



FCC TEST REPORT
FCC ID: 2BDUE-N102

On Behalf of

Shenzhen Warm light Intelligent Technology Co., LTD

Music desk lamp

Model No.: N102

Prepared for : Shenzhen Warm light Intelligent Technology Co., LTD
Address : 303-1, No.1108 East Hengping Road, Baoan Community, Yuanshan Street, Longgang District, Shenzhen

Prepared By : Shenzhen PSI Testing Co., Ltd.
Address : 1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road, Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Report Number : psi2310048-C01-R03
Date of Receipt : October 28, 2023
Date of Test : October 29–December 11, 2023
Date of Report : December 12, 2023
Version Number : V0

TABLE OF CONTENTS

	Description	Page
1.	Test Result Summary	5
2.	EUT Description	6
2.1.	DESCRIPTION OF DEVICE (EUT).....	6
2.2.	ACCESSORIES OF DEVICE (EUT).....	8
2.3.	TESTED SUPPORTING SYSTEM DETAILS	8
2.4.	BLOCK DIAGRAM OF CONNECTION BETWEEN EUT AND SIMULATORS	8
2.5.	DESCRIPTION OF TEST MODES.....	8
2.6.	TEST CONDITIONS	9
2.7.	TEST FACILITY	9
2.8.	MEASUREMENT UNCERTAINTY	9
3.	Test Results and Measurement Data	10
3.1.	RF EXPOSURE TEST	10
4.	Photos of test setup	13

TEST REPORT DECLARATION

Applicant : Shenzhen Warm light Intelligent Technology Co., LTD
Address : 303-1, No.1108 East Hengping Road, Baoan Community, Yuanshan Street,
Longgang District, Shenzhen
Manufacturer : Shenzhen Warm light Intelligent Technology Co., LTD
Address : 303-1, No.1108 East Hengping Road, Baoan Community, Yuanshan Street,
Longgang District, Shenzhen
EUT Description : Music desk lamp
(A) Model No. : N102
(B) Trademark : HUERICH

Measurement Standard Used:

FCC CFR 47 PART 1, FCC CFR 47 part1, 1.1307(b), 1.1310

KDB 680106 D01 Wireless Power Transfer v04

The device described above is tested by Shenzhen PSI Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen PSI Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness test. Also, this report shows that the EUT is technically compliant with the KDB 680106 D01 requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen PSI Testing Co., Ltd.

Tested by (name + signature).....:

Jensen Wang
Test Engineer

Jensen Wang

Approved by (name + signature).....:

Simple Guan
Project Manager

Simple Guan

Date of issue.....:

December 12, 2023

Revision History

Revision	Issue Date	Revisions	Revised By
REV0	December 12, 2023	Initial released Issue	Jensen Wang

1. Test Result Summary

Requirement	CFR 47 Section	Result
RF EXPOSURE	§1.1307(b)(1), §1.1310& KDB680106	PASS

Note:

1. PASS: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.
5. Decision rules for the conclusion of this test report: decision by actual test data without considering measurement uncertainty.

2. EUT Description

2.1. Description of Device (EUT)

EUT Name	:	Music desk lamp
Model No.	:	N102
DIFF.	:	N/A
Power supply	:	DC 3.7V from battery or DC 5V/9V from Type C port Built-in battery information: 3.7V 2000mAh 7.4Wh
Radio Technology	:	Wireless power transmission systems
Operation frequency	:	115KHz-205KHz
Modulation	:	ASK
Antenna Type	:	Coil Antenna
Wireless output power	:	5W, 7.5W, 10W, 15W
Connector cable loss	:	0.5dB
Software version	:	V1.0
Hardware version	:	V1.0
Note	:	Antenna information is provided by applicant. Testing lab is not responsible for the accuracy of the information.

Conditions requirement	Answers
Power transfer frequency is less than 1MHz.	Yes, The operating frequency range is 115 kHz - 205 kHz;
The output power from each primary coil is less than or equal to 15 watts.	Yes, the maximum output power of the primary coil is 15 W
A client device providing the maximum permitted load is placed in physical contact with the transmitter(i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)	Yes. Client device is placed directly in contact with the transmitter.
Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).	only Mobile exposure condition is applicable
The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios.(i.e.. the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.	Yes, The E-field and H-field strengths levels are less than 50% of MPE limit.
For systems with more than one radiating structure, the conditions specified in (5) must be when the system is fully loaded (.e. clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions, If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered. then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W. or one coil powered at 15W: in this case, both scenarios shall be tested.	Mobile exposure conditions only. The product only has one transmitting coil.

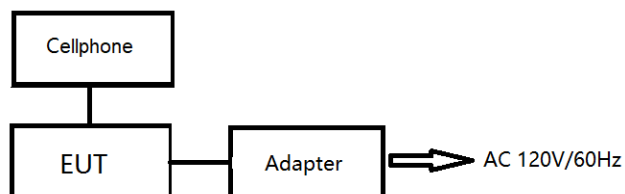
2.2. Accessories of Device (EUT)

Accessories	:	/
Manufacturer	:	/
Model	:	/
specifications	:	/

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification or SDoC
1	Adapter	RUIDIR	Q2W24-1U-C	N/A	N/A
2	Cellphone	MI	Xiaomi 12	N/A	N/A

2.4. Block Diagram of connection between EUT and simulators



2.5. Description of Test Modes

Mode	Test mode description
1※	Wireless output: 15W
2	Wireless output: 10W
3	Wireless output: 7.5W
4	Wireless output: 5W

Note: 1. ※ represents the worst-case testing mode.
 2. Full load, half load, and no load also have been test.

2.6. Test Conditions

Items	Required	Actual
Temperature range:	15-35°C	24°C
Humidity range:	25-75%	56%
Pressure range:	86-106kPa	98kPa

2.7. Test Facility

Shenzhen PSI Testing Co., Ltd.

1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road, Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

September 13, 2023 File on Federal Communication Commission

Registration Number: 916281

2.8. Measurement Uncertainty

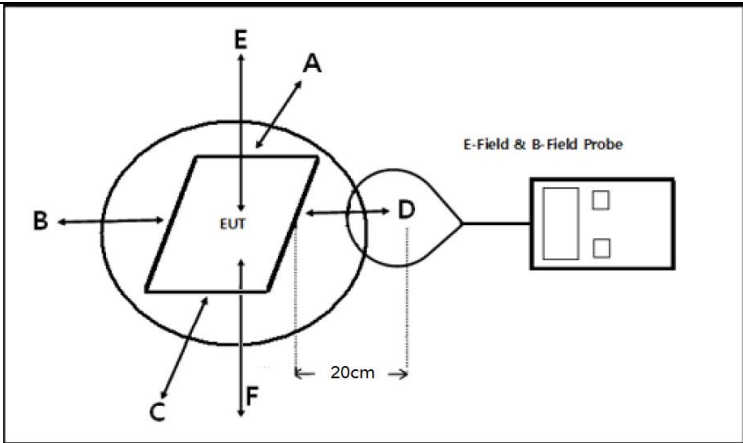
(95% confidence levels, k=2)

Item	Uncertainty
Uncertainty for H-Field	2.39dB
Uncertainty for E-Field	2.45dB
Uncertainty for conducted RF Power	0.65dB
Uncertainty for temperature	0.2°C
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

3. Test Results and Measurement Data

3.1. RF EXPOSURE TEST

3.1.1. Test Specification

Test Requirement:	FCC Rules and Regulations KDB680106
Test Method:	§1.1307(b)(1) & KDB680106
Limits:	According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. According to §1.1310 and §2.1091 RF exposure is calculated. According KDB 680106 D01 Wireless Power Transfer v04: RF Exposure Wireless Charging.
Test Setup:	 <p>E to position is 20cm, F is the bottom of the product</p>
Test Mode:	Transmitting Mode (Mobile phone will be charge at zero charge, intermediate charge, and full charge.)
Test Procedure:	<ol style="list-style-type: none"> 1. The RF exposure test was carried out on a non-metallic table top 80cm high in the shielding darkroom. 2. The measurement probe was placed at test distance (20 cm for Top side) which is between the edge of the charger and the geometric centre of probe. 3. The test time is maintained for more than one minute. 4. The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed. 5. The EUT were measured according to the dictates of KDB 680106 D01 Wireless Power Transfer v04. 6. H-field strengths levels should less than 50% of MPE limit.
Test Result:	PASS

3.1.2. Test Instruments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Exposure Level Tester	narda	ELT-400	N-0231	2022.12.30	1 Year
2	Magnetic field probe 100cm2	narda	ELT probe 100cm2	M0675	2022.12.30	1 Year
3	Isotropic Electric Field Probe	narda	EP-601	511WX60706	2022.12.30	1 Year

3.1.3. Test data

For Full Load mode:

E-Field Strength at 20 cm for position A, B, C, D, E from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (V/m)	Limits Test (V/m)
0.115-0.205	6.97	6.92	6.3	6.54	6.81	307	614

H-Filed Strength at 20 cm for position A, B, C, D, E from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (A/m)	Limits Test (A/m)
0.115-0.205	0.302	0.304	0.305	0.310	0.303	0.815	1.63
uT	0.390	0.388	0.379	0.398	0.381	/	/

Note: uT to A/m: $A/m = uT/1.25$ **For Half Load mode:** E-Field Strength at 20 cm for position A, B, C, D, E from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (V/m)	Limits Test (V/m)
0.115-0.205	4.21	4.50	4.13	4.41	4.14	307	614

H-Filed Strength at 20 cm for position A, B, C, D, E from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (A/m)	Limits Test (A/m)
0.115-0.205	0.215	0.211	0.205	0.193	0.204	0.815	1.63
uT	0.269	0.264	0.256	0.241	0.255	/	/

Note: uT to A/m: $A/m = uT/1.25$ **For Null Load mode:**

E-Field Strength at 20 cm for position A, B, C, D, E from the edges surrounding the EUT (V/m)

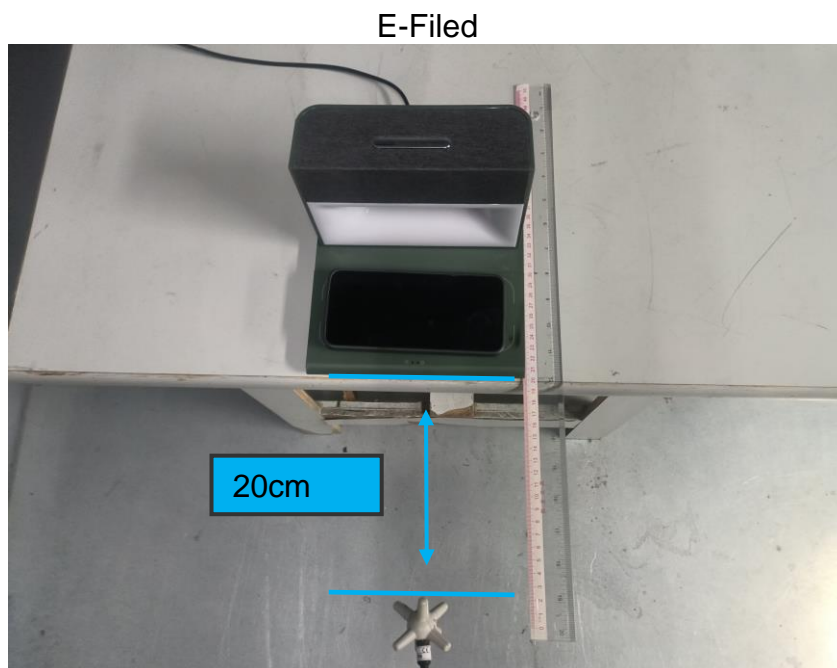
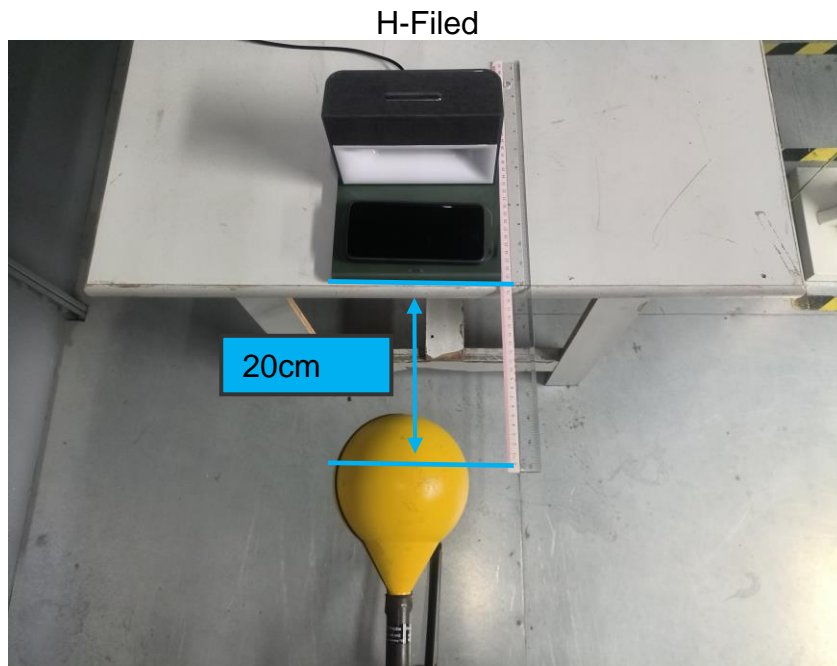
Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (V/m)	Limits Test (V/m)
0.115-0.205	2.14	2.13	2.15	2.11	2.07	307	614

H-Filed Strength at 20 cm for position A, B, C, D, E from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (A/m)	Limits Test (A/m)
0.115-0.205	0.166	0.162	0.164	0.165	0.162	0.815	1.63
uT	0.208	0.203	0.205	0.206	0.203	/	/

Note: uT to A/m: $A/m = uT/1.25$

4. Photos of test setup



-----END OF REPORT-----