



## MPE Test Report

**Report No.:** AAOG-ESH-P24061125B-2

**FCC ID:** 2ABEU-YDD383940

**Product:** Yeelight RGBIC LED Basic Strip Light

**Model:** YLYDD-0038, YLYDD-0039, YLYDD-0040

**Received Date:** Jun.17, 2024

**Test Date:** Jun.17 to Jul.12, 2024

**Issued Date:** Jul.16, 2024

**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-P24061125B-2	Original release	Jul.16, 2024



**1 Certificate of Conformity**

**Product:** Yeelight RGBIC LED Basic Strip Light

**Brand:** YEELIGHT

**Model:** YLYDD-0038, YLYDD-0039, YLYDD-0040

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

**Test Date:** Jun.17 to Jul.12, 2024

**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.

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**Approved by :** Sean Yu , **Date:** Jul.16, 2024  
Sean YU  
RF Supervisor



## 2 General Information

### 2.1 General Description of EUT

BLE:

Product	Yeelight RGBIC LED Basic Strip Light
Brand	<b>YEELIGHT</b>
Test Model	YLYDD-0038, YLYDD-0039, YLYDD-0040
Model Difference	--
Power Rating	DC 24V 0.5/0.75/1A, 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-0038	Guangdong Tiantongjiuhe Technology Co., Ltd	TJ01501L2400500US	NA
Adaptor for YLYDD-0039	Guangdong Tiantongjiuhe Technology Co., Ltd	TJ02402W2400750US	NA
Adaptor for YLYDD-0040	Guangdong Tiantongjiuhe Technology Co., Ltd	TJ02402W2401000US	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	-2.46	1.96	20	0.00018	1

#### Conclusion:

The calculation result of MPE is less than the limit.

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