



# **TEST REPORT**

Applicant Name: PO FUNG ELECTRONIC (HK) INTERNATONAL GROUP COMPANY

LIMITED

Address: Room 1508, 15/F, Office Tower II, Grand Plaza, 625 Nathan Road,

Kowloon, Hong Kong

Report Number: XMTN1220728-34315E-EM-00B

FCC ID: 2AJGM-UV17

**Test Standards:** FCC PART 15B

**Sample Description** 

Product Type: Amateur Radio

Model No.: UV-17R Multiple Model: BF-17R

Trade Mark: BAOFENG, POFUNG

Date Received: 2022-07-28

Date of Test: 2022-12-18 to 2022-12-19

Report Date: 2022-12-23

Test Result: Pass\*

\* In the configuration tested, the EUT complied with the standards above.

**Prepared and Checked By:** 

**Approved By:** 

Candy, Li

Zeki Ma

Zeki Ma

**EMC Engineer** 

Candy Li

EMC Engineer

**Note:** This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★".

Shenzhen Accurate Technology Co., Ltd. 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 an asterisk '\*'. Customer model name, addresses, names, trademarks etc. are not considered data.

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# **DOCUMENT REVISION HISTORY**

Revision Number	Report Number	Description of Revision	Date of Revision
0	XMTN1220728-34315E-EM-00B	Original Report	2022-12-23

# **GENERAL INFORMATION**

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

Product	Amateur Radio
Tested Model	UV-17R
Multiple Model	BF-17R
Model Difference	Please refer to the DOS letter.
Frequency Range	FM: 76-108MHz(Receiver) NOAA: 162.400-162.550MHz(Receiver)
Highest Operation Frequency	520 MHz (provided by the applicant.)
Voltage Range	DC 7.4V from battery or DC 5V from adapter for charging
Sample number	XMTN1220728-34315E-EM-S1 (Assigned by ATC)
Sample/EUT Status	Good condition
Adapter information	Model: BF-0502000 Input: 100-240V~50/60Hz 0.5A Output: 5V=2A (The DC line length is 0.87 meter.)

# **Objective**

This report is in accordance with Part 2-Subpart J, and Part 15-Subparts A and B of the Federal Communication Commission's rules.

The objective of the manufacturer is to determine the compliance of EUT with FCC Part 15, Class B device.

# **Test Methodology**

All measurements contained in this report were conducted with ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All radiated and conducted emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

# **Measurement Uncertainty**

Parameter		Uncertainty		
Occupied Cha	nnel Bandwidth	5%		
RF Fre	equency	$0.082*10^{-7}$		
RF output po	wer, conducted	0.73dB		
Unwanted Emission, conducted		1.6dB		
AC Power Lines Conducted Emissions		2.72dB		
	9kHz - 30MHz	2.66dB		
Emissions, Radiated	30MHz - 1GHz	4.28dB		
Radiated	1GHz - 18GHz	4.98dB		
Temperature		1℃		
Humidity		6%		
Supply voltages		0.4%		

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

# **Test Facility**

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 708358, the FCC Designation No.: CN1189. Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 4297.01.

Listed by Innovation, Science and Economic Development Canada (ISEDC), the Registration Number is 5077A.

# **SYSTEM TEST CONFIGURATION**

### Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

Test mode 1: Charging (The EUT Switch OFF)

Test mode 2: Receiver at FM 76MHz Test mode 3: Receiver at FM 92MHz

Test mode 4: Receiver at FM 108MHz

Test mode 5: NOAA Receiving at 162.4750MHz

### NOAA Channel:

Channel	Frequency (MHz)	Channel	Frequency (MHz) 162.4500 162.5000 162.5250	
1	162.5500	5	162.4500	
2	162.4000	6	162.5000	
3	162.4750	7	162.5250	
4	162.4250	/	/	

### **EUT Exercise Software**

No exercise software.

# **Special Accessories**

No special accessory was used.

# **Equipment Modifications**

No modification was made to the EUT tested.

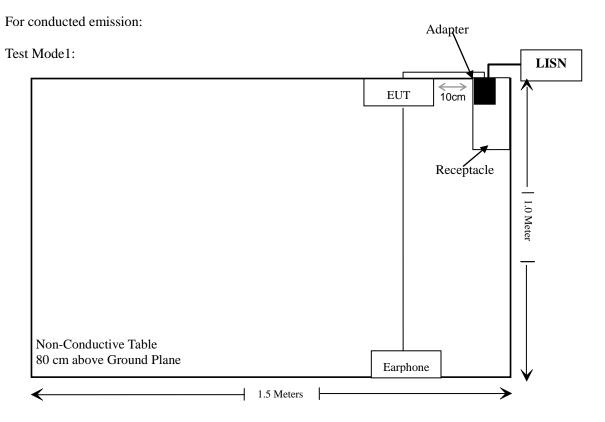
# **Support Equipment List and Details**

Manufacturer	Description	Model	Serial Number
Unknown	Earphone	K-MS561	Unknown
AGILENT	Vector Signal Generator	N5182A	MY50143401

### External I/O Cable

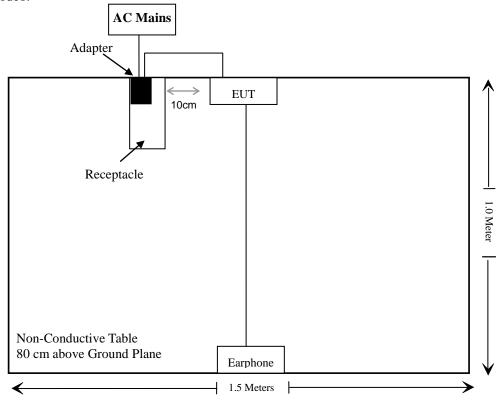
Cable Description	Length (m)	From Port	To Port
Audio Cable	1.5	EUT	Earphone
Power Cable	Power Cable 0.87 EUT		Adapter

# **Block Diagram of Radiated Test Setup**

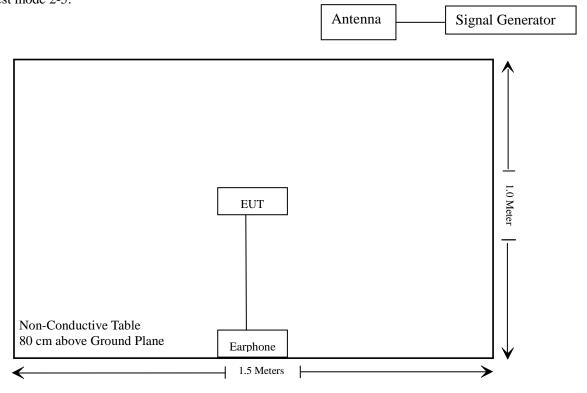


# For Radiated emission:

# Test Mode1:



# Test mode 2-5:



# SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§15.107	Conducted Emissions	Compliant
§15.109	Radiated Emissions	Compliant
§15.111	Antenna Conducted Power for receivers	Compliant

# TEST EQUIPMENT LIST

Manufacturer	Description	Model Serial Number		Calibration Date	Calibration Due Date			
Conducted emission								
Rohde & Schwarz         EMI Test Receiver         ESCI         100784         2022/11/25         2023/11/25								
Rohde & Schwarz	L.I.S.N.	ENV216	101314	2022/11/25	2023/11/24			
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2022/12/07	2023/12/06			
Unknown	RF Coaxial Cable	No.17	N0350	2022/11/25	1/25 2023/11/24			
	Conducted E	mission Test Soft	tware: e3 19821b (	V9)				
		Radiated Emiss	ions Test					
Rohde & Schwarz	Test Receiver	ESR	102725	2022/11/25	2023/11/24			
Rohde & Schwarz	Spectrum Analyzer	FSV40	101949	2022/11/25	2023/11/24			
A.H. Systems, inc.	Preamplifier	PAM-0118P	2022/11/08	2023/11/07				
SONOMA INSTRUMENT	Amplifier	310 N	310 N 186131		2023/11/07			
Schwarzbeck	Bilog Antenna	VULB9163	VULB9163 9163-323 202		2024/07/05			
Schwarzbeck	Horn Antenna	BBHA9120D 9120D-1067 2020/01/05			2023/01/04			
AGILENT	Vector Signal Generator	N5182A	MY50143401	2022/10/24	2023/10/23			
Unknown	RF Coaxial Cable	No.10	N050	2022/11/25	2023/11/24			
Unknown	RF Coaxial Cable	No.11	N1000	2022/11/25	2023/11/24			
Unknown	RF Coaxial Cable	No.12	N040	2022/11/25	2023/11/24			
Unknown	RF Coaxial Cable	No.13	N300	2022/11/25	2023/11/24			
Unknown	RF Coaxial Cable	No.14	N800	2022/11/25 2023/11/24				
	Radiated Emission Test Software: e3 19821b(V9)							
		RF Conducte	d Test					
Rohde & Schwarz	Spectrum Analyzer	FSV-40	101495	2022/11/25	2023/11/24			
Unknown RF Coaxial Cable No.33 RF-03 Each time								

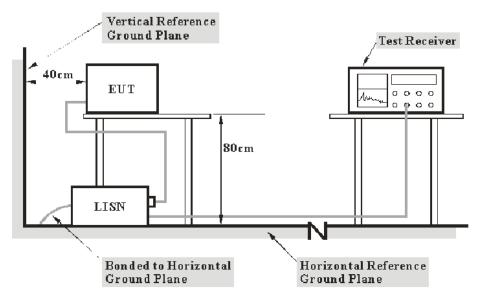
<sup>\*</sup> Statement of Traceability: Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

# FCC §15.107 – CONDUCTED EMISSIONS

# **Applicable Standard**

According to FCC§15.107

# **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 measurement procedure of EUT setup is according with ANSI C63.4-2014. The related limit was specified in FCC Part 15.107 Class B.

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 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**

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All final data was recorded in the Quasi-peak and average detection mode.

# **Factor & Over Limit Calculation**

The factor is calculated by adding LISN VDF (Voltage Division Factor) and Cable Loss. The basic equation is as follows:

Factor = LISN VDF + Cable Loss

The "Over limit" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over limit of -7 dB means the emission is 7 dB below the limit. The equation for calculation is as follows:

Over Limit = Level – Limit Level = Read Level + Factor

# **Test Data**

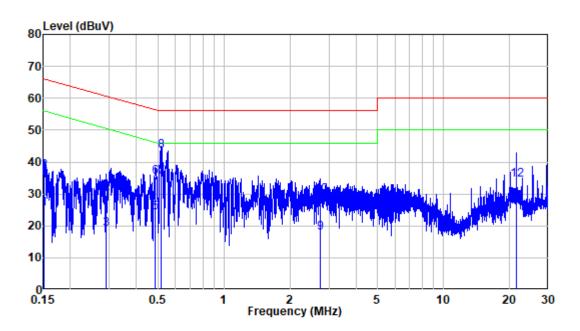
### **Environmental Conditions**

Temperature:	21 °C
Relative Humidity:	54 %
ATM Pressure:	101kPa

The testing was performed by Lipa Wu on 2022-12-18

# Test mode 1: Charging

# AC 120V/60Hz, Line:



Site : Shielding Room

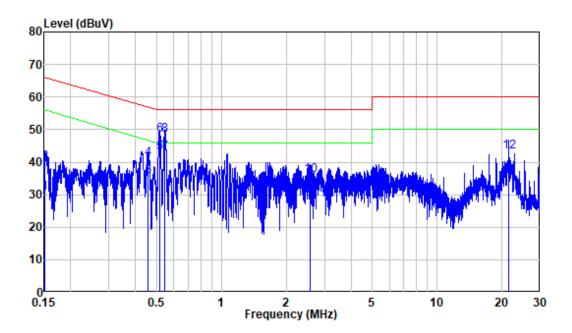
Condition: Line

Job No. : XMTN1220728-34315E-EM

Mode : Charging Power : AC 120V 60Hz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.151	9.80	15.69	25.49	55.92	-30.43	Average
2	0.151	9.80	27.44	37.24	65.92	-28.68	QP
3	0.292	9.80	9.21	19.01	50.48	-31.47	Average
4	0.292	9.80	19.82	29.62	60.48	-30.86	QP
5	0.485	9.80	14.33	24.13	46.26	-22.13	Average
6	0.485	9.80	25.39	35.19	56.26	-21.07	QP
7	0.520	9.81	25.37	35.18	46.00	-10.82	Average
8	0.520	9.81	33.67	43.48	56.00	-12.52	QP
9	2.745	9.83	7.92	17.75	46.00	-28.25	Average
10	2.745	9.83	19.62	29.45	56.00	-26.55	QP
11	21.429	10.01	17.59	27.60	50.00	-22.40	Average
12	21.429	10.01	24.52	34.53	60.00	-25.47	QP

# AC 120V/60Hz, Neutral:



Site : Shielding Room

Condition: Neutral

Job No. : XMTN1220728-34315E-EM

Mode : Charging Power : AC 120V 60Hz

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.152	9.80	20.81	30.61	55.87	-25.26	Average
2	0.152	9.80	29.98	39.78	65.87	-26.09	QP
3	0.458	9.80	25.68	35.48	46.73	-11.25	Average
4	0.458	9.80	31.17	40.97	56.73	-15.76	QP
5	0.517	9.81	33.03	42.84	46.00	-3.16	Average
6	0.517	9.81	38.51	48.32	56.00	-7.68	QP
7	0.546	9.81	33.09	42.90	46.00	-3.10	Average
8	0.546	9.81	38.63	48.44	56.00	-7.56	QP
9	2.586	9.83	18.41	28.24	46.00	-17.76	Average
10	2.586	9.83	26.01	35.84	56.00	-20.16	QP
11	21.458	10.11	24.55	34.66	50.00	-15.34	Average
12	21.458	10.11	33.07	43.18	60.00	-16.82	QP

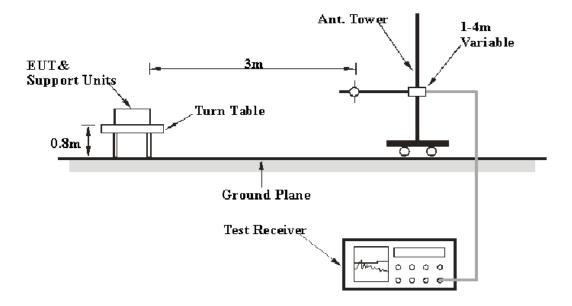
# FCC §15.109 - RADIATED EMISSIONS

# **Applicable Standard**

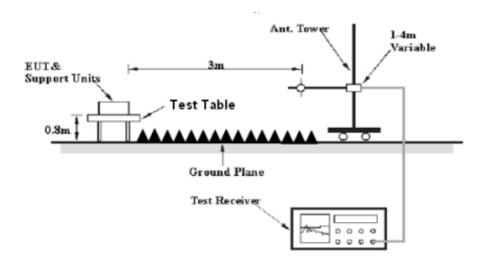
FCC §15.109

# **EUT Setup**

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15.109 Class B 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 5 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	Detector
30MHz – 1000 MHz	120 kHz	300 kHz	120kHz	QP
Above 1 GHz	1MHz	3 MHz	/	Peak
Above I GHZ	1MHz	10Hz	/	AV

All data was recorded in the Quasi-peak detector mode from 30 MHz to 1 GHz, Peak and average detection mode above 1 GHz.

If the maximized peak measured value complies with the limit, then it is unnecessary to perform QP/Average measurement.

#### **Test Procedure**

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

#### **Factor & Over Limit Calculation**

The Factor 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:

Factor = Antenna Factor + Cable Loss - Amplifier Gain

The "Over Limit" 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:

Over Limit = Level - Limit Level = Reading + Factor

# **Test Data**

# **Environmental Conditions**

Temperature:	21°C
Relative Humidity:	55%
ATM Pressure:	101kPa

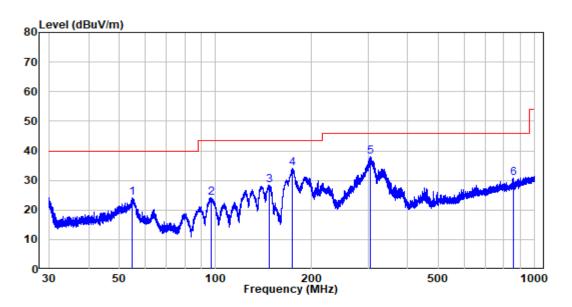
The testing was performed by Jason Liu on 2022-12-19.

Note: Pre-scan in the X, Y and Z axes of orientation, the worst case Y-axis of orientation was recorded.

### **30MHz-1GHz:**

# **Test mode 1: Charging**

### **Horizontal:**



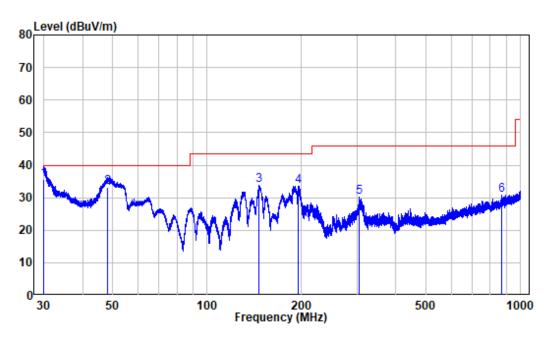
Site : chamber

Condition: 3m HORIZONTAL

Job No. : XMTN1220728-34315E-EM

Test Mode: Charging

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	54.811	-10.29	34.44	24.15	40.00	-15.85	Peak
2	96.945	-12.28	36.56	24.28	43.50	-19.22	Peak
3	147.404	-15.43	43.75	28.32	43.50	-15.18	Peak
4	174.195	-13.17	47.32	34.15	43.50	-9.35	Peak
5	305.546	-9.04	47.01	37.97	46.00	-8.03	Peak
6	856.649	0.31	30.49	30.80	46.00	-15.20	Peak



Site : chamber Condition: 3m VERTICAL

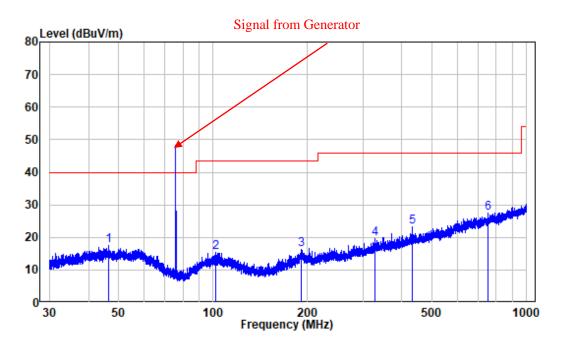
Job No. : XMTN1220728-34315E-EM

Test Mode: Charging

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	30.145	-12.39	47.91	35.52	40.00	-4.48	QP
2	48.205	-9.99	43.10	33.11	40.00	-6.89	QP
3	146.566	-15.47	49.20	33.73	43.50	-9.77	Peak
4	195.822	-11.55	45.11	33.56	43.50	-9.94	Peak
5	306.082	-9.03	39.27	30.24	46.00	-15.76	Peak
6	869.511	0.97	29.67	30.64	46.00	-15.36	Peak

# Test mode 2: Receiver at FM 76MHz

### **Horizontal:**



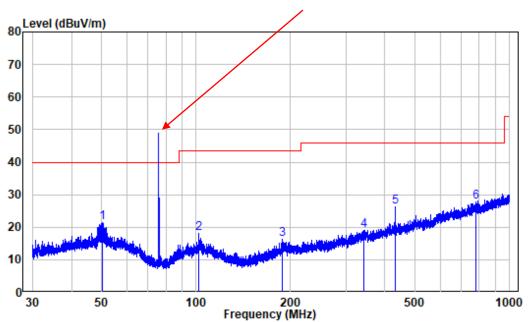
Site : chamber

Condition: 3m HORIZONTAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 76MHz

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	46.422	-10.00	27.57	17.57	40.00	-22.43	Peak
2	101.912	-11.58	26.87	15.29	43.50	-28.21	Peak
3	190.405	-11.51	27.81	16.30	43.50	-27.20	Peak
4	329.039	-8.04	27.52	19.48	46.00	-26.52	Peak
5	431.977	-5.75	28.85	23.10	46.00	-22.90	Peak
6	752.084	-0.83	28.20	27.37	46.00	-18.63	Peak





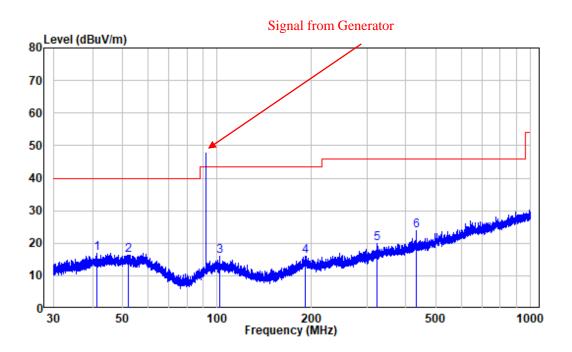
Site : chamber Condition: 3m VERTICAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 76MHz

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	50.254	-9.92	31.47	21.55	40.00	-18.45	Peak
2	101.912	-11.58	29.81	18.23	43.50	-25.27	Peak
3	187.589	-11.87	28.11	16.24	43.50	-27.26	Peak
4	342.279	-7.34	26.42	19.08	46.00	-26.92	Peak
5	431.977	-5.75	32.09	26.34	46.00	-19.66	Peak
6	779.949	0.08	27.69	27.77	46.00	-18.23	Peak

### Test mode 3: Receiver at FM 92MHz

### **Horizontal:**

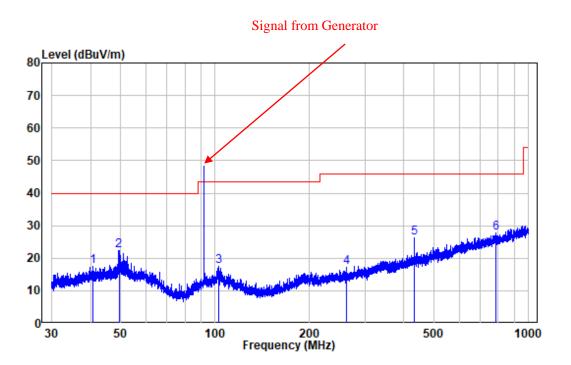


Site : chamber

Condition: 3m HORIZONTAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 92MHz

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	41.277	-10.14	27.06	16.92	40.00	-23.08	Peak
2	52.116	-9.99	26.40	16.41	40.00	-23.59	Peak
3	101.867	-11.58	27.44	15.86	43.50	-27.64	Peak
4	190.990	-11.41	27.49	16.08	43.50	-27.42	Peak
5	322.471	-8.36	28.31	19.95	46.00	-26.05	Peak
6	431.977	-5.75	29.46	23.71	46.00	-22.29	Peak



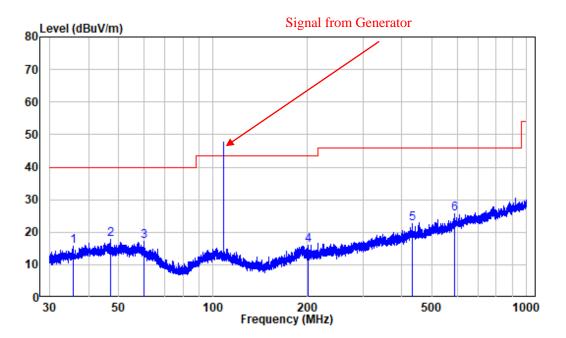
Site : chamber Condition: 3m VERTICAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 92MHz

	Freq	Factor		Level			Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.755	-10.22	27.73	17.51	40.00	-22.49	Peak
2	49.316	-9.94	32.15	22.21	40.00	-17.79	Peak
3	102.539	-11.61	28.99	17.38	43.50	-26.12	Peak
4	261.975	-10.53	27.71	17.18	46.00	-28.82	Peak
5	431.977	-5.75	31.91	26.16	46.00	-19.84	Peak
6	788.888	-0.12	27.88	27.76	46.00	-18.24	Peak

### Test mode 4: Receiver at FM 108MHz

### **Horizontal:**



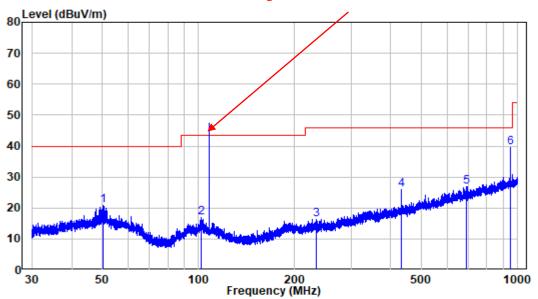
Site : chamber

Condition: 3m HORIZONTAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 108MHz

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	35.812	-11.27	27.01	15.74	40.00	-24.26	Peak
2	47.057	-10.00	27.88	17.88	40.00	-22.12	Peak
3	60.280	-10.73	27.95	17.22	40.00	-22.78	Peak
4	200.512	-11.44	27.44	16.00	43.50	-27.50	Peak
5	431.977	-5.75	28.46	22.71	46.00	-23.29	Peak
6	590.715	-2.74	28.27	25.53	46.00	-20.47	Peak

# Signal from Generator



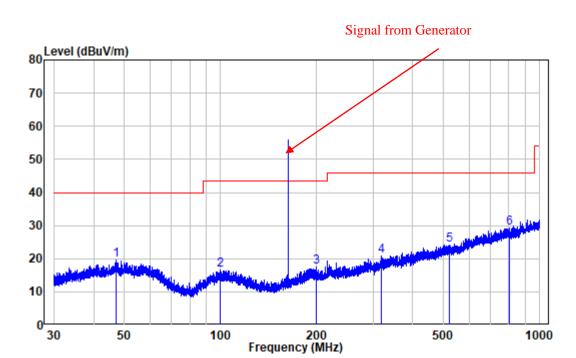
Site : chamber Condition: 3m VERTICAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 108MHz

			Read		Limit	Over	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	50.122	-9.92	30.64	20.72	40.00	-19.28	Peak
2	101.867	-11.58	28.53	16.95	43.50	-26.55	Peak
3	233.758	-11.00	27.22	16.22	46.00	-29.78	Peak
4	431.977	-5.75	31.56	25.81	46.00	-20.19	Peak
5	690.472	-1.51	28.46	26.95	46.00	-19.05	Peak
6	947.930	1.98	37.45	39.43	46.00	-6.57	Peak

# Test mode 5: NOAA Receiving at 162.4750MHz

### **Horizontal:**



Site : chamber

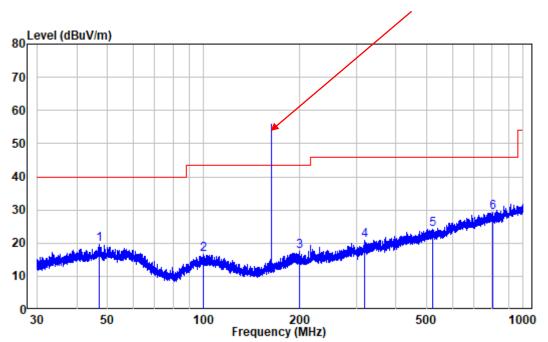
Condition: 3m HORIZONTAL

Job No. : XMTN1220728-34315E-EM

Test Mode: NOAA Receiving at 162.4750MHz

	F	F+			Limit		Damanle
	rreq	Factor	rever	rever	Line	Limit	Kemark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	46.892	-10.00	29.62	19.62	40.00	-20.38	Peak
2	99.572	-11.90	28.48	16.58	43.50	-26.92	Peak
3	199.986	-11.40	29.04	17.64	43.50	-25.86	Peak
4	319.937	-8.45	29.37	20.92	46.00	-25.08	Peak
5	520.432	-4.30	28.39	24.09	46.00	-21.91	Peak
6	806.015	-0.43	29.82	29.39	46.00	-16.61	Peak





Site : chamber

Condition: 3m HORIZONTAL

Job No. : XMTN1220728-34315E-EM

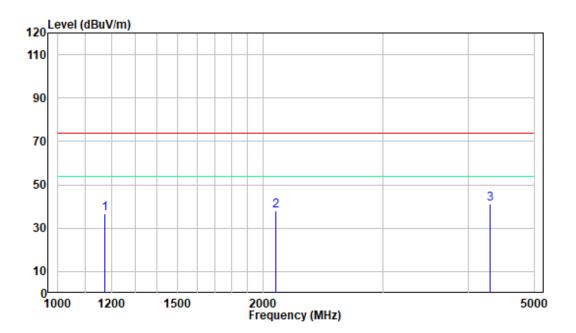
Test Mode: NOAA Receiving at 162.4750MHz

	Freq	Factor			Limit Line		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		_
1	46.892	-10.00	29.62	19.62	40.00	-20.38	Peak	
2	99.572	-11.90	28.48	16.58	43.50	-26.92	Peak	
3	199.986	-11.40	29.04	17.64	43.50	-25.86	Peak	
4	319.937	-8.45	29.37	20.92	46.00	-25.08	Peak	
5	520.432	-4.30	28.39	24.09	46.00	-21.91	Peak	
6	806.015	-0.43	29.82	29.39	46.00	-16.61	Peak	

Note: For below 1GHz, when the test result of peak was 6dB below to the limit of QP, just peak value was recorded.

### **Above 1 GHz:**

# Test mode 1: Charging Horizontal:



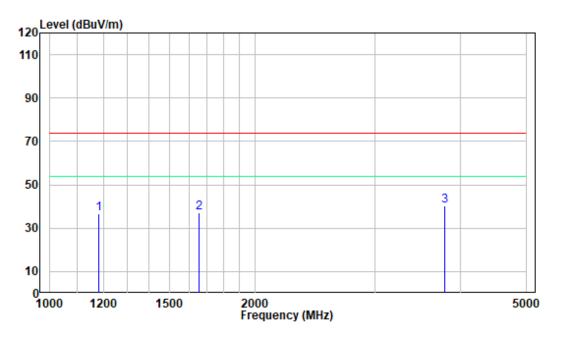
Site : chamber

Condition: 3m HORIZONTAL

Job No. : XMTN1220728-34315E-EM

Test Mode: Charging

	Freq	Factor		Level		Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1174.500	-10.29	46.84	36.55	74.00	-37.45	Peak
2	2088.500	-7.24	45.44	38.20	74.00	-35.80	Peak
3	4307.500	-4.90	46.06	41.16	74.00	-32.84	Peak



Site : chamber Condition: 3m VERTICAL

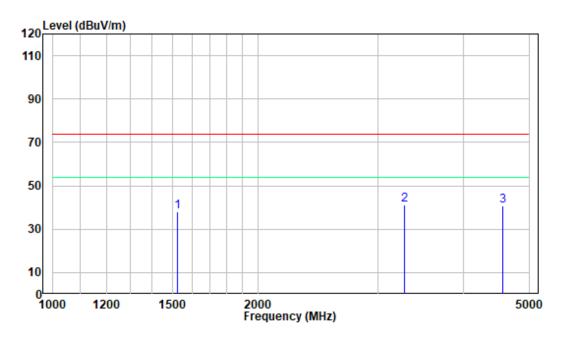
Job No. : XMTN1220728-34315E-EM

Test Mode: Charging

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1182.500	-10.27	46.76	36.49	74.00	-37.51	Peak
2	1658.000	-9.05	46.35	37.30	74.00	-36.70	Peak
3	3797.500	-5.71	45.98	40.27	74.00	-33.73	Peak

### Test mode 2: Receiver at FM 76MHz

# **Horizontal:**

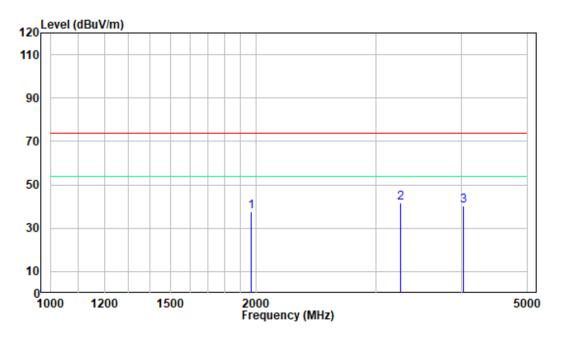


Site : chamber

Condition: 3m HORIZONTAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 76MHz

	Freq	Factor		Level		Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1523.000	-9.40	47.59	38.19	74.00	-35.81	Peak
2	3279.500	-5.96	47.09	41.13	74.00	-32.87	Peak
3	4563.000	-4.48	45.44	40.96	74.00	-33.04	Peak



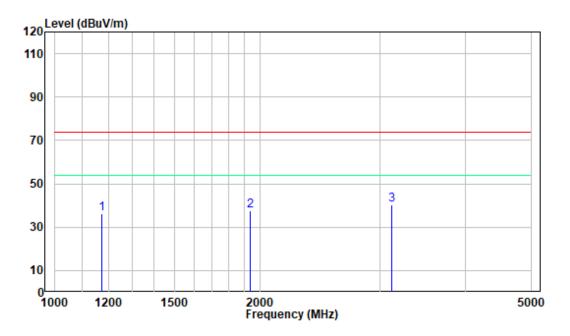
Site : chamber Condition: 3m VERTICAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 76MHz

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1969.000	-7.49	45.22	37.73	74.00	-36.27	Peak
2	3260.000	-5.97	47.45	41.48	74.00	-32.52	Peak
3	4027.000	-5.37	45.80	40.43	74.00	-33.57	Peak

### Test mode 3: Receiver at FM 92MHz

#### **Horizontal:**

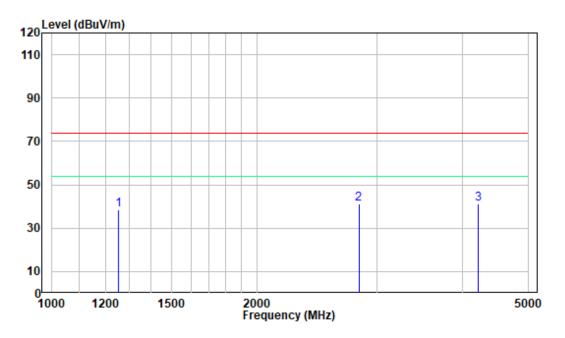


Site : chamber

Condition: 3m HORIZONTAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 92MHz

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1174.000	-10.29	46.48	36.19	74.00	-37.81	Peak
2	1935.000	-7.75	45.50	37.75	74.00	-36.25	Peak
3	3118,000	-5.85	46.29	40.44	74.00	-33.56	Peak



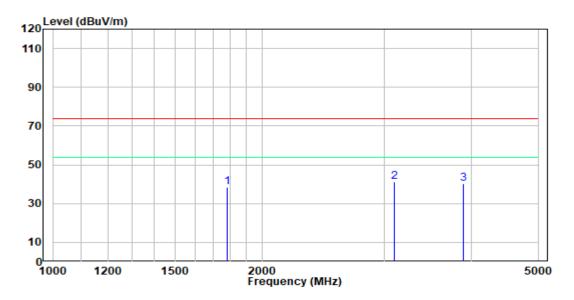
Site : chamber Condition: 3m VERTICAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 92MHz

	Freq	Factor			Limit Line		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		Π
1	1254.000	-10.12	48.74	38.62	74.00	-35.38	Peak	
2	2820.000	-6.23	47.41	41.18	74.00	-32.82	Peak	
3	4215.000	-5.05	46.31	41.26	74.00	-32.74	Peak	

# Test mode 4: Receiver at FM 108MHz

#### **Horizontal:**

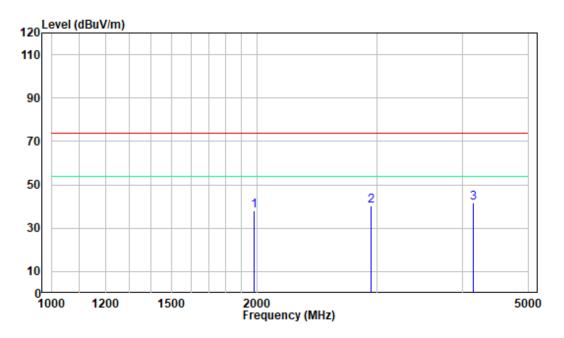


Site : chamber

Condition: 3m HORIZONTAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 108MHz

			Read		Limit	0ver		
	Freq	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	1782.500	-8.79	47.24	38.45	74.00	-35.55	Peak	
2	3096.000	-5.86	47.24	41.38	74.00	-32.62	Peak	
3	3890.500	-5.56	45.99	40.43	74.00	-33.57	Peak	



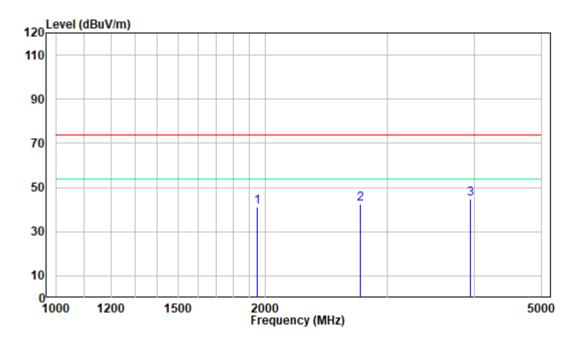
Site : chamber Condition: 3m VERTICAL

Job No. : XMTN1220728-34315E-EM Test Mode: Receive at FM 108MHz

	Freq	Factor			Limit Line		Remark	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1	1980.000	-7.42	45.40	37.98	74.00	-36.02	Peak	
2	2939.500	-5.98	46.48	40.50	74.00	-33.50	Peak	
3	4149.000	-5.20	46.72	41.52	74.00	-32.48	Peak	

# Test mode 5: NOAA Receiving at 162.4750MHz

### **Horizontal:**



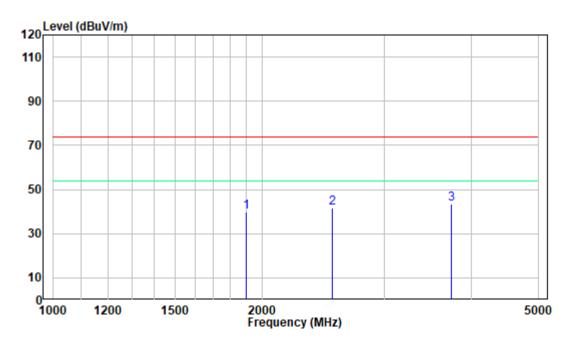
Site : chamber

Condition: 3m HORIZONTAL

Job No. : XMTN1220728-34315E-EM

Test Mode: NOAA Receiving at 162.4750MHz

			Read		Limit	0ver	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1949.000	-7.62	48.77	41.15	74.00	-32.85	Peak
2	2738.000	-6.61	49.27	42.66	74.00	-31.34	Peak
3	3947.000	-5.49	50.51	45.02	74.00	-28.98	Peak



Site : chamber Condition: 3m VERTICAL

Job No. : XMTN1220728-34315E-EM

Test Mode: NOAA Receiving at 162.4750MHz

# FCC §15.111 - ANTENNA CONDUCTED POWER FOR RECEIVERS

# **Applicable Standard**

FCC §15.111

### Limit

The antenna conducted power of the receiver as defined in §15.111 shall not exceed the values given in the following tables

Frequency Range	Limit
9 kHz to 5 GHz	2.0 nW (-57 dBm)

# **EUT Setup**



### **Test Procedure**

- 1. The receiver antenna terminal connected to a spectrum analyzer.
- 2. The test data of the worst case condition was reported on the following Data page.

# **Test Data**

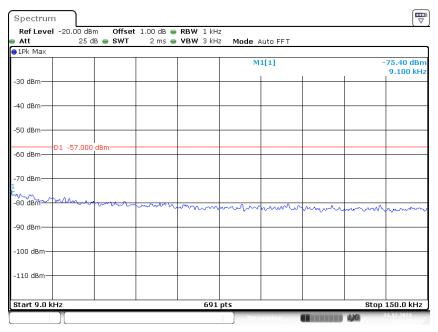
# **Environmental Conditions**

Temperature:	25 ℃
Relative Humidity:	52 %
ATM Pressure:	101kPa

The testing was performed by Jesse Chen on 2022-12-21

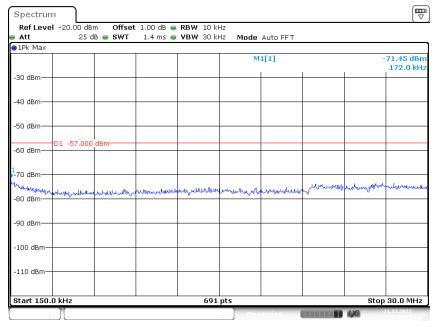
Test mode 2:

# Conducted Measurement (9 kHz to 150 kHz)



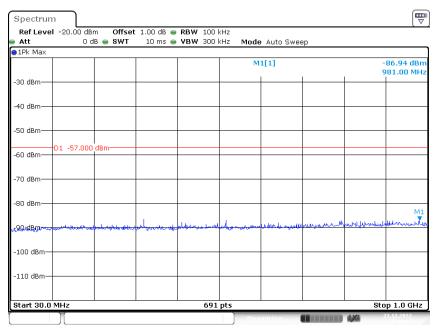
Date: 21.DEC.2022 17:18:45

# Conducted Measurement (150 kHz to 30MHz)



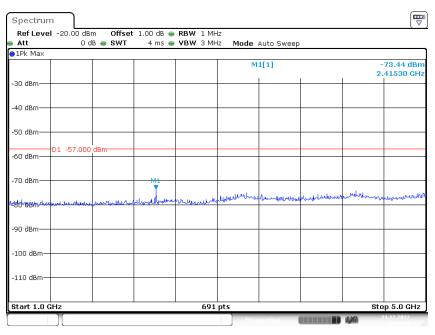
Date: 21.DEC.2022 17:19:01

# Conducted Measurement (30MHz to 1GHz)



Date: 21.DEC.2022 17:19:16

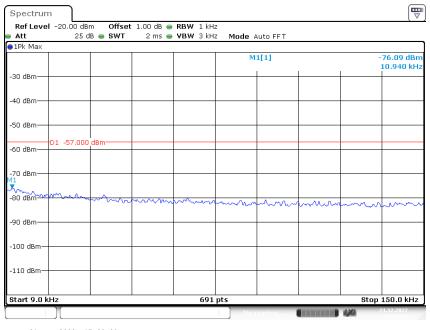
### **Conducted Measurement (1GHz to 5GHz)**



Date: 21.DEC.2022 17:19:31

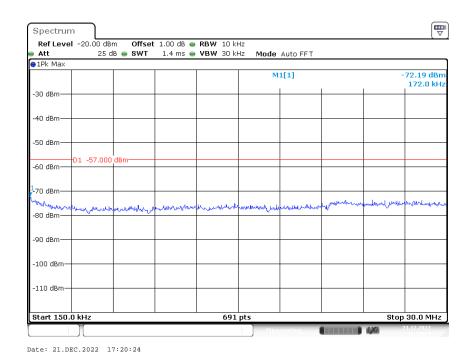
Test mode 3:

# Conducted Measurement (9 kHz to 150 kHz)

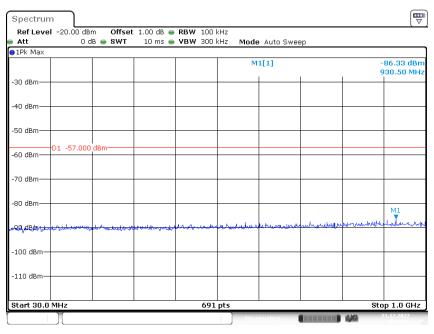


### Date: 21.DEC.2022 17:20:09

# Conducted Measurement (150 kHz to 30MHz)

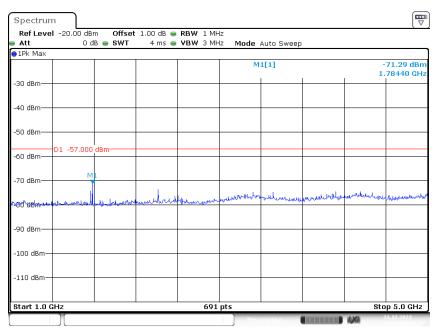


# Conducted Measurement (30MHz to 1GHz)



Date: 21.DEC.2022 17:20:39

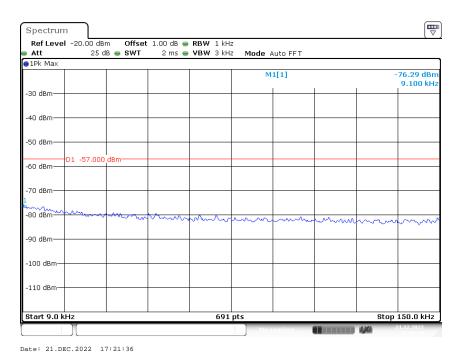
### **Conducted Measurement (1GHz to 5GHz)**



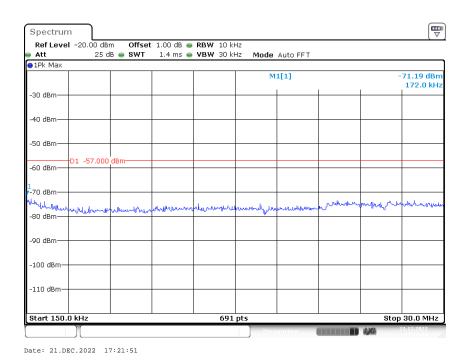
Date: 21.DEC.2022 17:20:54

### Test mode 4:

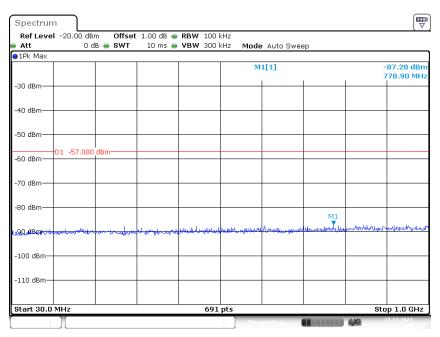
# Conducted Measurement (9 kHz to 150 kHz)



# Conducted Measurement (150 kHz to 30MHz)

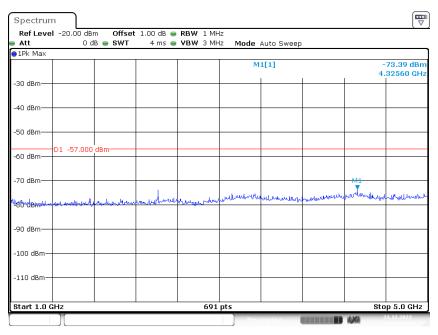


# Conducted Measurement (30MHz to 1GHz)



Date: 21.DEC.2022 17:22:07

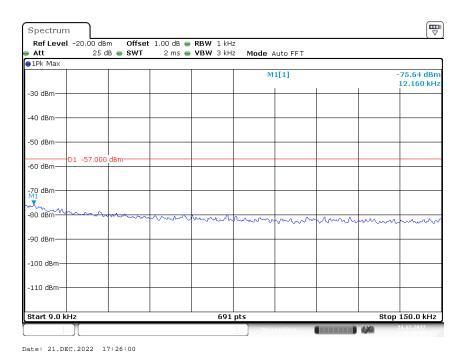
### **Conducted Measurement (1GHz to 5GHz)**



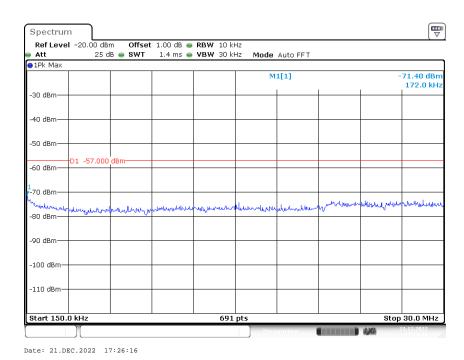
Date: 21.DEC.2022 17:22:22

### Test mode 5:

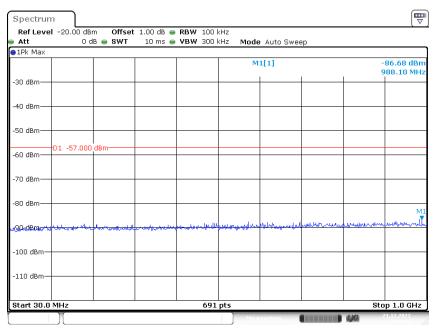
# Conducted Measurement (9 kHz to 150 kHz)



# Conducted Measurement (150 kHz to 30MHz)

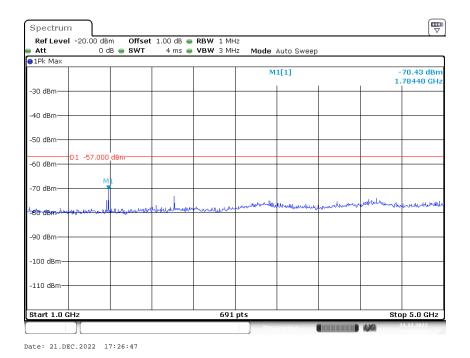


# Conducted Measurement (30MHz to 1GHz)



#### Date: 21.DEC.2022 17:26:32

### **Conducted Measurement (1GHz to 5GHz)**



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