# FCC Radio Test Report

## *FCC ID:2AHAS-BT82D*

| | | |
|---|---|---|
| **Report No.** | : | TBR-C-202502-0188-12 |
| **Applicant** | : | JEM ACCESSORIES, INC |
| **Equipment Under Test (EUT)** | | |
| **EUT Name** | : | Bluetooth FM Transmitter |
| **Model No.** | : | BT82D |
| **Series Model No.** | : | BT82DF, AHF9-1010-BLK, MCC9-1032-BLK |
| **Brand Name** | : | ArmorAll & Monster |
| **Sample ID** | : | HC-C-202502-0188-01-01&HC-C-202502-0188-02-01 |
| **Receipt Date** | : | 2025-03-05 |
| **Test Date** | : | 2025-03-05 to 2025-03-11 |
| **Issue Date** | : | 2025-03-11 |
| **Standards** | : | FCC Part 15, Subpart C 15.239 |
| **Test Method** | : | ANSI C63.10:2013 |
| **Conclusions** | : | **PASS** |

In the configuration tested, the EUT complied with the standards specified above, The EUT technically complies with the FCC requirements

| | | |
|---|---|---|
| **Test By** | : | Gold Zhang |
| **Reviewed By** | : | Henry huang |
| **Approved By** | : | Ivan Su |

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.



1/F.,Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, Shenzhen, Guangdong, China
Tel: +86 75526509301 Fax: +86 75526509195

# Contents

# Revision History

| Report No. | Version | Description | Issued Date |
|---|---|---|---|
| TBR-C-202502-0188-12 | Rev.01 | Initial issue of report | 2025-03-11 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# 1. General Information about EUT

## 1.1 Client Information

| | | |
|---|---|---|
| **Applicant** | : | JEM ACCESSORIES, INC |
| **Address** | : | 32 Brunswick Avenue Edison New Jersey United States 08817 |
| **Manufacturer** | : | JEM ACCESSORIES, INC |
| **Address** | : | 32 Brunswick Avenue Edison New Jersey United States 08817 |

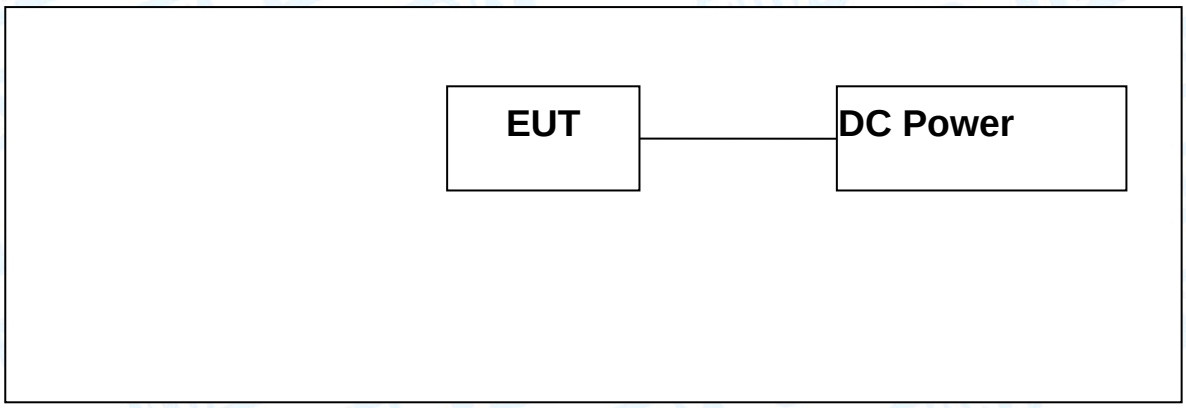
## 1.2 General Description of EUT (Equipment Under Test)

| | | | |
|---|---|---|---|
| **EUT Name** | : | Bluetooth FM Transmitter | |
| **Models No.** | : | BT82D, BT82DF, AHF9-1010-BLK, MCC9-1032-BLK | |
| **Model Difference** | : | All of these models are identical on the same PCB, layout and circuit, the only difference is the model name and appearance size color. | |
| **Product Description** | : | Operation Frequency: | FM: 88.1-107.9 MHz |
| | | Number of Channel: | 199(Channel spacing 100KHz) |
| | | Antenna Gain: | 0dBi Spring Antenna |
| | | Modulation Type: | FM |
| **Power Rating** | : | Input: DC 12V/24V<br>USB A1 Output: DC 5V/2.4A<br>USB A2 Output: DC 5V/1A | |
| **Software Version** | : | Master:AC6956C4;CPU:QFN32 | |
| **Hardware Version** | : | BT82D_6956_8027_V1.0 | |
| **Connecting I/O Port(S)** | : | Please refer to the User's Manual | |

**Note:**

(1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

## 1.3 Block Diagram Showing the Configuration of System Tested




## 1.4 Description of Support Units

The EUT has been tested as an independent unit.

## 1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

| **Pretest Mode** | |
|---|---|
| **Pretest Mode** | **Description** |
| Mode 1 | Continuously transmitting (88.1MHz/98.1MHz/107.9MHz) |
| **Radiated Emission** | |
| **Test Mode** | **Description** |
| Mode 1 | Continuously transmitting (88.1MHz/98.1MHz/107.9MHz) |
| **Note : The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.** | |

**Note:**

(1) During the testing procedure, the continuously transmitting mode was programmed by the customer.

(2) The EUT is considered a portable unit, and it was pre-tested on the positioned of each 3 axis: X axis, Y axis and Z axis. The worst case was found positioned on Z-plane. There for only the test data of this Z-plane were used for radiated emission measurement test.

## 1.6 Description of Test Software Setting

During testing channel& Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of transmitting mode.

| | | |
|---|---|---|
| **1** | **Product SW/HW Version :** | N/A |
| **2** | **Radio SW/HW Version:** | N/A |
| **3** | **Test SW Version:** | N/A |
| **4** | **RF Power Setting in Test SW:** | Adjust and control the corresponding transmission frequency through the EUT entity key. |

## 1.7 Measurement Uncertainty

The reported uncertainty of measurement y ± U，where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2，providing a level of confidence of approximately 95 %.

| **Test Item** | **Parameters** | **Expanded Uncertainty ($U_{Lab}$)** |
|---|---|---|
| Conducted Emission | Level Accuracy:<br>9kHz~150kHz<br>150kHz to 30MHz | ±3.50 dB<br>±3.10 dB |
| Radiated Emission | Level Accuracy:<br>9kHz to 30 MHz | ±4.60 dB |
| Radiated Emission | Level Accuracy:<br>30MHz to 1000 MHz | ±4.50 dB |
| Radiated Emission | Level Accuracy:<br>Above 1000MHz | ±4.20 dB |

## 1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1/F., Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

**CNAS (L5813)**

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

**A2LA Certificate No.: 4750.01**

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025：2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351. Designation Number: CN1223.

**IC Registration No.: (11950A)**

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A. CAB identifier: CN0056.

# 2. Test Summary

| FCC Part 15 Subpart (15.239) | | | | |
|---|---|---|---|---|
| **Standard Section** | **Test Item** | **Test Sample(s)** | **Judgment** | **Remark** |
| 15.203 | Antenna Requirement | HC-C-202502-0188-01-01 | PASS | N/A |
| 15.207 | Conducted Emission | N/A | N/A | N/A |
| 15.239 &15.209 | Radiation Emission | HC-C-202502-0188-02-01 | PASS | N/A |
| 15.239 | Occupied Bandwidth | HC-C-202502-0188-01-01 | PASS | N/A |
| **Note:** (1)N/A is an abbreviation for Not Applicable.<br>(2) The EUT is powered by DC battery, no requirement for this test item. | | | | |

# 3. Test Software

| Test Item | Test Software | Manufacturer | Version No. |
|---|---|---|---|
| Conducted Emission | EZ-EMC | EZ | CDI-03A2 |
| Radiation Emission | EZ-EMC | EZ | FA-03A2RE |
| RF Conducted Measurement | MTS-8310 | MWRFtest | V2.0.0.0 |

# 4. Test Equipment

| Radiation Emission Test(B Site) | | | | | |
|---|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model No.** | **Serial No.** | **Last Cal.** | **Cal. Due Date** |
| Spectrum Analyzer | Agilent | N9020A | MY49100060 | Aug. 29, 2024 | Aug. 28, 2025 |
| Spectrum Analyzer | Rohde & Schwarz | FSV40-N | 102197 | Jun. 17, 2024 | Jun. 16, 2025 |
| EMI Test Receiver | Rohde & Schwarz | ESU-8 | 100472/008 | Feb. 20, 2025 | Feb.19, 2026 |
| Bilog Antenna | SCHWARZBECK | VULB 9168 | 1225 | Nov. 13, 2023 | Nov. 12, 2025 |
| Horn Antenna | SCHWARZBECK | BBHA 9120 D | 2463 | Jun. 14, 2024 | Jun. 13, 2026 |
| Horn Antenna | SCHWARZBECK | BBHA 9170 | 1118 | Feb. 27, 2024 | Feb.26, 2026 |
| Loop Antenna | SCHWARZBECK | FMZB 1519 B | 1519B-059 | Jun. 14, 2024 | Jun. 13, 2026 |
| HF Amplifier | Tonscend | TAP9E6343 | AP21C806117 | Aug. 29, 2024 | Aug. 28, 2025 |
| HF Amplifier | Tonscend | TAP051845 | AP21C806141 | Aug. 29, 2024 | Aug. 28, 2025 |
| HF Amplifier | Tonscend | TAP0184050 | AP21C806129 | Aug. 29, 2024 | Aug. 28, 2025 |
| Highpass Filter | CD | HPM-6.4/18G | --- | N/A | N/A |
| Highpass Filter | CD | HPM-2.8/18G | --- | N/A | N/A |
| Highpass Filter | XINBO | XBLBQ-HTA67(8-25G) | 22052702-1 | N/A | N/A |
| **Antenna Conducted Emission** | | | | | |
| **Equipment** | **Manufacturer** | **Model No.** | **Serial No.** | **Last Cal.** | **Cal. Due Date** |
| Spectrum Analyzer | Rohde & Schwarz | FSV40-N | 102197 | Jun. 17, 2024 | Jun. 16, 2025 |
| MXA Signal Analyzer | KEYSIGHT | N9020B | MY60110172 | Aug. 29, 2024 | Aug. 28, 2025 |
| MXA Signal Analyzer | Agilent | N9020A | MY47380425 | Aug. 29, 2024 | Aug. 28, 2025 |
| RF Power Sensor | DARE!! Instruments | RadiPowerRPR3006W | 17I00015SNO26 | Aug. 29, 2024 | Aug. 28, 2025 |
| | DARE!! Instruments | RadiPowerRPR3006W | 17I00015SNO29 | Aug. 29, 2024 | Aug. 28, 2025 |
| | DARE!! Instruments | RadiPowerRPR3006W | 17I00015SNO31 | Aug. 29, 2024 | Aug. 28, 2025 |
| | DARE!! Instruments | RadiPowerRPR3006W | 17I00015SNO33 | Aug. 29, 2024 | Aug. 28, 2025 |
| Temperature and Humidity Chamber | ZhengHang | ZH-QTH-1500 | ZH2107264 | Jun. 17, 2024 | Jun. 16, 2025 |

# 5. Conducted Emission Test

## 5.1 Test Standard and Limit

### 5.1.1Test Standard

FCC Part 15.207

### 5.1.2 Test Limit

**Conducted Emission Test Limit**

| Frequency | Maximum RF Line Voltage (dBμV) | |
|---|---|---|
| | Quasi-peak Level | Average Level |
| 150kHz~500kHz | 66 ~ 56 * | 56 ~ 46 * |
| 500kHz~5MHz | 56 | 46 |
| 5MHz~30MHz | 60 | 50 |

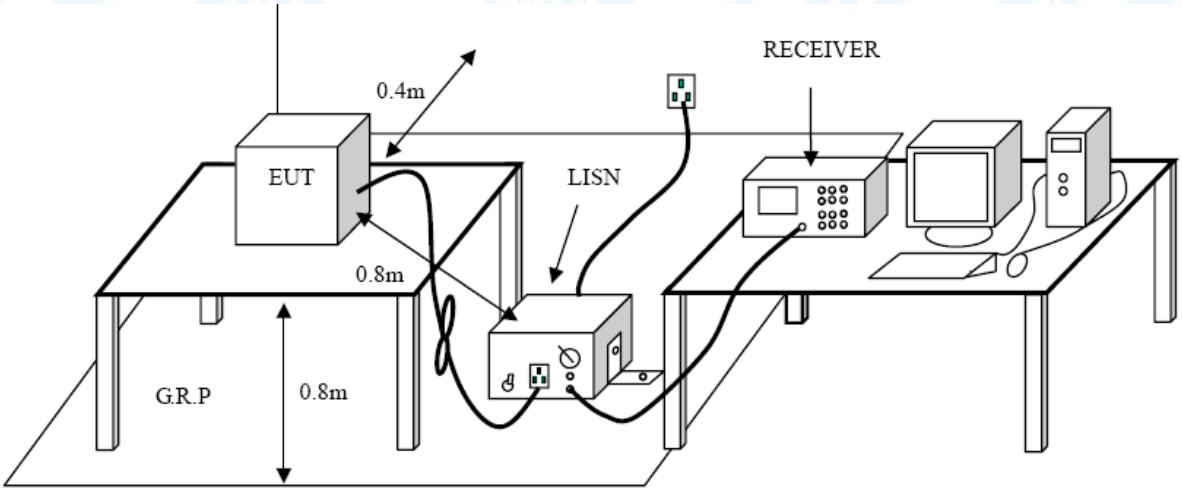
Notes:

(1) *Decreasing linearly with logarithm of the frequency.

(2) The lower limit shall apply at the transition frequencies.

(3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

## 5.2 Test Setup



## 5.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

## 5.4 Deviation From Test Standard

No deviation

## 5.5 Test Data

Not applicable.

# 6. Radiated Emission Test

## 6.1 Test Standard and Limit

### 6.1.1 Test Standard

FCC Part 15.209 & 15.239

### 6.1.2 Test Limit

According to FCC 15.209 requirement:

In addition to the provisions of Section 15.209, the field strength of emissions from intentional radiators operated under this Section shall not exceed the following:

| Frequency (MHz | Field Strength (microvolt/meter) | Measurement Distance (meters) |
|---|---|---|
| 0.009~0.490 | 2400/F(KHz) | 300 |
| 0.490~1.705 | 24000/F(KHz) | 30 |
| 1.705~30.0 | 30 | 30 |
| 30~88 | 100 | 3 |
| 88~216 | 150 | 3 |
| 216~960 | 200 | 3 |
| Above 960 | 500 | 3 |

**Radiated Emission Limit (Above 1000MHz)**

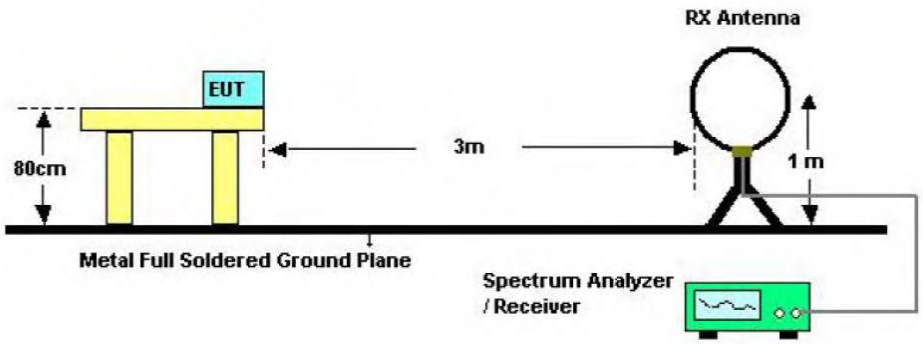
| Frequency (MHz) | Distance Meters(at 3m) | |
|---|---|---|
| | Peak | Average |
| Above 1000 | 74 | 54 |

**Note:**

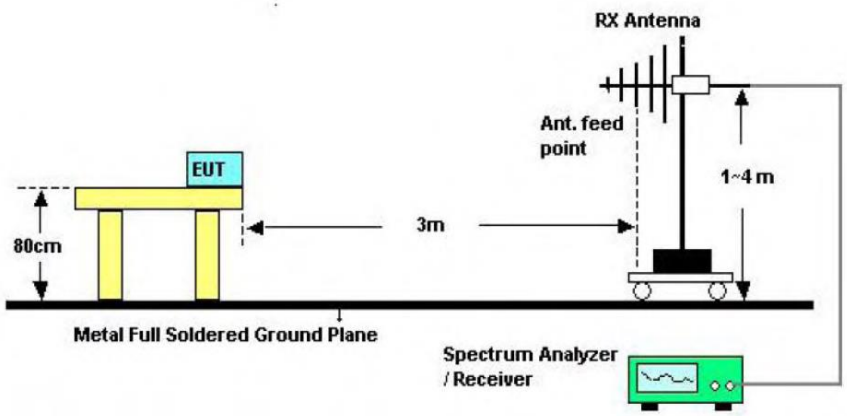
(1) The tighter limit applies at the band edges.

(2) Emission Level (dBuV/m)=20log Emission Level (uV/m)

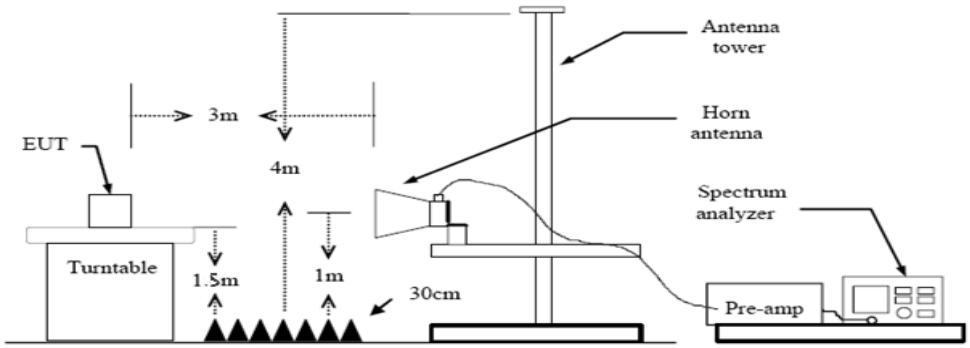
## 6.2 Test Setup




Below 30MHz Test Setup




Below 1000MHz Test Setup




Above 1GHz Test Setup

## 6.3 Test Procedure

(1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz. The EUT was placed on a rotating 0.8m high above the ground, the table was rotated 360 degrees to determine the position of the highest radiation.

(2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.

(3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.

(4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

(5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.

(6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.

(7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

(8) For the actual test configuration, please see the test setup photo.

## 6.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

## 6.5 Deviation From Test Standard

No deviation

## 6.6 Test Data

Please refer to the Attachment A.

# 7. Fundamental and Band Edge Test

## 7.1 Test Standard and Limit

### 7.1.1 Test Standard

FCC Part 15.209 & 15.239

### 7.1.2 Test Limit

According to FCC 15.239(a)(b) and 15.209 requirement:

The field strength of emissions from the intentional radiators operated under these frequency bands shall not exceed the following:

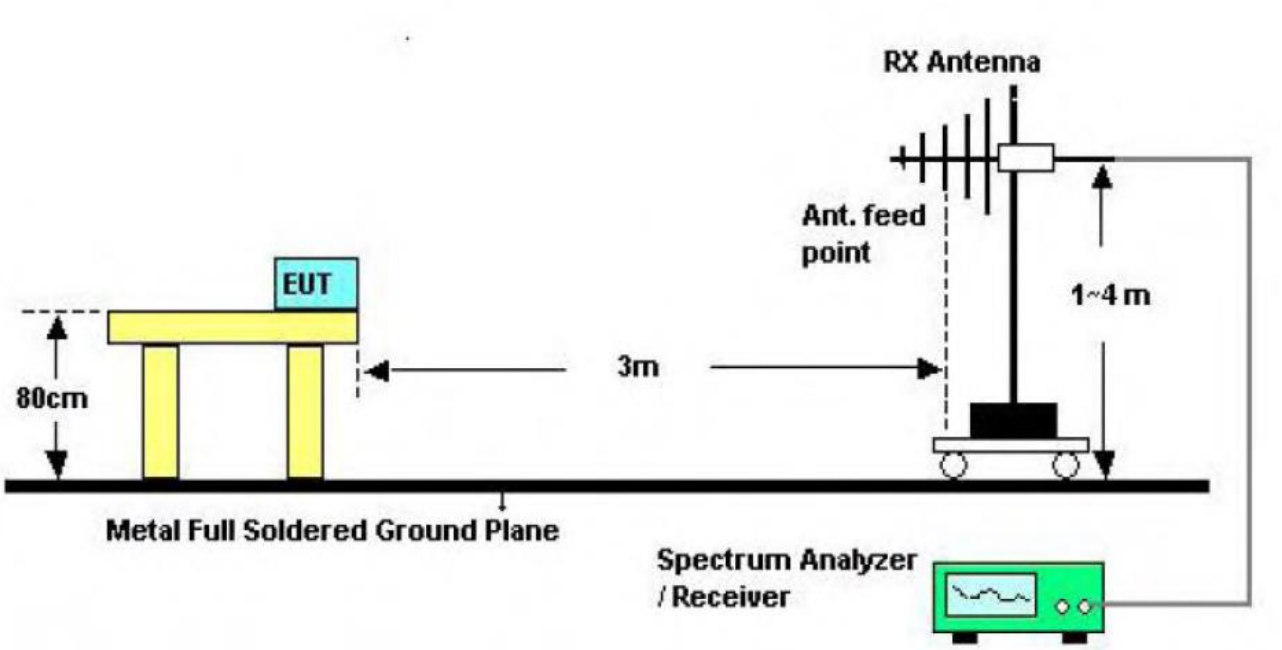
| Fundamental Frequency (MHz) | Field Strength of Fundamental (dBuV/m) | |
|---|---|---|
| 88 to 108 | Peak | Average |
| | 67.96 | 47.96 |

According to FCC 15.239(c) and 15.209 requirements:

Field strength of outside of the frequency bands limit show in below table.

| Outside Frequency Band Edge | Distance Meters(at 3m) |
|---|---|
| Below 88 MHz | 40.0 (QP) |
| Above 108 MHz | 43.5 (QP) |

## 7.2 Test Setup




## 7.3 Test Procedure

(1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz. The EUT was placed on a rotating 0.8m high above the ground, the table was rotated 360 degrees to determine the position of the highest radiation.

(2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.

(3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.

(4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

(5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.

(6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.

(7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

(8) For the actual test configuration, please see the test setup photo.

## 7.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

## 7.5 Deviation From Test Standard

No deviation

## 7.6 Test Data

Please refer to the Attachment B.

# 8. Bandwidth

## 8.1 Test Standard and Limit

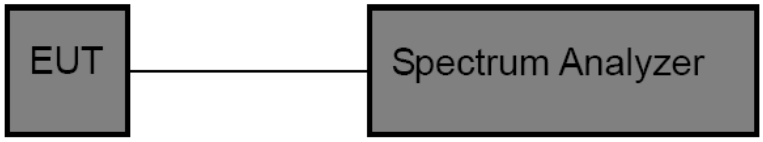
### 8.1.1 Test Standard

FCC Part 15.239

### 8.1.2 Test Limit

Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the frequency range of 88-108 MHz.

## 8.2 Test Setup




## 8.3 Test Procedure

(1) Set Spectrum Analyzer Center Frequency= Fundamental Frequency, RBW=3 kHz, VBW= 10 kHz, Span= 300 kHz.

(2) Measured the spectrum width with power higher than 20 dB below carrier.

## 8.4 EUT Operating Condition

The Equipment Under Test was Programmed to be in continuously transmitting mode.

## 8.5 Deviation From Test Standard

No deviation

## 8.6 Test Data

Please refer to the Attachment C.

# 9. Antenna Requirement

## 9.1 Standard Requirement

### 9.1.1 Standard

FCC Part 15.203

### 9.1.2 Requirement

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 use of a standard antenna jack or electrical connector is prohibited.

## 9.2 Antenna Connected Construction

The gains of the antenna used for transmitting is 0dBi, and the antenna connector is de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

The EUT antenna is a Spring Antenna. It complies with the standard requirement.

| Antenna Type |
| --- |
| ☑ Permanent attached antenna |
| ☐ Unique connector antenna |
| ☐ Professional installation antenna |

# Attachment A-- Radiated Emission Test Data

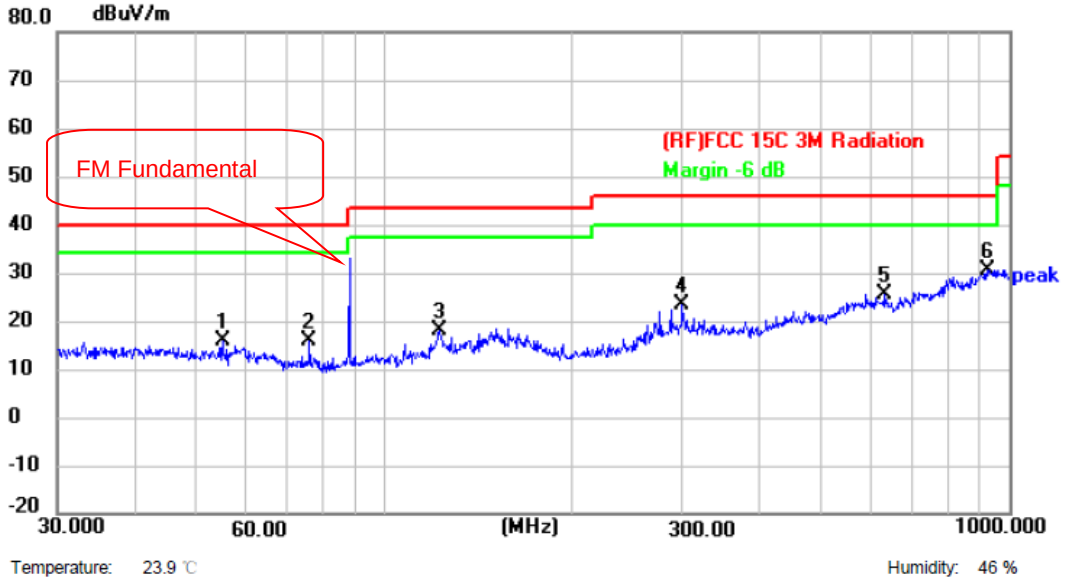
**9 KHz~30 MHz**

From 9 KHz to 30 MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB Below the permissible value has no need to be reported.

**30MHz~1GHz**

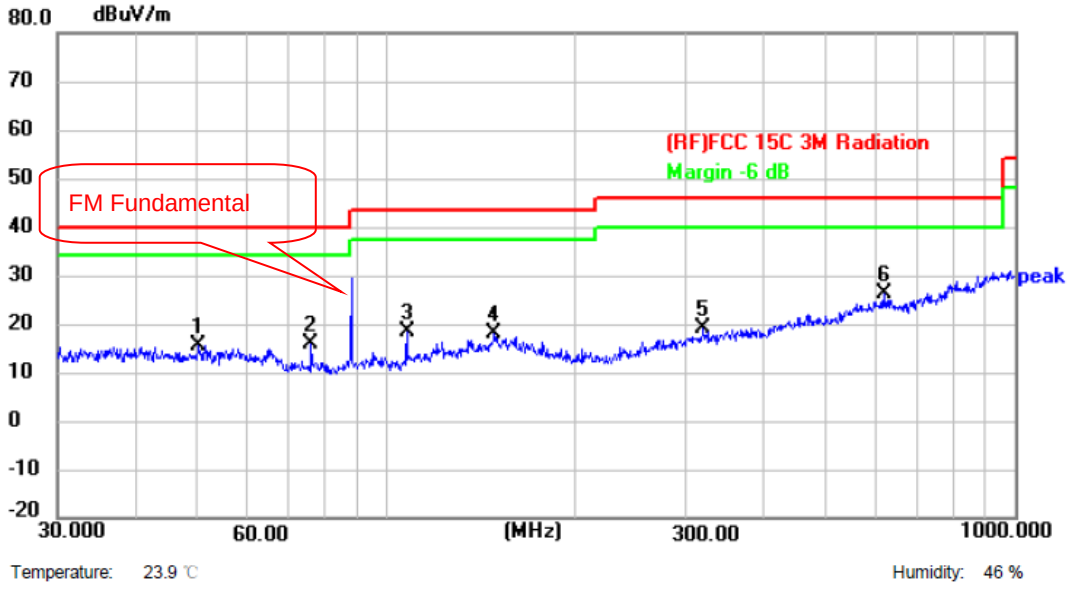
| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Horizontal |
| **Test Mode:** | 88.1MHz |
| **Remark:** | Only worse case is reported. |




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 | 55.2207 | 39.90 | -24.10 | 15.80 | 40.00 | -24.20 | peak | P |
| 2 | 75.9773 | 42.78 | -27.04 | 15.74 | 40.00 | -24.26 | peak | P |
| 3 | 122.4040 | 41.50 | -23.34 | 18.16 | 43.50 | -25.34 | peak | P |
| 4 | 300.3672 | 44.49 | -21.18 | 23.31 | 46.00 | -22.69 | peak | P |
| 5 | 633.9073 | 38.54 | -13.08 | 25.46 | 46.00 | -20.54 | peak | P |
| 6 * | 925.7562 | 37.96 | -7.36 | 30.60 | 46.00 | -15.40 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = QuasiPeak (dBμV/m)-Limit QPK(dBμV/m)**

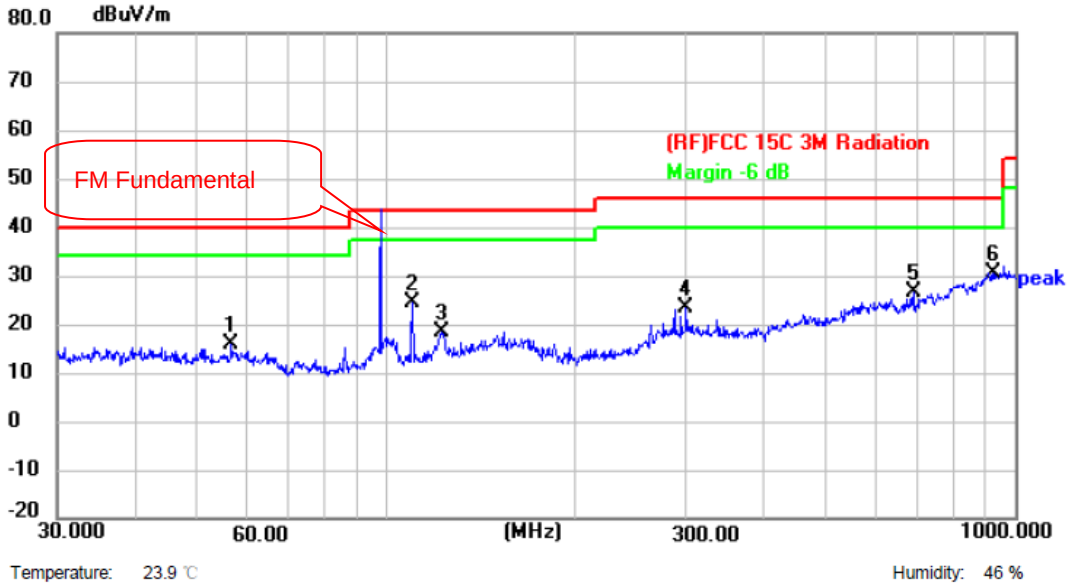
| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Vertical |
| **Test Mode:** | 88.1MHz |
| **Remark:** | Only worse case is reported. |




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 | 50.4090 | 40.14 | -24.68 | 15.46 | 40.00 | -24.54 | peak | P |
| 2 | 75.9773 | 43.09 | -27.04 | 16.05 | 40.00 | -23.95 | peak | P |
| 3 | 107.8877 | 43.01 | -24.55 | 18.46 | 43.50 | -25.04 | peak | P |
| 4 | 148.4410 | 39.07 | -21.07 | 18.00 | 43.50 | -25.50 | peak | P |
| 5 | 319.9370 | 39.36 | -20.18 | 19.18 | 46.00 | -26.82 | peak | P |
| 6 * | 618.5368 | 40.17 | -13.79 | 26.38 | 46.00 | -19.62 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = QuasiPeak (dBμV/m)-Limit QPK(dBμV/m)**

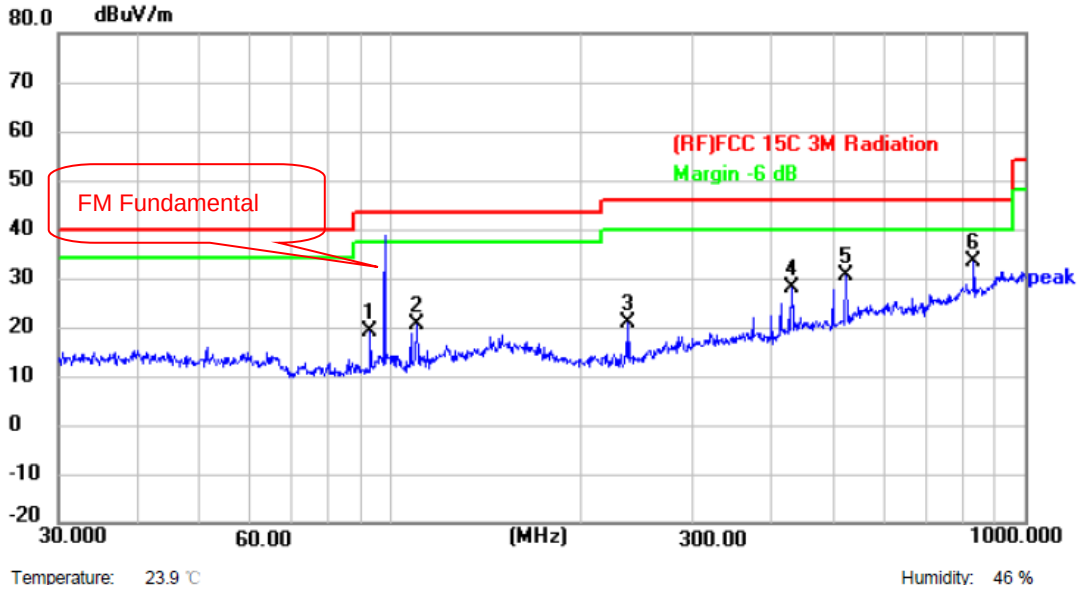
| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Horizontal |
| **Test Mode:** | 98.1MHz |
| **Remark:** | Only worse case is reported. |




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 | 56.7917 | 40.24 | -24.28 | 15.96 | 40.00 | -24.04 | peak | P |
| 2 | 110.1816 | 49.36 | -24.82 | 24.54 | 43.50 | -18.96 | peak | P |
| 3 | 122.8340 | 41.95 | -23.44 | 18.51 | 43.50 | -24.99 | peak | P |
| 4 | 300.3672 | 44.43 | -21.18 | 23.25 | 46.00 | -22.75 | peak | P |
| 5 | 689.5644 | 40.58 | -14.05 | 26.53 | 46.00 | -19.47 | peak | P |
| 6 * | 925.7562 | 37.84 | -7.36 | 30.48 | 46.00 | -15.52 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = QuasiPeak (dBμV/m)-Limit QPK(dBμV/m)**

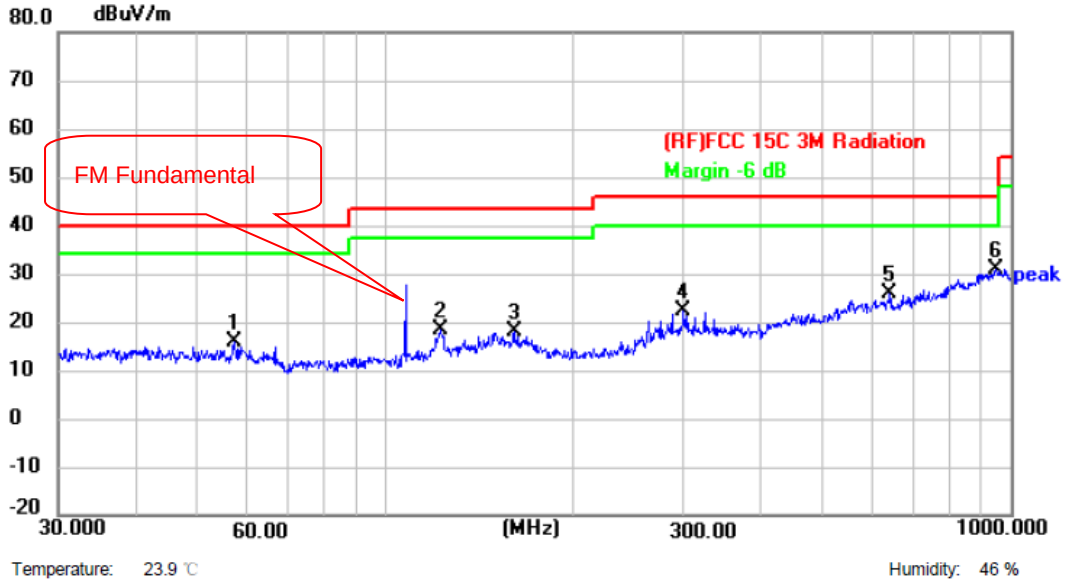
| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Vertical |
| **Test Mode:** | 98.1MHz |
| **Remark:** | Only worse case is reported. |




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 | 93.1131 | 45.54 | -26.43 | 19.11 | 43.50 | -24.39 | peak | P |
| 2 | 110.1816 | 45.22 | -24.82 | 20.40 | 43.50 | -23.10 | peak | P |
| 3 | 237.4760 | 44.90 | -24.00 | 20.90 | 46.00 | -25.10 | peak | P |
| 4 | 429.5228 | 45.78 | -17.76 | 28.02 | 46.00 | -17.98 | peak | P |
| 5 | 522.7180 | 46.86 | -16.17 | 30.69 | 46.00 | -15.31 | peak | P |
| 6 * | 830.4001 | 43.04 | -9.63 | 33.41 | 46.00 | -12.59 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = QuasiPeak (dBμV/m)-Limit QPK(dBμV/m)**

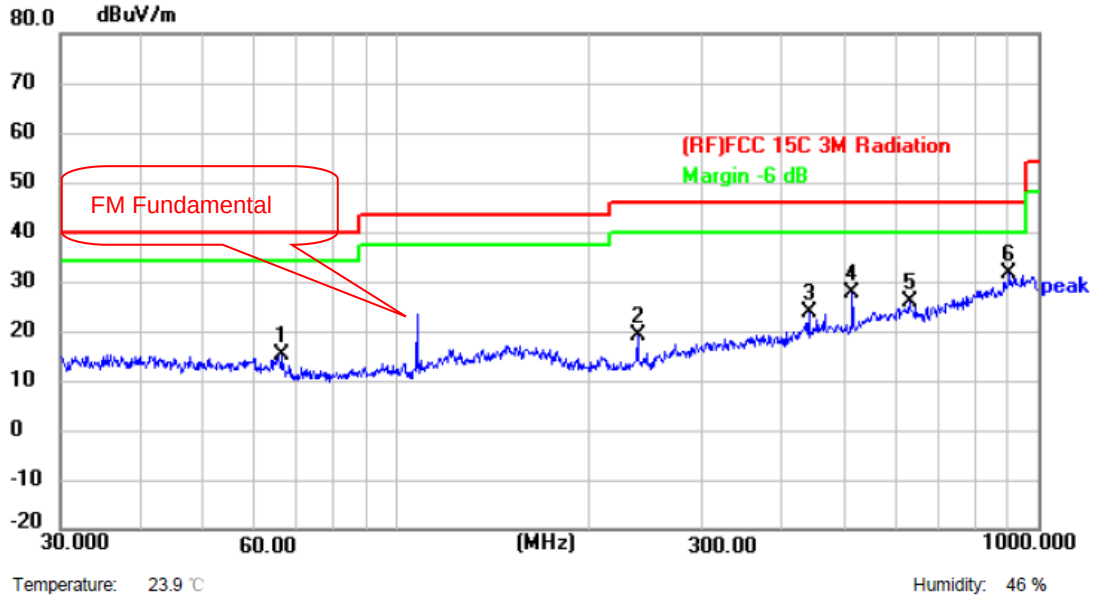
| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Horizontal |
| **Test Mode:** | 107.9MHz |
| **Remark:** | Only worse case is reported. |




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 | 57.3922 | 40.10 | -24.16 | 15.94 | 40.00 | -24.06 | peak | P |
| 2 | 122.8340 | 41.75 | -23.44 | 18.31 | 43.50 | -25.19 | peak | P |
| 3 | 160.9090 | 39.75 | -21.64 | 18.11 | 43.50 | -25.39 | peak | P |
| 4 | 300.3672 | 43.41 | -21.18 | 22.23 | 46.00 | -23.77 | peak | P |
| 5 | 640.6110 | 40.23 | -14.51 | 25.72 | 46.00 | -20.28 | peak | P |
| 6 * | 948.7610 | 38.29 | -7.36 | 30.93 | 46.00 | -15.07 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = QuasiPeak (dBμV/m)-Limit QPK(dBμV/m)**

| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Vertical |
| **Test Mode:** | 107.9MHz |
| **Remark:** | Only worse case is reported. |

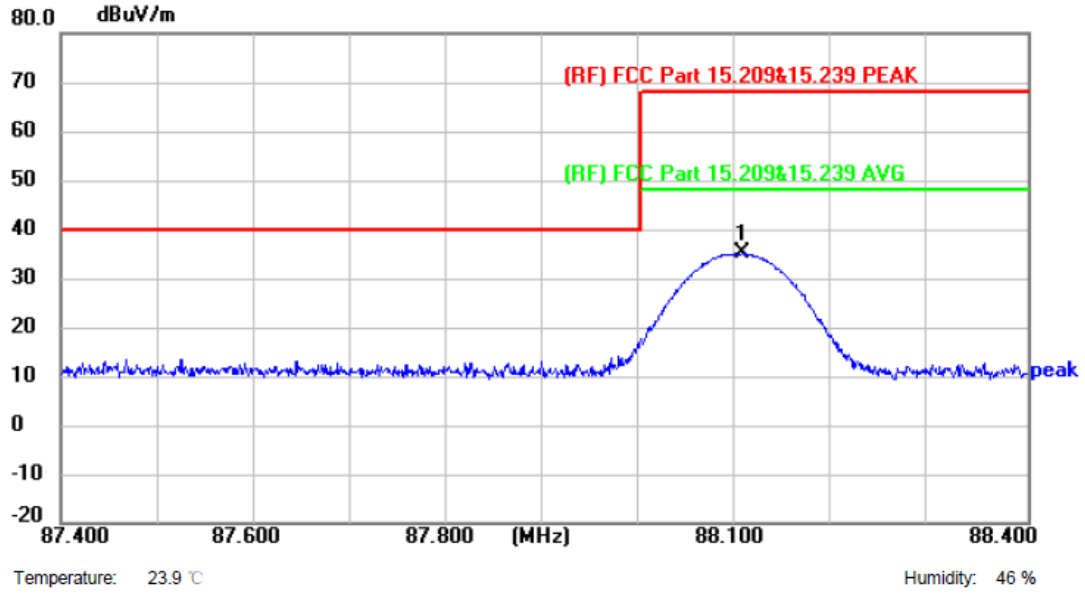



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 | 66.4990 | 40.71 | -25.44 | 15.27 | 40.00 | -24.73 | peak | P |
| 2 | 238.3101 | 43.12 | -23.97 | 19.15 | 46.00 | -26.85 | peak | P |
| 3 | 440.1962 | 41.86 | -17.97 | 23.89 | 46.00 | -22.11 | peak | P |
| 4 | 513.6331 | 44.08 | -16.40 | 27.68 | 46.00 | -18.32 | peak | P |
| 5 | 631.6883 | 39.13 | -13.30 | 25.83 | 46.00 | -20.17 | peak | P |
| 6 * | 903.3093 | 39.48 | -7.82 | 31.66 | 46.00 | -14.34 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = QuasiPeak (dBμV/m)-Limit QPK(dBμV/m)**

# Attachment B--Fundamental and Band Edge Test Data

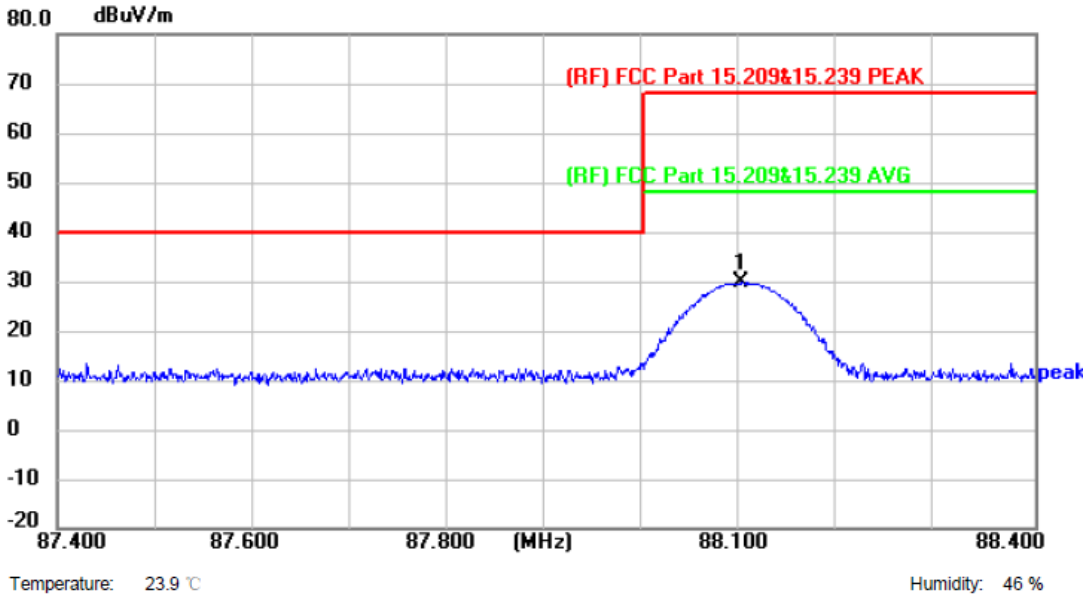
| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Horizontal |
| **Test Mode:** | 88.1MHz |
| **Remark:** | Peak Value＜Average Limit, So only show the Peak Value |




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 * | 88.1059 | 61.63 | -26.53 | 35.10 | 67.96 | -32.86 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)**

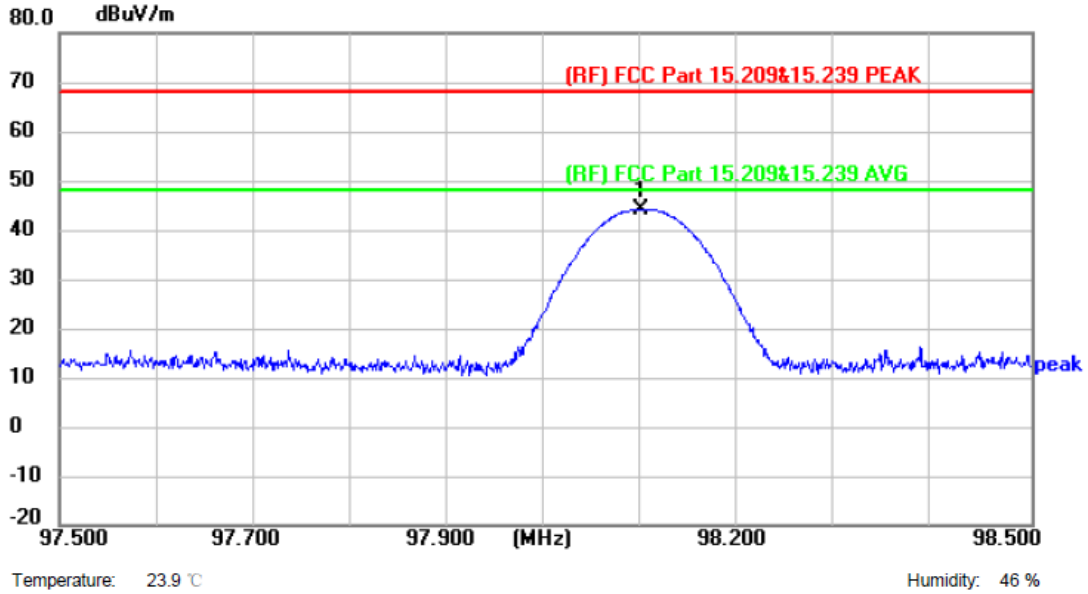
| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Vertical |
| **Test Mode:** | 88.1MHz |
| **Remark:** | Peak Value＜Average Limit, So only show the Peak Value |




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 * | 88.1000 | 56.44 | -26.53 | 29.91 | 67.96 | -38.05 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)**

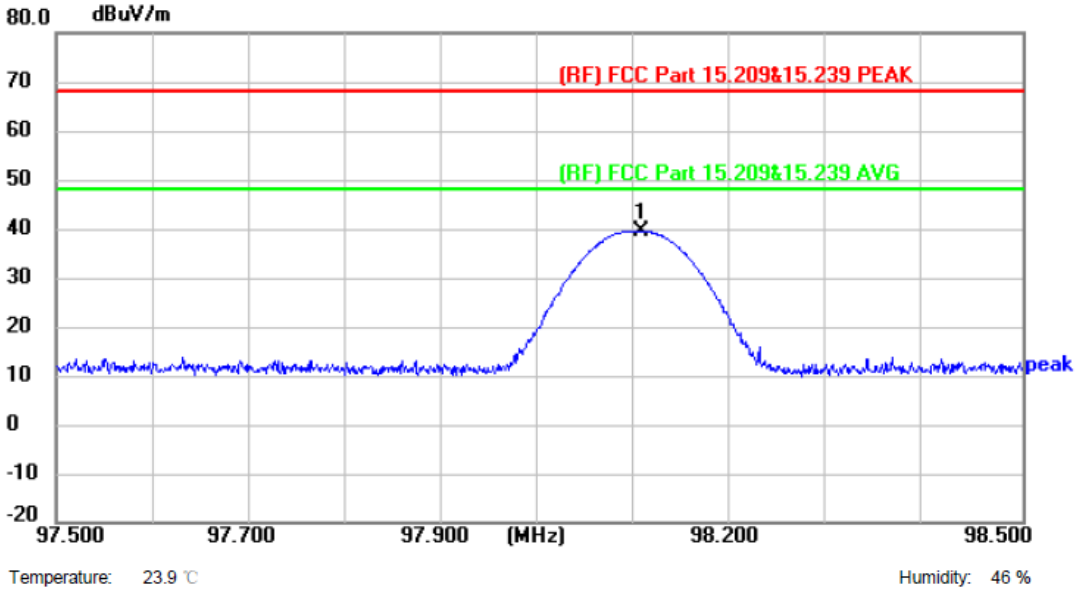
| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Horizontal |
| **Test Mode:** | 98.1MHz |
| **Remark:** | Peak Value＜Average Limit, So only show the Peak Value |




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 * | 98.0990 | 70.40 | -26.23 | 44.17 | 67.96 | -23.79 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)**

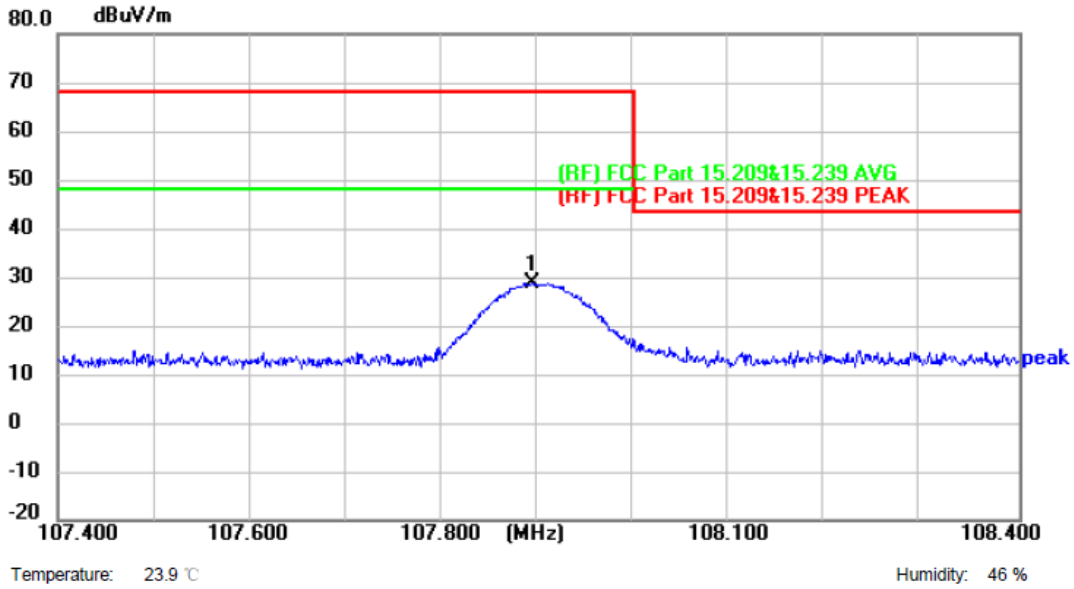
| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Vertical |
| **Test Mode:** | 98.1MHz |
| **Remark:** | Peak Value＜Average Limit, So only show the Peak Value |




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 * | 98.1050 | 65.86 | -26.23 | 39.63 | 67.96 | -28.33 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)**

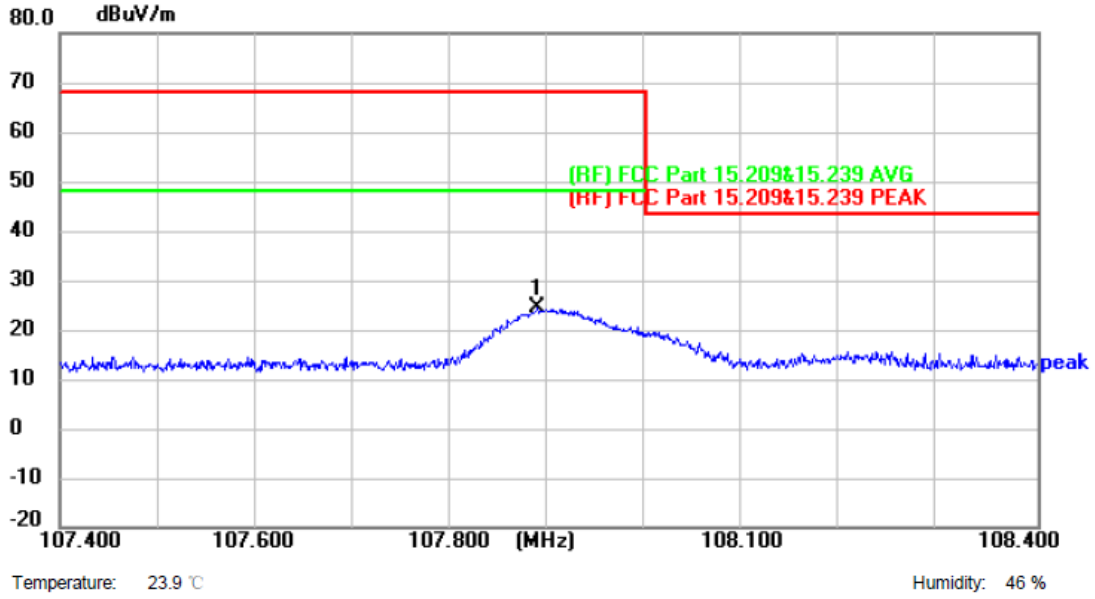
| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Horizontal |
| **Test Mode:** | 107.9MHz |
| **Remark:** | Peak Value＜Average Limit, So only show the Peak Value |




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 * | 107.8930 | 53.28 | -24.55 | 28.73 | 67.96 | -39.23 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)**

| | |
|---|---|
| **Test Voltage:** | DC 12V |
| **Ant. Pol.** | Vertical |
| **Test Mode:** | 107.9MHz |
| **Remark:** | Peak Value＜Average Limit, So only show the Peak Value |



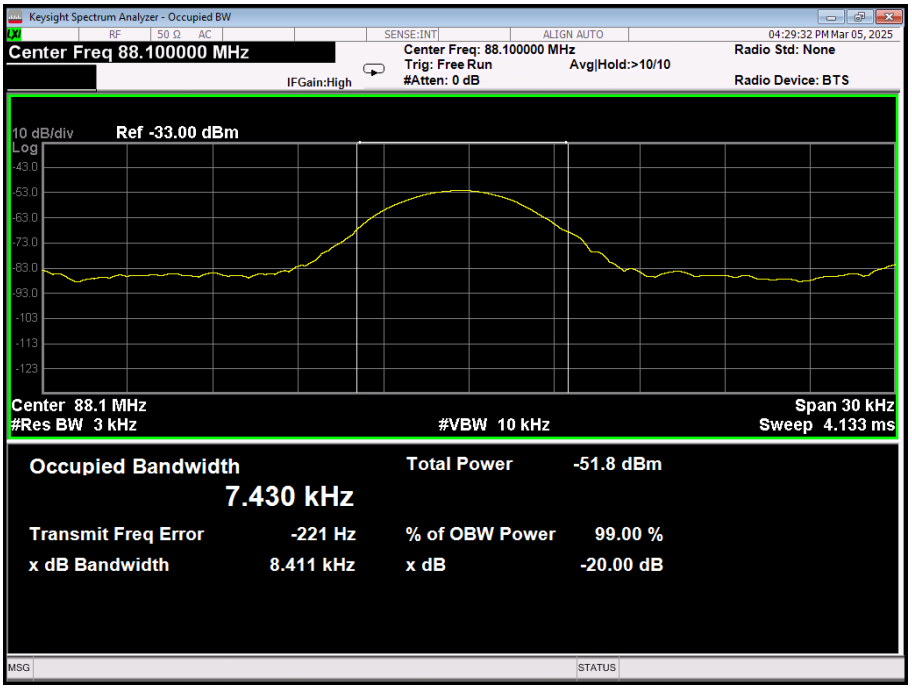

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 * | 107.8890 | 48.94 | -24.55 | 24.39 | 67.96 | -43.57 | peak | P |

**Remark:**
**1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)**
**2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)**
**3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)**

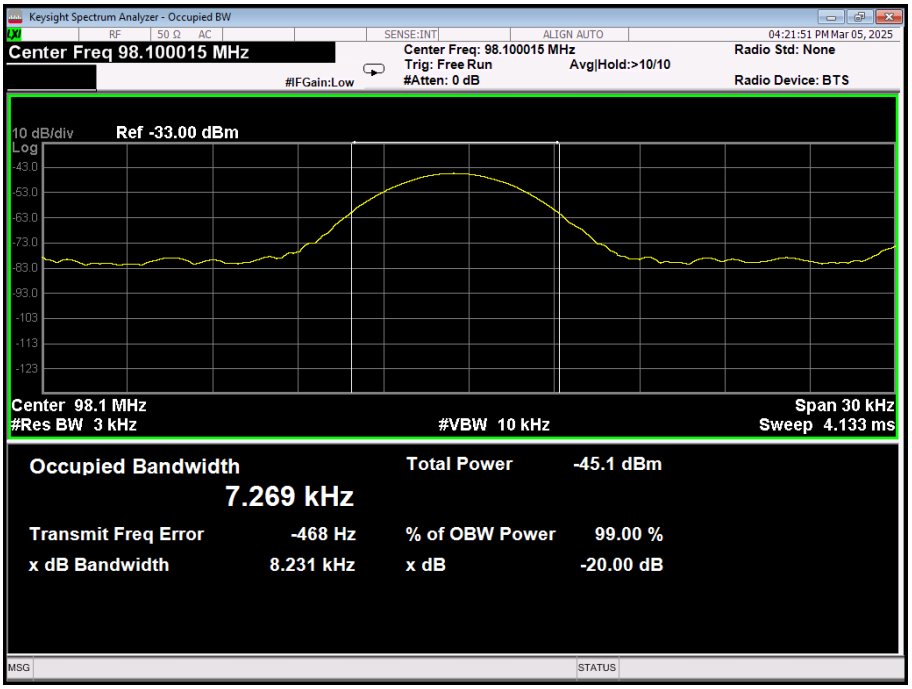
# Attachment C-- Bandwidth Data

| Frequency (MHz) | 20 dB Bandwidth (kHz) | Limits (kHz) | Result |
|---|---|---|---|
| 88.1 | 8.411 | 200 | PASS |
| 98.1 | 8.231 | | PASS |
| 107.9 | 8.159 | | PASS |

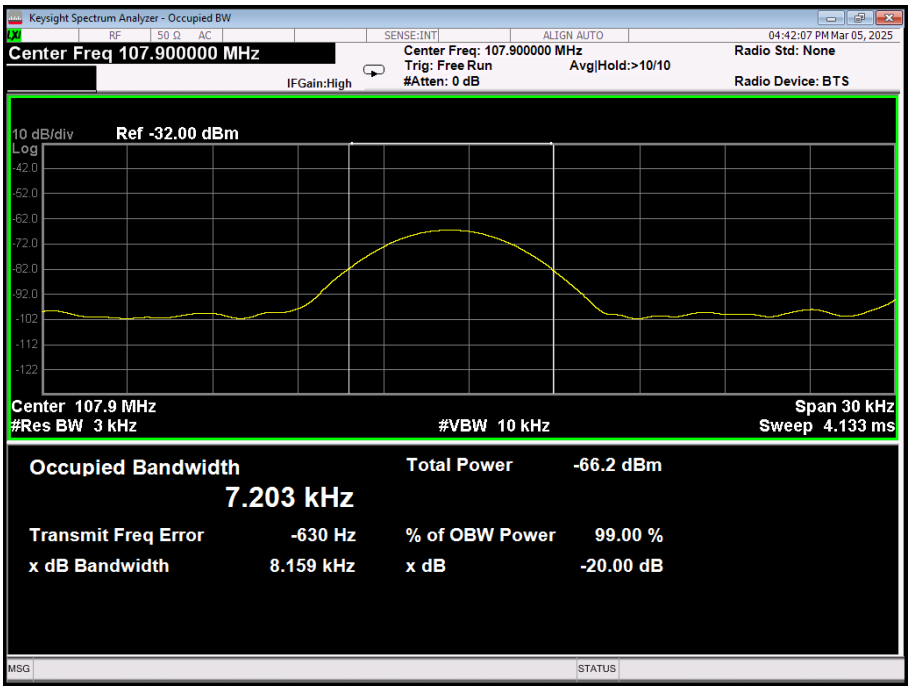
**88.1 MHz**



## 98.1 MHz




## 107.9 MHz




**-----END OF REPORT-----**