ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART C REQUIREMENT

OF

Wireless Charger

Model No.: PW0043

Trademark: N/A

FCC ID: 2BBEH-PW0043

Report No.: E01A23031000F00101

Issue Date: May 11, 2023

Prepared for

Jiangxi Kingtron Tech Co., Ltd.

Luoxin Tech., Industrial Park, 2nd District, Quannan Industrial Park, Ganzhou, Jiangxi, China, 341800

Prepared by

Dong Guan Anci Electronic Technology Co., Ltd.

1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan, Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.

VERIFICATION OF COMPLIANCE

Applicant:	Jiangxi Kingtron Tech Co., Ltd. Luoxin Tech., Industrial Park, 2nd District, Quannan Industrial Park, Ganzhou, Jiangxi, China, 341800
Manufacturer:	Jiangxi Kingtron Tech Co., Ltd. Luoxin Tech., Industrial Park, 2nd District, Quannan Industrial Park, Ganzhou, Jiangxi, China, 341800
Product Description:	Wireless Charger
Trade Mark:	N/A
Model Number:	PW0043
Test Sample Number:	A23031000 001

We hereby certify that:

The above equipment was tested by Dong Guan Anci Electronic Technology Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10-2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15.209(2020).

Date of Test : April 18, 2023 to April 28, 2023

Prepared by : Tiger Xu/Supervisor

Reviewer & Authorized Signer : Tomas Yang /Manager

Modified Information

Version	Summary	Revision Date	Report No.
Ver.1.0	Original Report	/	E01A23031000F00101

Table of Contents

1 General Information

1.1 Product Description

Characteristics	Description
Product Name	Wireless Charger
Model number	PW0043
Operation Mode	Wireless Charging
Input Rating	5.0V ⎓ 3.0A, 9.0V ⎓ 3.0A
Power Supply	AC120V/60Hz for adapter
Operating Frequency	110-205KHz for iphone 325.3KHz for Apple Watch 112.2KHz for Earbuds
Wireless Charging Power	15W for iphone charging 2.5W for Apple Watch charging 5W for Earbuds charging
Modulation Technique	FSK for iphone charging ASK for Apple Watch charging ASK for Earbuds charging
Antenna Type	Induction coil

1.2 Related Submittal(s) / Grant(s)

This submittal(s) (test report) is intended for FCC ID: 2BBEH-PW0043 filing to comply with the FCC Part 15, Subpart C Rules.

1.3 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 (2013). Radiated testing was performed at an antenna to EUT distance 3 meters.

1.4 Special Accessories

Not available for this EUT intended for grant.

1.5 Equipment Modifications

Not available for this EUT intended for grant.

1.6 Test Facility

Site Description EMC Lab.	:	Accredited by CNAS, 2017.06.26 The certificate is valid until 2022.10.28 The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2006 (identical to ISO/IEC 17025:2005) The Certificate Registration Number is L6214. Accredited by A2LA, 2018.03.15 The Certificate Number is 4422.01.
Name of Firm	:	Dong Guan Anci Electronic Technology Co., Ltd.
Site Location	:	1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan, Lake Hi-tech Industrial Development Zone, Dongguan City,evelopment Zone, Dongguan City, Guangdong Pr., China.

2 System Test Configuration

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

2.3 Test Procedure

2.3.1 Conducted Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.

2.3.2 Radiated Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the fixed in a particular direction according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013.

2.4 Configuration of Tested System

Fig. 2-1 Configuration of Tested System

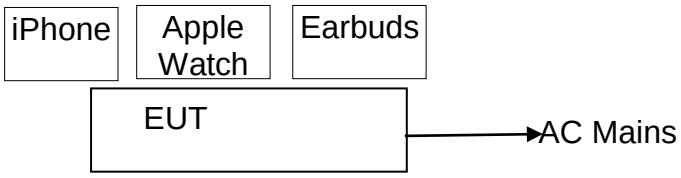


Table 2-1 Equipment Used in Tested System

Item	Equipment	Trade Mark	Model No.	FCC ID	Note
1.	Wireless Charger	N/A	PW0043	2BBEH-PW0043	***EUT***
2.	Adapter	UGREEN	Model: CD217 Input: AC 100-240V, 50/60Hz Output: DC 5V/3A,DC 9/3A,DC 12V/2.5A	N/A	***Support Equipment***
3.	iphone	Apple	A2404	N/A	***Support Equipment***
4.	Earbuds	momax	X5	N/A	***Support Equipment***
5.	Apple Watch	Apple	A1859	N/A	***Support Equipment***

Note:

(1) Unless otherwise denoted as EUT in『Remark』column, device(s) used in tested system is a support equipment.

3 Summary of Test Results

FCC Rules	Description Of Test	Result
§15.207	AC Power Conducted Emission	Compliant
§15.209	Radiated Emission	Compliant
§2.1049	20dB Bandwidth	Compliant
§15.203	Antenna Requirement	Compliant

4 TEST SYSTEM UNCERTAINTY

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Parameter	Uncertainty
Conducted Emissions Test	±2.0dB
Radiated Emission Test	±2.0dB
Temperature	±0.5℃
Humidity	±3%

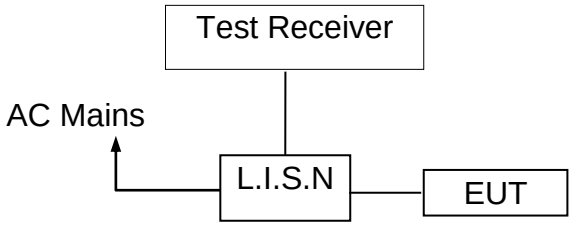
Remark: The coverage Factor (k=2), and measurement Uncertainty for a level of Confidence of 95%

5 Conducted Emissions Test

5.1 Measurement Procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured was complete.

5.2 Test SET-UP (Block Diagram of Configuration)



5.3 Measurement Equipment Used

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	Calibrated until
L.I.S.N	SCHWARZBECK	NSLK 8127	8127-669	2023-05-12
10 db attenuator	JFW	50FP-010-H4	4360846-427-1	2023-05-12
RF Cable	N/A	N/A	2#	2023-05-12
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	101358	2023-05-12

5.4 Conducted Emission Limit

Conducted Emission

Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

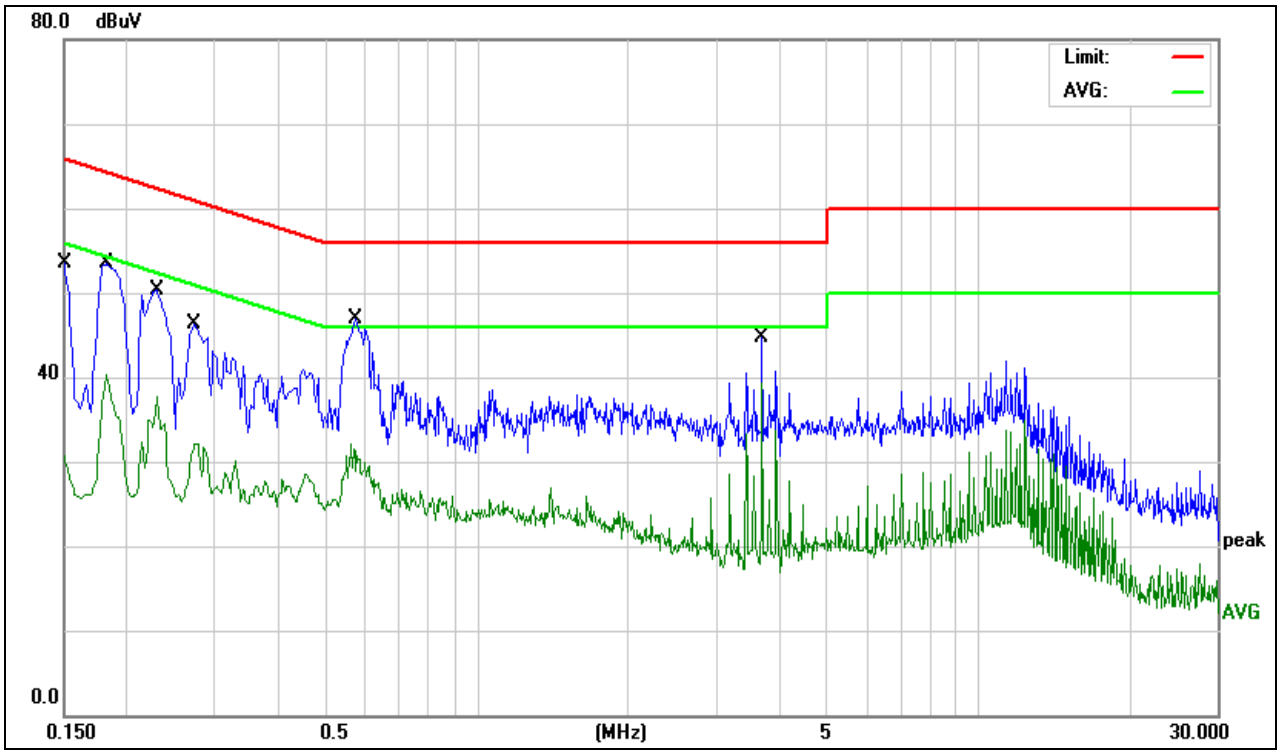
5.5 Measurement Result

Operation Mode:	TX	Test Date :	2023-04-24
Frequency Range:	0.15MHz~30MHz	Temperature :	22℃
Test Result:	PASS	Humidity :	55 %
Test By:	Best		

Pass

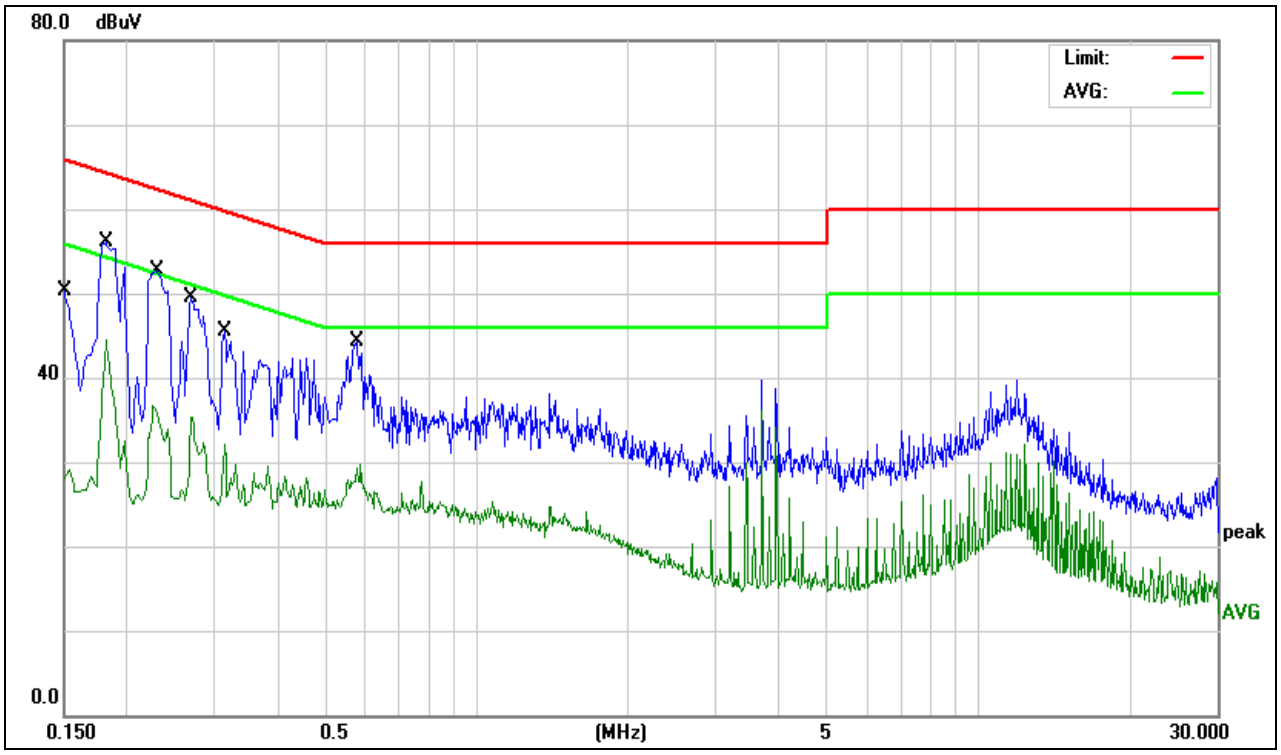
We pretested modes (Wireless Charging for iphone, Wireless Charging for Apple Watch,Wireless Charging for Earbuds，Wireless Charging for iphone+Apple Watch+Earbuds) for EUT. The worst test data(Wireless Charging for iphone+Apple Watch+Earbuds) see follow the table.

Test mode: Wireless Charging for iphone



Site:	**843**	**Phase:L1**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iphone**	**Test Engineer:**	**Jack**
Note:			

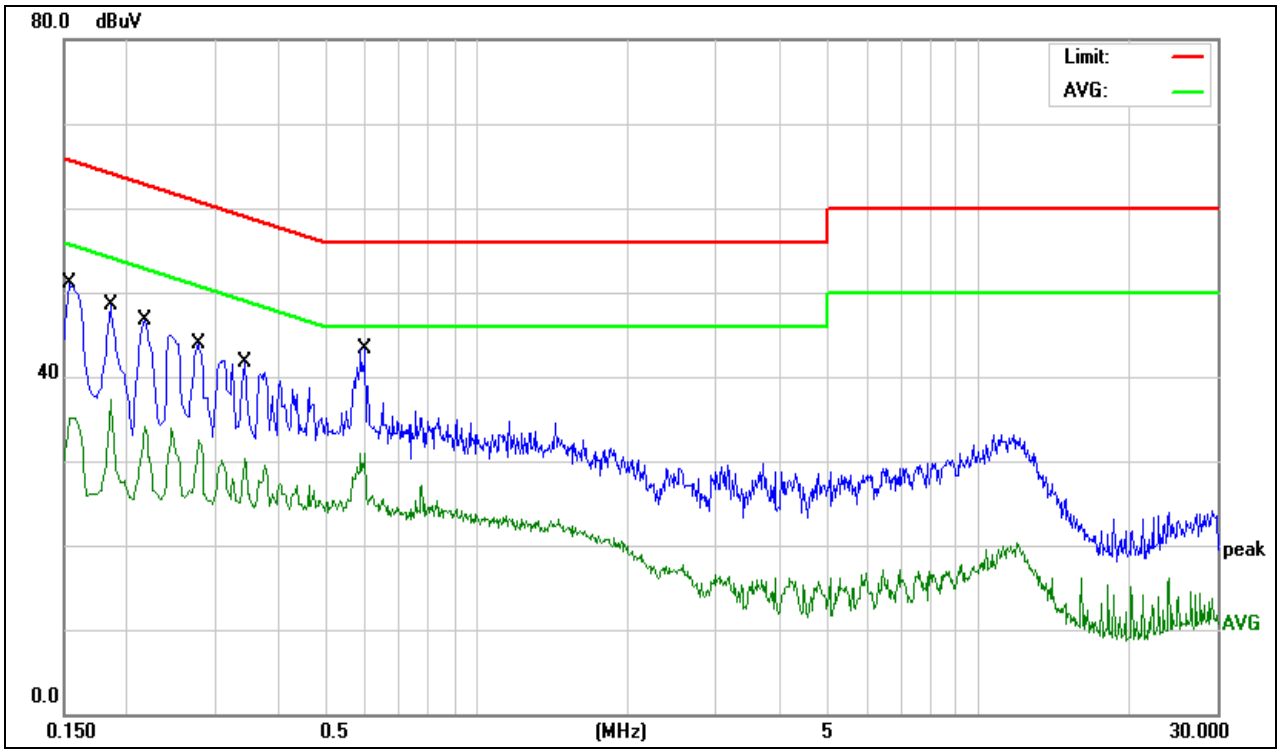
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1500	37.62	9.60	47.22	65.99	-18.77	QP	
2	0.1500	20.29	9.60	29.89	55.99	-26.10	AVG	
3	0.1819	40.97	9.61	50.58	64.39	-13.81	QP	
4	0.1819	26.66	9.61	36.27	54.39	-18.12	AVG	
5	0.2300	36.82	9.63	46.45	62.45	-16.00	QP	
6	0.2300	23.72	9.63	33.35	52.45	-19.10	AVG	
7	0.2740	32.41	9.63	42.04	60.99	-18.95	QP	
8	0.2740	20.23	9.63	29.86	50.99	-21.13	AVG	
9	0.5740	33.88	9.66	43.54	56.00	-12.46	QP	
10	0.5740	20.27	9.66	29.93	46.00	-16.07	AVG	
11	3.7060	32.80	9.83	42.63	56.00	-13.37	QP	
12	3.7060	27.93	9.83	37.76	46.00	-8.24	AVG	



Site:	**843**	**Phase:N**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iphone**	**Test Engineer:**	**Jack**
Note:			

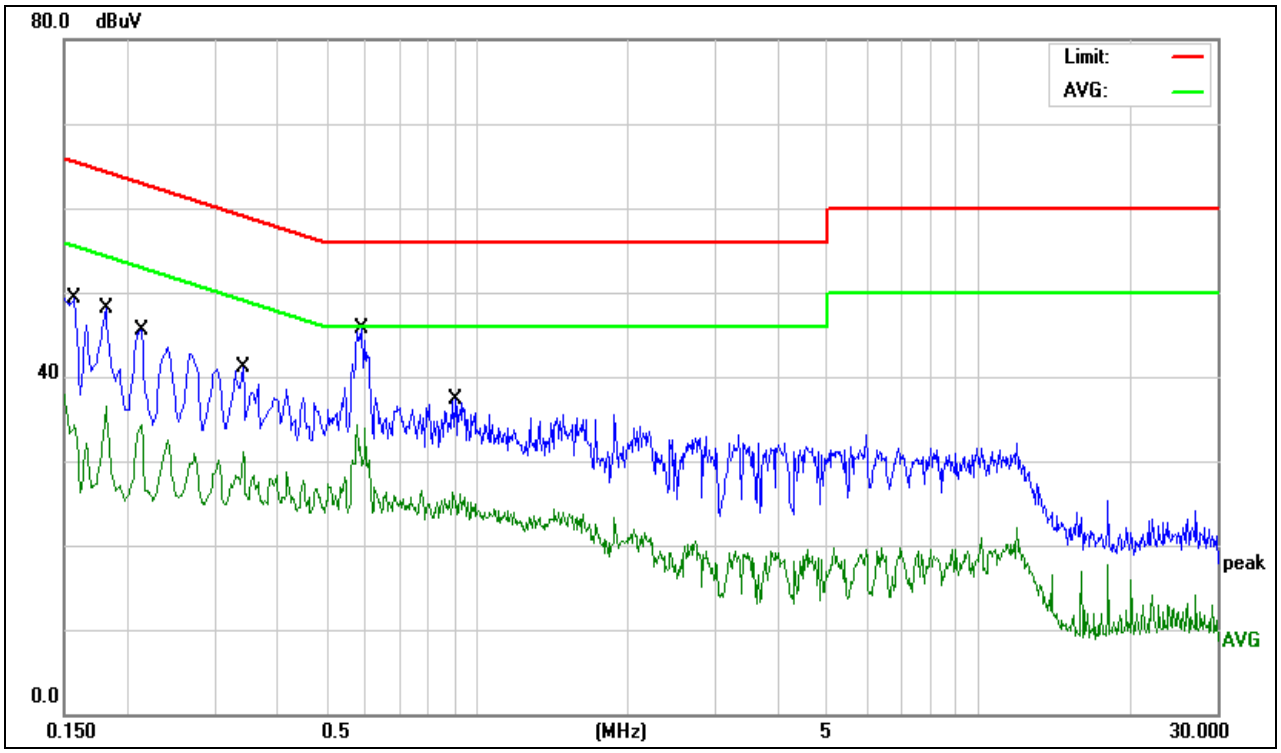
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1500	38.86	9.60	48.46	65.99	-17.53	QP	
2	0.1500	20.60	9.60	30.20	55.99	-25.79	AVG	
3	0.1819	42.97	9.61	52.58	64.39	-11.81	QP	
4	0.1819	28.19	9.61	37.80	54.39	-16.59	AVG	
5	0.2300	38.87	9.63	48.50	62.45	-13.95	QP	
6	0.2300	24.76	9.63	34.39	52.45	-18.06	AVG	
7	0.2700	34.50	9.63	44.13	61.12	-16.99	QP	
8	0.2700	20.54	9.63	30.17	51.12	-20.95	AVG	
9	0.3140	29.95	9.63	39.58	59.86	-20.28	QP	
10	0.3140	17.94	9.63	27.57	49.86	-22.29	AVG	
11	0.5780	30.46	9.67	40.13	56.00	-15.87	QP	
12	0.5780	18.41	9.67	28.08	46.00	-17.92	AVG	

Test mode: Wireless Charging for Apple Watch



Site:	**843**	**Phase:N**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Apple Watch**	**Test Engineer:**	**Jack**
Note:			

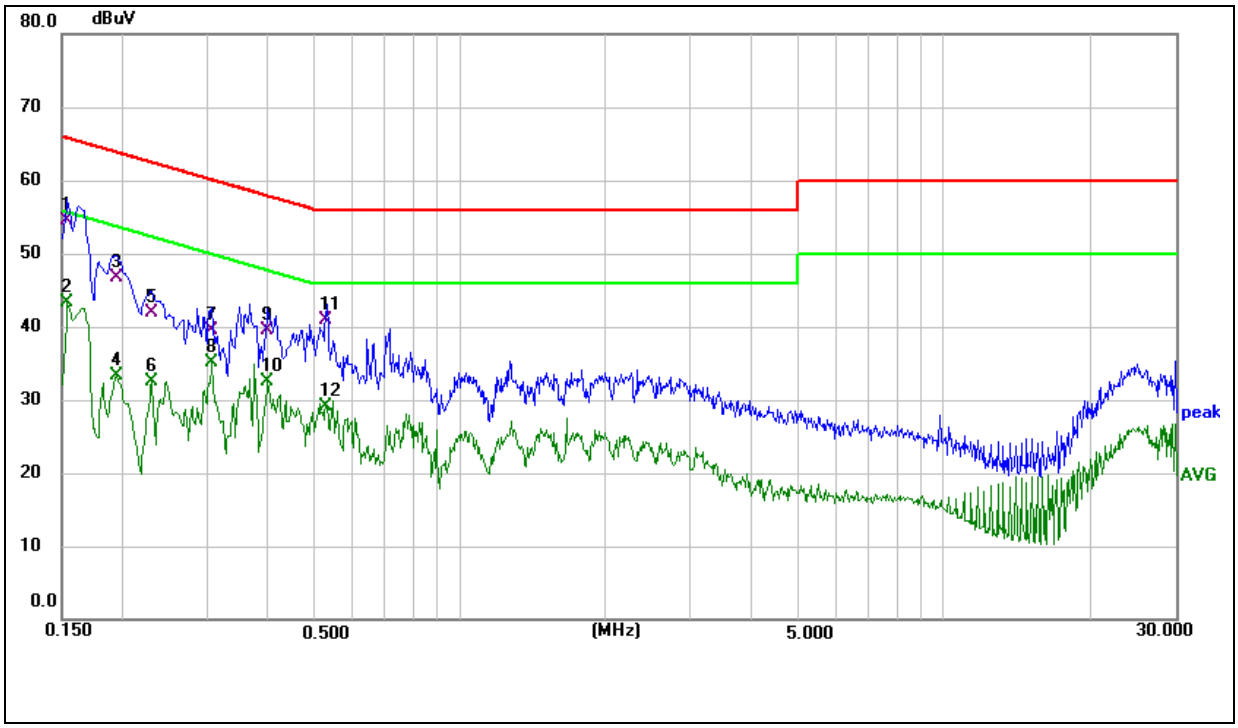
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1539	39.20	9.60	48.80	65.78	-16.98	QP	
2	0.1539	25.77	9.60	35.37	55.78	-20.41	AVG	
3	0.1860	36.94	9.62	46.56	64.21	-17.65	QP	
4	0.1860	24.36	9.62	33.98	54.21	-20.23	AVG	
5	0.2180	34.76	9.62	44.38	62.89	-18.51	QP	
6	0.2180	21.43	9.62	31.05	52.89	-21.84	AVG	
7	0.2779	28.10	9.63	37.73	60.88	-23.15	QP	
8	0.2779	17.61	9.63	27.24	50.88	-23.64	AVG	
9	0.3460	22.51	9.63	32.14	59.06	-26.92	QP	
10	0.3460	15.62	9.63	25.25	49.06	-23.81	AVG	
11	0.5980	27.64	9.67	37.31	56.00	-18.69	QP	
12	0.5980	19.30	9.67	28.97	46.00	-17.03	AVG	



Site:	**843**	**Phase:L1**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Apple Watch**	**Test Engineer:**	**Jack**
Note:			

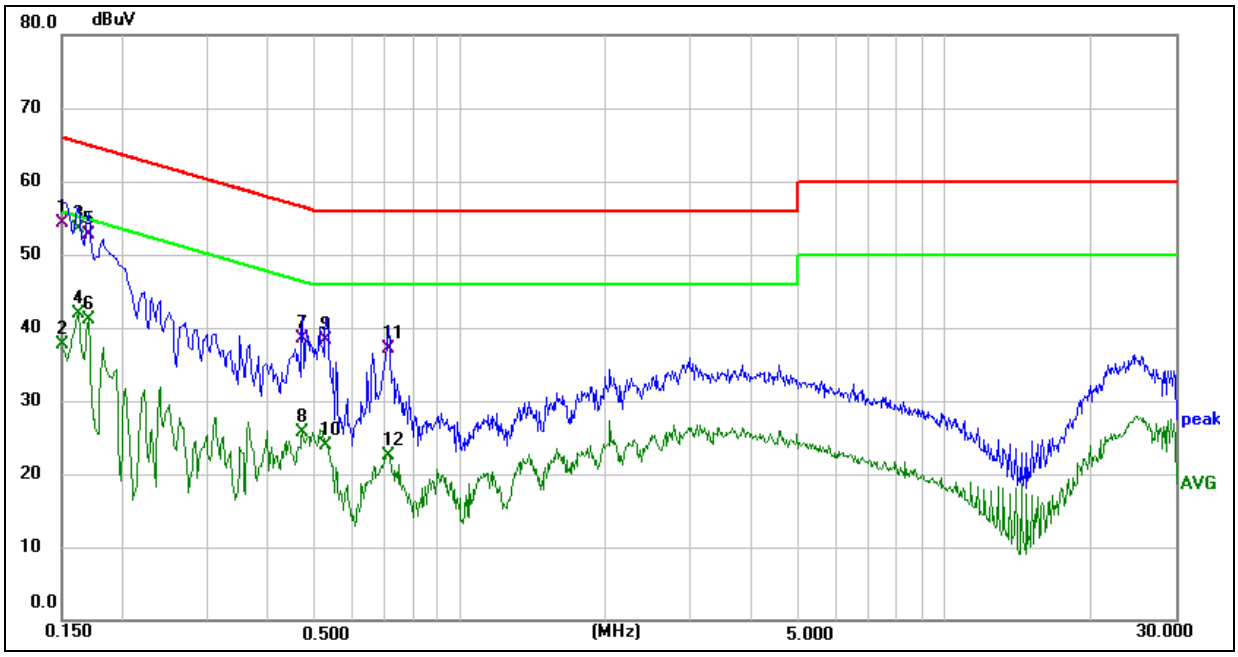
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1580	33.80	9.60	43.40	65.56	-22.16	QP	
2	0.1580	20.00	9.60	29.60	55.56	-25.96	AVG	
3	0.1819	35.10	9.61	44.71	64.39	-19.68	QP	
4	0.1819	23.14	9.61	32.75	54.39	-21.64	AVG	
5	0.2140	32.99	9.62	42.61	63.04	-20.43	QP	
6	0.2140	21.23	9.62	30.85	53.04	-22.19	AVG	
7	0.3420	23.10	9.63	32.73	59.15	-26.42	QP	
8	0.3420	15.94	9.63	25.57	49.15	-23.58	AVG	
9	0.5899	32.20	9.67	41.87	56.00	-14.13	QP	
10	0.5899	20.09	9.67	29.76	46.00	-16.24	AVG	
11	0.9060	21.34	9.67	31.01	56.00	-24.99	QP	
12	0.9060	14.73	9.67	24.40	46.00	-21.60	AVG	

Test mode: Wireless Charging for Earbuds



Site:	**843**	**Phase:N**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Earbuds**	**Test Engineer:**	**Jack**
Note:			

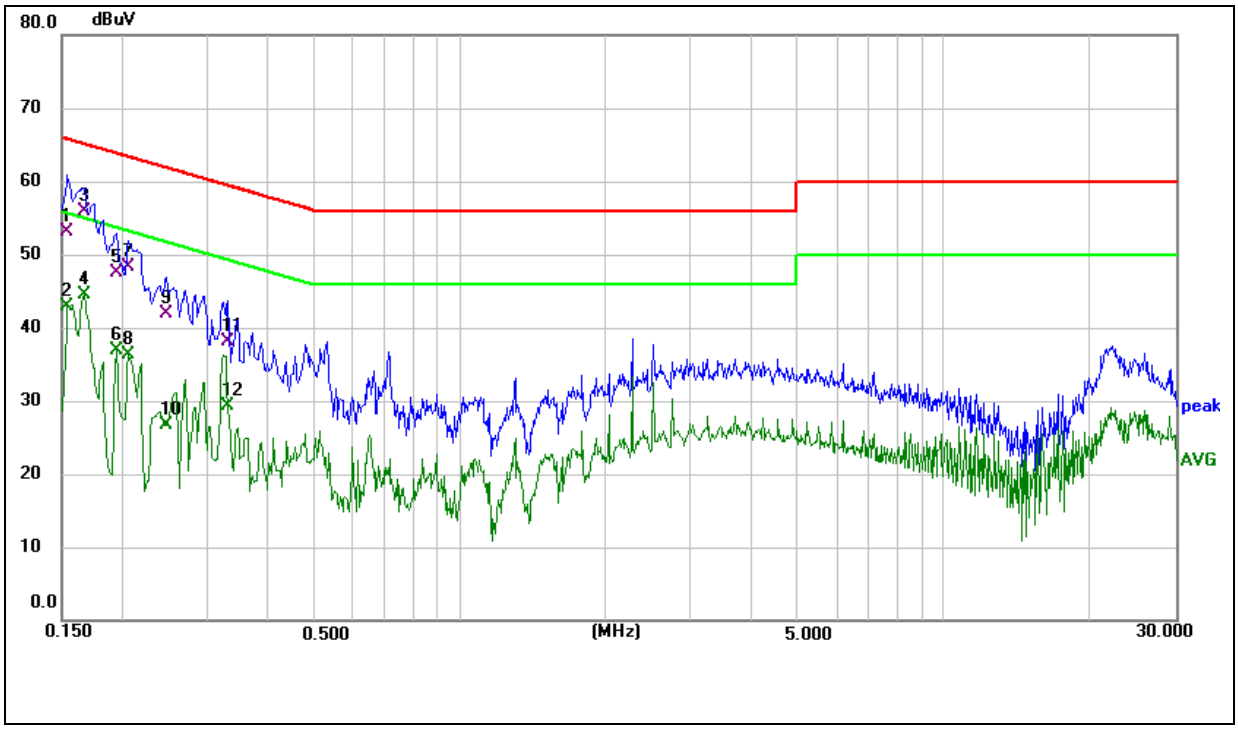
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1539	44.15	10.30	54.45	65.79	-11.34	QP	
2	0.1539	33.08	10.30	43.38	55.79	-12.41	AVG	
3	0.1940	36.45	10.31	46.76	63.86	-17.10	QP	
4	0.1940	22.94	10.31	33.25	53.86	-20.61	AVG	
5	0.2300	31.61	10.30	41.91	62.45	-20.54	QP	
6	0.2300	22.18	10.30	32.48	52.45	-19.97	AVG	
7	0.3060	29.62	9.98	39.60	60.08	-20.48	QP	
8	0.3060	25.15	9.98	35.13	50.08	-14.95	AVG	
9	0.3980	29.68	9.89	39.57	57.90	-18.33	QP	
10	0.3980	22.53	9.89	32.42	47.90	-15.48	AVG	
11	0.5299	31.10	9.80	40.90	56.00	-15.10	QP	
12	0.5299	19.39	9.80	29.19	46.00	-16.81	AVG	



Site:	**843**	**Phase:L1**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Earbuds**	**Test Engineer:**	**Jack**
Note:			

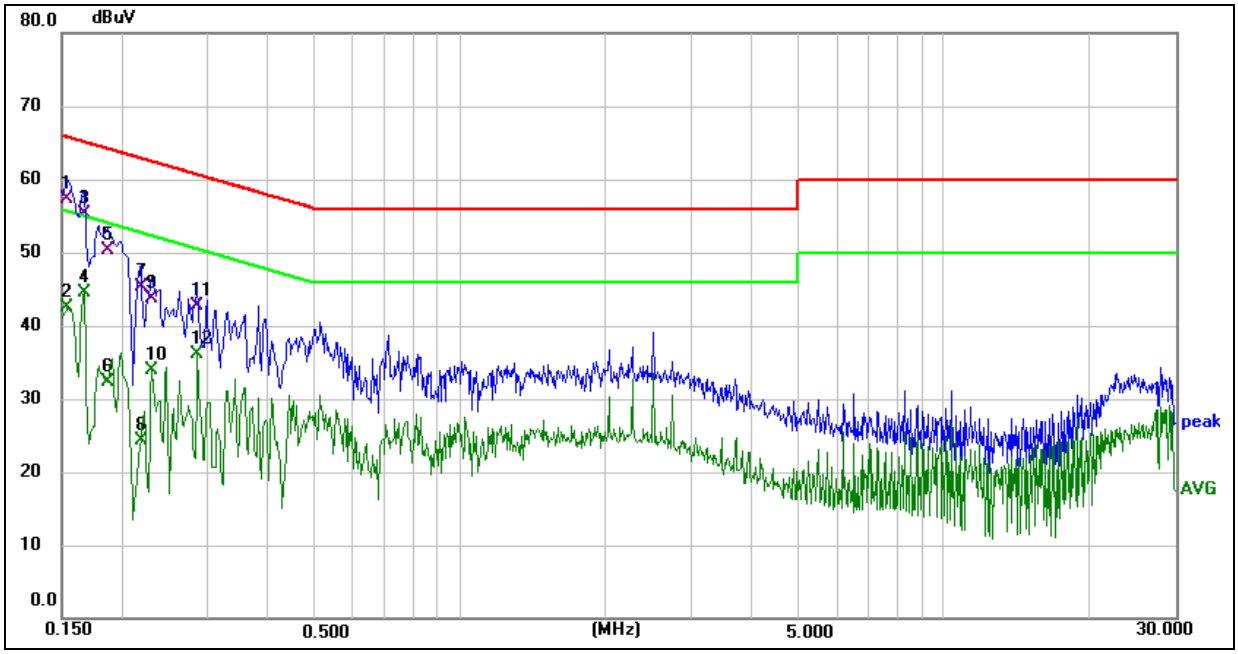
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1500	44.10	10.29	54.39	66.00	-11.61	QP	
2	0.1500	27.49	10.29	37.78	56.00	-18.22	AVG	
3	0.1620	43.14	10.29	53.43	55.36	-1.93	QP	
4	0.1620	31.63	10.29	41.92	55.36	-13.44	AVG	
5	0.1700	42.48	10.29	52.77	64.96	-12.19	QP	
6	0.1700	30.86	10.29	41.15	54.96	-13.81	AVG	
7	0.4700	28.62	9.85	38.47	56.51	-18.04	QP	
8	0.4700	15.79	9.85	25.64	46.51	-20.87	AVG	
9	0.5299	28.57	9.80	38.37	56.00	-17.63	QP	
10	0.5299	14.09	9.80	23.89	46.00	-22.11	AVG	
11	0.7100	27.35	9.67	37.02	56.00	-18.98	QP	
12	0.7100	12.78	9.67	22.45	46.00	-23.55	AVG	

Test mode: Wireless Charging for iPhone+Apple Watch+Earbuds



Site:	**843**	**Phase:N**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone+Apple Watch+Earbuds**	**Test Engineer:**	**Jack**
Note:			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1539	42.78	10.29	53.07	65.79	-12.72	QP	
2	0.1539	32.68	10.29	42.97	55.79	-12.82	AVG	
3	0.1660	45.62	10.29	55.91	65.16	-9.25	QP	
4	0.1660	34.19	10.29	44.48	55.16	-10.68	AVG	
5	0.1940	37.19	10.30	47.49	63.86	-16.37	QP	
6	0.1940	26.63	10.30	36.93	53.86	-16.93	AVG	
7	0.2060	38.02	10.30	48.32	63.37	-15.05	QP	
8	0.2060	26.02	10.30	36.32	53.37	-17.05	AVG	
9	0.2460	31.60	10.29	41.89	61.89	-20.00	QP	
10	0.2460	16.34	10.29	26.63	51.89	-25.26	AVG	
11	0.3300	28.21	9.95	38.16	59.45	-21.29	QP	
12	0.3300	19.34	9.95	29.29	49.45	-20.16	AVG	



Site:	**843**	**Phase:L1**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone+Apple Watch+Earbuds**	**Test Engineer:**	**Jack**
Note:			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1539	47.05	10.30	57.35	65.79	-8.44	QP	
2	0.1539	32.13	10.30	42.43	55.79	-13.36	AVG	
3	0.1660	45.05	10.30	55.35	65.16	-9.81	QP	
4	0.1660	34.26	10.30	44.56	55.16	-10.60	AVG	
5	0.1860	39.98	10.31	50.29	64.21	-13.92	QP	
6	0.1860	22.06	10.31	32.37	54.21	-21.84	AVG	
7	0.2180	34.93	10.31	45.24	62.89	-17.65	QP	
8	0.2180	14.07	10.31	24.38	52.89	-28.51	AVG	
9	0.2300	33.45	10.30	43.75	62.45	-18.70	QP	
10	0.2300	23.70	10.30	34.00	52.45	-18.45	AVG	
11	0.2860	32.69	10.01	42.70	60.64	-17.94	QP	
12	0.2860	26.19	10.01	36.20	50.64	-14.44	AVG	

5.6 Conducted Measurement Photo

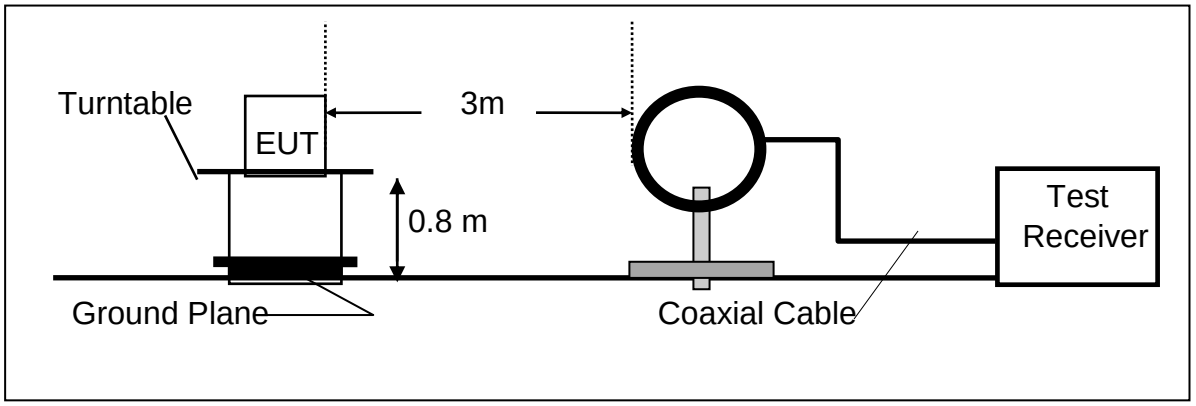
6 Radiated Emission Test

6.1 Measurement Procedure

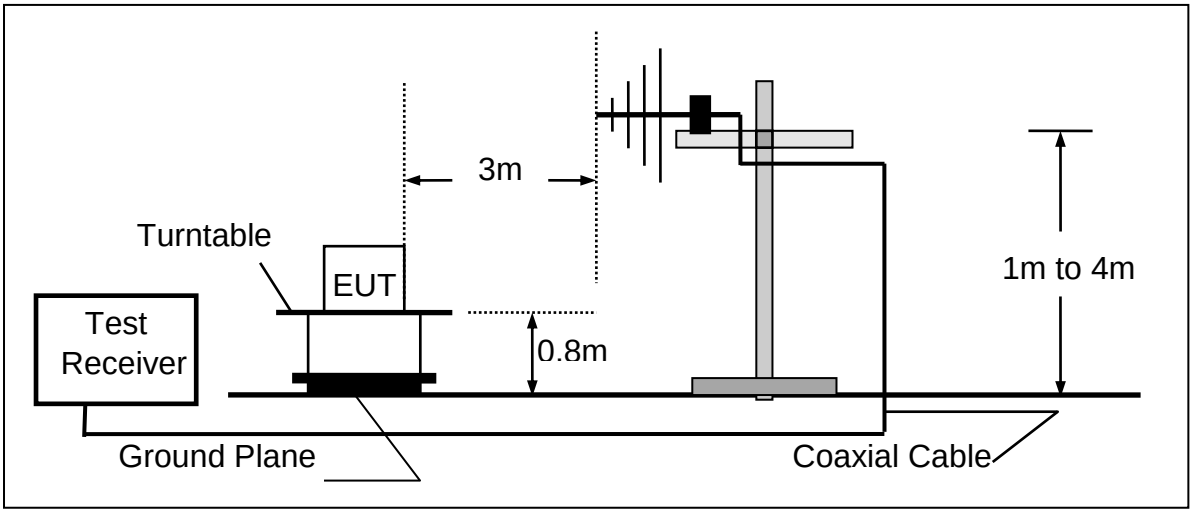
1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measured were complete.

6.2 Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency Below 1000MHz



6.3 Measurement Equipment Used

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1.	EMI Test Receiver	Rohde & Schwarz	ESPI	100502	2023-10-07
2.	Pre-Amplifier	HP	8447D	2727A06172	2023-05-12
3.	Bilog Antenna	Schwarzbeck	VULB9163	VULB9163-588	2023-05-12
4.	Loop Antenna	Schwarzbeck	FMZB 1516	1516-141	2023-10-07
5.	RF Cable	Gigalink Microwave	ZT40-2.92J-2.92 J-2m	N/A	2023-10-07
6.	RF Cable	Gigalink Microwave	ZT40-2.92J-2.92 J-0.3m	N/A	2023-10-07
7.	RF Cable	N/A	N/A	6#	2023-05-12
8.	3m Semi-anechoic Chamber	chengyu	9m*6m*6m	N/A	2024-11-11
9.	Test Software	Farad	EZ-EMC Ver:ANCI-3A1	N/A	N/A

6.4 Radiated Emission Limit

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table 15.209(a):

FCC Part 15.209				
Frequency (MHz)	Field Strength Limitation		Field Strength Limitation Frequency tion at 3m Measurement Dist	
	(uV/m)	Dist	(uV/m)	(dBuV/m)
0.009 – 0.490	2400 / F(KHz)	300m	10000 * 2400/F(KHz)	20log 2400/F(KHz) + 80
0.490 – 1.705	24000 / F(KHz)	30m	100 * 24000/F(KHz)	20log 24000/F(KHz) + 40
1.705 – 30.00	30	30m	100* 30	20log 30 + 40
30.0 – 88.0	100	3m	100	20log 100
88.0 – 216.0	150	3m	150	20log 150
216.0 – 960.0	200	3m	200	20log 200
Above 960.0	500	3m	500	20log 500

15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

Remark: 1. Emission level in dBuV/m=20 log (uV/m)
2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of ξ 15.205, and the emissions located in restricted bands also comply with 15.209 limit.

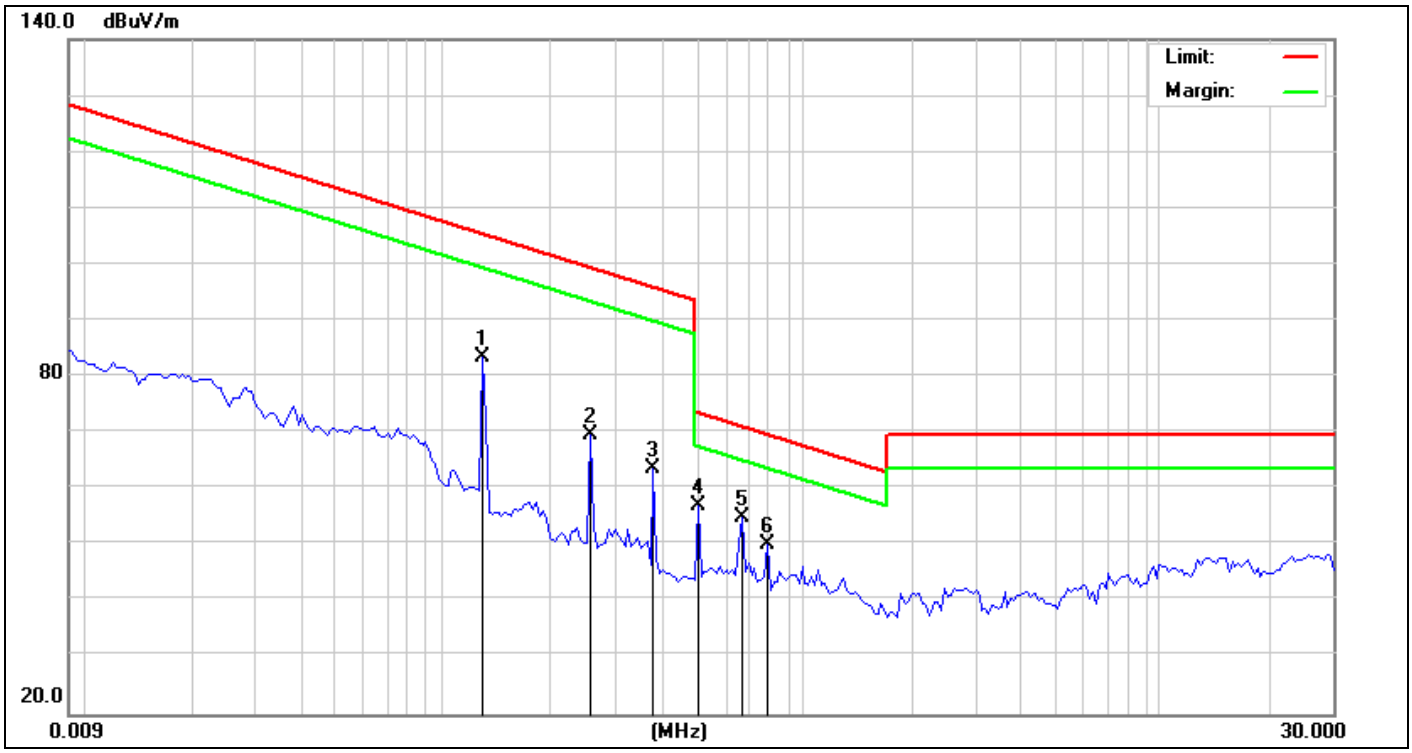
6.5 Measurement Result

We pretested modes (Wireless Charging for iphone, Wireless Charging for Apple Watch,Wireless Charging for Earbuds， Wireless Charging for iphone+Apple Watch+Earbuds) for EUT. The worst mode test data see follow the table.

Test mode: Wireless Charging for iphone

Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iphone**	**Test Engineer:**	**sunshine**
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	0.1280	79.33	6.20	85.53	105.39	-19.86	QP	100	236	
2	0.2555	61.03	5.60	66.63	99.42	-32.79	QP	100	254	
3	0.3830	53.09	5.97	59.06	95.92	-36.86	QP	100	120	
4	0.5090	50.34	6.31	56.65	73.47	-16.82	QP	100	103	
5	0.7638	50.82	6.50	57.32	69.95	-12.63	QP	100	271	
6	0.9743	44.53	6.09	50.62	67.85	-17.23	QP	100	152	

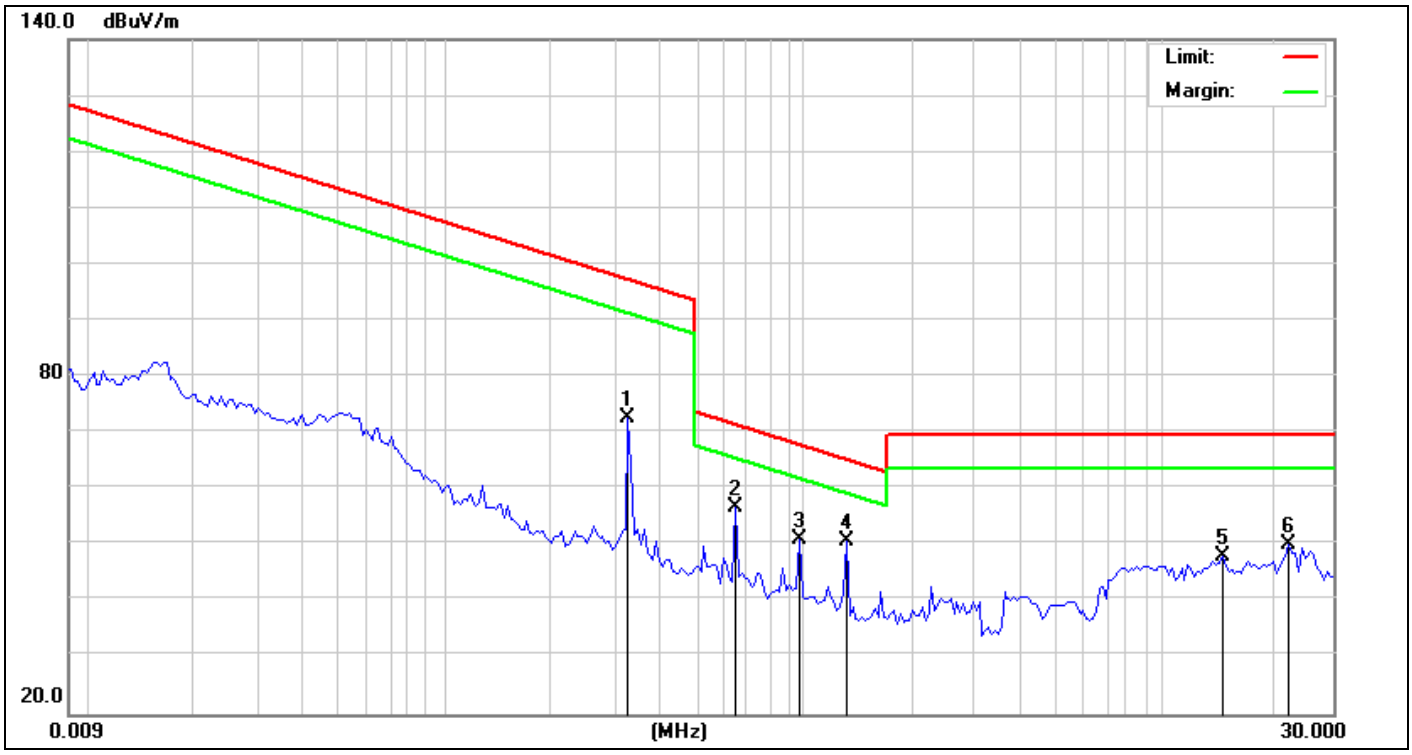


Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iphone**	**Test Engineer:**	**sunshine**
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	0.1282	77.33	6.20	83.53	105.37	-21.84	QP	100	236	
2	0.2555	64.03	5.60	69.63	99.42	-29.79	QP	100	254	
3	0.3830	57.59	5.97	63.56	95.92	-32.36	QP	100	120	
4	0.5090	50.84	6.31	57.15	73.47	-16.32	QP	100	103	
5	0.6764	48.60	6.46	55.06	71.01	-15.95	QP	100	271	
6	0.7953	43.74	6.44	50.18	69.60	-19.42	QP	100	152	

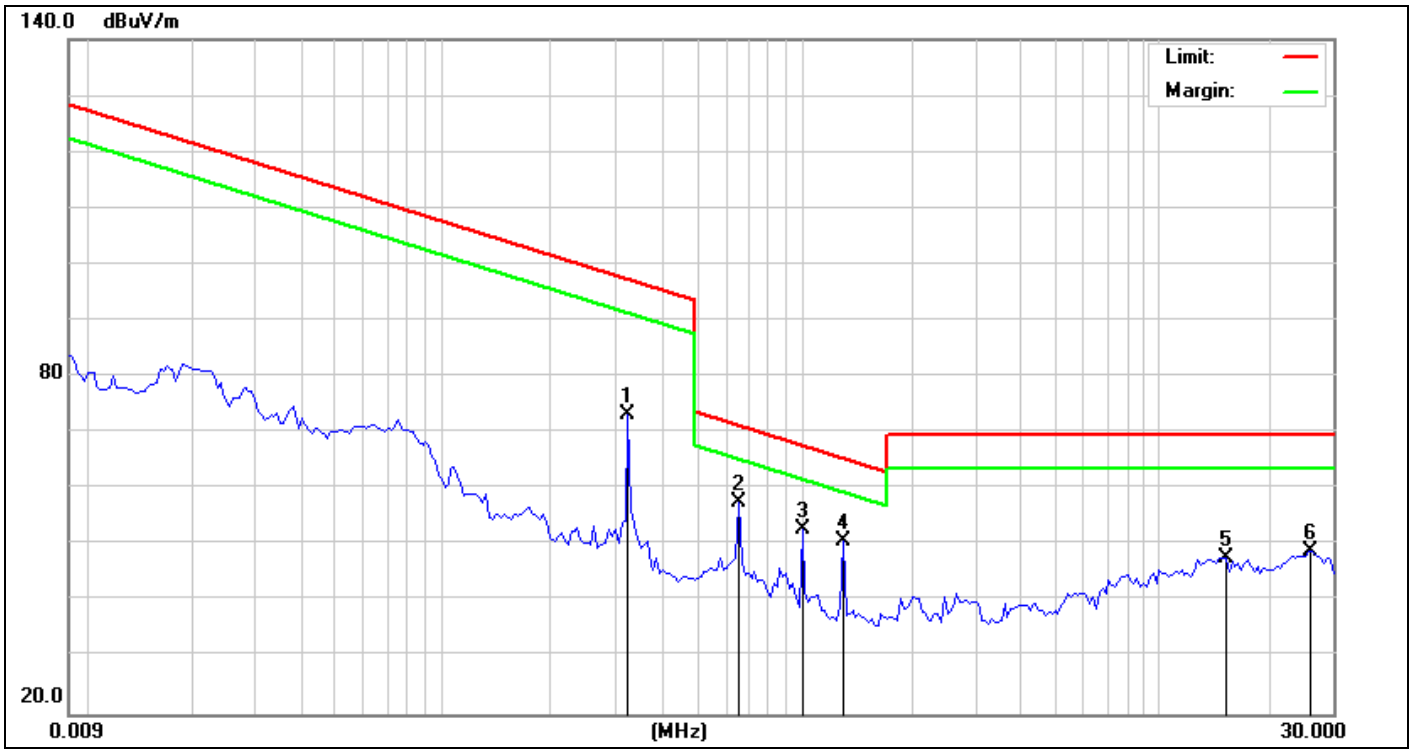
Note: (1) All Readings are Peak Value.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss.
(3) The average measurement was not performed when the peak measured data under the limit of average detection.
(4) EUT lying on the table position is the worst case result in the report.

Test mode: Wireless Charging for Apple Watch



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Apple Watch**	**Test Engineer:**	**sunshine**
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	0.3259	66.95	5.80	72.75	97.32	-24.57	QP	100	36	
2	0.6491	50.32	6.44	56.76	71.36	-14.60	QP	100	33	
3	0.9743	45.03	6.09	51.12	67.85	-16.73	QP	100	38	
4	1.3204	44.50	6.15	50.65	65.21	-14.56	QP	100	26	
5	14.7522	41.17	6.93	48.10	69.50	-21.40	QP	100	77	
6	22.5849	43.49	6.56	50.05	69.50	-19.45	QP	100	86	

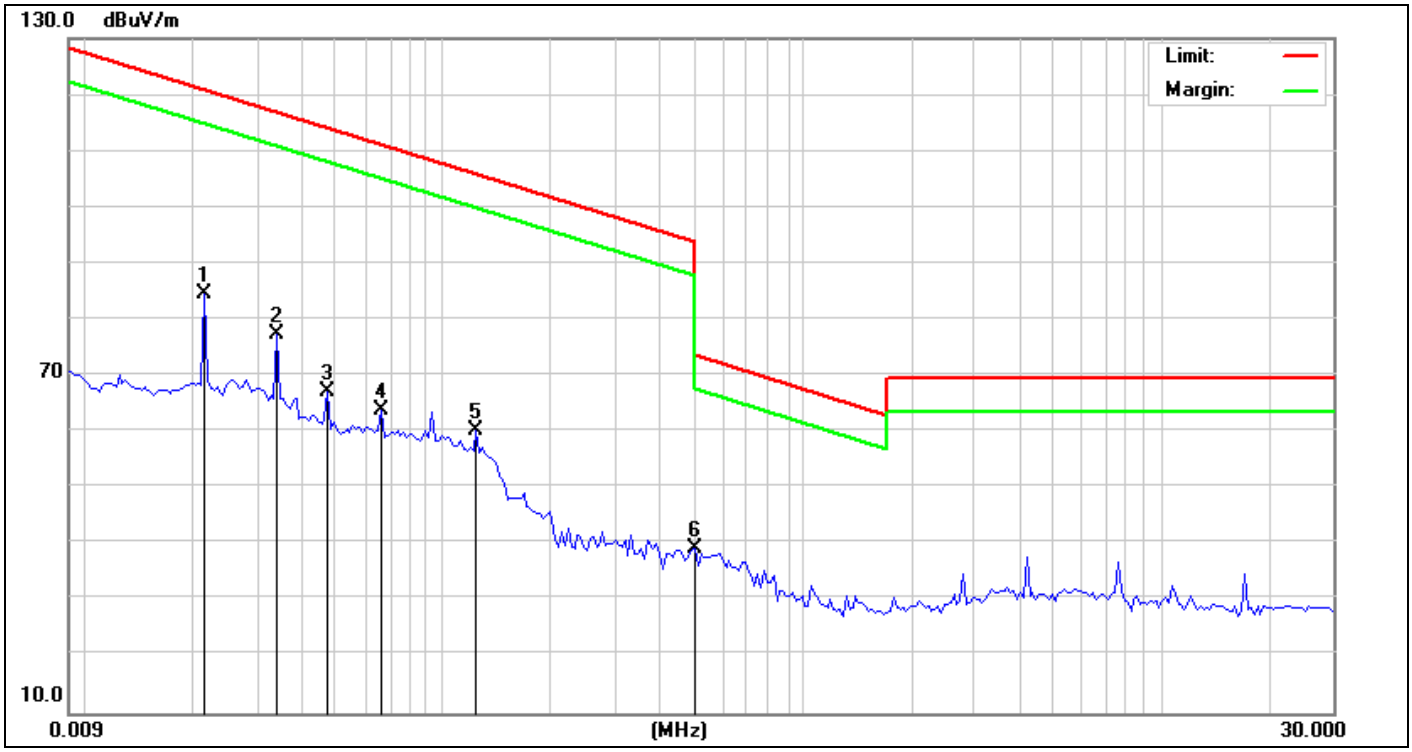


Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Apple Watch**	**Test Engineer:**	**sunshine**
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	0.3265	67.45	5.80	73.25	97.30	-24.05	QP	100	36	
2	0.6540	51.16	6.44	57.60	71.30	-13.70	QP	100	33	
3	0.9939	46.66	6.05	52.71	67.67	-14.96	QP	100	38	
4	1.2942	44.59	6.13	50.72	65.39	-14.67	QP	100	26	
5	15.0548	40.90	6.95	47.85	69.50	-21.65	QP	100	77	
6	26.0298	43.16	5.89	49.05	69.50	-20.45	QP	100	86	

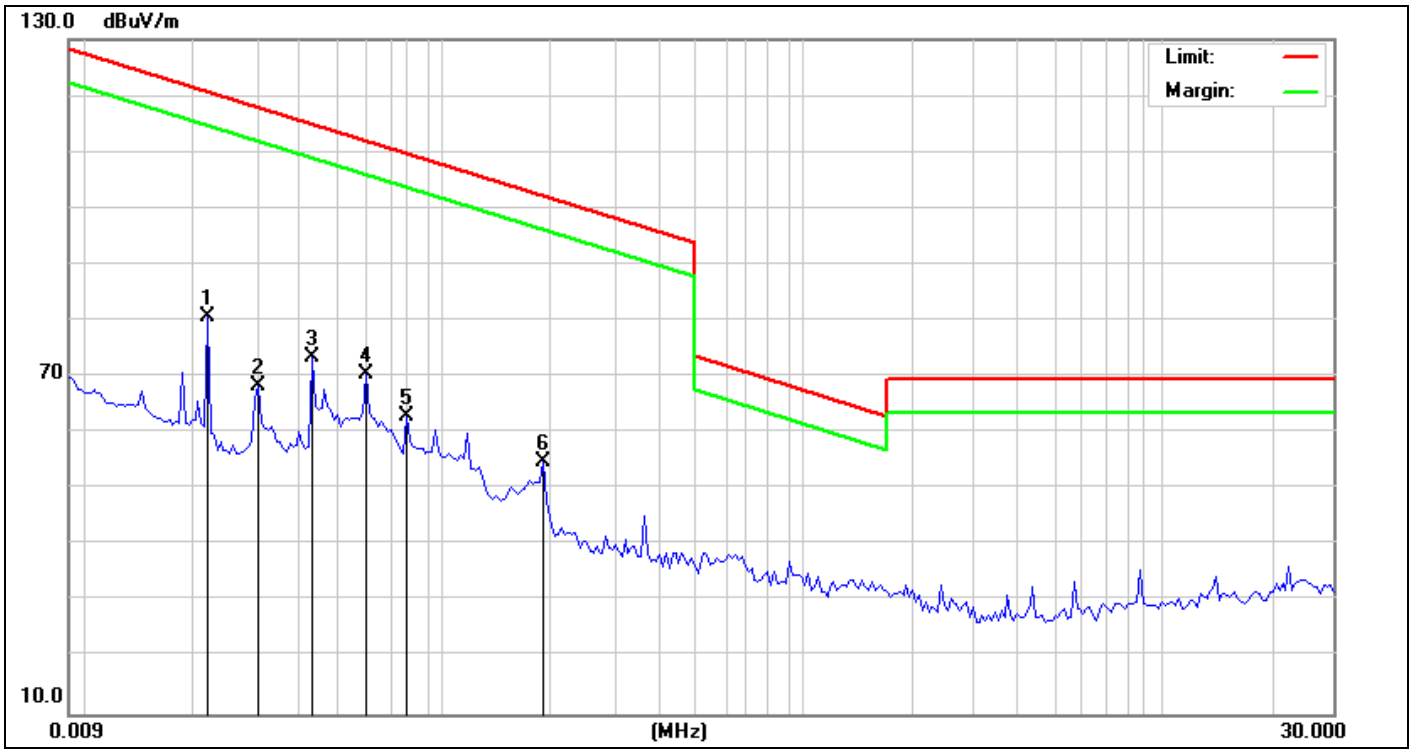
Note: (1) All Readings are Peak Value.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss.
(3) The average measurement was not performed when the peak measured data under the limit of average detection.
(4) EUT lying on the table position is the worst case result in the report.

Test mode: Wireless Charging for Earbuds



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Earbuds**	**Test Engineer:**	**sunshine**
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	0.0212	84.67	-9.12	75.55	120.91	-45.36	QP	100	109	
2	0.0342	77.48	-9.08	68.4	116.78	-48.38	QP	100	93	
3	0.0475	67.17	-8.96	58.21	113.94	-55.73	QP	100	67	
4	0.0670	63.97	-8.85	55.12	110.98	-55.86	QP	100	52	
5	0.1231	90.50	-7.65	82.85	105.72	-22.87	QP	100	26	
6	0.4989	69.06	-7.02	62.04	73.64	-11.6	QP	100	71	

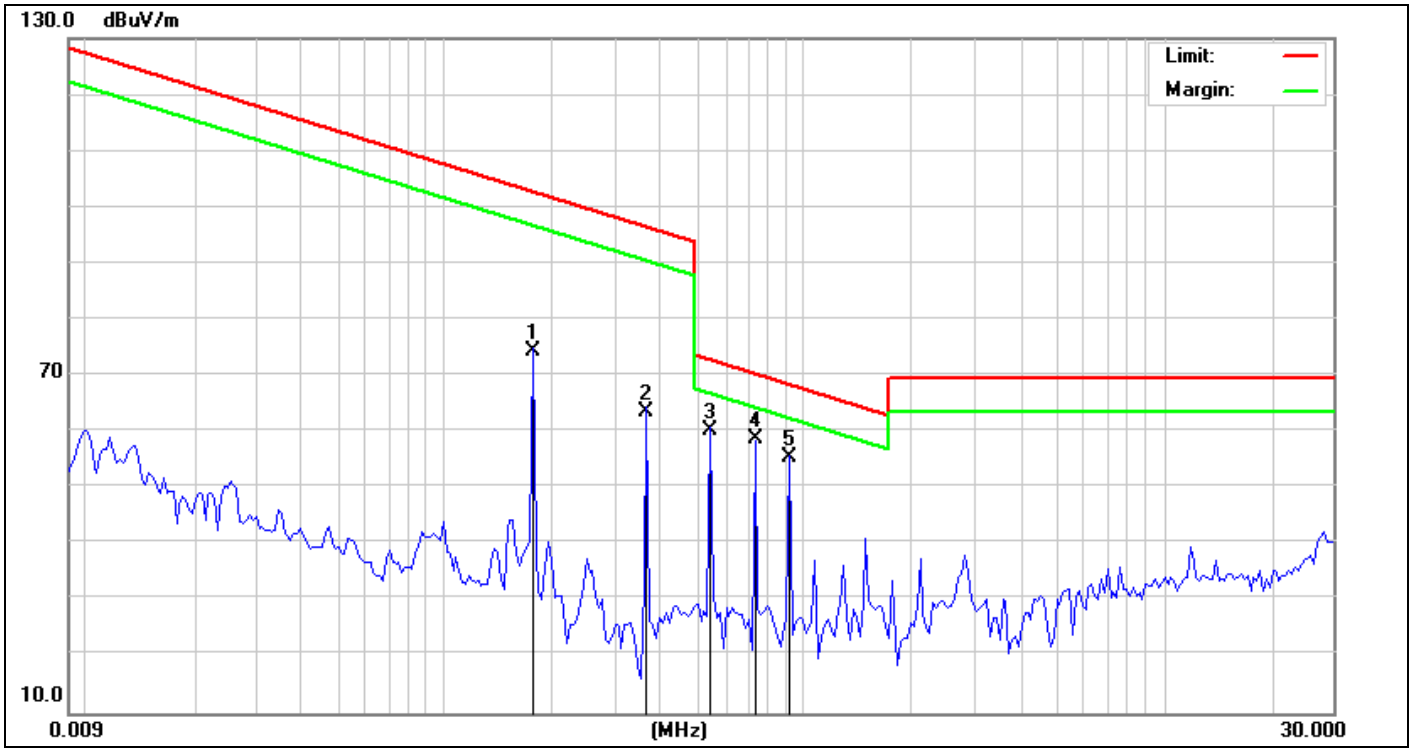


Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Earbuds**	**Test Engineer:**	**sunshine**
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	0.0217	80.63	-9.12	71.51	120.71	-49.2	QP	100	109	
2	0.0303	68.40	-9.08	59.32	117.83	-58.51	QP	100	93	
3	0.0429	73.35	-8.96	64.39	114.82	-50.43	QP	100	67	
4	0.0606	70.32	-8.85	61.47	111.84	-50.37	QP	100	52	
5	0.0786	63.08	-8.15	54.93	109.60	-54.67	QP	100	26	
6	0.1884	85.03	-7.55	77.48	102.05	-24.57	QP	100	71	

Note: (1) All Readings are Peak Value.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss.
(3) The average measurement was not performed when the peak measured data under the limit of average detection.
(4) EUT lying on the table position is the worst case result in the report.

Test mode: Wireless Charging for iPhone+Apple Watch+Earbuds



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone+Apple Watch+Earbuds**	**Test Engineer:**	**sunshine**
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	0.1800	83.12	-8.77	74.35	102.44	-28.09	QP	100	26	
2	0.3602	72.20	-8.68	63.52	96.45	-32.93	QP	100	39	
3	0.5421	68.51	-8.16	60.35	72.92	-12.57	QP	100	74	
4	0.7213	66.17	-7.55	58.62	70.45	-11.83	QP	100	47	
5	0.9035	62.77	-7.36	55.41	68.50	-13.09	QP	100	123	
6	0.1800	83.12	-8.77	74.35	102.44	-28.09	QP	100	45	

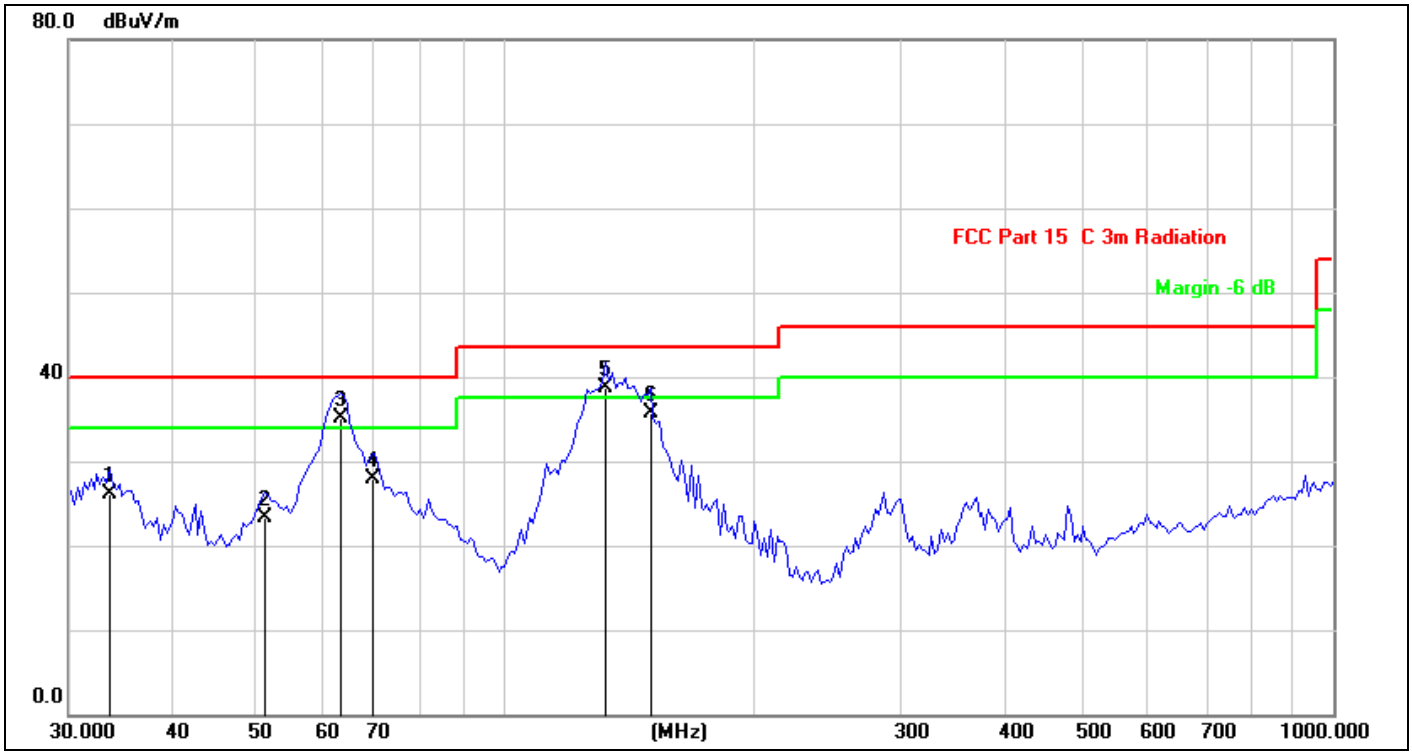
Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone+Apple Watch+Earbuds**	**Test Engineer:**	**sunshine**
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	0.1800	88.13	-8.77	79.36	102.44	-23.08	QP	100	26	
2	0.3602	70.24	-8.68	61.56	96.45	-34.89	QP	100	39	
3	0.5421	68.48	-8.16	60.32	72.92	-12.60	QP	100	74	
4 *	0.7213	65.07	-7.55	57.52	70.45	-12.93	QP	100	47	
5	0.9035	61.72	-7.36	54.36	68.50	-14.14	QP	100	123	
6	0.1800	88.13	-8.77	79.36	102.44	-23.08	QP	100	45	

Note: (1) All Readings are Peak Value.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss.
(3) The average measurement was not performed when the peak measured data under the limit of average detection.
(4) EUT lying on the table position is the worst case result in the report.

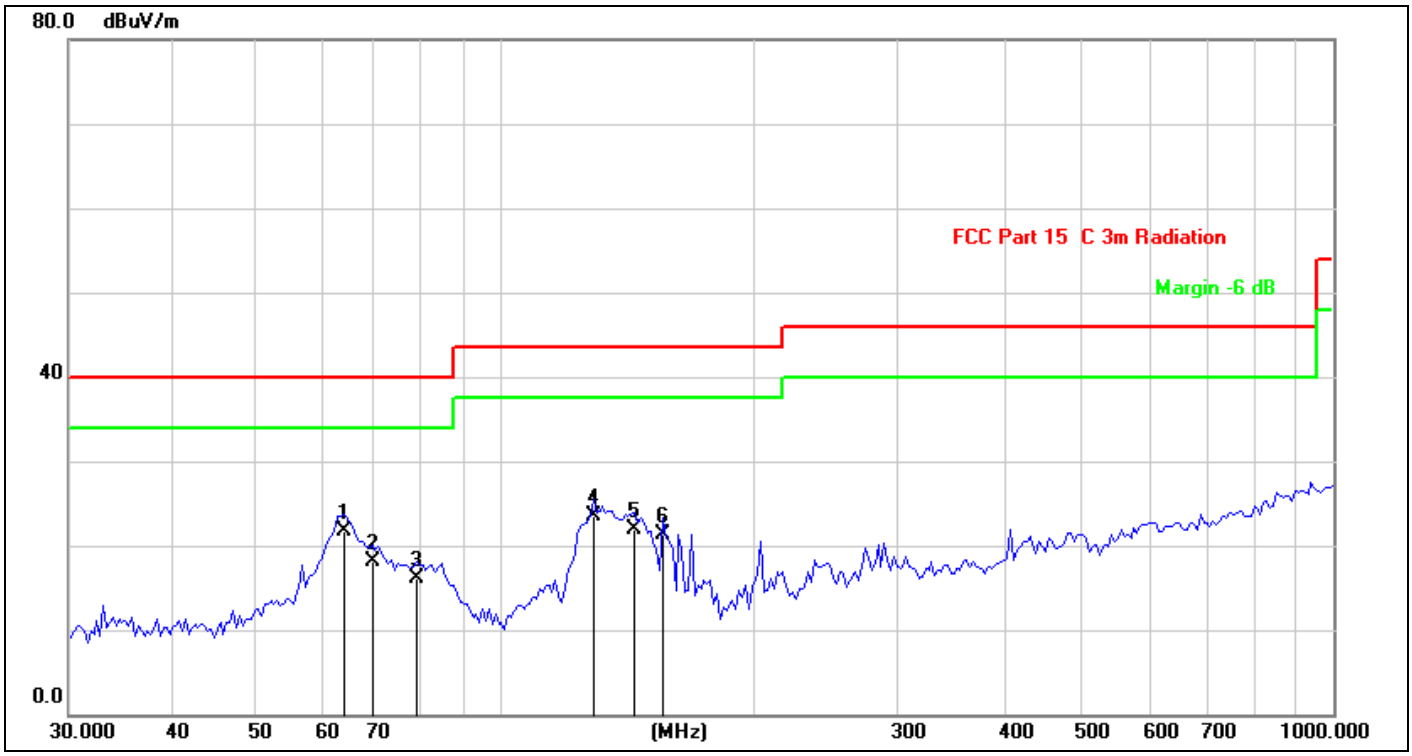
We pretested modes (Wireless Charging for iphone, Wireless Charging for Apple Watch,Wireless Charging for Earbuds， Wireless Charging for iphone+Apple Watch+Earbuds) for EUT. The worst test data see follow the table.

Test mode: Wireless Charging for iphone



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iphone**	**Test Engineer:**	**sunshine**
Note:			

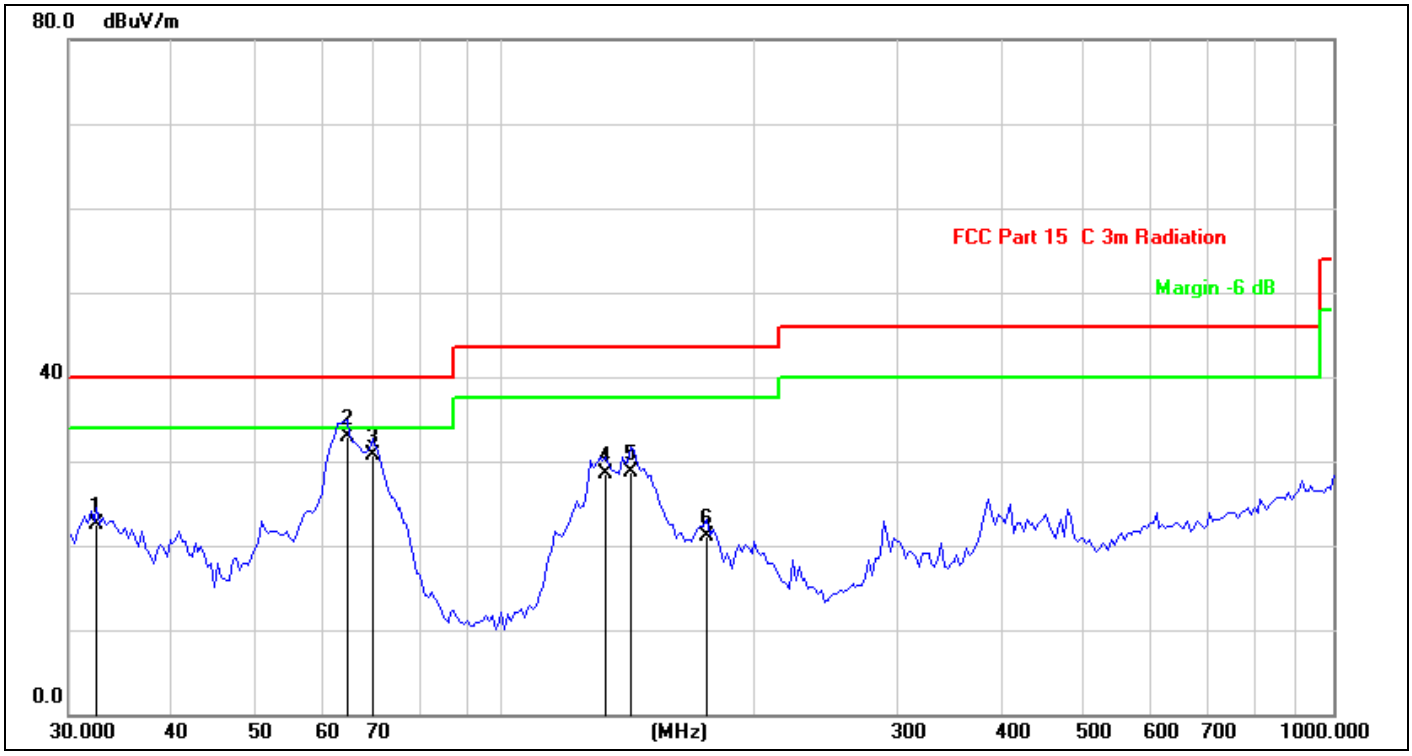
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	33.6212	44.23	-18.04	26.19	40.00	-13.81	QP	100	45	
2	51.6615	39.29	-15.94	23.35	40.00	-16.65	QP	100	45	
3	63.7588	51.89	-16.72	35.17	40.00	-4.83	QP	100	27	
4	69.6004	45.89	-17.99	27.90	40.00	-12.10	QP	100	27	
5	133.1511	57.21	-18.54	38.67	43.50	-4.83	QP	100	96	
6	150.5378	54.43	-18.79	35.64	43.50	-7.86	QP	100	96	



Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iphone**	**Test Engineer:**	**sunshine**
Note:			

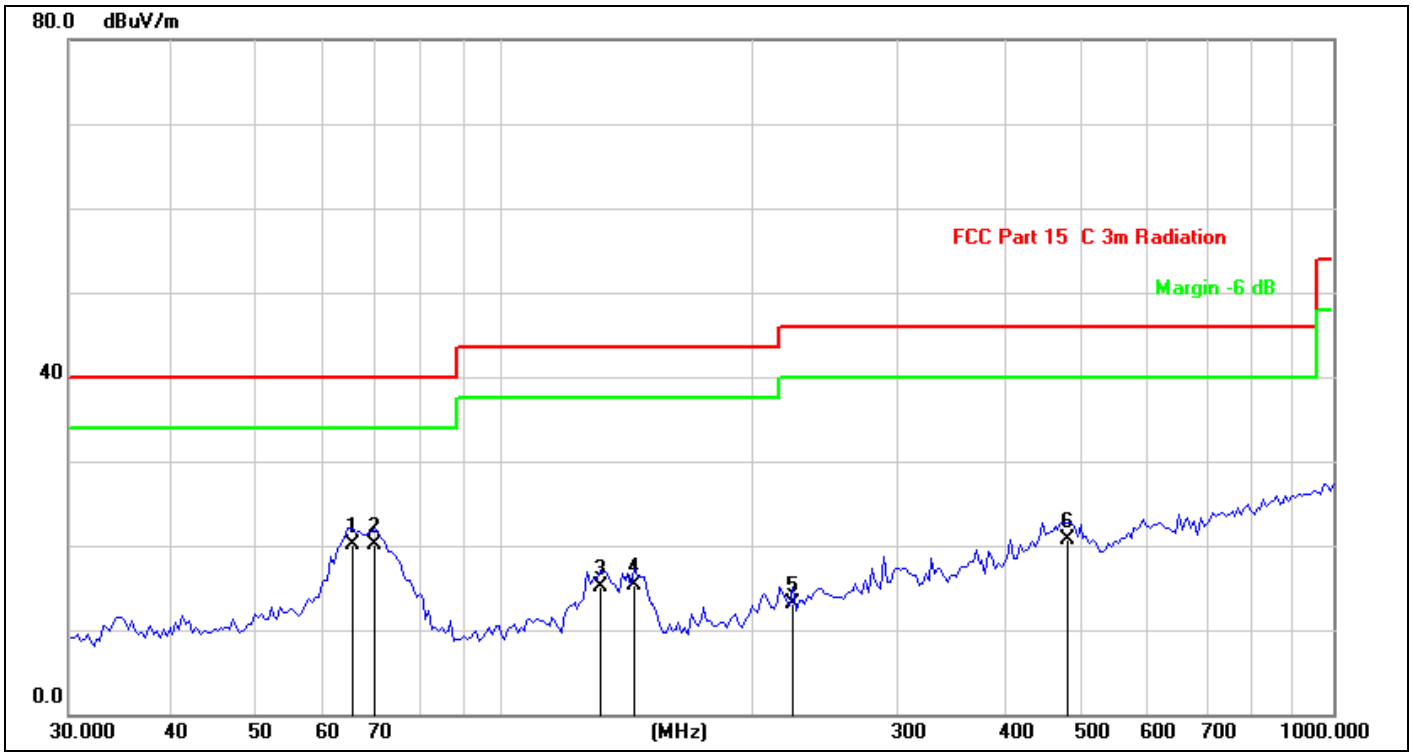
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	64.3202	38.63	-16.85	21.78	40.00	-18.22	QP	200	45	
2	69.6005	36.09	-17.99	18.10	40.00	-21.90	QP	200	45	
3	78.6888	34.40	-18.31	16.09	40.00	-23.91	QP	200	27	
4	128.5630	41.64	-18.13	23.51	43.50	-19.99	QP	200	27	
5	144.0819	40.82	-18.99	21.83	43.50	-21.67	QP	200	96	
6	155.9101	39.71	-18.48	21.23	43.50	-22.27	QP	200	96	

Test mode: Wireless Charging for Apple Watch



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Apple Watch**	**Test Engineer:**	**sunshine**
Note:			

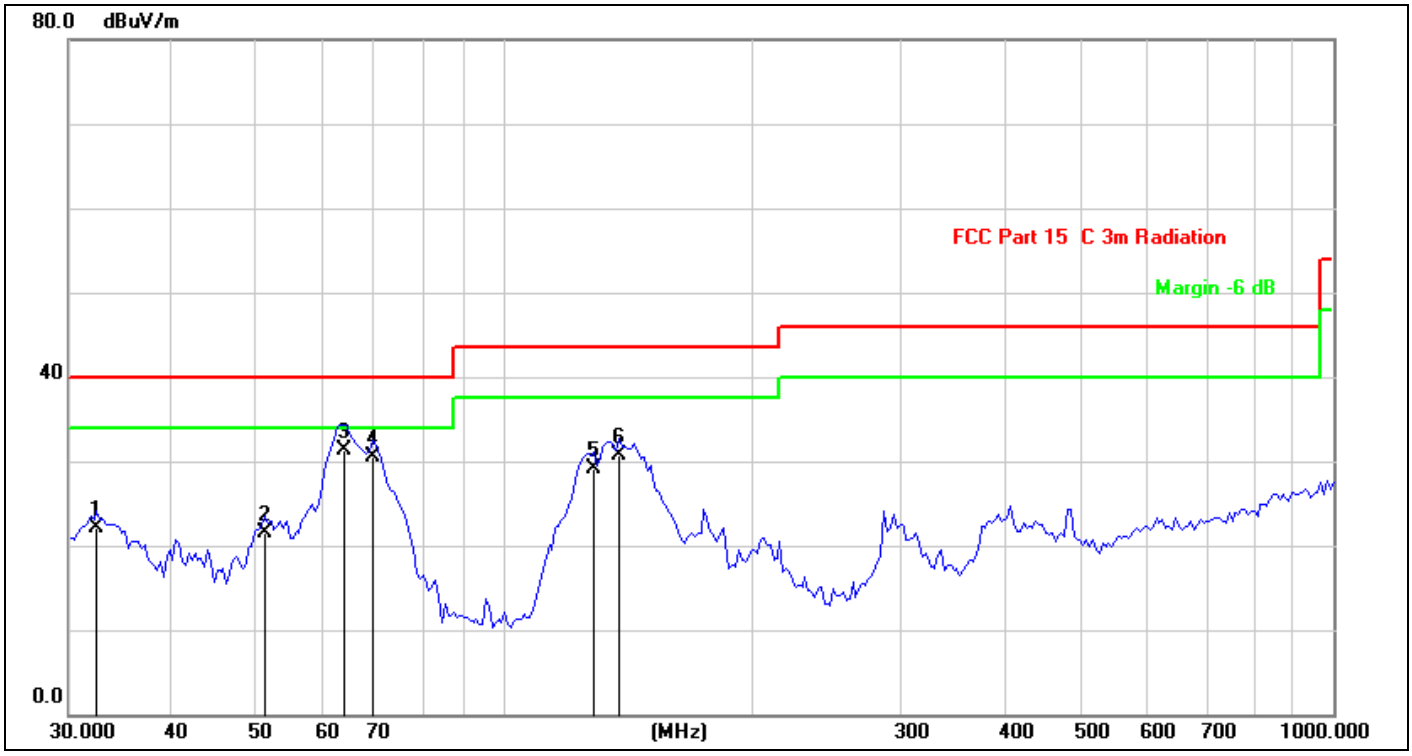
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	32.4628	40.64	-18.15	22.49	40.00	-17.51	QP	100	56	
2 *	64.8865	49.78	-16.97	32.81	40.00	-7.19	QP	100	47	
3	69.6005	48.79	-17.99	30.80	40.00	-9.20	QP	100	42	
4	133.1511	47.08	-18.54	28.54	43.50	-14.96	QP	100	135	
5	142.8243	47.71	-19.02	28.69	43.50	-14.81	QP	100	130	
6	176.2686	38.70	-17.55	21.15	43.50	-22.35	QP	100	85	



Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Apple Watch**	**Test Engineer:**	**sunshine**
Note:			

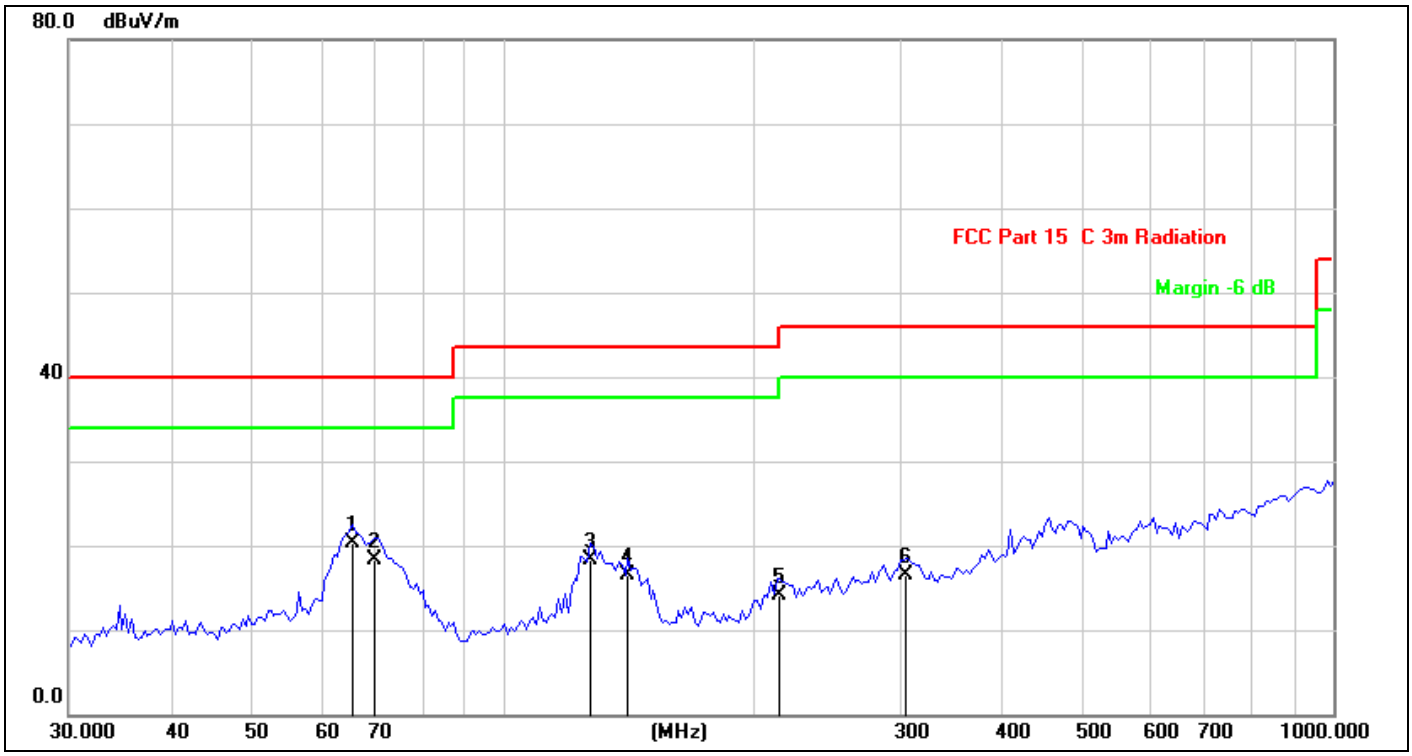
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	66.0342	37.27	-17.22	20.05	40.00	-19.95	QP	200	45	
2	70.2132	38.10	-18.08	20.02	40.00	-19.98	QP	200	56	
3	130.8369	33.45	-18.36	15.09	43.50	-28.41	QP	200	74	
4	144.0819	34.27	-18.99	15.28	43.50	-28.22	QP	200	136	
5	223.3415	28.36	-15.19	13.17	46.00	-32.83	QP	200	58	
6	478.8456	30.85	-10.10	20.75	46.00	-25.25	QP	200	96	

Test mode: Wireless Charging for Earbuds



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Earbuds**	**Test Engineer:**	**sunshine**
Note:			

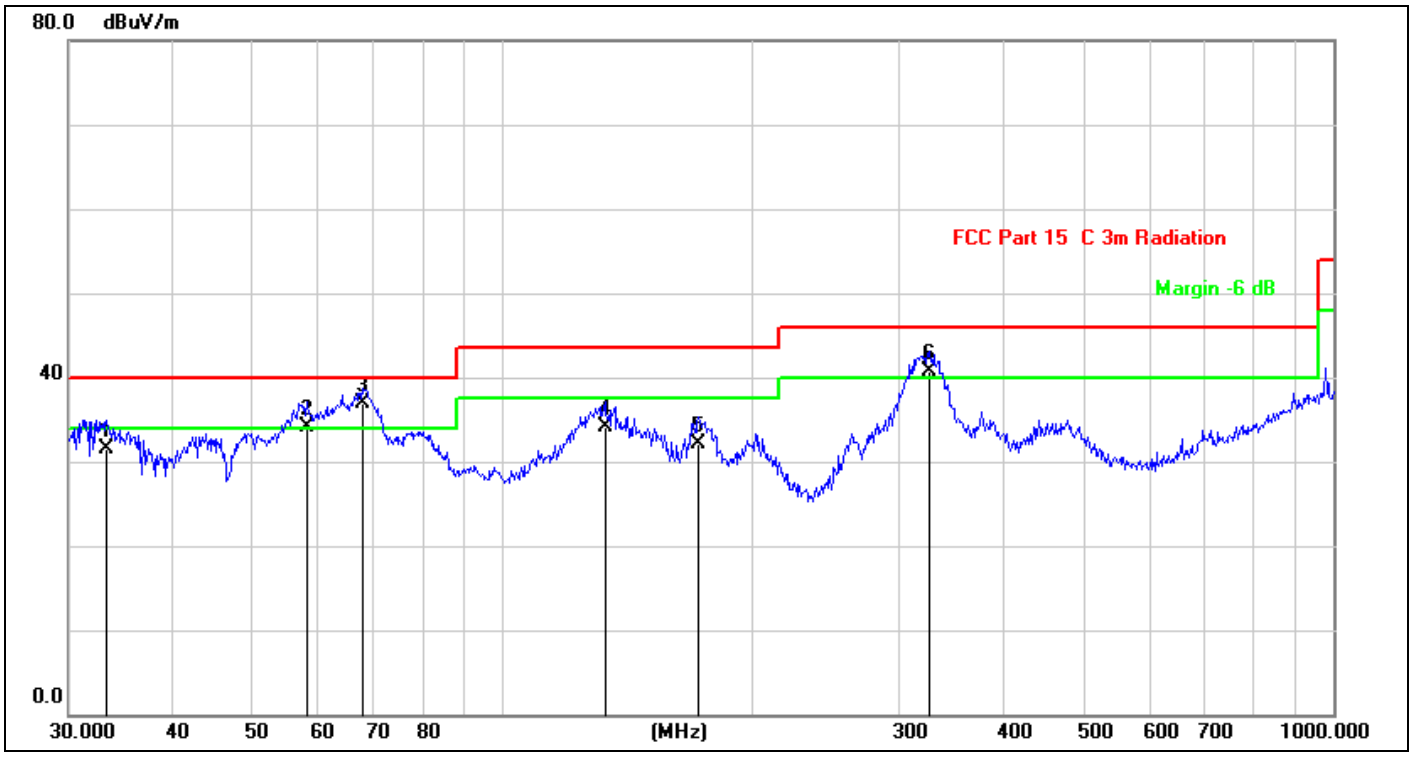
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	32.4628	40.34	-18.15	22.19	40.00	-17.81	QP	100	45	
2	51.6616	37.43	-15.94	21.49	40.00	-18.51	QP	100	74	
3	64.3202	48.25	-16.85	31.40	40.00	-8.60	QP	100	103	
4	69.6005	48.58	-17.99	30.59	40.00	-9.41	QP	100	144	
5	128.5630	47.17	-18.13	29.04	43.50	-14.46	QP	100	139	
6	137.9028	49.56	-18.93	30.63	43.50	-12.87	QP	100	47	



Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Earbuds**	**Test Engineer:**	**sunshine**
Note:			

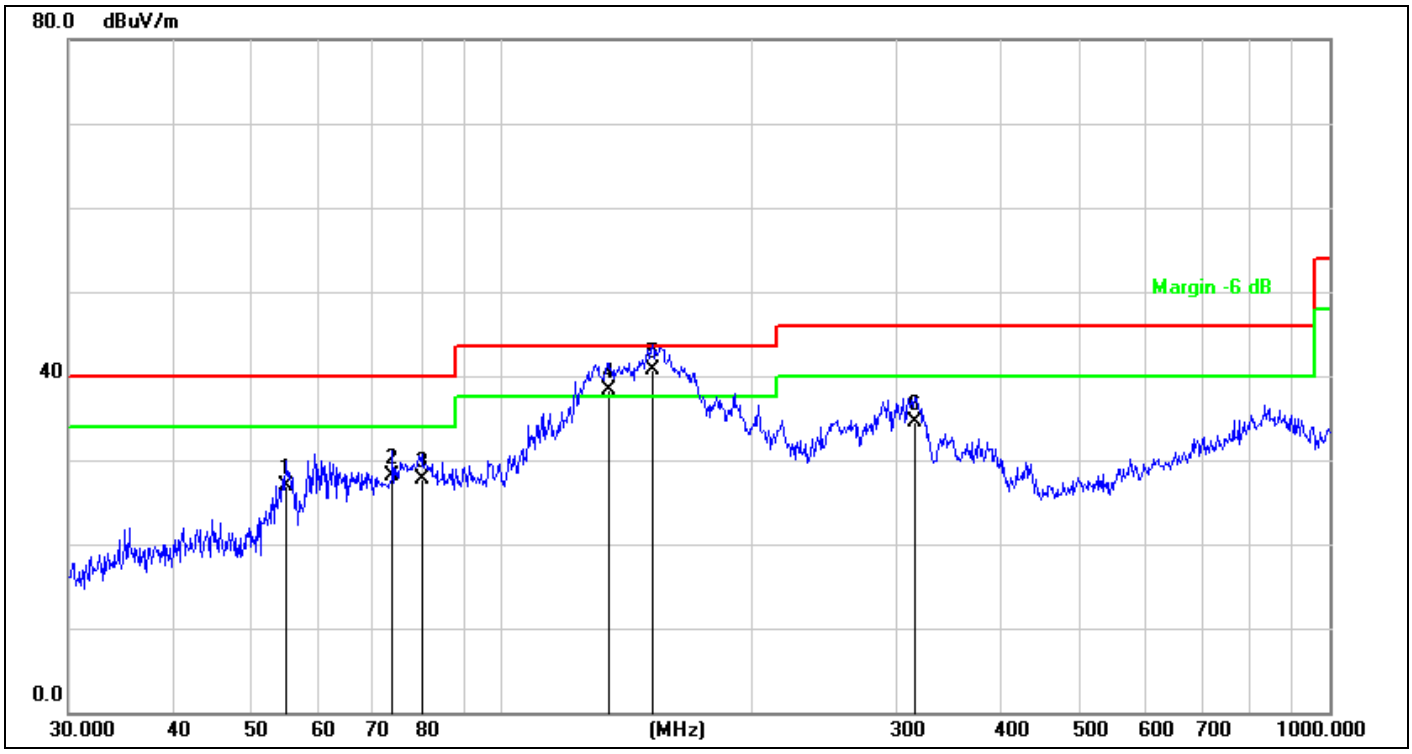
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	66.0342	37.62	-17.22	20.40	40.00	-19.60	QP	200	48	
2	70.2132	36.37	-18.08	18.29	40.00	-21.71	QP	200	56	
3	127.4409	36.39	-18.00	18.39	43.50	-25.11	QP	200	86	
4	141.5777	35.59	-19.06	16.53	43.50	-26.97	QP	200	133	
5	215.6456	29.65	-15.56	14.09	43.50	-29.41	QP	200	76	
6	306.2164	29.53	-13.01	16.52	46.00	-29.48	QP	200	145	

Test mode: Wireless Charging for iPhone+Apple Watch+Earbuds



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone+Apple Watch+Earbuds**	**Test Engineer:**	**sunshine**
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	33.3279	38.86	-7.26	31.60	40.00	-8.40	QP	100	45	
2	57.9993	39.87	-5.67	34.20	40.00	-5.80	QP	100	74	
3	67.6751	44.71	-7.81	36.90	40.00	-3.10	QP	100	103	
4	132.6850	41.84	-7.64	34.20	43.50	-9.30	QP	100	144	
5	171.9946	40.68	-8.58	32.10	43.50	-11.40	QP	100	139	
6	325.5958	42.27	-1.47	40.80	46.00	-5.20	QP	100	47	



Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**Wireless Charger**	**Test Time:**	**2023-04-24**
M/N.:	**PW0043**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone+Apple Watch+Earbuds**	**Test Engineer:**	**sunshine**
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	54.8348	36.06	-9.12	26.94	40.00	-13.06	QP	200	48	
2	73.8756	39.15	-11.11	28.04	40.00	-11.96	QP	200	56	
3	80.0806	40.14	-12.39	27.75	40.00	-12.25	QP	200	86	
4	134.5592	50.03	-11.67	38.36	43.50	-5.14	QP	200	133	
5	152.1297	52.01	-11.57	40.44	43.50	-3.06	QP	200	76	
6	315.4808	41.14	-6.69	34.45	46.00	-11.55	QP	200	145	

6.6 Radiated Measurement Photos

7 20db Bandwidth

7.1 20dB Bandwidth Limit

None: for reporting purposed only.

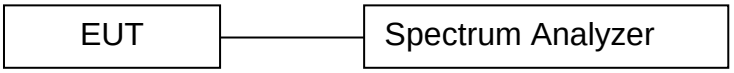
7.2 Test Instruments

Refer a test equipment and calibration data table in this test report.

7.3 Test Procedure

The bandwidth of the fundamental frequency was measured by spectrum analyzer with 1KHz RBW and 3KHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

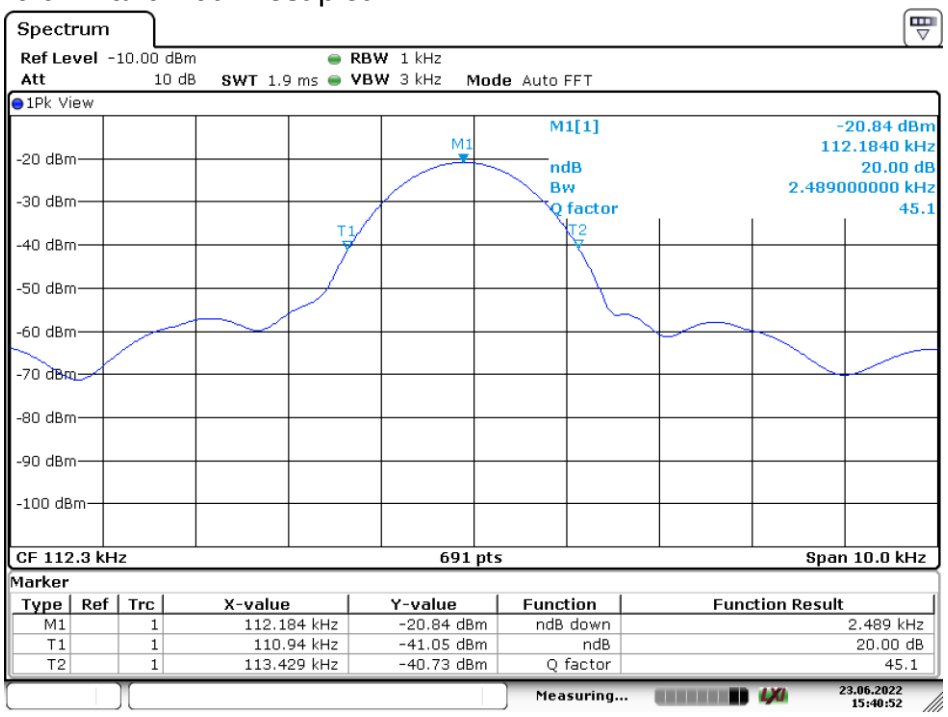
7.4 Test Setup



7.5 Test Result

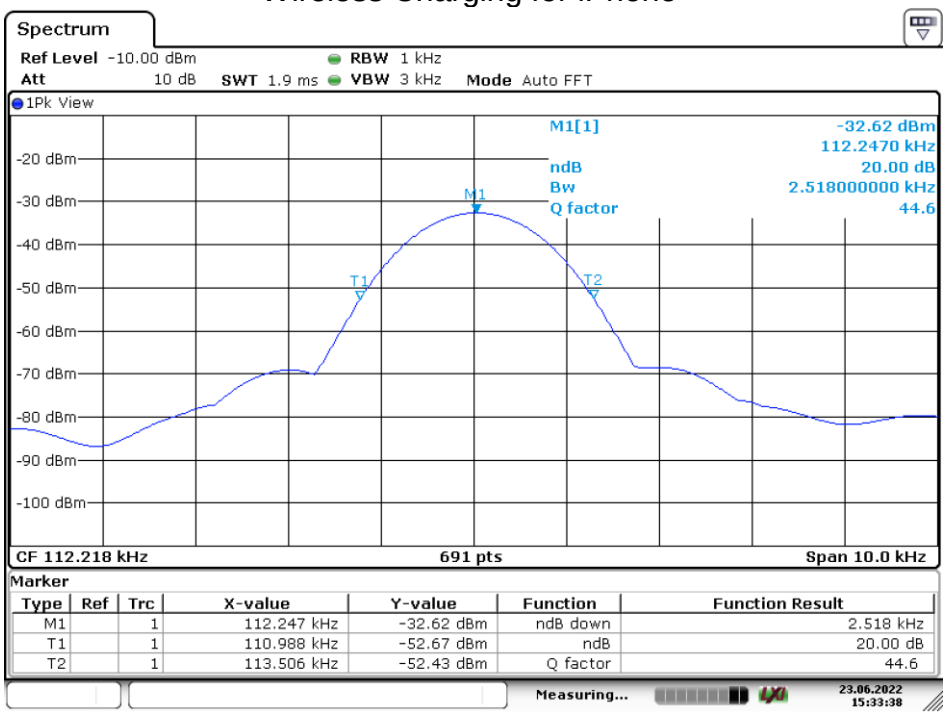
Charging Mode	Frequency (KHz)	20dB Bandwidth (KHz)	Results
iPhone	112.2	2.489	PASS
Earbuds	112.2	2.518	PASS
Apple Watch	325.3	2.504	PASS

20 dB Bandwidth Test plot



Date: 23.JUN.2022 15:40:52

Wireless Charging for iPhone



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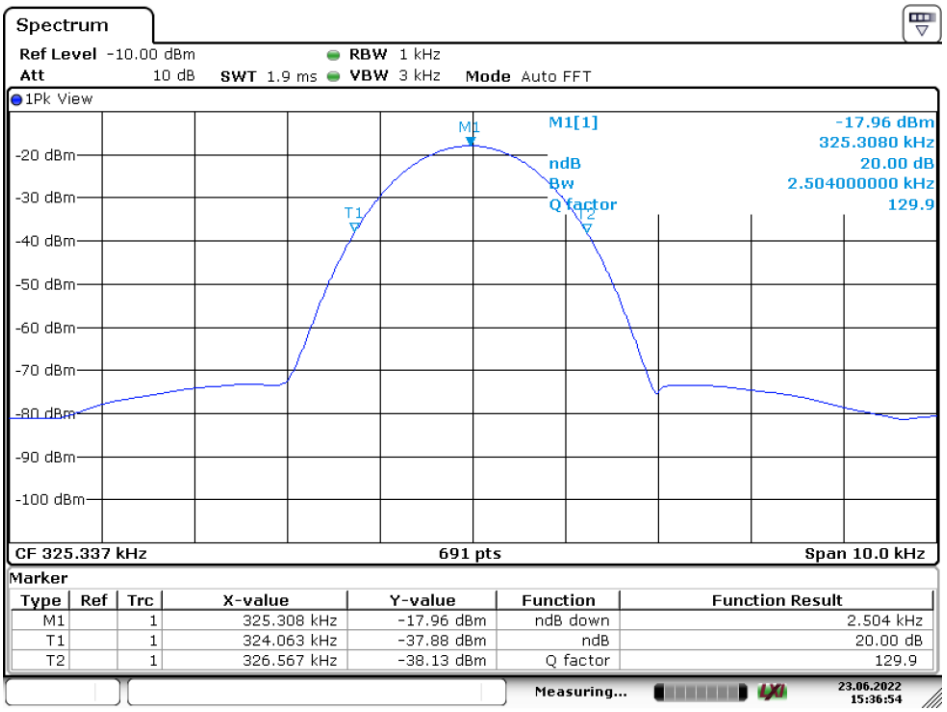
Wireless Charging for Earbuds



Wireless Charging for Apple Watch

8 Antenna Application

8.1 Antenna requirement

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.

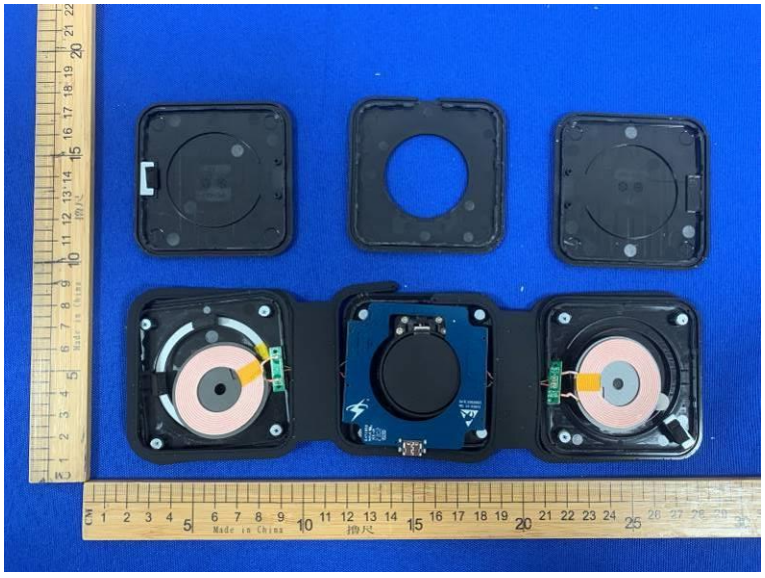
8.2 Result

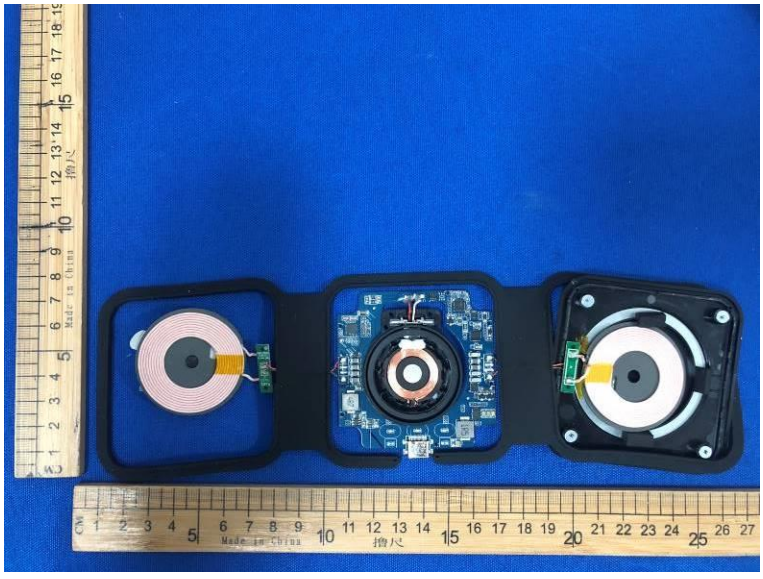
The EUT's antenna, permanent attached antenna, used an Induction coil and integrated on PCB, The antenna's gain meets the requirement.

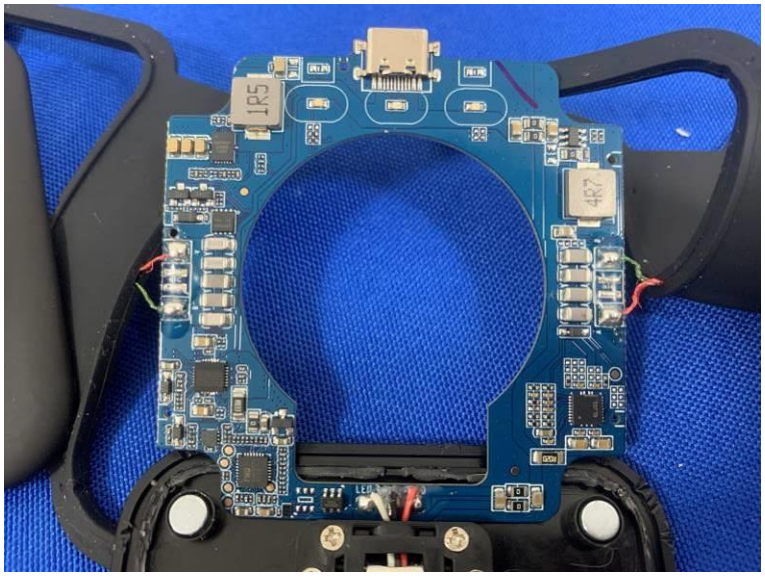
APPENDIX
(Photos of EUT)

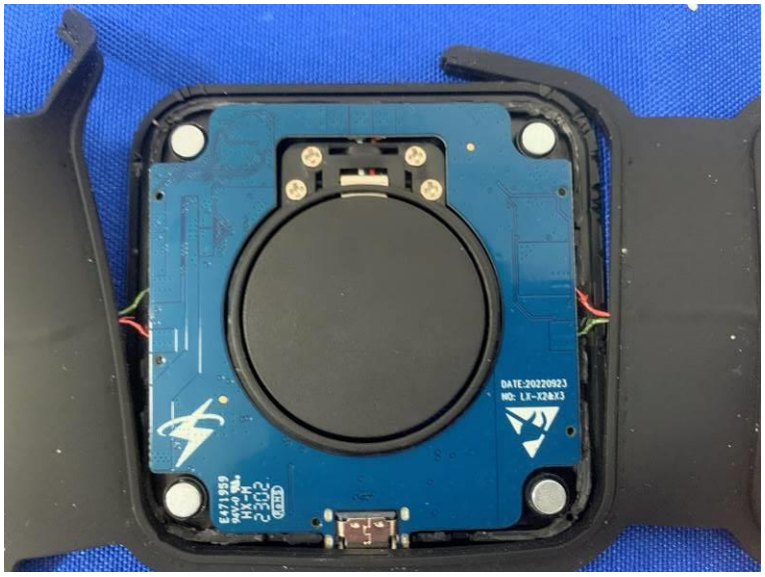
External Photos

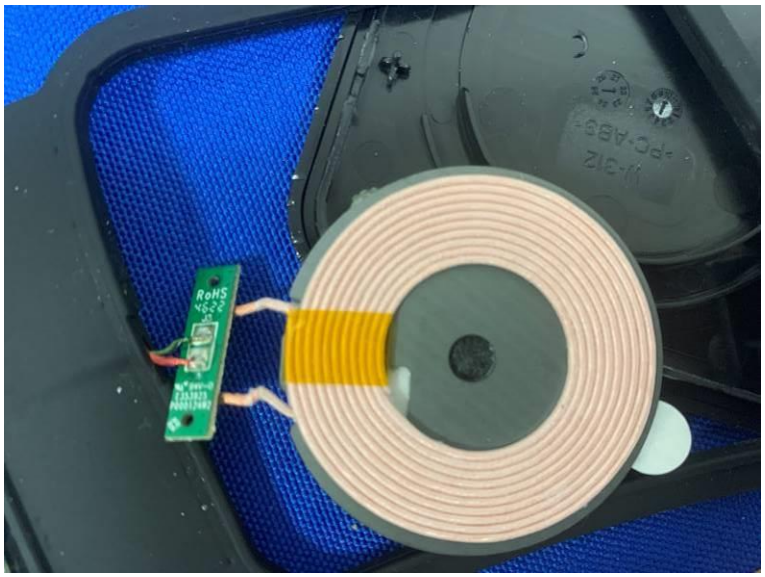
Internal Photos











----------The end----------