



FCC Part 15B Test Report

FCC ID:2ATOX-F850

Applicant: **Shenzhen Wellturn Technology Co., Ltd**

Address: Room 606, Building F, Lvkai Zhihui Park, Liuxian 2nd Road, 71 District, Xin'an Street, Bao'an District, Shenzhen City, China

Manufacturer: **Shenzhen Wellturn Technology Co., Ltd**

Address: Room 606, Building F, Lvkai Zhihui Park, Liuxian 2nd Road, 71 District, Xin'an Street, Bao'an District, Shenzhen City, China

EUT: GPS Outdoor Wireless Dog Fence System

Trade Mark: N/A

Model Number: F850, F860

Date of Receipt: Sep. 18, 2025

Test Date: Sep. 18, 2025 to Sep. 28, 2025

Date of Report: Sep. 28, 2025

Prepared By: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Comprehensive Building, TEL Factory Area No1 Baolong 5th Rd, Baolong Community, Baolong St, Longgang District, Shenzhen City, China.

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

Test Result: Pass

Report Number: DLE-250928009R

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.

**TABLE OF CONTENT**

	Page
1.VERSION	3
2.GENERAL INFORMATION.....	4
2.1 Description of Device (EUT)	4
2.2 Tested System Details	4
2.3 Test Facility.....	4
2.4 MEASUREMENT UNCERTAINTY	4
2.5 Test Instrument Used.....	5
3.CONDUCTED EMISSION AT THE MAINS TERMINALS TEST.....	6
3.1 Block Diagram Of Test Setup	6
3.2 Test Standard	6
3.3 Power Line Conducted Emission Limit	6
3.4 EUT Configuration on Test	6
3.5 Operating Condition of EUT	6
3.6 Test Procedure	6
3.7 Test Result.....	7
4.RADIATION EMISSION TEST	9
4.1 Block Diagram of Test Setup	9
4.2 Test Standard	9
4.3 Radiation Limit.....	9
4.4 EUT Configuration on Test	9
4.5 Operating Condition of EUT	9
4.6 Test Procedure	9
4.7 Test Result.....	10
5.EUT TEST PHOTOGRAPHS	14
6.EUT PHOTOGRAPHS	14

**1.VERSION**

Report No.	Version	Description	Approved
DLE-250928009R	Rev.01	Initial issue of report	Sep. 28, 2025



2.GENERAL INFORMATION

2.1 Description of Device (EUT)

EUT	GPS Outdoor Wireless Dog Fence System
Trademark	: N/A
Model No.	F850
Serial Model	: F860
Ratings:	: Input: 5V $\overline{=}$ 1A Battery: 3.7V $\overline{=}$, 800mAh
Model Difference	: Only the model name is different.

2.2 Tested System Details

None.

2.3 Test Facility

Shenzhen DL Testing Technology Co., Ltd.
Add. : 101-201, Comprehensive Building, TEL Factory Area No1 Baolong 5th Rd, Baolong Community,
Baolong St, Longgang District, Shenzhen City, China.

FCC Test Firm Registration Number: 854456
Designation Number: CN1307
IC Registered No.: 27485
CAB ID.: CN0118

2.4 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. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test item	Value (dB)
Conducted Emission (150K-30MHZ)	3.20
Radiated disturbance(30MHz-1000MHz)	4.80
3m chamber Radiated spurious emission(1GHz-6GHz)	4.9
3m chamber Radiated spurious emission(6GHz-40GHz)	5.0



2.5 Test Instrument Used

Radiation test, Band-edge test and 6db bandwidth test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	Agilent	E4408B	MY50140780	Nov. 01, 2024	Oct. 31, 2025
2	Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Nov. 01, 2024	Oct. 31, 2025
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Nov. 02, 2024	Nov. 01, 2025
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Nov. 02, 2024	Nov. 01, 2025
5	Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Nov. 01, 2024	Oct. 31, 2025
6	Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Nov. 01, 2024	Oct. 31, 2025
7	Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Nov. 01, 2024	Oct. 31, 2025
8	Amplifier (18GHz-40GHz)	Quanjuda	DLE-161	97	Nov. 01, 2024	Oct. 31, 2025
9	Loop Antenna (9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Nov. 01, 2024	Oct. 31, 2025
10	RF cables1 (9kHz-1GHz)	ChengYu	966	004	Nov. 01, 2024	Oct. 31, 2025
11	RF cables2 (1GHz-40GHz)	ChengYu	966	003	Nov. 01, 2024	Oct. 31, 2025
12	Antenna connector	Florida RF Labs	N/A	RF 01#	Nov. 01, 2024	Oct. 31, 2025
13	Power probe	KEYSIGHT	U2021XA	MY55210018	Nov. 01, 2024	Oct. 31, 2025
14	Signal Analyzer 9kHz-26.5GHz	Agilent	N9020A	MY55370280	Nov. 01, 2024	Oct. 31, 2025
15	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	Nov. 01, 2024	Oct. 31, 2025
16	D.C. Power Supply	LongWei	PS-305D	010964729	Nov. 01, 2024	Oct. 31, 2025

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	843 Shielded Room	ChengYu	843 Room	843	Nov. 05, 2023	Nov. 04, 2026
2	EMI Receiver	R&S	ESR	101421	Nov. 01, 2024	Oct. 31, 2025
3	LISN	R&S	ENV216	102417	Nov. 01, 2024	Oct. 31, 2025
4	843 Cable 1#	ChengYu	CE Cable	001	Nov. 01, 2024	Oct. 31, 2025

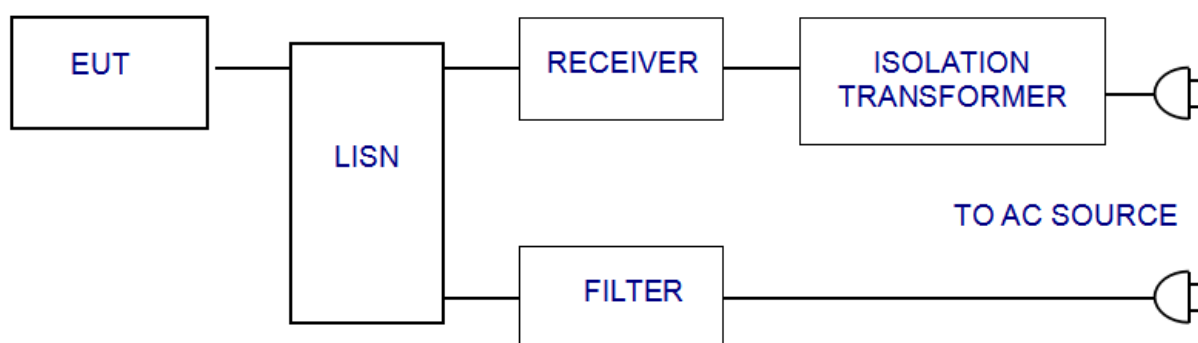
Other

Item	Name	Manufacturer	Model	Software version
1	EMC Conduction Test System	FALA	EZ_EMCC	EMC-CON 3A1.1
2	EMC radiation test system	FALA	EZ_EMCC	FA-03A2
3	RF test system	MAIWEI	MTS8310	2.0.0.0
4	RF communication test system	MAIWEI	MTS8200	2.0.0.0



3.CONDUCTED EMISSION AT THE MAINS TERMINALS TEST

3.1 Block Diagram Of Test Setup



3.2 Test Standard

FCC PART 15 B

3.3 Power Line Conducted Emission Limit

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.

3.4 EUT Configuration on Test

The following equipments 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.

3.5 Operating Condition of EUT

3.5.1 Setup the EUT and simulators as shown in Section 3.1.

3.5.2 Turn on the power of all equipments.

3.5.3 Let the EUT work in test modes and test it.

3.6 Test Procedure

The EUT is put on the ground and connected to the AC mains through a Artificial Mains Network (AMN). 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 **FCC PART 15 B** regulations during conducted emission test.

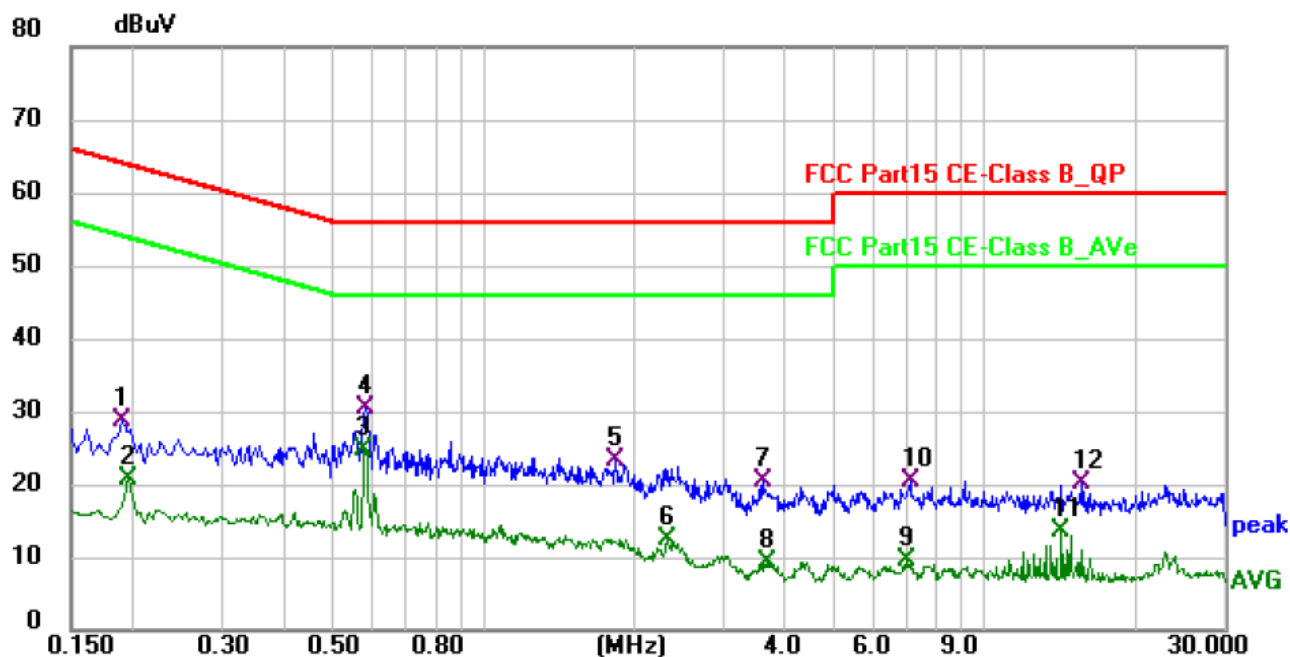
The bandwidth of the test receiver (R&S Test Receiver ESCI) is set at 10KHz.

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



3.7 Test Result

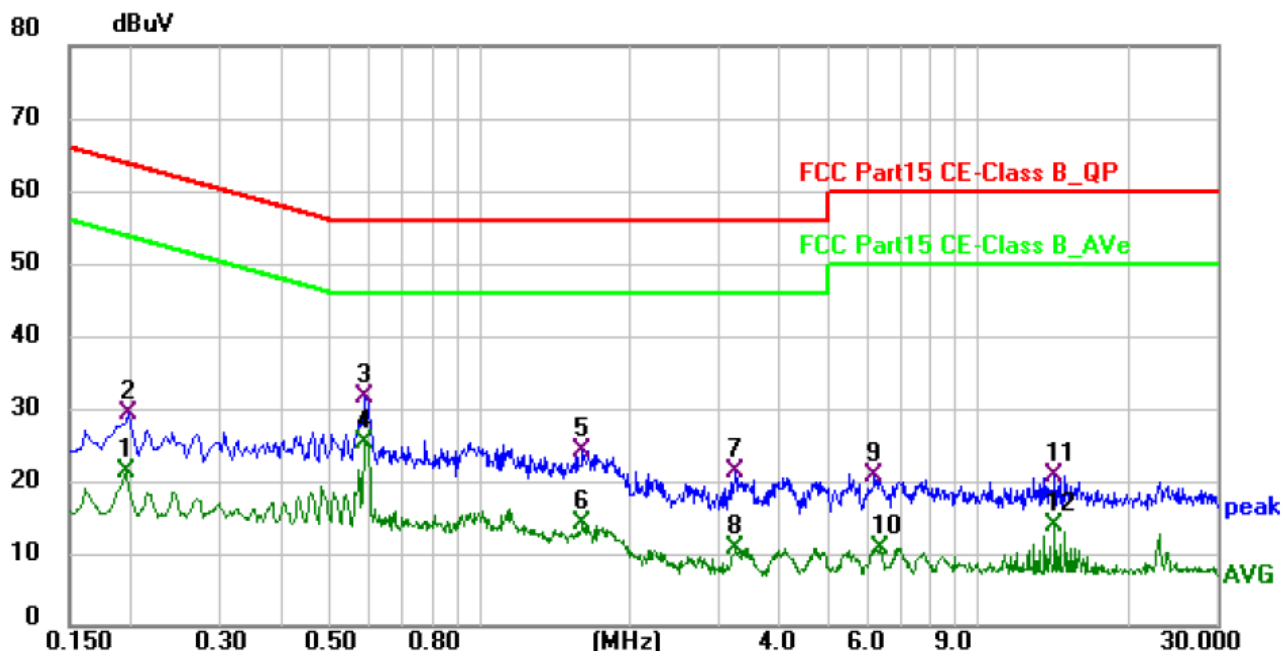
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode:	Charging



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1900	18.94	9.72	28.66	64.04	-35.38	QP	P
2	0.1940	11.00	9.72	20.72	53.86	-33.14	AVG	P
3 *	0.5780	14.91	9.72	24.63	46.00	-21.37	AVG	P
4	0.5820	20.64	9.72	30.36	56.00	-25.64	QP	P
5	1.8380	13.53	9.74	23.27	56.00	-32.73	QP	P
6	2.3380	2.67	9.74	12.41	46.00	-33.59	AVG	P
7	3.6220	10.74	9.74	20.48	56.00	-35.52	QP	P
8	3.6780	-0.34	9.74	9.40	46.00	-36.60	AVG	P
9	6.9860	-0.28	9.78	9.50	50.00	-40.50	AVG	P
10	7.1060	10.68	9.78	20.46	60.00	-39.54	QP	P
11	14.2340	3.59	9.85	13.44	50.00	-36.56	AVG	P
12	15.5580	10.16	9.85	20.01	60.00	-39.99	QP	P



Temperature:	26 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Test Mode:	Charging



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1940	11.45	9.70	21.15	53.86	-32.71	AVG	P
2	0.1980	19.70	9.70	29.40	63.69	-34.29	QP	P
3	0.5899	21.76	9.71	31.47	56.00	-24.53	QP	P
4 *	0.5899	15.50	9.71	25.21	46.00	-20.79	AVG	P
5	1.6100	14.40	9.72	24.12	56.00	-31.88	QP	P
6	1.6100	4.30	9.72	14.02	46.00	-31.98	AVG	P
7	3.2659	11.66	9.73	21.39	56.00	-34.61	QP	P
8	3.2659	1.00	9.73	10.73	46.00	-35.27	AVG	P
9	6.2180	11.06	9.76	20.82	60.00	-39.18	QP	P
10	6.3580	1.07	9.76	10.83	50.00	-39.17	AVG	P
11	14.2420	10.85	9.84	20.69	60.00	-39.31	QP	P
12	14.2420	4.10	9.84	13.94	50.00	-36.06	AVG	P

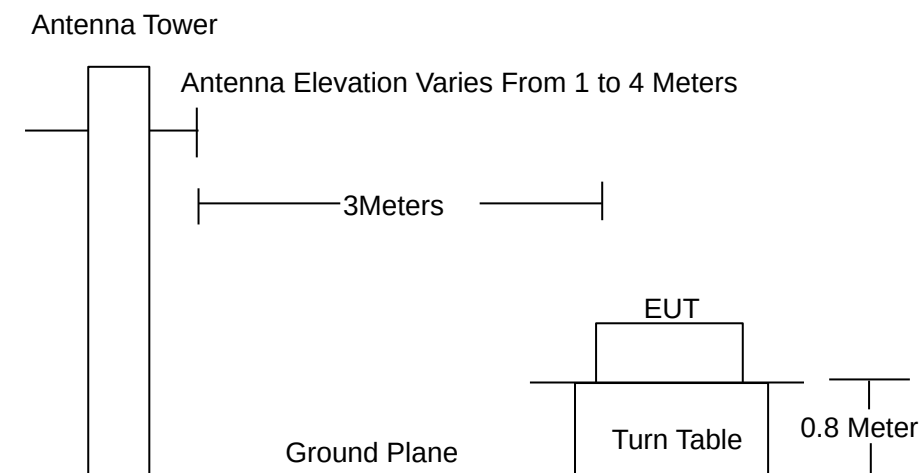
Notes:

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. Measurement Level = Reading level + Correct Factor
4. Only the worst test voltages were recorded is 120VAC.



4. RADIATION EMISSION TEST

4.1 Block Diagram of Test Setup



4.2 Test Standard

FCC PART 15 B

4.3 Radiation Limit

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dB μ V/m)
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

4.4 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 2.2.

4.5 Operating Condition of EUT

Same as conducted emission test, which is listed in Section 2.2 except the test set up replaced as Section 4.1.

4.6 Test Procedure

The EUT and its simulators are placed on a turned table that is 0.8 meter above the ground. The turned table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna that is mounted on the antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. In order to find the maximum emission levels, the interface cable must be manipulated according to FCC PART 15 B on radiated emission test.

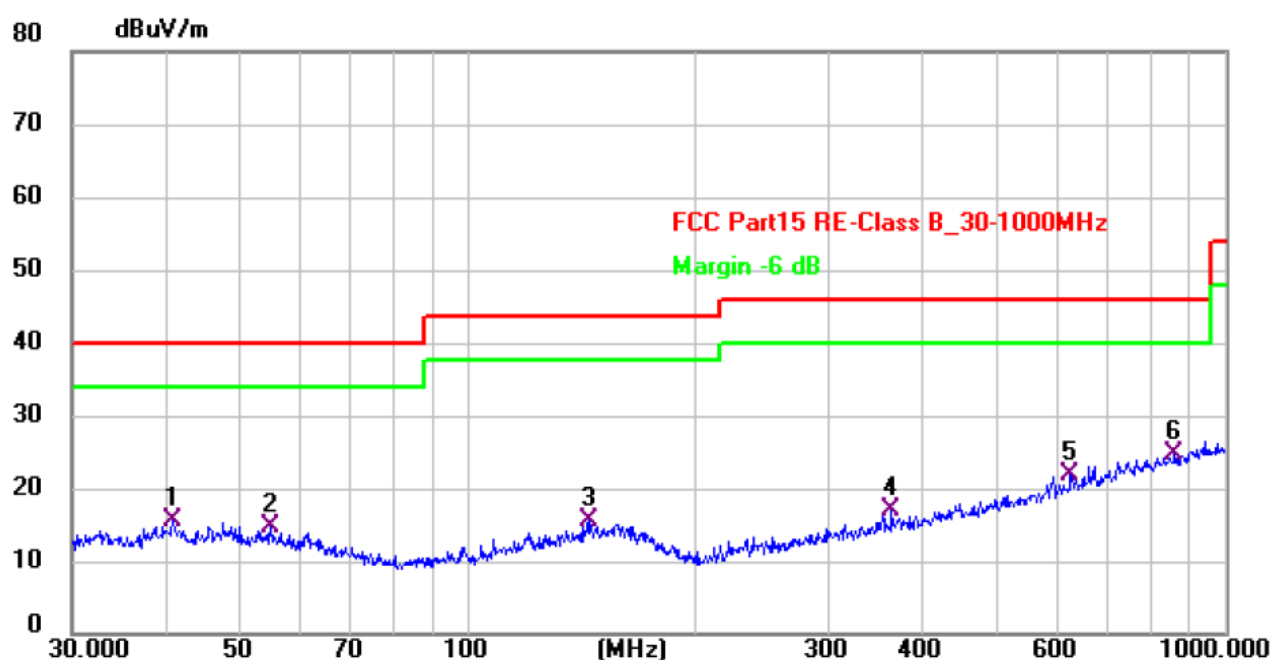


The bandwidth setting on the field strength meter (R&S Test Receiver ESCI) is set at 120KHz below 1GHz, set at 1MHz above 1GHz. The frequency range from 30MHz to 1000MHz is checked. The highest frequency of the internal sources of the EUT was below 108MHz, so the measurement was only made up to 1GHz.

4.7 Test Result

Between 30MHz – 1GHz:

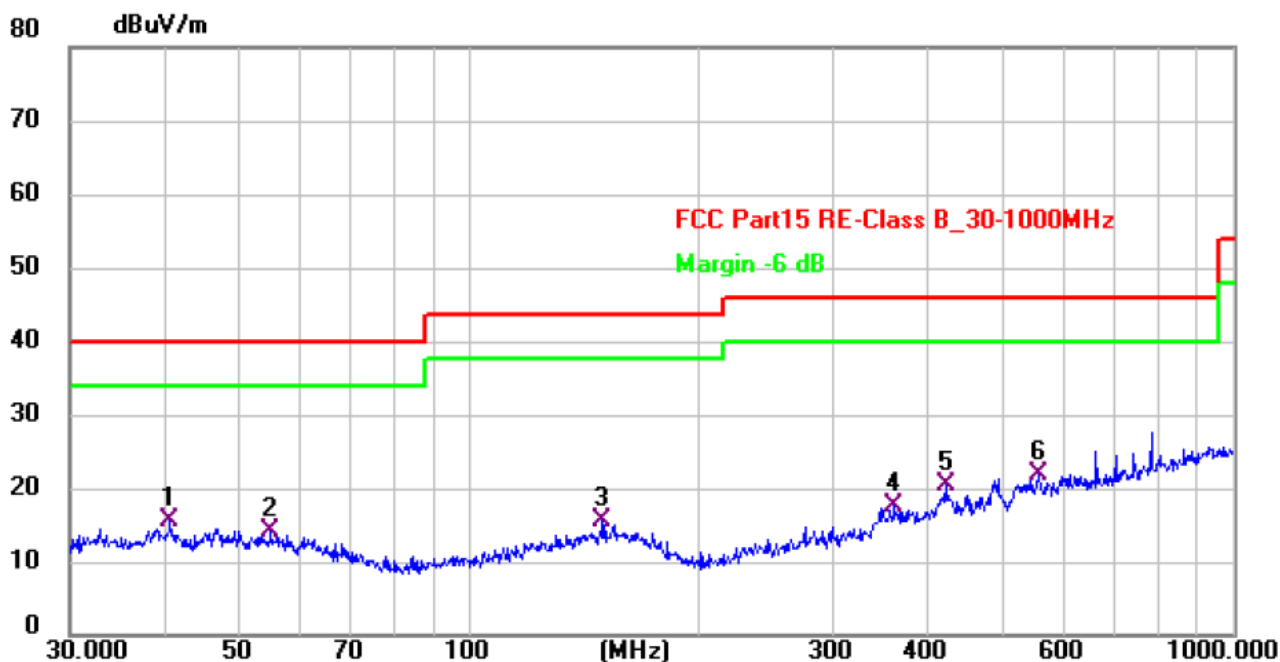
Radiation Emission Test Data			
Temperature:	26°C	Relative Humidity:	60%
Pressure:	1009hPa	Phase :	Horizontal
Test Voltage :	DC 3.7V	Test Mode:	Working



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	40.7016	28.87	-13.21	15.66	40.00	-24.34	QP
2	55.0274	28.90	-14.09	14.81	40.00	-25.19	QP
3	144.3348	29.12	-13.52	15.60	43.50	-27.90	QP
4	362.9844	30.58	-13.69	16.89	46.00	-29.11	QP
5	625.0780	30.80	-8.84	21.96	46.00	-24.04	QP
6 *	857.0247	30.65	-5.81	24.84	46.00	-21.16	QP



Radiation Emission Test Data			
Temperature:	26°C	Relative Humidity:	60%
Pressure:	1009hPa	Phase :	Vertical
Test Voltage :	DC 3.7V	Test Mode:	Working



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	40.5591	28.88	-13.20	15.68	40.00	-24.32	QP
2	55.0274	28.16	-14.09	14.07	40.00	-25.93	QP
3	149.4857	28.66	-13.19	15.47	43.50	-28.03	QP
4	360.4476	31.18	-13.73	17.45	46.00	-28.55	QP
5	420.5803	32.99	-12.60	20.39	46.00	-25.61	QP
6 *	556.7744	32.17	-10.30	21.87	46.00	-24.13	QP

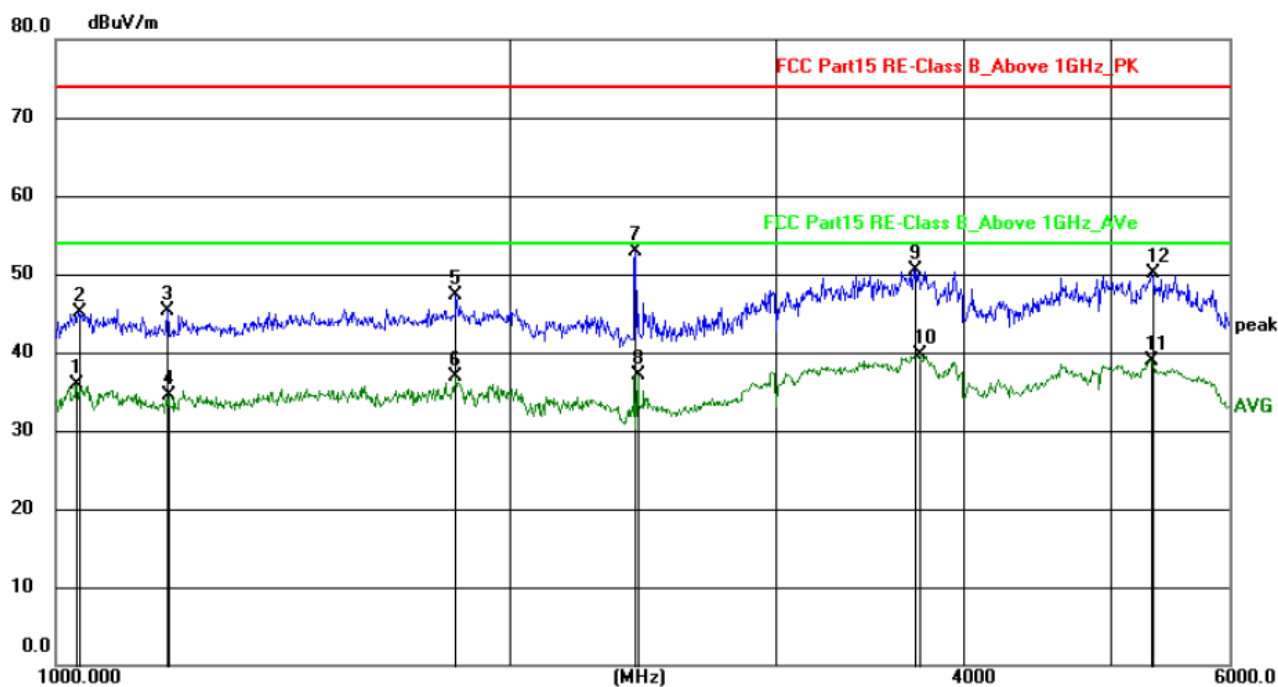
Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Only the worst test voltages were recorded is 120VAC.



Above 1GHz:

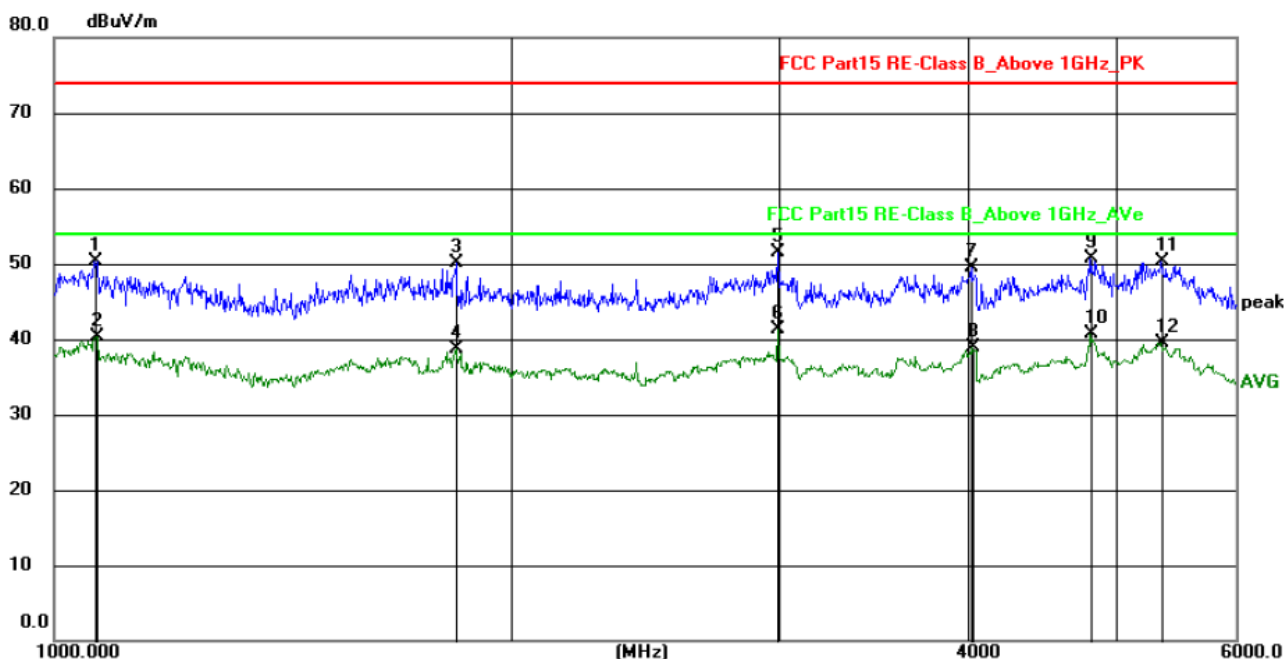
Radiation Emission Test Data			
Temperature:	26°C	Relative Humidity:	60%
Pressure:	1009hPa	Phase :	Horizontal
Test Voltage :	DC 3.7V	Test Mode:	Working



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1032.777	37.10	-1.24	35.86	54.00	-18.14	AVG
2	1034.630	46.41	-1.25	45.16	74.00	-28.84	peak
3	1185.562	47.27	-1.89	45.38	74.00	-28.62	peak
4	1187.688	36.49	-1.90	34.59	54.00	-19.41	AVG
5	1842.254	51.96	-4.73	47.23	74.00	-26.77	peak
6	1842.254	41.63	-4.73	36.90	54.00	-17.10	AVG
7	2423.297	57.64	-4.82	52.82	74.00	-21.18	peak
8	2431.997	41.91	-4.81	37.10	54.00	-16.90	AVG
9	3718.646	54.38	-3.82	50.56	74.00	-23.44	peak
10	3731.996	43.60	-3.82	39.78	54.00	-14.22	AVG
11	5321.268	42.12	-3.13	38.99	54.00	-15.01	AVG
12	5330.811	53.24	-3.12	50.12	74.00	-23.88	peak



Radiation Emission Test Data			
Temperature:	26°C	Relative Humidity:	60%
Pressure:	1009hPa	Phase :	Vertical
Test Voltage :	DC 3.7V	Test Mode:	Working



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1062.814	51.69	-1.36	50.33	74.00	-23.67	peak
2	1066.629	41.73	-1.38	40.35	54.00	-13.65	AVG
3	1838.956	54.86	-4.71	50.15	74.00	-23.85	peak
4	1838.956	43.50	-4.71	38.79	54.00	-15.21	AVG
5	2993.840	55.51	-4.03	51.48	74.00	-22.52	peak
6	2993.840	45.28	-4.03	41.25	54.00	-12.75	AVG
7	4016.478	53.23	-3.73	49.50	74.00	-24.50	peak
8	4023.681	42.53	-3.72	38.81	54.00	-15.19	AVG
9	4813.253	53.93	-3.18	50.75	74.00	-23.25	peak
10	4813.253	43.96	-3.18	40.78	54.00	-13.22	AVG
11	5359.543	53.39	-3.13	50.26	74.00	-23.74	peak
12	5359.543	42.72	-3.13	39.59	54.00	-14.41	AVG

Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Only the worst test voltages were recorded is 120VAC.
4. If peak below the average limit, the average emission was no test.
5. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



5.EUT TEST PHOTOGRAPHS

Reference to the appendix I for details.

6.EUT PHOTOGRAPHS

Reference to the appendix II for details.

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