

RF Exposure Report

FCC ID: 2BNVR-TCS-001

Report No. : SSP25060018-3E

Applicant : Zhongshan Guzhen Luoao Lighting Factory

Product Name : Wireless charging RGB music light

Model Name : TCS-001

Test Standard : FCC CFR 47 PART 1, 1.1310

Date of Issue : 2025-06-23



Shenzhen CCUT Quality Technology Co., Ltd.

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This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen CCUT Quality Technology Co., Ltd.

Test Report Basic Information

Applicant:	Zhongshan Guzhen Luoao Lighting Factory No. 2 Dongfeng Road, Gu'er Shuncheng Industrial Zone Guzhen, Zhongshan City, China
Manufacturer:	Zhongshan Guzhen Luoao Lighting Factory No. 2 Dongfeng Road, Gu'er Shuncheng Industrial Zone Guzhen, Zhongshan City, China
Product Name:	Wireless charging RGB music light
Brand Name:	GDLUOAO
Main Model:	TCS-001 TCS-002, TCS-003, TCS-004, TCS-005, TCS-006, TCS-007, TCS-008, TCS-009,
Series Models:	TCS-010
Test Standard:	FCC CFR 47 PART 1, 1.1310 KDB 680106 D01 Wireless Power Transfer v04
Date of Test	2025-06-04 to 2025-06-17
Test Result:	PASS
Tested By	<u>Walker Wu</u> (Walker Wu)
Reviewed By:	<u>Lorzix Luo</u> (Lorzix Luo)
Authorized Signatory:	<u>Lahm Peng</u> (Lahm Peng)
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Revision History

Revision	Issue Date	Description	Revised By
V1.0	2025-06-23	Initial Release	Lahm Peng

1. General Information

1.1 Product Information

Product Name:	Wireless charging RGB music light
Trade Name:	GDLUOAO
Main Model:	TCS-001
Series Models:	TCS-002, TCS-003, TCS-004, TCS-005, TCS-006, TCS-007, TCS-008, TCS-009, TCS-010
Rated Voltage:	Input: DC 5V=1A Wireless charging output: 15W
Battery:	DC 3.7V, 1200mAh
Test Sample No:	SSP25060018-1
Hardware Version:	V1.0
Software Version:	V1.0
Note 1: The test data is gathered from a production sample, provided by the manufacturer.	
Note 2: The color of appearance and model name of series models listed are different from the main model, but the circuit and the electronic construction are the same, declared by the manufacturer.	
Note 3: When using the wireless charging function, this device can only be charged via an external power source. The battery does not support wireless charging.	

Wireless Specification	
Wireless Standard:	WPC
Operating Frequency:	Wireless charging Output (Phone/Earphone):110.5kHz-205kHz
Max. Field Strength:	62.38dBuV/m
Modulation:	FSK
Antenna Gain:	0dBi
Type of Antenna:	Coil Antenna
Type of Device:	☐ Portable Device ☒ Mobile Device

1.2 Test Setup Information

List of Test Modes			
Test Mode	Description		Remark
TM1	Wireless charging 15W		-
-	-		-
Note: All modes have been tested and only the worst mode TM1 data is represented in the report.			
List and Details of Auxiliary Cable			
Description	Length (cm)	Shielded/Unshielded	With/Without Ferrite
-	-	-	-
List and Details of Auxiliary Equipment			
Description	Manufacturer	Model	Serial Number
Earphone	iPhone	MG843CH/A	C6KDL69N0GQY
Adapter	UGREEN	CD289	90324

1.3 Test Facilities

Laboratory Name:	Shenzhen CCUT Quality Technology Co., Ltd. 1F, Building 35, Changxing Technology Industrial Park, Yutang Street, Guangming District, Shenzhen, Guangdong, China
CNAS Laboratory No.:	L18863
A2LA Certificate No.:	6983.01
FCC Registration No.:	583813
FCC Designation No.:	CN1373
ISED Registration No.:	CN0164
All measurement facilities used to collect the measurement data are located at 1F, Building 35, Changxing Technology Industrial Park, Yutang Street, Guangming District, Shenzhen, Guangdong, China.	

1.4 List of Measurement Instruments

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Electromagnetic radiation tester	WAVECONTROL	SMP3	23SL0158	2024-10-16	2025-10-15
Electromagnetic field probe	WAVECONTROL	WP400-3	24WP240067	2024-10-16	2025-10-15
Test Software	WAVECONTROL	SMP	N/A	N/A	N/A

1.5 Measurement Uncertainty

Test Item	Uncertainty
E-field	0.6 dB
H-field	0.6 dB

2. RF Exposure

2.1 Standard and Limit

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)

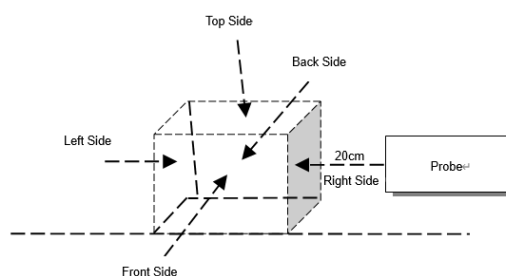
Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

f = frequency in MHz

2.2 Test Procedures

- 1) The RF exposure test was performed in anechoic chamber.
- 2) E and H-field measurements should be made with the center of the probe at a distance of 20m surrounding the device and 20 cm above the top surface of the primary/client pair.
These measurements should be repeated for three different client battery levels, 1%, 50%, and 99%.
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points were completed.
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v04.



Test Setup Block Diagram

2.3 Test Data and Results

All modes including have been tested, The report reflects data for the worst TM1 mode only.

Test condition 1: Mode 1 operating mode with client device.

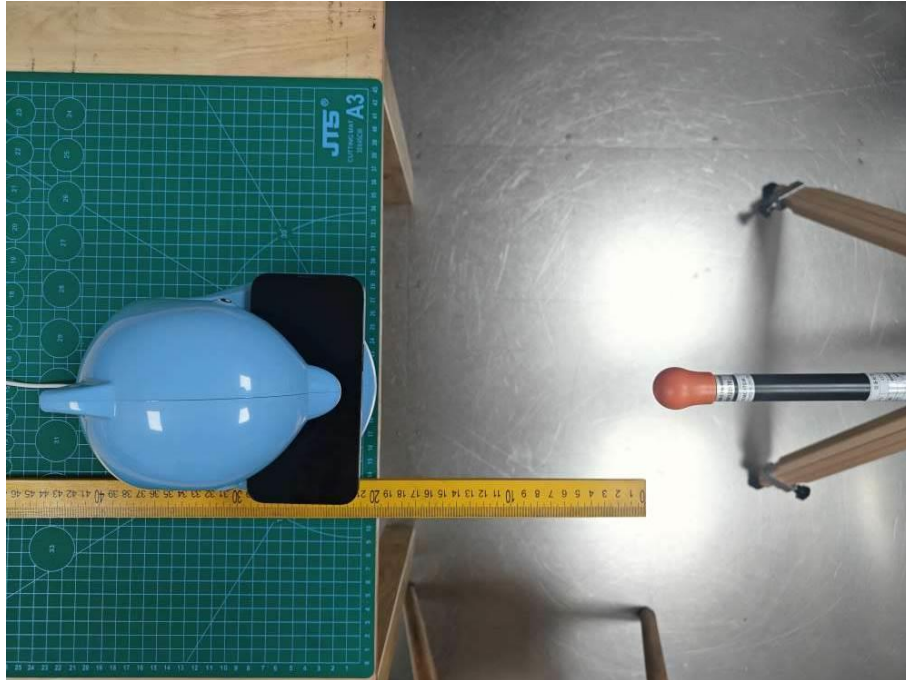
Maximum permissible Exposure				
Battery levels	Test sides	Test distance(cm)	E -field(V/m)	H-field(A/m)
<1%	Top	20	2.463	0.315
<1%	Left	20	4.254	0.223
<1%	Right	20	6.347	0.473
<1%	Front	20	3.674	0.166
<1%	Back	20	1.719	0.191
Limit			614	1.63
50% Margin Limit			307	0.815

Maximum permissible Exposure				
Battery levels	Test sides	Test distance(cm)	E -field(V/m)	H-field(A/m)
<50%	Top	20	2.154	0.161
<50%	Left	20	4.368	0.229
<50%	Right	20	6.187	0.232
<50%	Front	20	3.894	0.191
<50%	Back	20	1.373	0.181
Limit			614	1.63
50% Margin Limit			307	0.815

Maximum permissible Exposure				
Battery levels	Test sides	Test distance(cm)	E -field(V/m)	H-field(A/m)
<99%	Top	20	2.739	0.341
<99%	Left	20	4.725	0.179
<99%	Right	20	6.661	0.372
<99%	Front	20	3.539	0.277
<99%	Back	20	2.361	0.217
Limit			614	1.63
50% Margin Limit			307	0.815

Annex A. Test Photos

Test View 1



***** END OF REPORT *****