

TEST REPORT

Product Name : Camera Hub G5 Pro (PoE)
Model Number : CH-C03E, CH-C03D
FCC ID : 2AKIT-CHC03

Prepared for : Lumi United Technology Co., Ltd
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1. TEST RESULT CERTIFICATION

Applicant : Lumi United Technology Co., Ltd
Address : B1, Chongwen Park, Nanshan iPark, Liuxian Avenue, Taoyuan Residential District, Nanshan District, Shenzhen, China
Manufacturer : Lumi United Technology Co., Ltd
Address : B1, Chongwen Park, Nanshan iPark, Liuxian Avenue, Taoyuan Residential District, Nanshan District, Shenzhen, China
EUT : Camera Hub G5 Pro (PoE)
Model Name : CH-C03E, CH-C03D
Trademark : Aqara

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1091, 1.1307(b)(1)	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1091, 1.1307(b)(1).
The test results of this report relate only to the tested sample identified in this report

Date of Test : Nov 11,2024 to Nov 26,2024

Prepared by : 
Jessica Zhang /Editor

Reviewer : 
Warren Deng /Supervisor

Approve & Authorized Signer : 
Sam Lv / Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2411110223E00502R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	Camera Hub G5 Pro (PoE)
Model Number:	CH-C03E, CH-C03D All models are the same, except the model name and sale channels. Here, CH-C03E is selected to test all the test items. Each model has two color, white and graphite-grey.
Sample:	2#
Device Type:	Thread
Modulation:	O-QPSK
Operating Frequency Range(s) :	2405-2480 MHz
Number of Channels:	16 channels
Transmit Power Max:	6.09 dBm(0.004064 W)
Antenna Gain:	0.32 dBi
Power supply:	PoE Input: 48V $\overline{\text{---}}$ 0.27A USB-C Input: 5V $\overline{\text{---}}$ 2A
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement:

RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

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
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$

Where

P_d = Power density in mW/cm²

P_{out} =output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

π =3.1416

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

P_d the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

4. Measurement Result

Antenna gain:0.32 dBi

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain		(mW/cm2)	(mW/cm2)
				(dBm)	(mW)	(dBi)	Numeric		
2405	O-QPSK	6.09	6±1	7	5.012	0.32	1.08	0.0011	1
2440		5.72	6±1	7	5.012	0.32	1.08	0.0011	1
2480		4.84	5±1	6	3.981	0.32	1.08	0.0009	1

According to KDB 447498, no stand-alone required for Zigbee antenna, and no simultaneous SAR measurement is required.

*** End of Report ***