



MPE Test Report

Report No.: AROD-19JU1501LTSHPB-3

FCC ID: 2ACO2-GV-BLE

Product: Bluetooth light

Model: GV-ZJ-BTCL-A, GV-ZJ-BTCL-B, GV-ZJ-BTCL-C

Received Date: Jun.17, 2019

Test Date: Jun.20 to Jul.08 2019

Issued Date: May.28, 2020

Applicant: Golden Vessel Electronic&Lighting.,Inc

Address: Industrial District,Zhonghan Town,Chaohu,Hefei City,Anhui Province,China
238074

Manufacturer 1: Holiday Design (Cambodia) Co., Ltd

Address: 51.1KM, #3 NATIONAL ROAD, TOUL TBEING VILLAGE, PREY VILHEAR
COMMUNE, KORNG PISEI DISTRICT, KAMPONG SPEU PROVINCE,
KINGDOM OF CAMBODIA

Manufacturer 2: Silver Beauty(Cambodia) Electronic and Lighting Co.,Ltd

Address: 51.1KM, #3 NATIONAL ROAD, TOUL TBEING VILLAGE, PREY VILHEAR
COMMUNE, KORNG PISEI DISTRICT, KAMPONG SPEU PROVINCE,
KINGDOM OF CAMBODIA

Manufacturer 3: Golden Vessel Electronic&Lighting.,Inc

Address: Industrial District,Zhonghan Town,Chaohu,Hefei City,Anhui Province,China
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Issued By: BUREAU VERITAS ADT (Shanghai) Corporation

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Release Control Record

Issue No.	Description	Date Issued
AROD-19JU1501LTSHPB-3	Original release	May.28, 2020

1 Certificate of Conformity

Product: Bluetooth light

Brand: --

Model: GV-ZJ-BTCL-A, GV-ZJ-BTCL-B, GV-ZJ-BTCL-C

Applicant: Golden Vessel Electronic&Lighting.,Inc

Test Date: Jun.20 to Jul.08 2019

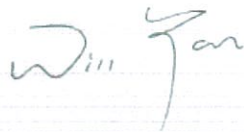
Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

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 :



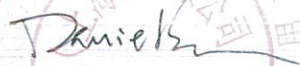
, Date:

May.28, 2020

Will YAN

Project Engineer

Approved by :



, Date:

May.28, 2020

Daniel SUN

EMC Lab Manager

2 General Information

2.1 General Description of EUT

Product	Bluetooth light
Brand	--
Test Model	GV-ZJ-BTCL-A, GV-ZJ-BTCL-B, GV-ZJ-BTCL-C
Model Difference	All models only have different LED color.
Power Rating	120v/60Hz
Modulation Type	GFSK
Modulation Technology	Bluetooth Low Energy 4.2
Operating Frequency	2402 ~ 2480MHz
Number of Channel	40
Antenna Type	PCB Antenna
Antenna Connector	--
Antenna Gain	1dBi

Note: 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 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/cm²

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)
2402-2480	4.60	1	20	0.000723	1

Conclusion:

The calculation result of MPE is less than the limit.

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