FCC TEST REPORT

FCC ID: 2AIHFZYPLX109

Product	:	ZHIYUN CINEPEER CX50RGB COB Light, ZHIYUN CINEPEER CX50 COB Light
Model Name	:	PLX109, PLX108
Brand	:	ZHIYUN
Report No.	:	PTC24060701102E-FC02

Prepared for

Guilin Zhishen Information Technology Co., Ltd.

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Prepared by

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TEST RESULT CERTIFICATION

Applicant's name	:	Guilin Zhishen Information Technology Co., Ltd.
Address	:	09 Huangtong Road, Tieshan Industrial Zone, Qixing District, Guilin, Guangxi, China.
Manufacture's name	:	Guilin Zhishen Information Technology Co., Ltd.
Address	:	09 Huangtong Road, Tieshan Industrial Zone, Qixing District, Guilin, Guangxi, China.
Product name	:	ZHIYUN CINEPEER CX50RGB COB Light, ZHIYUN CINEPEER CX50 COB Light
Model name	:	PLX109, PLX108
Test procedure	:	FCC CFR47 Part 1.1307(b)(1)
Test Date	:	Jun. 12, 2024 to Jul. 10, 2024
Date of Issue	:	Jul. 27, 2024
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

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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	:	ZHIYUN CINEPEER CX50RGB COB Light, ZHIYUN CINEPEER CX50 COB Light
Model Name	:	PLX109
Additional model	:	PLX108
Model difference	:	PLX109 and PLX108 LED light board is different, The L-board PCB of PLX109 and PLX108 is the same, while the PCBA is different (PLX108 lacks Q32,Q33, and Q34). In addition to the above differences, all others are the same.
Specification	:	Bluetooth BLE
Operation Frequency	:	2402-2480MHz for BT
Number of Channel	:	40 channels For DTS
Type of Modulation	:	GFSK, For DTS
Antenna installation	:	FPC antenna
Antenna Gain	:	-2.92 dBi
Power supply	:	DC Input: 24VDC/2.1A Type-C Input: 20VDC/2.15A
Hardware Version	:	N/A
Software Version	:	N/A

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)	Max. Peak Output Power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm2)	Limit of Power Density (mW/cm2)	Result
BLE_2M	0.51	0.18	0.18±1	0.001312	0.001333	1	Pass

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