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

Test Lab
Cert 2343.01

Table of Contents

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.

Prepared by : Jan. Zhou , **Date:** Jul.16, 2024

Yan ZHOU

Project Engineer

Approved by : , **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	YEELIGHT
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^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)
BLE 4.2					
2402-2480	-2.46	1.96	20	0.00018	1

Conclusion:

The calculation result of MPE is less than the limit.

--- END ---