FCC TEST REPORT

Client Name	:	Forward Industries
Address	:	105 South Narcissus Avenue, Suite 412, West Palm Beach, FL 33401, USA
Product Name	:	Side Table
Date	:	Jul. 28, 2020

Shenzhen Anbotek Compliance Laboratory Limited

Contents

TEST REPORT

Applicant	:	Forward Industries
Manufacturer	:	DG BLUEMAN TECHNOLOGY CO., LTD.
Product Name	:	Side Table
Model No.	:	KBBM1115, KBBM1116, KBBM1117
Trade Mark	:	N.A.
Rating(s)	:	Input: DC 12V, 2A (via adapter input: AC 100-240V, 50/60Hz; output: DC 12V, 2A) Wireless Output: 5W Max.
Test Standard(s)	**:**	**FCC Part15 Subpart C 2019, Paragraph 15.209**
Test Method(s)	**:**	**ANSI C63.10: 2013**

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 15 Subpart C requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt	Jul. 02, 2020
Date of Test	Jul. 02~17, 2020
Prepared By	(Engineer / Dolly Mo)
Reviewer	(Supervisor / Bibo Zhang)
Approved & Authorized Signer	(Manager / Tom Chen)

1. General Information

1.1. Client Information

Applicant	:	Forward Industries
Address	:	105 South Narcissus Avenue, Suite 412, West Palm Beach, FL 33401, USA
Manufacturer	:	DG BLUEMAN TECHNOLOGY CO., LTD.
Address	:	Room 101, No.5, Shunxing Five Road, Dajingtou, Dalang Town, Dongguan City, Guangdong Province
Factory	:	DG BLUEMAN TECHNOLOGY CO., LTD.
Address	:	Room 101, No.5, Shunxing Five Road, Dajingtou, Dalang Town, Dongguan City, Guangdong Province

1.2. Description of Device (EUT)

Product Name	:	Side Table	
Model No.	:	KBBM1115, KBBM1116, KBBM1117 (All samples are with same inside structure and PCBA except the appearance color, so we prepare "KBBM1117" for test only).	
Trade Mark	:	N.A.	
Test Power Supply	:	AC 120V, 60Hz for adapter / AC 240V, 60Hz for adapter	
Test Sample No.	:	1-2-1(Normal Sample), 1-2-1(Engineering Sample)	
Product Description	:	Operation Frequency:	BT: 2402~2480MHz Wireless charger: 110.1-205KHz
		Transfer Rate:	BT: 1/2/3 Mbits/s
		Number of Channel:	BT: 79 Channels
		Modulation Type:	BT: GFSK, π/4-DQPSK, 8-DPSK Wireless charger: ASK
		Antenna Type:	BT: PCB Antenna Wireless charger: Inductive loop coil Antenna
		Antenna Gain(Peak):	BT: 0.5 dBi Wireless charger: 0 dBi
Remark: 1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. 2) This report is for Wireless charger module.			

1.3. Auxiliary Equipment Used During Test

Adapter A	:	Manufacturer: DONG GUAN HP-POWER TECHNOLOGY., LIMTED
		M/N: HP24E-1202000-AU Input: 100-240V~ 50/60Hz, 0.8A Output: DC 12V, 2000mA
Adapter B	:	Manufacturer: SHENZHEN FUJIA APPLIANCE CO., LTD.
		M/N: FJ-SW126G1202000U Input: 100-240V~ 50/60Hz, 0.6A Max Output: DC 12V, 2000mA
Adapter C	:	Manufacturer: Dong Guan City GangQi Electronic Co., Ltd.
		M/N: GQ24-120200-AU Input: 100-240V~ 50/60Hz, 1.0A Max Output: DC 12V, 2.0A

1.4. Description of Test Modes

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 configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Full load, Wireless charger module

For Conducted Emission	
Final Test Mode	Description
Mode 1	Full load, Wireless charger module

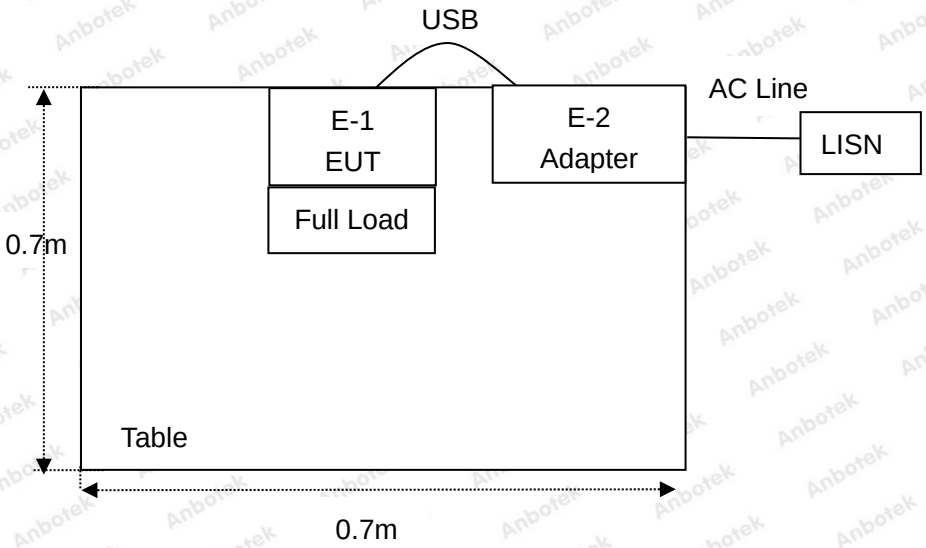
For Radiated Emission	
Final Test Mode	Description
Mode 1	Full load, Wireless charger module

Note: (1)Test channel is 0.1360MHz.

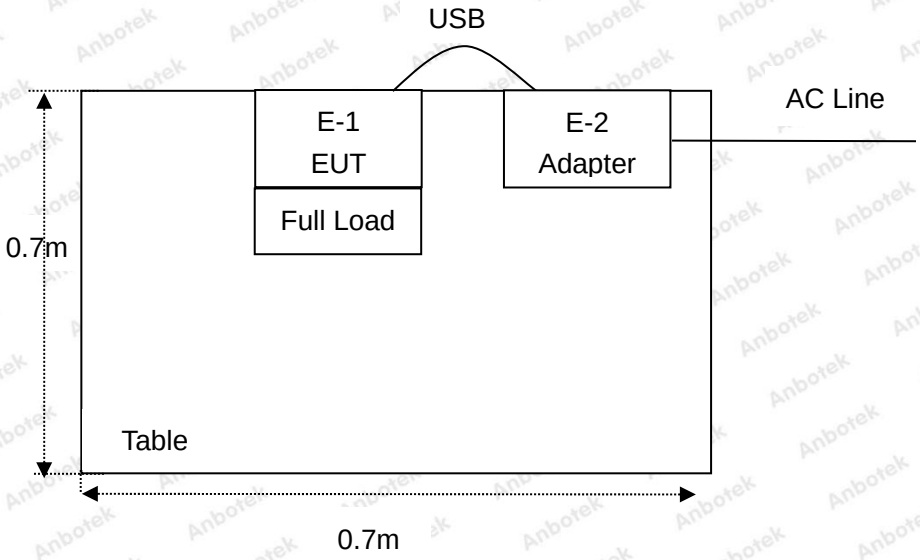
(2)All the situation(full load, half load and empty load) has been tested,only the worst situation (full load) was recorded in the report.

1.5. Description Of Test Setup

CE



RE



1.6. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	100055	Nov. 04, 2019	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESPI3	101604	Nov. 04, 2019	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Nov. 04, 2019	1 Year
4.	MAX Spectrum Analysis	Agilent	N9020A	MY51170037	Nov. 04, 2019	1 Year
5.	Preamplifier	SKET Electronic	BK1G18G30D	KD17503	Nov. 04, 2019	1 Year
6.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Nov. 01, 2019	1 Year
7.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Nov. 01, 2019	1 Year
8.	Loop Antenna	Schwarzbeck	FMZB1519B	00053	Nov. 01, 2019	1 Year
9.	Horn Antenna	A-INFO	LB-180400-KF	J211060628	Nov. 01, 2019	1 Year
10.	Pre-amplifier	SONOMA	310N	186860	Nov. 04, 2019	1 Year
11.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
12.	RF Test Control System	YIHENG	YH3000	2017430	Nov. 04, 2019	1 Year
13.	Power Sensor	DAER	RPR3006W	15I00041SN045	Nov. 04, 2019	1 Year
14.	Power Sensor	DAER	RPR3006W	15I00041SN046	Nov. 04, 2019	1 Year
15.	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	Nov. 04, 2019	1 Year
16.	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	Nov. 04, 2019	1 Year
17.	Signal Generator	Agilent	E4421B	MY41000743	Nov. 04, 2019	1 Year
18.	DC Power Supply	LW	TPR-6420D	374470	Nov. 04, 2019	1 Year
19.	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-KHWS80B	N/A	Nov. 04, 2019	1 Year

1.7. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 3.9 dB (Horizontal)
		Ur = 3.8 dB (Vertical)
Conduction Uncertainty	:	Uc = 3.4 dB

1.8. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 184111

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registed and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 184111, September 27, 2019.

ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A, March 07, 2019.

Test Location

Shenzhen Anbotek Compliance Laboratory Limited.
1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518102

2. Summary of Test Results

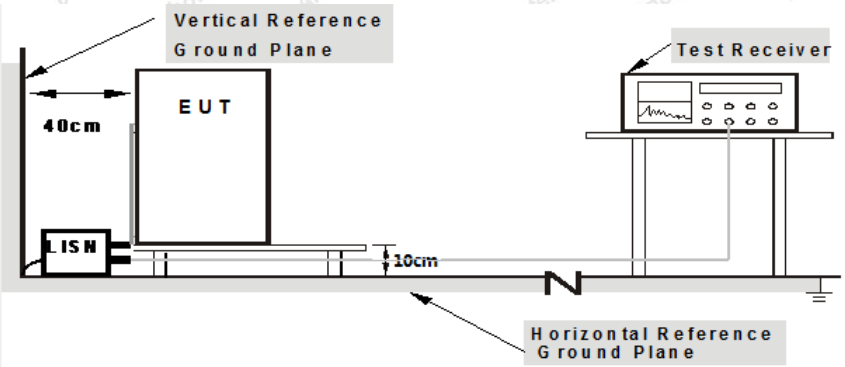
Standard Section	Test Item	Result
FCC Part 15, Paragraph 15.207	Conducted Emission Test	PASS
FCC Part 15, Paragraph 15.209(a)(f)	Spurious Emission	PASS
Part 15.203	Antenna Requirement	PASS

3. Conducted Emission Test

3.1. Test Standard and Limit

Test Standard	FCC Part15 Section 15.207		
Test Limit	Frequency	Maximum RF Line Voltage (dBuV)	
		Quasi-peak Level	Average Level
	150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
	500kHz~5MHz	56	46
	5MHz~30MHz	60	50
Remark: (1) *Decreasing linearly with logarithm of the frequency. (2) The lower limit shall apply at the transition frequency.			

3.2. Test Setup



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

3.3. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.10-2013 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

3.4. Test Data

Please to see the following pages

Conducted Emission Test Data

Test Site: 1# Shielded Room

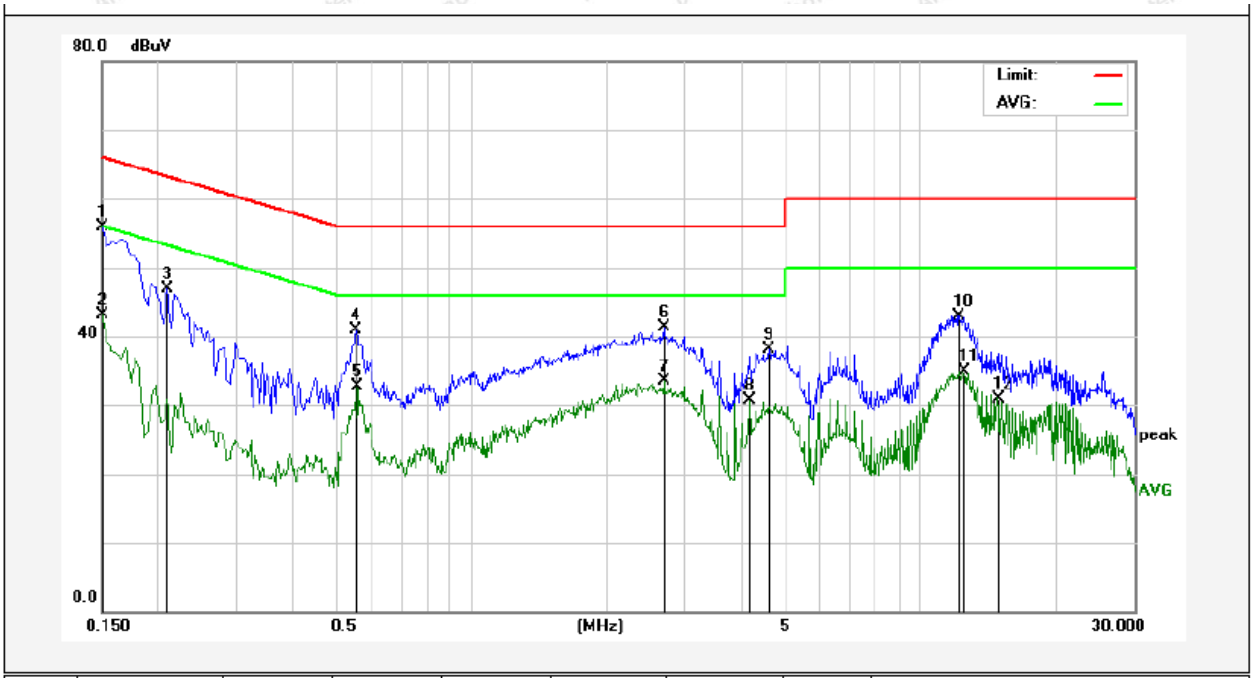
Operating Condition: Mode 1

Test Specification: AC 120V, 60Hz for adapter

Comment: Live Line

Tem.: 22.5℃ Hum.: 52%

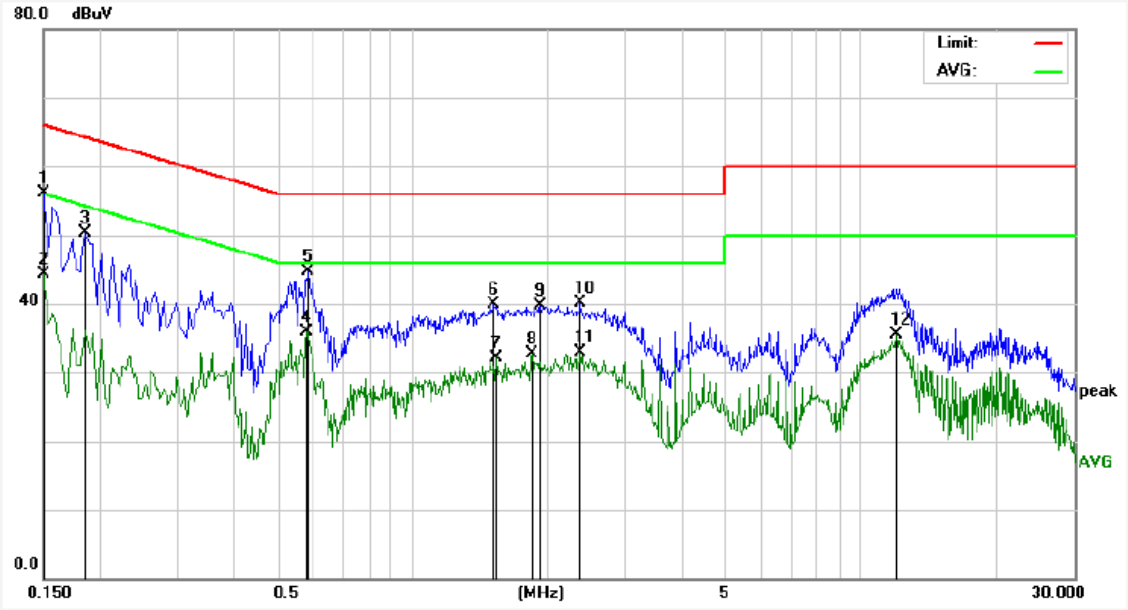
Note: Adapter: GQ24-120200-AU



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1500	36.07	19.90	55.97	65.99	-10.02	QP	
2	0.1500	23.12	19.90	43.02	55.99	-12.97	AVG	
3	0.2100	27.07	19.90	46.97	63.20	-16.23	QP	
4	0.5540	20.83	20.00	40.83	56.00	-15.17	QP	
5	0.5580	12.69	20.00	32.69	46.00	-13.31	AVG	
6	2.6820	21.08	20.15	41.23	56.00	-14.77	QP	
7	2.6820	13.31	20.15	33.46	46.00	-12.54	AVG	
8	4.1700	10.54	20.18	30.72	46.00	-15.28	AVG	
9	4.6180	17.88	20.20	38.08	56.00	-17.92	QP	
10	12.2220	22.63	20.30	42.93	60.00	-17.07	QP	
11	12.5140	14.69	20.30	34.99	50.00	-15.01	AVG	
12	14.9060	10.74	20.26	31.00	50.00	-19.00	AVG	

Conducted Emission Test Data

Test Site: 1# Shielded Room
Operating Condition: Mode 1
Test Specification: AC 120V, 60Hz for adapter
Comment: Neutral Line
Tem.: 22.5℃ Hum.: 52%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1500	36.23	19.90	56.13	65.99	-9.86	QP	
2	0.1500	24.33	19.90	44.23	55.99	-11.76	AVG	
3	0.1860	30.49	19.90	50.39	64.21	-13.82	QP	
4	0.5820	15.94	20.00	35.94	46.00	-10.06	AVG	
5	0.5860	24.69	20.01	44.70	56.00	-11.30	QP	
6	1.5220	19.80	20.13	39.93	56.00	-16.07	QP	
7	1.5380	11.98	20.13	32.11	46.00	-13.89	AVG	
8	1.8540	12.54	20.14	32.68	46.00	-13.32	AVG	
9	1.9340	19.57	20.14	39.71	56.00	-16.29	QP	
10	2.3820	19.89	20.15	40.04	56.00	-15.96	QP	
11	2.3820	12.75	20.15	32.90	46.00	-13.10	AVG	
12	12.0540	15.22	20.31	35.53	50.00	-14.47	AVG	

Conducted Emission Test Data

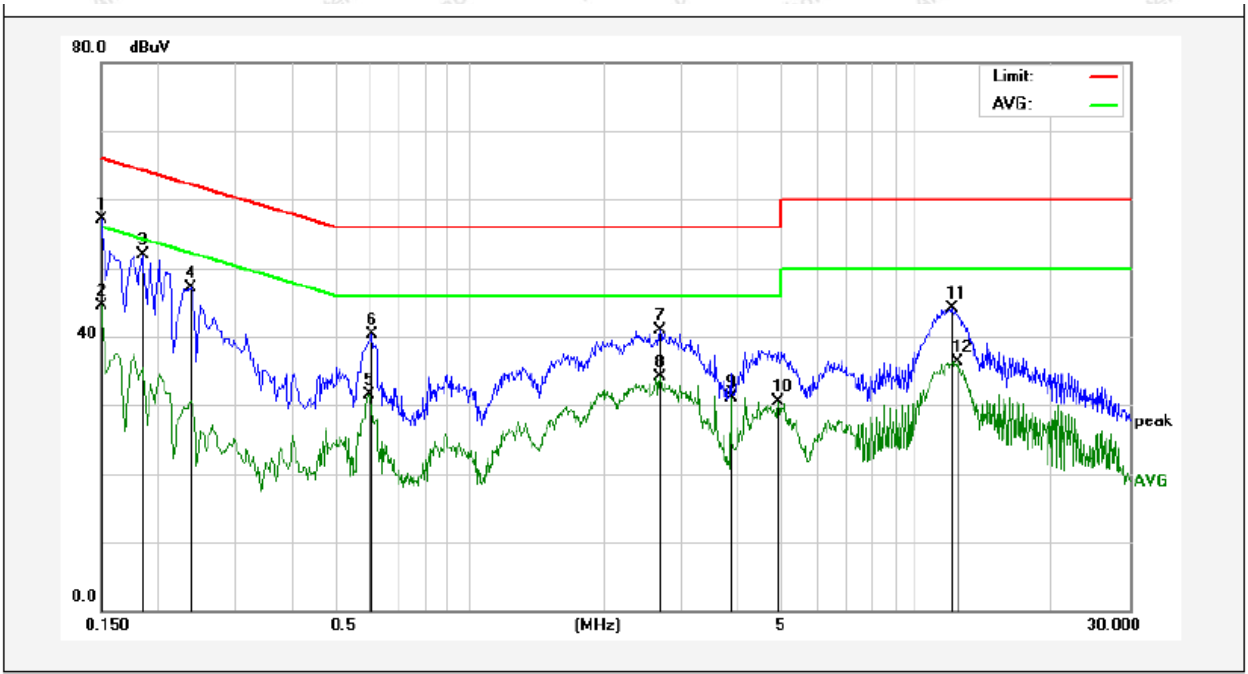
Test Site: 1# Shielded Room

Operating Condition: Mode 1

Test Specification: AC 240V, 60Hz for adapter

Comment: Live Line

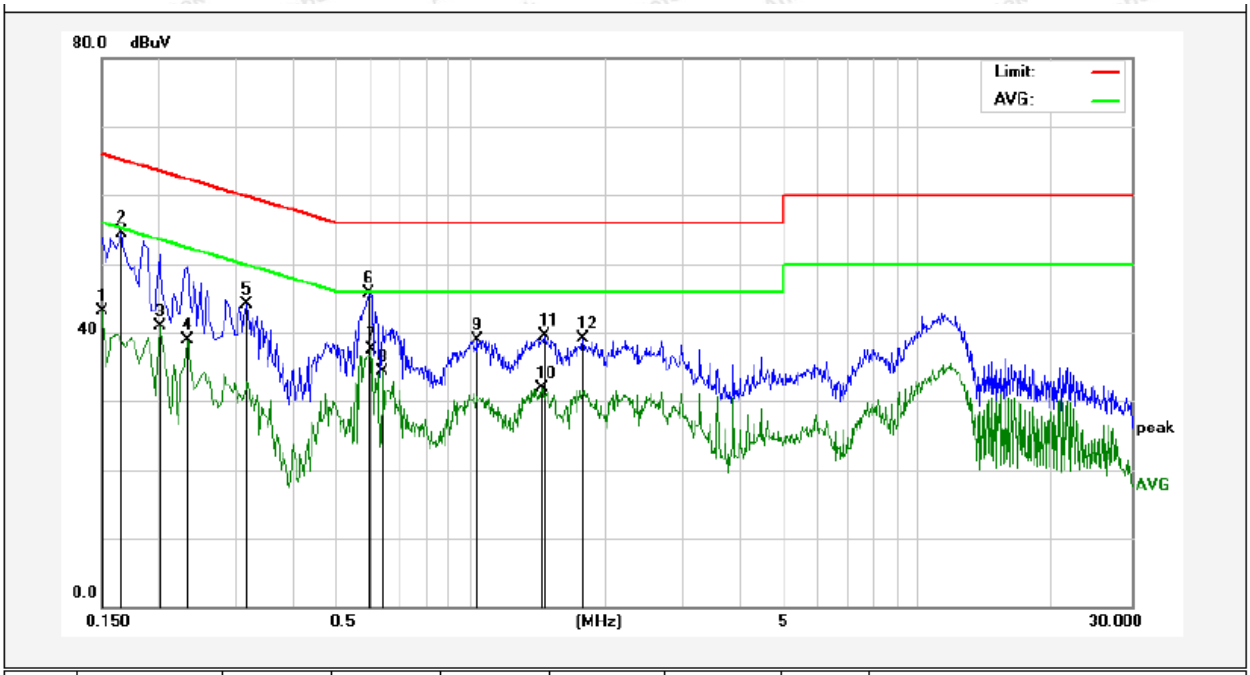
Tem.: 22.5℃ Hum.: 52%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1500	37.16	19.90	57.06	65.99	-8.93	QP	
2	0.1500	24.53	19.90	44.43	55.99	-11.56	AVG	
3	0.1860	32.09	19.90	51.99	64.21	-12.22	QP	
4	0.2380	27.18	19.89	47.07	62.16	-15.09	QP	
5	0.5940	11.53	20.01	31.54	46.00	-14.46	AVG	
6	0.6060	20.24	20.01	40.25	56.00	-15.75	QP	
7	2.6700	20.74	20.15	40.89	56.00	-15.11	QP	
8	2.6700	13.87	20.15	34.02	46.00	-11.98	AVG	
9	3.8580	11.00	20.18	31.18	46.00	-14.82	AVG	
10	4.9140	10.24	20.20	30.44	46.00	-15.56	AVG	
11	12.0580	23.71	20.31	44.02	60.00	-15.98	QP	
12	12.3220	16.02	20.30	36.32	50.00	-13.68	AVG	

Conducted Emission Test Data

Test Site: 1# Shielded Room
Operating Condition: Mode 1
Test Specification: AC 240V, 60Hz for adapter
Comment: Neutral Line
Tem.: 22.5℃ Hum.: 52%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1500	23.26	19.90	43.16	55.99	-12.83	AVG	
2	0.1660	34.53	19.90	54.43	65.15	-10.72	QP	
3	0.2020	21.08	19.90	40.98	53.52	-12.54	AVG	
4	0.2340	18.94	19.89	38.83	52.30	-13.47	AVG	
5	0.3180	24.16	19.90	44.06	59.76	-15.70	QP	
6	0.5940	25.77	20.01	45.78	56.00	-10.22	QP	
7	0.6020	17.47	20.01	37.48	46.00	-8.52	AVG	
8	0.6380	14.31	20.02	34.33	46.00	-11.67	AVG	
9	1.0420	18.87	20.12	38.99	56.00	-17.01	QP	
10	1.4460	11.76	20.13	31.89	46.00	-14.11	AVG	
11	1.4660	19.28	20.13	39.41	56.00	-16.59	QP	
12	1.7900	18.90	20.14	39.04	56.00	-16.96	QP	

Conducted Emission Test Data

Test Site: 1# Shielded Room

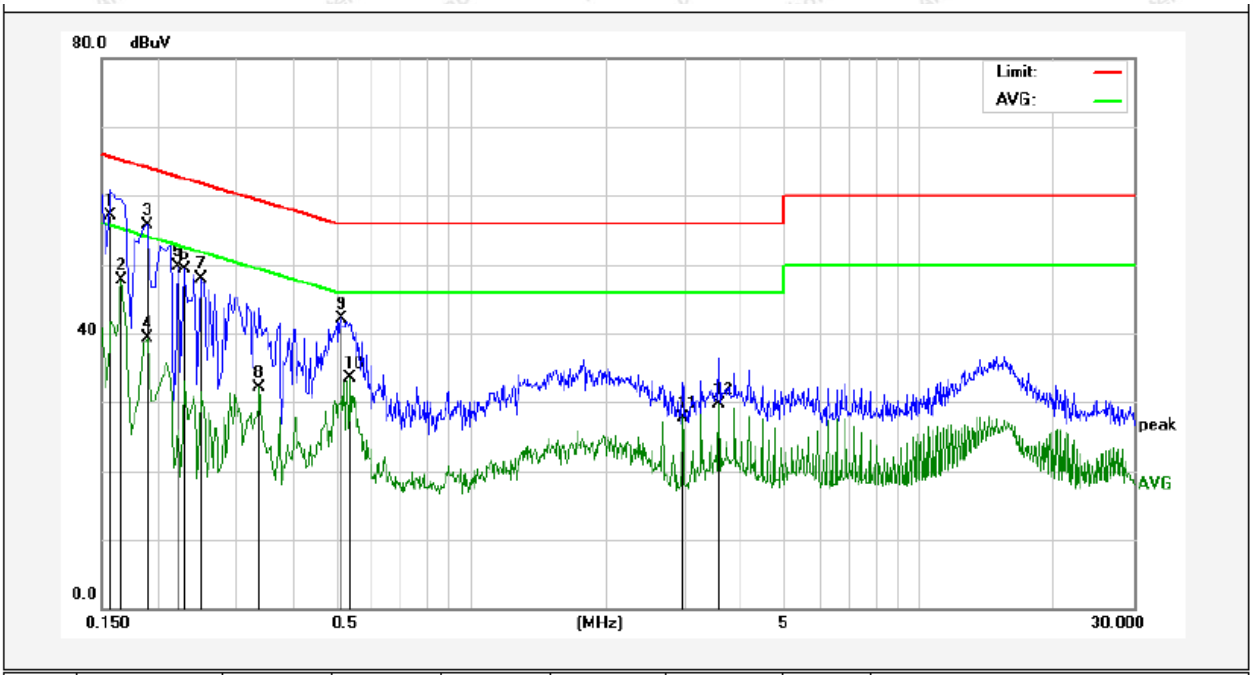
Operating Condition: Mode 1

Test Specification: AC 120V, 60Hz for adapter

Comment: Live Line

Tem.: 22.5℃ Hum.: 52%

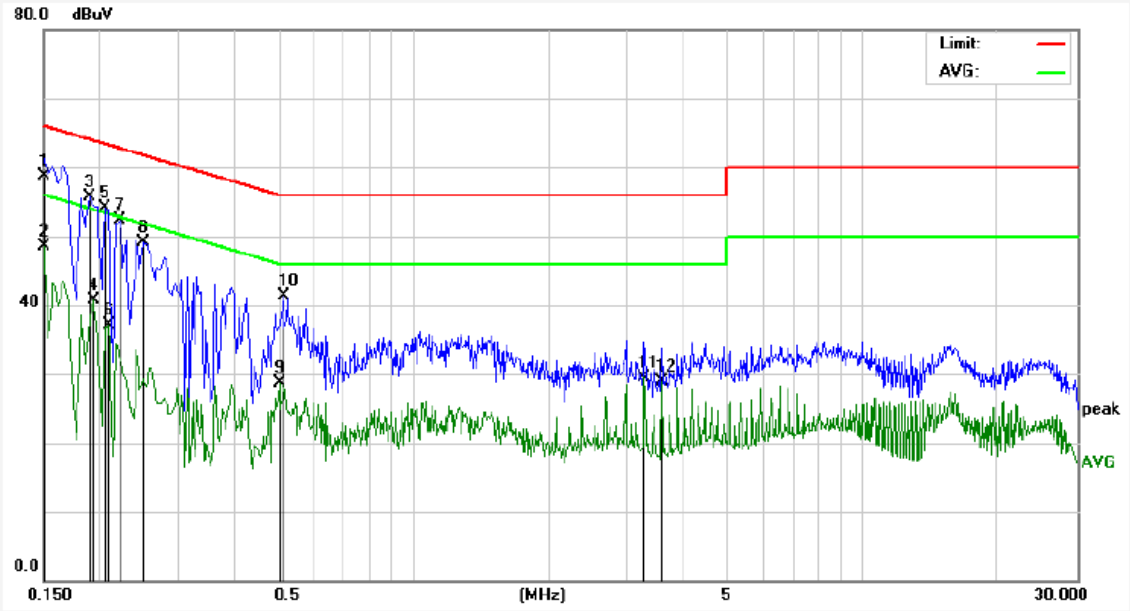
Note: Adapter: HP24E-1202000-AU



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1580	37.15	19.90	57.05	65.56	-8.51	QP	
2	0.1660	27.79	19.90	47.69	55.15	-7.46	AVG	
3	0.1900	35.89	19.90	55.79	64.03	-8.24	QP	
4	0.1900	19.33	19.90	39.23	54.03	-14.80	AVG	
5	0.2220	29.84	19.90	49.74	62.74	-13.00	QP	
6	0.2300	29.43	19.89	49.32	62.45	-13.13	QP	
7	0.2500	27.97	19.89	47.86	61.75	-13.89	QP	
8	0.3379	12.10	19.91	32.01	49.25	-17.24	AVG	
9	0.5140	22.22	19.98	42.20	56.00	-13.80	QP	
10	0.5380	13.46	19.99	33.45	46.00	-12.55	AVG	
11	2.9739	7.61	20.16	27.77	46.00	-18.23	AVG	
12	3.5700	9.44	20.17	29.61	46.00	-16.39	AVG	

Conducted Emission Test Data

Test Site: 1# Shielded Room
Operating Condition: Mode 1
Test Specification: AC 120V, 60Hz for adapter
Comment: Neutral Line
Tem.: 22.5℃ Hum.: 52%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1500	38.71	19.90	58.61	65.99	-7.38	QP	
2	0.1500	28.59	19.90	48.49	55.99	-7.50	AVG	
3	0.1900	35.73	19.90	55.63	64.03	-8.40	QP	
4	0.1940	20.74	19.90	40.64	53.86	-13.22	AVG	
5	0.2060	34.14	19.90	54.04	63.36	-9.32	QP	
6	0.2100	17.13	19.90	37.03	53.20	-16.17	AVG	
7	0.2220	32.42	19.90	52.32	62.74	-10.42	QP	
8	0.2500	29.18	19.89	49.07	61.75	-12.68	QP	
9	0.5020	8.69	19.98	28.67	46.00	-17.33	AVG	
10	0.5140	21.37	19.98	41.35	56.00	-14.65	QP	
11	3.2740	9.26	20.17	29.43	46.00	-16.57	AVG	
12	3.5740	8.70	20.17	28.87	46.00	-17.13	AVG	

Conducted Emission Test Data

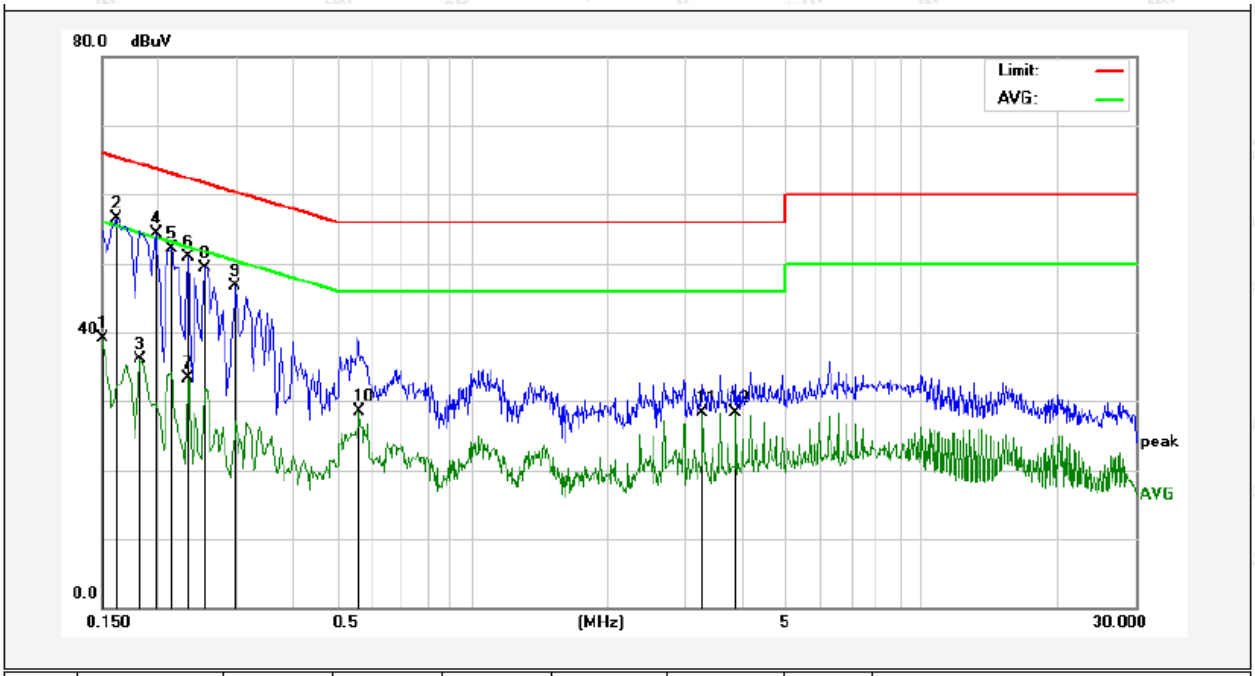
Test Site: 1# Shielded Room

Operating Condition: Mode 1

Test Specification: AC 240V, 60Hz for adapter

Comment: Live Line

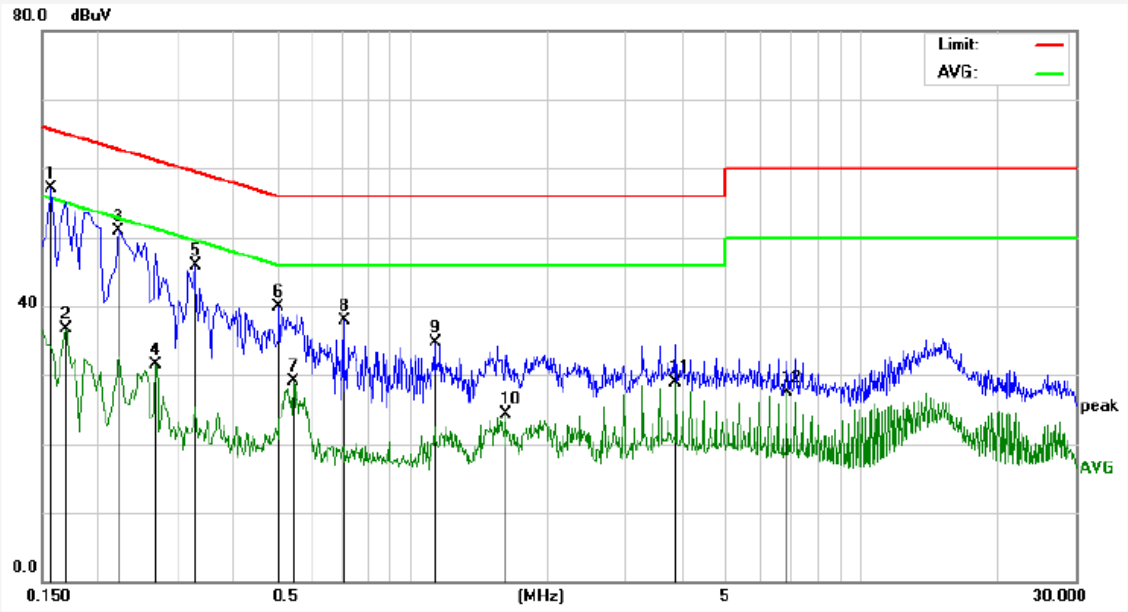
Tem.: 22.5℃ Hum.: 52%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1500	19.21	19.90	39.11	55.99	-16.88	AVG	
2	0.1620	36.58	19.90	56.48	65.36	-8.88	QP	
3	0.1819	16.18	19.90	36.08	54.39	-18.31	AVG	
4	0.1980	34.32	19.90	54.22	63.69	-9.47	QP	
5	0.2140	32.16	19.90	52.06	63.04	-10.98	QP	
6	0.2340	30.93	19.89	50.82	62.30	-11.48	QP	
7	0.2340	13.44	19.89	33.33	52.30	-18.97	AVG	
8	0.2540	29.51	19.89	49.40	61.62	-12.22	QP	
9	0.2980	26.77	19.89	46.66	60.30	-13.64	QP	
10	0.5620	8.50	20.00	28.50	46.00	-17.50	AVG	
11	3.2740	8.13	20.17	28.30	46.00	-17.70	AVG	
12	3.8700	8.13	20.18	28.31	46.00	-17.69	AVG	

Conducted Emission Test Data

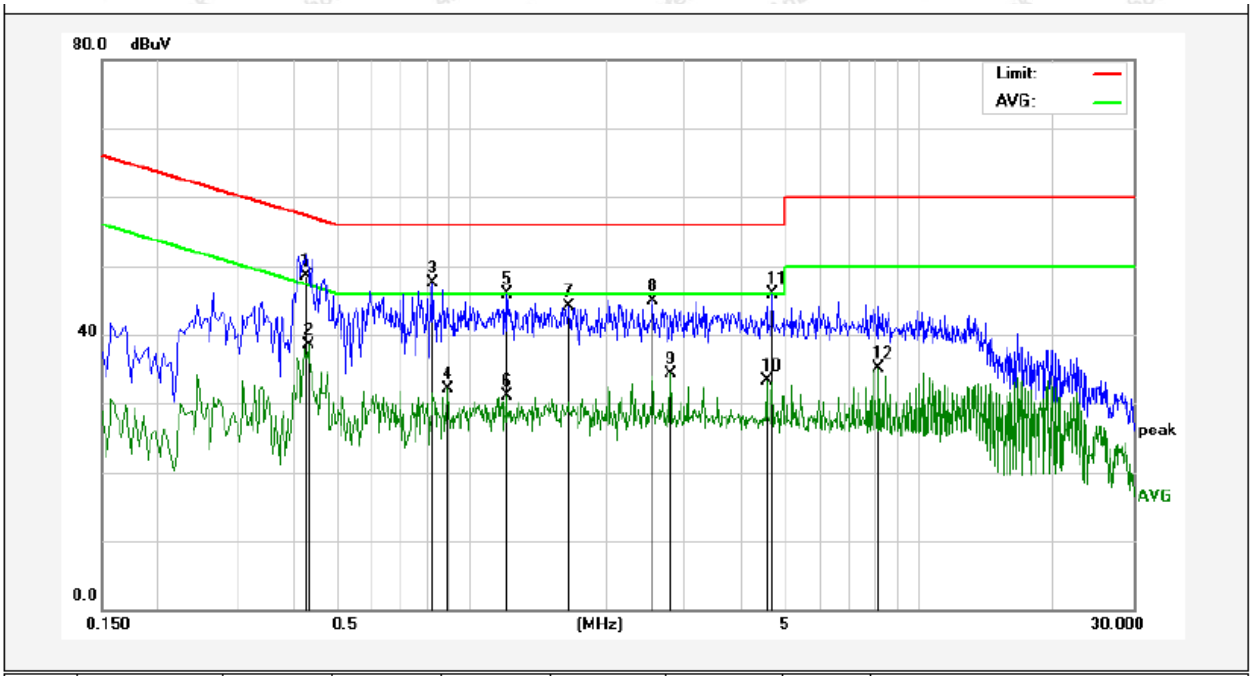
Test Site: 1# Shielded Room
Operating Condition: Mode 1
Test Specification: AC 240V, 60Hz for adapter
Comment: Neutral Line
Tem.: 22.5℃ Hum.: 52%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1580	37.25	19.90	57.15	65.56	-8.41	QP	
2	0.1700	16.76	19.90	36.66	54.96	-18.30	AVG	
3	0.2220	30.97	19.90	50.87	62.74	-11.87	QP	
4	0.2700	11.55	19.89	31.44	51.12	-19.68	AVG	
5	0.3300	26.07	19.90	45.97	59.45	-13.48	QP	
6	0.5060	19.85	19.98	39.83	56.00	-16.17	QP	
7	0.5460	9.04	19.99	29.03	46.00	-16.97	AVG	
8	0.7060	17.96	20.04	38.00	56.00	-18.00	QP	
9	1.1260	14.51	20.12	34.63	56.00	-21.37	QP	
10	1.6140	4.23	20.13	24.36	46.00	-21.64	AVG	
11	3.8660	8.72	20.18	28.90	46.00	-17.10	AVG	
12	6.8380	7.21	20.26	27.47	50.00	-22.53	AVG	

Conducted Emission Test Data

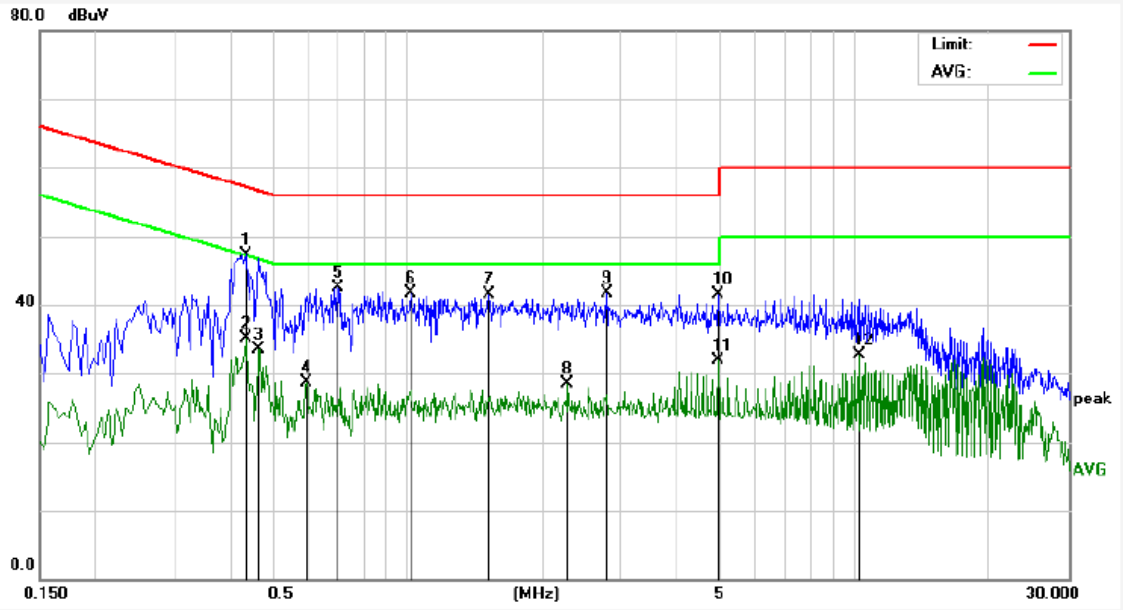
Test Site: 1# Shielded Room
Operating Condition: Mode 1
Test Specification: AC 120V, 60Hz for adapter
Comment: Live Line
Tem.: 22.5℃ Hum.: 52%
Note: Adapter: FJ-SW126G1202000U



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.4300	28.50	19.95	48.45	57.25	-8.80	QP	
2	0.4340	18.48	19.95	38.43	47.18	-8.75	AVG	
3	0.8220	27.38	20.07	47.45	56.00	-8.55	QP	
4	0.8860	11.93	20.09	32.02	46.00	-13.98	AVG	
5	1.1980	25.74	20.12	45.86	56.00	-10.14	QP	
6	1.1980	11.00	20.12	31.12	46.00	-14.88	AVG	
7	1.6540	23.98	20.13	44.11	56.00	-11.89	QP	
8	2.5420	24.85	20.15	45.00	56.00	-11.00	QP	
9	2.7940	14.11	20.16	34.27	46.00	-11.73	AVG	
10	4.5700	13.06	20.20	33.26	46.00	-12.74	AVG	
11	4.6979	25.78	20.20	45.98	56.00	-10.02	QP	
12	8.1260	14.81	20.29	35.10	50.00	-14.90	AVG	

Conducted Emission Test Data

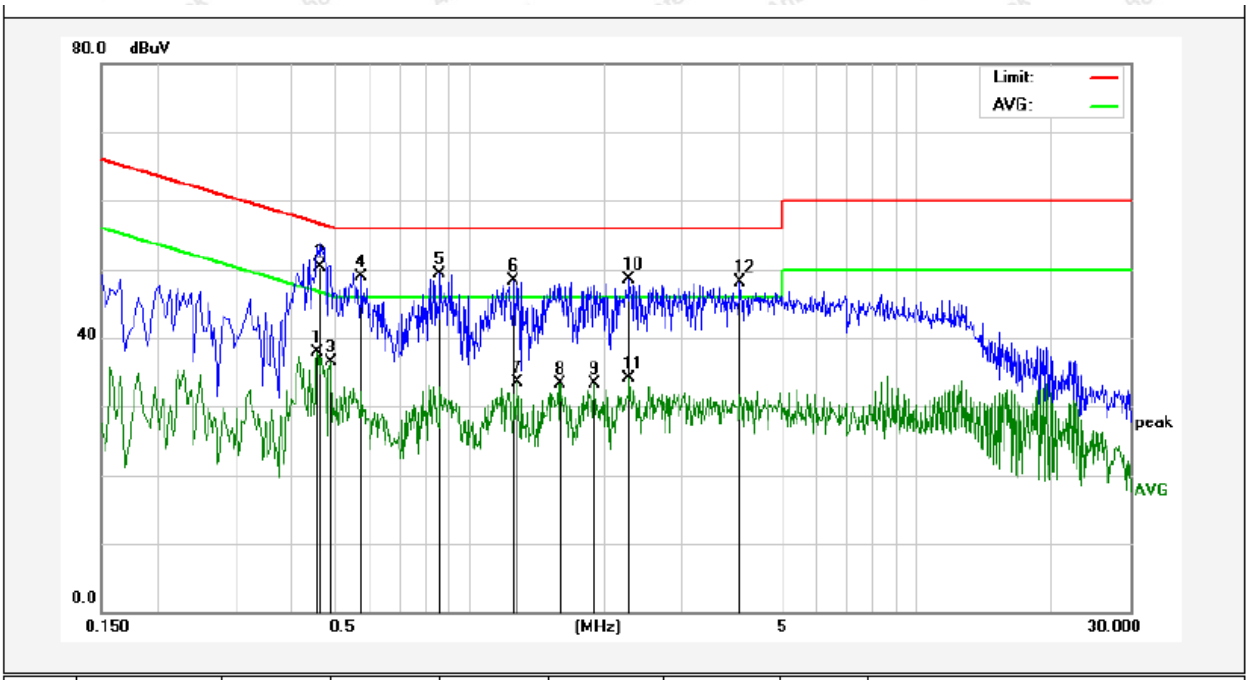
Test Site: 1# Shielded Room
Operating Condition: Mode 1
Test Specification: AC 120V, 60Hz for adapter
Comment: Neutral Line
Tem.: 22.5℃ Hum.: 52%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.4340	27.38	19.95	47.33	57.18	-9.85	QP	
2	0.4340	15.25	19.95	35.20	47.18	-11.98	AVG	
3	0.4660	13.63	19.96	33.59	46.58	-12.99	AVG	
4	0.5940	8.70	20.01	28.71	46.00	-17.29	AVG	
5	0.6980	22.44	20.04	42.48	56.00	-13.52	QP	
6	1.0140	21.55	20.12	41.67	56.00	-14.33	QP	
7	1.5180	21.41	20.13	41.54	56.00	-14.46	QP	
8	2.2820	8.28	20.15	28.43	46.00	-17.57	AVG	
9	2.7900	21.48	20.16	41.64	56.00	-14.36	QP	
10	4.9460	21.24	20.21	41.45	56.00	-14.55	QP	
11	4.9460	11.70	20.21	31.91	46.00	-14.09	AVG	
12	10.2700	12.43	20.34	32.77	50.00	-17.23	AVG	

Conducted Emission Test Data

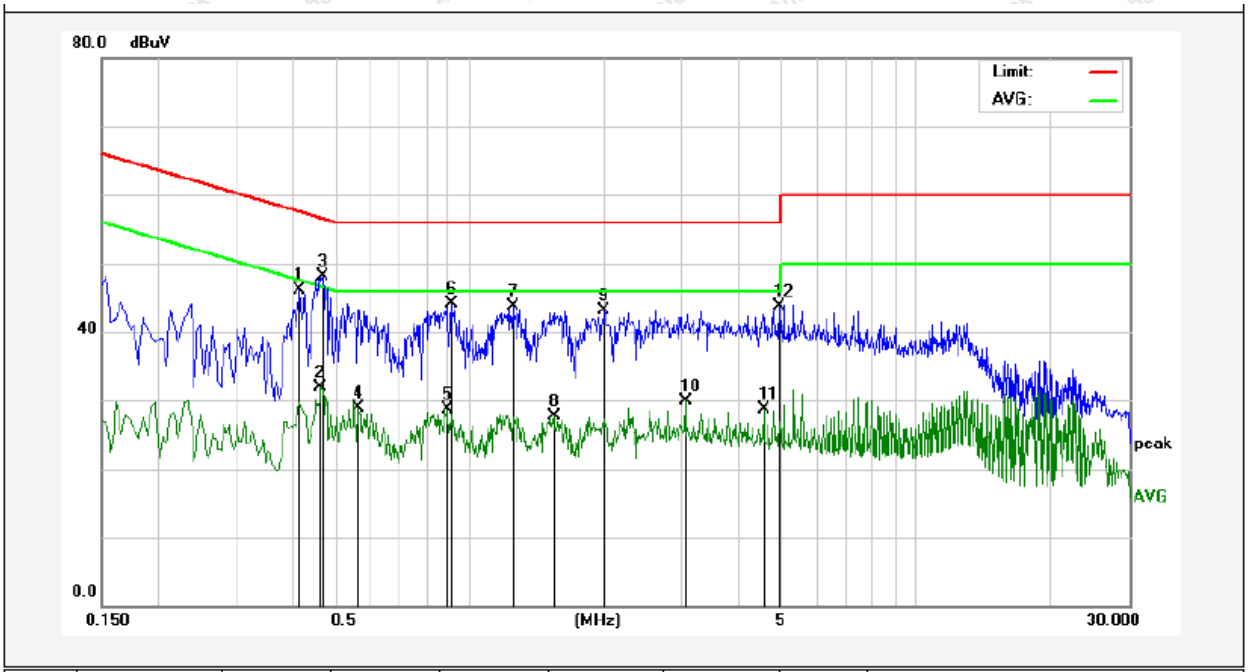
Test Site: 1# Shielded Room
Operating Condition: Mode 1
Test Specification: AC 240V, 60Hz for adapter
Comment: Live Line
Tem.: 22.5℃ Hum.: 52%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.4580	17.89	19.96	37.85	46.73	-8.88	AVG	
2	0.4660	30.35	19.96	50.31	56.58	-6.27	QP	
3	0.4900	16.62	19.98	36.60	46.17	-9.57	AVG	
4	0.5740	28.85	20.00	48.85	56.00	-7.15	QP	
5	0.8580	29.14	20.08	49.22	56.00	-6.78	QP	
6	1.2620	28.10	20.13	48.23	56.00	-7.77	QP	
7	1.2860	13.37	20.13	33.50	46.00	-12.50	AVG	
8	1.5980	13.19	20.13	33.32	46.00	-12.68	AVG	
9	1.8980	13.08	20.14	33.22	46.00	-12.78	AVG	
10	2.2780	28.43	20.15	48.58	56.00	-7.42	QP	
11	2.2780	13.96	20.15	34.11	46.00	-11.89	AVG	
12	4.0420	27.99	20.18	48.17	56.00	-7.83	QP	

Conducted Emission Test Data

Test Site: 1# Shielded Room
Operating Condition: Mode 1
Test Specification: AC 240V, 60Hz for adapter
Comment: Neutral Line
Tem.: 22.5℃ Hum.: 52%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.4180	26.07	19.94	46.01	57.49	-11.48	QP	
2	0.4660	12.00	19.96	31.96	46.58	-14.62	AVG	
3	0.4700	28.13	19.97	48.10	56.51	-8.41	QP	
4	0.5660	8.82	20.00	28.82	46.00	-17.18	AVG	
5	0.8900	8.71	20.09	28.80	46.00	-17.20	AVG	
6	0.9100	23.94	20.10	44.04	56.00	-11.96	QP	
7	1.2500	23.58	20.12	43.70	56.00	-12.30	QP	
8	1.5500	7.61	20.13	27.74	46.00	-18.26	AVG	
9	2.0100	22.99	20.14	43.13	56.00	-12.87	QP	
10	3.0420	9.81	20.16	29.97	46.00	-16.03	AVG	
11	4.5620	8.42	20.19	28.61	46.00	-17.39	AVG	
12	4.9420	23.57	20.21	43.78	56.00	-12.22	QP	

4. Radiation Spurious Emission and Band Edge

4.1. Test Standard and Limit

Test Standard	FCC Part15 C Section 15.209 and 15.205				
Test Limit	Frequency (MHz)	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	0.009MHz~0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz~88MHz	100	40.0	Quasi-peak	3
	88MHz~216MHz	150	43.5	Quasi-peak	3
	216MHz~960MHz	200	46.0	Quasi-peak	3
	960MHz~1000MHz	500	54.0	Quasi-peak	3
	Above 1000MHz	500	54.0	Average	3
		-	74.0	Peak	3
Remark: (1)The lower limit shall apply at the transition frequency. (2) 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.					

4.2. Test Setup

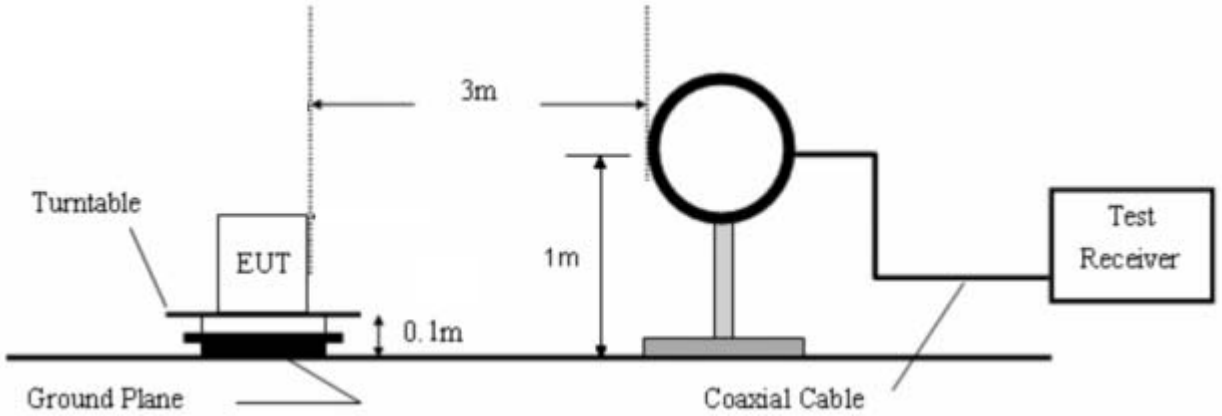


Figure 1. Below 30MHz

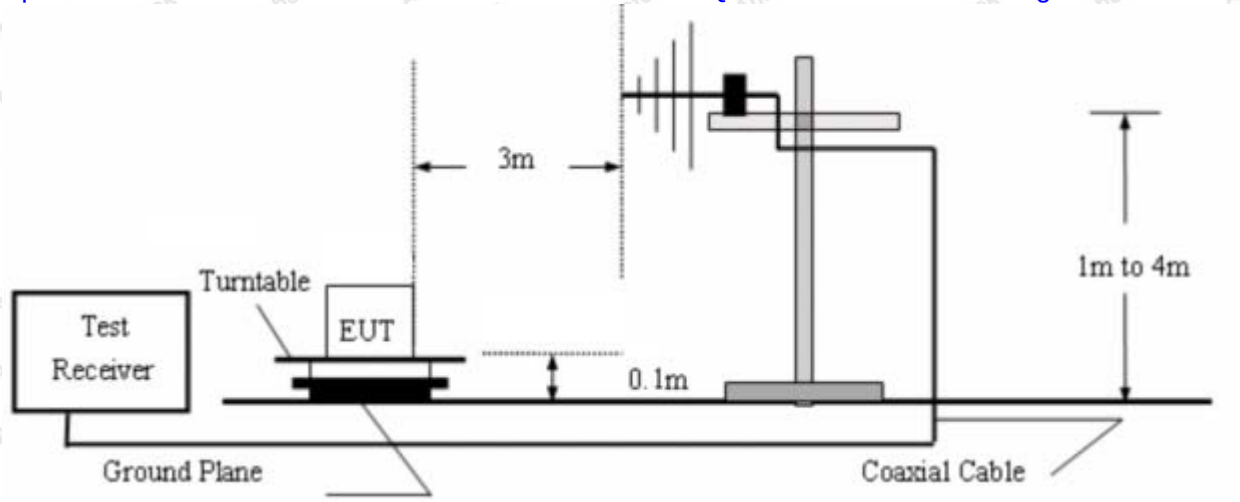


Figure 2. 30MHz to 1GHz

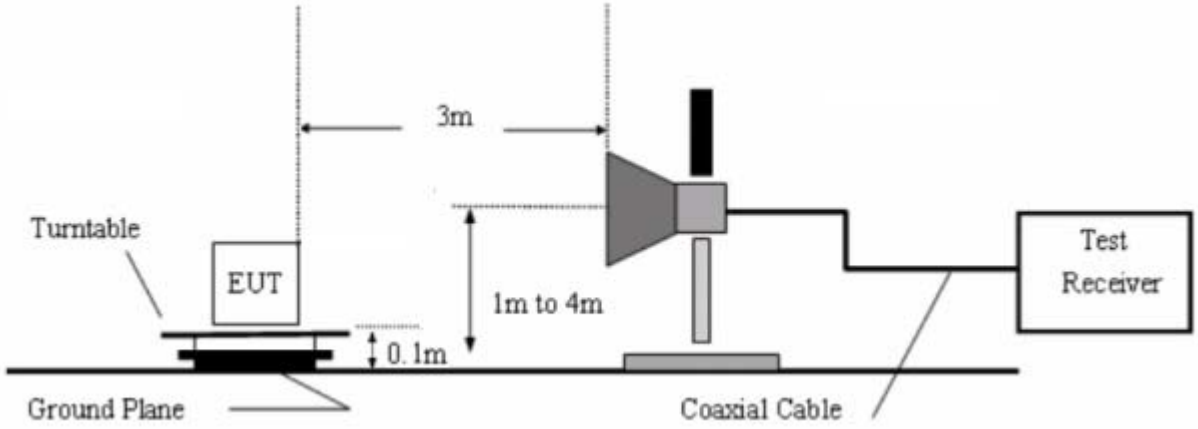


Figure 3. Above 1 GHz

4.3. Test Procedure

For below 1GHz: The EUT is placed on a turntable, which is 0.1m above the ground plane.
For above 1GHz: The EUT is placed on a turntable, which is 0.1m above the ground plane.
The turn 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 which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Rotated the EUT through three orthogonal axes to determine the maximum emissions, both horizontal and vertical polarization of the antenna are set on test. The EUT is tested in 9*6*6 Chamber. The device is evaluated in xyz orientation.

For 9kHz to 150kHz, Set the spectrum analyzer as:
RBW = 200Hz, VBW =1kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 150kHz to 30MHz, Set the spectrum analyzer as:
RBW = 9KHz, VBW =30kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 30MHz to 1000MHz, Set the spectrum analyzer as:

RBW = 100kHz, VBW =300kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

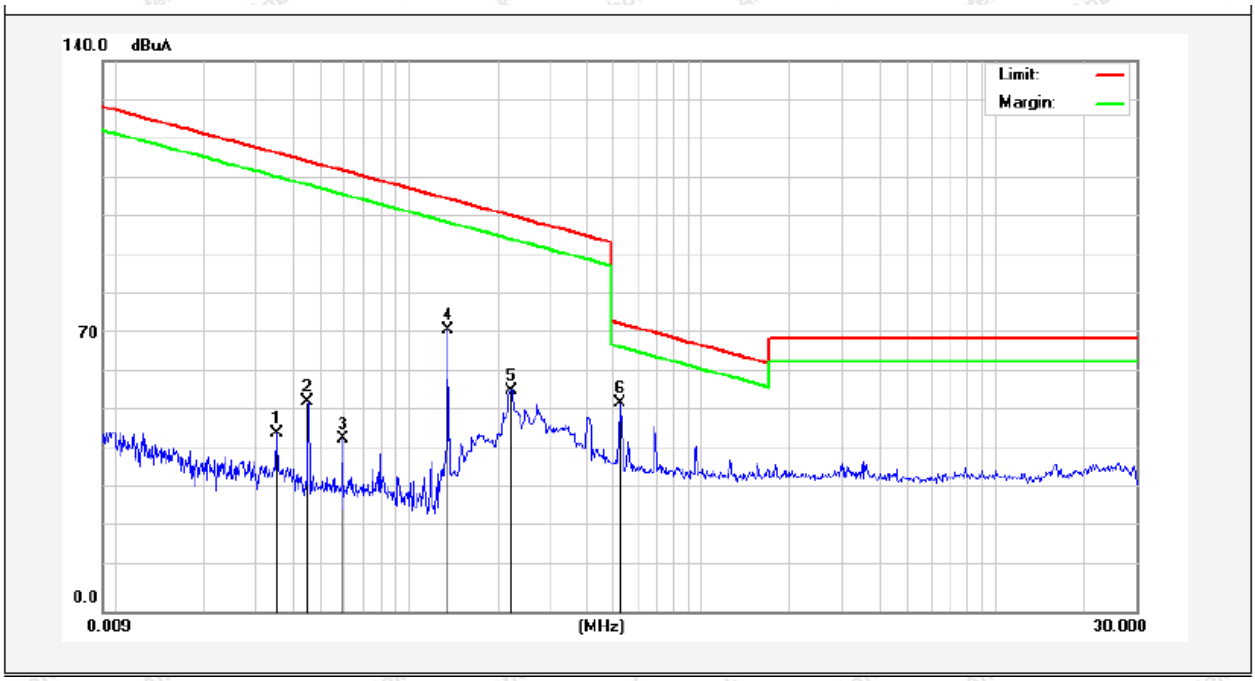
4.4. Test Data

PASS

Note: The data is in TX mode, and this is the worst mode.

Test Results (9K~30MHz)

Test Mode:	Mode 1
Power Source:	AC 120V, 60Hz for adapter
Temp.(℃)/Hum.(%RH):	22.9℃/49%RH
Distance:	3m
Note:	Adapter: GQ24-120200-Au

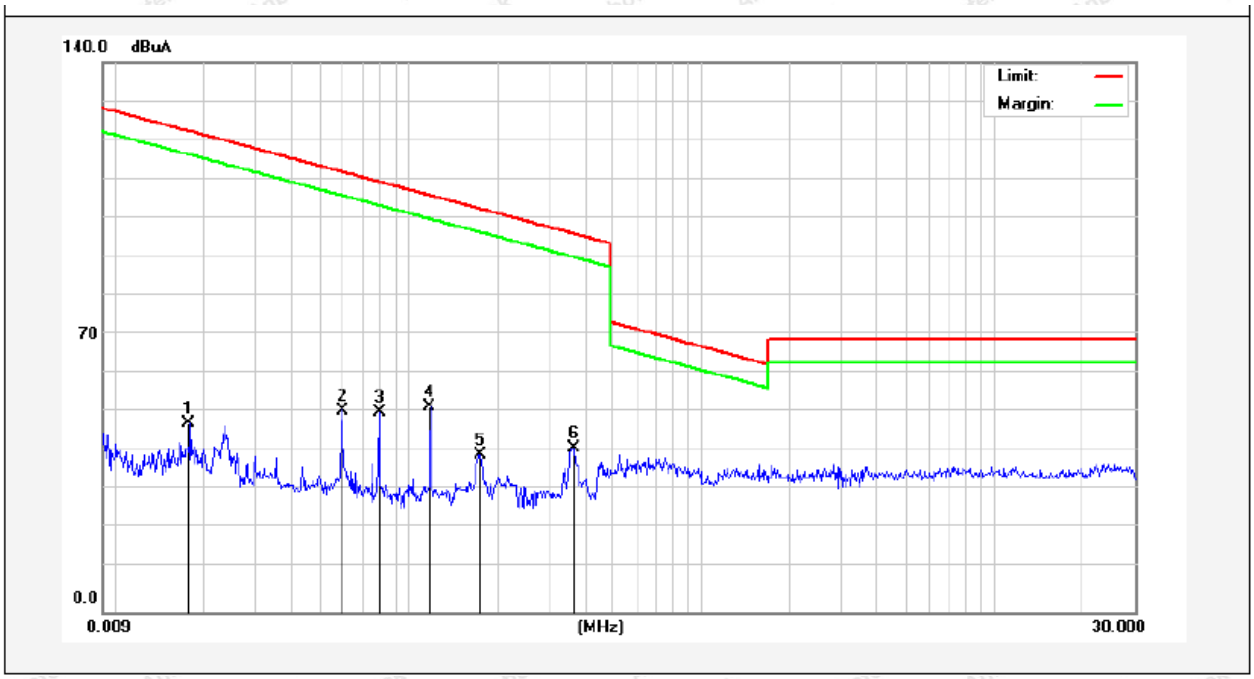


Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	degree (dge)
0.0352	44.03	19.28	2.53	0	65.84	136.55	-70.71	Peak	41
0.0352	23.64	19.28	2.53	0	45.45	116.55	-71.10	AV	41
0.0451	48.27	19.32	2.53	0	70.12	134.40	-64.28	Peak	63
0.0451	31.64	19.32	2.53	0	53.49	114.40	-60.91	AV	63
0.0592	38.60	19.36	2.55	0	60.51	132.05	-71.54	Peak	141
0.0592	21.87	19.36	2.55	0	43.78	112.05	-68.27	AV	141
0.1360	58.62	19.38	2.55	0	80.55	124.87	-44.32	Peak	200
0.1360	49.61	19.38	2.55	0	71.54	104.87	-33.33	AV	200
0.2220	44.26	19.40	2.57	0	66.23	120.64	-54.41	Peak	12
0.2220	34.02	19.50	2.57	0	56.09	100.64	-44.55	AV	12
0.5260	31.04	19.40	2.64	0	53.08	73.18	-20.10	QP	0

Remark: According to FCC PART 15.209 (d), the emission limits for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz, Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Results (9K~30MHz)

Test Mode:	Mode 1
Power Source:	AC 120V, 60Hz for adapter
Temp.(℃)/Hum.(%RH):	22.9℃/49%RH
Distance:	3m
Note:	Adapter: FJ-SW126G1202000U

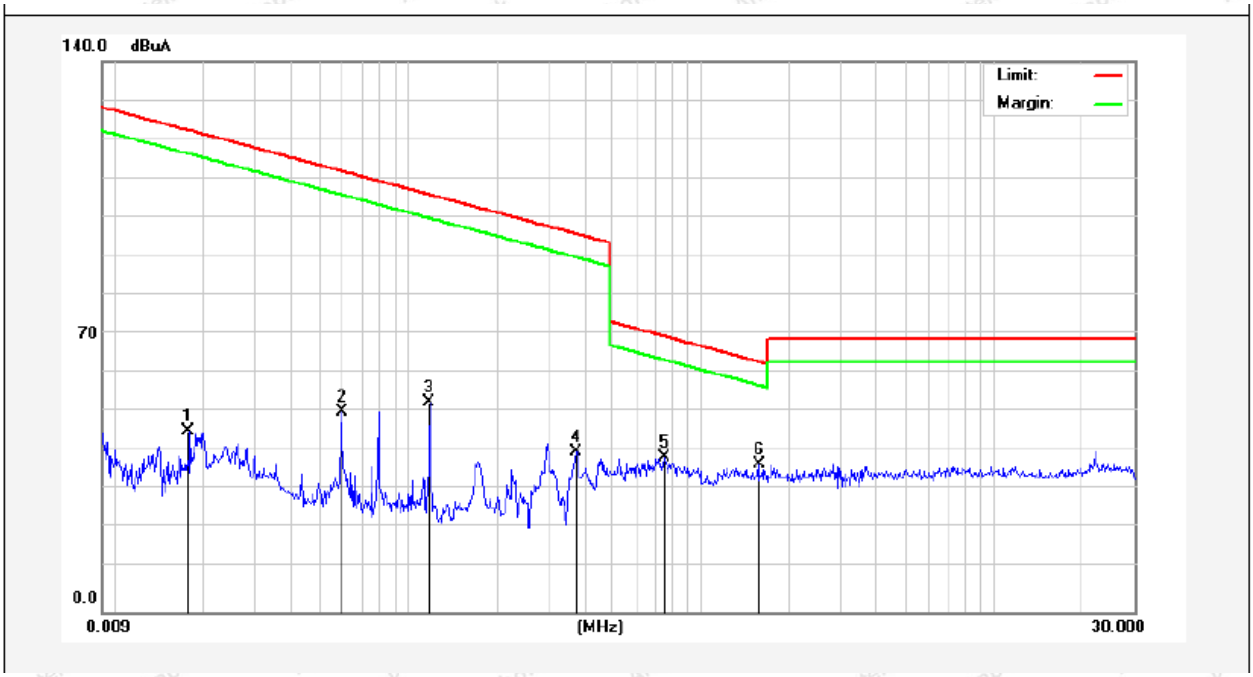


Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	degree (dge)
0.0177	46.08	19.28	2.53	0	67.89	142.48	-74.59	Peak	98
0.0177	26.16	19.28	2.53	0	47.97	122.48	-74.51	AV	98
0.0592	49.08	19.32	2.55	0	70.95	132.05	-61.10	Peak	114
0.0592	29.58	19.32	2.55	0	51.45	112.05	-60.60	AV	114
0.0792	47.96	19.36	2.56	0	69.88	129.54	-59.66	Peak	162
0.0792	28.91	19.44	2.56	0	50.91	109.54	-58.63	AV	162
0.1184	46.49	19.89	2.56	0	68.94	126.07	-57.13	Peak	156
0.1184	29.64	20.02	2.56	0	52.22	106.07	-53.85	AV	156
0.1751	37.77	19.89	2.56	0	60.22	122.69	-62.47	Peak	89
0.1751	17.45	20.02	2.56	0	40.03	102.69	-62.66	AV	89
0.3659	40.42	19.89	2.57	0	62.88	116.32	-53.44	Peak	66
0.3659	19.39	20.02	2.57	0	41.98	96.32	-54.34	AV	66

Remark： According to FCC PART 15.209 (d), the emission limits for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz, Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Results (9K~30MHz)

Test Mode:	Mode 1
Power Source:	AC 120V, 60Hz for adapter
Temp.(℃)/Hum.(%RH):	22.9℃/49%RH
Distance:	3m
Note:	Adapter: HP24E-1202000-AU

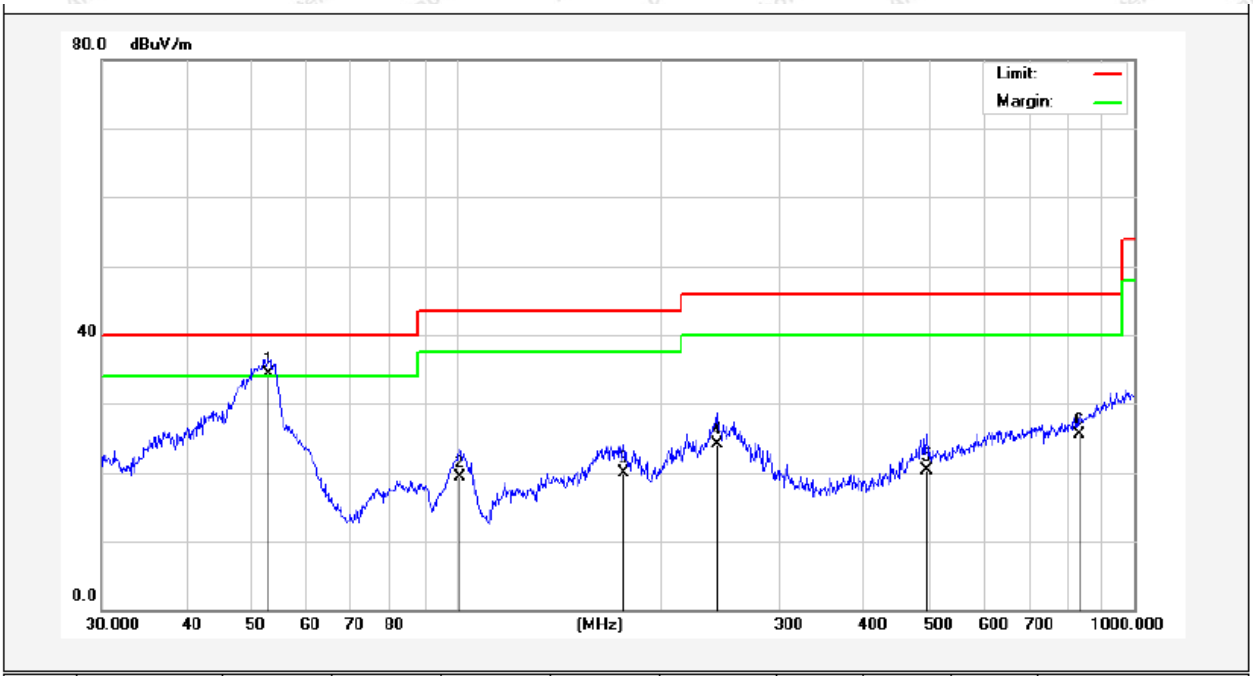


Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	degree (dge)
0.0177	46.41	19.28	2.53	0	68.22	142.48	-74.26	Peak	100
0.0177	24.16	19.28	2.53	0	45.97	122.48	-76.51	AV	100
0.0592	50.79	19.32	2.55	0	72.66	132.05	-59.39	Peak	26
0.0592	29.08	19.32	2.55	0	50.95	112.05	-61.10	AV	26
0.1184	46.76	19.89	2.56	0	69.21	126.07	-56.86	Peak	110
0.1184	30.64	20.02	2.56	0	53.22	106.07	-52.85	AV	110
0.3738	42.52	19.89	2.57	0	64.98	116.14	-51.16	Peak	98
0.3738	18.32	20.02	2.57	0	40.91	96.14	-55.23	AV	98
0.7459	17.05	19.89	2.59	0	39.53	70.15	-30.62	QP	180
1.5700	15.09	20.02	2.60	0	37.71	63.69	-25.98	QP	90

Remark: According to FCC PART 15.209 (d), the emission limits for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz, Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Results (30~1000MHz)

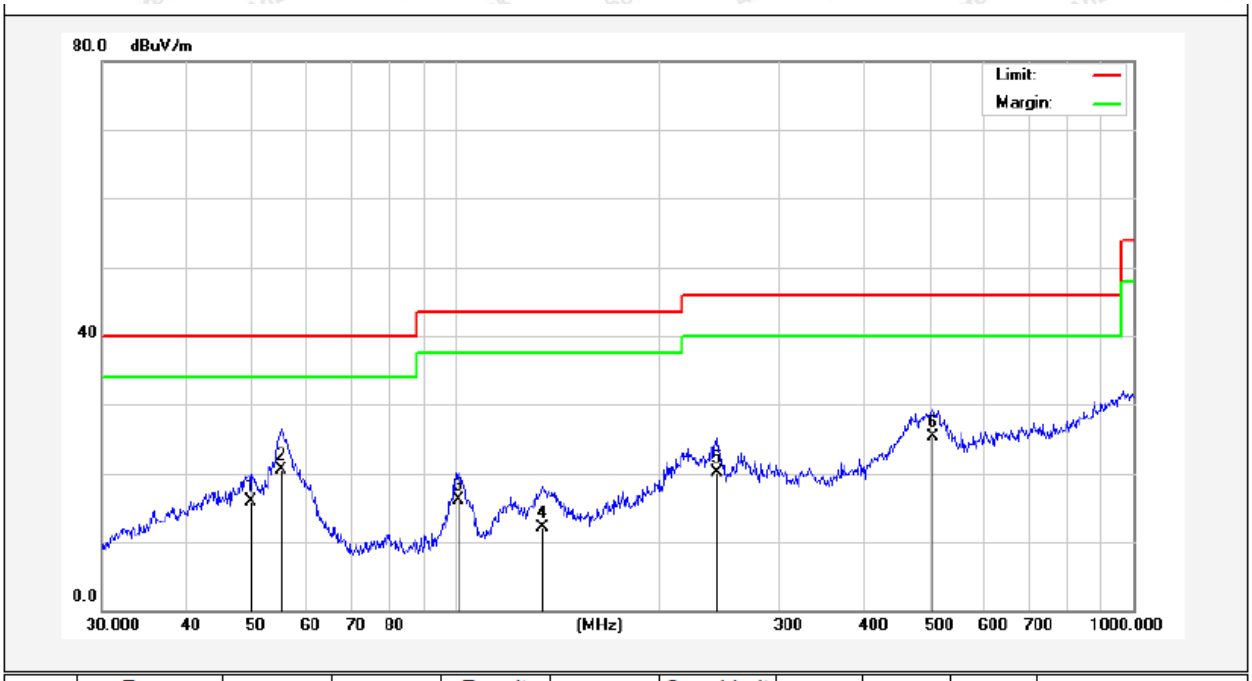
Test Mode:	Mode 1
Power Source:	AC 120V, 60Hz for adapter
Polarization:	Vertical
Temp.(℃)/Hum.(%RH):	22.9℃/49%RH
Note:	Adapter: GQ24-120200-Au



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	53.0500	50.20	-15.88	34.32	40.00	-5.68	QP	100	0	
2	101.2885	34.08	-14.87	19.21	43.50	-24.29	QP	100	360	
3	176.8878	38.43	-18.43	20.00	43.50	-23.50	QP	100	0	
4	242.5253	39.68	-15.56	24.12	46.00	-21.88	QP	100	360	
5	494.1984	29.13	-8.73	20.40	46.00	-25.60	QP	100	0	
6	830.4002	29.03	-3.57	25.46	46.00	-20.54	QP	100	360	

Test Results (30~1000MHz)

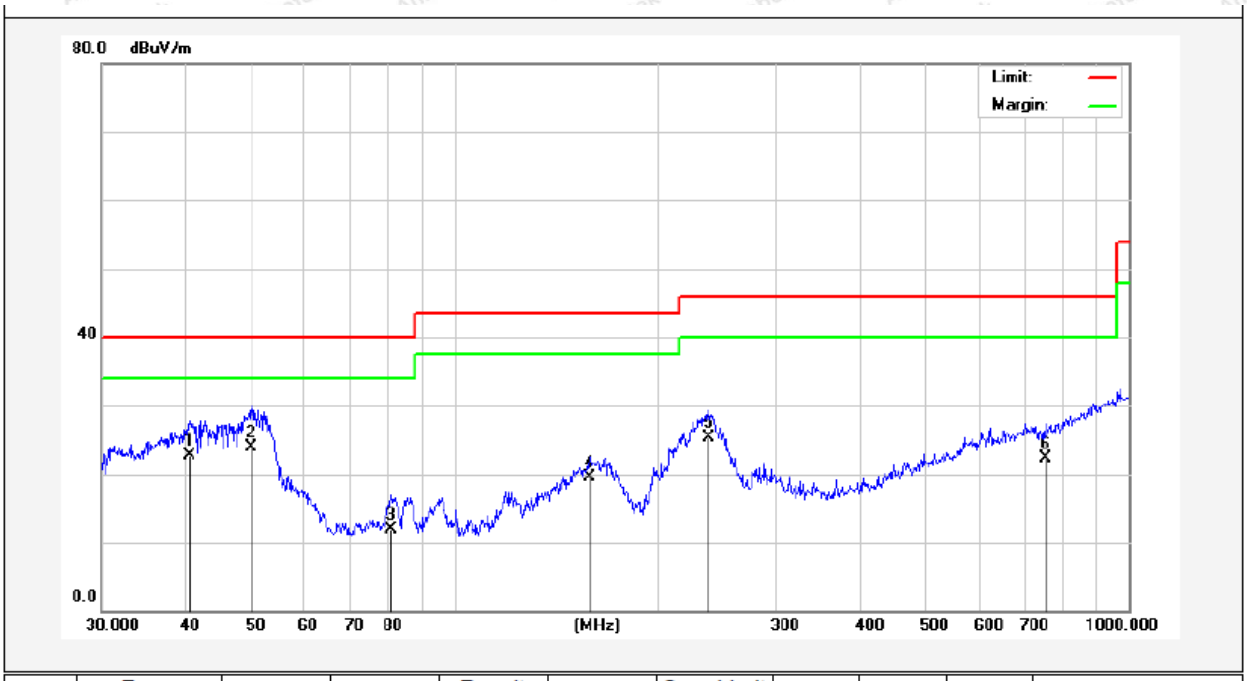
Test Mode:	Mode 1
Power Source:	AC 120V, 60Hz for adapter
Polarization:	Horizontal
Temp.(℃)/Hum.(%RH):	22.9℃/49%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	49.8814	30.84	-14.84	16.00	40.00	-24.00	QP	100	0	
2	55.2207	36.92	-16.51	20.41	40.00	-19.59	QP	100	360	
3	100.9339	35.72	-19.54	16.18	43.50	-27.32	QP	100	0	
4	134.0882	32.85	-20.65	12.20	43.50	-31.30	QP	100	360	
5	243.3772	39.07	-18.97	20.10	46.00	-25.90	QP	100	0	
6	506.4791	35.10	-9.80	25.30	46.00	-20.70	QP	100	360	

Test Results (30~1000MHz)

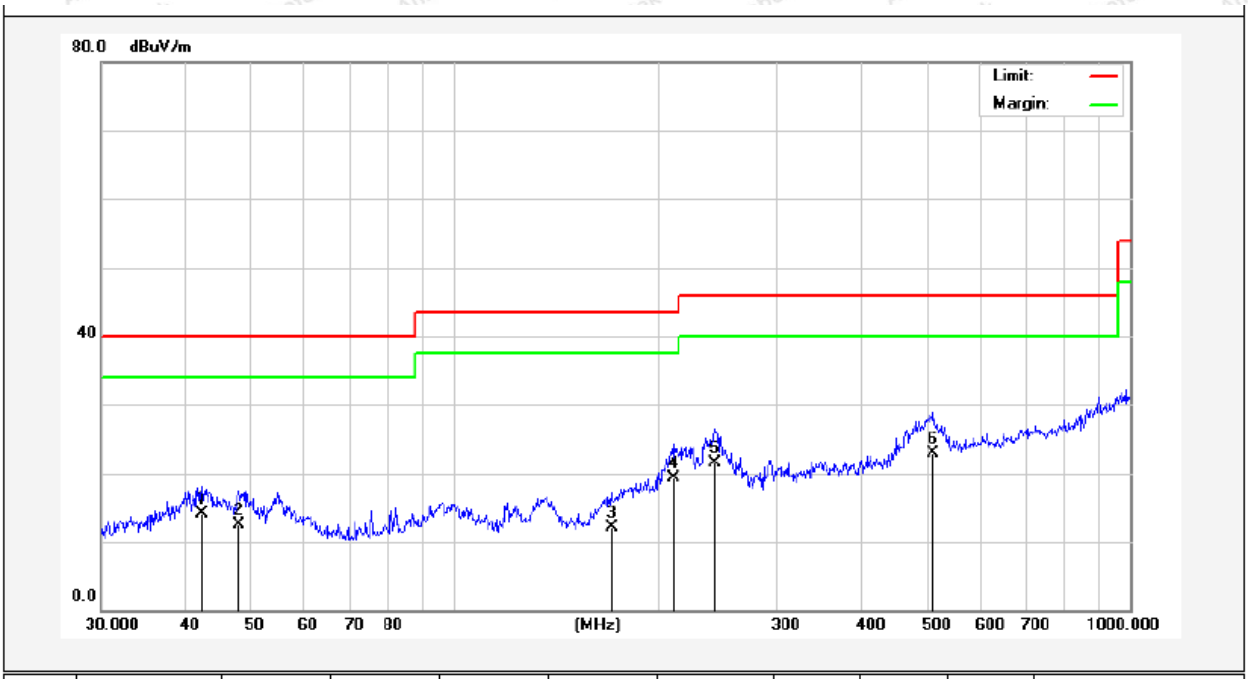
Test Mode:	Mode 1
Power Source:	AC 120V, 60Hz for adapter
Polarization:	Vertical
Temp.(℃)/Hum.(%RH):	22.9℃/49%RH
Note:	Adapter: FJ-SW126G1202000U



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	40.5591	36.35	-13.64	22.71	40.00	-17.29	QP	100	0	
2	50.0566	38.73	-14.87	23.86	40.00	-16.14	QP	100	360	
3	80.6442	29.53	-17.57	11.96	40.00	-28.04	QP	100	0	
4	158.6677	38.99	-19.48	19.51	43.50	-23.99	QP	100	360	
5	238.3102	40.97	-15.72	25.25	46.00	-20.75	QP	100	0	
6	752.7432	27.50	-5.17	22.33	46.00	-23.67	QP	100	360	

Test Results (30~1000MHz)

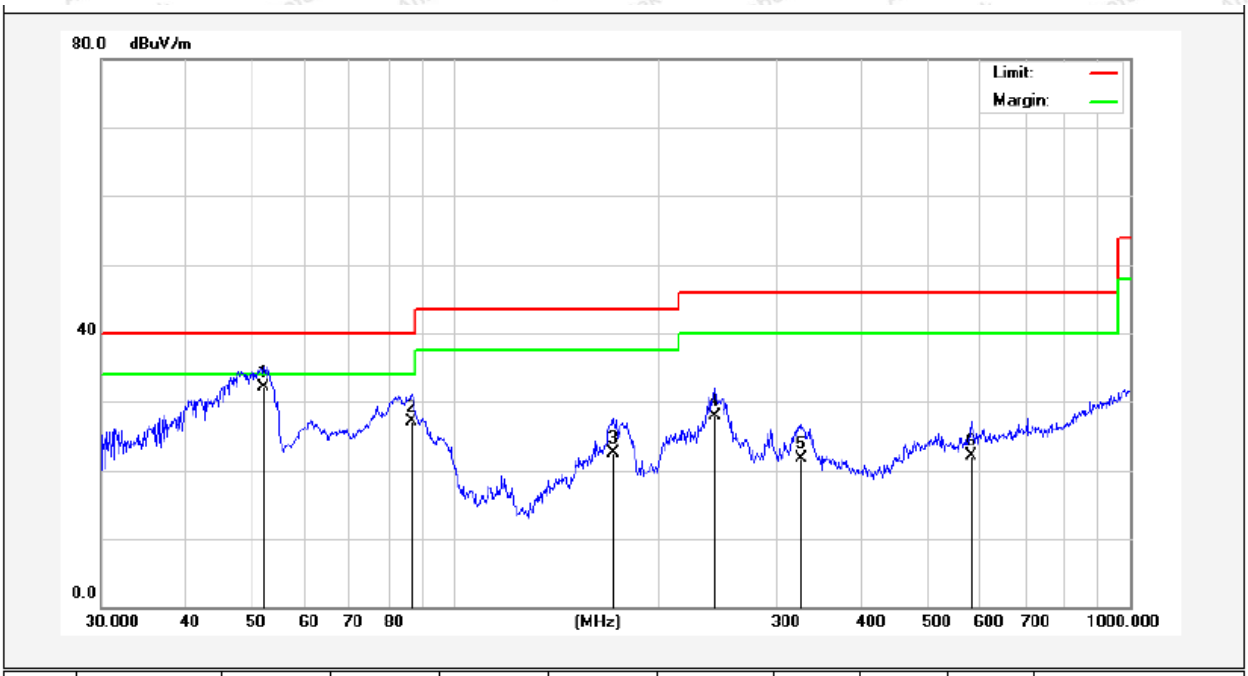
Test Mode:	Mode 1
Power Source:	AC 120V, 60Hz for adapter
Polarization:	Horizontal
Temp.(℃)/Hum.(%RH):	22.9℃/49%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	42.3022	28.78	-14.68	14.10	40.00	-25.90	QP	100	0	
2	47.9940	27.11	-14.61	12.50	40.00	-27.50	QP	100	360	
3	170.7926	33.37	-21.28	12.09	43.50	-31.41	QP	100	0	
4	211.5265	38.84	-19.63	19.21	43.50	-24.29	QP	100	360	
5	242.5253	40.40	-18.99	21.41	46.00	-24.59	QP	100	0	
6	511.8352	32.47	-9.58	22.89	46.00	-23.11	QP	100	360	

Test Results (30~1000MHz)

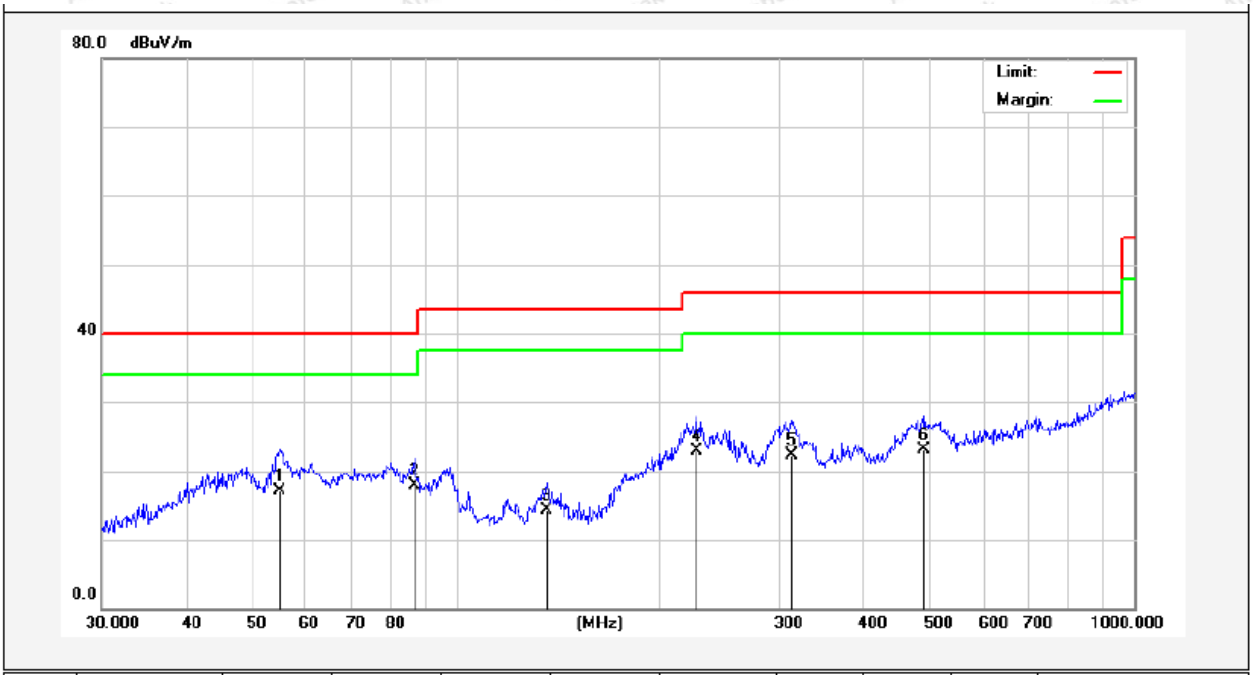
Test Mode:	Mode 1
Power Source:	AC 120V, 60Hz for adapter
Polarization:	Vertical
Temp.(℃)/Hum.(%RH):	22.9℃/49%RH
Note:	Adapter: HP24E-1202000-AU



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	52.2079	47.76	-15.59	32.17	40.00	-7.83	QP	100	0	
2	86.5029	43.56	-16.50	27.06	40.00	-12.94	QP	100	360	
3	171.9946	41.26	-18.71	22.55	43.50	-20.95	QP	100	0	
4	242.5253	43.47	-15.56	27.91	46.00	-18.09	QP	100	360	
5	326.7395	34.28	-12.65	21.63	46.00	-24.37	QP	100	0	
6	582.7425	29.28	-7.18	22.10	46.00	-23.90	QP	100	360	

Test Results (30~1000MHz)

Test Mode:	Mode 1
Power Source:	AC 120V, 60Hz for adapter
Polarization:	Horizontal
Temp.(℃)/Hum.(%RH):	22.9℃/49%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	54.8348	33.56	-16.47	17.09	40.00	-22.91	QP	100	0	
2	86.8068	38.34	-20.38	17.96	40.00	-22.04	QP	100	360	
3	135.9822	35.09	-20.74	14.35	43.50	-29.15	QP	100	0	
4	226.0994	42.29	-19.33	22.96	46.00	-23.04	QP	100	360	
5	312.1794	36.27	-13.98	22.29	46.00	-23.71	QP	100	0	
6	490.7447	33.56	-10.44	23.12	46.00	-22.88	QP	100	360	

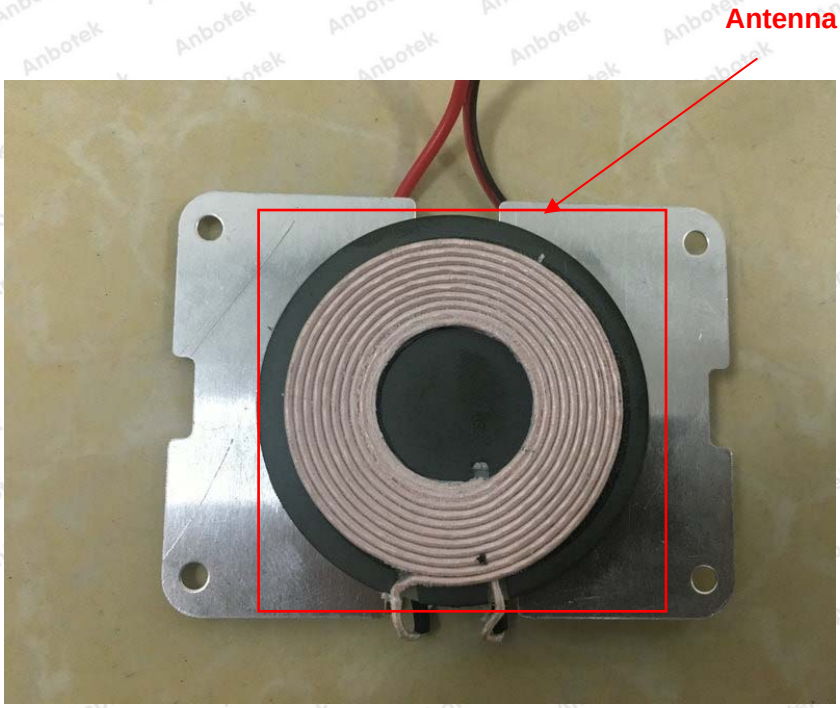
5. Antenna Requirement

5.1. Test Standard and Requirement

Test Standard	FCC Part15 Section 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.

5.2. Antenna Connected Construction

The antenna is a Inductive loop coil Antenna which permanently attached, and the best case gain of the antenna is 0 dBi. It complies with the standard requirement.



APPENDIX I -- TEST SETUP PHOTOGRAPH

Photo of Conducted Emission Measurement

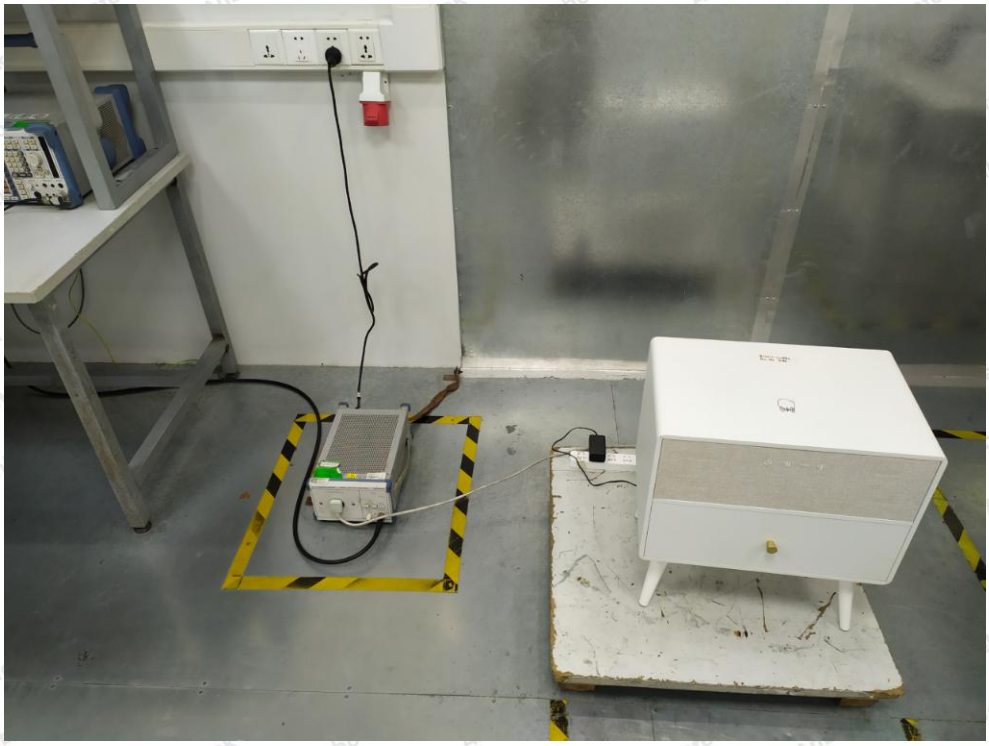
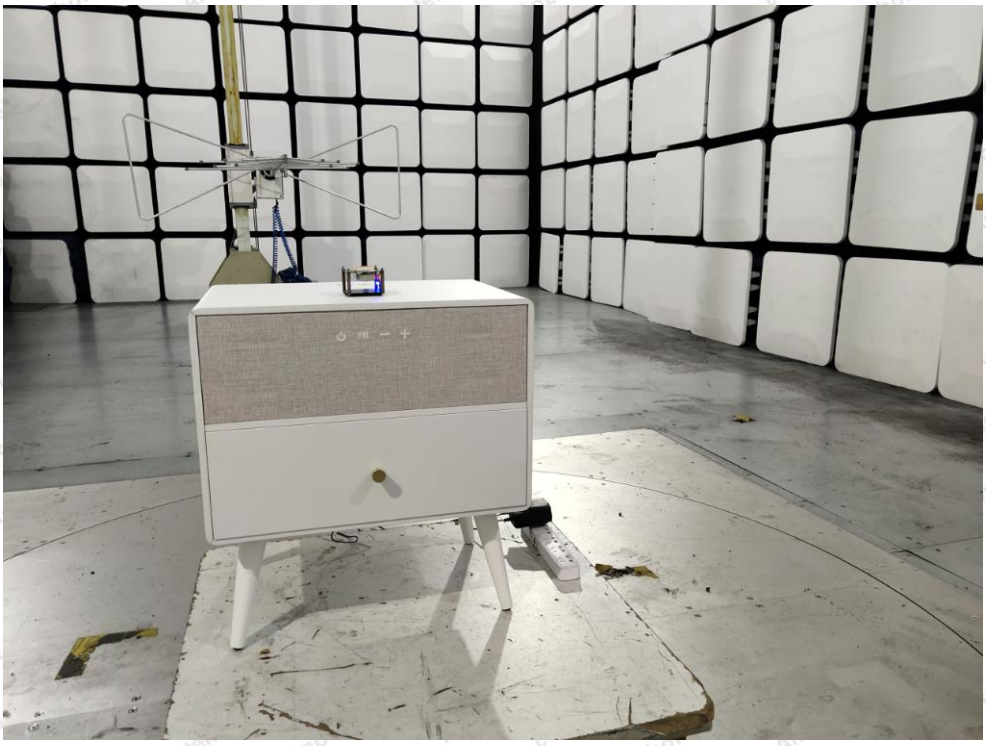
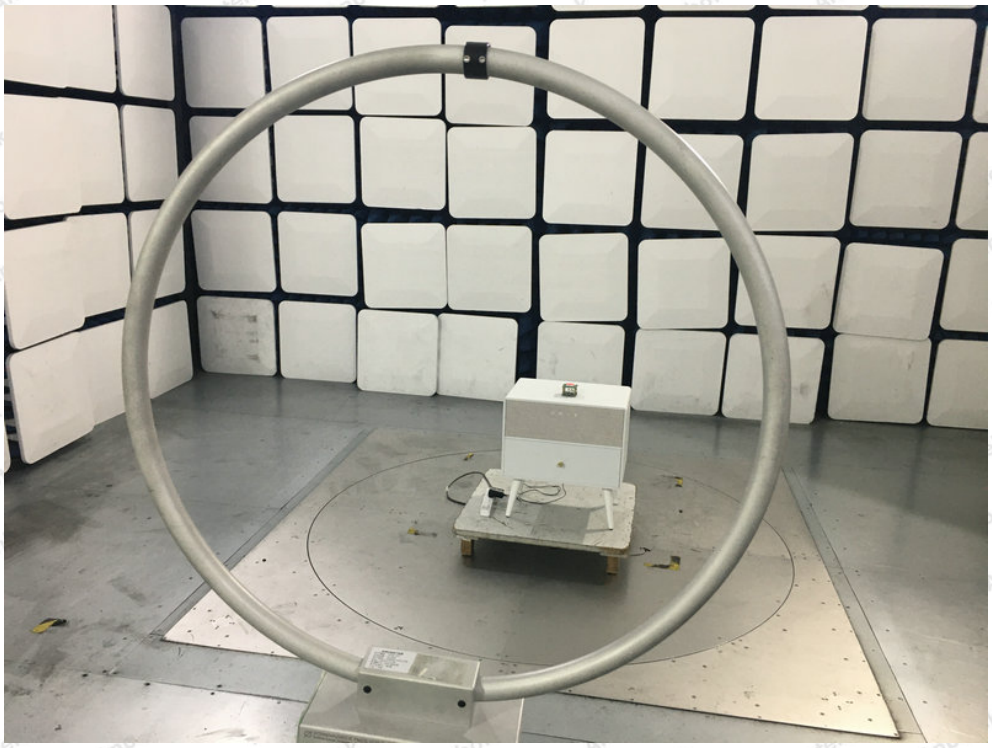


Photo of Radiation Emission Test





APPENDIX II -- PHOTOGRAPH

Reference to the test report 18220WC00088501.

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