Radio Test Report

FCC ID: 2BBNB-BT27

Original Grant

Report No.	:	TBR-C-202506-0151-21
Applicant	:	Shenzhen James Audio Technology Co., Ltd
Equipment Under Test (EUT)		
EUT Name	:	Bluetooth FM Transmitter
Model No.	:	BT27
Series Model No.	:	Please Refer To Page 5
Brand Name	:	----
Sample ID	:	HC-C-202506-0151-01-01#& HC-C-202506-0151-01-02#
Receipt Date	:	2025-06-30
Test Date	:	2025-06-30 to 2025-07-25
Issue Date	:	2025-07-25
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.

Test By	:	Rick Chen
Reviewed By	:	Camille Li
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.

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Contents

Revision History

Report No.	Version	Description	Issued Date
TBR-C-202506-0151-21	Rev.01	Initial issue of report	2025-07-25

1. General Information about EUT

1.1 Client Information

Applicant	:	Shenzhen James Audio Technology Co., Ltd
Address	:	401, Building A, JMR Industrial Park, No.2 Guiyuan Road, Guixiang Community, Guanlan Town, Longhua District, Shenzhen, China
Manufacturer	:	Shenzhen James Audio Technology Co., Ltd
Address	:	401, Building A, JMR Industrial Park, No.2 Guiyuan Road, Guixiang Community, Guanlan Town, Longhua District, Shenzhen, China

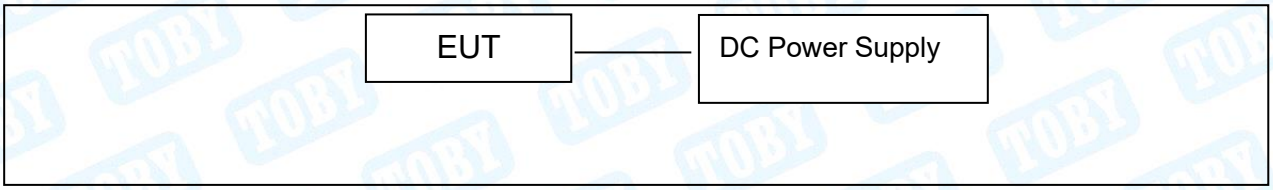
1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	Bluetooth FM Transmitter	
Models No.	:	BT27, BT27A, BT27B, BT27C, BT27D, BT27AC, BT27CC, BT27L, BT28A, BT28B, BT28C, BT28D, BT29, BT29AC, BT29CC, BT29D, BT29L, BT29A, BT29B, BT29AL, BT29BL	
Model Different	:	All these models are identical in the same PCB layout and electrical circuit, the only difference appearance color and model names.	
Product Description	:	Operation Frequency:	FM: 88.1~107.9MHz
		Number of Channel:	199(Channel spacing 100KHz)
		Antenna Gain:	0dBi Spring Antenna
		Modulation Type:	FM
Power Rating	:	Input: DC 12V-24V	
Software Version		V1.0	
Hardware Version	:	BT27-AC6956C-V1.0	

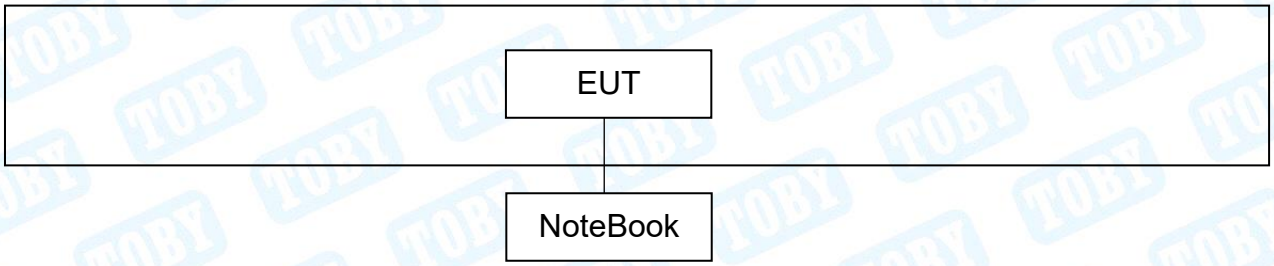
Remark:
(1)The antenna gain and adapter provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.
(2)The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.
(3)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

Radiated Test



Conducted Measurements Test



1.4 Description of Support Units

Equipment Information				
Name	**Model**	**S/N**	**Manufacturer**	**Used "√"**
Notebook	--	--	DELL	√
DC Power Supply	--	--	PISEN	√
Note: The DC Power Supply provided by the TOBY Lab.				

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 with the maximum power mode was programmed by the customer.

(2) The EUT is considered a Mobile unit; in normal use it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was 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 RF setting.

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: 9kHz~150kHz 150kHz to 30MHz	±3.50 dB ±3.10 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	±4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	±4.50 dB
Radiated Emission	Level Accuracy: 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-202506-0151-01-02#	PASS	N/A
15.207	Conducted Emission	N/A	N/A	N/A
15.239 &15.209	Radiation Emission	HC-C-202506-0151-01-02#	PASS	N/A
15.239	Occupied Bandwidth	HC-C-202506-0151-01-01#	PASS	N/A
Note: (1)N/A is an abbreviation for Not Applicable. (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
Radiation Emission	EZ-EMC	EZ	FA-03A2RE+
RF Conducted Measurement	MTS-8310	MWRFtest	V2.0.0.0
RF Test System	JS1120	Tonscend	V3.2.22

4. Test Equipment and Test Site

Test Site				
No.	**Test Site**	**Manufacturer**	**Specification**	**Used**
TB-EMCSR001	Shielding Chamber #1	YIHENG	7.5*4.0*3.0 (m)	X
TB-EMCSR002	Shielding Chamber #2	YIHENG	8.0*4.0*3.0 (m)	√
TB-EMCCA001	3m Anechoic Chamber #A	ETS	9.0*6.0*6.0 (m)	X
TB-EMCCB002	3m Anechoic Chamber #B	YIHENG	9.0*6.0*6.0 (m)	√

Conducted Emission Test					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Last Cal.**	**Cal. Due Date**
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jun. 16, 2025	Jun. 15, 2026
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jun. 16, 2025	Jun. 15, 2026
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jun. 16, 2025	Jun. 15, 2026
LISN	Rohde & Schwarz	ENV216	101131	Jun. 16, 2025	Jun. 15, 2026
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. 16, 2025	Jun. 15, 2026
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. 16, 2025	Jun. 15, 2026
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Feb. 27, 2024	Feb.26, 2026
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jun. 16, 2025	Jun. 15, 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
Pre-amplifier	HP	8449B	3008A00849	Feb. 20, 2025	Feb. 19, 2026
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. 16, 2025	Jun. 15, 2026
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Aug. 29, 2024	Aug. 28, 2025
Spectrum Analyzer	KEYSIGHT	N9020B	MY60110172	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
RF Control Unit	Tonsced	JS0806-2	21F8060439	Aug. 29, 2024	Aug. 28, 2025
Power Control Box	Tonsced	JS0806-4ADC	21C8060387	N/A	N/A

5. Conducted Emission

5.1 Test Standard and Limit

5.1.1 Test Standard

FCC Part 15.207

5.1.2 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

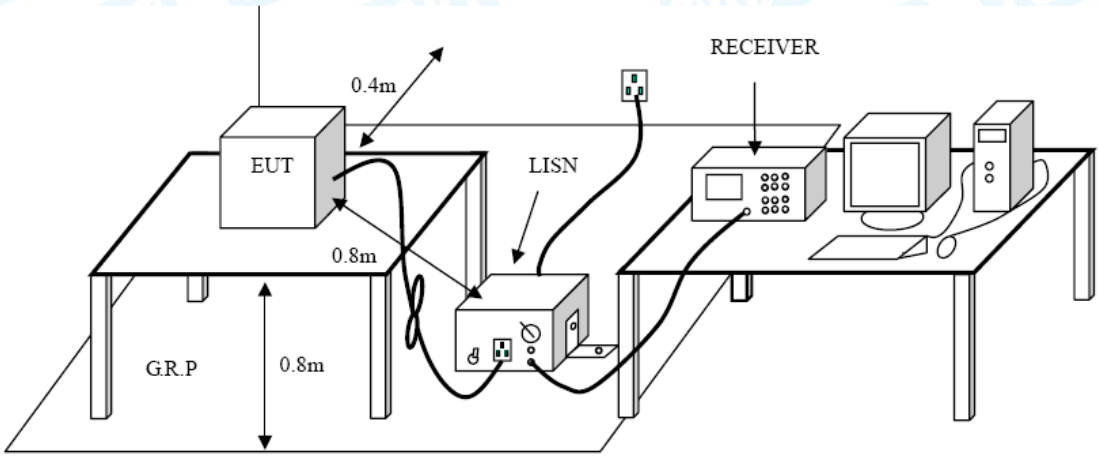
Notes:

(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 9 kHz, and the test frequency band is from 0.15MHz to 30MHz.

5.4 Deviation From Test Standard

No deviation

5.5 EUT Operating Mode

Please refer to the description of test mode.

5.6 Test Data

N/A.

6. Radiated Emission

6.1 Test Standard and Limit

6.1.1 Test Standard

FCC Part 15.209 & FCC Part 15.239

6.1.2 Test Limit

General field strength limits at frequencies Below 30MHz		
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
Note: 1, The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.		

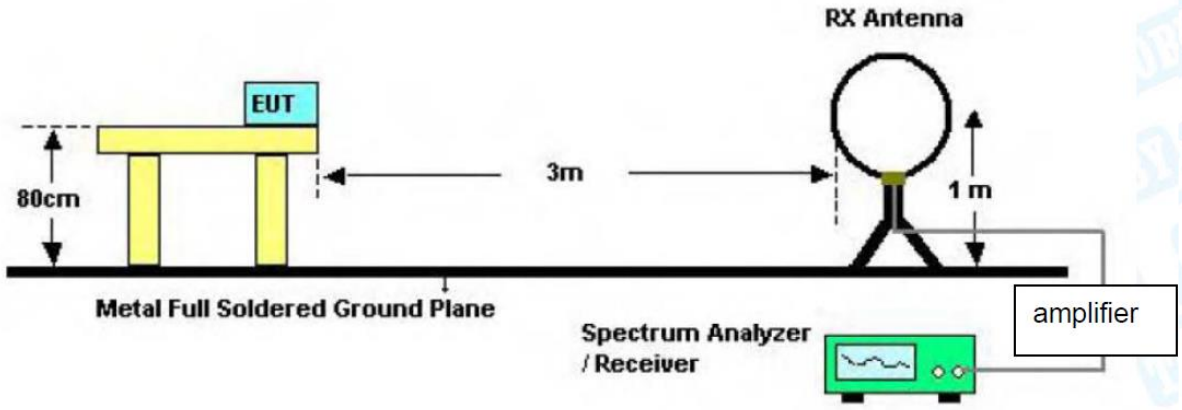
General field strength limits at frequencies above 30 MHz		
Frequency (MHz)	**Field strength (μV/m at 3 m)**	**Measurement Distance (meters)**
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

General field strength limits at frequencies Above 1000MHz		
Frequency (MHz)	**Distance of 3m (dBuV/m)**	
	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)		

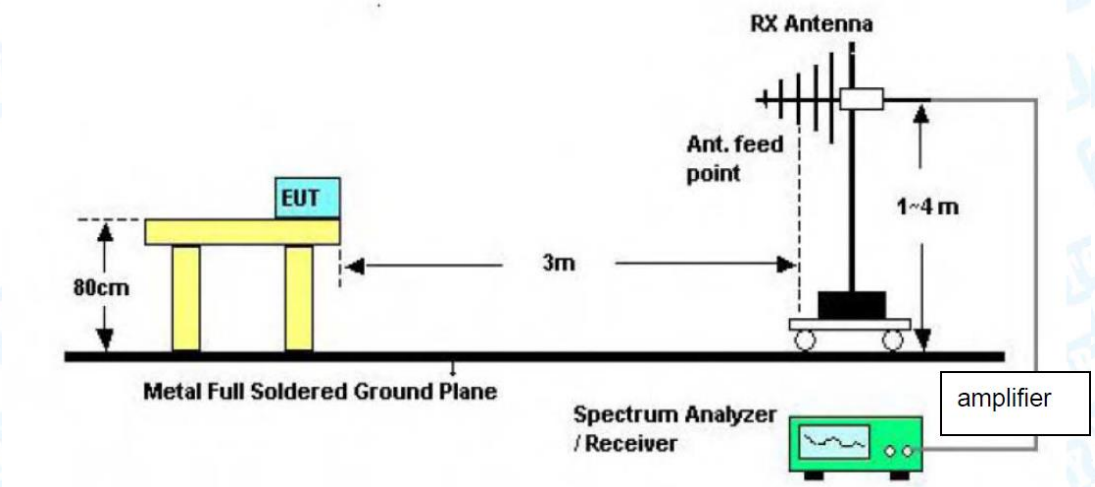
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB.

6.2 Test Setup

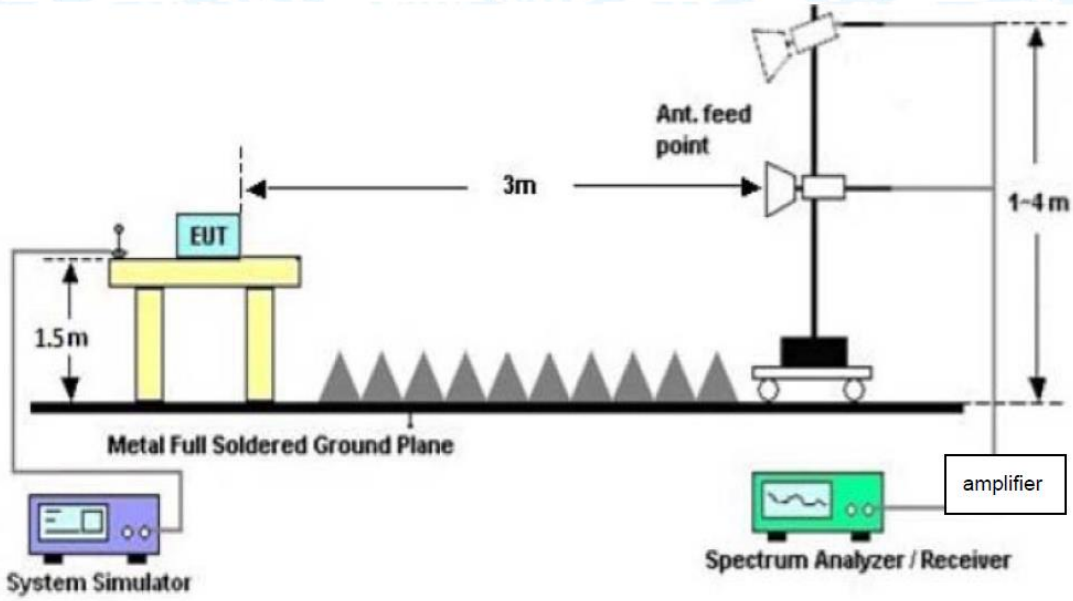
Radiated measurement



Below 30MHz Test Setup

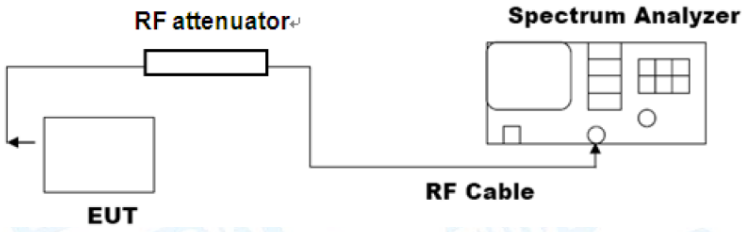


Below 1000MHz Test Setup



Above 1GHz Test Setup

Conducted measurement



6.3 Test Procedure

---Radiated measurement

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

● 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.

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

● 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.

● If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Below 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.

● Testing frequency range 30MHz-1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection. Testing frequency range 9KHz-150Hz the measuring instrument use VBW=200Hz with Quasi-peak detection. Testing frequency range 9KHz-30MHz the measuring instrument use VBW=9kHz with Quasi-peak detection.

● 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.

● For the actual test configuration, please see the test setup photo.

6.4 Deviation From Test Standard

No deviation

6.5 EUT Operating Mode

Please refer to the description of test mode.

6.6 Test Data

Please refer to the Attachment A inside test report.

7. Fundamental and Band Edge Test

7.1 Test Standard and Limit

7.1.1 Test Standard

FCC Part 15.205 & FCC Part 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

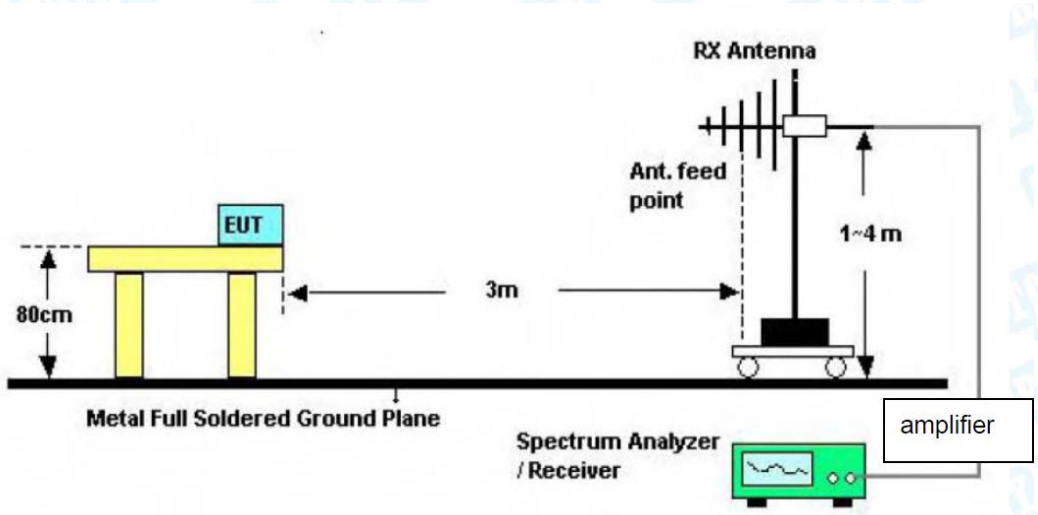
According to FCC 15.239(c) and 15.209 requirements:

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

Radiated measurement



7.3 Test Procedure

---Radiated measurement

● 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.

● 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.

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

●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.

●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.

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

●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.

●For the actual test configuration, please see the test setup photo.

7.4 Deviation From Test Standard

No deviation

7.5 EUT Operating Mode

Please refer to the description of test mode.

7.6 Test Data

Please refer to the Attachment B inside test report.

8. 99% Occupied and 20dB Bandwidth

8.1 Test Standard and Limit

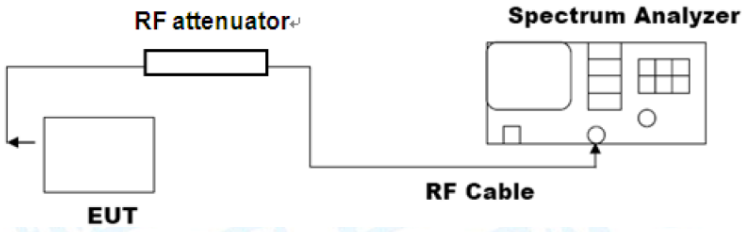
8.1.1 Test Standard

FCC Part 15.205 & 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

●The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:
a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.
d) Step a) through step c) might require iteration to adjust within the specified range.
e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

8.4 Deviation From Test Standard

No deviation

8.5 EUT Operating Mode

Please refer to the description of test mode.

8.6 Test Data

Please refer to the Attachment C inside test report.

9. Antenna Requirement

13.1 Test Standard and Limit

11.1.1 Test Standard

RSS 247 6.8

FCC Part 15.203

11.1.2 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.

13.2 Deviation From Test Standard

No deviation

13.3 Antenna Connected Construction

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

13.4 Test Data

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 Data

---Radiated Unwanted Emissions

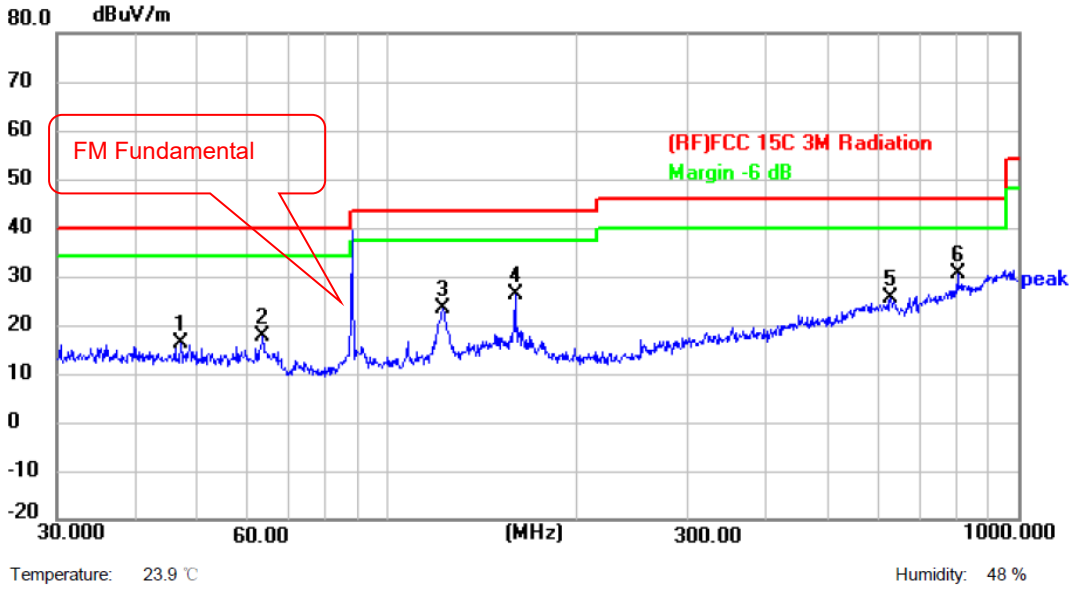
9 KHz~30 MHz

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

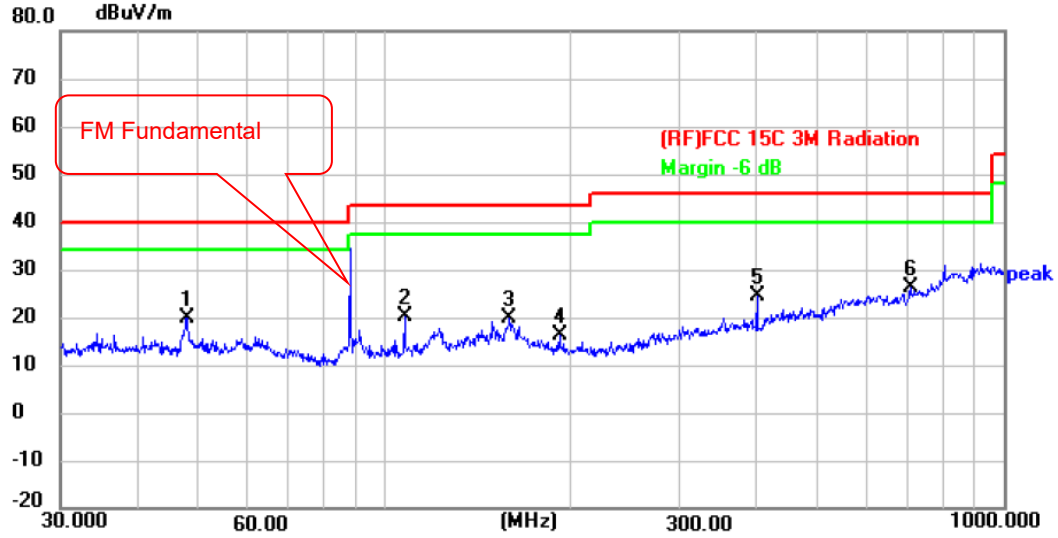
Temperature:	23.8℃	**Relative Humidity:**	48%
Test Voltage:	DC 12V		
Ant. Pol.	Horizontal		
Test Mode:	Mode 1 (88.1MHz)		
Remark:	Only worse case is reported.		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	47.1598	40.48	-24.37	16.11	40.00	-23.89	peak
2	63.5356	42.36	-24.52	17.84	40.00	-22.16	peak
3	122.8340	46.76	-23.44	23.32	43.50	-20.18	peak
4	159.7844	47.60	-21.40	26.20	43.50	-17.30	peak
5	629.4772	39.14	-13.47	25.67	46.00	-20.33	peak
6 *	801.7863	40.37	-9.86	30.51	46.00	-15.49	peak

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)

Temperature:	23.8℃	**Relative Humidity:**	48%
Test Voltage:	DC 12V		
Ant. Pol.	Vertical		
Test Mode:	Mode 1 (88.1MHz)		
Remark:	Only worse case is reported.		

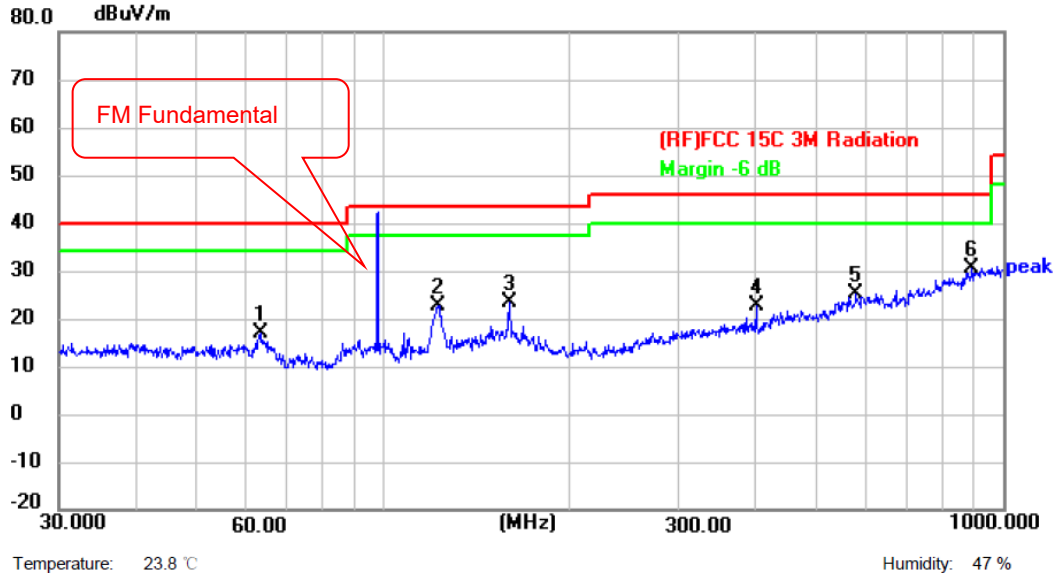


Temperature: 23.8 ℃ Humidity: 47 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	47.9940	44.16	-24.23	19.93	40.00	-20.07	peak
2	107.8877	44.67	-24.55	20.12	43.50	-23.38	peak
3	159.2251	41.43	-21.68	19.75	43.50	-23.75	peak
4	191.7450	40.88	-24.46	16.42	43.50	-27.08	peak
5	400.4319	44.46	-19.95	24.51	46.00	-21.49	peak
6 *	706.6999	38.71	-12.41	26.30	46.00	-19.70	peak

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)

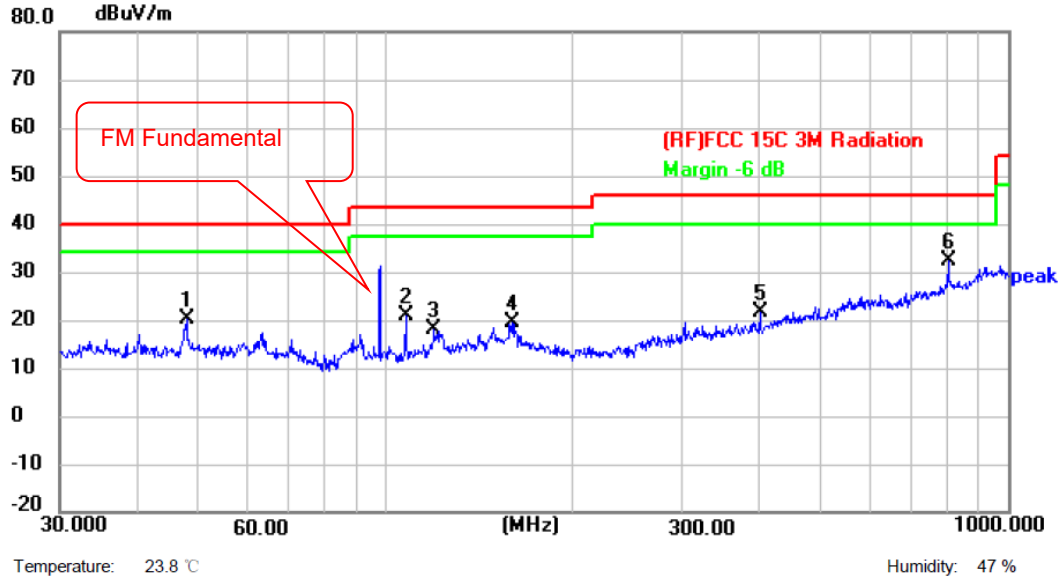
Temperature:	23.8℃	**Relative Humidity:**	48%
Test Voltage:	DC 12V		
Ant. Pol.	Horizontal		
Test Mode:	Mode 1 (98.1MHz)		
Remark:	Only worse case is reported.		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	63.3132	41.65	-24.68	16.97	40.00	-23.03	peak
2	122.8340	46.13	-23.44	22.69	43.50	-20.81	peak
3	159.7844	44.91	-21.40	23.51	43.50	-19.99	peak
4	400.4318	42.48	-19.95	22.53	46.00	-23.47	peak
5	578.6700	39.45	-14.30	25.15	46.00	-20.85	peak
6 *	890.7277	39.02	-8.62	30.40	46.00	-15.60	peak

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)

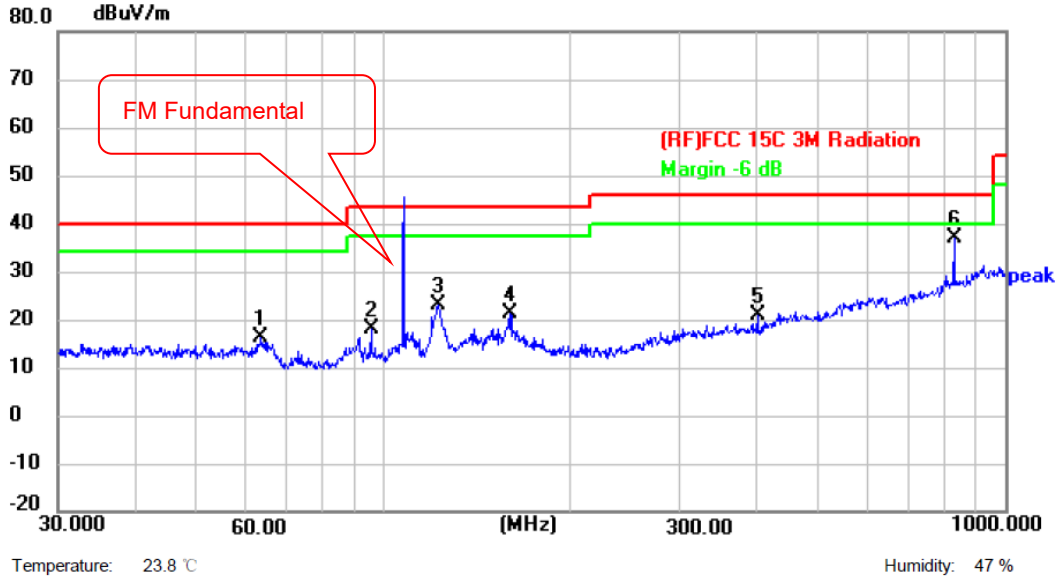
Temperature:	23.8℃	Relative Humidity:	48%
Test Voltage:	DC 12V		
Ant. Pol.	Vertical		
Test Mode:	Mode 1 (98.1MHz)		
Remark:	Only worse case is reported.		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	47.9940	44.46	-24.23	20.23	40.00	-19.77	peak
2	107.8877	45.46	-24.55	20.91	43.50	-22.59	peak
3	119.8556	41.68	-23.73	17.95	43.50	-25.55	peak
4	159.7844	40.90	-21.40	19.50	43.50	-24.00	peak
5	400.4318	41.62	-19.95	21.67	46.00	-24.33	peak
6 *	801.7863	42.34	-9.86	32.48	46.00	-13.52	peak

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)

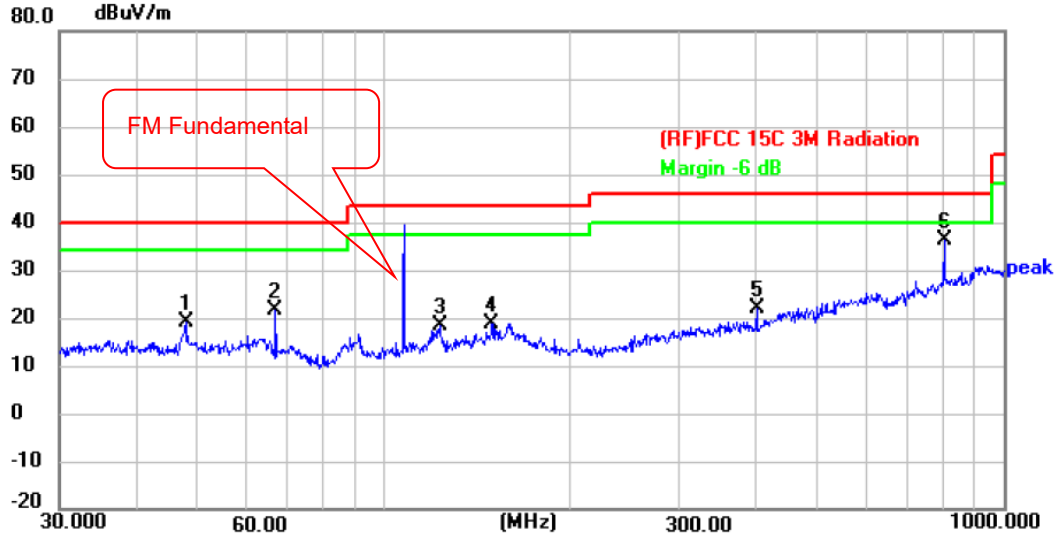
Temperature:	23.8℃	Relative Humidity:	48%
Test Voltage:	DC 12V		
Ant. Pol.	Horizontal		
Test Mode:	Mode 1 (107.9MHz)		
Remark:	Only worse case is reported.		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	63.5356	40.61	-24.52	16.09	40.00	-23.91	peak
2	95.7622	43.92	-25.85	18.07	43.50	-25.43	peak
3	122.4040	46.36	-23.34	23.02	43.50	-20.48	peak
4	159.7844	42.82	-21.40	21.42	43.50	-22.08	peak
5	400.4318	40.88	-19.95	20.93	46.00	-25.07	peak
6 *	827.4934	46.58	-9.69	36.89	46.00	-9.11	peak

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)

Temperature:	23.8℃	Relative Humidity:	48%
Test Voltage:	DC 12V		
Ant. Pol.	Vertical		
Test Mode:	Mode 1 (107.9MHz)		
Remark:	Only worse case is reported.		



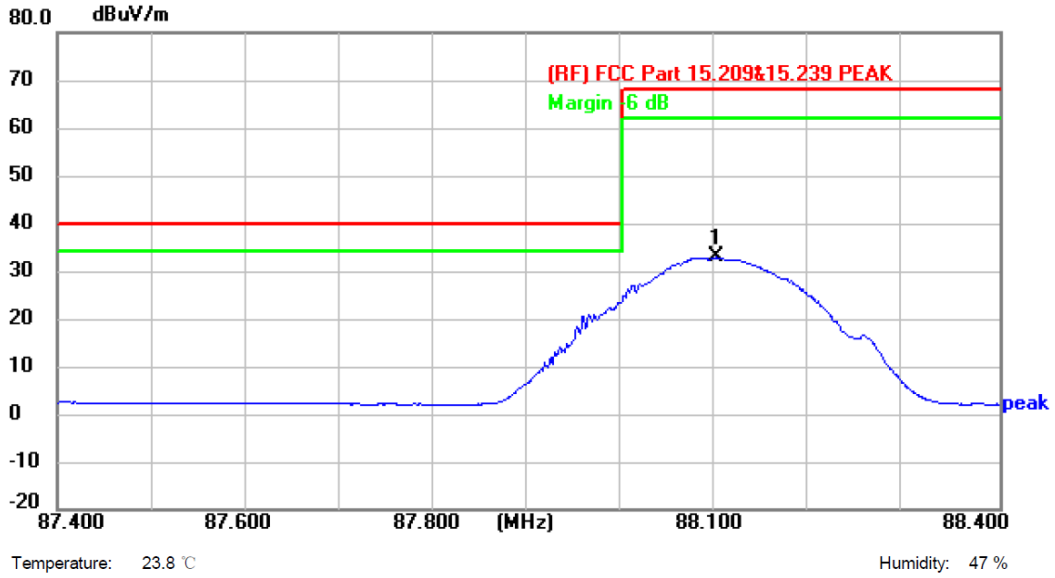
Temperature: 23.8 ℃ Humidity: 47 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	47.9940	43.27	-24.23	19.04	40.00	-20.96	peak
2	66.9670	47.36	-25.92	21.44	40.00	-18.56	peak
3	123.2654	42.04	-23.52	18.52	43.50	-24.98	peak
4	149.4857	39.81	-21.05	18.76	43.50	-24.74	peak
5	400.4318	41.79	-19.95	21.84	46.00	-24.16	peak
6 *	801.7863	46.05	-9.86	36.19	46.00	-9.81	peak

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

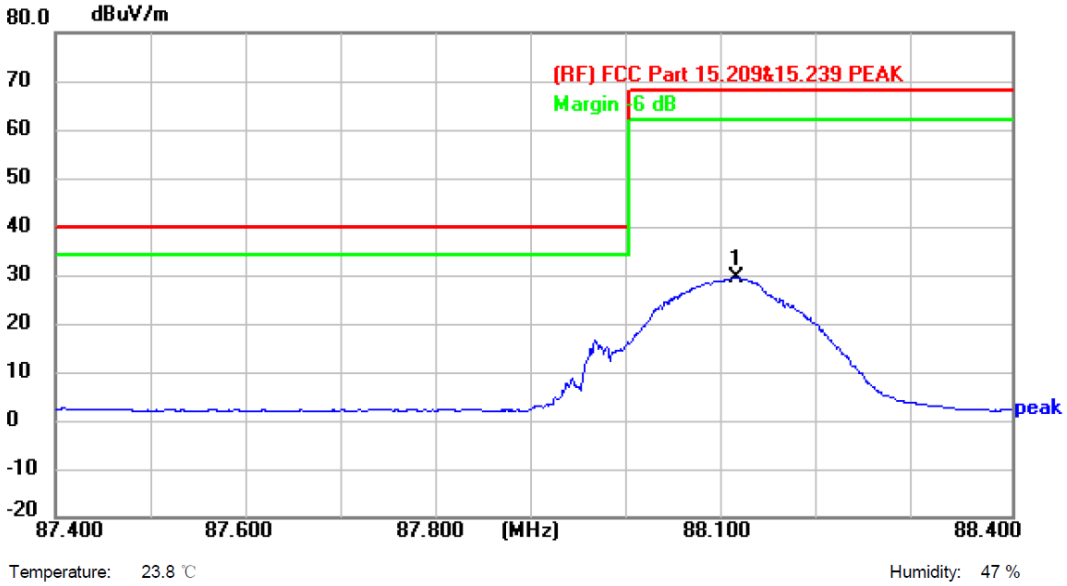
Test Voltage:	DC 12V
Ant. Pol.	Horizontal
Test Mode:	88.1MHz
Remark:	Peak Value < Average Limit, So only show the Peak Value



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	88.0990	59.40	-26.53	32.87	67.96	-35.09	peak

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)

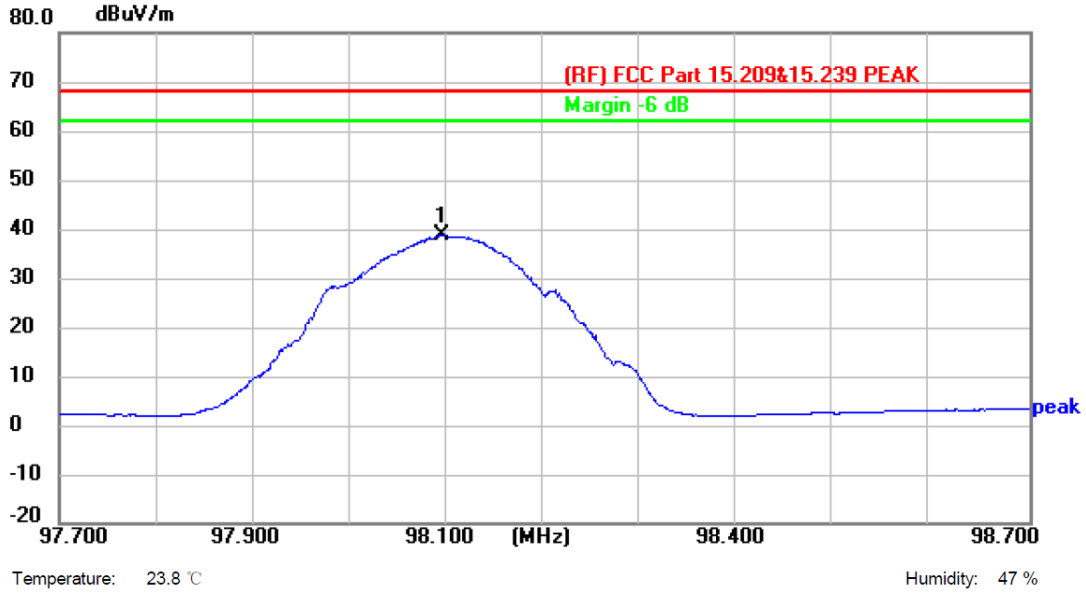
Test Voltage:	DC 12V
Ant. Pol.	Vertical
Test Mode:	88.1MHz
Remark:	Peak Value < Average Limit, So only show the Peak Value



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	88.1120	55.92	-26.53	29.39	67.96	-38.57	peak

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)

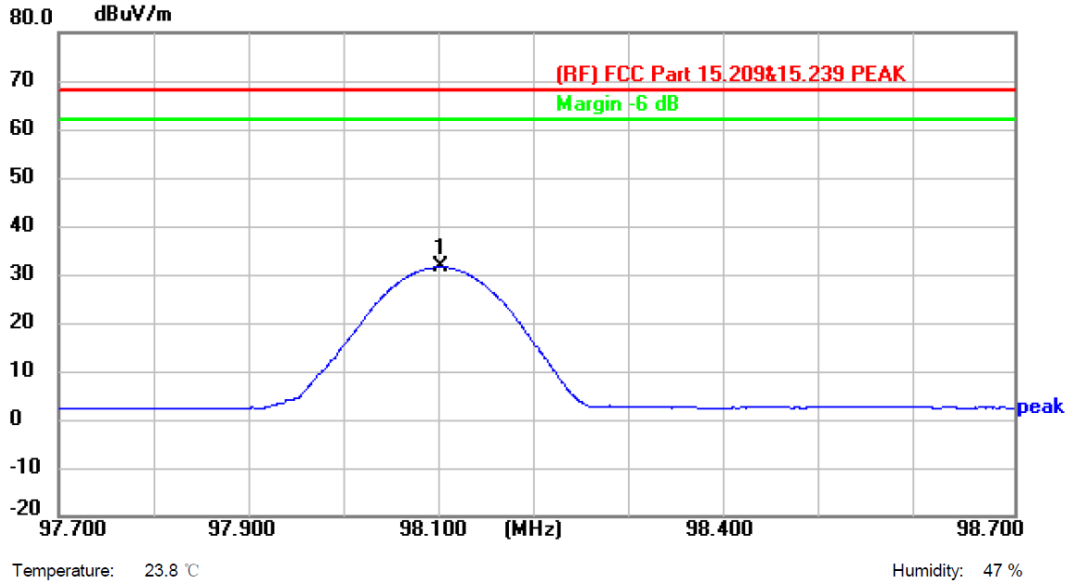
Test Voltage:	DC 12V
Ant. Pol.	Horizontal
Test Mode:	98.1MHz
Remark:	Peak Value < Average Limit, So only show the Peak Value



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	98.0950	65.10	-26.23	38.87	67.96	-29.09	peak

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)

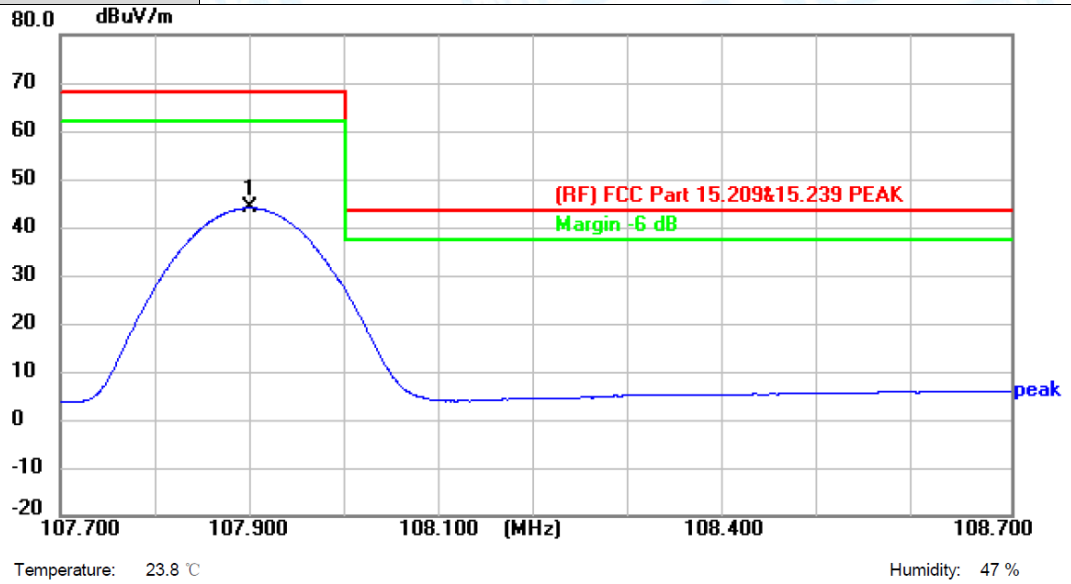
Test Voltage:	DC 12V
Ant. Pol.	Vertical
Test Mode:	98.1MHz
Remark:	Peak Value < Average Limit, So only show the Peak Value



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	98.0990	57.75	-26.23	31.52	67.96	-36.44	peak

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

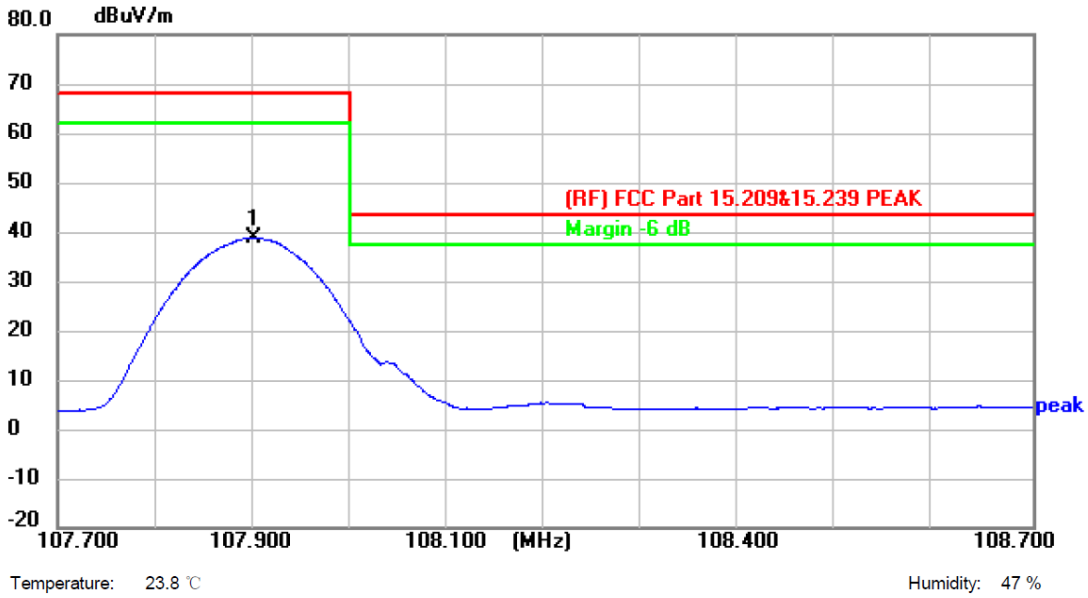


Temperature: 23.8 ℃ Humidity: 47 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	107.8990	68.56	-24.55	44.01	67.96	-23.95	peak

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



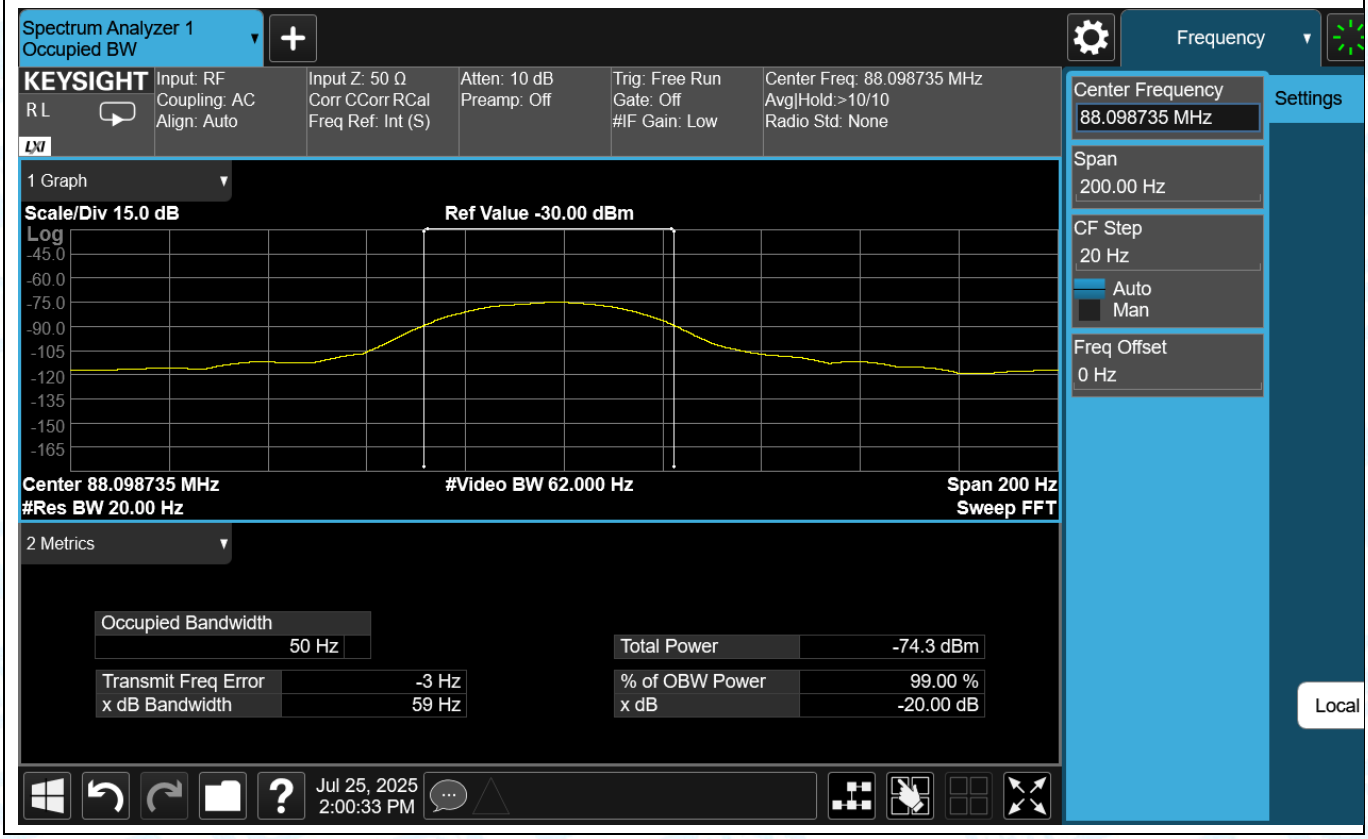
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	107.9020	63.38	-24.54	38.84	67.96	-29.12	peak

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

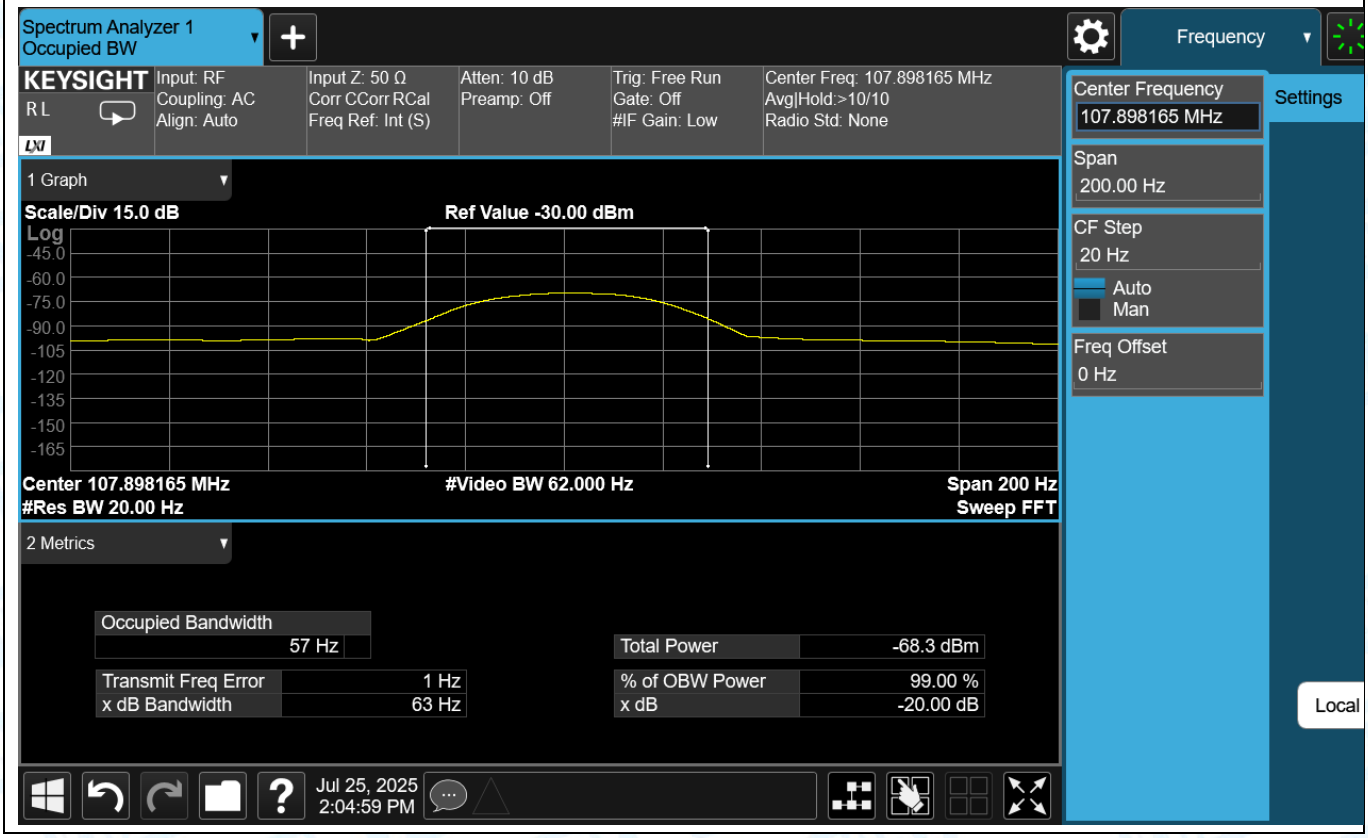
Frequency (MHz)	20 dB Bandwidth (kHz)	Limits (kHz)	Result
88.1	0.06	200	PASS
98.1	0.061		PASS
107.9	0.063		PASS

88.1 MHz



98.1 MHz

107.9 MHz



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