Website: www.cblueasia.com
Tel: +86-755-23059481
Email: marketing@cblueasia.com

Test Report

Applicant	:	PEAG, LLC dba JLab Audio
Address	:	5927 LANDAU CT, Carlsbad, CA 92008, United States
Product Name	:	Charging base
Brand Mark	:	JLAB
Model	:	Epic Lux Lab Edition-Charging base
FCC ID	:	2AHYV-ELUXCD
Report Number	:	BLA-EMC-202502-A2301
Date of Receipt	:	Feb. 12, 2025
Date of Test	:	Feb. 17, 2025 to Mar. 21, 2025
Test Standard	:	47 CFR Part 15, Subpart C
Test Result	:	Pass

Compiled by: Hugh **Review by:** Sweets **Approved by:** Blue Zheng

Issued Date: Mar. 21, 2025

BlueAsia of Technical Services(Shenzhen) Co.,Ltd.
Address: Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China

Table of Contents

Revise Record

Version No.	Date	Description
01	Mar. 21, 2025	Original

1 General information

1.1 General information

Applicant	PEAG, LLC dba JLab Audio
Address	5927 LANDAU CT, Carlsbad, CA 92008, United States
Manufacturer	GuangDong Simpreal Intelligent Technology Co., Ltd
Address	Room 2408, JiaHong ZhenXing DaSha, DongGuan Avenue #13, DongCheng District, DongGuan City, GuangDong Province, P.R. China
Factory	GuangDong Simpreal Intelligent Technology Co., Ltd
Address	Room 2408, JiaHong ZhenXing DaSha, DongGuan Avenue #13, DongCheng District, DongGuan City, GuangDong Province, P.R. China

1.2 General description of EUT

Product name	Charging base
Model no.	Epic Lux Lab Edition-Charging base
Series model	N/A
Engineer test sample no	BLA-EMC-202502-A23- Base
Operation Frequency	110.5KHz-205KHz
Modulation type	ASK
Antenna Type	Inductive loop coil Antenna
Antenna Gain:	4.12dBi(Provided by customer)
Power supply or adapter information	DC5V
Hardware Version	V1.2
Software Version	V1.0.36
Note: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.	

2 Test summary

No.	Test item	FCC Part Section(s)	Test Method(Clause)	Result
1	Antenna Requirement	§15.215	N/A	Pass
2	Conducted Emissions at AC Power Line (150kHz-30MHz)	§15.215	ANSI C63.10 (2013) Section 6.2	Pass
3	20dB Bandwidth	§15.215	ANSI C63.10 (2013) Section 6.9	Pass
4	Radiated Spurious Emissions	§15.215	ANSI C63.10 (2013) Section 6.4,6.5,6.6	Pass

3 Test Configuration

3.1 Test mode

Test Mode	Description
Wireless charging	Keep the EUT in wireless charging mode

3.2 Auxiliary equipment

Device Type	Manufacturer	Model Name	Serial No.	Remark
Power supply	N/A	N/A	N/A	From lab
Note: "--" mean no any auxiliary device during testing.				

3.3 Test environment

Environment	Temperature	Voltage
Normal	25°C	DC 5V

4 Laboratory information

4.1 Laboratory and accreditations

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

Company name:	BlueAsia of Technical Services(Shenzhen) Co., Ltd.
Address:	Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China
CNAS accredited No.:	L9788
A2LA Cert. No.:	5071.01
FCC Designation No.:	CN1252
ISED CAB identifier No.:	CN0028
Telephone:	+86-755-28682673
FAX:	+86-755-28682673

4.2 Measurement uncertainty

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

Parameter	Expanded Uncertainty
Radiated Emission(9kHz-30MHz)	±4.34dB
Radiated Emission(30Mz-1000MHz)	±4.24dB
Radiated Emission(1GHz-18GHz)	±4.68dB
AC Power Line Conducted Emission(150kHz-30MHz)	±3.45dB
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±1.5 dB
Power Spectral Density, conducted	±3.0 dB
Unwanted Emissions, conducted	±3.0 dB
Temperature	±3 °C
Supply voltages	±3 %
Time	±5 %

5 Test equipment

Radiated Spurious Emissions (Below 1GHz)

Equipment	Name	Model	Manufacture	S/N	Cal. Date	Due. Date
BLA-EMC-002-01	Anechoic chamber	9*6*6 chamber	SKET	N/A	2024/3/27	2027/3/26
BLA-EMC-002-02	Control room	966 control room	SKET	N/A	2024/3/27	2027/3/26
BLA-EMC-009	EMI receiver	ESR7	R&S	101199	2024/08/08	2025/08/07
BLA-EMC-043	Loop antenna	FMZB1519B	Schwarzbeck	00102	2024/06/29	2026/06/28
BLA-EMC-065	Broadband antenna	VULB9168	Schwarzbeck	01065P	2024/06/29	2026/06/27
BLA-XC-01	Coaxial Cable	N/A	BlueAsia	V01	N/A	N/A
BLA-XC-02	Coaxial Cable	N/A	BlueAsia	V02	N/A	N/A

Radiated Spurious Emissions (Above 1GHz)

Equipment	Name	Model	Manufacture	S/N	Cal. Date	Due. Date
BLA-EMC-001-01	Anechoic chamber	9*6*6 chamber	SKET	N/A	2023/11/16	2026/11/15
BLA-EMC-001-02	Control Room	966 control room	SKET	N/A	2023/11/16	2025/11/15
BLA-EMC-008	Spectrum	FSP40	R&S	100817	2024/08/08	2025/08/07
BLA-EMC-012	Broadband antenna	VULB9168	Schwarzbeck	00836 P:00227	2022/10/12	2025/10/11
BLA-EMC-013	Horn Antenna	BBHA9120D	Schwarzbeck	01892	2024/06/29	2026/06/28
BLA-EMC-014	Amplifier	PA_000318G-45	SKET	PA201804 3003	2024/08/08	2025/08/07
BLA-EMC-046	Filter bank	2.4G/5G Filter bank	SKET	N/A	2024/06/28	2025/06/27
BLA-EMC-061	Receiver	ESPI7	R&S	101477	2024/06/28	2025/06/27
BLA-EMC-066	Amplifier	LNPA_30M01G-30	SKET	SK202106 0801	2024/06/28	2025/06/27
BLA-EMC-086	Amplifier	LNPA_18G40G-50dB	SKET	SK202207 1301	2024/06/28	2025/06/27
BLA-EMC-087	Horn Antenna	BBHA 9170	Schwarzbeck	1106	2024/06/29	2026/06/28
BLA-XC-03	Coaxial Cable	N/A	BlueAsia	V03	N/A	N/A
BLA-XC-04	Coaxial Cable	N/A	BlueAsia	V04	N/A	N/A

Conducted Emissions

Equipment	Name	Model	Manufacture	S/N	Cal. Date	Due. Date
BLA-EMC-003-001	Shield room	8*3*3	SKET	N/A	2023/11/16	2025/11/15
BLA-EMC-009	EMI receiver	ESR7	R&S	101199	2024/08/08	2025/08/07
BLA-EMC-011	LISN	ENV216	R&S	101372	2024/08/08	2025/08/07
BLA-EMC-033	Impedance transformer	DC-2GHz	DFXP	N/A	2024/06/28	2025/06/27
BLA-EMC-041	LISN	AT166-2	ATTEN	AKK1806000003	2024/08/08	2025/08/07
BLA-EMC-045	Impedance stable network	ISNT8-cat6	TESEQ	53580	2024/08/08	2025/08/07
BLA-EMC-095	Single-channel vehicle artificial power network	NNBM 8124	Schwarzbeck	01045	2024/06/28	2025/06/27
BLA-EMC-096	Single-channel vehicle artificial power network	NNBM 8124	Schwarzbeck	01075	2024/06/28	2025/06/27
BLA-XC-05	Coaxial Cable	N/A	BlueAsia	V05	N/A	N/A

Test software

Software No.	Software Name	Manufacture	Software version	Test site
BLA-EMC-S001	EZ-EMC	EZ	EEMC-3A1+	RE(Below 1GHz)
BLA-EMC-S002	EZ-EMC	EZ	EEMC-3A1+	RE(Above 1GHz)
BLA-EMC-S003	EZ-EMC	EZ	EEMC-3A1+	CE

6 Test result

6.1 Antenna requirement

Test Standard	47 CFR Part 15, Subpart C 15.215
Test Method	N/A

6.1.1 Requirement

According to FCC Part 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

6.1.2 Test Result

This product has an integral antenna, fulfill the requirement of this section.

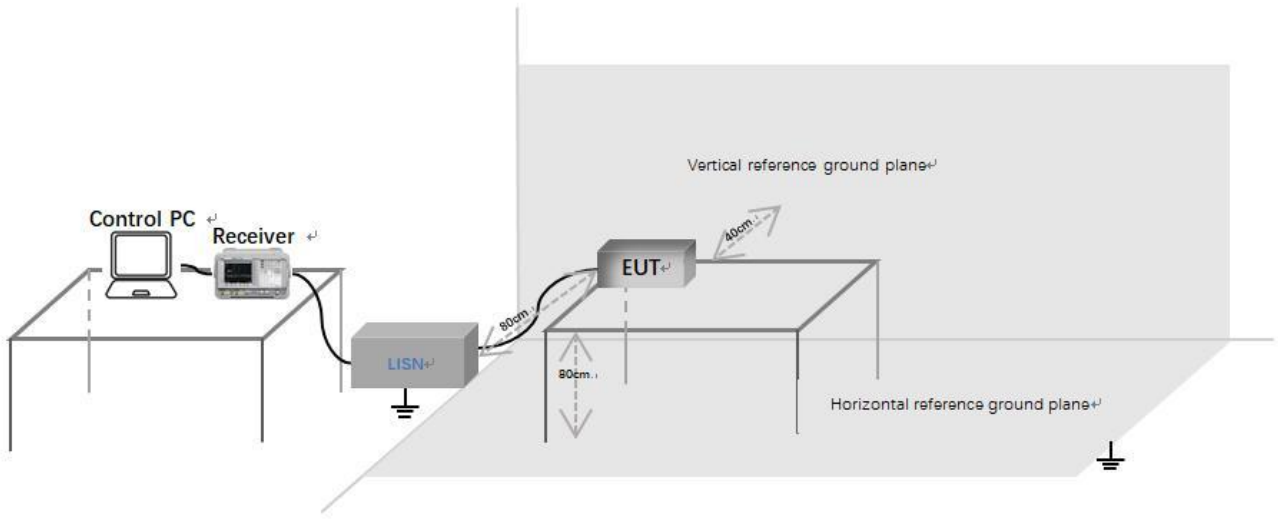
6.2 Conducted emissions at AC power line (150 kHz-30 MHz)

Test Standard	47 CFR Part 15, Subpart C 15.215
Test Method	ANSI C63.10-2013 Cluase 6.2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX

6.2.1 Limit

Frequency of emission(MHz)	**Conducted limit(dBμV)**	
	Quasi-peak	**Average**
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency.		

6.2.2 Test setup



Description of test setup connection:

a) Connect the control PC to the receiver through a USB to GPIB cable;

b) The receiver is connected to the LISN through a coaxial line;

c) Connect the power port of LISN to the EUT.

6.2.3 Procedure

1) The mains terminal disturbance voltage test was conducted in a shielded room.

2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50H + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

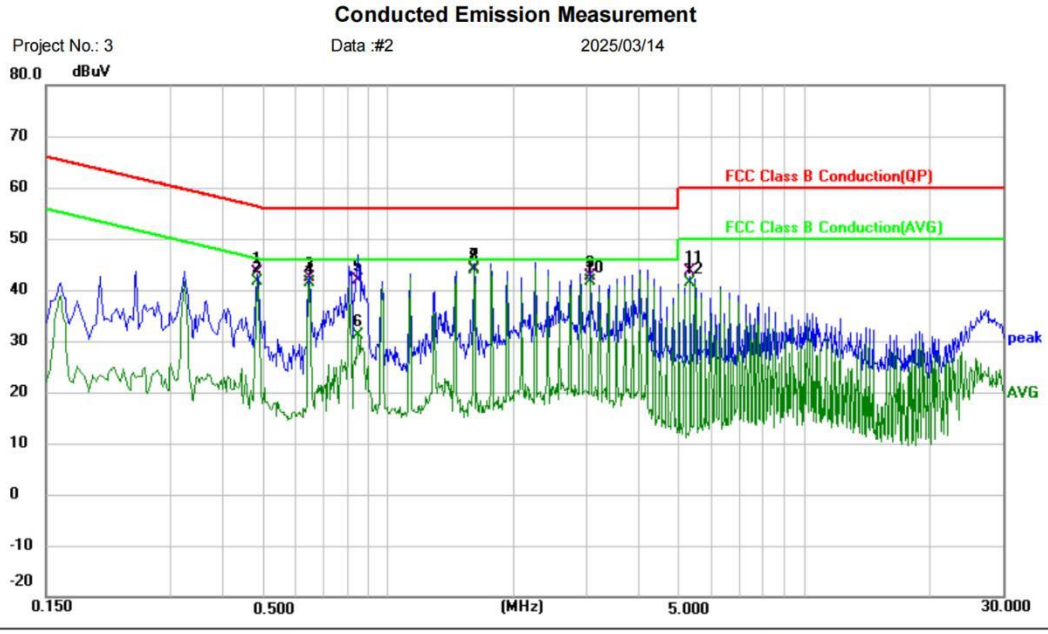
4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

5) 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 on conducted measurement.

LISN=Read Level+ Cable Loss+ LISN Factor

6.2.4 Test data

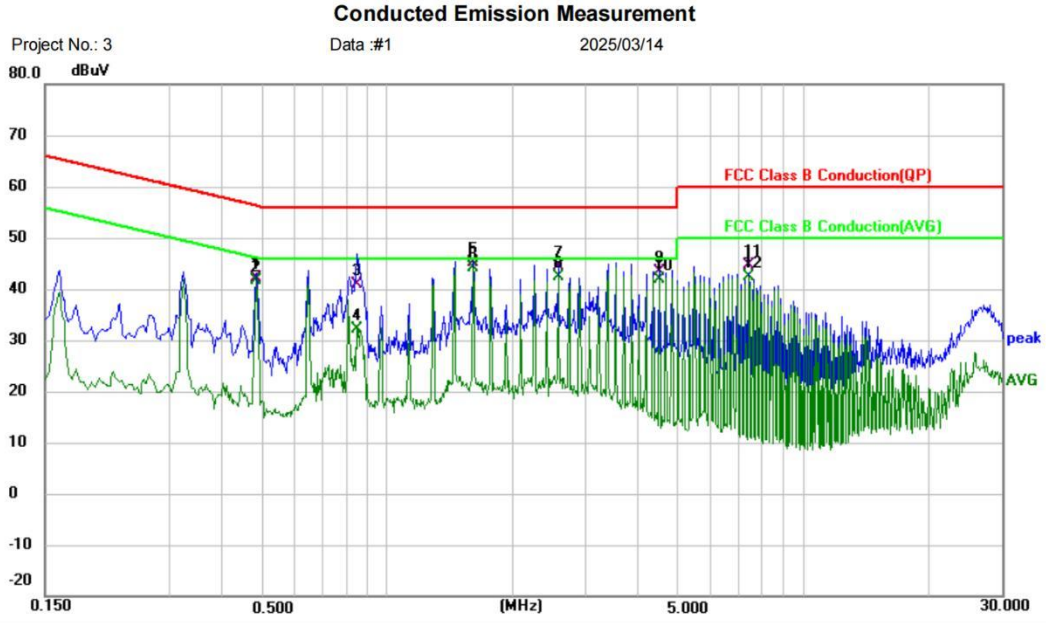
[Test mode: TX]; [Line: Line];[Power:AC120V/60Hz]



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		0.4820	33.47	9.84	43.31	56.30	-12.99	QP			
2		0.4820	31.78	9.84	41.62	46.30	-4.68	AVG			
3		0.6460	32.62	9.78	42.40	56.00	-13.60	QP			
4		0.6460	31.52	9.78	41.30	46.00	-4.70	AVG			
5		0.8460	32.24	9.65	41.89	56.00	-14.11	QP			
6		0.8460	21.50	9.65	31.15	46.00	-14.85	AVG			
7		1.6100	34.32	9.87	44.19	56.00	-11.81	QP			
8	*	1.6100	33.99	9.87	43.86	46.00	-2.14	AVG			
9		3.0579	32.66	10.05	42.71	56.00	-13.29	QP			
10		3.0579	31.62	10.05	41.67	46.00	-4.33	AVG			
11		5.3140	33.42	10.18	43.60	60.00	-16.40	QP			
12		5.3140	31.10	10.18	41.28	50.00	-8.72	AVG			

Test Result: Pass

[Test mode: TX]; [Line: Neutral];[Power:AC120V/60Hz]



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		0.4820	32.38	9.79	42.17	56.30	-14.13	QP			
2		0.4820	31.77	9.79	41.56	46.30	-4.74	AVG			
3		0.8460	31.24	9.66	40.90	56.00	-15.10	QP			
4		0.8460	22.57	9.66	32.23	46.00	-13.77	AVG			
5		1.6100	35.31	9.79	45.10	56.00	-10.90	QP			
6	*	1.6100	34.35	9.79	44.14	46.00	-1.86	AVG			
7		2.5740	34.37	9.89	44.26	56.00	-11.74	QP			
8		2.5740	32.49	9.89	42.38	46.00	-3.62	AVG			
9		4.5060	33.26	10.08	43.34	56.00	-12.66	QP			
10		4.5060	31.90	10.08	41.98	46.00	-4.02	AVG			
11		7.4060	34.39	10.33	44.72	60.00	-15.28	QP			
12		7.4060	31.97	10.33	42.30	50.00	-7.70	AVG			

Test Result: Pass

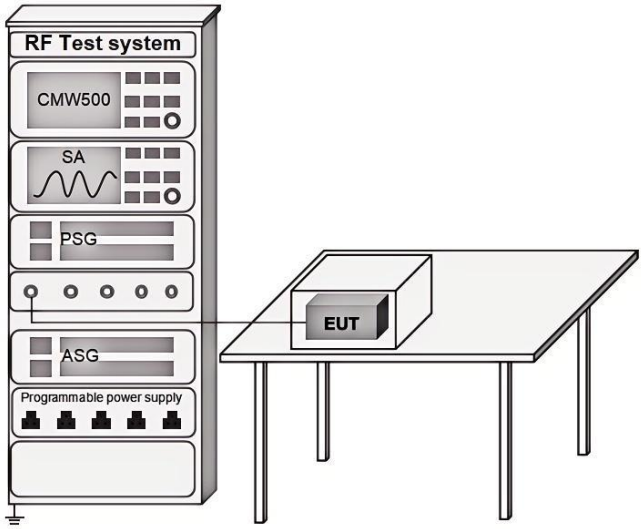
6.3 20dB bandwidth

Test Standard	47 CFR Part 15, Subpart C 15.215
Test Method	ANSI C63.10 (2013) Section 6.9
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX

6.3.1 Limit

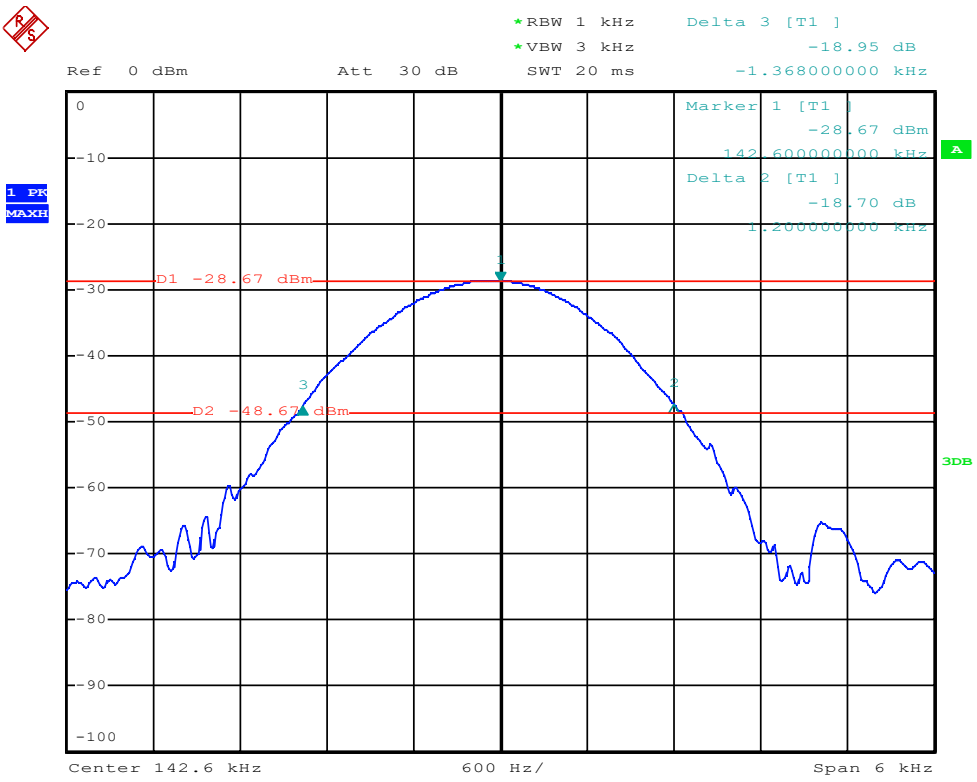
N/A

6.3.2 Test setup



6.3.3 Test data

Test Frequency (MHz)	20dB Bandwidth (MHz)	Result
0.1426	0.002568	Pass



Date: 21.MAR.2025 16:24:57

6.4 Radiated spurious emissions

Test Standard	47 CFR Part 15, Subpart C 15.215
Test Method	ANSI C63.10 (2013) Section 6.4,6.5,6.6
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX

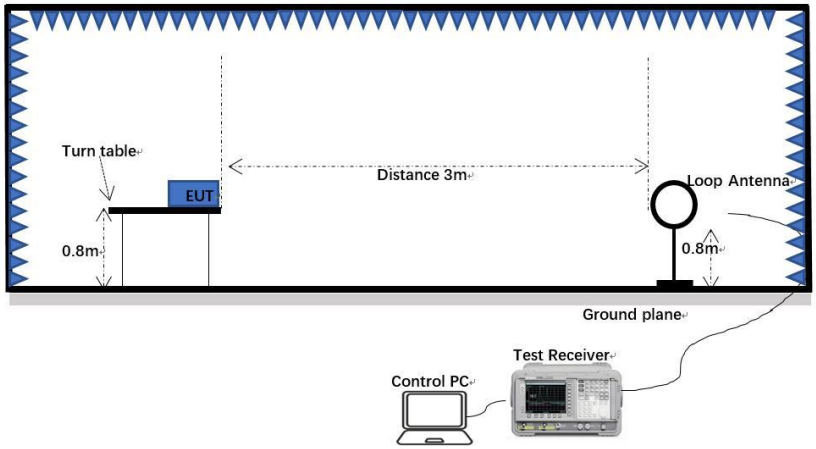
6.4.1 Limit

Frequency(MHz)	Field strength (microvolts/meter)	Limit (dBuV/m)	Detector	Measurement Distance (meters)
0.009-0.490	2400/F(kHz)	-	-	300
0.490-1.705	24000/F(kHz)	-	-	30
1.705-30	30	-	-	30
30-88	100	40.0	QP	3
88-216	150	43.5	QP	3
216-960	200	46.0	QP	3
960-1000	500	54.0	QP	3
Above 1000	500	54.0	AV	3

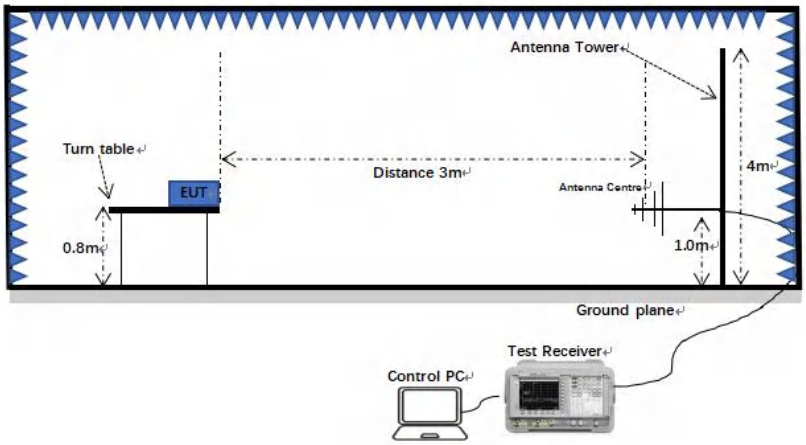
Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

6.4.2 Test setup

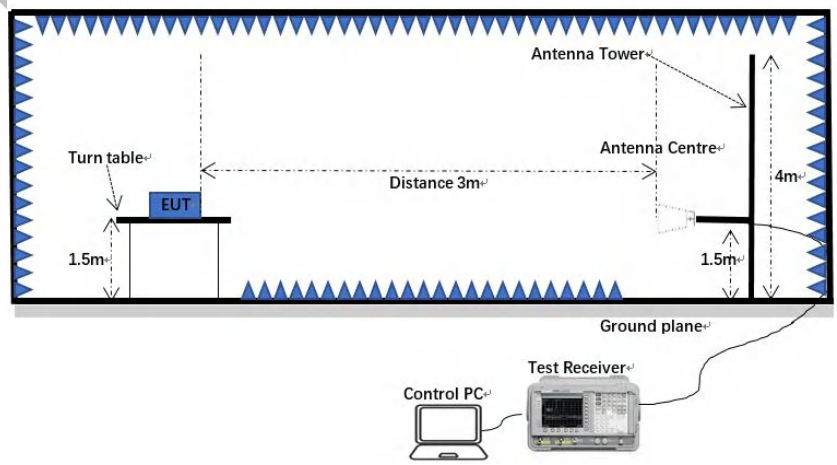
Below 1GHz：



30MHz-1GHz：



Above 1GHz：



6.4.3 Procedure

For testing performed with the loop antenna, the center of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specified distance from the EUT. During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane. Only the worst position of vertical was shown in the report.

Remark:

1) For emission below 1GHz, through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.

2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

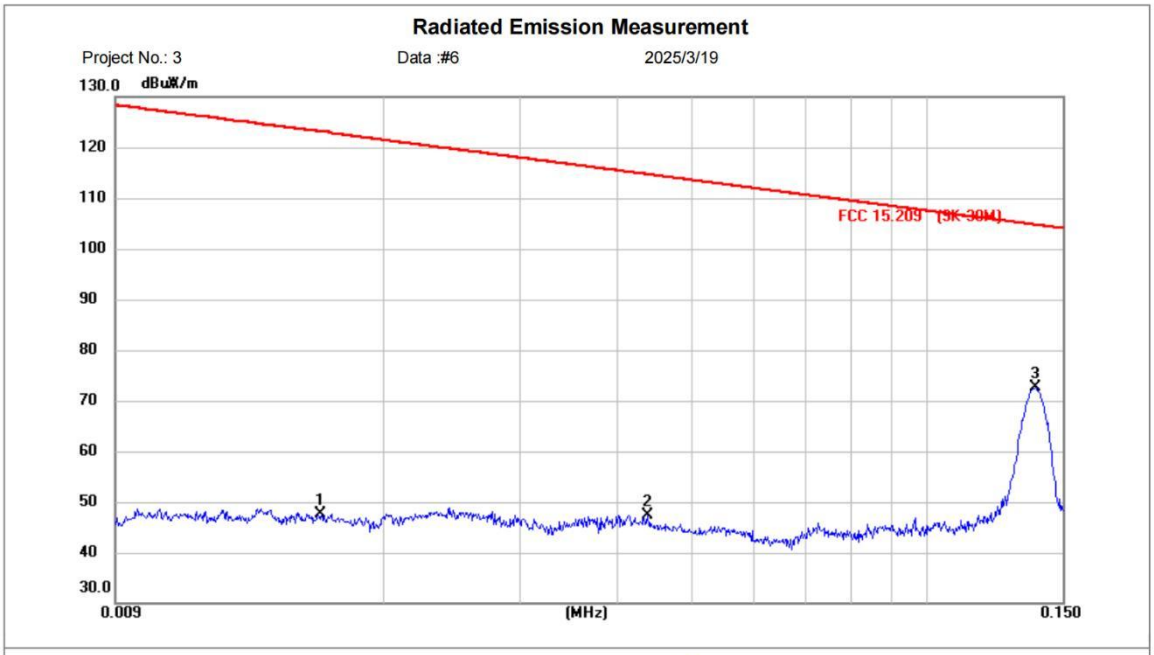
3) Scan from 9kHz to 25GHz, the disturbance above 12.75GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. Fundamental frequency is blocked by filter, and only spurious emission is shown.

4) For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

6.4.4 Test data

9kHz-30MHz:

[Test Mode: wireless charging]; [Polarity: x]



Site
Limit: FCC 15.209 (9K-30M)
EUT: Wireless Headset
M/N: Epic Lux Lab Edition
Mode: TM1
Note:

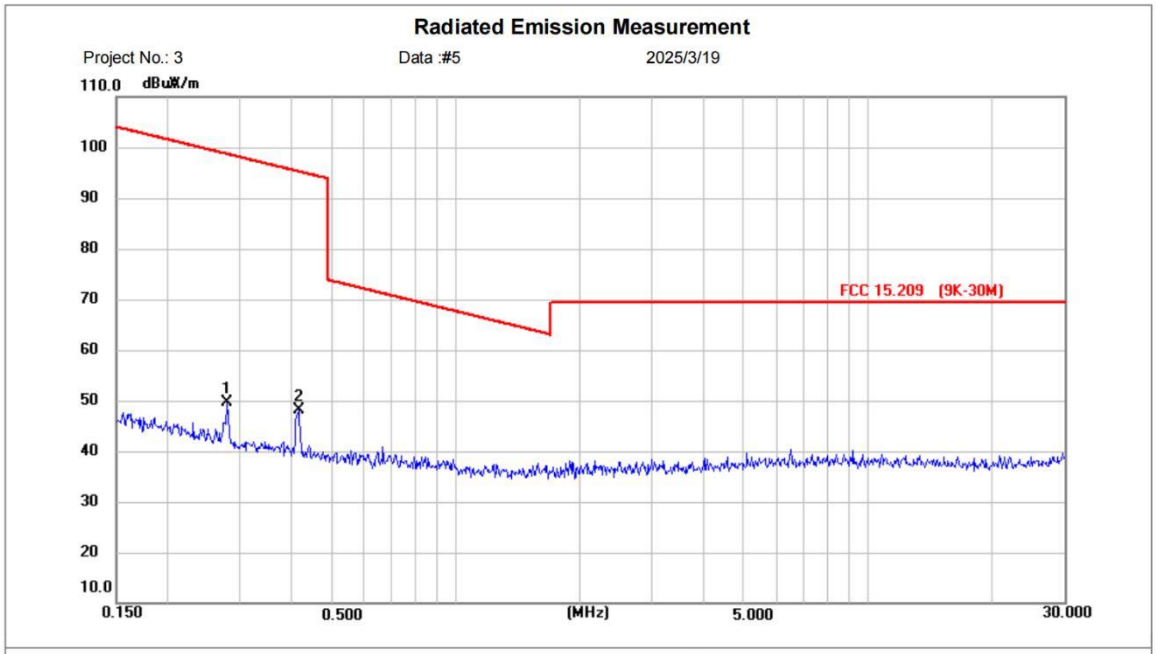
Polarization: X
Power:

Temperature: (C)
Humidity: %RH

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	0.0165	27.07	20.58	47.65	123.07	-75.42	peak	P	
2	0.0437	26.81	20.52	47.33	114.67	-67.34	peak	P	
3 *	0.1382	52.21	20.39	72.60	104.73	-32.13	peak	P	

Test Result: Pass

[TestMode: wireless charging]; [Polarity: x]



Site
Limit: FCC 15.209 (9K-30M)
EUT: Wireless Headset
M/N: Epic Lux Lab Edition
Mode: TM1
Note:

Polarization: X
Power:

Temperature: (C)
Humidity: %RH

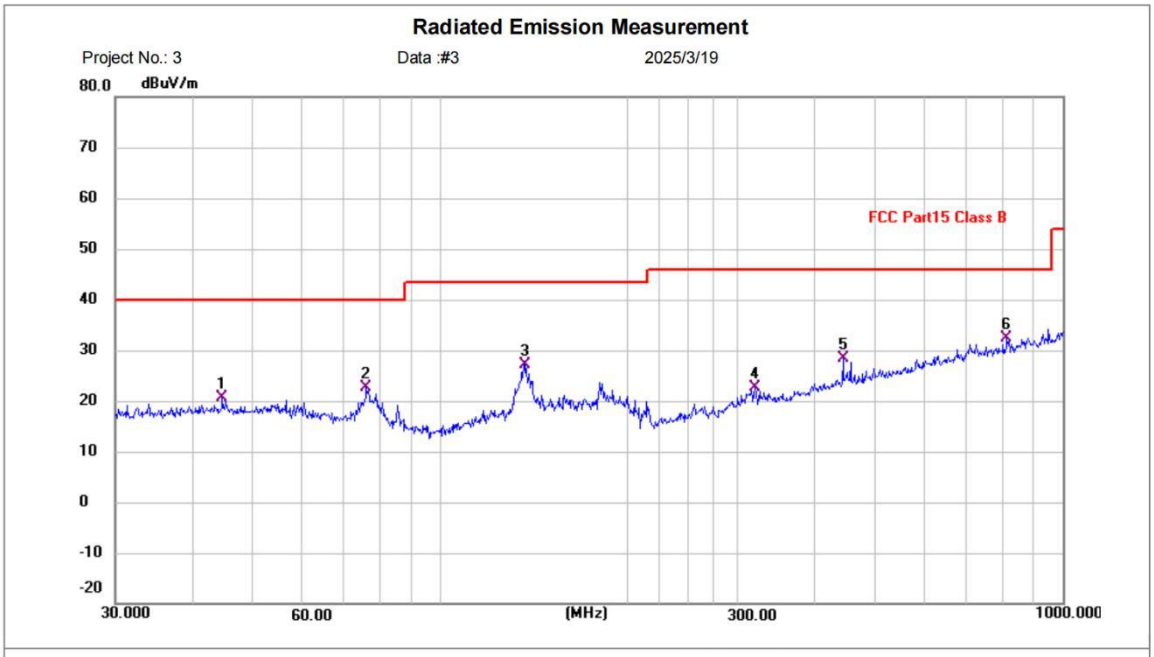
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	0.2788	29.24	20.45	49.69	98.67	-48.98	peak	P	
2 *	0.4148	27.57	20.49	48.06	95.24	-47.18	peak	P	

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

Test Result: Pass

30MHz-1GHz:

[TestMode: wireless charging]; [Polarity: Horizontal]



Site
Limit: FCC Part15 Class B
EUT: Wireless Headset
M/N: Epic Lux Lab Edition
Mode: TM1
Note:

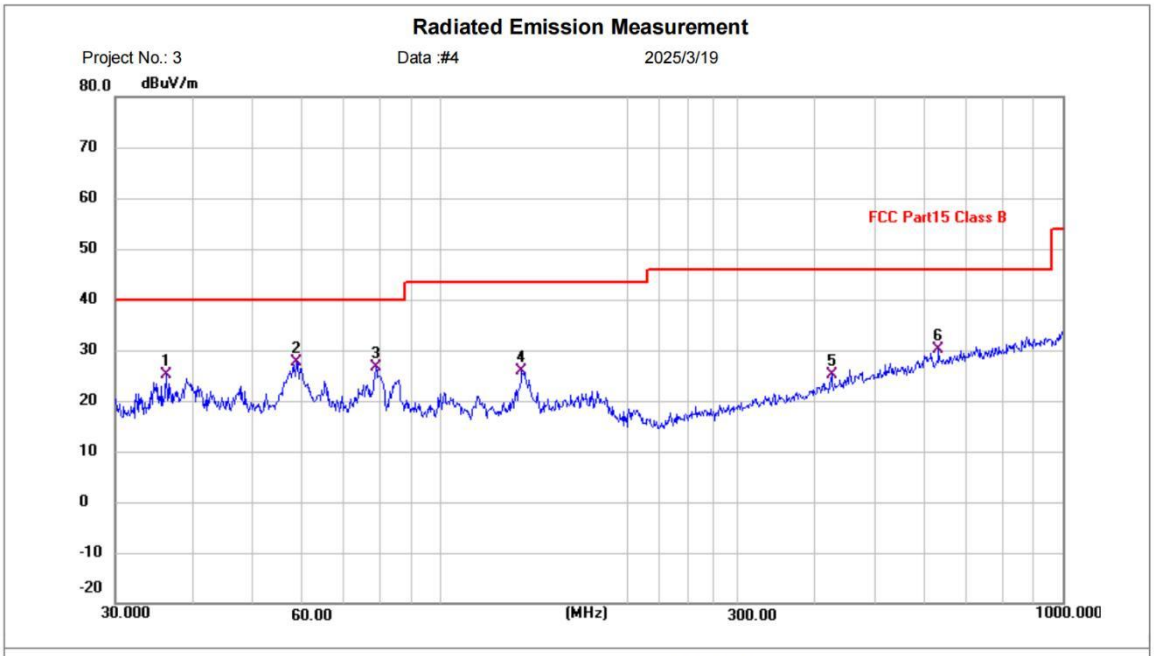
Polarization: *Horizontal*
Power:

Temperature: (C)
Humidity: %RH

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	44.5868	0.80	19.78	20.58	40.00	-19.42	QP	P	
2	75.9773	6.88	15.70	22.58	40.00	-17.42	QP	P	
3	136.9391	7.25	19.93	27.18	43.50	-16.32	QP	P	
4	319.9370	1.88	20.82	22.70	46.00	-23.30	QP	P	
5	443.2943	4.31	24.09	28.40	46.00	-17.60	QP	P	
6 *	813.1115	2.34	30.03	32.37	46.00	-13.63	QP	P	

Test Result: Pass

[TestMode: wireless charging]; [Polarity: Vertical]



Site
Limit: FCC Part15 Class B
EUT: Wireless Headset
M/N: Epic Lux Lab Edition
Mode: TM1
Note:

Polarization: *Vertical*
Power:

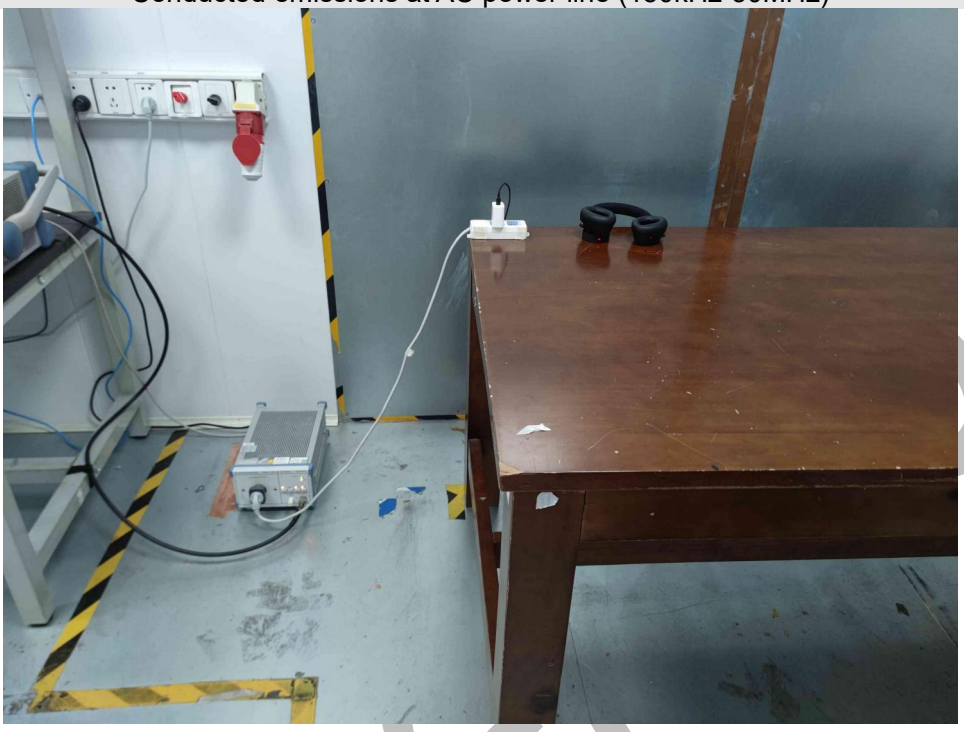
Temperature: (C)
Humidity: %RH

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	36.2540	6.19	18.93	25.12	40.00	-14.88	QP	P	
2 *	58.6126	9.01	18.56	27.57	40.00	-12.43	QP	P	
3	78.6887	11.04	15.47	26.51	40.00	-13.49	QP	P	
4	135.0318	5.94	19.83	25.77	43.50	-17.73	QP	P	
5	425.0280	1.35	23.66	25.01	46.00	-20.99	QP	P	
6	631.6883	2.59	27.65	30.24	46.00	-15.76	QP	P	

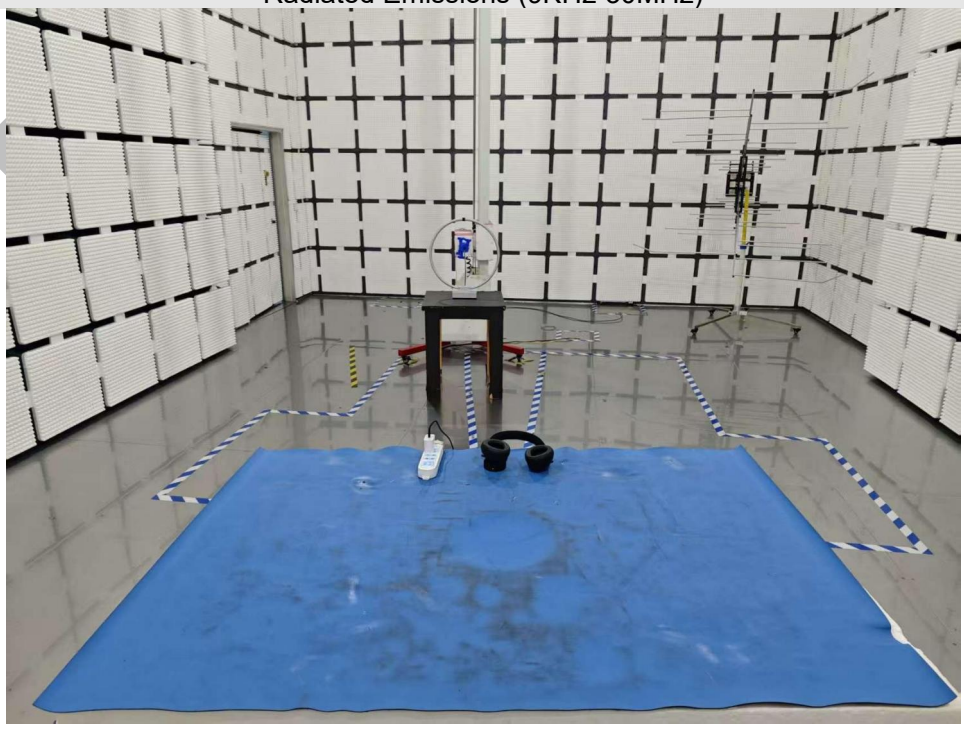
Test Result: Pass

7 Appendix A photographs of test setup

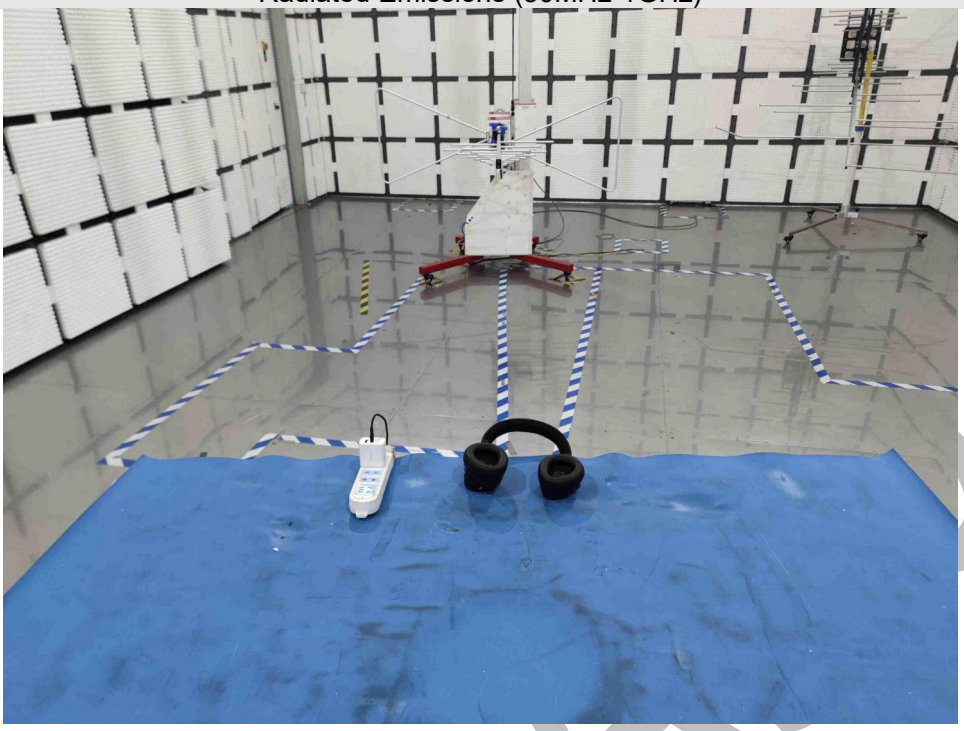
Conducted emissions at AC power line (150kHz-30MHz)



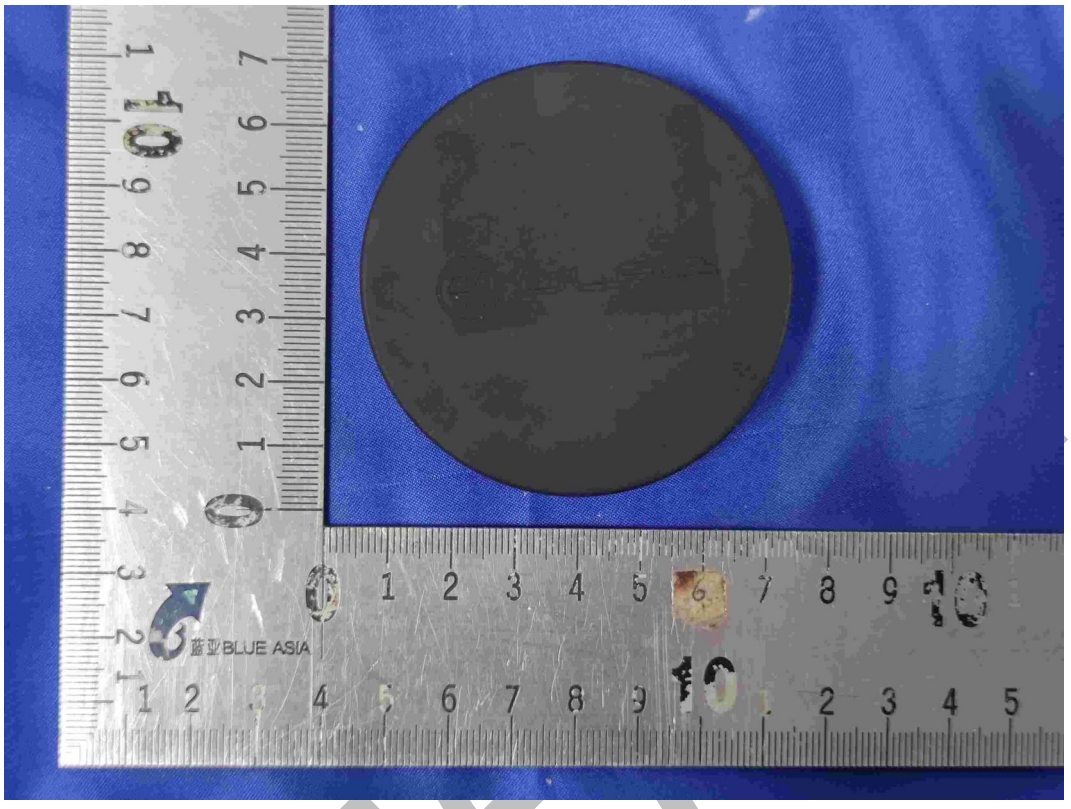
Radiated Emissions (9KHz-30MHz)

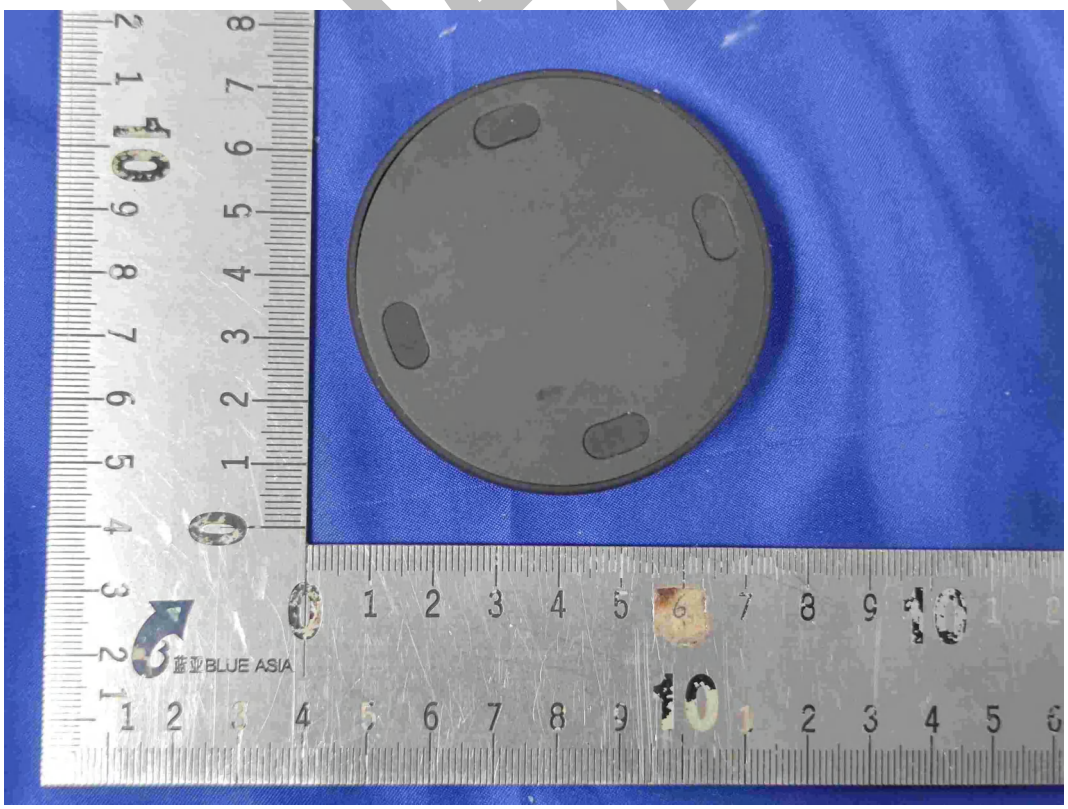


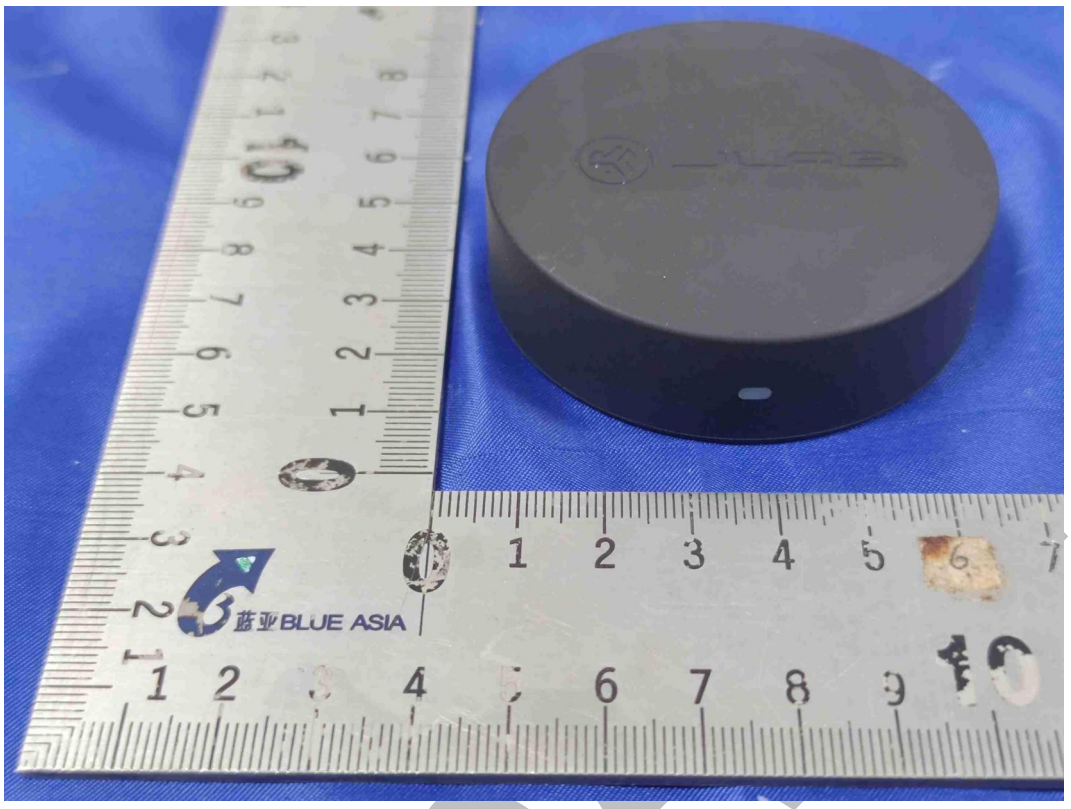
Radiated Emissions (30MHz-1GHz)

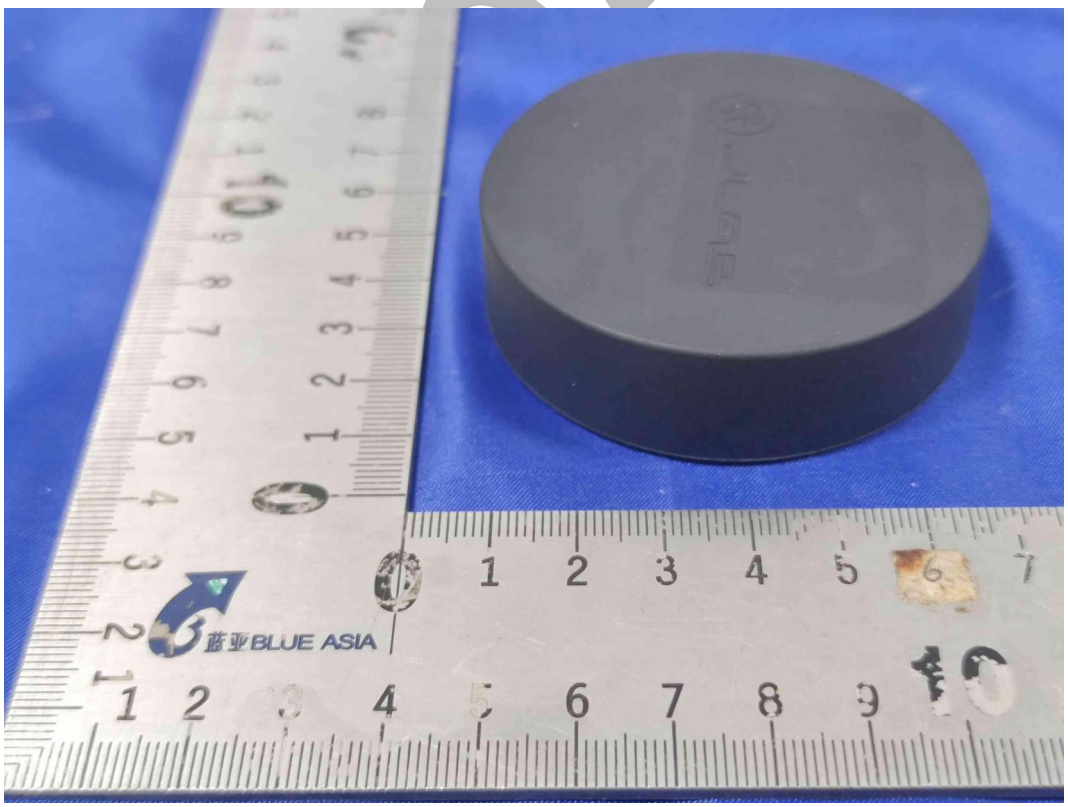


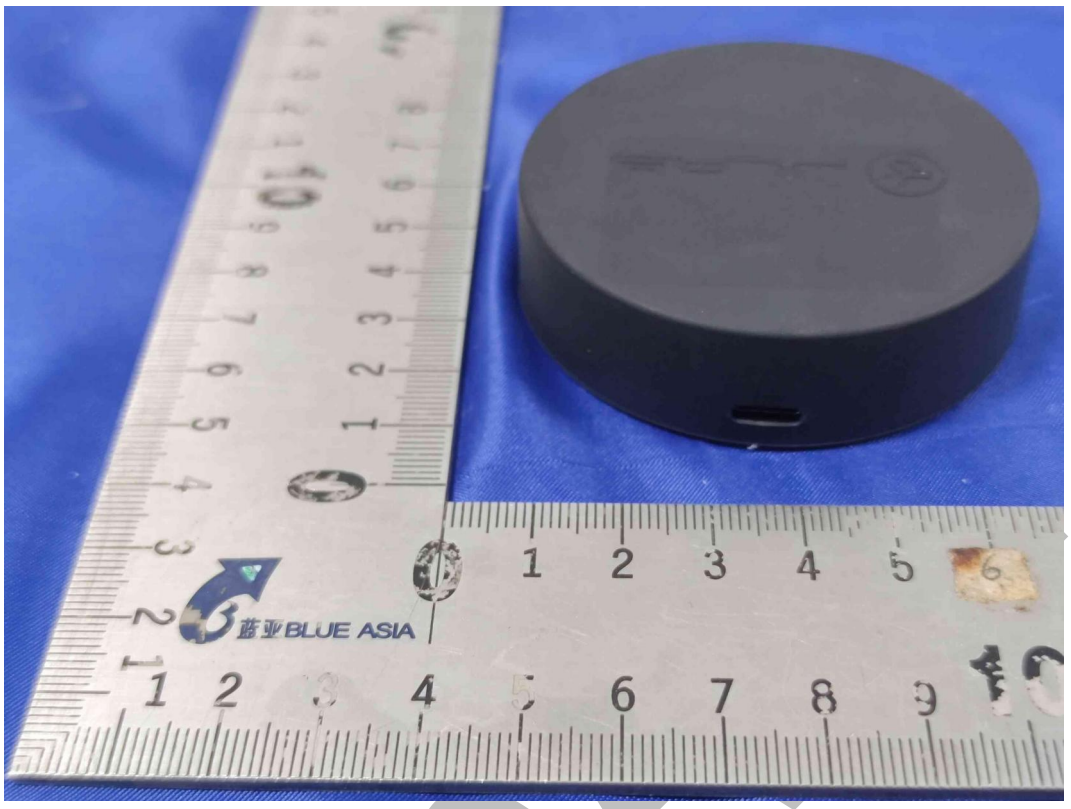
8 Appendix B: photographs of EUT

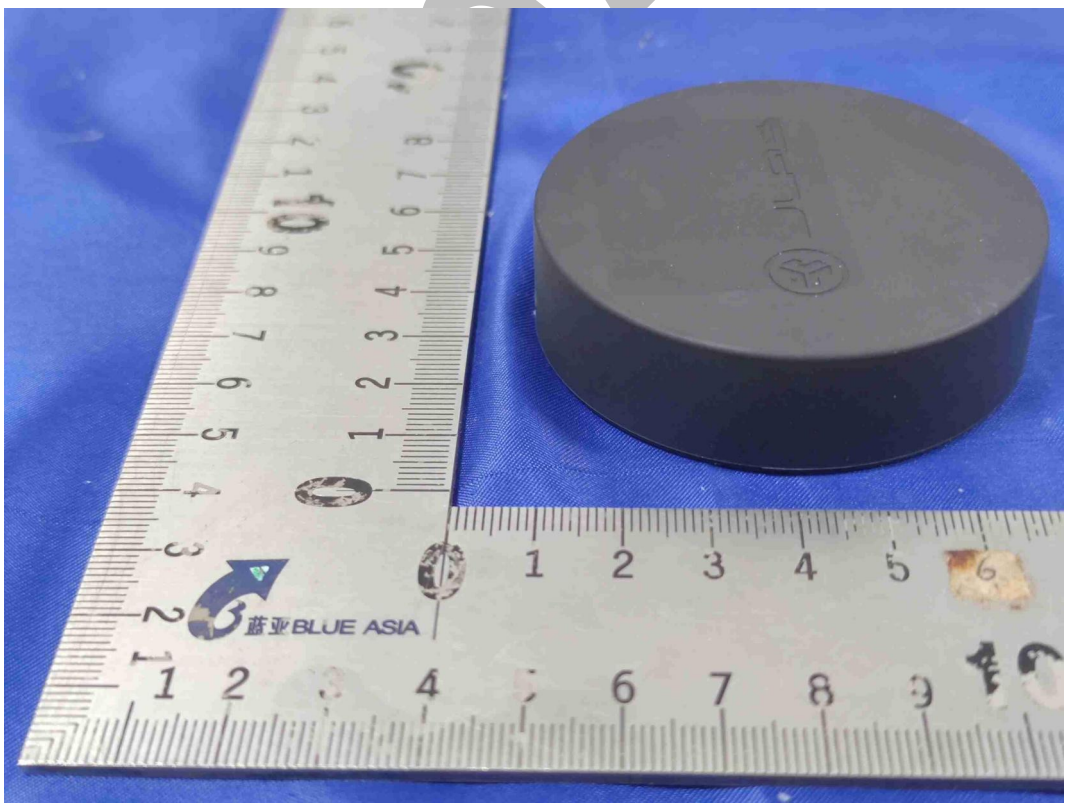


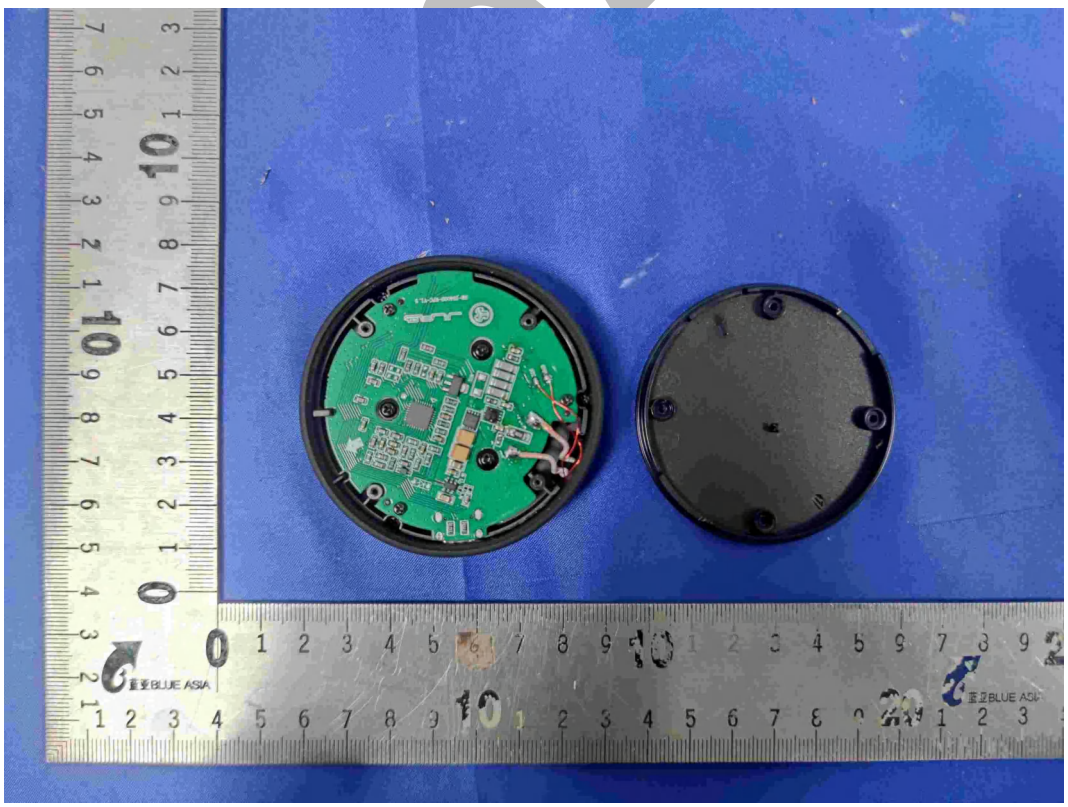


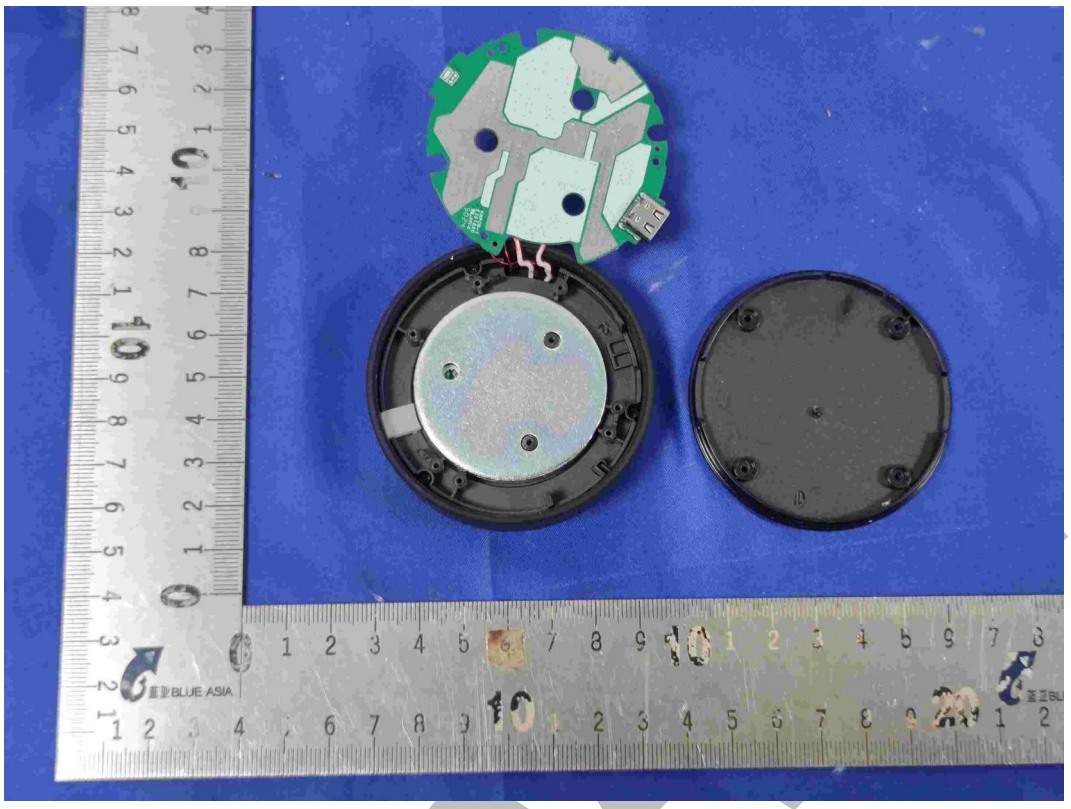

蓝亚BLUE ASIA

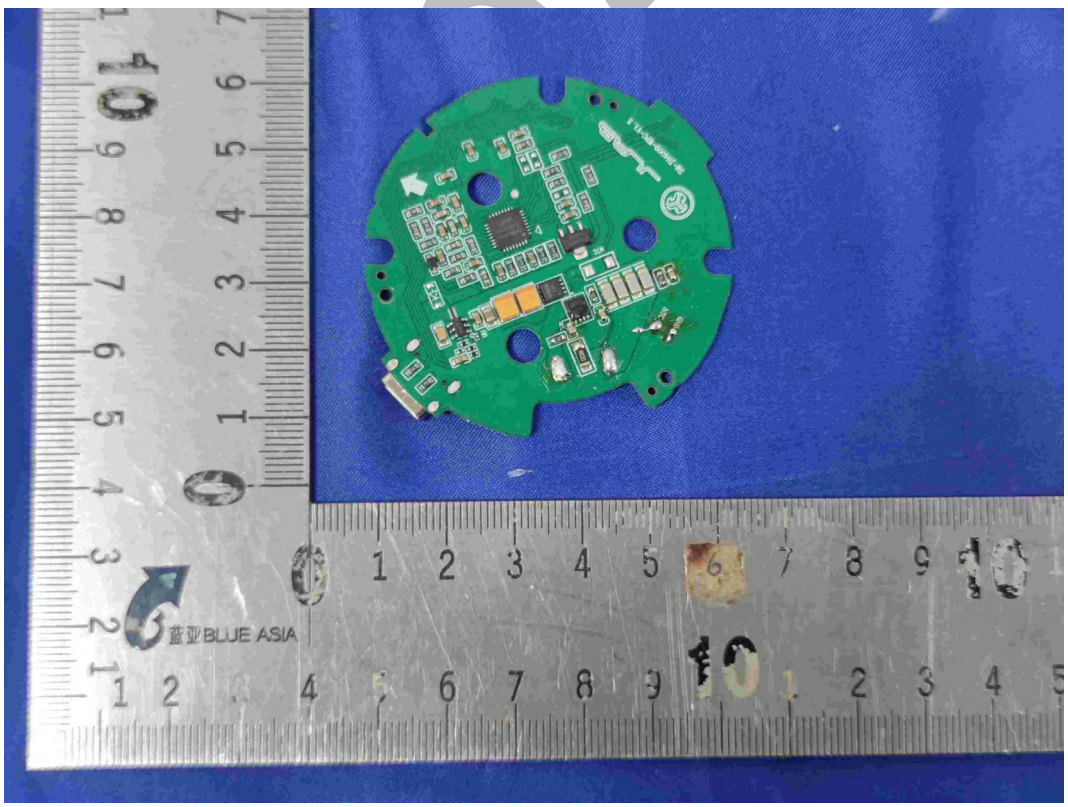

蓝亚BLUE ASIA

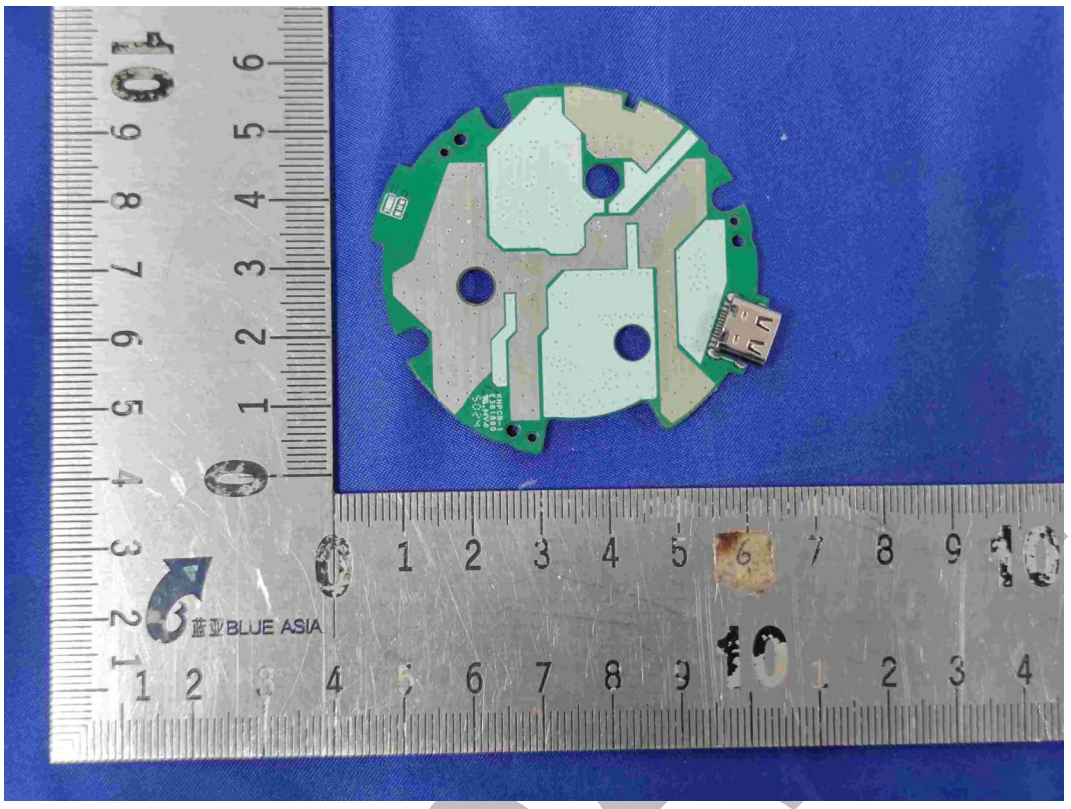

蓝亚BLUE ASIA

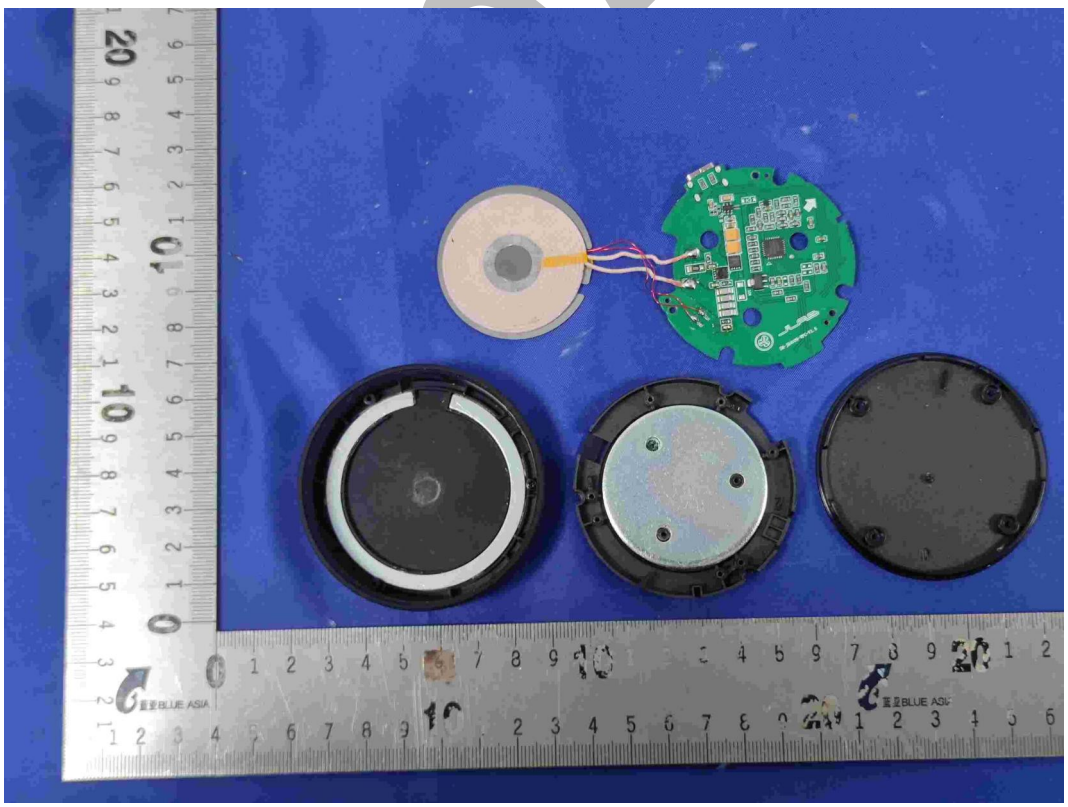

蓝亚BLUE ASIA











----END OF REPORT----

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