



# FCC TEST REPORT

## FCC ID:2BC5B-XWT23

Applicant: Shenzhen Xinwang Pet Products Co., Ltd  
Address: 298 No.168 Hengping Highway Bao'an Comm, Yuanshan St, Longgang Dist Shenzhen Guangdong China, 518115

Manufacturer: Shenzhen Xinwang Pet Products Co., Ltd  
Address: 298 No.168 Hengping Highway Bao'an Comm, Yuanshan St, Longgang Dist Shenzhen Guangdong China, 518115

EUT: Dog trainer (Pet electronic fence GPS)

Trade Mark: 

Model Number: XW-T23  
XW-T23S

Date of Receipt: May. 23, 2025

Test Date: May. 23, 2025 to May. 30, 2025

Date of Report: May. 30, 2025

Prepared By: Shenzhen DL Testing Technology Co., Ltd.  
Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Roa Baolong Industrial Zone, Baolong Street, Longgang Shenzhen, Guangdong, China

Applicable Standards: FCC Part 15 Subpart B  
ANSI C63.4:2014

Test Result: Pass

Report Number: DLE-250609010R

Prepared (Test Engineer): Dimon Tan

Reviewer (Supervisor): Jack Bu

Approved (Manager): Jade Yang



*This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.*



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**1. VERSION**

Version No.	Date	Description
00	May. 30, 2025	Original

**2. TEST SUMMARY**

EMC Emission				
Standard	Test Item	Limit	Result	Remark
FCC PART 15 B	Conducted Emission at power ports	Class B	PASS	
	Radiated Emission below 1GHz	Class B	PASS	
	Radiated Emission above 1GHz	Class B	PASS	

**NOTE:**

(1) "N/A" denotes test is not applicable in this Test Report

(2) Test Facility: Shenzhen DL Testing Technology Co., Ltd.

Add. : 101-201, Building C, Shuanghuan, No.8, Baoqing Roa Baolong Industrial Zone, Baolong Street, Longgang Shenzhen, Guangdong, China

FCC Test Firm Registration Number: 854456

Designation Number: CN1307

IC Registered No.: 27485

CAB identifier: CN0118

(3) The test results presented in this report relate only to the object tested.

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### 3. GENERAL INFORMATION

#### 3.1 Description of Device (EUT)

EUT:	Dog trainer (Pet electronic fence GPS)
Trade Mark:	
Model Number:	XW-T23 XW-T23S
Test Model:	XW-T23
Model Difference:	All the model are the same circuit and RF module, Only the model name different.
Power Supply:	Input: 5V===1A
Battery Capacity:	DC 3.7V, 1000mAh, 3.7Wh
Receive Frequency:	1166-1186MHz 1555-1580MHz

NOTE:

- (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (2) The EUT's all information provided by client.



### 3.2 Tested System Details

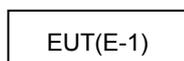
None.

### 3.3 Block Diagram of Test Set-up

#### Conducted Emission



#### Radiated Emission



### 3.4 Test Mode Description

Mode1.: GPS RX Mode

Mode2.: /

All of the test modes were tested and passed, with only Working showing the worst mode, documented in this report.

### 3.5 Test Auxiliary Equipment

None.

### 3.6 Test Uncertainty

Conducted Emission Uncertainty :  $\pm 2.56\text{dB}$

Radiated Emission Uncertainty :  $\pm 3.24\text{dB}$

**4. TEST INSTRUMENT USED****For Conducted Emission Test (843 Shielded Room)**

Equipment	Manufacturer	Model	Serial	Last Cal.	Next Cal.
843 Shielded Room	YIHENG	843 Room	843	Nov. 05, 2023	Nov. 04, 2026
EMI Receiver	R&S	ESR	101421	Nov. 01, 2024	Oct. 31, 2025
LISN	R&S	ENV216	102417	Nov. 01, 2024	Oct. 31, 2025
Clamp	COM-POWER	CLA-050	431072	Nov. 02, 2024	Nov. 01, 2025
3-Loop Antenna	DAZE	ZN30401	13021	Nov. 02, 2024	Nov. 01, 2025
ISN T8	Schwarzbeck	NTFM 8158	101135	Nov. 01, 2024	Oct. 31, 2025
ISN T5	Schwarzbeck	NTFM 8158	101136	Nov. 01, 2024	Oct. 31, 2025
843 Cable 1#	ChengYu	CE Cable	001	Nov. 01, 2024	Oct. 31, 2025
843 Cable 1#	ChengYu	CL Cable	002	Nov. 01, 2024	Oct. 31, 2025

**For Radiated Emission Test (966 chamber)**

Equipment	Manufacturer	Model	Serial	Last Cal.	Next Cal.
966 chamber	YIHENG	966 Room	966	Nov. 06, 2023	Nov. 05, 2026
Spectrum Analyzer	Agilent	E4408B	MY50140780	Nov. 01, 2024	Oct. 31, 2025
EMI Receiver	R&S	ESRP7	101393	Nov. 01, 2024	Oct. 31, 2025
Amplifier	Schwarzbeck	BBV9743B	00153	Nov. 01, 2024	Oct. 31, 2025
Amplifier	EMEC	EM01G8GA	00270	Nov. 01, 2024	Oct. 31, 2025
Broadband Trilog Antenna	Schwarzbeck	VULB9162	00306	Nov. 02, 2024	Nov. 01, 2025
Horn Antenna	Schwarzbeck	BBHA9120D	02139	Nov. 02, 2024	Nov. 01, 2025
966 Cable 1#	ChengYu	966	004	Nov. 01, 2024	Oct. 31, 2025
966 Cable 2#	ChengYu	966	003	Nov. 01, 2024	Oct. 31, 2025

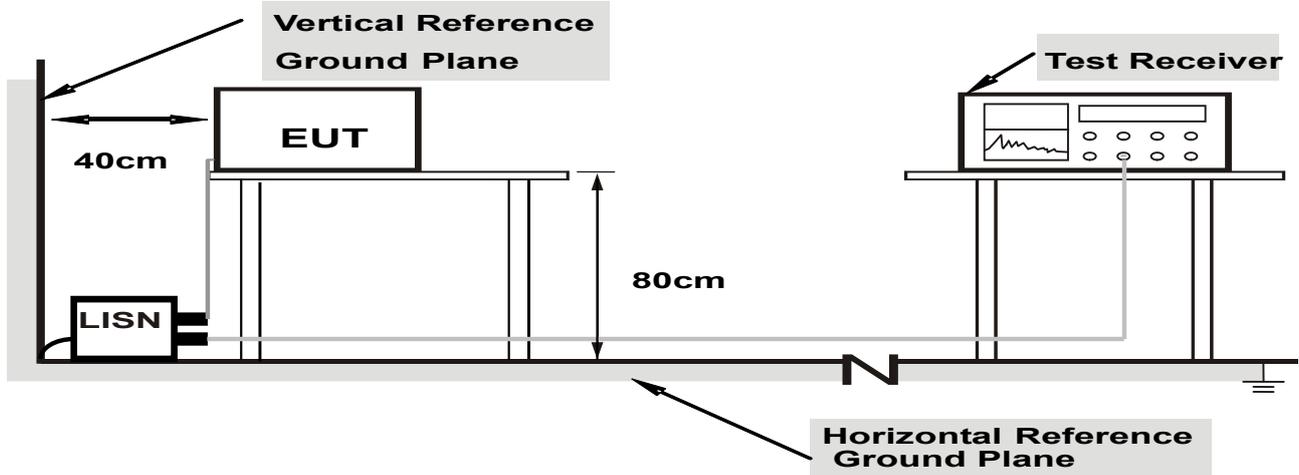
**Other**

Name	Manufacturer	Model	Software version
EMC Conduction Test System	FALA	EZ_EMG	EMC-CON 3A1.1
EMC radiation test system	FALA	EZ_EMG	FA-03A2

**5. CONDUCTED EMISSION TEST**

5.1 Block Diagram of Test Setup

**For Mains Terminals Test**



- Note:**
1. Support units were connected to second LISN.
  2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

5.2 Test Standard and Limit

FCC PART 15 B

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15~0.50	66 ~ 56*	56 ~ 46*
0.50~5.00	56	46
5.00~30.00	60	50

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

5.3 EUT Configuration on Test

The following equipment's are installed on conducted emission test to meet FCC PART 15 B requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

5.4 Operating Condition of EUT

- 5.4.1 Setup the EUT and simulators as shown in Section 5.1.
- 5.4.2 Turn on the power of all equipments.
- 5.4.3 Let the EUT work in test modes and test it.



### 5.5 Test Procedure

The EUT is put on the table and connected to the AC mains through a Artificial Mains Network (AMN) or ISN. This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the **ANSI C63.4** regulations during conducted emission test.

The bandwidth of the test receiver (R&S Test Receiver ESR) is set at 10KHz.

The frequency range from 150 KHz to 30 MHz is investigated.

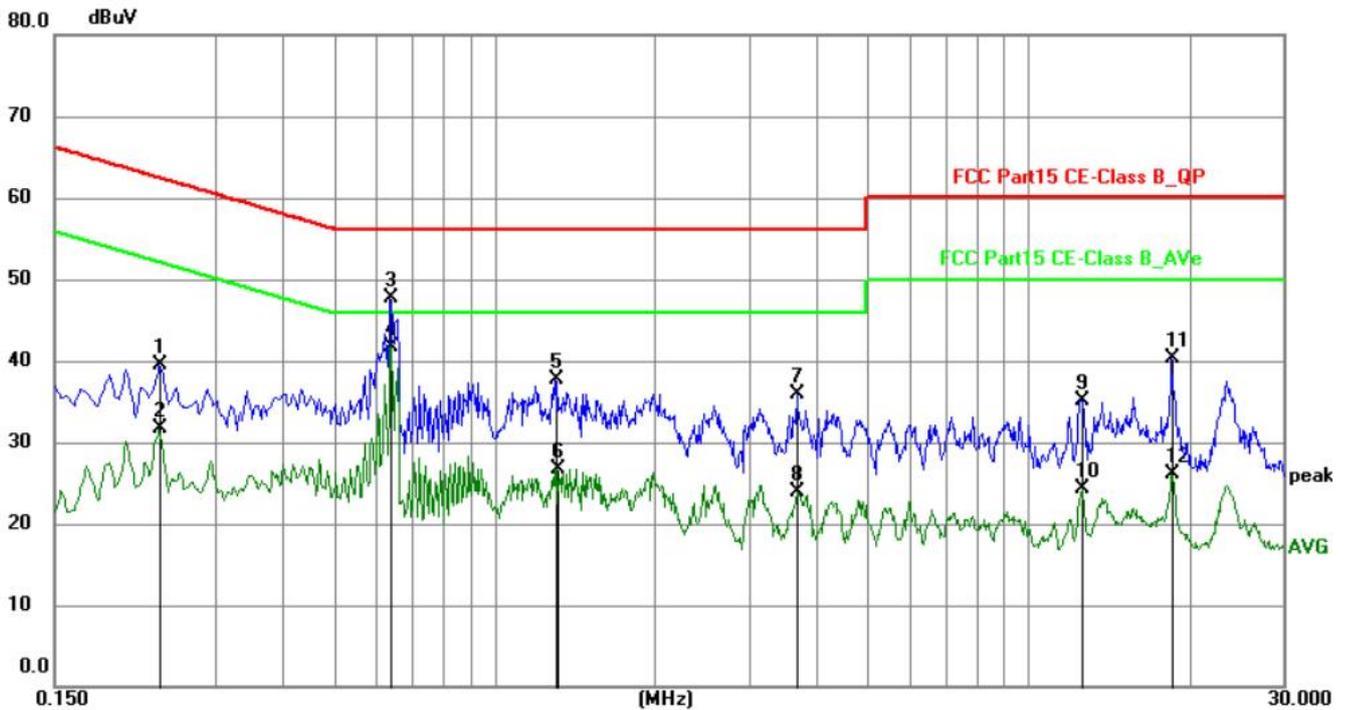
### 5.6 Test Result

PASS

Please refer to the following page.



Conducted Emission At The Mains Terminals Test Data			
Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Line
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 1



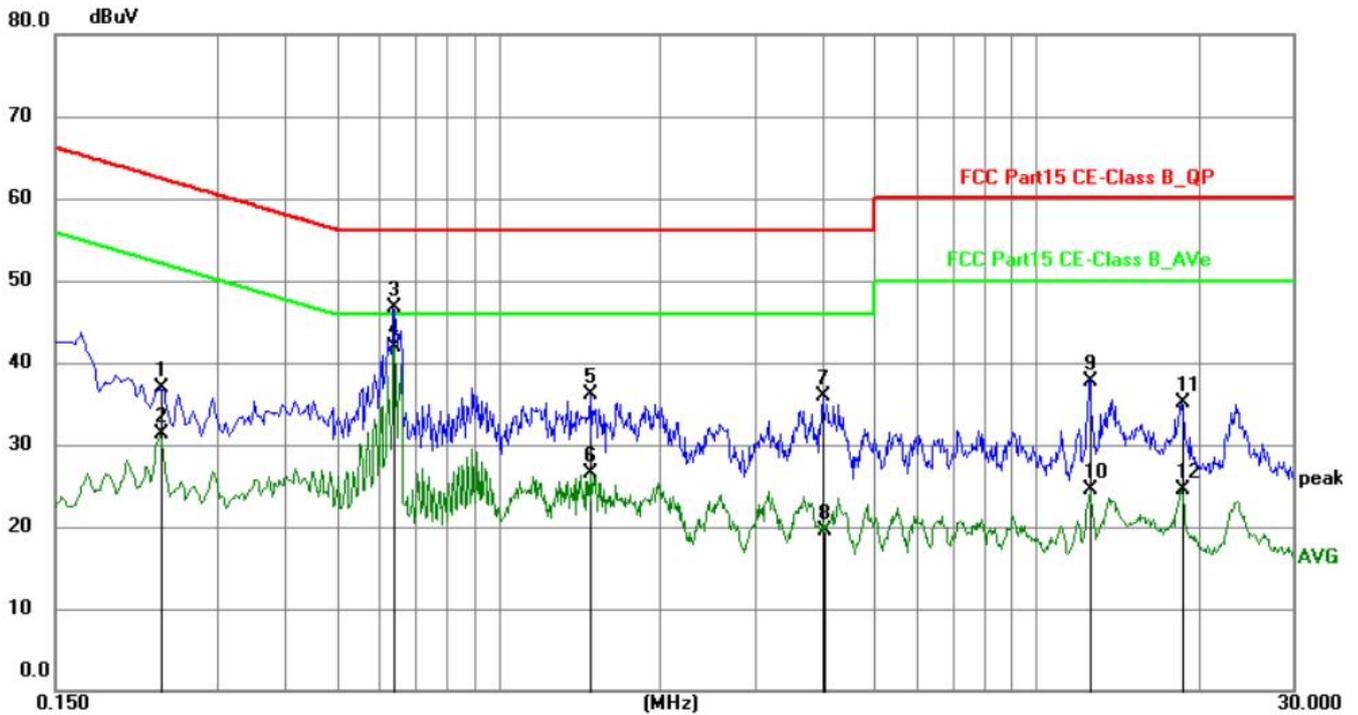
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.2355	19.05	20.37	39.42	62.25	-22.83	QP	P	
2	0.2355	11.30	20.37	31.67	52.25	-20.58	AVG	P	
3	0.6404	27.34	20.29	47.63	56.00	-8.37	QP	P	
4	0.6404	21.42	20.29	41.71	46.00	-4.29	AVG	P	
5	1.2974	17.40	20.31	37.71	56.00	-18.29	QP	P	
6	1.3154	6.36	20.31	26.67	46.00	-19.33	AVG	P	
7	3.6825	15.55	20.34	35.89	56.00	-20.11	QP	P	
8	3.6825	3.62	20.34	23.96	46.00	-22.04	AVG	P	
9	12.5925	14.65	20.47	35.12	60.00	-24.88	QP	P	
10	12.5925	3.82	20.47	24.29	50.00	-25.71	AVG	P	
11	18.5775	19.88	20.50	40.38	60.00	-19.62	QP	P	
12	18.5775	5.65	20.50	26.15	50.00	-23.85	AVG	P	

Notes:

- 1.An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2.Quasi - Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3.Final Level = Reading level + Correct Factor.
- 4.Correct Factor = Lisen factor+ Cable loss factor + limiter factor.
- 5.Margin = Measurement Level-Limit.



Conducted Emission At The Mains Terminals Test Data			
Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Neutral
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.2355	16.55	20.36	36.91	62.25	-25.34	QP	P	
2	0.2355	11.02	20.36	31.38	52.25	-20.87	AVG	P	
3	0.6404	26.46	20.30	46.76	56.00	-9.24	QP	P	
4	0.6404	21.60	20.30	41.90	46.00	-4.10	AVG	P	
5	1.4864	15.82	20.31	36.13	56.00	-19.87	QP	P	
6	1.4864	6.27	20.31	26.58	46.00	-19.42	AVG	P	
7	4.0109	15.51	20.33	35.84	56.00	-20.16	QP	P	
8	4.0470	-0.85	20.33	19.48	46.00	-26.52	AVG	P	
9	12.6105	17.31	20.49	37.80	60.00	-22.20	QP	P	
10	12.6105	4.01	20.49	24.50	50.00	-25.50	AVG	P	
11	18.6450	14.59	20.52	35.11	60.00	-24.89	QP	P	
12	18.6450	4.03	20.52	24.55	50.00	-25.45	AVG	P	

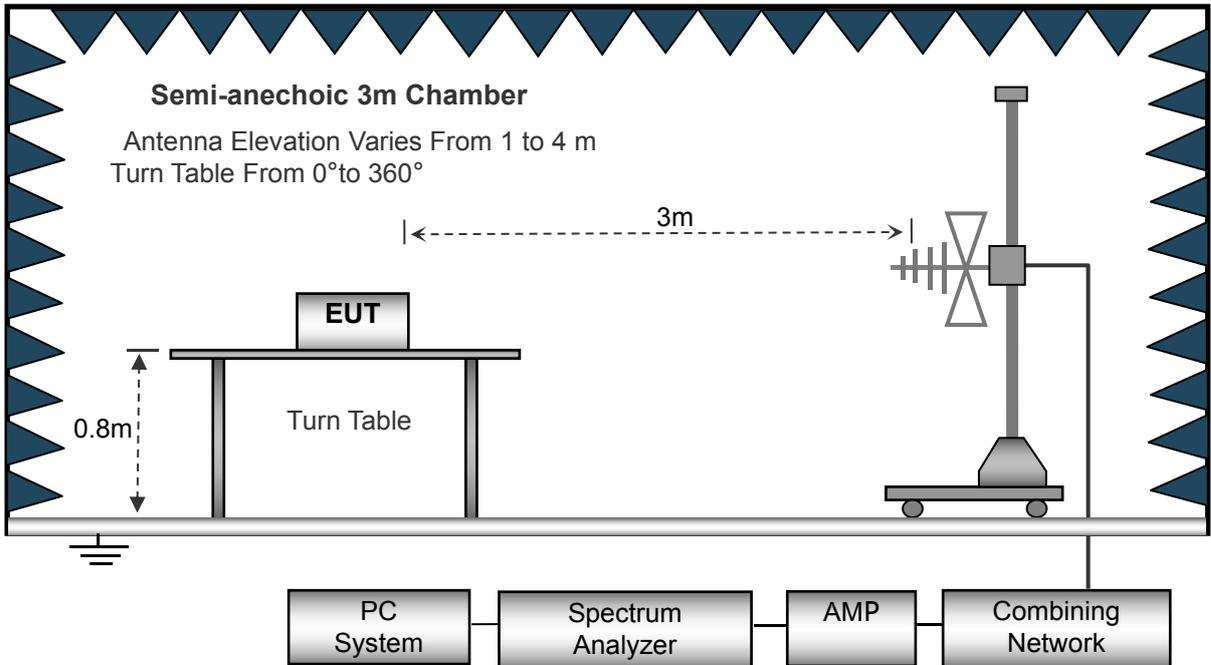
Notes:

- 1.An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2.Quasi - Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3.Final Level = Reading level + Correct Factor.
- 4.Correct Factor = Lisen factor+ Cable loss factor + limiter factor.
- 5.Margin = Measurement Level-Limit.

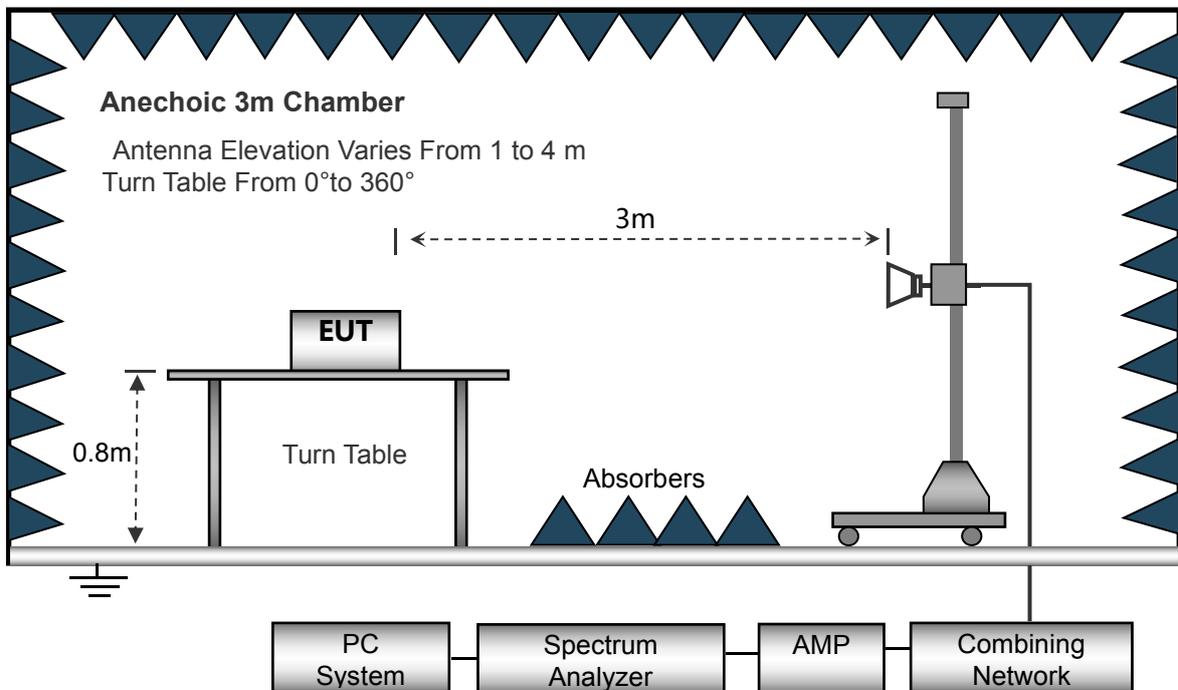
## 6. RADIATION EMISSION TEST

### 6.1 Block Diagram of Test Setup

Below 1GHz



Above 1GHz





## 6.2 Test Standard and Limit

### FCC PART 15 B

Below 1GHz

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (dB $\mu$ V/m)
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

Above 1GHz

Frequency MHz	Distance (Meters)	Field Strengths Limits dB( $\mu$ V)/m	Detector
1000~6000	3	74.0	PEAK
1000~6000	3	54.0	AVERAGE

Remark:

- (1) The smaller limit shall apply at the cross point between two frequency bands.
- (2) Distance refers to the distance in meters between the measuring instrument, antenna and the closed point of any part of the device or system.

## 6.3 EUT Configuration on Test

The FCC PART 15 B regulations test method must be used to find the maximum emission during radiated emission test.

The configuration of EUT is the same as used in conducted emission test.

Please refer to Section 5.3.

## 6.4 Operating Condition of EUT

Same as conducted emission test, which is listed in Section 5.4 except the test set up replaced as Section 6.2.

## 6.5 Test Procedure

- 1) The radiated emissions test was conducted in a semi-anechoic chamber.
- 2) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
- 3) Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emissions spectrum plots of the EUT.
- 4) The frequencies of maximum emission were determined in the final radiated emissions measurement. At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization.
- 5) The bandwidth setting on the field strength meter (R&S Test Receiver ESCI) is set at 120KHz.
- 6) The frequency range from 30MHz to 1000MHz is checked.

## 6.6 Test Result



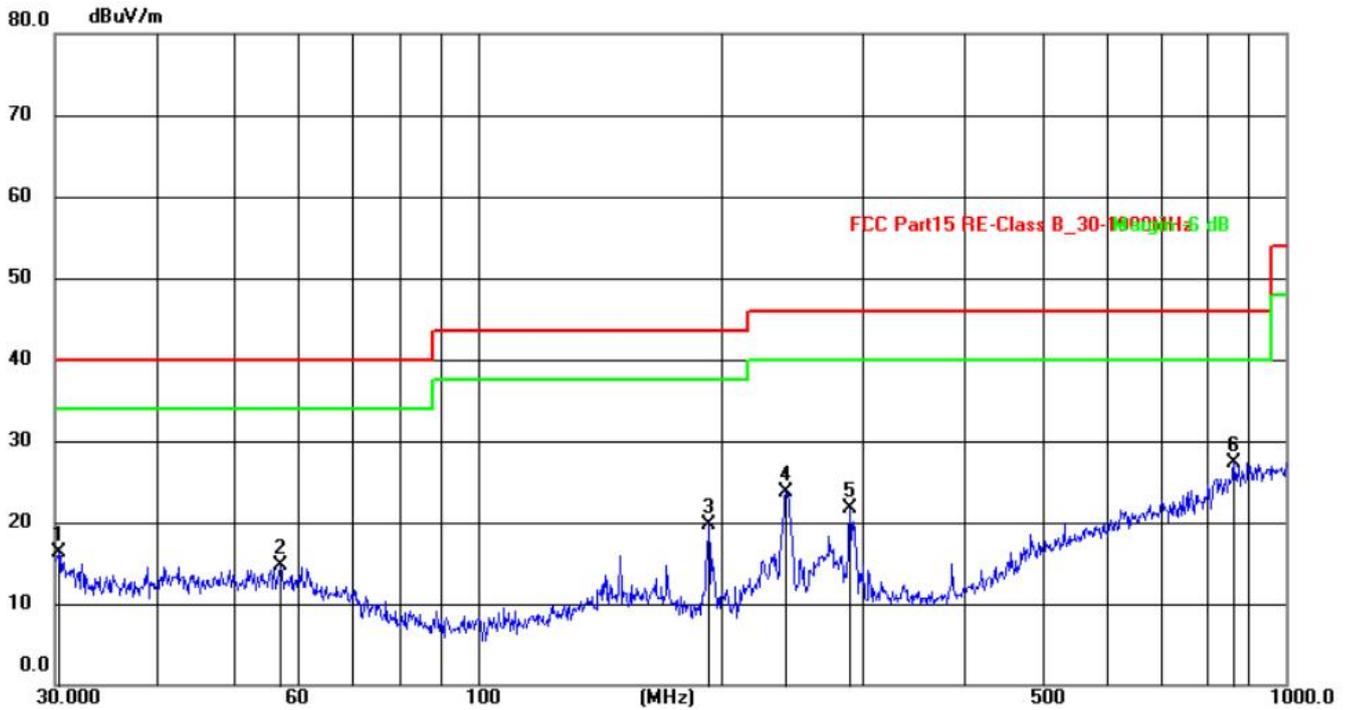
PASS

Please refer to the following page.



Between 30MHz – 1GHz:

Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Horizontal
Test Voltage:	DC 3.7V	Test Mode:	Mode 1



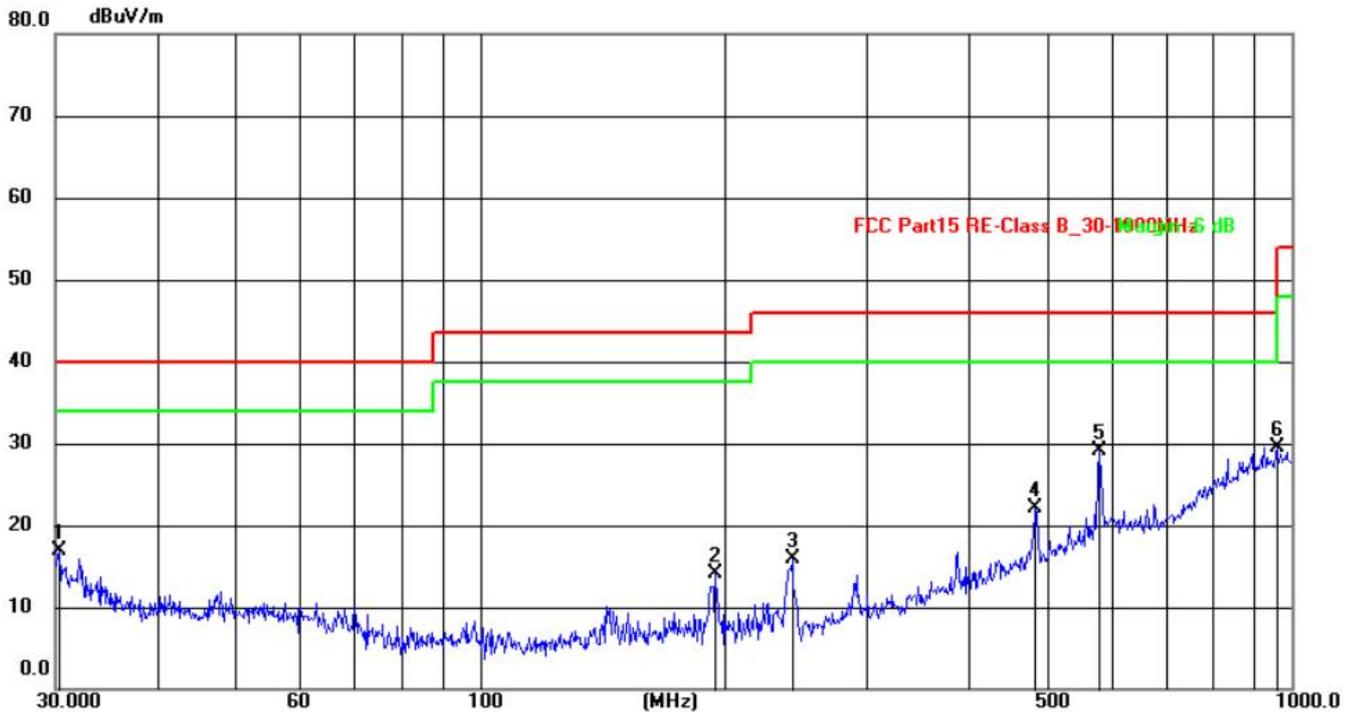
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.3172	30.48	-14.17	16.31	40.00	-23.69	QP
2	56.9912	28.73	-14.07	14.66	40.00	-25.34	QP
3	193.0944	37.97	-18.18	19.79	43.50	-23.71	QP
4	240.8303	39.66	-15.89	23.77	46.00	-22.23	QP
5	289.0020	36.82	-15.12	21.70	46.00	-24.30	QP
6	863.0562	34.02	-6.68	27.34	46.00	-18.66	QP

Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi - Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin = Measurement Level-Limit.



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Vertical
Test Voltage:	DC 3.7V	Test Mode:	Mode 1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.3172	35.12	-18.29	16.83	40.00	-23.17	QP
2	195.1363	34.35	-20.20	14.15	43.50	-29.35	QP
3	242.5252	35.66	-19.84	15.82	46.00	-30.18	QP
4	482.2155	33.63	-11.61	22.02	46.00	-23.98	QP
5	578.6700	37.27	-8.11	29.16	46.00	-16.84	QP
6	958.7943	29.71	-0.12	29.59	46.00	-16.41	QP

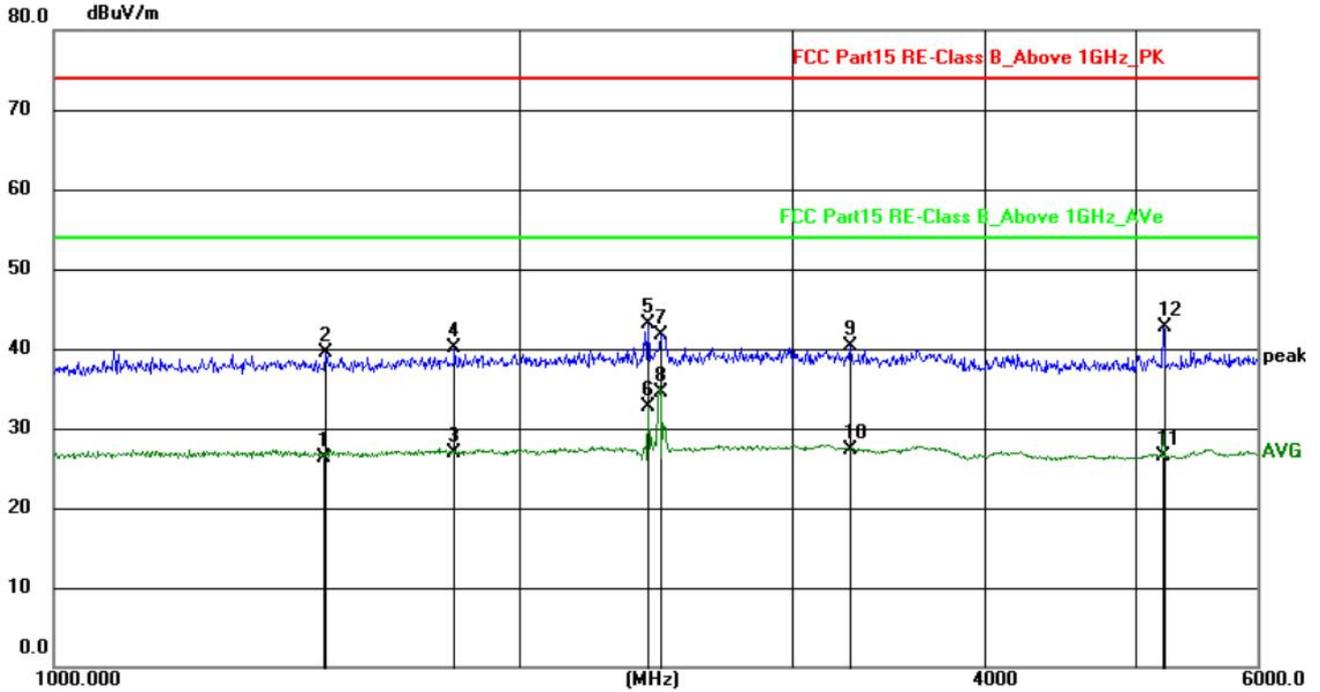
Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi - Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin = Measurement Level-Limit.



Above 1GHz:

Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Horizontal
Test Voltage:	DC 3.7V	Test Mode:	Mode 1



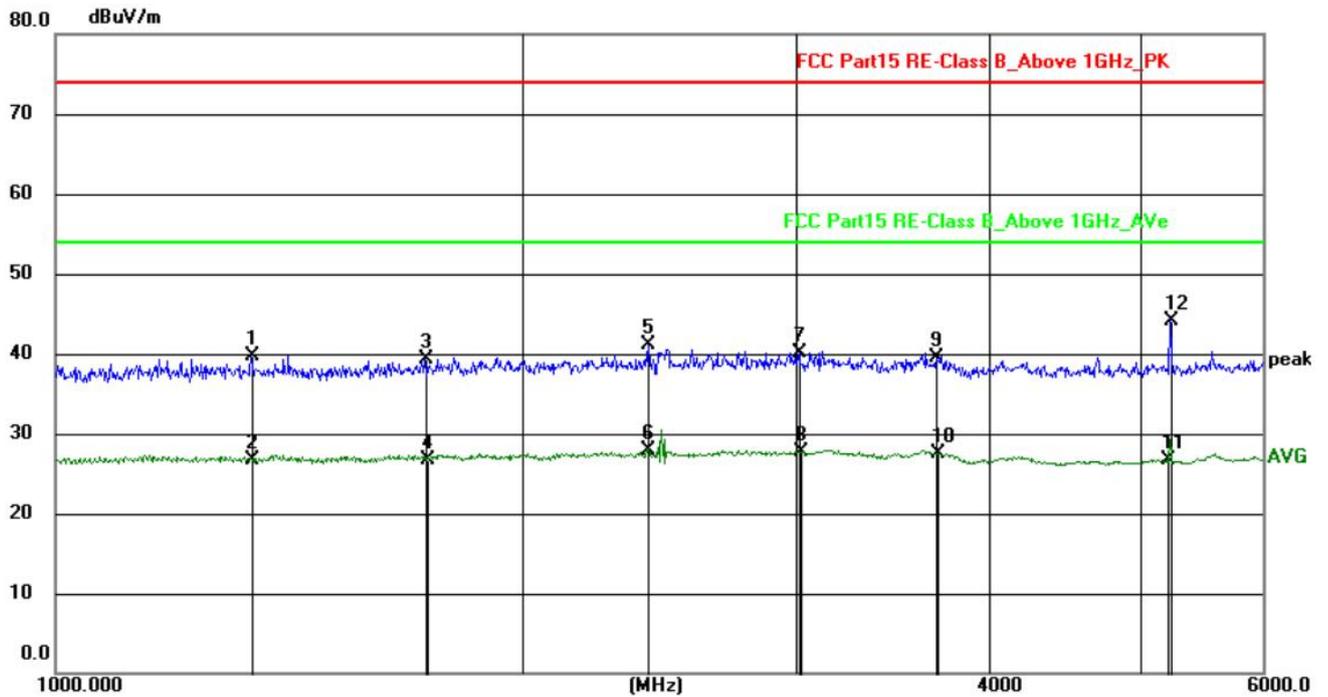
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1496.525	28.07	-1.72	26.35	54.00	-27.65	AVG
2	1499.209	41.14	-1.72	39.42	74.00	-34.58	peak
3	1812.784	28.35	-1.48	26.87	54.00	-27.13	AVG
4	1816.035	41.65	-1.47	40.18	74.00	-33.82	peak
5	2423.297	44.05	-1.00	43.05	74.00	-30.95	peak
6	2423.297	33.73	-1.00	32.73	54.00	-21.27	AVG
7	2467.108	42.77	-0.97	41.80	74.00	-32.20	peak
8	2467.108	35.45	-0.97	34.48	54.00	-19.52	AVG
9	3274.433	40.66	-0.34	40.32	74.00	-33.68	peak
10	3274.433	27.65	-0.34	27.31	54.00	-26.69	AVG
11	5208.076	25.37	1.17	26.54	54.00	-27.46	AVG
12	5217.416	41.53	1.18	42.71	74.00	-31.29	peak

Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi - Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin = Measurement Level-Limit.



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Vertical
Test Voltage:	DC 3.7V	Test Mode:	Mode 1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1336.782	41.48	-1.84	39.64	74.00	-34.36	peak
2	1339.179	28.61	-1.84	26.77	54.00	-27.23	AVG
3	1730.272	40.79	-1.54	39.25	74.00	-34.75	peak
4	1733.375	28.32	-1.54	26.78	54.00	-27.22	AVG
5	2410.306	42.07	-1.01	41.06	74.00	-32.94	peak
6	2410.306	29.01	-1.01	28.00	54.00	-26.00	AVG
7	3015.374	40.59	-0.54	40.05	74.00	-33.95	peak
8	3020.782	28.32	-0.54	27.78	54.00	-26.22	AVG
9	3698.711	39.59	-0.01	39.58	74.00	-34.42	peak
10	3705.344	27.56	-0.01	27.55	54.00	-26.45	AVG
11	5208.076	25.49	1.17	26.66	54.00	-27.34	AVG
12	5226.773	42.88	1.18	44.06	74.00	-29.94	peak

Remarks:

1. An initial pre-scan was performed on the peak detector.
2. Quasi - Peak measurement were performed at the frequencies with maximized peak emission.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Final Level = Reading level + Correct Factor.
5. Correct Factor = Antenna factor+ Cable loss factor - Amplifier factor.
6. Margin = Measurement Level-Limit.



**7. SETUP PHOTOGRAPHS**

Reference to the appendix I for details.

**8. EUT PHOTOGRAPHS**

Reference to the appendix II for details.

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