

TEST REPORT

Report No.: BCTC2605550334-1E

Applicant: Dongguan Dalingshan Shiyue Electronics Business
Department

Product Name: RETRACTABLE 87W CAR CHARGER

Test Model.: PT-80

Tested Date: 2026-05-30 to 2026-05-31

Issued Date: 2026-06-12

Shenzhen BCTC Technology Co., Ltd.



FCC ID: 2BWD5-PT-80

Product Name: RETRACTABLE 87W CAR CHARGER

Trademark: N/A

Model/Type Ref.: PT-80
PT-80-1, PT-80-2, PT-80-3, PT-80-4, PT-80-5 PT-80-6, PT-80-7, PT-80-8 PT-80-9

Prepared For: Dongguan Dalingshan Shiyue Electronics Business Department

Address: Room 302, No. 1 four Alley, Bikeng east, jinju village, Dalingshangtown,
Dongguan city, Guangdong Province, China

Manufacturer: Dongguan Dalingshan Shiyue Electronics Business Department

Address: Room 302, No. 1 four Alley, Bikeng east, jinju village, Dalingshangtown,
Dongguan city, Guangdong Province, China

Prepared By: Shenzhen BCTC Technology Co., Ltd.

Address: Room 101M, Unit 1, Building1, Pengyuan, No.18, Lilang Road, Shanglilang, Nanwan
Subdistrict, Longgang District, Shenzhen, Guangdong, China.

Sample Received Date: 2026-05-30

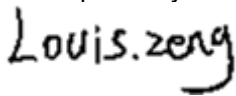
Sample tested Date: 2026-05-30 to 2026-06-12

Report No.: BCTC2605550334-1E

Test Standards: FCC Part15.209
ANSI C63.10-2020

Test Results: PASS

Prepared by :



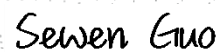
Louis Zeng /Editor

Reviewer by :



Mike Zheng / Supervisor

Approved by:



Sewen Guo/Manager

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1. Version

Report No.	Issue Date	Description	Approved
BCTC2605550334-1E	2026-06-12	Original	Valid

2. Test Summary

The Product has been tested according to the following specifications:

No.	Test Parameter	Clause No	Results
1	Conducted Emission	15.207	PASS*
2	Radiated Emission	15.209	PASS*
3	20dB Bandwidth	15.215	PASS*
4	Antenna Requirement	15.203	PASS

Note 1: "N/A" means not applicable in this report.

Note 2: "*" indicates that the test results are determined base on CFR 47 FCC Part 15 Subpart C (clause 15.207/209). And the test results are took into account measurement uncertainty(see section 3 for measurement uncertainty information)

3. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2:2011/AMD2:2018. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

No.	Item	Uncertainty
1	3m chamber Radiated spurious emission(9kHz-30MHz)	U=3.7dB
2	3m chamber Radiated spurious emission(30MHz-1GHz)	U=4.8dB
3	3m chamber Radiated spurious emission(1GHz-18GHz)	U=5.5dB
4	3m chamber Radiated spurious emission(18GHz-40GHz)	U=5.0dB
5	Conducted Emission(150kHz-30MHz)	U=3.0dB
6	Power Spectral Density	U=3.46dB
7	Peak Power	U=0.31dB
8	Occupied Bandwidth/Frequency Range	U=3.46%
9	Conducted output power uncertainty	U=0.55dB
10	Frequency Error	U= 53.50 Hz
11	Frequency Drift	U=0.64 KHz
12	Temperature	U= 0.59 °C
13	Humidity	U= 5.3 %

4. Product Information and Test Setup

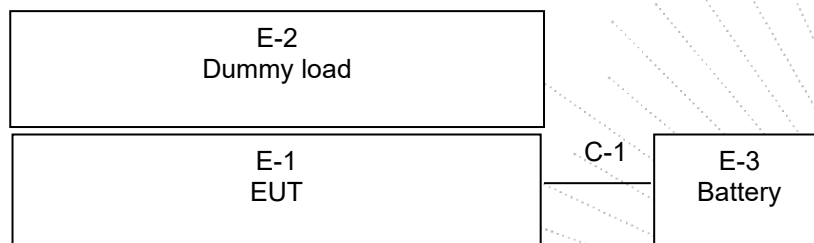
4.1 Product Information

Model/Type reference:	PT-80 PT-80-1, PT-80-2, PT-80-3, PT-80-4, PT-80-5 PT-80-6, PT-80-7, PT-80-8 PT-80-9
Model differences:	All the model are the same circuit and RF module, except model names, the test model is PT-80.
Hardware Version:	N/A
Software Version:	N/A
Type of Modulation:	ASK
Operation Frequency:	325kHz
Antenna installation:	Loop coil antenna
Ratings:	Input: DC 12-24V TYPE-C1 cable: PD (5V/3A, 9V/3A,12V/3A) (Max 36W) TYPE-C2 cable: PD (5V/3A, 9V/3A,12V/3A) (Max 36W) Type-C port: 5V/3A USB-A: 5V/2.4A Wireless charging: Max 2.5W

4.2 Test Setup Configuration

See test photographs attached in EUT TEST SETUP Photographs for the actual connections between Product and support equipment.

Radiated Spurious Emission:



4.3 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	RETRACTABLE 87W CAR CHARGER	N/A	PT-80	N/A	EUT
E-2	Dummy load	N/A	DL01	N/A	Auxiliary
E-3	Battery	N/A	N/A	N/A	Auxiliary

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.4 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 config

Test Modes 1	2.5W DC 12V
Test Modes 2	2.5W DC 24V

5. Test Facility and Test Instrument Used

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Technology Co., Ltd.

Address: Room 101M, Unit 1, Building1, Pengyuan, No.18, Lilang Road, Shanglilang, Nanwan Subdistrict, Longgang District, Shenzhen, Guangdong, China.

The site and apparatus are constructed in conformance with the requirements of ANSI C63.4a-2017 and CISPR 16-1-1:2019 other equivalent standards.

FCC Test Firm Registration Number: 754702

ANAB certificate registration number is: CN3479

5.2 Test Instrument Used

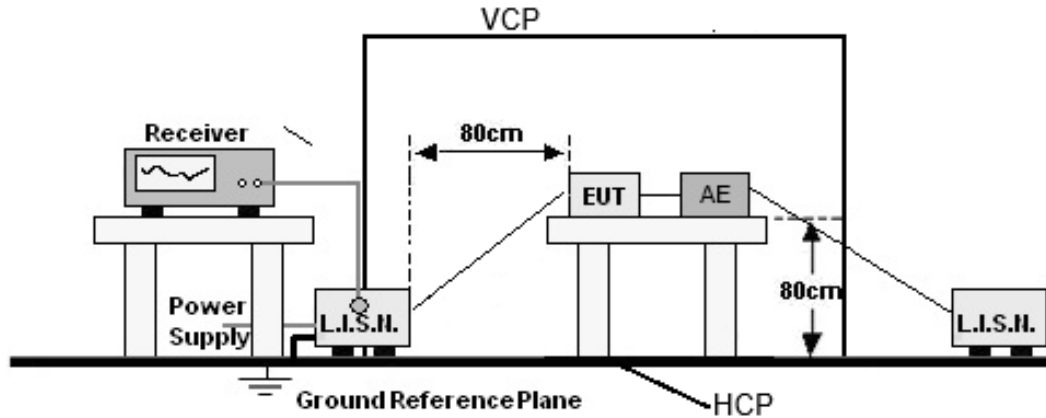
Radiated disturbance 1#					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Shielded room	CRT	9*6*6	/	2023.08.02	2026.08.01
Broadband antenna	Schwarzbeck	VULB9160	3369	2026.05.16	2027.05.15
Receiver	R&S	ESPI	101396	2025.08.30	2026.08.29
Preamplifier	Schwarzbeck	BBV9744	00342	2025.08.30	2026.08.29
Loop Antenna	Schwarzbeck	FMZB1519B	00014	2026.01.05	2027.01.04
RF cable 5# (9kHz-6GHz)	Yunyi	3M	/	2025.08.30	2026.08.29
RF cable 8# (9kHz-1GHz)	Yunyi	7M	/	2025.10.28	2026.10.27
Temperature & Humidity	Wetest	HTC-1	/	2025.09.01	2026.08.31
Software	EZ-EMC	Ver.FA-03A2	/	/	/

RF Conducted Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Spectrum Analyzer	Keysight	N9020A	MY51287403	2025.08.30	2026.08.29
Signal Generator	Keysight	N5182A	MY50144088	2025.08.30	2026.08.29
Power Sensor	Keysight	U2001	MY51250006	2025.10.28	2026.10.27
Temperature & Humidity	Wetest	HTC-1	/	2025.09.01	2026.08.31
Communication test set	R&S	CMW500	157483	2025.08.30	2026.08.29
Radio frequency control box	MWRFtest	MW100-RFCB	\	\	\
Software	MWRFtest	MTS 8310	V 3.0.0.0	\	\
D.C. Power Supply	Elektro-Automatik GmbH & Co.KG	D-41747 Viersen	6230316	2025.09.30	2026.08.29
Temperature and humidity test chamber	Auchno	OJN-9606-408 L	19120183	2025.07.09	2026.07.08

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6. Conducted Emissions

6.1 Block Diagram Of Test Setup



6.2 Limit

FREQUENCY (MHz)	Limit (dBuV)	
	Quas-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Notes:
1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

6.3 Test Procedure

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

- The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).
- The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak and AVG detector in Max Hold mode. Run the receiver's pre-scan to record the maximum disturbance generated from Product in all power lines in the full band.
- For each frequency whose maximum record was higher or close to limit, measure its QP and AVG values and record.

6.4 EUT Operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

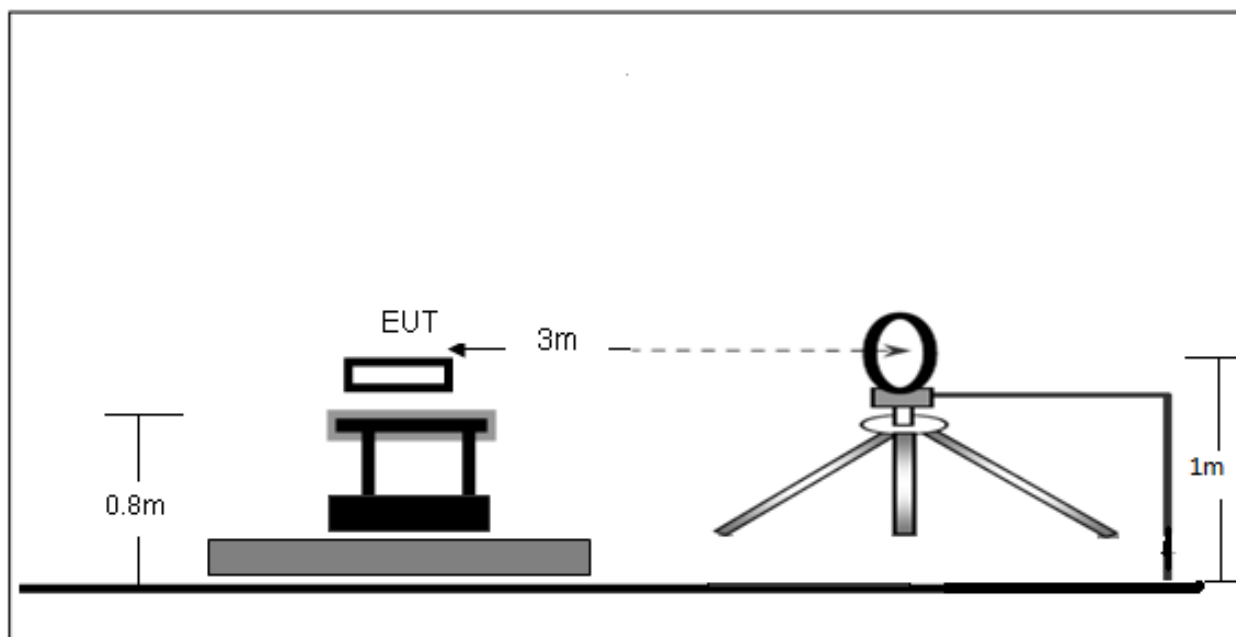
6.5 Test Result

The EUT is powered by the DC only, the test item is not applicable.

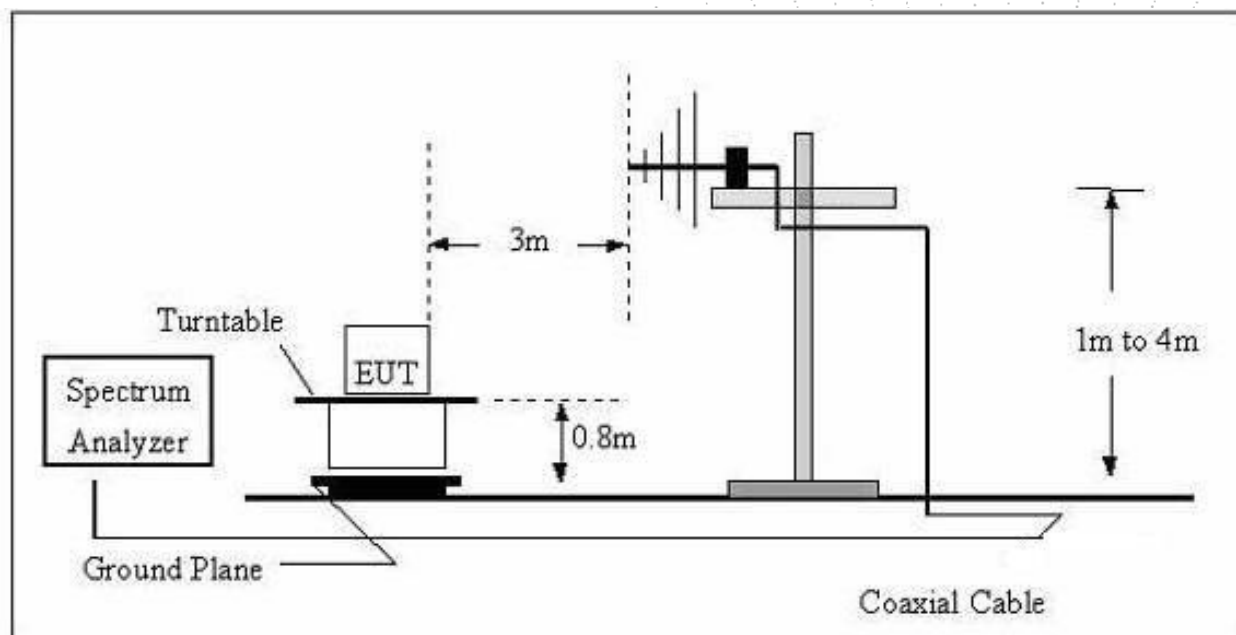
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



7.2 Limit

FCC §15.209; §15.205.

Frequency	Field Strength	Distance	Field Strength Limit at 3m Distance	
(MHz)	uV/m	(m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))} + 80$
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))} + 40$
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

7.3 Test Procedure

Receiver Parameter	Setting
Attenuation	Auto
9kHz~150kHz	RBW 200Hz for QP
150kHz~30MHz	RBW 9kHz for QP
30MHz~1000MHz	RBW 120kHz for QP

Below 1GHz test procedure as below:

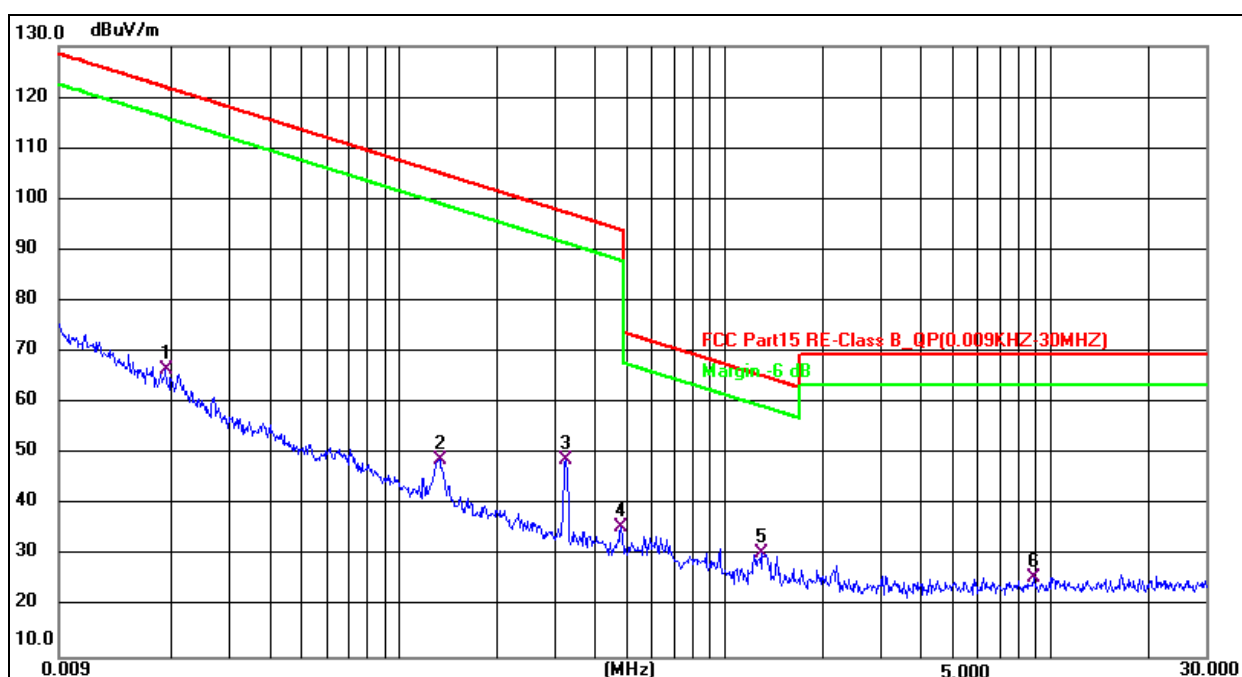
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna 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.
- 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

- g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre(Above 18GHz the distance is 1 meter and table is 1.5 metre).
- h. Test the EUT in the lowest channel ,the middle channel ,the Highest channel.

7.4 Test Result

Below 30MHz

Temperature:	24.4℃	Relative Humidity:	51%RH
Pressure:	101 kpa	Test Voltage :	DC 12V
Test Mode :	Mode 1	Polarization:	Coaxial



Remark:

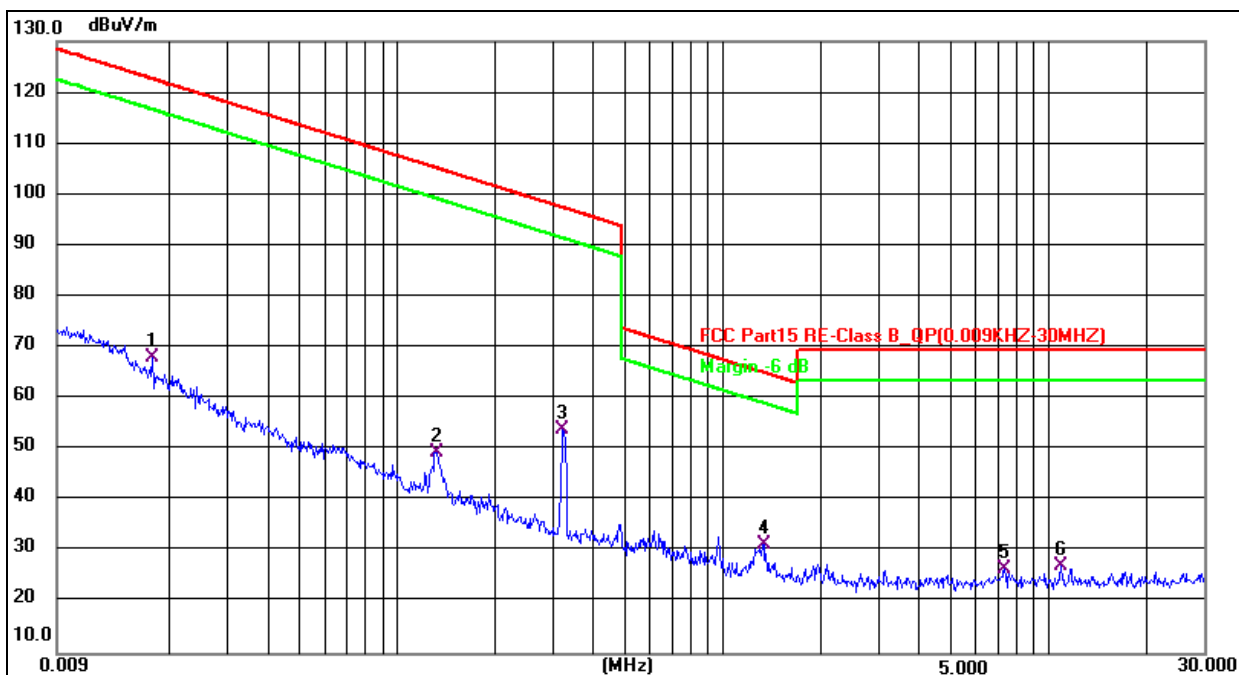
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Margin = (Reading + Factor) – Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0191	78.15	-11.57	66.58	121.97	-55.39	QP
2	0.1330	60.07	-11.22	48.85	105.12	-56.27	QP
3	0.3246	59.71	-11.00	48.71	97.37	-48.66	QP
4	0.4791	47.11	-11.45	35.66	94.00	-58.34	QP
5 *	1.2994	41.98	-11.44	30.54	65.35	-34.81	QP
6	8.8856	36.54	-10.71	25.83	69.54	-43.71	QP

* Indicates the worst data.

Temperature:	24.4℃	Relative Humidity:	51%RH
Pressure:	101 kpa	Test Voltage :	DC 12V
Test Mode :	Mode 1	Polarization:	Coplanar

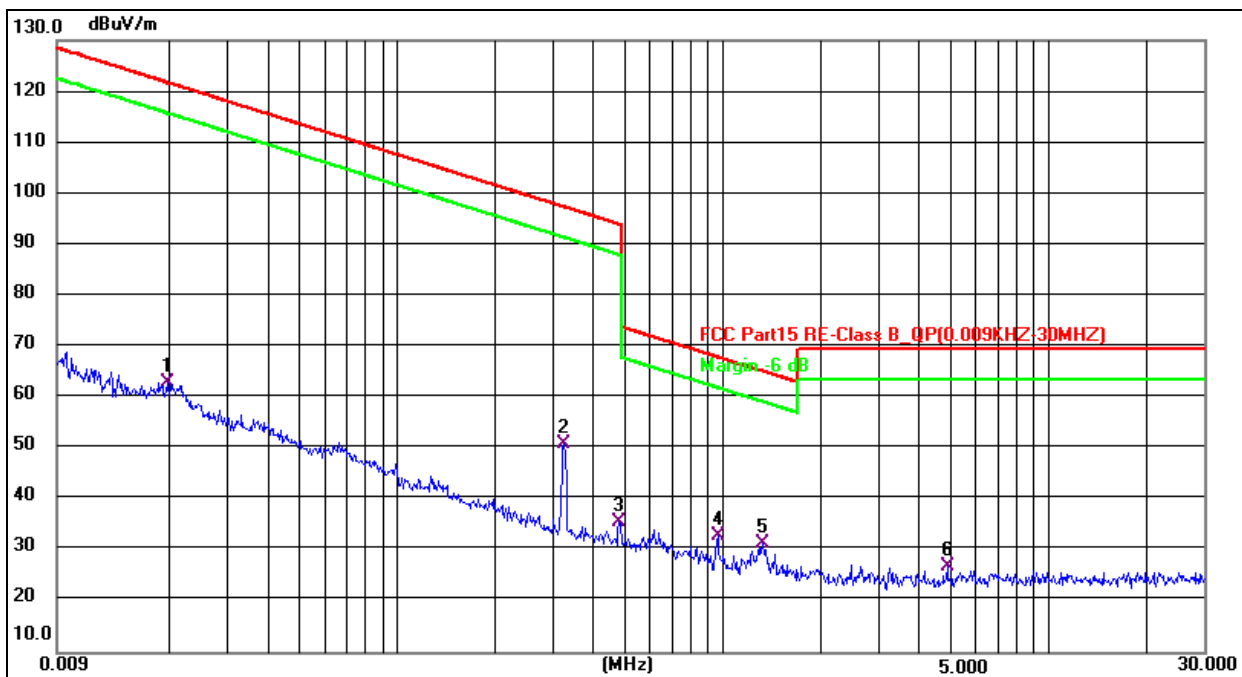


Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
Margin = (Reading + Factor) – Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0176	79.51	-11.58	67.93	122.68	-54.75	QP
2	0.1319	60.53	-11.20	49.33	105.19	-55.86	QP
3	0.3220	64.88	-11.00	53.88	97.44	-43.56	QP
4 *	1.3315	42.76	-11.44	31.32	65.14	-33.82	QP
5	7.3138	37.59	-10.83	26.76	69.54	-42.78	QP
6	10.8833	38.03	-10.77	27.26	69.54	-42.28	QP

* Indicates the worst data.

Temperature:	24.4℃	Relative Humidity:	51%RH
Pressure:	101 kpa	Test Voltage :	DC 24V
Test Mode :	Mode 2	Polarization:	Coaxial



Remark:

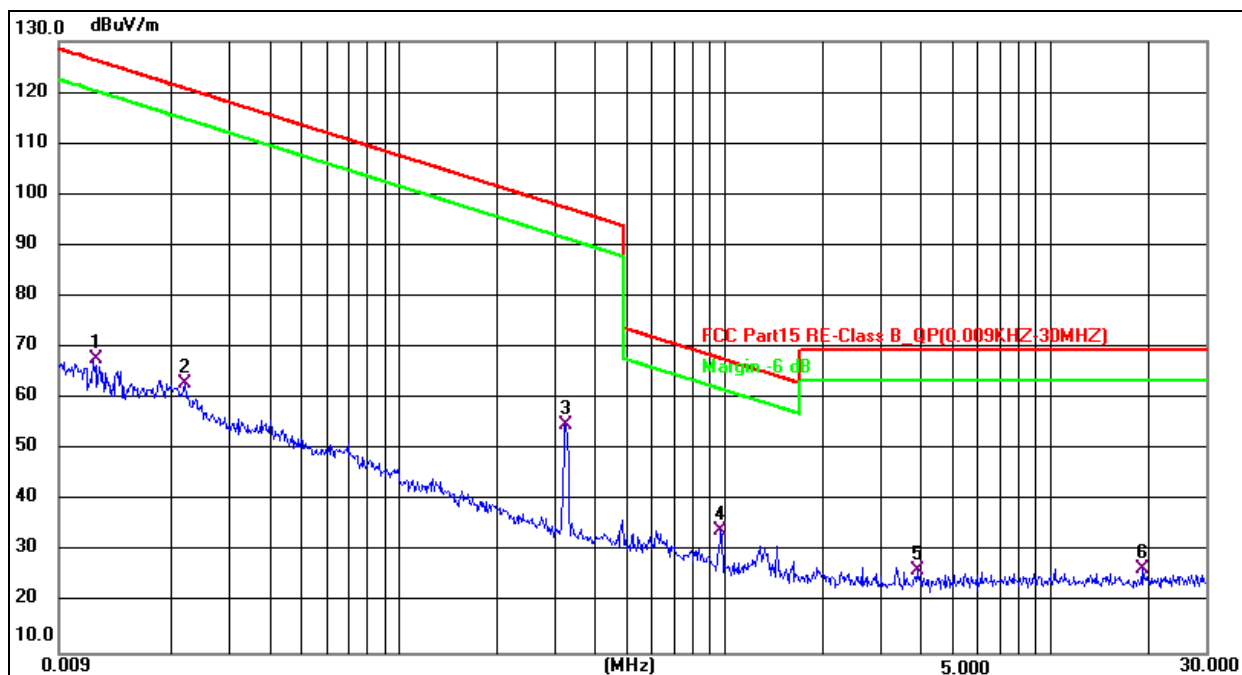
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Margin = (Reading + Factor) – Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0196	74.59	-11.56	63.03	121.74	-58.71	QP
2	0.3246	61.99	-11.00	50.99	97.37	-46.38	QP
3	0.4791	47.21	-11.45	35.76	94.00	-58.24	QP
4	0.9625	44.21	-11.35	32.86	67.95	-35.09	QP
5 *	1.3207	42.87	-11.44	31.43	65.21	-33.78	QP
6	4.8752	38.01	-11.08	26.93	69.54	-42.61	QP

* Indicates the worst data.

Temperature:	24.4°C	Relative Humidity:	51%RH
Pressure:	101 kpa	Test Voltage :	DC 24V
Test Mode :	Mode 2	Polarization:	Coplanar



Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

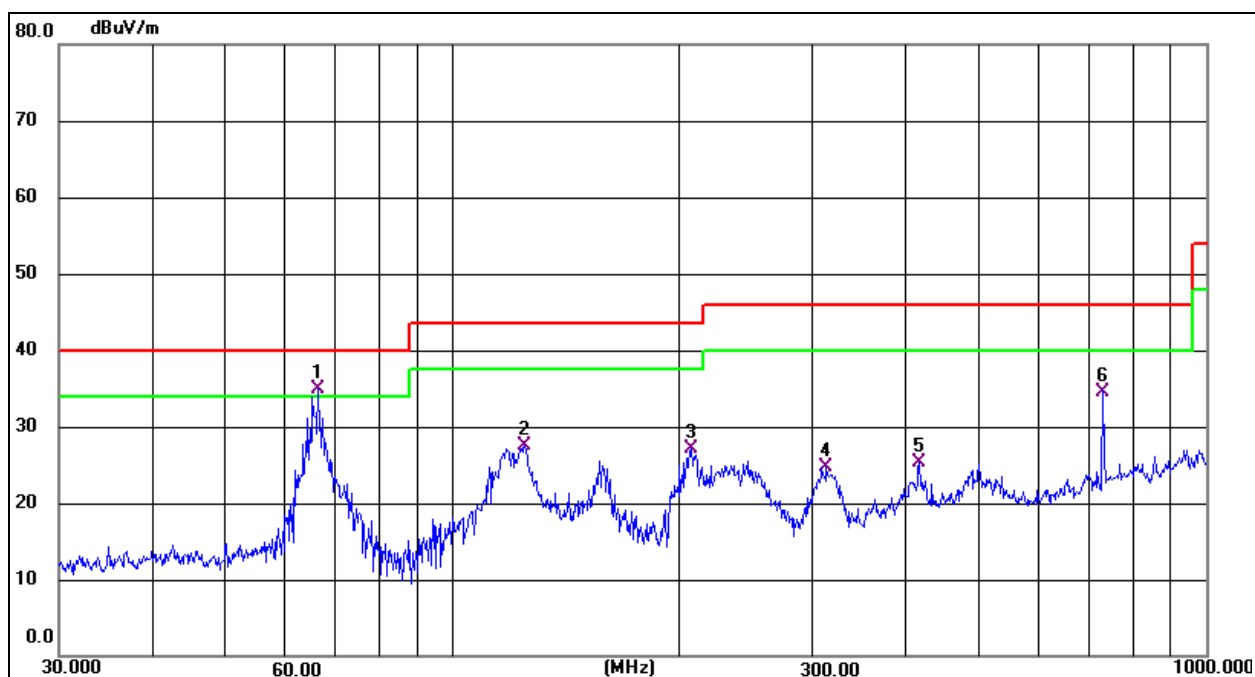
Margin = (Reading + Factor) – Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0115	79.26	-11.65	67.61	126.37	-58.76	QP
2	0.0220	74.35	-11.47	62.88	120.74	-57.86	QP
3	0.3246	65.84	-11.00	54.84	97.37	-42.53	QP
4 *	0.9704	45.51	-11.38	34.13	67.88	-33.75	QP
5	3.8847	37.64	-11.21	26.43	69.54	-43.11	QP
6	19.0476	37.24	-10.51	26.73	69.54	-42.81	QP

* Indicates the worst data.

Between 30MHz – 1GHz

Temperature:	24.4°C	Relative Humidity:	51%RH
Pressure:	101 kPa	Test Voltage:	DC 12V
Test Mode:	Mode 1	Polarization:	Horizontal



Remark:

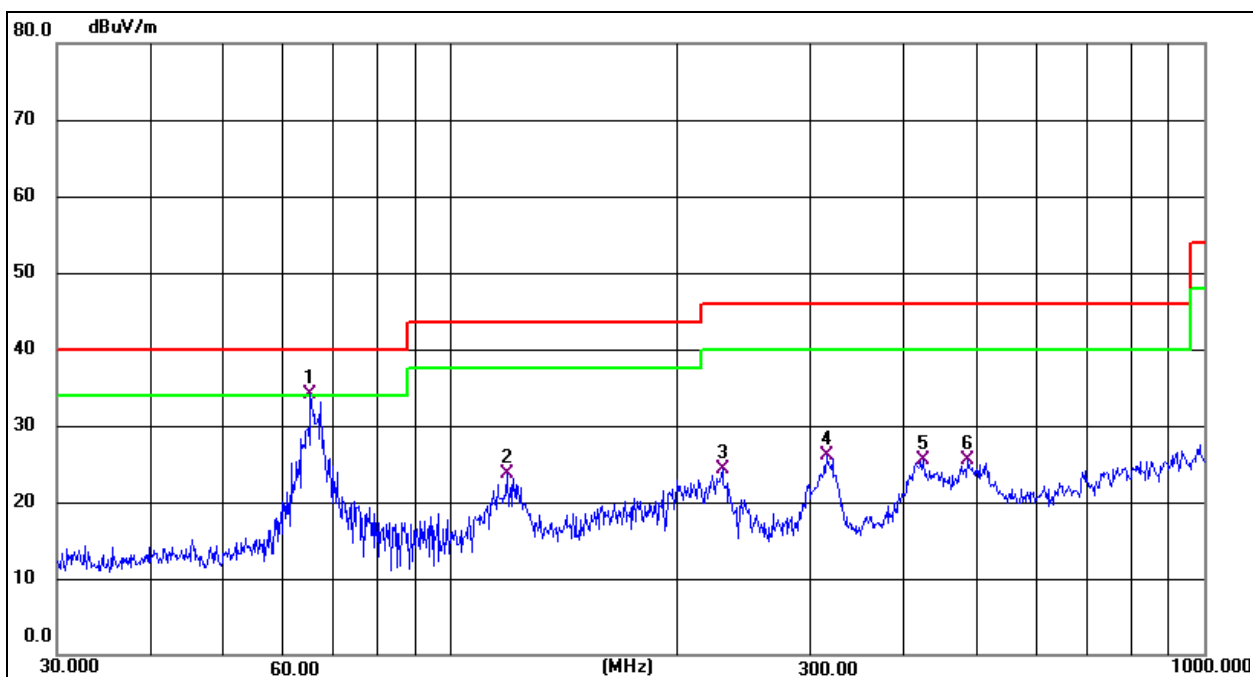
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Margin = (Reading + Factor) – Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	66.2662	48.72	-13.91	34.81	40.00	-5.19	QP
2	124.5690	39.30	-11.85	27.45	43.50	-16.05	QP
3	207.1226	41.49	-14.31	27.18	43.50	-16.32	QP
4	313.2760	35.59	-10.81	24.78	46.00	-21.22	QP
5	416.1791	32.86	-7.63	25.23	46.00	-20.77	QP
6	729.3583	36.01	-1.41	34.60	46.00	-11.40	QP

* Indicates the worst data.

Temperature:	24.4℃	Relative Humidity:	51%RH
Pressure:	101 kpa	Test Voltage:	DC 12V
Test Mode:	Mode 1	Polarization:	Vertical



Remark:

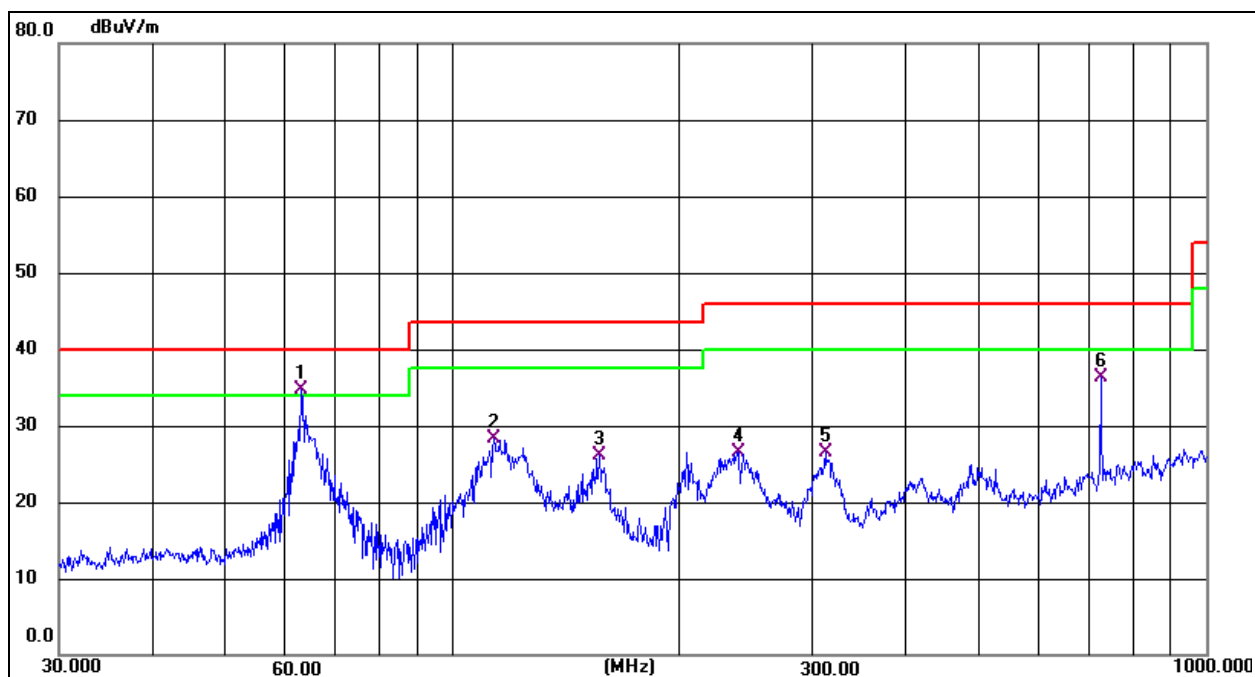
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Margin = (Reading + Factor) – Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	65.1145	48.12	-13.97	34.15	40.00	-5.85	QP
2	118.6014	35.69	-11.96	23.73	43.50	-19.77	QP
3	229.2931	37.41	-13.09	24.32	46.00	-21.68	QP
4	315.4808	36.83	-10.67	26.16	46.00	-19.84	QP
5	423.5403	33.15	-7.67	25.48	46.00	-20.52	QP
6	485.6093	31.28	-5.70	25.58	46.00	-20.42	QP

* Indicates the worst data.

Temperature:	24.4°C	Relative Humidity:	51%RH
Pressure:	101 kPa	Test Voltage:	DC 24V
Test Mode:	Mode 2	Polarization:	Horizontal



Remark:

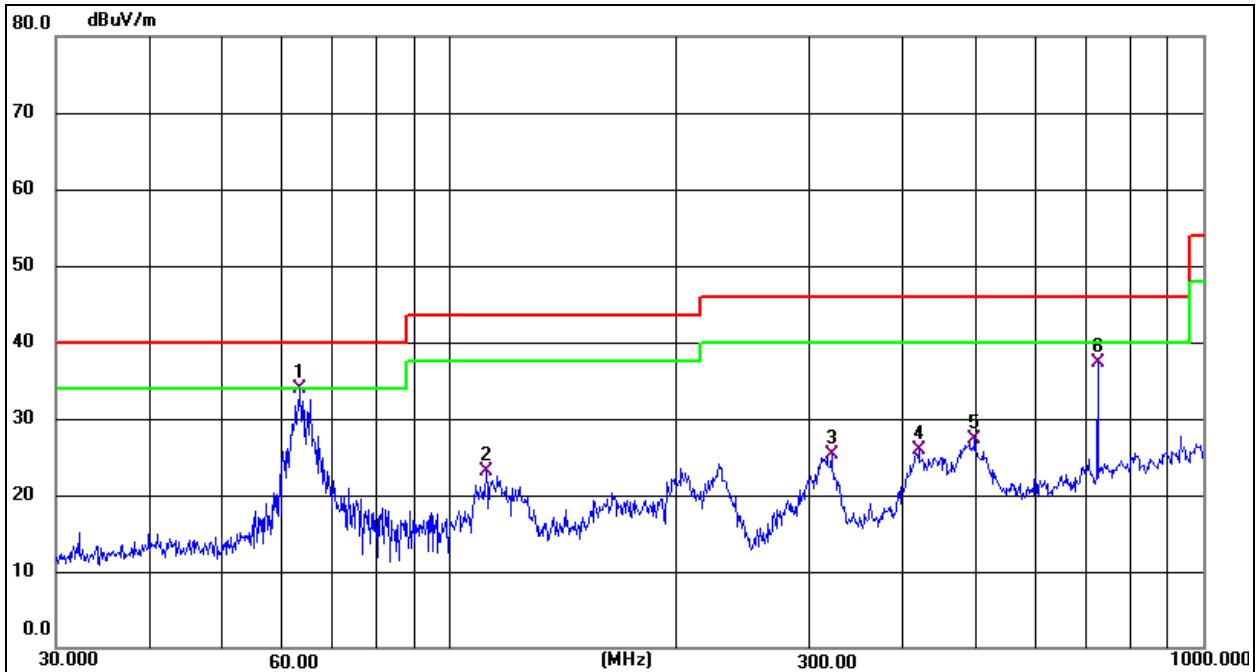
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Margin = (Reading + Factor) – Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	62.8708	47.43	-12.76	34.67	40.00	-5.33	QP
2	113.3163	40.84	-12.62	28.22	43.50	-15.28	QP
3	156.4578	36.25	-10.13	26.12	43.50	-17.38	QP
4	239.1473	38.84	-12.37	26.47	46.00	-19.53	QP
5	312.1794	37.46	-10.88	26.58	46.00	-19.42	QP
6	724.2611	38.15	-1.91	36.24	46.00	-9.76	QP

* Indicates the worst data.

Temperature:	24.4℃	Relative Humidity:	51%RH
Pressure:	101 kpa	Test Voltage:	DC 24V
Test Mode:	Mode 2	Polarization:	Vertical



Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Margin = (Reading + Factor) – Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	63.3132	46.91	-13.07	33.84	40.00	-6.16	QP
2	111.7380	35.90	-12.80	23.10	43.50	-20.40	QP
3	321.0608	35.68	-10.31	25.37	46.00	-20.63	QP
4	419.1081	33.71	-7.72	25.99	46.00	-20.01	QP
5	497.6765	32.96	-5.71	27.25	46.00	-18.75	QP
6	724.2611	39.23	-1.91	37.32	46.00	-8.68	QP

* Indicates the worst data.

8. 20dB Bandwidth Test

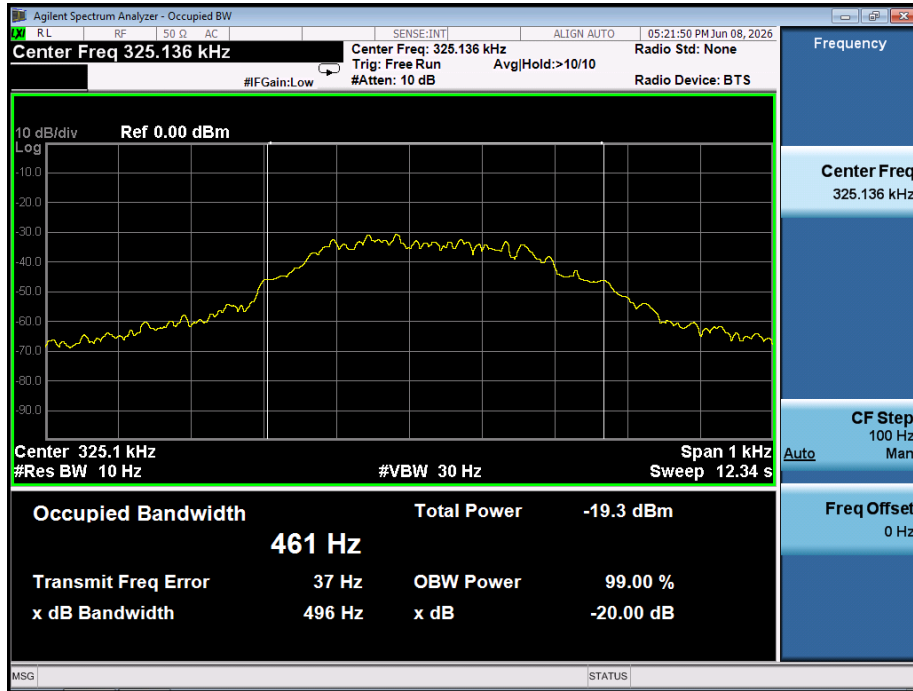
1. Set RBW = 1%~5% OBW.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission.

TEST SETUP



Temperature:	26 °C	Relative Humidity:	54%RH
Pressure:	101kPa		

Frequency (kHz)	20dB bandwidth (kHz)	Result
325.1	0.496	Pass



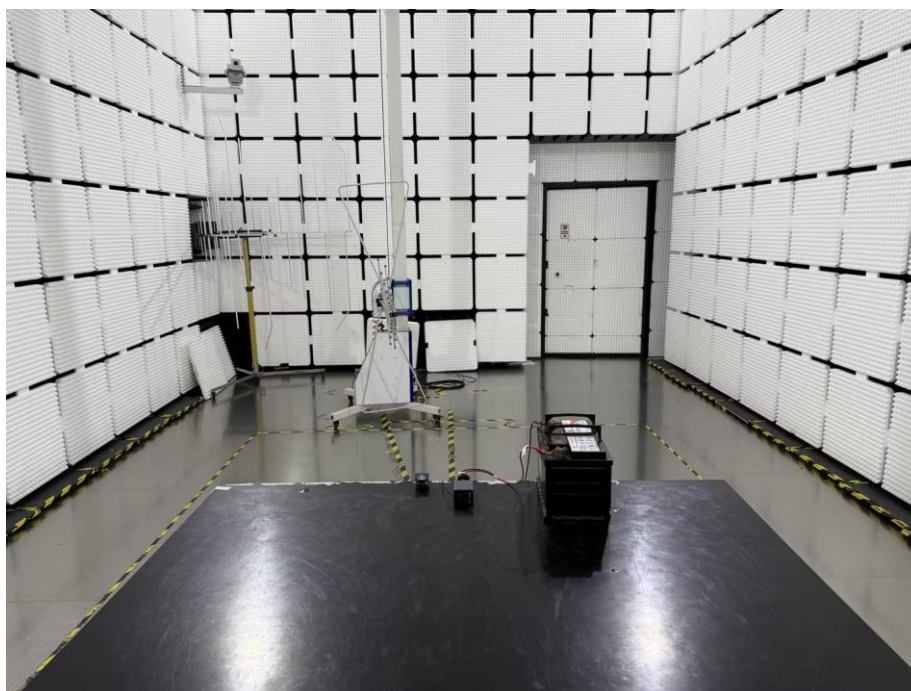
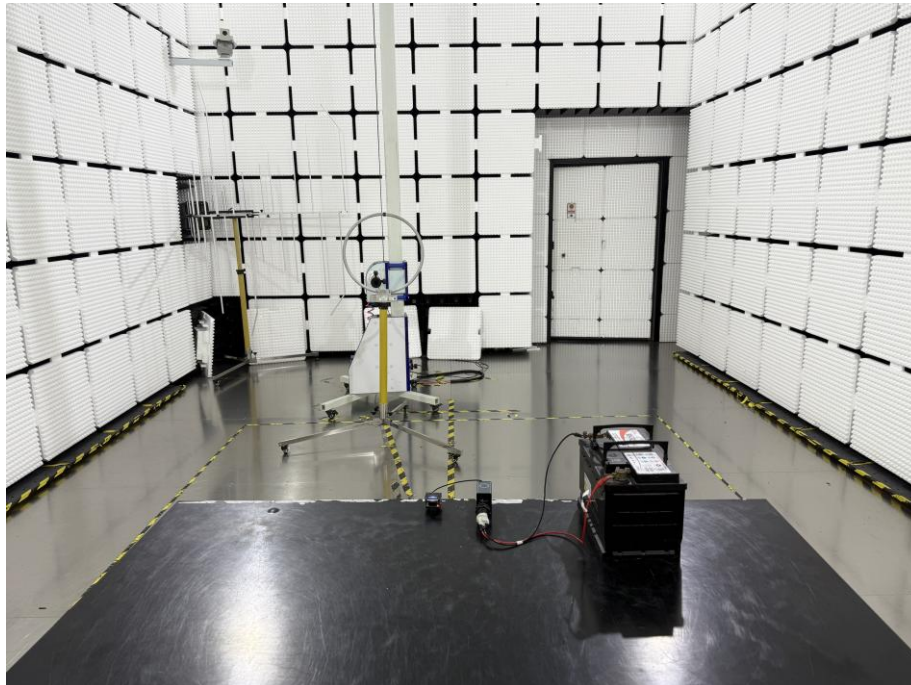
9. Antenna Requirements

For intentional device, 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. 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.

The antenna used for this product is Inductive loop coil antenna.

10. EUT Test Setup Photographs

Radiated Measurement Photos



STATEMENT

1. The equipment lists are traceable to the International System of Units (SI)
2. The test report can not be partially copied unless prior written approval is issued from our lab.
3. The test report is invalid without the "special seal for inspection and testing".
4. The test report is invalid without the signature of the approver.
5. The test process and test result is only related to the Unit Under Test.
6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.
7. The quality system of our laboratory is in accordance with ISO/IEC 17025:2017.
8. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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***** END *****