EMC TEST REPORT

For

Guangzhou Yimao Technology Co., Ltd
Product Name: Rechargeable LED Light
Test Model(s).: YM-YZ

Report Reference No.	:	**POCE240301008RL001**
FCC ID	:	**2BFBKYM-YZ**
Applicant's Name	:	Guangzhou Yimao Technology Co., Ltd
Address	:	203, No.51, Chendi Road, Banqiao Village, Nancun Town, Panyu District, Guangzhou City
Testing Laboratory	:	Shenzhen POCE Technology Co., Ltd.
Address	:	102 Building H1 & 1/F., Building H, Hongfa Science & Technology Park, Tangtou, Shiyan, Bao'an District, Shenzhen, Guangdong, China
Test Specification Standard	:	**47 CFR Part 15, Subpart B**
Date of Receipt	:	March 1, 2024
Date of Test	:	March 1, 2024 to March 5, 2024
Data of Issue	:	March 5, 2024
Result	:	**Pass**

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Revision History Of Report

Version	Description	REPORT No.	Issue Date
V1.0	Original	POCE240301008RL001	March 5, 2024

NOTE1:

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

Compiled by:	Supervised by:	Approved by:
Ben Tang	Tom Chen	Machael Mo
Ben Tang /Test Engineer	Tom Chen / Project Engineer	Machael Mo / Manager

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1 TEST SUMMARY

1.1 Test Standards

The tests were performed according to following standards:

47 CFR Part 15, Subpart B: Unintentional Radiators

1.2 Summary of Test Result

Item	Standard	Method	Requirement	Result
Conducted emissions on AC mains	47 CFR Part 15, Subpart B	ANSI C63.4-2014	15.107, Class B	Pass
Radiated emissions (Below 1GHz)	47 CFR Part 15, Subpart B	ANSI C63.4-2014	15.109, Class B	Pass

2 GENERAL INFORMATION

2.1 Client Information

Applicant's Name : Guangzhou Yimao Technology Co., Ltd
Address : 203, No.51, Chendi Road, Banqiao Village, Nancun Town, Panyu District, Guangzhou City

Manufacturer : Guangzhou Yimao Technology Co., Ltd
Address : 203, No.51, Chendi Road, Banqiao Village, Nancun Town, Panyu District, Guangzhou City

2.2 Description of Device (EUT)

Product Name:	Rechargeable LED Light
Model/Type reference:	YM-YZ
Series Model:	YM-BD,YM-TY,YM-CD,YM-JQ,YM-XYD,YM-TD
Model Difference:	The product has many models, only the model name is different, and the other parts such as the circuit principle, pcb and electrical structure are the same.
Trade Mark:	Coolbi
Power Supply:	DC 5V/1A from adapter Battery:DC3.7V 2000mAh
Hardware Version:	V1.0
Software Version:	V1.0
Highest Internal Frequency:	1.705-108MHz
Classification of Equipment:	Class B

2.3 Description of Test Modes

No	Title	Description
TM1	Charging And Working	Connect to the Adapter; AC120V 60Hz for adapter&keep the working mode

2.4 Description of Support Units

Title	Manufacturer	Model No.	Serial No.
AC-DC adapter	HUAWEI TECHNOLOGY	HW100400C01	

2.5 Equipments Used During The Test

Conducted emissions on AC mains					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Power absorbing clamp	SCHWARZ BECK	MESS-ELEKTRONIK	/	2023-12-12	2024-12-11
Electric Network	SCHWARZ BECK	CAT5 8158	CAT5 8158#207	/	/
Cable	SCHWARZ BECK	/	/	2023-12-27	2024-12-26
Pulse Limiter	SCHWARZ BECK	VTSD 9561-F Pulse limiter 10dB Ateennator	561-G071	2023-12-12	2024-12-11
50ΩCoaxial Switch	Anritsu	MP59B	M20531	/	/
Test Receiver	Rohde & Schwarz	ESPI TEST RECEIVER	ID:1164.6607K 03-102109-MH	2023-06-13	2024-06-12
L.I.S.N	R&S	ESH3-Z5	831.5518.52	2023-12-12	2024-12-11

Radiated emissions (Below 1GHz)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Cable(HF)2	SCHWARZ BECK	50Ω	/	2024-02-19	2025-02-18
Cable(HF)1	SCHWARZ BECK	50Ω	/	2024-02-19	2025-02-18
Cable(LF)2	SCHWARZ BECK	50Ω	/	2024-02-18	2025-02-17
Cable(LF)1	SCHWARZ BECK	50Ω	/	2024-02-19	2025-02-18
control	Positioning Controller	Model MF-7802	MF780208362	2023-12-27	2024-12-26
Test Receiver	Rohde & Schwarz	ESPI TEST RECEIVER	ID:1164.6607K 03-102109-MH	2023-06-13	2024-06-12
EMI Test software	Farad	EZ -EMC	V1.1.42	/	/
Positioning Controller	/	MF-7802	/	/	/
Broadband Antenna	Sunol Sciences	JB6 Antenna	A090414	2023-05-21	2025-05-20

2.6 Statement Of The Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Disturbance (0.15~30MHz)	±3.41dB
Radiated Emission (Below 1GHz)	±5.79dB
Note: (1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

2.7 Identification of Testing Laboratory

Company Name:	Shenzhen POCE Technology Co., Ltd.
Address:	101-102 Building H5 & 1/F., Building H, Hongfa Science & Technology Park, Tangtou, Shiyan, Bao'an District, Shenzhen, Guangdong, China
Phone Number:	+86-13267178997
Fax Number:	86-755-29113252

Identification of the Responsible Testing Location

Company Name:	Shenzhen POCE Technology Co., Ltd.
Address:	101-102 Building H5 & 1/F., Building H, Hongfa Science & Technology Park, Tangtou, Shiyan, Bao'an District, Shenzhen, Guangdong, China
Phone Number:	+86-13267178997
Fax Number:	86-755-29113252
FCC Registration Number:	0032847402
Designation Number:	CN1342
Test Firm Registration Number:	778666
A2LA Certificate Number:	6270.01

2.8 Announcement

(1) The test report reference to the report template version v0.

(2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.

(3) The test report is invalid if there is any evidence and/or falsification.

(4) This document may not be altered or revised in any way unless done so by POCE and all revisions are duly noted in the revisions section.

(5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

(6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

3 Emission Test Results (EMI)

3.1 Conducted emissions on AC mains

Test Requirement:	15.107, Class B
Test Limit:	

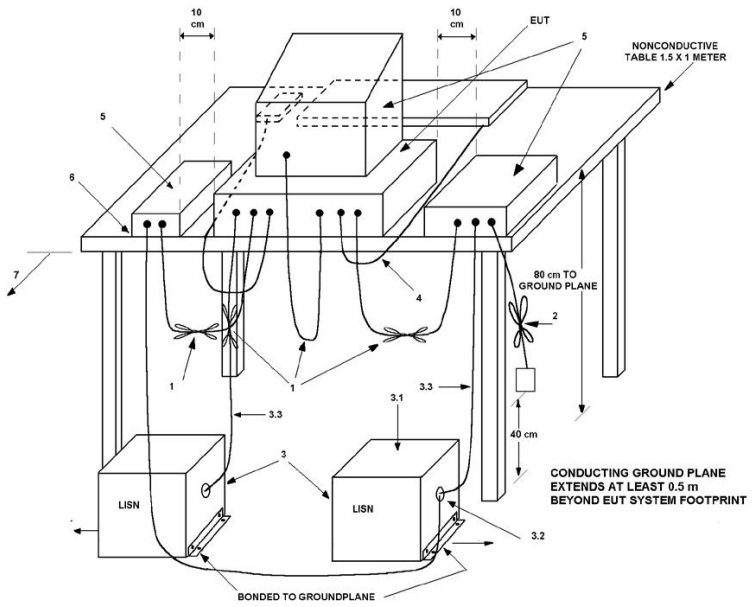
Frequency of emission (MHz)	Conducted limit (dBµV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency.		

Test Method:	ANSI C63.4-2014
Procedure:	An initial pre-scan was performed with peak detector.Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected. Remark: Level= Read Level+ Cable Loss+ LISN Factor

3.1.1 E.U.T. Operation:

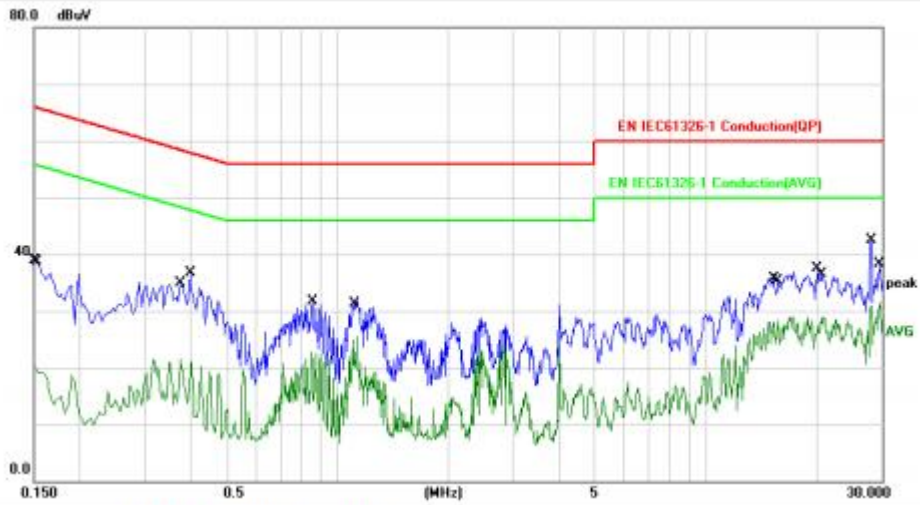
Operating Environment:					
Temperature:	22.9 °C	Humidity:	47.4 %	Atmospheric Pressure:	101 kPa
Pretest mode:	TM1				
Final test mode:	TM1				

3.1.2 Test Setup Diagram:



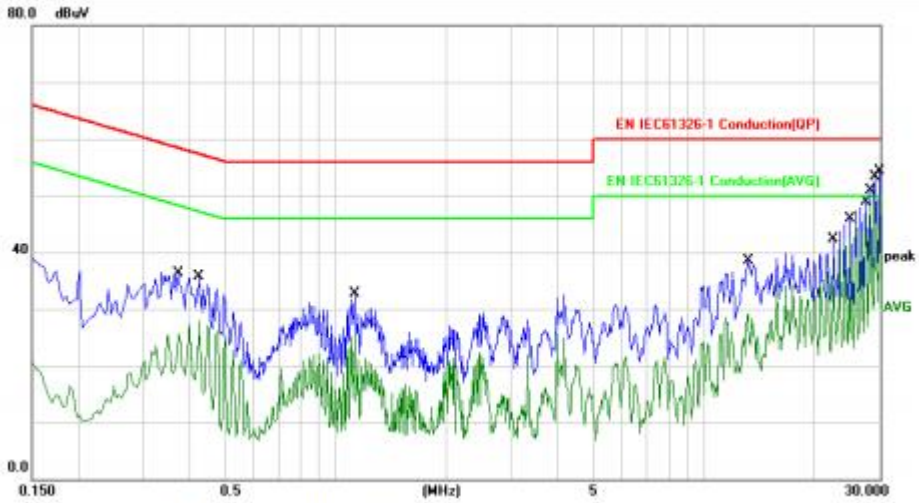
3.1.3 Test Data:

TM1 / Line: Line
Power:AC120V60Hz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	28.84	10.04	38.88	65.99	-27.11	QP	
2		0.1539	9.10	10.04	19.14	55.78	-36.64	AVG	
3		0.3740	11.49	10.00	21.49	48.41	-26.92	AVG	
4		0.3980	26.80	10.00	36.80	57.89	-21.09	QP	
5		0.8540	21.37	10.35	31.72	56.00	-24.28	QP	
6		1.1019	14.92	9.90	24.82	46.00	-21.18	AVG	
7		15.2580	25.33	10.47	35.80	60.00	-24.20	QP	
8		15.6580	17.87	10.48	28.35	50.00	-21.65	AVG	
9		19.9900	27.03	10.50	37.53	60.00	-22.47	QP	
10		20.5380	18.41	10.50	28.91	50.00	-21.09	AVG	
11	*	28.0220	31.91	10.65	42.56	60.00	-17.44	QP	
12		29.4380	20.78	10.66	31.44	50.00	-18.56	AVG	

TM1 / Line: Neutral
Power:AC120V60Hz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.3740	26.34	10.00	36.34	58.41	-22.07	QP	
2		0.4260	17.95	9.99	27.94	47.33	-19.39	AVG	
3		1.1260	22.79	9.91	32.70	56.00	-23.30	QP	
4		1.1260	15.30	9.91	25.21	46.00	-20.79	AVG	
5		13.1740	28.05	10.45	38.50	60.00	-21.50	QP	
6		13.1740	18.69	10.45	29.14	50.00	-20.86	AVG	
7		22.4420	28.23	10.55	38.78	50.00	-11.22	AVG	
8		24.9460	35.28	10.57	45.85	60.00	-14.15	QP	
9		27.4500	35.77	10.64	46.41	50.00	-3.59	AVG	
10		28.2780	40.29	10.65	50.94	60.00	-9.06	QP	
11	*	29.1140	35.88	10.66	46.54	50.00	-3.46	AVG	
12		29.9460	43.58	10.67	54.25	60.00	-5.75	QP	

3.2 Radiated emissions (Below 1GHz)

Test Requirement:	15.109, Class B
Test Limit:	Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

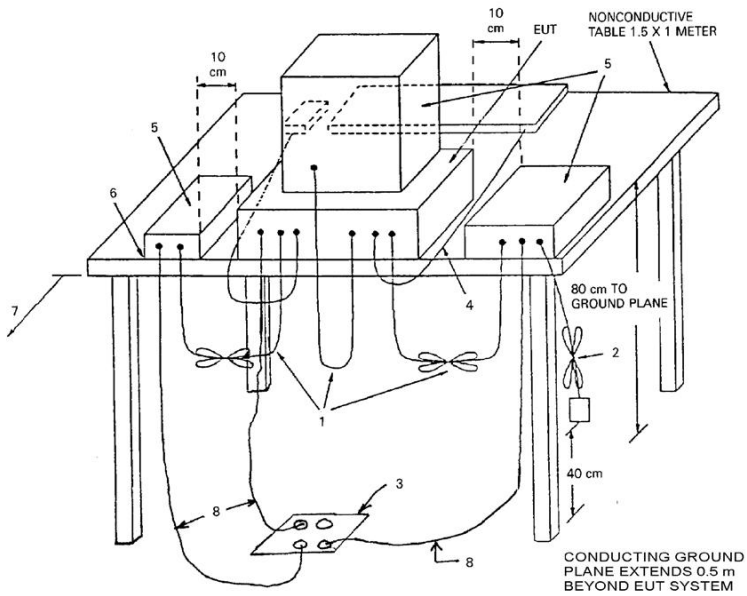
Frequency of emission (MHz)	Field strength @3m		Field strength @10m	
	(uV/m)	(dBuV/m)	(uV/m)	(dBuV/m)
30 – 88	100	40	30	29.5
88 – 216	150	43.5	45	33.1
216 – 960	200	46	60	35.6
Above 960	500	54	150	43.5

Test Method:	ANSI C63.4-2014
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:

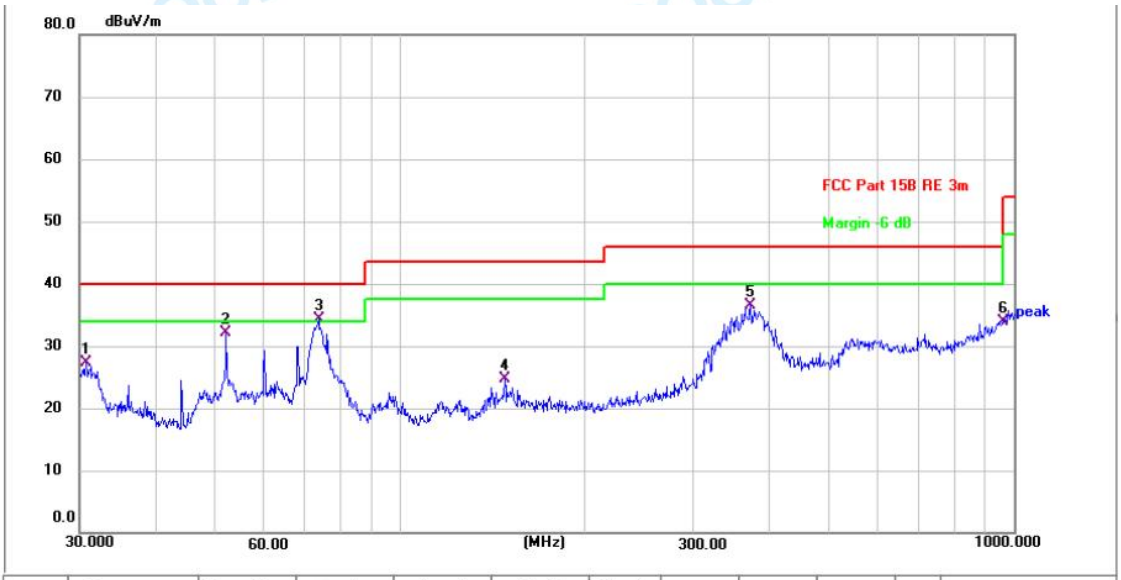
Operating Environment:					
Temperature:	22.9 °C	Humidity:	47.4 %	Atmospheric Pressure:	101 kPa
Pretest mode:	TM1				
Final test mode:	TM1				

3.2.2 Test Setup Diagram:



3.2.3 Test Data:

TM1 / Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	30.7455	30.31	-3.06	27.25	40.00	-12.75	QP	100		P	
2	52.0251	41.79	-9.69	32.10	40.00	-7.90	QP	100		P	
3 *	73.6170	42.48	-8.27	34.21	40.00	-5.79	QP	100		P	
4	147.9214	28.49	-3.83	24.66	43.50	-18.84	QP	100		P	
5	372.0045	35.52	1.03	36.55	46.00	-9.45	QP	100		P	
6	958.7943	24.63	9.30	33.93	46.00	-12.07	QP	100		P	

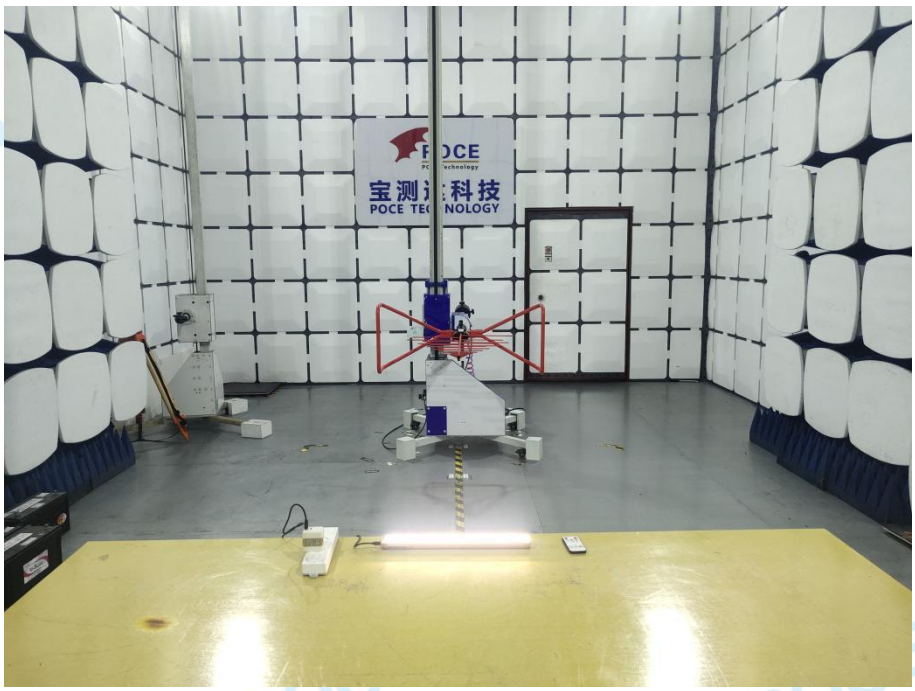
TM1 / Polarization: Vertical

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	72.8466	32.69	-8.34	24.35	40.00	-15.65	QP	100		P	
2	115.3205	31.26	-5.02	26.24	43.50	-17.26	QP	100		P	
3	261.9753	35.95	-1.45	34.50	46.00	-11.50	QP	100		P	
4 *	364.2595	42.44	1.65	44.09	46.00	-1.91	QP	100		P	
5	833.3171	29.04	6.56	35.60	46.00	-10.40	QP	100		P	
6	958.7943	24.31	9.34	33.65	46.00	-12.35	QP	100		P	

4 TEST SETUP PHOTOS

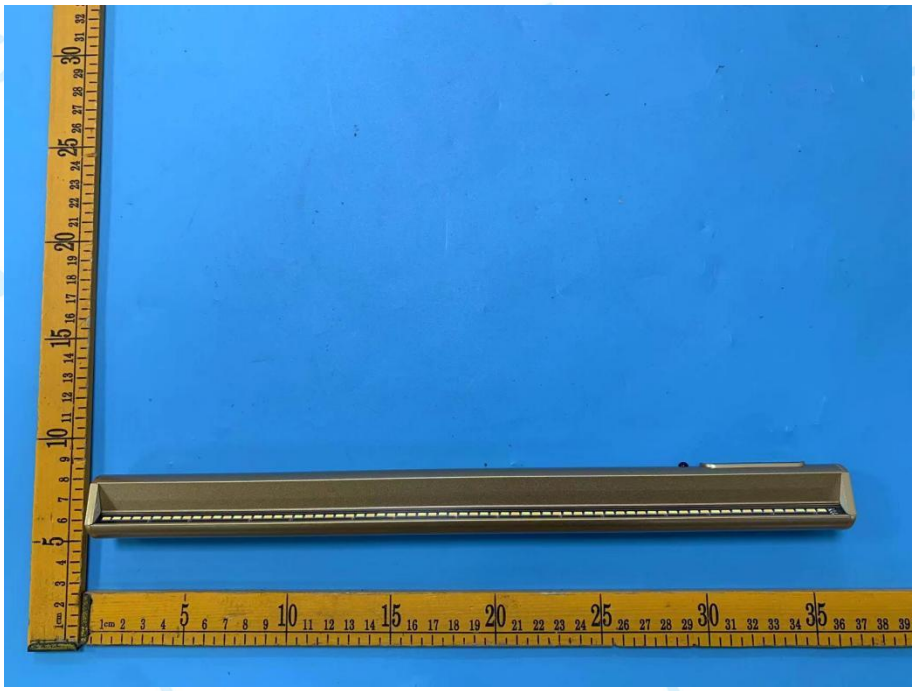
Conducted emissions on AC mains

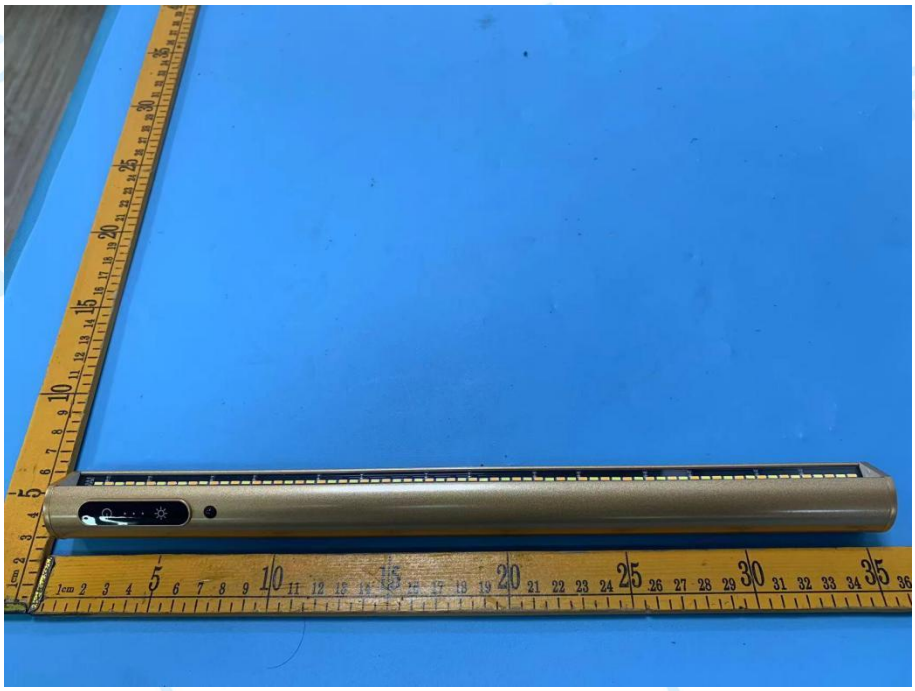
Radiated emissions (Below 1GHz)

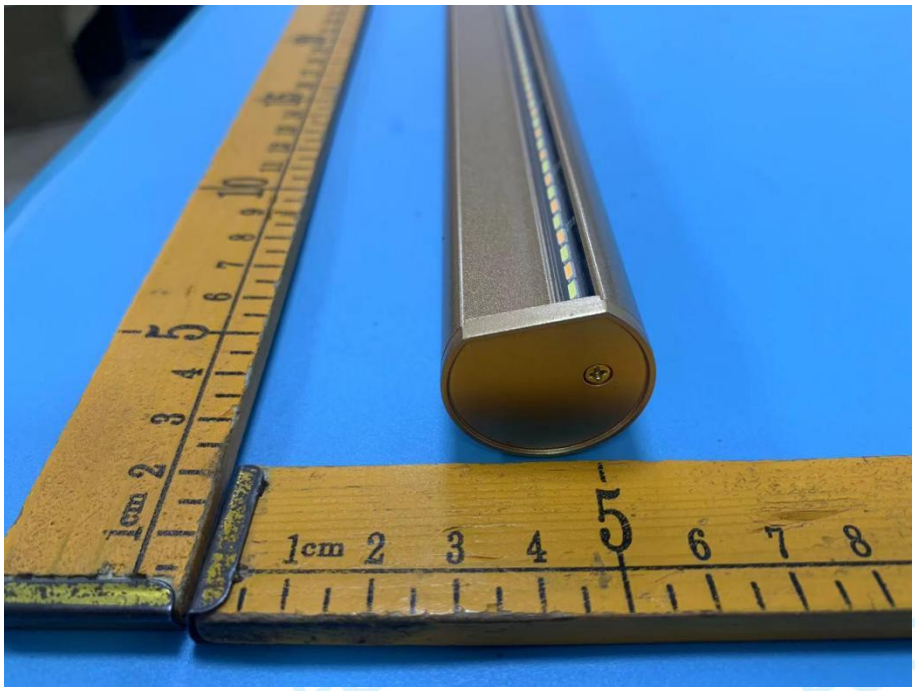


5 PHOTOS OF THE EUT

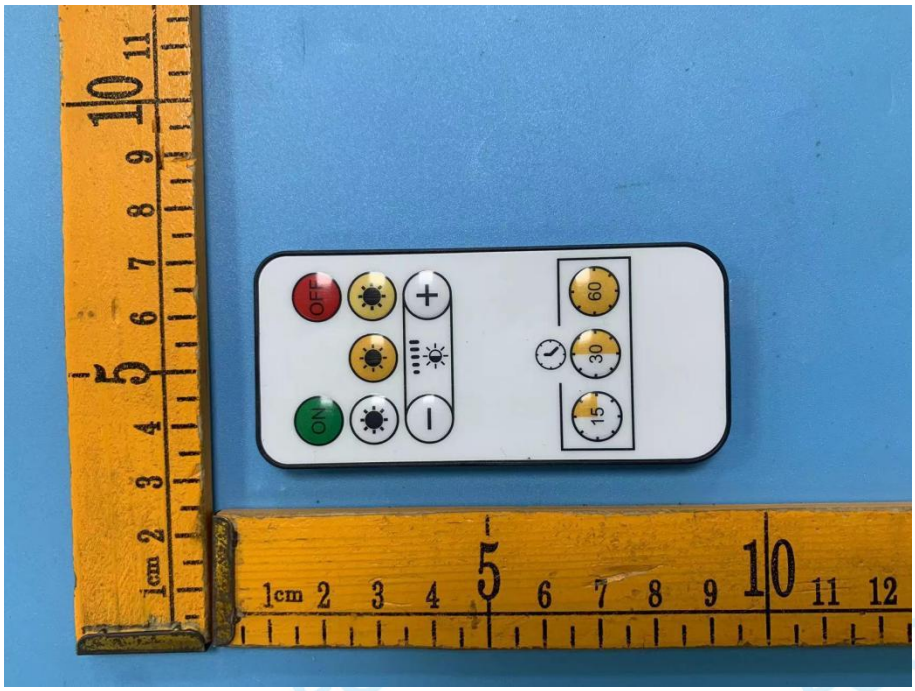
External






1cm 2 3 4 5 6 7 8

1cm 2 3 4 5 6 7 8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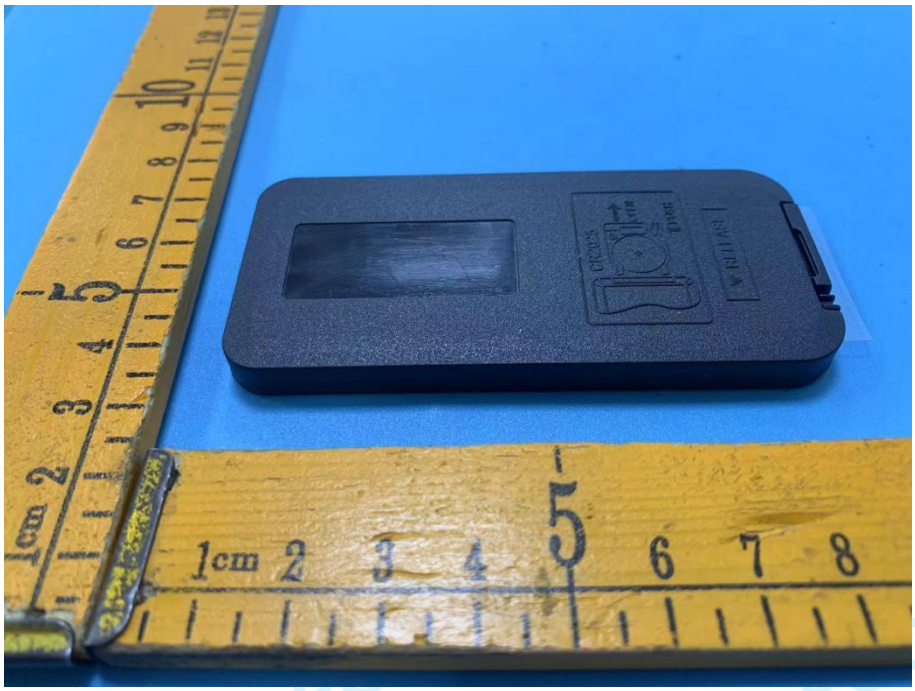
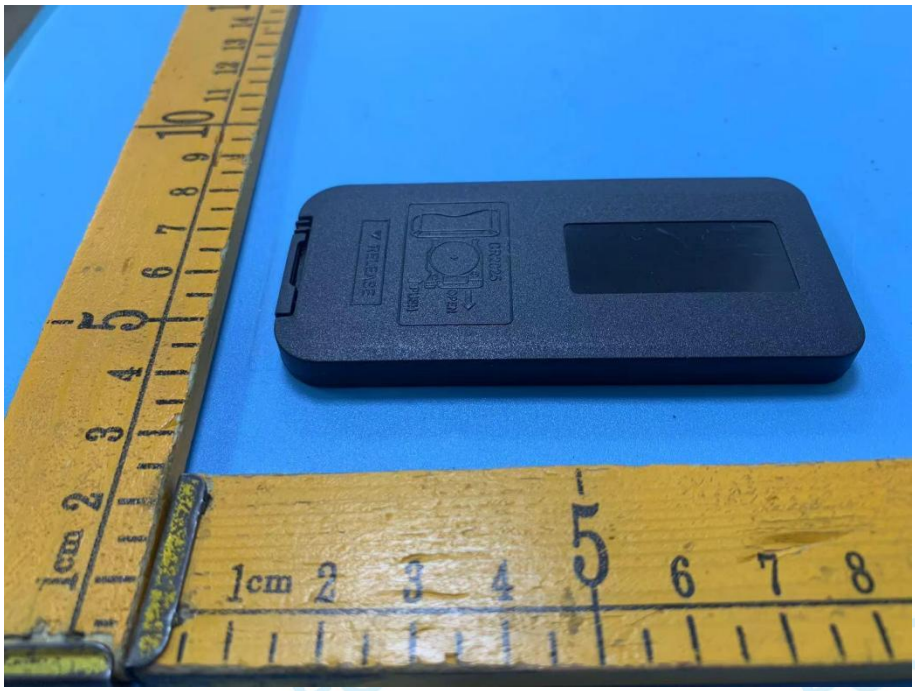
ON
60
30
15

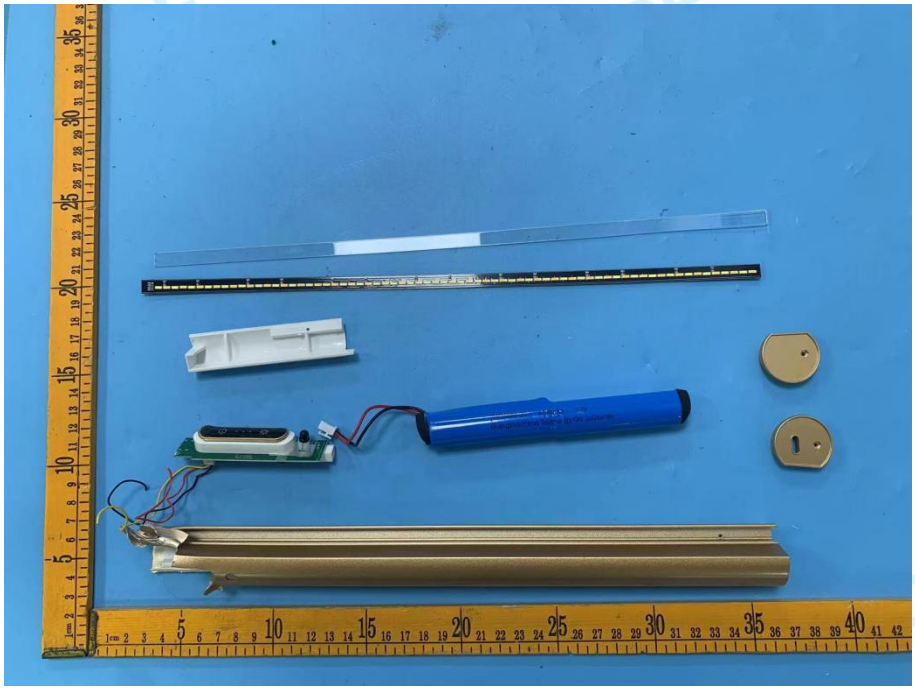
CR2025
PUSH

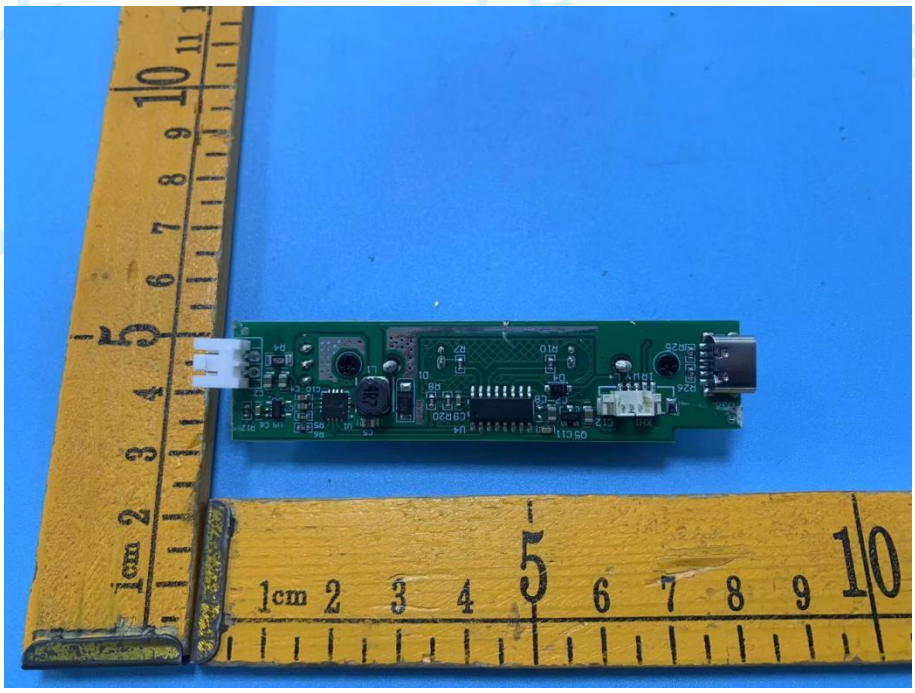


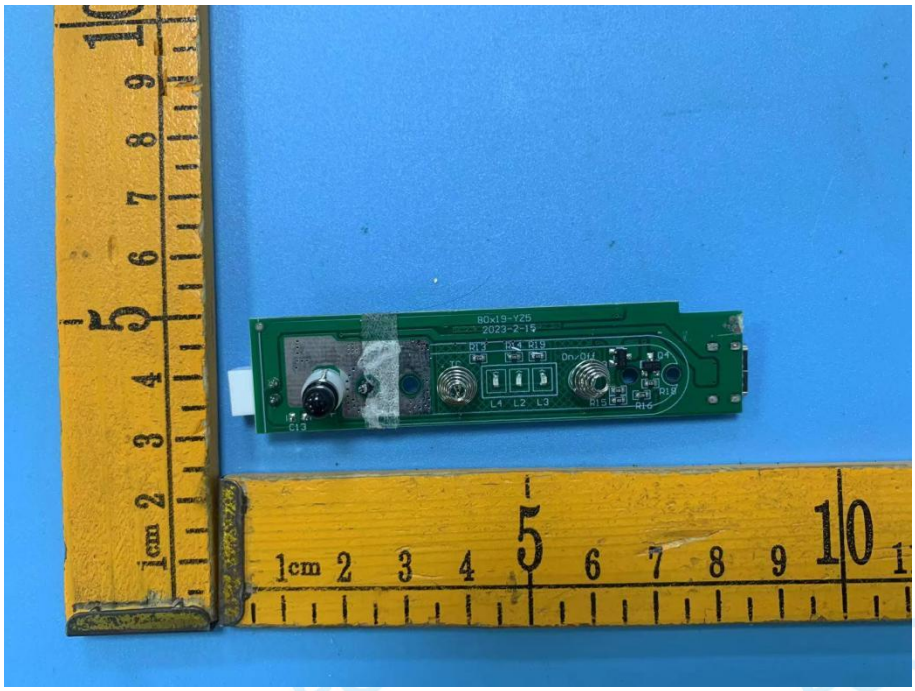

RELEASE
PUSH
OPEN

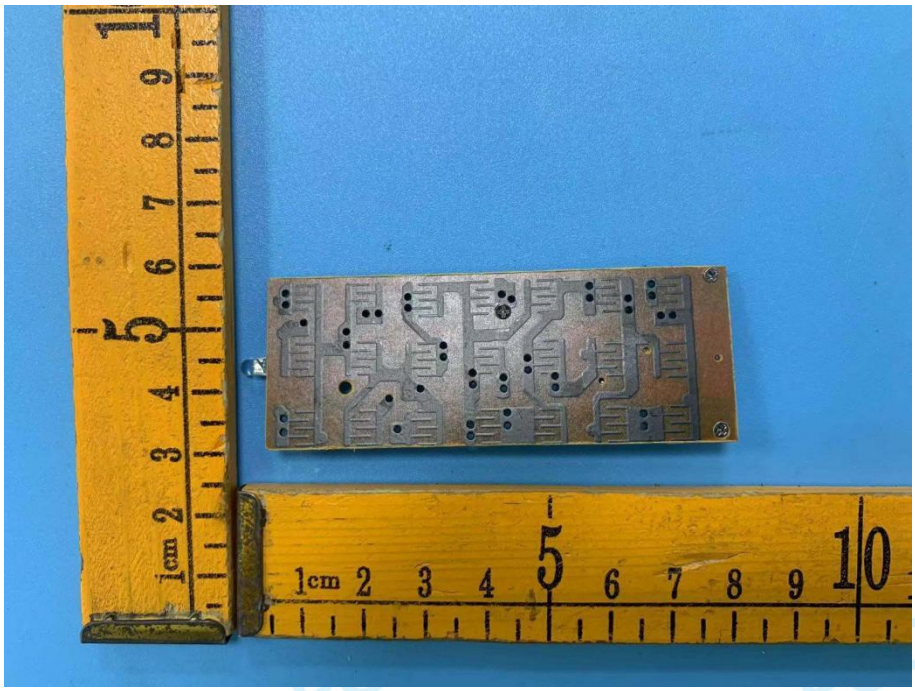
CR2025
OPEN
PUSH
RELEASE

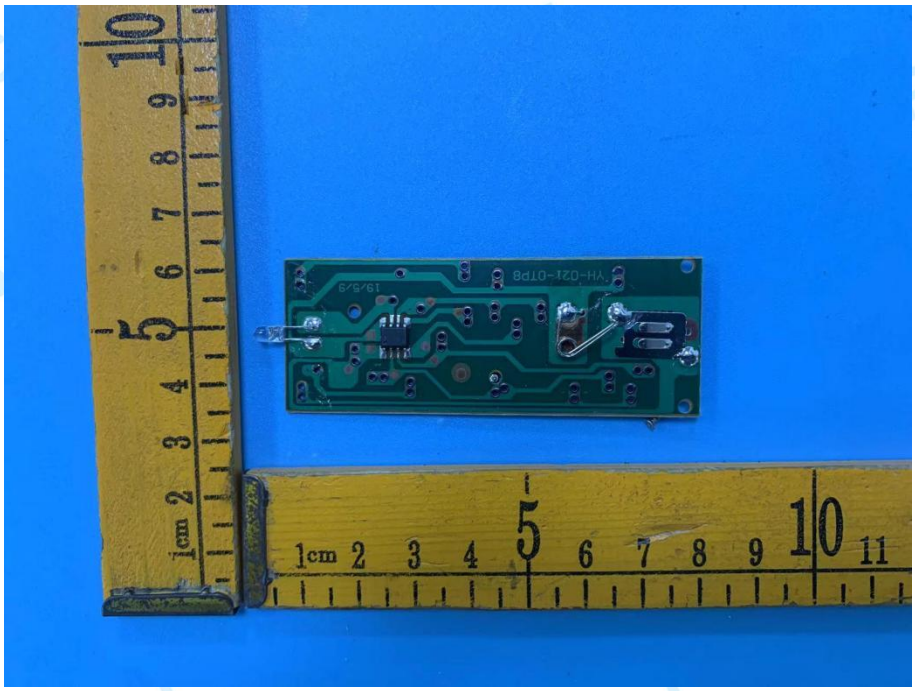
Internal











********** **End of Report** **********