



FCC TEST REPORT

On Behalf of

FCC ID: 2A5FA-EMM-02

Shenzhen LvYouYou Technology Co., Ltd

Electromagnetic Field Tester

Model No.: EMM-01, EMM-02, EMM-03, EMM-04, EMM-05, EMM-06, EMM-07, EMM-08, EMM-09, EMM-10, GC01, GC02, GC03, GC04, GC05, GC06, GC07, GC08, GC09, GC10, FY8818, FY8818C, FY8819, FY8820, FY8821, FY8822, FY8823, FY8824, FY8827, FY876, SW201, SW202, SW203, SW204, SW205, SW206, SW207, SW208, SW209, SW210, SW211, SW212, SW213, SW214, SW215, SW216, SW217, SW218, SW219, SW220

Prepared for : Shenzhen LvYouYou Technology Co., Ltd
Address : Room 401, Building F, Zhenbao Industrial Zone Longhua Street, Longhua District, Shenzhen south of Heping Road, Jinglong Community China

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 : A2406226-C01-R01
Date of Receipt : July 1, 2024
Date of Test : July 1, 2024 - July 3, 2024
Date of Report : July 3, 2024
Version Number : V0
Test Result : Pass

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TEST REPORT DECLARATION

Applicant : Shenzhen LvYouYou Technology Co., Ltd
Address : Room 401, Building F, Zhenbao Industrial Zone Longhua Street, Longhua District,
Shenzhen south of Heping Road, Jinglong Community China
Manufacturer : Shenzhen LvYouYou Technology Co., Ltd
Address : Room 401, Building F, Zhenbao Industrial Zone Longhua Street, Longhua District,
Shenzhen south of Heping Road, Jinglong Community China
EUT Description : Electromagnetic Field Tester
Model No. : EMM-01, EMM-02, EMM-03, EMM-04, EMM-05, EMM-06, EMM-07, EMM-08, EMM-09, EMM-10, GC01, GC02, GC03, GC04, GC05, GC06, GC07, GC08, GC09, GC10, FY8818, FY8818C, FY8819, FY8820, FY8821, FY8822, FY8823, FY8824, FY8827, FY876, SW201, SW202, SW203, SW204, SW205, SW206, SW207, SW208, SW209, SW210, SW211, SW212, SW213, SW214, SW215, SW216, SW217, SW218, SW219, SW220
(A)
(B) Trademark : N/A

Measurement Standard Used:

FCC PART 15:2021
(Part 15 Subpart B Class B, ANSI C63.4:2014)

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 above listed standard(s) 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.....: July 3, 2024

Revision History

Revision	Issue Date	Revisions	Revised By
V0	July 3, 2024	Initial released Issue	Yannis Wen

1 General Information

1.1 Description of Device (EUT)

Product Name	:	Electromagnetic Field Tester
Model Number	:	EMM-01, EMM-02, EMM-03, EMM-04, EMM-05, EMM-06, EMM-07, EMM-08, EMM-09, EMM-10, GC01, GC02, GC03, GC04, GC05, GC06, GC07, GC08, GC09, GC10, FY8818, FY8818C, FY8819, FY8820, FY8821, FY8822, FY8823, FY8824, FY8827, FY876, SW201, SW202, SW203, SW204, SW205,
DIFF	:	There is no difference between the models except the appearance color. So all the test were performed on the model EMM-02.
Power Supply	:	DC 5V from adapter, DC 3.7V from battery
Highest Internal Frequency	:	F < 108MHz
Classification of Equipment	:	Class B

1.2 Ancillary equipment Details

Title	Manufacturer	Model No.	Serial No.
AC ADAPTER	Shenzhen HUONIU Technology Co., Ltd.	HNFCQC3024UU	N/A

1.3 Test Lab information

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 Designation Number: CN1236
July 15, 2019 Certificated by IC Registration Number: 12135A

2 Summary of test

2.1 Test Standard description:

The tests were performed according to following standards:

47 CFR Part 15, Subpart B: Unintentional Radiators

2.2 Summary of test

Item	Requirement	Method	Result
Conducted emissions on AC mains	15.107, Class B	ANSI C63.4	Pass
Radiated emissions (Below 1GHz)	15.109, Class B	ANSI C63.4	Pass

2.3 Test Mode Description

No	Title	Description
TM1	Charging	DC 5V from adapter
TM2	ELEC test	DC 3.7V from battery
TM3	MAG test	DC 3.7V from battery
TM4	RF test	DC 3.7V from battery
TM5	W-ELEC test	DC 3.7V from battery
TM6	W-MAG test	DC 3.7V from battery

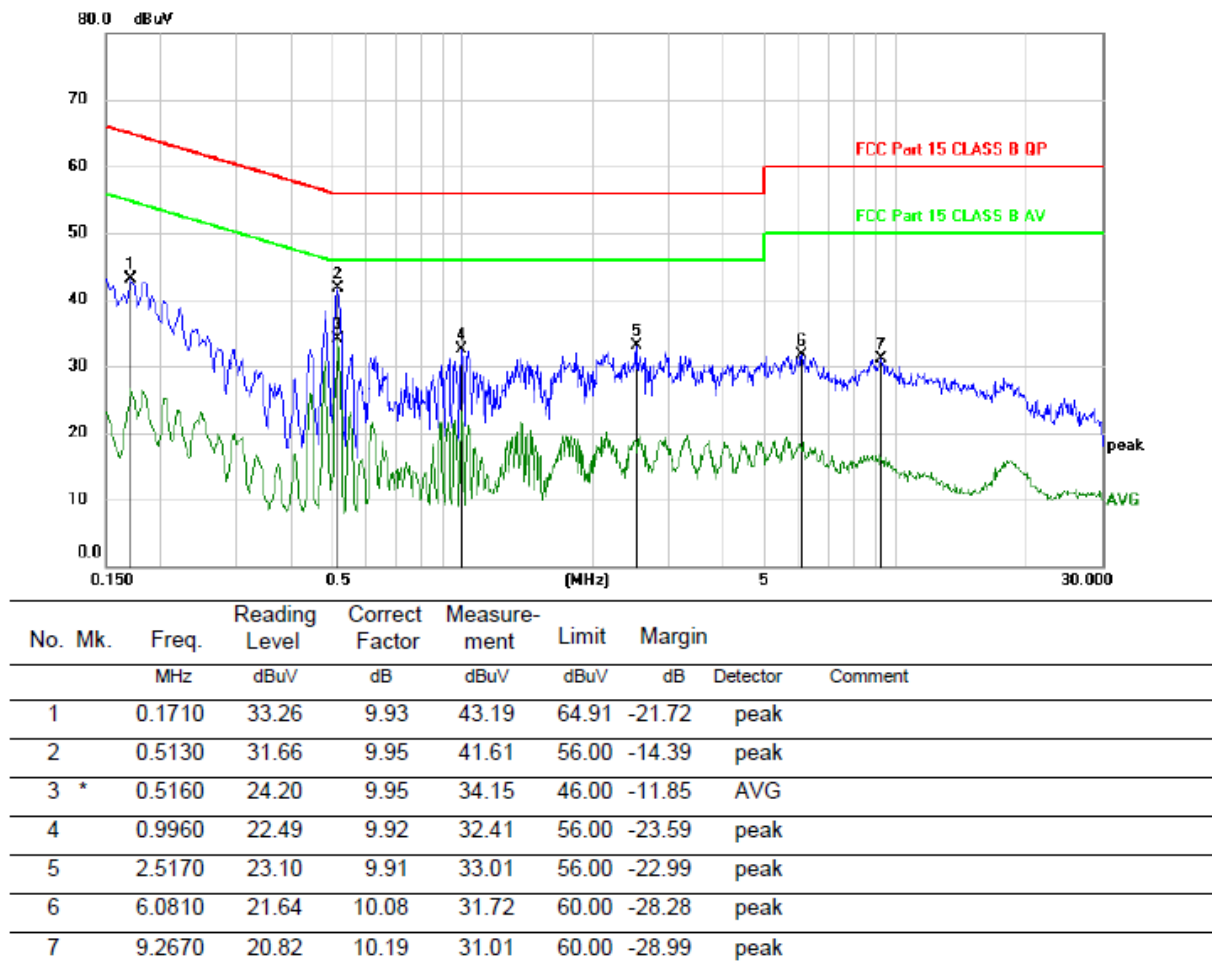
2.4 Test Equipment

Conducted emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Test Receiver	ROHDE&SCHW ARZ	ESCI	101165	2023-08-16	2024-08-15
Pulse Limiter	SCHWARZBEC K	9516F	9618	2023-08-16	2024-08-15
L.I.S.N.	ROHDE&SCHW ARZ	ENV216	101043	2023-08-16	2024-08-15
L.I.S.N.	SCHWARZBEC K	NSLK8126	8126-466	2023-08-16	2024-08-15

Radiated emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Bilog Antenna	SCHWARZBEC K	VULB 9168	VULB 9168#627	2023-08-28	2024-08-27
Spectrum analyzer	ROHDE&SCHW ARZ	ESR	1316.3003K03- 102082-Wa	2023-08-16	2024-08-15

3.1.3 Test Result:

TM1 / Line: L

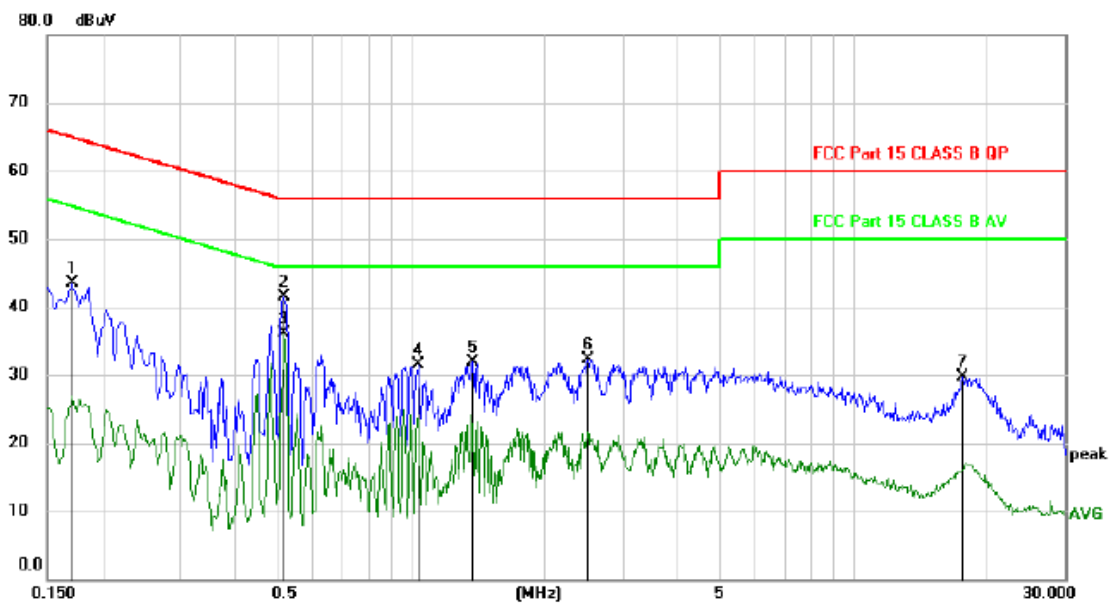


*:Maximum data x:Over limit !:over margin

(Reference Only)

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

TM1 / Line: N



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1710	33.56	9.93	43.49	64.91	-21.42	peak	
2		0.5130	31.48	9.95	41.43	56.00	-14.57	peak	
3	*	0.5160	26.19	9.95	36.14	46.00	-9.86	AVG	
4		1.0380	21.63	9.92	31.55	56.00	-24.45	peak	
5		1.3740	21.92	9.89	31.81	56.00	-24.19	peak	
6		2.5050	22.35	9.91	32.26	56.00	-23.74	peak	
7		17.6100	19.27	10.40	29.67	60.00	-30.33	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

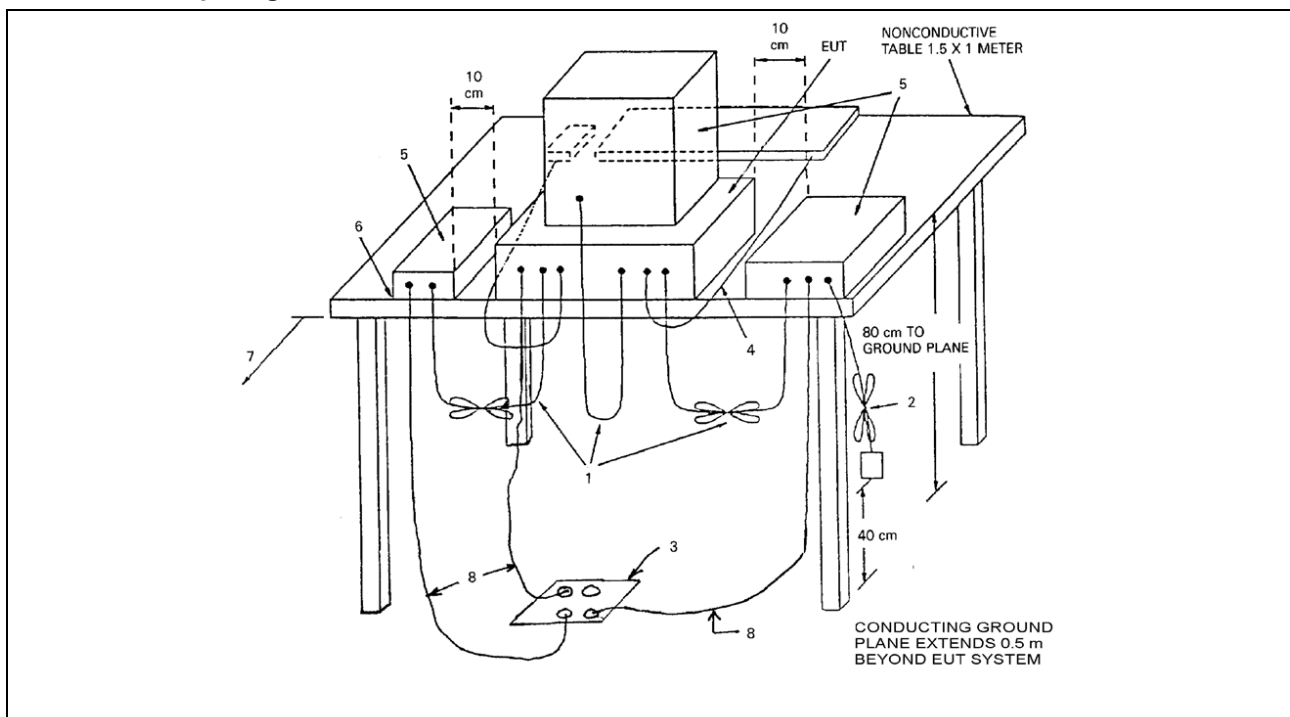
3.2 Radiated emissions (Below 1GHz)

Test Requirement:	15.109, Class B				
Test Limit:	The field strength of radiated emissions from a Class B digital device, as determined at a distance of 10 meters, shall not exceed the following:				
	Frequency of emission (MHz)	Field strength @10m		Field strength @3m	
		(uV/m)	(dBuV/m)	(uV/m)	(dBuV/m)
	30 – 88	100	40	30	29.5
	88 – 216	150	43.5	45	33.1
	216 – 960	200	46	60	35.6
	Above 960	500	54	150	43.5
Test Method:	ANSI C63.4				
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor				

3.2.1 E.U.T. Operation:

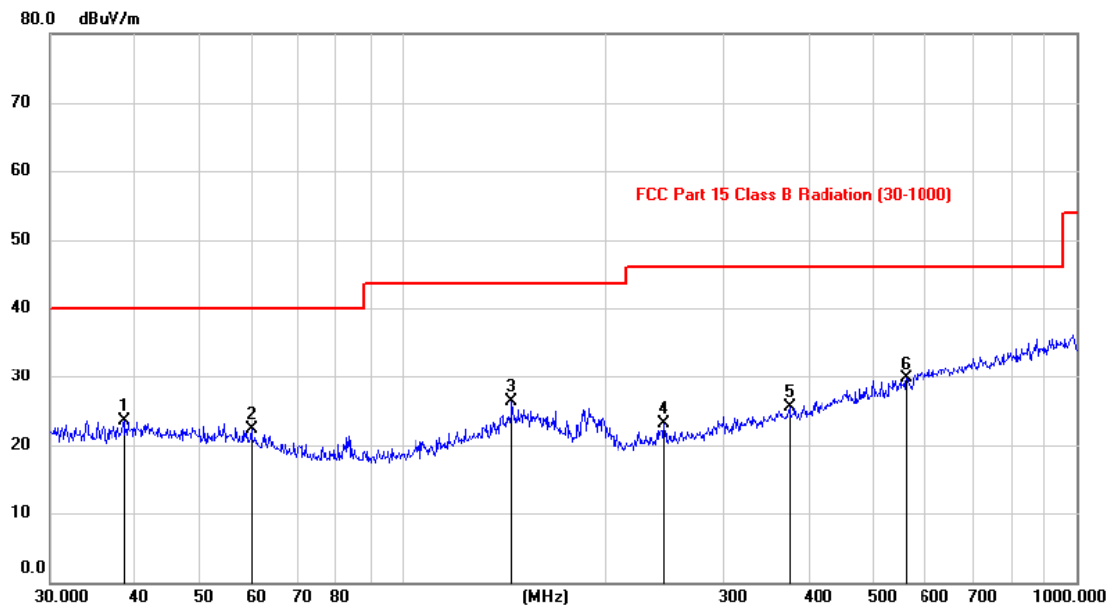
Operating Environment:					
Temperature:	23.2°C	Humidity:	56%	Atmospheric Pressure:	101.6 kPa
Pre test mode:	TM1, TM2, TM3, TM4, TM5, TM6				
Final test mode:	TM1, TM2				

3.2.2 Test Setup Diagram:



3.2.3 Test Result:

TM1 / Polarization: Horizontal

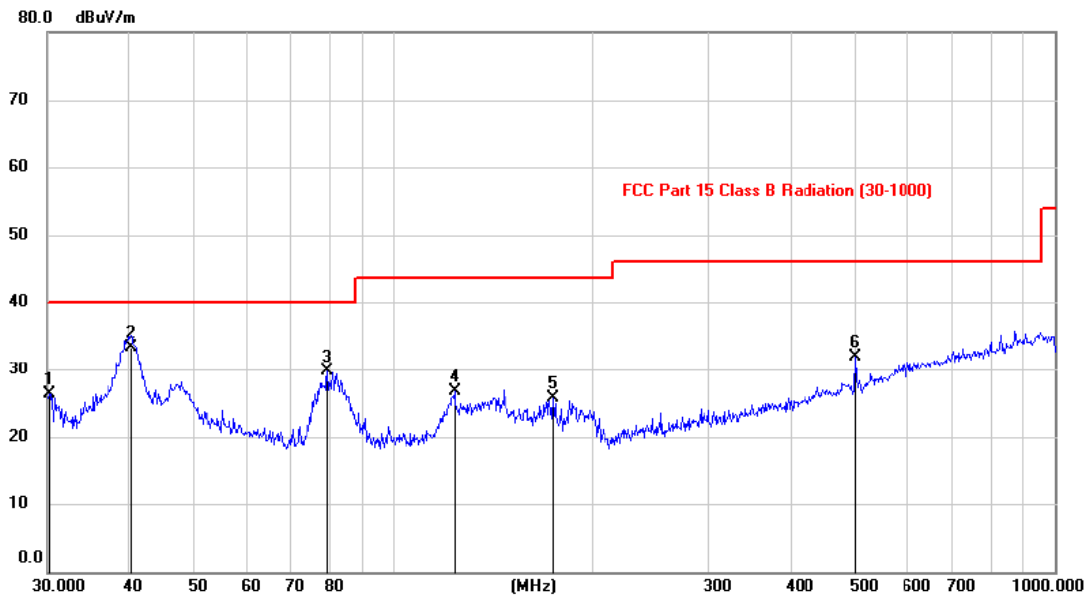


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		38.6884	9.17	14.35	23.52	40.00	-16.48	peak		
2		59.6702	9.07	13.25	22.32	40.00	-17.68	peak		
3		145.2826	11.53	14.70	26.23	43.50	-17.27	peak		
4		244.6893	10.48	12.66	23.14	46.00	-22.86	peak		
5		375.8506	9.61	15.81	25.42	46.00	-20.58	peak		
6	*	559.8415	10.37	19.37	29.74	46.00	-16.26	peak		

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

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

TM1 / Polarization: Vertical

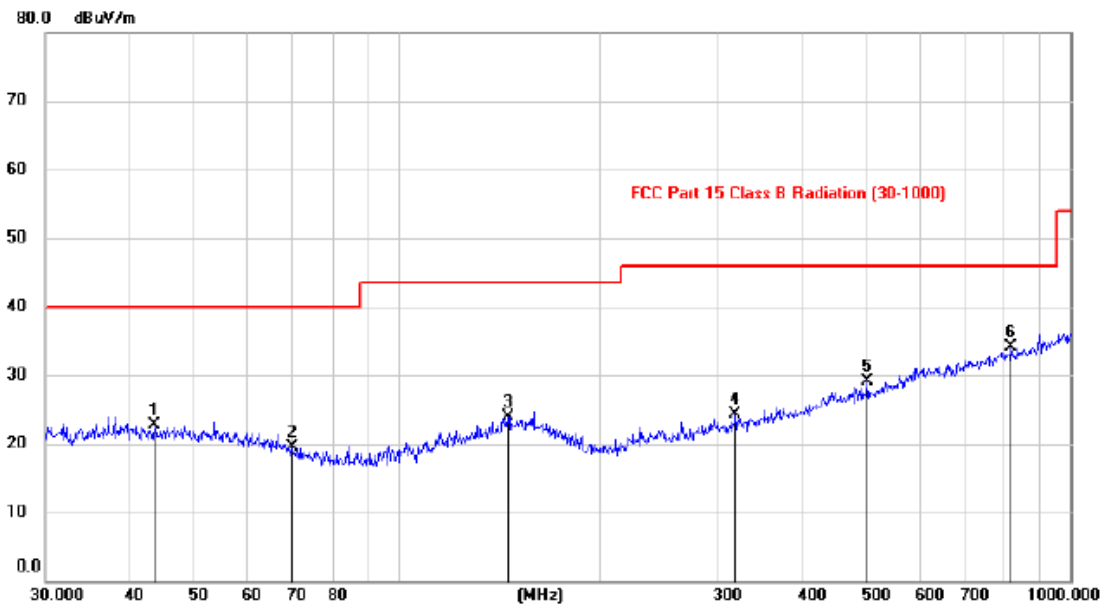


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		30.3173	12.77	13.54	26.31	40.00	-13.69	peak		
2	*	40.1488	18.82	14.45	33.27	40.00	-6.73	QP		
3		79.7071	19.90	9.89	29.79	40.00	-10.21	peak		
4		124.1185	13.46	13.27	26.73	43.50	-16.77	peak		
5		174.5668	12.25	13.44	25.69	43.50	-17.81	peak		
6		500.0088	13.68	18.21	31.89	46.00	-14.11	peak		

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

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

TM2 / Polarization: Horizontal

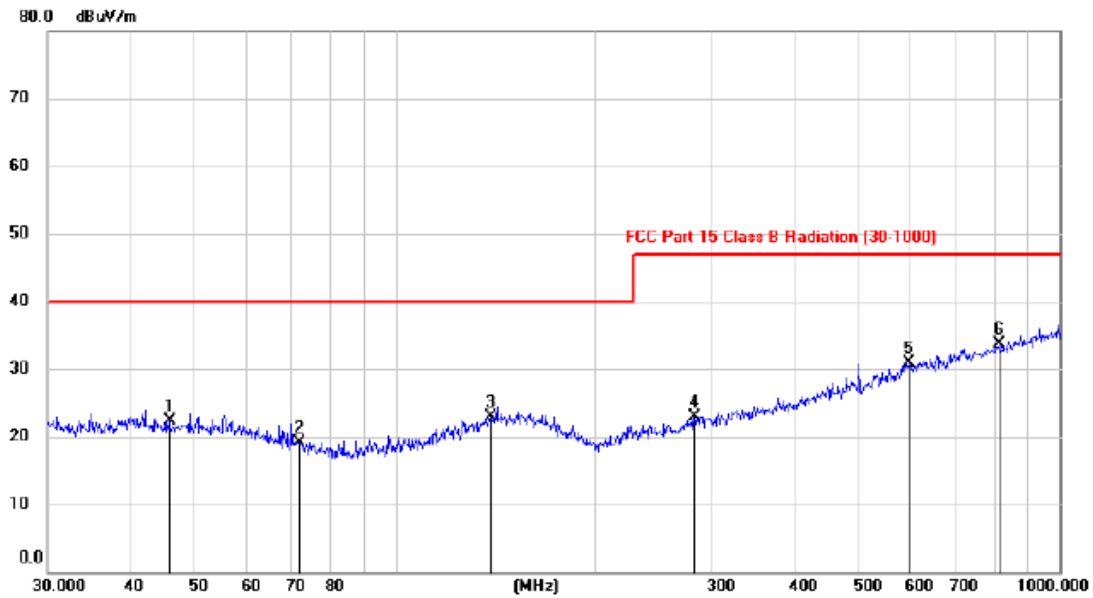


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		43.5923	8.50	14.23	22.73	40.00	-17.27	peak		
2		69.7226	8.04	11.42	19.46	40.00	-20.54	peak		
3		146.1513	9.18	14.77	23.95	43.50	-19.55	peak		
4		317.8496	9.65	14.57	24.22	46.00	-21.78	peak		
5		500.0088	10.84	18.21	29.05	46.00	-16.95	peak		
6	*	818.0687	10.91	23.12	34.03	46.00	-11.97	peak		

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

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

TM2 / Polarization: Vertical



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		45.8017	8.14	14.11	22.25	40.00	-17.75	peak		
2		71.9581	8.09	11.11	19.20	40.00	-20.80	peak		
3		139.5732	8.70	14.28	22.98	40.00	-17.02	peak		
4		282.6876	9.32	13.66	22.98	47.00	-24.02	peak		
5		593.1883	10.82	20.08	30.90	47.00	-16.10	peak		
6	*	812.8265	10.52	23.09	33.61	47.00	-13.39	peak		

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

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

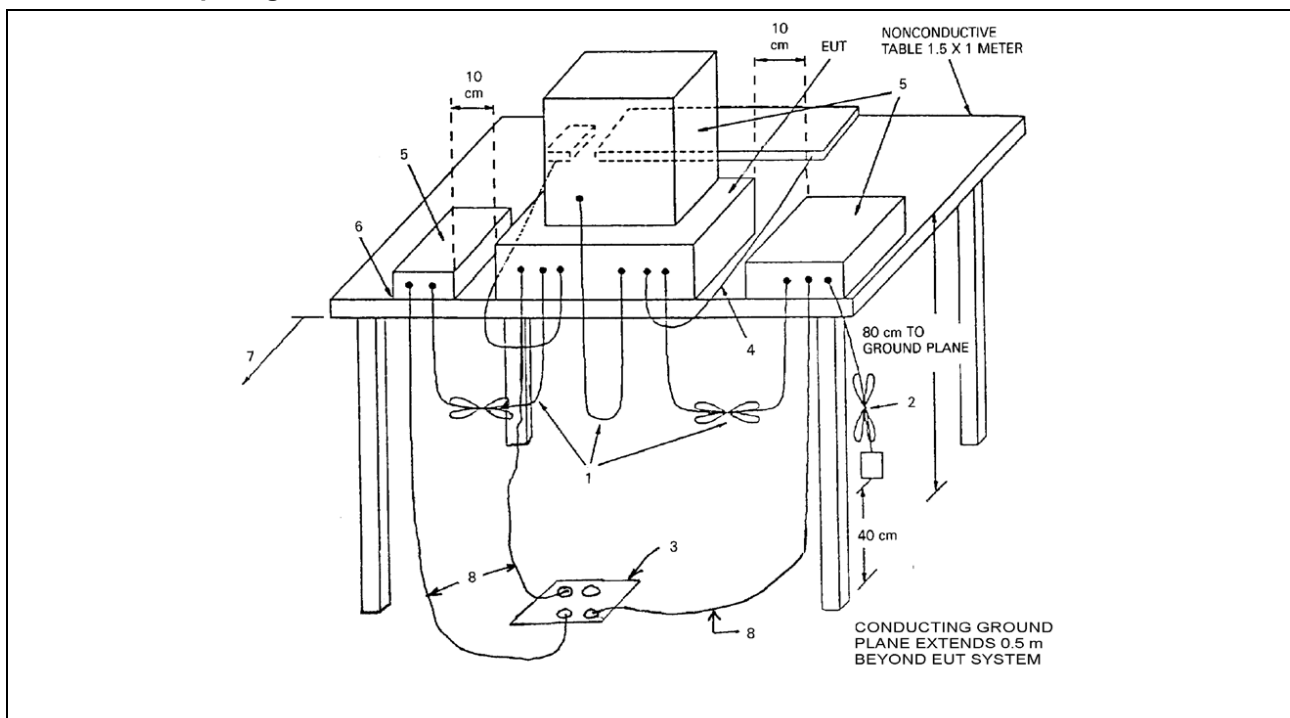
3.3 Radiated emissions (Above 1GHz)

Test Requirement:	15.109, Class B			
Test Limit:		Field strength @3m		
		Average (uV/m)	Average(dB uV/m)	Peak (dBuV/m)
	Above 1GHz	500	54	74
Test Method:	ANSI C63.4			
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. For below 1GHz test, Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. For above 1GHz test, Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor			

3.3.1 E.U.T. Operation:

Operating Environment:					
Temperature:	N/A	Humidity:	N/A	Atmospheric Pressure:	N/A
Pre test mode:	N/A				
Final test mode:	N/A				

3.3.2 Test Setup Diagram:

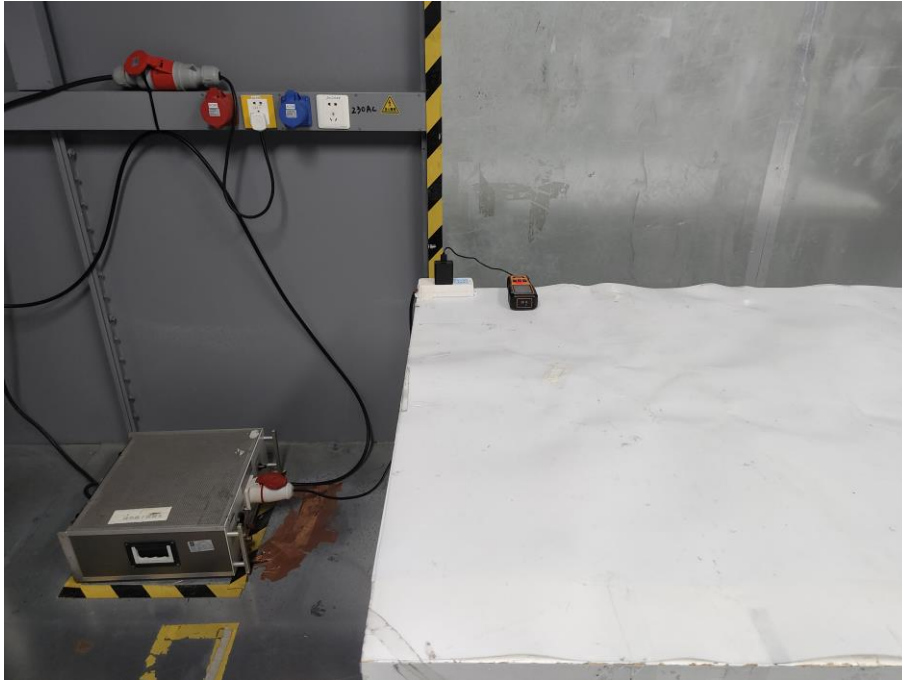


3.3.3 Test Result:

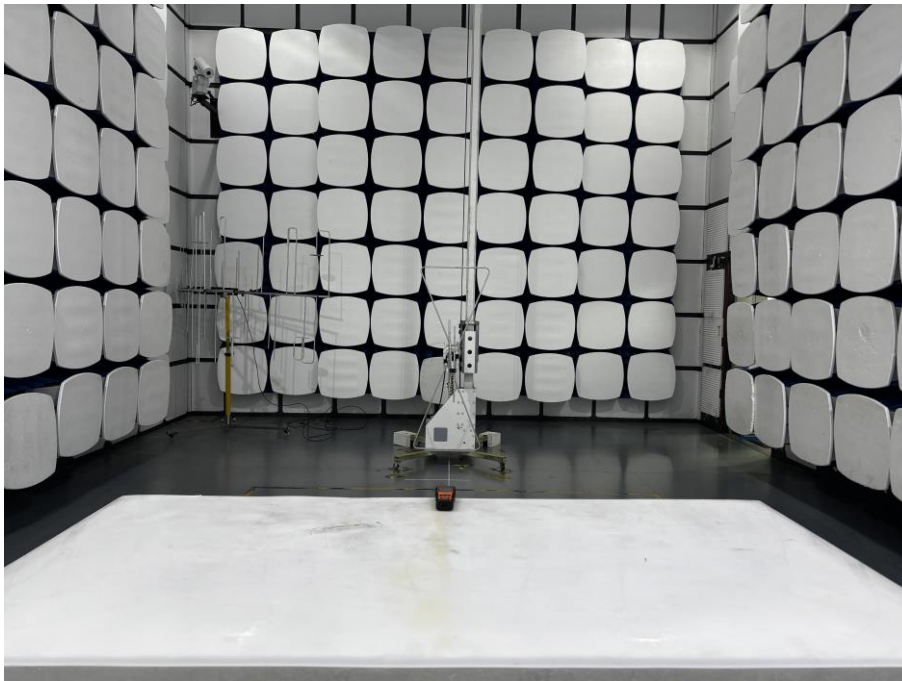
The highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. So the frequency above 1GHz radiation test not applicable.

4 Test Setup Photos

Conducted emissions on AC mains



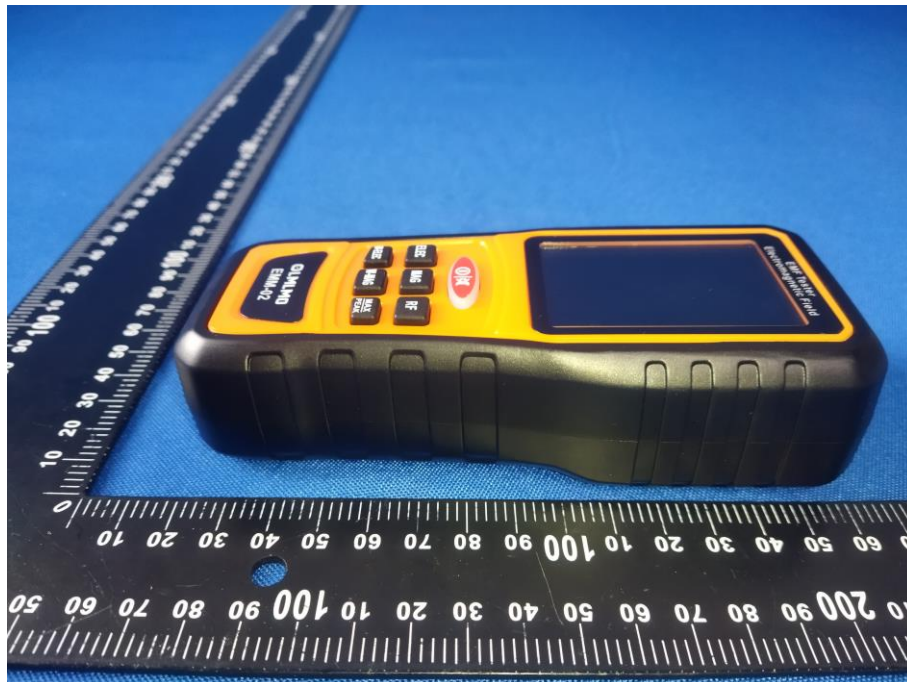
Radiated emissions (Below 1GHz)

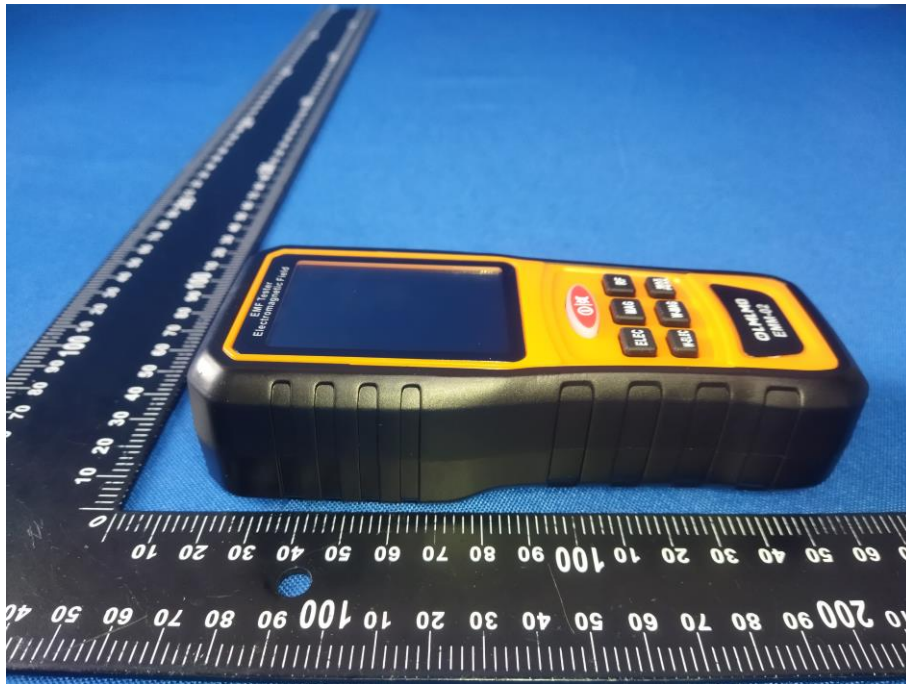


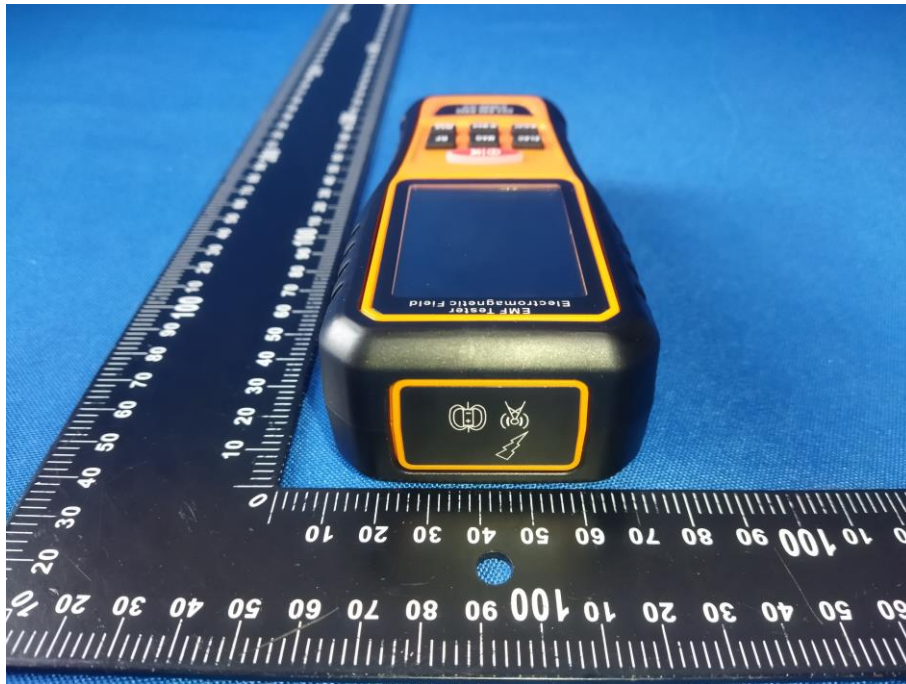
5 EUT Constructional Details (EUT Photos)

External





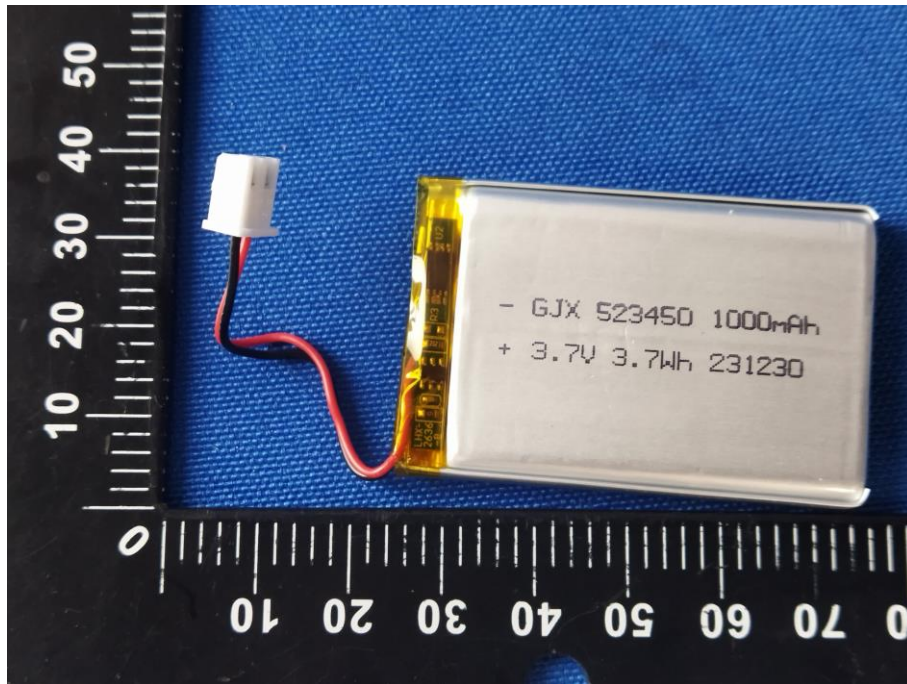


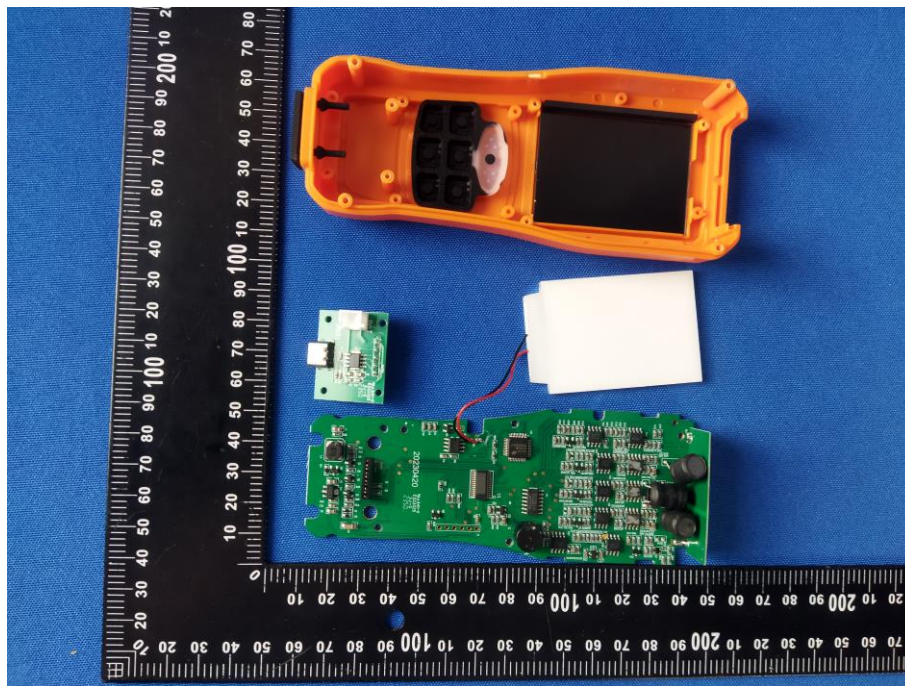
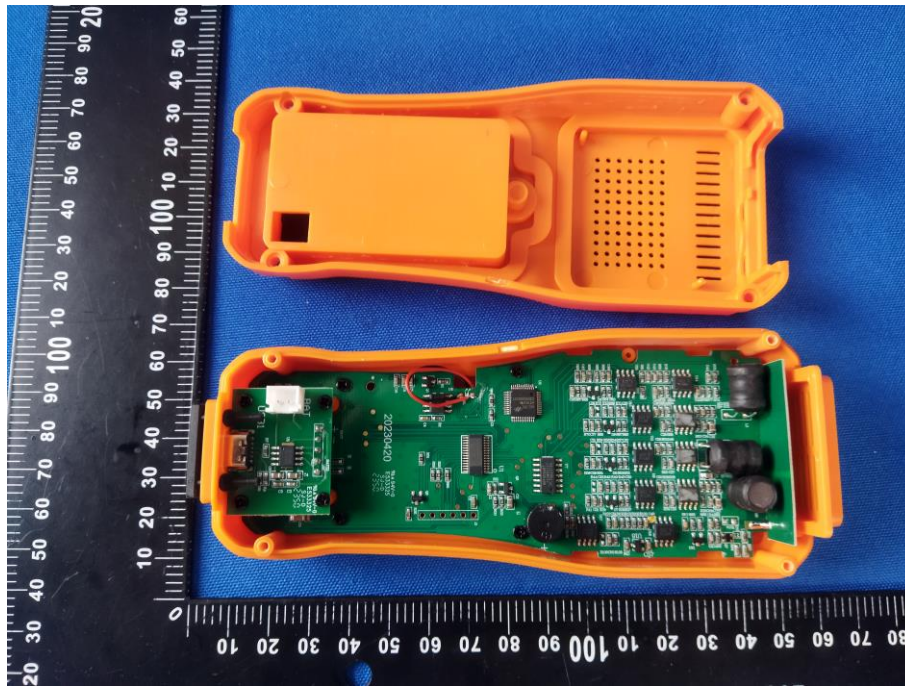


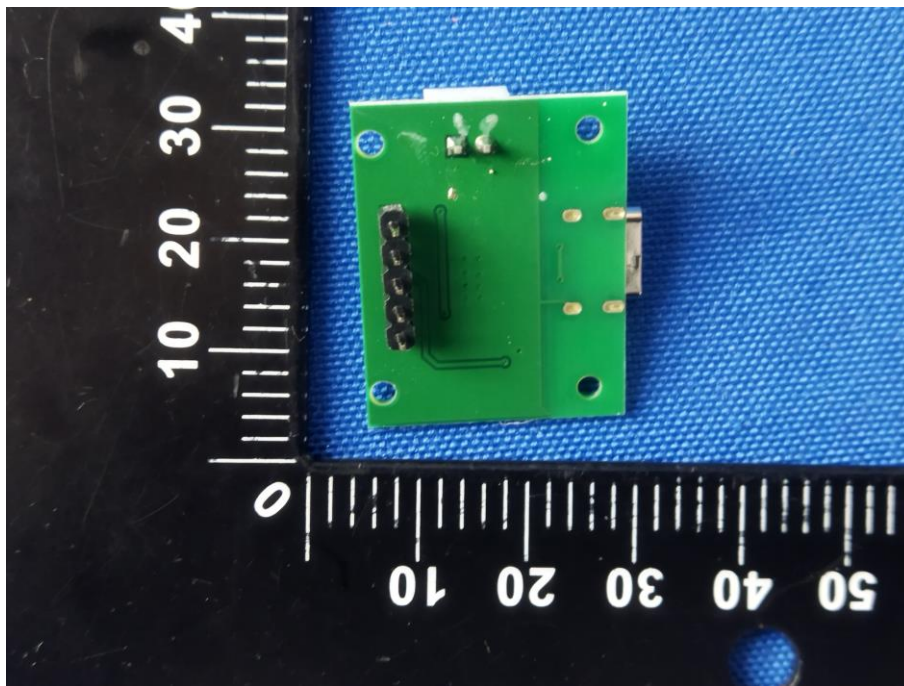
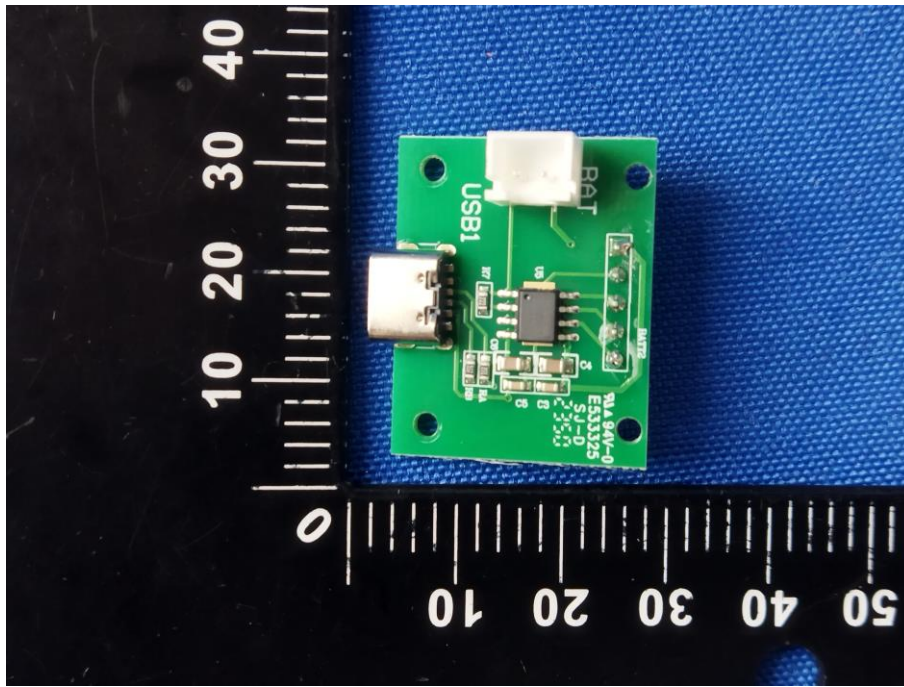


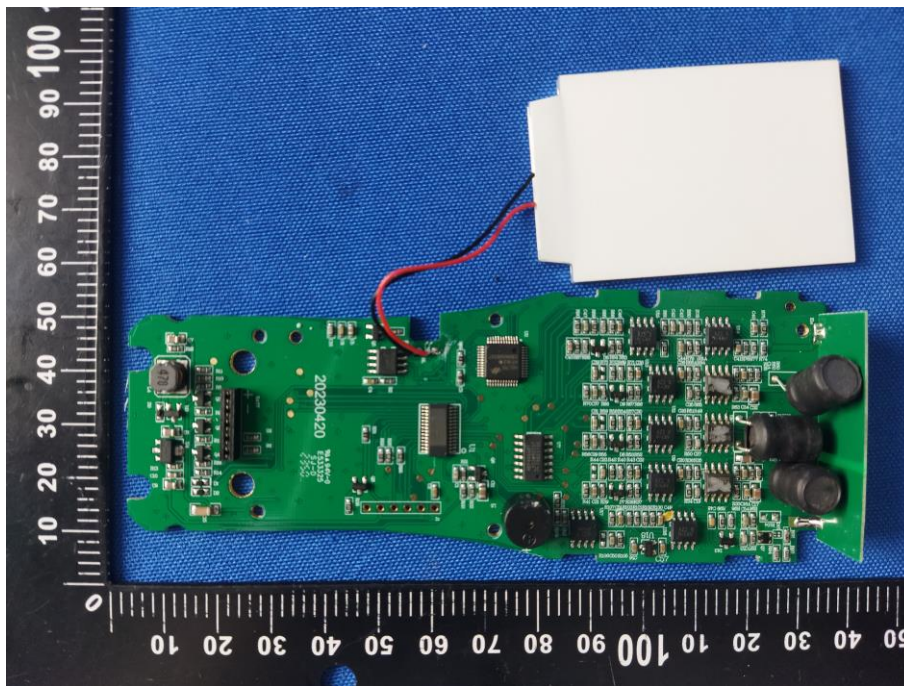
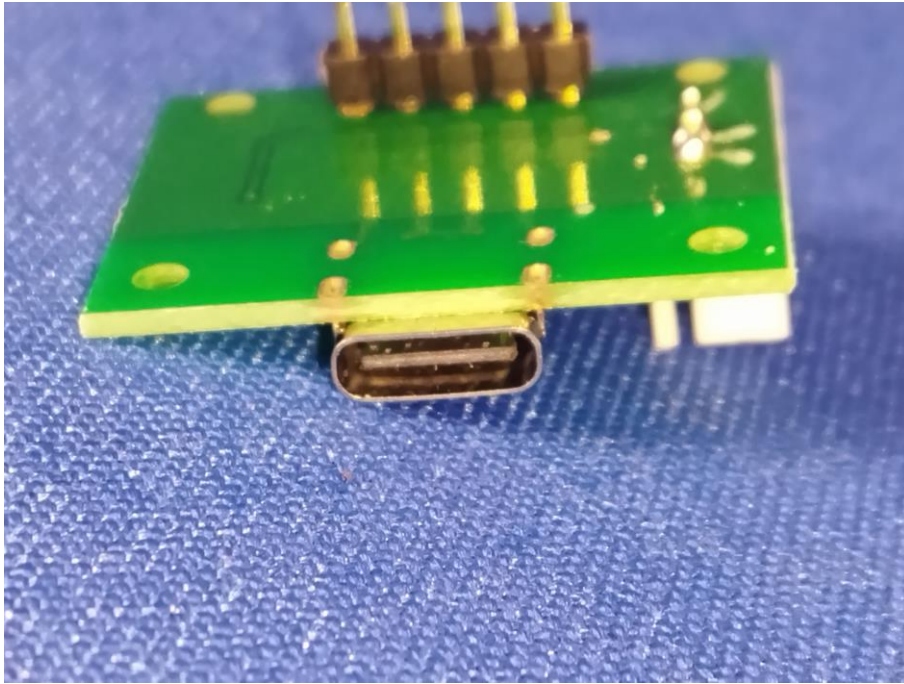
Internal

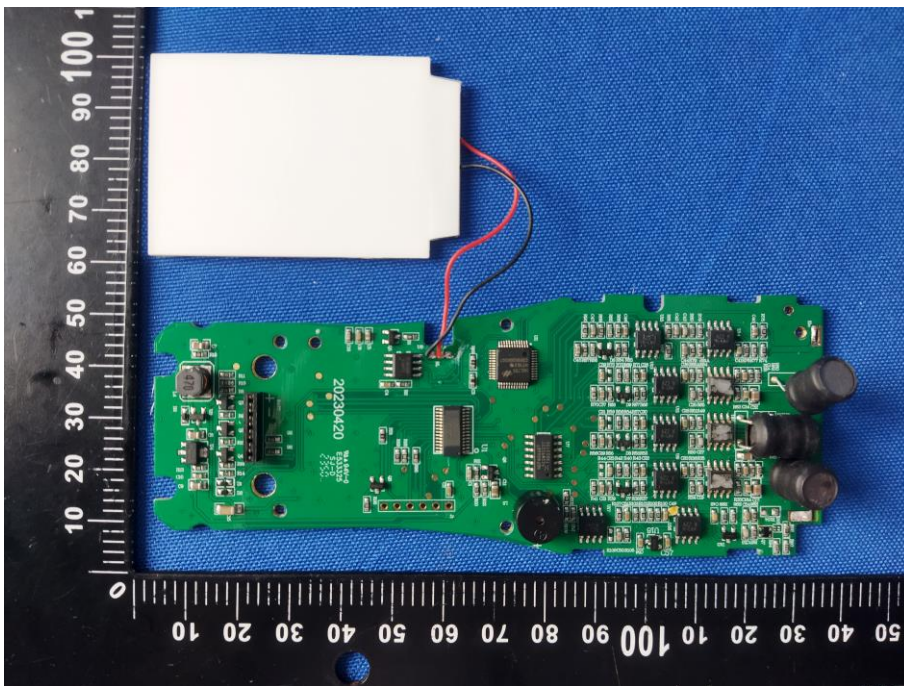
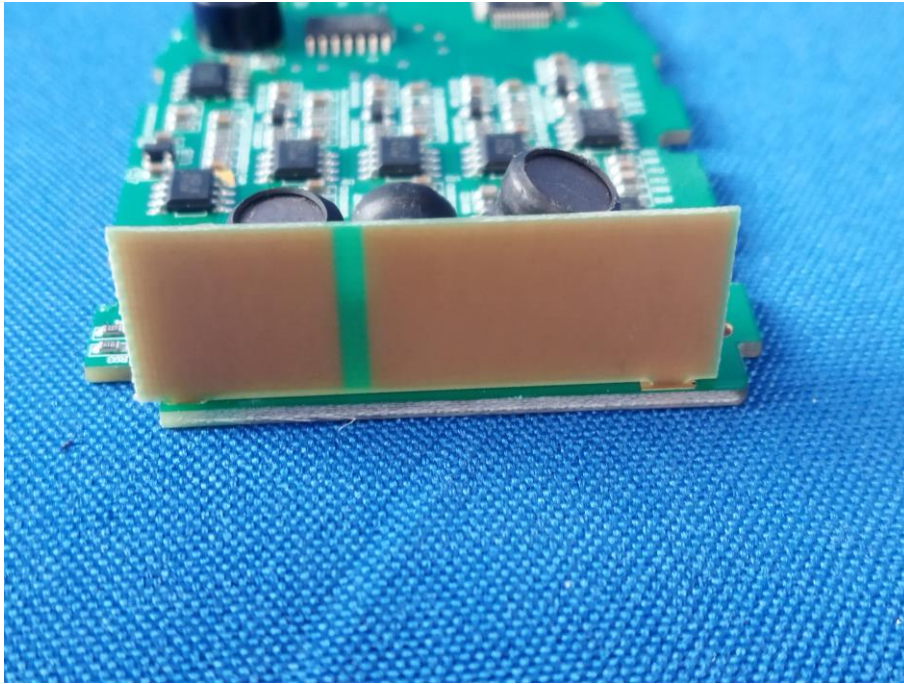


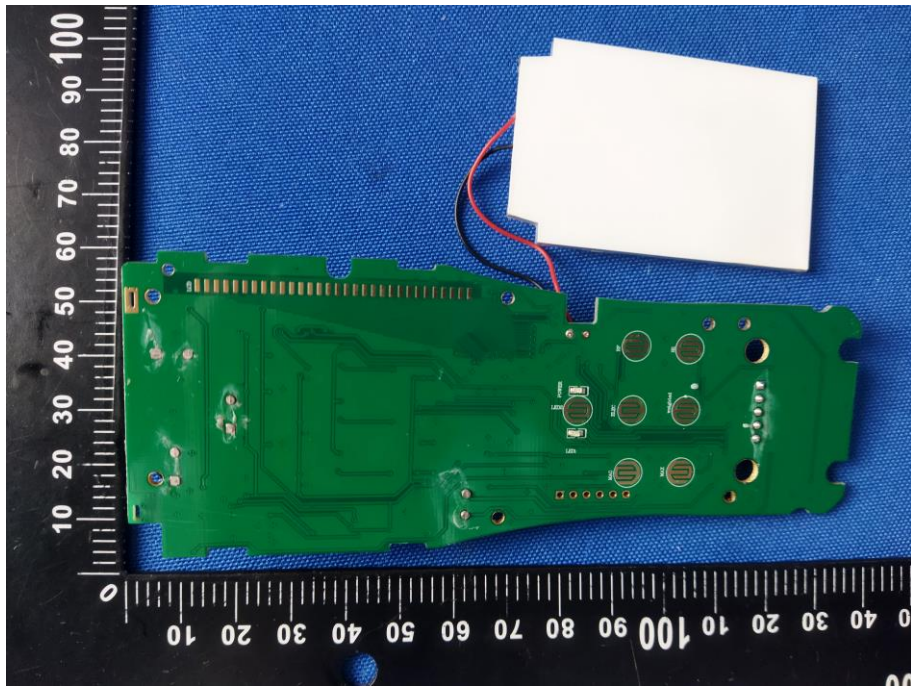


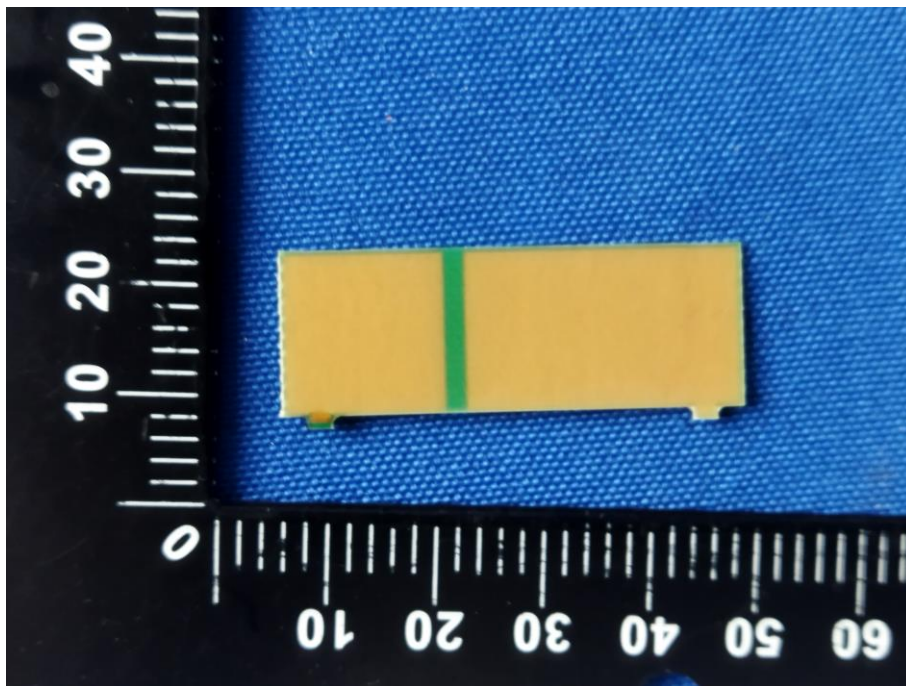
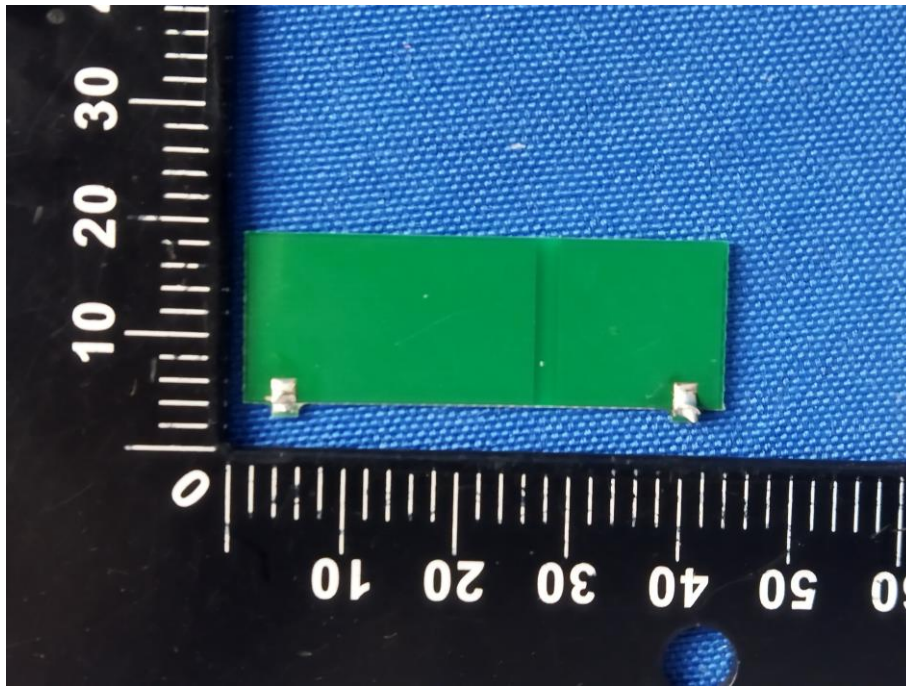












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