TEST REPORT

Product Name : Floor Lamp
Model Number : D43501
FCC ID : 2A7WU-D43501

Prepared for	:	SHENZHEN DAYBETTER OPTO-ELECTRONICS CO.,LTD
Address	:	Floor 4, Building 2, Antuoshan High-tech Park, No.59 Xinsha Road, Shajing Town, Baoan District, Shenzhen
Prepared by	:	EMTEK (DONGGUAN) CO., LTD.
Address	:	-1&2/F.,Building 2, Zone A, Zhongda Marine Biotechnology Research and Development Base, No.9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China TEL: +86-0769-22807078 FAX: +86-0769-22807079
Report Number	:	EDG2407150059E00303R
Date(s) of Tests	:	July 15, 2024 to August 14, 2024
Date of issue	:	August 14, 2024

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1. TEST RESULT CERTIFICATION

Applicant	:	SHENZHEN DAYBETTER OPTO-ELECTRONICS CO.,LTD
Address	:	Floor 4, Building 2, Antuoshan High-tech Park, No.59 Xinsha Road, Shajing Town, Baoan District, Shenzhen
Manufacturer	:	SHENZHEN DAYBETTER OPTO-ELECTRONICS CO.,LTD
Address	:	Floor 4, Building 2, Antuoshan High-tech Park, No.59 Xinsha Road, Shajing Town, Baoan District, Shenzhen
EUT	:	Floor Lamp
Model Name	:	D43501
Trademark	:	N/A

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
§ 15.247(i), § 2.1093	**PASS**

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093.

The test results of this report relate only to the tested sample identified in this report

Date of Test : July 15, 2024 to August 14, 2024

Prepared by : Warren Deng /Editor

Reviewer : Tim Dong /Supervisor

Approve & Authorized Signer : Sam Lv / Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2407150059E00303R	/	Original Report

2. EUT Specification

Characteristics	Description
Product:	Floor Lamp
Model Number:	D43501
Sample:	1#
Data Rate:	1Mbps for GFSK modulation 2Mbps for π/4-DQPSK modulation 3Mbps for 8DPSK modulation 1Mbps for GFSK modulation DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n;
Modulation:	GFSK, π/4-DQPSK, 8DPSK, DSSS, OFDM
Operating Frequency Range(s) :	2402-2480MHz for BT & BLE; 2412-2462MHz for 802.11b/g/n(HT20);
Number of Channels:	BLE:40 channels 11 channels for 802.11b/g/n(HT20);
Transmit Power Max:	BLE: 4.39 dBm(0.002748 mW) 2.4G WIFI:10.27 dBm(0.010641 W)
Antenna Gain:	BLE: -1.49 dBi 2.4G WIFI: -1.49 dBi
Power supply:	DC 24V from Adapter
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement:

RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density(mW/cm^2)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

Friis transmission formula: Pd= (Pout*G)\ ($4*pi*R^2$)

Where

Pd= Power density in mW/cm^2

Pout=output power to antenna in mW

G= Numeric gain of the antenna relative to isotropic antenna

Pi=3.1416

R= distance between observation point and center of the radiator in cm

Pd the limit of MPE, $1mW/cm^2$. If we know the maximum gain of the nd total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

4. Measurement Result

gain:	-1.49	BLE FCC MPE							
Mode	Frequency (MHz)	Output Power(dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm2)	Limit (mW/cm2)	Verdict
GFSK 1M	2402	4.32	2.83	4±1	5	3.16	0.000446	1	PASS
	2440	4.3	2.81	4±1	5	3.16	0.000446	1	PASS
	2480	3.82	2.33	3±1	4	2.51	0.000355	1	PASS
GFSK 2M	2402	4.39	2.9	4±1	5	3.16	0.000446	1	PASS
	2440	4.27	2.78	4±1	5	3.16	0.000446	1	PASS
	2480	3.85	2.36	3±1	4	2.51	0.000355	1	PASS

gain:	-1.49	WIFI 2.4G FCC EMF							
Mode	Frequency (MHz)	Output Power (dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm2)	Limit (mW/cm2)	Verdict
802.11b	2412	10.27	8.78	10±1	11	12.59	0.001777	1	PASS
	2437	9.82	8.33	9±1	10	10.00	0.001412	1	PASS
	2462	9.42	7.93	9±1	10	10.00	0.001412	1	PASS
802.11g	2412	5.48	3.99	+±1	6	3.98	0.000562	1	PASS
	2437	3.87	2.38	3±1	4	2.51	0.000355	1	PASS
	2462	4.71	3.22	4±1	5	3.16	0.000446	1	PASS
802.11n(HT20)	2412	4.32	2.83	4±1	5	3.16	0.000446	1	PASS
	2437	3.97	2.48	3±1	4	2.51	0.000355	1	PASS
	2462	3.99	2.5	3±1	4	2.51	0.000355	1	PASS

According to KDB 447498, no stand-alone required for WIFI antenna, and no simultaneous SAR measurement is required. BLE and wifi cannot transmit at the same time.

*** End of Report ***