



## MPE Test Report

**Report No.:** AAOG-ESH-P24120408B-2

**FCC ID:** 2ABEU-PLYDD0091

**Product:** Yeelight Smart LED Strip Lights

**Model:** PLYDD-0091, PLYDD-0092, PLYDD-0093

**Received Date:** Dec.09, 2024

**Test Date:** Dec.09, 2024 to Jan.05, 2025

**Issued Date:** Jan.08, 2025

**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)

**FCC Registration /  
Designation Number:** 176467/ CN1213



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### Release Control Record

| Issue No.             | Description      | Date Issued  |
|-----------------------|------------------|--------------|
| AAOG-ESH-P24120408B-2 | Original release | Jan.08, 2025 |



## 1 Certificate of Conformity

**Product:** Yeelight Smart LED Strip Lights

**Brand:** YEELIGHT

**Model:** YLYDD-0091, YLYDD-0092, YLYDD-0093

**Applicant:** Qingdao Yeelink Information Technology Co., Ltd.

**Test Date:** Dec.09, 2024 to Jan.05, 2025

**Standards:** FCC Part 2 (Section 2.1091)  
KDB 447498 D01 General RF Exposure Guidance v06  
IEEE C95.1-2019

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 :**

*Yan Zhou*

**, Date:**

Jan.08, 2025

Yan ZHOU

Project Engineer

**Approved by :**

*Sean Yu*

**, Date:**

Jan.08, 2025

Sean YU

RF Supervisor

## 2 General Information

### 2.1 General Description of EUT

BLE:

|                       |                                                                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Product               | Yeelight Smart LED Strip Lights                                                                                                       |
| Brand                 | <b>YEELIGHT</b>                                                                                                                       |
| Test Model            | YLYDD-0091, YLYDD-0092, YLYDD-0093                                                                                                    |
| Model Difference      | --                                                                                                                                    |
| Power Rating          | YLYDD-0091: DC 24V 0.5A, Powered by adaptor<br>YLYDD-0092: DC 24V 1A, Powered by adaptor<br>YLYDD-0093: DC 24V 2A, Powered by adaptor |
| Modulation Type       | GFSK                                                                                                                                  |
| Modulation Technology | Bluetooth Low Energy 4.2                                                                                                              |
| Operating Frequency   | 2402MHz ~ 2480MHz                                                                                                                     |
| Number of Channel     | 40                                                                                                                                    |
| Antenna Type          | PCB Antenna                                                                                                                           |
| Antenna Connector     | --                                                                                                                                    |
| Antenna Gain          | 1.96dBi                                                                                                                               |

Note:

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

### 2.2 Description of Support Unit

| DESCRIPTION            | MANUFACTURER                                  | MODEL NO.         | SERIAL NO. |
|------------------------|-----------------------------------------------|-------------------|------------|
| Adaptor for YLYDD-0091 | Guangdong Tiantongjiuheng Technology Co., Ltd | TJ01501L2400500US | NA         |
| Adaptor for YLYDD-0092 | Guangdong Tiantongjiuheng Technology Co., Ltd | TJ02402W2401000US | NA         |
| Adaptor for YLYDD-0093 | Guangdong Tiantongjiuheng Technology Co., Ltd | TJ05301W2402000US | NA         |

### 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> ) |
|----------------------|----------------------------------|--------------------|---------------|-------------------------------------|-----------------------------|
| BLE 4.2              |                                  |                    |               |                                     |                             |
| 2402-2480            | -8.77                            | 1.96               | 20            | 0.000041                            | 1                           |

#### Conclusion:

The calculation result of MPE is less than the limit.

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