CERT #5473.03

No.:
FCCSZ2024-0071-RF

TEST REPORT

FCC ID	:	**2A2P9-EFPB5035KP**
NAME OF SAMPLE	:	**EcoFlow RAPID Magnetic Power Bank(5000mAh)**
APPLICANT	:	**EcoFlow Inc.**
CLASSIFICATION OF TEST	:	**N/A**

CVC Testing Technology (Shenzhen) Co., Ltd.

Applicant	**Name: EcoFlow Inc.** **Address: RM 401, Plant #1, Runheng Industrial Zone, Fuyuanyi Road, Zhancheng Community, Fuhai Street, Bao'an District,Shenzhen City,Guangdong Province, P.R.China**
Manufacturer	**Name: EcoFlow Inc.** **Address: RM 401, Plant #1, Runheng Industrial Zone, Fuyuanyi Road, Zhancheng Community, Fuhai Street, Bao'an District,Shenzhen City,Guangdong Province, P.R.China**
Equipment Under Test	**Product Name: EcoFlow RAPID Magnetic Power Bank(5000mAh)** **Model/Type: EFPB503-5K, EFPB503-5K-P** **Brand Name: ECOFLOW, EF ECOFLOW** **Serial NO.: N/A** **Sample NO.:4-1**

Date of Receipt.	**2024-09-10**	Date of Testing	**2024-09-10 ～ 2024-10-08**

Test Specification	**Test Result**
FCC Part 15, Subpart C, Section 15.207, Section 15.209	PASS

Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. Seal of CVC **Issue Date: 2024.10.11**

Compiled by:	Reviewed by:	Approved by:
Liang Jiatong	Mo Xianbiao	Dong Sanbi
Name Signature	Name Signature	Name Signature

Other Aspects: NONE.

Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCCSZ2024-0071-RF	Original release	2024.10.11

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
FCC 15.203	Antenna Requirement	PASS	No antenna connector is used.
FCC 15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit.
FCC 15.209,15.205	Radiated Emissions	PASS	Meet the requirement of limit.
FCC 15.215 (c)	20dB Bandwidth Measurement	PASS	Meet the requirement of limit.

1.1 LIST OF TEST AND MEASUREMENT INSTRUMENTS

CE Test - 3M Chamber					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. interval**	**Cal. Due**
EMI Test Receiver	Rohde&Schwarz	ESW8	103078	1 year	2025/5/25
Voltage probe	Rohde&Schwarz	CVP9222C	28	1 year	2025/4/27
Current probe	Rohde&Schwarz	EZ-17CVP9222C	101442	1 year	2025/4/28
ISN network	Rohde&Schwarz	ENV 81	100401	1 year	2025/4/28
ISN network	Rohde&Schwarz	ENV 81 Cat6	101896	1 year	2025/4/28
#1Shielding room	MORI	854	N/A	3 year	2026/5/16
LISN	SCHWARZBECK	NSLK 8129	5021	1 year	2025/4/27
Temperature and humidity meter	/	C193561468	C193561468	1 year	2025/4/27
RE Test - 3M Chamber					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. interval**	**Cal. Due**
EMI Test Receiver	Rohde&Schwarz	ESR 26	101718	1 year	2025/4/27
Loop antenna（8.3k~30MHz）	Rohde&Schwarz	HFH2-Z2E	100951	1 year	2025/6/03
Antenna(30MHz~1000MHz)	SCHWARZBECK	VULB 9168	01132	1 year	2025/5/27
Horn antenna(1GHz-18GHz)	ETS	3117	227634	1 year	2025/3/25
Horn antenna(18GHz-40GHz)	SCHWARZBECK	BBHA 9170	01003	1 year	2025/3/25
3m anechoic chamber	MORI	966	CS0200019	3 year	2026/5/18
LISN（single-phase ）	Rohde&Schwarz	ESH3-Z6	102152/102156	1 year	2025/4/27
Preamplifier(10kHz-1GHz)	Rohde&Schwarz	SCU-01F	100298	1 year	2025/4/28
Attenuator	/	SJ-5dB	607684	1 year	2025/2/04
#1 control room	MORI	433	CS0300028	3 year	2026/5/17
Temperature and humidity meter	UNI-T	A10T	C193561473	1 year	2025/4/27

1.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

No.	ITEM	FREQUENCY	UNCERTAINTY
1	Conducted Emissions	9kHz~30MHz	+/-2.7 dB
2	Radiated Spurious Emissions	9KHz ~ 30MHz	+/-5.6 dB
		30MHz ~ 1GMHz	+/-4.6 dB
		1GHz ~ 18GHz	+/-4.4 dB
		18GHz ~ 40GHz	+/-5.1 dB

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

1.3 TEST LOCATION

The tests and measurements refer to this report were performed by EMC testing Lab. of CVC Testing Technology (Shenzhen) Co., Ltd.

Lab Address: No. 1301-14&16, Guanguang Road, Xinlan Community, Guanlan Subdistrict, Longhua District, Shenzhen, Guangdong,China
Post Code：518110 Tel：0755-23763060-8805
Fax：0755-23763060 E-mail：sz-kf@cvc.org.cn
FCC(Test firm designation number：CN1363)
IC(Test firm CAB identifier number：CN0137)
CNAS(Test firm designation number：L16091)

2 GENERAL INFORMATION

2.1 GENERAL PRODUCT INFORMATION

PRODUCT	EcoFlow RAPID Magnetic Power Bank(5000mAh)
BRAND	ECOFLOW, EF ECOFLOW
TEST MODEL	EFPB503-5K-P
ADDITIONAL MODEL	EFPB503-5K
POWER SUPPLY	DC Input:5V-3A,9V-3A,12V-2.5A,20V-1.5A Base Input:12V-2A DC Output:5V-3A,9V-3A,12V-2.5A,20V-1.5A Wireless Output:15W(Max) Battery:5000mAh,3.87V,19.35Wh
MODULATION TYPE	ASK
OPERATING FREQUENCY	127.7kHz, 360kHz
ANTENNA TYPE	Coil Antenna
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

Remark:

1. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. Please refer to the EUT photo document for detailed EUT photo (FCC2024-0071-EUT).

2.2 DESCRIPTION OF TEST MODE

The EUT were tested under the following modes, the final worst mode was marked in boldface and recorded in this report.

Test mode	Frequency	Operation method
TM1	**127.7kHz**	**5 W with Full load**
TM2	127.7kHz	5 W with half load
TM3	127.7kHz	5 W with unloaded
TM4	127.7kHz	7.5 W with Full load
TM5	127.7kHz	7.5 W with half load
TM6	127.7kHz	7.5 W with unloaded
TM7	127.7kHz	10 W with Full load
TM8	127.7kHz	10 W with half load
TM9	127.7kHz	10 W with unloaded
TM10	**360kHz**	**15 W with Full load**
TM11	360kHz	15 W with half load
TM12	360kHz	15 W with unloaded
TM13	/	Standby

2.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

FCC PART 15, Subpart C. Section 15.209,Section 15.207
ANSI C63.10-2020

All test items have been performed and recorded as per the above standards

2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Support Equipment					
NO	Description	Brand	Model No.	Serial Number	Supplied by
1	Wireless charging load	N/A	N/A	N/A	Lab

Support Cable							
NO	Description	Quantity (Number)	Length (m)	Detachable (Yes/ No)	Shielded (Yes/ No)	Cores (Number)	Supplied by
-	-	-	-	-	-	-	-

3 TEST TYPES AND RESULTS

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 Limit

Test Standard: Part 15C

Frequency (MHz)	Conducted Limits(dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 *	56 to 46*
0.5 - 5	56	46
5 - 30	60	50
NOTE: 1. The lower limit shall apply at the transition frequencies. NOTE: 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.		

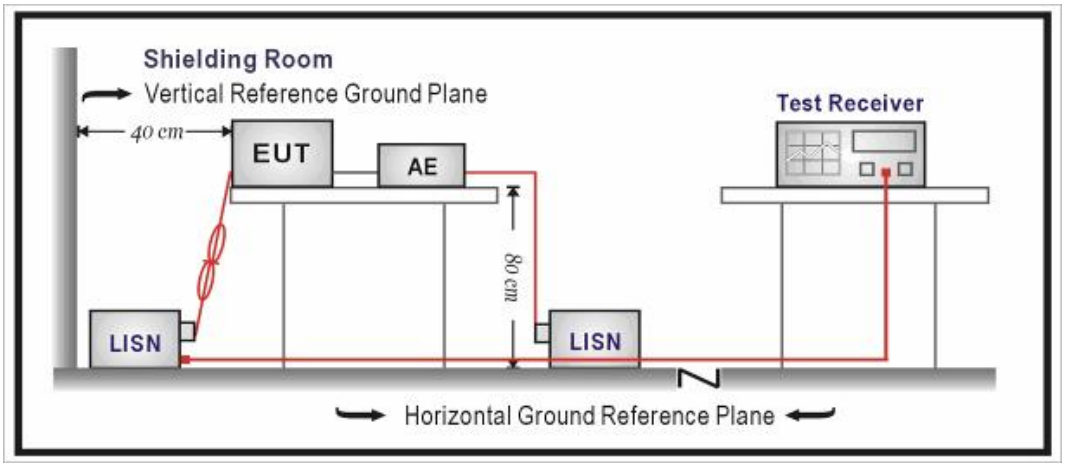
3.1.2 Measurement procedure

a. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the Test photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.The equipment under test shall be placed on a support of non-metallic material, the height of which shall be1.5m above the ground,

b. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

c. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

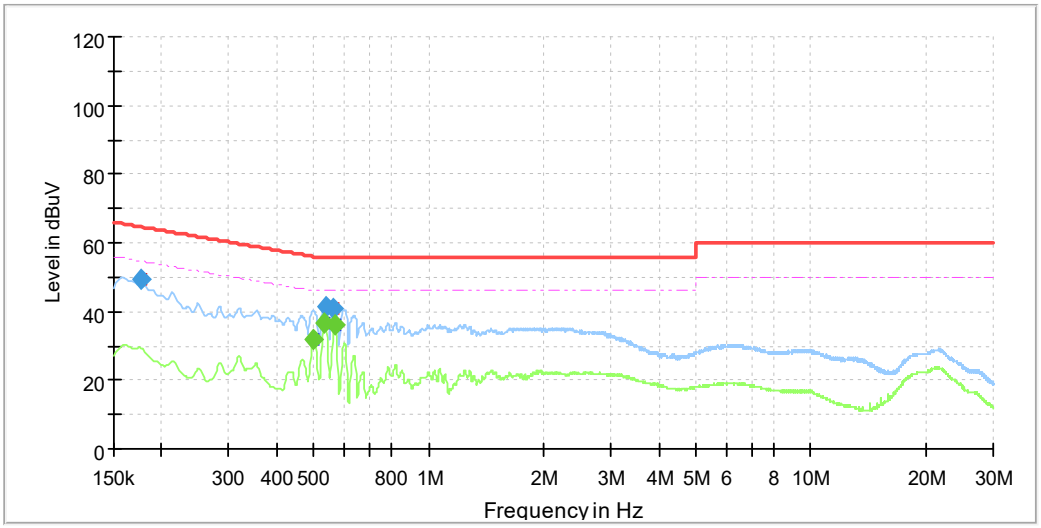
3.1.3 Test setup



3.1.4 Test results

CONDUCTED WORST-CASE DATA:

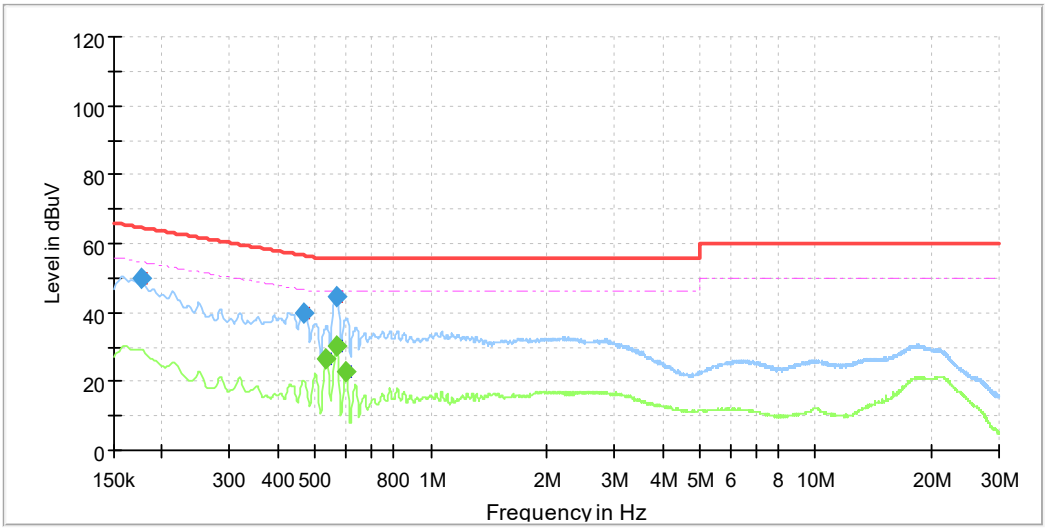
Test Mode	TM1	Frequency Range	150KHz ~ 30MHz
Test Voltage	See section 2.2	PHASE	Line (L)
Environmental Conditions	28.4deg. C,53% RH	Tested By	Li Yutong



NO	Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr.Factor (dB)
1	0.177	49.6	---	64.6	15.1	L1	6.1
2	0.501	---	31.8	46.0	14.2	L1	6.1
3	0.535	---	36.9	46.0	9.1	L1	6.1
4	0.537	41.4	---	56.0	14.6	L1	6.1
5	0.564	41.0	---	56.0	15.0	L1	6.1
6	0.566	---	36.2	46.0	9.8	L1	6.1

Remark: The emission levels of other frequencies were very low against the limit.

Test Mode	TM1	**Frequency Range**	150KHz ~ 30MHz
Test Voltage	See section 2.2	**PHASE**	Line (N)
Environmental Conditions	28.4deg. C,53% RH	**Tested By**	Li Yutong



NO	Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr.Factor (dB)
1	0.177	49.8	---	64.6	14.8	N	6.1
2	0.465	39.7	---	56.6	16.9	N	6.1
3	0.535	---	26.4	46.0	19.6	N	6.1
4	0.566	---	30.5	46.0	15.5	N	6.1
5	0.566	44.8	---	56.0	11.2	N	6.1
6	0.600	---	22.9	46.0	23.1	N	6.1

Remark: The emission levels of other frequencies were very low against the limit.

3.2 RADIATED EMISSIONS

3.2.1 Limits

Test Standard: Part 15C

FREQUENCIES (MHz)	FIELD STRENGTH (Microvolts/Meter)	MEASUREMENT DISTANCE (Meters)	Limit at 3m(dBuV)
0.009 ~ 0.490	2400/F(kHz)	300	128.52 ~ 98.80
0.490 ~ 1.705	24000/F(kHz)	30	73.80 ~ 62.97
1.705 ~ 30.0	30	30	69.54
30 ~ 88	100	3	40
88 ~ 216	150	3	43.5
216 ~ 960	200	3	46
Above 960	500	3	54

NOTE: 1. The lower limit shall apply at the transition frequencies.
NOTE: 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
NOTE: 3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

3.2.2 Measurement procedure

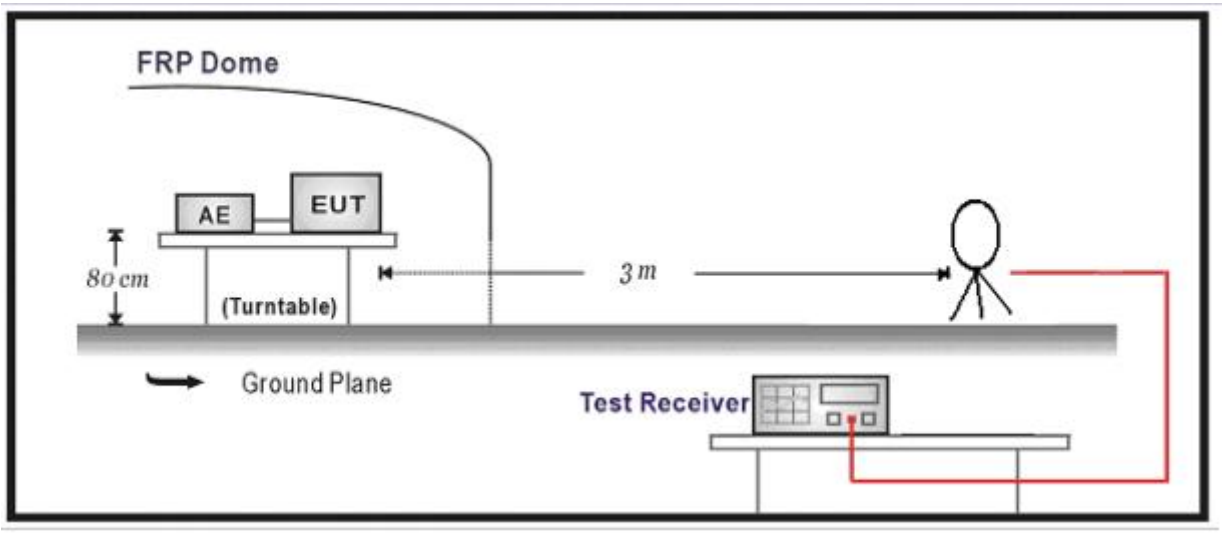
a. The EUT was placed on the top of a rotating table 1.5 meters(above 1GHz) and 0.8 meters(below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. For below 1GHz was used bilog antenna, and above 1GHz was used horn antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.
g. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using fresh batteries. The turntable was rotated to maximize the emission level.

NOTE:

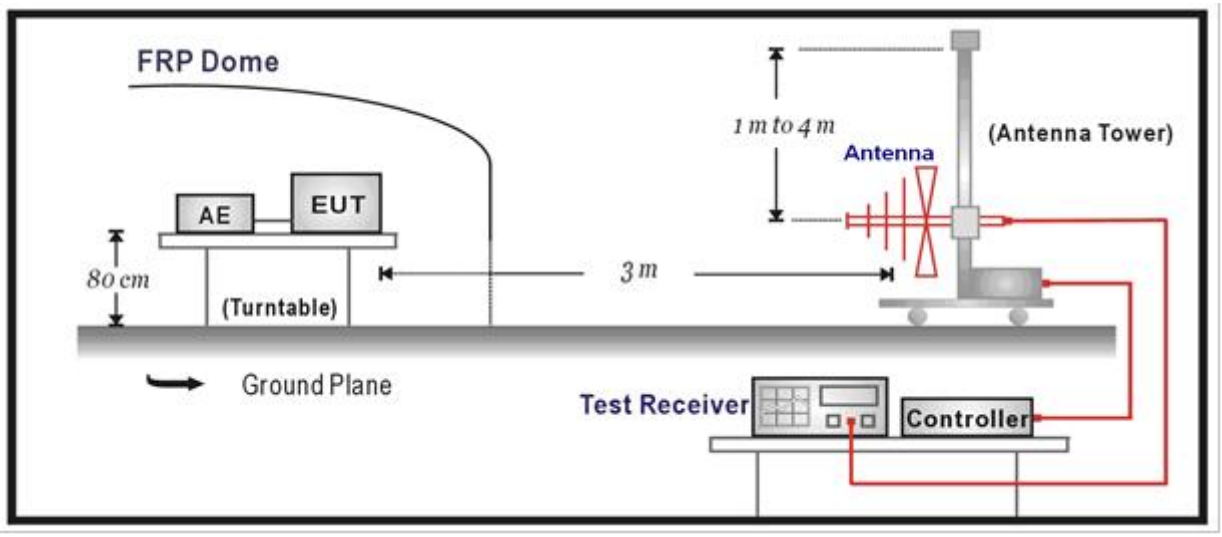
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ⩾ 1/T (Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.
5. The testing of the EUT was performed on all 3 orthogonal axes; the worst-case test configuration was reported on the file test setup photo.

3.2.3 Test setup

Below 30MHz Test Setup:



Below 1GHz Test Setup:



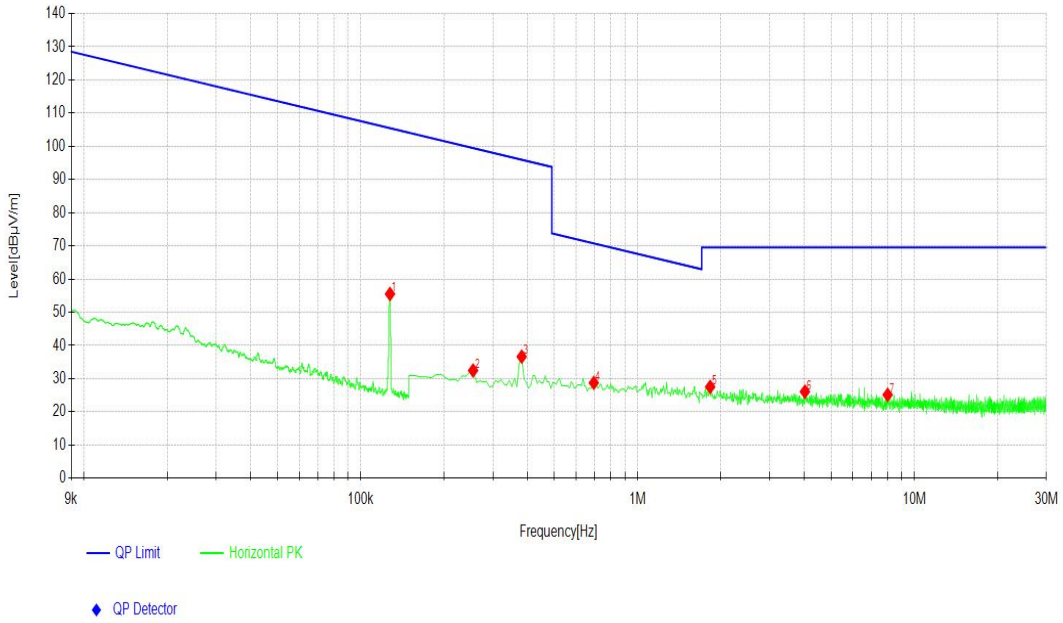
3.2.4 Test results

Results under test standard PART 15C：

9KHz ~ 30MHz WORST-CASE DATA:

Worst Test Mode	TM1	Channel	127.7KHz
Frequency Range	9KHz ~ 30MHz	Detector Function	PK

Horizontal

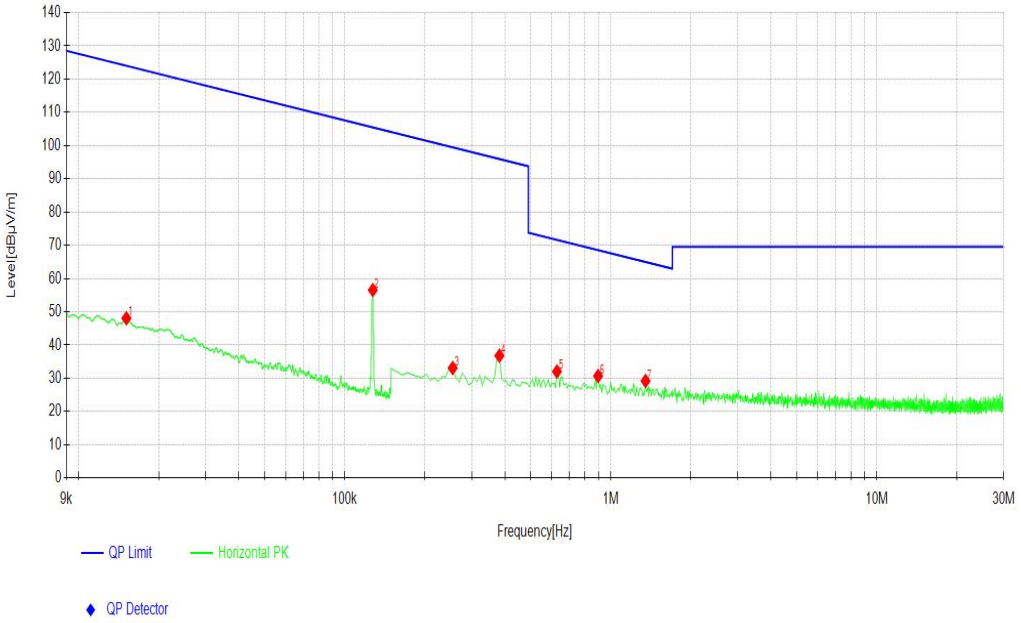


NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]
1	0.127	35.20	20.33	55.53	105.49	49.96	150	190
2	0.255	12.10	20.38	32.48	99.49	67.01	150	219
3	0.381	16.03	20.63	36.66	95.98	59.32	150	186
4	0.695	7.88	20.87	28.75	70.77	42.02	150	115
5	1.829	6.64	20.90	27.54	69.54	42.00	150	70
6	4.024	5.19	20.90	26.09	69.54	43.45	150	241
7	8.010	4.41	20.75	25.16	69.54	44.38	150	186

Remark: 1. Level (dBuV/m) = Reading [dBuV/m] + Factor (dB).
2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]

Worst Test Mode	TM1	**Channel**	127.7KHz
Frequency Range	9KHz ~ 30MHz	**Detector Function**	PK

Vertical

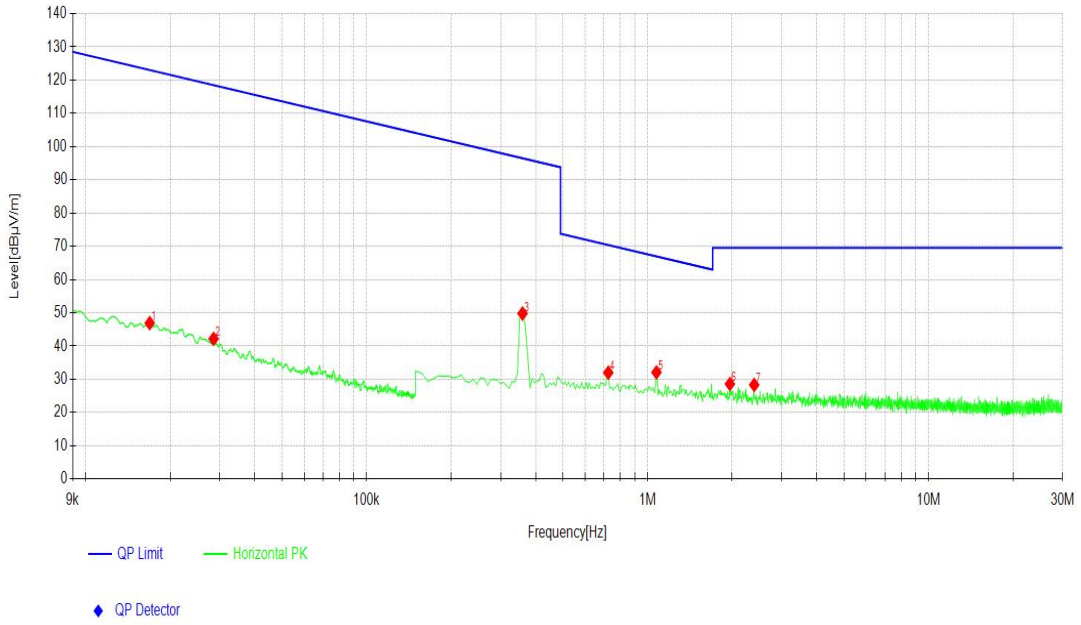


NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]
1	0.015	27.58	20.49	48.07	124.02	75.95	150	266
2	0.127	36.22	20.33	56.55	105.49	48.94	150	190
3	0.255	12.70	20.38	33.08	99.49	66.41	150	82
4	0.381	16.17	20.63	36.80	95.98	59.18	150	158
5	0.628	11.18	20.87	32.05	71.65	39.60	150	158
6	0.896	9.80	20.88	30.68	68.56	37.88	150	357
7	1.352	8.31	20.89	29.20	65.00	35.80	150	213

Remark: 1. Level (dBuV/m) = Reading [dBuV/m] + Factor (dB).
2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]

Worst Test Mode	TM10	**Channel**	360KHz
Frequency Range	9KHz ~ 30MHz	**Detector Function**	PK

Horizonta

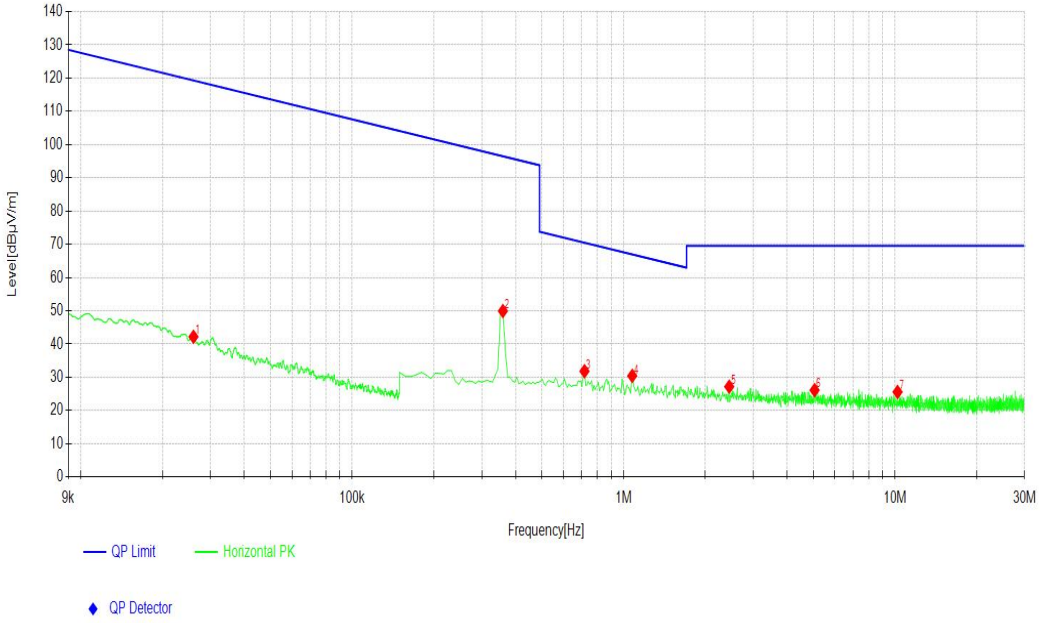


NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]
1	0.017	26.43	20.48	46.91	123.05	76.14	150	218
2	0.029	21.75	20.43	42.18	118.50	76.32	150	229
3	0.359	29.21	20.59	49.80	96.50	46.70	150	27
4	0.725	11.12	20.88	32.00	70.41	38.41	150	268
5	1.076	11.20	20.90	32.10	66.98	34.88	150	0
6	1.964	7.71	20.89	28.60	69.54	40.94	150	142
7	2.397	7.42	20.90	28.32	69.54	41.22	150	54

Remark: 1. Level (dBuV/m) = Reading [dBuV/m] + Factor (dB).
2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]

Worst Test Mode	TM10	**Channel**	360KHz
Frequency Range	9KHz ~ 30MHz	**Detector Function**	PK

Vertical



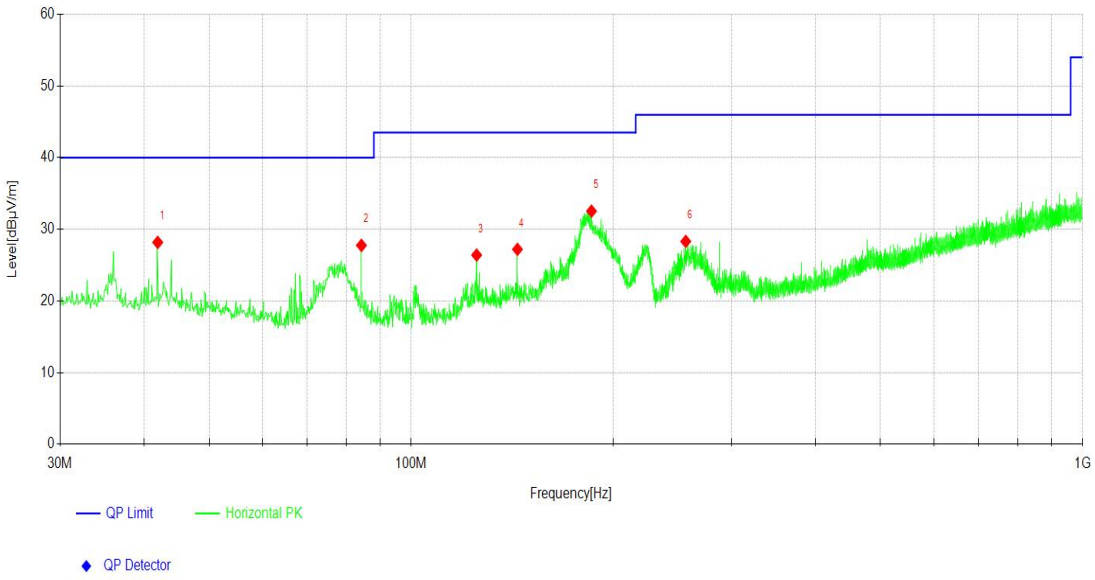
NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]
1	0.026	21.76	20.44	42.20	119.31	77.11	150	47
2	0.359	29.35	20.59	49.94	96.50	46.56	150	73
3	0.717	10.96	20.88	31.84	70.50	38.66	150	221
4	1.076	9.54	20.90	30.44	66.98	36.54	150	62
5	2.449	6.29	20.90	27.19	69.54	42.35	150	354
6	5.054	5.27	20.88	26.15	69.54	43.39	150	68
7	10.21	4.85	20.74	25.59	69.54	43.95	150	0

Remark: 1. Level (dBuV/m) = Reading [dBuV/m] + Factor (dB).
2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]

30MHz ~ 1GHz WORST-CASE DATA:

Worst Test Mode	TM1	**Channel**	127.7KHz
Frequency Range	30MHz ~ 1GHz	**Detector Function**	Quasi-Peak (QP)

Horizontal

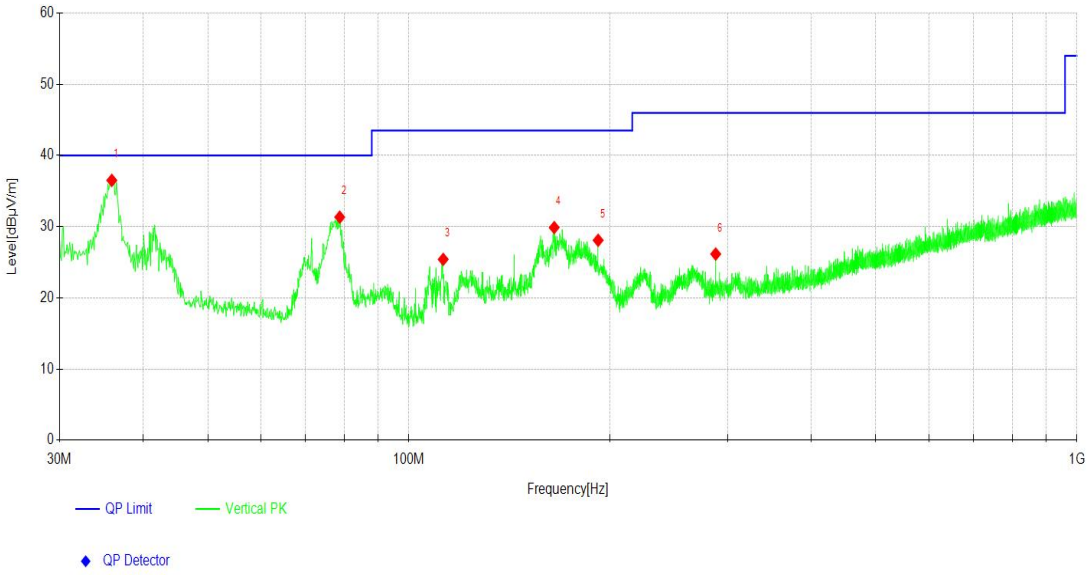


NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]
1	**41.932**	**8.28**	**19.90**	**28.18**	**40.00**	**11.82**	**200**	**126**
2	84.325	11.95	15.81	27.76	40.00	12.24	300	310
3	125.167	7.25	19.16	26.41	43.50	17.09	200	242
4	143.986	6.93	20.28	27.21	43.50	16.29	200	83
5	185.604	15.00	17.54	32.54	43.50	10.96	100	264
6	256.421	9.57	18.75	28.32	46.00	17.68	100	70

Remark: 1. Level (dBuV/m) = Reading [dBuV/m] + Factor (dB).
2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]

Worst Test Mode	TM1	**Channel**	127.7KHz
Frequency Range	30MHz ~ 1GHz	**Detector Function**	Quasi-Peak (QP)

Vertical

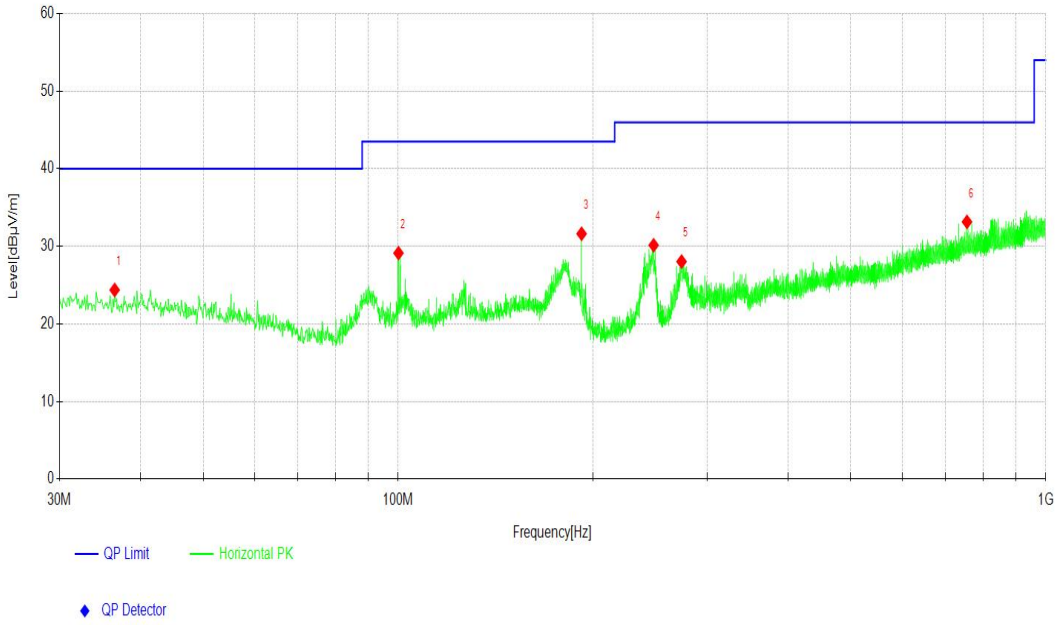


NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]
1	**35.918**	**16.77**	**19.74**	**36.51**	**40.00**	**3.49**	**100**	**226**
2	78.796	15.53	15.81	31.34	40.00	8.66	100	189
3	112.555	7.39	18.02	25.41	43.50	18.09	200	104
4	165.038	9.71	20.17	29.88	43.50	13.62	100	360
5	192.006	11.08	17.01	28.09	43.50	15.41	100	54
6	287.949	6.62	19.54	26.16	46.00	19.84	100	244

Remark: 1. Level (dBuV/m) = Reading [dBuV/m] + Factor (dB).
2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]

Worst Test Mode	TM10	**Channel**	360KHz
Frequency Range	30MHz ~ 1GHz	**Detector Function**	Quasi-Peak (QP)

Horizontal

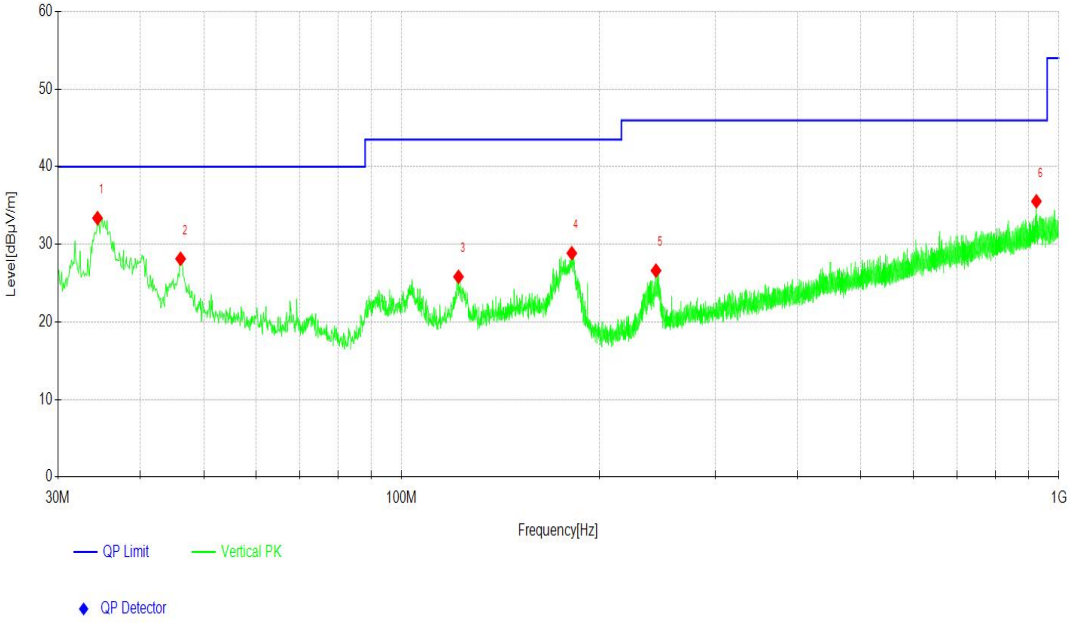


NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]
1	36.500	4.66	19.72	24.38	40.00	15.62	100	212
2	100.138	12.36	16.77	29.13	43.50	14.37	200	163
3	192.006	14.67	16.95	31.62	43.50	11.88	200	81
4	248.078	11.60	18.55	30.15	46.00	15.85	100	269
5	273.979	8.97	19.07	28.04	46.00	17.96	100	340
6	755.924	5.10	28.06	33.16	46.00	12.84	100	255

Remark: 1. Level (dBuV/m) = Reading [dBuV/m] + Factor (dB).
2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]

Worst Test Mode	TM10	**Channel**	360KHz
Frequency Range	30MHz ~ 1GHz	**Detector Function**	Quasi-Peak (QP)

Vertical



NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]
1	34.462	13.75	19.63	33.38	40.00	6.62	100	161
2	46.104	8.37	19.77	28.14	40.00	11.86	100	275
3	122.062	6.88	18.94	25.82	43.50	17.68	100	260
4	181.529	10.91	17.95	28.86	43.50	14.64	100	128
5	243.809	8.19	18.42	26.61	46.00	19.39	100	132
6	924.332	5.58	29.97	35.55	46.00	10.45	100	98

Remark: 1. Level (dBuV/m) = Reading [dBuV/m] + Factor (dB).
2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]

3.3 20DB BANDWIDTH MEASUREMENT

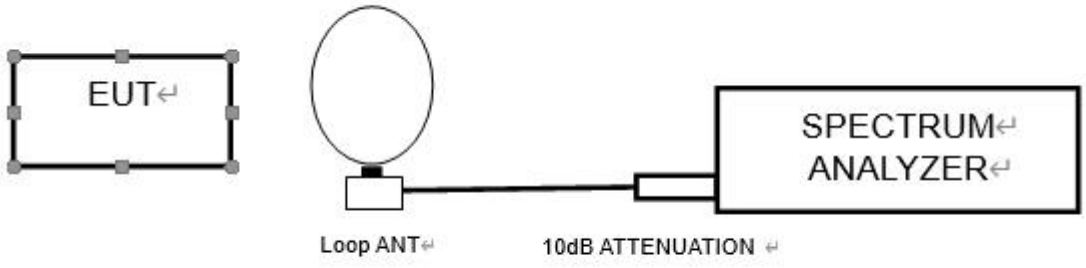
3.3.1 Limits of 20dB Bandwidth Measurement

The field strength of any emissions appearing between the band edges and out of band shall be attenuated at least 20 dB below the level of the unmodulated carrier or to the general limits in Section 15.209.

3.3.2 Measurement procedure

a. . Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
b. Turn on the EUT, then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
c. Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.
d. Repeat above procedures until all frequencies measured were complete.
e. Note: Because the measured singal is CW or CW-like adjust the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately the RBW

3.3.3 Test setup

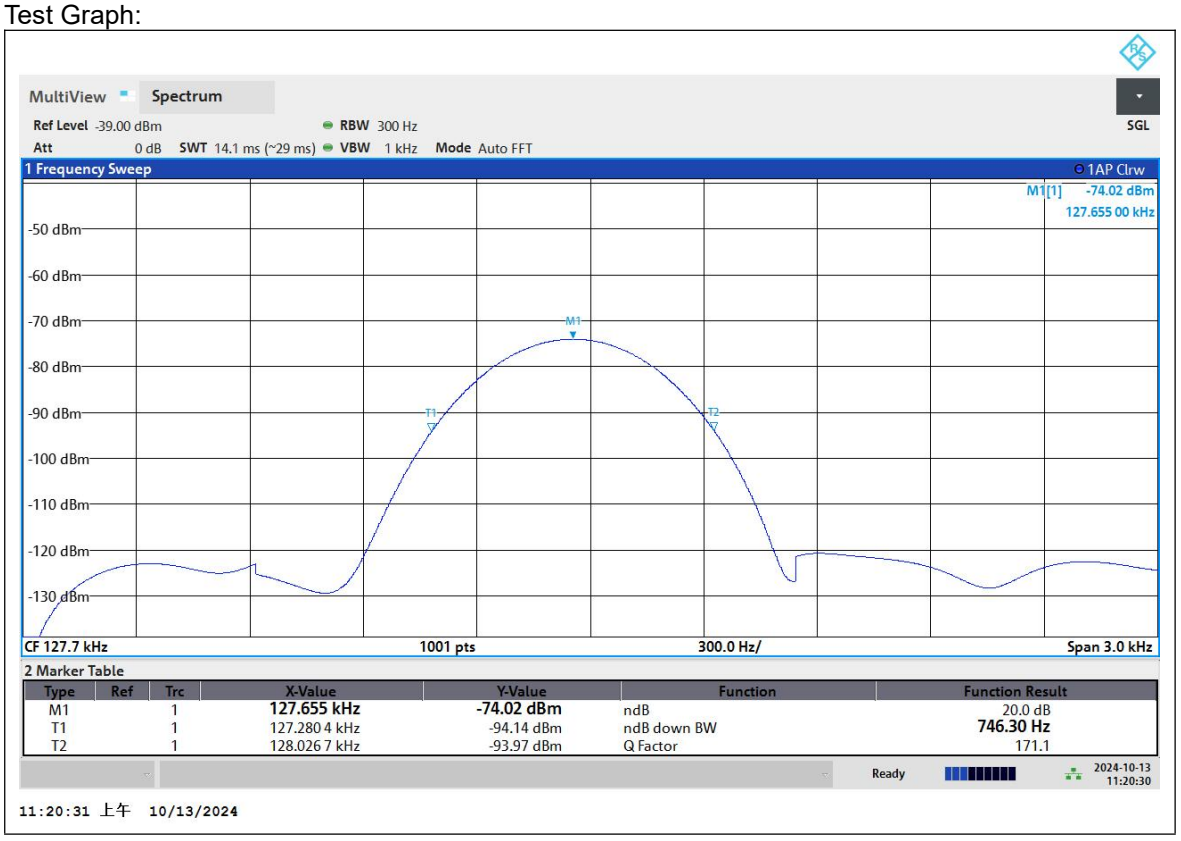


3.3.4 Test results

TEST MODE	CHANNEL FREQUENCY (KHz)	20dB BANDWIDTH (Hz)
TM1	127.7	746.30

Lower & Upper Test Frequency Point (MHz)	Test Frequency (KHz)	Pass/Fail
Lower	127.280	PASS
Upper	128.026	PASS

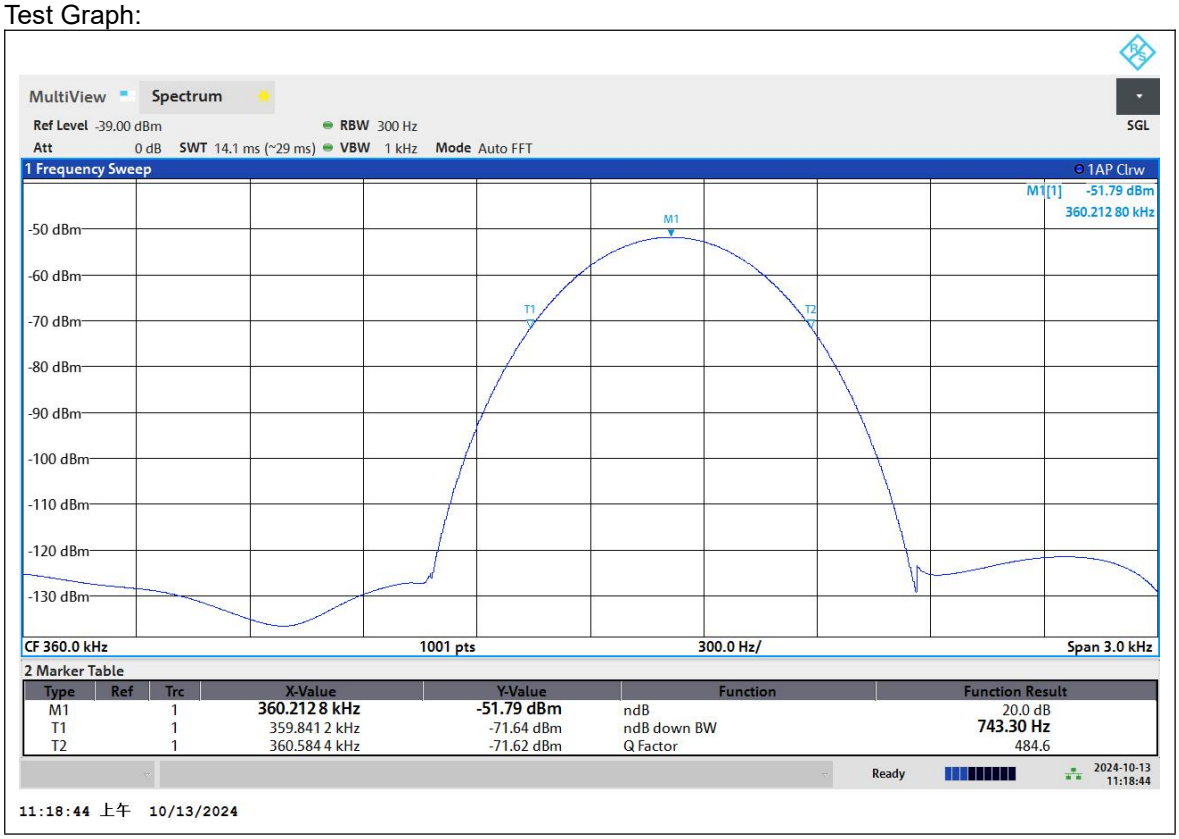
Test Graph:



TEST MODE	CHANNEL FREQUENCY (KHz)	20dB BANDWIDTH (Hz)
TM10	360	743.30

Lower & Upper Test Frequency Point (MHz)	Test Frequency (KHz)	Pass/Fail
Lower	359.841	PASS
Upper	360.584	PASS

Test Graph:



3.4 OCCUPIED BANDWIDTH MEASUREMENT

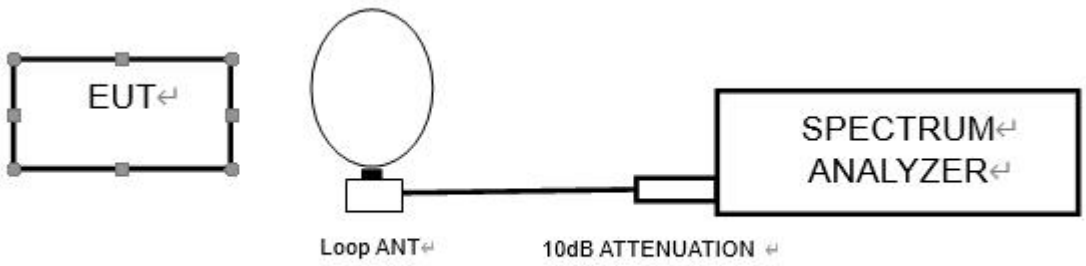
3.4.1 Limits of Occupied Bandwidth Measurement

N/A，Only report

3.4.2 Measurement procedure

a. . Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
b. Turn on the EUT, then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
c. Measure the frequency difference of two frequencies that were attenuated 99%OBW from the reference level. Record the frequency difference as the emission bandwidth.
d. Repeat above procedures until all frequencies measured were complete.
e. Note: Because the measured singal is CW or CW-like adjust the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately the RBW

3.4.3 Test setup

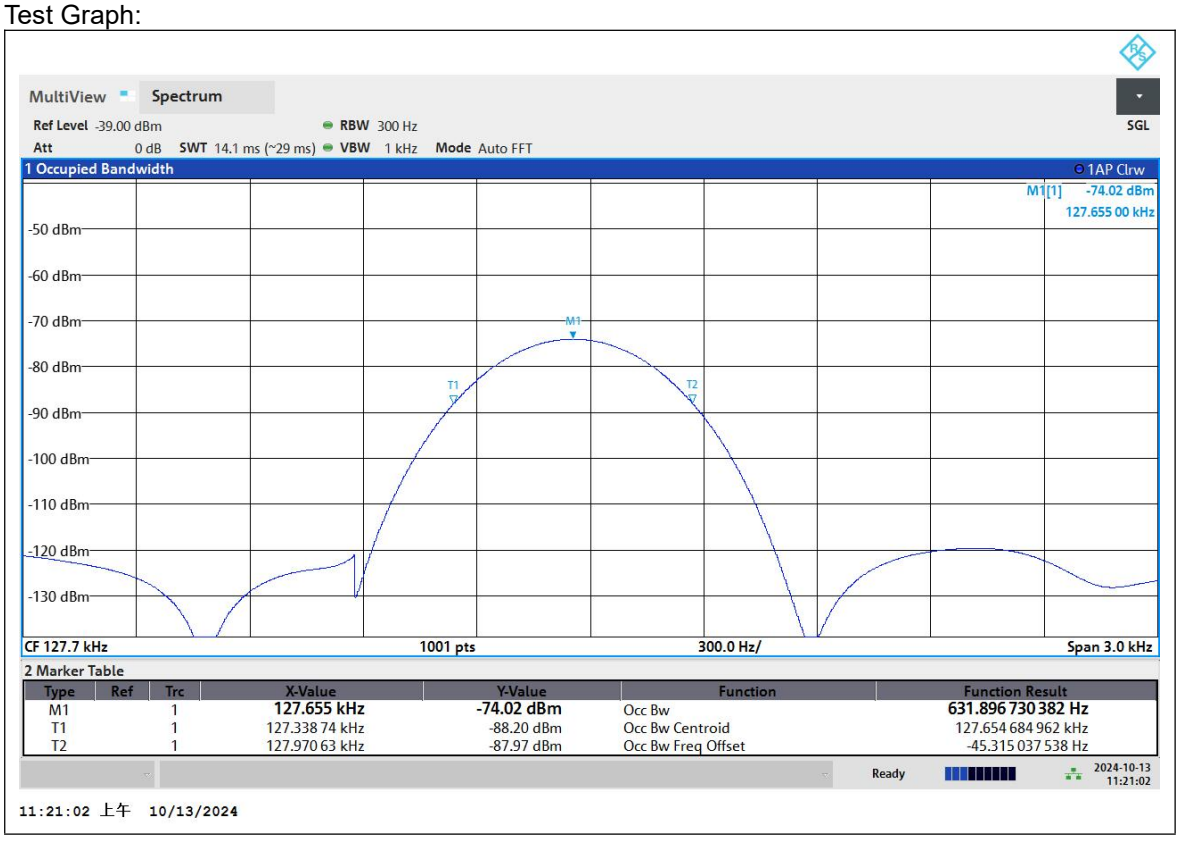


3.4.4 Test results

TEST MODE	CHANNEL FREQUENCY (KHz)	99% BANDWIDTH (Hz)
TM1	127.7	631.896

Lower & Upper Test Frequency Point (MHz)	Test Frequency (KHz)	PASS/FAIL
Lower	127.338	PASS
Upper	127.970	PASS

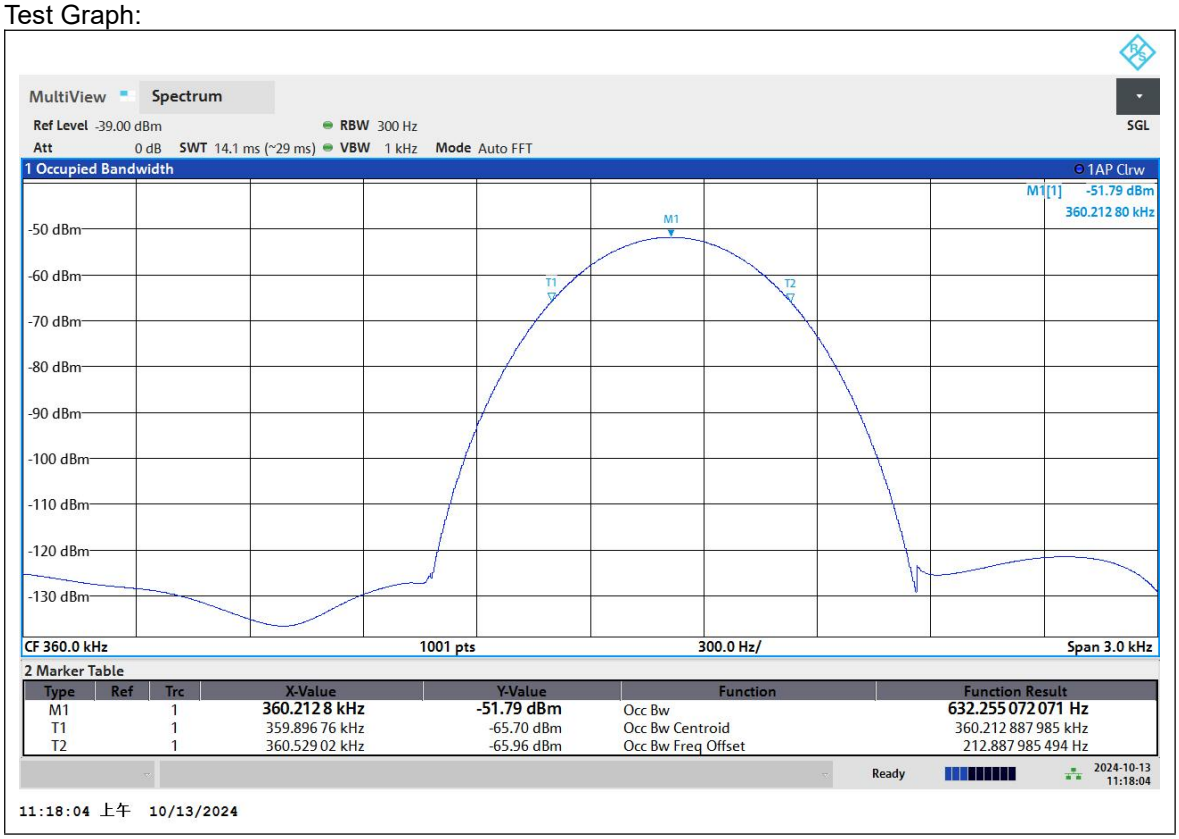
Test Graph:



TEST MODE	CHANNEL FREQUENCY (kHz)	99% BANDWIDTH (Hz)
TM10	360	632.255

Lower & Upper Test Frequency Point (MHz)	Test Frequency (KHz)	PASS/FAIL
Lower	359.896	PASS
Upper	360.529	PASS

Test Graph:



3.5 ANTENNA REQUIREMENT

3.5.1 LIMITS

According to FCC 47 CFR Section 15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b) , if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.5.2 Antenna Anti-Replacement Construction

The antenna used for this product is Coil Antenna and that no antenna other than that furnished by the responsible party shall be used with the device

4 PHOTOGRAPHS OF THE EUT

Please refer to the attached file (External Photos report and Internal Photos).

Important

(1) The test report is invalid without the official stamp of CVC;

(2) Any part photocopies of the test report are forbidden without the written permission from CVC;

(3) The test report is invalid without the signatures of Approval and Reviewer;

(4) The test report is invalid if altered;

(5) Objections to the test report must be submitted to CVC within 15 days.

(6) Generally, commission test is responsible for the tested samples only.

(7) As for the test result “-” or “N” means “not applicable”, “/” means “not test”, “P” means “pass” and “F” means “fail”

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