



FCC TEST REPORT

FCC ID: 2AP2N-IPR1

On Behalf of

Shenzhen Esorun Technology Co.,LTD

Qi2 Wireless Charging Pad

Model No.: IPR1, PR1, AR1, IAR1, AR2

Prepared for : Shenzhen Esorun Technology Co.,LTD
Address : Room 226, Building A, B, C, Zone B, Yuanfen Industrial Zone, Taoyuan
Community, Dalang Street, Longhua District, Shenzhen

Prepared By : Shenzhen Alpha Product Testing Co., Ltd.
Address : Building i, No.2, Lixin Road, Fuyong Street, Bao'an District,
518103, Shenzhen, Guangdong, China

Report Number : A2410149-C01-R05
Date of Receipt : October 30, 2024
Date of Test : October 30, 2024 - December 31, 2024
Date of Report : December 31, 2024
Version Number : V0
Test Result : Pass

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TEST REPORT DECLARATION

Applicant : Shenzhen Esorun Technology Co.,LTD
Address : Room 226, Building A, B, C, Zone B, Yuanfen Industrial Zone, Taoyuan
Community, Dalang Street, Longhua District, Shenzhen
Manufacturer : Shenzhen Esorun Technology Co.,LTD
Address : Room 226, Building A, B, C, Zone B, Yuanfen Industrial Zone, Taoyuan
Community, Dalang Street, Longhua District, Shenzhen
EUT Description : Qi2 Wireless Charging Pad
(A) Model No. : IPR1, PR1, AR1, IAR1, AR2
(B) Trademark : **ESORUN**

Measurement Standard Used:

FCC CFR Title 47 Part 15 Subpart C Section 15.209

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the FCC CFR Title 47 Part 15 Subpart C Section 15.209 requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name + signature).....: Yannis Wen
Project Engineer

Yannis Wen

Approved by (name + signature).....: Jack Xu
Project Manager

Jack Xu

Date of issue.....: December 31, 2024

Revision History

Revision	Issue Date	Revisions	Revised By
V0	December 31, 2024	Initial released Issue	Yannis Wen

1. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	PASS
Spurious Emission	§15.209(a)(f)	PASS
Occupied Bandwidth	§15.215 (c)	PASS

Note:

1. *PASS: Test item meets the requirement.*
2. *Fail: Test item does not meet the requirement.*
3. *N/A: Test case does not apply to the test object.*
4. *The test result judgment is decided by the limit of test standard.*
5. Decision rules for the conclusion of this test report: decision by actual test data without considering measurement uncertainty.

2. General Information

2.1. Description of Device (EUT)

EUT Name	:	Qi2 Wireless Charging Pad
Model No.	:	IPR1, PR1, AR1, IAR1, AR2
DIFF.	:	There is no difference except for the model name and the shape of the bottom shell. All tests were conducted using the IPR1 model.
Power supply	:	Input: 5V $\overline{\underline{\text{---}}}$ 2A, 9V $\overline{\underline{\text{---}}}$ 2.22A.
EUT information	:	Input: 5V $\overline{\underline{\text{---}}}$ 2A, 9V $\overline{\underline{\text{---}}}$ 2.22A. Output : 5W, 7.5W, 10W, 15W

Radio Technology	:	Wireless power transmission systems
Operation frequency	:	115-205KHz, 360KHz-360KHz
Modulation	:	MSK
Antenna Type	:	Coil Antenna, Maximum Gain is 0dBi (Antenna information is provided by applicant.).
Software version	:	V1.0
Hardware version	:	V1.1
Intend use environment	:	Residential, commercial and light industrial environment

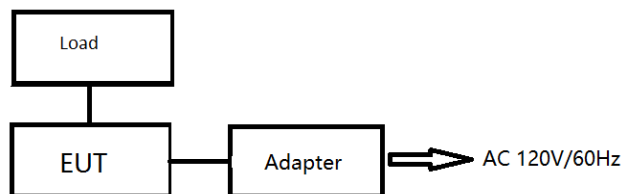
2.2. Accessories of Device (EUT)

Accessories	:	/
Manufacturer	:	/
Model	:	/
specifications	:	/

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification or SDoC
1	N/A	N/A	N/A	N/A	N/A

2.4. Block Diagram of connection between EUT and simulators



2.5. Description of Test Modes

Channel	Frequency (KHz)
1	128
2	360

2.6. Test Conditions

Items	Required	Actual
Temperature range:	15-35°C	23°C
Humidity range:	25-75%	55%
Pressure range:	86-106kPa	98kPa

2.7. Test Facility

Shenzhen Alpha Product Testing Co., Ltd

Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

June 21, 2018 File on Federal Communication Commission

Registration Number: 293961

July 15, 2019 Certificated by IC

Registration Number: 12135A

2.8. Measurement Uncertainty

(95% confidence levels, k=2)

Item	Uncertainty
Uncertainty for Power point Conducted Emissions Test	1.63dB
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	3.5dB
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.74dB(Polarize: V)
	3.76dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	3.77dB(Polarize: V)
	3.80dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (18GHz to 40GHz)	4.31 dB(Polarize: V)
	4.30 dB(Polarize: H)
Uncertainty for radio frequency	5.06×10^{-8} GHz
Uncertainty for conducted RF Power	0.40dB
Uncertainty for temperature	0.2°C
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

2.9. Test Equipment List

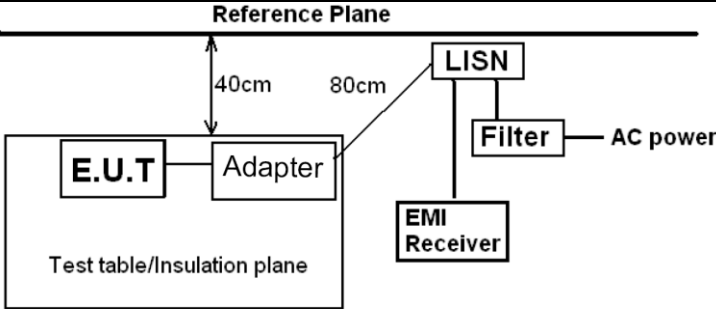
Equipment	Manufacture	Model No.	Firmware version	Serial No.	Last cal.	Cal Interval
9*6*6 anechoic chamber	CHENYU	9*6*6	/	N/A	2022.05.18	3Year
Spectrum analyzer	ROHDE&SCHWARZ	FSV40-N	2.3	102137	2024.08.08	1Year
Spectrum analyzer	Agilent	N9020A	A.14.16	MY499100060	2024.08.08	1Year
Receiver	ROHDE&SCHWARZ	ESR	2.28 SP1	1316.3003K03-10 2082-Wa	2024.08.08	1Year
Receiver	R&S	ESCI	4.42 SP1	101165	2024.08.08	1Year
Bilog Antenna	Schwarzbeck	VULB 9168	/	VULB 9168#627	2023.08.28	2Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	/	2106	2023.08.19	2Year
Loop Antenna	SCHWARZBECK	FMZB 1519B	/	00128	2023.08.19	2Year
RF Cable	Resenberger	Cable 1	/	RE1	2024.08.08	1Year
RF Cable	Resenberger	Cable 2	/	RE2	2024.08.08	1Year
RF Cable	Resenberger	Cable 3	/	CE1	2024.08.08	1Year
Pre-amplifier	HP	HP8347A	/	2834A00455	2024.08.08	1Year
Pre-amplifier	Agilent	8449B	/	3008A02664	2024.08.08	1Year
L.I.S.N.#1	Schwarzbeck	NSLK8126	/	8126-466	2024.08.08	1Year
L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	/	101043	2024.08.08	1Year
Horn Antenna	SCHWARZBECK	BBHA 9170	/	00946	2023.08.19	2Year
Preamplifier	SKET	LNPA_1840 -50	/	SK2018101801	2024.08.08	1 Year
Power Meter	Agilent	E9300A	/	MY41496628	2024.08.08	1 Year
Power Sensor	DARE	RPR3006W	/	15100041SNO91	2024.08.08	1 Year
Electronic Thermo-Hygrometer	S.H.Qixiang	HTC-1	/	N/A	2024.08.11	1 Year
Switching Mode Power Supply	JUNKE	JK12010S	/	20140927-6	2024.08.08	1 Year
Adjustable attenuator	MWRFTtest	N/A	/	N/A	N/A	N/A
10dB Attenuator	Mini-Circuits	DC-6G	/	N/A	N/A	N/A

Software Information			
Test Item	Software Name	Manufacturer	Version
RE	EZ-EMC	Farad	Alpha-3A1
CE	EZ-EMC	Farad	Alpha-3A1
RF-CE	MTS 8310	MWRFTtest	2.0.0.0

3. Test Results and Measurement Data

3.1. Conducted Emission

3.1.1. Test Specification

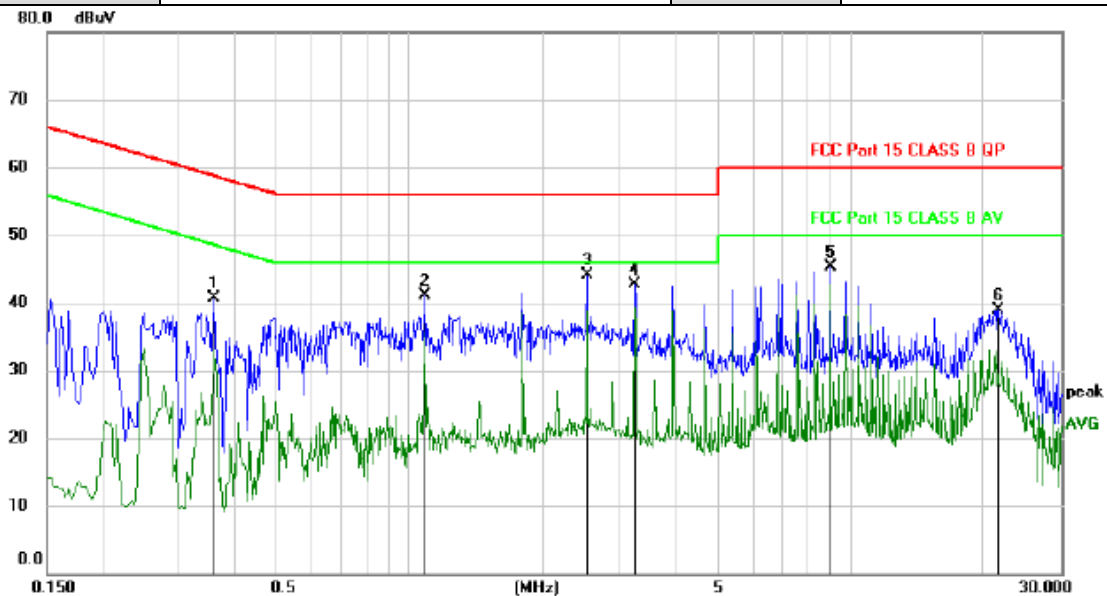
Test Requirement:	FCC Part15 C Section 15.207														
Test Method:	ANSI C63.10:2013														
Frequency Range:	150 kHz to 30 MHz														
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto														
Limits:	<table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBuV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>5-30</td><td>60</td><td>50</td></tr></table>	Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBuV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													
Test Setup:	<div><p>Reference Plane</p><p>E.U.T. Adapter LISN Filter AC power EMI Receiver</p><p>Test table/Insulation plane</p><p>40cm 80cm</p><p>Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p></div>														
Test Mode:	Transmitting Mode														
Test Procedure:	<div><div>1. The E.U.T is connected to an adapter through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.</div><div>2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</div><div>3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.</div></div>														
Test Result:	PASS														

3.1.2. Test data

Please refer to following diagram for individual

Test Mode	: 128KHz,, 360KHz
Test Results	: PASS
Note:	<p>The test results are listed in next pages.</p> <p>If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector and quasi-peak detector need not be carried out.</p> <p>If the limits for the measurement with the average detector are met when using a receiver with a quasi-peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.</p>

EUT Description	Qi2 Wireless Charging Pad	Model No.	IPR1, PR1, AR1, IAR1, AR2
Temperature	24°C	Humidity	56%
Test Voltage	AC 120V/60Hz	Test Mode	128KHz
Pol	Line		



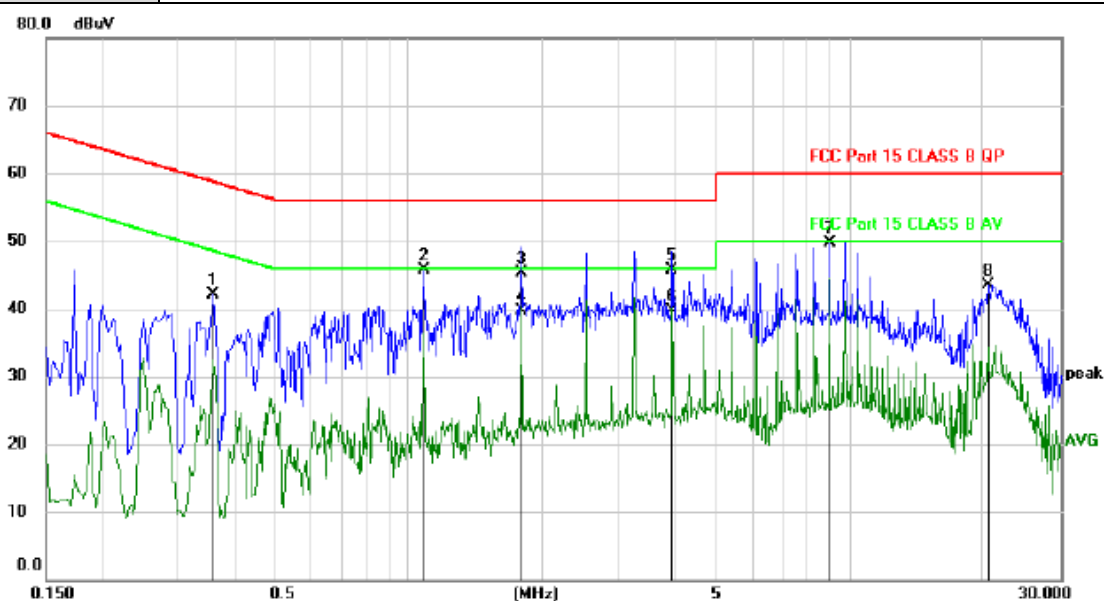
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.3600	30.49	10.15	40.64	58.73	-18.09	peak	
2		1.0800	30.69	10.41	41.10	56.00	-14.90	peak	
3	*	2.5200	33.65	10.46	44.11	56.00	-11.89	peak	
4		3.2400	32.26	10.51	42.77	56.00	-13.23	peak	
5		9.0000	34.55	10.78	45.33	60.00	-14.67	peak	
6		21.6030	27.87	11.04	38.91	60.00	-21.09	peak	

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

(Reference Only)

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

Pol	Neutral
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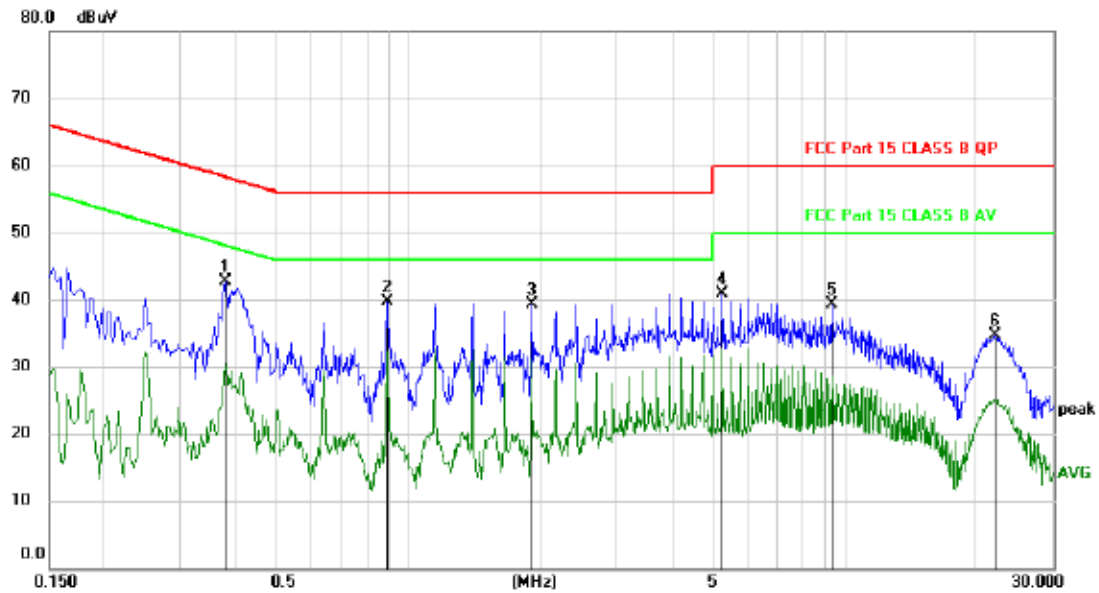
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.3600	31.87	10.15	42.02	58.73	-16.71	peak	
2		1.0800	35.30	10.41	45.71	56.00	-10.29	peak	
3		1.8000	34.89	10.41	45.30	56.00	-10.70	QP	
4		1.8000	29.24	10.41	39.65	46.00	-6.35	AVG	
5		3.9600	35.19	10.58	45.77	56.00	-10.23	QP	
6	*	3.9600	29.21	10.58	39.79	46.00	-6.21	AVG	
7		9.0000	39.01	10.78	49.79	60.00	-10.21	peak	
8		20.5200	32.45	11.05	43.50	60.00	-16.50	peak	

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

(Reference Only)

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

EUT Description	Qi2 Wireless Charging Pad	Model No.	IPR1, PR1, AR1, IAR1, AR2
Temperature	24°C	Humidity	56%
Test Voltage	AC 120V/60Hz	Test Mode	360KHz
Pol	Neutral		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.3810	32.59	10.14	42.73	58.26	-15.53	peak	
2		0.8940	29.29	10.39	39.68	56.00	-16.32	peak	
3		1.9140	28.93	10.41	39.34	56.00	-16.66	peak	
4		5.2350	30.33	10.65	40.98	60.00	-19.02	peak	
5		9.3210	28.46	10.80	39.26	60.00	-20.74	peak	
6		22.1550	23.61	11.03	34.64	60.00	-25.36	peak	

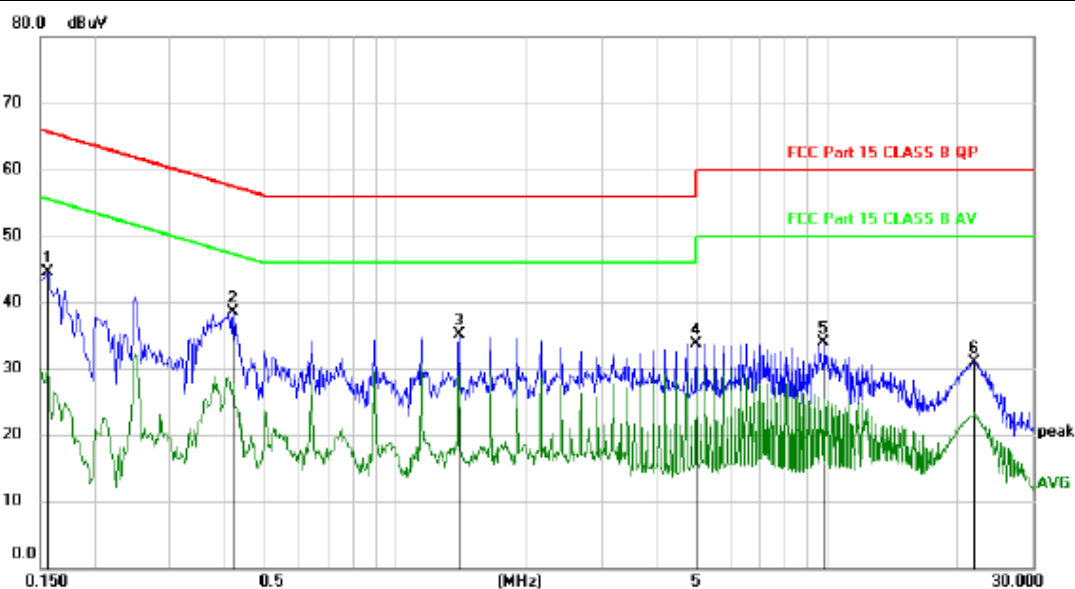
*:Maximum data x:Over limit !:over margin

(Reference Only)

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

Pol

Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1560	34.46	10.06	44.52	65.67	-21.15	peak	
2	*	0.4200	28.30	10.17	38.47	57.45	-18.98	peak	
3		1.4039	24.75	10.42	35.17	56.00	-20.83	peak	
4		4.9800	23.12	10.64	33.76	56.00	-22.24	peak	
5		9.8280	23.17	10.81	33.98	60.00	-26.02	peak	
6		21.9599	19.88	11.03	30.91	60.00	-29.09	peak	

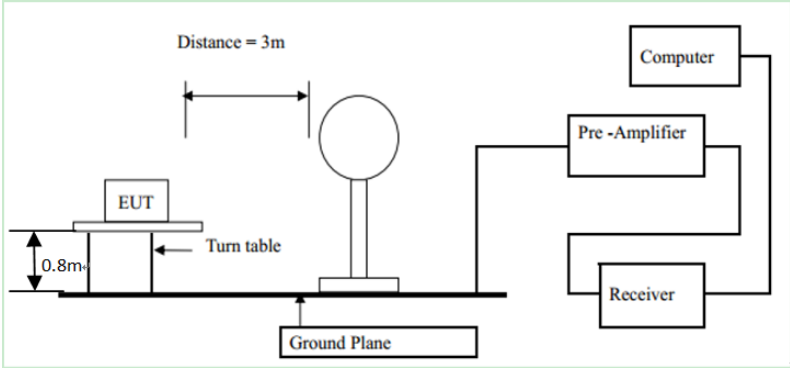
*:Maximum data x:Over limit !:over margin

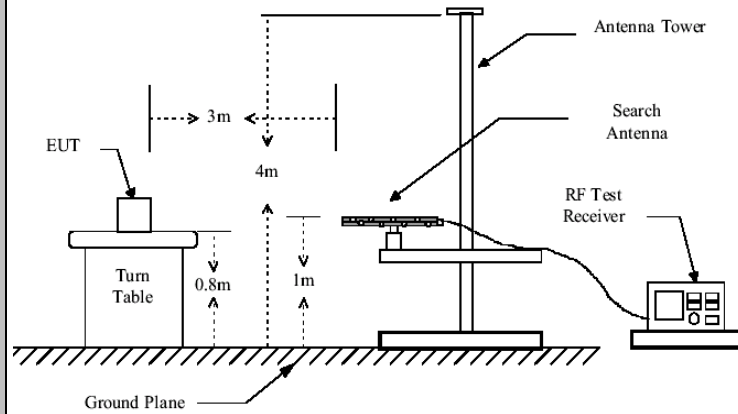
(Reference Only)

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

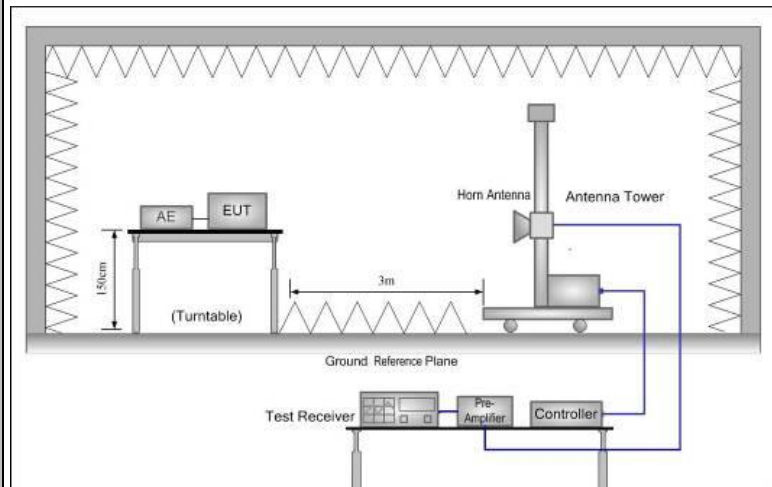
3.2. Radiated Spurious Emission Measurement

3.2.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.209			
Test Method:	ANSI C63.10: 2013			
Frequency Range:	9 kHz to 25 GHz			
Measurement Distance:	3 m			
Antenna Polarization:	Horizontal & Vertical			
Operation mode:	Refer to item 4.1			
Receiver Setup:	Frequency	Detector	RBW	VBW
	9kHz- 150kHz	Quasi-peak	200Hz	1kHz
	150kHz- 30MHz	Quasi-peak	9kHz	30kHz
	30MHz-1GHz	Quasi-peak	100KHz	300KHz
	Above 1GHz	Peak	1MHz	3MHz
Limit:	Remark			
	Quasi-peak Value			
	Quasi-peak Value			
	Quasi-peak Value			
	Peak Value			
	Average Value			
	Frequency	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	30	30	
Test setup:	30-88	100	3	
	88-216	150	3	
	216-960	200	3	
	Above 960	500	3	
	Frequency	Field Strength (microvolts/meter)	Measurement Distance (meters)	Detector
	Above 1GHz	500	3	Average
		5000	3	Peak
	For radiated emissions below 30MHz			
				
	30MHz to 1GHz			



Above 1GHz



Test Procedure:

1. For the radiated emission test below 1GHz:

The EUT was placed on a turntable with 0.8 meter above ground. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high PASS filter are used for the test in order to get better signal level.

For the radiated emission test above 1GHz:

Place the measurement antenna on a turntable with 1.5 meter above ground, which is away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

2. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
3. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported.

	<p>Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.</p> <p>4. Use the following spectrum analyzer settings:</p> <p>(1) Span shall wide enough to fully capture the emission being measured;</p> <p>(2) Set RBW=100 kHz for $f < 1$ GHz; $VBW \geq RBW$; Sweep = auto; Detector function = peak; Trace = max hold;</p> <p>(3) Set RBW = 1 MHz, $VBW = 3$ MHz for $f \geq 1$ GHz for peak measurement.</p> <p>For average measurement: $VBW = 10$ Hz, when duty cycle is no less than 98 percent. $VBW \geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.</p>
Test mode:	Refer to section 4.1 for details
Test results:	PASS

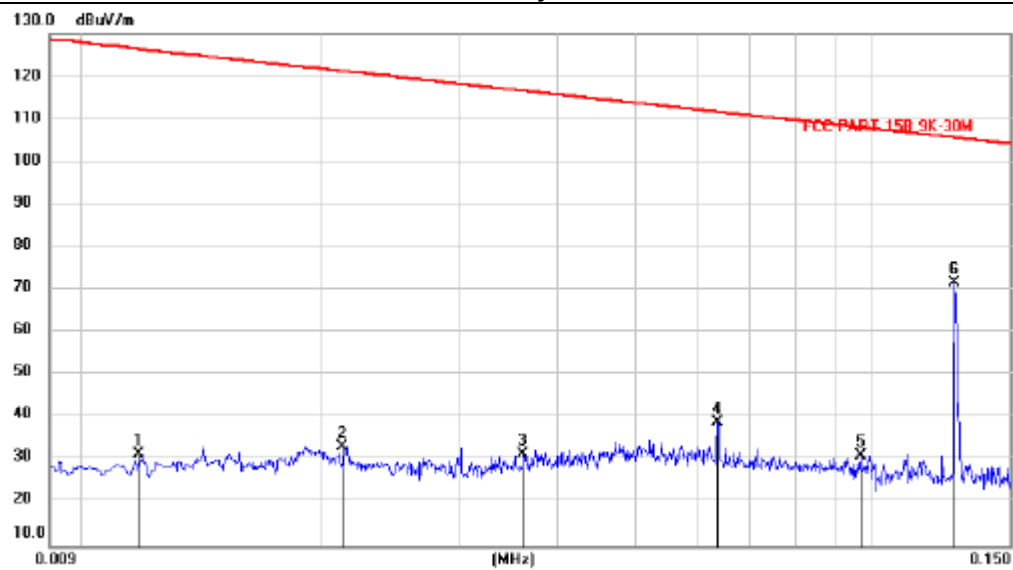
3.2.2. Test Data

Please refer to following diagram for individual

Frequency Range	: 9KHz~30MHz
Test Mode	: TX: 128kHz, 360kHz
Test Results	: PASS
Note:	<ol style="list-style-type: none">1. The test results are listed in next pages.2. This mode is worst case mode, so this report only reflected the worst mode.3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the quasi-peak detector need not be carried out.

Test Mode : TX: 128kHz

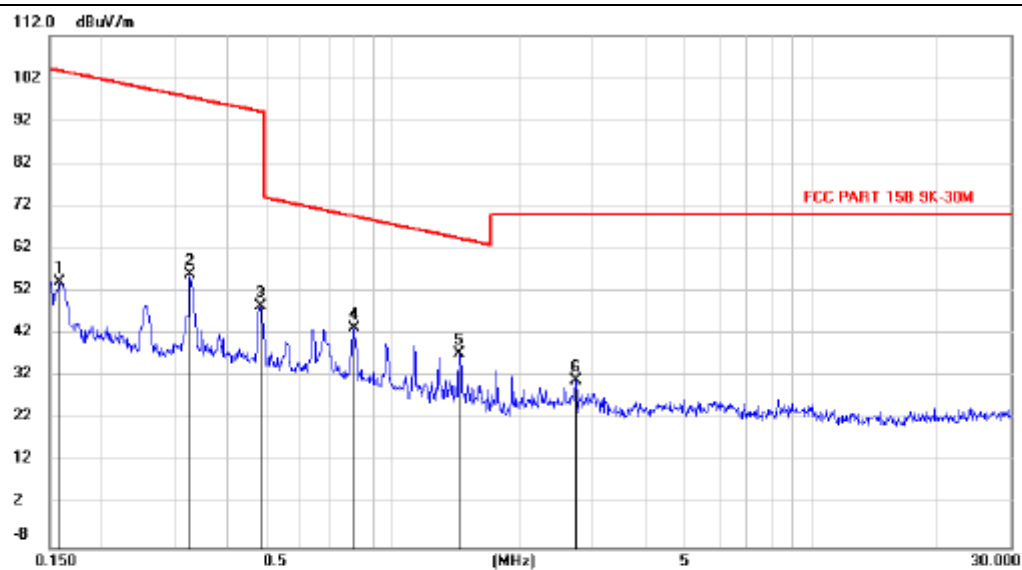
Polarity: X axis



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		0.0117	9.90	21.46	31.36	126.3	-94.97	peak		
2		0.0212	12.05	21.22	33.27	121.1	-87.92	peak		
3		0.0359	10.87	20.67	31.54	116.6	-85.09	peak		
4		0.0637	18.86	20.11	38.97	111.6	-72.69	peak		
5		0.0969	11.45	19.83	31.28	108.0	-76.75	peak		
6	*	0.1275	51.80	19.88	71.68	105.6	-33.98	peak		

Note: 1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



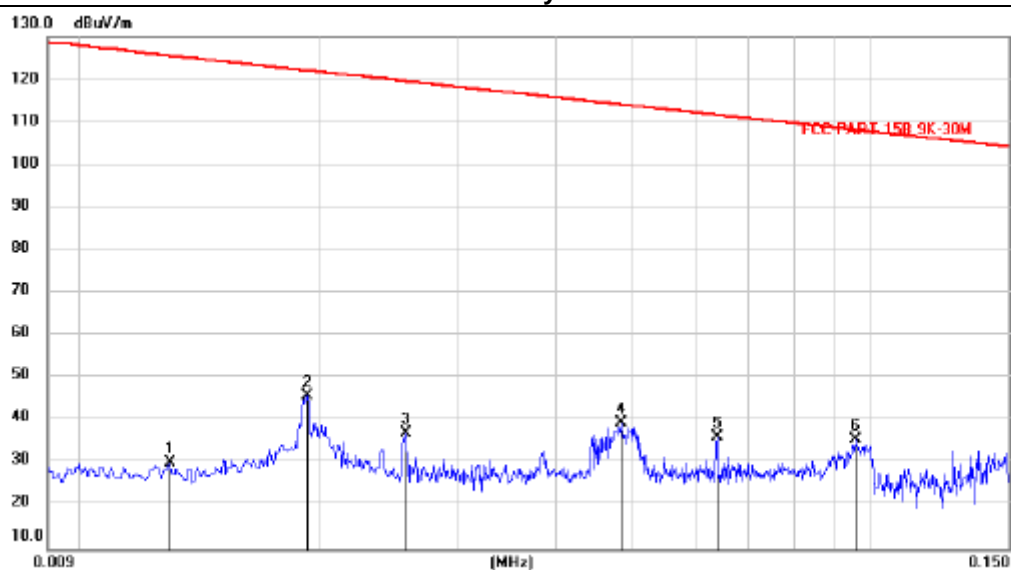
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree
1		0.1589	33.93	20.19	54.12	103.7	-49.63	peak	
2		0.3256	36.01	19.95	55.96	97.54	-41.58	peak	
3		0.4796	28.90	19.73	48.63	94.19	-45.56	peak	
4	*	0.8003	23.43	19.88	43.31	69.67	-26.36	peak	
5		1.4408	17.30	20.11	37.41	64.49	-27.08	peak	
6		2.7239	10.67	20.43	31.10	70.00	-38.90	peak	

Note: 1. *: Maximum data; x: Over limit; !: over margin.

2. Measurement = Reading Level + Correct Factor; Correct Factor = Antenna Factor + Cable Loss.

Test Mode : TX: 360kHz

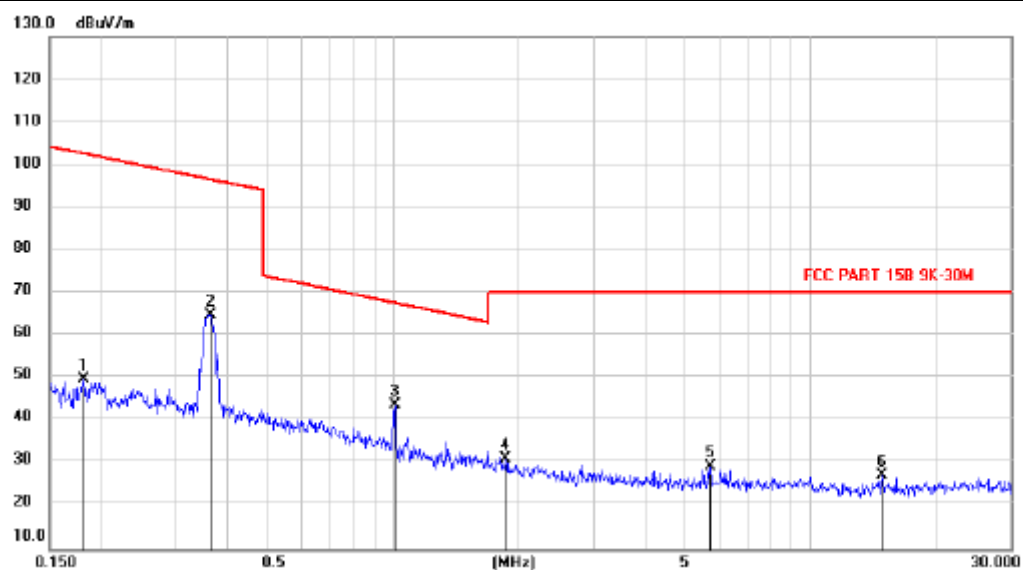
Polarity: X axis



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Antenna Height cm	Table Degree	Comment
1		0.0129	8.87	21.43	30.30	125.4	-95.19	peak			
2		0.0190	24.64	21.27	45.91	122.1	-76.23	peak			
3		0.0257	16.20	21.10	37.30	119.5	-82.22	peak			
4		0.0483	19.55	19.99	39.54	114.0	-74.52	peak			
5		0.0639	16.00	20.11	36.11	111.6	-75.53	peak			
6	*	0.0957	15.78	19.84	35.62	108.1	-72.52	peak			

Note: 1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		0.1807	29.71	20.16	49.87	102.6	-52.77	peak		
2		0.3642	44.94	19.89	64.83	96.57	-31.74	peak		
3	*	1.0082	23.62	20.00	43.62	67.63	-24.01	peak		
4		1.8542	11.04	20.21	31.25	70.00	-38.75	peak		
5		5.7165	7.46	21.99	29.45	70.00	-40.55	peak		
6		14.8281	6.20	20.96	27.16	70.00	-42.84	peak		

Note: 1. *:Maximum data; x:Over limit; !:over margin.

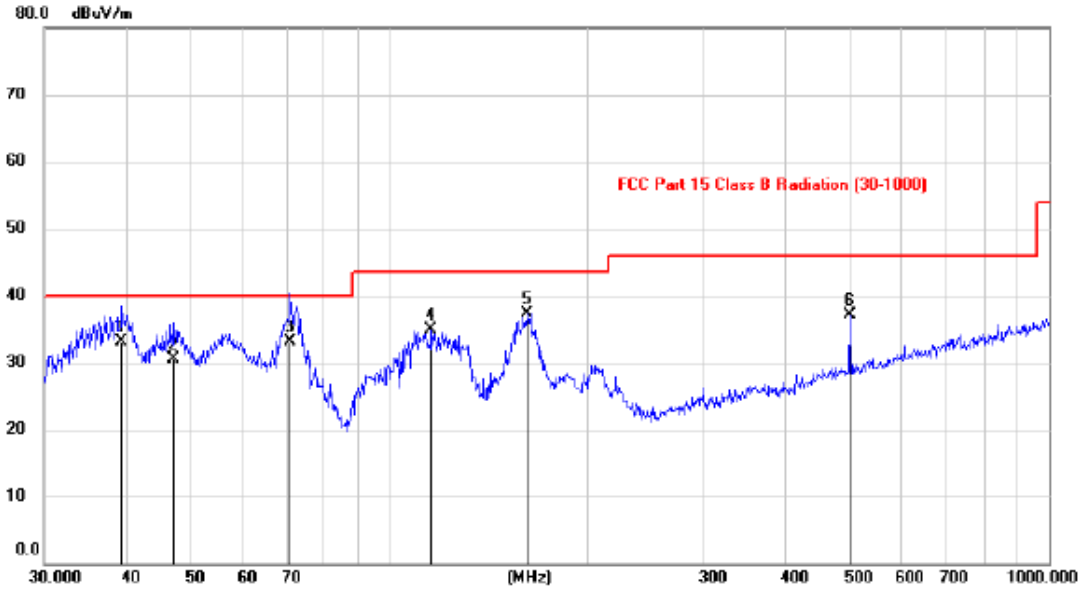
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Frequency Range	: 30MHz~1000MHz
Test Mode	: 128KHz, 360KHz
Test Results	: PASS
Note:	<p>1. The test results are listed in next pages.</p> <p>2. All test modes has been tested, this report only reflected the worst mode.</p> <p>3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the quasi-peak detector need not be carried out.</p>

Frequency Range	:	Above 1GHz	
EUT	:	/	Test Date : /
M/N	:	/	Temperature : /
Test Engineer	:	/	Humidity : /
Test Mode	:	/	
Test Results	:	N/A	
Note:	1. The highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. So the frequency rang above 1GHz radiation test not applicable.		

30MHz-1GHz

EUT Description	Qi2 Wireless Charging Pad	Model No.	IPR1, PR1, AR1, IAR1, AR2
Temperature	24°C	Humidity	56%
Test Voltage	AC 120V/60Hz	Test Mode	128KHz
Pol	Vertical		

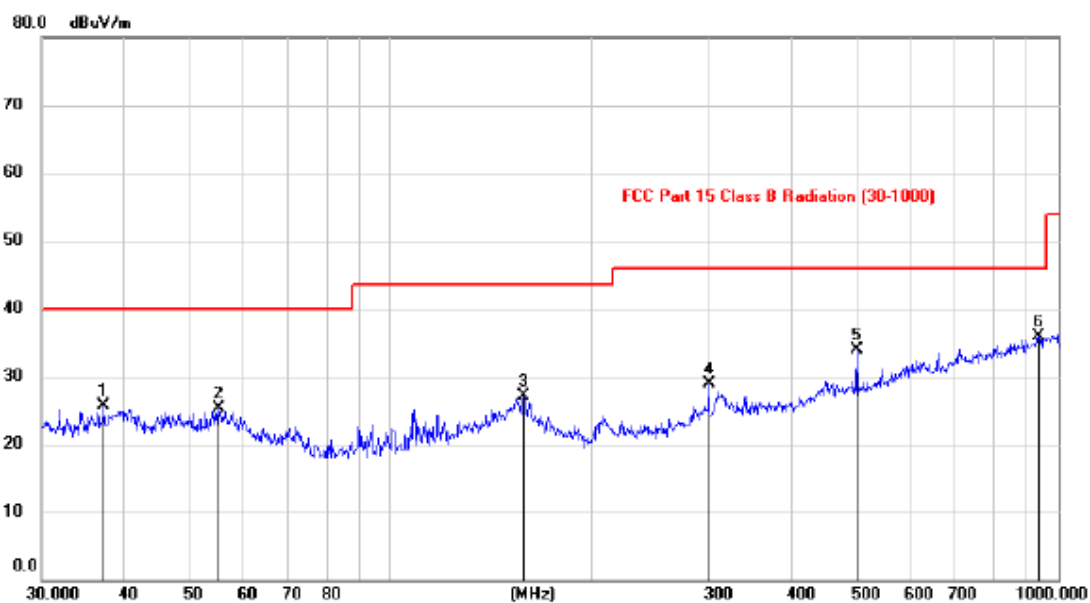


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		39.3865	18.66	14.46	33.12	40.00	-6.88	QP		
2		47.2979	16.40	14.07	30.47	40.00	-9.53	QP		
3		70.9557	22.04	11.12	33.16	40.00	-6.84	QP		
4		116.0372	22.34	12.56	34.90	43.50	-8.60	peak		
5	*	162.5726	22.59	14.79	37.38	43.50	-6.12	peak		
6		500.0088	18.88	18.21	37.09	46.00	-8.91	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Pol	Horizontal
-----	------------

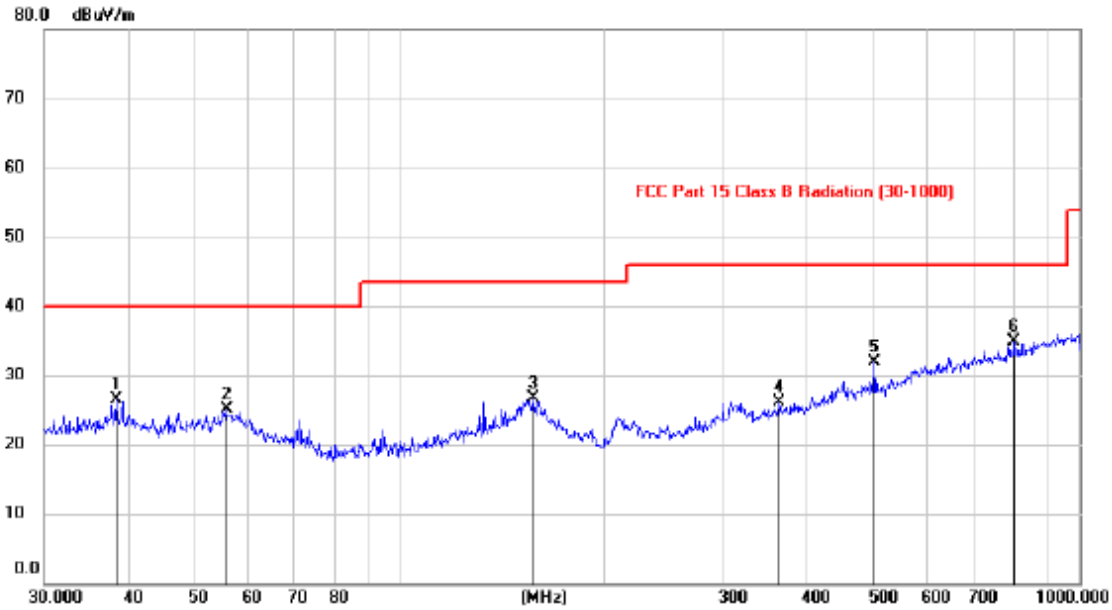


No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	37.2245	11.58	14.10	25.68	40.00	-14.32	peak		
2	55.2530	11.69	13.57	25.26	40.00	-14.74	peak		
3	158.5009	11.98	15.04	27.02	43.50	-16.48	peak		
4	300.0164	14.73	14.10	28.83	46.00	-17.17	peak		
5	500.0088	15.71	18.21	33.92	46.00	-12.08	peak		
6 *	933.2528	11.43	24.46	35.89	46.00	-10.11	peak		

Note: 1. *: Maximum data; x: Over limit; !: over margin.

2. Measurement = Reading Level + Correct Factor; Correct Factor = Antenna Factor + Cable Loss.

EUT Description	Qi2 Wireless Charging Pad	Model No.	IPR1, PR1, AR1, IAR1, AR2
Temperature	24℃	Humidity	56%
Test Voltage	AC 120V/60Hz	Test Mode	360KHz
Pol	Horizontal		



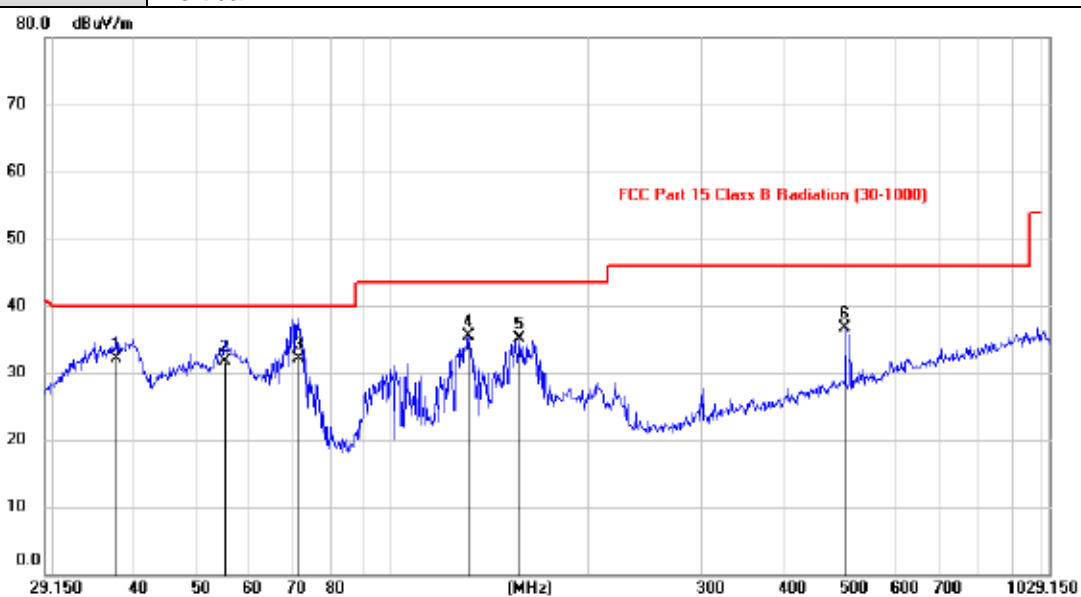
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		38.4360	12.15	14.26	26.41	40.00	-13.59	peak		
2		55.7395	11.59	13.57	25.16	40.00	-14.84	peak		
3		157.0624	11.65	15.05	26.70	43.50	-16.80	peak		
4		362.3909	10.55	15.48	26.03	46.00	-19.97	peak		
5		500.0088	13.79	18.21	32.00	46.00	-14.00	peak		
6	*	804.6028	11.84	22.98	34.82	46.00	-11.18	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Pol

Vertical




No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		37.5885	18.04	14.11	32.15	40.00	-7.85	QP		
2		55.3147	18.17	13.57	31.74	40.00	-8.26	QP		
3	*	71.7517	21.05	11.11	32.16	40.00	-7.84	QP		
4		131.2152	21.80	13.68	35.48	43.50	-8.02	peak		
5		157.2584	20.11	15.05	35.16	43.50	-8.34	peak		
6		500.0234	18.56	18.21	36.77	46.00	-9.23	peak		

Note: 1. *: Maximum data; x: Over limit; !: over margin.

2. Measurement = Reading Level + Correct Factor; Correct Factor = Antenna Factor + Cable Loss.

3.3. Occupied Bandwidth

3.3.1. Test Specification

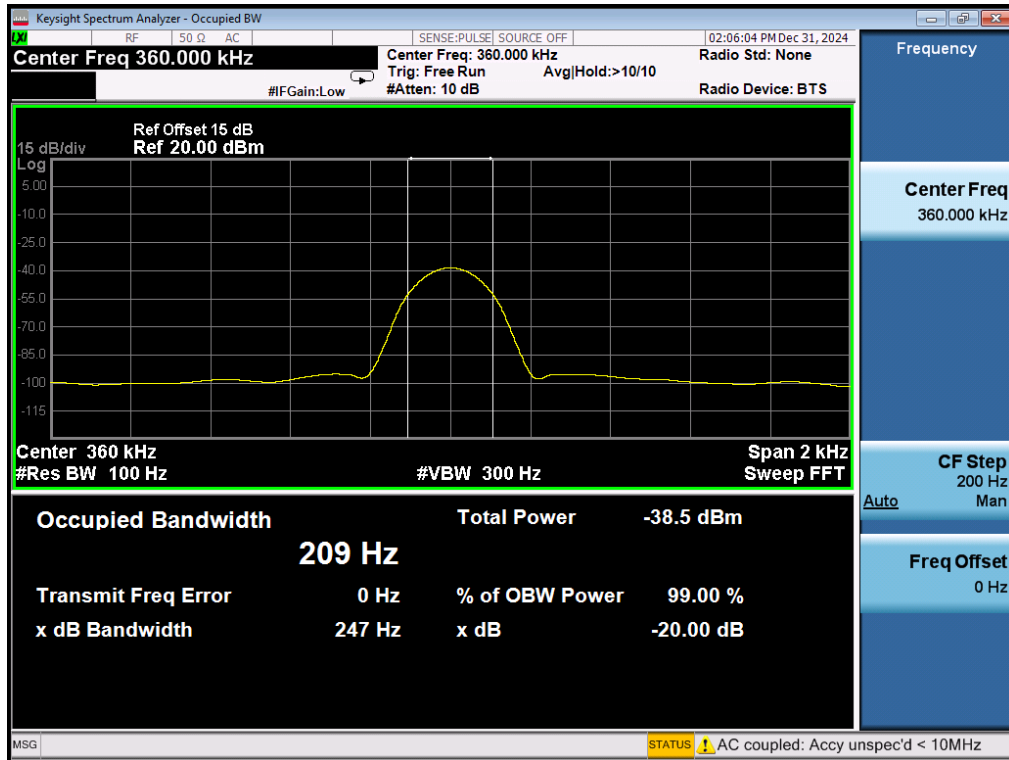
Test Requirement:	FCC Part15 C Section 15.215(c)
Test Method:	ANSI C63.10: 2013
Limit:	N/A
Test Procedure:	<ol style="list-style-type: none"> 1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Use the following spectrum analyzer settings for 20dB Bandwidth measurement. Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel; RBW\geq1% of the 20 dB bandwidth; VBW\geqRBW; Sweep = auto; Detector function = peak; Trace = max hold. 4. Measure and record the results in the test report.
Test setup:	 <p style="text-align: center;">Spectrum Analyzer EUT</p>
Test Mode:	Refer to section 4.1 for details
Test results:	PASS

3.3.2. Test data

For Watch:

Frequency(kHz)	20dB Occupy Bandwidth (kHz)	Limit (kHz)	Conclusion
360	0.247	---	Pass

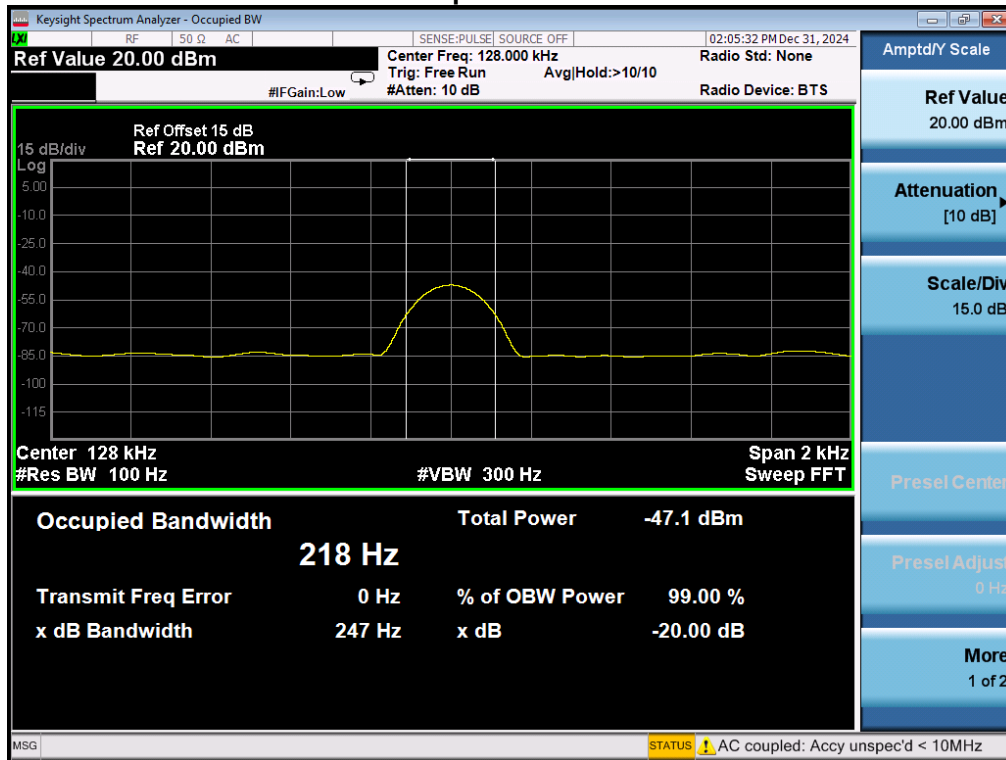
Test plots as follows:



For AirPods:

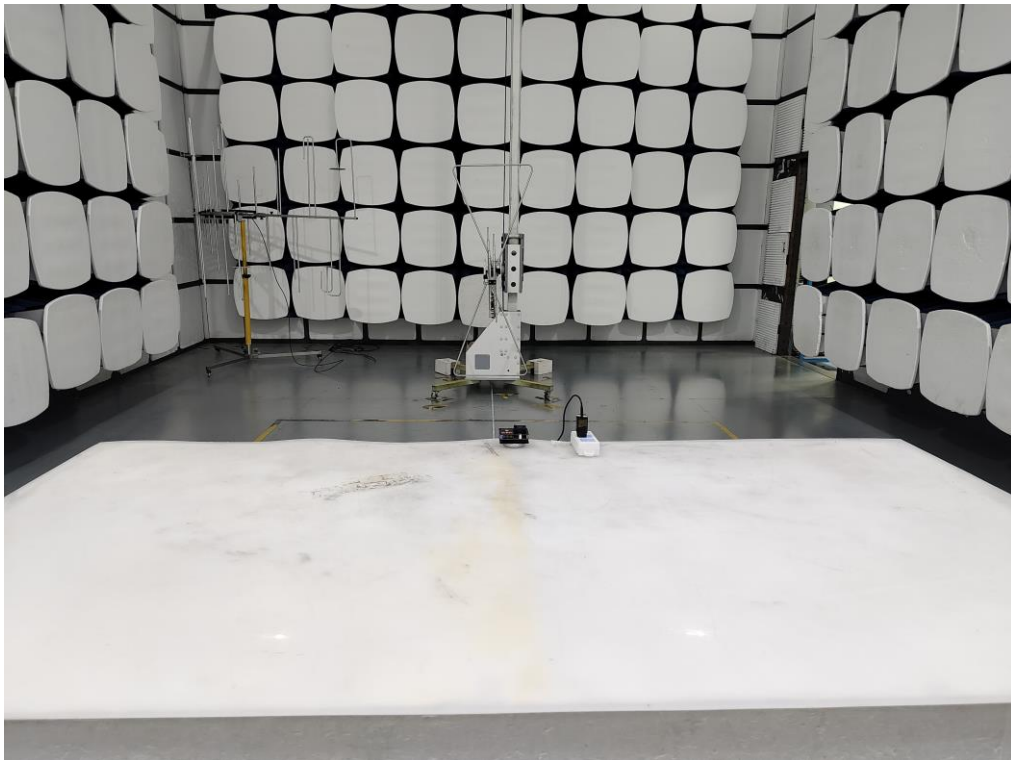
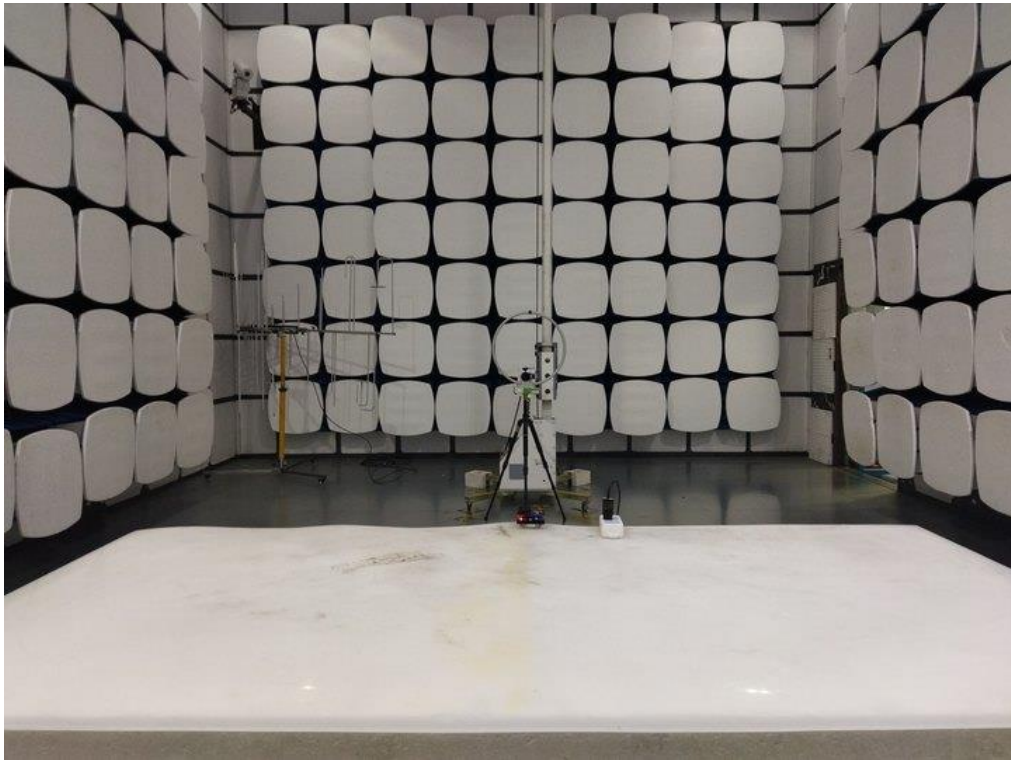
Frequency(kHz)	20dB Occupy Bandwidth (kHz)	Limit (kHz)	Conclusion
128	0.247	---	Pass

Test plots as follows:

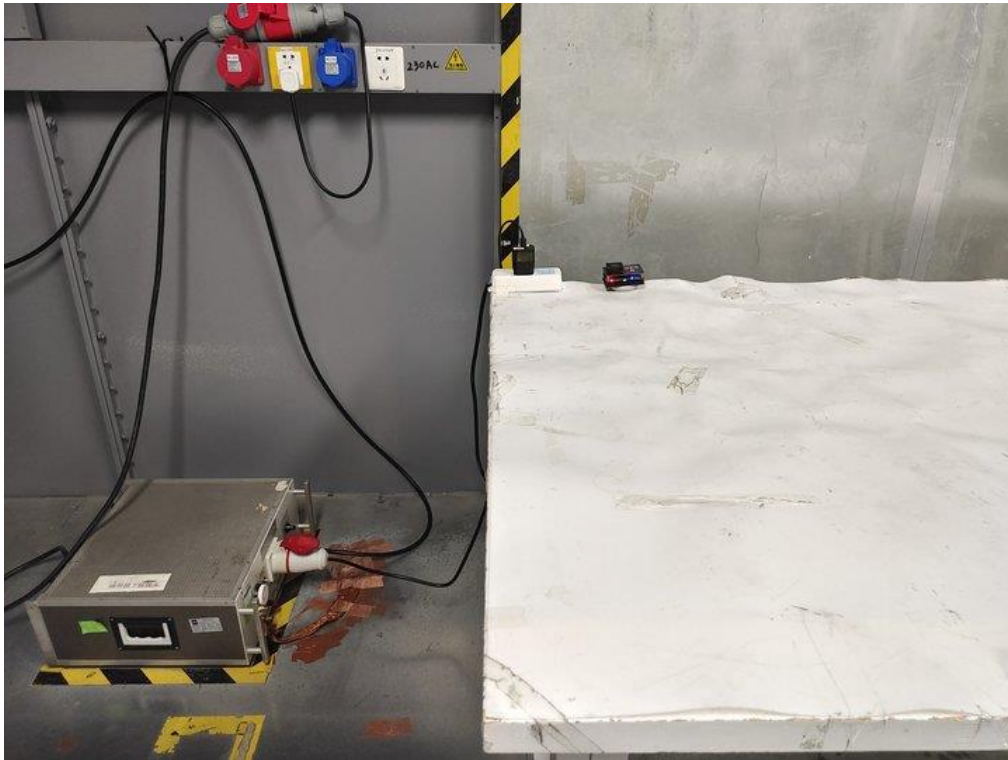


4. Photos of test setup

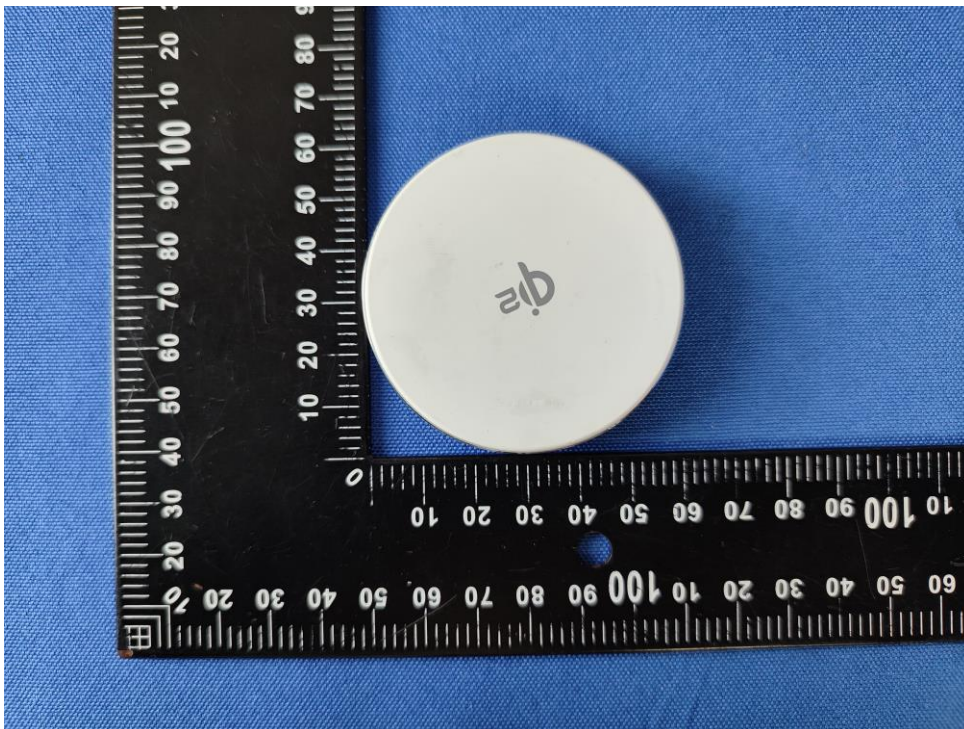
Radiated Emission



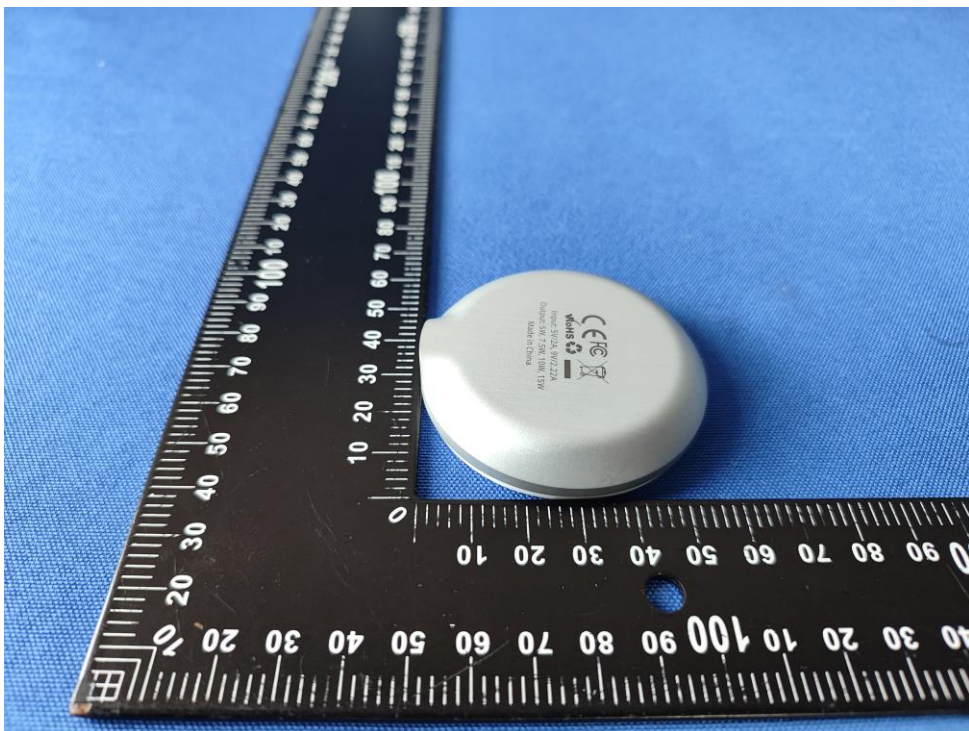
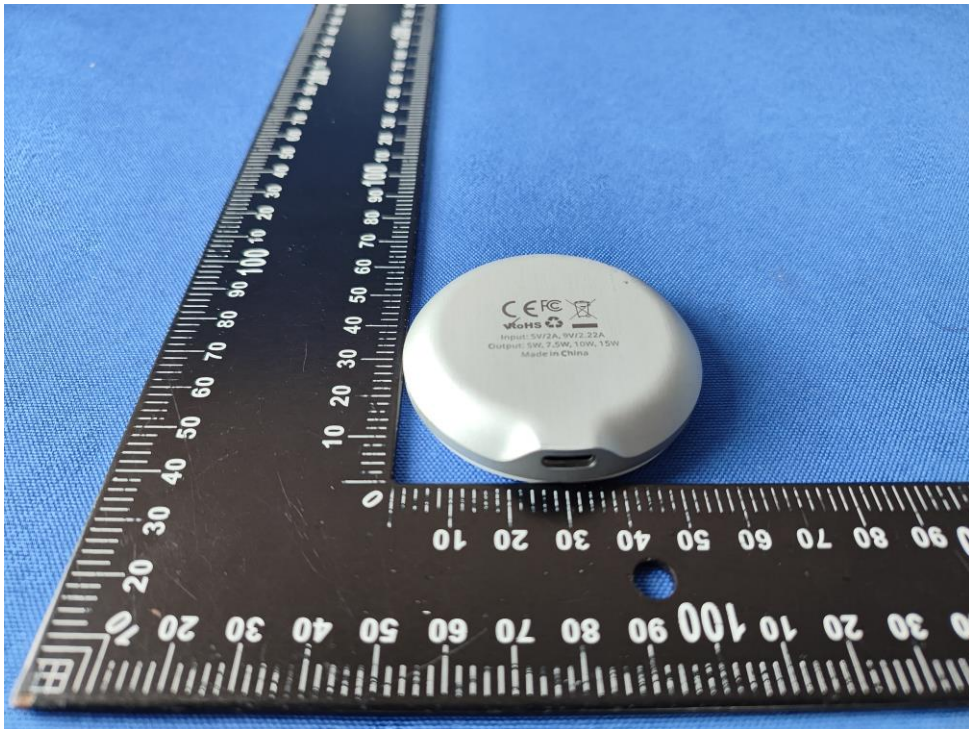
Conducted Emission

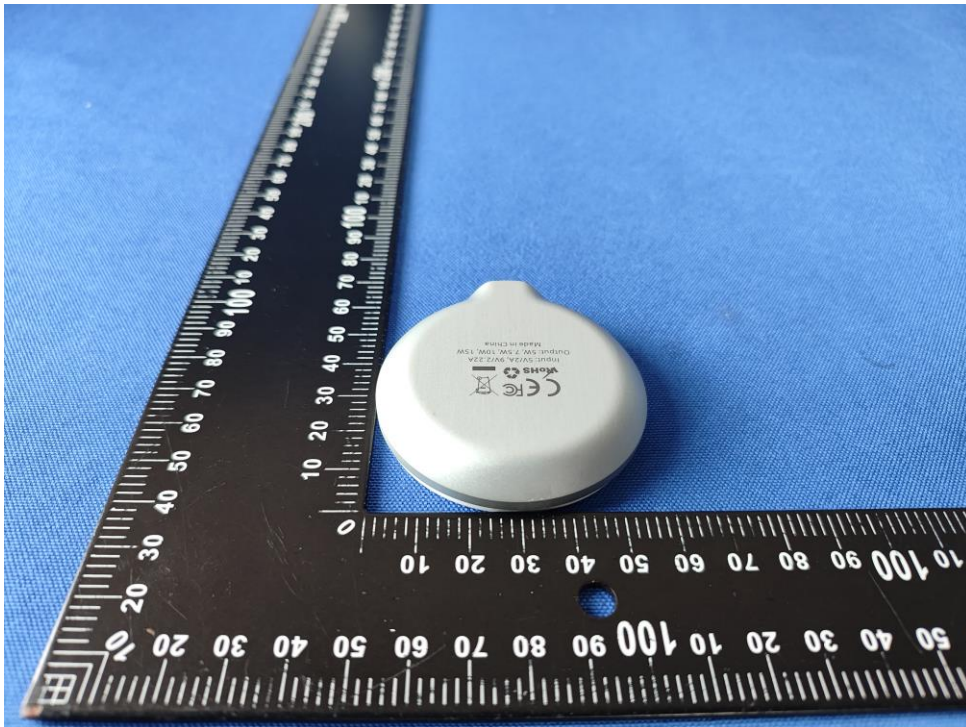


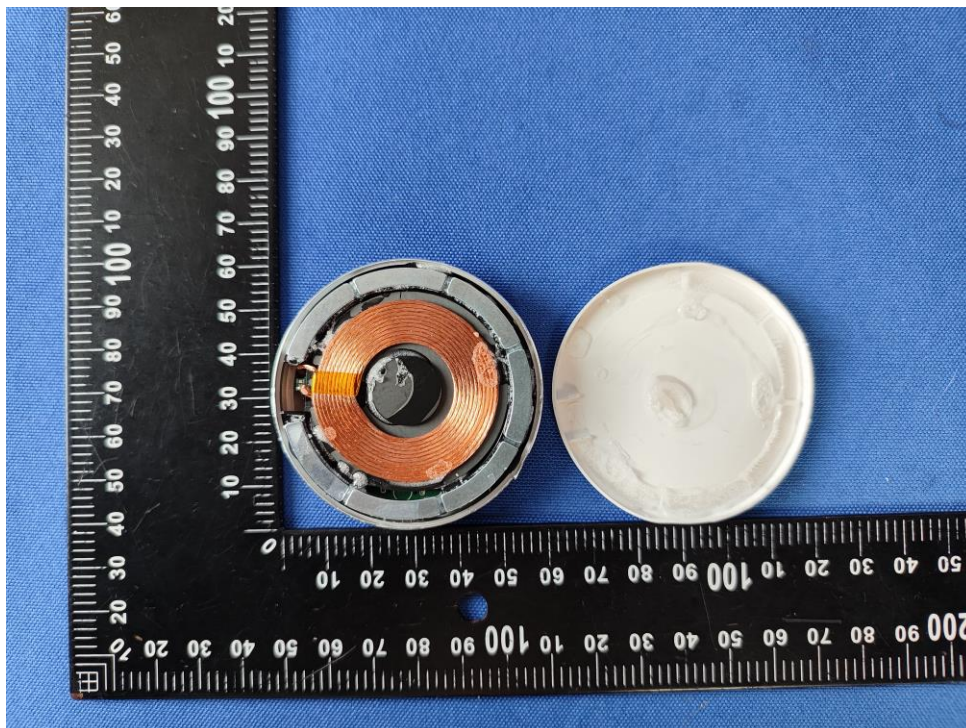
5. Photographs of EUT

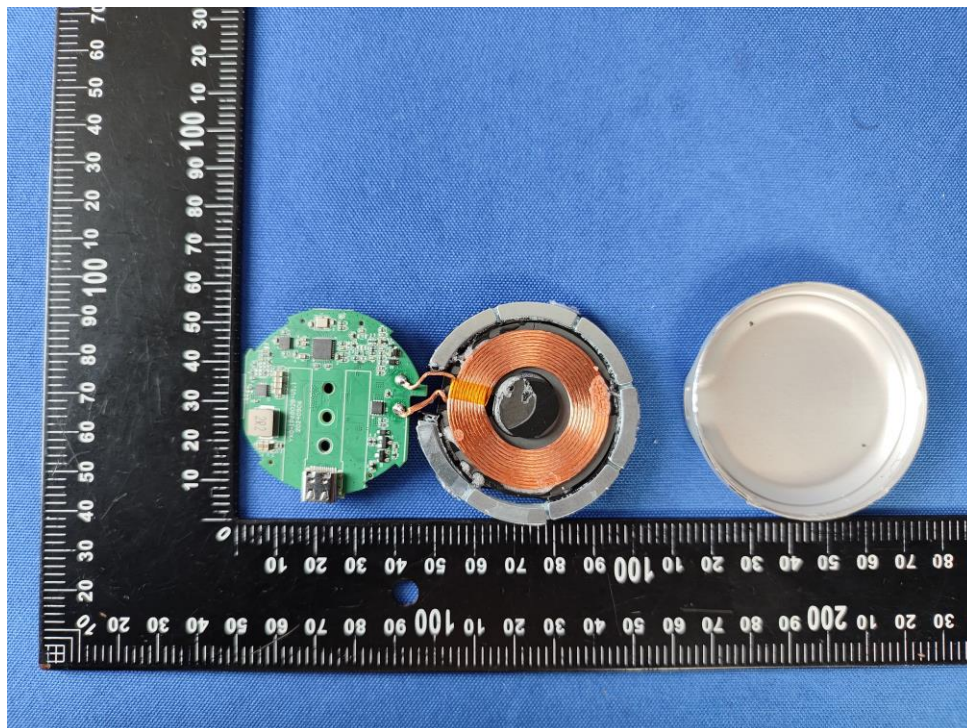
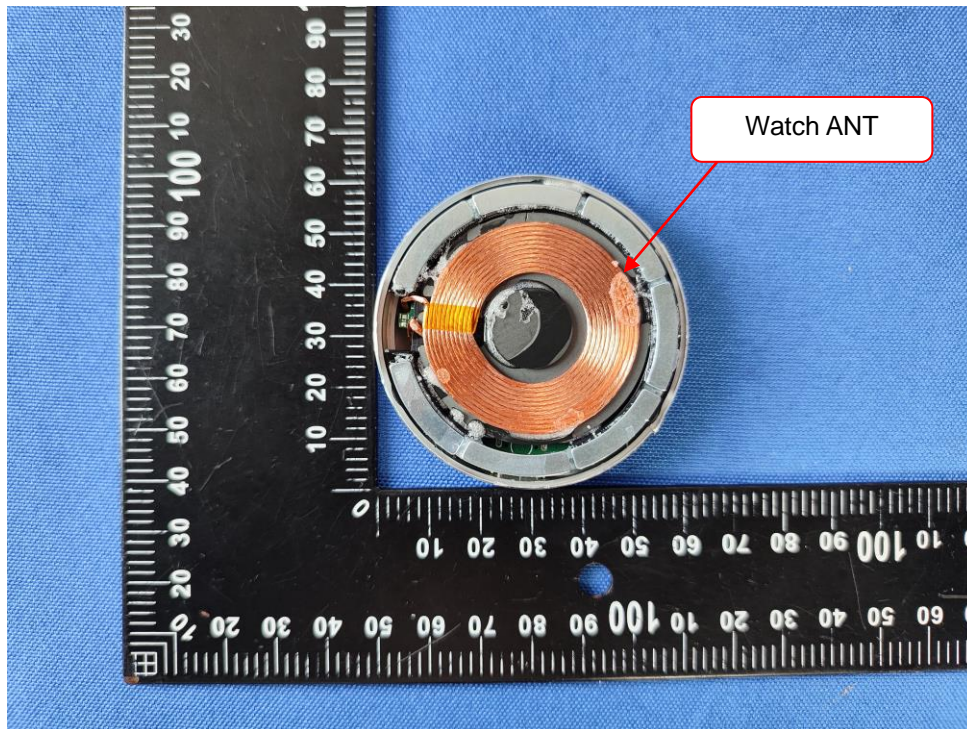


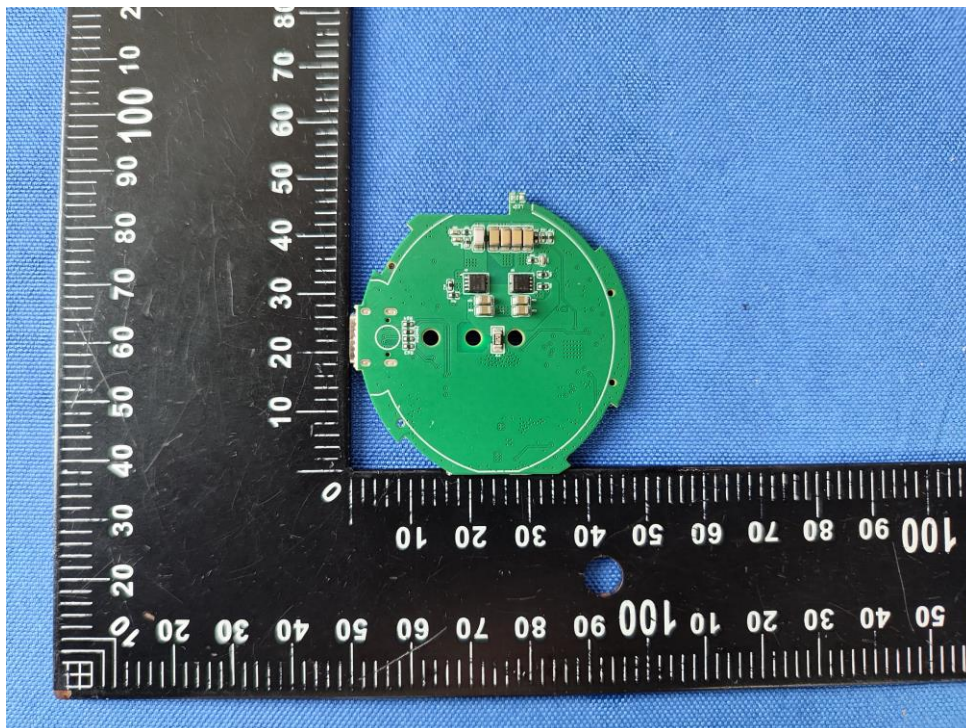
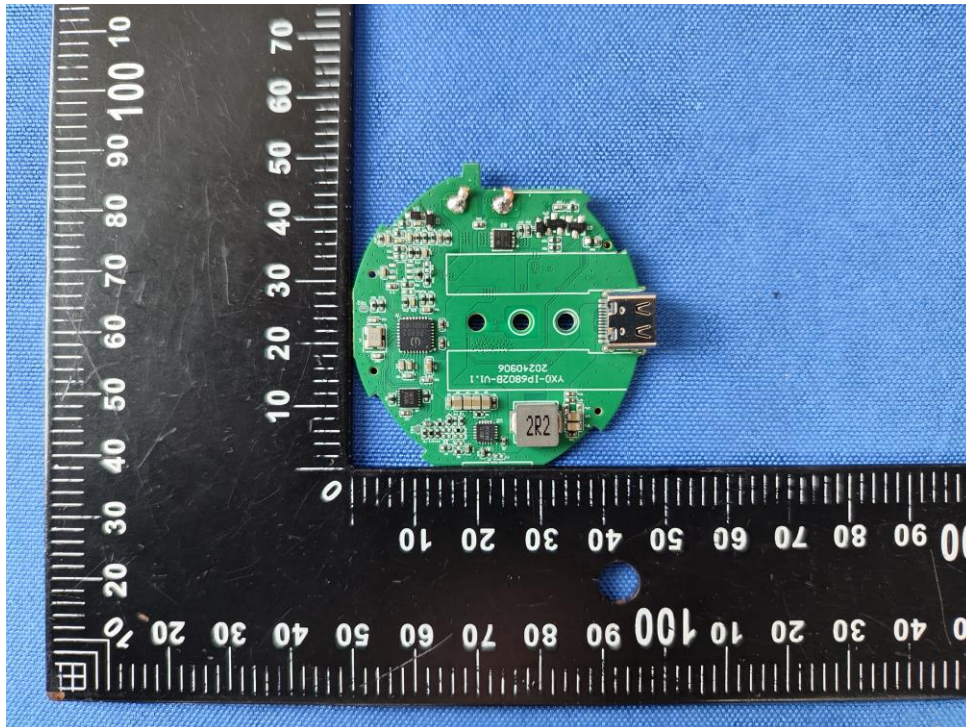


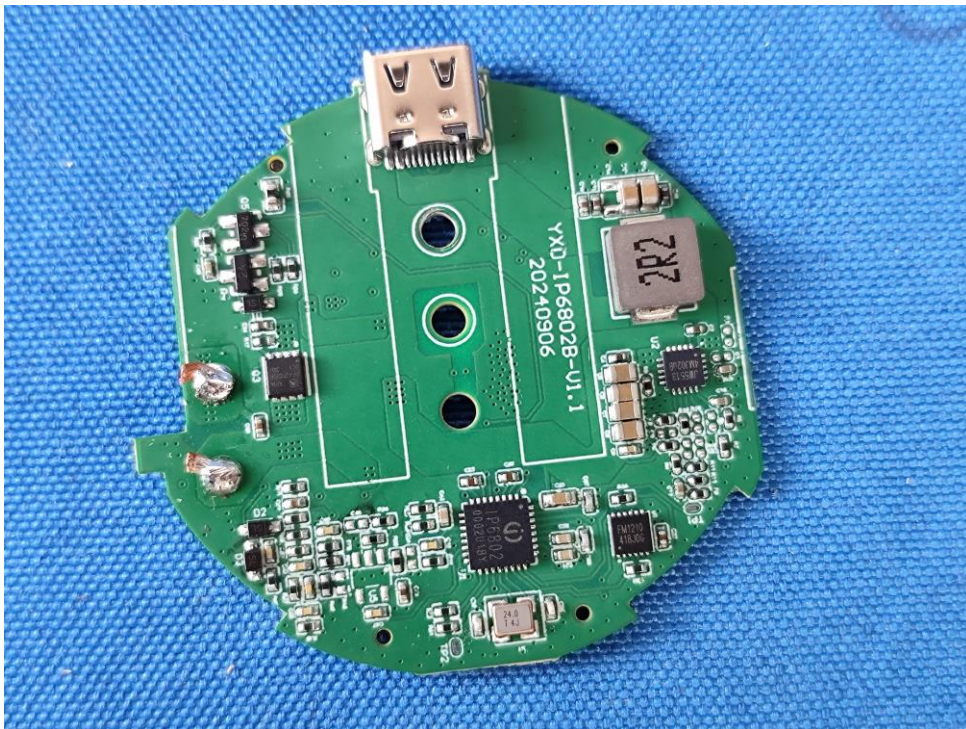
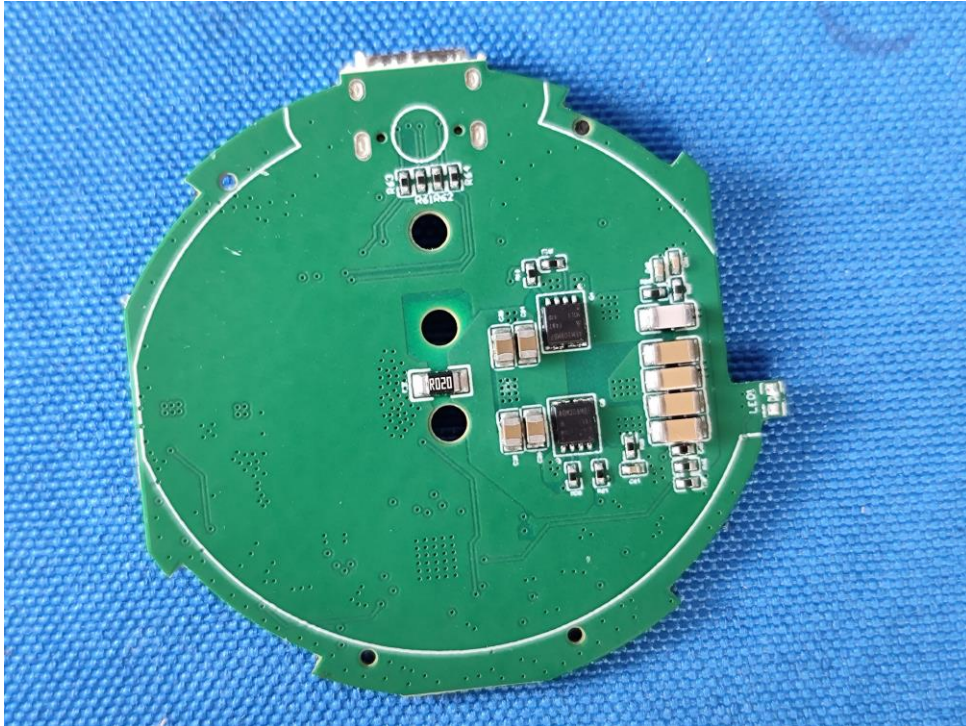


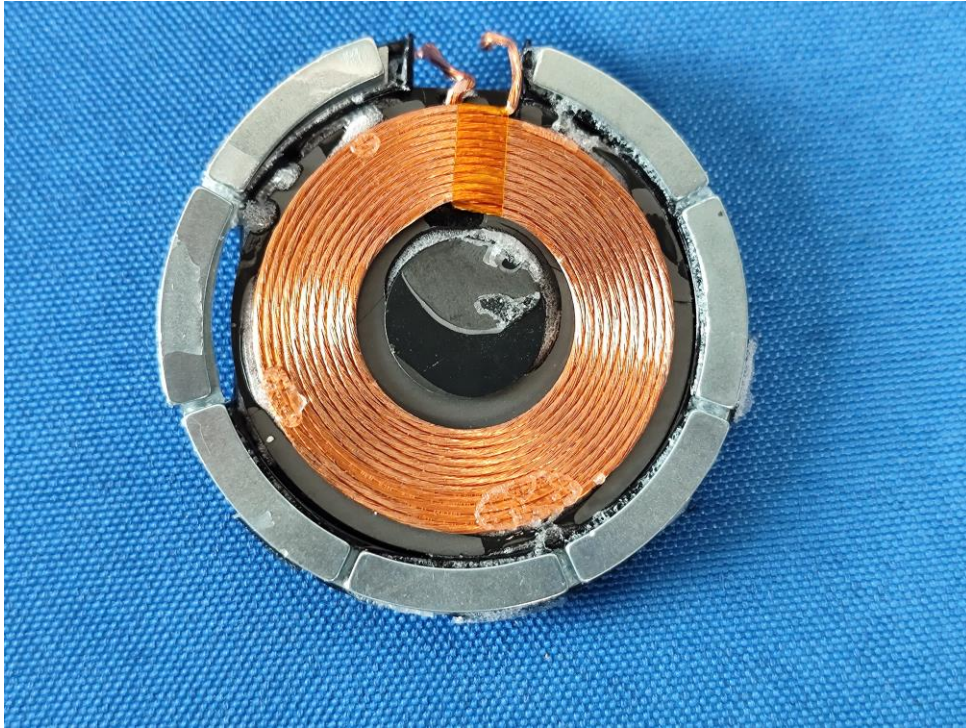












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