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

OF

2-in-1 Magnetic fast wireless charger

Model No.: STC-200

Trademark: N/A

FCC ID: 2A7KB-STC200

Report No.: E01A22060179F00101

Issue Date: June 30, 2022

Prepared for

Dongguan LUNE Technology Co., LTD

402 Liaocheng Middle Road No. 23 Room, Dongguan, GUANGDONG, 523415 China

Prepared by

Dong Guan Anci Electronic Technology Co., Ltd.

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VERIFICATION OF COMPLIANCE

Applicant:	Dongguan LUNE Technology Co., LTD 402 Liaocheng Middle Road No. 23 Room, Dongguan, GUANGDONG, 523415 China
Manufacturer:	Dongguan LUNE Technology Co., LTD 402 Liaocheng Middle Road No. 23 Room, Dongguan, GUANGDONG, 523415 China
Product Description:	2-in-1 Magnetic fast wireless charger
Trade Mark:	N/A
Model Number:	STC-200

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 : June 25, 2022 to June 29, 2022

Prepared by : Tiger Xu/Supervisor

Reviewer & Authorized Signer : Tomas Yang /Manager

Modified Information

Version	Summary	Revision Date	Report No.
Ver.1.0	Original Report	/	E01A22060179F00101

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1 General Information

1.1 Product Description

Characteristics	Description
Product Name	2-in-1 Magnetic fast wireless charger
Model number	STC-200
Operation Mode	Wireless Charging
Input Rating	QC3.0 18W or PD Charger
Power Supply	AC120V/60Hz for adapter
Operating Frequency	110-205KHz for Mobile phone charging PAD 133.2KHz for Earphone charging PAD
Wireless Charging Power	Mobile phone charging PAD:Max 15W(15W,10W,7.5W,5W) Earphone charging PAD:Max 5W
Modulation Technique	ASK for Earphone charging PAD, FSK for Mobile phone charging PAD
Antenna Type	Induction coil

1.2 Related Submittal(s) / Grant(s)

This submittal(s) (test report) is intended for FCC ID: 2A7KB-STC200 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 onfiguration of Tested System

Fig. 2-1 Configuration of Tested System

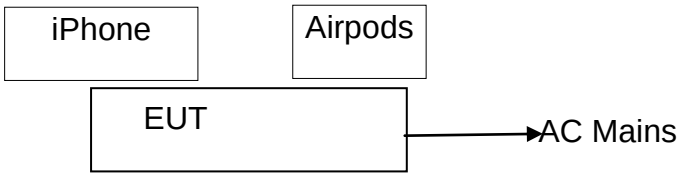


Table 2-1 Equipment Used in Tested System

Item	Equipment	Trade Mark	Model No.	FCC ID	Note
1.	2-in-1 Magnetic fast wireless charger	N/A	STC-200	2A7KB-STC200	***EUT***
2.	Adapter	N/A	Model: PD23U-1TNA Input: AC 100-240V, 50/60Hz, 0.8A Max Output: DC 5V/3A, DC 9V/2.5A	N/A	***Support Equipment***
3.	iphone	Apple	A2404	N/A	***Support Equipment***
4.	Airpods	Apple	A2190	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%

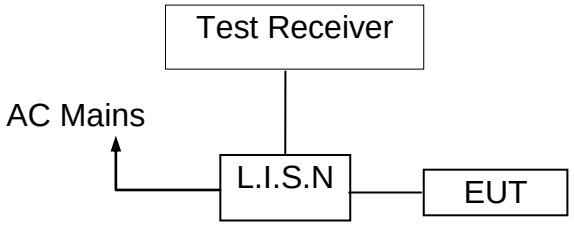
Remark: The coverage Factor (k=2), and measurement Uncertainty for a level of Confidence of 95%

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.

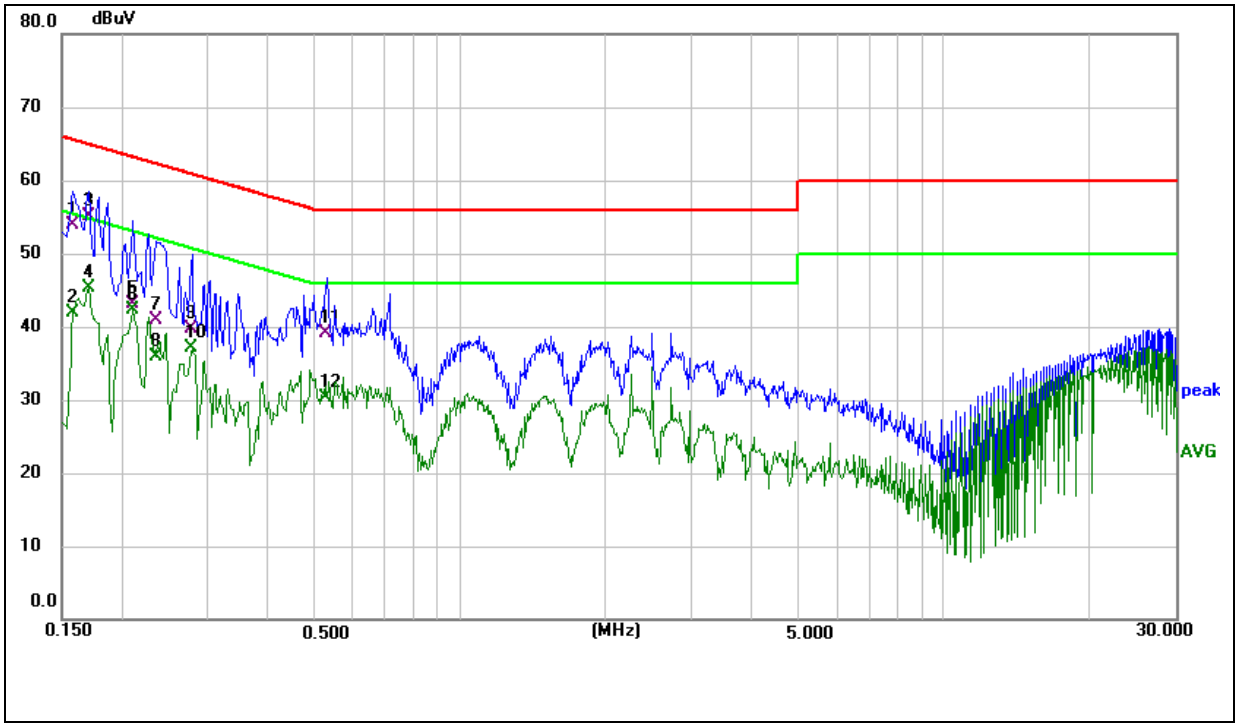
5.5 Measurement Result

Operation Mode:	TX	Test Date :	2022/06/27
Frequency Range:	0.15MHz~30MHz	Temperature :	22℃
Test Result:	PASS	Humidity :	55 %
Test By:	Best		

Pass

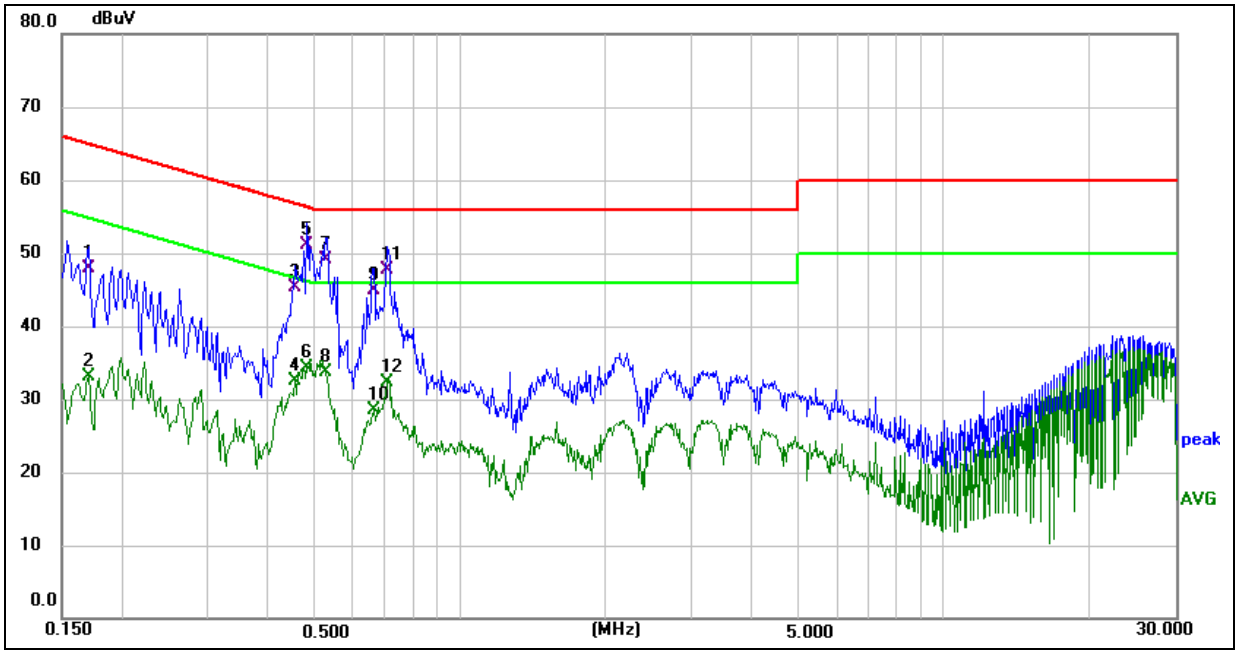
We pretested modes (Wireless Charging for iphone, Wireless Charging for Airpods，Wireless Charging for iphone+ Airpods) for EUT. The worst test data see follow the table.

Test mode: Wireless Charging for iPhone+ Airpods



Site:	**843**	**Phase:L1**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone+ Airpods**	**Test Engineer:**	**Jack**
Note:			

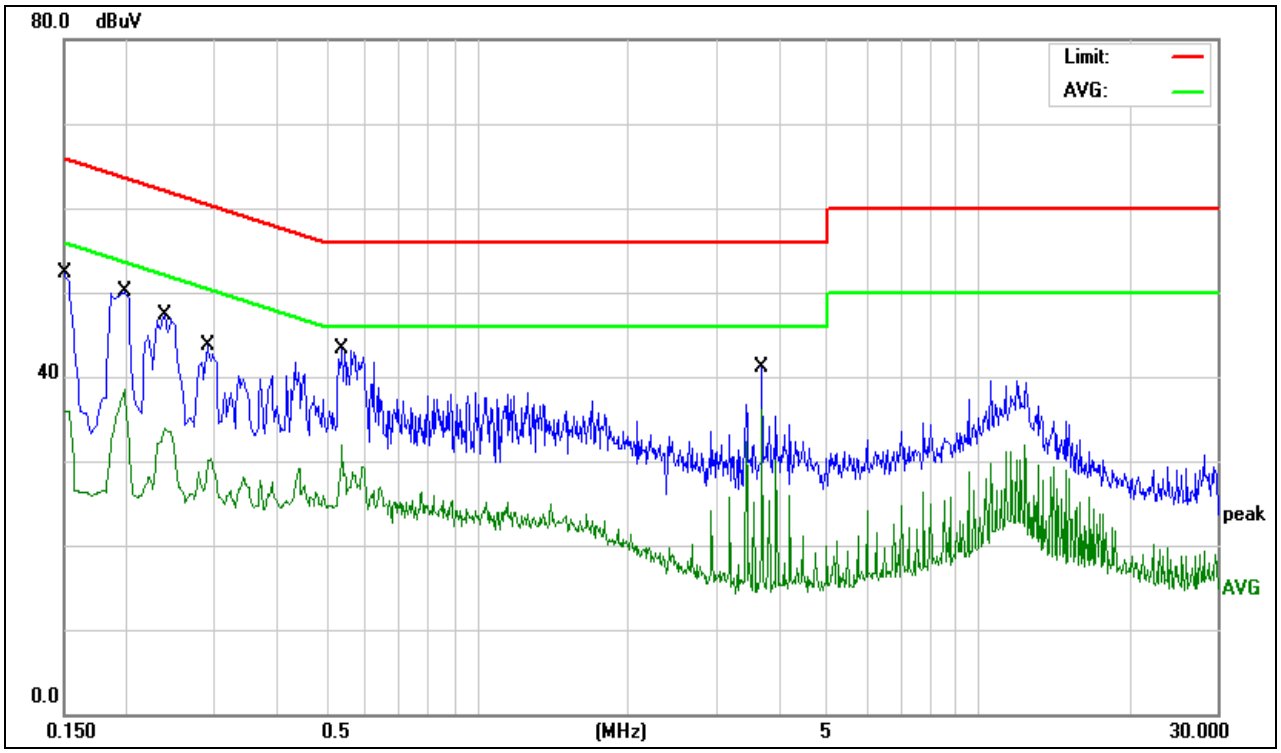
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1580	43.52	10.29	53.81	65.57	-11.76	QP	
2	0.1580	31.63	10.29	41.92	55.57	-13.65	AVG	
3	0.1700	44.72	10.29	55.01	64.96	-9.95	QP	
4	0.1700	35.02	10.29	45.31	54.96	-9.65	AVG	
5	0.2100	32.79	10.30	43.09	63.21	-20.12	QP	
6	0.2100	32.05	10.30	42.35	53.21	-10.86	AVG	
7	0.2340	30.59	10.29	40.88	62.31	-21.43	QP	
8	0.2340	25.58	10.29	35.87	52.31	-16.44	AVG	
9	0.2779	29.78	10.01	39.79	60.88	-21.09	QP	
10	0.2779	27.11	10.01	37.12	50.88	-13.76	AVG	
11	0.5299	29.34	9.80	39.14	56.00	-16.86	QP	
12	0.5299	20.59	9.80	30.39	46.00	-15.61	AVG	



Site:	**843**	**Phase:N**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone+ Airpods**	**Test Engineer:**	**Jack**
Note:			

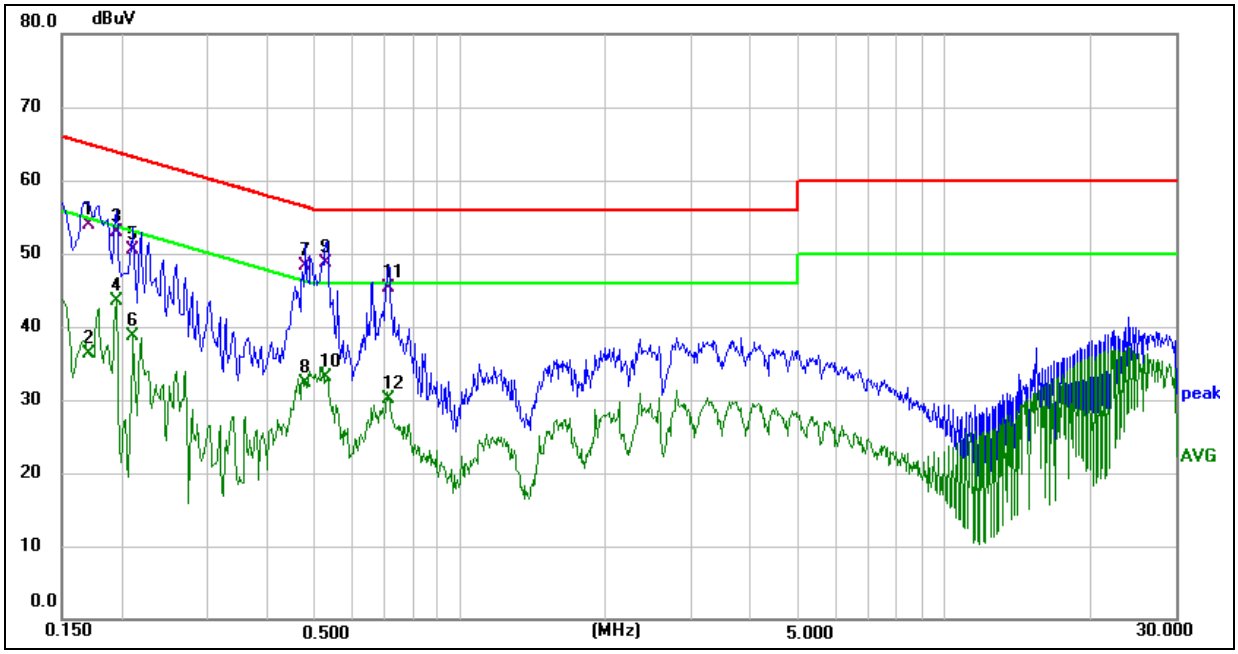
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1700	37.66	10.30	47.96	64.96	-17.00	QP	
2	0.1700	22.85	10.30	33.15	54.96	-21.81	AVG	
3	0.4540	35.52	9.87	45.39	56.80	-11.41	QP	
4	0.4540	22.61	9.87	32.48	46.80	-14.32	AVG	
5	0.4820	41.22	9.84	51.06	56.30	-5.24	QP	
6	0.4820	24.56	9.84	34.40	46.30	-11.90	AVG	
7	0.5260	39.30	9.80	49.10	56.00	-6.90	QP	
8	0.5260	23.99	9.80	33.79	46.00	-12.21	AVG	
9	0.6620	35.20	9.70	44.90	56.00	-11.10	QP	
10	0.6620	18.82	9.70	28.52	46.00	-17.48	AVG	
11	0.7060	38.13	9.67	47.80	56.00	-8.20	QP	
12	0.7060	22.57	9.67	32.24	46.00	-13.76	AVG	

Test mode: Wireless Charging for Airpods



Site:	**843**	**Phase:N**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Airpods**	**Test Engineer:**	**Jack**
Note:			

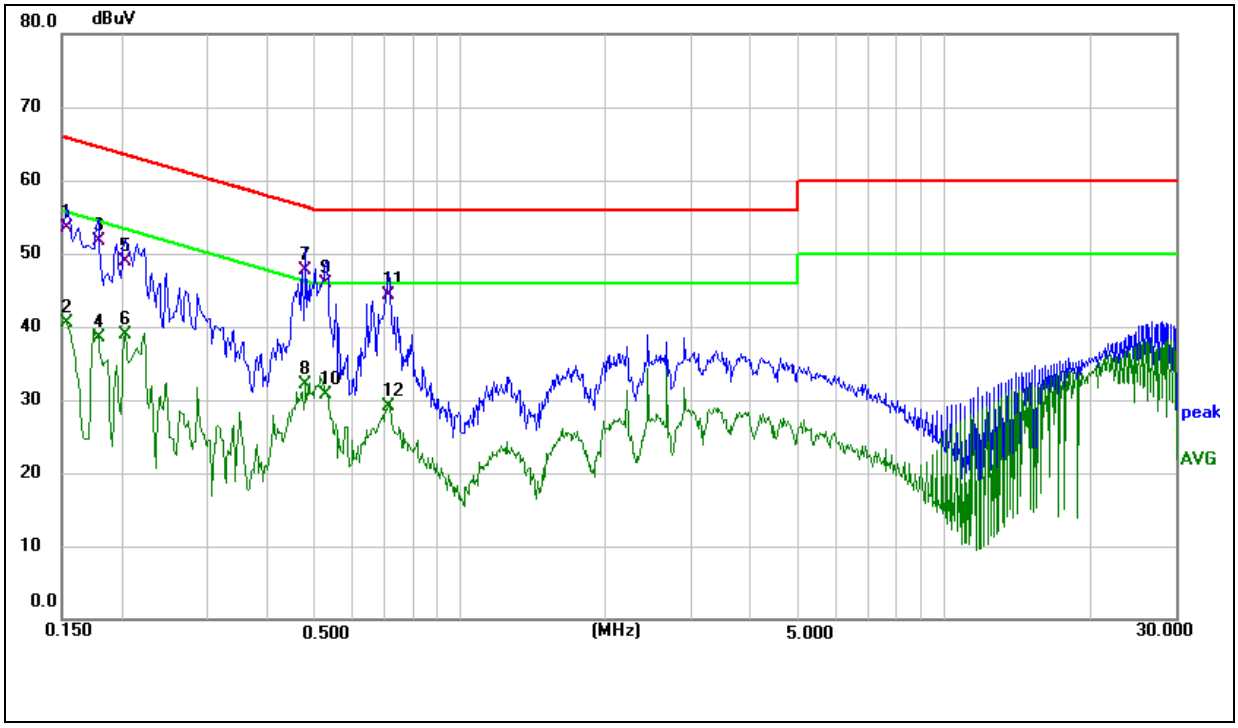
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1500	41.75	9.60	51.35	65.99	-14.64	QP	
2	0.1500	26.76	9.60	36.36	55.99	-19.63	AVG	
3	0.1980	37.25	9.62	46.87	63.69	-16.82	QP	
4	0.1980	23.56	9.62	33.18	53.69	-20.51	AVG	
5	0.2380	33.55	9.63	43.18	62.16	-18.98	QP	
6	0.2380	20.94	9.63	30.57	52.16	-21.59	AVG	
7	0.2900	28.64	9.63	38.27	60.52	-22.25	QP	
8	0.2900	17.91	9.63	27.54	50.52	-22.98	AVG	
9	0.5380	27.06	9.66	36.72	56.00	-19.28	QP	
10	0.5380	17.00	9.66	26.66	46.00	-19.34	AVG	
11	3.7060	27.96	9.83	37.79	56.00	-18.21	QP	
12	3.7060	24.42	9.83	34.25	46.00	-11.75	AVG	



Site:	**843**	**Phase:L1**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Airpods**	**Test Engineer:**	**Jack**
Note:			

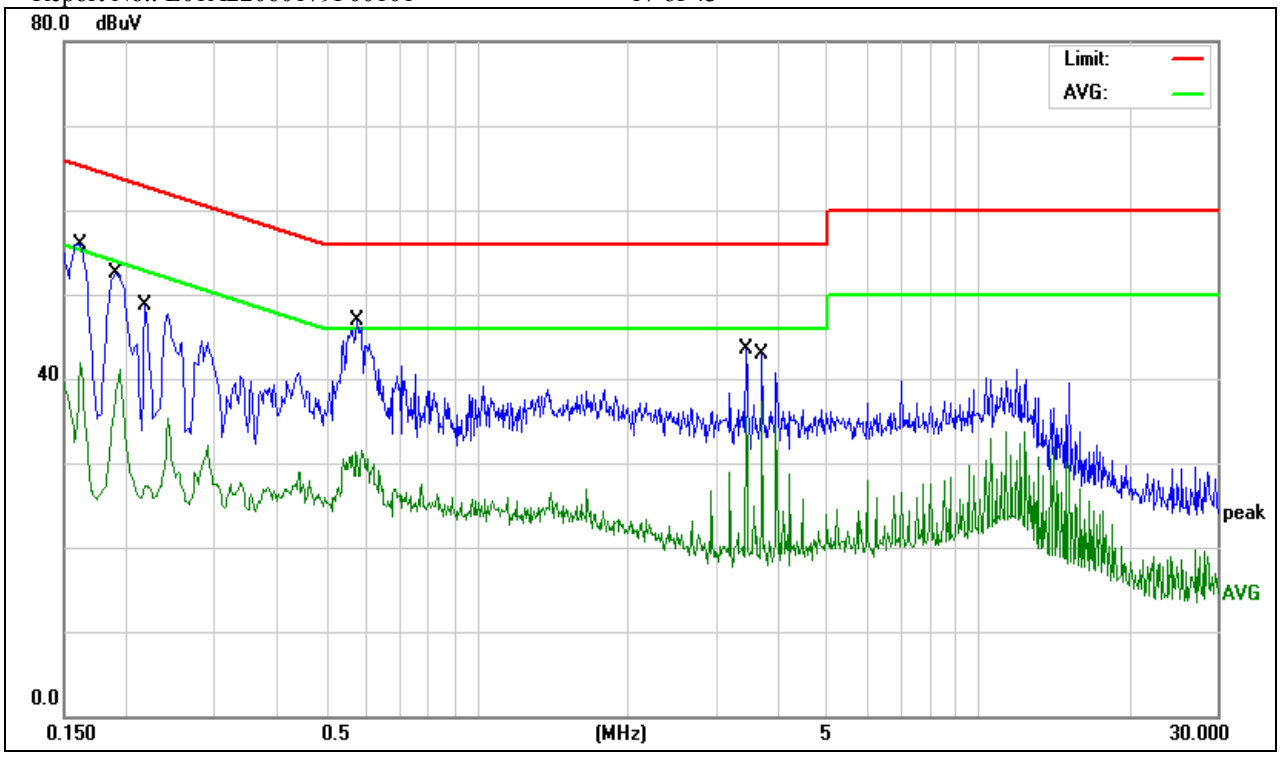
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1700	43.65	10.30	53.95	64.96	-11.01	QP	
2	0.1700	26.08	10.30	36.38	54.96	-18.58	AVG	
3	0.1940	42.66	10.31	52.97	63.86	-10.89	QP	
4	0.1940	33.16	10.31	43.47	53.86	-10.39	AVG	
5	0.2100	40.26	10.31	50.57	63.21	-12.64	QP	
6	0.2100	28.48	10.31	38.79	53.21	-14.42	AVG	
7	0.4780	38.37	9.84	48.21	56.37	-8.16	QP	
8	0.4780	22.50	9.84	32.34	46.37	-14.03	AVG	
9	0.5299	38.93	9.80	48.73	56.00	-7.27	QP	
10	0.5299	23.35	9.80	33.15	46.00	-12.85	AVG	
11	0.7100	35.68	9.67	45.35	56.00	-10.65	QP	
12	0.7100	20.44	9.67	30.11	46.00	-15.89	AVG	

Test mode: Wireless Charging for iPhone



Site:	**843**	**Phase:N**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone**	**Test Engineer:**	**Jack**
Note:			

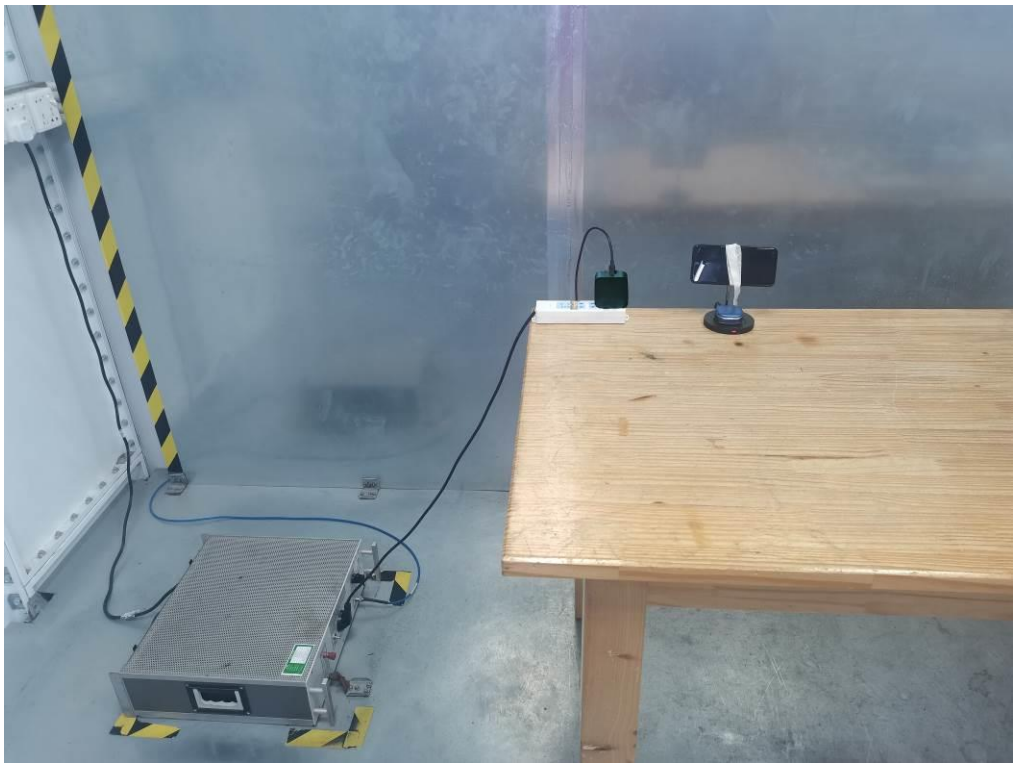
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1539	43.26	10.29	53.55	65.79	-12.24	QP	
2	0.1539	30.15	10.29	40.44	55.79	-15.35	AVG	
3	0.1780	41.36	10.30	51.66	64.58	-12.92	QP	
4	0.1780	28.14	10.30	38.44	54.58	-16.14	AVG	
5	0.2020	38.66	10.30	48.96	63.53	-14.57	QP	
6	0.2020	28.64	10.30	38.94	53.53	-14.59	AVG	
7	0.4780	37.81	9.84	47.65	56.37	-8.72	QP	
8	0.4780	22.21	9.84	32.05	46.37	-14.32	AVG	
9	0.5299	36.19	9.80	45.99	56.00	-10.01	QP	
10	0.5299	20.88	9.80	30.68	46.00	-15.32	AVG	
11	0.7100	34.70	9.67	44.37	56.00	-11.63	QP	
12	0.7100	19.52	9.67	29.19	46.00	-16.81	AVG	



Site:	**843**	**Phase:L1**	**Temperature(C):22**
Limit:	**FCC Part 15 C Conduction(QP)**		**Humidity(%):55**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**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	0.1620	22.72	9.61	32.33	65.36	-33.03	QP	
2	0.1620	16.44	9.61	26.05	55.36	-29.31	AVG	
3	0.1900	39.10	9.62	48.72	64.03	-15.31	QP	
4	0.1900	24.91	9.62	34.53	54.03	-19.50	AVG	
5	0.2180	22.88	9.62	32.50	62.89	-30.39	QP	
6	0.2180	16.05	9.62	25.67	52.89	-27.22	AVG	
7	0.5780	33.38	9.67	43.05	56.00	-12.95	QP	
8	0.5780	21.00	9.67	30.67	46.00	-15.33	AVG	
9	3.4500	29.42	9.81	39.23	56.00	-16.77	QP	
10	3.4500	24.26	9.81	34.07	46.00	-11.93	AVG	
11	3.7060	32.66	9.83	42.49	56.00	-13.51	QP	
12	3.7060	27.45	9.83	37.28	46.00	-8.72	AVG	

5.6 Conducted Measurement Photo



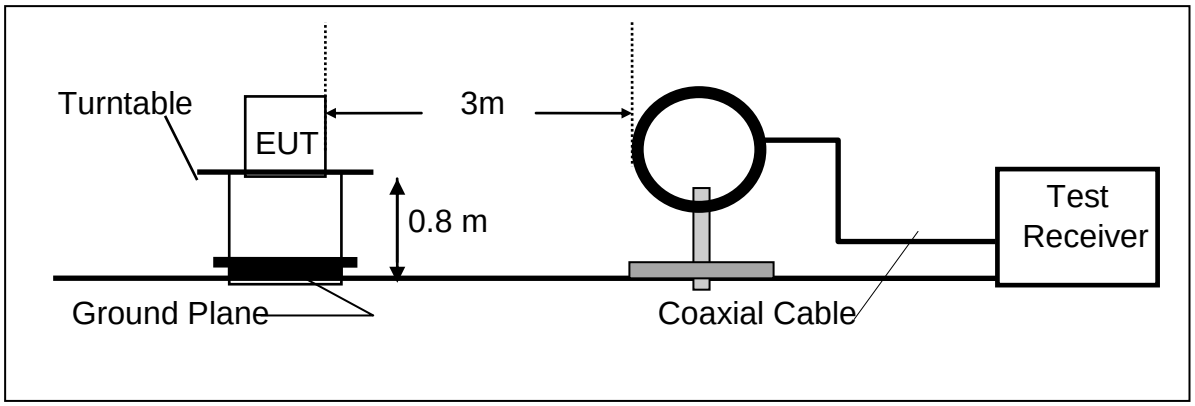
6 Radiated Emission Test

6.1 Measurement Procedure

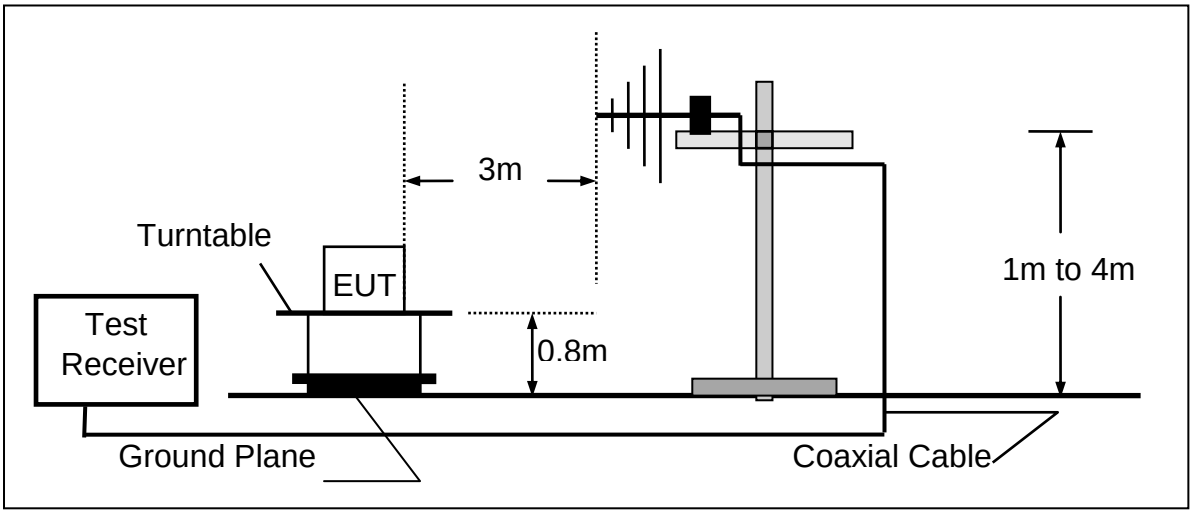
1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above 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	2022-11-19
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	2022-11-19
5.	RF Cable	Gigalink Microwave	ZT40-2.92J-2.92 J-2m	N/A	2022-11-19
6.	RF Cable	Gigalink Microwave	ZT40-2.92J-2.92 J-0.3m	N/A	2022-11-19
7.	RF Cable	N/A	N/A	6#	2023-05-12
8.	3m Semi-anechoic Chamber	chengyu	9m*6m*6m	N/A	2023-05-12
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

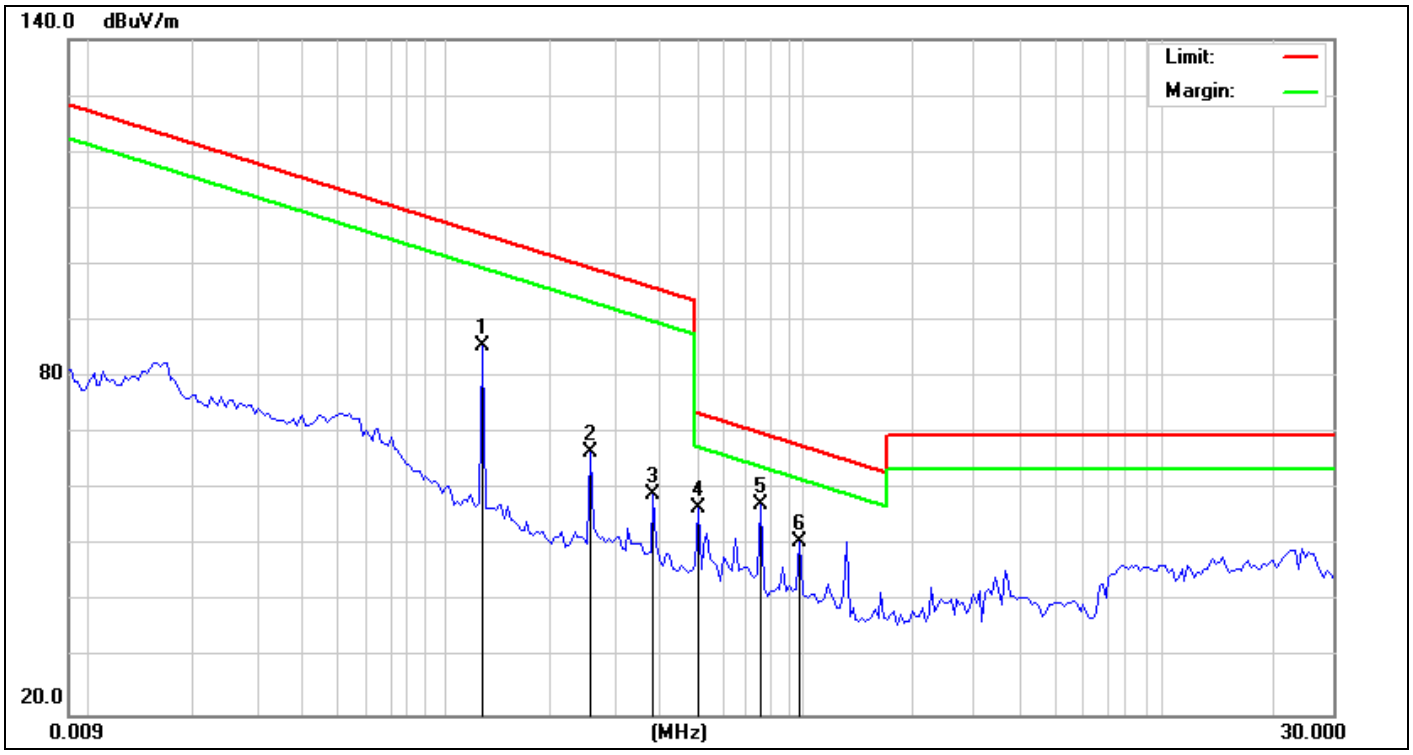
MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 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 Airpods，Wireless Charging for iphone+ Airpods) for EUT. The worst mode test data see follow the table.

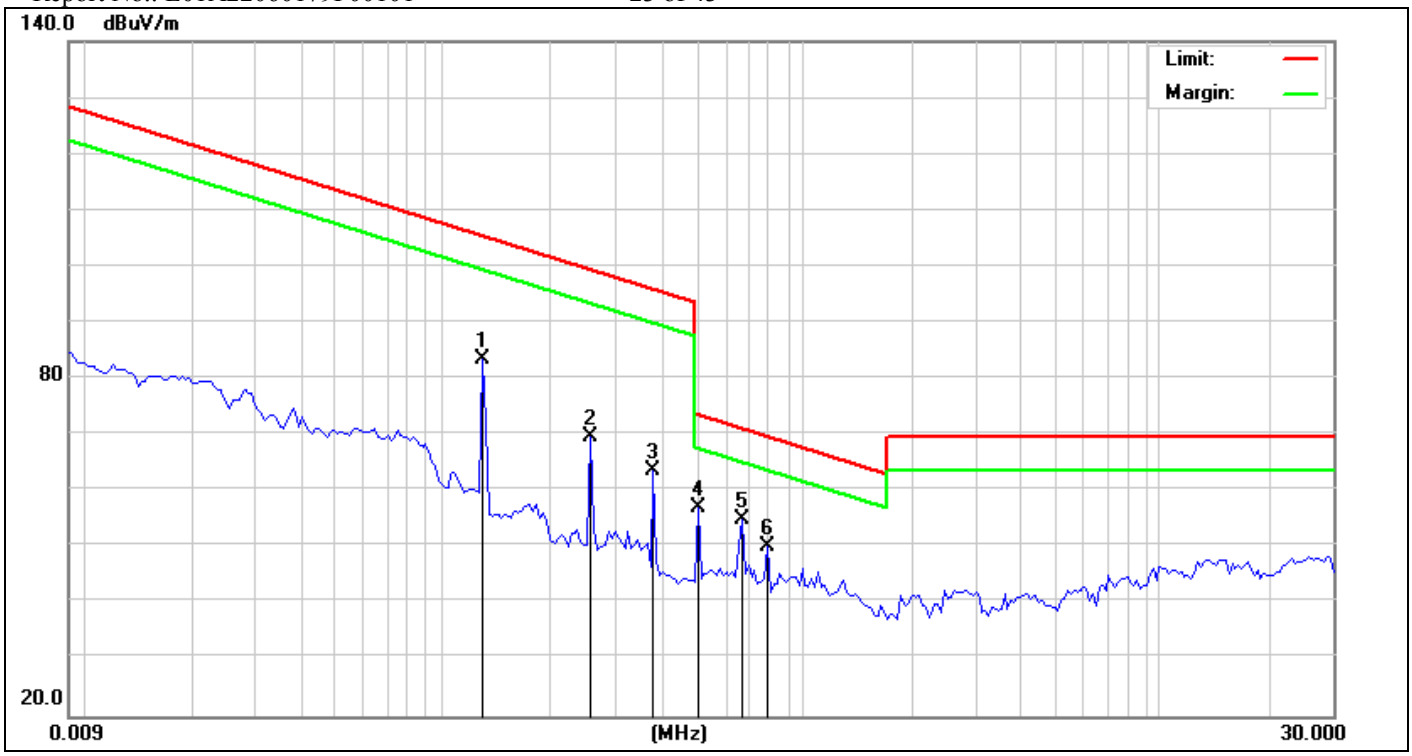
Test mode: Wireless Charging for iphone



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**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	

*:Maximum data x:Over limit !:over margin

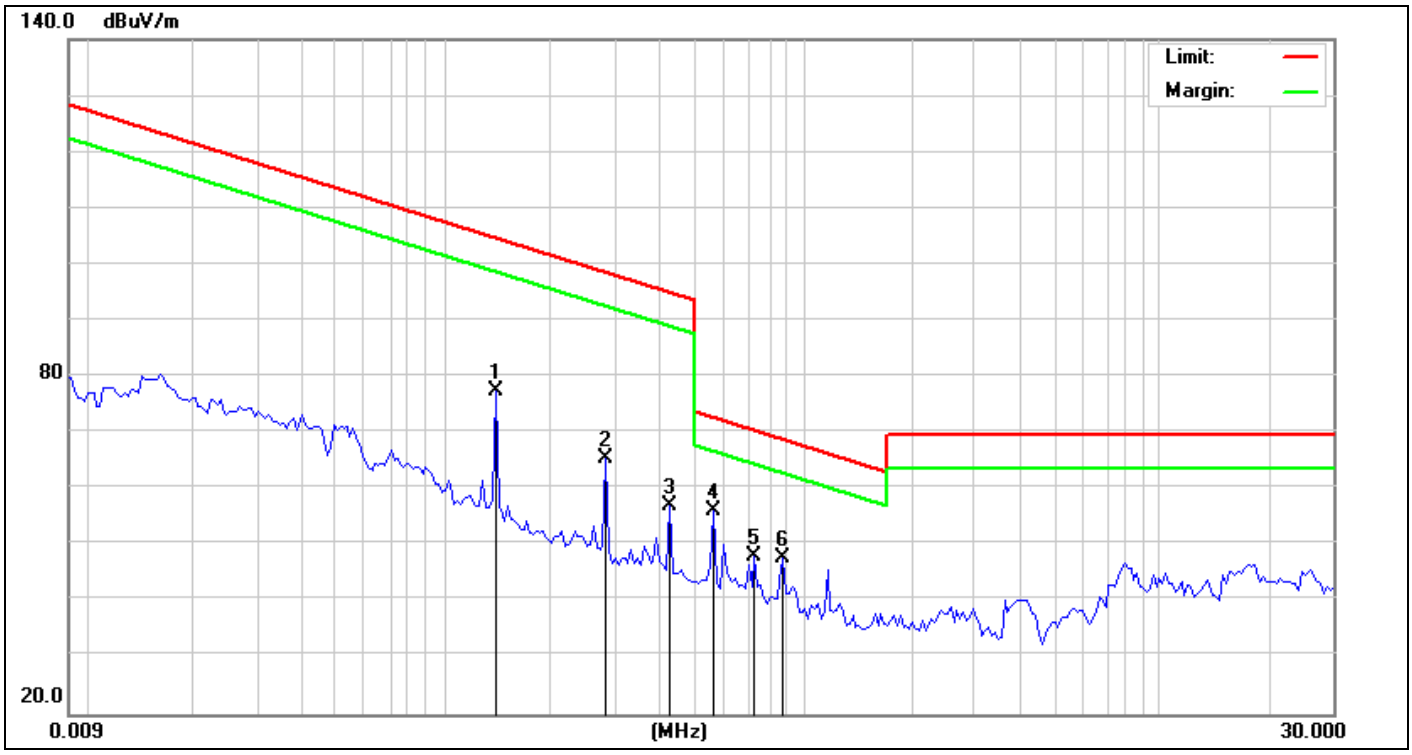


Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iphone**	**Test 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.

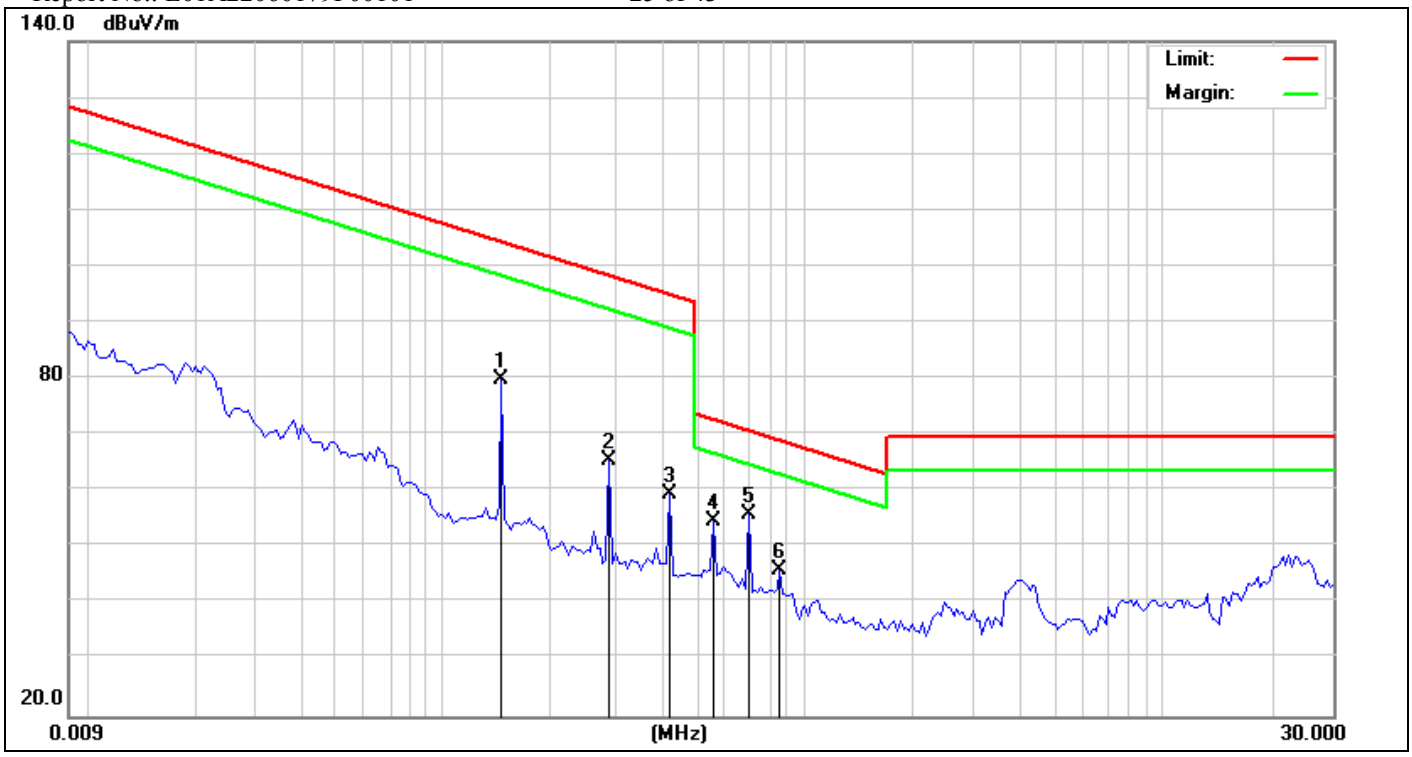
Test mode: Wireless Charging for Airpods



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Airpods**	**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	0.1411	71.27	6.14	77.41	104.55	-27.14	QP	100	109	
2	0.2827	59.71	5.68	65.39	98.55	-33.16	QP	100	93	
3	0.4242	50.88	6.09	56.97	95.04	-38.07	QP	100	67	
4 *	0.5635	49.68	6.36	56.04	72.59	-16.55	QP	100	52	
5	0.7335	41.45	6.50	47.95	70.30	-22.35	QP	100	26	
6	0.8800	41.56	6.27	47.83	68.73	-20.90	QP	100	71	

*:Maximum data x:Over limit !:over margin

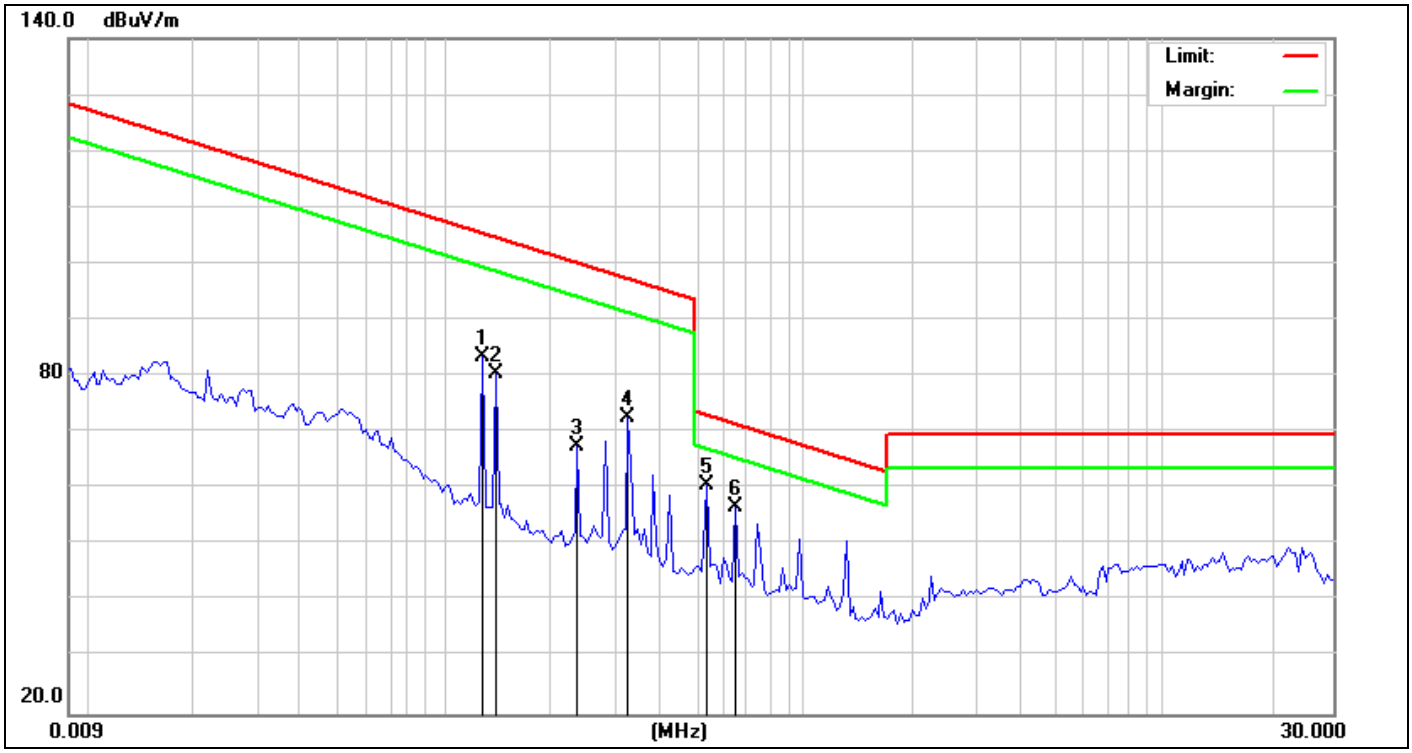


Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Airpods**	**Test 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	0.1411	73.78	6.12	79.90	104.32	-24.42	QP	100	109	
2	0.2825	59.69	5.70	65.39	98.37	-32.98	QP	100	93	
3	0.4242	53.38	6.09	59.47	95.04	-35.57	QP	100	67	
4	0.5635	48.18	6.36	54.54	72.59	-18.05	QP	100	52	
5 *	0.7044	49.46	6.48	55.94	70.66	-14.72	QP	100	26	
6	0.8627	39.59	6.30	45.89	68.90	-23.01	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.

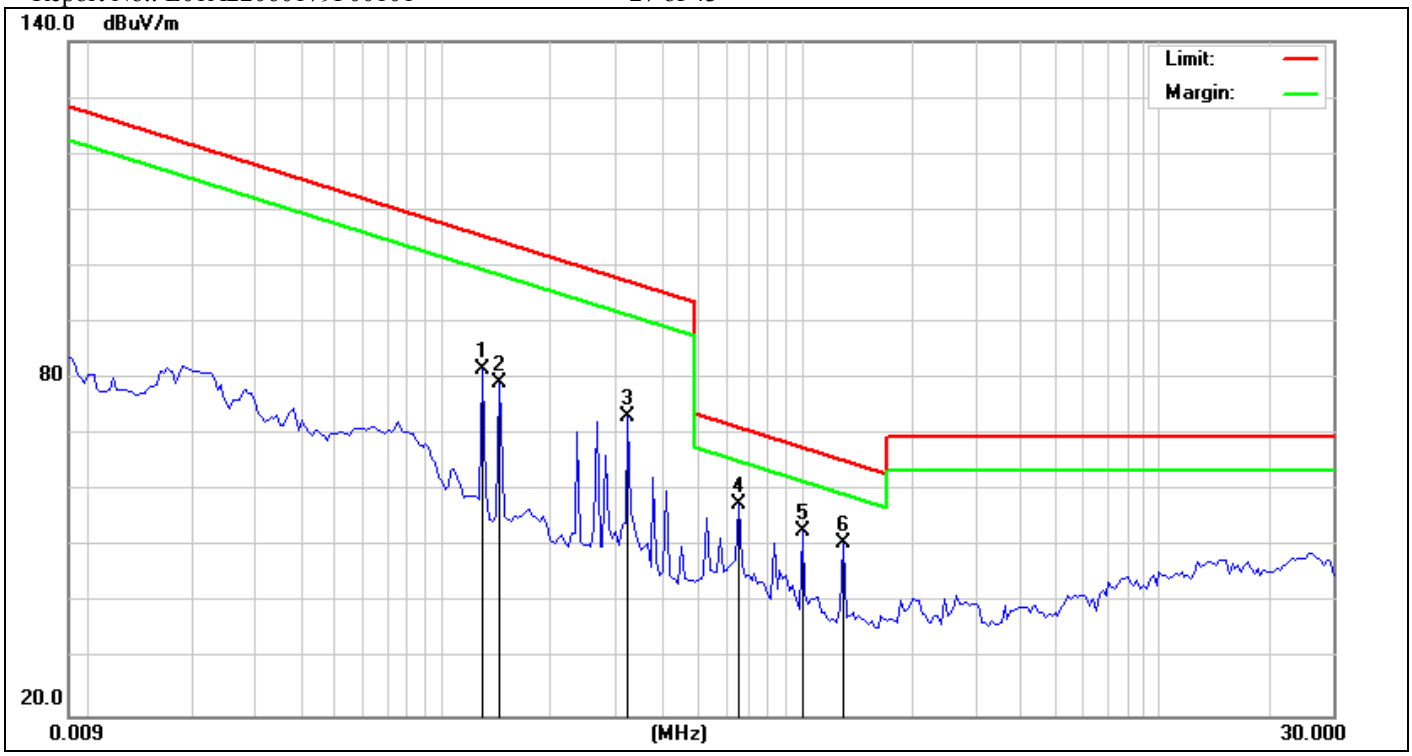
Test mode: Wireless Charging for iPhone+Airpods



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone +Airpods**	**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	26	
2	0.1391	74.26	6.15	80.41	104.67	-24.26	QP	100	39	
3	0.2356	62.03	5.66	67.69	100.12	-32.43	QP	100	74	
4	0.3259	66.95	5.80	72.75	97.32	-24.57	QP	100	47	
5 *	0.5410	54.38	6.34	60.72	72.94	-12.22	QP	100	123	
6	0.6491	50.32	6.44	56.76	71.36	-14.60	QP	100	45	

*:Maximum data x:Over limit !:over margin



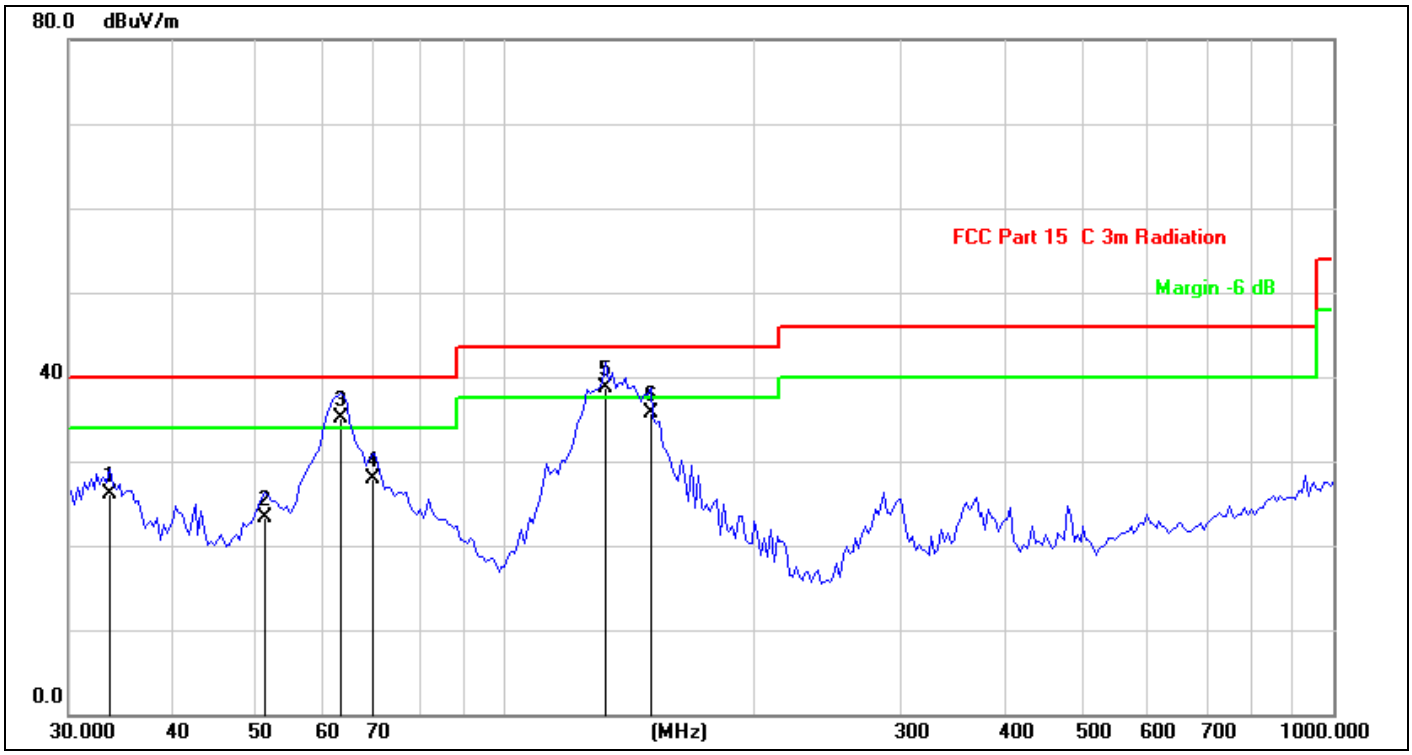
Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15C 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone+ Airpods**	**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	75.33	6.20	81.53	105.39	-23.86	QP	100	26	
2	0.1418	73.07	6.14	79.21	104.50	-25.29	QP	100	39	
3	0.3259	67.45	5.80	73.25	97.32	-24.07	QP	100	74	
4 *	0.6622	51.15	6.45	57.60	71.19	-13.59	QP	100	47	
5	0.9939	46.66	6.05	52.71	67.67	-14.96	QP	100	123	
6	1.2942	44.59	6.13	50.72	65.39	-14.67	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 Airpods，Wireless Charging for iphone +Airpods) for EUT. The worst test data see follow the table.

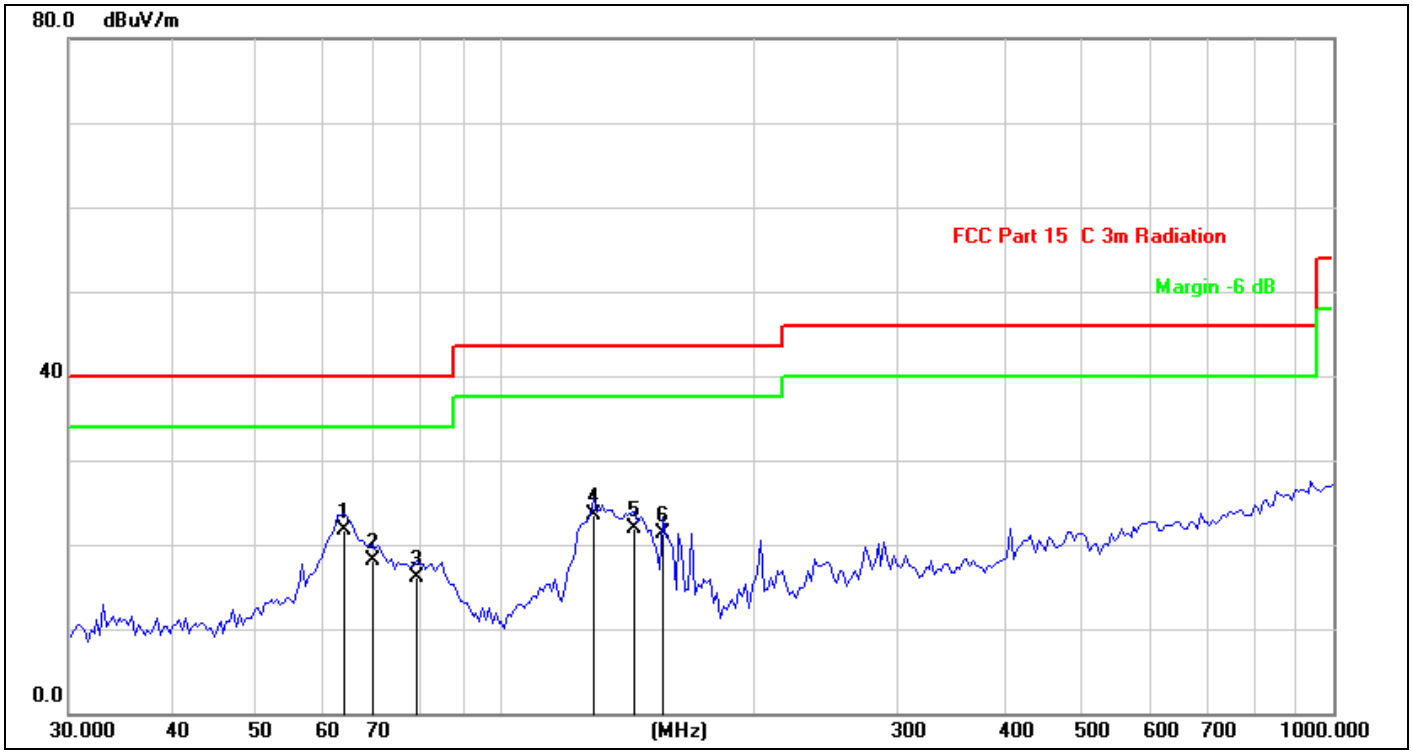
Test mode: Wireless Charging for iphone



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**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	

*:Maximum data x:Over limit !:over margin

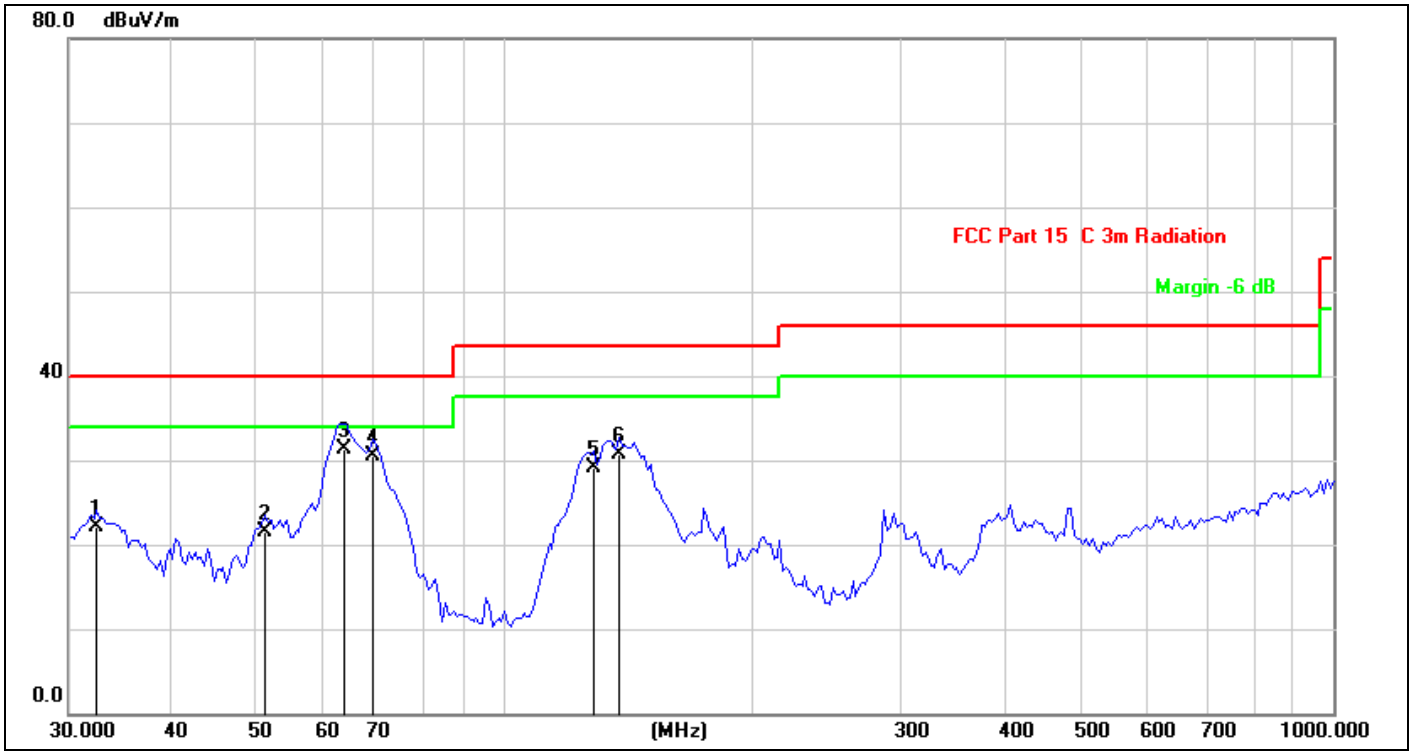


Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iphone**	**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	

*:Maximum data x:Over limit !:over margin

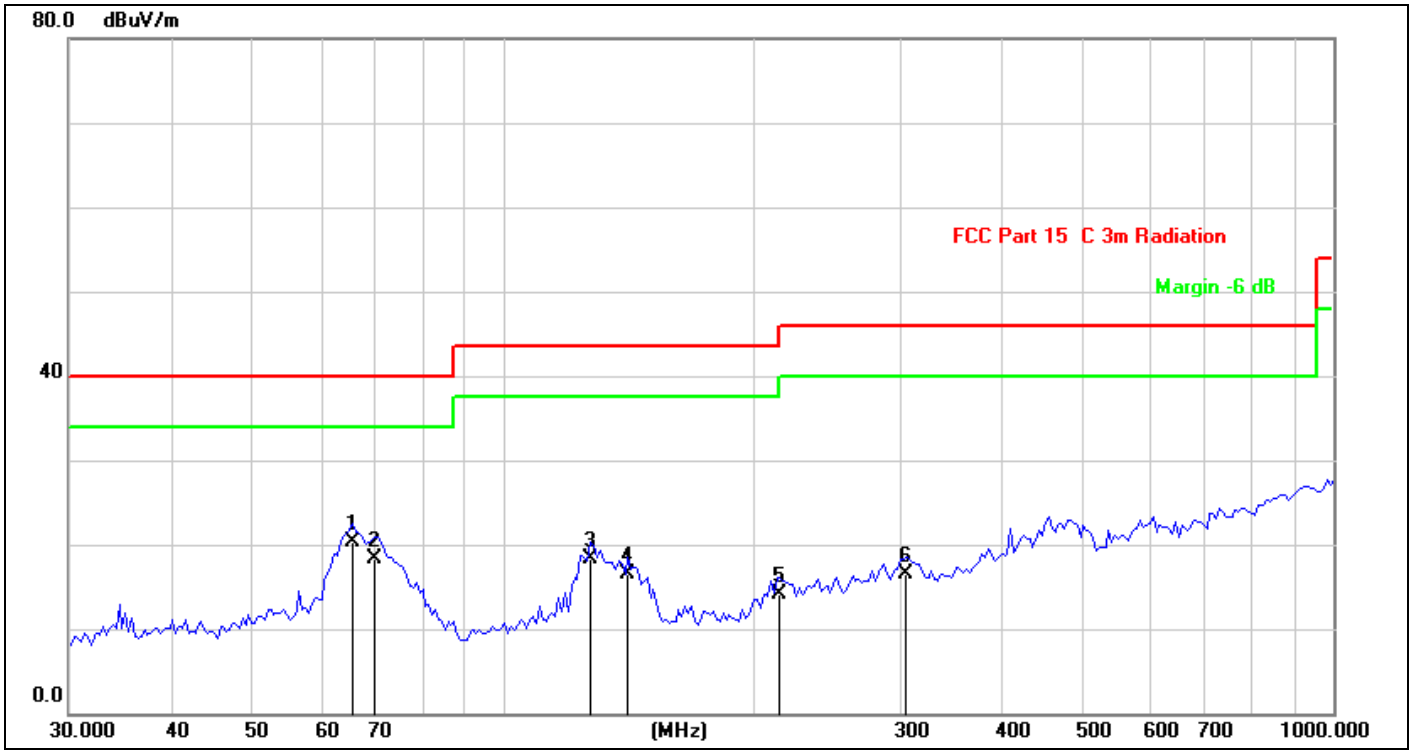
Test mode: Wireless Charging for Airpods



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Airpods**	**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	

*:Maximum data x:Over limit !:over margin

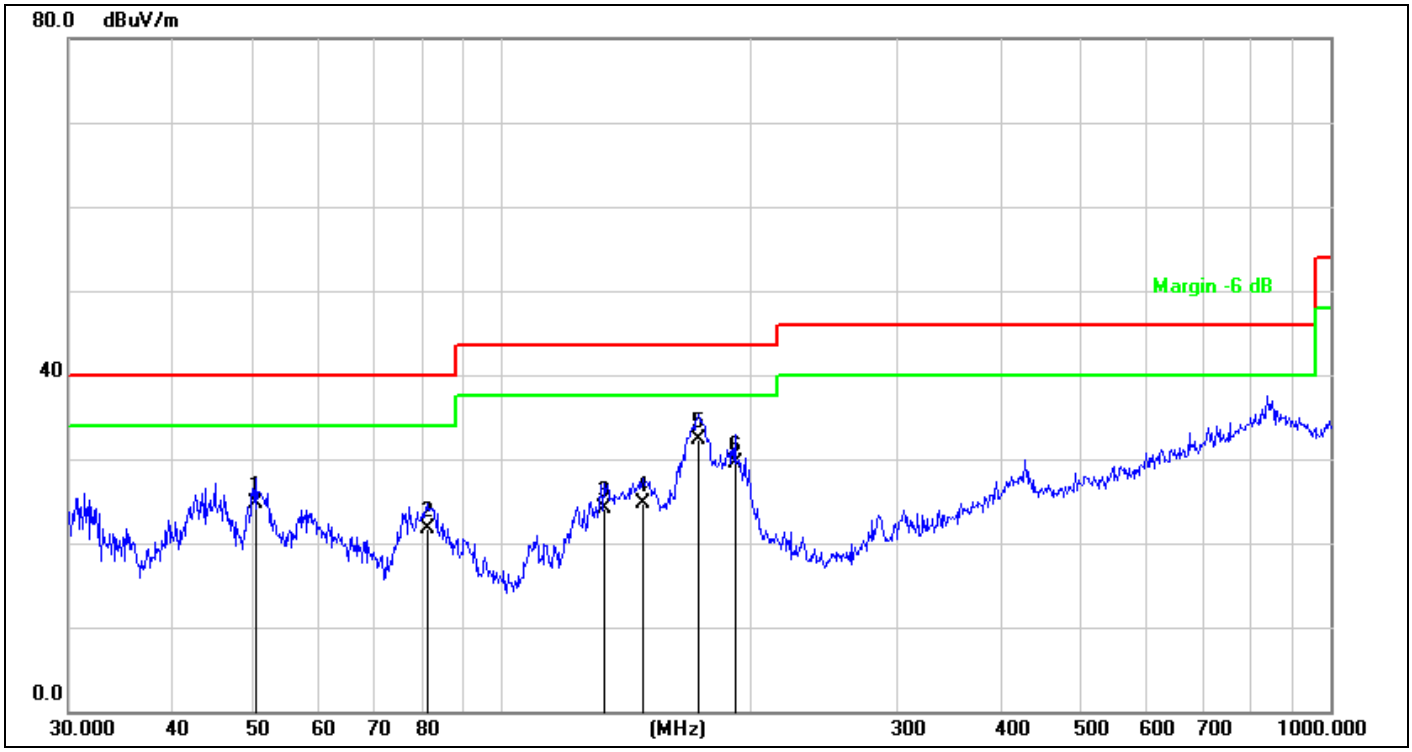


Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for Airpods**	**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	

*:Maximum data x:Over limit !:over margin

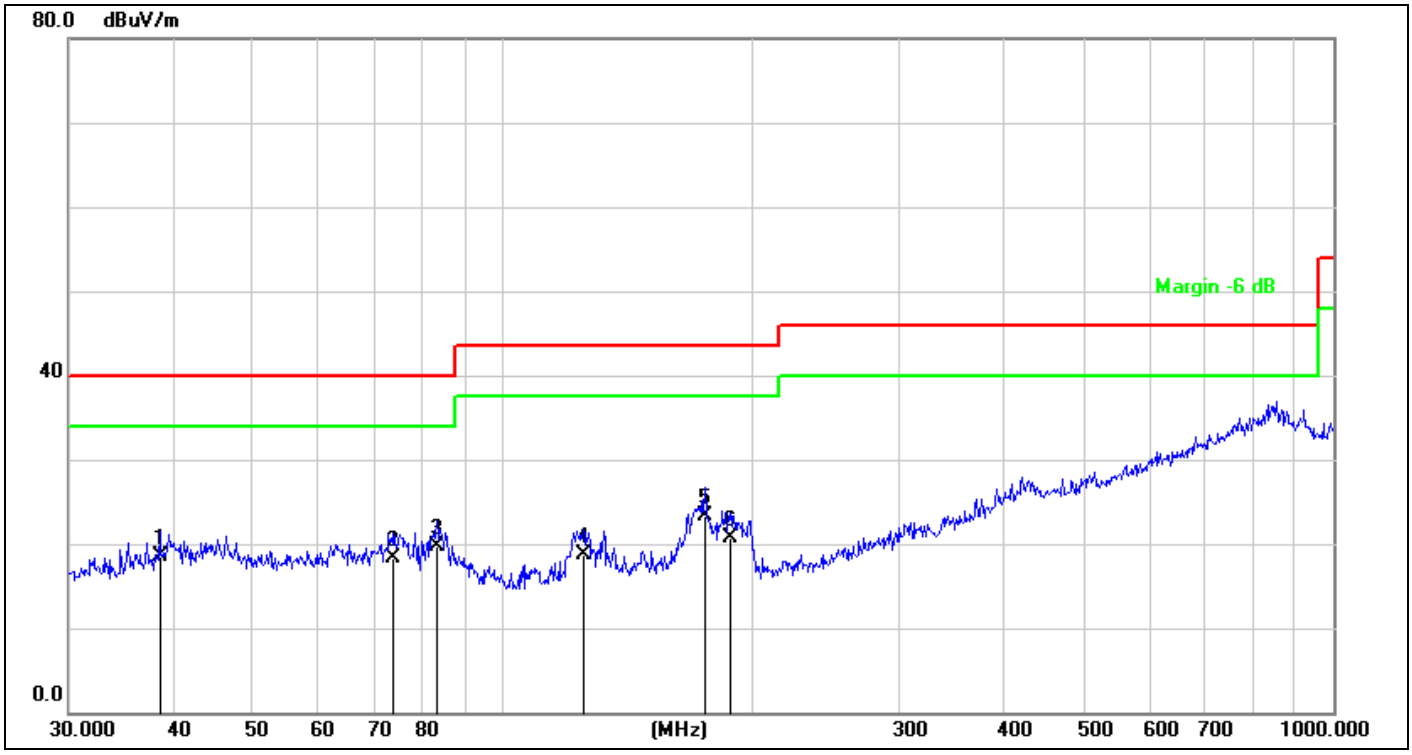
Test mode: Wireless Charging for iPhone+ Airpods



Site:	**LAB**	**Antenna::Vertical**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone +Airpods**	**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	50.4089	34.15	-9.53	24.62	40.00	-15.38	QP	100	45	
2	81.4970	34.05	-12.40	21.65	40.00	-18.35	QP	100	74	
3 *	132.6850	35.83	-11.79	24.04	43.50	-19.46	QP	100	103	
4	147.9214	36.00	-11.37	24.63	43.50	-18.87	QP	100	144	
5	172.5988	43.67	-11.34	32.33	43.50	-11.17	QP	100	139	
6	191.0738	40.72	-11.23	29.49	43.50	-14.01	QP	100	47	

*:Maximum data x:Over limit !:over margin

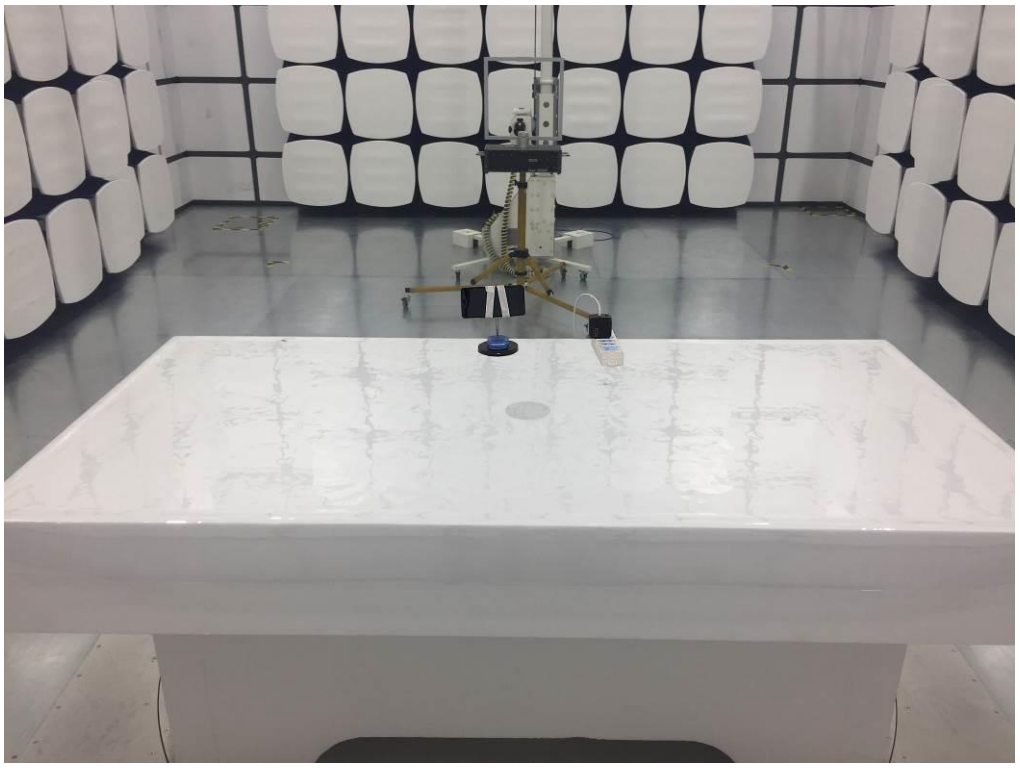


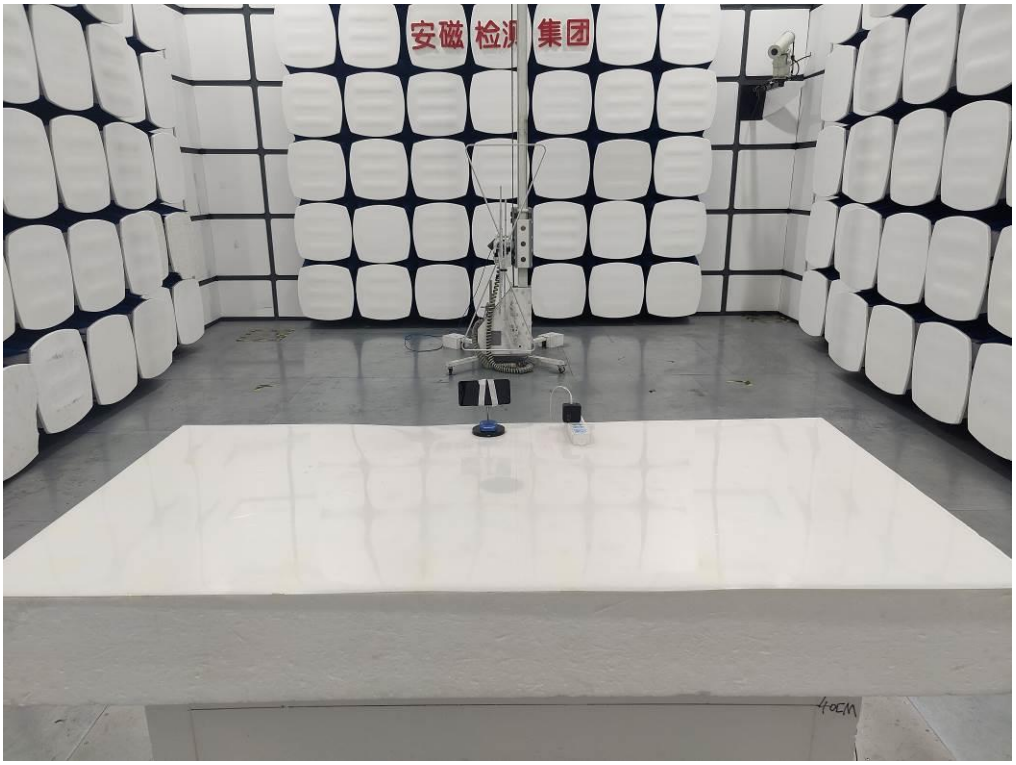
Site:	**LAB**	**Antenna::Horizontal**	**Temperature(C):23.4(C)**
Limit:	**FCC Part 15 Class B 3m Radiation(QP)**		**Humidity(%):56.7%**
EUT:	**2-in-1 Magnetic fast wireless charger**	**Test Time:**	**2022/06/27**
M/N.:	**STC-200**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Wireless Charging for iPhone+ Airpods**	**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 *	38.6160	29.23	-10.78	18.45	40.00	-21.55	QP	200	48	
2	73.8756	29.44	-11.11	18.33	40.00	-21.67	QP	200	56	
3	83.2298	32.25	-12.54	19.71	40.00	-20.29	QP	200	86	
4	125.0066	30.48	-11.73	18.75	43.50	-24.75	QP	200	133	
5	175.0368	34.61	-11.24	23.37	43.50	-20.13	QP	200	76	
6	187.7530	31.98	-11.37	20.61	43.50	-22.89	QP	200	145	

*:Maximum data x:Over limit !:over margin

6.6 Radiated Measurement Photos





7 20db Bandwidth

7.1 20dB Bandwidth Limit

None: for reporting purposed only.

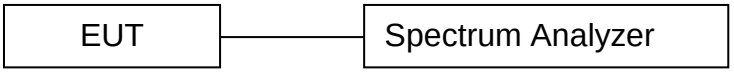
7.2 Test Instruments

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.

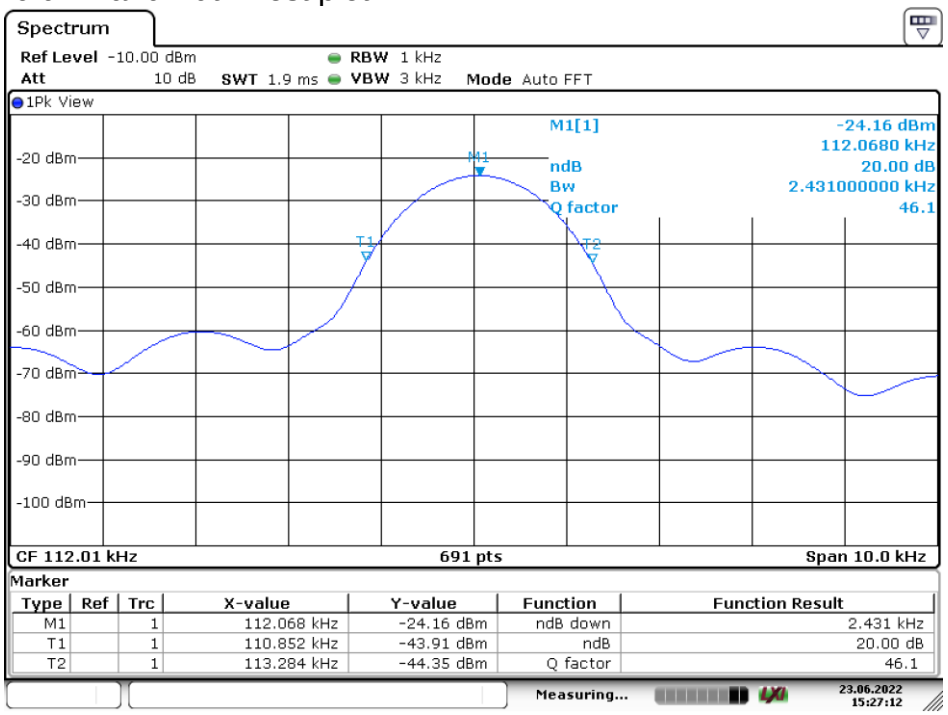
7.4 Test Setup



7.5 Test Result

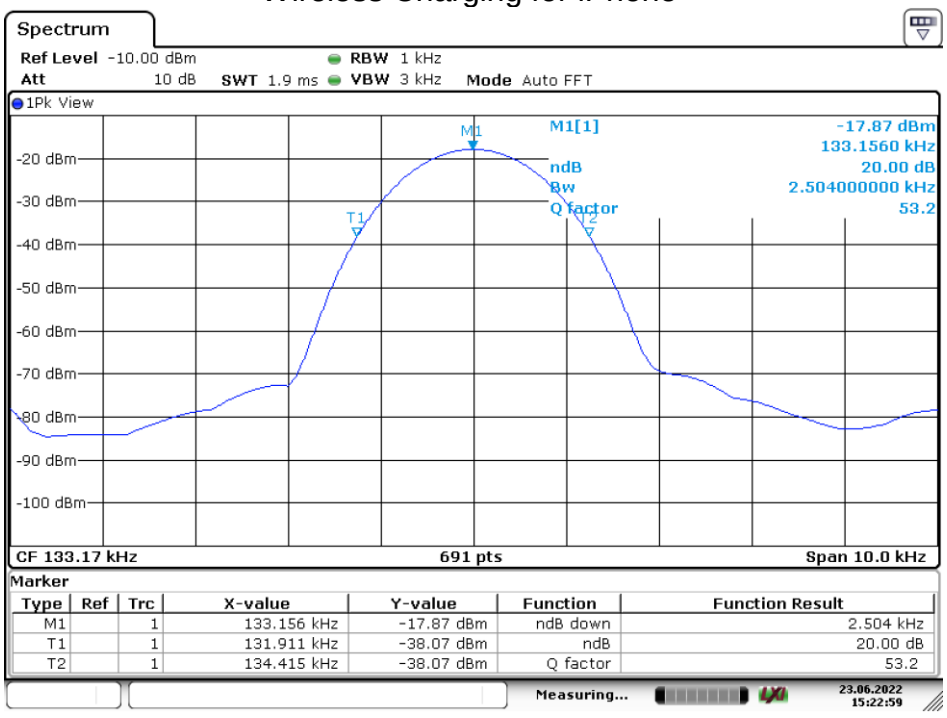
Charging Mode	Frequency (KHz)	20dB Bandwidth (KHz)	Results
iPhone	112.1	2.431	PASS
Airpods	133.2	2.504	PASS

20 dB Bandwidth Test plot



Date: 23.JUN.2022 15:27:12

Wireless Charging for iPhone



Date: 23.JUN.2022 15:22:58

Wireless Charging for Airpods

8 Antenna Application

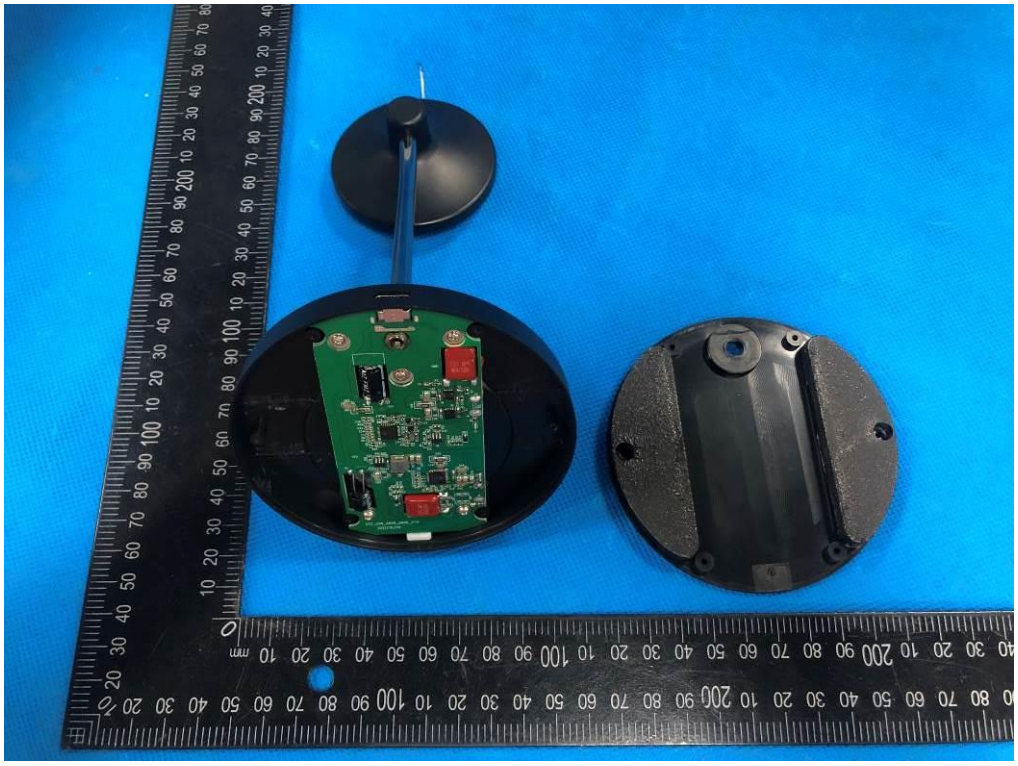
8.1 Antenna requirement

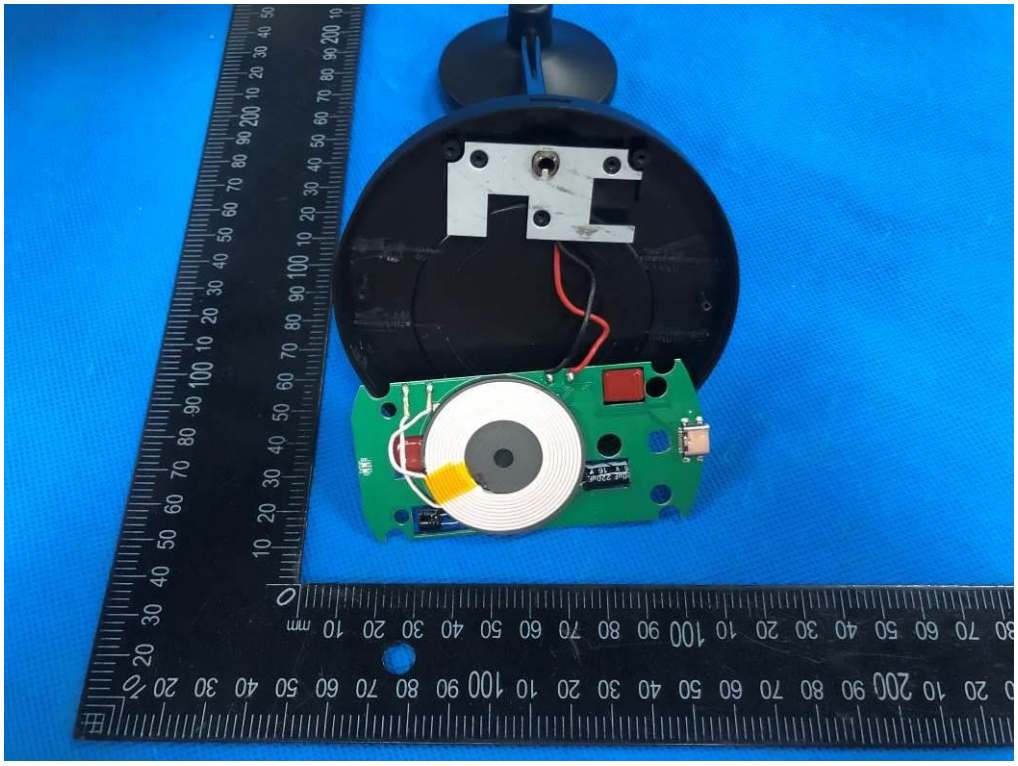
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

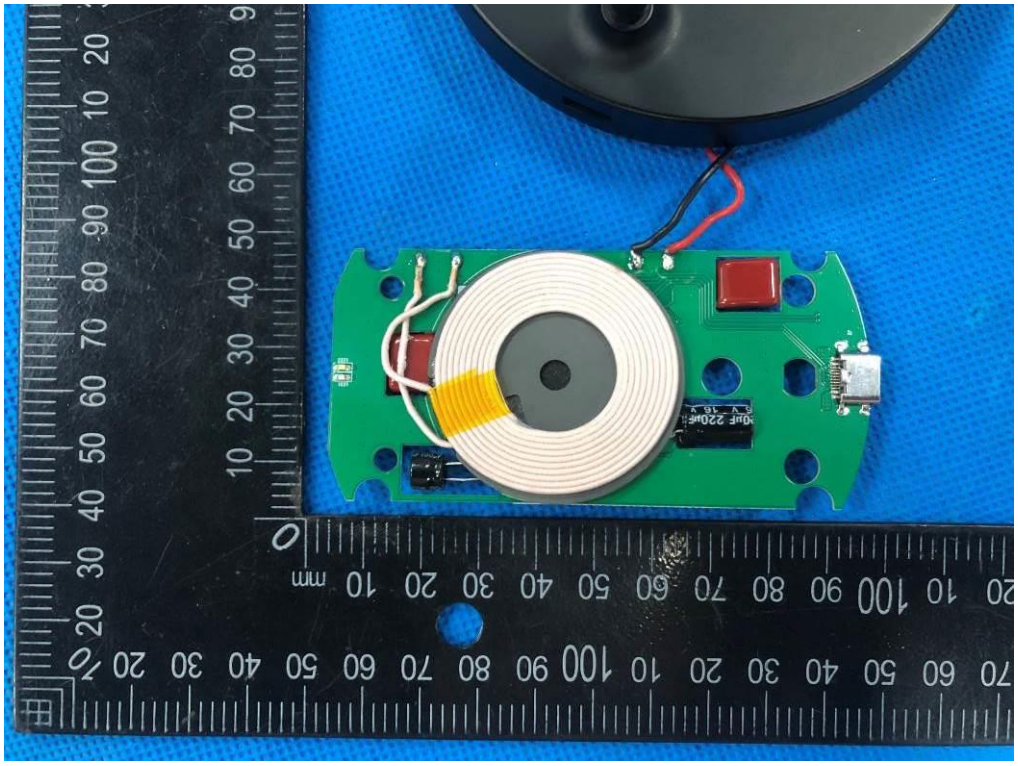
8.2 Result

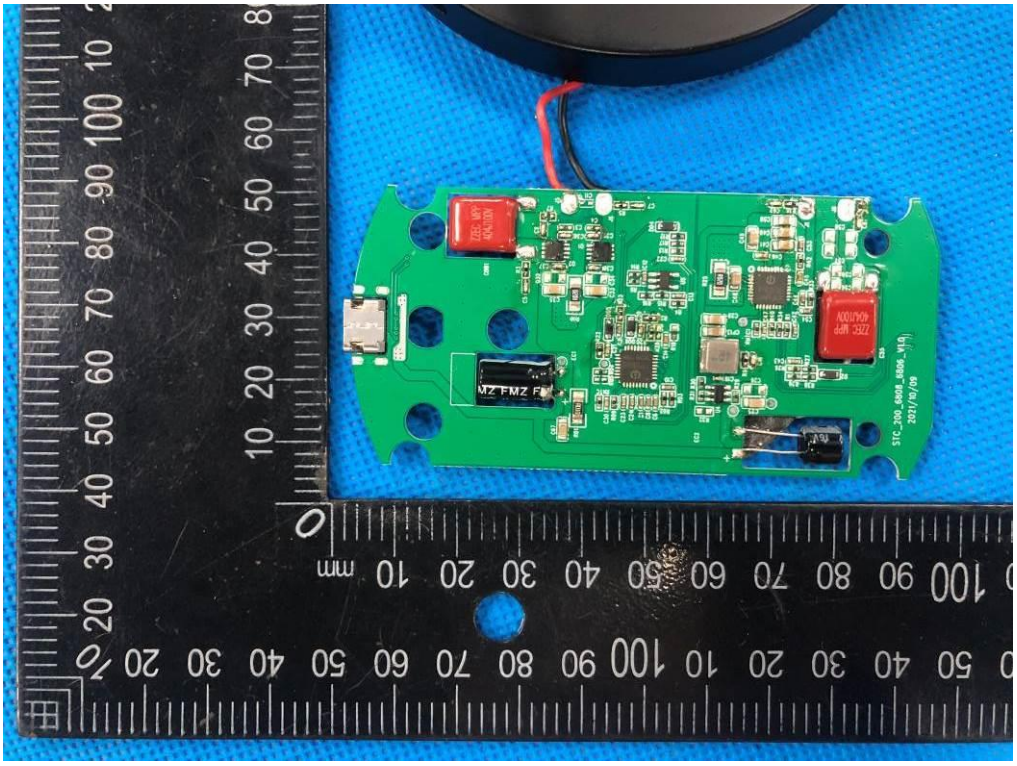
The EUT's antenna, permanent attached antenna, used an Induction coil and integrated on PCB, The antenna's gain meets the requirement.

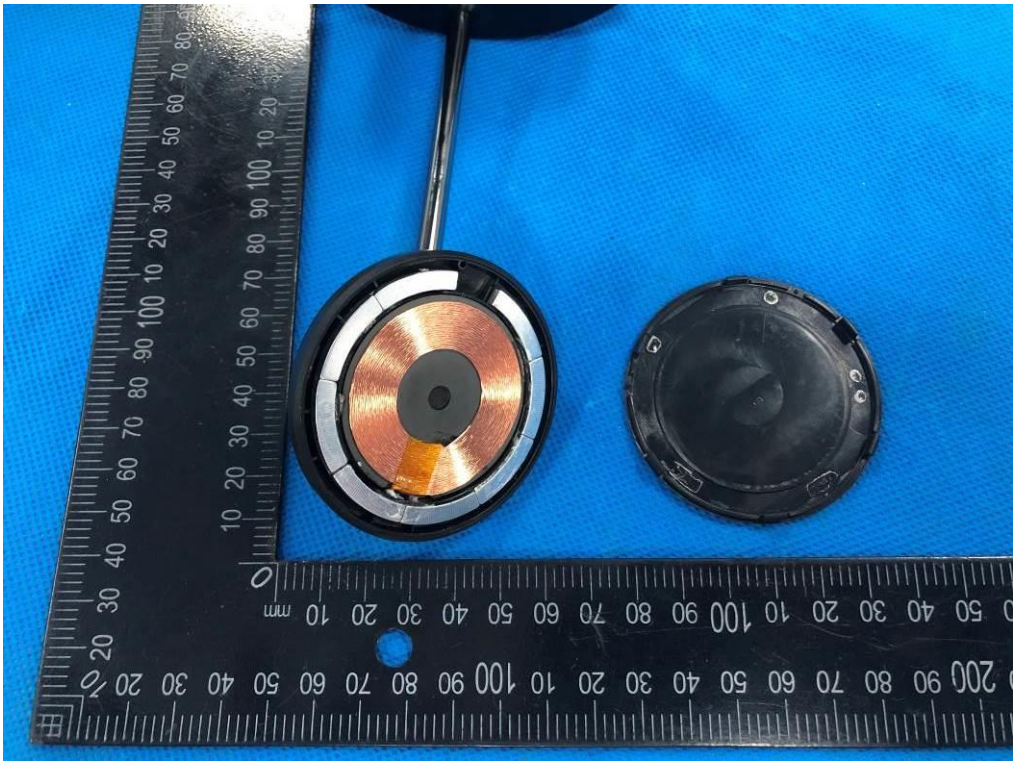
APPENDIX
(Photos of EUT)

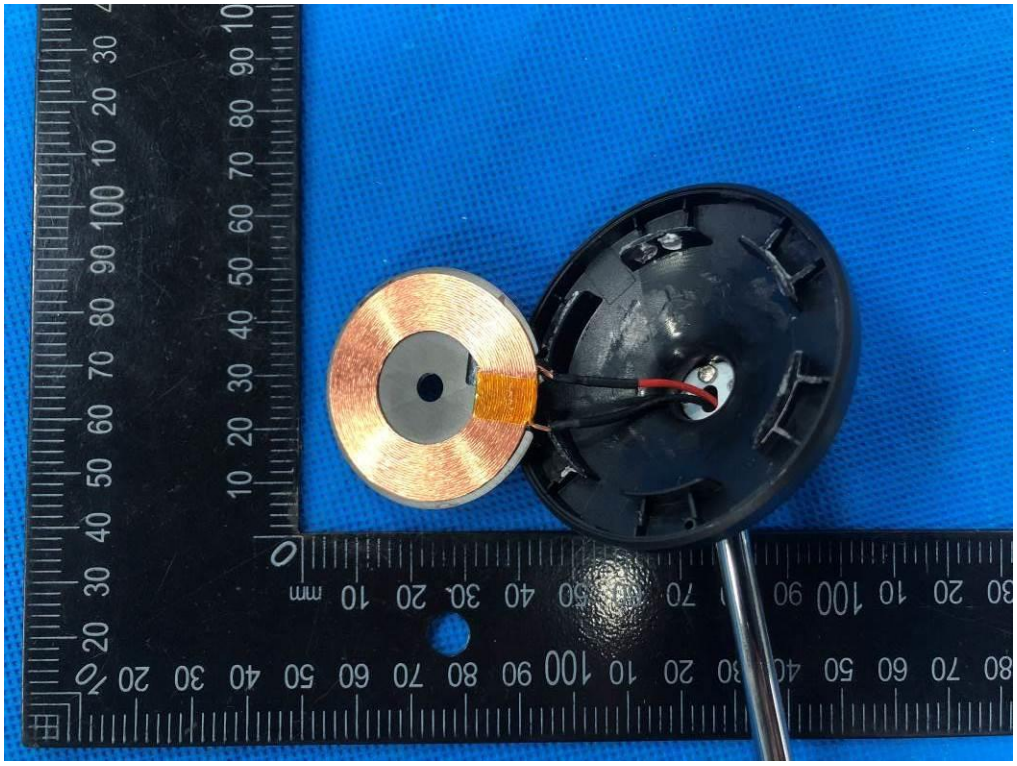


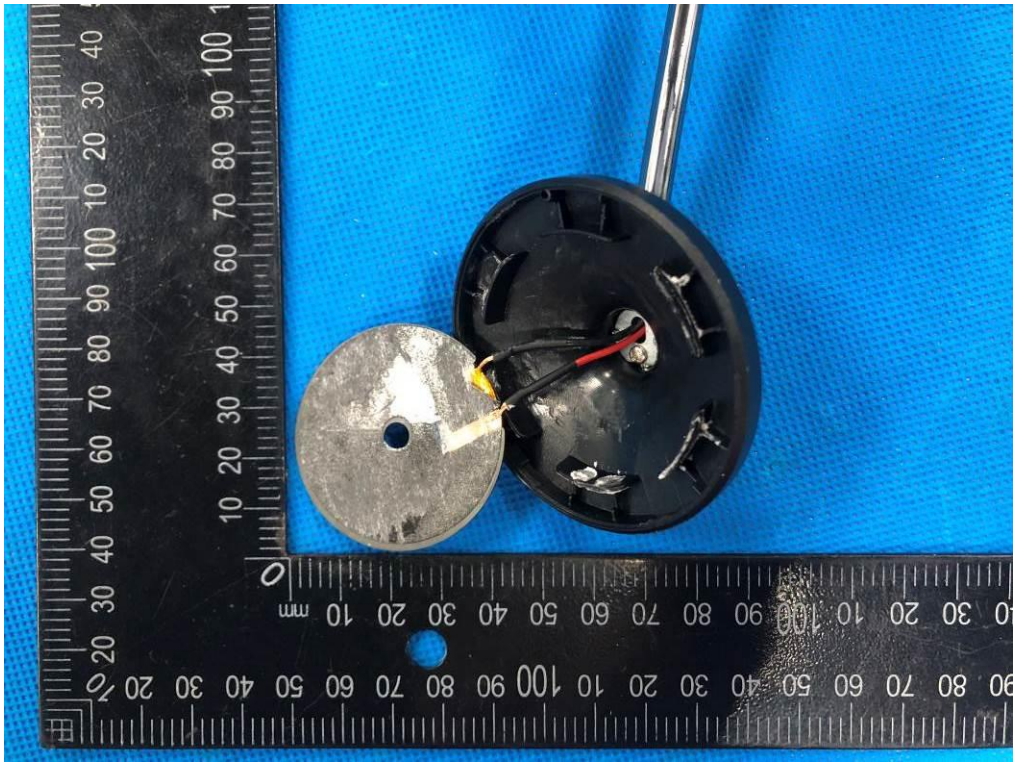












----------The end----------