MPE Test Report

Report No.: AAOG-ESH-P21031914B-3

FCC ID: 2ABEU-YLDP005

Product: Smart LED Bulb W3(Multicolor)

Model: YLDP005

Received Date: Mar.25, 2021

Test Date: Apr.10 to Apr.17, 2021

Issued Date: Apr.23.2021

Applicant: Qingdao Yeelink Information Technology Co., Ltd.

Address: 10F-B4, Building B, Qingdao International Innovation Park, No.1 Keyuan Weiyi Road, Laoshan District, Qingdao City, Shandong Province, P.R.China.

Manufacturer: Qingdao Yeelink Information Technology Co., Ltd.

Address: 10F-B4, Building B, Qingdao International Innovation Park, No.1 Keyuan Weiyi Road, Laoshan District, Qingdao City, Shandong Province, P.R.China.

Issued By: BUREAU VERITAS ADT (Shanghai) Corporation

Lab Address: No. 829, Xinzhuan Road, Shanghai, P.R.China (201612)

ACCREDITED
Test Lab
Cert 2343.01

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Release Control Record

Issue No.	Description	Date Issued
AAOG-ESH-P21031914B-3	Original release	Apr.23, 2021

1 Certificate of Conformity

Product: Smart LED Bulb W3(Multicolor)

Brand: YEELIGHT

Model: YLDP005

Applicant: Qingdao Yeelink Information Technology Co., Ltd.

Test Date: Apr.10 to Apr.17, 2021

Standards: **47 CFR FCC Part 15, Subpart C (Section 15.247)**
ANSI C63.10:2013

The above equipment has been tested by **BUREAU VERITAS ADT (Shanghai) Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : Yuan Zhang , **Date:** Apr.23, 2021

Yuan ZHANG

Project Engineer

Approved by : Daniel , **Date:** Apr.23, 2021

Daniel SUN

EMC Lab Manager

2 General Information

2.1 General Description of EUT

Product	Smart LED Bulb W3(Multicolor)
Brand	YEELIGHT
Test Model	YLDP005
Model Difference	--
Power Rating	AC 120V, 60Hz; 8W
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Operating Frequency	2412MHz-2462MHz
Number of Channel	802.11b, 802.11g and 802.11n (HT20):11
Antenna Type	PCB Antenna
Antenna Connector	--
Antenna Gain	2dBi

Note:

1. For more details, please refer to the User's manual of the EUT.

3 RF Exposure

3.1 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 (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1,500	-	-	F/1500	30
1,500-100,000	-	-	1.0	30

F = Frequency in MHz

3.2 MPE Calculation Formula

Power density (S) is calculated according to the formula:

$$S = PG / (4\pi R^2)$$

Where S = power density in mW/cm^2

P = transmit power in mW

G = numeric gain of transmit antenna (numeric gain=Log-1(dB antenna gain/10))

R = distance (cm)

3.3 MPE Calculation Formula

The antenna of this product, under normal use condition, is at least 20cm from the body of the user. So the device is classified as Mobile Device.

3.4 Calculation Result of Maximum Permissible Exposure

Frequency Band (MHz)	Max. Conducted output power(dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WLAN 2.4GHz					
2412-2462	17.55	2	20	0.017945285	1

Conclusion:

The calculation result of MPE is less than the limit.

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