | 174.18   | 2         |
| Combination 10MHz+20MHz (50RB+100RB) |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
| PCC Channel                          | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) | Gain (dBi) | EIRP(dBm) | EIRP(mW) | Limit (W) |
|                                      |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |            |           |          |           |
| 40195                                | 2550.5              | 40339       | 2564.9              | QPSK       | 1       | 49        | 1       | 0         | 23.14                | 1.20       | 24.34     | 271.64   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.19                | 1.20       | 23.39     | 218.27   | 2         |
|                                      |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.26                | 1.20       | 22.46     | 176.20   | 2         |
| 40596                                | 2590.6              | 40740       | 2605                | QPSK       | 1       | 49        | 1       | 0         | 23.29                | 1.20       | 24.49     | 281.19   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.39                | 1.20       | 23.59     | 228.56   | 2         |
|                                      |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.32                | 1.20       | 22.52     | 178.65   | 2         |
| 40996                                | 2630.6              | 41140       | 2645                | QPSK       | 1       | 49        | 1       | 0         | 23.15                | 1.20       | 24.35     | 272.27   | 2         |
|                                      |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.23                | 1.20       | 23.43     | 220.29   | 2         |
|                                      |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.18                | 1.20       | 22.38     | 172.98   | 2         |



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| CA_41C Ant2(2545 - 2655)            |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
|-------------------------------------|---------------------|-------------|---------------------|------------|---------|-----------|---------|-----------|----------------------|------------|-----------|----------|-----------|
| Combination 15MHz+10MHz (75RB+50RB) |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
| PCC Channel                         | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) | Gain (dBi) | EIRP(dBm) | EIRP(mW) | Limit (W) |
|                                     |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |            |           |          |           |
| 40215                               | 2552.5              | 40335       | 2564.5              | QPSK       | 1       | 74        | 1       | 0         | 23.15                | 1.20       | 24.35     | 272.27   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.26                | 1.20       | 23.46     | 221.82   | 2         |
|                                     |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.26                | 1.20       | 22.46     | 176.20   | 2         |
| 40641                               | 2595.1              | 40761       | 2607.1              | QPSK       | 1       | 74        | 1       | 0         | 23.20                | 1.20       | 24.40     | 275.42   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.31                | 1.20       | 23.51     | 224.39   | 2         |
|                                     |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.43                | 1.20       | 22.63     | 183.23   | 2         |
| 41067                               | 2637.7              | 41187       | 2649.7              | QPSK       | 1       | 74        | 1       | 0         | 23.12                | 1.20       | 24.32     | 270.40   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 74        | 1       | 0         | 22.13                | 1.20       | 23.33     | 215.28   | 2         |
|                                     |                     |             |                     | 64QAM      | 1       | 74        | 1       | 0         | 21.15                | 1.20       | 22.35     | 171.79   | 2         |
| Combination 10MHz+15MHz (50RB+75RB) |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
| PCC Channel                         | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) | Gain (dBi) | EIRP(dBm) | EIRP(mW) | Limit (W) |
|                                     |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |            |           |          |           |
| 40193                               | 2550.3              | 40313       | 2562.3              | QPSK       | 1       | 49        | 1       | 0         | 23.11                | 1.20       | 24.31     | 269.77   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.21                | 1.20       | 23.41     | 219.28   | 2         |
|                                     |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.27                | 1.20       | 22.47     | 176.60   | 2         |
| 40619                               | 2592.9              | 40739       | 2604.9              | QPSK       | 1       | 49        | 1       | 0         | 23.30                | 1.20       | 24.50     | 281.84   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.43                | 1.20       | 23.63     | 230.67   | 2         |
|                                     |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.40                | 1.20       | 22.60     | 181.97   | 2         |
| 41045                               | 2635.5              | 41165       | 2647.5              | QPSK       | 1       | 49        | 1       | 0         | 23.20                | 1.20       | 24.40     | 275.42   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 49        | 1       | 0         | 22.27                | 1.20       | 23.47     | 222.33   | 2         |
|                                     |                     |             |                     | 64QAM      | 1       | 49        | 1       | 0         | 21.22                | 1.20       | 22.42     | 174.58   | 2         |



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| CA_41C Ant2(2545 - 2655)            |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
|-------------------------------------|---------------------|-------------|---------------------|------------|---------|-----------|---------|-----------|----------------------|------------|-----------|----------|-----------|
| Combination 20MHz+5MHz (100RB+25RB) |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
| PCC Channel                         | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) | Gain (dBi) | EIRP(dBm) | EIRP(mW) | Limit (W) |
|                                     |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |            |           |          |           |
| 40240                               | 2555                | 40357       | 2566.7              | QPSK       | 1       | 99        | 1       | 0         | 23.22                | 1.20       | 24.42     | 276.69   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.27                | 1.20       | 23.47     | 222.33   | 2         |
|                                     |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.27                | 1.20       | 22.47     | 176.60   | 2         |
| 40665                               | 2597.5              | 40782       | 2609.2              | QPSK       | 1       | 99        | 1       | 0         | 23.30                | 1.20       | 24.50     | 281.84   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.34                | 1.20       | 23.54     | 225.94   | 2         |
|                                     |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.43                | 1.20       | 22.63     | 183.23   | 2         |
| 41090                               | 2640                | 41207       | 2651.7              | QPSK       | 1       | 99        | 1       | 0         | 23.25                | 1.20       | 24.45     | 278.61   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 99        | 1       | 0         | 22.15                | 1.20       | 23.35     | 216.27   | 2         |
|                                     |                     |             |                     | 64QAM      | 1       | 99        | 1       | 0         | 21.20                | 1.20       | 22.40     | 173.78   | 2         |
| Combination 5MHz+20MHz (25RB+100RB) |                     |             |                     |            |         |           |         |           |                      |            |           |          |           |
| PCC Channel                         | PCC Frequency (MHz) | SCC Channel | SCC Frequency (MHz) | Modulation | PCC     |           | SCC     |           | Measured Power (dBm) | Gain (dBi) | EIRP(dBm) | EIRP(mW) | Limit (W) |
|                                     |                     |             |                     |            | RB Size | RB offset | RB Size | RB offset |                      |            |           |          |           |
| 40173                               | 2548.3              | 40290       | 2560                | QPSK       | 1       | 24        | 1       | 0         | 23.19                | 1.20       | 24.39     | 274.79   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 24        | 1       | 0         | 22.16                | 1.20       | 23.36     | 216.77   | 2         |
|                                     |                     |             |                     | 64QAM      | 1       | 24        | 1       | 0         | 21.29                | 1.20       | 22.49     | 177.42   | 2         |
| 40598                               | 2590.8              | 40715       | 2602.5              | QPSK       | 1       | 24        | 1       | 0         | 23.27                | 1.20       | 24.47     | 279.90   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 24        | 1       | 0         | 22.42                | 1.20       | 23.62     | 230.14   | 2         |
|                                     |                     |             |                     | 64QAM      | 1       | 24        | 1       | 0         | 21.30                | 1.20       | 22.50     | 177.83   | 2         |
| 41023                               | 2633.3              | 41140       | 2645                | QPSK       | 1       | 24        | 1       | 0         | 23.16                | 1.20       | 24.36     | 272.90   | 2         |
|                                     |                     |             |                     | 16QAM      | 1       | 24        | 1       | 0         | 22.18                | 1.20       | 23.38     | 217.77   | 2         |
|                                     |                     |             |                     | 64OAM      | 1       | 24        | 1       | 0         | 21.20                | 1.20       | 22.40     | 173.78   | 2         |

## 3.2 FREQUENCY STABILITY MEASUREMENT

### 3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

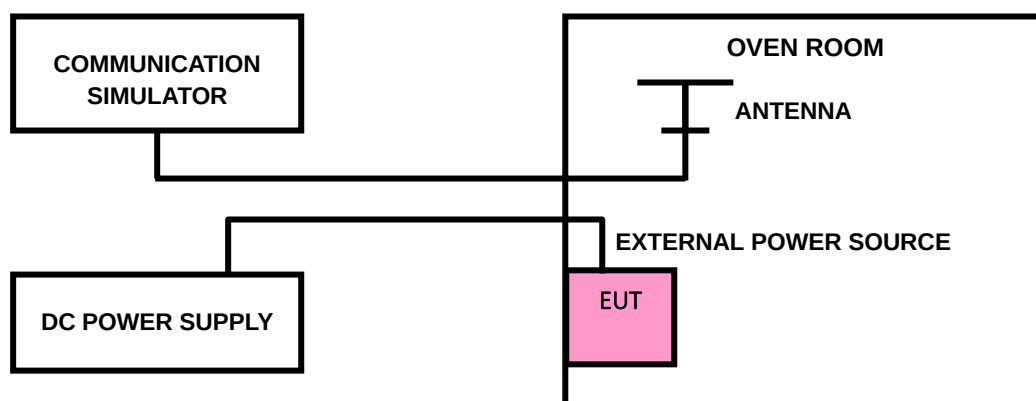
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

### 3.2.2 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.

### 3.2.3 TEST SETUP





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### 3.2.4 TEST RESULTS

Please Refer to Appendix Of this test report.

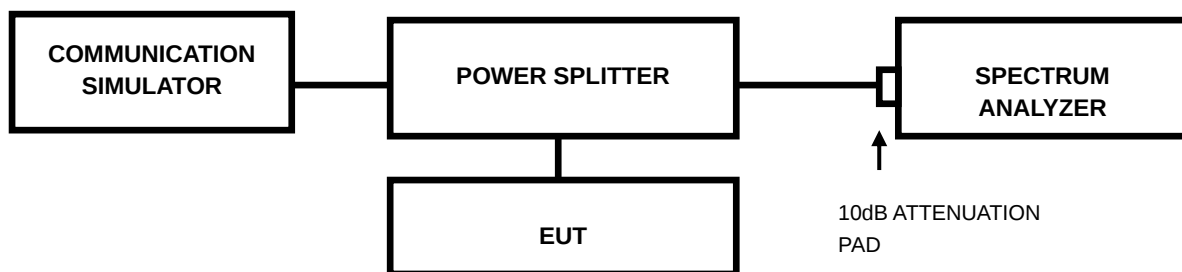
Note: VL = Low voltage(3.6V); VN/NV = Normal voltage(3.85V); VH = High voltage(4.3V);  
NT = Normal temperature (25°C)

### 3.3 OCCUPIED BANDWIDTH MEASUREMENT

#### 3.3.1 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.

#### 3.3.2 TEST SETUP



#### 3.3.3 TEST PROCEDURES

- 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.



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### 3.3.4 TEST RESULTS

Please Refer to Appendix Of this test report.

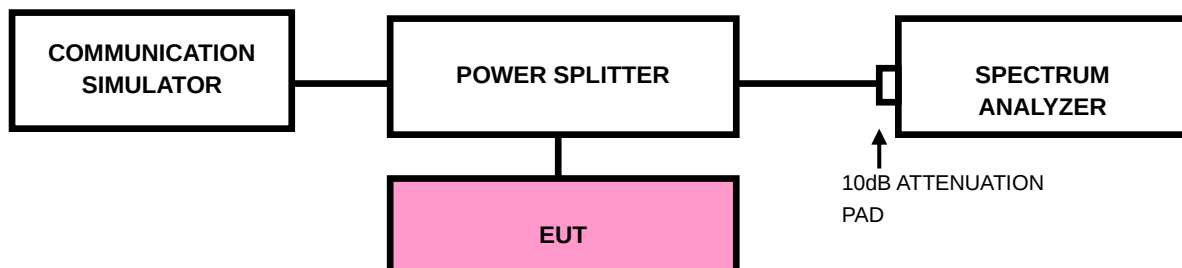
### 3.4 BAND EDGE MEASUREMENT

#### 3.4.1 LIMITS OF BAND EDGE MEASUREMENT

According to FCC 27.53(g) specified that For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log (P)$  dB. 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.

According to FCC 27.53(m)(4) specified that For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. For mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed.

#### 3.4.2 TEST SETUP



### 3.4.3 TEST PROCEDURES

- a) All measurements were done at low and high operational frequency range
- b) Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
- c) Tune the analyzer to the nominal center frequency of the emission bandwidth  
(EBW)
- d) .Set the resolution bandwidth (RBW)  $\geq 1\%$  EBW in the 1MHz band immediately outside and adjacent to the band edge.
- e) Beyond the 1MHz band from the band edge, RBW=1MHz was used.
- f) Set the video bandwidth (VBW) to  $\geq 3 \times$  RBW.
- g) Select the average power (RMS) display detector.
- h) Set the number of measurement points to  $\geq 1001$ .
- i) Use auto-coupled sweep time.
- j) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.
- k) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 100KHz.
- l) Record the max trace plot into the test report.



Test Report No.: W7L-P24090006RF06

#### 3.4.4 TEST RESULTS

Please Refer to Appendix Of this test report.

### 3.5 CONDUCTED SPURIOUS EMISSIONS

#### 3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. The emission limit equal to  $-13\text{dBm}$ .

For: LTE Band7

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $55 + 10 \log_{10}(P)$  dB. The limit of emission is equal to  $-25\text{dBm}$ .

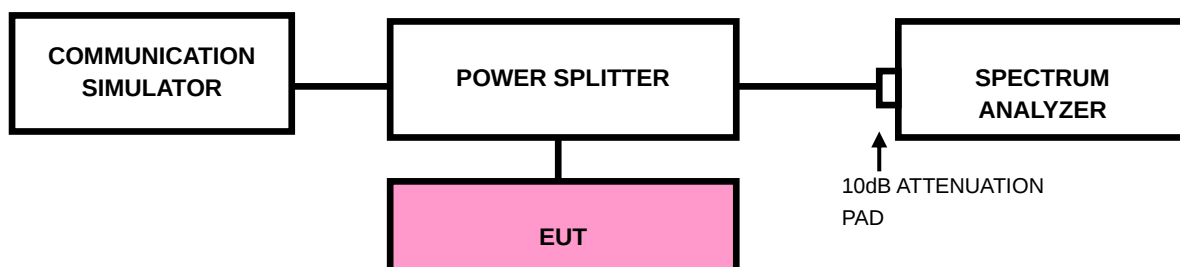
For: LTE Band30

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $70 + 10 \log_{10}(P)$  dB. The limit of emission is equal to  $-40\text{dBm}$ .

#### 3.5.2 TEST PROCEDURE

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

#### 3.5.3 TEST SETUP





**BUREAU  
VERITAS**

**Test Report No.: W7L-P24090006RF06**

### 3.5.4 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

Please Refer to Appendix Of this test report.

### 3.6 RADIATED EMISSION MEASUREMENT

#### 3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. The emission limit equal to  $-13\text{dBm}$ .

For: LTE Band41

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $55 + 10 \log_{10}(P)$  dB. The limit of emission is equal to  $-25\text{dBm}$ .

#### 3.6.2 TEST PROCEDURES

- Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m 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 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value " of step a. Record the power level of S.G.
- $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$ .
- E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,  
 $\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi}$ .

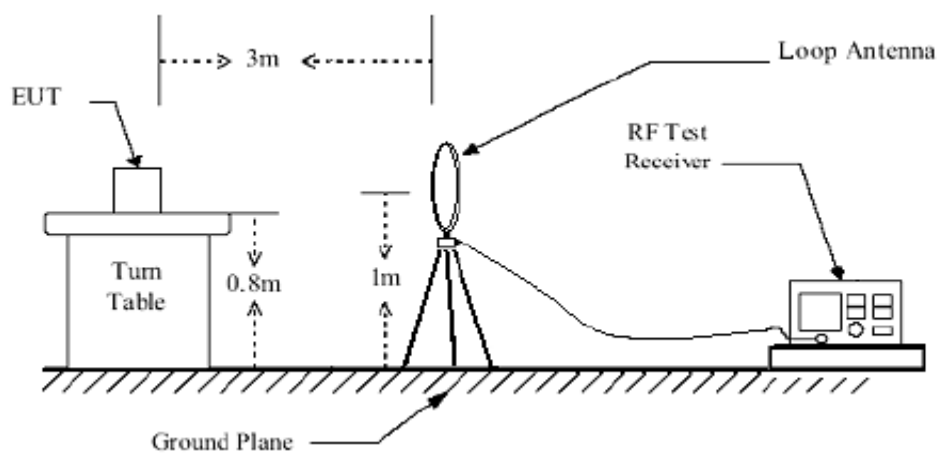
**NOTE:** The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

#### 3.6.3 DEVIATION FROM TEST STANDARD

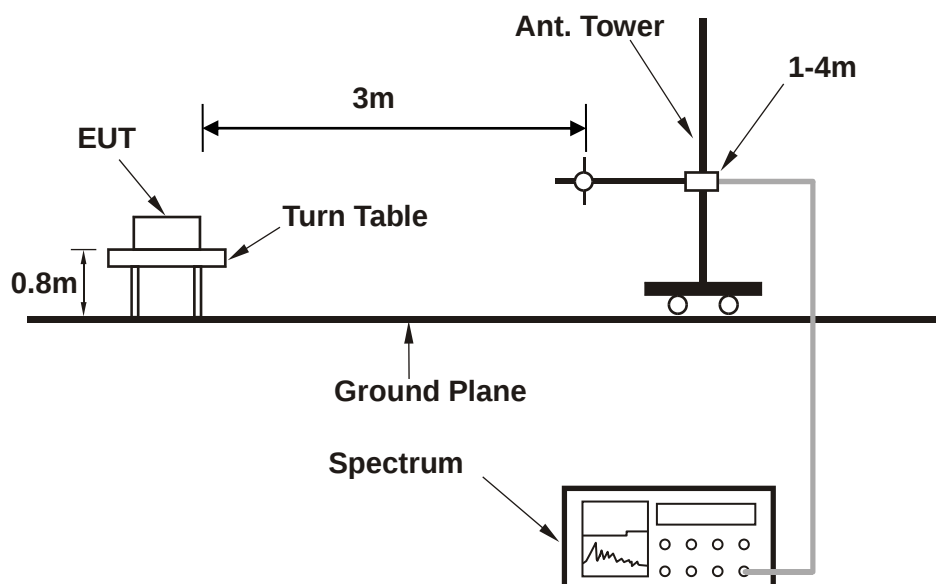
No deviation

### 3.6.4 TEST SETUP

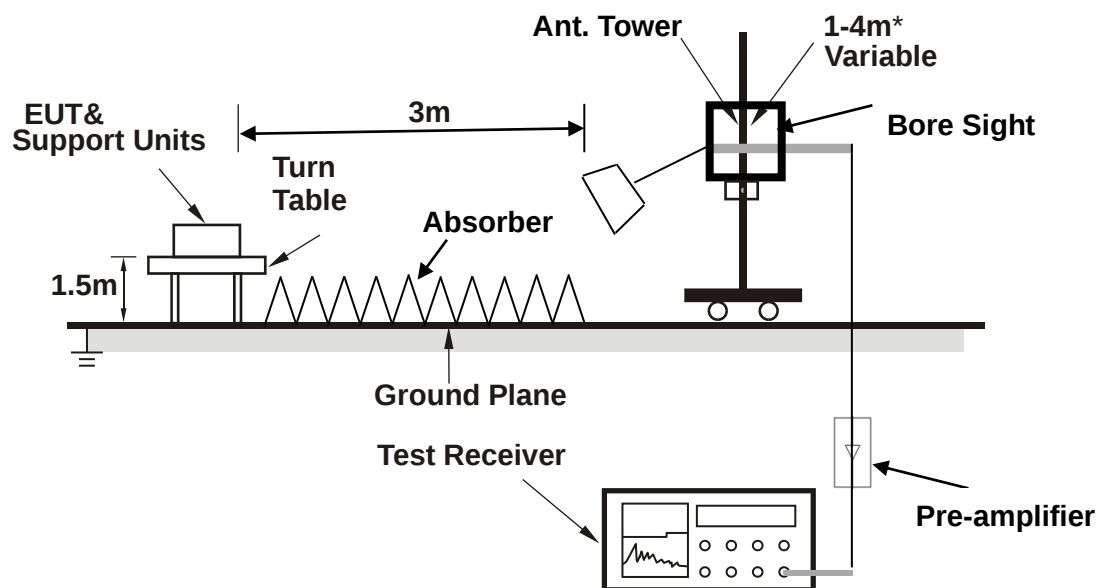
#### < Frequency Range below 30MHz >



#### < Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



**Note:** Above 1G is a directional antenna depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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

### 3.6.5 TEST RESULTS

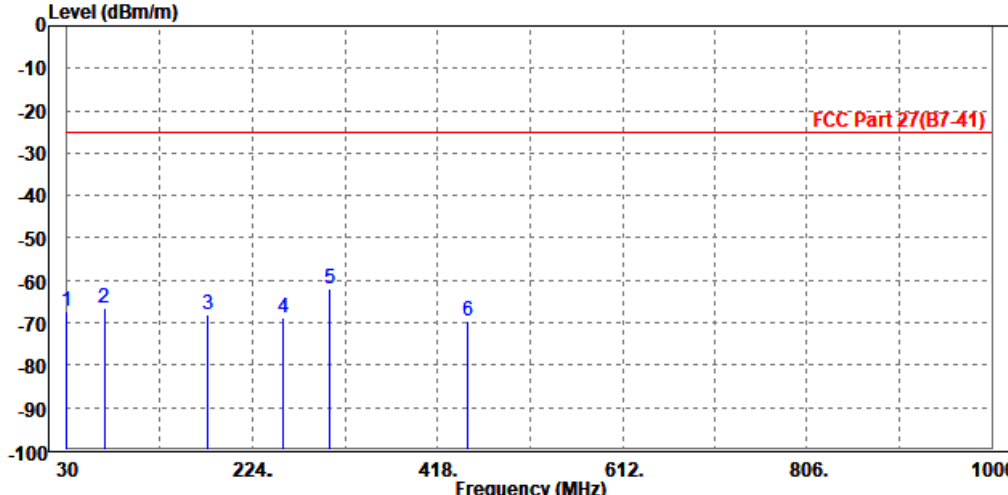
NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

#### BELOW 1GHz WORST-CASE DATA

30 MHz – 1GHz data:

LTE Band 41C

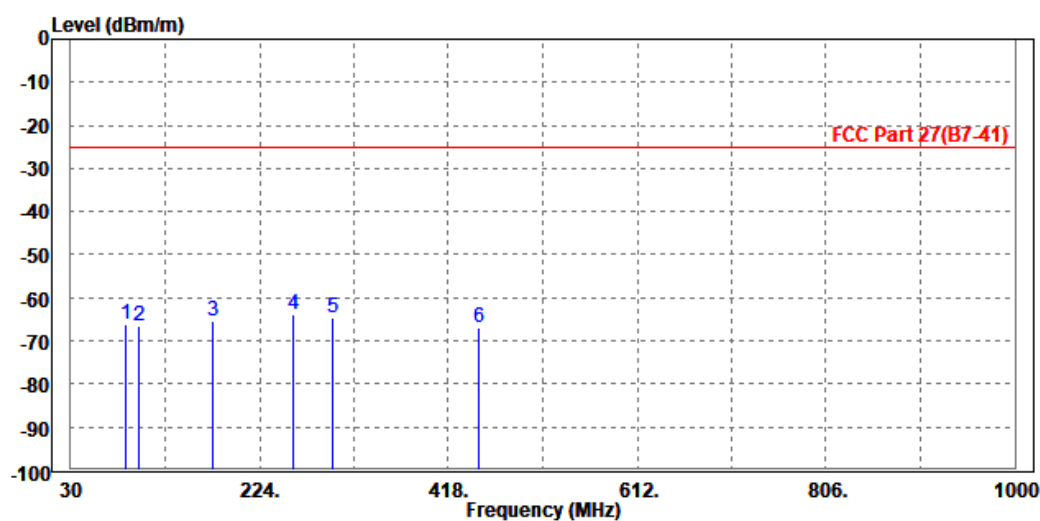
| CHANNEL BANDWIDTH                                   | (20+20) MHz / QPSK | MODE                     | TX channel PCC 40591 |        |            |        |        |            |
|-----------------------------------------------------|--------------------|--------------------------|----------------------|--------|------------|--------|--------|------------|
|                                                     |                    |                          | TX channel SCC 40789 |        |            |        |        |            |
| FREQUENCY RANGE                                     | Below 1000MHz      | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH      |        |            |        |        |            |
| INPUT POWER                                         | AC 120V/60Hz       | TESTED BY                | Hanwen Xu            |        |            |        |        |            |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                    |                          |                      |        |            |        |        |            |
|                                                     | Freq               | Level                    | Read Level           | Limit  | Over Limit | Factor | Remark | Pol/Phase  |
|                                                     | MHz                | dBm/m                    | dBm                  | dBm/m  | dB         | dB/m   |        |            |
| 1                                                   | 30.000             | -67.24                   | -65.26               | -25.00 | -42.24     | -1.98  | Peak   | Horizontal |
| 2                                                   | 68.800             | -66.56                   | -54.31               | -25.00 | -41.56     | -12.25 | Peak   | Horizontal |
| 3                                                   | 178.410            | -68.22                   | -51.80               | -25.00 | -43.22     | -16.42 | Peak   | Horizontal |
| 4                                                   | 255.040            | -68.86                   | -57.91               | -25.00 | -43.86     | -10.95 | Peak   | Horizontal |
| 5 PP                                                | 304.510            | -62.02                   | -53.30               | -25.00 | -37.02     | -8.72  | Peak   | Horizontal |
| 6                                                   | 450.010            | -69.44                   | -63.48               | -25.00 | -44.44     | -5.96  | Peak   | Horizontal |

|                   |                    |                          |                      |
|-------------------|--------------------|--------------------------|----------------------|
| CHANNEL BANDWIDTH | (20+20) MHz / QPSK | MODE                     | TX channel PCC 40591 |
|                   |                    |                          | TX channel SCC 40789 |
| FREQUENCY RANGE   | Above 1000MHz      | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH      |
| INPUT POWER       | AC 120V/60Hz       | TESTED BY                | Hanwen Xu            |

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

|      | Freq    | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|------|---------|--------|------------|------------|------------|--------|--------|-----------|
|      | MHz     | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |           |
| 1    | 86.260  | -66.31 | -48.34     | -25.00     | -41.31     | -17.97 | Peak   | Vertical  |
| 2    | 100.810 | -66.52 | -49.95     | -25.00     | -41.52     | -16.57 | Peak   | Vertical  |
| 3    | 176.470 | -65.41 | -54.77     | -25.00     | -40.41     | -10.64 | Peak   | Vertical  |
| 4 PP | 258.920 | -63.80 | -60.12     | -25.00     | -38.80     | -3.68  | Peak   | Vertical  |
| 5    | 298.690 | -64.72 | -61.30     | -25.00     | -39.72     | -3.42  | Peak   | Vertical  |
| 6    | 450.010 | -67.07 | -62.37     | -25.00     | -42.07     | -4.70  | Peak   | Vertical  |



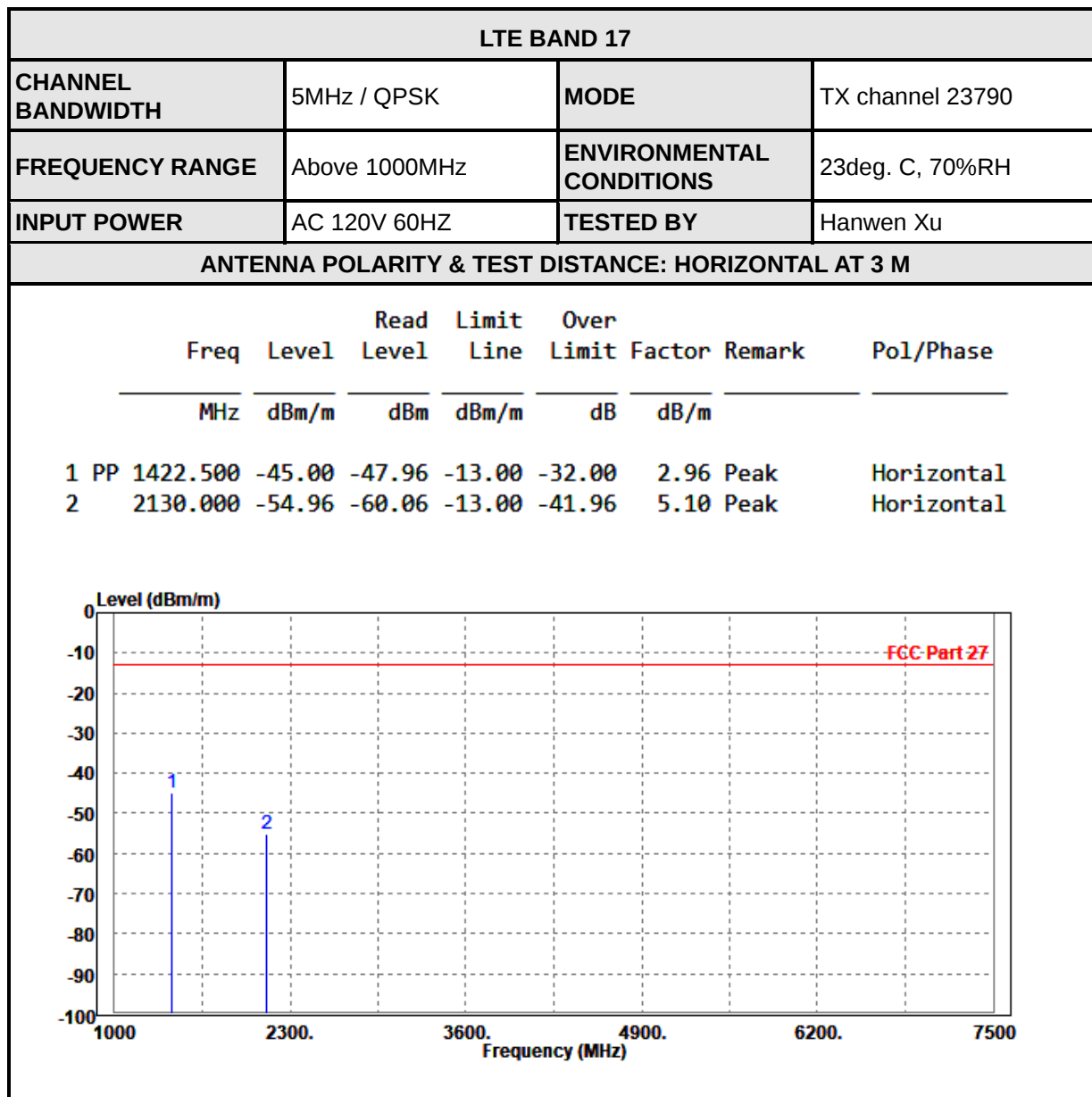


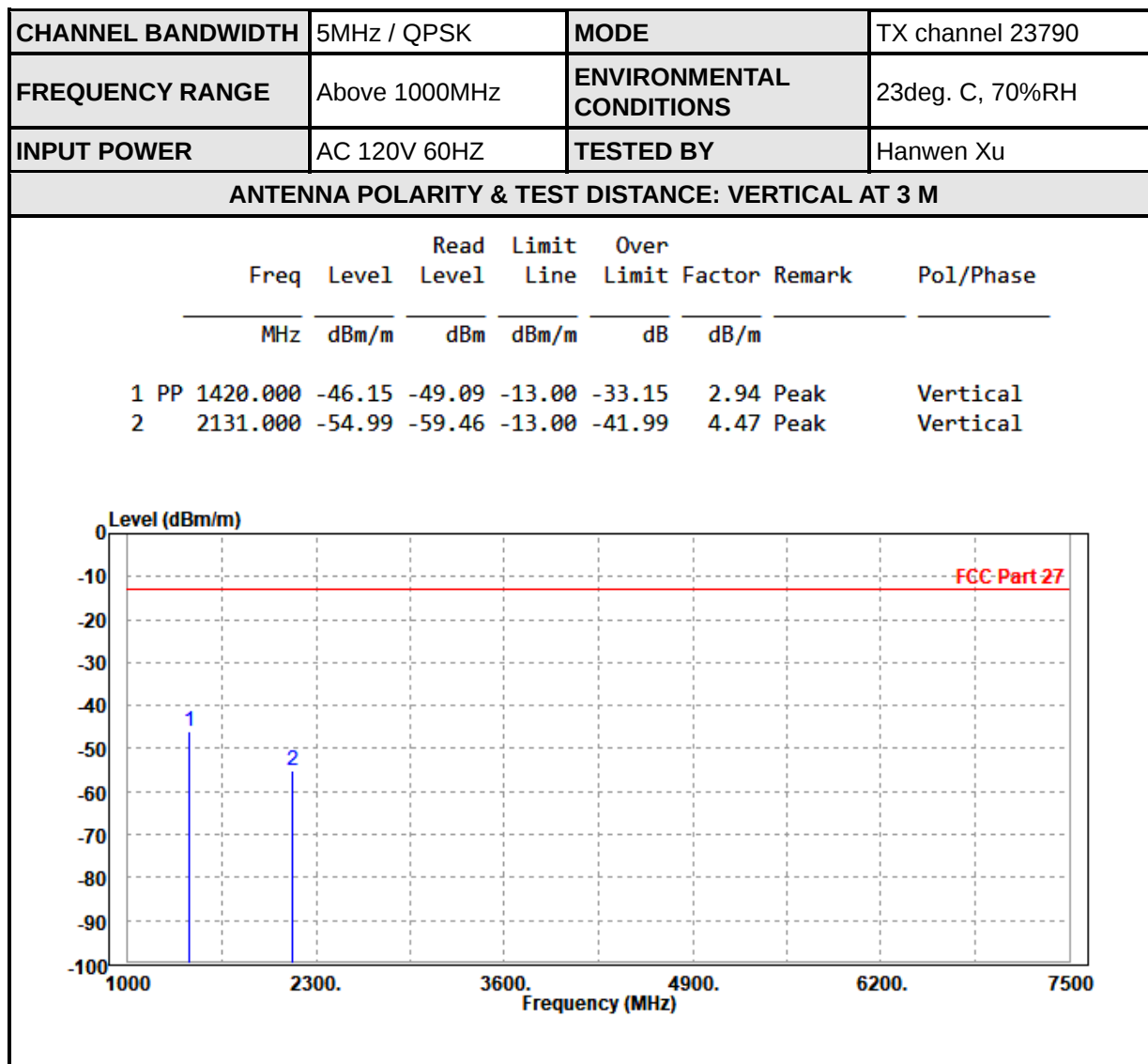
**BUREAU  
VERITAS**

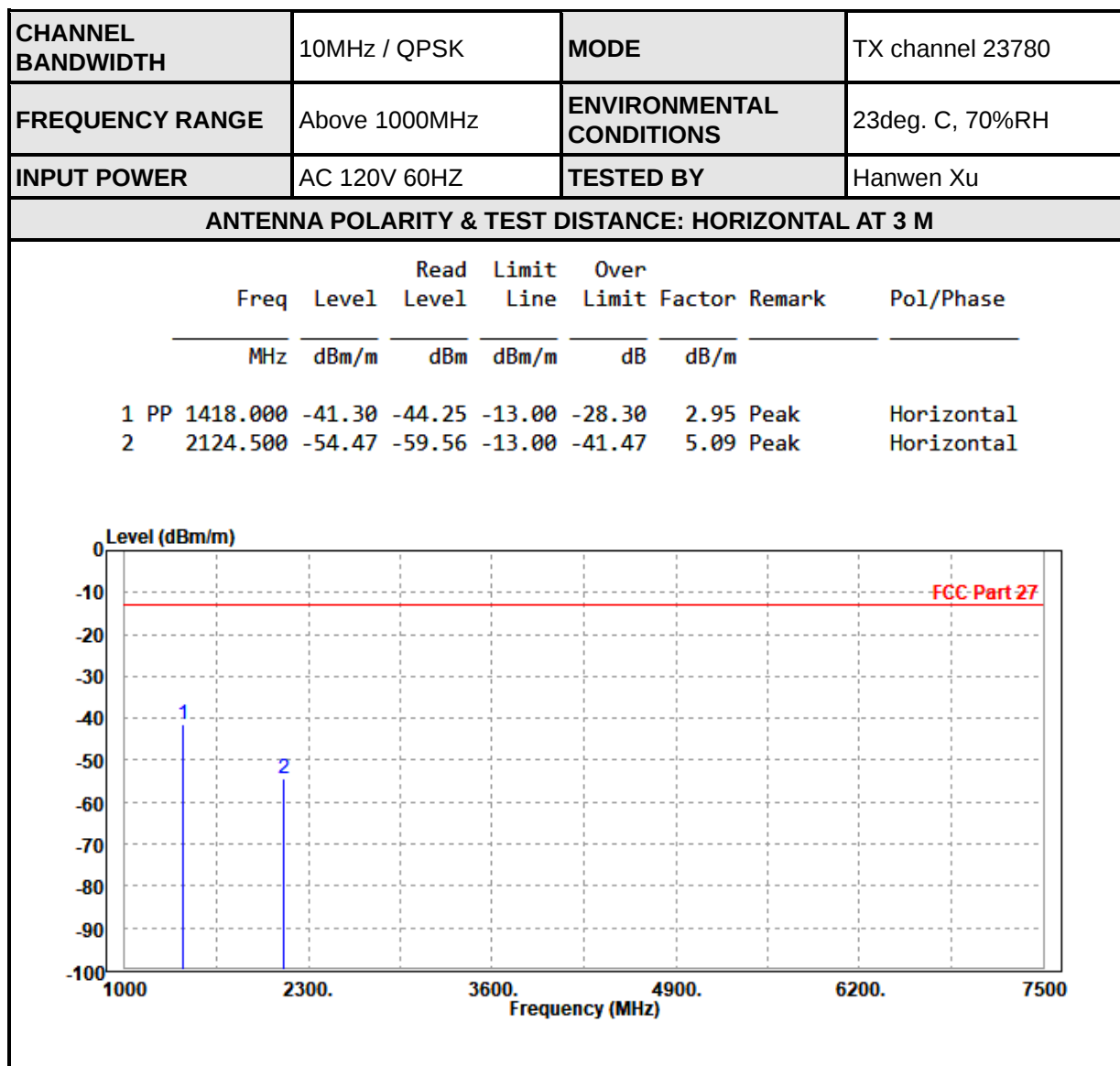
Test Report No.: W7L-P24090006RF06

# ABOVE 1GHz

**Note:** For higher frequency, the emission is too low to be detected.



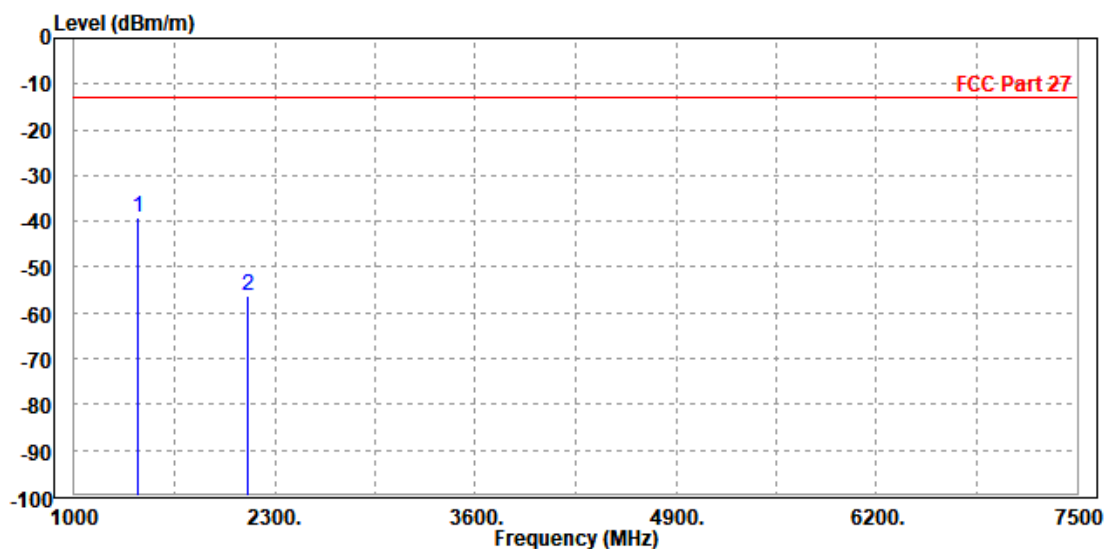




|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 10MHz / QPSK  | MODE                     | TX channel 23780 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

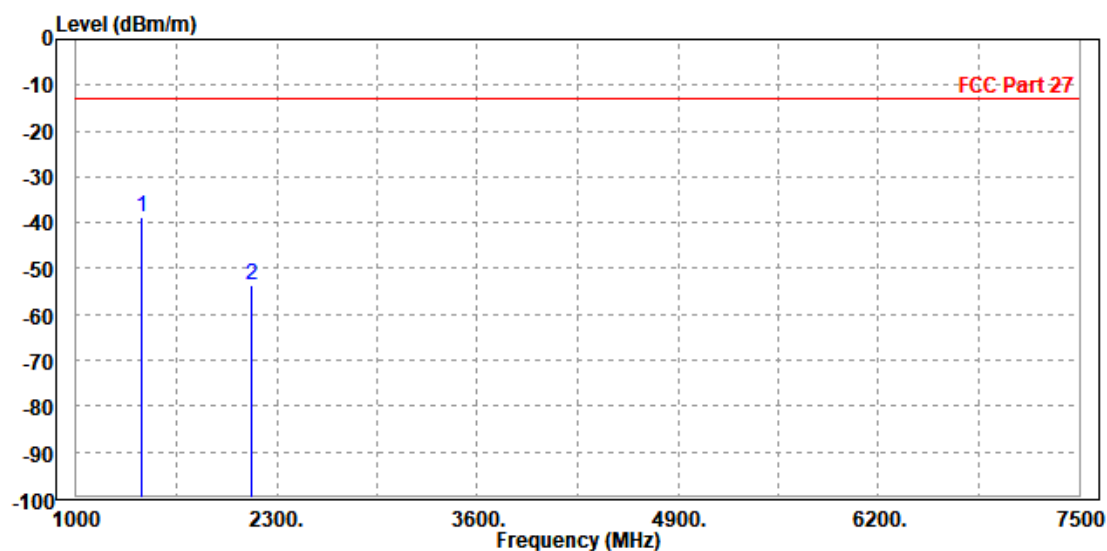
|   |    | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|----|----------|--------|------------|------------|------------|--------|--------|-----------|
|   |    | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |           |
| 1 | PP | 1416.000 | -39.15 | -42.08     | -13.00     | -26.15     | 2.93   | Peak   | Vertical  |
| 2 |    | 2124.500 | -56.25 | -60.69     | -13.00     | -43.25     | 4.44   | Peak   | Vertical  |



|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 10MHz / QPSK  | MODE                     | TX channel 23790 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

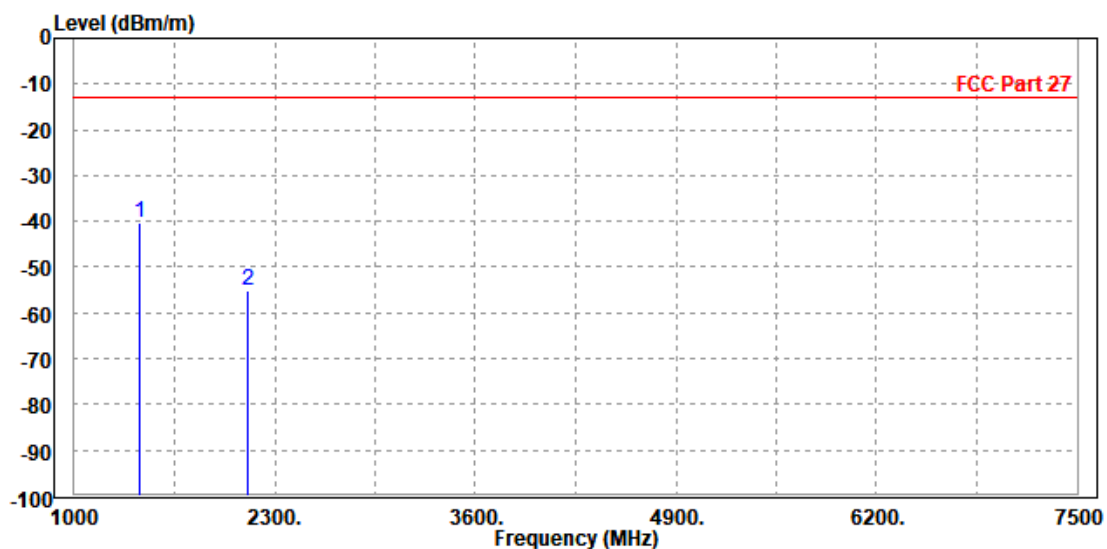
|      | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase  |
|------|----------|--------|------------|------------|------------|--------|--------|------------|
|      | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |            |
| 1 PP | 1420.000 | -38.79 | -41.74     | -13.00     | -25.79     | 2.95   | Peak   | Horizontal |
| 2    | 2131.000 | -53.80 | -58.90     | -13.00     | -40.80     | 5.10   | Peak   | Horizontal |



|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 10MHz / QPSK  | MODE                     | TX channel 23790 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

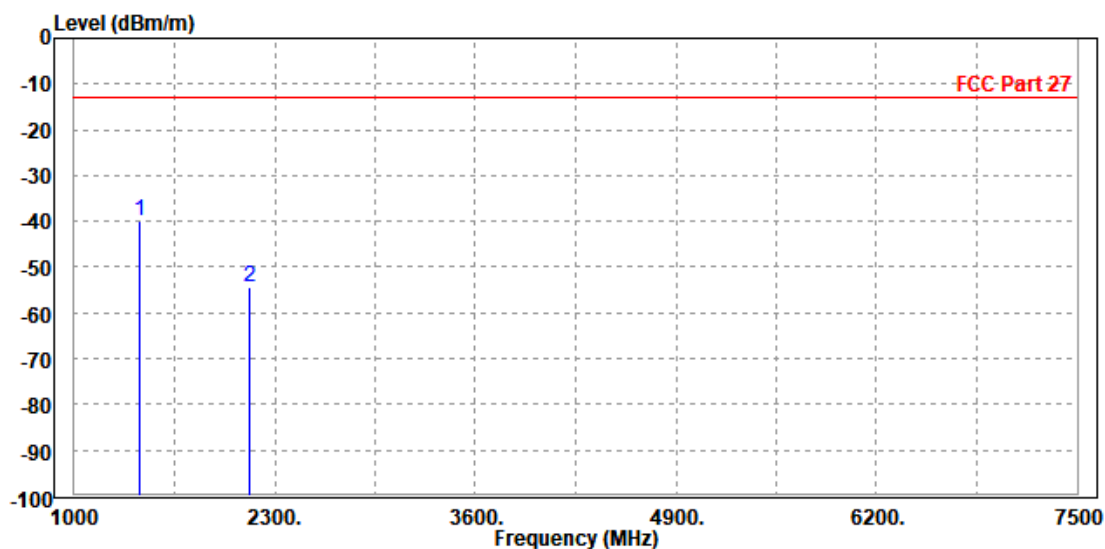
|   |             |        | Read   | Limit  | Over   |        |        |           |
|---|-------------|--------|--------|--------|--------|--------|--------|-----------|
|   | Freq        | Level  | Level  | Line   | Limit  | Factor | Remark | Pol/Phase |
|   | MHz         | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |           |
| 1 | PP 1422.500 | -40.42 | -43.36 | -13.00 | -27.42 | 2.94   | Peak   | Vertical  |
| 2 | 2130.000    | -55.13 | -59.59 | -13.00 | -42.13 | 4.46   | Peak   | Vertical  |



|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 10MHz / QPSK  | MODE                     | TX channel 23800 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

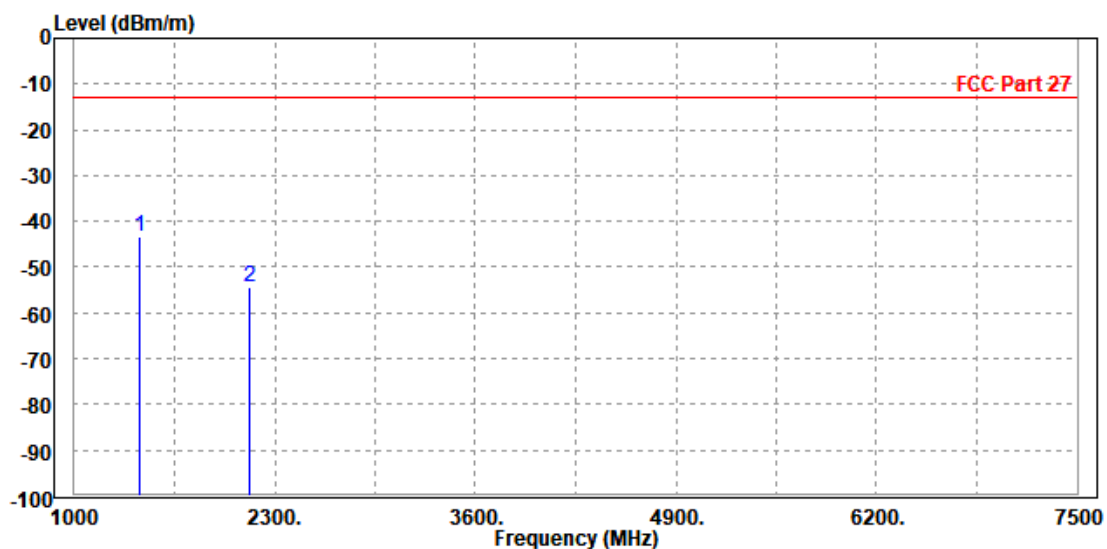
|      | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase  |
|------|----------|--------|------------|------------|------------|--------|--------|------------|
|      | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |            |
| 1 PP | 1422.500 | -39.78 | -42.74     | -13.00     | -26.78     | 2.96   | Peak   | Horizontal |
| 2    | 2133.000 | -54.30 | -59.41     | -13.00     | -41.30     | 5.11   | Peak   | Horizontal |

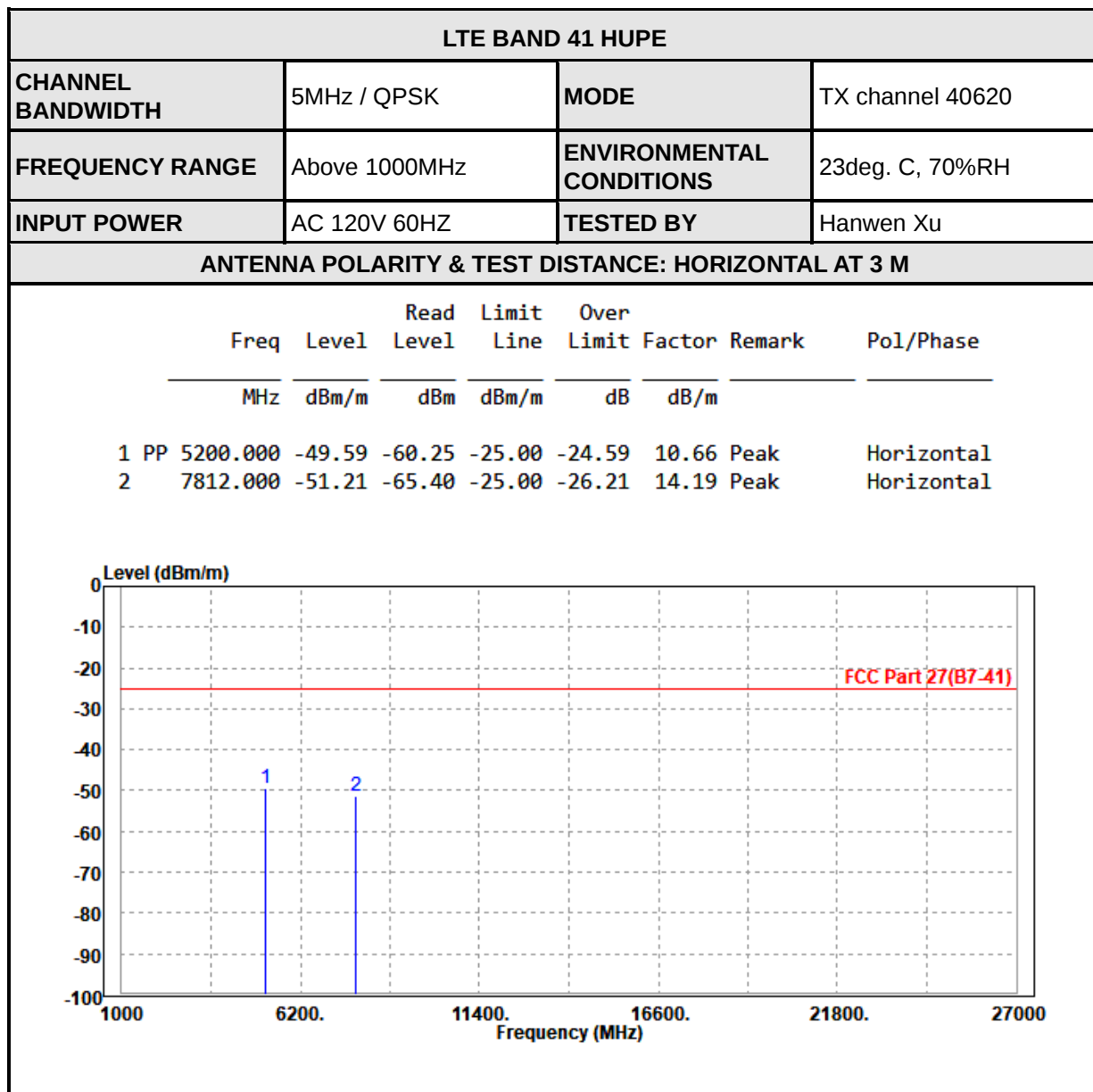


|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 10MHz / QPSK  | MODE                     | TX channel 23800 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

|   |             |        | Read   | Limit  | Over   |        |        |           |
|---|-------------|--------|--------|--------|--------|--------|--------|-----------|
|   | Freq        | Level  | Level  | Line   | Limit  | Factor | Remark | Pol/Phase |
|   | MHz         | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |           |
| 1 | PP 1422.000 | -43.39 | -46.33 | -13.00 | -30.39 | 2.94   | Peak   | Vertical  |
| 2 | 2131.000    | -54.38 | -58.85 | -13.00 | -41.38 | 4.47   | Peak   | Vertical  |

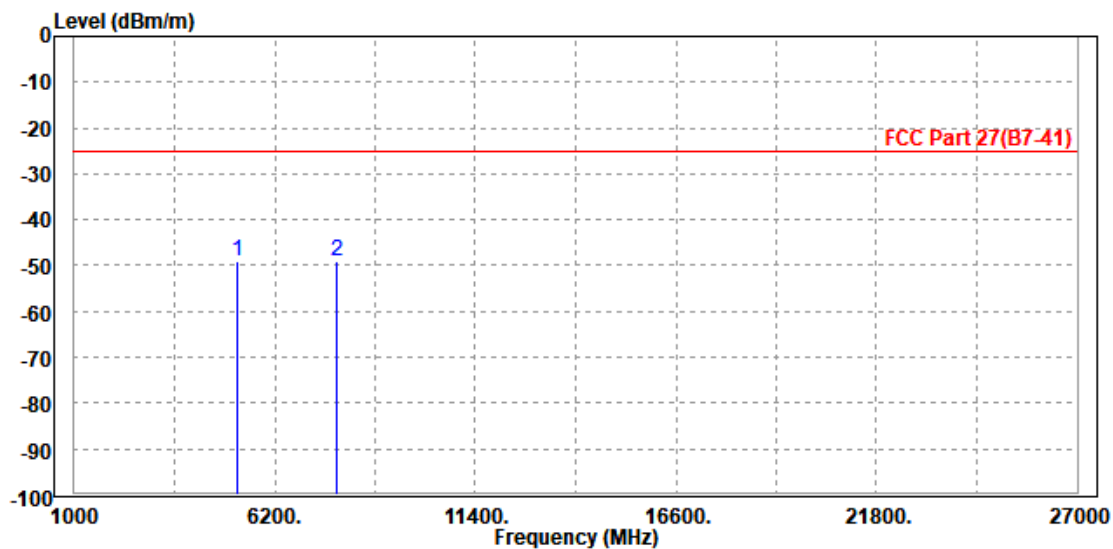


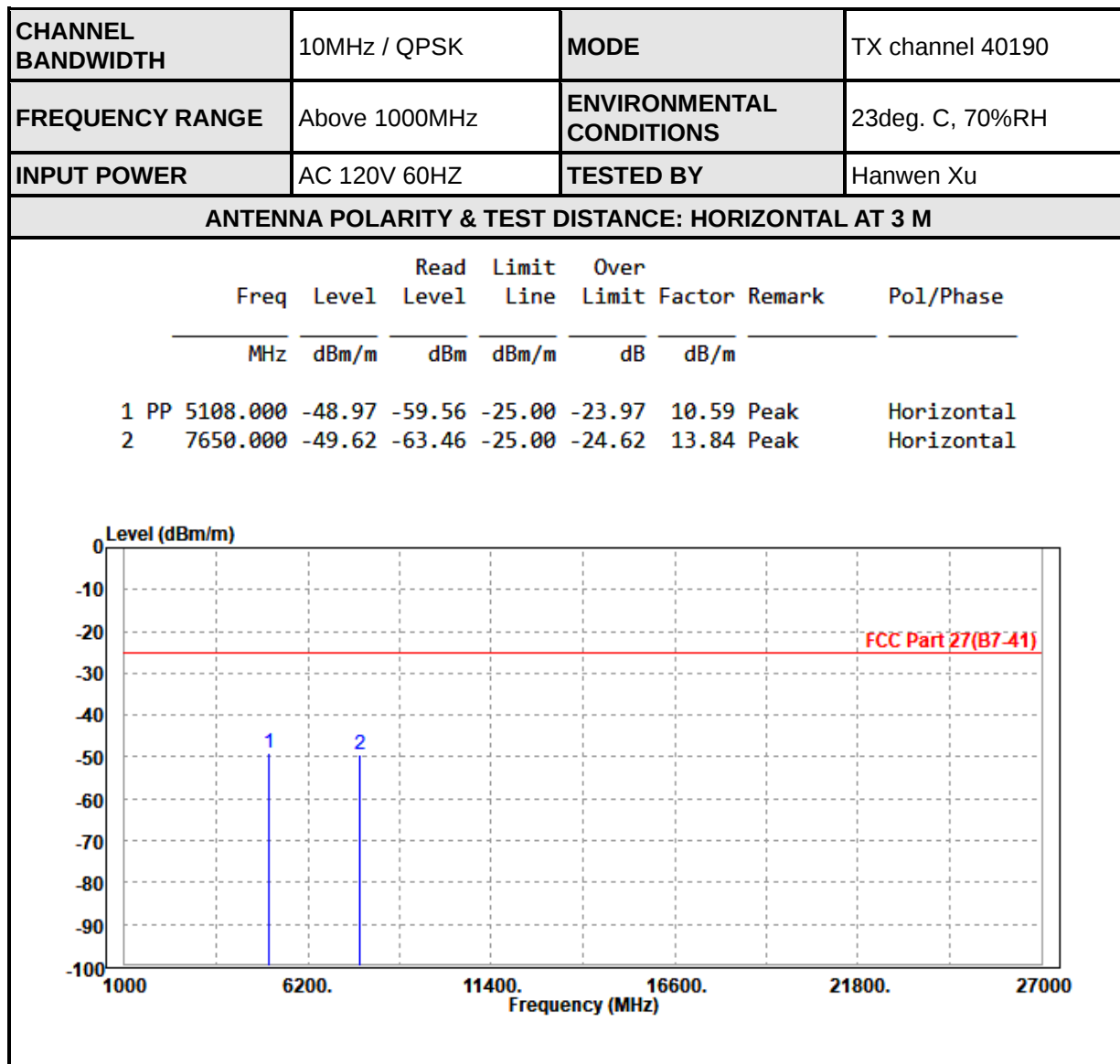


|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 5MHz / QPSK   | MODE                     | TX channel 40620 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

|   |    | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|----|----------|--------|------------|------------|------------|--------|--------|-----------|
|   |    | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |           |
| 1 | PP | 5212.000 | -48.92 | -59.94     | -25.00     | -23.92     | 11.02  | Peak   | Vertical  |
| 2 |    | 7800.000 | -49.17 | -63.58     | -25.00     | -24.17     | 14.41  | Peak   | Vertical  |

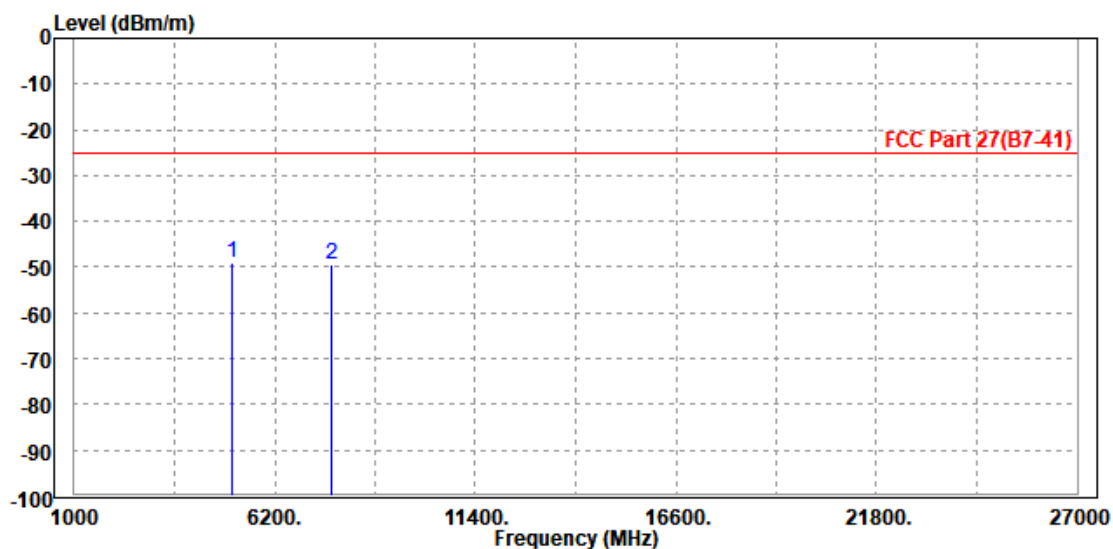


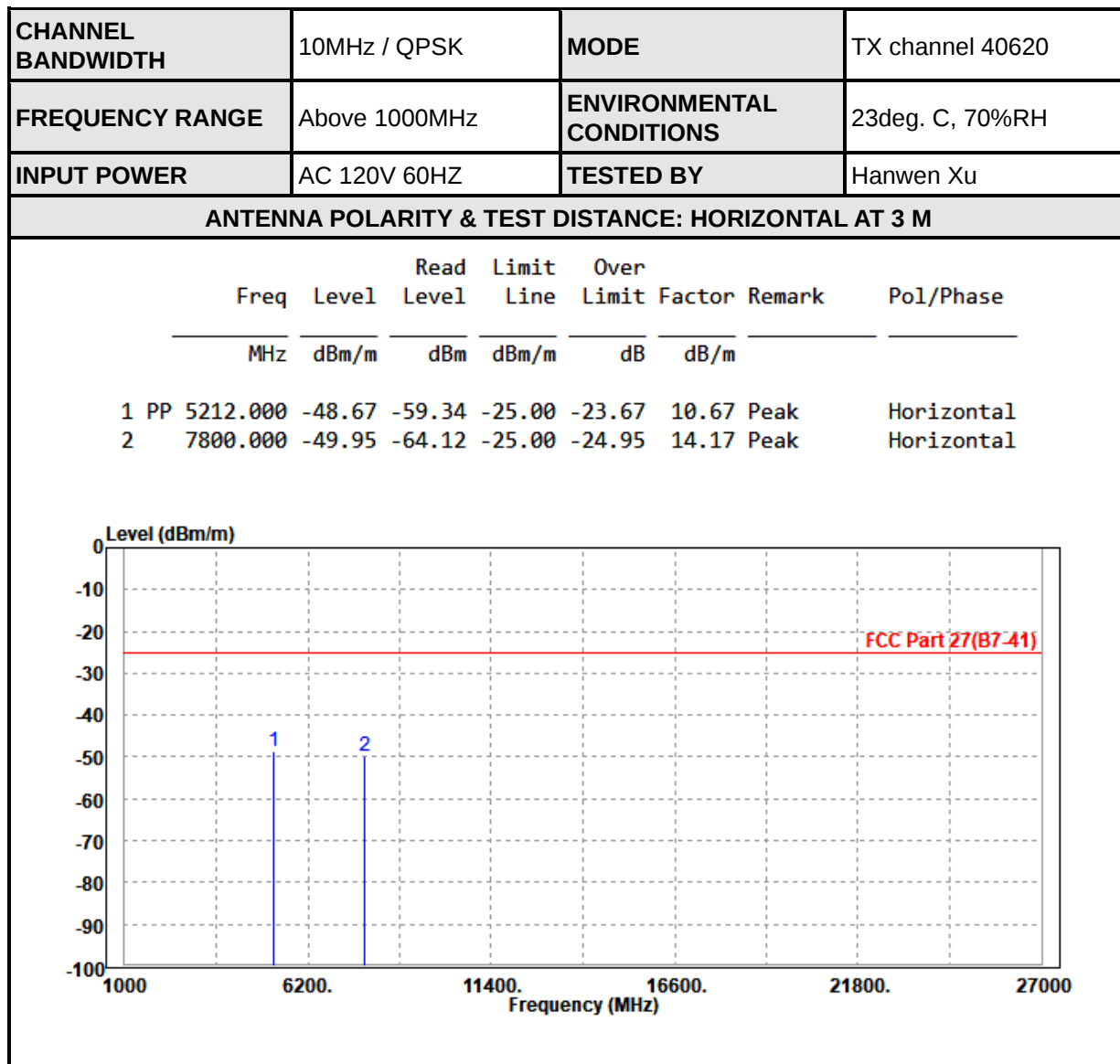


|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 10MHz / QPSK  | MODE                     | TX channel 40190 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

|               |        | Read   | Limit  | Over   |        |        |           |
|---------------|--------|--------|--------|--------|--------|--------|-----------|
| Freq          | Level  | Level  | Line   | Limit  | Factor | Remark | Pol/Phase |
| MHz           | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |           |
| 1 PP 5100.000 | -49.17 | -60.18 | -25.00 | -24.17 | 11.01  | Peak   | Vertical  |
| 2 7656.000    | -49.51 | -63.84 | -25.00 | -24.51 | 14.33  | Peak   | Vertical  |

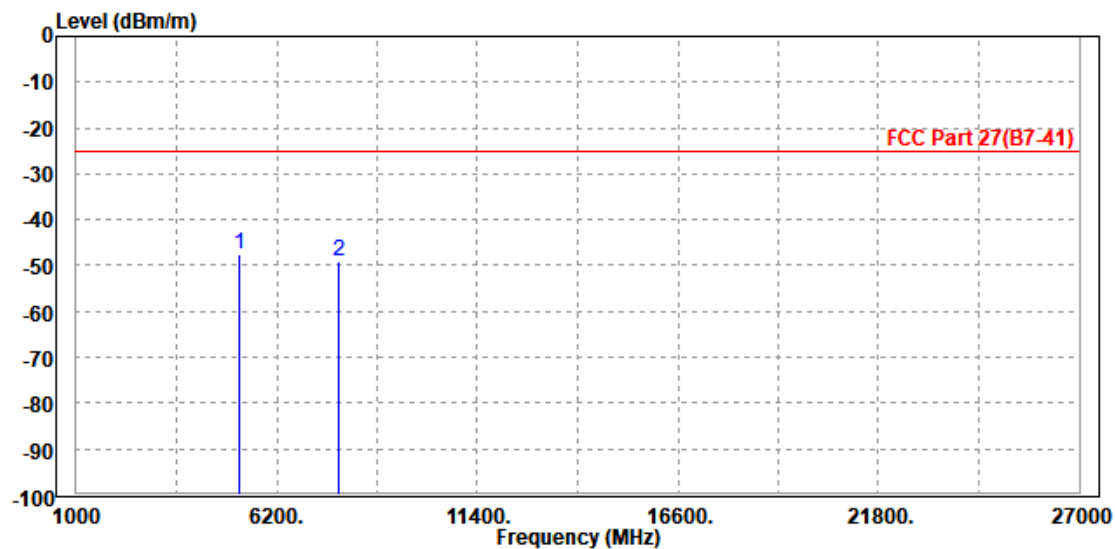




|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 10MHz / QPSK  | MODE                     | TX channel 40620 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

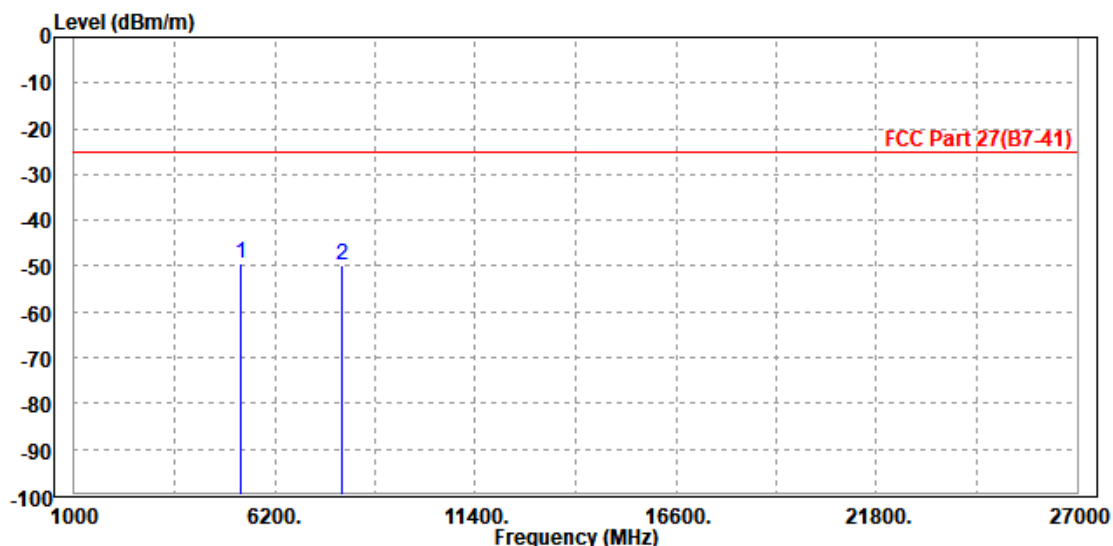
|   |    | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|----|----------|--------|------------|------------|------------|--------|--------|-----------|
|   |    | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |           |
| 1 | PP | 5212.000 | -47.63 | -58.65     | -25.00     | -22.63     | 11.02  | Peak   | Vertical  |
| 2 |    | 7800.000 | -49.23 | -63.64     | -25.00     | -24.23     | 14.41  | Peak   | Vertical  |



|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 10MHz / QPSK  | MODE                     | TX channel 41190 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

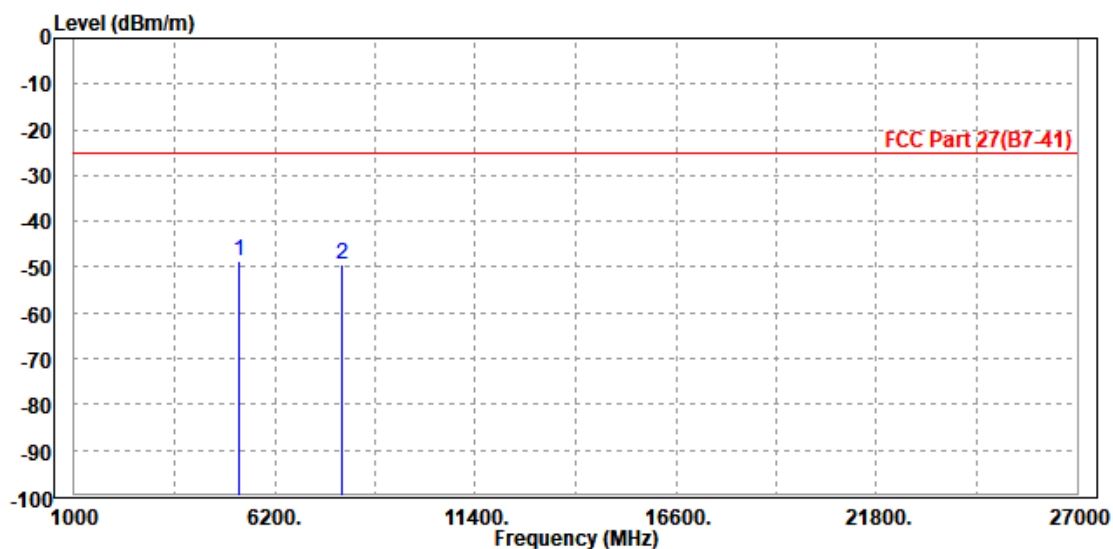
|   | Freq        | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase  |
|---|-------------|--------|------------|------------|------------|--------|--------|------------|
|   | MHz         | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |            |
| 1 | PP 5300.000 | -49.58 | -60.32     | -25.00     | -24.58     | 10.74  | Peak   | Horizontal |
| 2 | 7942.000    | -49.65 | -64.13     | -25.00     | -24.65     | 14.48  | Peak   | Horizontal |



|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 10MHz / QPSK  | MODE                     | TX channel 41190 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

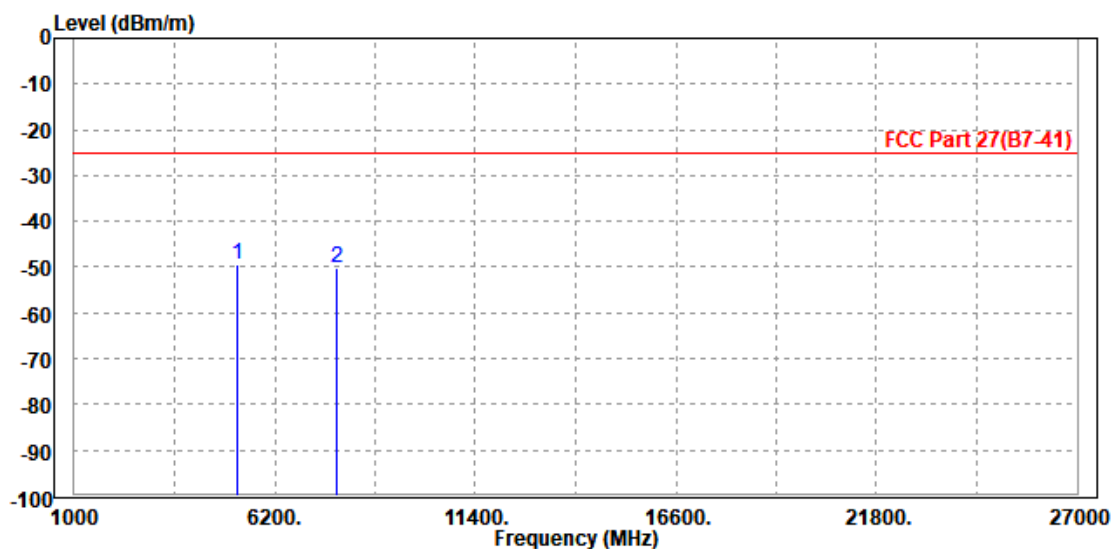
|   |             | Read   | Limit  | Over   |        |        |           |
|---|-------------|--------|--------|--------|--------|--------|-----------|
|   | Freq        | Level  | Level  | Line   | Limit  | Factor | Remark    |
|   | MHz         | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |           |
| 1 | PP 5290.000 | -48.65 | -59.67 | -25.00 | -23.65 | 11.02  | Peak      |
| 2 | 7950.000    | -49.59 | -64.08 | -25.00 | -24.59 | 14.49  | Peak      |
|   |             |        |        |        |        |        | Pol/Phase |
|   |             |        |        |        |        |        | Vertical  |
|   |             |        |        |        |        |        | Vertical  |



|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 15MHz / QPSK  | MODE                     | TX channel 40620 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

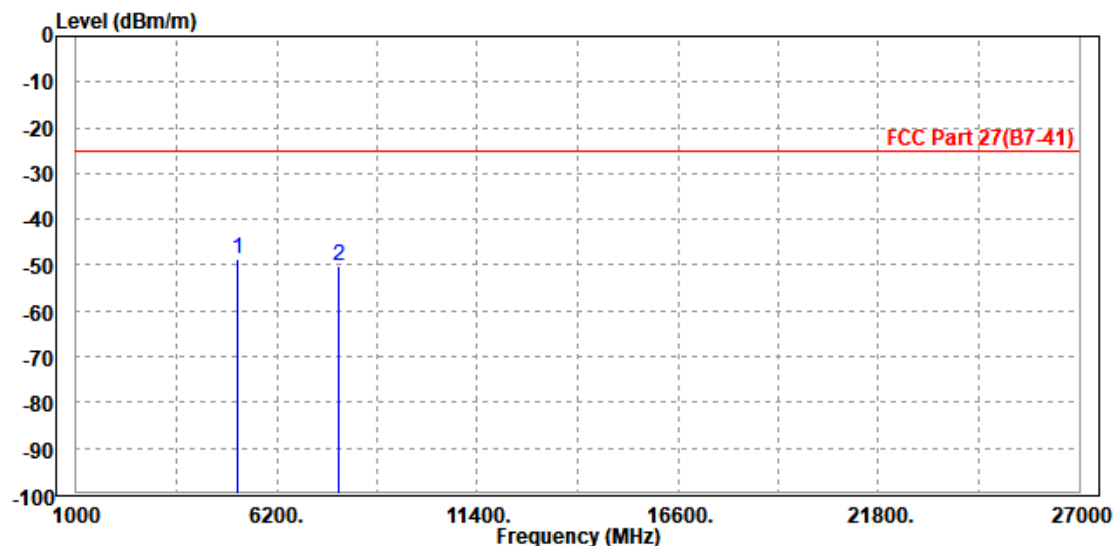
|      | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase  |
|------|----------|--------|------------|------------|------------|--------|--------|------------|
|      | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |            |
| 1 PP | 5212.000 | -49.31 | -59.98     | -25.00     | -24.31     | 10.67  | Peak   | Horizontal |
| 2    | 7800.000 | -50.11 | -64.28     | -25.00     | -25.11     | 14.17  | Peak   | Horizontal |



|                          |               |                                 |                  |
|--------------------------|---------------|---------------------------------|------------------|
| <b>CHANNEL BANDWIDTH</b> | 15MHz / QPSK  | <b>MODE</b>                     | TX channel 40620 |
| <b>FREQUENCY RANGE</b>   | Above 1000MHz | <b>ENVIRONMENTAL CONDITIONS</b> | 23deg. C, 70%RH  |
| <b>INPUT POWER</b>       | AC 120V 60HZ  | <b>TESTED BY</b>                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

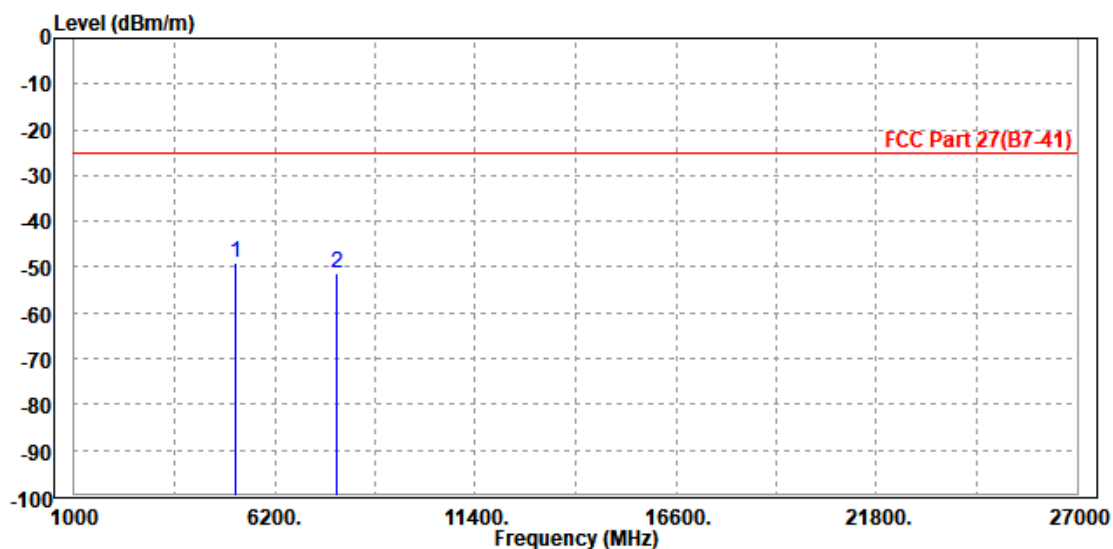
|   |    | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|----|----------|--------|------------|------------|------------|--------|--------|-----------|
|   |    | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |           |
| 1 | PP | 5200.000 | -48.85 | -59.87     | -25.00     | -23.85     | 11.02  | Peak   | Vertical  |
| 2 |    | 7812.000 | -50.25 | -64.66     | -25.00     | -25.25     | 14.41  | Peak   | Vertical  |



|                          |               |                                 |                  |
|--------------------------|---------------|---------------------------------|------------------|
| <b>CHANNEL BANDWIDTH</b> | 20MHz / QPSK  | <b>MODE</b>                     | TX channel 40620 |
| <b>FREQUENCY RANGE</b>   | Above 1000MHz | <b>ENVIRONMENTAL CONDITIONS</b> | 23deg. C, 70%RH  |
| <b>INPUT POWER</b>       | AC 120V 60HZ  | <b>TESTED BY</b>                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

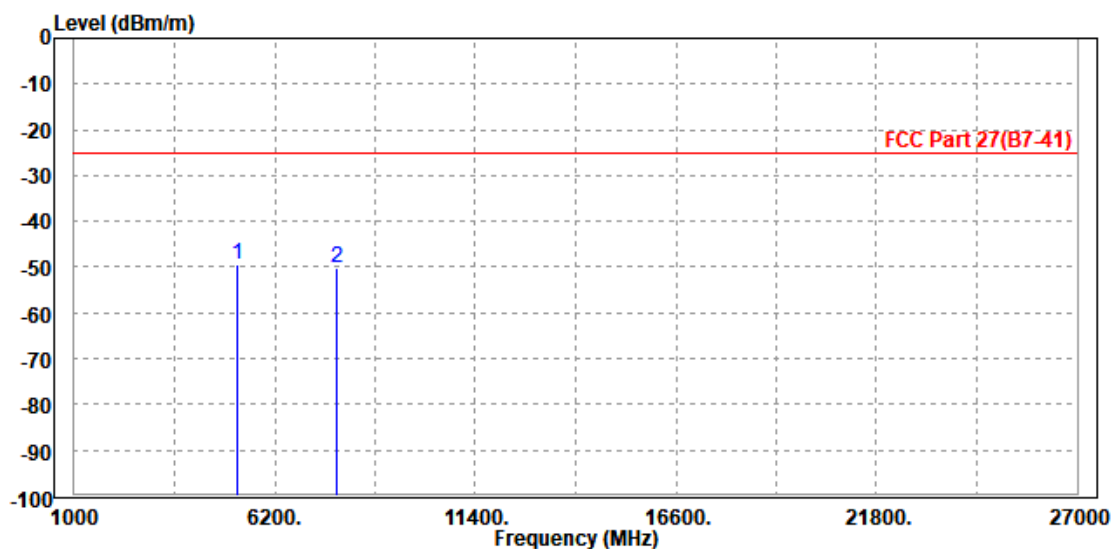
|      | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase  |
|------|----------|--------|------------|------------|------------|--------|--------|------------|
|      | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |            |
| 1 PP | 5200.000 | -49.16 | -59.82     | -25.00     | -24.16     | 10.66  | Peak   | Horizontal |
| 2    | 7812.000 | -51.14 | -65.33     | -25.00     | -26.14     | 14.19  | Peak   | Horizontal |

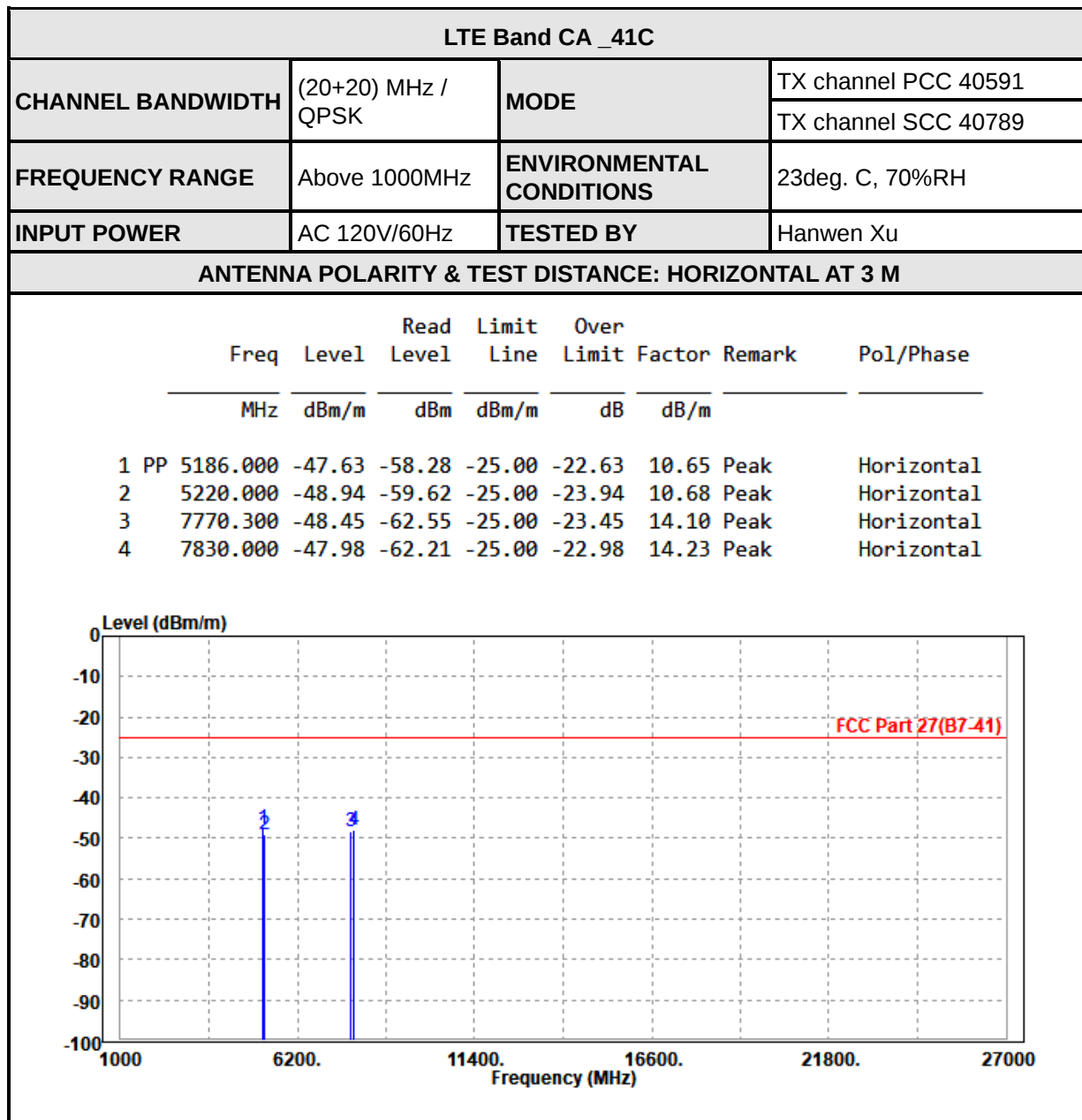


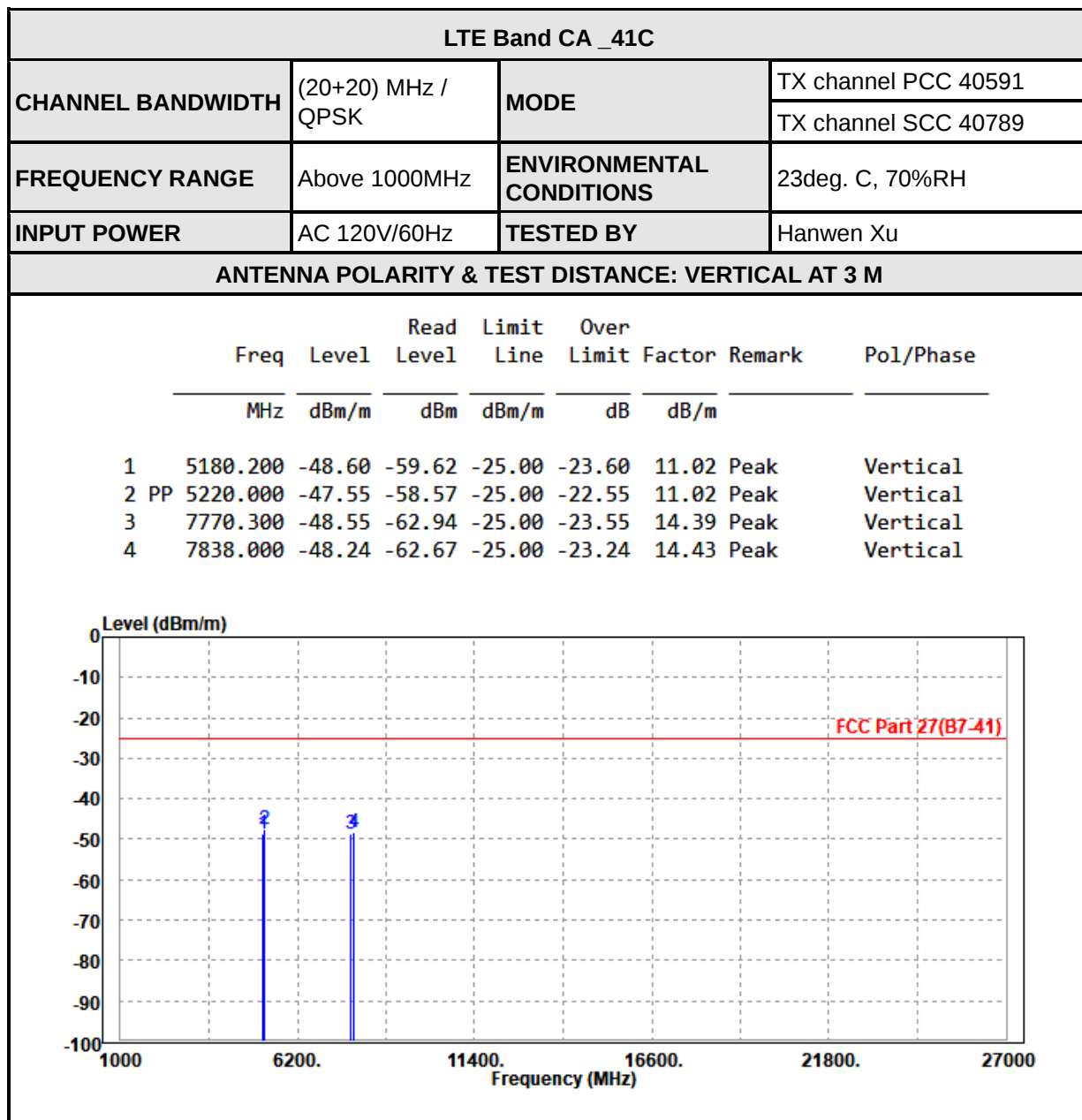
|                   |               |                          |                  |
|-------------------|---------------|--------------------------|------------------|
| CHANNEL BANDWIDTH | 20MHz / QPSK  | MODE                     | TX channel 40620 |
| FREQUENCY RANGE   | Above 1000MHz | ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH  |
| INPUT POWER       | AC 120V 60HZ  | TESTED BY                | Hanwen Xu        |

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

|   |             |        | Read   | Limit  | Over   |        |        |           |
|---|-------------|--------|--------|--------|--------|--------|--------|-----------|
|   | Freq        | Level  | Level  | Line   | Limit  | Factor | Remark | Pol/Phase |
|   | MHz         | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |           |
| 1 | PP 5212.000 | -49.43 | -60.45 | -25.00 | -24.43 | 11.02  | Peak   | Vertical  |
| 2 | 7800.000    | -50.07 | -64.48 | -25.00 | -25.07 | 14.41  | Peak   | Vertical  |





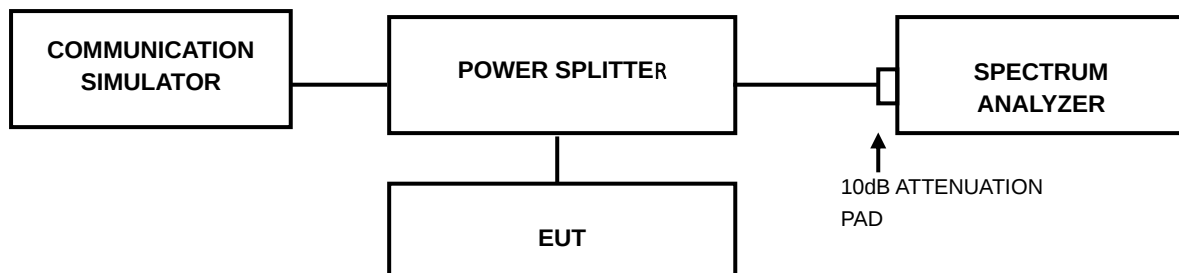


### 3.7 PEAK TO AVERAGE RATIO

#### 3.7.1 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

#### 3.7.2 TEST SETUP



#### 3.7.3 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%.



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### 3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.



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## 4 INFORMATION ON THE TESTING LABORATORIES

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

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

**Shenzhen EMC/RF Lab:**

Tel: +86-755-88696566

Fax: +86-755-88696577

**Email:** [customerservice.sw@cn.bureauveritas.com](mailto:customerservice.sw@cn.bureauveritas.com)

**Web Site:** [www.adt.com.tw](http://www.adt.com.tw)

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



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## 5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

## 6 APPENDIX

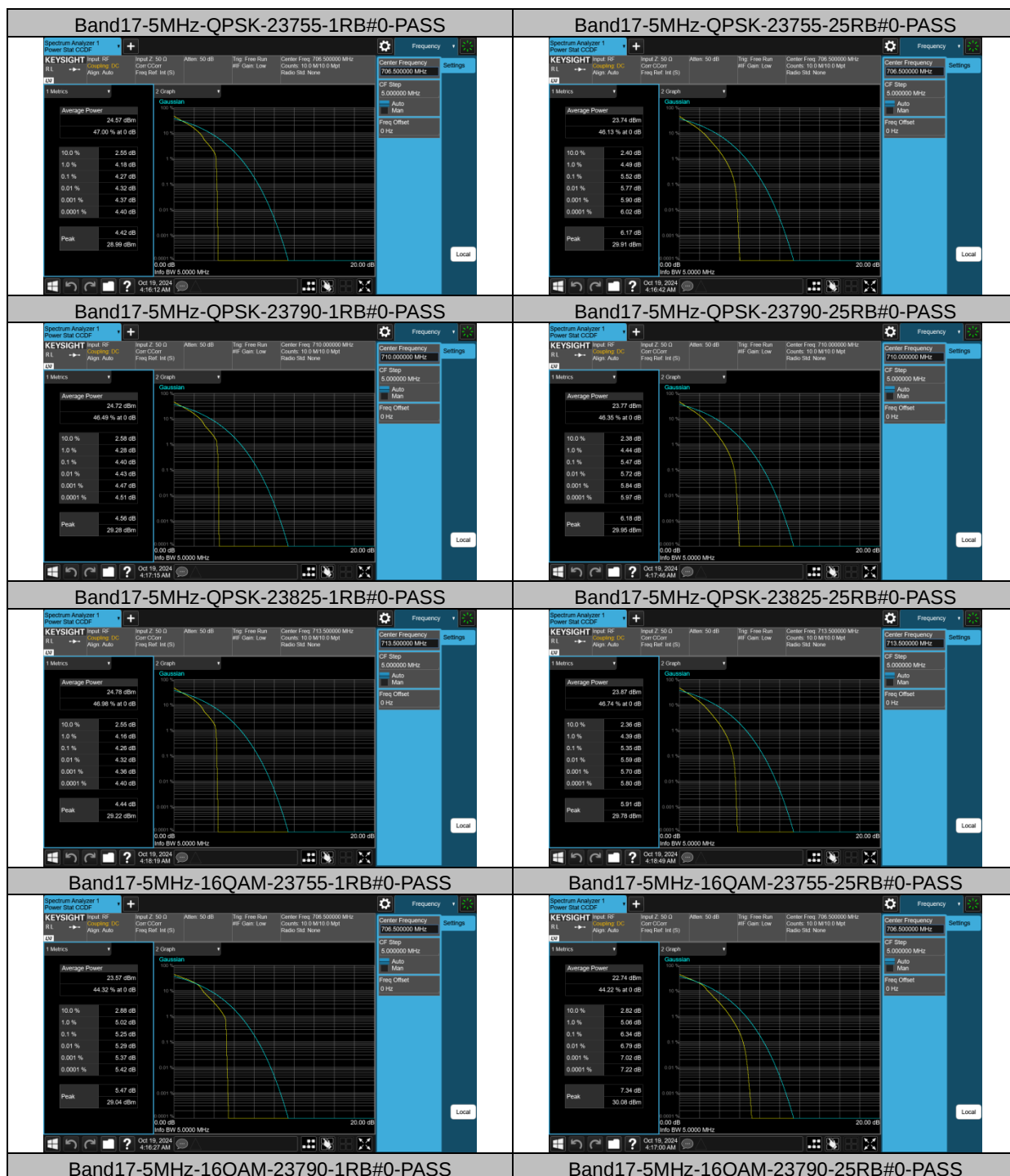
### LTE BAND 17

#### PEAK-TO-AVERAGE RATIO(CCDF)

##### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|--------|-----------|------------|---------|------------------|------------|-----------|---------|
| Band17 | 5MHz      | QPSK       | 23755   | 1RB#0            | 4.27       | 13        | PASS    |
| Band17 | 5MHz      | QPSK       | 23755   | 25RB#0           | 5.52       | 13        | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 1RB#0            | 4.40       | 13        | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 25RB#0           | 5.47       | 13        | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 1RB#0            | 4.26       | 13        | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 25RB#0           | 5.35       | 13        | PASS    |
| Band17 | 5MHz      | 16QAM      | 23755   | 1RB#0            | 5.25       | 13        | PASS    |
| Band17 | 5MHz      | 16QAM      | 23755   | 25RB#0           | 6.34       | 13        | PASS    |
| Band17 | 5MHz      | 16QAM      | 23790   | 1RB#0            | 5.37       | 13        | PASS    |
| Band17 | 5MHz      | 16QAM      | 23790   | 25RB#0           | 6.31       | 13        | PASS    |
| Band17 | 5MHz      | 16QAM      | 23825   | 1RB#0            | 5.24       | 13        | PASS    |
| Band17 | 5MHz      | 16QAM      | 23825   | 25RB#0           | 6.15       | 13        | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 1RB#0            | 4.26       | 13        | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 50RB#0           | 5.46       | 13        | PASS    |
| Band17 | 10MHz     | QPSK       | 23790   | 1RB#0            | 4.33       | 13        | PASS    |
| Band17 | 10MHz     | QPSK       | 23790   | 50RB#0           | 5.45       | 13        | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 1RB#0            | 4.36       | 13        | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 50RB#0           | 5.39       | 13        | PASS    |
| Band17 | 10MHz     | 16QAM      | 23780   | 1RB#0            | 5.29       | 13        | PASS    |
| Band17 | 10MHz     | 16QAM      | 23780   | 50RB#0           | 6.26       | 13        | PASS    |
| Band17 | 10MHz     | 16QAM      | 23790   | 1RB#0            | 5.36       | 13        | PASS    |
| Band17 | 10MHz     | 16QAM      | 23790   | 50RB#0           | 6.26       | 13        | PASS    |
| Band17 | 10MHz     | 16QAM      | 23800   | 1RB#0            | 5.40       | 13        | PASS    |
| Band17 | 10MHz     | 16QAM      | 23800   | 50RB#0           | 6.22       | 13        | PASS    |

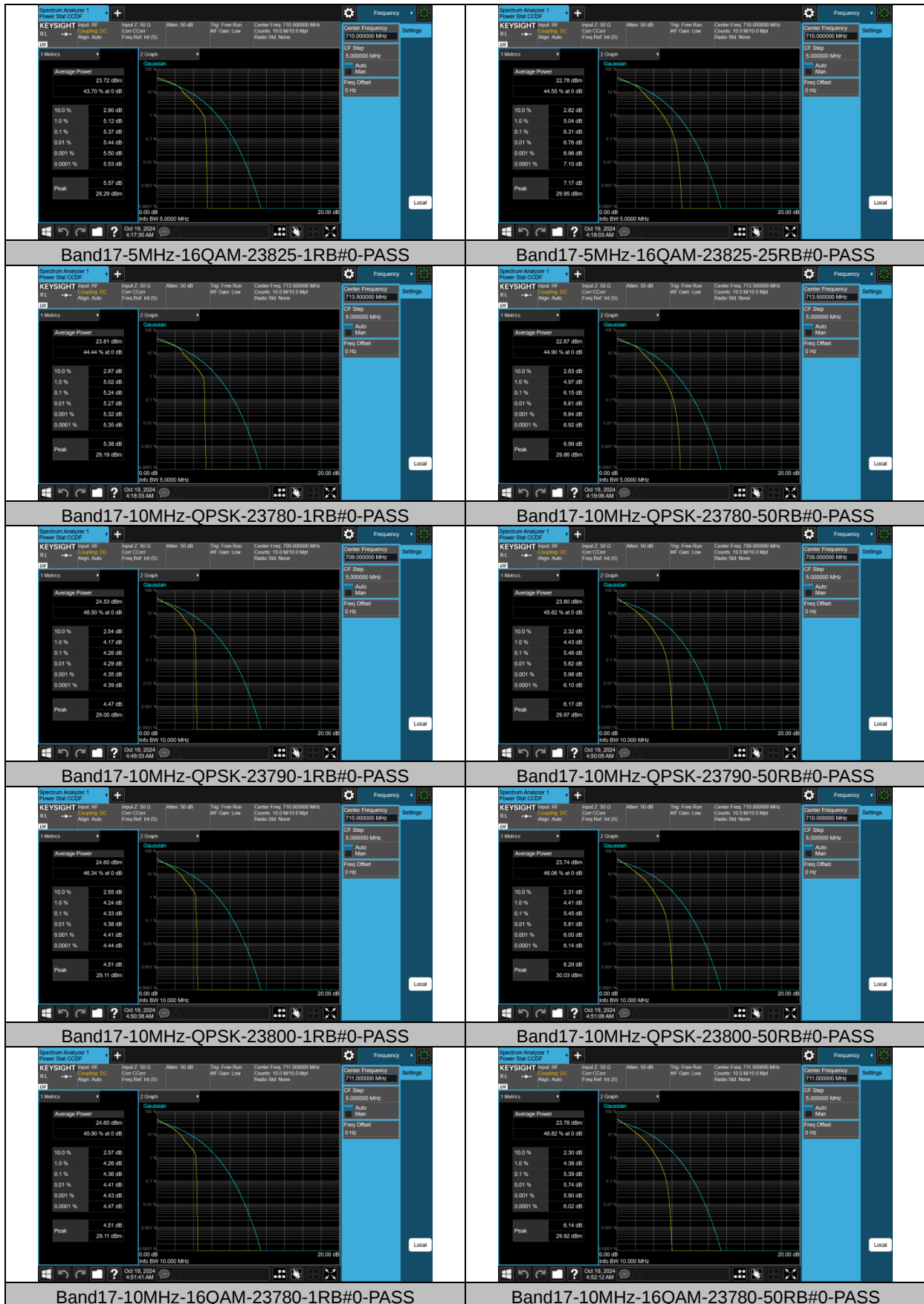
## Test Graphs





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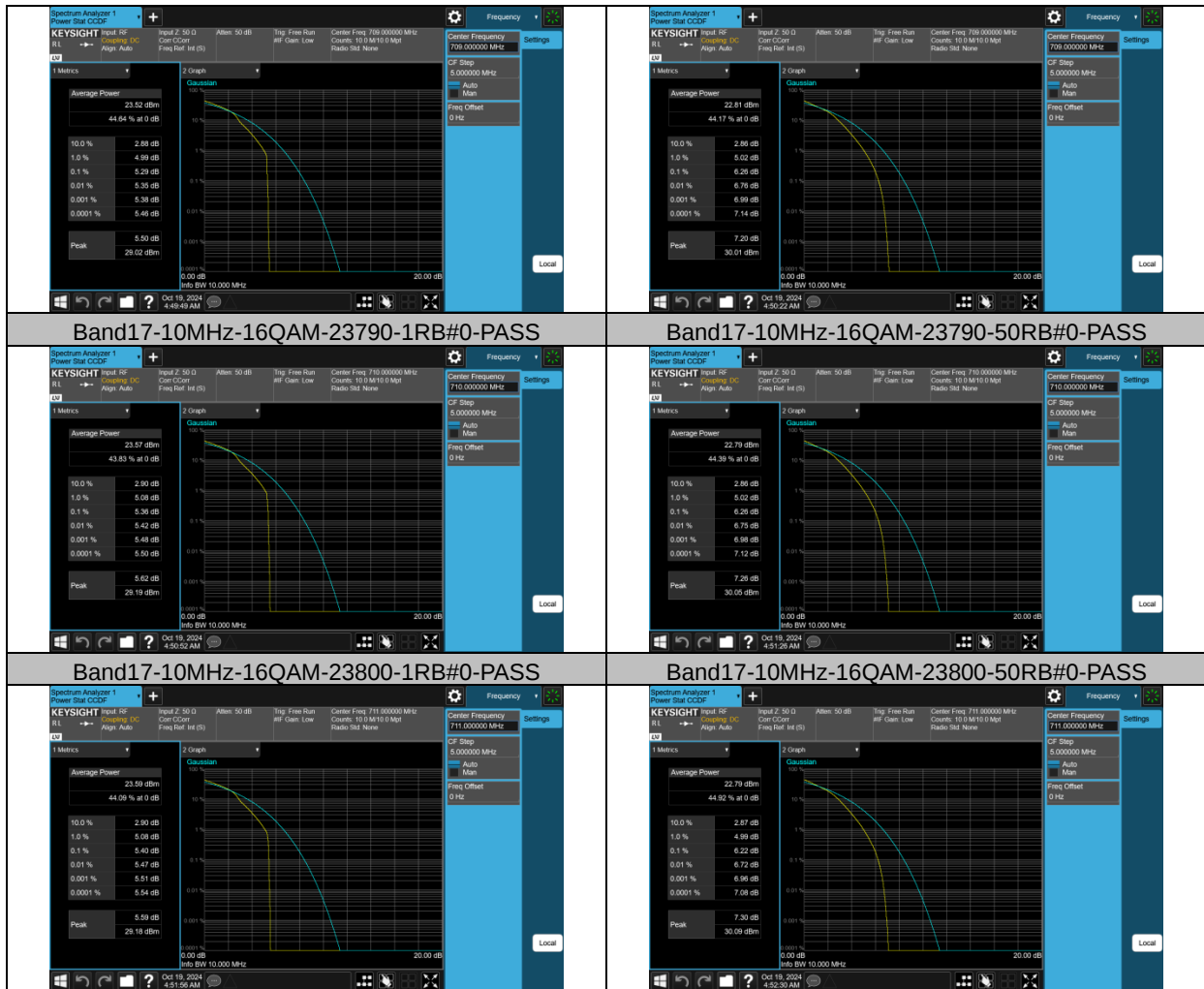
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## Test Report No.: W7L-P24090006RF06

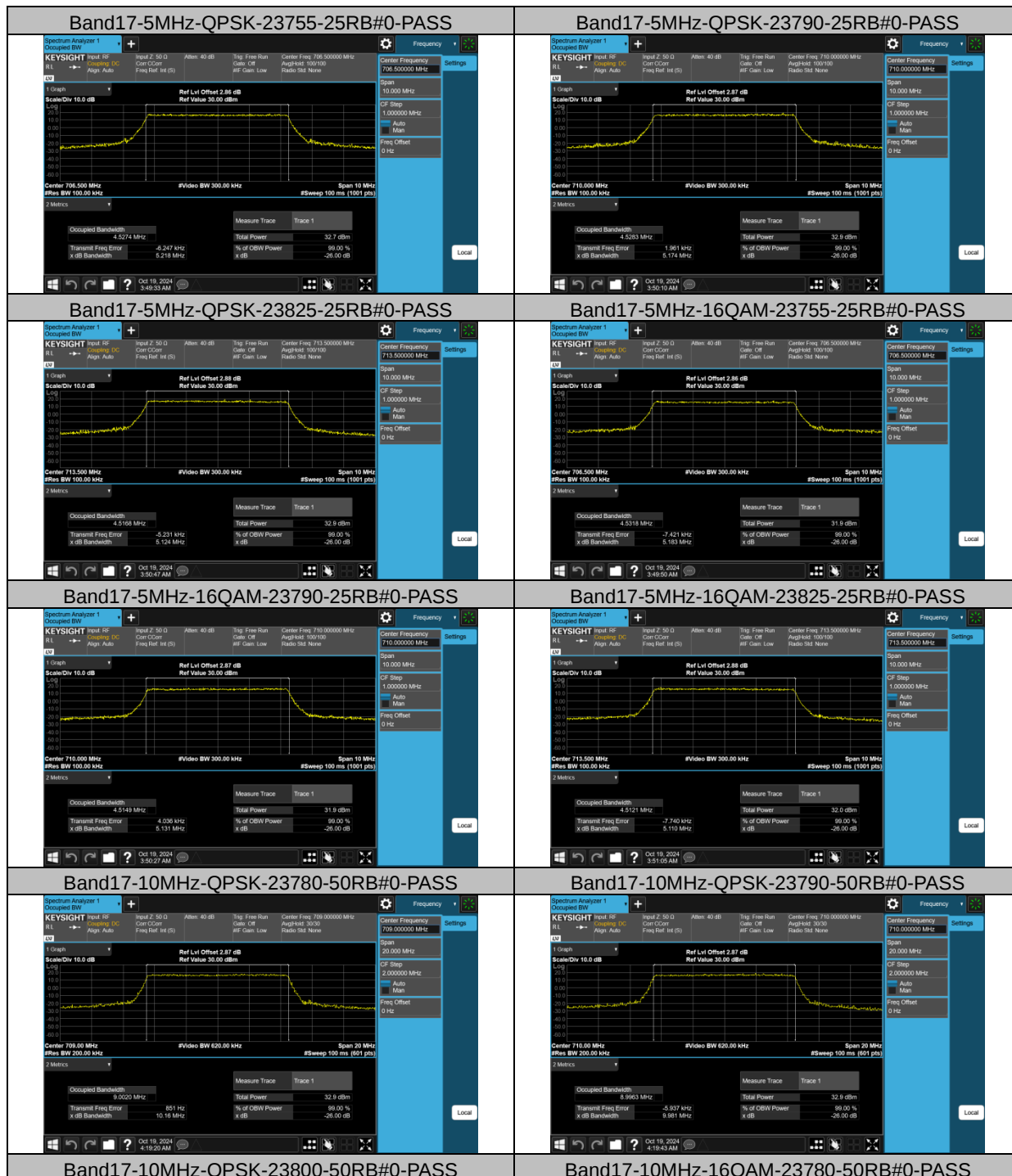


## 26DB BANDWIDTH AND OCCUPIED BANDWIDTH

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|--------|-----------|------------|---------|------------------|--------------------------|----------------------|---------|
| Band17 | 5MHz      | QPSK       | 23755   | 25RB#0           | 4.5274                   | 5.218                | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 25RB#0           | 4.5283                   | 5.174                | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 25RB#0           | 4.5168                   | 5.124                | PASS    |
| Band17 | 5MHz      | 16QAM      | 23755   | 25RB#0           | 4.5318                   | 5.183                | PASS    |
| Band17 | 5MHz      | 16QAM      | 23790   | 25RB#0           | 4.5149                   | 5.131                | PASS    |
| Band17 | 5MHz      | 16QAM      | 23825   | 25RB#0           | 4.5121                   | 5.110                | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 50RB#0           | 9.0020                   | 10.16                | PASS    |
| Band17 | 10MHz     | QPSK       | 23790   | 50RB#0           | 8.9963                   | 9.981                | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 50RB#0           | 8.9713                   | 10.03                | PASS    |
| Band17 | 10MHz     | 16QAM      | 23780   | 50RB#0           | 9.0013                   | 10.03                | PASS    |
| Band17 | 10MHz     | 16QAM      | 23790   | 50RB#0           | 8.9877                   | 10.02                | PASS    |
| Band17 | 10MHz     | 16QAM      | 23800   | 50RB#0           | 8.9696                   | 10.01                | PASS    |

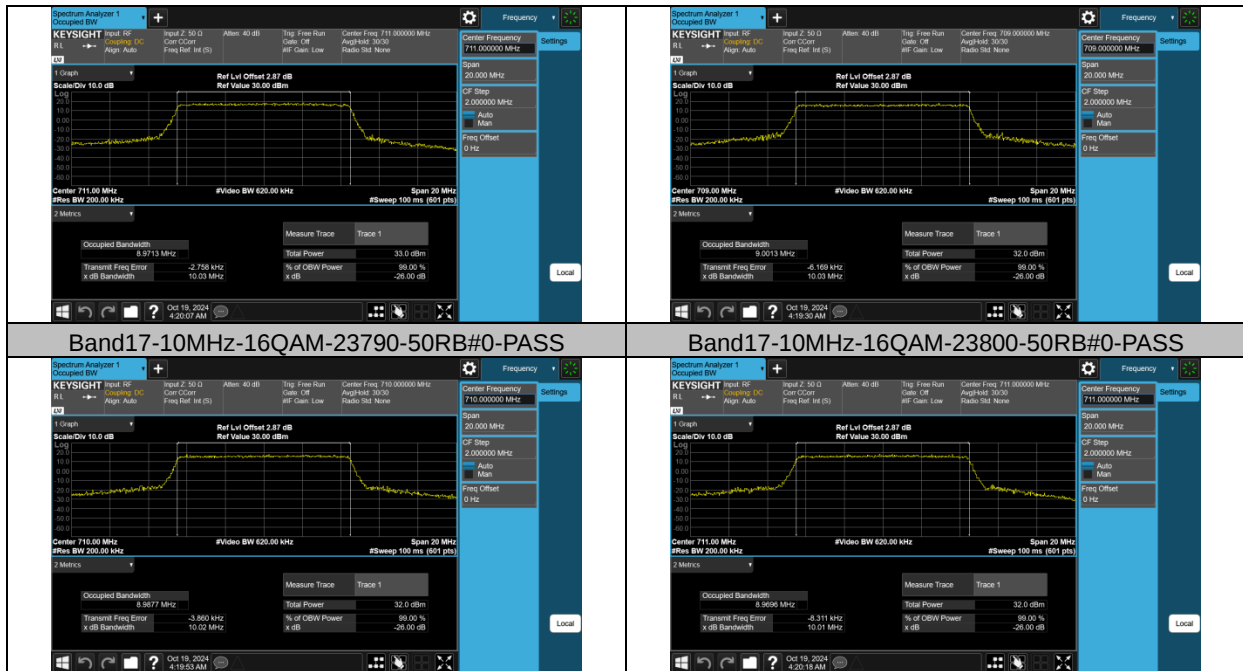
## Test Graphs





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## Test Report No.: W7L-P24090006RF06

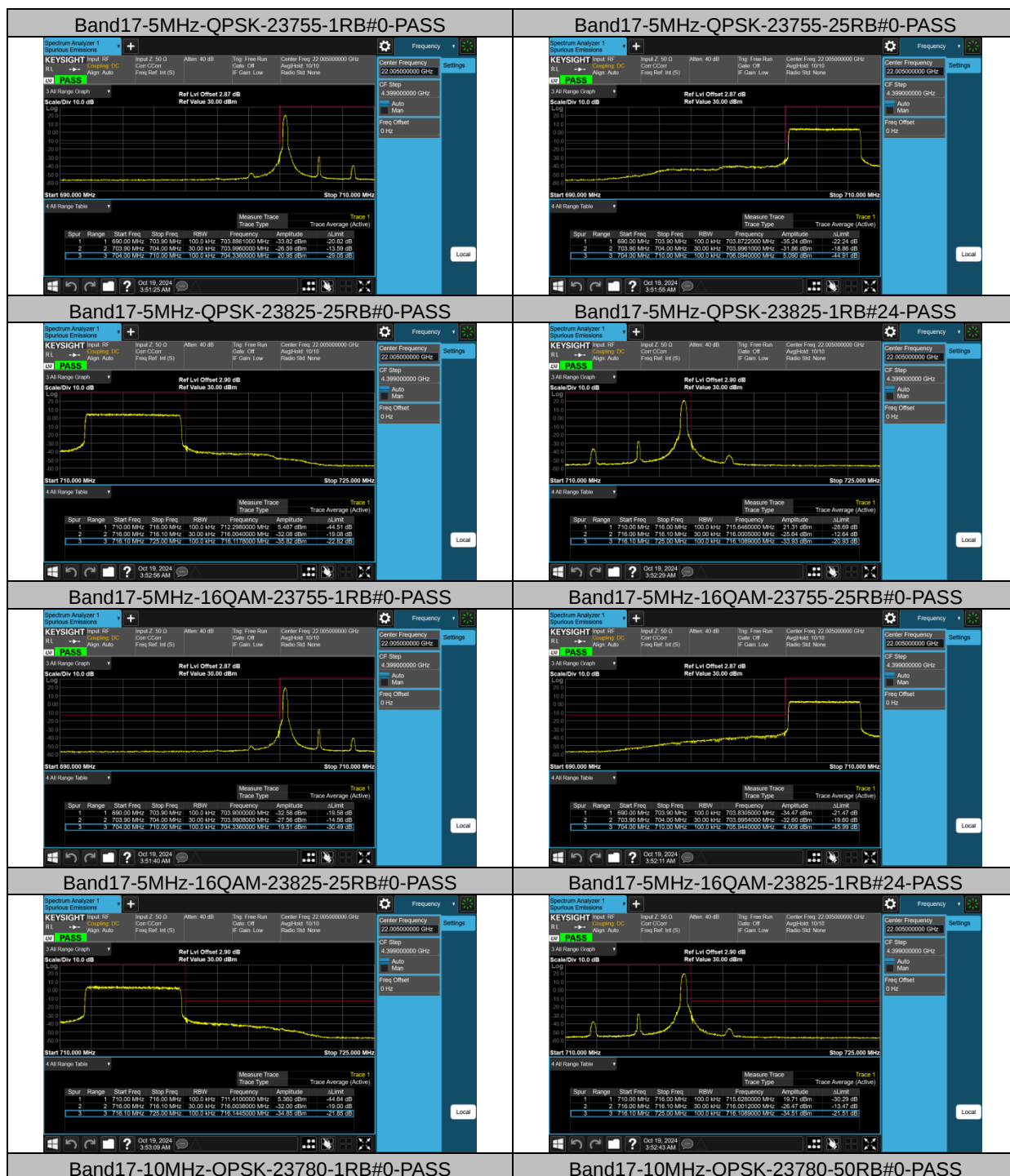


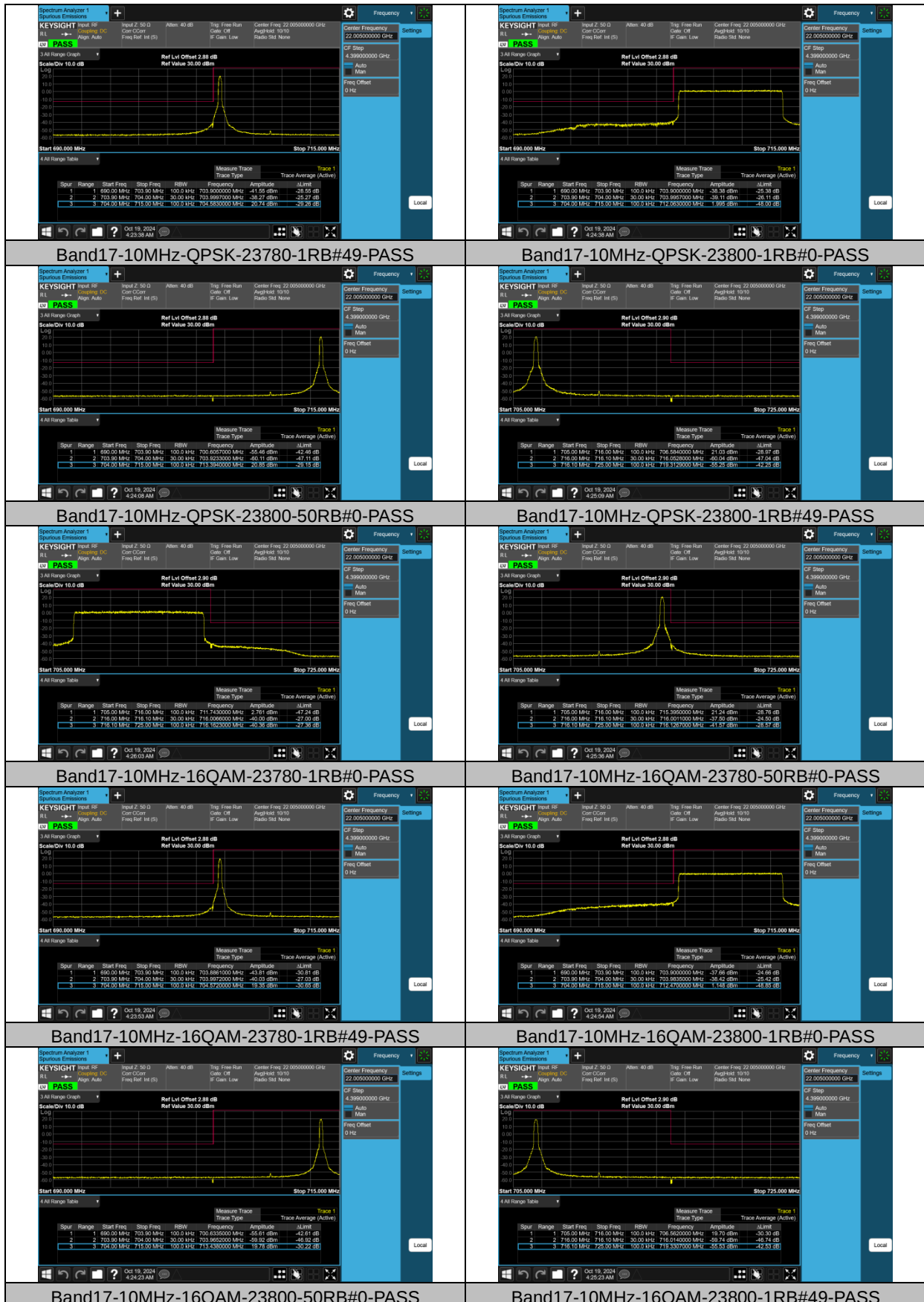
## **BAND EDGE**

### **Test Result**

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Result(dBm) | Verdict |
|--------|-----------|------------|---------|------------------|-------------|---------|
| Band17 | 5MHz      | QPSK       | 23755   | 1RB#0            | -26.59      | PASS    |
| Band17 | 5MHz      | QPSK       | 23755   | 25RB#0           | -31.86      | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 25RB#0           | -32.08      | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 1RB#24           | -25.64      | PASS    |
| Band17 | 5MHz      | 16QAM      | 23755   | 1RB#0            | -27.56      | PASS    |
| Band17 | 5MHz      | 16QAM      | 23755   | 25RB#0           | -32.60      | PASS    |
| Band17 | 5MHz      | 16QAM      | 23825   | 25RB#0           | -32.00      | PASS    |
| Band17 | 5MHz      | 16QAM      | 23825   | 1RB#24           | -26.47      | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 1RB#0            | -38.27      | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 50RB#0           | -38.38      | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 1RB#49           | -55.46      | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 1RB#0            | -55.25      | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 50RB#0           | -40.00      | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 1RB#49           | -37.50      | PASS    |
| Band17 | 10MHz     | 16QAM      | 23780   | 1RB#0            | -40.03      | PASS    |
| Band17 | 10MHz     | 16QAM      | 23780   | 50RB#0           | -37.66      | PASS    |
| Band17 | 10MHz     | 16QAM      | 23780   | 1RB#49           | -55.61      | PASS    |
| Band17 | 10MHz     | 16QAM      | 23800   | 1RB#0            | -55.53      | PASS    |
| Band17 | 10MHz     | 16QAM      | 23800   | 50RB#0           | -39.12      | PASS    |
| Band17 | 10MHz     | 16QAM      | 23800   | 1RB#49           | -39.27      | PASS    |

## Test Graphs







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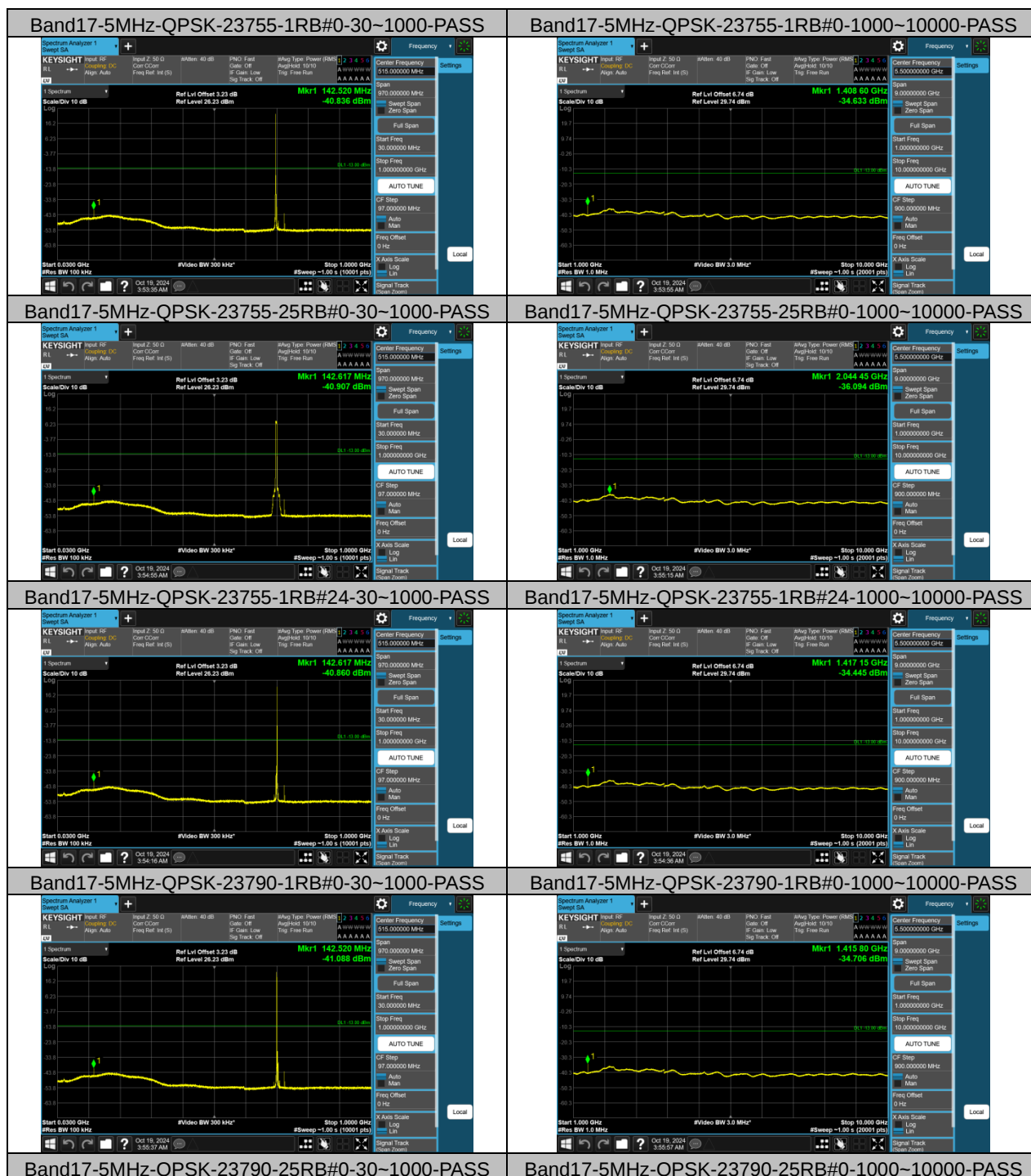


## CONDUCTED SPURIOUS EMISSION

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Frequency Range | Result (dBm) | Verdict |
|--------|-----------|------------|---------|------------------|-----------------|--------------|---------|
| Band17 | 5MHz      | QPSK       | 23755   | 1RB#0            | 30~1000         | -40.84       | PASS    |
| Band17 | 5MHz      | QPSK       | 23755   | 1RB#0            | 1000~10000      | -34.63       | PASS    |
| Band17 | 5MHz      | QPSK       | 23755   | 25RB#0           | 30~1000         | -40.91       | PASS    |
| Band17 | 5MHz      | QPSK       | 23755   | 25RB#0           | 1000~10000      | -36.09       | PASS    |
| Band17 | 5MHz      | QPSK       | 23755   | 1RB#24           | 30~1000         | -40.86       | PASS    |
| Band17 | 5MHz      | QPSK       | 23755   | 1RB#24           | 1000~10000      | -34.45       | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 1RB#0            | 30~1000         | -41.09       | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 1RB#0            | 1000~10000      | -34.71       | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 25RB#0           | 30~1000         | -40.96       | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 25RB#0           | 1000~10000      | -36.24       | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 1RB#24           | 30~1000         | -41.41       | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 1RB#24           | 1000~10000      | -34.28       | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 1RB#0            | 30~1000         | -40.85       | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 1RB#0            | 1000~10000      | -34.41       | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 25RB#0           | 30~1000         | -40.94       | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 25RB#0           | 1000~10000      | -36.22       | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 1RB#24           | 30~1000         | -41.18       | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 1RB#24           | 1000~10000      | -33.52       | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 1RB#0            | 30~1000         | -41.43       | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 1RB#0            | 1000~10000      | -35.01       | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 50RB#0           | 30~1000         | -41.00       | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 50RB#0           | 1000~10000      | -36.18       | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 1RB#49           | 30~1000         | -41.23       | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 1RB#49           | 1000~10000      | -33.52       | PASS    |
| Band17 | 10MHz     | QPSK       | 23790   | 1RB#0            | 30~1000         | -41.17       | PASS    |
| Band17 | 10MHz     | QPSK       | 23790   | 1RB#0            | 1000~10000      | -34.54       | PASS    |
| Band17 | 10MHz     | QPSK       | 23790   | 50RB#0           | 30~1000         | -41.16       | PASS    |
| Band17 | 10MHz     | QPSK       | 23790   | 50RB#0           | 1000~10000      | -36.15       | PASS    |
| Band17 | 10MHz     | QPSK       | 23790   | 1RB#49           | 30~1000         | -41.50       | PASS    |
| Band17 | 10MHz     | QPSK       | 23790   | 1RB#49           | 1000~10000      | -32.51       | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 1RB#0            | 30~1000         | -41.11       | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 1RB#0            | 1000~10000      | -34.76       | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 50RB#0           | 30~1000         | -40.88       | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 50RB#0           | 1000~10000      | -36.14       | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 1RB#49           | 30~1000         | -41.55       | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 1RB#49           | 1000~10000      | -33.63       | PASS    |

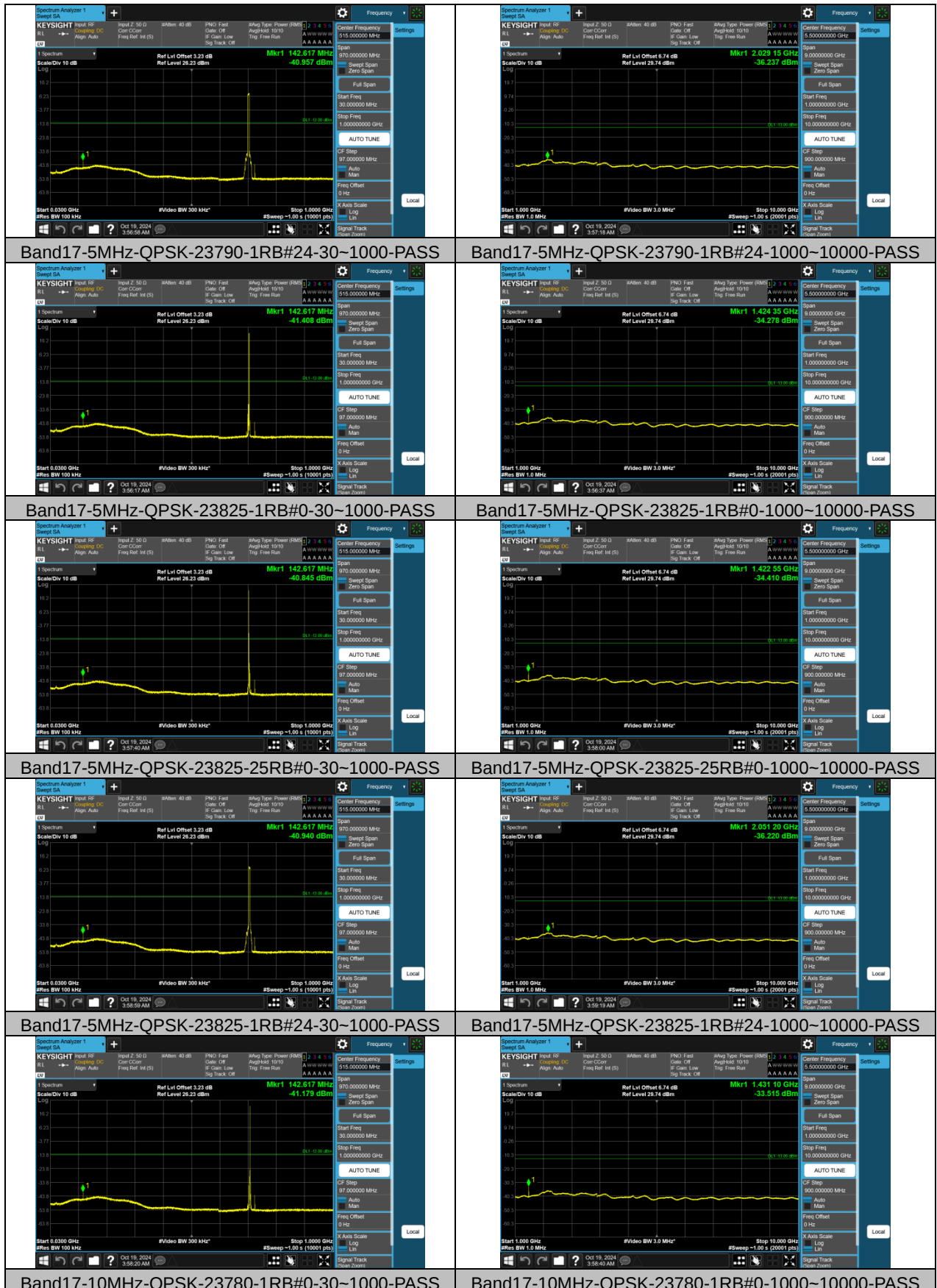
## Test Graphs





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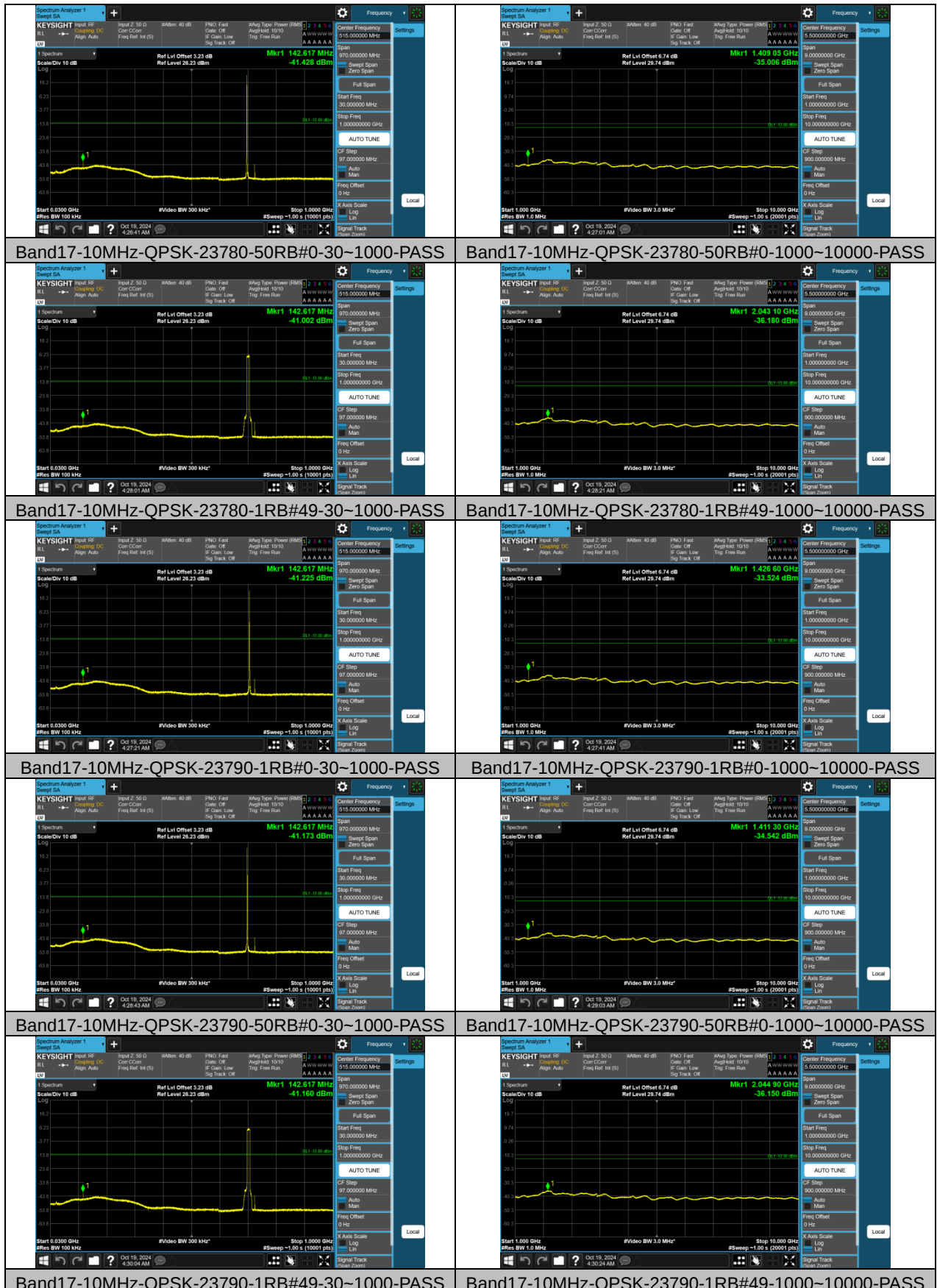
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