

Qingdao Yeelink Information Technology Co., Ltd.

SAR COMPLIANCE REPORT

Report Type:

FCC SAR assessment report

Model:

YLLDDXN01

REPORT NUMBER:

2404B1379SHA-003

ISSUE DATE:

May 23, 2024

DOCUMENT CONTROL NUMBER:

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Province, P.R.China

FCC ID: 2ABEU-YLLDDXN01

IC: 27677-YLLDDXN01

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:
447498 D04 Interim General RF Exposure Guidance v01
FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

PREPARED BY: REVIEWED BY:



Project Engineer
Damon Ding



Reviewer
Eric Li

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Revision History

Report No.	Version	Description	Issued Date
2404B1379SHA-003	Rev. 01	Initial issue of report	May 23, 2024

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Yeelight Natural Light Floor Lamp Controller
Model:	YLLDDXN01
Description of EUT:	The EUT is Yeelight Natural Light Floor Lamp Controller, it supports bluetooth functions, there is only one model, There is a spare PCB power board. We test it and list the worst results in this report.
Rating:	DC 3V
Category of EUT:	Class B
EUT type:	<input checked="" type="checkbox"/> Table top <input type="checkbox"/> Floor standing
Software Version:	/
Hardware Version:	/
Sample received date:	2024.4.7
Date of test:	2024.4.11-2024.4.23

1.2 Technical Specification

Frequency Band:	2400MHz ~ 2483.5MHz
Support Standards:	Bluetooth LE 5.0
Type of Modulation:	GFSK
Channel Number:	40
Channel Separation:	2MHz
Antenna Information:	0.2 dBi, PCB antenna

1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
Address:	Building 86, No. 1198 Qinzhou Road (North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L0139
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Member No: 3598 (Registration No.: R-14243, G-10845, C-14723, T-12252)
	A2LA Accreditation Lab Certificate Number: 3309.02

Tests were sub-contracted.

Name:	Shenzhen UnionTrust Quality and Technology Co., Ltd.
Address:	Unit D/E of 9/F and 16/F, Block A, Building 6, Baoneng Science and Technology Park, Longhua District, Shenzhen, China
Telephone:	+86 (0) 755 2823 0888
Telefax:	+86 (0) 755 2823 0886

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L969
	FCC Accredited Lab Designation Number: CN1194
	IC Registration Lab CAB identifier.: CN0032
	VCCI Registration Lab Member No: 4142 (Registration No.: C-20097, T-20098, R-20135, G-20130)
	A2LA Accreditation Lab Certificate Number: 4312.01

2 SAR Assessment

Test result: Pass

2.1 SAR Test Exclusion Limit

This method shall only be used at separation distances up to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula below:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

f is in GHz, d is the separation distance (cm), and ERP_{20cm} is per Formula above.

The example values shown in below are for illustration only.

Frequency (MHz)	Distance (mm)										
	5	10	15	20	25	30	35	40	45	50	
300	39	65	88	110	129	148	166	184	201	217	
450	22	44	67	89	112	135	158	180	203	226	
835	9	25	44	66	90	116	145	175	207	240	
1900	3	12	26	44	66	92	122	157	195	236	
2450	3	10	22	38	59	83	111	143	179	219	
3600	2	8	18	32	49	71	96	125	158	195	
5800	1	6	14	25	40	58	80	106	136	169	

2.2 Assessment Results

As we can see from the BLE test report 2404B1379SHA-002:

The highest EIRP adjusted with tune-up tolerance is: 2.37dBm=1.726mW

1.726mW < 3mW (Test Exclusion Thresholds of 2450MHz at 5mm).

Therefore, the SAR requirement is deemed to be satisfied without test.

***** END *****