EMC TEST REPORT

Applicant	**:**	Mid Ocean Brands B.V.
Address of Applicant	**:**	Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Manufacturer	**:**	Mid Ocean Brands B.V.
Address of Manufacturer	**:**	Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Equipment under Test	**:**	Multifunctional COB Light
Model No.	**:**	MO2834
Test Standard(s)	**:**	EN IEC 55015:2019+A11:2020 EN IEC 61547:2023
Report No.	**:**	A2509199-C01-R01
Issue Date	**:**	2025/09/26
Issued By	**:**	Shenzhen Alpha Product Testing Co., Ltd. Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen City, Guangdong Province, P.R. China.

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Test Report Declare

Applicant	:	Mid Ocean Brands B.V.
Address	:	Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Manufacturer	:	Mid Ocean Brands B.V.
Address	:	Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Equipment under Test	:	Multifunctional COB Light
Model No.	:	MO2834
Trade Mark	:	/

Test Standard Used:
EN IEC 55015:2019+A11:2020
EN IEC 61547:2023

We Declare:
The equipment described above is tested by Shenzhen Alpha Product Testing Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Report No.:	A2509199-C01-R01		
Date of Receipt:	2025/09/20	**Date of Test:**	2025/09/20-2025/09/25

Prepared By:

Lily Wang

Lily Wang/Engineer

Approved By:

Jack Xu/EMC Manager

Note: 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.

Revision History

Rev.	Revisions	Issue Date	Revised By
V0	Initial issue	2025/09/26	Lily Wang

1. Summary of Test Results

EMISSION (EMI)			
Description of Test Item	**Standard**	**Result**	**Memo**
Conducted disturbance at mains terminals	EN IEC 55015:2019+A11:2020	**PASS**	/
Radiated emissions test (9 kHz-30 MHz)	EN IEC 55015:2019+A11:2020	**PASS**	/
Radiated emissions test (30 MHz-1000MHz)	EN IEC 55015:2019+A11:2020	**PASS**	/
IMMUNITY (EMS)			
Description of Test Item	**Standard**	**Result**	**Memo**
Electrostatic Discharge Test	EN IEC 61547:2023, IEC 61000-4-2:2008	**PASS**	/
Continuous Radio Frequency Disturbances Test	EN IEC 61547:2023, IEC 61000-4-3:2020	**PASS**	/

Note 1: N/A or / is an abbreviation for Not Applicable, and means this item is not applicable for this device or no need to test according to standard.

Note 2: For the EMI measurements have made the EUT operated in a mode producing the highest emission level, and attempted to vary the configuration of the EUT radiated the highest emission. For the EMS measurements have made the EUT operated in the most sensitive mode.

2. General Test Information

2.1. Description of EUT

EUT* Name	:	Multifunctional COB Light
Model Number	:	MO2834
Difference of model number	:	/
EUT Function Description	:	Please reference user manual of this device
EUT Information	:	DC 5V From Adapter
EUT Class (Only For EMI)	:	/
Maximum Work Frequency	:	<108MHz
Sample Number	:	A2509199-S0001

Note 1: EUT is the abbreviation of equipment under test.
Note 2: "☒" means to be chosen or applicable; "☐" means don't to be chosen or not applicable; This note applies to entire report.

2.2. Primary function of EUT

Function	Description
☒/	/

2.3. Port of EUT

Port	Description
☒Type-C	N/A

2.4. Accessories of EUT

Accessories	Manufacturer	Model number	Description
/	/	/	/

2.5. Test mode description

Mode 1	Charging + Lighting (MAX)	DC 5V From Adapter
Mode 2	Charging + Lighting (MIN)	DC 5V From Adapter
Mode 3	Charging	DC 5V From Adapter
Mode 4	Lighting (MAX)	DC 3.7V From Battery
Mode 5	Lighting (MIN)	DC 3.7V From Battery

2.6. Decision of final test mode

According pre-test, the worst test modes were reported as below.

Emission	Conducted disturbance at mains terminals	Mode 1: Charging + Lighting (MAX)
	Radiated emissions test (9 kHz-30 MHz)	Mode 1: Charging + Lighting (MAX)
	Radiated emissions test (30 MHz-1000MHz)	Mode 1: Charging + Lighting (MAX)
Immunity	Electrostatic Discharge Test	Mode 1: Charging + Lighting (MAX)
	Continuous Radio Frequency Disturbances Test	Mode 1: Charging + Lighting (MAX)

2.7. Deviations of test standard

No deviation.

2.8. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	20-25℃
Humidity range:	40-75%
Pressure range:	86-106 kPa

Note: The specific temperature and humidity information of each test item refers to the temperature and humidity record in the corresponding test data.

2.9. Test laboratory

Shenzhen Alpha Product Testing Co., Ltd.
Add.: Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen City, Guangdong Province, P.R. China.
Tel.: 4008-3008-95, Website: http://www.a-lab.cn, Email: service@a-lab.cn

2.10. Measurement uncertainty

Test Item	Uncertainty
Uncertainty in conducted measurements	1.63dB
Uncertainty for radiation emission test(30 MHz-1 GHz)	3.74 dB (Distance: 3m Polarize: V)
	3.76 dB (Distance: 3m Polarize: H)
Uncertainty for radiation disturbance test (1 GHz to 18 GHz)	3.77 dB (Distance: 3m Polarize: V)
	3.80 dB (Distance: 3m Polarize: H)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

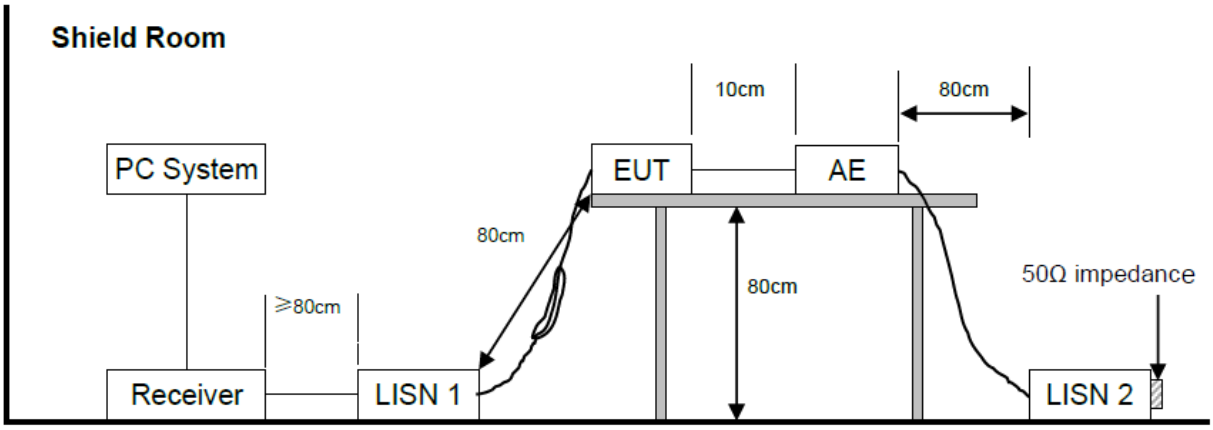
3. Conducted disturbance at mains terminals

3.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal Due To
Test Receiver	ROHDE&SCHWARZ	ESCI	Aa-EE005	2025/08/04	2026/08/03
L.I.S.N.	SCHWARZBECK	NSLK8126	Aa-EE003	2025/08/04	2026/08/03
Pulse Limiter	SCHWARZBECK	9516F	Aa-EE004	2025/08/04	2026/08/03
DC LISN	SCHWARZBECK	NNHV 8123-200	Aa-EE106	2025/03/06	2026/03/05
DC LISN	SCHWARZBECK	NNHV 8123-200	Aa-EE107	2025/03/06	2026/03/05
ISN	SCHWARZBECK	CAT3 8158	Aa-EE096	2025/03/06	2026/03/05
ISN	SCHWARZBECK	NTFM 8158	Aa-EE097	2025/03/06	2026/03/05
ISN	SCHWARZBECK	CAT5 8158	Aa-EE099	2025/03/06	2026/03/05

3.2. Block diagram of test setup

For table-top equipment



3.3. Limits

Frequency	At mains terminals (dBμV)	
	Quasi-peak Level	Average Level
9 kHz~50 kHz	110	--
50 kHz~150 kHz	90 ~ 80*	--
150 kHz~0.5 MHz	66 ~ 56*	56 ~ 46*
0.5 MHz~2.51 MHz	56	46
2.51 MHz~3.0 MHz	73*	63*
3.0 MHz~5.0 MHz	56	46
5.0 MHz~30 MHz	60	50
Note 1: Decreasing linearly with logarithm of frequency. Note 2: The lower limit shall apply at the transition frequencies.		

3.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description
AC Adapter	Shenzhen HUONIU Technology Co., Ltd.	HNFCQC3024UU	/

3.5. Test procedure

(1) The EUT placement requires reference to the test block diagram and is placed on a non-metallic table.
(2) Setup the EUT and assistant equipment as shown above block diagram and equipment list.
(3)The EUT's power was connected to the power mains through a line impedance stabilization network (L.I.S.N). Which this provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted disturbance. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to EN IEC 55015 on conducted disturbance emission test.
(4)The bandwidth of test receiver is set at 200 Hz for 9 kHz to 150 kHz measure and 10 kHz for 150 kHz to 30 MHz measure.
(5)The frequency range from9 kHz to 30 MHz is checked.

3.6. Test result

PASS. (See below detailed test result)

Note 1: All emissions not reported below are too low against the prescribed limits.
Note 2: "-----" means Peak detection; "-----" means Average detection.

3.7. Test data

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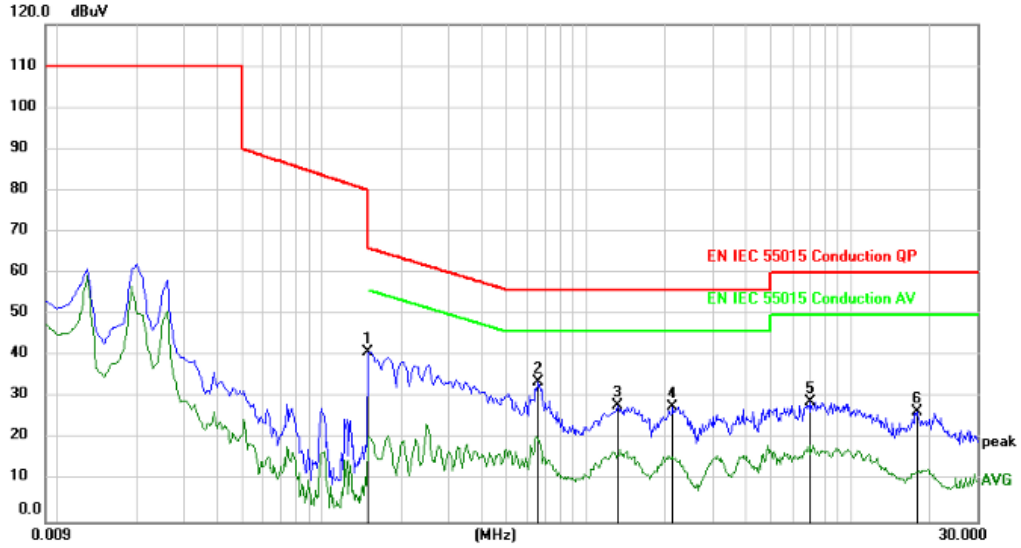
SHENZHEN ALPHA PRODUCT TESTING CO.,LTD.
深圳阿尔法商品检验有限公司
Shenzhen Alpha Product Testing Co.,Ltd.
地址: ALPHA 广东省深圳市宝安区福永街道立新路 2 号 i 栋
TEL: 4008-3008-95

Site LAB	Phase: L1	Temperature:	23.7
Limit: EN IEC 55015 Conduction QP	Power: DC 5V From Adapter	Humidity:	52 %
EUT/Task No : A2509199-C01			
M/N/Sample No: A2509199-S0001			
Mode : Mode 1			
Note:			
Engineer Signature:			

Lily Wang

Conducted Emission Measurement

File :A2509199-C01 Data :#1 Date: 2025/9/22 Time: 10:34:10



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	31.11	9.94	41.05	66.00	-24.95	peak	
2	*	0.6540	23.76	9.93	33.69	56.00	-22.31	peak	
3		1.3204	18.04	9.90	27.94	56.00	-28.06	peak	
4		2.1204	17.78	9.88	27.66	56.00	-28.34	peak	
5		7.0605	18.83	10.12	28.95	60.00	-31.05	peak	
6		17.7405	16.15	10.41	26.56	60.00	-33.44	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

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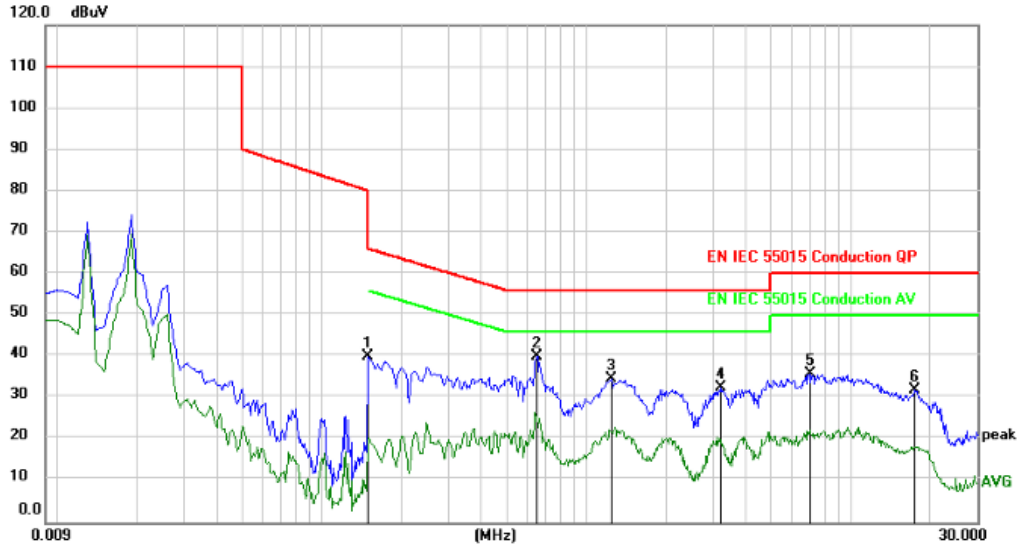
地址: ALPHA 广东省深圳市宝安区福永街道立新路 2 号 i 栋
TEL: 4008-3008-95

Site LAB	Phase:	N	Temperature: 23.7
Limit: EN IEC 55015 Conduction QP	Power:	DC 5V From Adapter	Humidity: 52 %
EUT/Task No : A2509199-C01			
M/N/Sample No: A2509199-S0001			
Mode : Mode 1			
Note:			
Engineer Signature:			

Lily Wang

Conducted Emission Measurement

File :A2509199-C01 Data :#2 Date: 2025/9/22 Time: 10:35:33

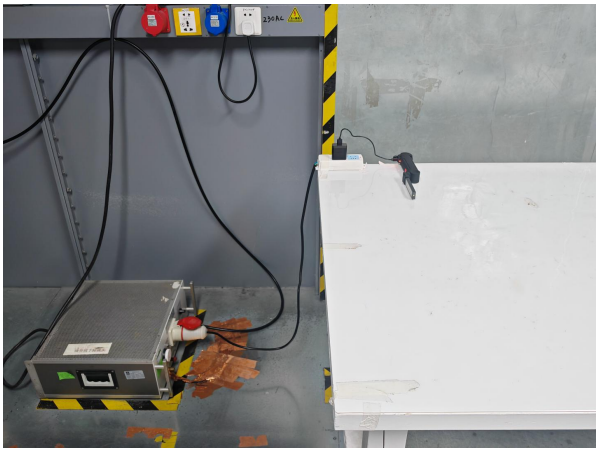


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	30.04	9.94	39.98	66.00	-26.02	peak	
2	*	0.6495	30.22	9.92	40.14	56.00	-15.86	peak	
3		1.2405	24.65	9.90	34.55	56.00	-21.45	peak	
4		3.2405	22.53	9.96	32.49	56.00	-23.51	peak	
5		6.9805	25.61	10.12	35.73	60.00	-24.27	peak	
6		17.3205	21.59	10.39	31.98	60.00	-28.02	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

3.8. Test photo

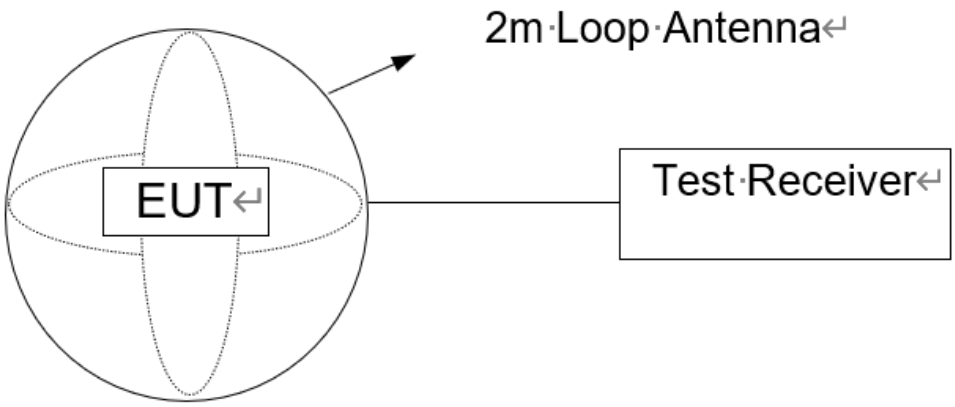
	/
CE 150KHz-30MHz	/

4. Radiated emissions test (9 kHz-30 MHz)

4.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal Due To
TRIPLE-LOOP ANTENNA	EVERFINE	LLA-2	Aa-EE008	2025/08/04	2026/08/03
Test Receiver	ROHDE&SCHWARZ	ESPI	Aa-EE002	2025/08/04	2026/08/03

4.2. Block diagram of test setup



4.3. Limits

Frequency	Limits for loop diameter (dBμA)
	2m
9 kHz~70 kHz	88
70 kHz~150 kHz	88 ~ 58*
150 kHz~2.2 MHz	58 ~ 26*
2.2 MHz~3.0 MHz	58
3.0 MHz~30 MHz	22
Notes: 1. * Decreasing linearly with logarithm of frequency. 2. The lower limit shall apply at the transition frequencies.	

4.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description
AC Adapter	Shenzhen HUONIU Technology Co., Ltd.	HNFCQC3024UU	/

4.5. Test procedure

The EUT placement requires reference to the test block diagram and is placed on a non-metallic table in shielded room.
Connect ISN directly to reference ground plane.
The measured voltage at the measurement port of the ISN should correct the reading by adding the voltage division factor of the ISN, and compare to the voltage limit.
For Local Area Network (LAN) device, in order to make reliable emission measurements representative of high LAN utilization it is only necessary to create a condition of LAN utilization in excess of 10 % and sustain that level for a minimum of 250 ms. The content of the test traffic should consist of both periodic and pseudo-random messages in order to emulate realistic types of data transmission (e.g. random: files compressed or encrypted; periodic: uncompressed graphic files, memory dumps, screen updates, disk images). If the LAN maintains transmission during idle periods measurements shall also be made during idle periods.
When disturbance voltage measurements are performed on a single unscreened balanced pair, an adequate ISN for two wires shall be used; when performed on unscreened cables containing two balanced pairs, an adequate ISN for four wires shall be used.

4.6. Test result

PASS. (See below detailed test result)
Note 1: All emissions not reported below are too low against the prescribed limits.
Note 2: "-----" means Peak detection; "-----" means Average detection.

4.7. Test data

深圳阿尔法商品检验有限公司
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深圳阿尔法商品检验有限公司
Shenzhen Alpha Product Testing Co.,Ltd.
地址: ALPHA 广东省深圳市宝安区福永街道立新路 2 号 i 栋
TEL: 4008-3008-95

Site LAB 966 Chamber 2
Limit: EN IEC 55015 EM-2M
EUT/Task No : A2509199-C01
M/N/Sample No: A2509199-S0001
Mode : Mode 1
Note:
Engineer Signature:

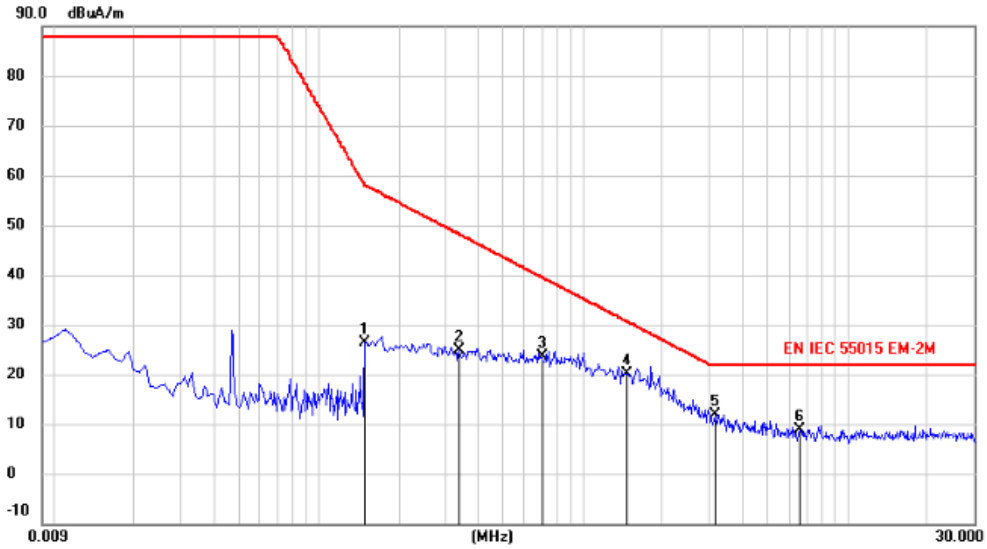
Polarization: X
Power: DC 5V From Adapter
Distance: 3m

Temperature: 23.2
Humidity: 56 %

Lily Wang

Radiated Emission Measurement

File :A2509199-C01 Data :#1 Date: 2025/9/22 Time: 9:07:58



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuA/m	dB	dBuA/m	dBuA/m	dB	Detector	cm	degree	Comment
1		0.1500	26.47	0.02	26.49	58.00	-31.51	peak			
2		0.3390	24.85	0.03	24.88	48.20	-23.32	peak			
3		0.6990	23.49	0.05	23.54	39.51	-15.97	peak			
4		1.4605	19.97	0.07	20.04	30.65	-10.61	peak			
5	*	3.1605	11.80	0.10	11.90	22.00	-10.10	peak			
6		6.6005	8.74	0.16	8.90	22.00	-13.10	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

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地址: ALPHA 广东省深圳市宝安区福永街道立新路 2 号 i 栋
TEL: 4008-3008-95

Site LAB 966 Chamber 2
Limit: EN IEC 55015 EM-2M
EUT/Task No : A2509199-C01
M/N/Sample No: A2509199-S0001
Mode : Mode 1
Note:
Engineer Signature:

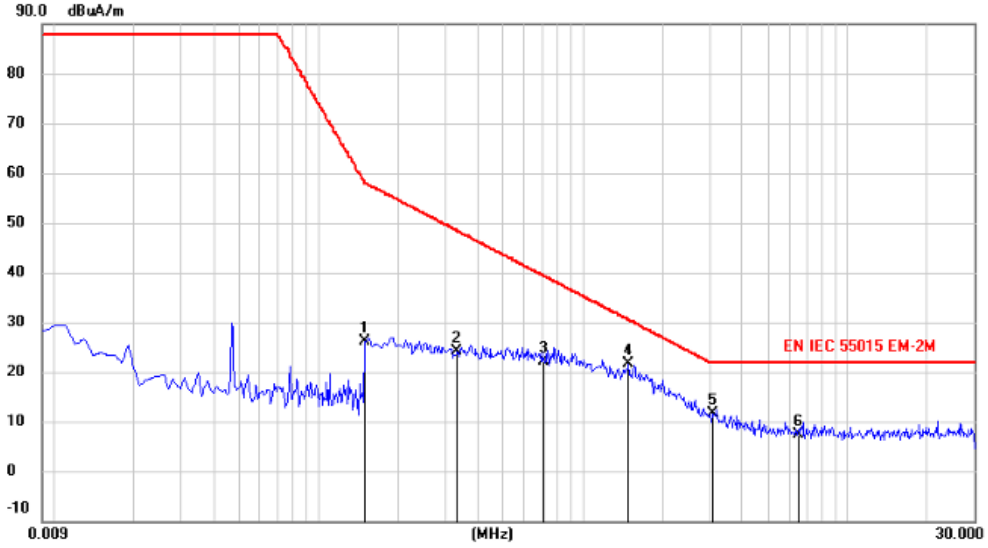
Polarization: Y
Power: DC 5V From Adapter
Distance: 3m

Temperature: 23.2
Humidity: 56 %

Lily Wang

Radiated Emission Measurement

File :A2509199-C01 Data :#2 Date: 2025/9/22 Time: 9:10:02



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuA/m	dB	dBuA/m	dBuA/m	dB	Detector	cm	degree	Comment
1		0.1500	26.16	0.02	26.18	58.00	-31.82	peak			
2		0.3345	24.09	0.03	24.12	48.36	-24.24	peak			
3		0.7035	22.00	0.05	22.05	39.43	-17.38	peak			
4	*	1.4805	21.67	0.07	21.74	30.49	-8.75	peak			
5		3.0805	11.52	0.10	11.62	22.00	-10.38	peak			
6		6.4405	7.23	0.16	7.39	22.00	-14.61	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

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TEL: 4008-3008-95

Site LAB 966 Chamber 2
Limit: EN IEC 55015 EM-2M
EUT/Task No : A2509199-C01
M/N/Sample No: A2509199-S0001
Mode : Mode 1
Note:
Engineer Signature:

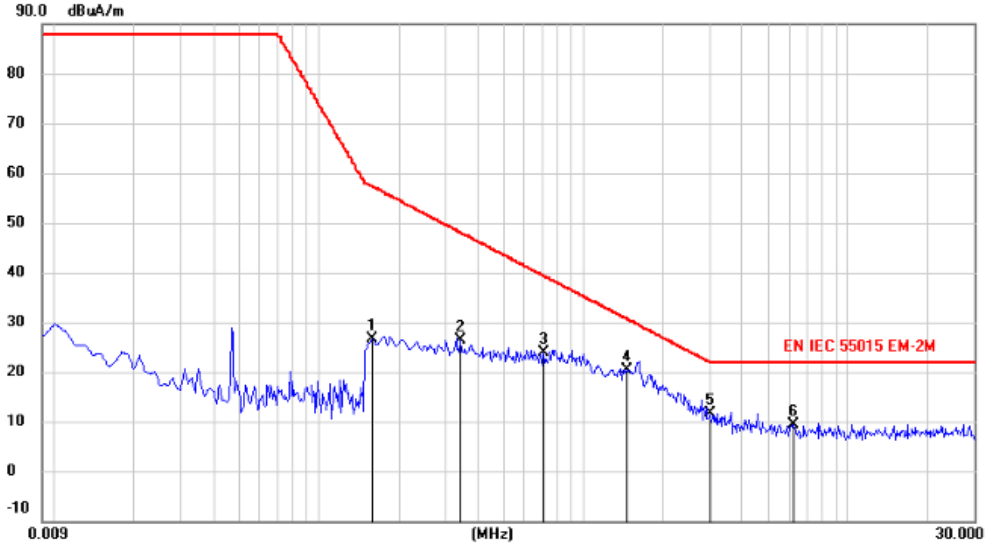
Polarization: Z
Power: DC 5V From Adapter
Distance: 3m

Temperature: 23.2
Humidity: 56 %

Lily Wang

Radiated Emission Measurement

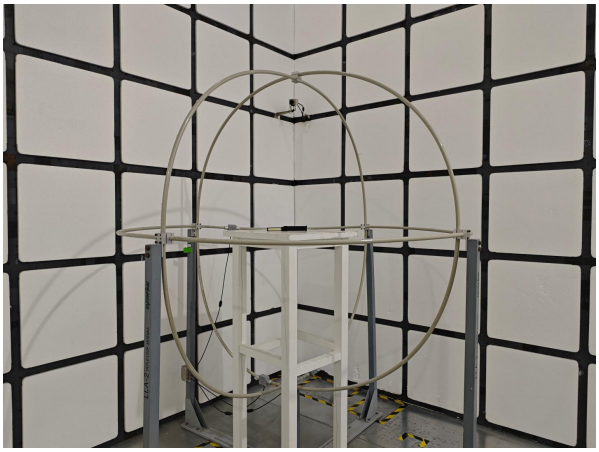
File :A2509199-C01 Data :#3 Date: 2025/9/22 Time: 9:11:51



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuA/m	dB	dBuA/m	dBuA/m	dB	Detector	cm	degree	Comment
1		0.1590	26.58	0.02	26.60	57.30	-30.70	peak			
2		0.3435	26.33	0.03	26.36	48.04	-21.68	peak			
3		0.7080	23.85	0.05	23.90	39.35	-15.45	peak			
4	*	1.4605	20.39	0.07	20.46	30.65	-10.19	peak			
5		3.0205	11.56	0.10	11.66	22.00	-10.34	peak			
6		6.2204	9.17	0.15	9.32	22.00	-12.68	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

4.8. Test photo

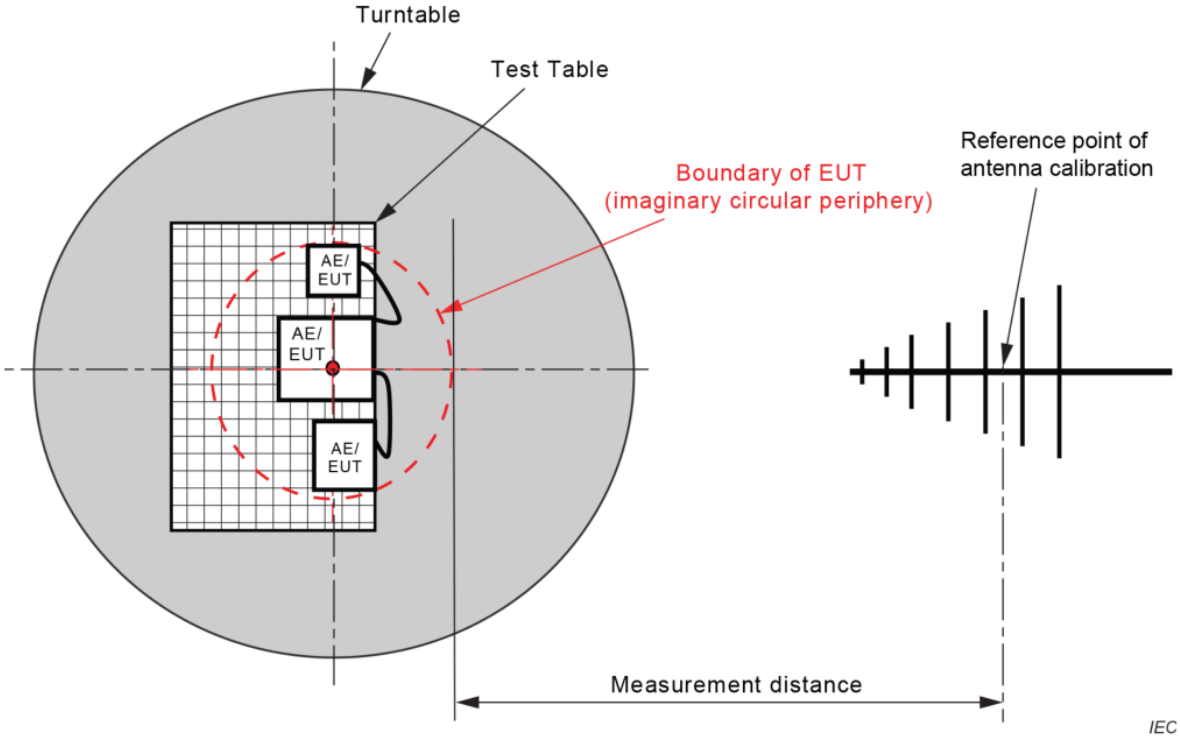
	/
EMF Test	/

5. Radiated emissions test (30 MHz-1000MHz)

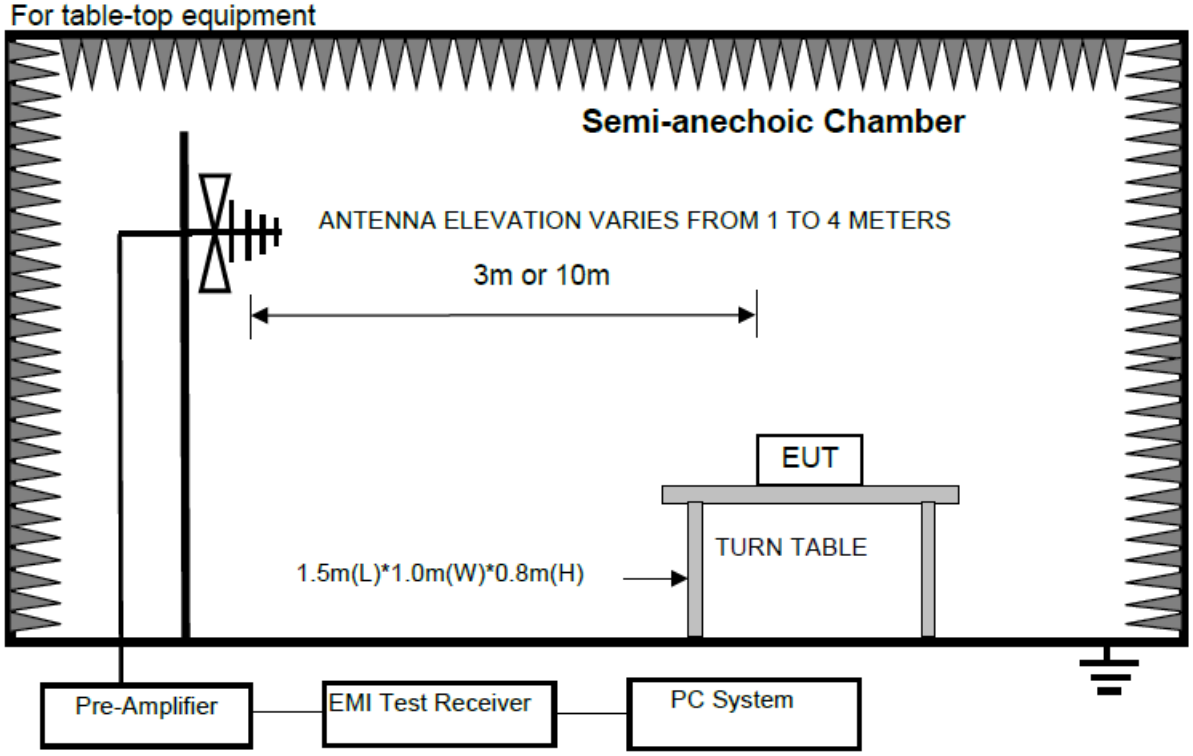
5.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal Due To
Test Receiver	ROHDE&SCHWARZ	ESR	Aa-EE048	2025/08/04	2026/08/03
Bilog Antenna	SCHWARZBECK	VULB 9168	Aa-EE001	2025/08/11	2027/08/10

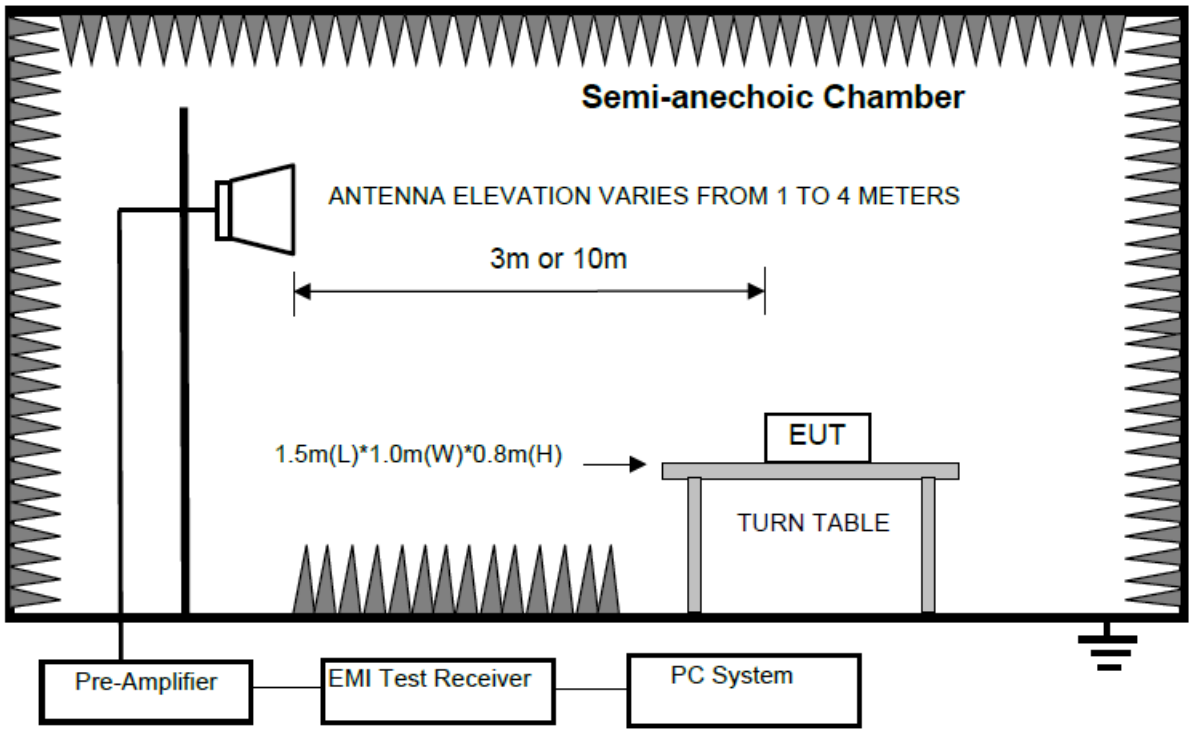
5.2. Block diagram of test setup



Below 1 GHz
For table-top equipment



Above 1 GHz
For table-top equipment



5.3. Limits

Frequency	Field Strengths Limits at 10m measuring distance dB(μV)/m	Field Strengths Limits at 3m measuring distance dB(μV)/m
30 MHz to 230 MHz	30	40
230 MHz to 1000 MHz	37	47
Note: (1) The smaller limit shall apply at the cross point between two frequency bands. (2) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.		

5.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description
AC Adapter	Shenzhen HUONIU Technology Co., Ltd.	HNFCQC3024UU	/

5.5. Test procedure

The EUT was placed on a non-metallic table (Refer to the 'Block diagram of test setup'). above the ground plane inside an anechoic chamber.
Setup the EUT and assistant equipment as shown above block diagram and equipment list.
Test antenna was located 3m from the EUT on an adjustable mast. A pre-scan was first performed in order to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to EN IEC 55015 on radiated emission test.
The bandwidth setting of the test receiver is 120 kHz.
The frequency range from 30 MHz to 300 MHz was pre-scanned with a peak detector and all final readings of measurement from Test Receiver are Quasi-Peak values.

5.6. Test result

PASS. (See below detailed test result)

Note 1: All emissions not reported below are too low against the prescribed limits.
Note 2: "-----" means Peak detection; "-----" means Average detection.

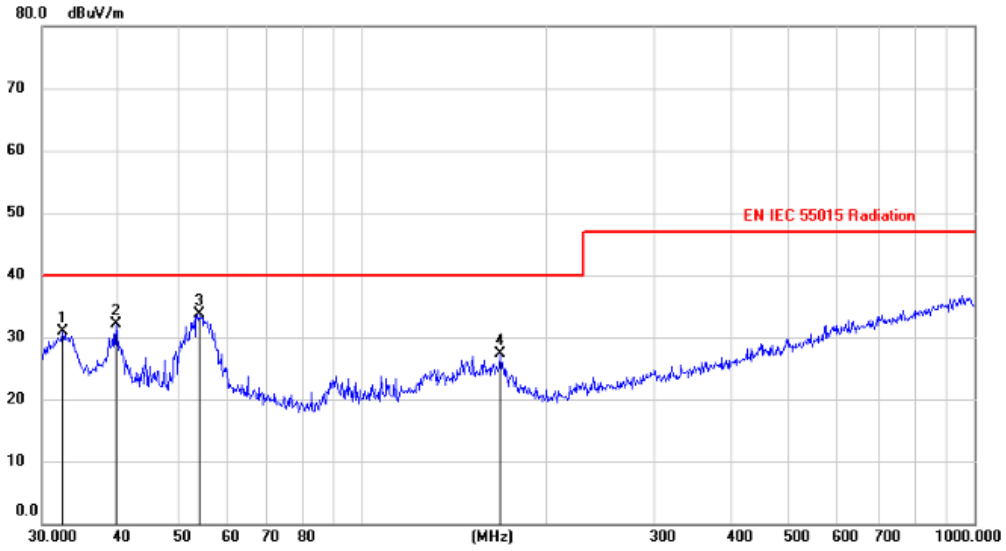
5.7. Test data

深圳阿尔法商品检验有限公司
SHENZHEN ALPHA PRODUCT TESTING CO.,LTD.
深圳阿尔法商品检验有限公司
Shenzhen Alpha Product Testing Co.,Ltd.
地址: ALPHA 广东省深圳市宝安区福永街道立新路 2 号 i 栋
TEL: 4008-3008-95

Site LAB 966 Chamber 1	Polarization: Vertical	Temperature:	23.1
Limit: EN IEC 55015 Radiation	Power: DC 5V From Adapter	Humidity:	54 %
EUT/Task No : A2509199-C01	Distance: 3m		
M/N/Sample No: A2509199-S0001			
Mode : Mode 1			
Note:			
Engineer Signature:			

Radiated Emission Measurement

File :A2509199-C01 Data :#1 Date: 2025/9/20 Time: 8:51:13



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		32.4628	17.20	13.62	30.82	40.00	-9.18	peak			
2		39.6359	17.70	14.47	32.17	40.00	-7.83	peak			
3	*	54.1659	20.00	13.70	33.70	40.00	-6.30	peak			
4		168.1581	13.07	14.26	27.33	40.00	-12.67	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

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Shenzhen Alpha Product Testing Co.,Ltd.
地址: ALPHA 广东省深圳市宝安区福永街道立新路 2 号 i 栋
TEL: 4008-3008-95

Site LAB 966 Chamber 1
Limit: EN IEC 55015 Radiation
EUT/Task No : A2509199-C01
M/N/Sample No: A2509199-S0001
Mode : Mode 1
Note:
Engineer Signature:

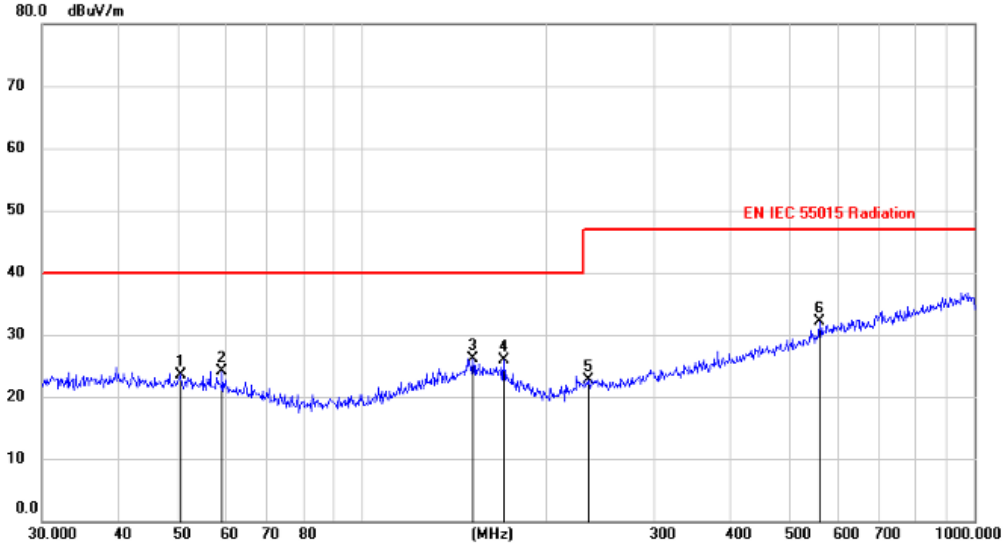
Polarization: Horizontal
Power: DC 5V From Adapter
Distance: 3m

Temperature: 23.1
Humidity: 54 %

Lily Wang

Radiated Emission Measurement

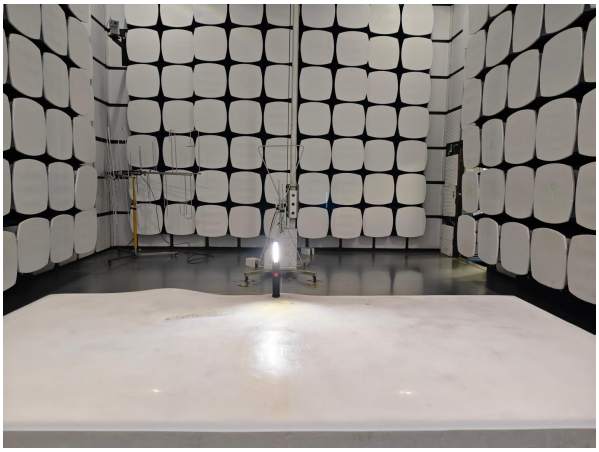
File :A2509199-C01 Data :#2 Date: 2025/9/20 Time: 8:53:16



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		50.4856	9.64	13.96	23.60	40.00	-16.40	peak			
2		59.0665	10.84	13.25	24.09	40.00	-15.91	peak			
3	*	152.0942	10.99	15.06	26.05	40.00	-13.95	peak			
4		170.5931	11.85	14.00	25.85	40.00	-14.15	peak			
5		234.8536	10.32	12.43	22.75	47.00	-24.25	peak			
6		559.9724	12.68	19.37	32.05	47.00	-14.95	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

5.8. Test photo

	/
RE 30MHz-1GHz	/

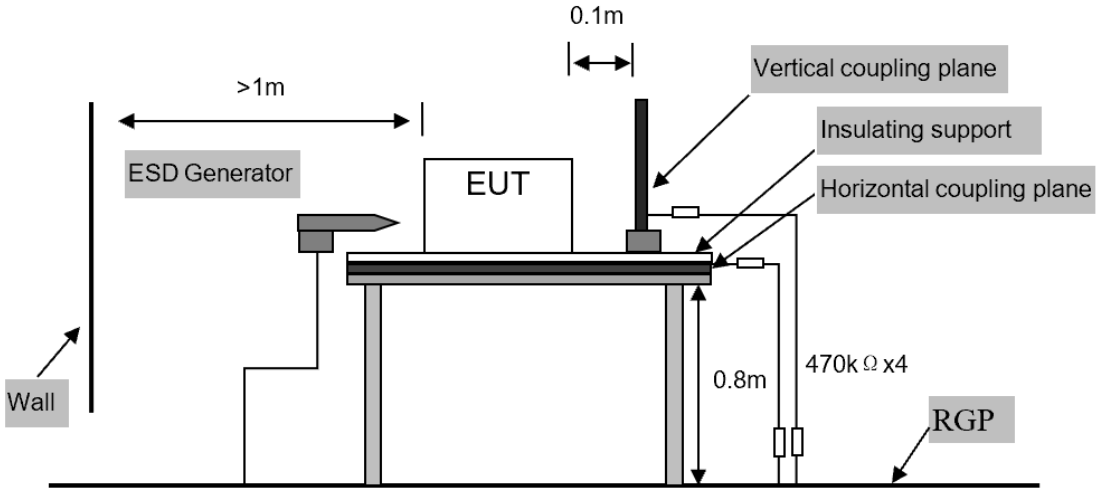
6. Electrostatic Discharge Test

6.1. Test equipment

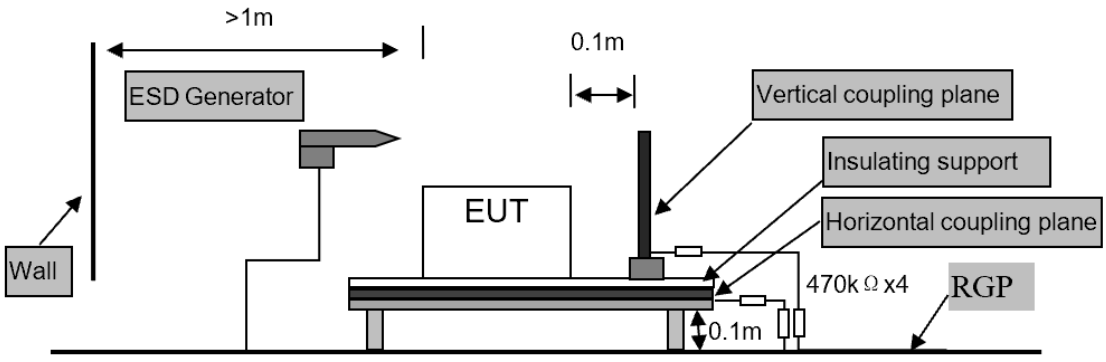
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal Due To
ESD Tester	HAEFELY	PESD1610	Aa-EE009	2025/08/08	2026/08/07
ESD Tester	3ctest	EDS 30V	Aa-EE113	2025/03/07	2026/03/06

6.2. Block diagram of test setup

Table-top equipment



Floor-standing equipment



6.3. Test levels and performance criterion

Test Level		Performance Criteria
Air Discharge	±2kV, ±4kV and ±8kV	**B**
Contact Discharge	±4kV	
Performance criteria B description: During the test, degradation of performance is allowed. However, no change of operating state or stored data is allowed to persist after the test. After the test, the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacturer, when the EUT is used as intended.		

6.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description
AC Adapter	Shenzhen HUONIU Technology Co., Ltd.	HNFCQC3024UU	/

6.5. Test procedure

Air Discharge:
The test was applied on non-conductive surfaces of EUT. The round discharge tip of the discharge electrode was approached as fast as possible to touch the EUT. After each discharge, the discharge electrode was removed from the EUT. The generator was re-triggered for a new single discharge and repeated 20 times (10 with positive and 10 with negative polarity) for each pre-selected test point. This procedure was repeated until all the air discharge completed.
Contact Discharge:
All the procedure was same as air discharge. Except that the generator was re-triggered for a new single discharge. The tip of the discharge electrode was touching the EUT before the discharge switch was operated.
Indirect discharge for horizontal coupling plane:
At least 20 single discharges (10 with positive and 10 with negative polarity) were applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.
Indirect discharge for vertical coupling plane:
At least 20 single discharges (10 with positive and 10 with negative polarity) were applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, was placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges were applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

6.6. Test result

Test Site: ESD Laboratory	Test Date: 2025/09/25--2025/09/25
Condition: 24°C,56%RH,101.3kPa	Test Engineer: Lily Wang
Memo: /	

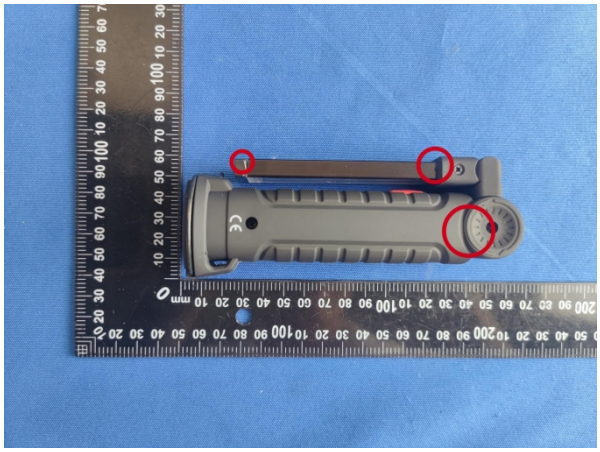
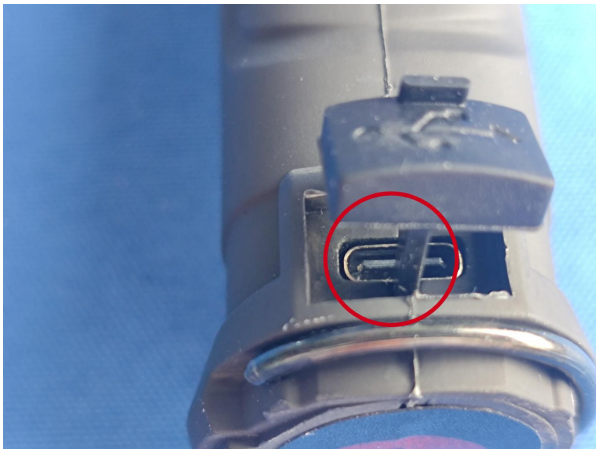
EUT Name: Multifunctional COB Light	EUT Model: MO2834
Sample No.: A2509199-S0001	Test Mode: Charging + Lighting (MAX)
Power supply: DC 5V From Adapter	Memo:/

Measure parameters: 20 times at each point for contact discharge; 20 times at each point for air discharge. 1 second interval for each discharge.

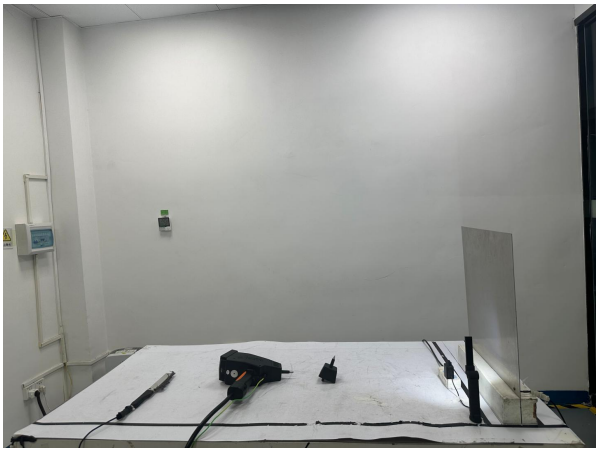
Type of discharge	Test level	Test point	Required	Observation	Result
Contact to EUT	±4kV	/	/	/	/
Contact to coupling planes	±4kV	Coupling planes	B	A	Pass
Air	±2 kV /±4 kV /±8kV	○	B	A	Pass

Observation description:
A: Normal performance within limits specified by the manufacturer requestor or purchaser.
B: Temporary loss of function or degradation of performance which ceases after the disturbance ceases, and from which the equipment under test recovers its normal performance, without operator intervention.
Note: "△"---contact discharge, "○"---air discharge.

6.7. ESD test points

	
Air	Air
	
Air	Air

6.8. Test photo

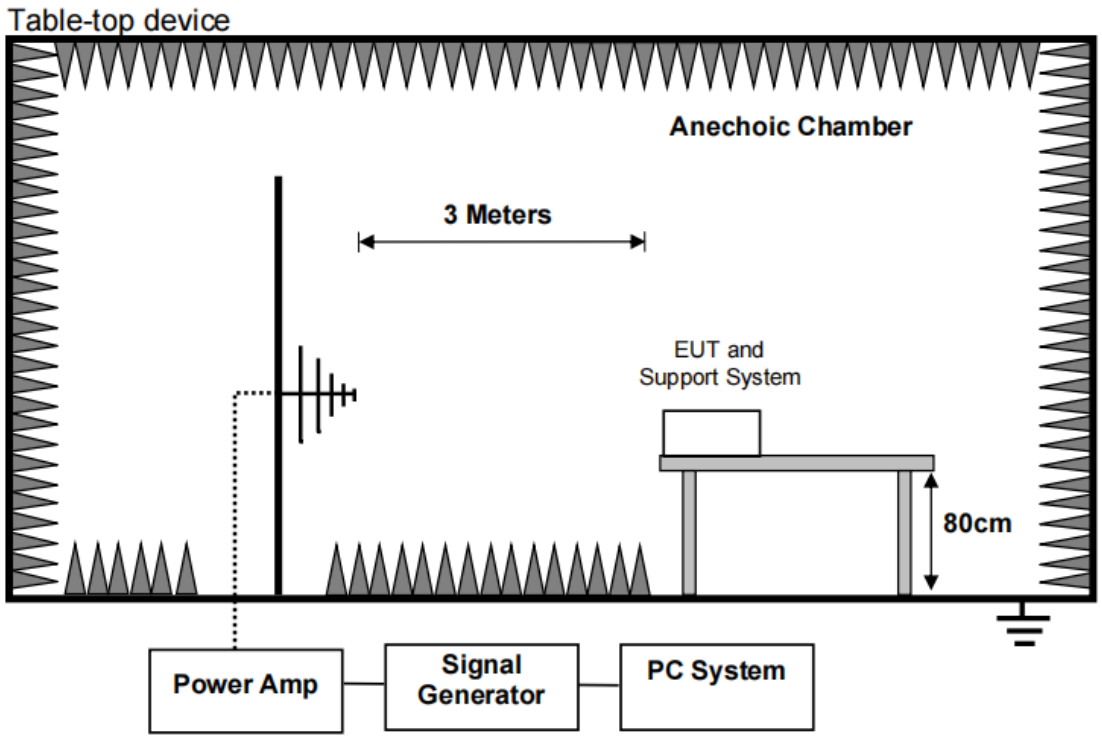
	/
ESD Test	/

7. Continuous Radio Frequency Disturbances Test

7.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal Due To
Vector Signal Generator	Agilent	N5182A	Aa-EE040	2025/08/04	2026/08/03
Vector Signal Generator	Agilent	E4438C	Aa-EE041	2025/08/04	2026/08/03
Power meter	Agilent	E4419B	Aa-EE045	2025/08/04	2026/08/03
Power Sensor	Agilent	E9300A	Aa-EE046	2025/08/04	2026/08/03
Power Sensor	Agilent	E9304A	Aa-EE047	2025/08/04	2026/08/03
RF power Amplifier	OPHIR	5225R	Aa-EE065	2025/08/04	2026/08/03
RF power Amplifier	OPHIR	5273R	Aa-EE066	2025/08/04	2026/08/03
RF power Amplifier	Micotop	MPA-3000-6000-100	Aa-EE084	2025/08/04	2026/08/03
Antenna	SCHWARZBECK	STLP9128E-special	Aa-EE068	/	/
Antenna	SCHWARZBECK	STLP 9149	Aa-EE069	/	/
Isotropic Electric Field Probe	narda	EP-601	Aa-EE067	2025/08/11	2026/08/10

7.2. Block diagram of test setup



7.3. Test levels and performance criterion

Swept frequency test		Performance Criteria
Frequency (MHz)	80 to 1000	**A**
Field Strength	3V/m rms voltage level of the unmodulated signal	
Modulation	AM modulated to a depth of 80% by a sine wave of ☒1 kHz	
Step Size	1% increments	
Dwell time	1 Sec.	
Performance criteria A description for other devices: During and after the test the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a minimum performance level specified by the manufacturer when the EUT is used as intended.		

7.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description
AC Adapter	Shenzhen HUONIU Technology Co., Ltd.	HNFCQC3024UU	/

7.5. Test procedure

The field sensor is placed on the EUT table (Ground clearance height reference "block diagram of test setup") which is 3 meters away from the transmitting antenna. Through the signal generator, power amplifier and transmitting antenna to produce a uniformity field strength around the EUT table from frequency range specified and records the signal generator‘s output level at the same time for whole measured frequency range. Then, put EUT and its simulators on the EUT turn table and keep them 3 meters away from the transmitting antenna which is mounted on an antenna tower and fixes at 1 meter height above the ground. Using the recorded signal generator’s output level to measure the EUT from frequency range specified and both horizontal & vertical polarization of antenna must be set and measured. Each of the four sides of EUT must be faced this transmitting antenna and measures individually.

7.6. Test result

Test Site: Chamber 1#(RE/RSE/RS)	Test Date: 2025/09/25--2025/09/25
Condition: 24°C,56%RH,101.3kPa	Test Engineer: Lily Wang
Memo: /	

EUT Name: Multifunctional COB Light	EUT Model: MO2834
Sample No.: A2509199-S0001	Test Mode: Charging + Lighting (MAX)
Power supply: DC 5V From Adapter	Memo:/

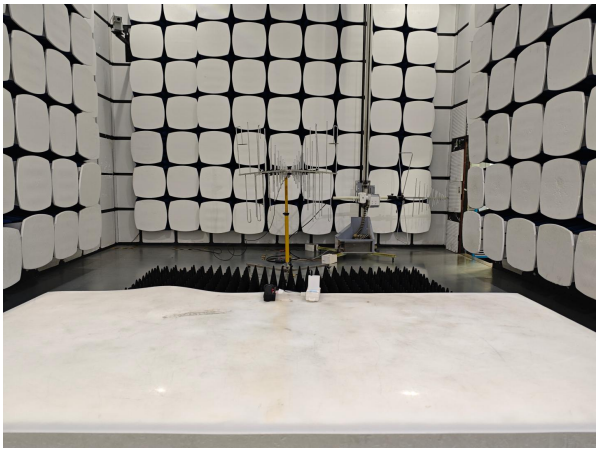
Swept test: 80MHz to 1GHz, Steps: 1%, Dwell time 1s, 1kHz 80% AM modulation

Test frequency	Level	EUT position	Antenna polarization	Required	Observation	Result
80MHz to 1000MHz	3V/m	Front	H	A	A	Pass
			V	A	A	Pass
		Left	H	A	A	Pass
			V	A	A	Pass
		Rear	H	A	A	Pass
			V	A	A	Pass
		Right	H	A	A	Pass
			V	A	A	Pass

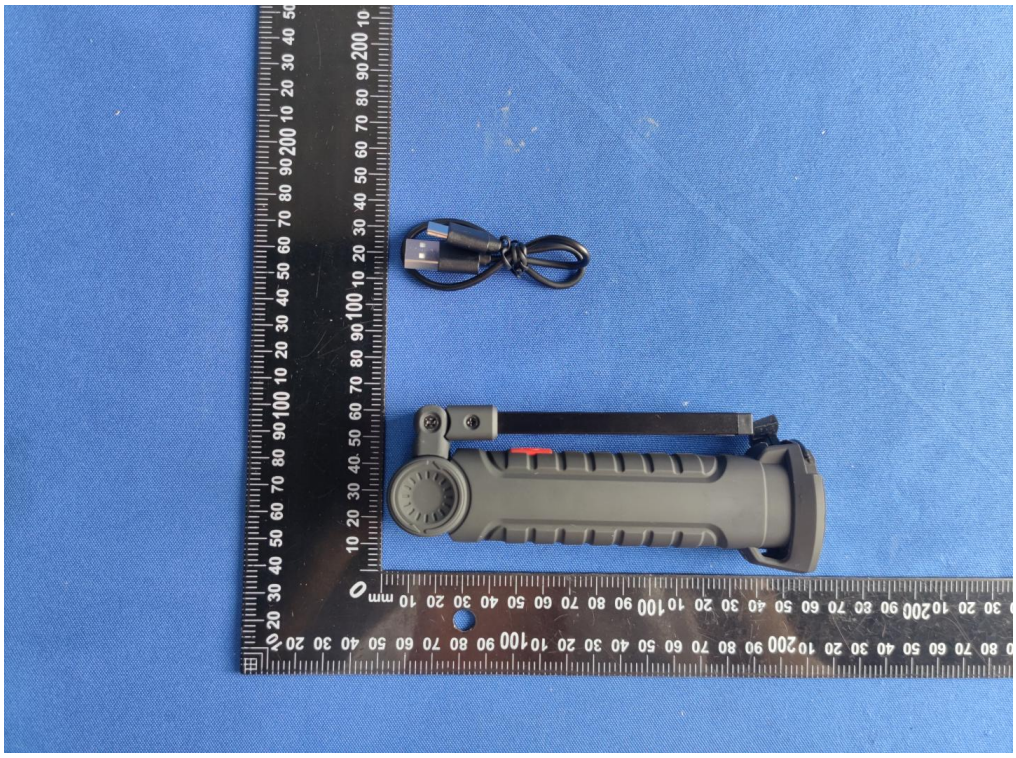
Observation description:

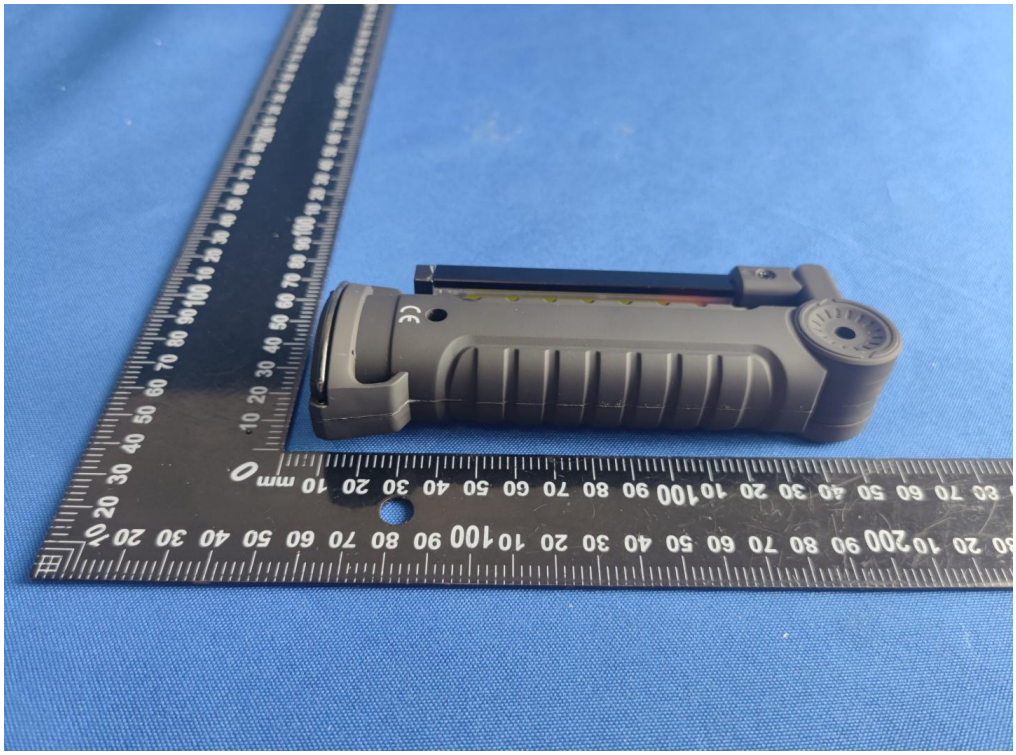
A: During the test, no change of the luminous intensity shall be observed and the regulating control, if any, shall operate during the test as intended.

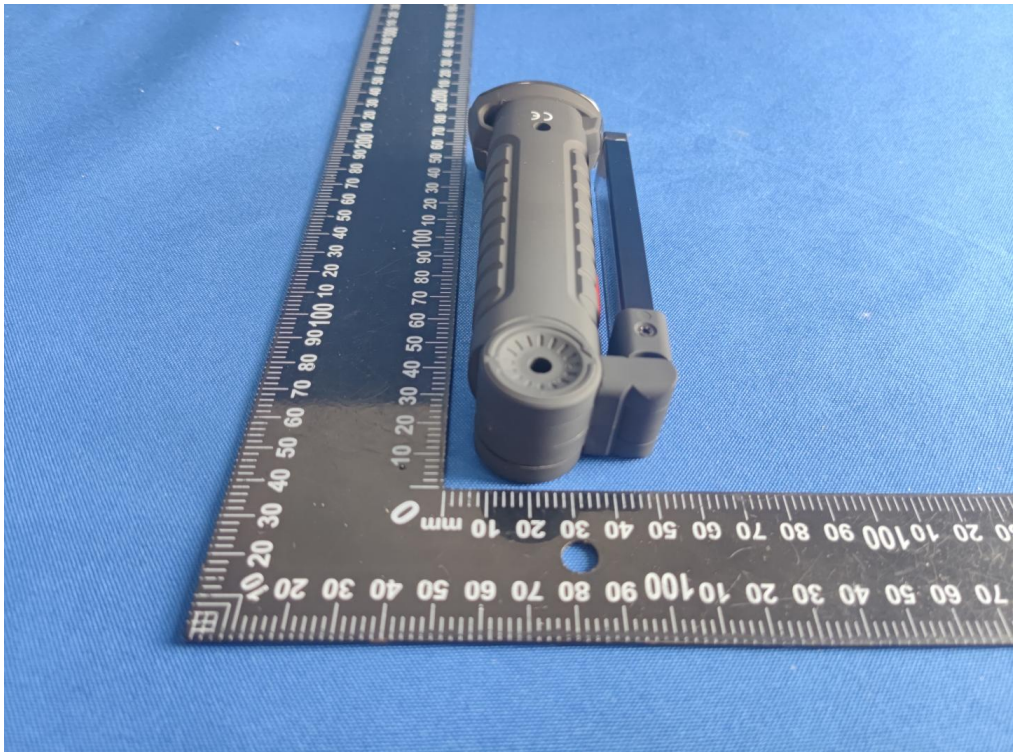
7.7. Test photo

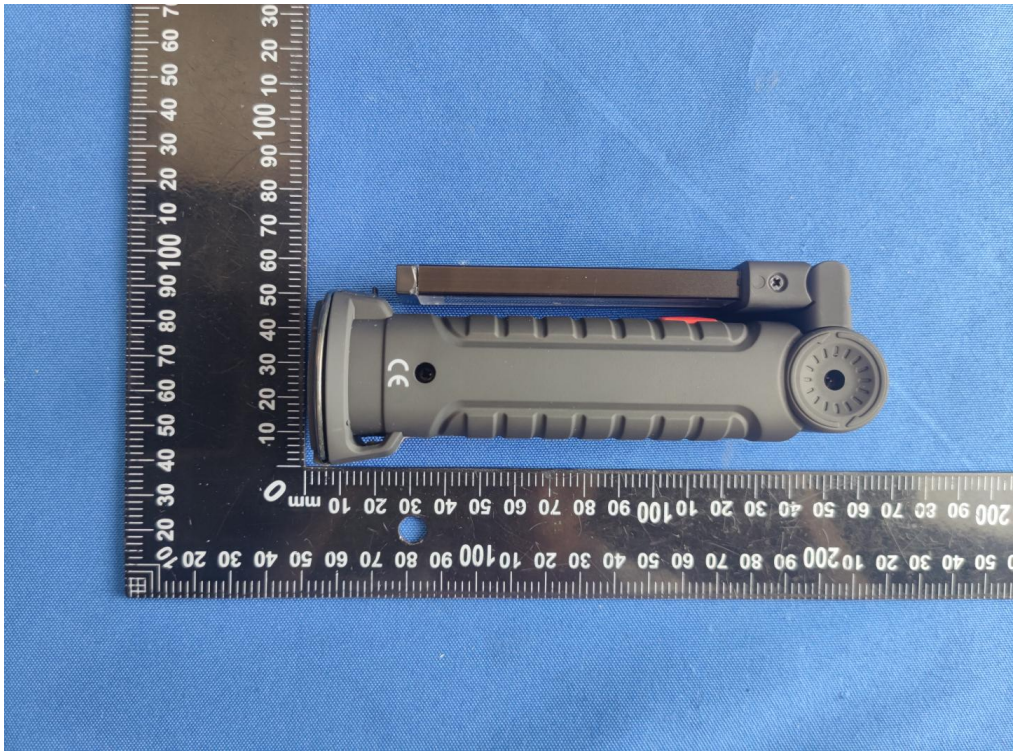
	/
RS Test	/

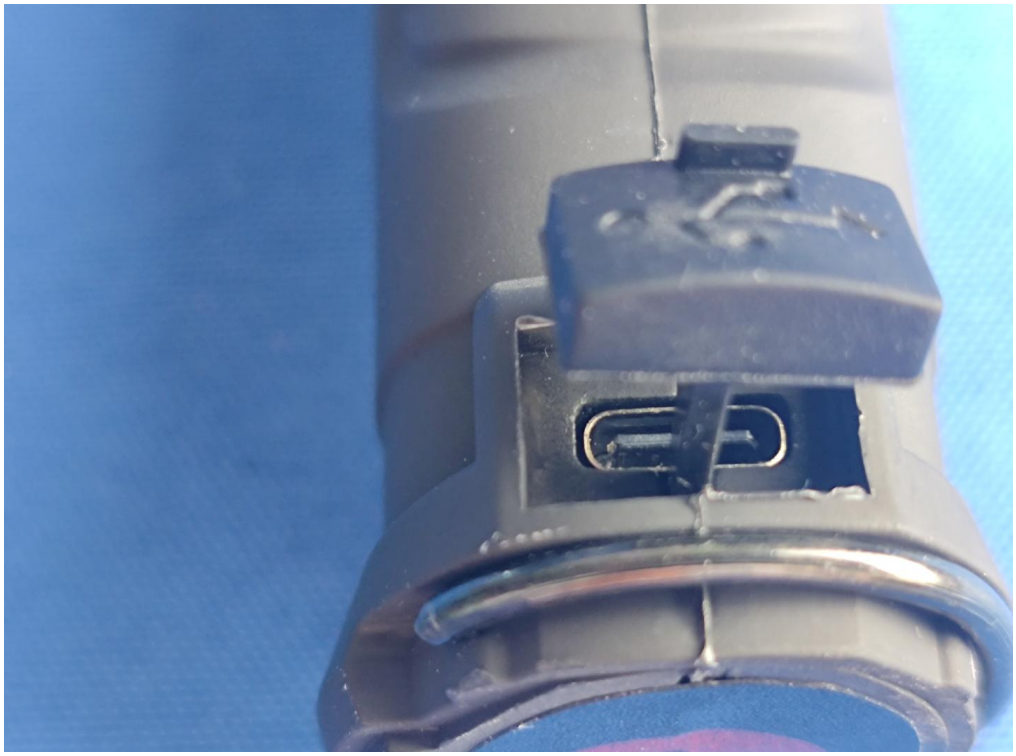
Appendix Ⅰ: Photos of the EUT

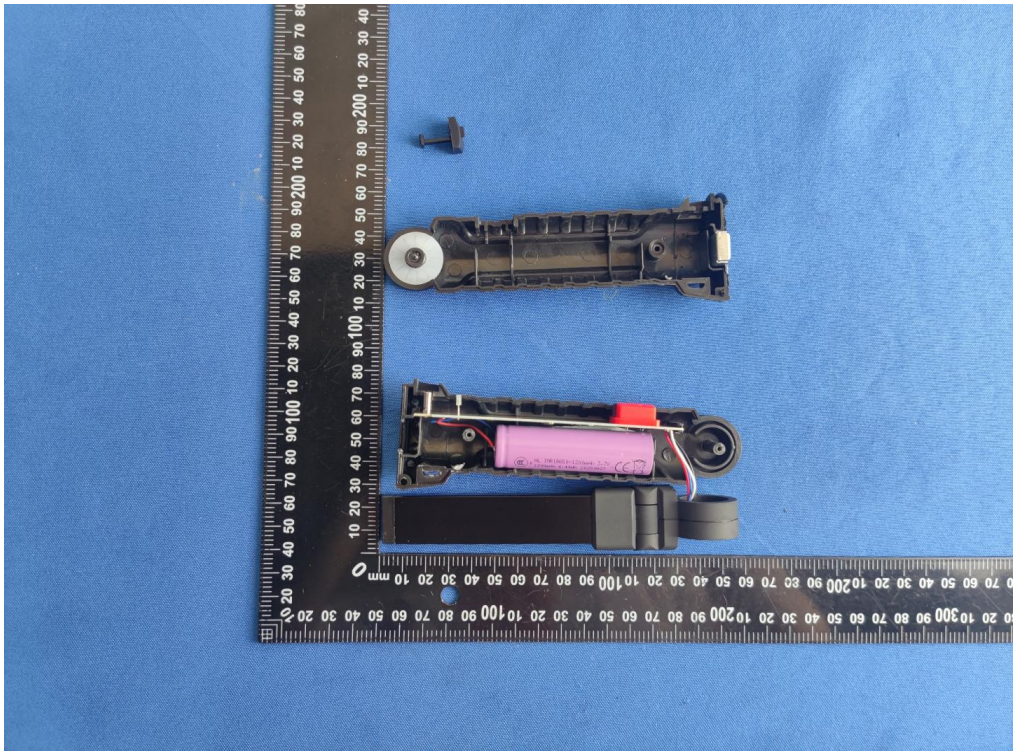


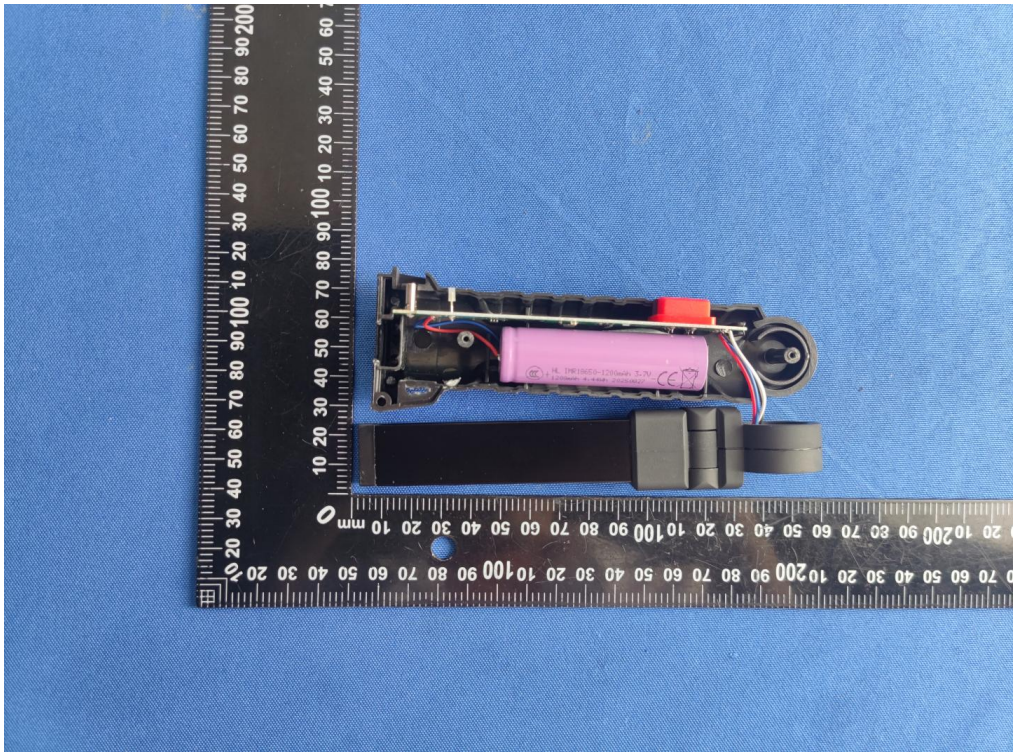


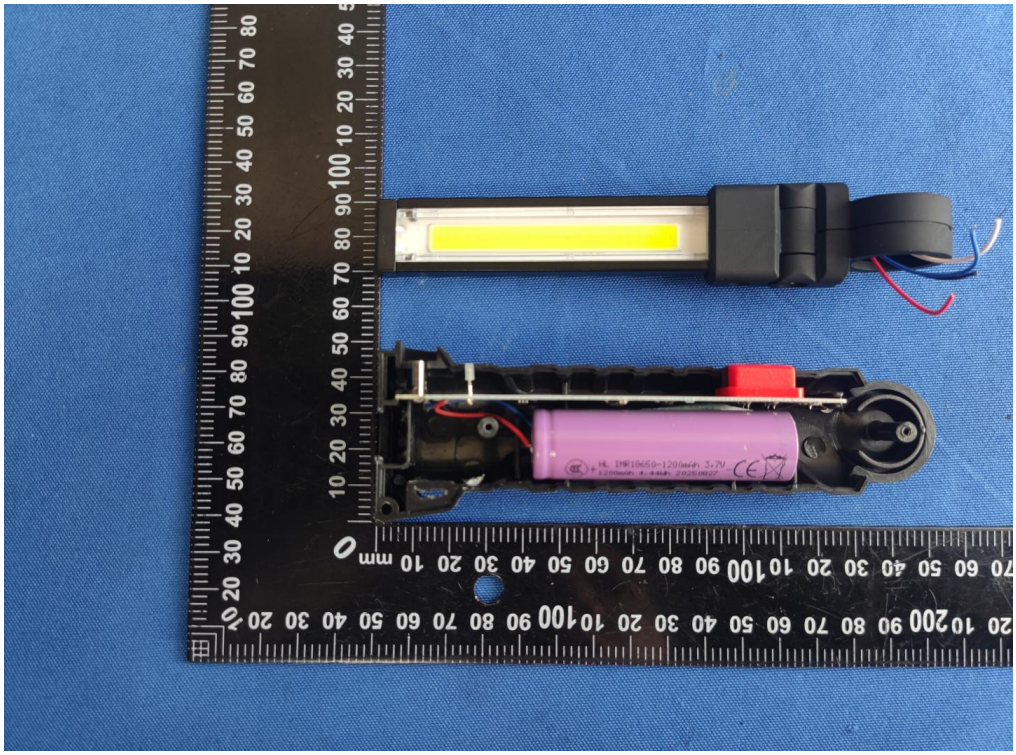


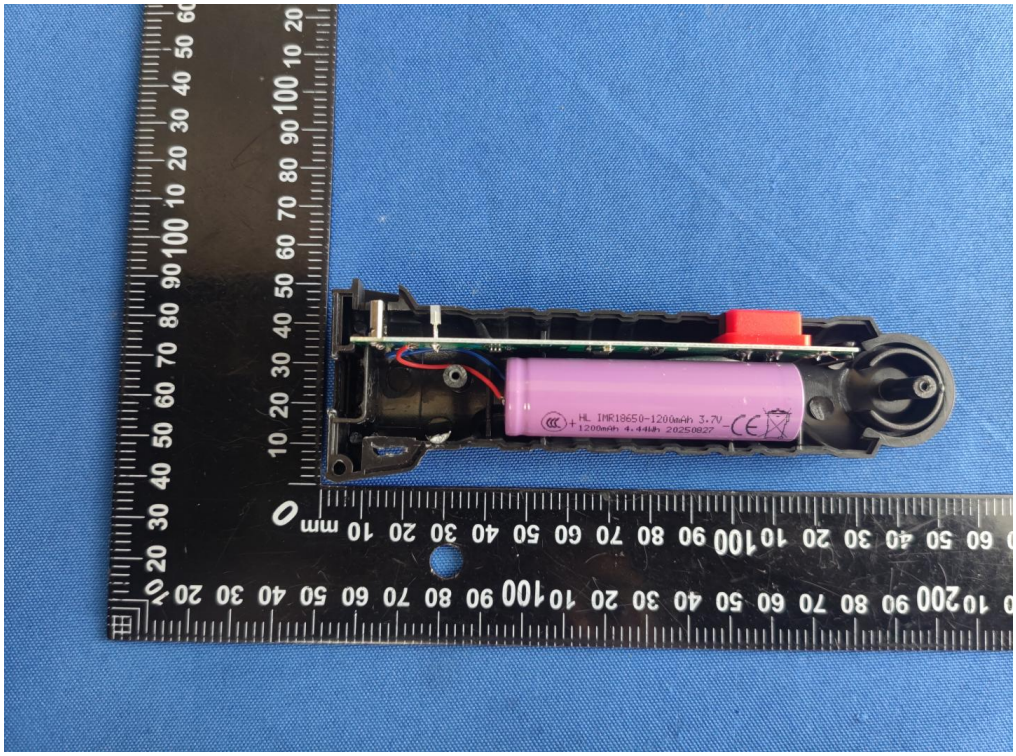


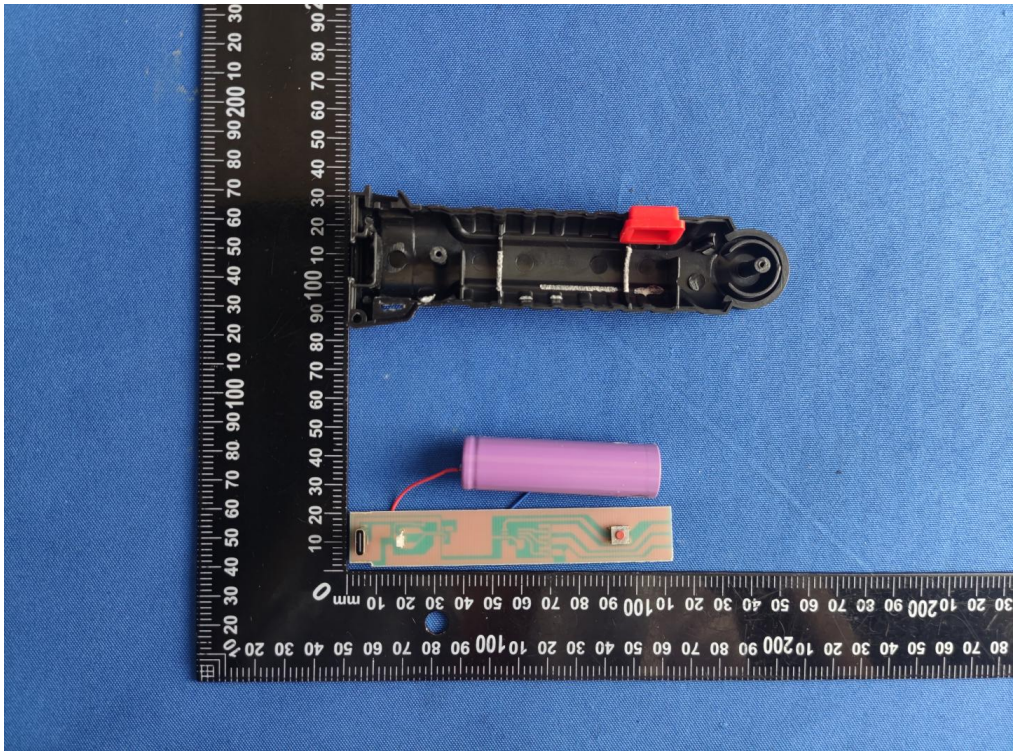


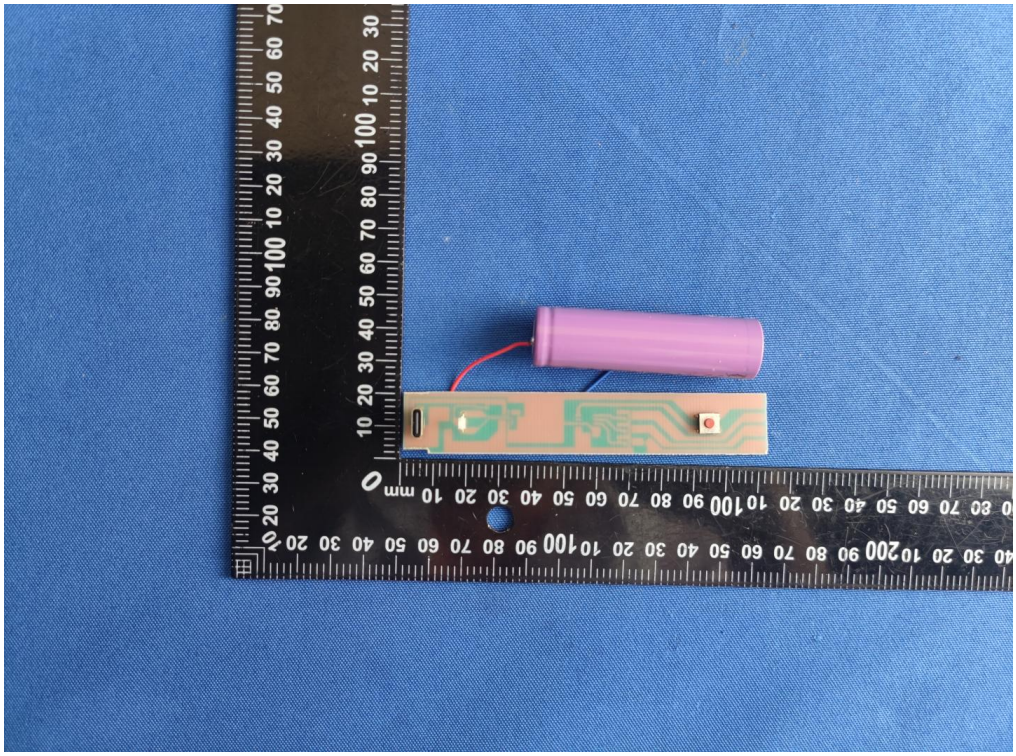


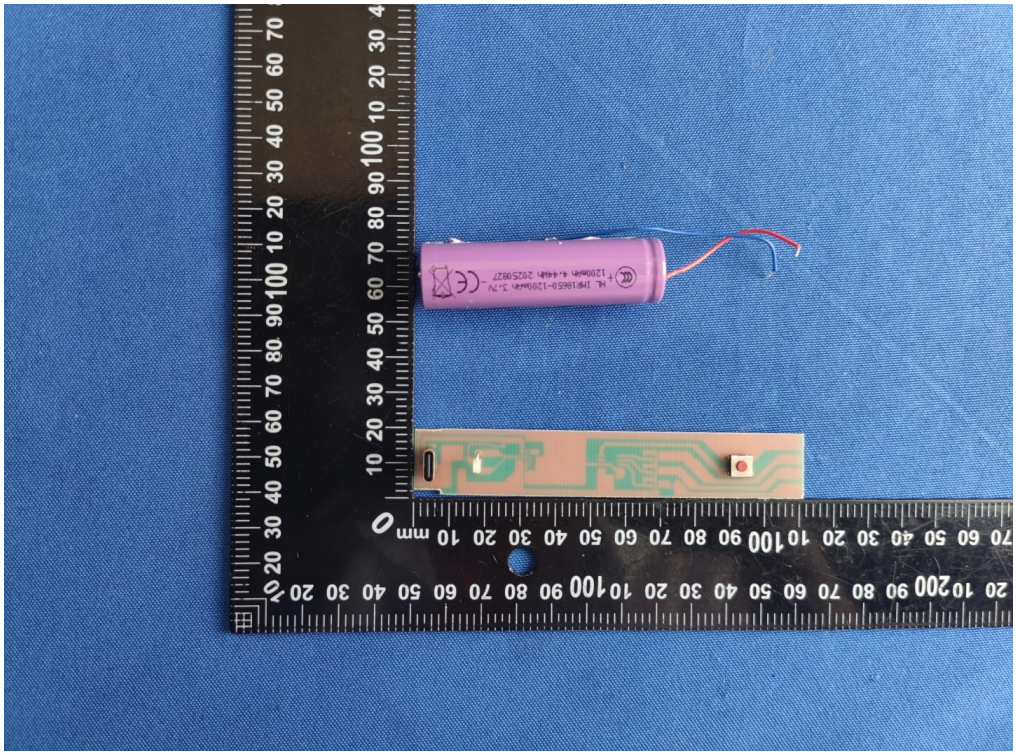


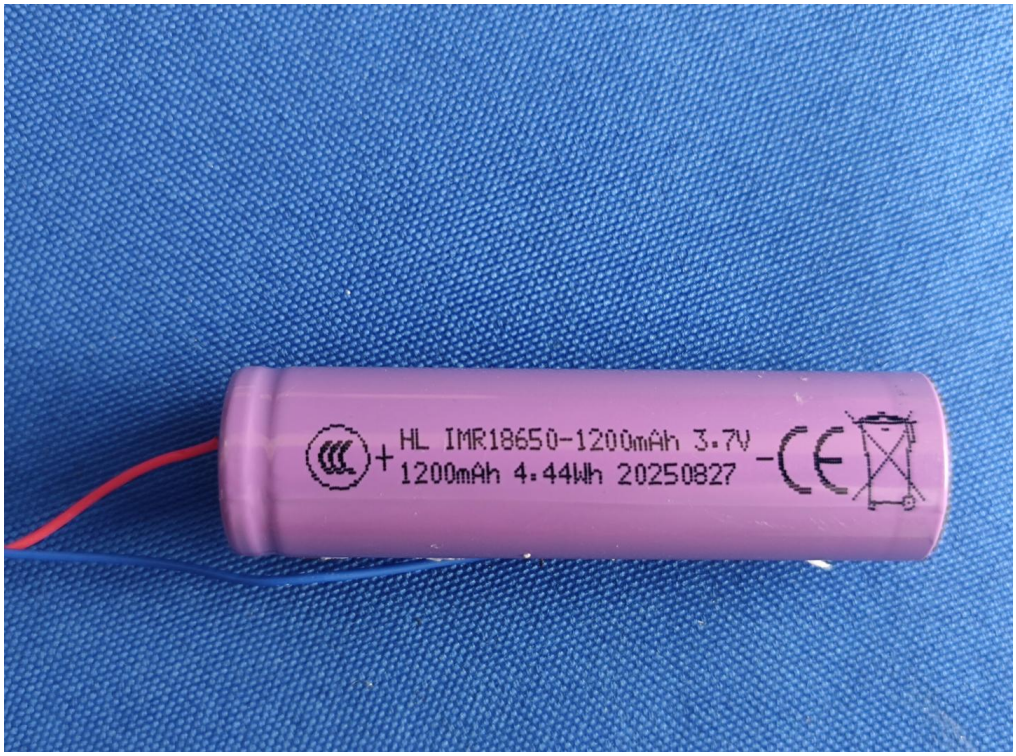








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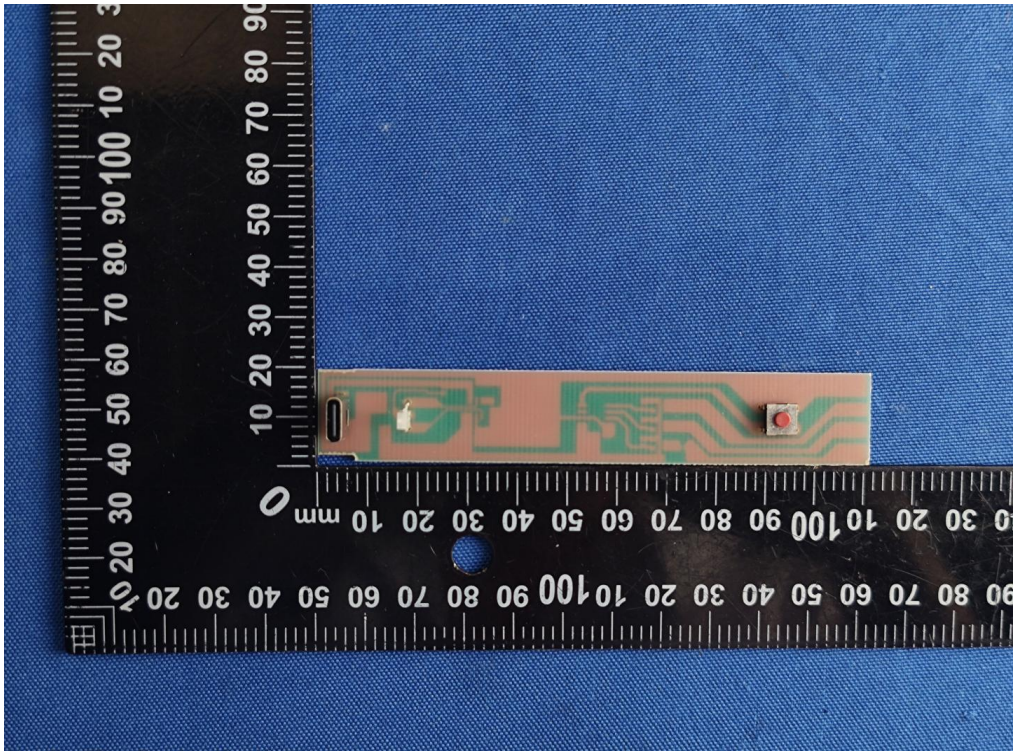
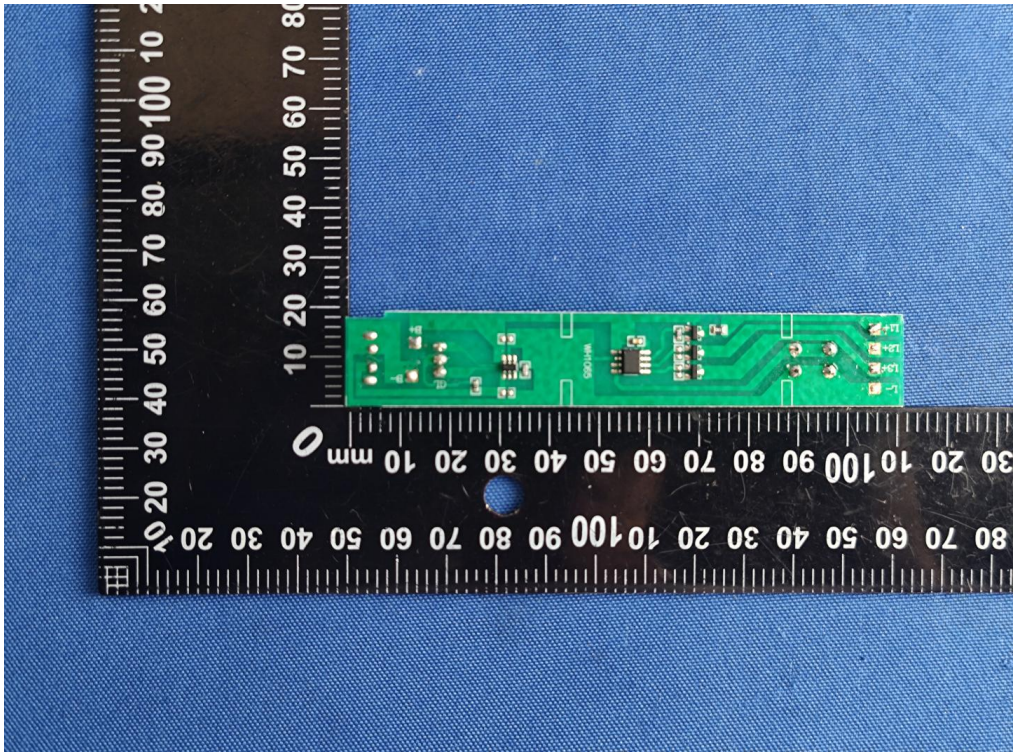
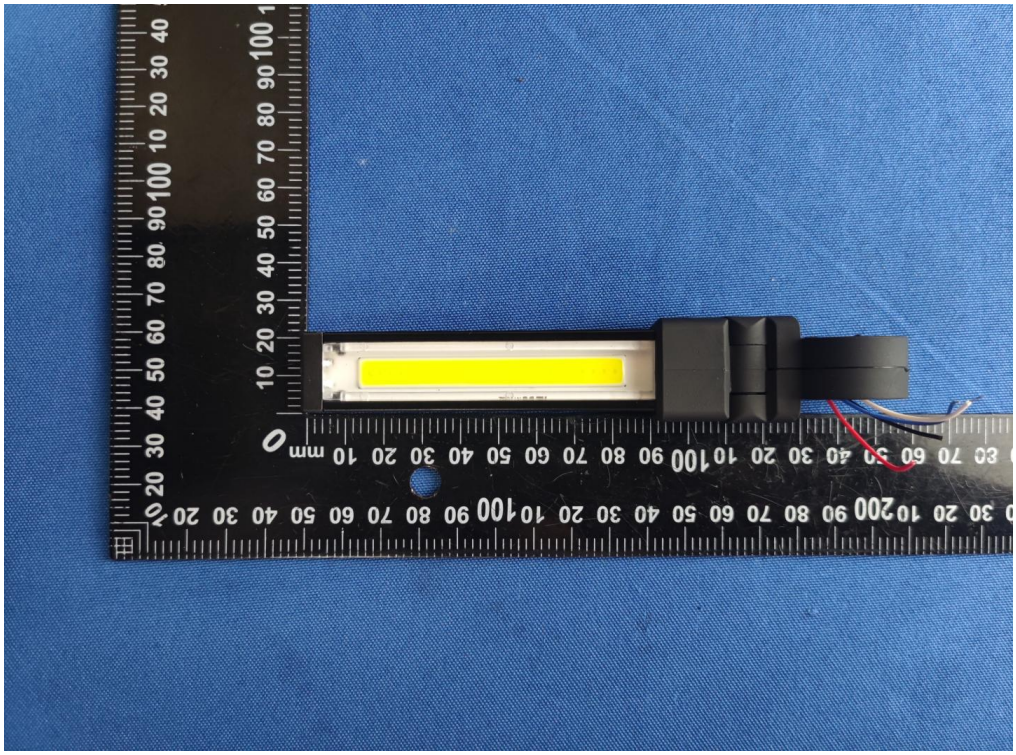
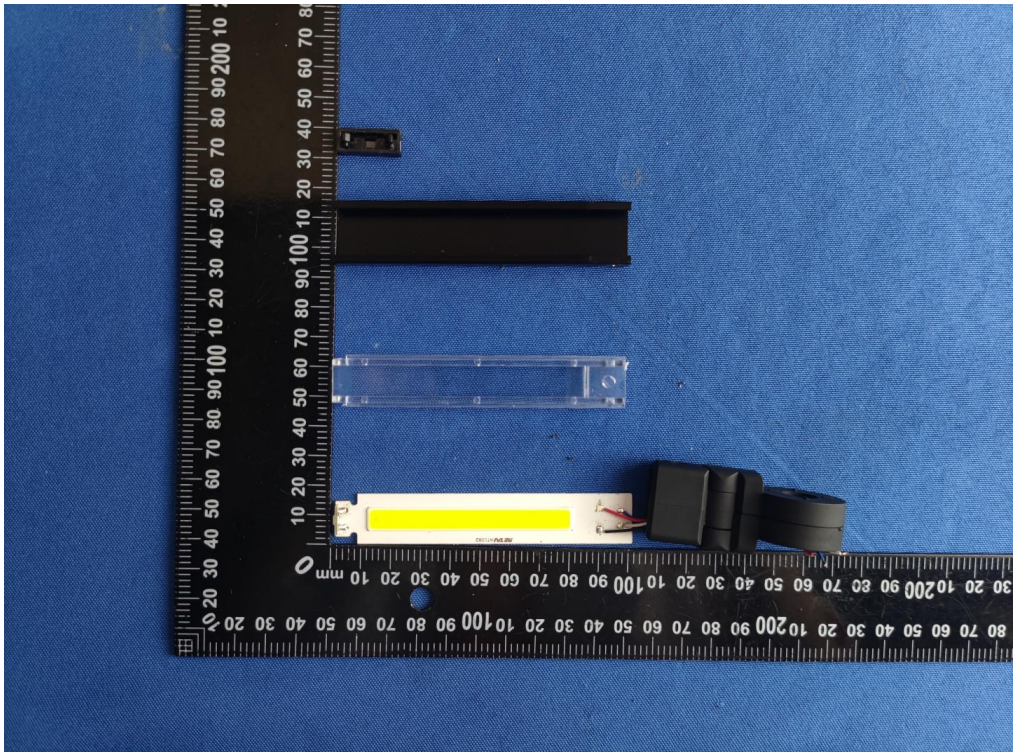
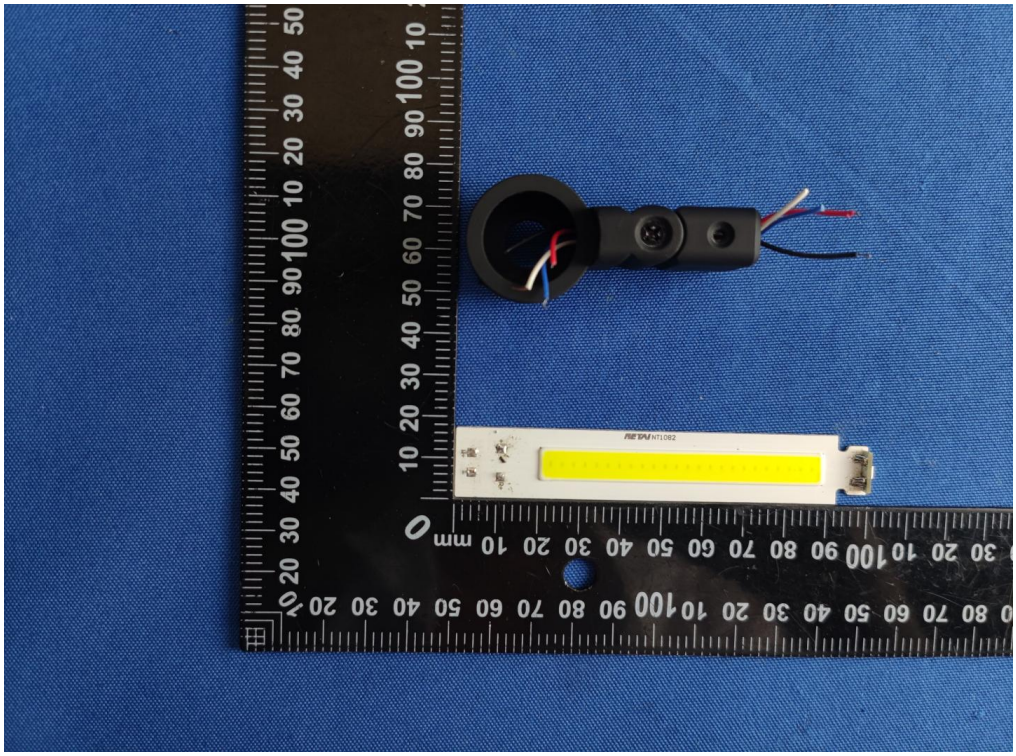
1200mAh 4.44Wh 20250827

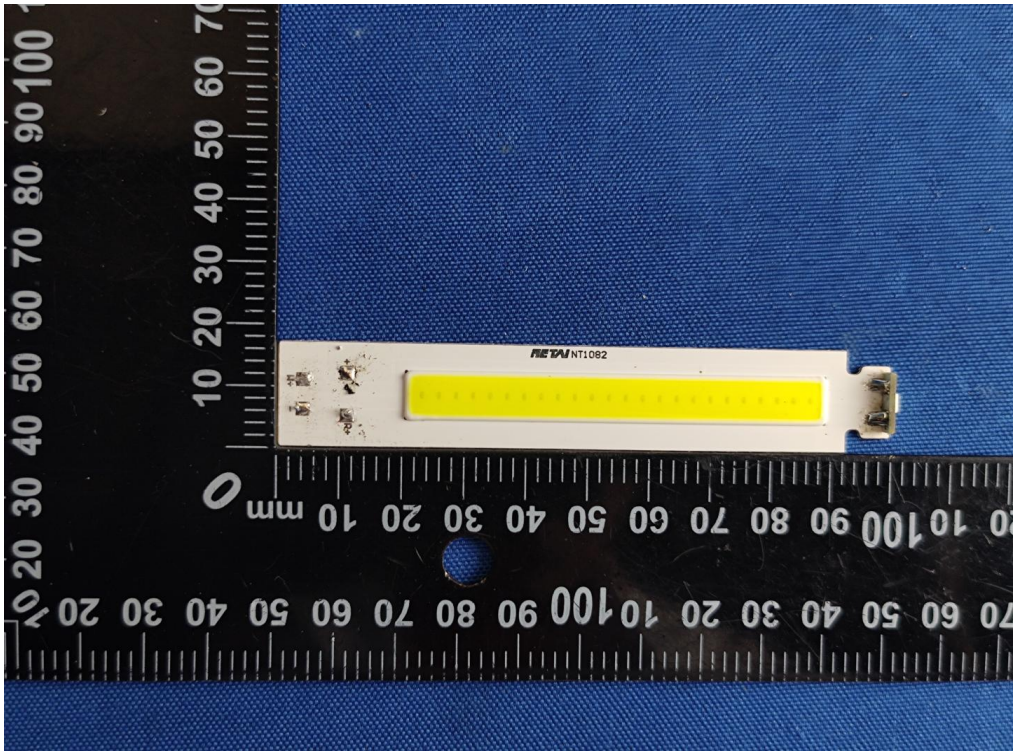


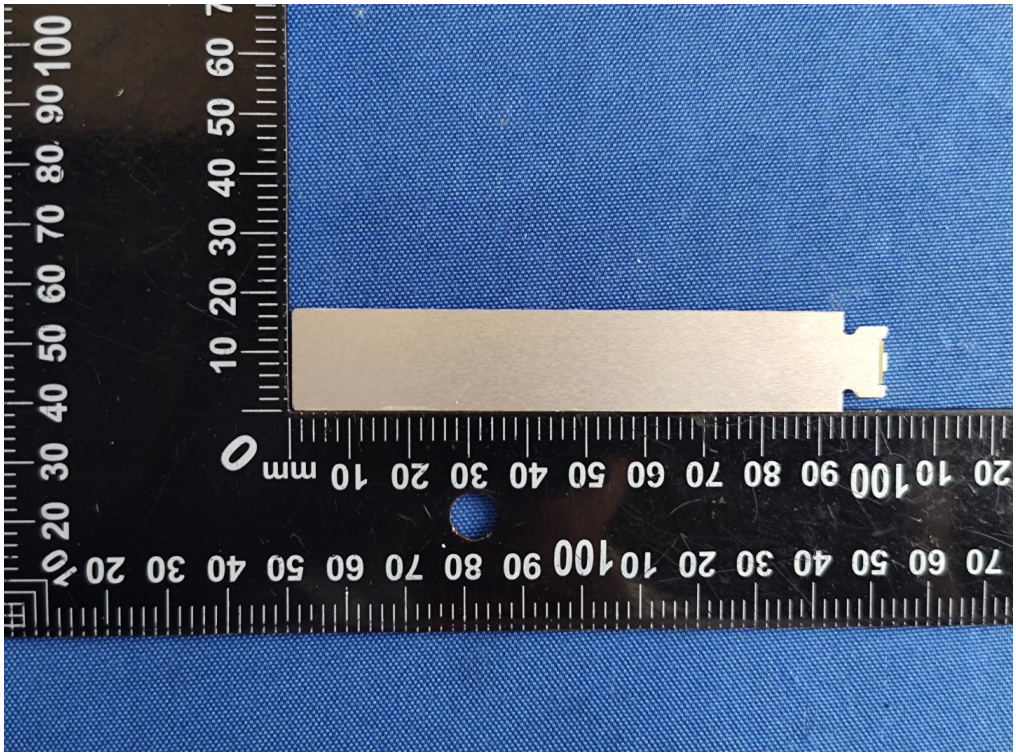












----------End Report----------