FCC TEST REPORT

FCC ID: 2BQR4-HK-CST2

Product	:	HDMI Sync Ambient Light Strip Kit
Model Name	:	HK-CST2
Serial Model	:	HK-CST1-S,HK-CST1-M,HK-CST1-L,HK-CST1-XL, HK-CST2-S,HK-CST2-M,HK-CST2-L,HK-CST2-XL, HK-CST3-S,HK-CST3-M,HK-CST3-L,HK-CST3-XL
Brand	:	LightingWill
Report No.	:	PTC25060517701E-FC03

Prepared for

ShenZhen HuaKe Light Electronics Co., Ltd.

5 Floor, No.1, Chaxi Sanwei Industrial Zone Gushu Community, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China

Prepared by

Precise Testing & Certification Co., Ltd.

Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China.

TEST RESULT CERTIFICATION

Applicant's name	:	ShenZhen HuaKe Light Electronics Co., Ltd.
Address	:	5 Floor, No.1, Chaxi Sanwei Industrial Zone Gushu Community, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China
Manufacture's name	:	ShenZhen HuaKe Light Electronics Co., Ltd.
Address	:	5 Floor, No.1, Chaxi Sanwei Industrial Zone Gushu Community, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China
Product name	:	HDMI Sync Ambient Light Strip Kit
Model name	:	HK-CST2
Serial Model	:	HK-CST1-S,HK-CST1-M,HK-CST1-L,HK-CST1-XL, HK-CST2-S,HK-CST2-M,HK-CST2-L,HK-CST2-XL, HK-CST3-S,HK-CST3-M,HK-CST3-L,HK-CST3-XL
Test procedure	:	FCC CFR47 Part 1.1307(b)(1)
Test Date	:	June 10, 2025 to July 21, 2025
Date of Issue	:	July 21, 2025
Test Result	:	PASS

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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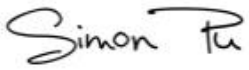
Test Engineer:

Jack zhou / Engineer

Technical Manager:



Simon Pu / Manager

Contents

Page

2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	15.247 (i)	PASS
Remark:		
N/A: Not Applicable		

3 General Information

3.1 General Description of E.U.T.

Product Name	:	HDMI Sync Ambient Light Strip Kit
Model Name	:	HK-CST2
Serial Model	:	HK-CST1-S,HK-CST1-M,HK-CST1-L,HK-CST1-XL, HK-CST2-S,HK-CST2-M,HK-CST2-L,HK-CST2-XL, HK-CST3-S,HK-CST3-M,HK-CST3-L,HK-CST3-XL
Difference Description	:	The output light strip length is different.
Specification	:	Bluetooth BLE 802.11b/g/n HT20/HT40
Operation Frequency	:	2402-2480MHz for BT 2412-2462MHz for 802.11b/g/ n(HT20) 2422-2452MHz for 802.11 n(HT40)
Number of Channel	:	40 channels For DTS 11 channels for 802.11b/g/ n(HT20) 7 channels for 802.11n(HT40)
Type of Modulation	:	GFSK, Π/4-DQPSK,8DPSK For DSS GFSK, For DTS DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n;
Antenna installation	:	PCB Antenna
Antenna Gain	:	-2.44 dBi
Power supply	:	Adapter:GA-1202000 Input: AC100-240V~, 50-60 Hz 0.6A Output:12.0V⎓ 2000mA
Hardware Version	:	HK-HDMI2.0-V1.0
Software Version	:	HK-HDMI2.0-V1.0

4 RF Exposure

Test Requirement : FCC Part 1.1307(b)(1)

Evaluation Method : KDB 447498 D01 General RF Exposure Guidance v06

4.1 Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

4.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	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

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

4.3 MPE Calculation Method

E (V/m) = $\frac{\sqrt{30 \times P \times G}}{d}$ Power Density: Pd (W/m²) = $\frac{E^2}{377}$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

Pd = $\frac{30 \times P \times G}{377 \times d^2}$ θφ

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

4.4 Test Result

Mode	Antenna Gain (numeric)	maximum output power(dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm2)	Limit of Power Density (mW/cm2)	Result
2480(BLE_1M)	0.570164	0.86	0.86±1	1.53461698	0.00017407	1	Pass
2462(11N20)	0.570164	15.67	15.67±1	46.45152752	0.00526890	1	Pass

Conclusion：

1.Calculate in the worst-case mode.

2.Max. Tune Up Power is declared by manufacturer, and used to calculate.

3.BT and WLAN can't transmit simultaneously.

********THE END REPORT********