# FCC TEST REPORT

# (PART 27)

| | |
|---|---|
| Applicant: | PAX Technology Limited |
| Address: | Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road, Wanchai, Hong Kong |

| | |
|---|---|
| Manufacturer or Supplier: | PAX Computer Technology (Shenzhen) Co., Ltd. |
| Address: | 4/F, No.3 Building, Software Park, Second Central Science-Tech Road, High-Tech industrial Park, Shenzhen, Guangdong, P.R.C. |
| Product: | Mobile Payment Terminal |
| Brand Name: | PAX |
| Model Name: | S920 |
| FCC ID: | V5PS920LTE |
| Date of tests: | Jul. 25, 2018 ~ Sep. 05, 2018 |

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

☒ **FCC Part 27, Subpart C, L** ☒ **ANSI/TIA/EIA-603- D**
☒ **FCC Part 2** ☒ **ANSI/TIA/EIA-603-E**

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

| Prepared by Roger Li<br>Engineer / Mobile Department | Approved by Sam Tung<br>Manager / Mobile Department |
|---|---|
| Roger<br>Date: Sep. 07, 2018 |  <br>Date: Sep. 07, 2018 |

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# RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|---|---|---|
| RF180724W016-5 | Original release | Sep. 07, 2018 |

# 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** | **REMARK** |
| 2.1046<br>27.50(d)(4) | Maximum Peak Output Power | PASS | Meet the requirement of limit. |
| 2.1055<br>27.54 | Frequency Stability | N/A(see note) | Meet the requirement of limit. |
| 2.1049<br>27.53(h) | Occupied Bandwidth | N/A(see note) | Meet the requirement of limit. |
| 27.50(d)(5) | Peak to average ratio | N/A(see note) | Meet the requirement of limit. |
| 27.53(h) | Band Edge Measurements | N/A(see note) | Meet the requirement of limit. |
| 2.1051<br>27.53(h) | Conducted Spurious Emissions | N/A(see note) | Meet the requirement of limit. |
| 2.1053<br>27.53(h) | Radiated Spurious Emissions | PASS | Meet the requirement of limit. Minimum passing margin is -24.13dB at 2338.000MHz. |

Note: The product PAX S920 is fully integrated the LTE module Quectel BG96 (FCC ID: XMR201707BG96), no other modification on the LTE Module radio parameter such as power, frequency range, modulation etc., for this report only test E.I.R.P and Radiated Spurious Emissions, other test data are copied from the module report. Please refer to this report for details.

## 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 | FREQUENCY | UNCERTAINTY |
|---|---|---|
| Conducted emissions | 9kHz~30MHz | 2.66dB |
| Radiated emissions | 9KHz ~ 30MHz | 2.68dB |
| | 30MHz ~ 1GMHz | 3.26dB |
| | 1GHz ~ 18GHz | 4.48dB |
| | 18GHz ~ 40GHz | 4.12dB |

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

## 1.2 EST SITE AND INSTRUMENTS

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|---|---|---|---|---|---|
| MXE EMI Receiver | KEYSIGHT | N9038A-544 | MY54450026 | Mar. 16,18 | Mar. 15,19 |
| EXA Signal Analyzer | KEYSIGHT | N9010A-526 | MY54510322 | Mar. 16,18 | Mar. 15,19 |
| Bilog Antenna 1 | ETS-LINDGREN | 3143B | 00161964 | Nov. 26,16 | Nov. 25,18 |
| Bilog Antenna 2 | ETS-LINDGREN | 3143B | 00161965 | Nov. 26,16 | Nov. 25,18 |
| Horn Antenna 1 | ETS-LINDGREN | 3117 | 00168728 | Nov. 26,16 | Nov. 25,18 |
| Horn Antenna 2 | ETS-LINDGREN | 3117 | 00168692 | Nov. 26,16 | Nov. 25,18 |
| Loop antenna | Daze | ZN30900A | 0708 | Nov. 20,17 | Nov. 19,18 |
| Horn Antenna (18GHz-40GHz) | N/A | QWH-SL-18-40-K-SG/QMS-00361 | 15433 | Dec. 16,16 | Dec. 15,18 |
| Radio Communication Analyzer | ANRITSU | MT8820C | 6201465426 | Mar. 02,18 | Mar. 01,19 |
| Signal Pre-Amplifier | EMSI | EMC 9135 | 980249 | Jul. 09,18 | Jul. 08,19 |
| Signal Pre-Amplifier | EMSI | EMC 012645B | 980257 | Jul. 09,18 | Jul. 08,19 |
| Signal Pre-Amplifier | EMSI | EMC 184045B | 980259 | Jul. 09,18 | Jul. 08,19 |
| 3m Semi-anechoic Chamber | ETS-LINDGREN | 9m*6m*6m | Euroshieldpn-CT0001143-1216 | Apr. 21,18 | Apr. 20,19 |
| Test Software | E3 | V 9.160323 | N/A | N/A | N/A |
| Test Software | ADT | ADT_Radiated_V7.6.15.9.2 | N/A | N/A | N/A |
| 10dB Attenuator | JFW/USA | 50HF-010-SMA | 1505 | Jul. 09,18 | Jul. 08,19 |
| Power Meter | Anritsu | ML2495A | 1506002 | Mar. 02,18 | Mar. 01,19 |
| Power Sensor | Anritsu | MA2411B | 1339352 | Mar. 16,18 | Mar. 15,19 |
| Humid & Temp Programmable Tester | Juyi | ITH-120-45-CP-AR | IAA1504-001 | Jul. 09,18 | Jul. 08,19 |
| MXG Analog Microvave Signal Generator | KEYSIGHT | N5183A | MY50143024 | Mar. 13,18 | Mar. 12,19 |

**NOTE:** 1. The calibration interval of the above test instruments is 12 months or 24 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.

# 2 GENERAL INFORMATION

## 2.1 GENERAL DESCRIPTION OF EUT

| | | |
|---|---|---|
| **PRODUCT** | Mobile Payment Terminal | |
| **MODEL NAME** | S920 | |
| **POWER SUPPLY** | 5Vdc (adapter or host equipment)<br>3.6Vdc (Li-ion, battery) | |
| **MODULATION TECHNOLOGY** | **LTE** | QPSK, 16QAM |
| **FREQUENCY RANGE** | **LTE Band 4<br>Channel Bandwidth: 1.4MHz** | 1710.7MHz ~ 1754.3MHz |
| | **LTE Band 4<br>Channel Bandwidth: 3MHz** | 1711.5MHz ~ 1753.5MHz |
| | **LTE Band 4<br>Channel Bandwidth: 5MHz** | 1712.5MHz ~ 1752.5MHz |
| | **LTE Band 4<br>Channel Bandwidth: 10MHz** | 1715.0MHz ~ 1750.0MHz |
| | **LTE Band 4<br>Channel Bandwidth: 15MHz** | 1717.5MHz ~ 1747.5MHz |
| | **LTE Band 4<br>Channel Bandwidth: 20MHz** | 1720.0MHz ~ 1745.0MHz |
| | **LTE Band 12<br>Channel Bandwidth: 1.4MHz** | 699.7MHz ~ 715.3MHz |
| | **LTE Band 12<br>Channel Bandwidth: 3MHz** | 700.5MHz ~ 714.5MHz |
| | **LTE Band 12<br>Channel Bandwidth: 5MHz** | 701.5MHz ~ 713.5MHz |
| | **LTE Band 12<br>Channel Bandwidth: 10MHz** | 704.0MHz ~ 711.0MHz |
| | **LTE Band 13<br>Channel Bandwidth: 5MHz** | 779.5MHZ ~ 784.5MHZ |
| | **LTE Band 13<br>Channel Bandwidth: 10MHz** | 782.0MHZ |
| **EMISSION DESIGNATOR** | **LTE Band 4<br>Channel Bandwidth: 1.4MHz** | QPSK: 1M12G7D |
| | | 16QAM: 0M95W7D |
| | **LTE Band 4<br>Channel Bandwidth: 3MHz** | QPSK: 1M15G7D |
| | | 16QAM: 0M98W7D |
| | **LTE Band 4<br>Channel Bandwidth: 5MHz** | QPSK: 1M15G7D |
| | | 16QAM: 1M02W7D |
| | **LTE Band 4<br>Channel Bandwidth: 10MHz** | QPSK: 1M19G7D |
| | | 16QAM: 1M07W7D |
| | **LTE Band 4<br>Channel Bandwidth: 15MHz** | QPSK: 1M20G7D |
| | | 16QAM: 1M09W7D |

| | | |
|---|---|---|
| **EMISSION DESIGNATOR** | **LTE Band 4 Channel Bandwidth: 20MHz** | QPSK: 1M11G7D |
| | | 16QAM: 1M11W7D |
| | **LTE Band 12 Channel Bandwidth: 1.4MHz** | QPSK: 1M15G7D |
| | | 16QAM: 0M95W7D |
| | **LTE Band 12 Channel Bandwidth: 3MHz** | QPSK: 1M15G7D |
| | | 16QAM: 0M99W7D |
| | **LTE Band 12 Channel Bandwidth: 5MHz** | QPSK: 1M15G7D |
| | | 16QAM: 1M00W7D |
| | **LTE Band 12 Channel Bandwidth: 10MHz** | QPSK: 1M21G7D |
| | | 16QAM: 1M08W7D |
| | **LTE Band 13 Channel Bandwidth: 5MHz** | QPSK: 1M15G7D |
| | | 16QAM: 1M00W7D |
| | **LTE Band 13 Channel Bandwidth: 10MHz** | QPSK: 1M19G7D |
| | | 16QAM: 1M05W7D |
| **MAX. ERP/EIRP POWER** | **LTE Band 4 Channel Bandwidth: 1.4MHz** | 143mW |
| | **LTE Band 4 Channel Bandwidth: 3MHz** | 146mW |
| | **LTE Band 4 Channel Bandwidth: 5MHz** | 143mW |
| | **LTE Band 4 Channel Bandwidth: 10MHz** | 136mW |
| | **LTE Band 4 Channel Bandwidth: 15MHz** | 128mW |
| | **LTE Band 4 Channel Bandwidth: 20MHz** | 109mW |
| | **LTE Band 12 Channel Bandwidth: 1.4MHz** | 127mW |
| | **LTE Band 12 Channel Bandwidth: 3MHz** | 133mW |
| | **LTE Band 12 Channel Bandwidth: 5MHz** | 133mW |
| | **LTE Band 12 Channel Bandwidth: 10MHz** | 119mW |
| | **LTE Band 13 Channel Bandwidth: 5MHz** | 114mW |
| | **LTE Band 13 Channel Bandwidth: 10MHz** | 99mW |

| | | |
|---|---|---|
| **ANTENNA TYPE** | **LTE Band 4** | Fixed Internal Antenna with 1.0dBi |
| | **LTE Band 12/ LTE Band 13** | Fixed Internal Antenna with 0.8dBi |
| **HW VERSION** | S920-xxx-xxx-xxxx | |
| **ACCESSORY DEVICE** | Refer to note as below | |
| **DATA CABLE** | N/A | |

**NOTE**:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. The EUT was powered by the following adapter:

| **ADAPTER** | |
|---|---|
| **BRAND:** | Shenzhen Sorghum red Electronics Technology Co., Ltd |
| **MODEL:** | GLH50D1000HW |
| **INPUT:** | AC 100-240V, 400mA |
| **OUTPUT:** | DC 5V, 1000mA |

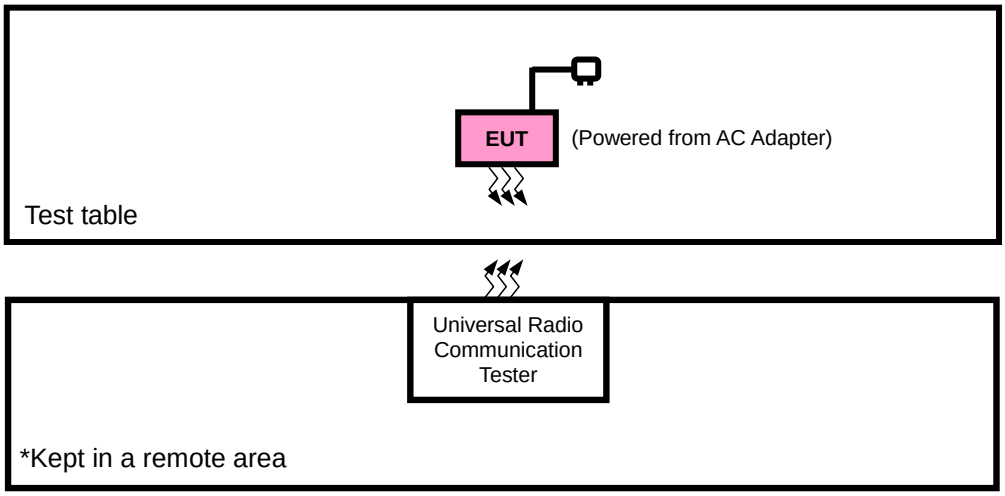
3. There were Sample A and B for this project, one carries a GPS module and the other removes it. The difference is as below, the sample A was worst and record in report

| SAMPLE | SW VERSION | GPS |
|---|---|---|
| **A** | V0.0.0.1 | With GPS |
| **B** | V0.0.0.2 | Without GPS |

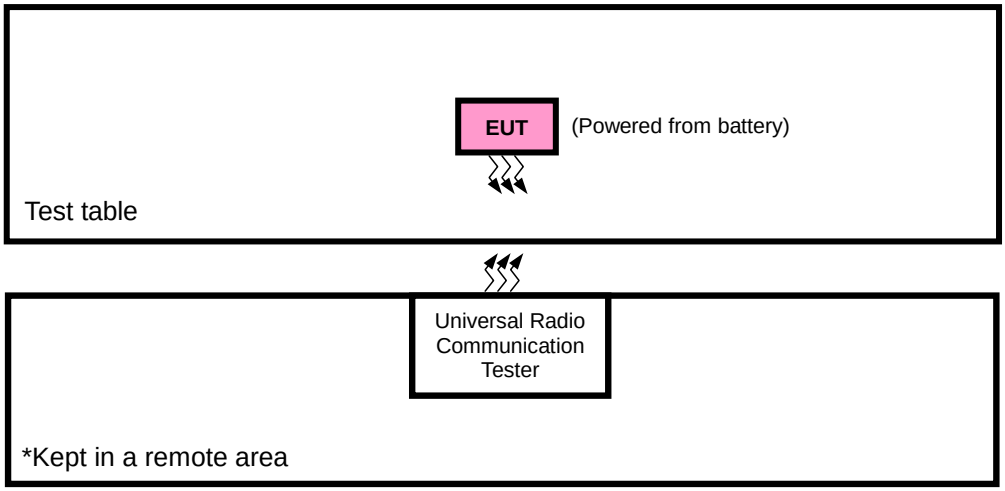
4. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

## 2.2 CONFIGURATION OF SYSTEM UNDER TEST

### FOR RADIATION EMISSION TEST




### FOR CONDUCTED & E.R.P./E.I.R.P 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 | DC source | LONG WEI | PS-6403D | 010934269 | N/A |
| 2 | PC | HP | A6608CN | 3CR83825X3 | N/A |

| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|---|---|
| 1 | DC Line: Unshielded, Detachable 1.0m |
| 2 | AC Line: Unshielded, Detachable 1.5m |

**NOTE:**

1. All power cords of the above support units are non shielded (1.8m).

## 2.4 DESCRIPTION OF TEST MODES

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 in ERP/EIRP and radiated emission was found when positioned on X-plane for LTE. 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 + Battery with **LTE link** |

## LTE BAND 4

| EUT CONFIGURE MODE | TEST ITEM | AVAILABLE CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE |
|---|---|---|---|---|---|---|
| B | EIRP | 19957 to 20393 | 19957, 20175, 20393 | 1.4MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 19965 to 20385 | 19965, 20175, 20385 | 3MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 19975 to 20375 | 19975, 20175, 20375 | 5MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 20000 to 20350 | 20000, 20175, 20350 | 10MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 20025 to 20325 | 20025, 20175, 20325 | 15MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 20050 to 20300 | 20050, 20175, 20300 | 20MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| B | FREQUENCY STABILITY | 19957 to 20393 | 19957, 20393 | 1.4MHz | QPSK | 1 RB / 0 RB Offset |
| | | 19965 to 20385 | 19965, 20385 | 3MHz | QPSK | 1 RB / 0 RB Offset |
| | | 19975 to 20375 | 19975, 20375 | 5MHz | QPSK | 1 RB / 0 RB Offset |
| | | 20000 to 20350 | 20000, 20350 | 10MHz | QPSK | 1 RB / 0 RB Offset |
| | | 20025 to 20325 | 20025, 20325 | 15MHz | QPSK | 1 RB / 0 RB Offset |
| | | 20050 to 20300 | 20050, 20300 | 20MHz | QPSK | 1 RB / 0 RB Offset |
| B | OCCUPIED BANDWIDTH | 19957 to 20393 | 19957, 20175, 20393 | 1.4MHz | QPSK, 16QAM | 6 RB / 0 RB Offset |
| | | 19965 to 20385 | 19965, 20175, 20385 | 3MHz | QPSK, 16QAM | 15 RB / 0 RB Offset |
| | | 19975 to 20375 | 19975, 20175, 20375 | 5MHz | QPSK, 16QAM | 25 RB / 0 RB Offset |
| | | 20000 to 20350 | 20000, 20175, 20350 | 10MHz | QPSK, 16QAM | 50 RB / 0 RB Offset |
| | | 20025 to 20325 | 20025, 20175, 20325 | 15MHz | QPSK, 16QAM | 75 RB / 0 RB Offset |
| | | 20050 to 20300 | 20050, 20175, 20300 | 20MHz | QPSK, 16QAM | 100 RB / 0 RB Offset |
| B | PEAK TO AVERAGE RATIO | 19957 to 20393 | 19957, 20175, 20393 | 1.4MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 19965 to 20385 | 19965, 20175, 20385 | 3MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 19975 to 20375 | 19975, 20175, 20375 | 5MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 20000 to 20350 | 20000, 20175, 20350 | 10MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 20025 to 20325 | 20025, 20175, 20325 | 15MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 20050 to 20300 | 20050, 20175, 20300 | 20MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| B | BAND EDGE | 19957 to 20393 | 19957 | 1.4MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 6 RB / 0 RB Offset |
| | | | 20393 | 1.4MHz | QPSK | 1 RB / 5 RB Offset |
| | | | | | | 6 RB / 0 RB Offset |
| | | 19965 to 20385 | 19965 | 3MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 15 RB / 0 RB Offset |
| | | | 20385 | 3MHz | QPSK | 1 RB / 14 RB Offset |
| | | | | | | 15 RB / 0 RB Offset |
| | | 19975 to 20375 | 19975 | 5MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 25 RB / 0 RB Offset |
| | | | 20375 | 5MHz | QPSK | 1 RB / 24 RB Offset |
| | | | | | | 25 RB / 0 RB Offset |
| | | 20000 to 20350 | 20000 | 10MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 50 RB / 0 RB Offset |
| | | | 20350 | 10MHz | QPSK | 1 RB / 49 RB Offset |
| | | | | | | 50 RB / 0 RB Offset |

| | | | | | | |
|---|---|---|---|---|---|---|
| B | BAND EDGE | 20025 to 20325 | 20025 | 15MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 75 RB / 0 RB Offset |
| | | | 20325 | 15MHz | QPSK | 1 RB / 74 RB Offset |
| | | | | | | 75 RB / 0 RB Offset |
| | | 20050 to 20300 | 20050 | 20MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 100 RB / 0 RB Offset |
| | | | 20300 | 20MHz | QPSK | 1 RB / 99 RB Offset |
| | | | | | | 100 RB / 0 RB Offset |
| B | CONDCUDETED EMISSION | 19957 to 20393 | 19957, 20175, 20393 | 1.4MHz | QPSK | 1 RB / 0 RB Offset |
| | | 19965 to 20385 | 19965, 20175, 20385 | 3MHz | QPSK | 1 RB / 0 RB Offset |
| | | 19975 to 20375 | 19975, 20175, 20375 | 5MHz | QPSK | 1 RB / 0 RB Offset |
| | | 20000 to 20350 | 20000, 20175, 20350 | 10MHz | QPSK | 1 RB / 0 RB Offset |
| | | 20025 to 20325 | 20025, 20175, 20325 | 15MHz | QPSK | 1 RB / 0 RB Offset |
| | | 20050 to 20300 | 20050, 20175, 20300 | 20MHz | QPSK | 1 RB / 0 RB Offset |
| A | RADIATED EMISSION | 19957 to 20393 | 20175 | 1.4MHz | QPSK | 1 RB / 0 RB Offset |
| | | 19965 to 20385 | 20175 | 3MHz | QPSK | 1 RB / 0 RB Offset |
| | | 19975 to 20375 | 20175 | 5MHz | QPSK | 1 RB / 0 RB Offset |
| | | 20000 to 20350 | 20000, 20175, 20350 | 10MHz | QPSK | 1 RB / 0 RB Offset |
| | | 20025 to 20325 | 20175 | 15MHz | QPSK | 1 RB / 0 RB Offset |
| | | 20050 to 20300 | 20175 | 20MHz | QPSK | 1 RB / 0 RB Offset |

**Note:** This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

## LTE BAND 12

| EUT CONFIGURE MODE | TEST ITEM | AVAILABLE CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE |
|---|---|---|---|---|---|---|
| B | ERP | 23017 to 23173 | 23017, 23095 , 23173 | 1.4MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 23025 to 23165 | 23025, 23095 ,23165 | 3MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 23035 to 23155 | 23035, 23095 ,23155 | 5MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 23060 to 23130 | 23060, 23095 ,23130 | 10MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| B | FREQUENCY STABILITY | 23017 to 23173 | 23017, 23173 | 1.4MHz | QPSK | 1 RB / 0 RB Offset |
| | | 23025 to 23165 | 23025, 23165 | 3MHz | QPSK | 1 RB / 0 RB Offset |
| | | 23035 to 23155 | 23035, 23155 | 5MHz | QPSK | 1 RB / 0 RB Offset |
| | | 23060 to 23130 | 23060, 23130 | 10MHz | QPSK | 1 RB / 0 RB Offset |
| B | OCCUPIED BANDWIDTH | 23017 to 23173 | 23017, 23095 , 23173 | 1.4MHz | QPSK, 16QAM | 6 RB / 0 RB Offset |
| | | 23025 to 23165 | 23025, 23095 ,23165 | 3MHz | QPSK, 16QAM | 15 RB / 0 RB Offset |
| | | 23035 to 23155 | 23035, 23095 ,23155 | 5MHz | QPSK, 16QAM | 25 RB / 0 RB Offset |
| | | 23060 to 23130 | 23060, 23095 ,23130 | 10MHz | QPSK, 16QAM | 50 RB / 0 RB Offset |
| B | PEAK TO AVERAGE RATIO | 23017 to 23173 | 23017, 23095 , 23173 | 1.4MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 23025 to 23165 | 23025, 23095 ,23165 | 3MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 23035 to 23155 | 23035, 23095 ,23155 | 5MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 23060 to 23130 | 23060, 23095 ,23130 | 10MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| B | BAND EDGE | 23017 to 23173 | 23017 | 1.4MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 6 RB / 0 RB Offset |
| | | | 23173 | 1.4MHz | QPSK | 1 RB / 5 RB Offset |
| | | | | | | 6 RB / 0 RB Offset |
| | | 23025 to 23165 | 23025 | 3MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 15 RB / 0 RB Offset |
| | | | 23165 | 3MHz | QPSK | 1 RB / 14 RB Offset |
| | | | | | | 15 RB / 0 RB Offset |
| | | 23035 to 23155 | 23035 | 5MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 25 RB / 0 RB Offset |
| | | | 23155 | 5MHz | QPSK | 1 RB / 24 RB Offset |
| | | | | | | 25 RB / 0 RB Offset |
| | | 23060 to 23130 | 23060 | 10MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 50 RB / 0 RB Offset |
| | | | 23130 | 10MHz | QPSK | 1 RB / 49 RB Offset |
| | | | | | | 50 RB / 0 RB Offset |
| B | CONDCUDETED EMISSION | 23017 to 23173 | 23017, 23095 , 23173 | 1.4MHz | QPSK | 1 RB / 0 RB Offset |
| | | 23025 to 23165 | 23025, 23095 ,23165 | 3MHz | QPSK | 1 RB / 0 RB Offset |
| | | 23035 to 23155 | 23035, 23095 ,23155 | 5MHz | QPSK | 1 RB / 0 RB Offset |
| | | 23060 to 23130 | 23060, 23095 ,23130 | 10MHz | QPSK | 1 RB / 0 RB Offset |
| A | RADIATED EMISSION | 23017 to 23173 | 23095 | 1.4MHz | QPSK | 1 RB / 0 RB Offset |
| | | 23025 to 23165 | 23095 | 3MHz | QPSK | 1 RB / 0 RB Offset |
| | | 23035 to 23155 | 23095 | 5MHz | QPSK | 1 RB / 0 RB Offset |
| | | 23060 to 23130 | 23060, 23095 ,23130 | 10MHz | QPSK | 1 RB / 0 RB Offset |

**Note:** This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

**LTE BAND 13**

| EUT CONFIGURE MODE | TEST ITEM | AVAILABLE CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE |
|---|---|---|---|---|---|---|
| B | ERP | 23205 to 23255 | 23205, 23230, 23255 | 5MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 23230 | 23230 | 10MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| B | FREQUENCY STABILITY | 23205 to 23255 | 23205, 23255 | 5MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 23230 | 23230 | 10MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| B | OCCUPIED BANDWIDTH | 23205 to 23255 | 23205, 23230, 23255 | 5MHz | QPSK, 16QAM | 25 RB / 0 RB Offset |
| | | 23230 | 23230 | 10MHz | QPSK, 16QAM | 50 RB / 0 RB Offset |
| B | PEAK TO AVERAGE RATIO | 23205 to 23255 | 23205, 23230, 23255 | 5MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 23230 | 23230 | 10MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| B | BAND EDGE | 23205 to 23255 | 23205 | 5MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 25 RB / 0 RB Offset |
| | | | 23255 | 5MHz | QPSK | 1 RB / 24 RB Offset |
| | | | | | | 25 RB / 0 RB Offset |
| | | 23230 | 23230 | 10MHz | QPSK | 1 RB / 0 RB Offset |
| | | | | | | 50 RB / 0 RB Offset |
| | | | 23230 | 10MHz | QPSK | 1 RB / 49 RB Offset |
| | | | | | | 50 RB / 0 RB Offset |
| B | CONDCUDETED EMISSION | 23205 to 23255 | 23205, 23230, 23255 | 5MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 23230 | 23230 | 10MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| A | RADIATED EMISSION | 23205 to 23255 | 23205, 23230, 23255 | 5MHz | QPSK | 1 RB / 0 RB Offset |
| | | 23230 | 23230 | 10MHz | QPSK | 1 RB / 0 RB Offset |

**Note:** This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

**TEST CONDITION:**

| TEST ITEM | ENVIRONMENTAL CONDITIONS | INPUT POWER | TESTED BY |
|---|---|---|---|
| EIRP(ERP) | 24deg. C, 60%RH | 3.6Vdc from Battery | Vincent Chen |
| FREQUENCY STABILITY | 24deg. C, 61%RH | DC 4.75V/5V/5.25V | Bert Ma |
| OCCUPIED BANDWIDTH | 24deg. C, 61%RH | 3.6Vdc from Battery | Bert Ma |
| PEAK TO AVERAGE RATIO | 24deg. C, 61%RH | 3.6Vdc from Battery | Bert Ma |
| BAND EDGE | 24deg. C, 61%RH | 3.6Vdc from Battery | Bert Ma |
| CONDCUDETED EMISSION | 24deg. C, 61%RH | 3.6Vdc from Battery | Bert Ma |
| RADIATED EMISSION | 24deg. C, 60%RH | DC 5V from adaptor | Vincent Chen |

## 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**

**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

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

Portable stations (hand-held devices) operating in the 699-716 MHz bands are limited to 3 watts ERP.

### 3.1.2 TEST PROCEDURES

**EIRP / ERP MEASUREMENT:**

a. The EUT was set up for the maximum power with LTE link data modulation. The power was measured with R&S Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range). RBW and VBW is 10MHz for LTE.

b. E.I.R.P power 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.

c. 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

d. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn

e. E.R.P = E.I.R.P- 2.15 dB

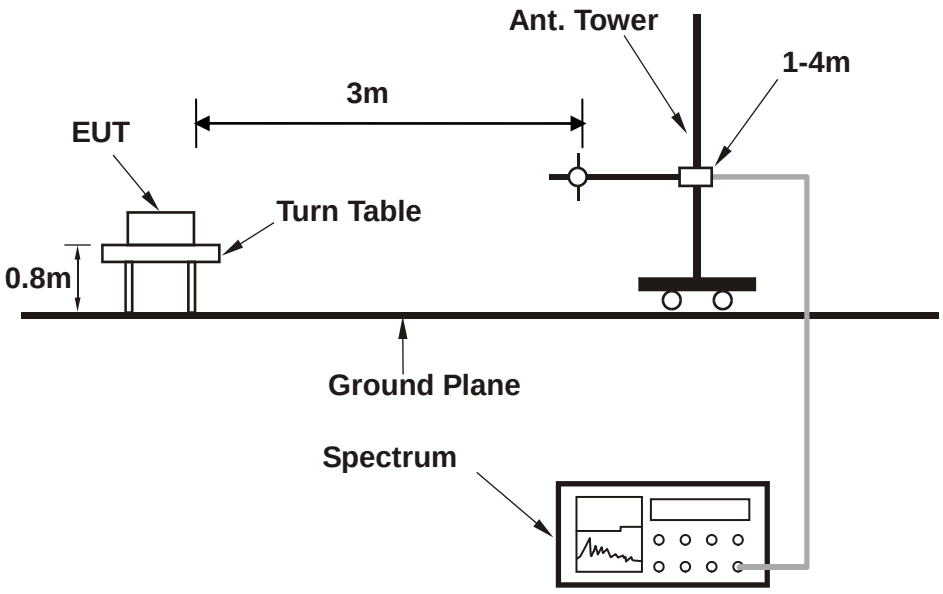
**CONDUCTED POWER MEASUREMENT:**

a. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.

b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

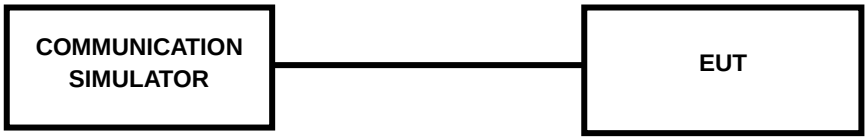
## 3.1.3 TEST SETUP

**EIRP / ERP MEASUREMENT:**




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

**CONDUCTED POWER MEASUREMENT:**




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

## 3.1.4 TEST RESULTS

### AVERAGE CONDUCTED OUTPUT POWER (dBm)

The test results was recorded in Report No.:RXA1706-0199RF03R1.

### EIRP

### LTE BAND 4

### CHANNEL BANDWIDTH: 1.4MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 19957 | 1710.7 | -21.93 | 41.29 | 19.36 | 86.38 | H | 1 |
| 20175 | 1732.5 | -22.18 | 41.36 | 19.18 | 82.79 | H | 1 |
| 20393 | 1754.3 | -21.17 | 42.74 | 21.57 | **143.48** | H | 1 |
| 19957 | 1710.7 | -29.11 | 44.25 | 15.14 | 32.62 | V | 1 |
| 20175 | 1732.5 | -29.00 | 44.20 | 15.20 | 33.11 | V | 1 |
| 20393 | 1754.3 | -28.33 | 44.09 | 15.76 | 37.63 | V | 1 |

### CHANNEL BANDWIDTH: 1.4MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 19957 | 1710.7 | -22.80 | 41.29 | 18.49 | 70.70 | H | 1 |
| 20175 | 1732.5 | -23.11 | 41.36 | 18.25 | 66.83 | H | 1 |
| 20393 | 1754.3 | -22.13 | 42.74 | 20.61 | 115.03 | H | 1 |
| 19957 | 1710.7 | -29.98 | 44.25 | 14.27 | 26.70 | V | 1 |
| 20175 | 1732.5 | -29.93 | 44.20 | 14.27 | 26.73 | V | 1 |
| 20393 | 1754.3 | -29.29 | 44.09 | 14.80 | 30.16 | V | 1 |

## LTE BAND 4

### CHANNEL BANDWIDTH: 3MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 19965 | 1711.5 | -21.91 | 41.27 | 19.36 | 86.24 | H | 1 |
| 20175 | 1732.5 | -22.24 | 41.36 | 19.12 | 81.66 | H | 1 |
| 20385 | 1753.5 | -21.12 | 42.76 | 21.64 | **145.78** | H | 1 |
| 19965 | 1711.5 | -29.09 | 44.26 | 15.17 | 32.90 | V | 1 |
| 20175 | 1732.5 | -29.06 | 44.20 | 15.14 | 32.66 | V | 1 |
| 20385 | 1753.5 | -28.28 | 44.23 | 15.95 | 39.37 | V | 1 |

### CHANNEL BANDWIDTH: 3MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 19965 | 1711.5 | -22.98 | 41.27 | 18.29 | 67.41 | H | 1 |
| 20175 | 1732.5 | -23.13 | 41.36 | 18.23 | 66.53 | H | 1 |
| 20385 | 1753.5 | -22.11 | 42.76 | 20.65 | 116.06 | H | 1 |
| 19965 | 1711.5 | -30.16 | 44.26 | 14.10 | 25.72 | V | 1 |
| 20175 | 1732.5 | -29.95 | 44.20 | 14.25 | 26.61 | V | 1 |
| 20385 | 1753.5 | -29.27 | 44.23 | 14.96 | 31.35 | V | 1 |

## LTE BAND 4

### CHANNEL BANDWIDTH: 5MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 19975 | 1712.5 | -21.97 | 41.39 | 19.42 | 87.48 | H | 1 |
| 20175 | 1732.5 | -22.19 | 41.36 | 19.17 | 82.60 | H | 1 |
| 20375 | 1752.5 | -21.07 | 42.63 | 21.56 | **143.19** | H | 1 |
| 19975 | 1712.5 | -29.15 | 44.17 | 15.02 | 31.74 | V | 1 |
| 20175 | 1732.5 | -29.01 | 44.20 | 15.19 | 33.04 | V | 1 |
| 20375 | 1752.5 | -28.23 | 44.35 | 16.12 | 40.88 | V | 1 |

### CHANNEL BANDWIDTH: 5MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 19975 | 1712.5 | -22.80 | 41.39 | 18.59 | 72.26 | H | 1 |
| 20175 | 1732.5 | -23.21 | 41.36 | 18.15 | 65.31 | H | 1 |
| 20375 | 1752.5 | -22.17 | 42.63 | 20.46 | 111.15 | H | 1 |
| 19975 | 1712.5 | -29.98 | 44.17 | 14.19 | 26.22 | V | 1 |
| 20175 | 1732.5 | -30.03 | 44.20 | 14.17 | 26.12 | V | 1 |
| 20375 | 1752.5 | -29.33 | 44.35 | 15.02 | 31.73 | V | 1 |

## LTE BAND 4

### CHANNEL BANDWIDTH: 10MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 20000 | 1715.0 | -21.78 | 41.49 | 19.71 | 93.45 | H | 1 |
| 20175 | 1732.5 | -22.13 | 41.36 | 19.23 | 83.75 | H | 1 |
| 20350 | 1750.0 | -20.94 | 42.28 | 21.34 | **136.24** | H | 1 |
| 20000 | 1715.0 | -28.96 | 44.06 | 15.10 | 32.38 | V | 1 |
| 20175 | 1732.5 | -28.95 | 44.20 | 15.25 | 33.50 | V | 1 |
| 20350 | 1750.0 | -28.10 | 44.43 | 16.33 | 42.95 | V | 1 |

### CHANNEL BANDWIDTH: 10MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 20000 | 1715.0 | -22.93 | 41.49 | 18.56 | 71.71 | H | 1 |
| 20175 | 1732.5 | -23.23 | 41.36 | 18.13 | 65.01 | H | 1 |
| 20350 | 1750.0 | -22.10 | 42.28 | 20.18 | 104.30 | H | 1 |
| 20000 | 1715.0 | -30.11 | 44.06 | 13.95 | 24.85 | V | 1 |
| 20175 | 1732.5 | -30.05 | 44.20 | 14.15 | 26.00 | V | 1 |
| 20350 | 1750.0 | -29.26 | 44.43 | 15.17 | 32.89 | V | 1 |

## LTE BAND 4

### CHANNEL BANDWIDTH: 15MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 20025 | 1717.5 | -21.79 | 41.34 | 19.55 | 90.12 | H | 1 |
| 20175 | 1732.5 | -22.20 | 41.36 | 19.16 | 82.41 | H | 1 |
| 20325 | 1747.5 | -21.01 | 42.09 | 21.08 | **128.12** | H | 1 |
| 20025 | 1717.5 | -28.97 | 44.04 | 15.07 | 32.17 | V | 1 |
| 20175 | 1732.5 | -29.02 | 44.20 | 15.18 | 32.96 | V | 1 |
| 20325 | 1747.5 | -28.17 | 44.22 | 16.05 | 40.23 | V | 1 |

### CHANNEL BANDWIDTH: 15MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 20025 | 1717.5 | -22.65 | 41.34 | 18.69 | 73.93 | H | 1 |
| 20175 | 1732.5 | -23.07 | 41.36 | 18.29 | 67.45 | H | 1 |
| 20325 | 1747.5 | -21.86 | 42.09 | 20.23 | 105.34 | H | 1 |
| 20025 | 1717.5 | -29.83 | 44.04 | 14.21 | 26.39 | V | 1 |
| 20175 | 1732.5 | -29.89 | 44.20 | 14.31 | 26.98 | V | 1 |
| 20325 | 1747.5 | -29.02 | 44.22 | 15.20 | 33.08 | V | 1 |

## LTE BAND 4

### CHANNEL BANDWIDTH: 20MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 20050 | 1720.0 | -22.37 | 41.28 | 18.91 | 77.82 | H | 1 |
| 20175 | 1732.5 | -22.65 | 41.36 | 18.71 | 74.32 | H | 1 |
| 20300 | 1745.0 | -21.59 | 41.96 | 20.37 | **108.82** | H | 1 |
| 20050 | 1720.0 | -29.55 | 44.14 | 14.59 | 28.74 | V | 1 |
| 20175 | 1732.5 | -29.47 | 44.20 | 14.73 | 29.69 | V | 1 |
| 20300 | 1745.0 | -28.75 | 43.88 | 15.13 | 32.60 | V | 1 |

### CHANNEL BANDWIDTH: 20MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 20050 | 1720.0 | -23.30 | 41.28 | 17.98 | 62.82 | H | 1 |
| 20175 | 1732.5 | -23.72 | 41.36 | 17.64 | 58.09 | H | 1 |
| 20300 | 1745.0 | -22.42 | 41.96 | 19.54 | 89.89 | H | 1 |
| 20050 | 1720.0 | -30.48 | 44.14 | 13.66 | 23.20 | V | 1 |
| 20175 | 1732.5 | -30.54 | 44.20 | 13.66 | 23.21 | V | 1 |
| 20300 | 1745.0 | -29.58 | 43.88 | 14.30 | 26.93 | V | 1 |

**REMARKS:** 1. EIRP Output Power (dBm) = SPA LVL (dBm) + Correction Factor (dB).
2. Correction factor (dB) = Free Space Loss + Antenna Factor + Cable Loss

## LTE BAND 12

### CHANNEL BANDWIDTH: 1.4MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23017 | 699.7 | -10.82 | 32.77 | 19.80 | 95.50 | H | 3 |
| 23095 | 707.5 | -10.99 | 33.23 | 20.09 | 102.09 | H | 3 |
| 23173 | 715.3 | -9.96 | 33.14 | 21.03 | **126.71** | H | 3 |
| 23017 | 699.7 | -20.34 | 32.42 | 9.93 | 9.83 | V | 3 |
| 23095 | 707.5 | -19.87 | 32.60 | 10.58 | 11.43 | V | 3 |
| 23173 | 715.3 | -20.22 | 32.19 | 9.82 | 9.59 | V | 3 |

### CHANNEL BANDWIDTH: 1.4MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23017 | 699.7 | -11.65 | 32.77 | 18.97 | 78.89 | H | 3 |
| 23095 | 707.5 | -12.01 | 33.23 | 19.07 | 80.72 | H | 3 |
| 23173 | 715.3 | -11.06 | 33.14 | 19.93 | 98.36 | H | 3 |
| 23017 | 699.7 | -21.17 | 32.42 | 9.10 | 8.12 | V | 3 |
| 23095 | 707.5 | -20.89 | 32.60 | 9.56 | 9.04 | V | 3 |
| 23173 | 715.3 | -21.32 | 32.19 | 8.72 | 7.44 | V | 3 |

## LTE BAND 12

### CHANNEL BANDWIDTH: 3MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23025 | 700.5 | -10.63 | 32.63 | 19.85 | 96.63 | H | 3 |
| 23095 | 707.5 | -10.93 | 33.23 | 20.15 | 103.51 | H | 3 |
| 23165 | 714.5 | -9.83 | 33.21 | 21.23 | **132.59** | H | 3 |
| 23025 | 700.5 | -20.15 | 32.33 | 10.03 | 10.06 | V | 3 |
| 23095 | 707.5 | -19.81 | 32.60 | 10.64 | 11.59 | V | 3 |
| 23165 | 714.5 | -20.09 | 32.30 | 10.06 | 10.14 | V | 3 |

### CHANNEL BANDWIDTH: 3MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23025 | 700.5 | -11.78 | 32.63 | 18.70 | 74.15 | H | 3 |
| 23095 | 707.5 | -12.03 | 33.23 | 19.05 | 80.35 | H | 3 |
| 23165 | 714.5 | -10.99 | 33.21 | 20.07 | 101.51 | H | 3 |
| 23025 | 700.5 | -21.30 | 32.33 | 8.88 | 7.72 | V | 3 |
| 23095 | 707.5 | -20.91 | 32.60 | 9.54 | 8.99 | V | 3 |
| 23165 | 714.5 | -21.25 | 32.30 | 8.90 | 7.76 | V | 3 |

## LTE BAND 12

### CHANNEL BANDWIDTH: 5MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23035 | 701.5 | -10.64 | 32.53 | 19.74 | 94.08 | H | 3 |
| 23095 | 707.5 | -11.00 | 33.23 | 20.08 | 101.81 | H | 3 |
| 23155 | 713.5 | -9.90 | 33.29 | 21.24 | **132.95** | H | 3 |
| 23035 | 701.5 | -20.16 | 32.25 | 9.94 | 9.87 | V | 3 |
| 23095 | 707.5 | -19.88 | 32.60 | 10.57 | 11.40 | V | 3 |
| 23155 | 713.5 | -20.16 | 32.39 | 10.08 | 10.18 | V | 3 |

### CHANNEL BANDWIDTH: 5MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23035 | 701.5 | -11.50 | 32.53 | 18.88 | 77.18 | H | 3 |
| 23095 | 707.5 | -11.87 | 33.23 | 19.21 | 83.33 | H | 3 |
| 23155 | 713.5 | -10.75 | 33.29 | 20.39 | 109.32 | H | 3 |
| 23035 | 701.5 | -21.02 | 32.25 | 9.08 | 8.10 | V | 3 |
| 23095 | 707.5 | -20.75 | 32.60 | 9.70 | 9.33 | V | 3 |
| 23155 | 713.5 | -21.01 | 32.39 | 9.23 | 8.37 | V | 3 |

## LTE BAND 12

### CHANNEL BANDWIDTH: 10MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23060 | 704.0 | -11.22 | 32.68 | 19.31 | 85.37 | H | 3 |
| 23095 | 707.5 | -11.45 | 33.23 | 19.63 | 91.83 | H | 3 |
| 23130 | 711.0 | -10.48 | 33.39 | 20.76 | **119.04** | H | 3 |
| 23060 | 704.0 | -20.74 | 32.37 | 9.48 | 8.87 | V | 3 |
| 23095 | 707.5 | -20.33 | 32.60 | 10.12 | 10.28 | V | 3 |
| 23130 | 711.0 | -20.74 | 32.56 | 9.67 | 9.26 | V | 3 |

### CHANNEL BANDWIDTH: 10MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23060 | 704.0 | -12.15 | 32.68 | 18.38 | 68.91 | H | 3 |
| 23095 | 707.5 | -12.52 | 33.23 | 18.56 | 71.78 | H | 3 |
| 23130 | 711.0 | -11.31 | 33.39 | 19.93 | 98.33 | H | 3 |
| 23060 | 704.0 | -21.67 | 32.37 | 8.55 | 7.16 | V | 3 |
| 23095 | 707.5 | -21.40 | 32.60 | 9.05 | 8.04 | V | 3 |
| 23130 | 711.0 | -21.57 | 32.56 | 8.84 | 7.65 | V | 3 |

**REMARKS:** 1. ERP Output Power (dBm) = SPA LVL (dBm) + Correction Factor (dB) -2.15(dB).

2. Correction factor (dB) = Free Space Loss + Antenna Factor + Cable Loss

## LTE BAND 13

### CHANNEL BANDWIDTH: 5MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23205 | 779.5 | -10.55 | 32.60 | 19.90 | 97.72 | H | 3 |
| 23230 | 782.0 | -10.23 | 32.75 | 20.37 | 108.89 | H | 3 |
| 23255 | 784.5 | -10.37 | 33.08 | 20.56 | **113.76** | H | 3 |
| 23205 | 779.5 | -22.49 | 31.54 | 6.90 | 4.90 | V | 3 |
| 23230 | 782.0 | -22.75 | 31.70 | 6.80 | 4.79 | V | 3 |
| 23255 | 784.5 | -22.66 | 31.97 | 7.16 | 5.20 | V | 3 |

### CHANNEL BANDWIDTH: 5MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23205 | 779.5 | -11.08 | 32.60 | 19.37 | 86.50 | H | 3 |
| 23230 | 782.0 | -11.62 | 32.75 | 18.98 | 79.07 | H | 3 |
| 23255 | 784.5 | -11.98 | 33.08 | 18.95 | 78.52 | H | 3 |
| 23205 | 779.5 | -23.55 | 31.54 | 5.84 | 3.84 | V | 3 |
| 23230 | 782.0 | -23.98 | 31.70 | 5.57 | 3.61 | V | 3 |
| 23255 | 784.5 | -23.02 | 31.97 | 6.80 | 4.79 | V | 3 |

**NOTE:** ERP (dBm) = LVL (dBm) + Correction Factor (dB)-2.15dB.

## LTE BAND 13

### CHANNEL BANDWIDTH: 10MHz QPSK

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23230 | 782.0 | -10.66 | 32.75 | 19.94 | **98.63** | H | 3 |
| 23230 | 782.0 | -19.45 | 31.70 | 10.10 | 10.23 | V | 3 |

### CHANNEL BANDWIDTH: 10MHz 16QAM

| Channel | Frequency (MHz) | SPA LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) | LIMIT (W) |
|---|---|---|---|---|---|---|---|
| 23230 | 782.0 | -10.96 | 32.75 | 19.64 | 92.04 | H | 3 |
| 23230 | 782.0 | -20.25 | 31.70 | 9.30 | 8.51 | V | 3 |

**NOTE:** ERP (dBm) = LVL (dBm) + Correction Factor (dB)-2.15dB.

## 3.2 FREQUENCY STABILITY MEASUREMENT

### 3.2.1 LIMITS OF FREQUENCY STABILIITY 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

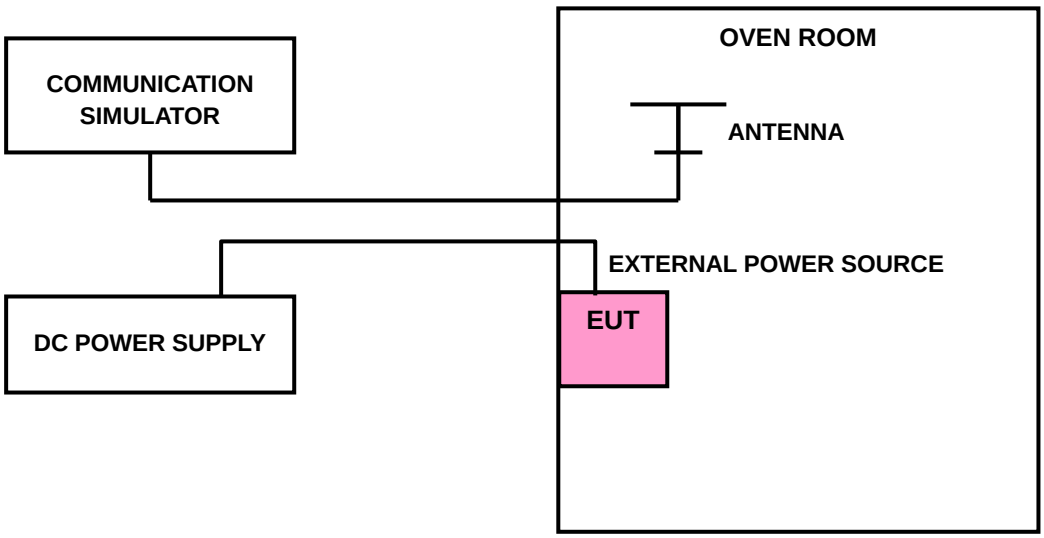
a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.

b. 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.

c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5℃ 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




### 3.2.4 TEST RESULTS

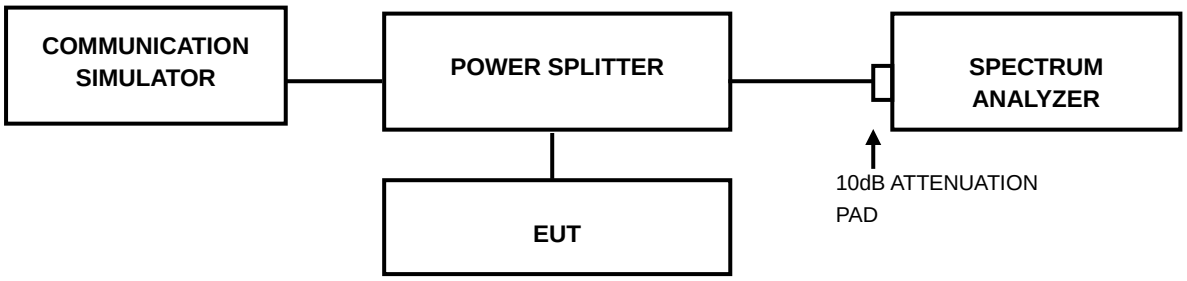
The test results was recorded in Report No.:RXA1706-0199RF03R1.

## 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

a. The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

b. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

### 3.3.4 TEST RESULTS

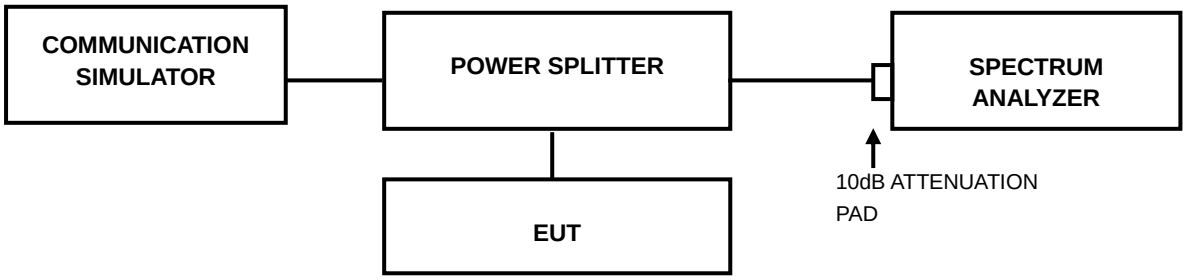
The test results was recorded in Report No.:RXA1706-0199RF03R1.

## 3.4 PEAK TO AVERAGE RATIO

### 3.4.1 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

### 3.4.2 TEST SETUP




### 3.4.3 TEST PROCEDURES

1. Set resolution/measurement bandwidth ≥ 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%.

### 3.4.4 TEST RESULTS

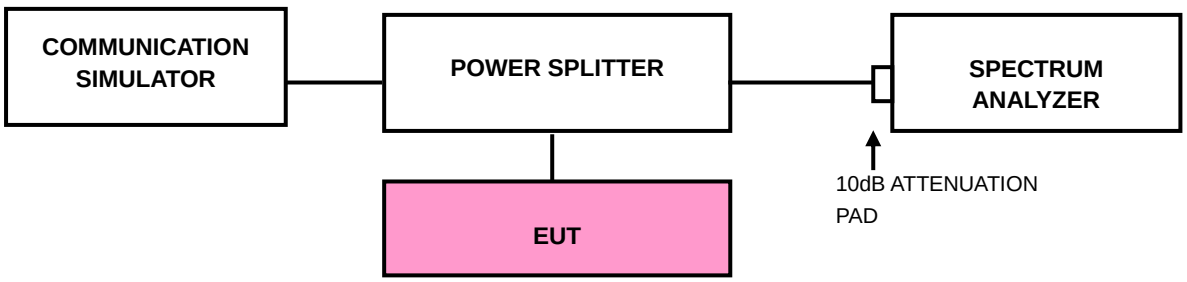
The test results was recorded in Report No.:RXA1706-0199RF03R1.

## 3.5 BAND EDGE MEASUREMENT

### 3.5.1 LIMITS OF BAND EDGE MEASUREMENT

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

### 3.5.2 TEST SETUP



### 3.5.3 TEST PROCEDURES

a. The EUT was set up for the maximum peak power with LTE link data modulation. The power was measured with R&S Spectrum Analyzer. All measurements were done at 2 channels (low and high operational frequency range.).

b. The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

c. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 20kHz and VBW of the spectrum is 100 kHz. (LTE bandwidth 1.4MHz)

d. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 30kHz and VBW of the spectrum is 100kHz. (LTE bandwidth 3MHz)

e. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 50kHz and VBW of the spectrum is 200kHz. (LTE bandwidth 5MHz)

f. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 100kHz and VBW of the spectrum is 300kHz. (LTE bandwidth 10MHz)

g. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 200kHz and VBW of the spectrum is 1MHz. (LTE bandwidth 15MHz)

h. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 200kHz and VBW of the spectrum is 1MHz. (LTE bandwidth 20MHz)

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

### 3.5.4 TEST RESULTS

The test results was recorded in Report No.:RXA1706-0199RF03R1.

## 3.6 CONDUCTED SPURIOUS EMISSIONS

### 3.6.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

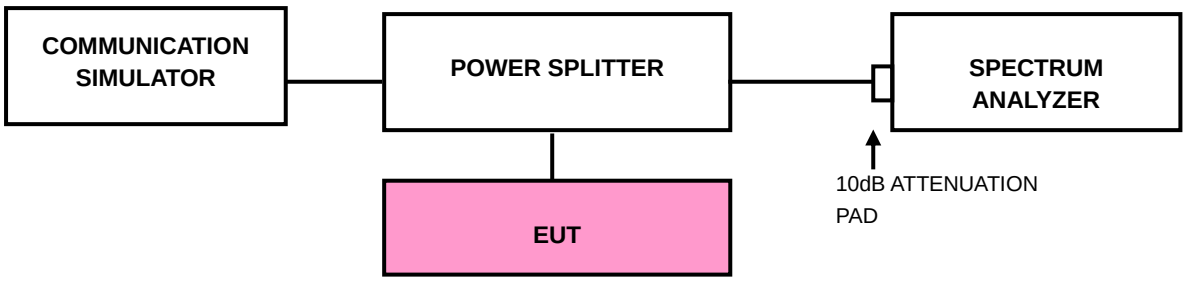
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 +10 log10(P) dB. The limit of emission equal to –13dBm

### 3.6.2 TEST PROCEDURE

a. The EUT makes a phone call to the communication simulator. All measurements were done at middle operational frequency range.

b. Measuring frequency range is from 30 MHz to 19.1GHz for LTE Band 4 and 30 MHz to 9GHz for LTE Band 12 & LTE Band 17. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz are used for conducted emission measurement.

### 3.6.3 TEST SETUP




### 3.6.4 TEST RESULTS

The test results was recorded in Report No.:RXA1706-0199RF03R1.

## 3.7 RADIATED EMISSION MEASUREMENT

### 3.7.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 +10 log10(P) dB. The limit of emission equal to –13dBm

### 3.7.2 TEST PROCEDURES

a. 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.

b. 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

c. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.

d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.P.R power - 2.15dBi.

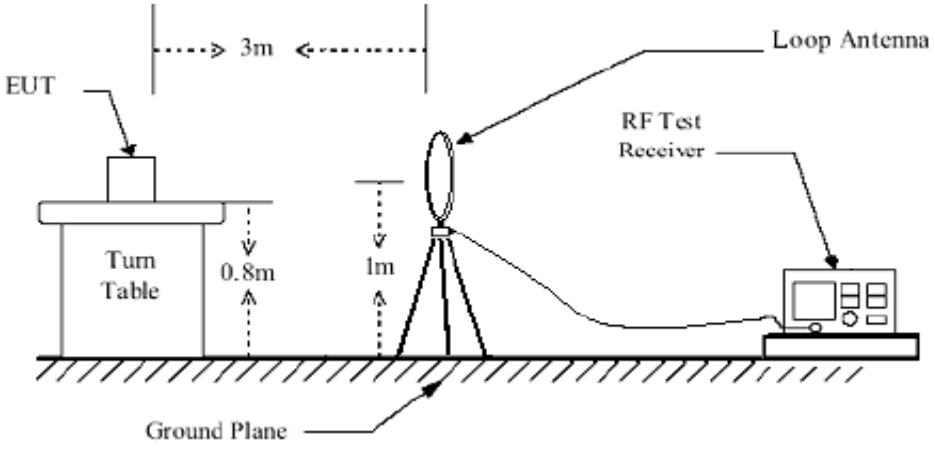
**NOTE:** The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

### 3.7.3 DEVIATION FROM TEST STANDARD

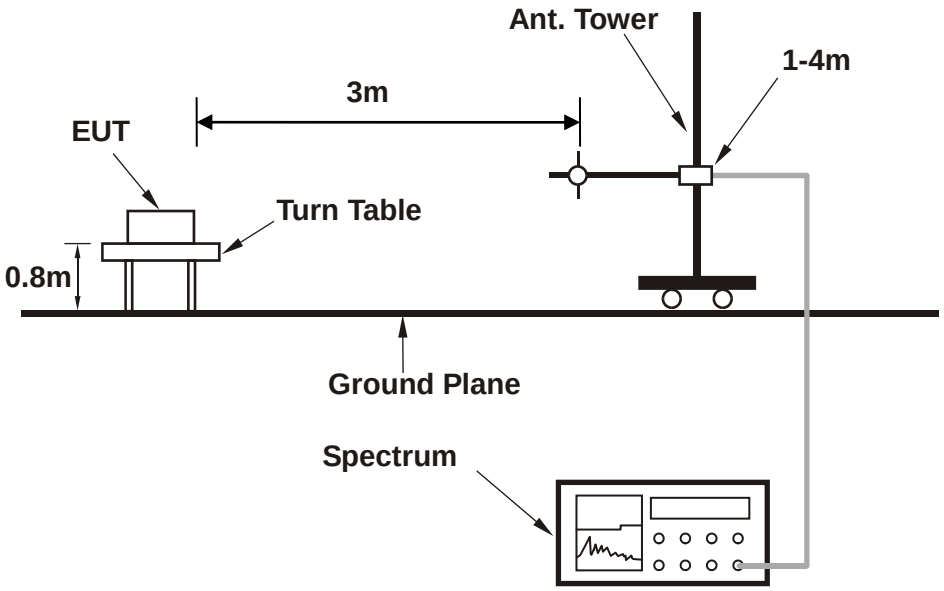
No deviation

## 3.7.4 TEST SETUP

**<Below 30MHz>**




**<Above 30MHz>**




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

## 3.7.5 TEST RESULTS

**BELOW 1GHz WORST-CASE DATA**

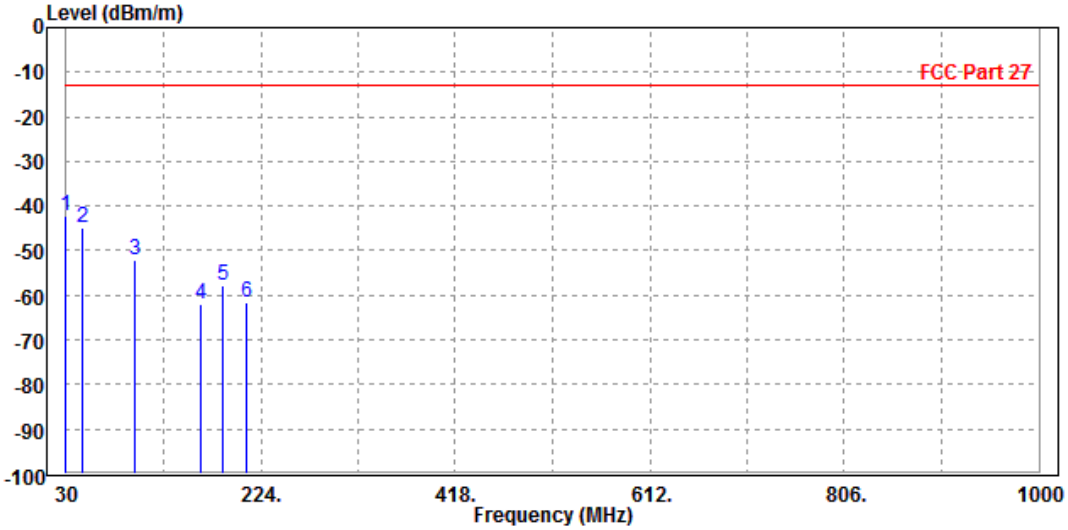
**9 KHz – 30 MHz data:** the amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

**30 MHz – 1GHz data:**

**LTE Band 13:**

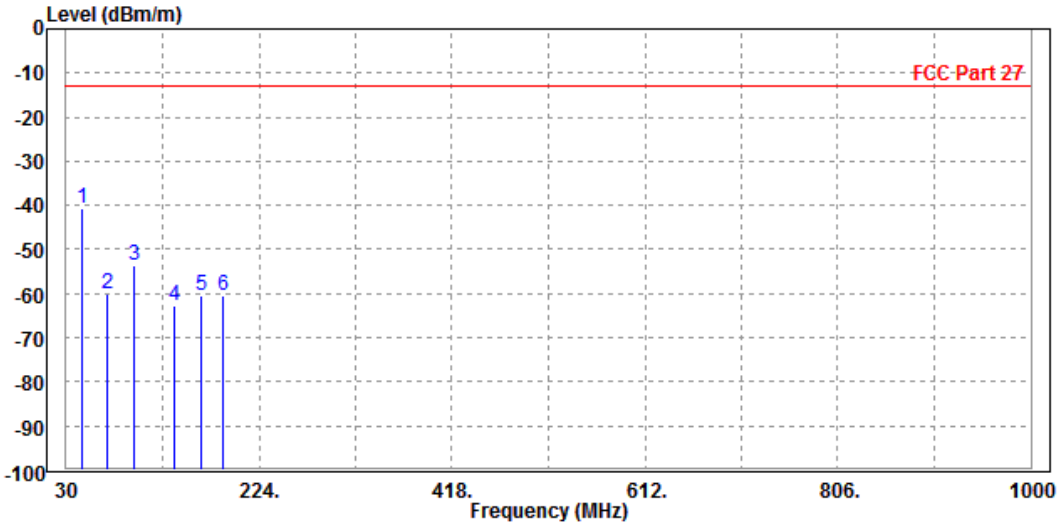
| | | | |
|---|---|---|---|
| **MODE** | TX channel 23230 | **FREQUENCY RANGE** | Below 1000MHz |
| **ENVIRONMENTAL CONDITIONS** | 23deg. C, 70%RH | **INPUT POWER** | DC 5V from adapter |
| **TESTED BY** | Vincent Chen | | |
| **ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M** | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 PP | 30.000 | -42.05 | -61.39 | -13.00 | -29.05 | 19.34 | Peak | Horizontal |
| 2 | 46.490 | -44.94 | -51.28 | -13.00 | -31.94 | 6.34 | Peak | Horizontal |
| 3 | 97.900 | -52.21 | -41.50 | -13.00 | -39.21 | -10.71 | Peak | Horizontal |
| 4 | 164.830 | -61.94 | -43.64 | -13.00 | -48.94 | -18.30 | Peak | Horizontal |
| 5 | 186.170 | -57.82 | -40.22 | -13.00 | -44.82 | -17.60 | Peak | Horizontal |
| 6 | 210.420 | -61.71 | -44.68 | -13.00 | -48.71 | -17.03 | Peak | Horizontal |



| MODE | TX channel 23230 | FREQUENCY RANGE | Below 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| 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 | 46.490 | -40.82 | -37.18 | -13.00 | -27.82 | -3.64 | Peak | Vertical |
| 2 | 70.740 | -60.11 | -44.93 | -13.00 | -47.11 | -15.18 | Peak | Vertical |
| 3 | 97.900 | -53.45 | -42.81 | -13.00 | -40.45 | -10.64 | Peak | Vertical |
| 4 | 138.640 | -62.66 | -47.37 | -13.00 | -49.66 | -15.29 | Peak | Vertical |
| 5 | 165.800 | -60.55 | -45.89 | -13.00 | -47.55 | -14.66 | Peak | Vertical |
| 6 | 188.110 | -60.53 | -48.39 | -13.00 | -47.53 | -12.14 | Peak | Vertical |



## ABOVE 1GHz

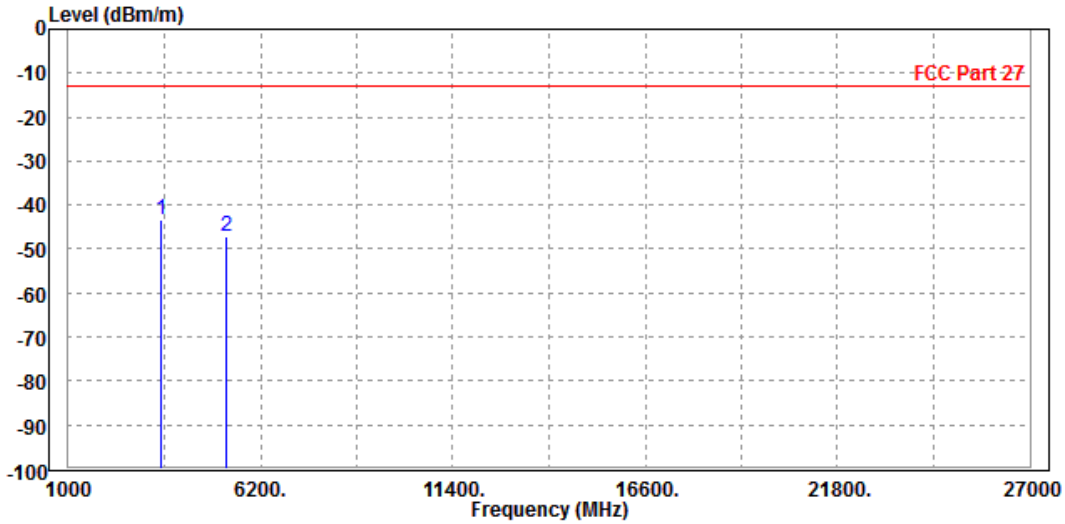
**Note:** For higher frequency, the emission is too low to be detected.

## LTE BAND 4

## CHANNEL BANDWIDTH: 1.4MHz / QPSK

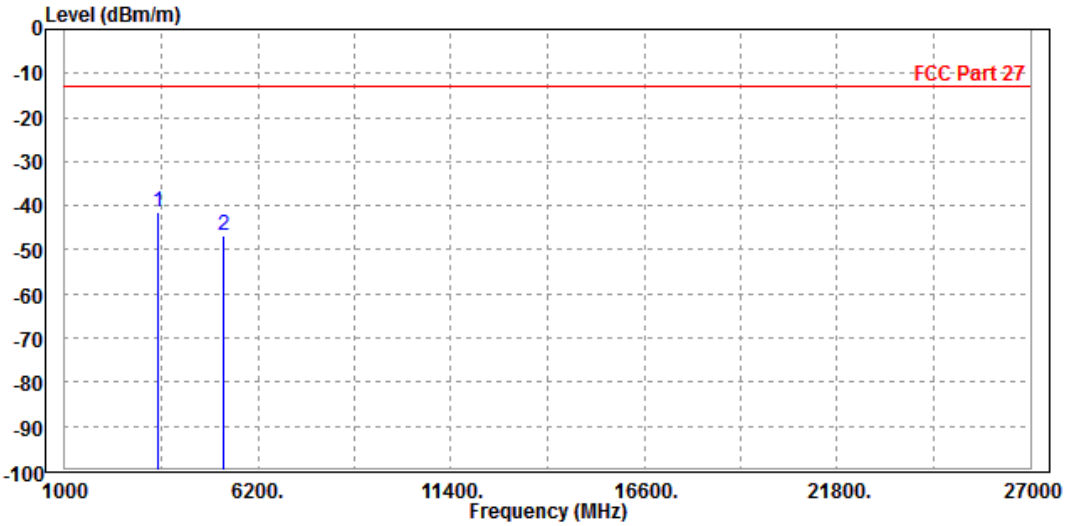
| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 3496.000 | -43.53 | -45.68 | -13.00 | -30.53 | 2.15 | Peak | Horizontal |
| 2 | 5262.900 | -47.20 | -55.88 | -13.00 | -34.20 | 8.68 | Peak | Horizontal |



| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

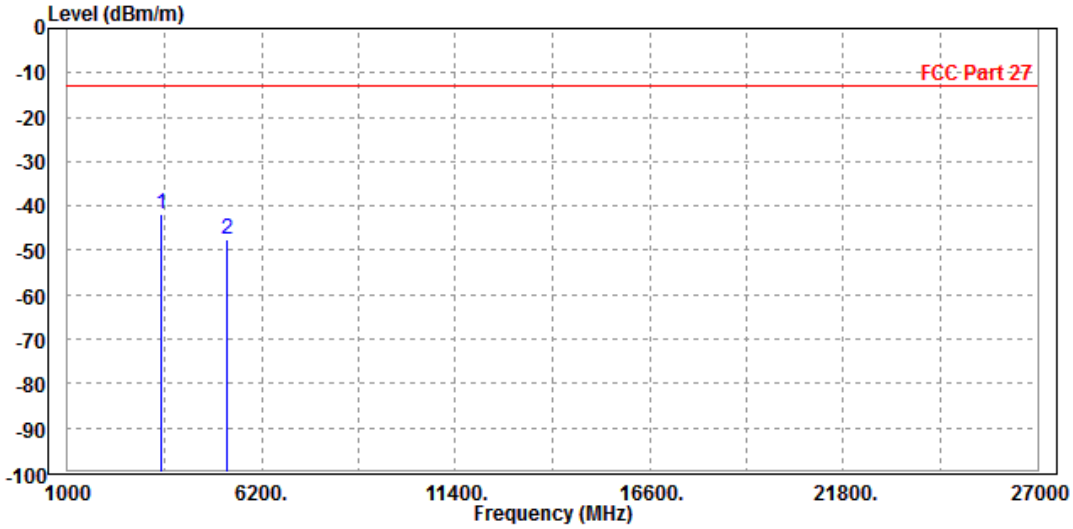
| | | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP | 3496.000 | -41.46 | -44.02 | -13.00 | -28.46 | 2.56 | Peak | Vertical |
| 2 | | 5262.900 | -46.76 | -54.74 | -13.00 | -33.76 | 7.98 | Peak | Vertical |



## CHANNEL BANDWIDTH: 3MHz / QPSK

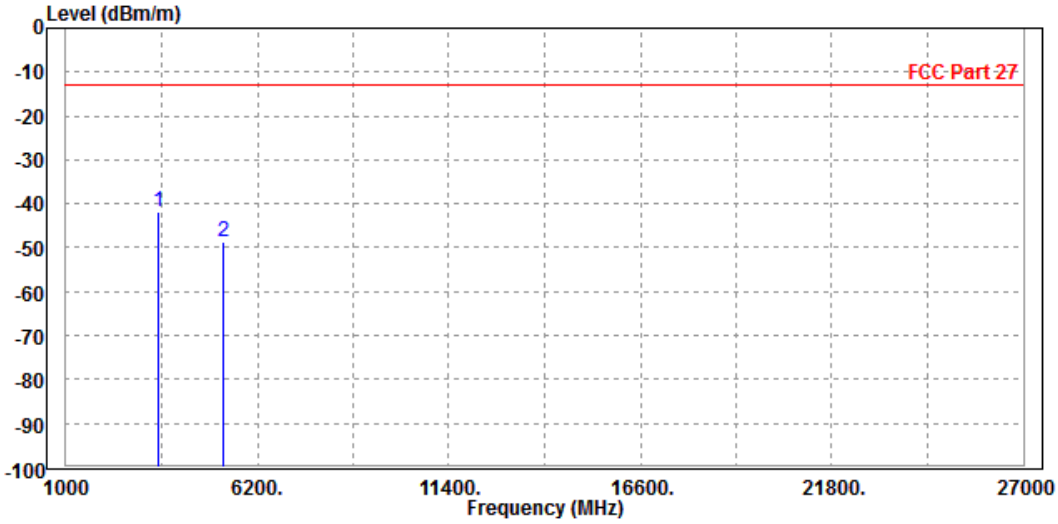
| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP | 3496.000 | -41.94 | -44.09 | -13.00 | -28.94 | 2.15 | Peak | Horizontal |
| 2 | | 5260.500 | -47.69 | -56.37 | -13.00 | -34.69 | 8.68 | Peak | Horizontal |



| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

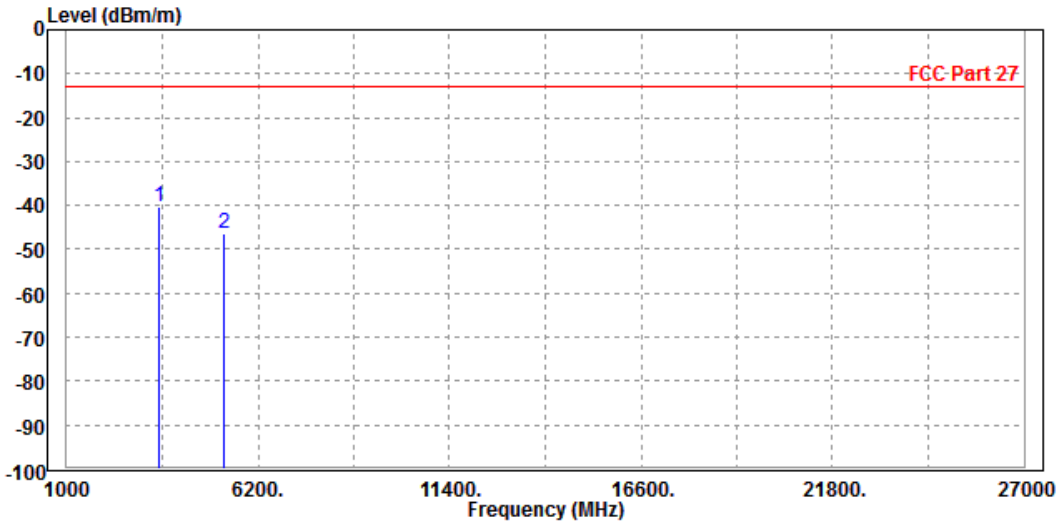
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 3496.000 | -41.86 | -44.42 | -13.00 | -28.86 | 2.56 | Peak | Vertical |
| 2 | 5260.500 | -48.51 | -56.49 | -13.00 | -35.51 | 7.98 | Peak | Vertical |



## CHANNEL BANDWIDTH: 5MHz / QPSK

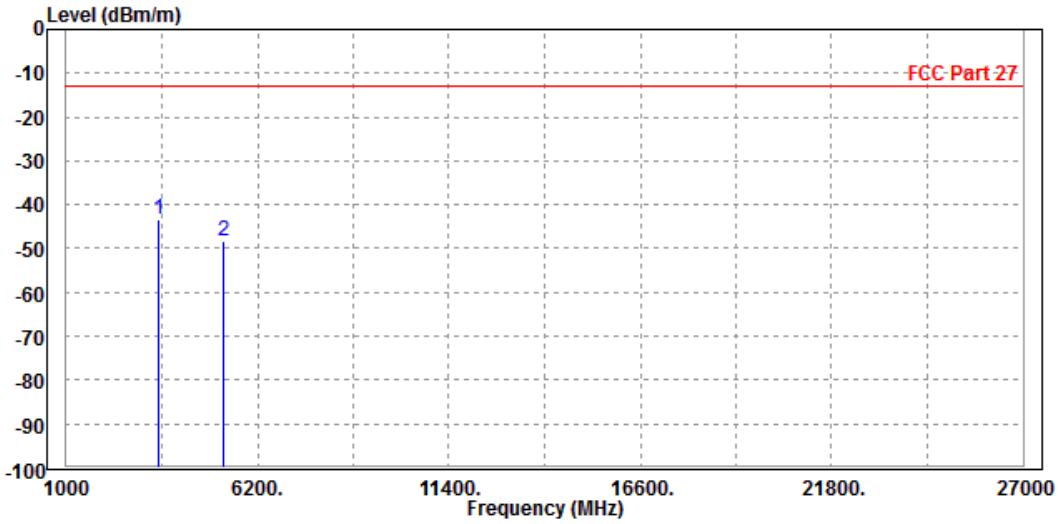
| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP | 3496.000 | -40.49 | -42.64 | -13.00 | -27.49 | 2.15 | Peak | Horizontal |
| 2 | | 5257.500 | -46.55 | -55.23 | -13.00 | -33.55 | 8.68 | Peak | Horizontal |



| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| 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 | 3496.000 | -43.21 | -45.77 | -13.00 | -30.21 | 2.56 | Peak | Vertical |
| 2 | | 5257.500 | -48.19 | -56.17 | -13.00 | -35.19 | 7.98 | Peak | Vertical |

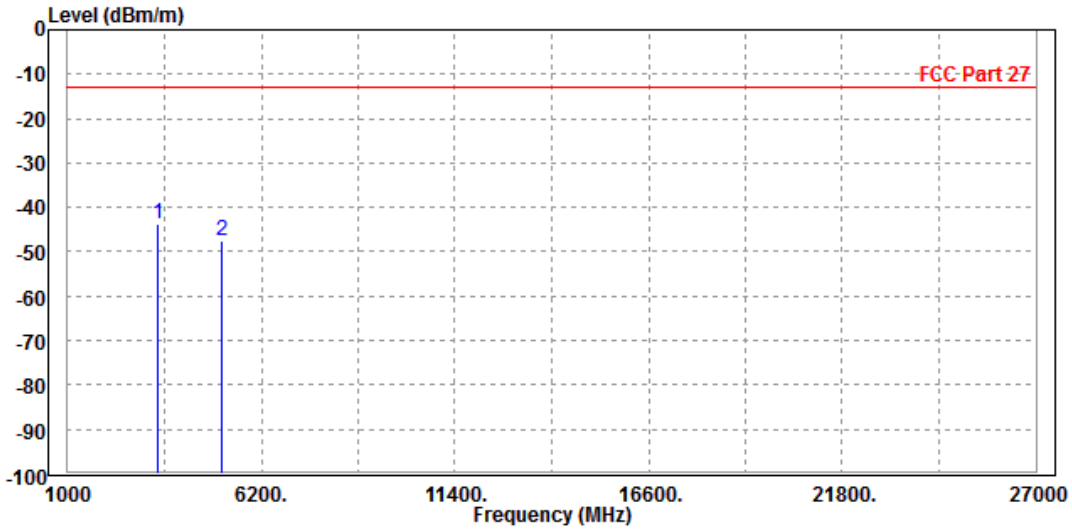


## CHANNEL BANDWIDTH: 10MHz / QPSK

### CH20000

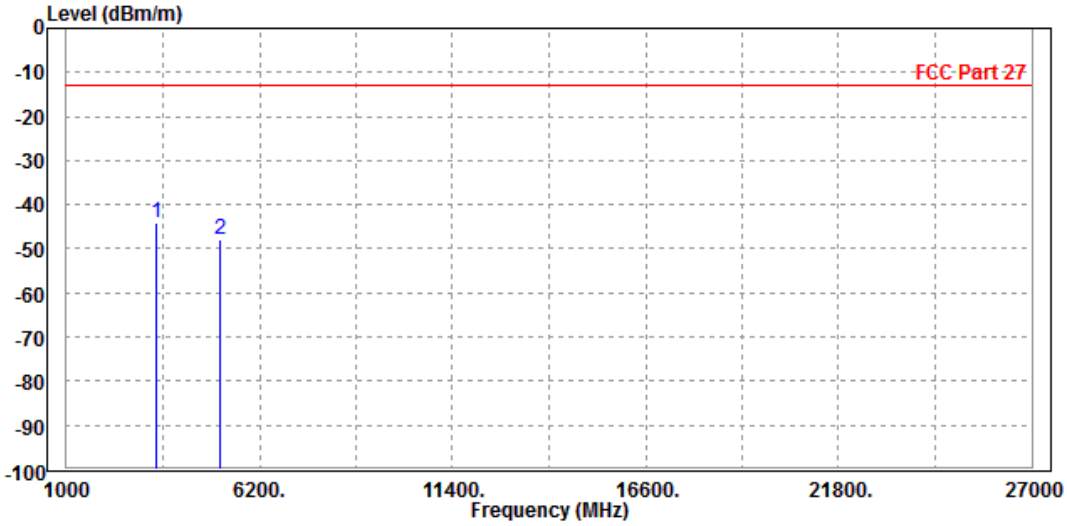
| MODE | TX channel 20000 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 3418.000 | -43.62 | -45.47 | -13.00 | -30.62 | 1.85 | Peak | Horizontal |
| 2 | 5145.000 | -47.49 | -56.03 | -13.00 | -34.49 | 8.54 | Peak | Horizontal |



| MODE | TX channel 20000 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

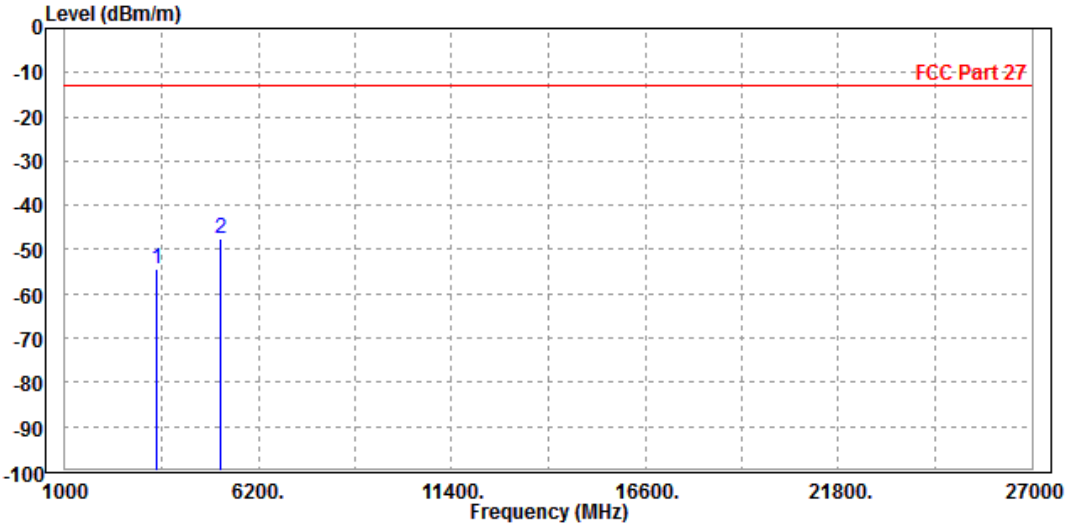
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 3418.000 | -44.12 | -46.59 | -13.00 | -31.12 | 2.47 | Peak | Vertical |
| 2 | 5145.000 | -47.91 | -55.89 | -13.00 | -34.91 | 7.98 | Peak | Vertical |



## CH20175

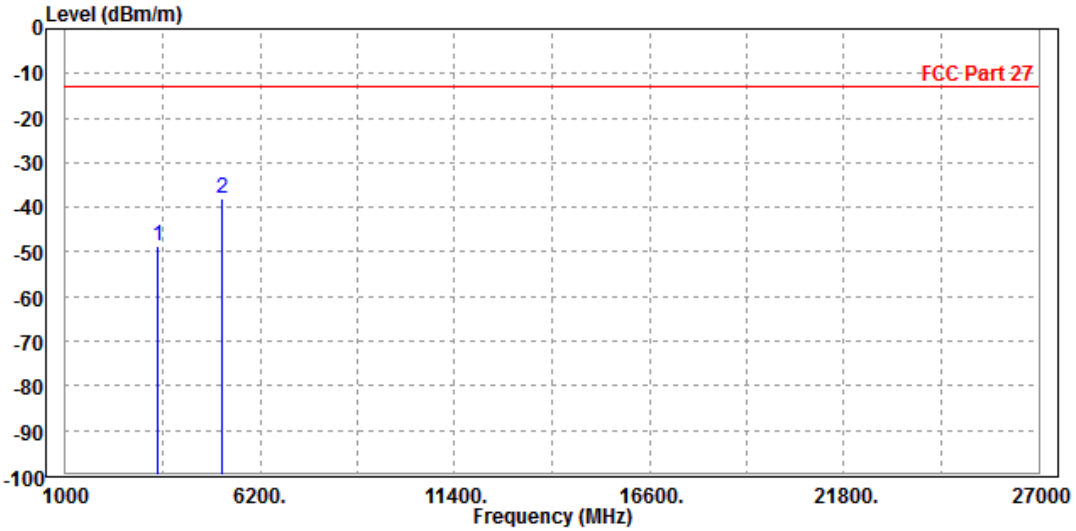
| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | 3470.000 | -54.35 | -56.40 | -13.00 | -41.35 | 2.05 | Peak | Horizontal |
| 2 PP | 5197.500 | -47.53 | -56.14 | -13.00 | -34.53 | 8.61 | Peak | Horizontal |



| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

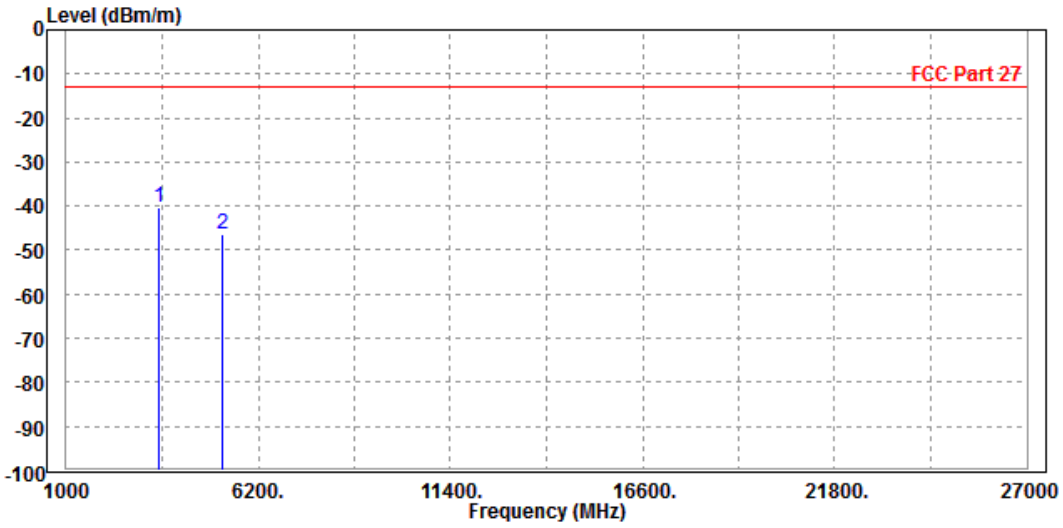
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | 3470.000 | -48.86 | -51.39 | -13.00 | -35.86 | 2.53 | Peak | Vertical |
| 2 PP | 5197.500 | -38.00 | -45.98 | -13.00 | -25.00 | 7.98 | Peak | Vertical |



## CH20350

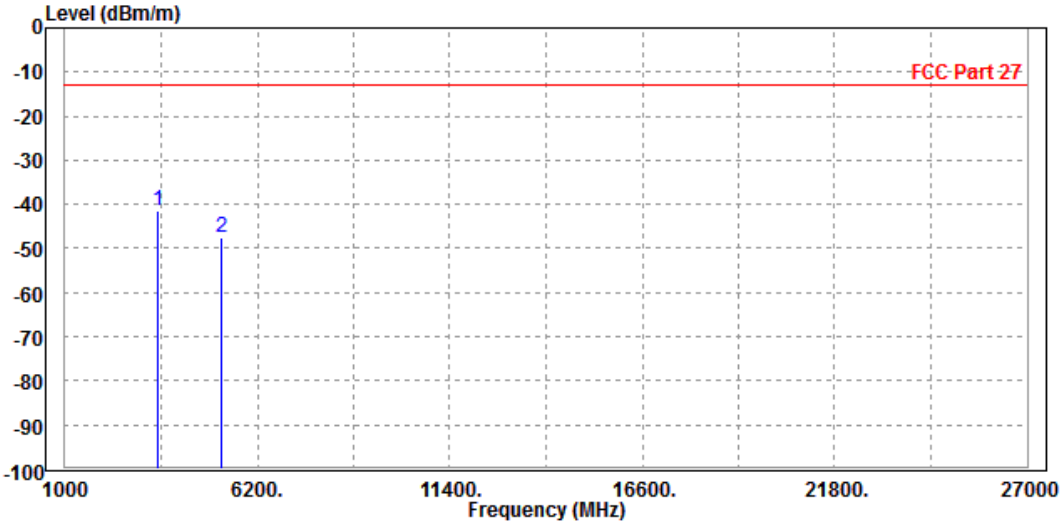
| MODE | TX channel 20350 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP | 3496.000 | -40.37 | -42.52 | -13.00 | -27.37 | 2.15 | Peak | Horizontal |
| 2 | | 5250.000 | -46.21 | -54.88 | -13.00 | -33.21 | 8.67 | Peak | Horizontal |



| MODE | TX channel 20350 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

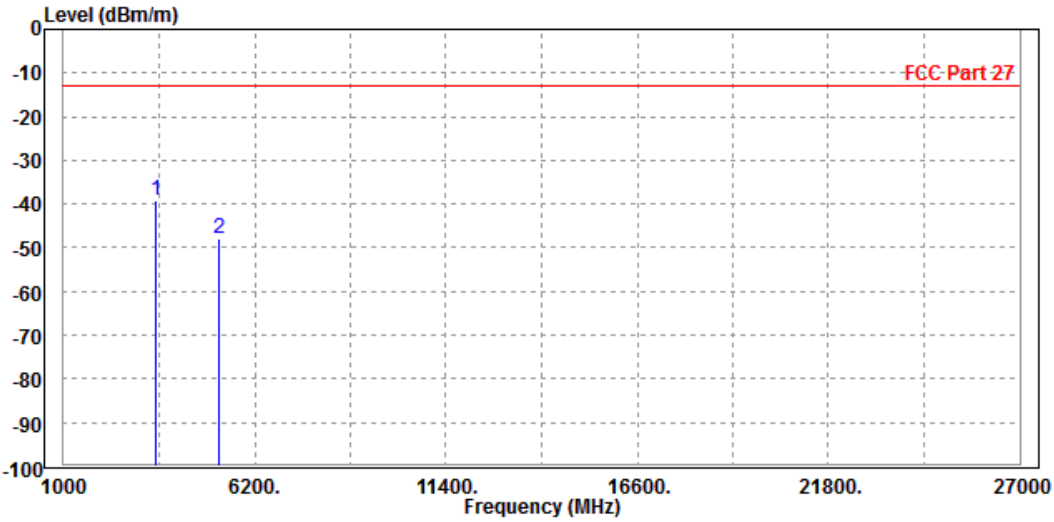
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 3496.000 | -41.46 | -44.02 | -13.00 | -28.46 | 2.56 | Peak | Vertical |
| 2 | 5250.000 | -47.37 | -55.35 | -13.00 | -34.37 | 7.98 | Peak | Vertical |



## CHANNEL BANDWIDTH: 15MHz / QPSK

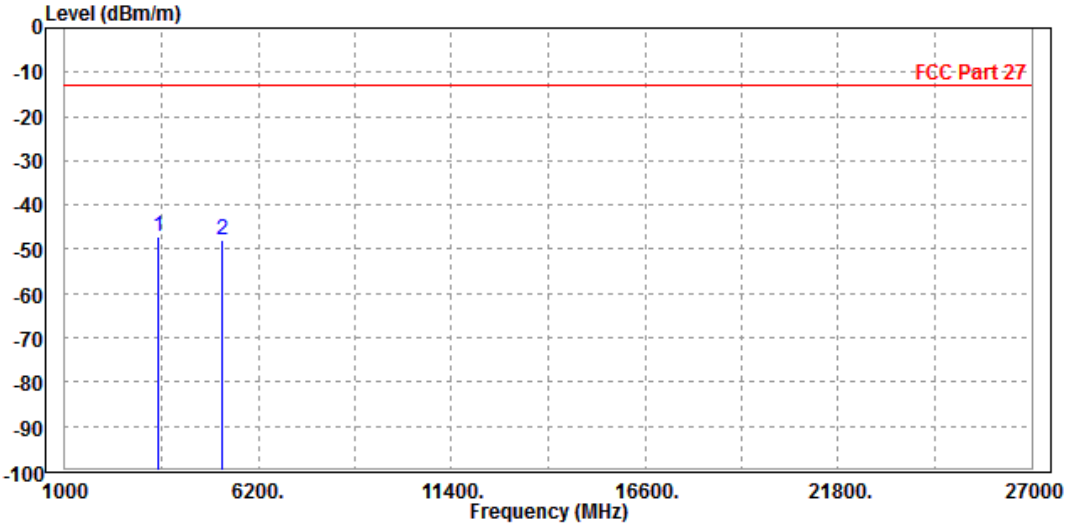
| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 3496.000 | -39.03 | -41.18 | -13.00 | -26.03 | 2.15 | Peak | Horizontal |
| 2 | 5242.500 | -47.95 | -56.61 | -13.00 | -34.95 | 8.66 | Peak | Horizontal |



| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

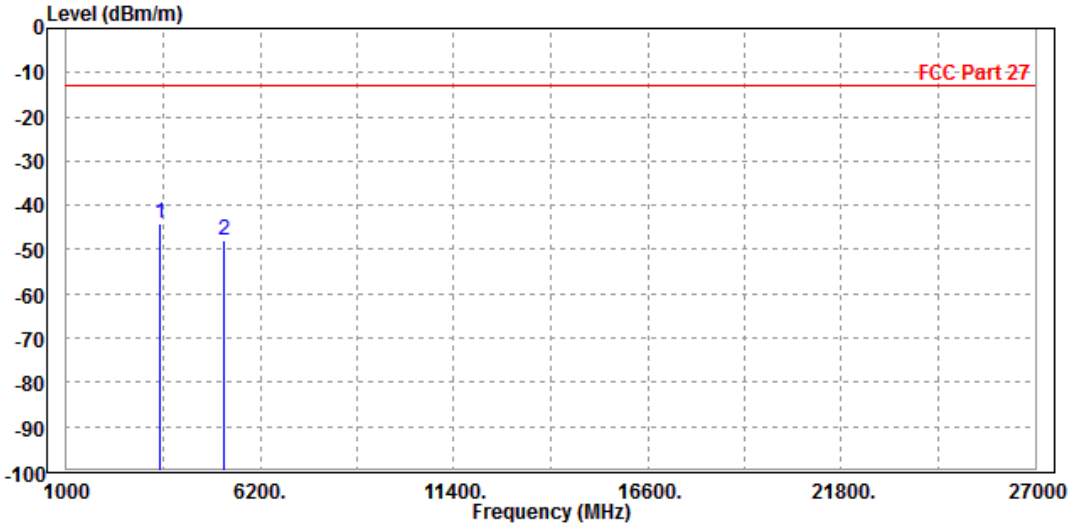
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 3496.000 | -47.23 | -49.79 | -13.00 | -34.23 | 2.56 | Peak | Vertical |
| 2 | 5242.500 | -47.75 | -55.73 | -13.00 | -34.75 | 7.98 | Peak | Vertical |



## CHANNEL BANDWIDTH: 20MHz / QPSK

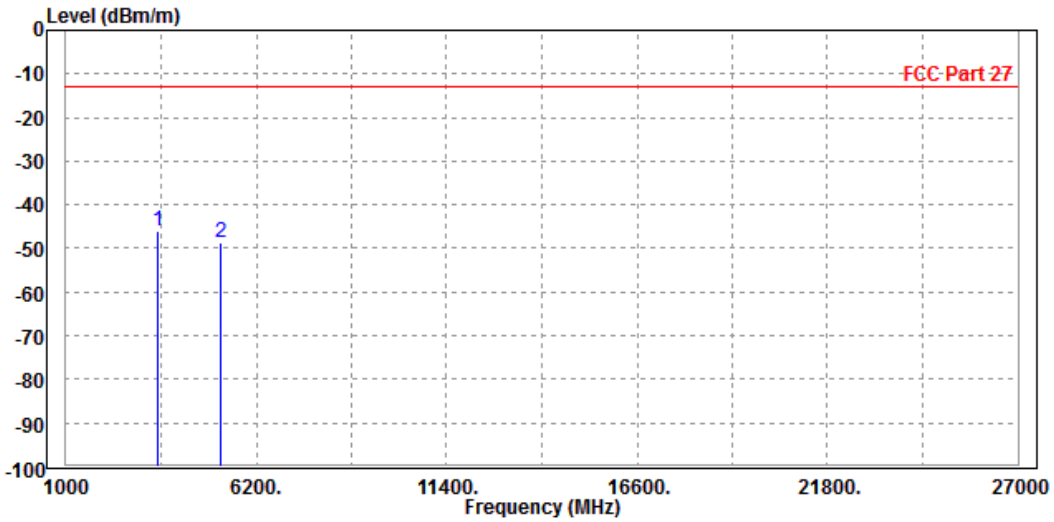
| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP | 3496.000 | -44.22 | -46.37 | -13.00 | -31.22 | 2.15 | Peak | Horizontal |
| 2 | | 5235.000 | -47.99 | -56.64 | -13.00 | -34.99 | 8.65 | Peak | Horizontal |



| MODE | TX channel 20175 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| 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 | 3496.000 | -45.93 | -48.49 | -13.00 | -32.93 | 2.56 | Peak | Vertical |
| 2 | 5235.000 | -48.53 | -56.51 | -13.00 | -35.53 | 7.98 | Peak | Vertical |

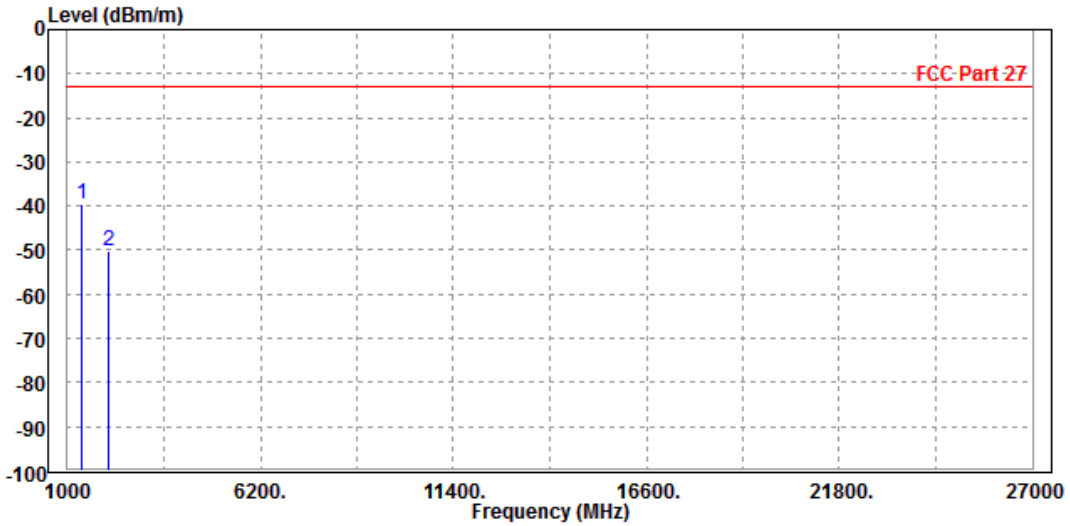


## LTE BAND 12

### CHANNEL BANDWIDTH: 1.4MHz / QPSK

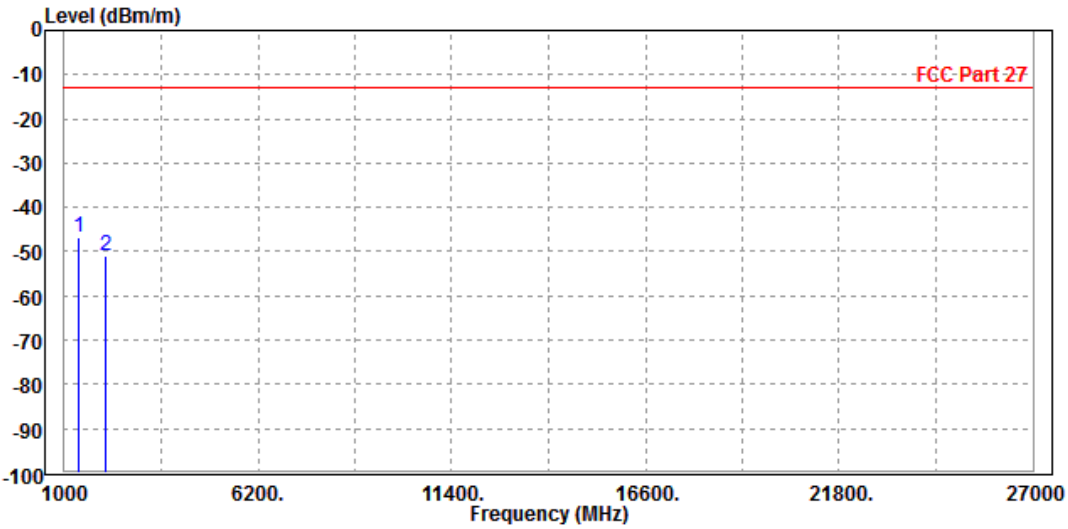
| | | | |
|---|---|---|---|
| **MODE** | TX channel 23095 | **FREQUENCY RANGE** | Above 1000MHz |
| **ENVIRONMENTAL CONDITIONS** | 23deg. C, 70%RH | **INPUT POWER** | DC 5V from adapter |
| **TESTED BY** | Vincent Chen | | |
| **ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M** | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 1390.000 | -39.58 | -32.70 | -13.00 | -26.58 | -6.88 | Peak | Horizontal |
| 2 | 2099.100 | -50.02 | -48.07 | -13.00 | -37.02 | -1.95 | Peak | Horizontal |



| MODE | TX channel 23095 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

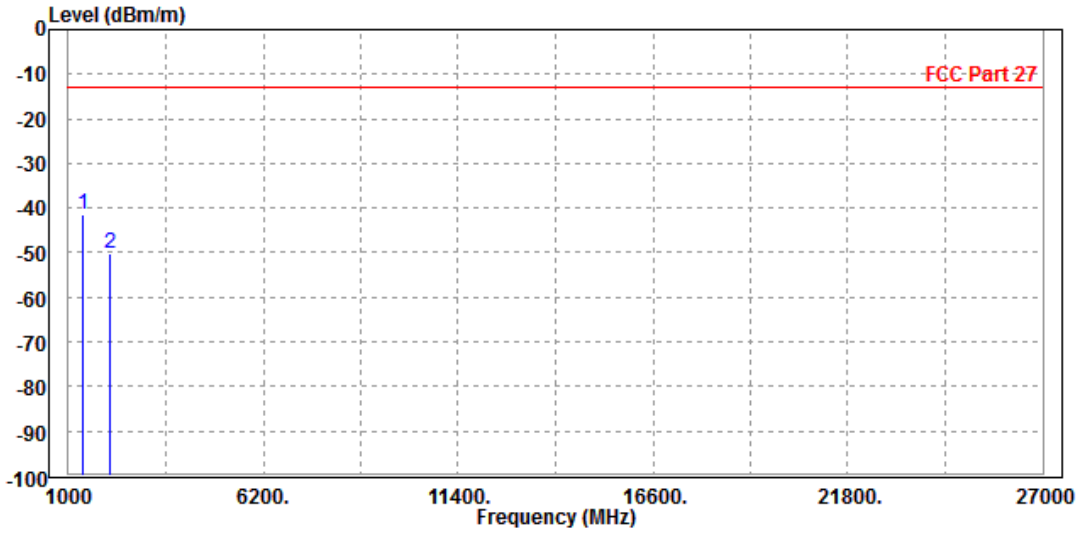
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 1390.000 | -46.65 | -41.05 | -13.00 | -33.65 | -5.60 | Peak | Vertical |
| 2 | 2099.100 | -50.94 | -50.69 | -13.00 | -37.94 | -0.25 | Peak | Vertical |



## CHANNEL BANDWIDTH: 3MHz / QPSK

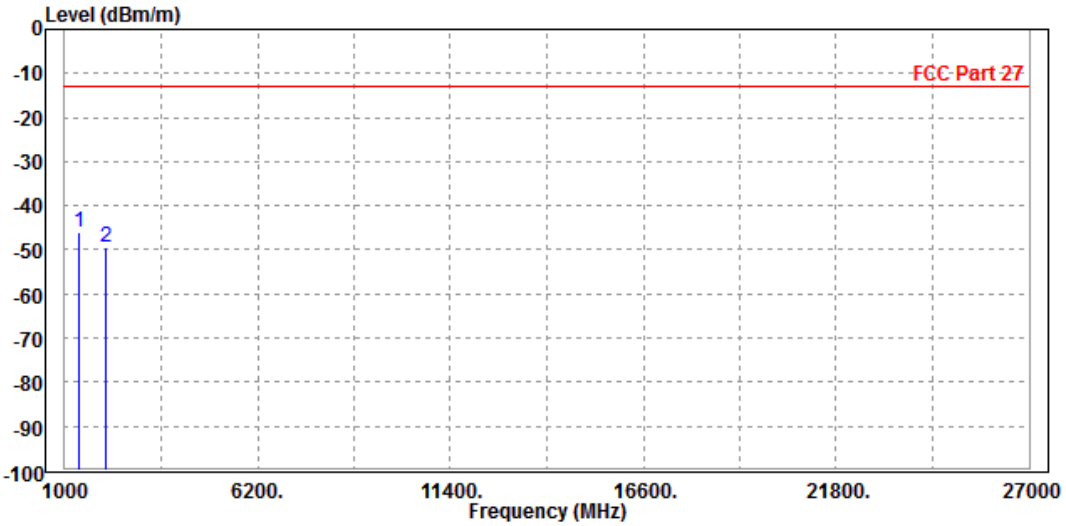
| MODE | TX channel 23095 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 1401.000 | -41.62 | -34.81 | -13.00 | -28.62 | -6.81 | Peak | Horizontal |
| 2 | 2092.000 | -50.36 | -48.40 | -13.00 | -37.36 | -1.96 | Peak | Horizontal |



| MODE | TX channel 23095 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

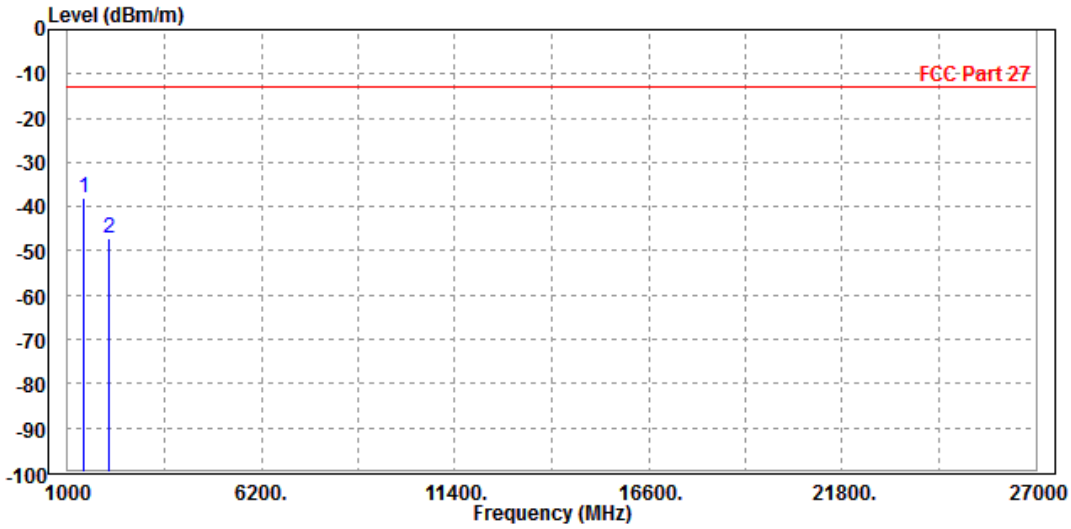
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 1401.000 | -46.16 | -40.63 | -13.00 | -33.16 | -5.53 | Peak | Vertical |
| 2 | 2101.500 | -49.38 | -49.13 | -13.00 | -36.38 | -0.25 | Peak | Vertical |



## CHANNEL BANDWIDTH: 5MHz / QPSK

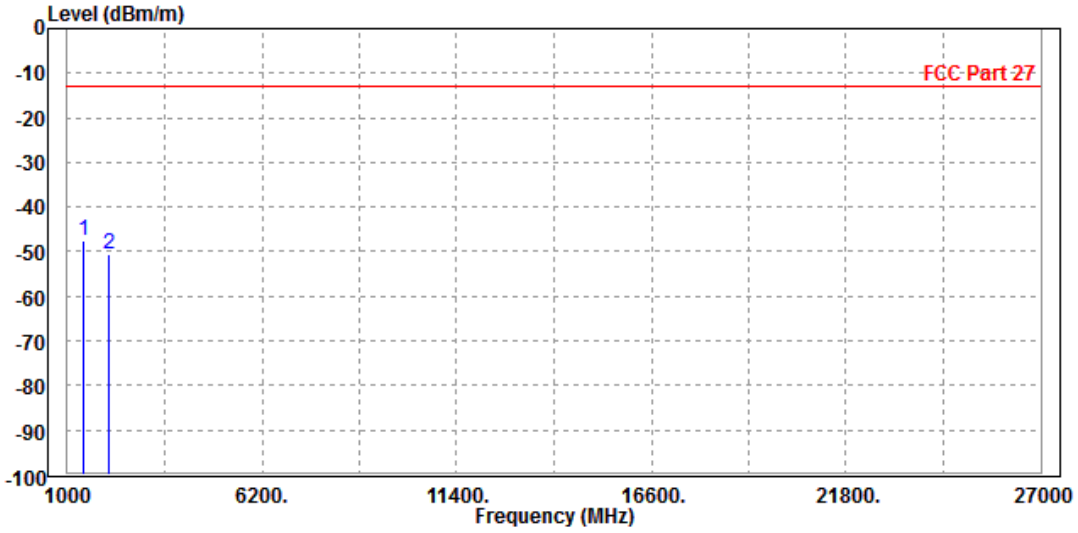
| | | | |
|---|---|---|---|
| **MODE** | TX channel 23095 | **FREQUENCY RANGE** | Above 1000MHz |
| **ENVIRONMENTAL CONDITIONS** | 23deg. C, 70%RH | **INPUT POWER** | DC 5V from adapter |
| **TESTED BY** | Vincent Chen | | |
| **ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M** | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 PP | 1416.000 | -38.04 | -31.32 | -13.00 | -25.04 | -6.72 | Peak | Horizontal |
| 2 | 2104.500 | -47.30 | -45.35 | -13.00 | -34.30 | -1.95 | Peak | Horizontal |



| MODE | TX channel 23095 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| 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 | -47.42 | -41.98 | -13.00 | -34.42 | -5.44 | Peak | Vertical |
| 2 | 2104.500 | -50.51 | -50.26 | -13.00 | -37.51 | -0.25 | Peak | Vertical |

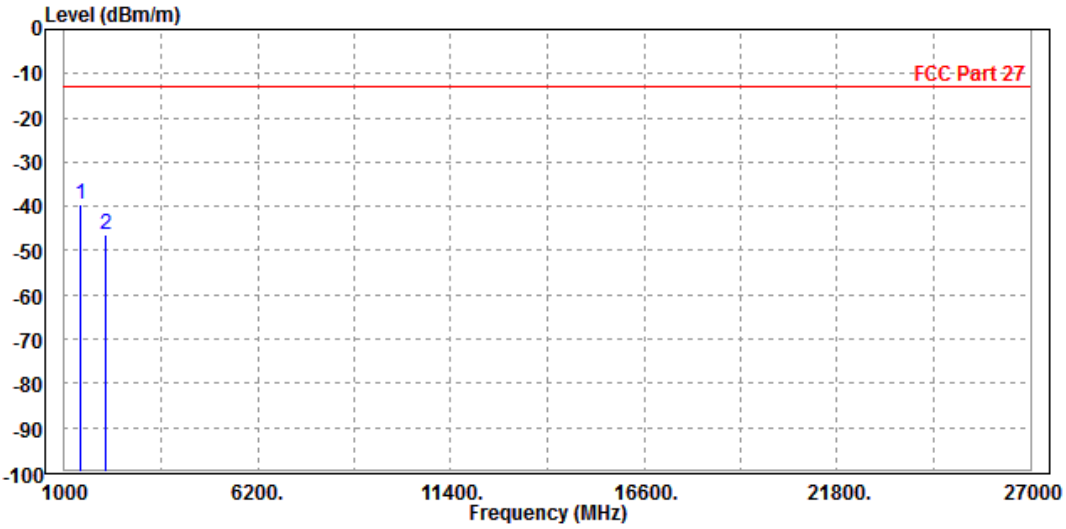


## CHANNEL BANDWIDTH: 10MHz / QPSK

### CH23060

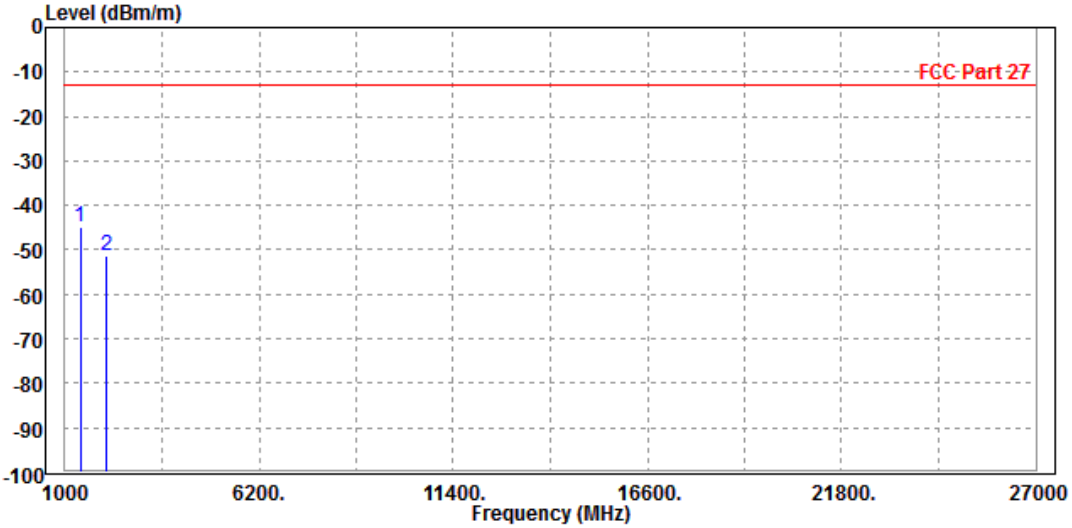
| MODE | TX channel 23060 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 PP | 1416.000 | -39.65 | -32.93 | -13.00 | -26.65 | -6.72 | Peak | Horizontal |
| 2 | 2122.500 | -46.27 | -44.34 | -13.00 | -33.27 | -1.93 | Peak | Horizontal |



| MODE | TX channel 23060 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

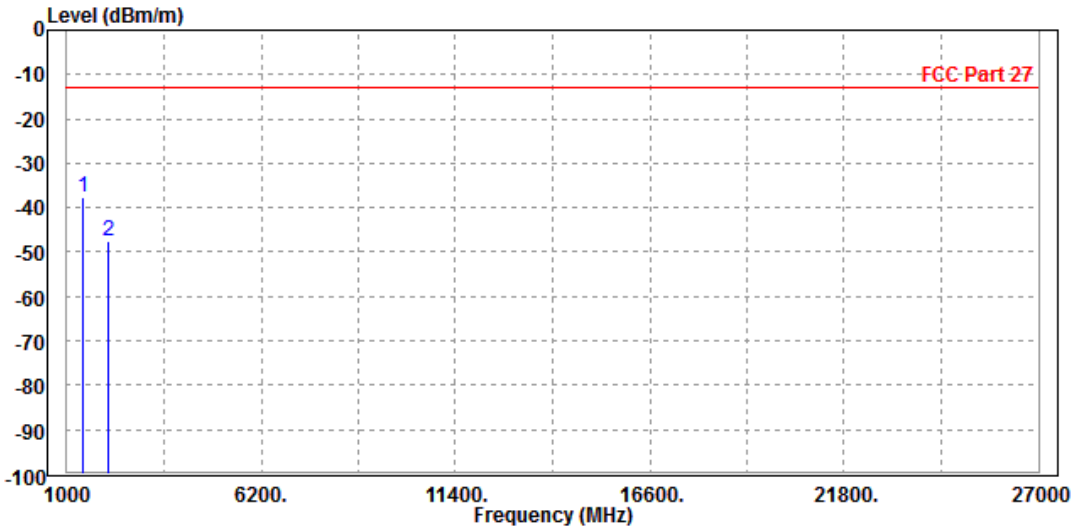
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 1408.000 | -44.86 | -39.37 | -13.00 | -31.86 | -5.49 | Peak | Vertical |
| 2 | 2118.000 | -51.39 | -51.15 | -13.00 | -38.39 | -0.24 | Peak | Vertical |



## CH23095

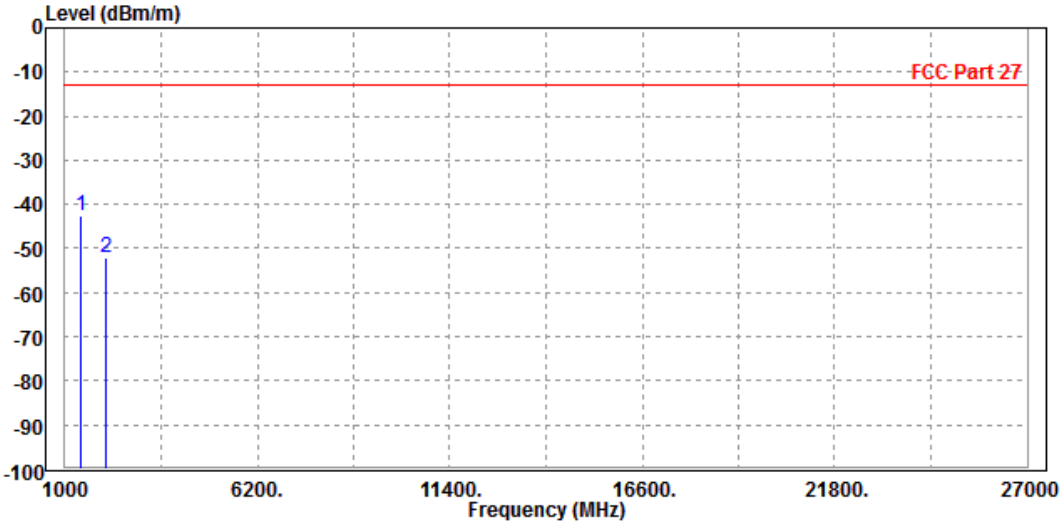
| MODE | TX channel 23095 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 1416.000 | -37.71 | -30.99 | -13.00 | -24.71 | -6.72 | Peak | Horizontal |
| 2 | 2122.500 | -47.62 | -45.69 | -13.00 | -34.62 | -1.93 | Peak | Horizontal |



| MODE | TX channel 23095 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

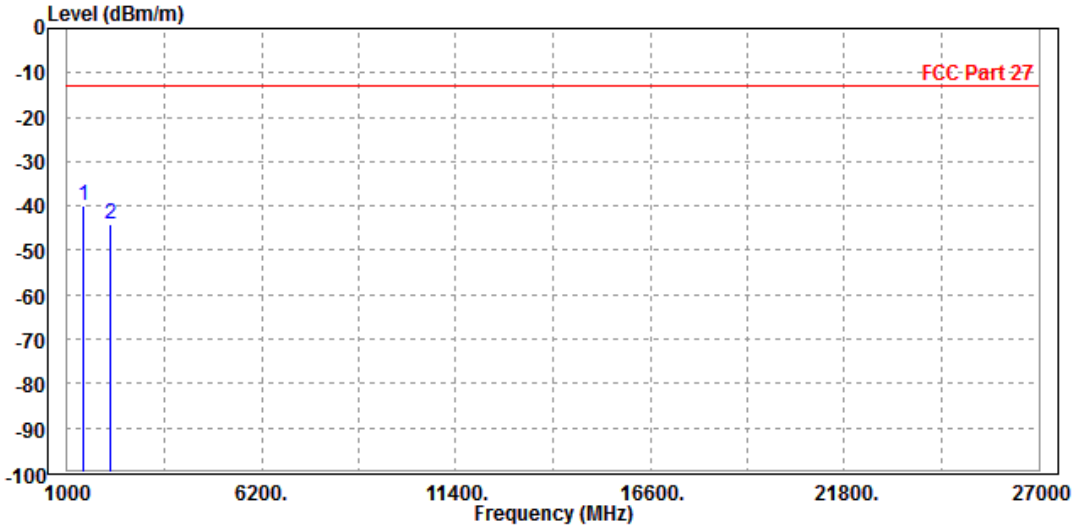
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP 1416.000 | -42.68 | -37.24 | -13.00 | -29.68 | -5.44 | Peak | Vertical |
| 2 | 2122.500 | -52.25 | -52.01 | -13.00 | -39.25 | -0.24 | Peak | Vertical |



## CH23130

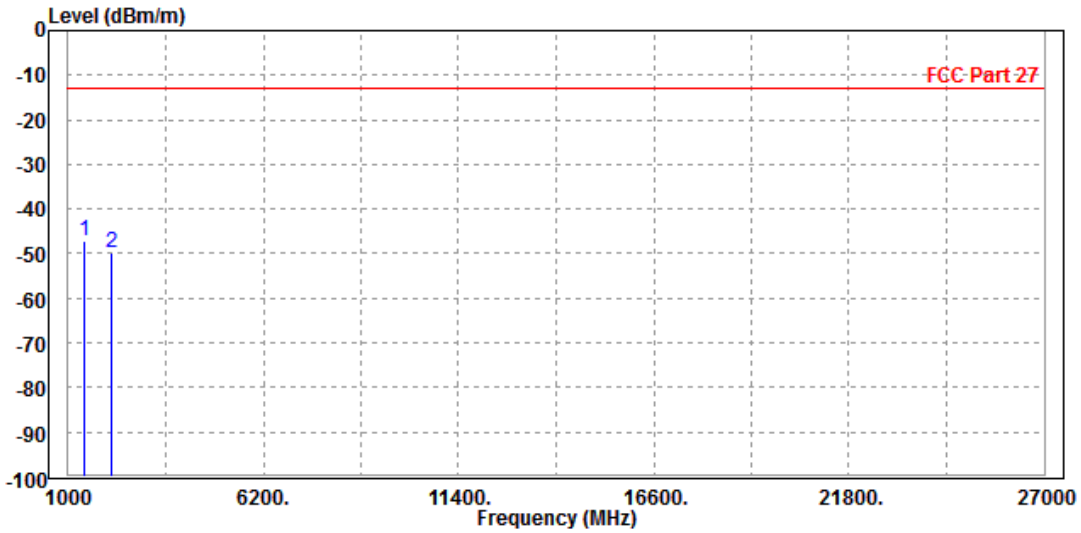
| MODE | TX channel 23130 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | PP | 1416.000 | -40.00 | -33.28 | -13.00 | -27.00 | -6.72 | Peak | Horizontal |
| 2 | | 2133.000 | -44.18 | -42.25 | -13.00 | -31.18 | -1.93 | Peak | Horizontal |



| MODE | TX channel 23130 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| 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 | -47.08 | -41.64 | -13.00 | -34.08 | -5.44 | Peak | Vertical |
| 2 | 2133.000 | -49.76 | -49.52 | -13.00 | -36.76 | -0.24 | Peak | Vertical |



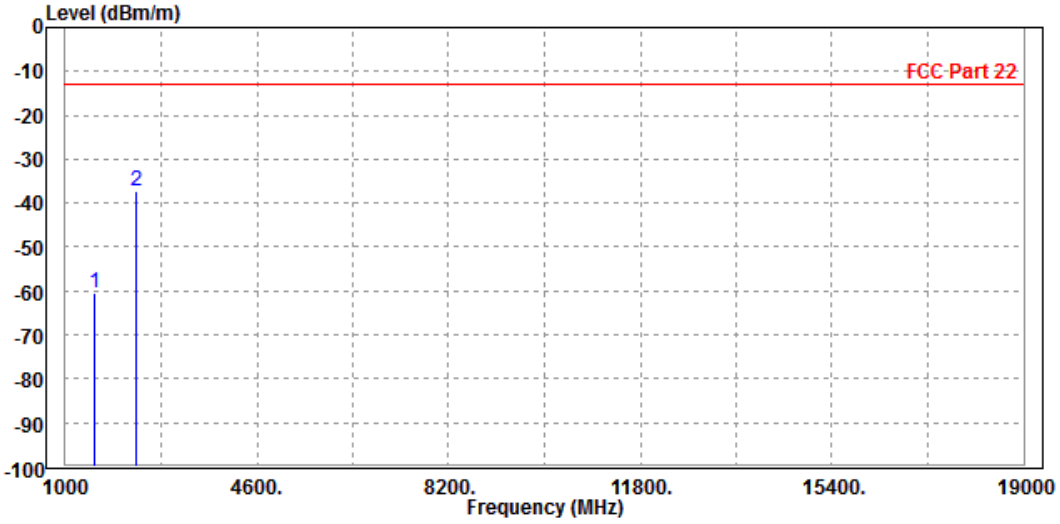
## LTE Band 13

## CHANNEL BANDWIDTH: 5MHz / QPSK

## CH23205

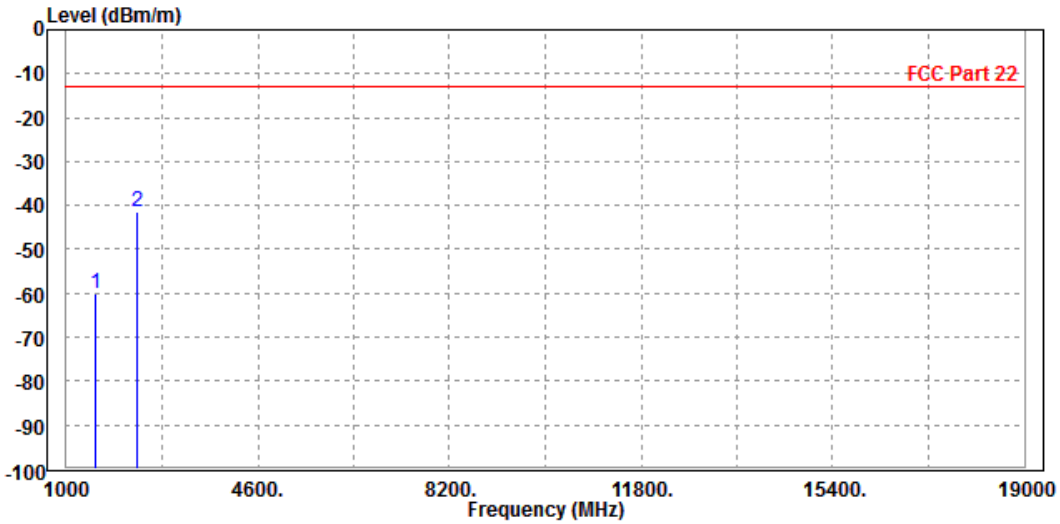
| MODE | TX channel 23205 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | 1558.000 | -60.27 | -54.55 | -13.00 | -47.27 | -5.72 | Peak | Horizontal |
| 2 PP | 2338.000 | -37.13 | -35.37 | -13.00 | -24.13 | -1.76 | Peak | Horizontal |



| MODE | TX channel 23205 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

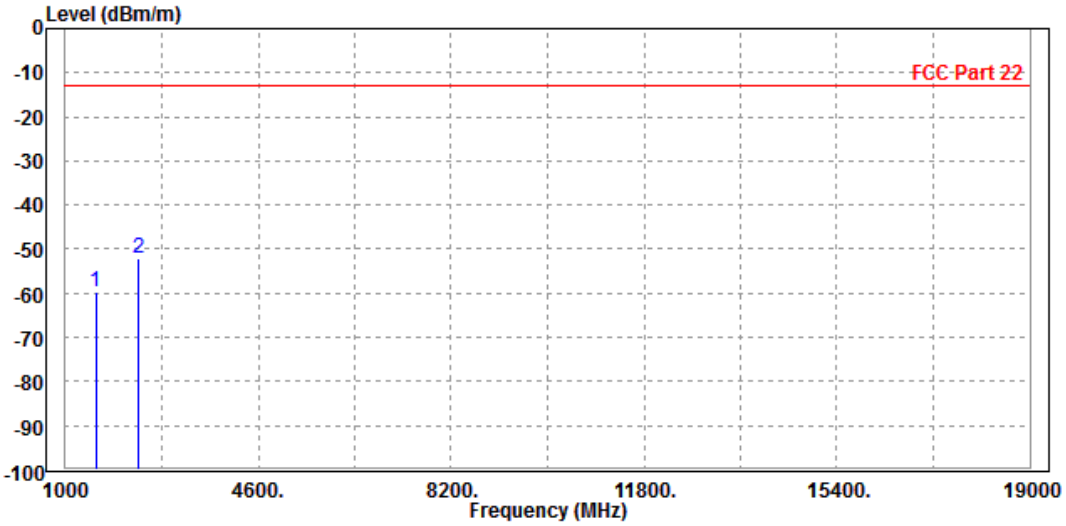
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | 1558.000 | -59.93 | -55.54 | -13.00 | -46.93 | -4.39 | Peak | Vertical |
| 2 PP | 2338.000 | -41.38 | -41.18 | -13.00 | -28.38 | -0.20 | Peak | Vertical |



## CH23230

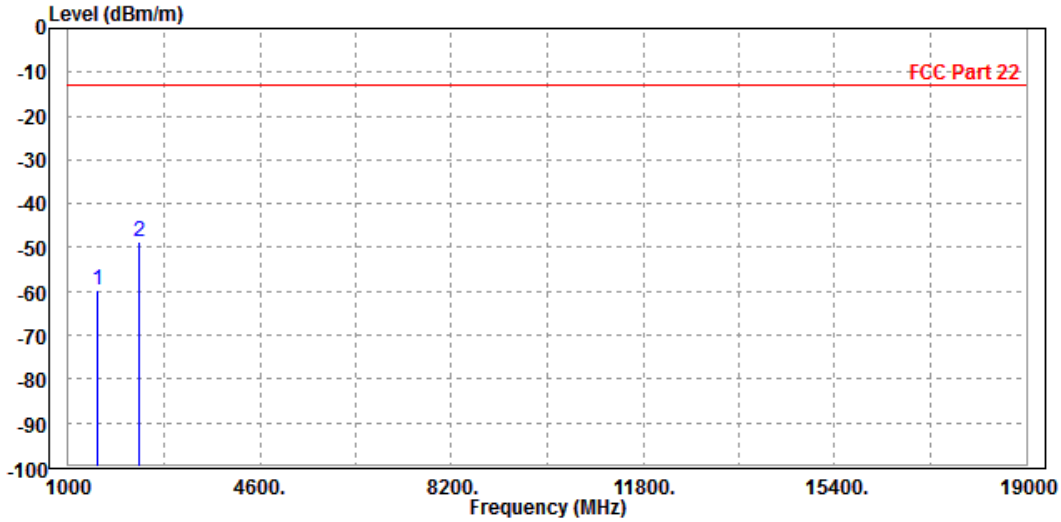
| MODE | TX channel 23230 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | 1564.000 | -59.86 | -54.19 | -13.00 | -46.86 | -5.67 | Peak | Horizontal |
| 2 PP | 2350.000 | -52.10 | -50.35 | -13.00 | -39.10 | -1.75 | Peak | Horizontal |



| MODE | TX channel 23230 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

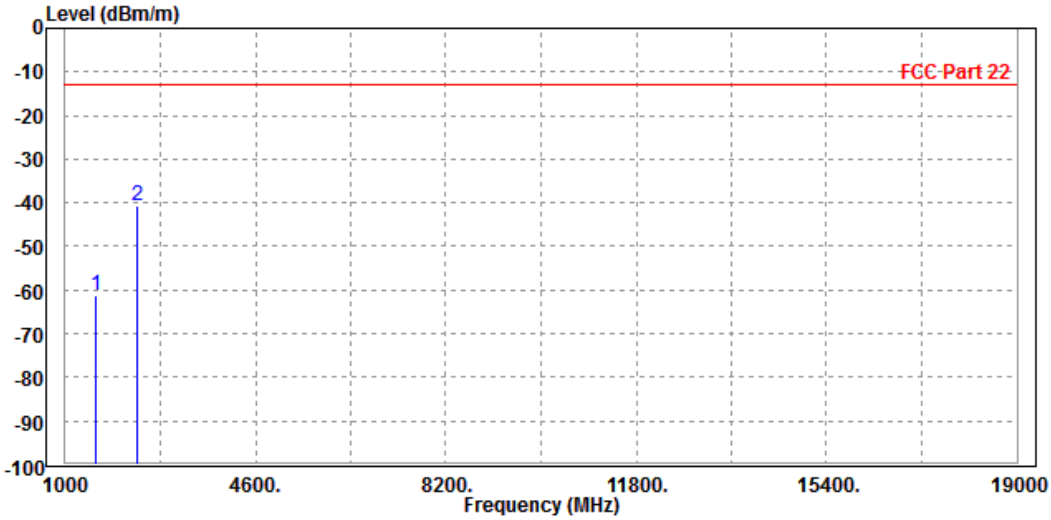
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | 1558.000 | -59.69 | -55.30 | -13.00 | -46.69 | -4.39 | Peak | Vertical |
| 2 PP | 2346.000 | -48.71 | -48.51 | -13.00 | -35.71 | -0.20 | Peak | Vertical |



## CH23255

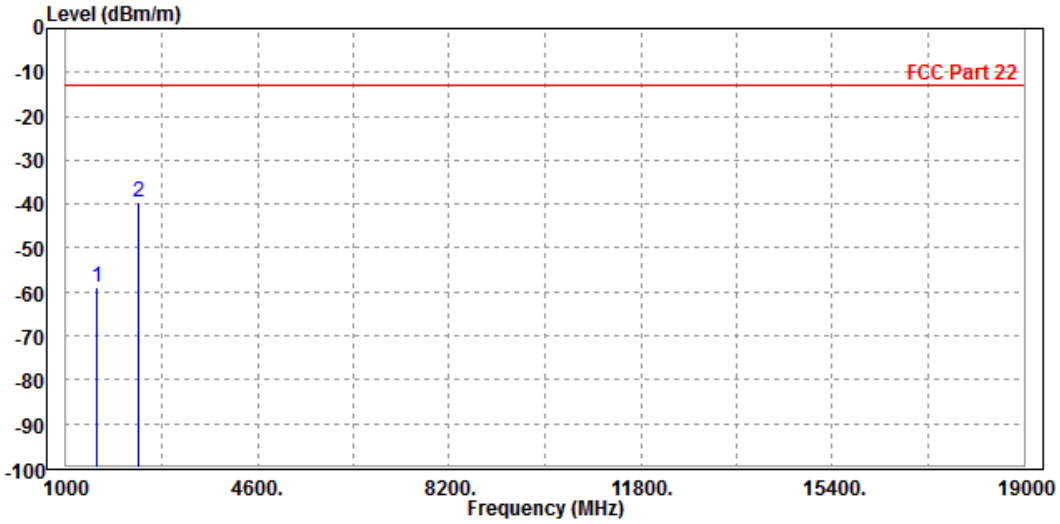
| MODE | TX channel 23255 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | 1576.000 | -61.18 | -55.61 | -13.00 | -48.18 | -5.57 | Peak | Horizontal |
| 2 PP | 2353.000 | -40.68 | -38.93 | -13.00 | -27.68 | -1.75 | Peak | Horizontal |



| MODE | TX channel 23255 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | |

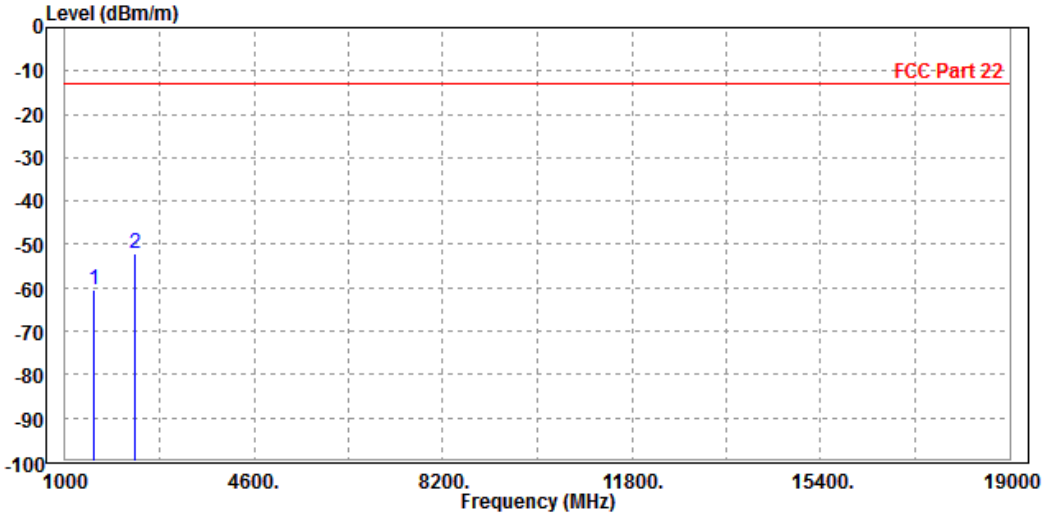
| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | 1576.000 | -58.75 | -54.53 | -13.00 | -45.75 | -4.22 | Peak | Vertical |
| 2 PP | 2353.000 | -39.55 | -39.35 | -13.00 | -26.55 | -0.20 | Peak | Vertical |



## CHANNEL BANDWIDTH: 10MHz / QPSK

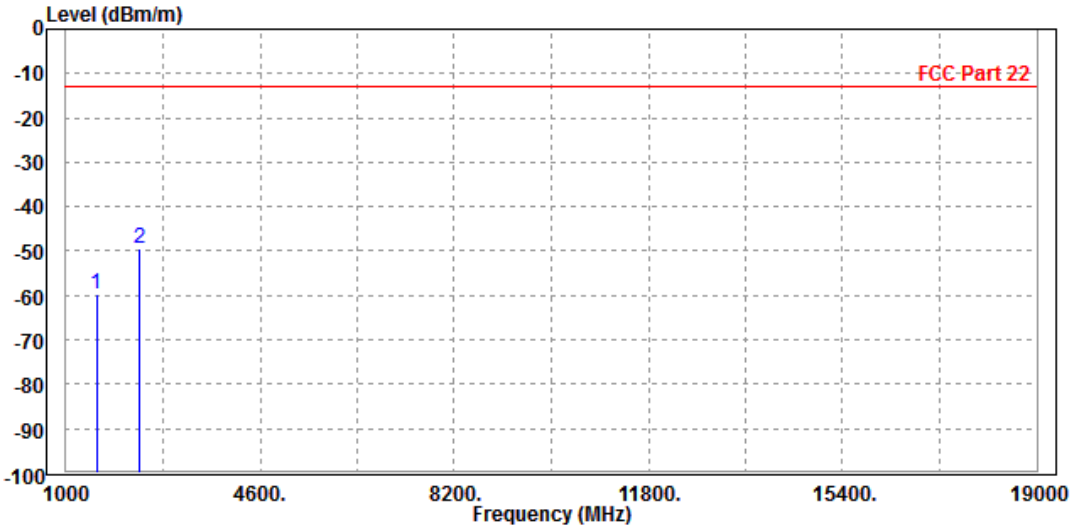
| MODE | TX channel 23230 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | |

| | Freq | Level | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBm/m | dBm | dBm/m | dB | dB/m | | |
| 1 | 1558.000 | -60.31 | -54.59 | -13.00 | -47.31 | -5.72 | Peak | Horizontal |
| 2 PP | 2346.000 | -51.95 | -50.19 | -13.00 | -38.95 | -1.76 | Peak | Horizontal |



| MODE | TX channel 23230 | FREQUENCY RANGE | Above 1000MHz |
|---|---|---|---|
| ENVIRONMENTAL CONDITIONS | 23deg. C, 70%RH | INPUT POWER | DC 5V from adapter |
| TESTED BY | Vincent Chen | | |
| 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 | 1564.000 | -59.61 | -55.28 | -13.00 | -46.61 | -4.33 | Peak | Vertical |
| 2 PP | 2350.000 | -49.26 | -49.06 | -13.00 | -36.26 | -0.20 | Peak | Vertical |



# 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:

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

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

No modifications were made to the EUT by the lab during the test.

**---END---**