



## 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

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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

Project Engineer

**Approved by :**



, **Date:** Apr.23, 2021

## 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<br>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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