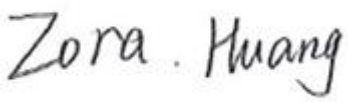
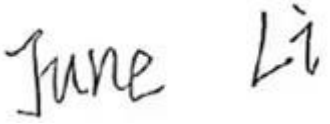
TEST REPORT

Application No.:	BTEK240821001AE
Applicant:	Shenzhen Kingunion Lighting CO., LTD
Address of Applicant:	Second Floor, No. 1Kaixinda Technology Park, No 49th Zhoushi Road, Langxin Community, Shiyan Town, Baoan DistrictShenzhen City, Guangdong, China
Manufacturer:	Shenzhen Kingunion Lighting CO., LTD
Address of Manufacturer:	Second Floor, No. 1Kaixinda Technology Park, No 49th Zhoushi Road, Langxin Community, Shiyan Town, Baoan DistrictShenzhen City, Guangdong, China
Equipment Under Test (EUT):	
EUT Name:	KU-CSJ-A01
Test Model.:	KU-CSJ-A01
Adding Model(s):	/
Trade Mark:	/
FCC ID:	2A73Z-KUCSJA01
Standard(s) :	47 CFR Part 2 Subpart J Section 2.1091 447498 D01 General RF Exposure Guidance v06
Date of Receipt:	2024-08-21
Date of Test:	2024-08-22 to 2024-09-23
Date of Issue:	2024-09-24
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

Lion Cai/ Approved & Authorized
EMC Laboratory Manager

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
V0		*2024-09-24*		*Original*

Authorized for issue by:				
		 **Zora Huang/Project Engineer**		
		 **June Li/Reviewer**		

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Contents

General Information

3.1 Details of E.U.T.

Power supply:	DC5V-24V
Frequency Range:	2402MHz to 2480MHz
Bluetooth Version:	V5.0 BLE
Modulation Type:	GFSK
Number of Channels:	40
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi
Sample No.:	BTEK240821001AE-01
Remark: The information in this section is provided by the applicant or manufacturer, BANTEK is not liable to the accuracy, suitability, reliability or/and integrity of the information.	

3.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
/	/	/	/

3.3 Test Location

All tests were performed at:
Shenzhen BANTEK Testing Co., Ltd.,
A5&A6, Building B1&B2, No.45 Gangtou Road, Bogang Community, Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518103
Tel:0755-2334 4200 Fax: 0755-2334 4200
FCC Registration Number: 264293
Designation Number: CN1356
No tests were sub-contracted.

3.4 Deviation from Standards

None

3.5 Abnormalities from Standard Conditions

None

4 Test Requirement

According to §1.1307(b)(1) and KDB 447498 D01 General RF Exposure Guidance v06, system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*($900/f^2$)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*($180/f^2$)	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

f = frequency in MHz

Friis transmission formula: **$Pd = (Pout*G)/(4*pi*r^2)$**

Where

Pd = power density in mW/cm^2, **Pout** = output power to antenna in mW;

G = gain of antenna in linear scale, **Pi** = 3.1416;

R = distance between observation point and center of the radiator in cm

Pd id the limit of MPE, 1 mW/cm^2. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

4.1Assessment Result

☒ **Passed** ☐ **Not Applicable**

Frequency (MHz)	Type	Conducted Power (dBm)	Maximum Tune-up (dBm)	Power Density (mW/cm^2)	Limit ($mW/cm^{2)}$	Result
2402	BLE	-4.67	-4.5	0.0001	1.0000	Pass

Note: 1.The exposure evaluation safety distance is 20cm.
2.Only show the worst case in the test report.

- End of the Report -