



## 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.

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**Issued By:** BUREAU VERITAS ADT (Shanghai) Corporation

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



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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

Project Engineer

**Approved by :**

  
Daniel SUN

**Date:** Apr.23, 2021

EMC Lab Manager



## 2 General Information

### 2.1 General Description of EUT

Product	Smart LED Bulb W3(Multicolor)
Brand	<b>YEELIGHT</b>
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 <sup>2</sup> )	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<sup>2</sup>

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 <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
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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