



Report No.: ET-24050564E01

TEST REPORT

Applicant: DONGGUAN YI RUI ELECTRONIC TECHNOLOGY CO.,LTD
Address of Applicant: ROOM NO. 202, BUILDING 2, NO. 11, NIULING ROAD,
CHANGPING TOWN, DONGGUAN CITY, China
Manufacturer/Factory: DONGGUAN YI RUI ELECTRONIC TECHNOLOGY CO.,LTD
Address of
Manufacturer/Factory: ROOM NO. 202, BUILDING 2, NO. 11, NIULING ROAD,
CHANGPING TOWN, DONGGUAN CITY, China
Product Name: Power Up 15W Wireless Charger
Model No.: EAC-PU24, WXC-11
Trade Mark: N/A
FCC ID: 2A6HU-EACPU24
Applicable standards: FCC CFR Title 47 Part 15 Subpart C
Date of Test: May.23, 2024-May.31, 2024
Date of report issued: Jun.14, 2024

Remark:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full without prior written permission of the company.

The report would be invalid without specific stamp of test institute and the signatures of compiler and approver

Prepared By

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Report Revision History		
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1 Test Summary

Test Item	Section in CFR 47	Result	Test by
Antenna requirement	15.203	Pass	/
AC Power Line Conducted Emission	15.207	Pass	Yao zhou
Radiated Emission	15.209	Pass	Yao zhou
20dB Occupied Bandwidth	2.1049&15.215	Pass	Yvan Fan

Remarks:

1. Pass: The EUT complies with the essential requirements in the standard.
2. Test according to ANSI C63.10:2013
3. Note: Compliance determination rules
 - 1).The Compliance determination of test results does not take into account measurement uncertainty. Measurement results are determined based on regulatory limitations or requirements specified by the applicant/manufacturer. If measurement uncertainty is taken into account, the applicant/manufacturer will bear all possible risks of non-compliance.
 - 2).The measurement uncertainty please refer to each test result in the "Measurement Uncertainty

Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	30MHz-1000MHz	±4.32 dB	(1)
Radiated Emission	1GHz-18GHz	±4.656 dB	(1)
Radiated Emission	18GHz-40GHz	±4.59 dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	± 2.64 dB	(1)
Occupied Channel Bandwidth	/	±0.55%	(1)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

2 General Information

2.1 General Description of EUT

Product Name:	Power Up 15W Wireless Charger
Model(s) No.:	EAC-PU24, WXC-11
Model(s) of difference:	All the model are the same circuit and module, except the model names.
Test model:	EAC-PU24
Sample(s) Status:	Engineer sample
Hardware Version:	V1.0
Software Version:	V1.0
Operation Frequency:	115~205KHz
Modulation type:	ASK
Antenna Type:	Induction coil Antenna
Power supply:	Input: DC 5V/9V from adapter, Output: 5W/7.5W/10W/15W(MAX)

Operation channel list

Channel	Frequency
00	127.5 KHz
/	/
/	/

Test channel

Channel	Frequency
00	127.5 KHz
/	/
/	/

2.2 Test mode

Pretest mode	Description
Mode 1	Adapter+empty load
Mode 2	Adapter+half load
Mode 3	Adapter+full load
For conducted emission	
Final test mode	Adapter+full load
For Radiated emission	
Final test mode	Adapter+full load

2.3 Description of Support Units

Equipment	Model	S/N	Manufacturer
Adapter	MDY-11-EM	/	Xiaomi
Load	/	/	/

2.4 Test Facility

Test laboratory:	Shenzhen ETR Standard Technology Co., Ltd.
CNAS Registration Number:	L11864
A2LA Certificate Number:	6640.01
FCC Designation Number:	CN1326
FCC Test Firm Registration:	183064
Laboratory location:	No.103, No.10, Phase I, Zone 3, Xinxing Industrial Park, Xinhe, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	+86 755 85259392

2.5 Additional Instructions

Test Software	/
Power level setup	Default

3 Test Instruments list

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	EMI Test Receiver	Rohde&schwarz	ESC17	100605	2024.3.12	2025.3.11
2	EMI Test Receiver	Rohde&schwarz	ESC13	102696	2024.3.12	2025.3.11
3	Loop Antenna	schwarabeck	FMZB 1519 B	FMZB 1519 B	2024.3.19	2026.3.18
4	Broadband antenna	schwarabeck	VULB9168	1064	2024.3.19	2026.3.18
5	Horn antenna	schwarabeck	BBHA9120D	9120D-1145	2024.3.19	2026.3.18
6	amplifier	EMtrace	RP01A	50117	2024.3.12	2025.3.11
7	Artificial power network	schwarabeck	NSLK8127	8127483	2024.3.12	2025.3.11
8	Artificial power network	ETS	3186/2NM	1132	2024.3.12	2025.3.11
9	10dB attenuator	HUBER+SUHNER	10dB	/	2024.3.12	2025.3.11
10	amplifier	Space-Dtronics	EWLAN0118 G-P40	19113001	2024.3.12	2025.3.11
11	Filter	Xingbo	XBLBQ-GTA19	210410-3-1	2024.3.12	2025.3.11
12	Spectrum analyzer	KEYSIGHT	N9020A	MY55370280	2024.3.12	2025.3.11
13	Power detector box	MWRFTtest	MW100-PSB	MW201020JYT	2024.3.12	2025.3.11

Note: the calibration interval of the above test instruments is 12 or 24 months and the calibrations are traceable to international system unit (SI).

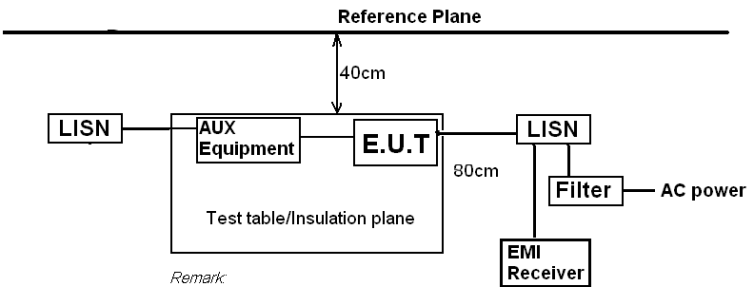
Software Name	Manufacturer	Model	Version
Conducted test software	EZ-EMC	Farad	Ver.EMC-CON 3A1.1
Radiated test software	EZ-EMC	Farad	Ver.FA-03A2 RE

4 Test results and Measurement Data

4.1 Antenna requirement

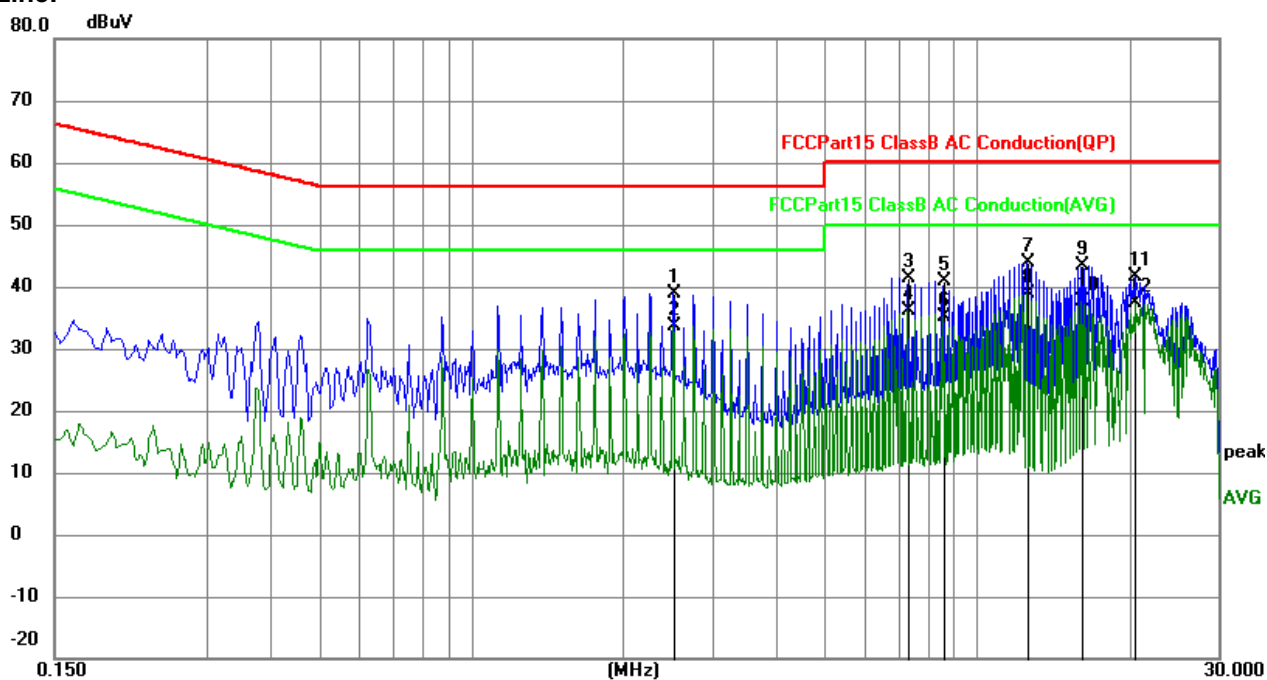
Standard requirement:
FCC part 15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, 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.
EUT Antenna:
The EUT antenna is Coil Antenna. It comply with the standard requirement. In case of replacement of broken antenna the same antenna type must be used.

4.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207,					
Test Method:	ANSI C63.10:2013					
Test Frequency Range:	150KHz to 30MHz					
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto					
Limit:	Frequency range (MHz)		Limit (dBuV)			* Decreases with the logarithm of the frequency.
			Quasi-peak		Average	
	0.15-0.5		66 to 56*		56 to 46*	
	0.5-5		56		46	
	5-30		60		50	
Test setup:	<div><p style="text-align: center;">Reference Plane</p><p>Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p></div>					
Test procedure:	<div><div>1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.</div><div>2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</div><div>3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.</div></div>					
Test Instruments:	Refer to section 3.0 for details					
Test mode:	Refer to section 2.2 for details					
Test environment:	Temp.:	25.4 °C	Humid.:	57%	Press.:	1012mbar
Test voltage:	AC 120V/60Hz					

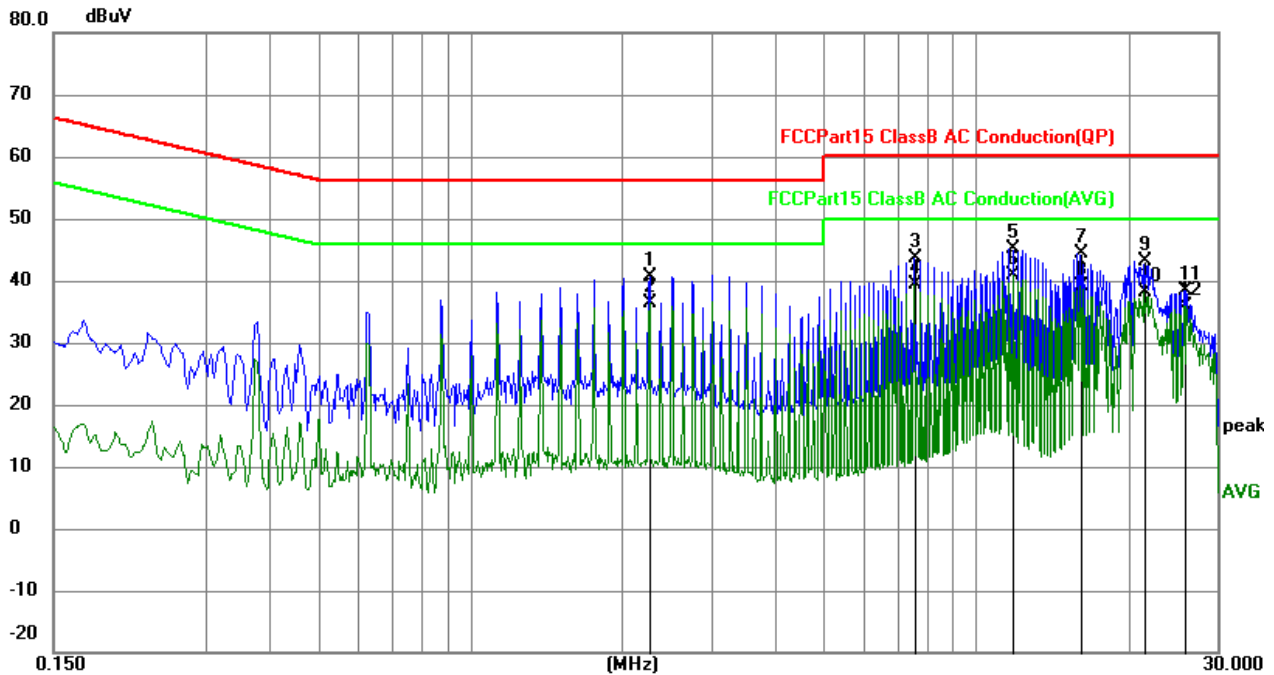
Measurement data

Line:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	2.5125	29.09	9.85	38.94	56.00	-17.06	QP
2	2.5125	23.86	9.85	33.71	46.00	-12.29	AVG
3	7.2915	31.58	9.83	41.41	60.00	-18.59	QP
4	7.2915	26.23	9.83	36.06	50.00	-13.94	AVG
5	8.5470	31.03	9.84	40.87	60.00	-19.13	QP
6	8.5470	25.18	9.84	35.02	50.00	-14.98	AVG
7	12.5700	34.07	9.80	43.87	60.00	-16.13	QP
8	12.5700	29.05	9.80	38.85	50.00	-11.15	AVG
9	16.0889	33.68	9.74	43.42	60.00	-16.58	QP
10	16.0889	27.90	9.74	37.64	50.00	-12.36	AVG
11	20.4900	31.90	9.65	41.55	60.00	-18.45	QP
12	20.4900	27.73	9.65	37.38	50.00	-12.62	AVG

Neutral:

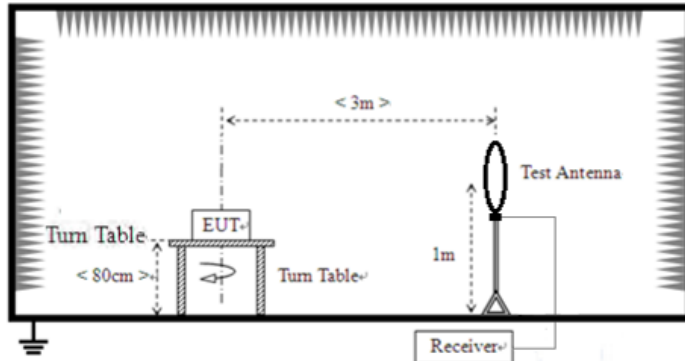
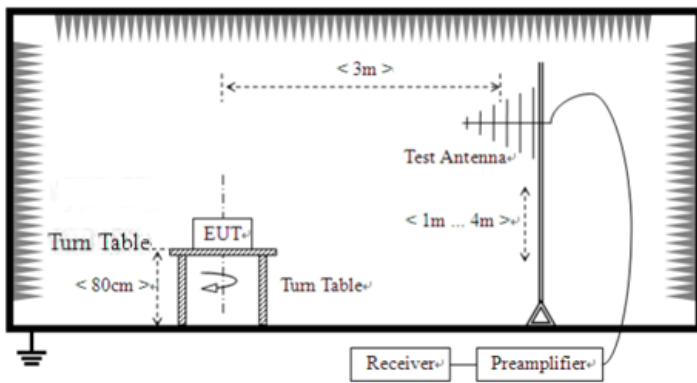


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	2.2650	30.70	9.85	40.55	56.00	-15.45	QP
2	2.2650	26.60	9.85	36.45	46.00	-9.55	AVG
3	7.5435	33.79	9.84	43.63	60.00	-16.37	QP
4	7.5435	29.57	9.84	39.41	50.00	-10.59	AVG
5	11.8185	35.34	9.81	45.15	60.00	-14.85	QP
6	11.8185	31.03	9.81	40.84	50.00	-9.16	AVG
7	16.0935	34.64	9.74	44.38	60.00	-15.62	QP
8	16.0935	29.36	9.74	39.10	50.00	-10.90	AVG
9	21.4980	33.43	9.64	43.07	60.00	-16.93	QP
10	21.4980	28.37	9.64	38.01	50.00	-11.99	AVG
11	25.7730	28.82	9.57	38.39	60.00	-21.61	QP
12	25.7730	26.37	9.57	35.94	50.00	-14.06	AVG

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 = Receiver Read level + LISN Factor + Cable Loss
4. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.

4.3 Radiated Emission measurement

Test Requirement:	FCC Part15 C Section 15.209 & 15.249 (a) &(d).				
Test Method:	ANSI C63.10: 2013				
Test Frequency Range:	9kHz to 30MHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	9kHz-150kHz	Quasi-peak	200Hz	300Hz	Quasi-peak Value
	150kHz-30MHz	Quasi-peak	9kHz	10kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
Limit:	Frequency	Limit (uV/m)		Remark	
	0.009MHz-0.490MHz	2400/F(kHz) @300m		Quasi-peak Value	
	0.490MHz-1.705MHz	24000/F(kHz) @30m		Quasi-peak Value	
	1.705MHz-30.0MHz	30 @30m		Quasi-peak Value	
	30MHz-88MHz	100 @3m		Quasi-peak Value	
	88MHz-216MHz	150 @3m		Quasi-peak Value	
	216MHz-960MHz	200 @3m		Quasi-peak Value	
	960MHz-1GHz	500 @3m		Quasi-peak Value	
Test setup:	<p>For radiated emissions from 9kHz to 30MHz</p>  <p>For radiated emissions from 30MHz to1GHz</p> 				
Test Procedure:	<p>1. The EUT was placed on the top of a rotating table 0.8m above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>2. The EUT was set 3 meters away from the interference-receiving</p>				

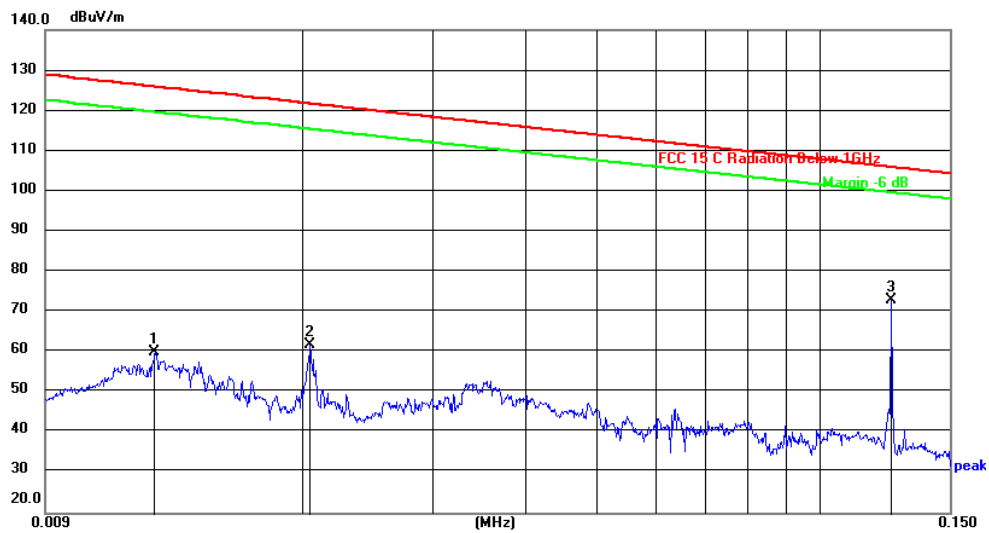
	<p>antenna, which was mounted on the top of a variable-height antenna tower.</p> <p>3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</p> <p>4. 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 rota table was turned from 0 degrees to 360 degrees to find the maximum reading.</p> <p>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</p> <p>6. 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.</p>					
Test Instruments:	Refer to section 3.0 for details					
Test mode:	Refer to section 2.2 for details					
Test environment:	Temp.:	23.3 °C	Humid.:	54%	Press.:	1012mbar
Test voltage:	DC 9V					
Test results:	Pass					

■ Measurement data:

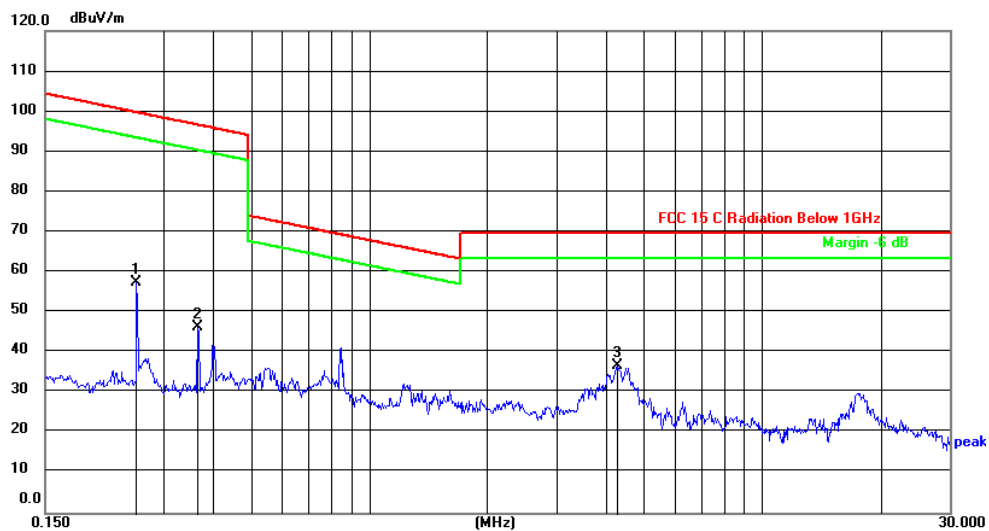
Note: Limit dBuV/m @3m = Limit dBuV/m @300m+ 80

Limit dBuV/m @3m = Limit dBuV/m @30m + 40

Below 30MHz



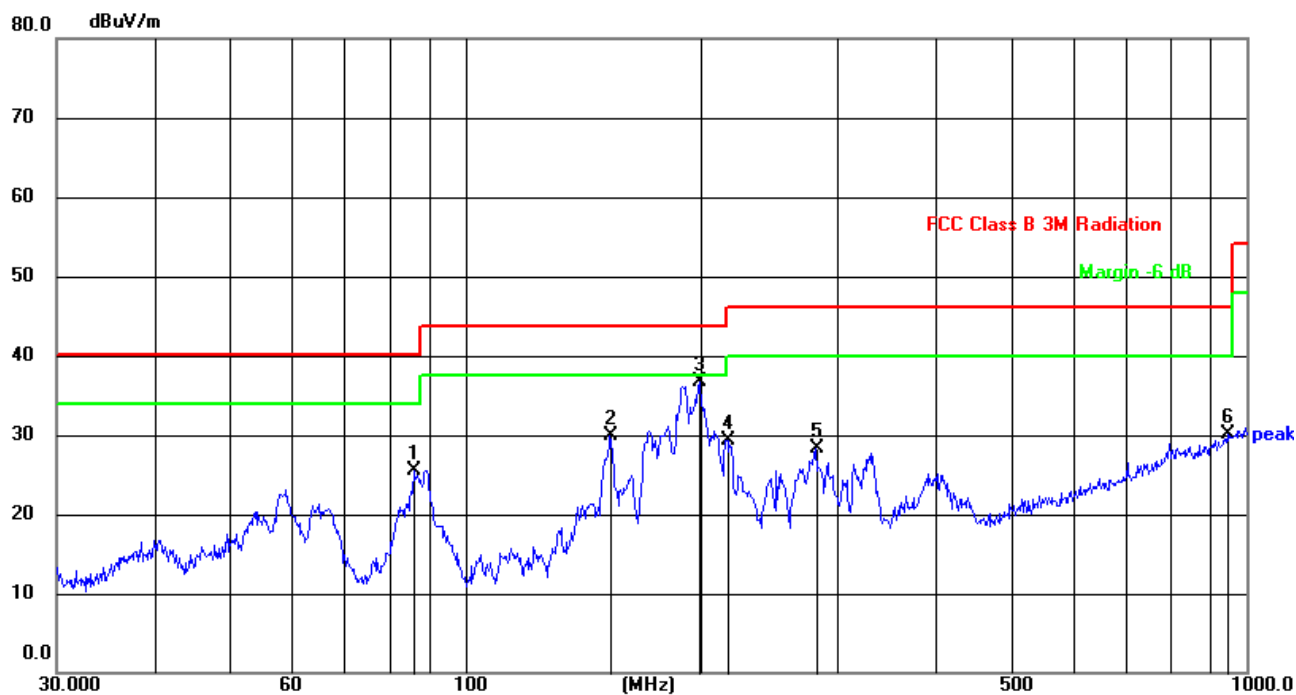
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0126	86.03	-25.88	60.15	125.60	-65.45	peak
2	0.0205	87.74	-25.88	61.86	121.37	-59.51	peak
3	0.1247	98.79	-25.90	72.89	105.69	-32.80	peak



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.2560	37.73	19.80	57.53	99.44	-41.91	peak
2	0.3653	26.48	19.77	46.25	96.35	-50.10	peak
3	4.2918	16.59	20.17	36.76	69.50	-32.74	peak

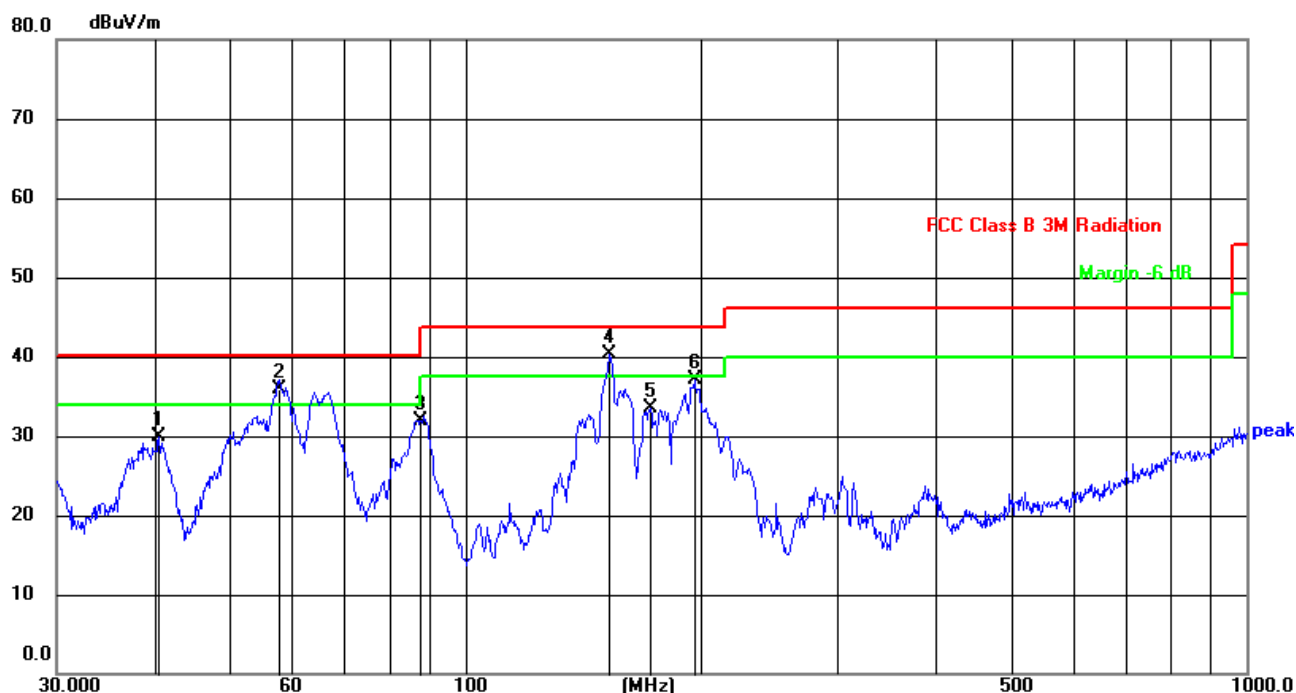
Below 1GHz

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	85.8984	51.10	-25.68	25.42	40.00	-14.58	QP
2	153.2004	50.45	-20.52	29.93	43.50	-13.57	QP
3	199.2855	60.10	-23.36	36.74	43.50	-6.76	QP
4	216.0240	52.87	-23.53	29.34	46.00	-16.66	QP
5	281.0075	49.56	-21.29	28.27	46.00	-17.73	QP
6	945.4399	34.00	-3.96	30.04	46.00	-15.96	QP

Vertical:

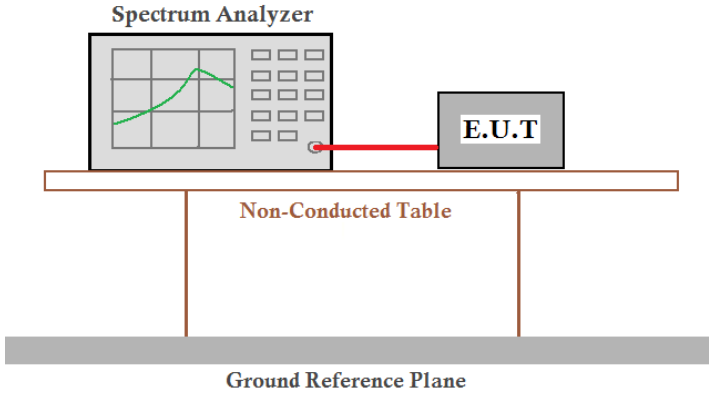


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	40.5591	50.81	-20.96	29.85	40.00	-10.15	QP
2	57.7962	58.28	-22.38	35.90	40.00	-4.10	QP
3	87.7246	57.52	-25.56	31.96	40.00	-8.04	QP
4	153.2003	60.83	-20.52	40.31	43.50	-3.19	QP
5	172.5987	54.87	-21.36	33.51	43.50	-9.99	QP
6	196.5098	60.41	-23.29	37.12	43.50	-6.38	QP

Remark:

1. Final Level = Receiver Read level + Correction Factor (Antenna Factor + Cable Loss – Preamplifier Factor)
2. The emission levels of other frequencies are more than 20 dB below the limit and not show in test report.
3. “*”, means this data is the too weak instrument of signal is unable to test.

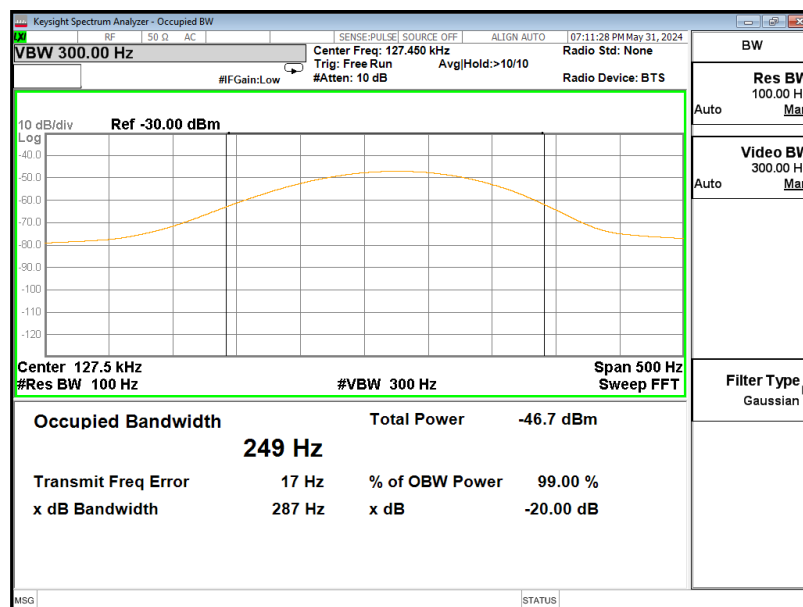
4.4 20dB Bandwidth

Test Requirement:	FCC Part15 C Section 15.215					
Test Method:	ANSI C63.10:2013					
Limit:	Only appliance report					
Test setup:						
Test Instruments:	Refer to section 3.0 for details					
Test mode:	Refer to section 2.2 for details					
Test environment:	Temp.:	25.6 °C	Humid.:	55%	Press.:	1012mbar
Test voltage:	DC9V					
Test Mode:	TX					

Measurement Data

Test frequency (KHz)	20dB Bandwidth (KHz)
127.5	0.287

Test plot as follows:



5 Test Setup Photo

Reference to the **appendix I** for details.

6 EUT Constructional Details

Reference to the **appendix II** for details.

-----End-----