



FCC RADIO TEST REPORT

Applicant	: Otter Products, LLC.
Address	: 209 South Meldrum, Fort Collins, Colorado, CO 80521, United States
Manufacturer	: Protop International Inc.
Address	: 10F-8, No.237, Sec.,1, Datong Rd.,Xizhi Dist., New Taipei City 22161, Taiwan
Factory	: SOHAN VIETNAM TECHNOLOGY CO.,LTD
Address	: Lot No. 17 A-2 Que Vo 3industrial Park-Phu Luong Commune – Que Vo District Bac Ninh Province, Vietnam
Equipment	: 3-in-1 Charging Stand
Model No.	: OBFTC-0202-A, 77-000785, 77-000786
Trademark	: OTTERBOX
Date of Sample Receipt	: Feb. 06, 2026
Date(s) of Test	: Mar. 02, 2026~Mar. 03, 2026
FCC ID	: 2AEEV-OBFTC-0202A

I HEREBY CERTIFY THAT:

The test result refers exclusively to the test presented test model / sample. Without written approval of CerpPASS Technology Corp., the test report shall not be reproduced except in full.

Approved by:



Leevin Li / Supervisor



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History of this test report

Version No.	Report No	Date	Description
Rev.01	25040556-DRFCC02	Mar. 05, 2026	Initial Issue



1. Report of Measurements and Examinations

1.1 List of Measurements and Examinations

FCC CFR Title 47 Part 15 Subpart C Section 15.209

FCC Rule	Description of Test	Result
§ 15.203	. Antenna Requirement	Pass
§ 15.207(a)	. Conducted Emission	Pass
§ 15.209(a)	. Radiated Emission	Pass
§ 15.215	20dB Bandwidth	Pass

Note: Deviations Yes ☐ No ☒

*The lab has reduced the uncertainty risk factor from test equipment, environment and staff technicians which according to the standard on contract. Therefore, the test result will only be determined by standard requirement.



2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

Product	3-in-1 Charging Stand
Model No.	OBFTC-0202-A, 77-000785, 77-000786
Model Discrepancy	All models are identical to each other except the model name and appearance color. OBFTC-0202-A is the representative for the final test.
Frequency Range	Wireless Output 1: BPP: 120~148.5kHz; MPP: 360kHz Wireless Output 2: 111~147kHz Wireless Output 3 (Apple Watch): 326.5kHz and 1.778MHz
Modulation Type	Wireless Output 1: ASK Wireless Output 2: ASK Wireless Output 3: ASK
Antenna Type	Coil Antenna
Power Rating	Power Input: 15.0V  3.0A, 45.0W MAX Wireless Output 1: 10.0W (MAX)/BPP; 25.0W (MAX)/MPP Wireless Output 2: 5.0W (MAX)/Qi BPP Wireless Output 3: 5.0W (MAX)/Apple Watch
Temperature	Operating Temp: 0°C~+25°C Storage Temp: -20°C~+60°C

Note: For more details, please refer to the User's manual of the EUT.



2.2 Description of the 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 configuration mode(s) mentioned above was evaluated respectively.

The EUT was tested under the following modes, the worst mode was recorded in this report.

For Conducted Emission	
Pre-tested Mode:	Description
Mode 1	Wireless Charging for Wireless 1(Standby mode) +Wireless 2(Standby mode) + Wireless 3(Standby mode) for 120V
Mode 2	Wireless Charging for Wireless 1(25W for Wireless Load, Operating @MPP 360kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 3, Operating @326.5kHz) for 120V
Mode 3	Wireless Charging for Wireless 1(25W for Wireless Load, Operating @MPP 360kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 7, Operating @1.778MHz) for 120V
Mode 4	Wireless Charging for Wireless 1(10W for Wireless Load, Operating @BPP 120~148.5kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 3, Operating @326.5kHz) for 120V
Mode 5	Wireless Charging for Wireless 1(25W for Wireless Load, Operating @MPP 360kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 3, Operating @326.5kHz) for 240V
Worst test Mode	Description
Mode 2	Wireless Charging for Wireless 1(25W for Wireless Load, Operating @MPP 360kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 3, Operating @326.5kHz) for 120V
For Radiated Emission	
Pre-tested Mode:	Description
Mode 1	Wireless Charging for Wireless 1(Standby mode) +Wireless 2(Standby mode) + Wireless 3(Standby mode) for 120V
Mode 2	Wireless Charging for Wireless 1(25W for Wireless Load, Operating @MPP 360kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 3, Operating @326.5kHz) for 120V
Mode 3	Wireless Charging for Wireless 1(25W for Wireless Load, Operating @MPP 360kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 7, Operating @1.778MHz) for 120V
Mode 4	Wireless Charging for Wireless 1(10W for Wireless Load, Operating @BPP 120~148.5kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 3, Operating @326.5kHz) for 120V
Mode 5	Wireless Charging for Wireless 1(25W for Wireless Load, Operating @MPP 360kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 3, Operating @326.5kHz) for 240V



Worst test Mode	For Radiated Emission (9kHz-30MHz) : Description
Mode 3	Wireless Charging for Wireless 1(25W for Wireless Load, Operating @MPP 360kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 7, Operating @1.778MHz) for 120V
Mode 4	Wireless Charging for Wireless 1(10W for Wireless Load, Operating @BPP 120~148.5kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 3, Operating @326.5kHz) for 120V
Worst test Mode	For Radiated Emission (30MHz-1GHz) : Description
Mode 2	Wireless Charging for Wireless 1(25W for Wireless Load, Operating @MPP 360kHz) +Wireless 2(5W for Wireless Load, Operating @111~147kHz) +Wireless 3(5W for Apple watch 3, Operating @326.5kHz) for 120V

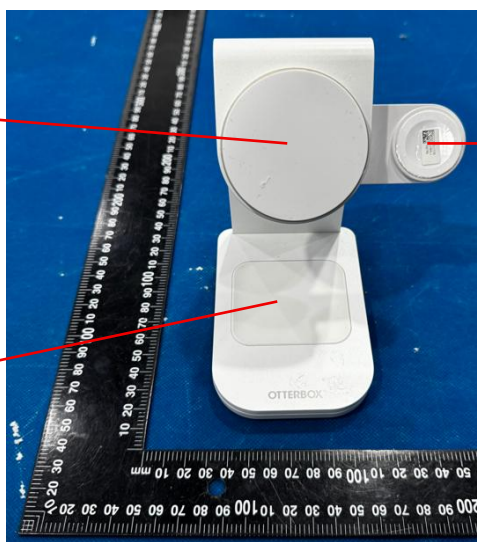
Note:

a: While charging, client devices were between 20% to 50% state of charge.

b: The EUT Has three coils, the specific location is shown below:

Wireless Output 1
for iPhone

Wireless Output 2
for AirPods



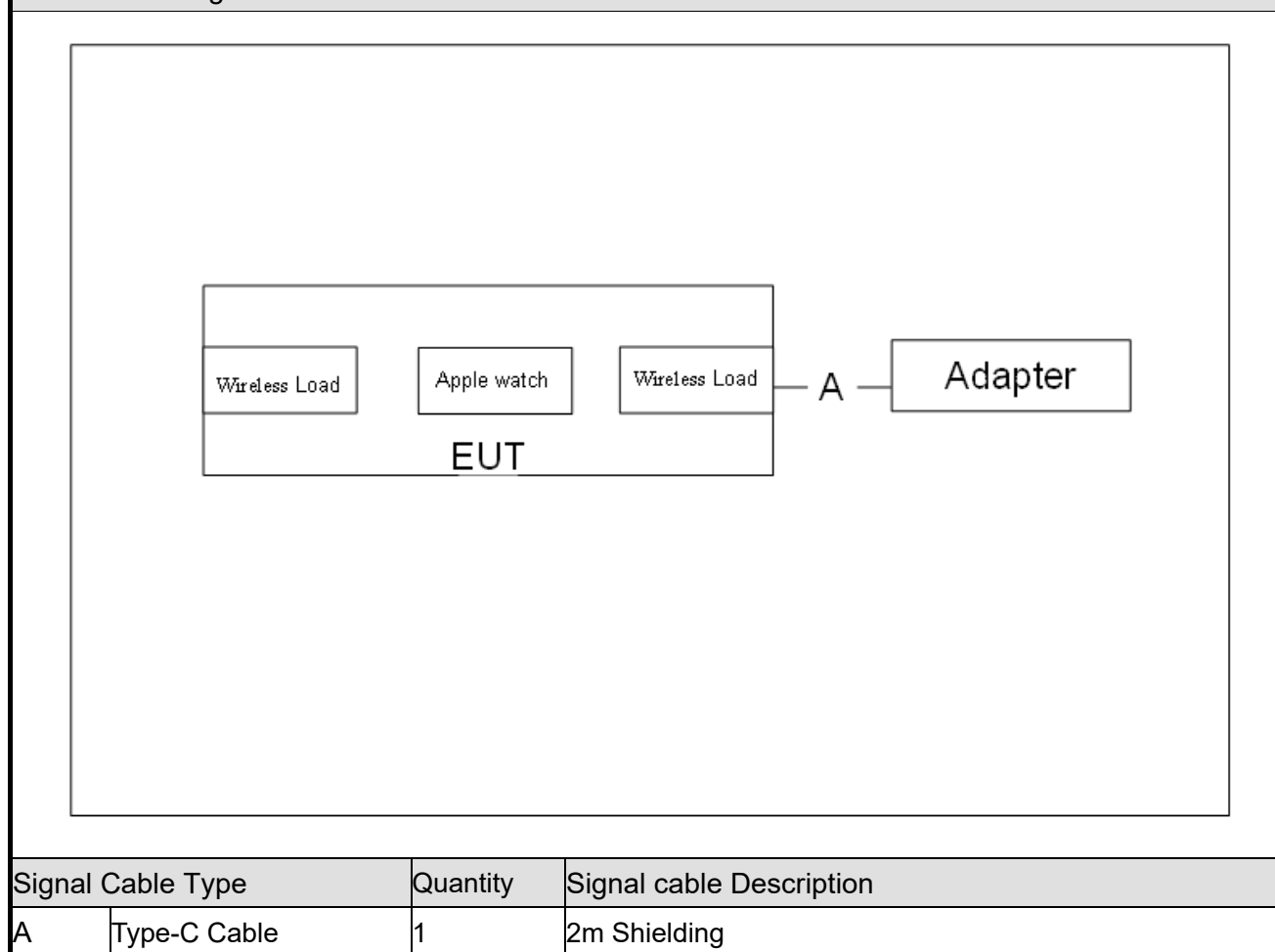
Wireless Output 3
for Apple Watch



2.3 Description of Test System

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 Adapter	OTTREBOX	DST45S1U1	N/A	N/A
2 Wireless Load 1	Cerpass	XHX-1PCB-2	N/A	N/A
3 Wireless Load 2	Cerpass	CPS510OATE	N/A	N/A
4 Apple watch	Apple	Apple watch 3	N/A	N/A
5 Apple watch	Apple	Apple watch 7	N/A	N/A

Connection Diagram





2.4 General Information of Test

Test Site	Cerpass Technology Corporation(Cerpass Laboratory) Address: Room 102, No. 5, Xing'an Road, Chang'an Town, Dongguan City, Guangdong Province, China Tel: +86-769-8547-1212 Fax: +86-769-8547-1912
FCC Designation No.:	CN1288
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 9kHz to 40,000MHz
Test Distance:	9kHz~30MHz: radiated emission from antenna to EUT is 3 M. 30MHz~1GHz: radiated emission from antenna to EUT is 3 M.

Test Item	Test Site	Test period	Environmental Conditions	Tested By
Radiated Emissions	3M01-DG	2026/03/02~2026/03/03	23~25℃ / 53~55%	Amos Zhang
AC Power Line Conducted Emission	CON02-DG	2026/03/02	20℃ / 56%	Amos Zhang

2.5 Measurement Uncertainty

Measurement Item	Uncertainty
AC Power Line Conduction(150kHz~30MHz)	±2.56dB
Radiated Spurious Emission(9kHz~30MHz)	±3.94dB
Radiated Spurious Emission(30MHz~1GHz)	±4.22dB
Radiated Spurious Emission(1GHz~18GHz)	±5.63dB
6dB Bandwidth&20dB Bandwidth	±4.4%



3. Test Equipment and Ancillaries Used for Tests

AC Power Line Conducted Emission					
Test Site	CON02-DG				
Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
ESR·EMI TEST RECEIYER	R&S	ESR3	102728	2025/07/23	2026/07/22
Two-Line V-Network	R&S	ENV216	100325	2025/07/23	2026/07/22
LISN	SCHWARZBECK	NSLK 8127	8127749	2025/12/26	2026/12/25
Cable	Aoda	RG214	Cable-07	2025/07/23	2026/07/22
Temperature/Humidity Meter	GEMLEAD	STH200A	N/A	2025/07/25	2026/07/24
Software	AUDIX	E3	Version: 8.14806b	N/A	N/A
Test Site	Yiheng	AC-DG-005	N/A	2023/05/06	2026/05/05

Radiated Emissions					
Test Site	3M01-DG				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Test Receiver	R&S	ESCI	101183	2025/12/26	2026/12/25
Amplifier	EMCI	EMC330	980082	2025/12/26	2026/12/25
Loop Antenna	R&S	HFH2-Z2	100150	2025/12/27	2027/12/26
Bilog Antenna	Sunol Science	JB1	A072414-3	2025/07/28	2027/07/27
Preamplifier	Agilent	8449B	3008A02342	2025/07/23	2026/07/22
Preamplifier	COM-POWER	PA-840	711885	2025/12/29	2026/12/28
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-619	2025/12/27	2027/12/26
Standard Gain Horn Antenna	TRC	HA-2640	18050	2025/12/27	2027/12/26
Standard Gain Horn Antenna	TRC	HA-1726	18051	2025/12/27	2027/12/26
FSQ Signal Analyzer	R&S	FSQ40	200012	2025/12/26	2026/12/25
Cable	EMCI	EM104-NMSM-8.5M	Cable-03	2025/12/26	2026/12/25
Cable	Jiuzhoubona	T-SMA	SMA48AL-7000	2025/12/26	2026/12/25
Cable	CH-CoDesigh	CCXA81-SMAMNM-1M	Cable-05	2025/12/26	2026/12/25
Cable	CH-CoDesigh	CCXA40-2.92-2.92-1M	21071954	2025/07/24	2026/07/23
Cable	CH-CoDesigh	CCX40-2.92M-2.92M-9M	21070892	2025/07/24	2026/07/23
Temperature/ Humidity Meter	GEMLEAD	STH200A	N/A	2025/07/25	2026/07/24
Software	AUDIX	E3	Version: 8.14806b	N/A	N/A
Test Site	Yiheng	AC-DG-001	N/A	2023/05/08	2026/05/07



4. Antenna Requirements

4.1 Standard Applicable

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.

4.2 Antenna Construction

The antenna is Coil Antenna, and the antenna connector is de-signed with permanent attachment and on consideration of replacement. Please see the EUT photo for details.

4.3 Result

The EUT antenna is Coil Antenna. It complies with the standard requirement.



5. Test of Conducted Emission

5.1 Test Limit

According to §15.207: For all the consumer devices which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range are listed as follows:

Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

Remark: (1)*Decreases with the logarithm of the frequency.

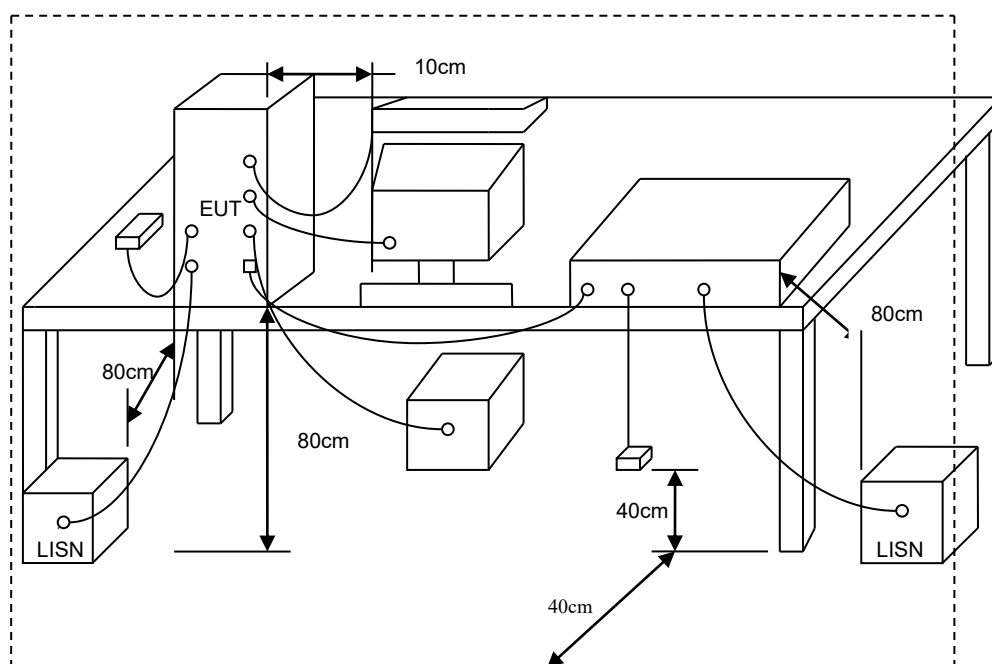
(2)The lower limit shall apply at the transition frequency.

5.2 Test Procedures

- The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- Connect EUT to the power mains through a line impedance stabilization network (LISN).
- All the support units are connecting to the other LISN.
- The LISN provides 50 ohm coupling impedance for the measuring instrument.
- The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- Both sides of AC line were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



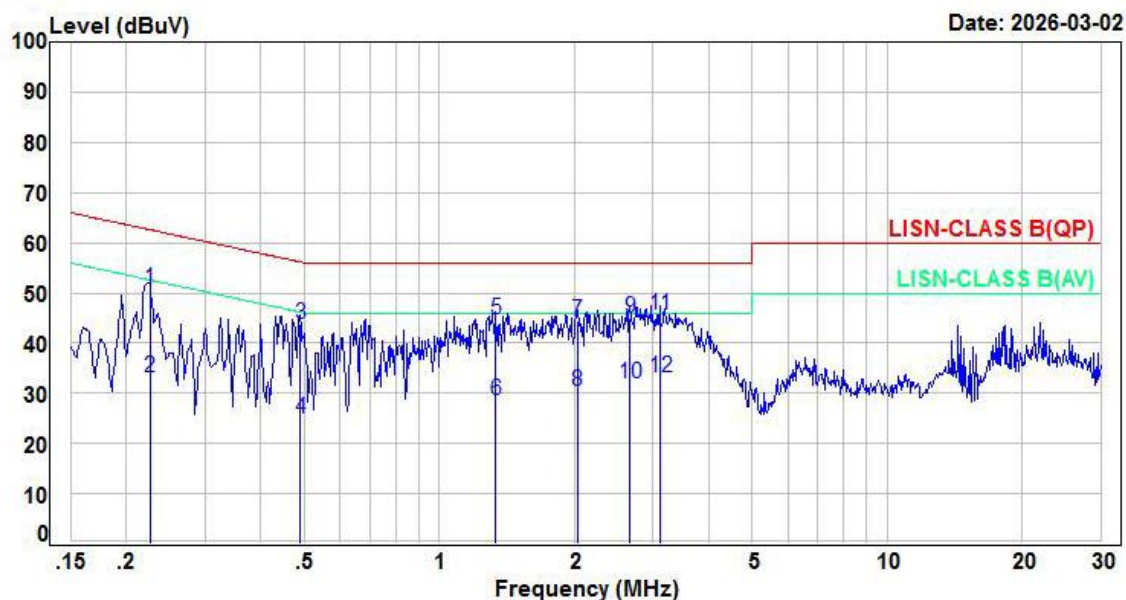
5.3 Typical Test Setup





5.4 Test Result and Data

Test Mode:	Mode 2	Phase:	Line
Power:	AC 120V/60Hz		



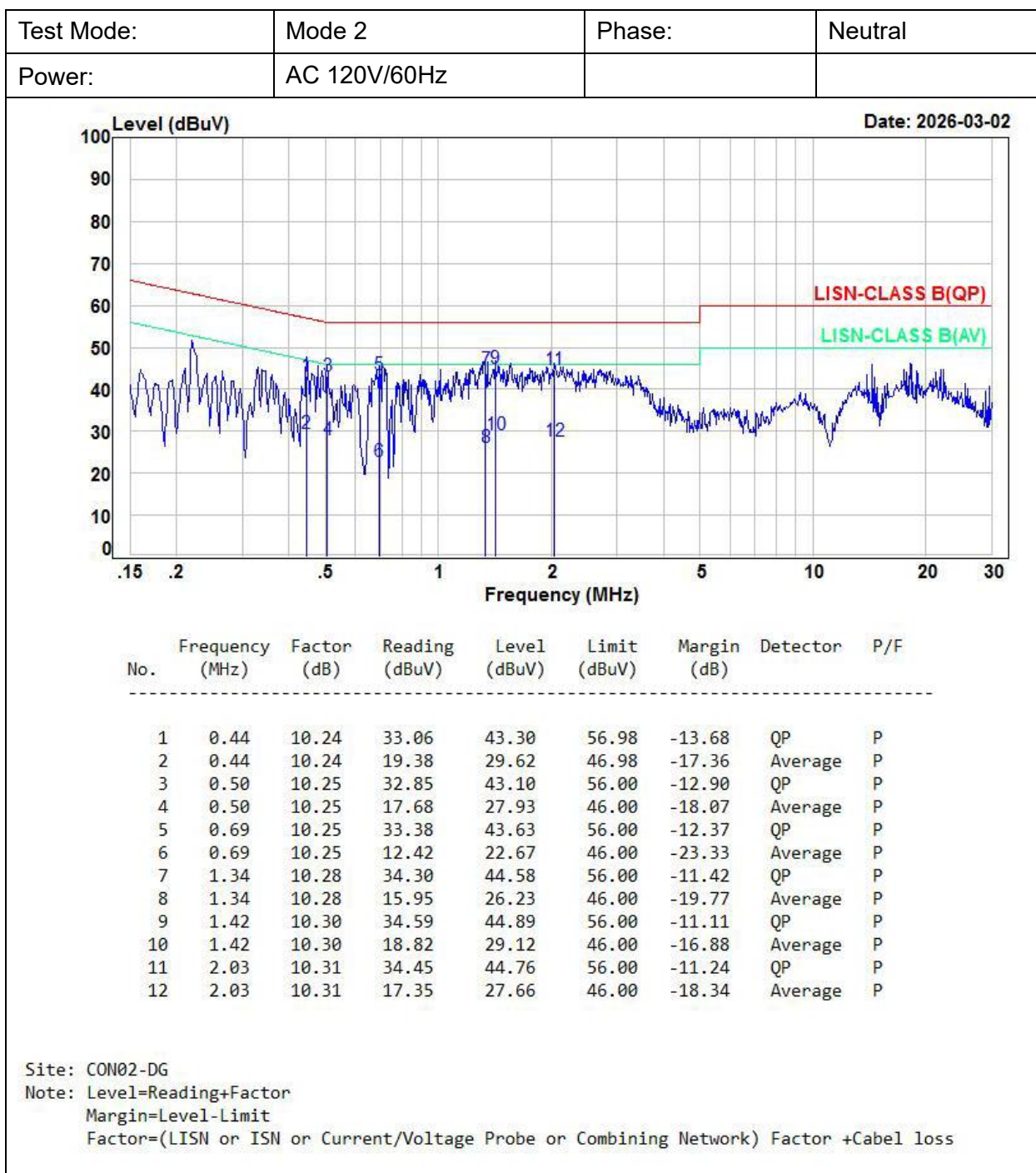
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.23	10.22	40.45	50.67	62.61	-11.94	QP	P
2	0.23	10.22	22.86	33.08	52.61	-19.53	Average	P
3	0.49	10.26	33.60	43.86	56.19	-12.33	QP	P
4	0.49	10.26	14.82	25.08	46.19	-21.11	Average	P
5	1.34	10.29	34.49	44.78	56.00	-11.22	QP	P
6	1.34	10.29	18.34	28.63	46.00	-17.37	Average	P
7	2.03	10.32	33.94	44.26	56.00	-11.74	QP	P
8	2.03	10.32	20.05	30.37	46.00	-15.63	Average	P
9	2.66	10.33	34.72	45.05	56.00	-10.95	QP	P
10	2.66	10.33	21.61	31.94	46.00	-14.06	Average	P
11	3.11	10.33	35.14	45.47	56.00	-10.53	QP	P
12	3.11	10.33	22.83	33.16	46.00	-12.84	Average	P

Site: CON02-DG

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=(LISN or ISN or Current/Voltage Probe or Combining Network) Factor +Cabel loss





6. Test of Radiated Emission

6.1 Test Limit

In any 100kHz bandwidth outside the frequency band, the radio frequency power produced by According to §15.209(a), for a intentional device, the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the following values:

Radiated Emission Limit (9kHz~1000MHz)

FREQUENCIES(MHz)	FIELD STRENGTH(microvolts/meter)	MEASUREMENT DISTANCE(meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBuV/m)=20log Emission Level(uV/m)



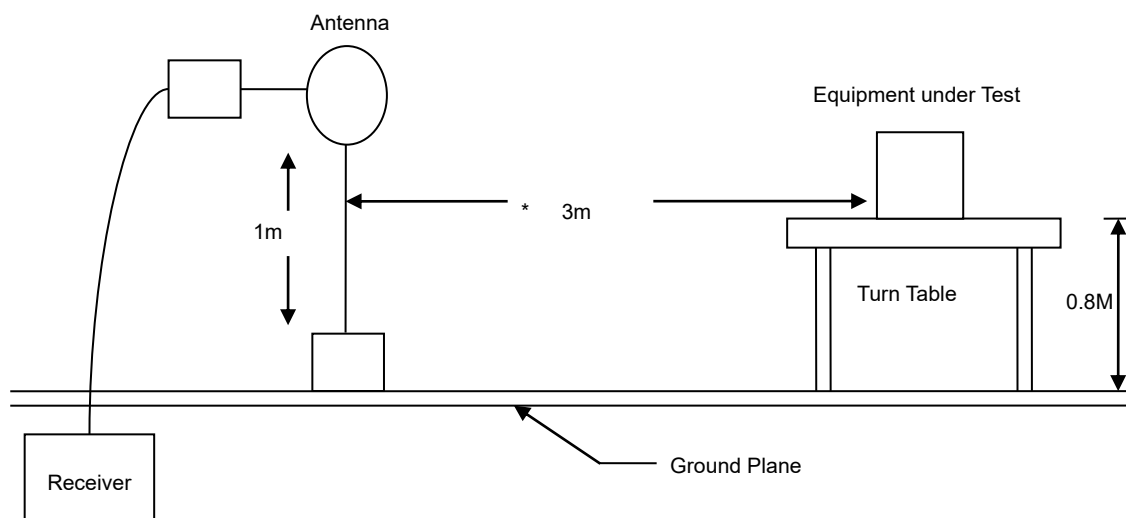
6.2 Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

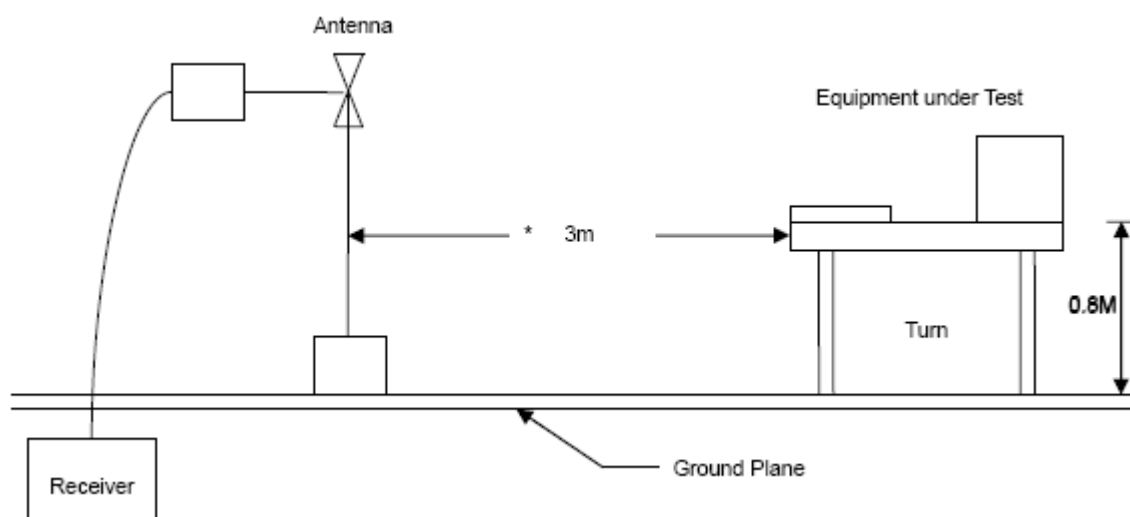


6.3 Typical Test Setup

Below 30MHz Test Setup



30M - 1GHz Test Setup

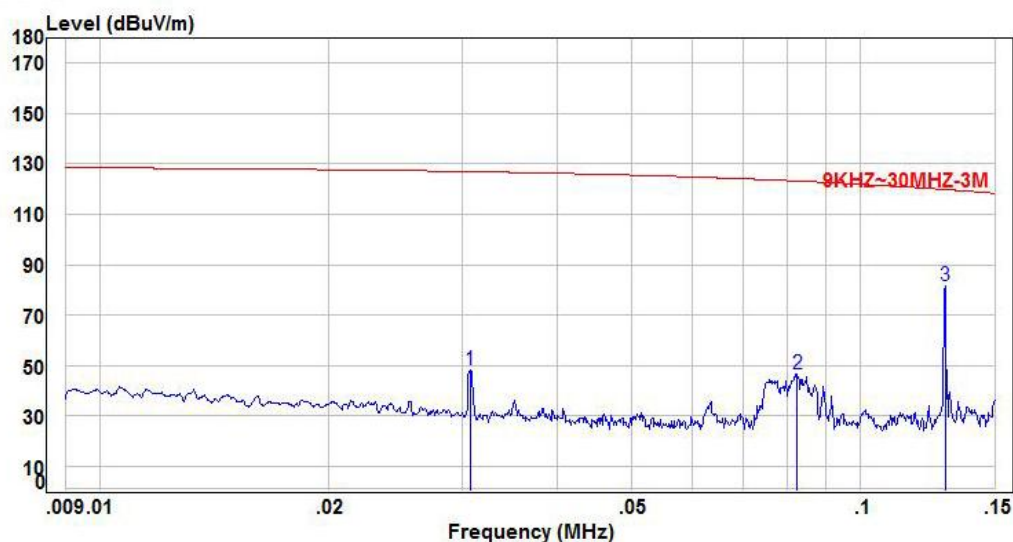




6.4 Test Result and Data

For 9kHz~30MHz

Test Mode	: Mode 3	Polarization	: X
Power	: AC 120V/60Hz	Frequency Range	: 9kHz-150kHz



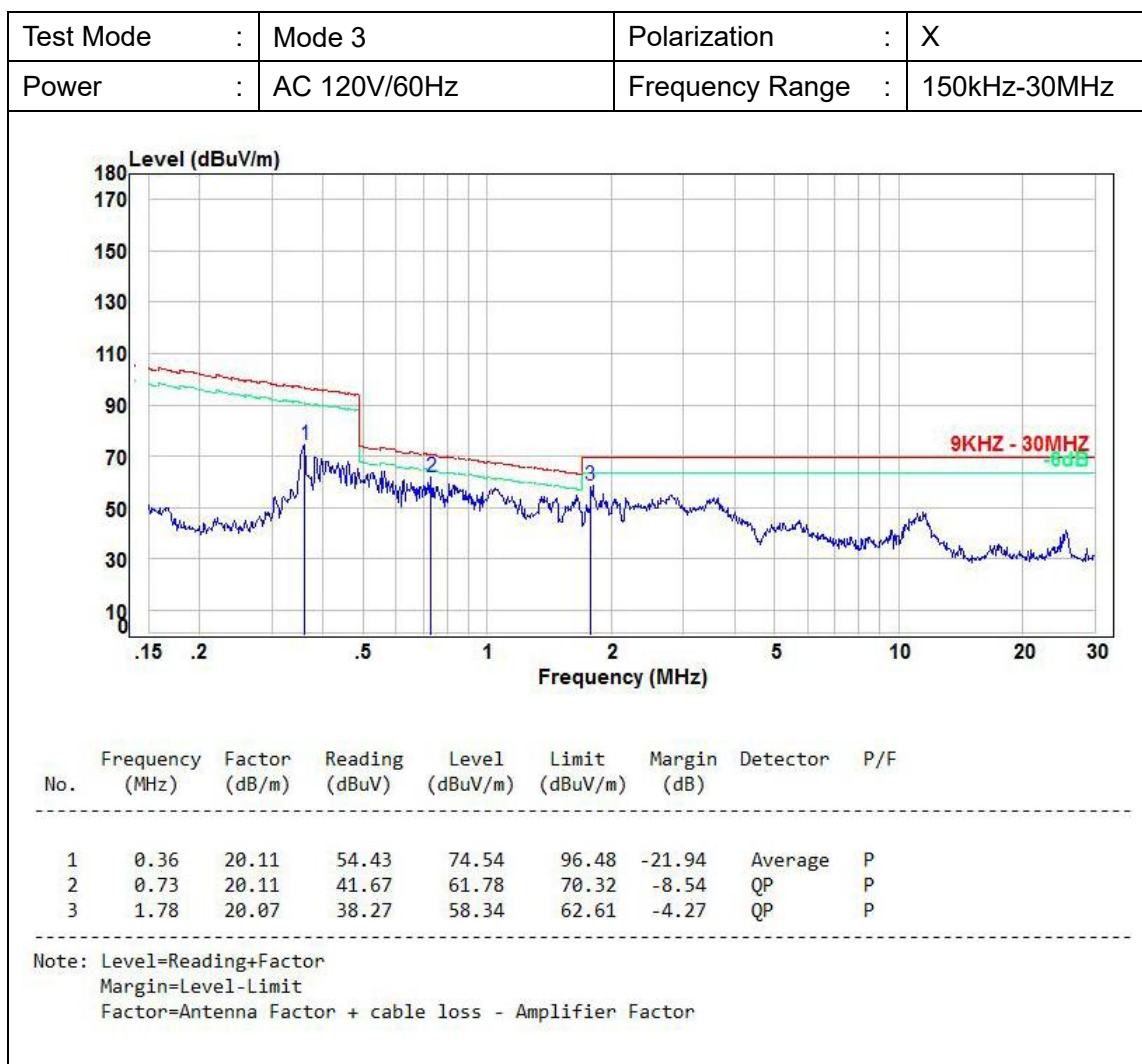
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	0.03	19.82	28.08	47.90	117.86	-69.96	Average	P
2	0.08	20.11	26.59	46.70	109.26	-62.56	Average	P
3	0.13	20.02	61.58	81.60	105.38	-23.78	Average	P

Note: Level=Reading+Factor

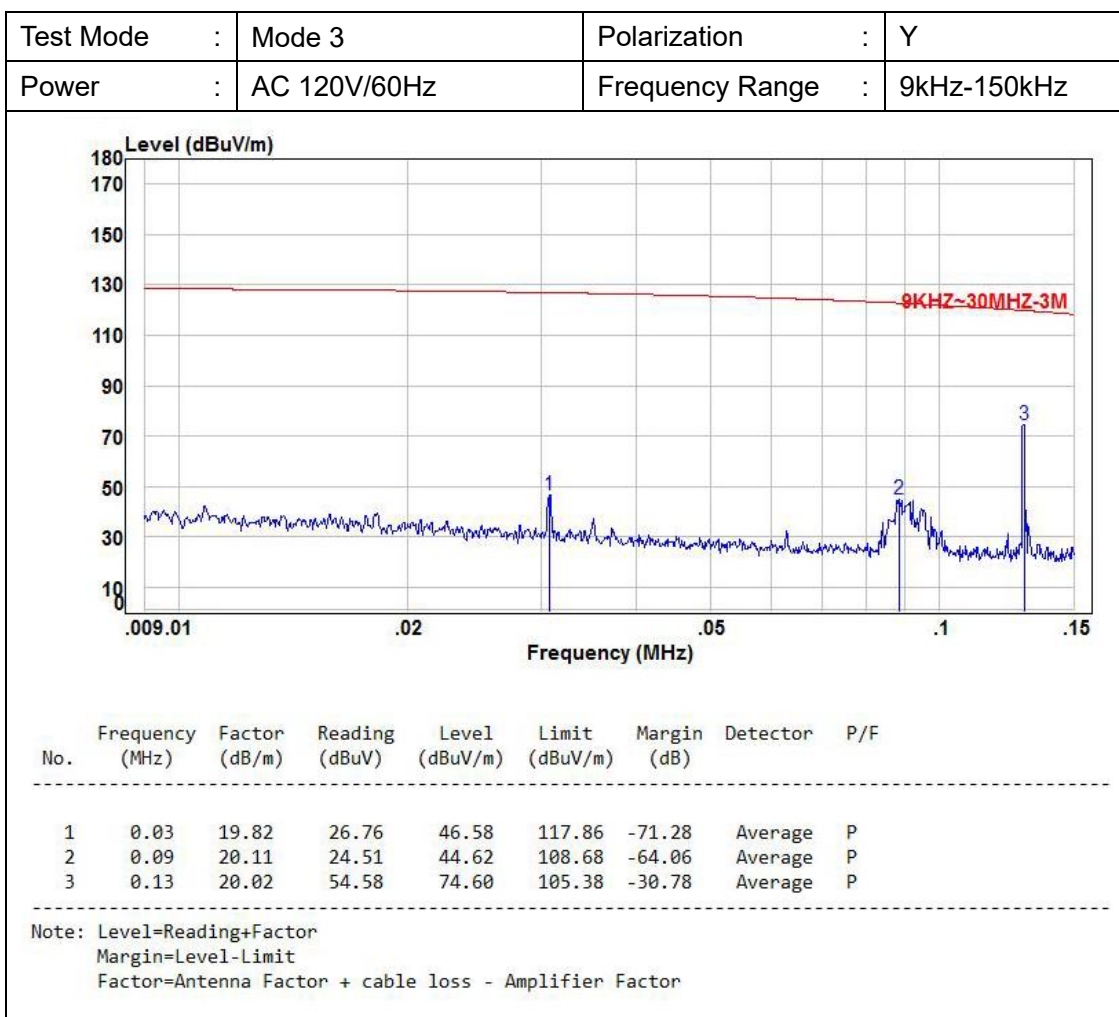
Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

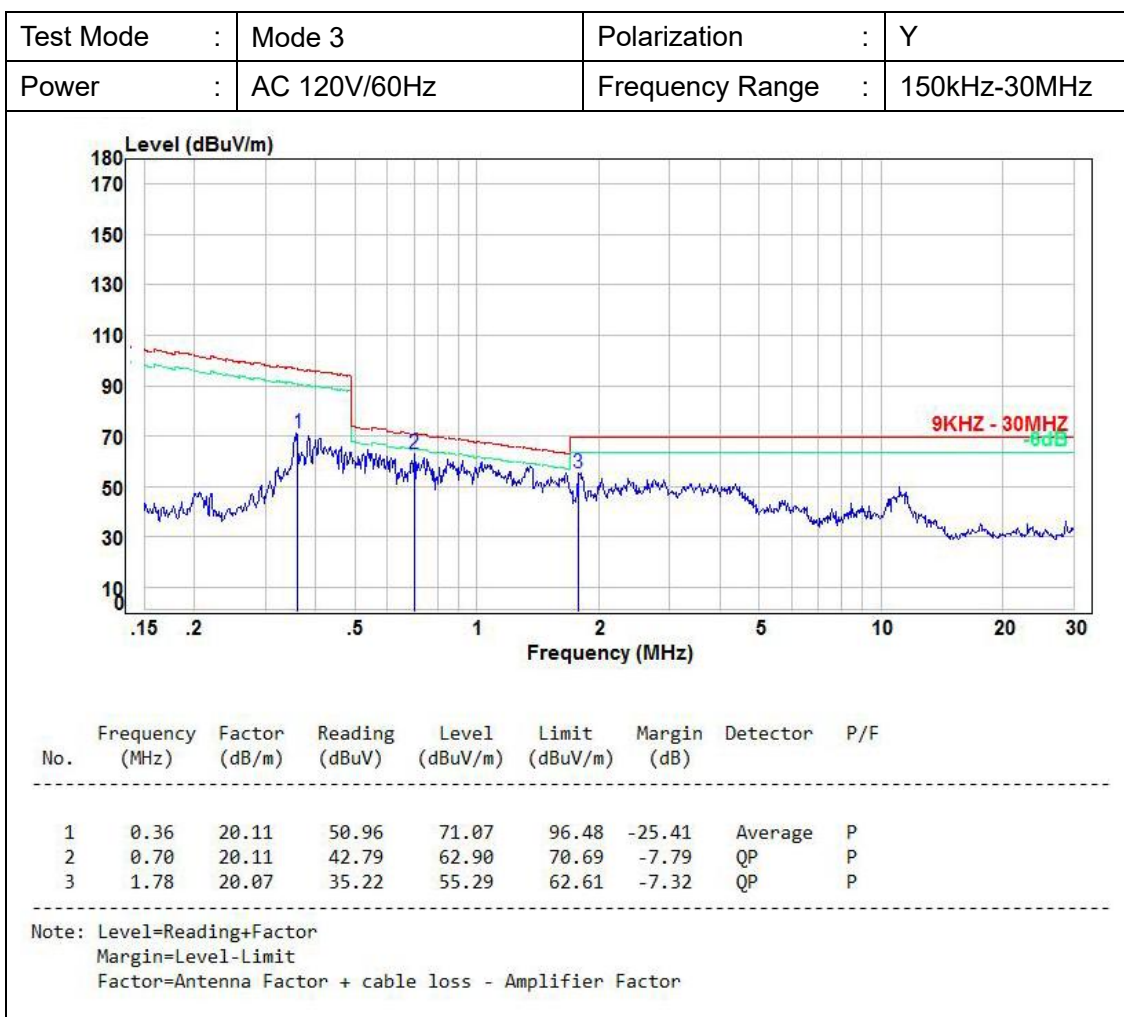
Note: 0.13MHz for Wireless 2 Operating @111~147kHz.



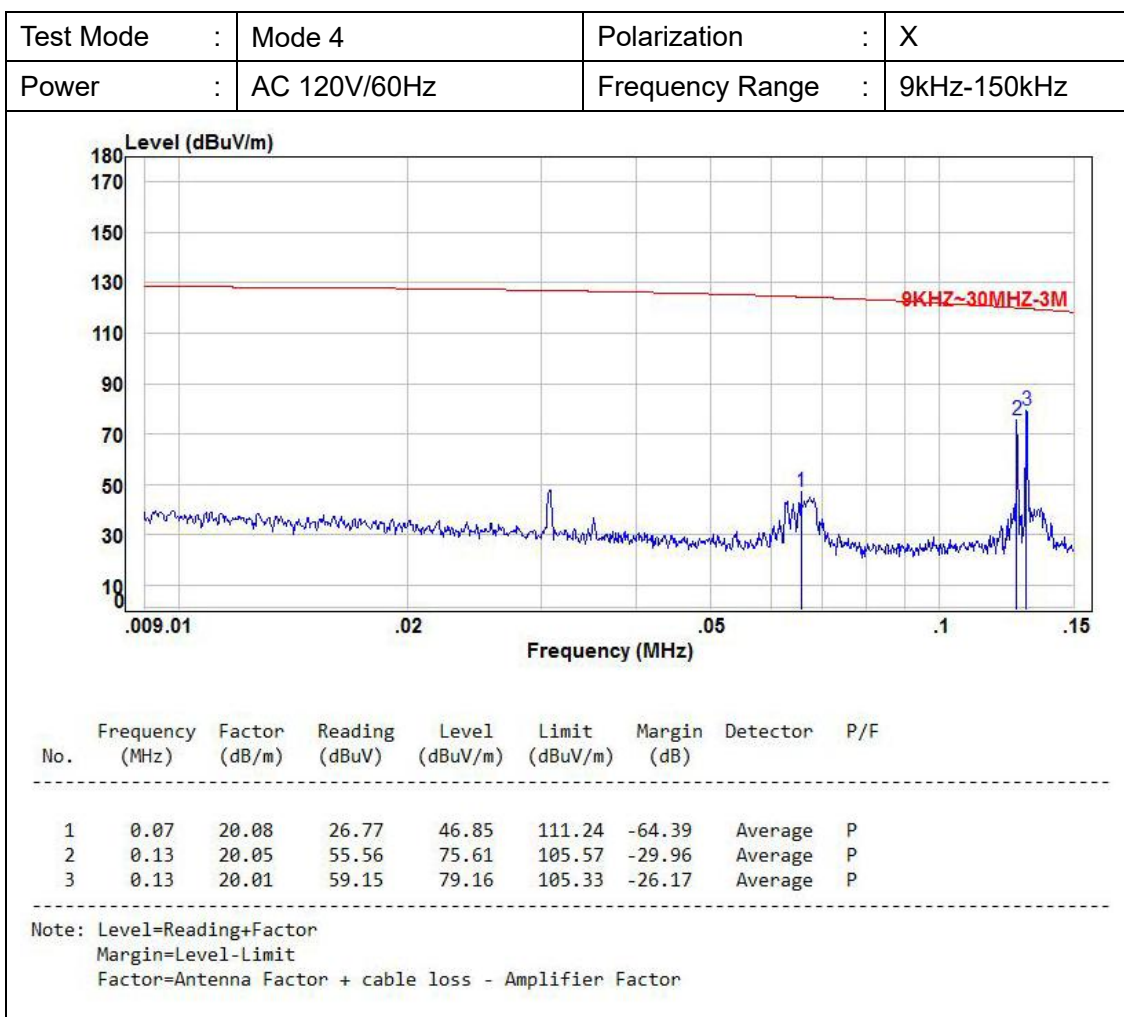
Note: 0.36MHz for Wireless 1 Operating @MPP 360kHz; 1.78MHz for Wireless 3 Operating @1.778MHz.



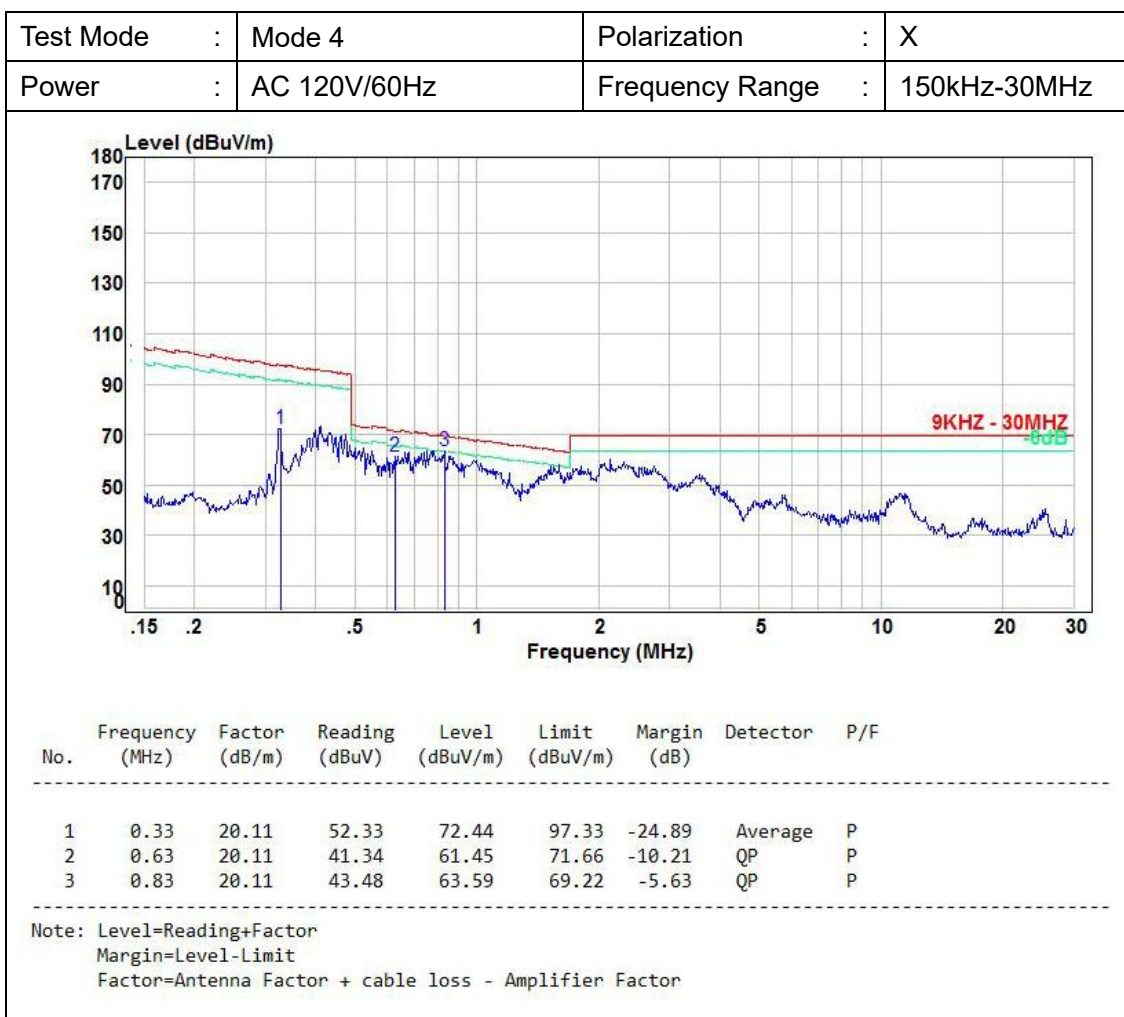
Note: 0.13MHz for Wireless 2 Operating @111~147kHz.



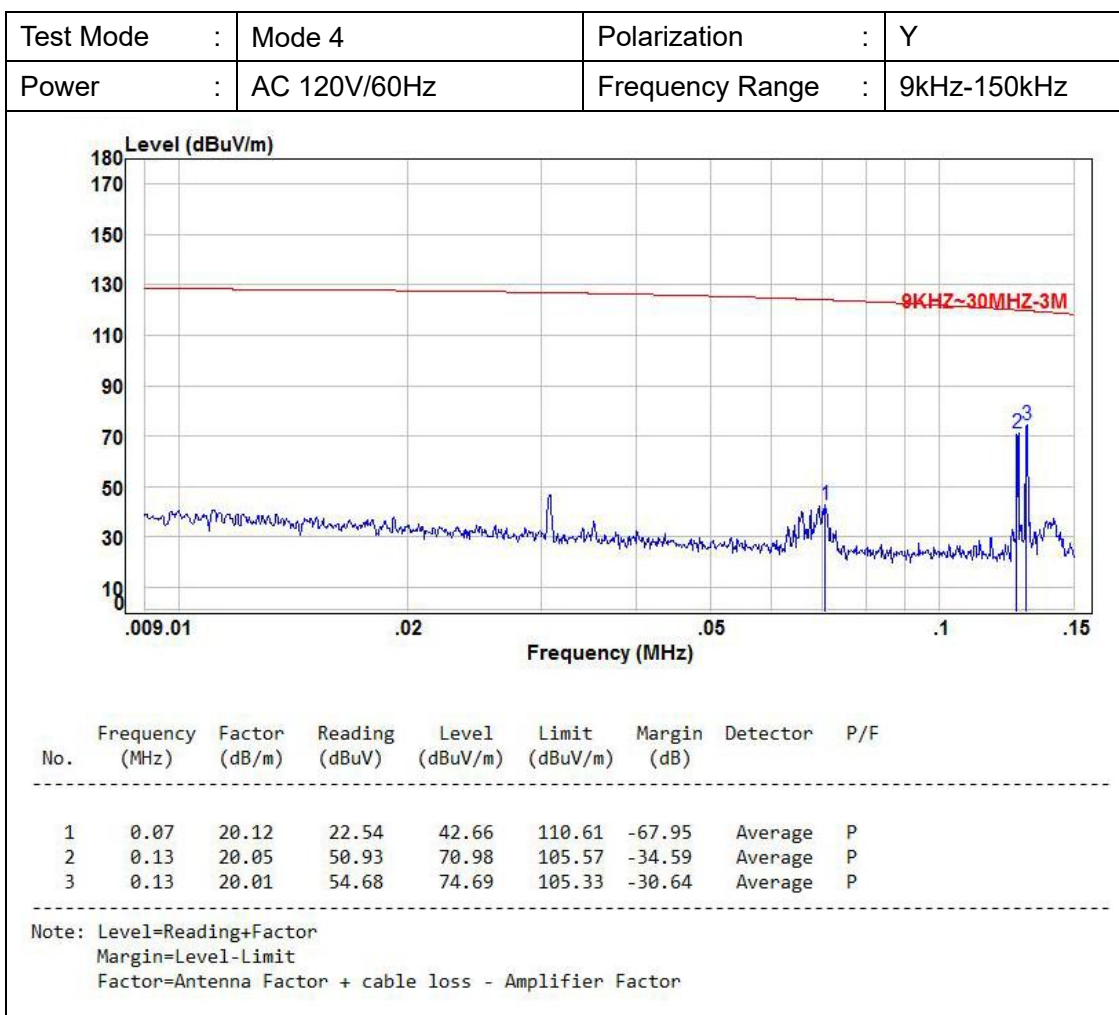
Note: 0.36MHz for Wireless 1 Operating @MPP 360kHz; 1.78MHz for Wireless 3 Operating @1.778MHz.



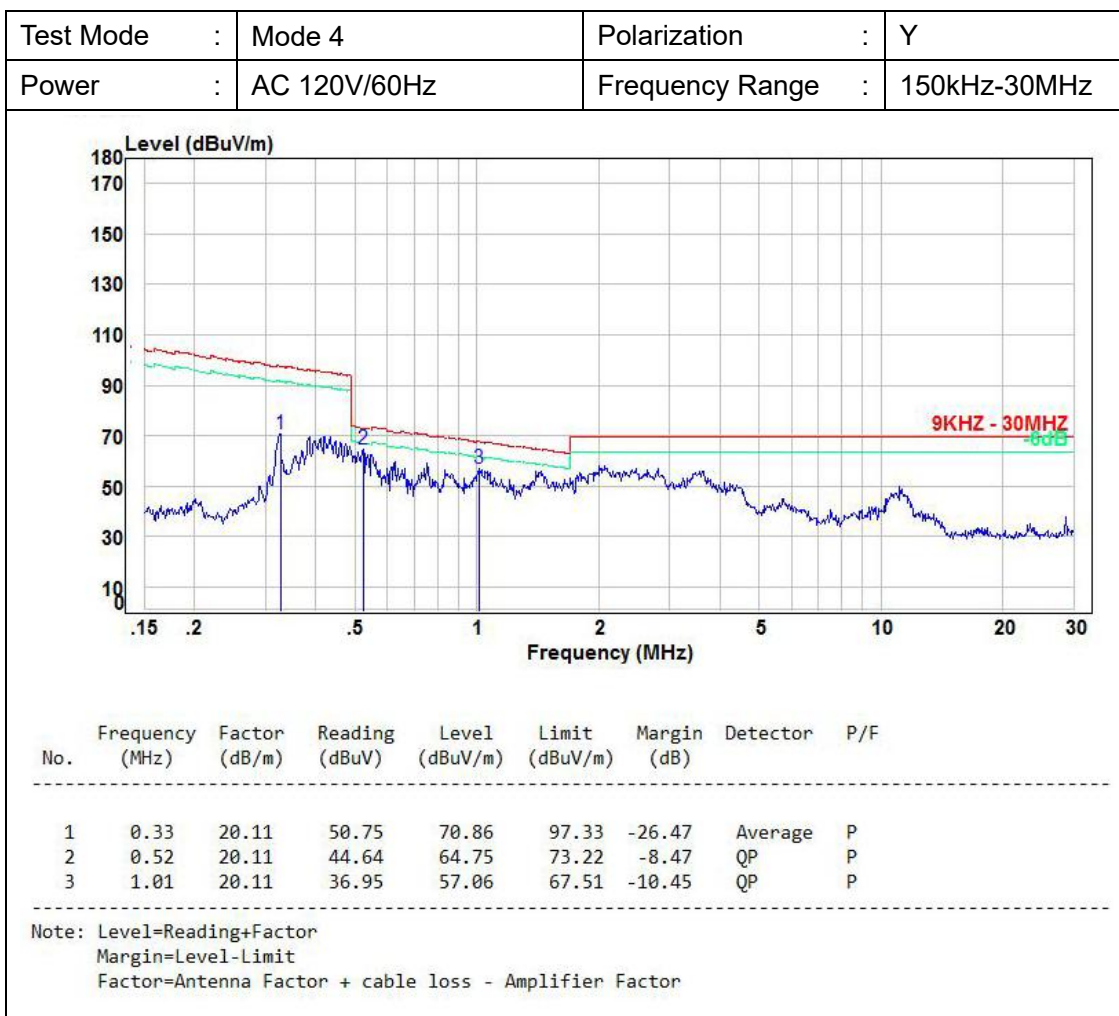
Note: Number 2 – 0.13MHz for Wireless 1 Operating @BPP 120~148.5kHz; Number 3 - 0.13MHz for Wireless 2 Operating @111~147kHz



Note: 0.33MHz for Wireless 3 Operating @326.5MHz.



Note: Number 2 – 0.13MHz for Wireless 1 Operating @BPP 120~148.5kHz; Number 3 - 0.13MHz for Wireless 2 Operating @111~147kHz

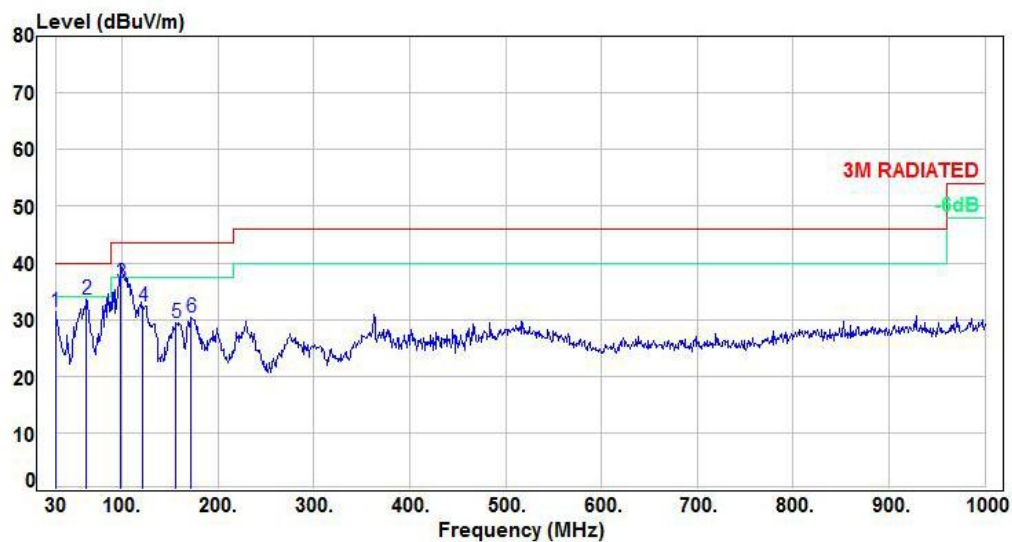


Note: 0.33MHz for Wireless 3 Operating @326.5MHz.



For 30MHz~1GHz

Test Mode	:	Mode 2	Pol/Phase	:	VERTICAL
Power	:	AC 120V/60Hz			

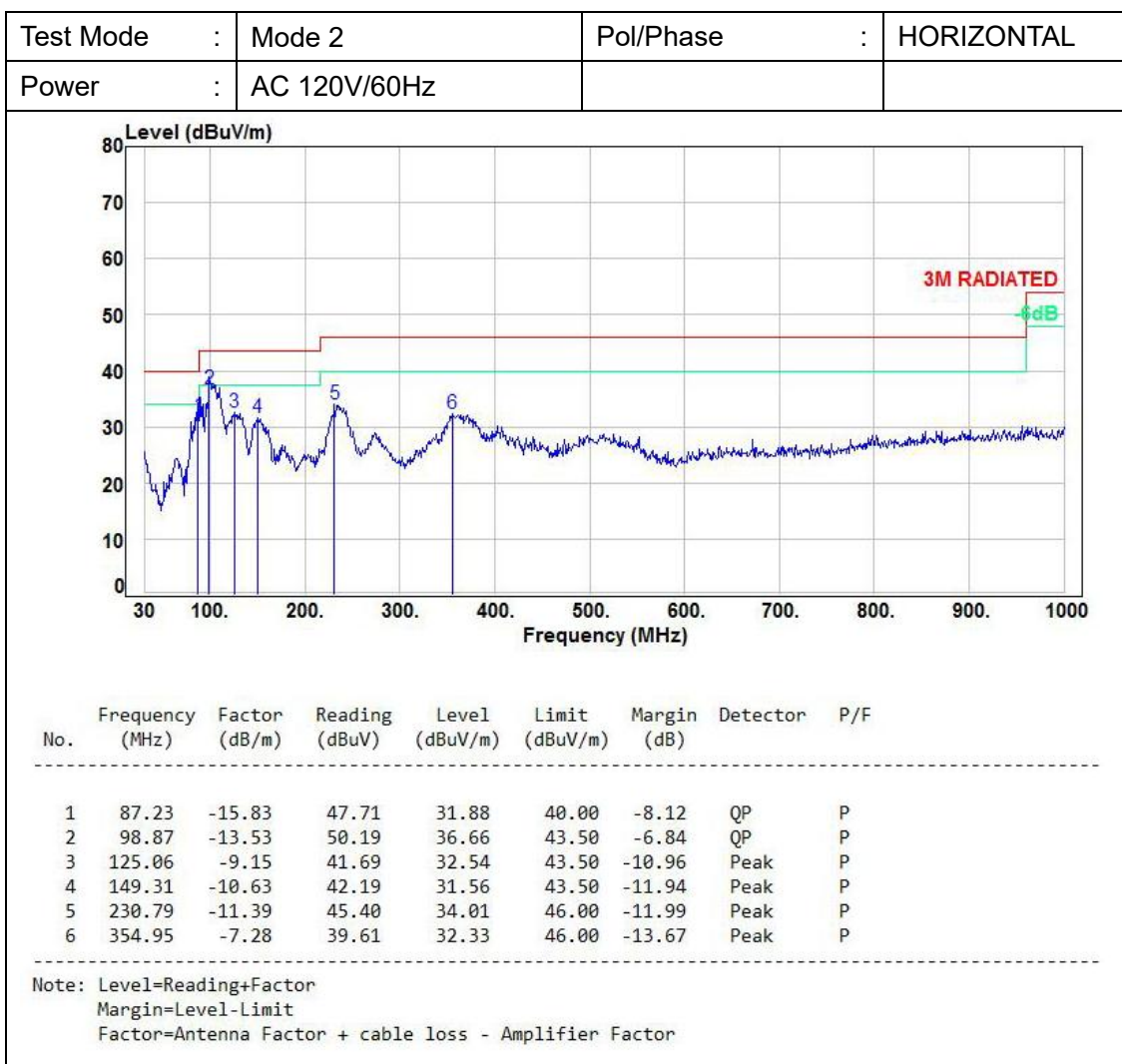


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	30.00	-3.48	34.79	31.31	40.00	-8.69	Peak	P
2	62.98	-16.29	49.88	33.59	40.00	-6.41	Peak	P
3	98.87	-13.53	50.02	36.49	43.50	-7.01	QP	P
4	121.18	-9.17	41.62	32.45	43.50	-11.05	Peak	P
5	156.10	-10.72	40.15	29.43	43.50	-14.07	Peak	P
6	171.62	-11.07	41.42	30.35	43.50	-13.15	Peak	P

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor





7. 20dB Bandwidth

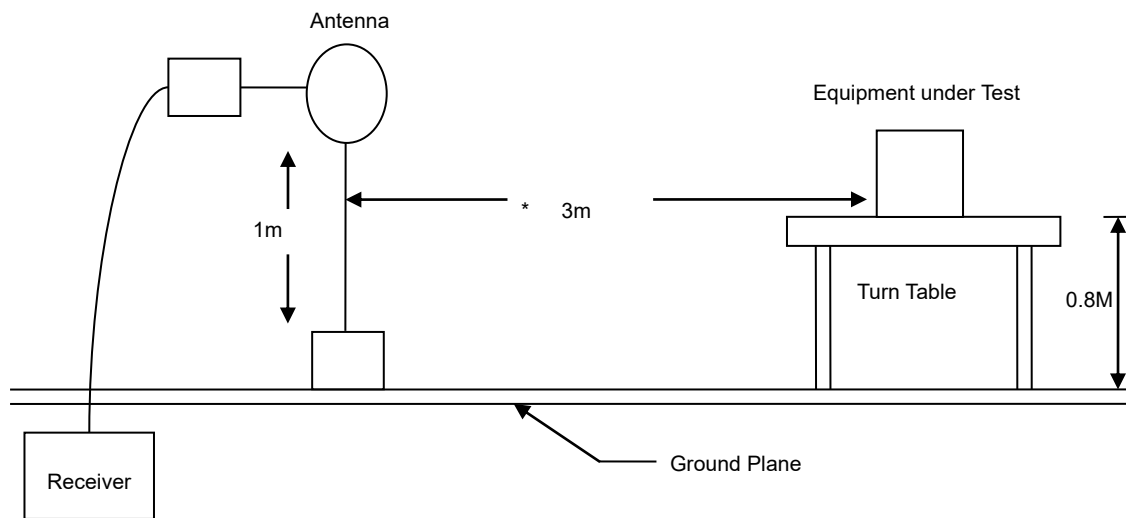
7.1 Test Limit

None: for reporting purposed only.

7.2 Test Procedures

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §15.215, must be designed to ensure that 20dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates is contained within the frequency band designated in the rule section under which the equipment is operated.

7.3 Typical Test Setup

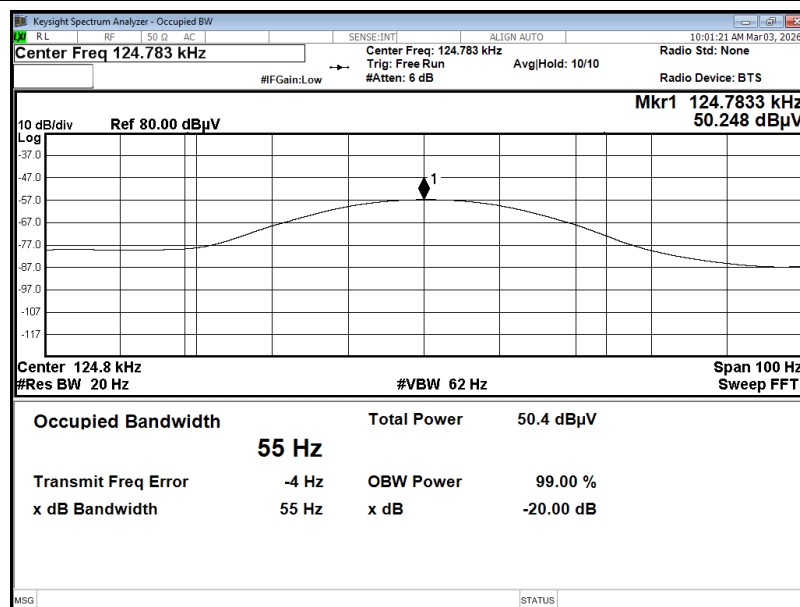




7.4 Test Result and Data

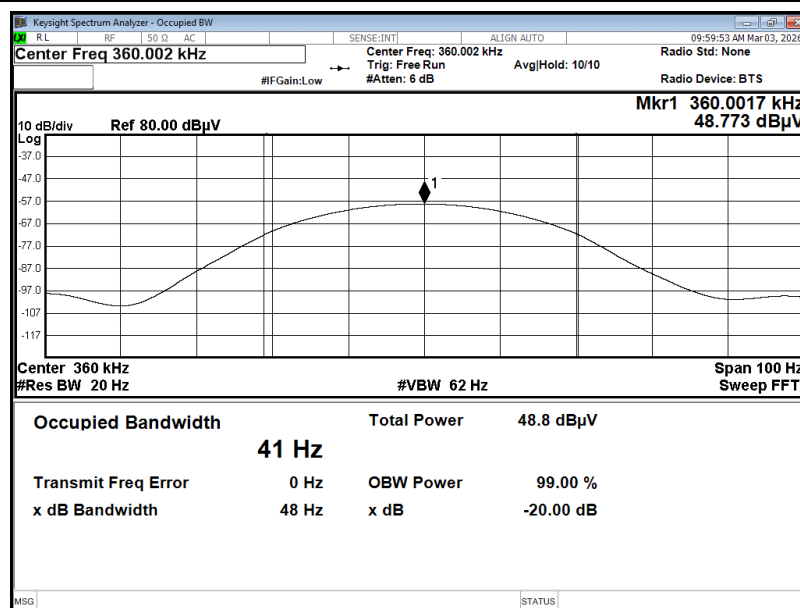
Wireless Output 1 (10W for Wireless Load, Operating @BPP 120~148.5kHz)

Frequency (kHz)	20 dB bandwidth (kHz)	PASS / FAIL
124.8kHz	0.055	PASS



Wireless Output 1 (25W for Wireless Load, Operating @MPP 360kHz)

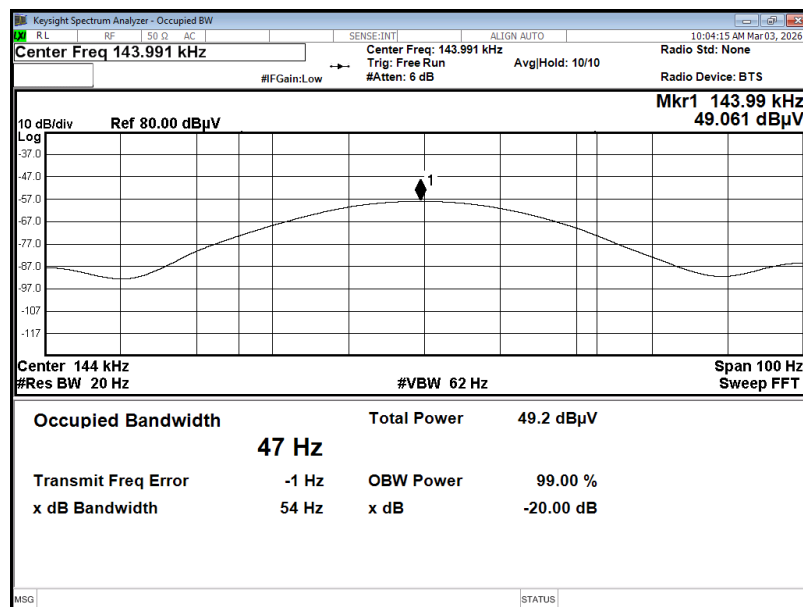
Frequency (kHz)	20 dB bandwidth (kHz)	PASS / FAIL
360kHz	0.048	PASS





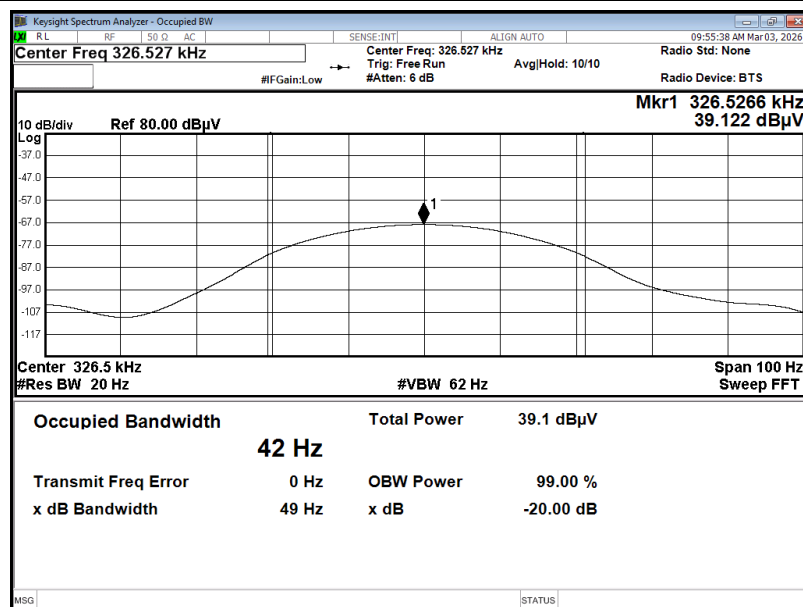
Wireless Output 2 (5W for Wireless Load, Operating @111~147kHz)

Frequency (kHz)	20 dB bandwidth (kHz)	PASS / FAIL
144kHz	0.054	PASS



Wireless Output 3 (5W for Apple watch 3, Operating @326.5kHz)

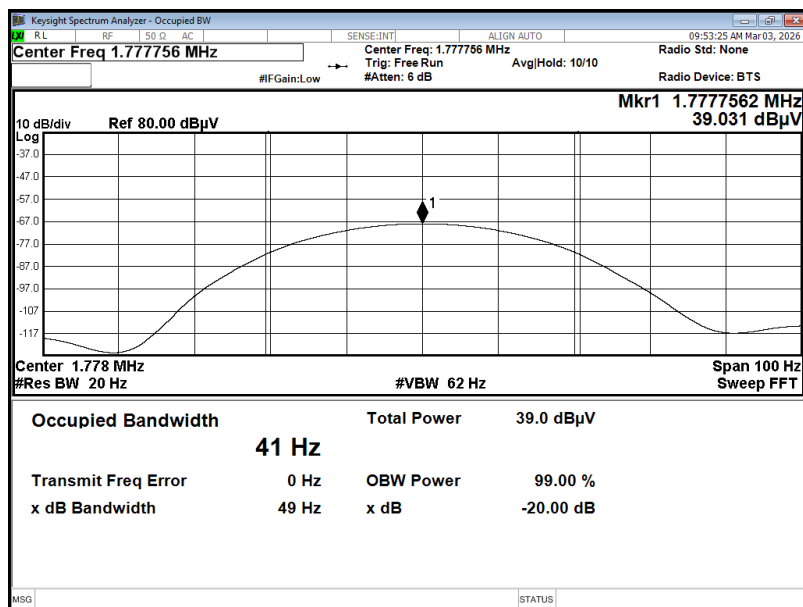
Frequency (kHz)	20 dB bandwidth (kHz)	PASS / FAIL
326.5kHz	0.049	PASS





Wireless Output 3 (5W for Apple watch 7, Operating @1.778MHz)

Frequency (MHz)	20 dB bandwidth (kHz)	PASS / FAIL
1.778MHz	0.049	PASS



----- End of the report -----