



## FCC PART 15.247

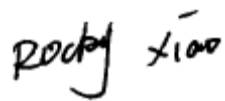
### TEST REPORT

For

**Fibocom Wireless Inc.**

1101, Tower A, Building 6, Shenzhen International, Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China

**FCC ID: ZMOSQ808NA**

|                                                          |                                                                                                                                                                                                                                                             |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Report Type:</b><br>Class II Permissive Change Report | <b>Product Name:</b><br>LTE Module                                                                                                                                                                                                                          |
| <b>Report Number:</b> XMDN210630-26287E-00A              |                                                                                                                                                                                                                                                             |
| <b>Report Date:</b> 2021-07-26                           |                                                                                                                                                                                                                                                             |
| <b>Reviewed By:</b>                                      | Rocky Xiao<br>RF Engineer<br>                                                                                                                                           |
| <b>Test Laboratory:</b>                                  | Bay Area Compliance Laboratories Corp. (Dongguan)<br>No.12, Pulong East 1 <sup>st</sup> Road, Tangxia Town, Dongguan,<br>Guangdong, China<br>Tel: +86-769-86858888<br>Fax: +86-769-86858891<br><a href="http://www.baclcorp.com.cn">www.baclcorp.com.cn</a> |

## **TABLE OF CONTENTS**

|                                                                       |           |
|-----------------------------------------------------------------------|-----------|
| <b>GENERAL INFORMATION.....</b>                                       | <b>3</b>  |
| PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) .....              | 3         |
| OBJECTIVE .....                                                       | 3         |
| TEST METHODOLOGY .....                                                | 4         |
| MEASUREMENT UNCERTAINTY .....                                         | 4         |
| TEST FACILITY .....                                                   | 4         |
| DECLARATIONS.....                                                     | 5         |
| <b>SUMMARY OF TEST RESULTS.....</b>                                   | <b>6</b>  |
| <b>SYSTEM TEST CONFIGURATION.....</b>                                 | <b>7</b>  |
| DESCRIPTION OF TEST CONFIGURATION .....                               | 7         |
| EUT EXERCISE SOFTWARE .....                                           | 7         |
| EQUIPMENT MODIFICATIONS .....                                         | 7         |
| SUPPORT CABLE LIST AND DETAILS .....                                  | 7         |
| BLOCK DIAGRAM OF TEST SETUP .....                                     | 8         |
| <b>FCC §15.247 (i) &amp; §1.1310 &amp; §2.1093- RF Exposure .....</b> | <b>9</b>  |
| APPLICABLE STANDARD .....                                             | 9         |
| <b>FCC §15.203 - ANTENNA REQUIREMENT.....</b>                         | <b>10</b> |
| APPLICABLE STANDARD .....                                             | 10        |
| ANTENNA INFORMATION AND CONNECTOR CONSTRUCTION.....                   | 10        |
| <b>FCC §15.207 (a)– AC LINE CONDUCTED EMISSIONS .....</b>             | <b>11</b> |
| APPLICABLE STANDARD .....                                             | 11        |
| EUT SETUP .....                                                       | 11        |
| EMI TEST RECEIVER SETUP.....                                          | 11        |
| TEST PROCEDURE .....                                                  | 12        |
| CORRECTED AMPLITUDE & MARGIN CALCULATION .....                        | 12        |
| TEST EQUIPMENT LIST AND DETAILS.....                                  | 12        |
| TEST DATA .....                                                       | 13        |
| <b>FCC §15.209, §15.205 &amp; §15.247(d)- SPURIOUS EMISSIONS.....</b> | <b>15</b> |
| APPLICABLE STANDARD .....                                             | 15        |
| EUT SETUP.....                                                        | 15        |
| EMI TEST RECEIVER & SPECTRUM ANALYZER SETUP .....                     | 16        |
| TEST PROCEDURE .....                                                  | 16        |
| CORRECTED AMPLITUDE & MARGIN CALCULATION .....                        | 16        |
| TEST EQUIPMENT LIST AND DETAILS.....                                  | 17        |
| TEST DATA .....                                                       | 17        |

## GENERAL INFORMATION

### Product Description for Equipment under Test (EUT)

|                                               |                |                                             |
|-----------------------------------------------|----------------|---------------------------------------------|
| <b>EUT Name:</b>                              |                | LTE Module                                  |
| <b>EUT Model:</b>                             |                | SQ808-NA                                    |
| <b>Operation Frequency:</b>                   |                | 2402-2480MHz                                |
| <b>Maximum Peak Output Power (Conducted):</b> |                | 12.59 dBm                                   |
| <b>Modulation Type:</b>                       |                | GFSK, $\pi/4$ -DQPSK, 8DPSK                 |
| <b>Antenna Gain▲:</b>                         |                | -0.97 dBi                                   |
| <b>Host Name:</b>                             |                | Smart POS Terminal                          |
| <b>Host Model:</b>                            |                | AXIUM EX6000                                |
| <b>Host Rated Input Voltage:</b>              |                | DC 3.85V from battery or DC 5V from adapter |
| <b>Adapter #1 Information:</b>                | <b>Model:</b>  | SW-0983                                     |
|                                               | <b>Input:</b>  | 100-240Vac 50/60Hz 0.5A                     |
|                                               | <b>Output:</b> | 5.0Vdc 2.0A                                 |
| <b>Adapter #2 Information:</b>                | <b>Model:</b>  | A8-050200U-US3                              |
|                                               | <b>Input:</b>  | 100-240Vac 50/60Hz 0.35A                    |
|                                               | <b>Output:</b> | 5.0Vdc 2.0A                                 |
| <b>Serial Number:</b>                         |                | XMDN210630-26287E -RF-S1                    |
| <b>EUT Received Date:</b>                     |                | 2021.06.30                                  |
| <b>EUT Received Status:</b>                   |                | Good                                        |

*Note: This Host have two configuration: with Scanner Reader or without Scanner Reader, the different of the two configuration please refer to Declaration Letter which was provided by manufacturer.*

*Per pre-test of FCC Part 15B test, the adapter#1+With Scanner Reader was the worst, and was performed the test items in this report.*

### Objective

This report is prepared on behalf of *Fibocom Wireless Inc.* in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communications Commission's rules.

The tests were performed in order to determine the EUT compliance with FCC Rules Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

This is Class II Permissive Change report for the purpose of built this Module into the host, the host FCC ID: XKB-EX6CL4GWB, and other change as below:

Change the module's Antennas.

The changes made to the device affected AC line conducted emissions test, and radiation spurious emissions test. Therefore only the two items data was recorded in this report.

## Test Methodology

All measurements detailed in this test report were performed in accordance with ANSI C63.10-2013 “American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices” and KDB 558074 D01 15.247 Meas Guidance v05r02.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Dongguan).

## Measurement Uncertainty

| Parameter                         | Measurement Uncertainty                                                                                              |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Occupied Channel Bandwidth        | ±5 %                                                                                                                 |
| RF output power, conducted        | ±0.61dB                                                                                                              |
| Unwanted Emissions, radiated      | 30M~200MHz: 4.55 dB, 200M~1GHz: 5.92 dB, 1G~6GHz: 4.98 dB, 6G~18GHz: 5.89 dB, 18G~26.5G: 5.47 dB, 26.5G~40G: 5.63 dB |
| Unwanted Emissions, conducted     | ±1.5 dB                                                                                                              |
| Temperature                       | ±1 °C                                                                                                                |
| Humidity                          | ±5%                                                                                                                  |
| DC and low frequency voltages     | ±0.4%                                                                                                                |
| Duty Cycle                        | 1%                                                                                                                   |
| AC Power Lines Conducted Emission | 3.12 dB (150 kHz to 30 MHz)                                                                                          |

*Note: Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.*

## Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1<sup>st</sup> Road, Tangxia Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 897218, the FCC Designation No. : CN1220.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier : CN0022.

## **Declarations**

BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol “▲”. Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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## SUMMARY OF TEST RESULTS

| Rules                               | Description of Test              | Result      |
|-------------------------------------|----------------------------------|-------------|
| §15.247 (i) & §1.1310 & §2.1093     | RF Exposure                      | Compliance  |
| FCC§15.203                          | Antenna Requirement              | Compliance  |
| FCC§15.207 (a)                      | Conducted Emissions              | Compliance  |
| FCC§15.205, §15.209, FCC §15.247(d) | Spurious Emissions               | Compliance  |
| FCC §15.247 (a)(1)                  | Emission Bandwidth               | Compliance* |
| FCC §15.247(a)(1)                   | Channel Separation Test          | Compliance* |
| FCC§15.247(a)(1)(iii)               | Time of Occupancy (Dwell Time)   | Compliance* |
| FCC§15.247(a)(1)(iii)               | Quantity of hopping channel Test | Compliance* |
| FCC§15.247(b)(1)                    | Peak Output Power Measurement    | Compliance* |
| FCC§15.247(d)                       | Band Edges                       | Compliance* |

Compliance\*: Please refer to the module original report: ZR/2020/6002804, which was issued by SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch.

## SYSTEM TEST CONFIGURATION

### Description of Test Configuration

The system was configured for testing in engineering mode, which was provided by manufacturer.

### EUT Exercise Software

Software ' QRCT3.exe ' command was used during test, which was provided by manufacturer. The maximum power level was configured by the software as below table ▲ :

| Mode           | Channel | Frequency (MHz) | Power Level Setting |
|----------------|---------|-----------------|---------------------|
| GFSK           | Low     | 2402            | Default             |
|                | Middle  | 2441            | Default             |
|                | High    | 2480            | Default             |
| $\pi/4$ -DQPSK | Low     | 2402            | Default             |
|                | Middle  | 2441            | Default             |
|                | High    | 2480            | Default             |
| 8DPSK          | Low     | 2402            | Default             |
|                | Middle  | 2441            | Default             |
|                | High    | 2480            | Default             |

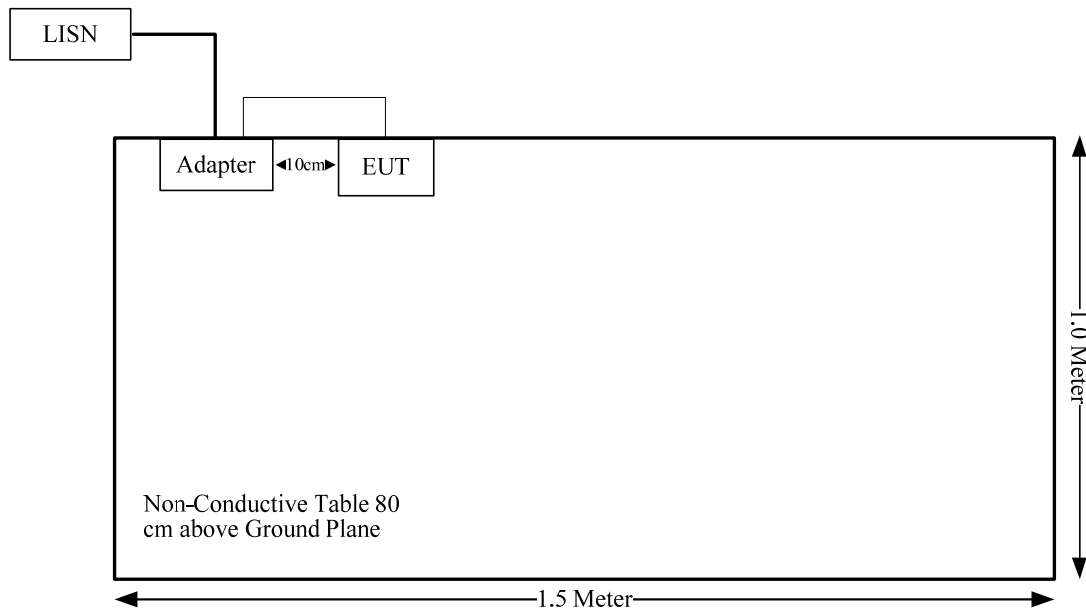
### Equipment Modifications

No modification was made to the EUT.

### Support Cable List and Details

| Cable Description | Shielding Type | Ferrite Core | Length (m) | From Port | To  |
|-------------------|----------------|--------------|------------|-----------|-----|
| USB Cable         | yes            | No           | 1.0        | Adapter   | EUT |

## Block Diagram of Test Setup



## **FCC §15.247 (i) & §1.1310 & §2.1093- RF Exposure**

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### **Applicable Standard**

According to §15.247(i) and §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

### **Measurement Result**

Compliance. Please refer to the SAR report: XMDN210630-26287E-20A.

## FCC §15.203 - ANTENNA REQUIREMENT

### Applicable Standard

According to FCC§ 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

### Antenna Information And Connector Construction

The EUT has one internal antenna arrangement, fulfill the requirement of this section. Please refer to below information and the EUT photos:

| Antenna Type | input impedance (Ohm) | Antenna Gain /Frequency Range |
|--------------|-----------------------|-------------------------------|
| FPC          | 50                    | -0.97 dBi/2.4~2.5GHz          |

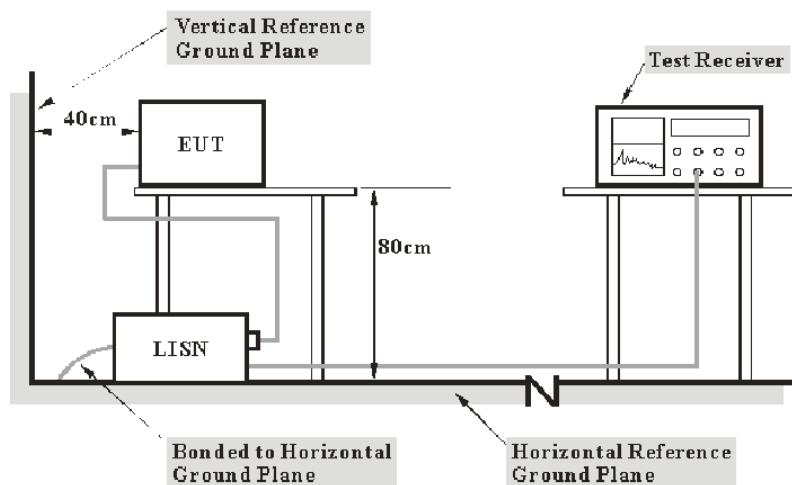
**Result:** Compliance.

## FCC §15.207 (a)– AC LINE CONDUCTED EMISSIONS

### Applicable Standard

FCC§15.207(a).

### EUT Setup



Note: 1. Support units were connected to second LISN.  
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter was connected to the main LISN with a 120 V/60 Hz AC power source.

### EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

| Frequency Range  | IF B/W |
|------------------|--------|
| 150 kHz – 30 MHz | 9 kHz  |

## Test Procedure

During the conducted emission test, the adapter was connected to the first LISN.

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase (“hot”) line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

## Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$$V_C = V_R + A_c + VDF$$

Herein,

$V_C$ : corrected voltage amplitude

$V_R$ : reading voltage amplitude

$A_c$ : attenuation caused by cable loss

VDF: voltage division factor of AMN or ISN

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

## Test Equipment List and Details

| Manufacturer | Description       | Model     | Serial Number   | Calibration Date | Calibration Due Date |
|--------------|-------------------|-----------|-----------------|------------------|----------------------|
| R&S          | LISN              | ENV 216   | 101614          | 2020-09-12       | 2021-09-12           |
| R&S          | EMI Test Receiver | ESCI      | 101121          | 2021-07-06       | 2022-07-05           |
| MICRO-COAX   | Coaxial Cable     | C-NJNJ-50 | C-0200-01       | 2020-09-05       | 2021-09-05           |
| R&S          | Test Software     | EMC32     | Version 9.10.00 | N/A              | N/A                  |

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

## Test Data

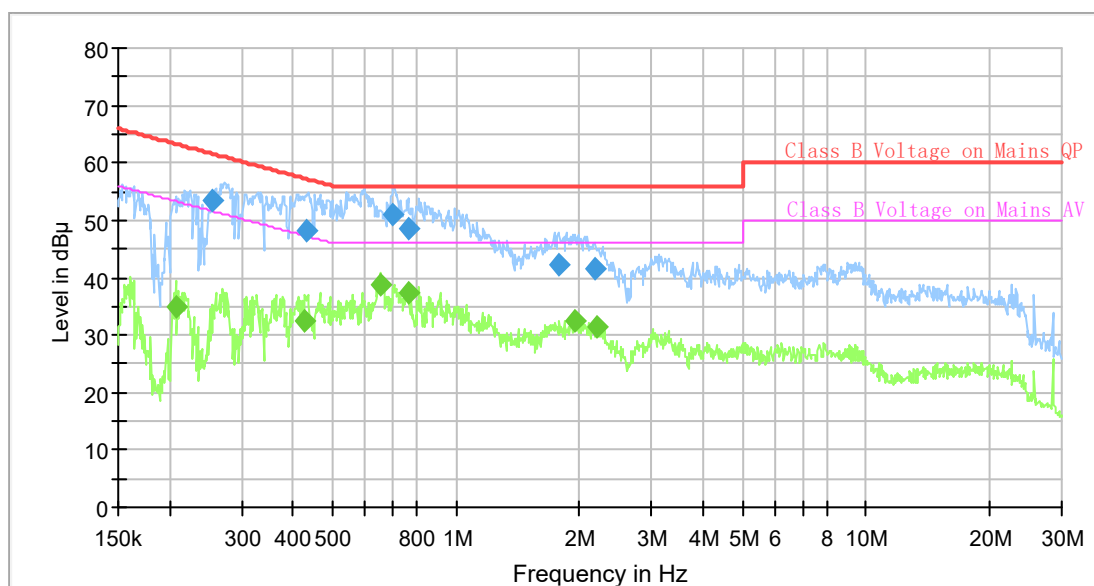
### Environmental Conditions

|                    |             |
|--------------------|-------------|
| Temperature:       | 27.3°C      |
| Relative Humidity: | 54%         |
| ATM Pressure:      | 100.1kPa    |
| Test by:           | Walker Chen |
| Test Date:         | 2021-07-17  |

**Test Result:** Compliance

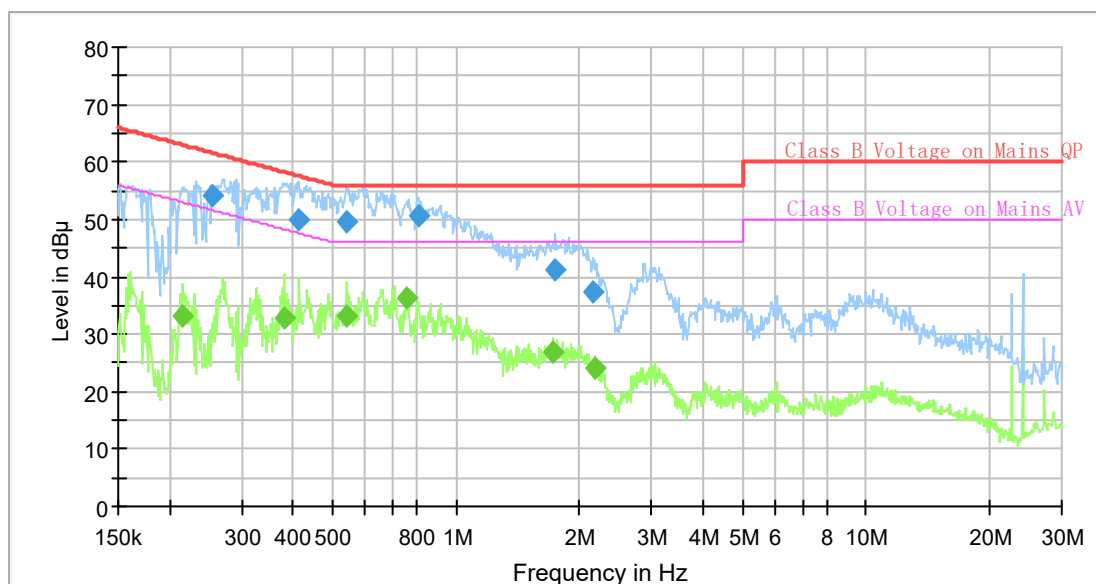
**Test Mode:** Transmitting

**AC120V, 60 Hz, Line:**



## Final Result

| Frequency (MHz) | QuasiPeak (dB $\mu$ V) | Average (dB $\mu$ V) | Limit (dB $\mu$ V) | Margin (dB) | Bandwidth (kHz) | Line | Corr. (dB) |
|-----------------|------------------------|----------------------|--------------------|-------------|-----------------|------|------------|
| 0.207437        | ---                    | 34.97                | 53.31              | 18.34       | 9.000           | L1   | 9.6        |
| 0.254504        | 53.47                  | ---                  | 61.61              | 8.14        | 9.000           | L1   | 9.6        |
| 0.427528        | ---                    | 32.36                | 47.30              | 14.94       | 9.000           | L1   | 9.6        |
| 0.429665        | 48.14                  | ---                  | 57.26              | 9.12        | 9.000           | L1   | 9.6        |
| 0.653250        | ---                    | 38.69                | 46.00              | 7.31        | 9.000           | L1   | 9.6        |
| 0.703996        | 51.13                  | ---                  | 56.00              | 4.87        | 9.000           | L1   | 9.7        |
| 0.762478        | ---                    | 37.27                | 46.00              | 8.73        | 9.000           | L1   | 9.7        |
| 0.766291        | 48.51                  | ---                  | 56.00              | 7.49        | 9.000           | L1   | 9.7        |
| 1.780155        | 42.42                  | ---                  | 56.00              | 13.58       | 9.000           | L1   | 9.7        |
| 1.957100        | ---                    | 32.43                | 46.00              | 13.57       | 9.000           | L1   | 9.7        |
| 2.173203        | 41.44                  | ---                  | 56.00              | 14.56       | 9.000           | L1   | 9.7        |
| 2.216994        | ---                    | 31.27                | 46.00              | 14.73       | 9.000           | L1   | 9.7        |

**AC120V, 60 Hz, Neutral:****Final Result**

| Frequency (MHz) | QuasiPeak (dB $\mu$ V) | Average (dB $\mu$ V) | Limit (dB $\mu$ V) | Margin (dB) | Bandwidth (kHz) | Line | Corr. (dB) |
|-----------------|------------------------|----------------------|--------------------|-------------|-----------------|------|------------|
| 0.215881        | ---                    | 33.12                | 52.98              | 19.86       | 9.000           | N    | 9.6        |
| 0.253237        | 54.12                  | ---                  | 61.65              | 7.53        | 9.000           | N    | 9.6        |
| 0.381193        | ---                    | 32.88                | 48.25              | 15.37       | 9.000           | N    | 9.6        |
| 0.412859        | 50.01                  | ---                  | 57.59              | 7.58        | 9.000           | N    | 9.6        |
| 0.543169        | 49.50                  | ---                  | 56.00              | 6.50        | 9.000           | N    | 9.6        |
| 0.543169        | ---                    | 33.29                | 46.00              | 12.71       | 9.000           | N    | 9.6        |
| 0.758685        | ---                    | 36.24                | 46.00              | 9.76        | 9.000           | N    | 9.6        |
| 0.809506        | 50.49                  | ---                  | 56.00              | 5.51        | 9.000           | N    | 9.6        |
| 1.727673        | ---                    | 27.06                | 46.00              | 18.94       | 9.000           | N    | 9.6        |
| 1.744993        | 41.05                  | ---                  | 56.00              | 14.95       | 9.000           | N    | 9.6        |
| 2.162391        | 37.55                  | ---                  | 56.00              | 18.45       | 9.000           | N    | 9.6        |
| 2.173203        | ---                    | 24.00                | 46.00              | 22.00       | 9.000           | N    | 9.6        |

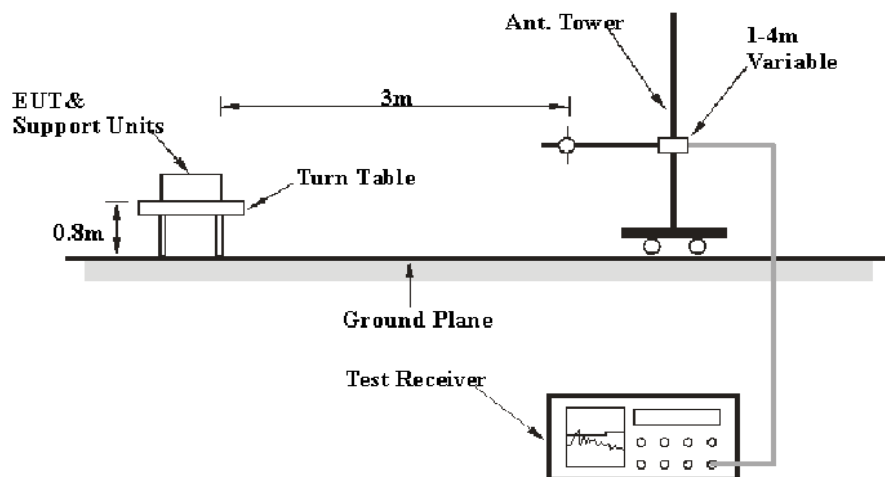
## FCC §15.209, §15.205 & §15.247(d)- SPURIOUS EMISSIONS

### Applicable Standard

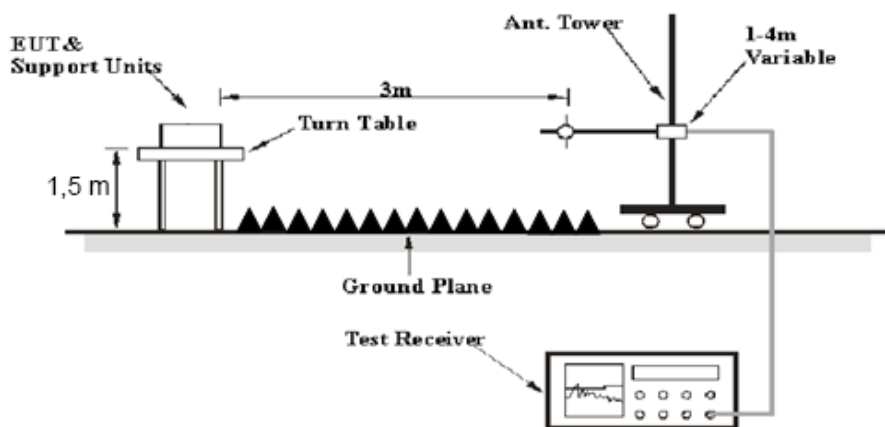
FCC §15.247 (d); §15.209; §15.205.

### EUT Setup

#### Below 1GHz:



#### Above 1GHz:



The radiated emission below 1GHz tests were performed in the 3 meters chamber test site A, above 1GHz tests were performed in the 3 meters chamber test site B, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

## EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

| Frequency Range   | RBW     | Video B/W | IF B/W  | Measurement |
|-------------------|---------|-----------|---------|-------------|
| 30 MHz – 1000 MHz | 120 kHz | 300 kHz   | 120 kHz | QP          |
| Above 1 GHz       | 1MHz    | 3 MHz     | /       | PK          |
|                   | 1MHz    | 10 Hz     | /       | AV          |

## Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz - 1 GHz, peak and average detection modes for frequencies above 1 GHz.

## Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

**Test Equipment List and Details**

| Manufacturer          | Description       | Model              | Serial Number      | Calibration Date | Calibration Due Date |
|-----------------------|-------------------|--------------------|--------------------|------------------|----------------------|
| Radiation Below 1GHz  |                   |                    |                    |                  |                      |
| Sunol Sciences        | Antenna           | JB3                | A060611-2          | 2020-08-25       | 2023-08-25           |
| R&S                   | EMI Test Receiver | ESCI               | 100224             | 2020-09-12       | 2021-09-12           |
| Unknown               | Coaxial Cable     | C-NJNJ-50          | C-1000-01          | 2020-09-05       | 2021-09-05           |
| Unknown               | Coaxial Cable     | C-NJNJ-50          | C-0400-02          | 2020-09-05       | 2021-09-05           |
| Unknown               | Coaxial Cable     | C-NJNJ-50          | C-0530-01          | 2020-09-24       | 2021-09-24           |
| Sonoma                | Amplifier         | 310N               | 185914             | 2020-10-13       | 2021-10-13           |
| Farad                 | Test Software     | EZ-EMC             | V1.1.4.2           | N/A              | N/A                  |
| Radiation Above 1GHz  |                   |                    |                    |                  |                      |
| ETS-Lindgren          | Horn Antenna      | 3115               | 000 527 35         | 2018-10-12       | 2021-10-12           |
| Ducommun Technologies | Horn Antenna      | ARH-4223-02        | 1007726-01<br>1304 | 2020-12-05       | 2023-12-04           |
| Agilent               | Spectrum Analyzer | E4440A             | SG43360054         | 2021-07-06       | 2022-07-05           |
| Unknown               | Coaxial Cable     | C-SJSJ-50          | C-0800-01          | 2020-09-05       | 2021-09-05           |
| Unknown               | Coaxial Cable     | C-2.4J2.4J-50      | C-0700-02          | 2021-06-27       | 2022-06-26           |
| Mini-Circuit          | Amplifier         | ZVA-213-S+         | 54201245           | 2020-09-05       | 2021-09-05           |
| Quinstar              | Amplifier         | QLW-18405536-JO    | 15964001001        | 2021-06-27       | 2022-06-26           |
| Farad                 | Test Software     | EZ-EMC             | V1.1.4.2           | N/A              | N/A                  |
| E-Microwave           | Band-stop Filters | OBSF-2400-2483.5-S | OE01601525         | 2021-06-16       | 2022-06-15           |
| Mini Circuits         | High Pass Filter  | VHF-6010+          | 31118              | 2021-06-16       | 2022-06-15           |

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data****Environmental Conditions**

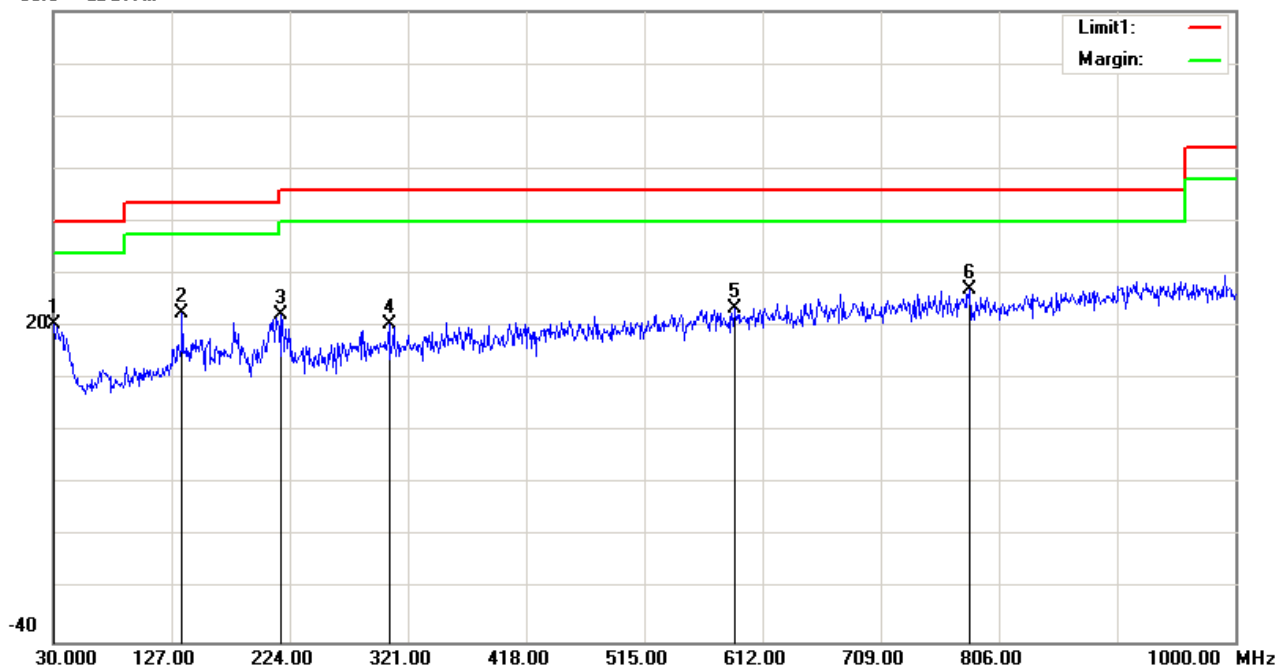
| Test Items         | Radiation Below 1GHz | Radiation Above 1GHz |
|--------------------|----------------------|----------------------|
| Temperature:       | 26.2°C               | 28.7 °C              |
| Relative Humidity: | 52%                  | 25 %                 |
| ATM Pressure:      | 100.3 kPa            | 100.3 kPa            |
| Tester:            | Johnson Huang        | Lee Li               |
| Test Date:         | 2021-07-21           | 2021-07-16           |

Test Mode: Transmitting

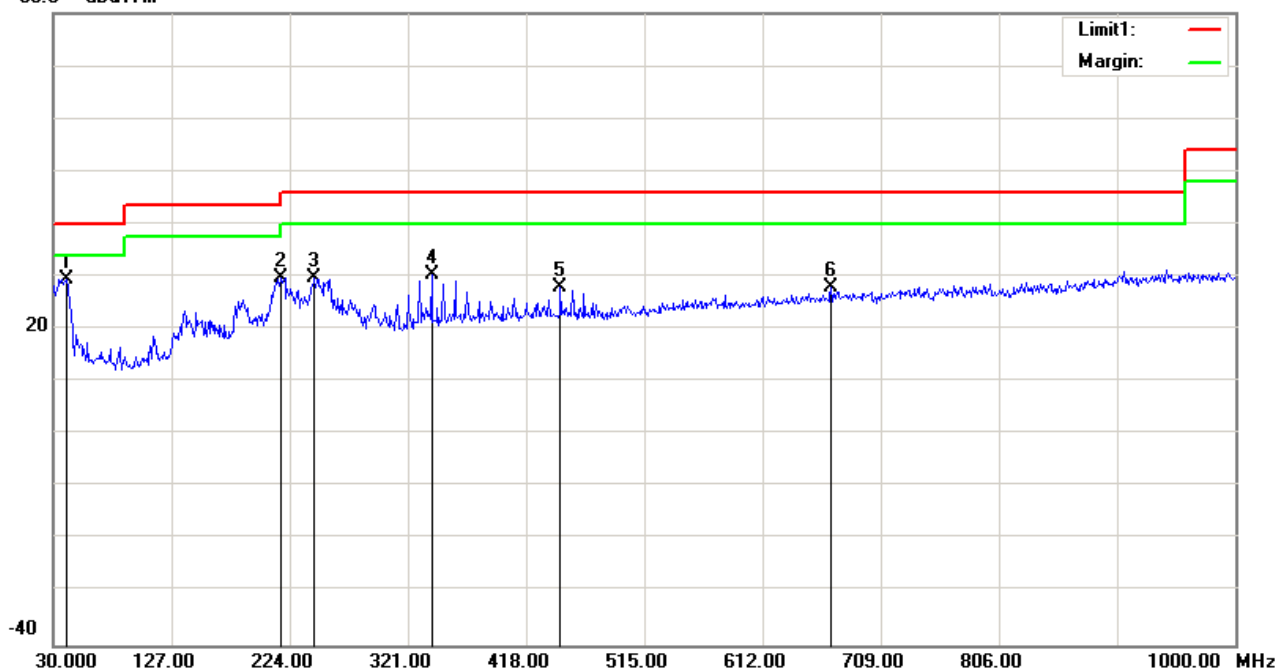
Test Result: Compliance. Please refer to the following table and plots.

## 1) 30MHz-1GHz (GFSK Low channel was the worst)

Horizontal:

80.0 dB $\mu$ V/m

| Frequency (MHz) | Receiver Reading (dB $\mu$ V) | Detector | Correction Factor (dB/m) | Cord. Amp. (dB $\mu$ V/m) | Limit (dB $\mu$ V/m) | Margin (dB) |
|-----------------|-------------------------------|----------|--------------------------|---------------------------|----------------------|-------------|
| 30.0000         | 24.41                         | peak     | -4.10                    | 20.31                     | 40.00                | 19.69       |
| 135.7300        | 31.72                         | peak     | -9.31                    | 22.41                     | 43.50                | 21.09       |
| 217.2100        | 33.42                         | peak     | -11.13                   | 22.29                     | 46.00                | 23.71       |
| 305.4800        | 27.53                         | peak     | -7.16                    | 20.37                     | 46.00                | 25.63       |
| 588.7200        | 24.95                         | peak     | -1.50                    | 23.45                     | 46.00                | 22.55       |
| 781.7500        | 26.04                         | peak     | 0.96                     | 27.00                     | 46.00                | 19.00       |

**Vertical:**80.0 dB $\mu$ V/m

| Frequency (MHz) | Receiver Reading (dB $\mu$ V) | Detector | Correction Factor (dB/m) | Cord. Amp. (dB $\mu$ V/m) | Limit (dB $\mu$ V/m) | Margin (dB) |
|-----------------|-------------------------------|----------|--------------------------|---------------------------|----------------------|-------------|
| 40.6700         | 39.22                         | peak     | -9.67                    | 29.55                     | 40.00                | 10.45       |
| 216.2400        | 40.94                         | peak     | -11.17                   | 29.77                     | 46.00                | 16.23       |
| 244.3700        | 39.55                         | peak     | -9.83                    | 29.72                     | 46.00                | 16.28       |
| 340.4000        | 37.06                         | peak     | -6.75                    | 30.31                     | 46.00                | 15.69       |
| 446.1300        | 32.21                         | peak     | -4.37                    | 27.84                     | 46.00                | 18.16       |
| 668.2600        | 27.92                         | peak     | 0.00                     | 27.92                     | 46.00                | 18.08       |

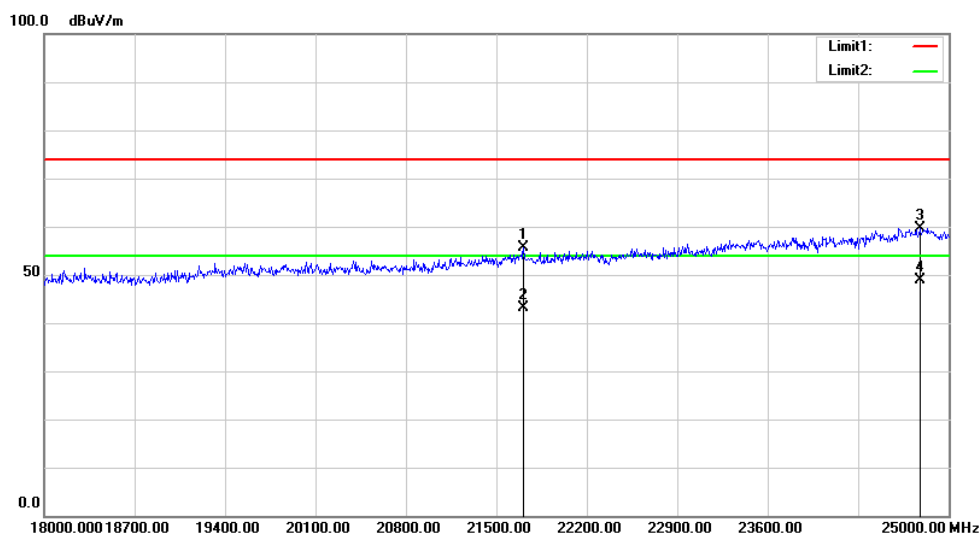
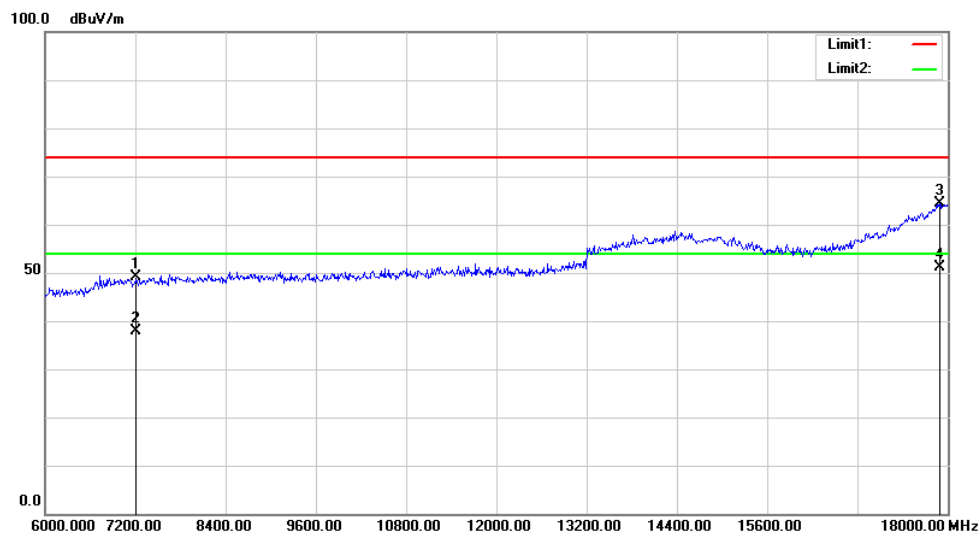
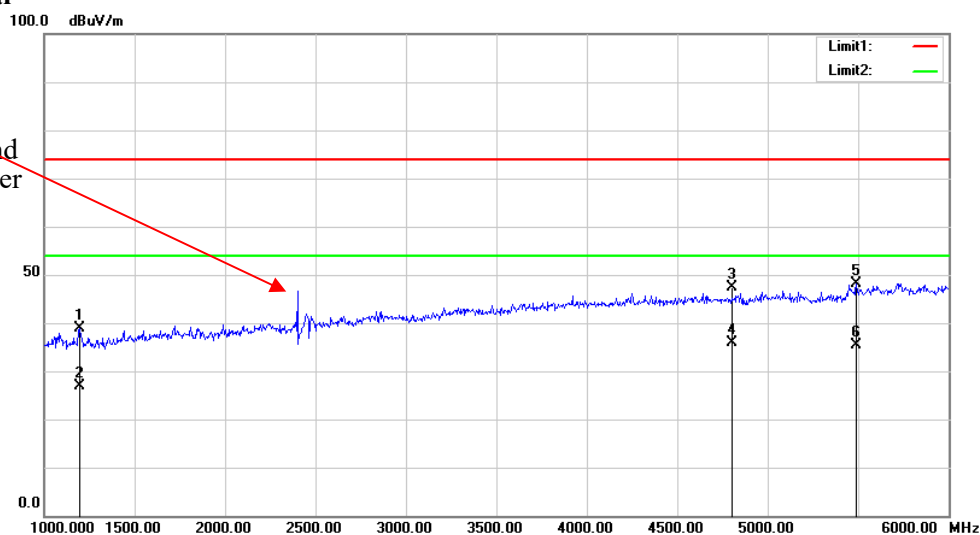
**2) 1GHz-25GHz:***BDR Mode (GFSK was the worst case):*

| Frequency<br>(MHz)       | Receiver          |          | Rx Antenna     |                  | Cable<br>loss<br>(dB) | Amplifier<br>Gain<br>(dB) | Corrected<br>Amplitude<br>(dBμV/m) | Limit<br>(dBμV/m) | Margin<br>(dB) |
|--------------------------|-------------------|----------|----------------|------------------|-----------------------|---------------------------|------------------------------------|-------------------|----------------|
|                          | Reading<br>(dBμV) | Detector | Polar<br>(H/V) | Factor<br>(dB/m) |                       |                           |                                    |                   |                |
| Low Channel: 2402 MHz    |                   |          |                |                  |                       |                           |                                    |                   |                |
| 2402.00                  | 68.57             | PK       | H              | 28.10            | 1.80                  | 0.00                      | 98.47                              | N/A               | N/A            |
| 2402.00                  | 58.27             | AV       | H              | 28.10            | 1.80                  | 0.00                      | 88.17                              | N/A               | N/A            |
| 2402.00                  | 67.72             | PK       | V              | 28.10            | 1.80                  | 0.00                      | 97.62                              | N/A               | N/A            |
| 2402.00                  | 57.33             | AV       | V              | 28.10            | 1.80                  | 0.00                      | 87.23                              | N/A               | N/A            |
| 2390.00                  | 26.90             | PK       | H              | 28.08            | 1.80                  | 0.00                      | 56.78                              | 74.00             | 17.22          |
| 2390.00                  | 13.30             | AV       | H              | 28.08            | 1.80                  | 0.00                      | 43.18                              | 54.00             | 10.82          |
| 4804.00                  | 37.01             | PK       | H              | 32.91            | 3.17                  | 25.60                     | 47.49                              | 74.00             | 26.51          |
| 4804.00                  | 24.85             | AV       | H              | 32.91            | 3.17                  | 25.60                     | 35.33                              | 54.00             | 18.67          |
| 7206.00                  | 36.97             | PK       | H              | 35.74            | 4.82                  | 25.60                     | 51.93                              | 74.00             | 22.07          |
| 7206.00                  | 24.74             | AV       | H              | 35.74            | 4.82                  | 25.60                     | 39.70                              | 54.00             | 14.30          |
| Middle Channel: 2441 MHz |                   |          |                |                  |                       |                           |                                    |                   |                |
| 2441.00                  | 68.41             | PK       | H              | 28.18            | 1.82                  | 0.00                      | 98.41                              | N/A               | N/A            |
| 2441.00                  | 58.13             | AV       | H              | 28.18            | 1.82                  | 0.00                      | 88.13                              | N/A               | N/A            |
| 2441.00                  | 67.56             | PK       | V              | 28.18            | 1.82                  | 0.00                      | 97.56                              | N/A               | N/A            |
| 2441.00                  | 57.17             | AV       | V              | 28.18            | 1.82                  | 0.00                      | 87.17                              | N/A               | N/A            |
| 4882.00                  | 36.75             | PK       | H              | 33.06            | 3.27                  | 25.66                     | 47.42                              | 74.00             | 26.58          |
| 4882.00                  | 24.62             | AV       | H              | 33.06            | 3.27                  | 25.66                     | 35.29                              | 54.00             | 18.71          |
| 7323.00                  | 36.21             | PK       | H              | 36.04            | 4.62                  | 25.73                     | 51.14                              | 74.00             | 22.86          |
| 7323.00                  | 24.33             | AV       | H              | 36.04            | 4.62                  | 25.73                     | 39.26                              | 54.00             | 14.74          |
| High Channel: 2480 MHz   |                   |          |                |                  |                       |                           |                                    |                   |                |
| 2480.00                  | 68.03             | PK       | H              | 28.26            | 1.84                  | 0.00                      | 98.13                              | N/A               | N/A            |
| 2480.00                  | 58.09             | AV       | H              | 28.26            | 1.84                  | 0.00                      | 88.19                              | N/A               | N/A            |
| 2480.00                  | 67.08             | PK       | V              | 28.26            | 1.84                  | 0.00                      | 97.18                              | N/A               | N/A            |
| 2480.00                  | 57.01             | AV       | V              | 28.26            | 1.84                  | 0.00                      | 87.11                              | N/A               | N/A            |
| 2483.50                  | 26.13             | PK       | H              | 28.27            | 1.84                  | 0.00                      | 56.24                              | 74.00             | 17.76          |
| 2483.50                  | 13.85             | AV       | H              | 28.27            | 1.84                  | 0.00                      | 43.96                              | 54.00             | 10.04          |
| 4960.00                  | 36.56             | PK       | H              | 33.22            | 3.23                  | 25.63                     | 47.38                              | 74.00             | 26.62          |
| 4960.00                  | 24.43             | AV       | H              | 33.22            | 3.23                  | 25.63                     | 35.25                              | 54.00             | 18.75          |
| 7440.00                  | 36.02             | PK       | H              | 36.34            | 4.41                  | 25.85                     | 50.92                              | 74.00             | 23.08          |
| 7440.00                  | 24.02             | AV       | H              | 36.34            | 4.41                  | 25.85                     | 38.92                              | 54.00             | 15.08          |

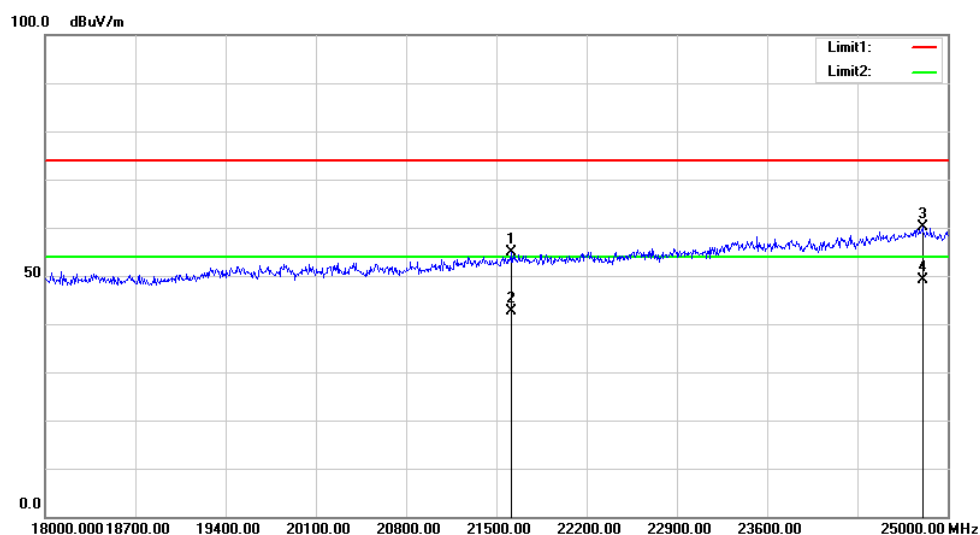
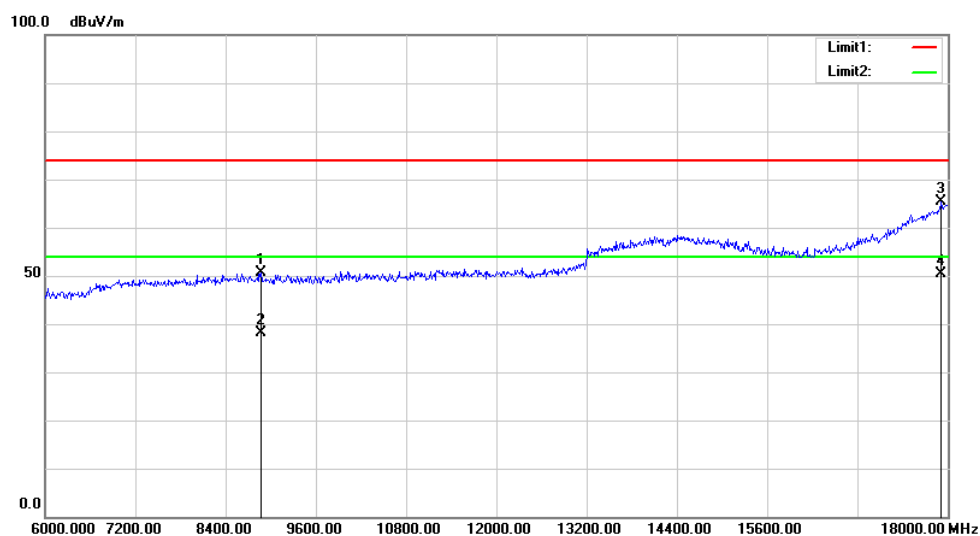
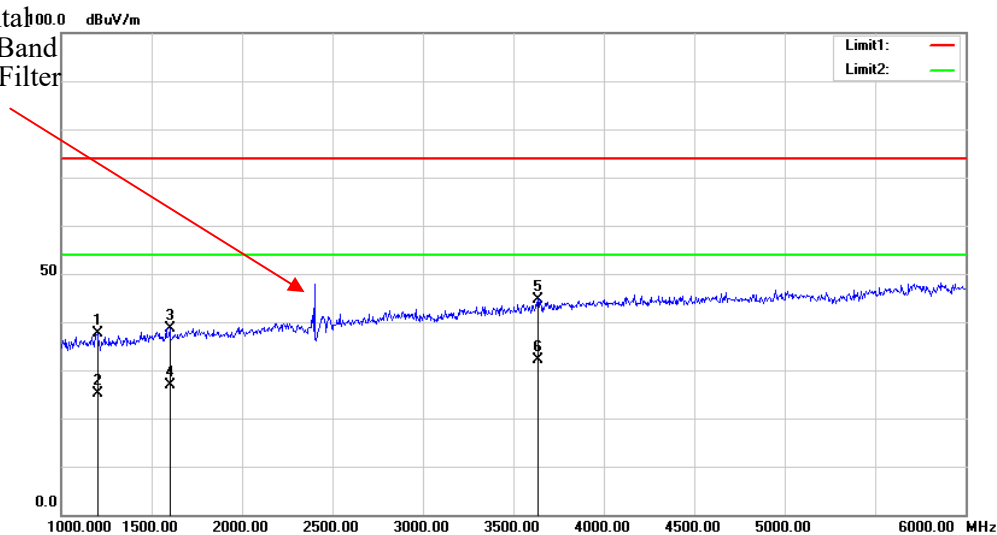
# Worst plots(GFSK high channel)

## Horizontal

Fundamental  
Test with Band  
Rejection Filter



**Vertical**  
Fundamental  
Test with Band  
Rejection Filter



\*\*\*\*\* END OF REPORT \*\*\*\*\*