TEST REPORT

Applicant:	Shenzhen Qianyue electronic Co., Ltd.
Address of Applicant:	5F 4.Building Shankeng Neihuan Road Longgang Shenzhen China
Manufacturer/ Factory:	Shenzhen Qianyue electronic Co., Ltd.
Address of Manufacturer/ Factory:	5F 4.Building Shankeng Neihuan Road Longgang Shenzhen China
Equipment Under Test (EUT)	
Product Name:	motion sensor light
Model No.:	EGHFS7W, EGHF12W, ENL02W, EHFS12W, ENL05W
FCC ID:	2A83O-EGHFS7W
Applicable standards:	FCC CFR Title 47 Part 18
Date of sample receipt:	September 15, 2022
Date of Test:	September 15, 2022-October 10, 2022
Date of report issued:	October 11, 2022
Test Result :	Pass *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Luo
Laboratory Manager

2 Version

Version No.	Date	Description
00	October 11, 2022	Original

Prepared by: Tiger Chen **Date:** October 11, 2022

Project Engineer

Reviewed by: Robinson Luo **Date:** October 11, 2022

Reviewer

3 Contents

4 Test Summary

Test Item	Section in CFR 47	Result
Radiated Emissions	FCC Part18 Clause18.305	Pass
Conducted Emissions AC power port	FCC Part18 Clause18.307	Pass
Frequency Range of Measurement	FCC Part18 Clause18.309	Pass
Prohibited frequency bands	FCC Part18 Clause18.303	Note 1

Pass: The EUT comply with the essential requirements in the standard.

Note 1: No intended operating frequency used in the prohibited bands

5 General Information

5.1 General Description of EUT

Product Name:	motion sensor light
Model No.:	EGHFS7W, EGHF12W, ENL02W, EHFS12W, ENL05W
Test Model No:	EGHFS7W
Remark: All above models are identical in the same PCB layout, interior structure and electrical circuits. The differences are housing appearance, size, color and model name for commercial purpose.	
Test sample(s) ID:	GTS202209000111-1
Sample(s) Status	Engineer sample
Microwave frequency:	2450± 50.0 MHz
HF sensor output:	1mW
Power Supply:	AC 85~265V

5.2 Test mode and Test voltage

Test mode:	
Operation mode	Keep the EUT in the operation status.
Test voltage:	
AC 120V	

5.3 Description of Support Units

None.

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

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

● **FCC —Registration No.: 381383**

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.

● **IC —Registration No.: 9079A**

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing

● **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.7 Test Location

Tests were performed at:

Global United Technology Services Co., Ltd.
Address: No. 123-128, Tower A,Jinyuan Business Building, No.2, Laodong Industrrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102
Tel: 0755-27798480 Fax: 0755-27798960

6 Test Instruments list

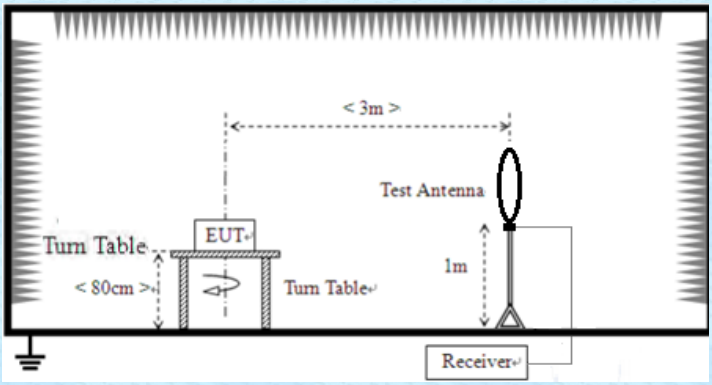
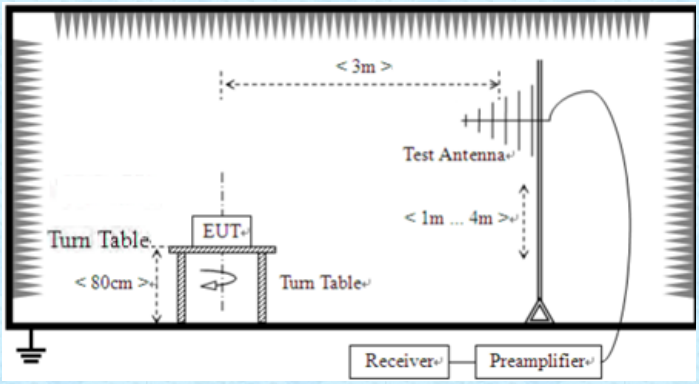
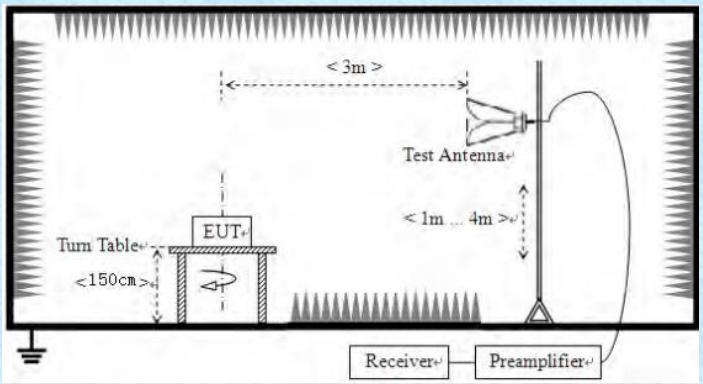
Radiated Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July 02, 2020	July 01, 2025
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	April 22, 2022	April 21, 2023
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	March 21, 2022	March 20, 2023
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June 12, 2022	June 11, 2023
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June 23, 2022	June 22, 2023
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	April 22, 2022	April 21, 2023
9	Coaxial Cable	GTS	N/A	GTS211	April 22, 2022	April 21, 2023
10	Coaxial cable	GTS	N/A	GTS210	April 22, 2022	April 21, 2023
11	Coaxial Cable	GTS	N/A	GTS212	April 22, 2022	April 21, 2023
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	April 22, 2022	April 21, 2023
13	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 23, 2022	June 22, 2023
14	Band filter	Amindeon	82346	GTS219	June 23, 2022	June 22, 2023
15	Power Meter	Anritsu	ML2495A	GTS540	June 23, 2022	June 22, 2023
16	Power Sensor	Anritsu	MA2411B	GTS541	June 23, 2022	June 22, 2023
17	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	April 22, 2022	April 21, 2023
18	Splitter	Agilent	11636B	GTS237	June 23, 2022	June 22, 2023
19	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov. 30, 2021	Nov. 29, 2022
20	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	April 22, 2022	April 21, 2023
21	Breitband hornantenna	SCHWARZBECK	BBHA 9170	GTS579	Oct. 17, 2021	Oct. 16, 2022
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 17, 2021	Oct. 16, 2022
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 17, 2021	Oct. 16, 2022
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June 23, 2022	June 22, 2023
25	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	April 22, 2022	April 21, 2023

Conducted Emission						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May 14, 2022	May 13, 2025
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 24, 2022	April 23, 2023
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June 23, 2022	June 22, 2023
4	ENV216 2-L-V-NETZNACHB.DE	ROHDE&SCHWARZ	ENV216	GTS226	April 22, 2022	April 21, 2023
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Thermo meter	JINCHUANG	GSP-8A	GTS639	April 28, 2022	April 27, 2023
8	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	April 15, 2022	April 14, 2023
9	ISN	SCHWARZBECK	NTFM 8158	GTS565	April 22, 2022	April 21, 2023
10	High voltage probe	SCHWARZBECK	TK9420	GTS537	April 22, 2022	April 21, 2023

General used equipment:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	April 25, 2022	April 24, 2023
2	Barometer	ChangChun	DYM3	GTS255	July 26, 2022	July 25, 2023

7 Test Results and Measurement Data

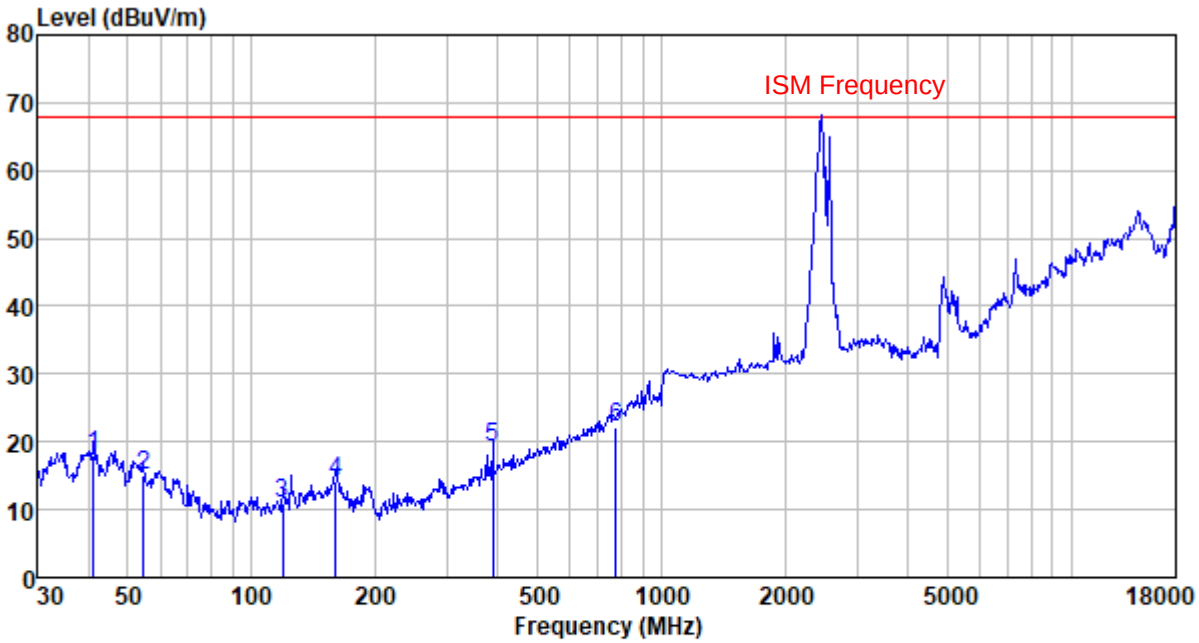
7.1 Radiated Emission

Test Requirement:	FCC Part18 Clause18.305(b)
Test Method:	FCC/OST MP-5(1986)
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)
Limit:	67.96dBuV/m, detector: QP
Test setup:	Below 30MHz  Below 1GHz  Above 1GHz 
Test Procedure:	1. The EUT was placed on the top of a rotating table 1 meters above the ground at a 3 meter semi-anechoic chamber. The table was

	rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 1 meters away from the interference-receiving antenna, 3. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. 4. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 5. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1 012mbar
Measurement Record:	Uncertainty: 4.32dB（9kHz-30MHz） 3.8039dB （30MHz-200MHz） 3.9679dB （200MHz-1GHz）
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

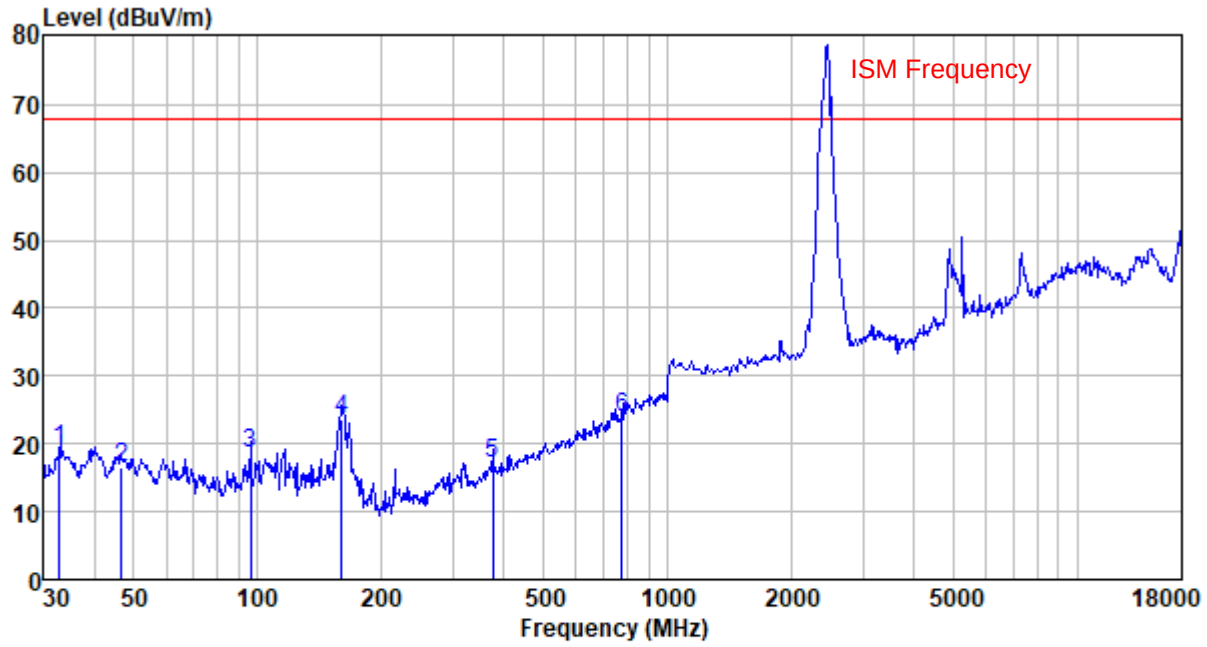
Measurement Data

Test mode:	Operation mode	Antenna Polarity:	Horizontal



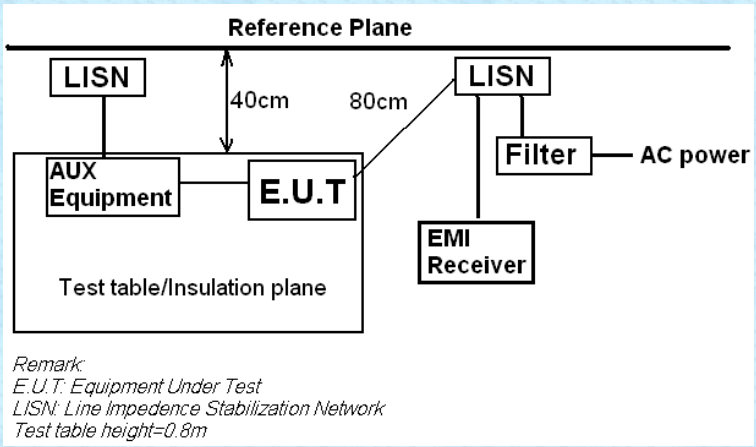
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
41.277	39.14	13.46	0.67	35.34	17.93	67.96	-50.03	QP
54.643	36.86	12.91	0.81	35.66	14.92	67.96	-53.04	QP
119.018	34.82	11.13	1.33	36.23	11.05	67.96	-56.91	QP
160.909	36.62	12.49	1.63	36.45	14.29	67.96	-53.67	QP
387.992	37.91	15.35	2.79	37.00	19.05	67.96	-48.91	QP
776.878	32.65	22.28	4.38	37.29	22.02	67.96	-45.94	QP

Test mode:	Operation mode	Antenna Polarity:	Vertical



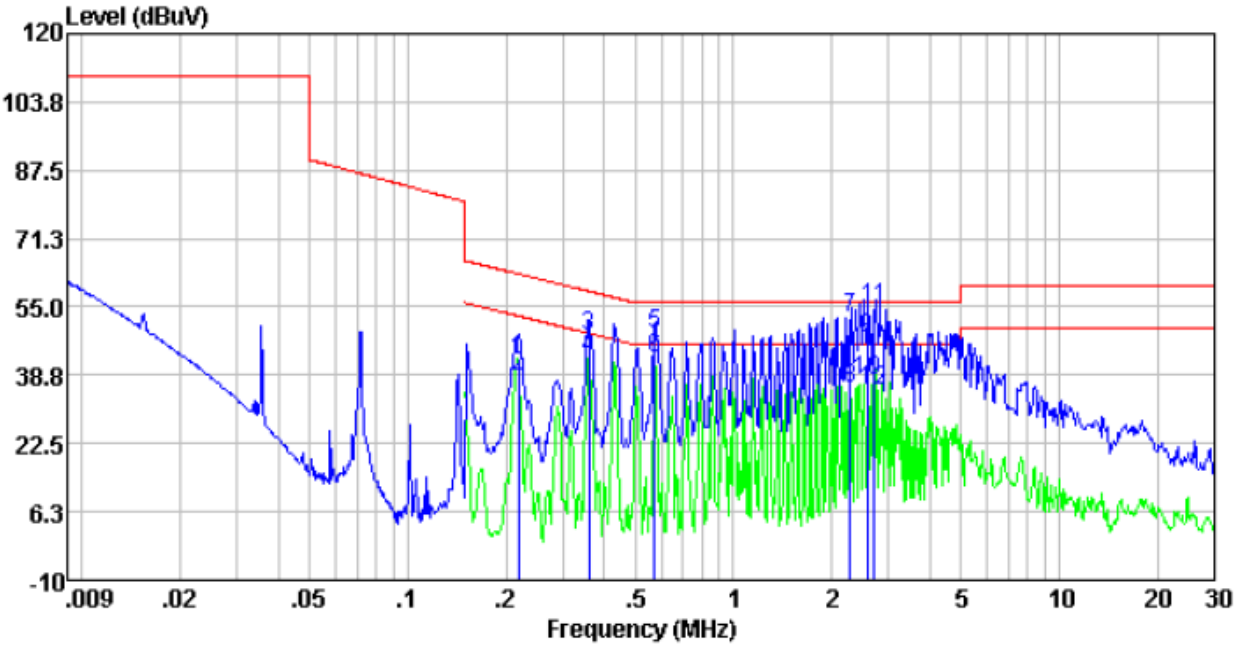
Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
32.979	40.98	12.47	0.58	34.90	19.13	67.96	-48.83	QP
46.666	37.92	13.29	0.73	35.51	16.43	67.96	-51.53	QP
96.099	44.13	9.28	1.16	36.07	18.50	67.96	-49.46	QP
160.346	45.97	12.56	1.62	36.44	23.71	67.96	-44.25	QP
375.939	36.48	14.99	2.74	36.99	17.22	67.96	-50.74	QP
776.878	34.55	22.28	4.38	37.29	23.92	67.96	-44.04	QP

7.2 Conducted Emissions

Test Requirement:	FCC Part18.307
Test Method:	ANSI C63.4:2014
Test Frequency Range:	150kHz to 30MHz
Receiver setup:	RBW=9kHz, VBW=30kHz
Limit:	Frequency range (MHz) / Limit (dBuV): Quasi-peak / Average 0.009-0.05: 110 / - 0.05-0.15: 90-80* / - 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 setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test environment:	Temp.: 25 °C / Humid.: 52% / Press.: 1 012mbar
Measurement Record:	Uncertainty: 3.44dB
Test Instruments:	Refer to section 6 for details
Test mode:	Refer to section 5.2 for details,
Test results:	Pass

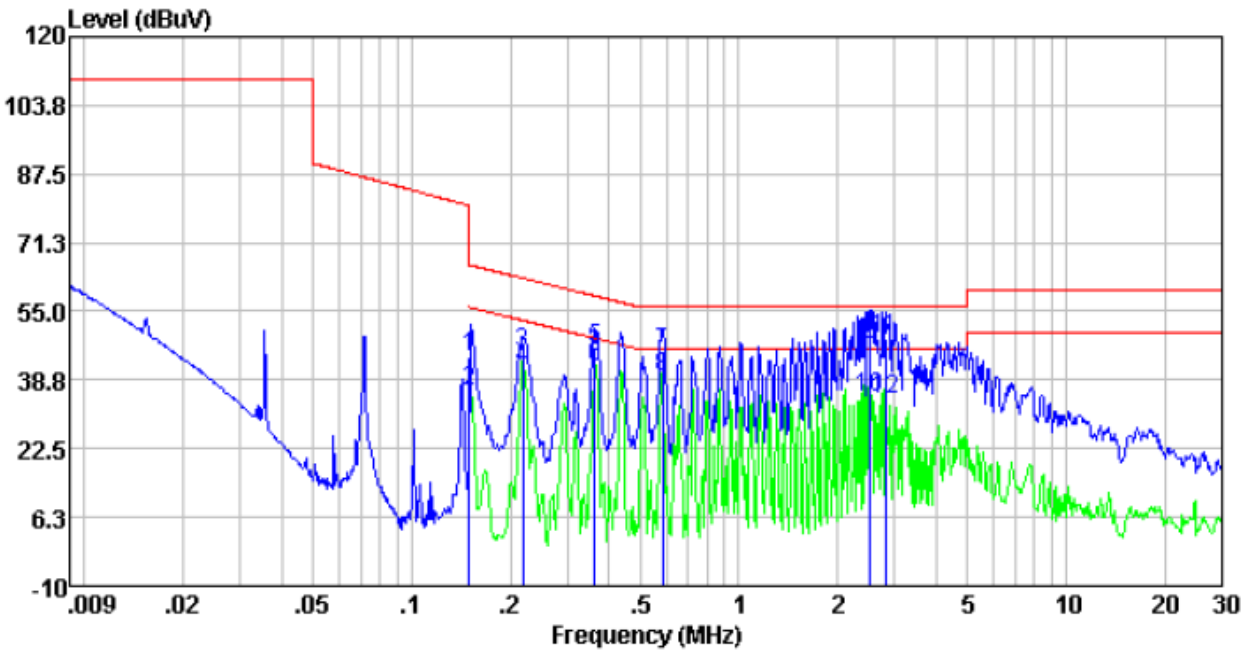
Measurement Data

Test mode:	Operation mode	Phase Polarity:	Line



Freq	Reading level	LISN/ISN factor	Cable loss	Level	Limit level	Over limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.22	32.12	10.03	0.10	42.25	62.88	-20.63	QP
0.22	28.15	10.03	0.10	38.28	52.88	-14.60	Average
0.36	37.96	9.97	0.10	48.03	58.74	-10.71	QP
0.36	32.76	9.97	0.10	42.83	48.74	-5.91	Average
0.57	38.45	9.96	0.10	48.51	56.00	-7.49	QP
0.57	32.81	9.96	0.10	42.87	46.00	-3.13	Average
2.28	42.49	9.81	0.10	52.40	56.00	-3.60	QP
2.28	25.84	9.81	0.10	35.75	46.00	-10.25	Average
2.58	37.64	9.78	0.10	47.52	56.00	-8.48	QP
2.58	27.84	9.78	0.10	37.72	46.00	-8.28	Average
2.71	44.75	9.77	0.10	54.62	56.00	-1.38	QP
2.71	25.23	9.77	0.10	35.10	46.00	-10.90	Average

Test mode:	Operation mode	Phase Polarity:	Neutral

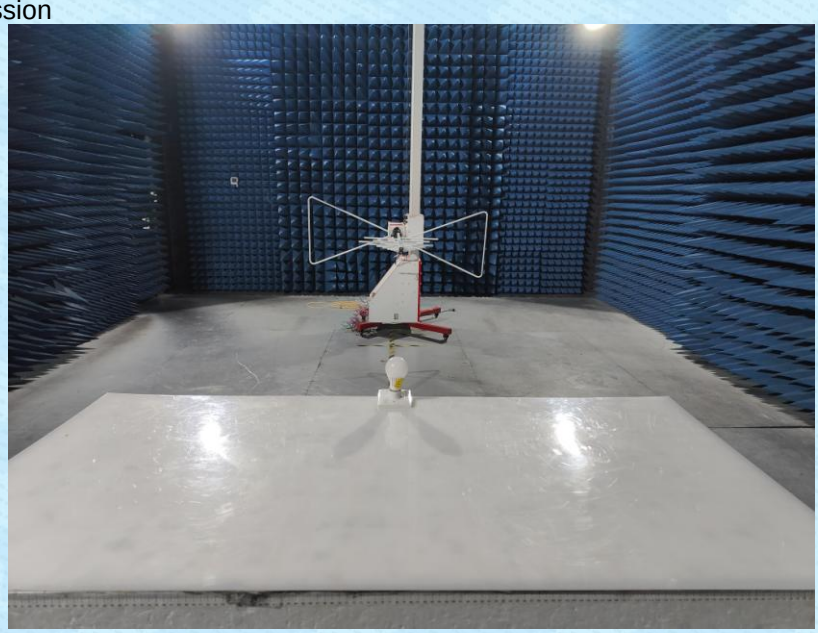


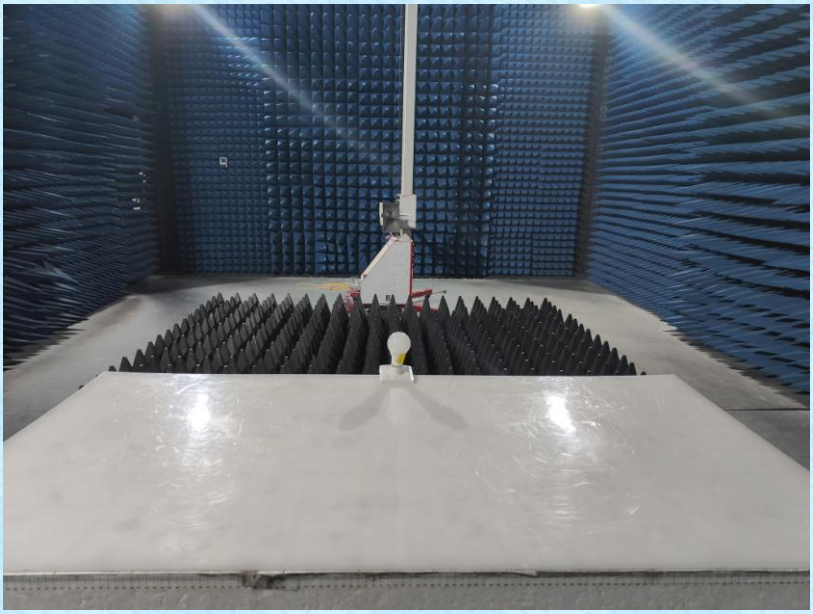
Freq	Reading level	LISN/ISN factor	Cable loss	Level	Limit level	Over limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.15	33.72	10.16	0.10	43.98	66.00	-22.02	QP
0.15	25.59	10.16	0.10	35.85	56.00	-20.15	Average
0.22	34.86	10.04	0.10	45.00	62.88	-17.88	QP
0.22	31.22	10.04	0.10	41.36	52.88	-11.52	Average
0.36	35.91	9.96	0.10	45.97	58.65	-12.68	QP
0.36	31.68	9.96	0.10	41.74	48.65	-6.91	Average
0.59	34.94	9.96	0.10	45.00	56.00	-11.00	QP
0.59	29.23	9.96	0.10	39.29	46.00	-6.71	Average
2.53	37.51	9.65	0.10	47.26	56.00	-8.74	QP
2.53	24.92	9.65	0.10	34.67	46.00	-11.33	Average
2.81	39.09	9.55	0.10	48.74	56.00	-7.26	QP
2.81	24.32	9.55	0.10	33.97	46.00	-12.03	Average

Notes:
1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

8 Test Setup Photo

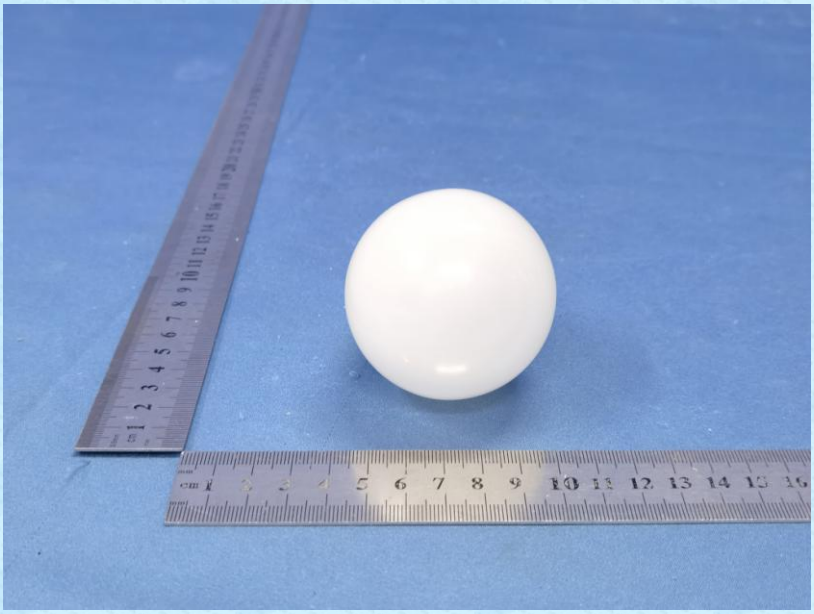
Radiated Emission

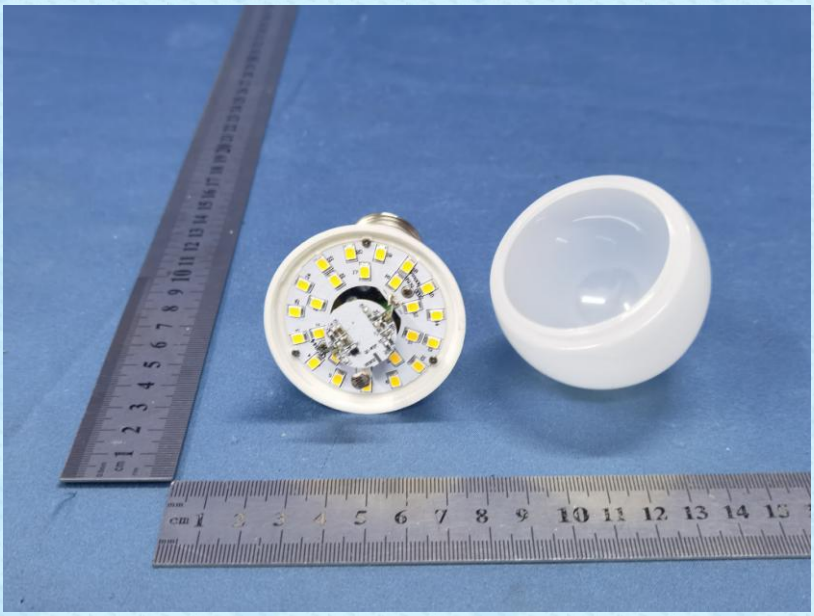


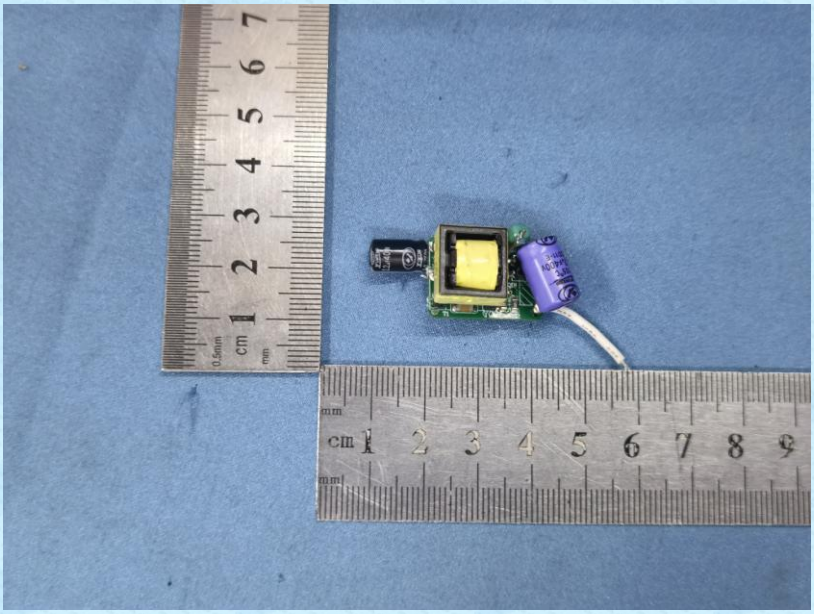


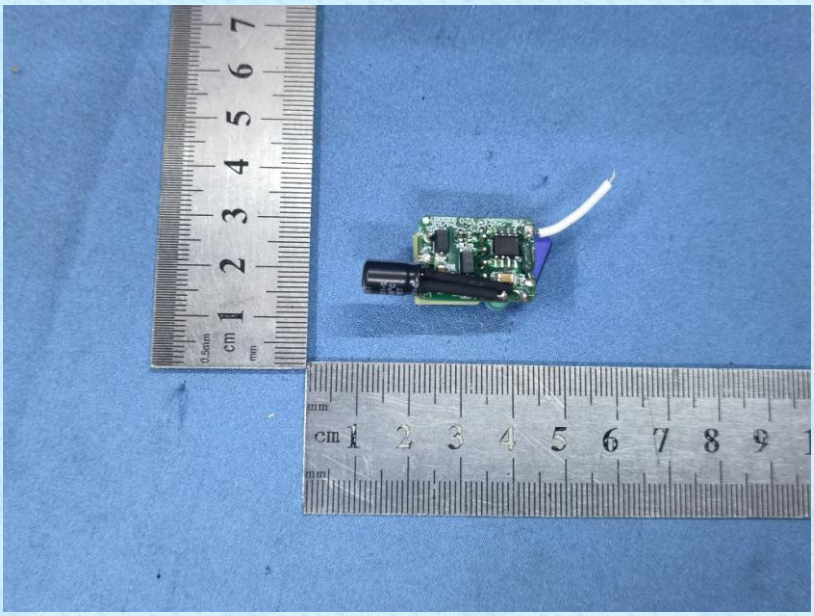
Conducted Emission

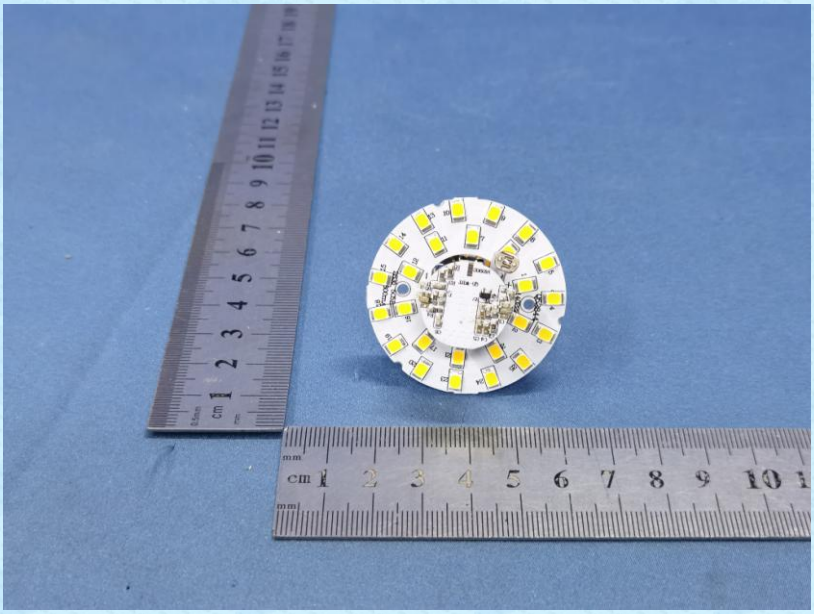
9 EUT Constructional Details

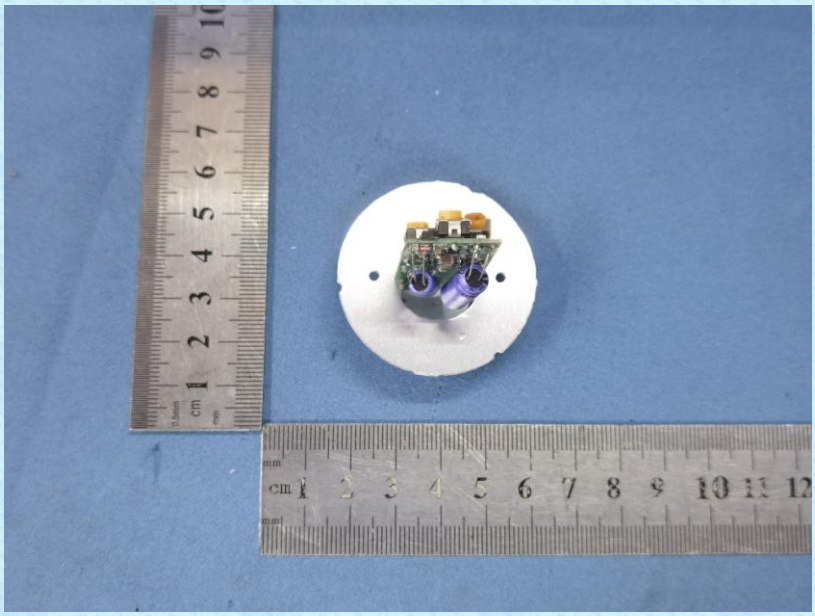


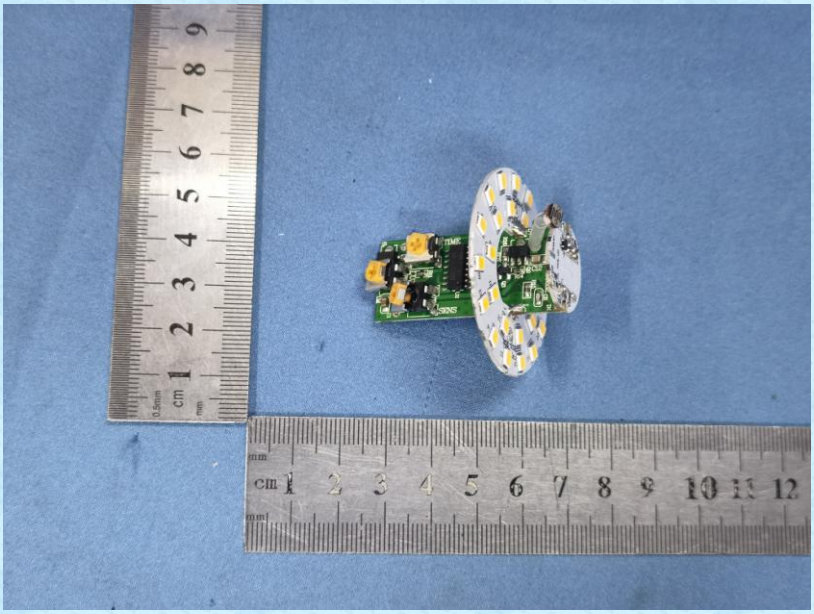


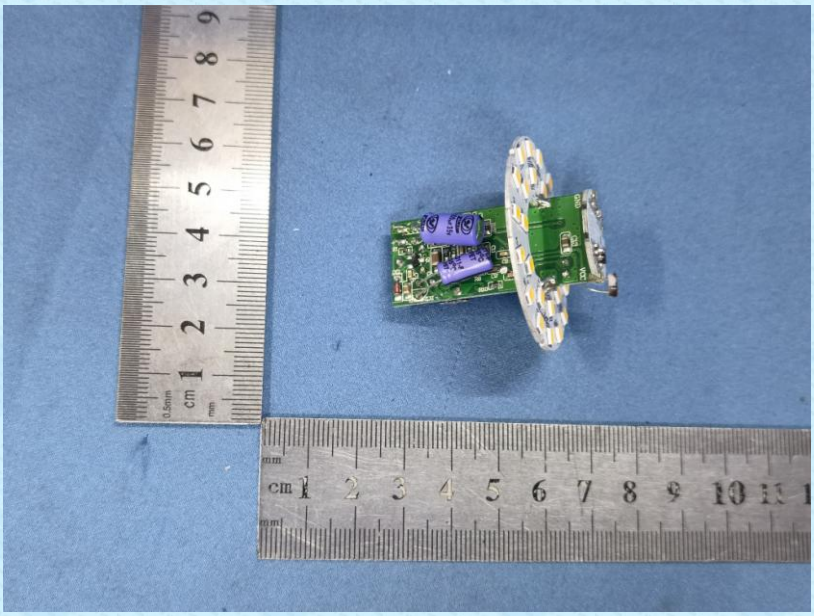












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