TEST REPORT

Verified Code: 672797

Report No.:	E20210426746801-1	**Application No.:**	E20210426746801
Client:	Lumi United Technology Co., Ltd.		
Address:	8th Floor, JinQi Wisdom Valley, No.1 Tangling Road, Liuxian Ave, Taoyuan Residential District, Nanshan District, Shenzhen.China		
Sample Description:	Camera Hub G3		
Model:	CH-H03		
Test Specification:	ETSI EN 301 489-3 V2.1.1 (2017-03)ElectroMagnetic Compatibility (EMC)standard for radio equipment and services;Part 3: Specific conditions for Short-Range Devices (SRD)operating on frequencies between 9 kHz and 246 GHz;Harmonised Standard covering the essential requirements ofarticle 3.1(b) of Directive 2014/53/EU ETSI EN 301 489-17 V3.2.4 (2020-09)ElectroMagnetic Compatibility (EMC)standard for radio equipment and services;Part 17: Specific conditions forBroadband Data Transmission Systems;Harmonised Standard covering the essential requirementsof article 3.1(b) of Directive 2014/53/EU ETSI EN 301 489-1 V2.2.3(2019-11)ElectroMagnetic Compatibility (EMC)standard for radio equipment and services;Part 1: Common technical requirements;Harmonised Standard for ElectroMagnetic Compatibility EN55032:2015/A11:2020 Electromagnetic compatibility of multimedia equipment – Emission Requirements EN 55035:2017Electromagnetic compatibility of multimedia equipment - Immunity requirements EN 61000-3-2: 2019 Electromagnetic compatibility(EMC) – Part 3-2: Limits– Limits for harmonic Currentemissions (equipment input current ≤16 A per phase) EN 61000-3-3: 2013Electromagnetic compatibility (EMC) – Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flickerin public low-voltage supply systems, for equipment with rated current ≤16 Aper phase and not subject to conditional connection		

Receipt Date:	2021-06-09	
Test Date:	2021-07-02 to 2021-08-19	
Issue Date:	2021-08-24	
Test Result:	Pass	
Prepared By: Test Engineer Yu Shanshan.	**Reviewed By:** Technical Manager Wu Haoting	**Approved By:** Manager
Other Aspects:		
Note:Note		
Abbreviations: *ok / P = passed; fail / F = failed; n.a. / N = not applicable;*		
The test result in this test report refers exclusively to the presented test sample. This report shall not be reproduced except in full, without the written approval of GRGT.		

DIRECTIONS OF TEST

1. **This station carries out test task according to the national regulation of verifications which can be traced to National Primary Standards and BIPM.**

2. **The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory.**

3. **If there is any objection concerning the test, the client should inform the laboratory within 15 days from the date of receiving the test report.**

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1 TEST RESULT SUMMARY

Emissions

Test Item	Test mode	Equipment test requirement	Test Method	Class / Severity	Test Result
Performance Standard: ETSI EN 301 489-3 V2.1.1 (2017-03)&ETSI EN 301 489-17 V3.2.4 (2020-09))&ETSI EN 301 489-1 V2.2.3 (2019-11)&EN 55032:2015/A11:2020					
Conducted Emission	Mode 1 Mode 2	ETSI EN 301 489-3/ Annex A ETSI EN 301 489-17/7.1.1 ETSI EN 301 489-1/8.4	EN 55032:2015/A11:2020annex A.3	Table A.10 Class B	PASS
Asymmetric mode conducted emissions	/	ETSI EN 301 489-3/ Annex A ETSI EN 301 489-17/7.1.1 ETSI EN 301 489-1/8.7	EN 55032:2015/A11:2020annex A.3	/	Note 2)
Radiated Emission	Mode 1 Mode 2	ETSI EN 301 489-3/Annex A ETSI EN 301 489-17/7.1.1 ETSI EN 301 489-1/8.2	EN 55032:2015/A11:2020Table A.4 and A.5	Table A.4 Class B Table A.5 Class B	PASS
Harmonic current	Mode 1 Mode 2	ETSI EN 301 489-3/Annex A ETSI EN 301 489-17/7.1.1 ETSI EN 301 489-1/8.5	EN 61000-3-2:2019	Class A	Note 1)
Voltage fluctuations and flicker	Mode 1 Mode 2	ETSI EN 301 489-3/Annex A ETSI EN 301 489-17/7.1.1 ETSI EN 301 489-1/8.6	EN 61000-3-3:2013	/	PASS

Immunity

Test Item	Test mode	Equipment test requirement	Test Method	Class / Severity	Test Result
Performance Standard: ETSI EN 301 489-3 V2.1.1 (2017-03)&ETSI EN 301 489-17 V3.2.4 (2020-09)&ETSI EN 301 489-1 V2.2.3 (2019-11)&EN 55035:2017					
Electrostatic discharge (ESD)	Mode 1 Mode 2	ETSI EN 301 489-3/Annex A ETSI EN 301 489-17/7.2.1 ETSI EN 301 489-1/9.3 EN 55035:2017 Table 1	EN 61000-4-2:2009	Test specification: ±8kV air discharge ±4kV Contact discharge Performance : Criteria B	PASS
RF electromagnetic field (RS)	Mode 1 Mode 2	ETSI EN 301 489-17/7.2.1 ETSI EN 301 489-1/9.2	EN61000-4-3:2006+A1:2008+A2:2010	Test specification: Test level: For the frequency range 80MHz to 1000MHz, 1000MHz to 2700MHz and 2700MHz to 6000MHz, test level shall be 3 V/m, 80% AM(400Hz) Performance: Criteria A	PASS
RF electromagnetic field (RS)	Mode 1 Mode 2	ETSI EN 301 489-3/7.3	EN61000-4-3:2006+A1:2008+A2:2010	Test specification: Test level: For the frequency range 80MHz to 2700MHz, test level shall be 3 V/m, 80% AM(1kHz) Performance: Criteria A	PASS

RF electromagnetic field (RS)	Mode 1 Mode 2	EN 55035:2017 Table 1	EN 61000-4-3:2006+A1: 2008+A2:2010	Test specification: For the frequency range 80MHz to 1000MHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz test level shall be 3 V/m, 80% AM(400Hz) Performance: Criteria A	PASS
Electrical fast transients(EFT)	Mode 1 Mode 2	ETSI EN 301 489-3/Annex A ETSI EN 301 489-17/7.2.1 ETSI EN 301 489-1/9.4 EN 55035:2017 Table 4	EN 61000-4-4:2012	Test specification: AC power port: ±1kV, Signal port: ±0.5kV repetition rate: 5 kHz Performance: Criteria B	PASS
Surges	Mode 1 Mode 2	ETSI EN 301 489-3/Annex A ETSI EN 301 489-17/7.2.1 ETSI EN 301 489-1/9.8	EN 61000-4-5: 2014+ A1:2017	Test specification: AC power port: 1.2/50 us pulse line to line: ±1 kV; Signal port: 1.2/50 us pulse line to line: ±0.5 kV; Performance : Criteria B	PASS
Surges	Mode 1 Mode 2	EN 55035:2017 Table 4	EN 61000-4-5: 2014	Test specification: AC power port: 1.2/50 us pulse line to line: ±1 kV; Signal port: 10/700 us pulse line to line: ±0.5 kV; Performance : Criteria	PASS
Radio frequency continuous conducted(CS)	Mode 1 Mode 2	ETSI EN 301 489-3/Annex A ETSI EN 301 489-17/7.2.1 ETSI EN 301 489-1/9.5	EN 61000-4-6:2014	Test specification: AC power port 0.15~80 MHz, 3Vrms, 80% AM, 1kHz Performance: Criteria A	PASS
Radio frequency continuous conducted(CS)	Mode 1 Mode 2	EN 55035:2017 Table 4	EN 61000-4-6:2014	AC Input Power: 0.15MHz-10MHz 3V 10MHz-30MHz 3-1V 30MHz-80MHz 1V 80%AM(1kHz) Performance: Criteria A Signal Line: 0.15MHz-10MHz 3V 10MHz-30MHz 3-1V 30MHz-80MHz 1V 80%AM(1kHz) Performance: Criteria A	PASS
Power frequency magnetic field	Mode 1 Mode 2	EN 55035:2017	IEC 61000-4-8:2009	1A/m 50Hz or 60Hz Performance Criterion A	PASS

Voltage Dips & Short Interruptions	Mode 1 Mode 2	ETSI EN 301 489-3/Annex A ETSI EN 301 489-17/7.2.1 ETSI EN 301 489-1/9.7	EN 61000-4-11:2004	Test specification: 1. Voltage dips: i)0% residual voltage 0.5 cycle. Performance: Criteria B; ii) 0% residual voltage 1 cycle, Performance: Criteria B; iii)70% residual voltage 25 cycle. Performance: Criteria C; 2. Voltage interruption: 0% residual voltage during 250 cycles. Performance: Criteria C	PASS
Voltage Dips & Short Interruptions	Mode 1 Mode 2	EN 55035:2017 Table 4	EN 61000-4-11:2004	Test specification: 1. Voltage dips: i)0% residual voltage 0.5 cycle. Performance: Criteria B ii) 70% residual voltage 25 cycle for 50Hz Performance: Criteria C 2. Voltage interruption: 0% residual voltage during 250 cycles for 50Hz. Performance: Criteria C	PASS

Note [1]: The EUT with a rated power of less75 W, the result no judgment.
[2]: Without AC power port and telecom port of the EUT.

2 GENERAL DESCRIPTION OF EUT

2.1 APPLICANT

Name:	Lumi United Technology Co., Ltd.
Address:	8th Floor, JinQi Wisdom Valley, No.1 Tangling Road, Liuxian Ave, Taoyuan Residential District, Nanshan District, Shenzhen.China

2.2 MANUFACTURER

Name:	Lumi United Technology Co., Ltd.
Address:	8th Floor, JinQi Wisdom Valley, No.1 Tangling Road, Liuxian Ave, Taoyuan Residential District, Nanshan District, Shenzhen.China

2.3 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Product Name:	Camera Hub G3
Product Model:	CH-H03
Adding Model:	/
Trade Name:	Aqara
Power Supply:	Adapter 1-EU Plug Model:A70-050200U-EU1 Input:100-240V~ 50/60Hz 0.35A Output:5.0V ⎓ 2.0A 10.0W Adapter 2-UK Plug Model:A812-050200U-UK1 Input:100-240V~ 50/60Hz 0.35A Output:5.0V ⎓ 2.0A 10.0W
Frequency Band:	Zigbee: 2405MHz-2475MHz 2.4G Wi-Fi: 2412MHz-2472MHz for 802.11b/g/n HT20, 2422MHz-2462MHz for 802.11n HT40 5G Wi-Fi (Band 1-3) 5180MHz-5320MHz ; 5500MHz-5700MHz SRD: 5745MHz-5825MHz

Modulation Type:	Zigbee: OQPSK 2.4G Wi-Fi: DSSS(CCK, DQPSK, DBPSK) for 802.11b OFDM for 802.11g/n HT20/40 5G Wi-Fi (Band 1-3) OFDM(BPSK, QPSK,16-QAM, 64-QAM) for 802.11a/n HT20/40 /ac 80 SRD: OFDM(BPSK, QPSK,16-QAM, 64-QAM) for 802.11a/n HT20/40 /ac 80
Antenna Type:	Internal antenna
Hardware Version:	A20-GHC01-MIAN-X4
Software Version:	3.2.8_0003.0004
Sample submitting way:	■Provided by customer □Sampling
Sample No:	E20210426746801-0001; E20210426746801-0003
Note:	/.

2.4 TEST MODE

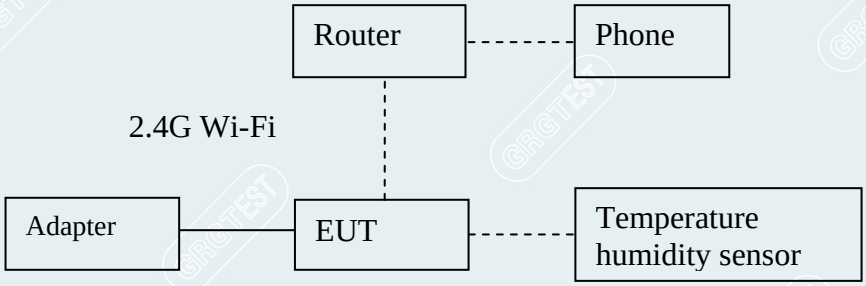
Mode No.	Description of the modes
1	Test that the peripheral mobile phone is connected to the router Wi-Fi-2.4G, connect the EUT to the mobile phone's APP, add sub-devices, then turn on the APP software to enable the wireless hotspot function, and finally use the laptop to connect to the router and perform ping data packet transmission
2	Test that the peripheral mobile phone is connected to the router Wi-Fi-5G, connect the EUT to the mobile phone's APP, add sub-devices, then turn on the APP software to enable the wireless hotspot function, and finally use the laptop to connect to the router and perform ping data packet transmission

2.5 LOCAL SUPPORTIVE INSTRUMENTS

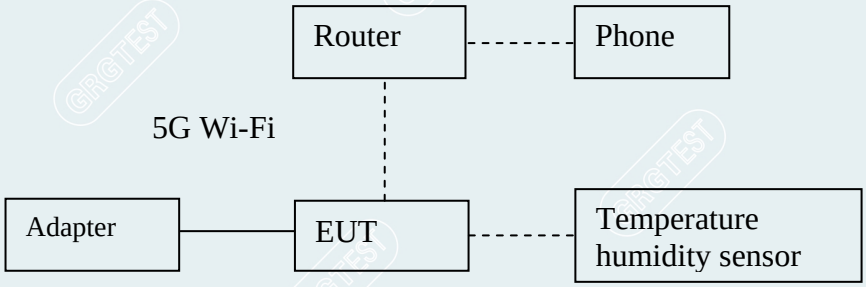
Name of Equipment	Manufacturer	Model	Serial Number	Note
INNBOXV60-U Router	INNBOX	SBB1177HO	/	/
Phone	VIVO	VIVO Y79	/	/
Temperature humidity sensor	Aqara	WSDCGQ11LM	2016DP6443	/

2.6 CONFIGURATION OF SYSTEM UNDER TEST

Mode 1:



Mode 2:



3 LABORATORY AND ACCREDITATIONS

3.1 LABORATORY

The tests & measurements refer to this report were performed by Shenzhen EMC Laboratory of Guangzhou GRG Metrology & Test Co,.Ltd.

Add.:	No.1301 Guanguang Road Xinlan Community, Guanlan Street, Longhua District Shenzhen, 518110, People's Republic of China.
P.C.:	518000
Tel :	0755-61180008
Fax:	0755-61180008

3.2 ACCREDITATIONS

Our laboratoriesare accredited and approved by the following approval agencies according to GB/T 27025(ISO/IEC 17025:2017)

USA	A2LA(Certificate#:2861.01)
China	CNAS(L0446)

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada	Industry Canada
USA	FCC

Copies of granted accreditation certificates are available for downloading from our web site, http://www.grgtest.com

3.3 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Uncertainty
Conduction Emission	9 kHz ~ 150 kHz	2.2 dB
	150 kHz ~ 30 MHz	2.8 dB
Radiated Emission（10m）	30MHz～200MHz(H)	4.5 dB
	200MHz～1000MHz(H)	4.4 dB
	30MHz～200MHz(V)	4.4 dB
	200MHz～1000MHz(V)	4.5 dB
Radiated Emission（3m）	30MHz～200MHz(H)	4.3 dB
	200MHz～1000MHz(H)	4.5 dB
	30MHz～200MHz(V)	4.4 dB
	200MHz～1000MHz(V)	4.5 dB
	1GHz～6GHz(H)	4.5 dB
	1GHz～6GHz(V)	4.5 dB
Harmonic Current	/	1)
Voltage Fluctuation and Flicks	/	1)
Electrostatic discharge	/	1)
Radio-Frequency Electromagnetic Field	/	1)
Electrical fast transient/burst	/	1)
Surge	/	1)
Conducted radio frequency disturbances	/	1)
Power frequency magnetic field	/	1)
Voltage Dip & Voltage Interruptions	/	1)

[1)]This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of *k*=2.

4 LIST OF USED TEST EQUIPMENT AT GRGT

4.1 LIST OF USED TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Conduction Emission				
EZ-EMC	EZ	CCS-3A1-CE	/	/
EMI Receiver	R&S	ESCI	100783	2021-10-08
LISN(EUT)	R&S	ENV216	101543	2022-02-25
Radiated Emission (Below 1GHz)				
Test S/W	EZ	CCS-2ANT	/	/
Test Receiver	R&S	ESCI	100088	2021-11-14
Preamplifier	EMEC	EM330	/	2022-03-21
Bi-log Antenna	TESEQ	CBL6143A	32399	2021-11-25
Radiated Emission (Above 1GHz)				
Test software	Tonscend	JS32-RE	/	/
Spectrum Analyzer	Agilent	N9010A	MY52221469	2022-04-16
Preamplifiers	Tonscend	TAP037030	AP20E8060081	2022-06-03
Preamplifiers	Tonscend	TAP01018048	AP20E8060075	2022-06-07
Horn antenna	Schwarzbeck	BBHA 9120D	02143	2021-12-17
Harmonic Current				
Test S/W	/	CTS4	/	/
Power Source	SCHAFFNER	NSG1007	54789	2022-03-21
Harmonic & Flicker Tester	SCHAFFNER	CCN1000	72045	2021-11-15
Voltage Fluctuation and Flicks				
Test S/W	/	CTS4	/	/
Power Source	SCHAFFNER	NSG1007	54789	2022-03-21
Harmonic & Flicker Tester	SCHAFFNER	CCN1000	72045	2021-11-15
Electrostatic discharge				
Dito ESD Simulator	EM Test	dito	V0809103493	2021-11-18

Radio-Frequency Electromagnetic Field				
Test S/W	Tonscend	JS35-RS	/	/
Signal generator	R&S	SMA100A	100434	2021-10-08
Switch	TOYO	BS5000	/	/
Power Amplifier	SCHAFFNER	CBA9433	3007	2022-03-21
Power Amplifier	TESEQ	CBA 3G-050	T44161	2022-04-16
Power Amplifier	Milmega	AS1860-50	1079232	2021-11-15
Dual directional Coupler	AR	DC 6180A	0328212	2021-10-08
Dual directional Coupler	AR	DC 7144A	327057	2021-10-08
Log-periodic broadband antenna	Schaffner	CBL6143	5082	2021-10-08
Microwave Log.-Per. Antenna	Schwarzbeck	STLP9149	9149-163	2021-10-09
Power Meter	Keysight	N1914A	MY57090009	2021-10-16
Power Probe	Keysight	E9301A	MY57060008	2021-10-08
Electrical fast transient/burst				
Test S/W	/	Win3025 Version 4.00	/	/
Fast Transients/Burst Generator	TESEQ	NSG 3025	26861	2021-10-16
Surge				
Combined wave lightning surge simulator	3ctest	CWS 600G	ES0381813	2021-11-15
Lightning surge coupling decoupling network	3ctest	SPN 3618T	ES0941720	2021-11-15
Conducted radio frequency disturbances				
Test S/W	Tonscend	JS35-CS	/	/
Conduction and radiation immunity testing system	TESEQ	NSG4070	25807	2022-04-16
Attenuator	weinschelcorp	40-6-34	QQ986	2021-10-08
CDN	TESEQ	CDNM316	24517	2021-10-08
CDN	TESEQ	CDNT800	34427	2022-03-21

Power frequency magnetic field				
Test S/W	TESEQ	Win2120 Ver6.00	/	/
Power Source	SCHAFFNER	NSG1007	54789	2022-03-21
Harmonic & Flicker Tester	SCHAFFNER	CCN1000	72045	2021-11-15
Induction coil Interface	SCHAFFNER	INA2141	6003	2021-10-16
Induction coil Interface	SCHAFFNER	INA-702	711-1115	2021-10-16
Voltage Dip & Voltage Interruptions				
Test S/W	AMETEK	AC Source CIGuiSII-500lix	2.0.0.7-No v.2006	/
Power Source	SCHAFFNER	NSG1007	54789	2022-03-21
current switchgear	TESEQ	NSG2200-1	A17820	2021-10-16
Harmonic & Flicker Tester	SCHAFFNER	CCN1000	72045	2021-11-15

5 EMISSION TEST

5.1 RADIATED EMISSION MEASUREMENT (RE)

Test Requirement:	ETSI EN 301 489-3 V2.1.1/ Annex A ETSI EN 301 489-17 V3.2.4/7.1.1 ETSI EN 301 489-1 V2.2.3/8.2 EN55032:2015/A11:2020
Test Method:	EN 55032 /annex A.2

5.1.1 LIMITS

The ancillary equipment shall meet the class B limits given in CENELEC EN 55032 [1], annex A tables A.4 and A.5.

Table A.4 – Requirements for radiated emissions at frequencies up to 1 GHz for class B equipment

Frequency range(MHz)	Distance (m)	bandwidth	Limits dB(uV/m)		
			Peak (PK)	Quasi-peak (QP)	Average (Avg)
30 to 230	3	120 kHz	/	40	/
230 to 1000	3	120 kHz	/	47	/

Table A.5 – Requirements for radiated emissions at frequencies up to 1 GHz for class B equipment

Frequency range(MHz)	Distance (m)	bandwidth	Limits dB(uV/m)		
			Peak (PK)	Quasi-peak (QP)	Average (Avg)
1000~3000	3	1MHz	70	/	50
3000~6000	3	1MHz	74	/	54

5.1.2 TEST PROCEDURE

(1) Procedure of Preliminary Test

Radiated emission tests shall be made with the receive or transmit antenna located at a horizontal distance of 3m plus half of the maximum width of the EUT being tested, measured from the centre of the EUT. The tests shall be performed with the equipment configured as closely as possible to its typical, practical operation. Unless stated otherwise, cables and wiring shall be as specified by the manufacturer and the equipment shall be in its housing (or cabinet) with all covers and access panels in place. Any deviation from normal EUT operating conditions shall be included in the test report.

The EUT (on a non-conductive support structure, where applicable) shall be placed on a remotely operated turntable, to allow the EUT to be rotated. The height of the EUT above the ground plane shall be according to the following requirements.

-- Table-top equipment is placed on a non-conductive set-up table with height 0.8 m ± 0.01 m, CISPR 16-1-4 specifies the method to determine the impact of the non-conductive set-up table on test results.

-- Floor-standing equipment is placed on a non-conductive support, as specified in the applicable product standard. If there are no EUT height placement requirements in the product standard, the EUT shall be placed on a non-conductive support at a height of 5 cm to 15 cm above the ground plane.

Note: This is table-top equipment.

Interface cables, loads, and devices should be connected to at least one of each type of the interface ports of the EUT and, where practical, each cable shall be terminated in a device typical for its actual use. Where there are multiple interface ports of the same type, a typical number of these devices shall be connected to devices or loads. It is sufficient to connect only one of the loads, provided that it can be shown, for example by preliminary testing, that the connection of further ports would not significantly increase the level of disturbance (that is, more than 2 dB) or significantly degrade the immunity level.

The test mode(s) were scanned during the preliminary test. After the preliminary scan, we found the test mode producing the highest emission level. The EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for the final test.

(2) Procedure of Final Test

EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test. The Analyzer/ Receiver scanned from 30MHz to 1000MHz and 1000MHz to 6000MHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level. Record at least six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction

factors were used to calculate the emission level and compare reading to the applicable limit and for 30MHz~1000MHz only QP reading is presented，for 1000MHz~6000 MHz Peak and AVG reading is presented.

5.1.3 TEST SETUP

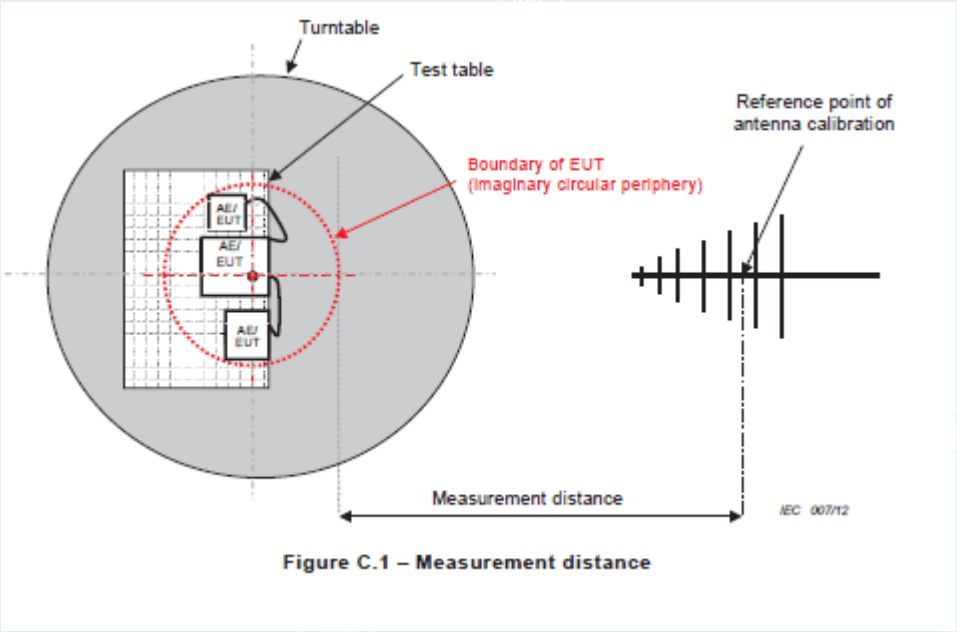


Figure C.1 – Measurement distance

Below the frequency of 1GHz

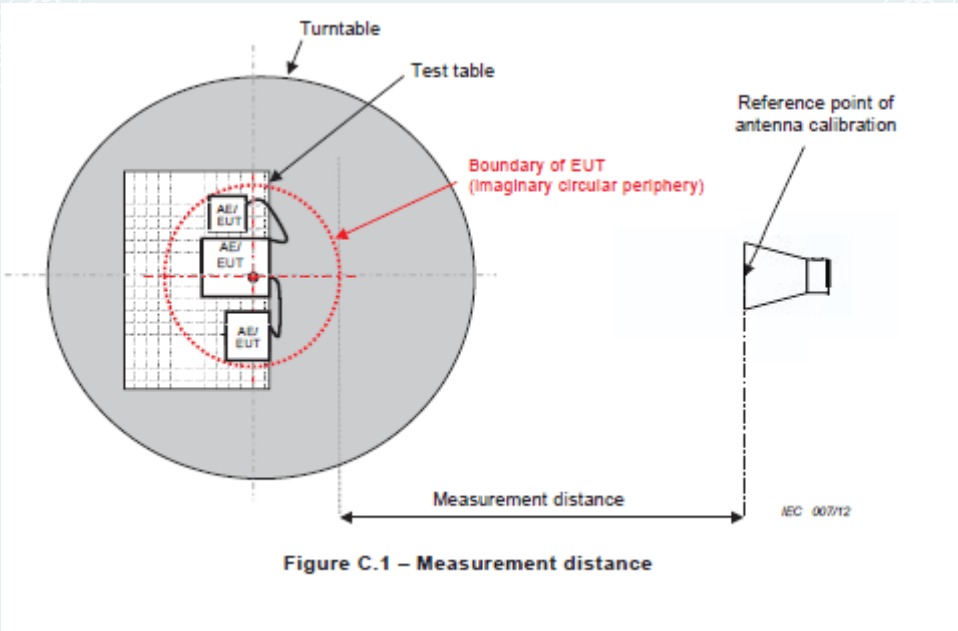


Figure C.1 – Measurement distance

Above the frequency of 1GHz(1GHz-6GHz)

5.1.4 DATA SAMPLE

Below 1GHz

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Remark
XXX.XXXX	48.49	-9.91	38.58	47.00	-8.42	QP

Frequency (MHz) = Emission frequency in MHz

Reading (dBuV) = Uncorrected Analyzer / Receiver reading

Correct Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain

Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)

Limit (dBuV/m) = Limit stated in standard

Over (dB) = Result (dBuV/m) – Limit(dBuV/m)

QP = Quasi-peak Reading

Above 1GHz

Frequency (MHz)	Reading (dBuV)	Level (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Remark
XXXX	56.70	34.18	-22.52	74	39.82	Peak
XXXX	46.34	23.80	-22.54	54	30.20	AVG

Frequency (MHz) = Emission frequency in MHz

Reading (dBuV) = Uncorrected Analyzer / Receiver reading

Correction Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain

Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)

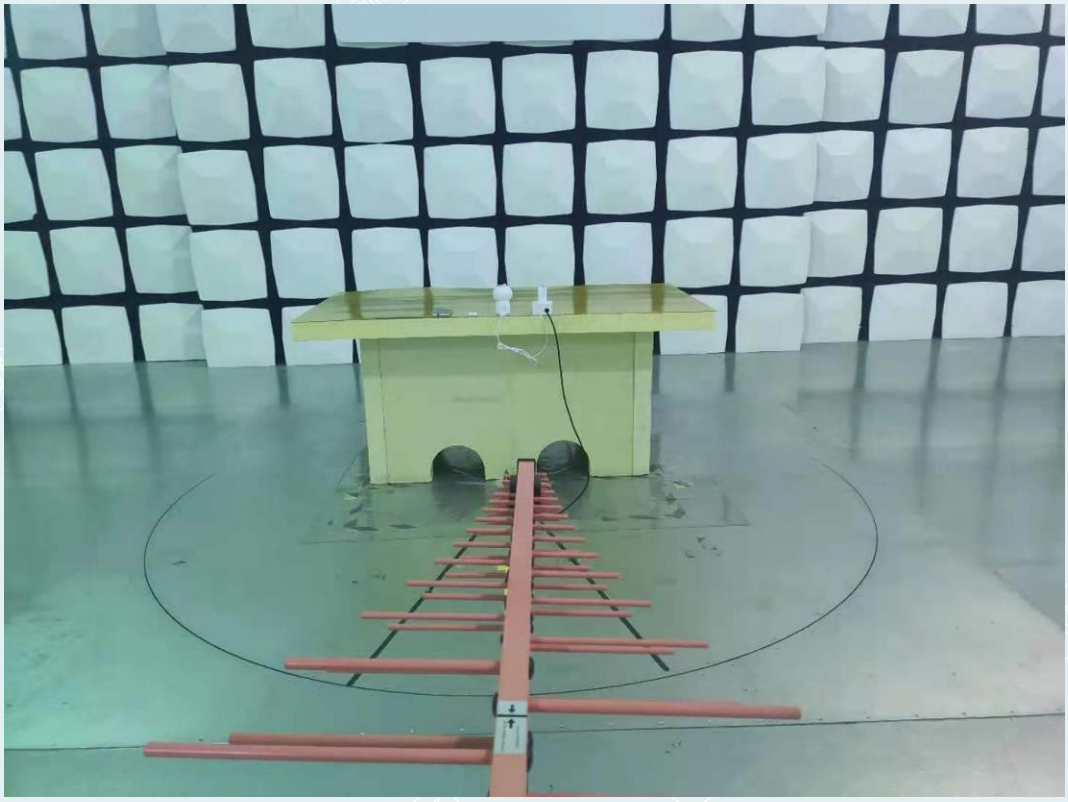
Limit (dBuV/m) = Limit stated in standard

Margin (dB) =Limit(dBuV/m)- Level(dBuV/m)

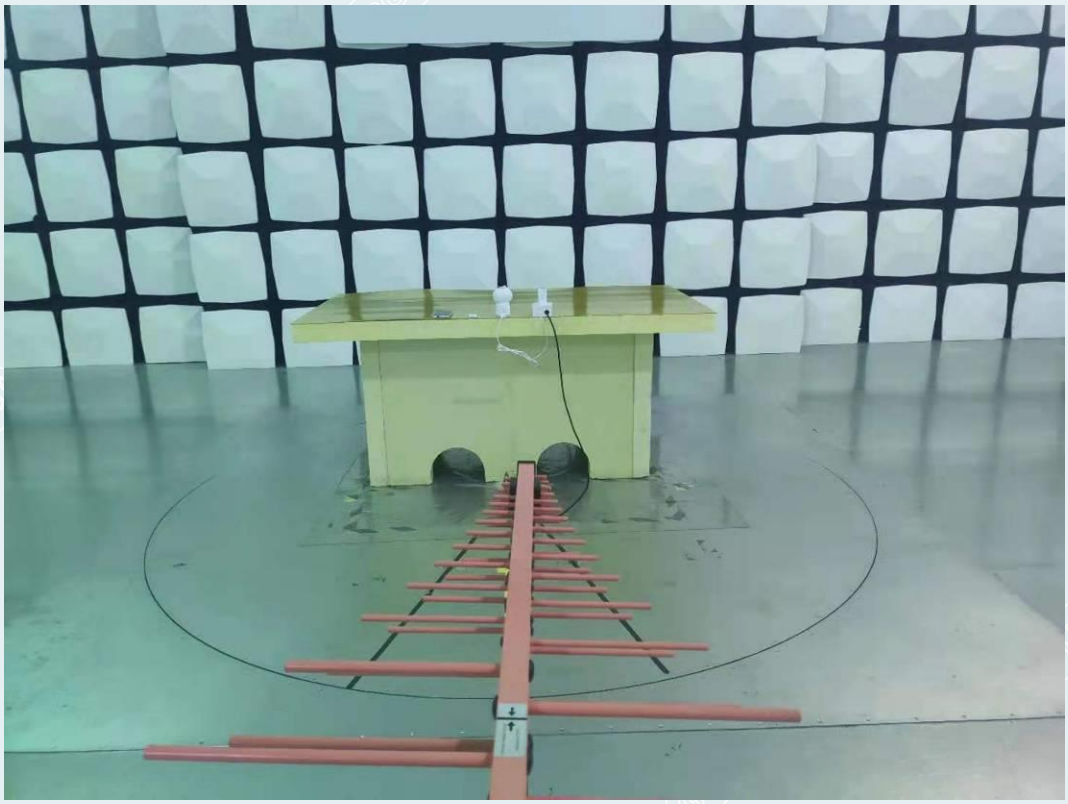
Peak = Peak Reading

AVG = Average Reading

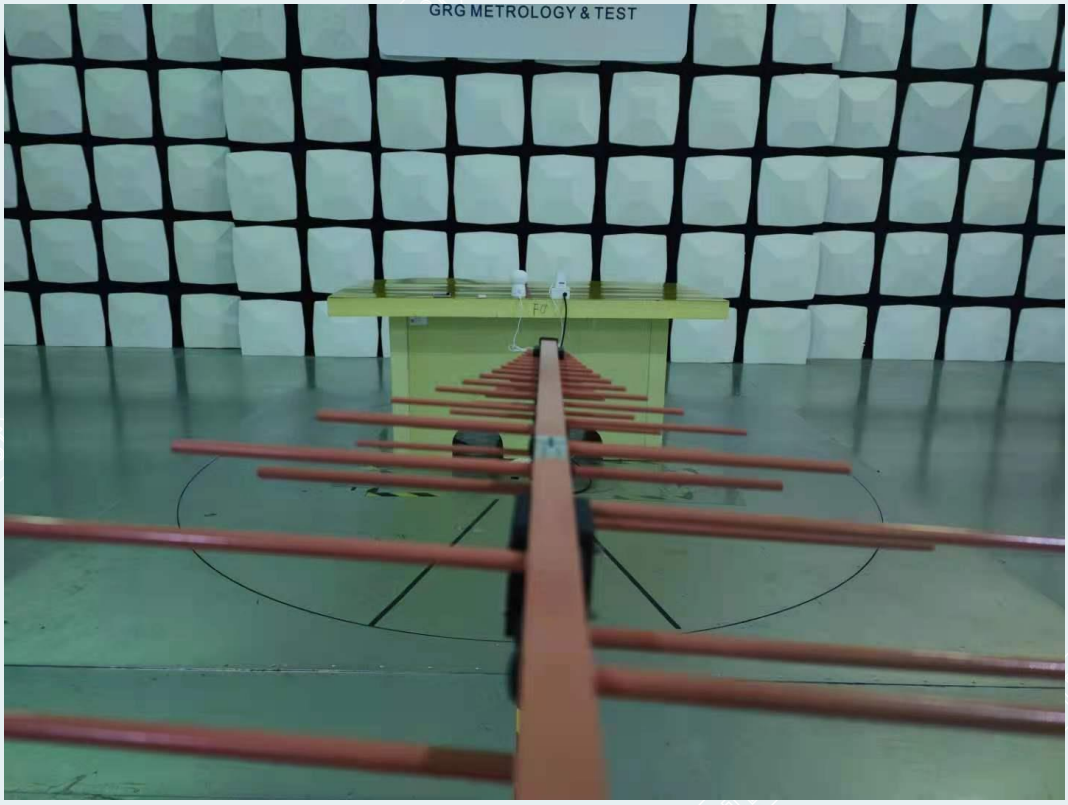
5.1.5 PHOTOGRAPH OF THE TEST ARRANGEMENT



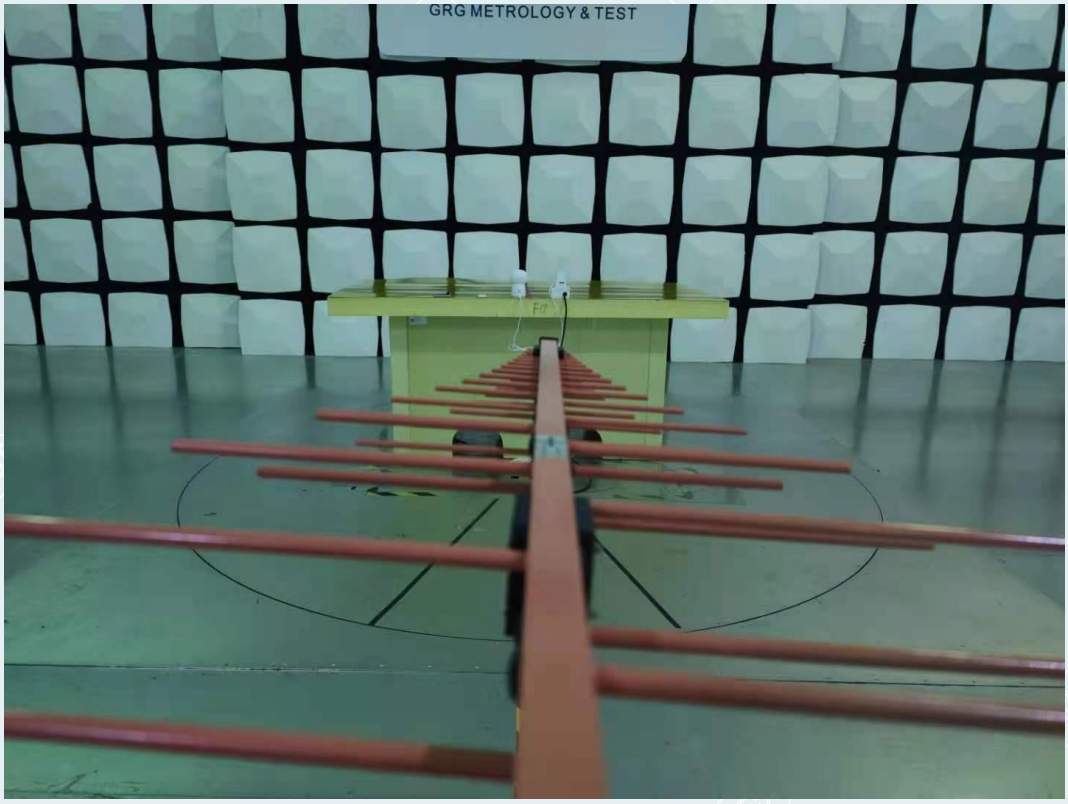
Below 1GHz Mode 1 (Adapter 1)



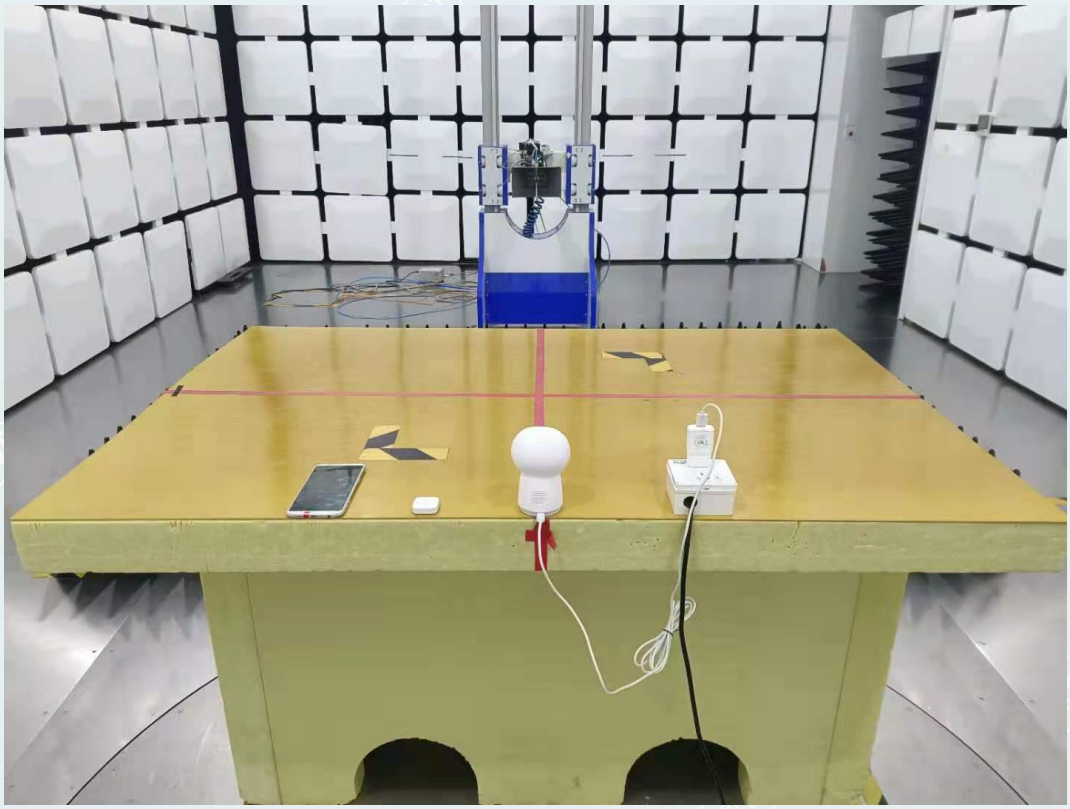
Below 1GHz Mode 2 (Adapter 1)



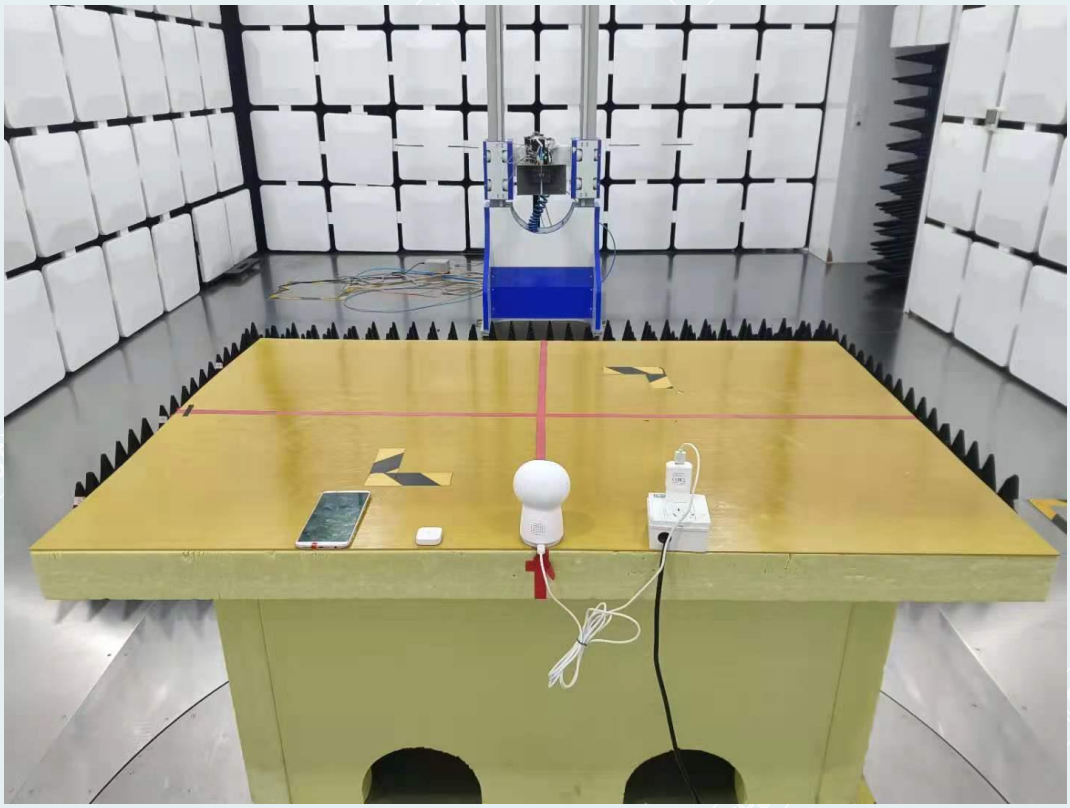
Below 1GHz Mode 1 (Adapter 2)



Below 1GHz Mode 2 (Adapter 2)



Above 1GHz Mode 1 (Adapter 1)



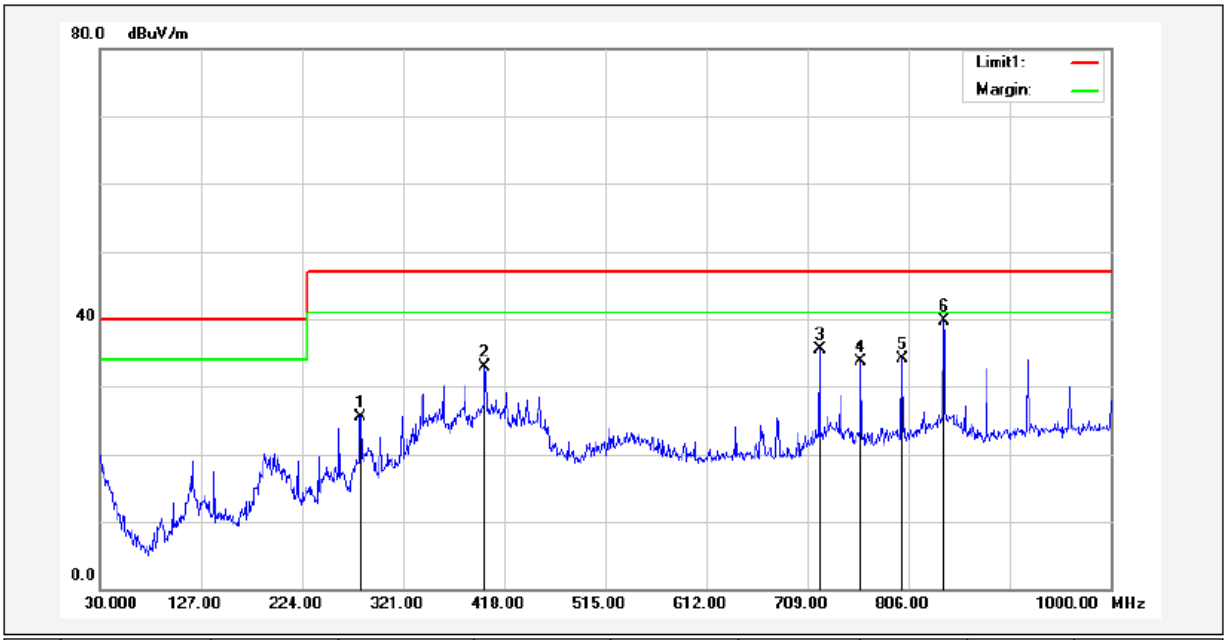
Above 1GHz Mode 2 (Adapter 1)

5.1.6 TEST RESULTS

Below 1GHz

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	22.7℃/43%RH/101.0kPa	Test Mode	Mode 1(Adapter 1)
Power supply	AC230V/50Hz	Tested By	Tang Shenghui
Test Date	2021-07-05	Sample No.	E20210426746801-0001

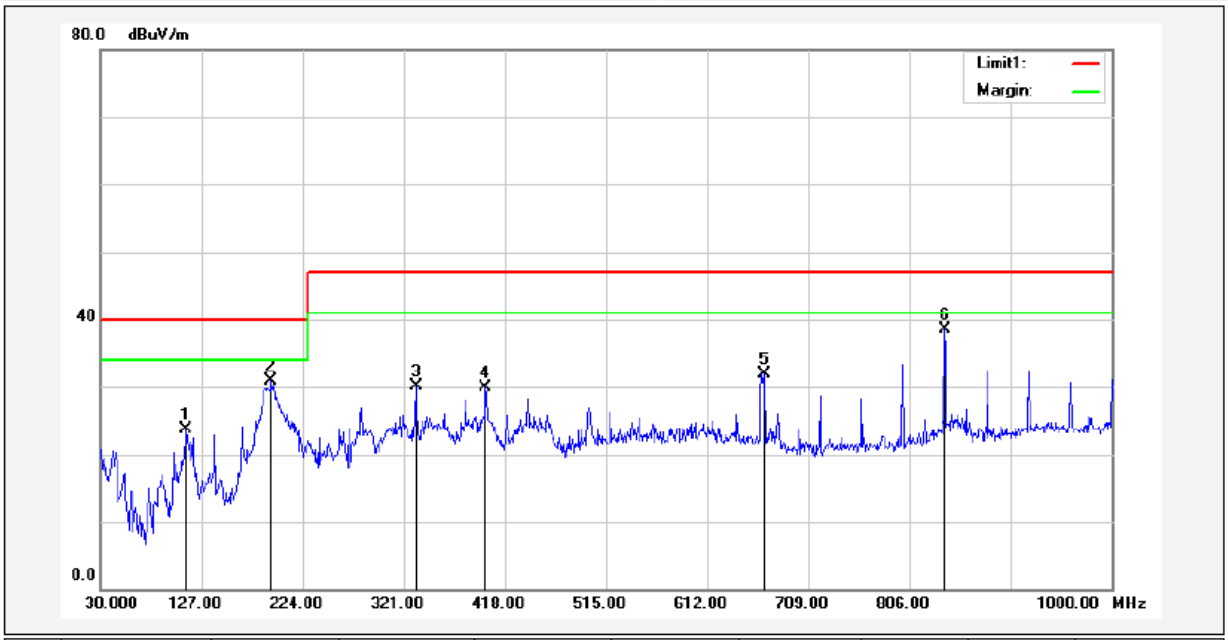
Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	280.2600	49.73	-24.14	25.59	47.00	-21.41	221	100	QP
2	399.5700	52.95	-20.13	32.82	47.00	-14.18	358	100	QP
3	720.6400	50.82	-15.35	35.47	47.00	-11.53	263	100	QP
4	760.4100	48.27	-14.60	33.67	47.00	-13.33	94	100	QP
5	800.1800	48.26	-14.23	34.03	47.00	-12.97	1	100	QP
6*	839.9500	53.97	-14.20	39.77	47.00	-7.23	51	100	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	22.7℃/43%RH/101.0kPa	Test Mode	Mode 1(Adapter 1)
Power supply	AC230V/50Hz	Tested By	Tang Shenghui
Test Date	2021-07-05	Sample No.	E20210426746801-0001

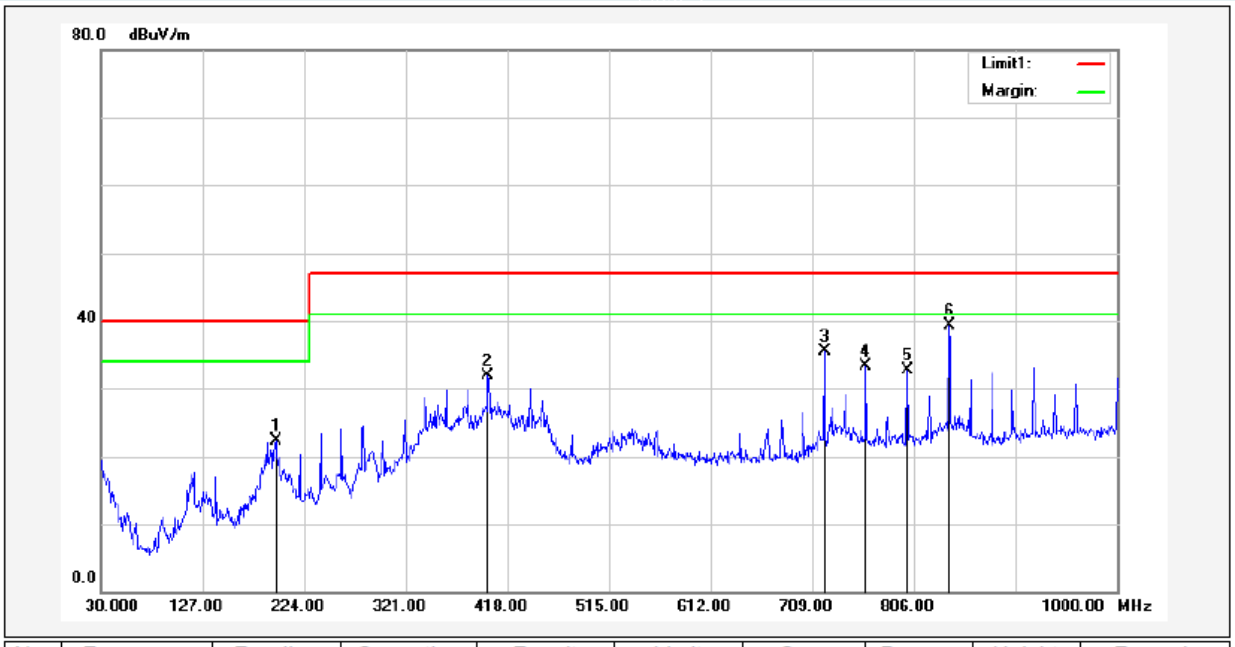
Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	112.4500	49.71	-26.05	23.66	40.00	-16.34	146	100	QP
2	193.9300	57.63	-26.79	30.84	40.00	-9.16	154	100	QP
3	332.6400	52.95	-22.78	30.17	47.00	-16.83	358	100	QP
4	399.5700	49.97	-20.13	29.84	47.00	-17.16	337	100	QP
5	666.3200	48.14	-16.16	31.98	47.00	-15.02	0	210	QP
6*	839.9500	52.66	-14.20	38.46	47.00	-8.54	360	124	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	22.7℃/43%RH/101.0kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Tang Shenghui
Test Date	2021-07-05	Sample No.	E20210426746801-0001

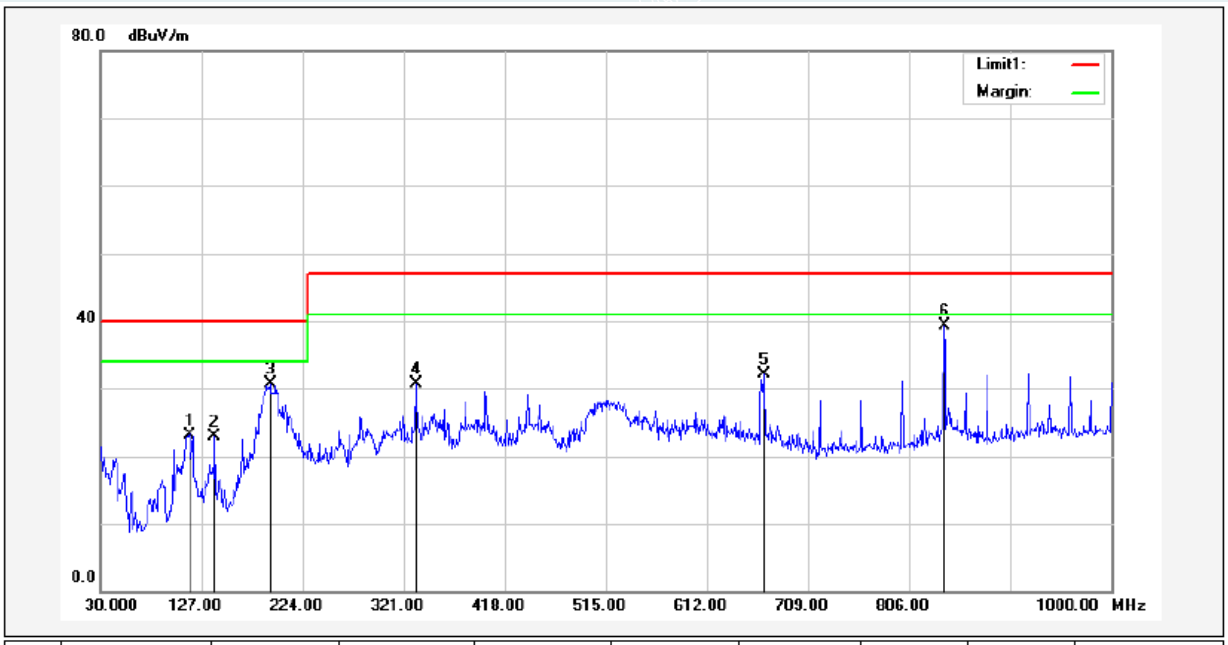
Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	196.8400	48.80	-26.59	22.21	40.00	-17.79	292	400	QP
2	399.5700	52.07	-20.13	31.94	47.00	-15.06	28	100	QP
3	720.6400	50.79	-15.35	35.44	47.00	-11.56	111	100	QP
4	760.4100	47.81	-14.60	33.21	47.00	-13.79	106	100	QP
5	800.1800	47.01	-14.23	32.78	47.00	-14.22	350	100	QP
6*	839.9500	53.47	-14.20	39.27	47.00	-7.73	54	100	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	22.7℃/43%RH/101.0kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Tang Shenghui
Test Date	2021-07-05	Sample No.	E20210426746801-0001

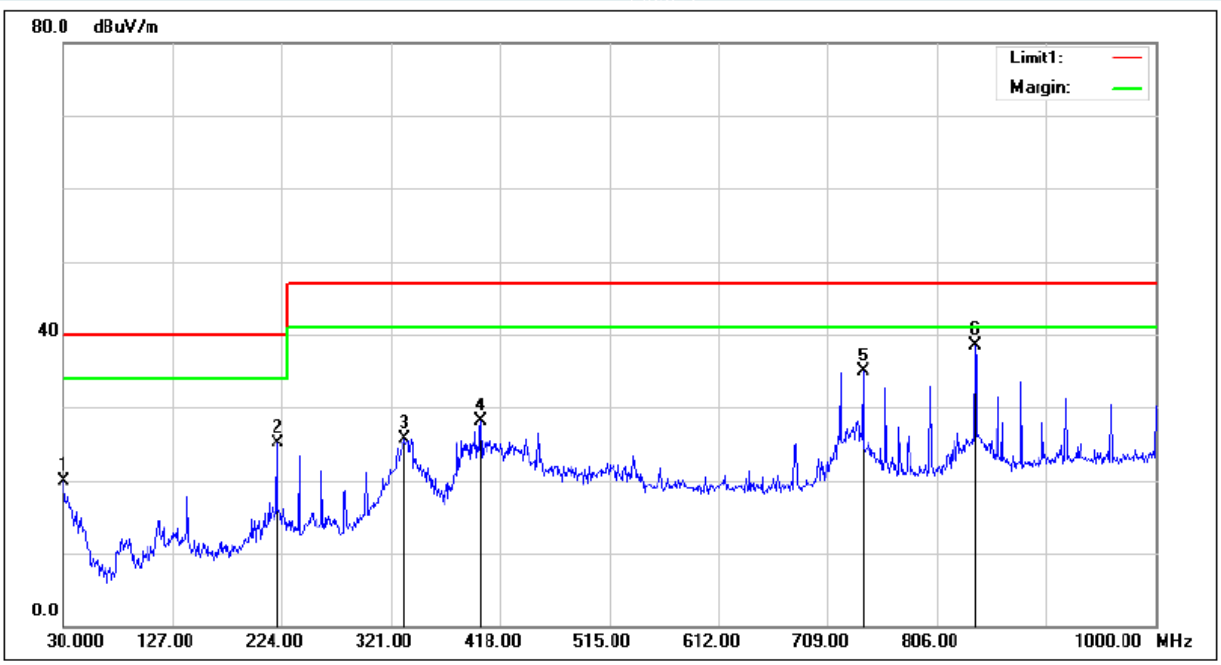
Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	115.3600	48.99	-25.79	23.20	40.00	-16.80	144	100	QP
2	139.6100	48.54	-25.65	22.89	40.00	-17.11	237	100	QP
3	192.9600	57.57	-26.86	30.71	40.00	-9.29	40	100	QP
4	332.6400	53.39	-22.78	30.61	47.00	-16.39	288	100	QP
5	666.3200	48.32	-16.16	32.16	47.00	-14.84	45	200	QP
6*	839.9500	53.42	-14.20	39.22	47.00	-7.78	360	129	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	22.7℃/45%RH/101.0kPa	Test Mode	Mode 1(Adapter 1)
Power supply	AC 110V/60Hz	Tested By	Tang Shenghui
Test Date	2021-07-10	Sample No.	E20210426746801-0001

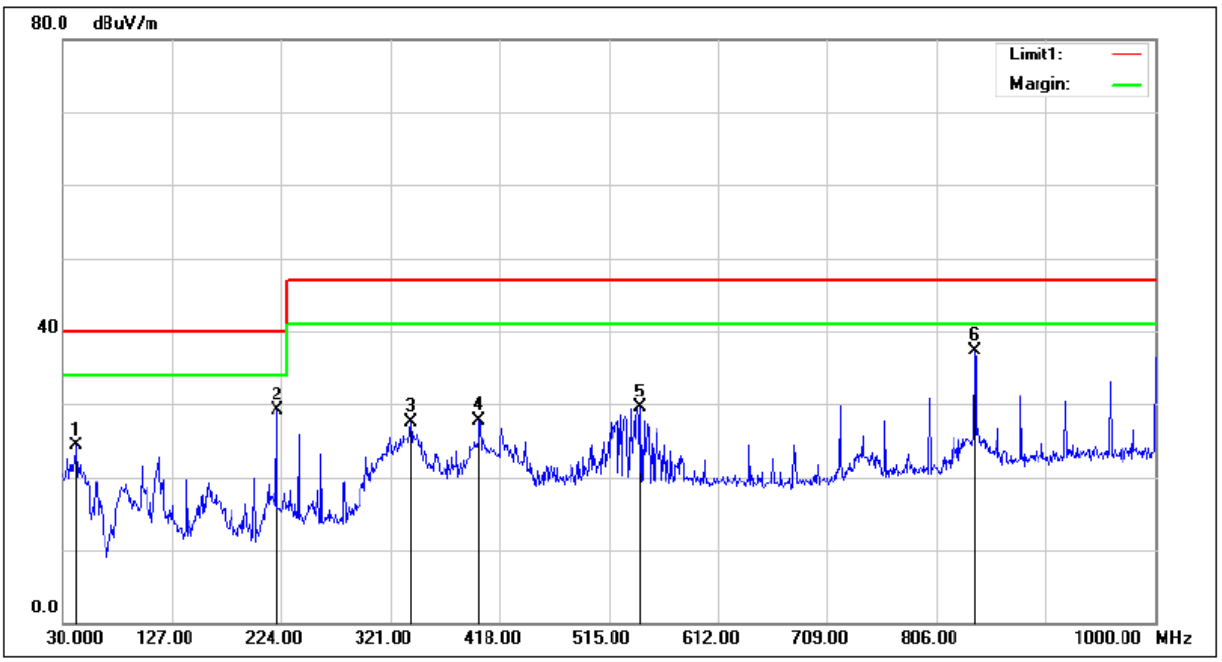
Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg)	Remark
1	30.0000	36.16	-16.27	19.89	40.00	-20.11	100	210	QP
2	220.1200	49.88	-24.74	25.14	40.00	-14.86	100	310	QP
3	333.6100	48.55	-22.78	25.77	47.00	-21.23	100	132	QP
4	400.5400	48.23	-20.10	28.13	47.00	-18.87	100	197	QP
5	740.0400	49.90	-14.92	34.98	47.00	-12.02	100	69	QP
6*	839.9500	52.75	-14.20	38.55	47.00	-8.45	100	21	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	22.7℃/45%RH/101.0kPa	Test Mode	Mode 1(Adapter 1)
Power supply	AC 110V/60Hz	Tested By	Tang Shenghui
Test Date	2021-07-10	Sample No.	E20210426746801-0001

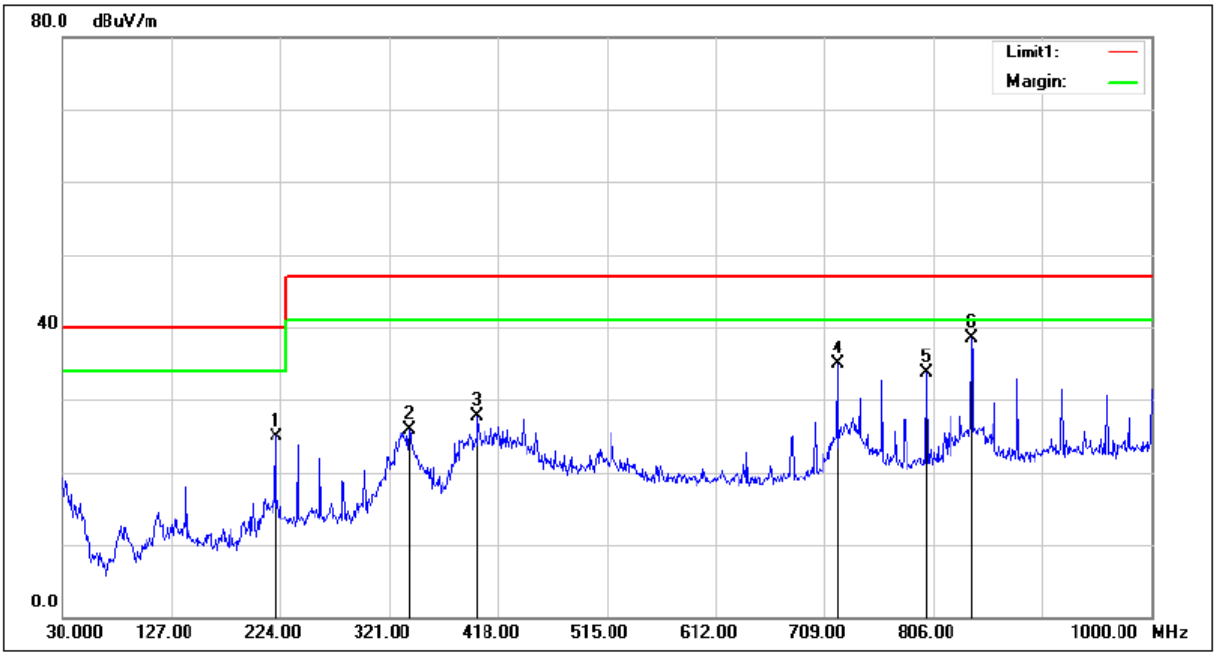
Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg)	Remark
1	42.6100	46.42	-22.11	24.31	40.00	-15.69	100	207	QP
2	220.1200	53.82	-24.74	29.08	40.00	-10.92	100	202	QP
3	339.4300	50.29	-22.77	27.52	47.00	-19.48	100	358	QP
4	399.5700	47.77	-20.13	27.64	47.00	-19.36	199	360	QP
5	543.1300	46.48	-16.97	29.51	47.00	-17.49	105	360	QP
6*	839.9500	51.41	-14.20	37.21	47.00	-9.79	124	360	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	22.7℃/45%RH/101.0kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC 110V/60Hz	Tested By	Tang Shenghui
Test Date	2021-07-10	Sample No.	E20210426746801-0001

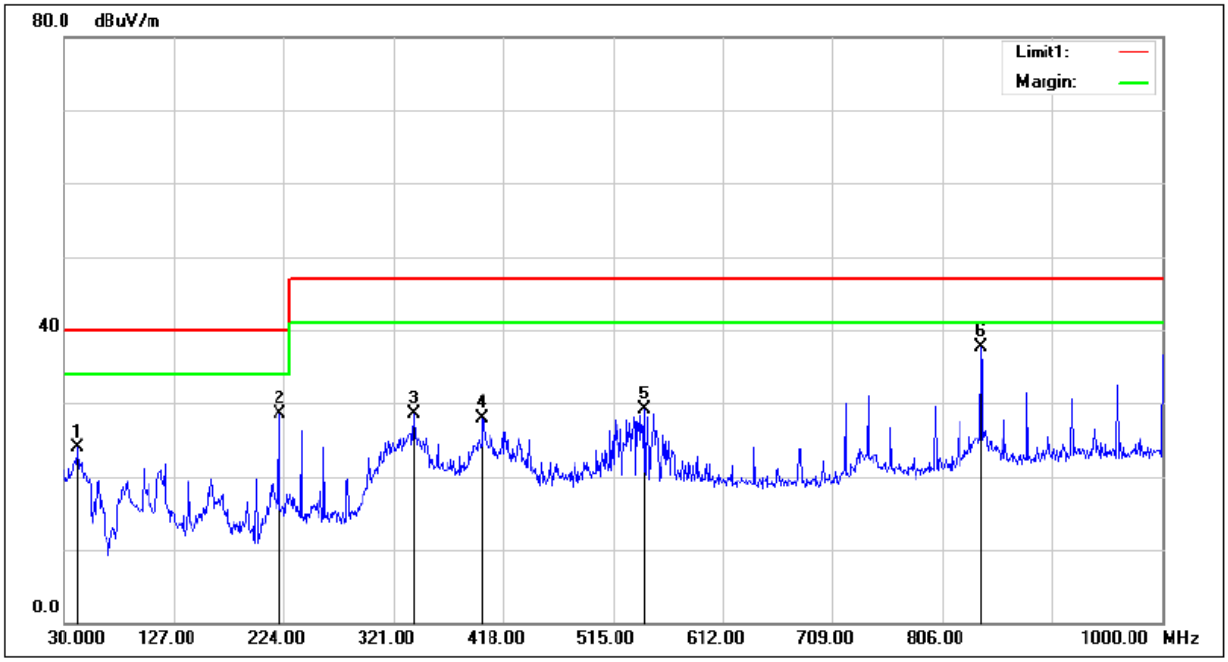
Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg)	Remark
1	220.1200	49.58	-24.74	24.84	40.00	-15.16	100	320	QP
2	339.4300	48.77	-22.77	26.00	47.00	-21.00	100	195	QP
3	399.5700	47.93	-20.13	27.80	47.00	-19.20	100	221	QP
4	720.6400	50.28	-15.35	34.93	47.00	-12.07	100	89	QP
5	800.1800	47.94	-14.23	33.71	47.00	-13.29	100	142	QP
6*	839.9500	52.71	-14.20	38.51	47.00	-8.49	100	134	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	22.7℃/45%RH/101.0kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC 110V/60Hz	Tested By	Tang Shenghui
Test Date	2021-07-10	Sample No.	E20210426746801-0001

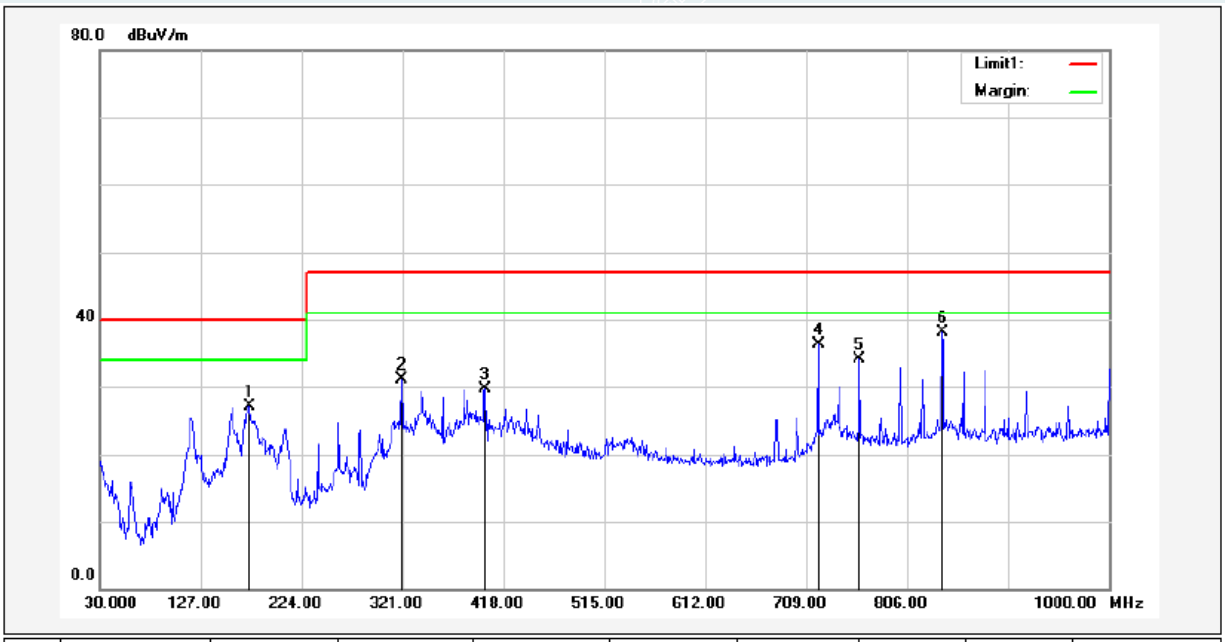
Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg)	Remark
1	42.6100	45.97	-22.11	23.86	40.00	-16.14	100	1	QP
2	220.1200	53.26	-24.74	28.52	40.00	-11.48	100	337	QP
3	339.4300	51.25	-22.77	28.48	47.00	-18.52	100	13	QP
4	399.5700	47.96	-20.13	27.83	47.00	-19.17	100	324	QP
5	543.1300	46.02	-16.97	29.05	47.00	-17.95	100	224	QP
6*	839.9500	51.87	-14.20	37.67	47.00	-9.33	132	360	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	23.8℃/46%RH/101.0kPa	Test Mode	Mode 1(Adapter 2)
Power supply	AC230V/50Hz	Tested By	Tang Shenghui
Test Date	2021-08-18	Sample No.	E20210426746801-0001

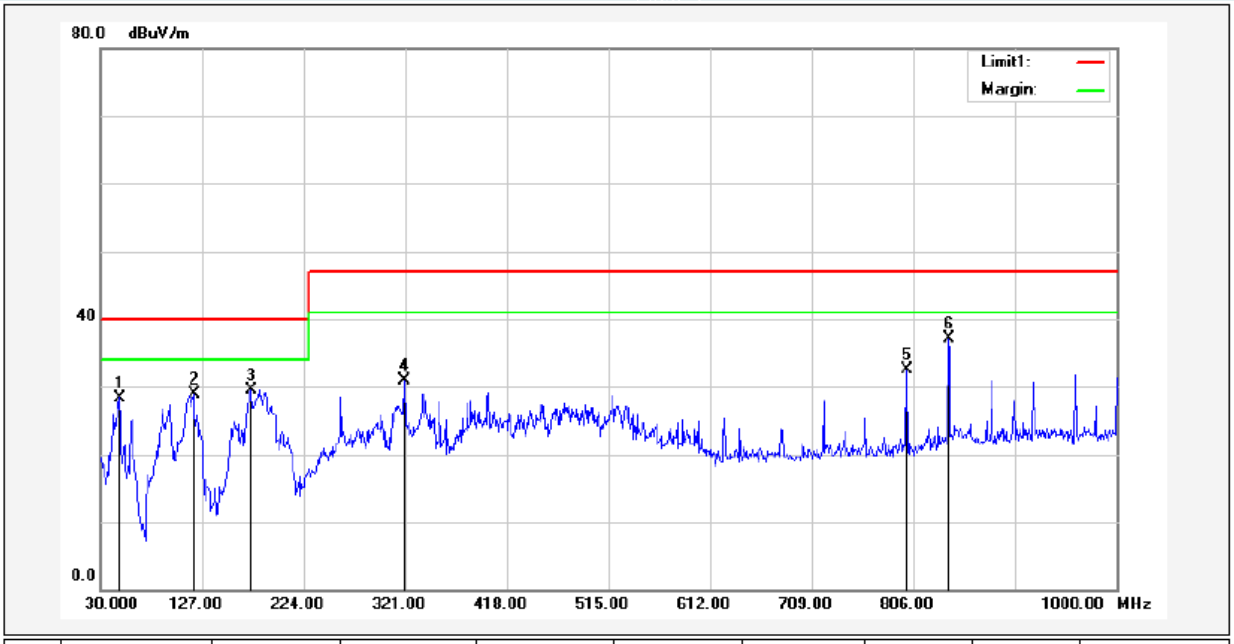
Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	173.5600	54.37	-27.31	27.06	40.00	-12.94	360	215	QP
2	320.0300	53.84	-22.81	31.03	47.00	-15.97	45	100	QP
3	400.5400	49.75	-20.10	29.65	47.00	-17.35	253	100	QP
4	720.6400	51.57	-15.35	36.22	47.00	-10.78	258	100	QP
5	760.4100	48.65	-14.60	34.05	47.00	-12.95	280	100	QP
6*	839.9500	52.36	-14.20	38.16	47.00	-8.84	245	100	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	23.8℃/46%RH/101.0kPa	Test Mode	Mode 1(Adapter 2)
Power supply	AC230V/50Hz	Tested By	Tang Shenghui
Test Date	2021-08-18	Sample No.	E20210426746801-0001

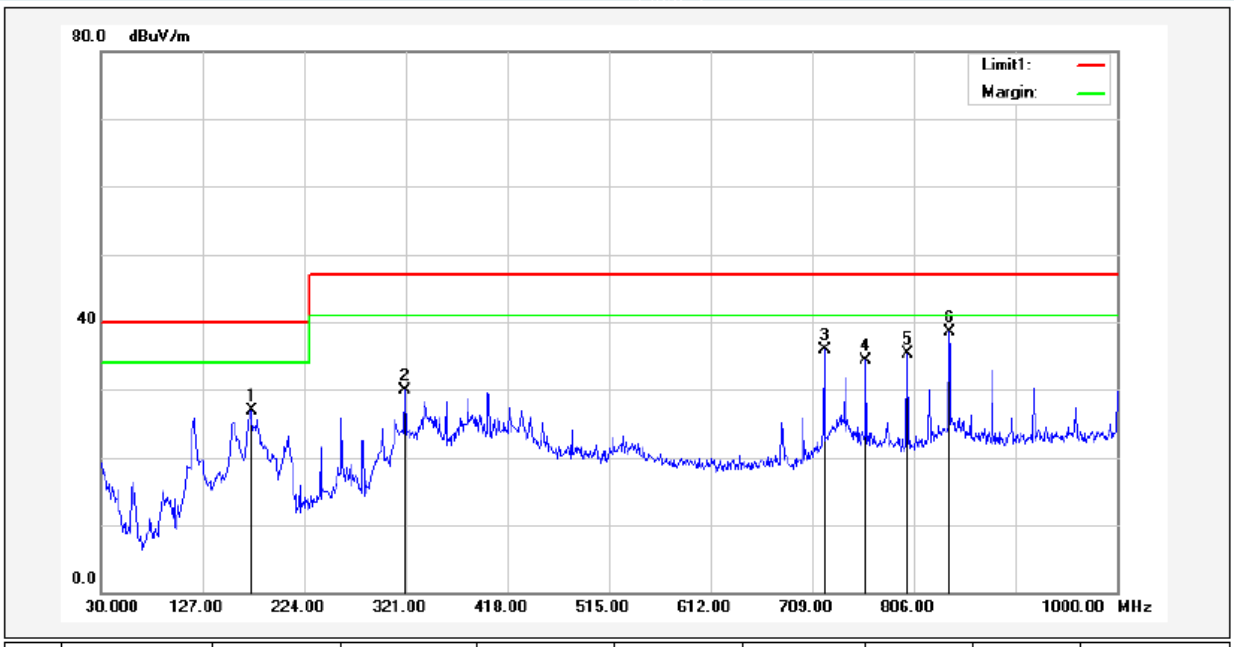
Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	48.4300	53.14	-24.74	28.40	40.00	-11.60	107	100	QP
2	119.2400	54.29	-25.45	28.84	40.00	-11.16	357	100	QP
3	173.5600	56.73	-27.31	29.42	40.00	-10.58	314	100	QP
4	320.0300	53.77	-22.81	30.96	47.00	-16.04	0	199	QP
5	800.1800	46.65	-14.23	32.42	47.00	-14.58	0	157	QP
6*	839.9500	51.24	-14.20	37.04	47.00	-9.96	0	128	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	23.8℃/46%RH/101.0kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	Tang Shenghui
Test Date	2021-08-18	Sample No.	E20210426746801-0001

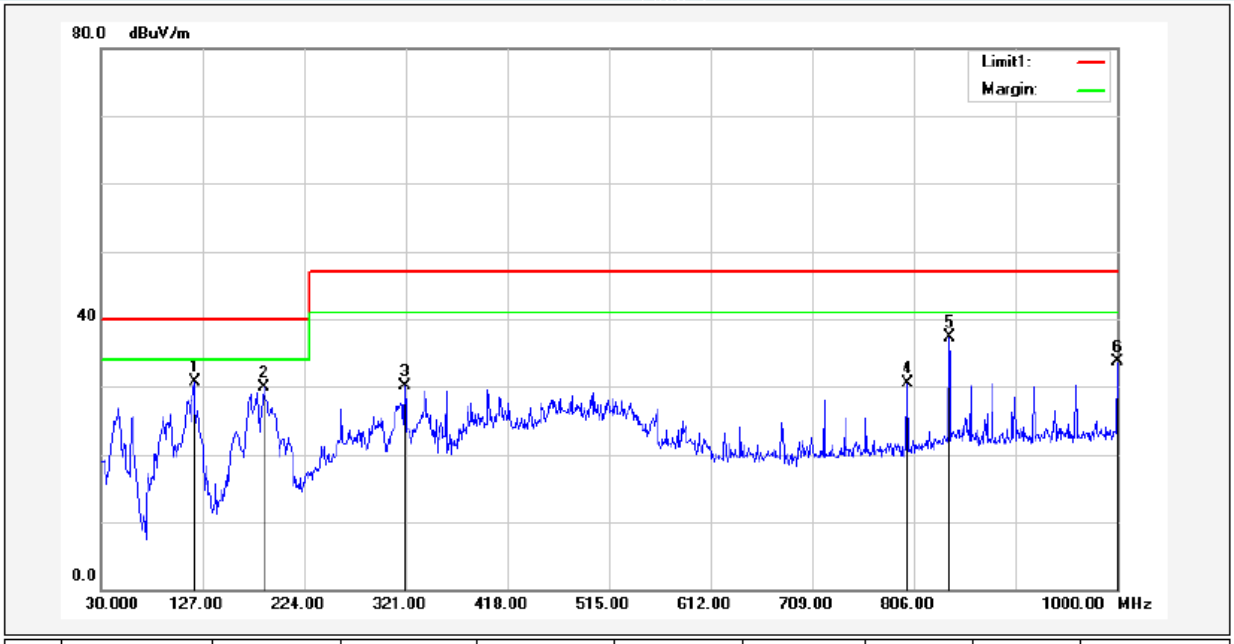
Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	173.5600	54.29	-27.31	26.98	40.00	-13.02	1	200	QP
2	320.0300	52.67	-22.81	29.86	47.00	-17.14	12	100	QP
3	720.6400	51.16	-15.35	35.81	47.00	-11.19	280	100	QP
4	760.4100	48.88	-14.60	34.28	47.00	-12.72	266	100	QP
5	800.1800	49.50	-14.23	35.27	47.00	-11.73	255	100	QP
6*	839.9500	52.64	-14.20	38.44	47.00	-8.56	229	100	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	23.8℃/46%RH/101.0kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	Tang Shenghui
Test Date	2021-08-18	Sample No.	E20210426746801-0001

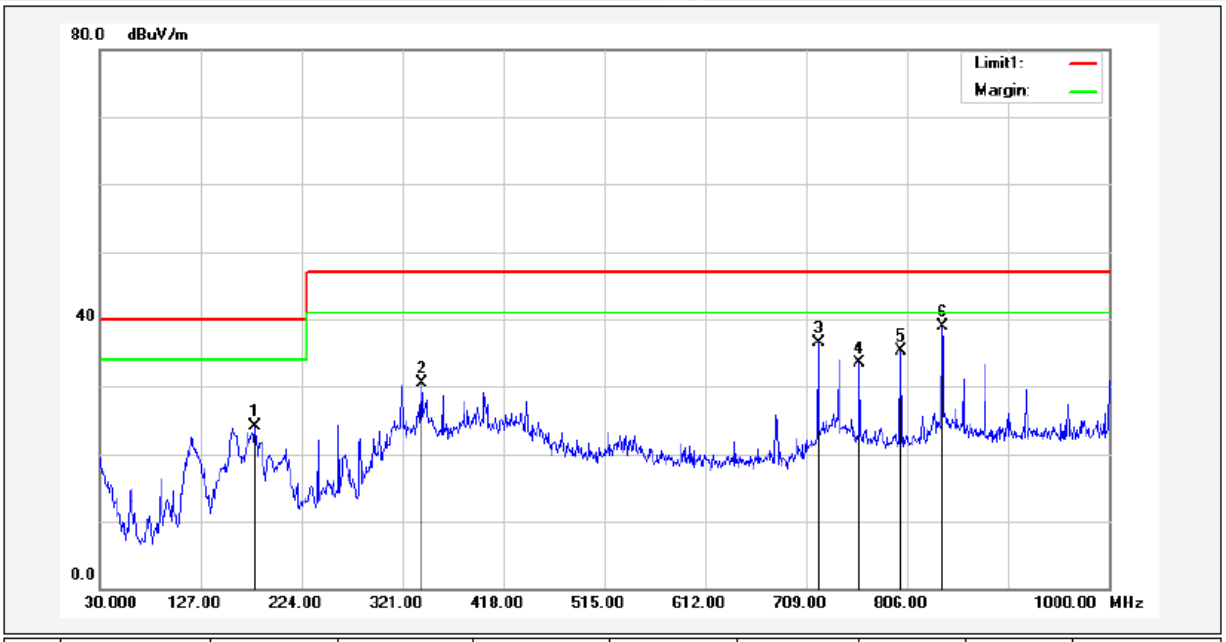
Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1*	119.2400	56.24	-25.45	30.79	40.00	-9.21	120	100	QP
2	185.2000	57.18	-27.24	29.94	40.00	-10.06	0	100	QP
3	320.0300	52.88	-22.81	30.07	47.00	-16.93	133	100	QP
4	800.1800	44.82	-14.23	30.59	47.00	-16.41	0	152	QP
5	839.9500	51.54	-14.20	37.34	47.00	-9.66	0	129	QP
6	1000.0000	46.04	-12.31	33.73	47.00	-13.27	290	100	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	23.8℃/46%RH/101.0kPa	Test Mode	Mode 1 (Adapter 2)
Power supply	AC 110V/60Hz	Tested By	Tang Shenghui
Test Date	2021-08-18	Sample No.	E20210426746801-0001

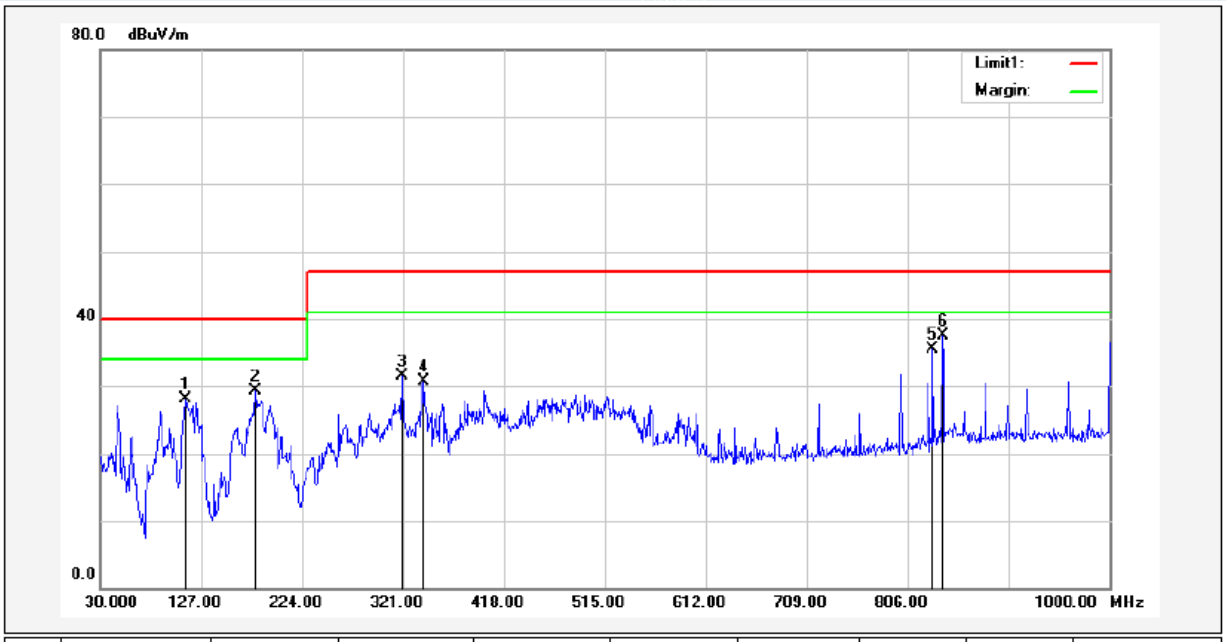
Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	179.3800	51.56	-27.39	24.17	40.00	-15.83	27	200	QP
2	339.4300	53.31	-22.77	30.54	47.00	-16.46	0	101	QP
3	720.6400	51.94	-15.35	36.59	47.00	-10.41	244	100	QP
4	760.4100	48.19	-14.60	33.59	47.00	-13.41	241	100	QP
5	800.1800	49.60	-14.23	35.37	47.00	-11.63	244	100	QP
6*	839.9500	53.14	-14.20	38.94	47.00	-8.06	167	100	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	23.8℃/46%RH/101.0kPa	Test Mode	Mode 1 (Adapter 2)
Power supply	AC 110V/60Hz	Tested By	Tang Shenghui
Test Date	2021-08-18	Sample No.	E20210426746801-0001

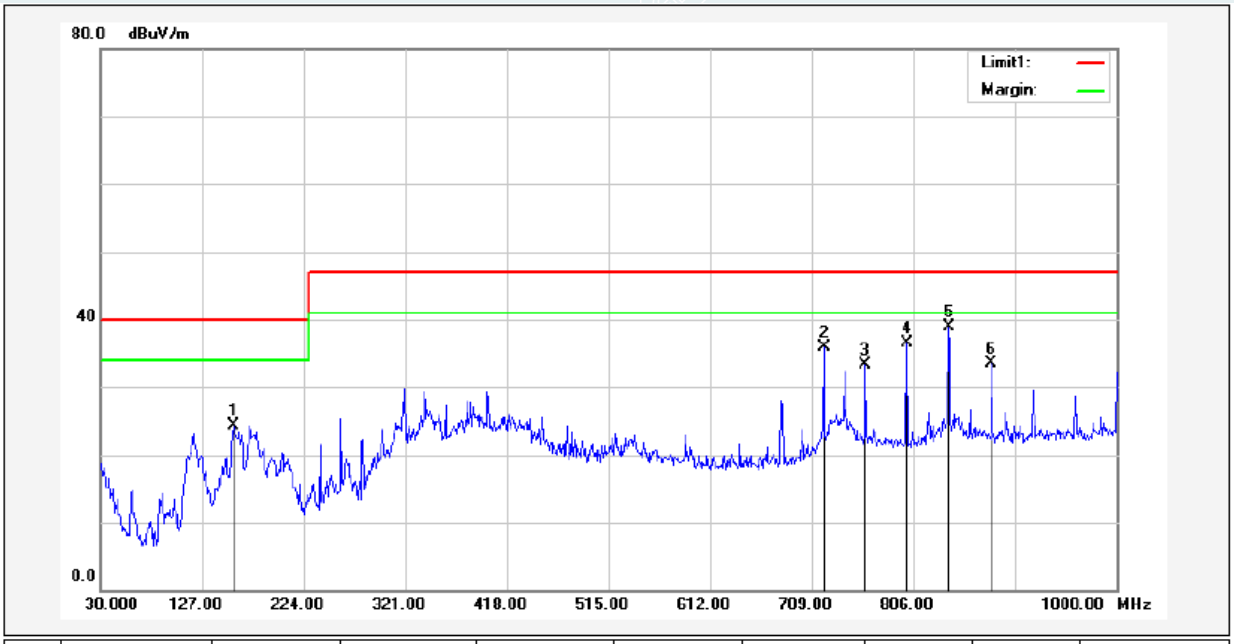
Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	112.4500	54.23	-26.05	28.18	40.00	-11.82	82	100	QP
2	179.3800	56.74	-27.39	29.35	40.00	-10.65	310	100	QP
3	320.0300	54.22	-22.81	31.41	47.00	-15.59	0	157	QP
4	341.3700	53.36	-22.70	30.66	47.00	-16.34	53	100	QP
5	830.2500	49.71	-14.21	35.50	47.00	-11.50	307	100	QP
6*	839.9500	51.66	-14.20	37.46	47.00	-9.54	0	124	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	23.8℃/46%RH/101.0kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC 110V/60Hz	Tested By	Tang Shenghui
Test Date	2021-08-18	Sample No.	E20210426746801-0001

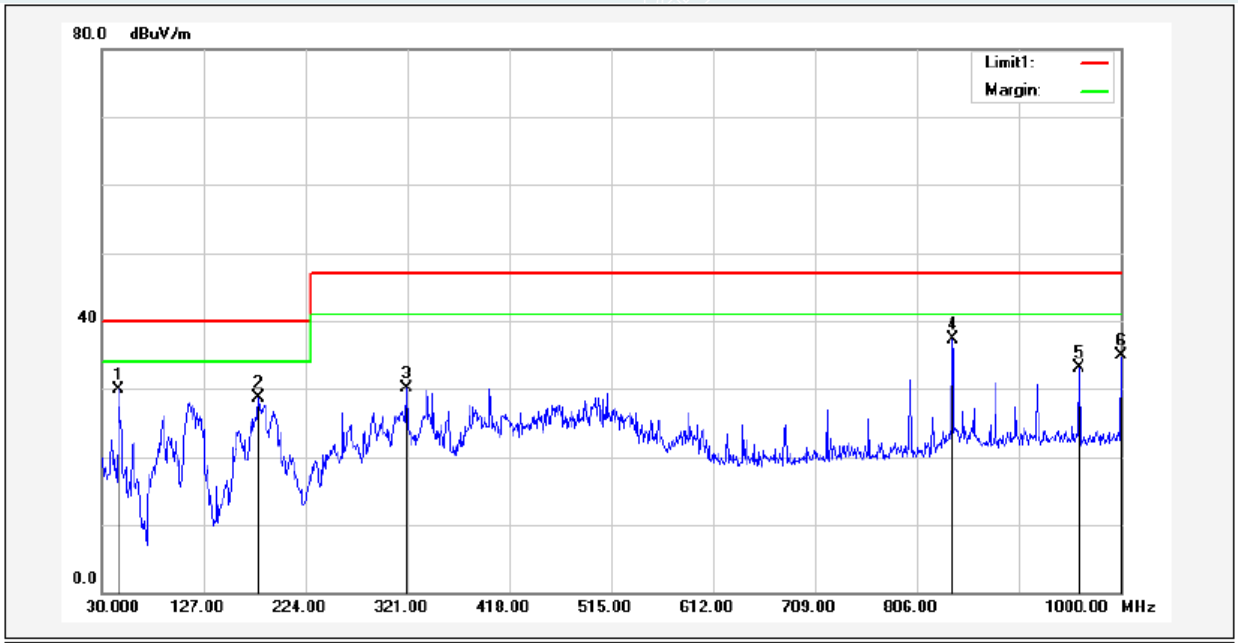
Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	157.0700	51.04	-26.70	24.34	40.00	-15.66	360	242	QP
2	720.6400	51.27	-15.35	35.92	47.00	-11.08	247	100	QP
3	760.4100	47.87	-14.60	33.27	47.00	-13.73	271	100	QP
4	800.1800	50.79	-14.23	36.56	47.00	-10.44	303	100	QP
5*	839.9500	53.11	-14.20	38.91	47.00	-8.09	176	100	QP
6	880.6900	47.08	-13.66	33.42	47.00	-13.58	221	100	QP

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	23.8℃/46%RH/101.0kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC 110V/60Hz	Tested By	Tang Shenghui
Test Date	2021-08-18	Sample No.	E20210426746801-0001

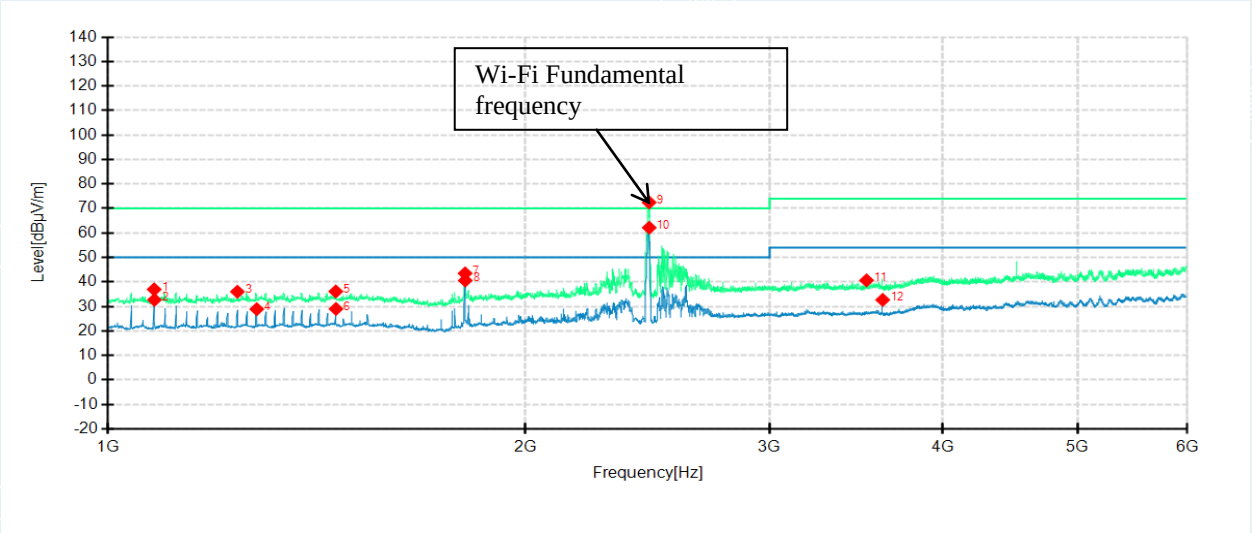
Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	46.4900	53.70	-23.85	29.85	40.00	-10.15	50	100	QP
2	179.3800	56.13	-27.39	28.74	40.00	-11.26	342	100	QP
3	320.0300	52.94	-22.81	30.13	47.00	-16.87	0	142	QP
4*	839.9500	51.49	-14.20	37.29	47.00	-9.71	0	128	QP
5	960.2300	46.07	-12.94	33.13	47.00	-13.87	358	100	QP
6	1000.0000	47.13	-12.31	34.82	47.00	-12.18	136	100	QP

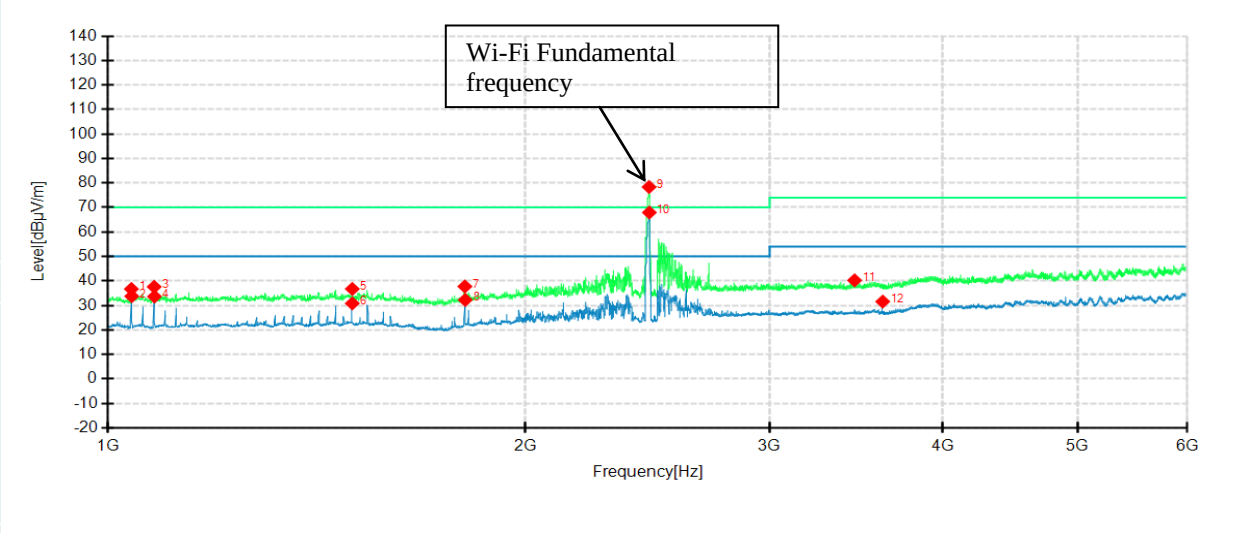
Above 1GHz

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	25.0℃/60%RH/101kPa	Test Mode	Mode 1(Adapter 1)
Power supply	AC 110V/60Hz	Tested By	Chen Xiaocong
Test Date	2021-08-02	Sample No.	E20210426746801-0001



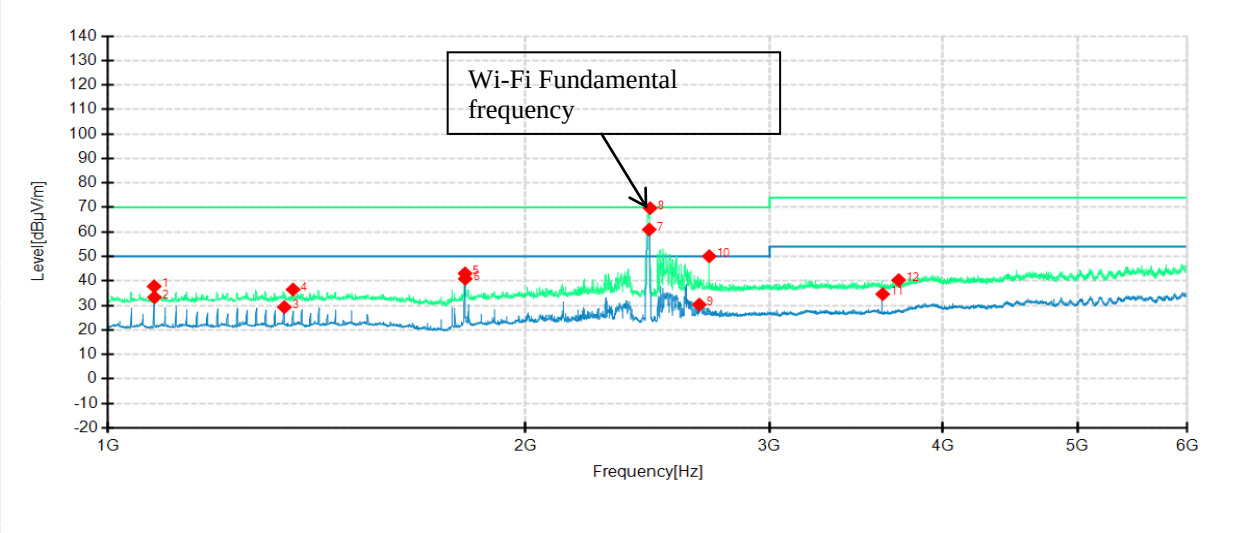
Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1080.0000	61.91	36.95	-24.96	70.00	33.05	200	226	Horizontal
2	1080.5000	57.62	32.67	-24.95	50.00	17.33	100	227	Horizontal
3	1240.0000	60.22	35.99	-24.23	70.00	34.01	100	360	Horizontal
4	1280.5000	52.91	28.88	-24.03	50.00	21.12	100	1	Horizontal
5	1460.0000	59.22	36.11	-23.11	70.00	33.89	100	345	Horizontal
6	1460.5000	52.07	28.97	-23.10	50.00	21.03	100	345	Horizontal
7	1809.5000	65.50	43.48	-22.02	70.00	26.52	100	5	Horizontal
8	1810.0000	62.60	40.58	-22.02	50.00	9.42	100	27	Horizontal
9	2456.0000	92.08	72.46	-19.62	70.00	-2.46	100	219	Horizontal
10	2456.5000	81.76	62.14	-19.62	50.00	-12.14	100	144	Horizontal
11	3523.5000	57.21	40.64	-16.57	74.00	33.36	200	192	Horizontal
12	3619.5000	48.23	32.66	-15.57	54.00	21.34	100	320	Horizontal

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	25.0℃/60%RH/101kPa	Test Mode	Mode 1(Adapter 1)
Power supply	AC 110V/60Hz	Tested By	Chen Xiaocong
Test Date	2021-08-02	Sample No.	E20210426746801-0001



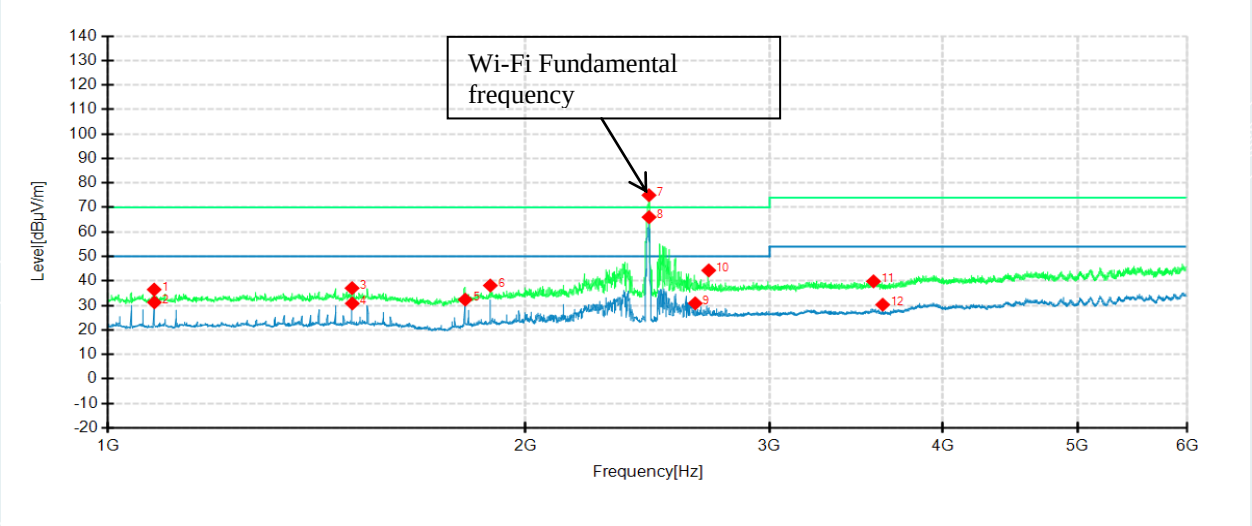
Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1040.0000	61.78	36.69	-25.09	70.00	33.31	100	334	Vertical
2	1040.5000	58.84	33.75	-25.09	50.00	16.25	100	334	Vertical
3	1080.0000	62.55	37.59	-24.96	70.00	32.41	200	1	Vertical
4	1080.5000	58.56	33.61	-24.95	50.00	16.39	200	1	Vertical
5	1500.5000	59.61	36.72	-22.89	70.00	33.28	100	5	Vertical
6	1500.5000	53.71	30.82	-22.89	50.00	19.18	100	1	Vertical
7	1809.0000	59.76	37.73	-22.03	70.00	32.27	100	359	Vertical
8	1810.0000	54.27	32.25	-22.02	50.00	17.75	200	10	Vertical
9	2456.0000	97.96	78.34	-19.62	70.00	-8.34	100	350	Vertical
10	2457.0000	87.55	67.93	-19.62	50.00	-17.93	100	176	Vertical
11	3454.5000	56.82	40.23	-16.59	74.00	33.77	100	217	Vertical
12	3619.5000	47.13	31.56	-15.57	54.00	22.44	100	11	Vertical

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	25.0℃/60%RH/101kPa	Test Mode	Mode 1(Adapter 1)
Power supply	AC230V/50Hz	Tested By	Chen Xiaocong
Test Date	2021-08-02	Sample No.	E20210426746801-0001



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1080.0000	62.75	37.79	-24.96	70.00	32.21	100	238	Horizontal
2	1080.5000	58.25	33.30	-24.95	50.00	16.70	100	264	Horizontal
3	1340.5000	53.08	29.30	-23.78	50.00	20.70	100	12	Horizontal
4	1360.0000	60.15	36.46	-23.69	70.00	33.54	100	348	Horizontal
5	1809.5000	65.08	43.06	-22.02	70.00	26.94	100	20	Horizontal
6	1810.0000	62.89	40.87	-22.02	50.00	9.13	100	12	Horizontal
7	2456.5000	80.57	60.95	-19.62	50.00	-10.95	100	306	Horizontal
8	2460.0000	89.31	69.69	-19.62	70.00	0.31	100	297	Horizontal
9	2669.5000	48.80	30.32	-18.48	50.00	19.68	100	1	Horizontal
10	2714.0000	68.51	50.08	-18.43	70.00	19.92	100	360	Horizontal
11	3619.5000	50.18	34.61	-15.57	54.00	19.39	100	323	Horizontal
12	3716.5000	54.98	40.33	-14.65	74.00	33.67	200	91	Horizontal

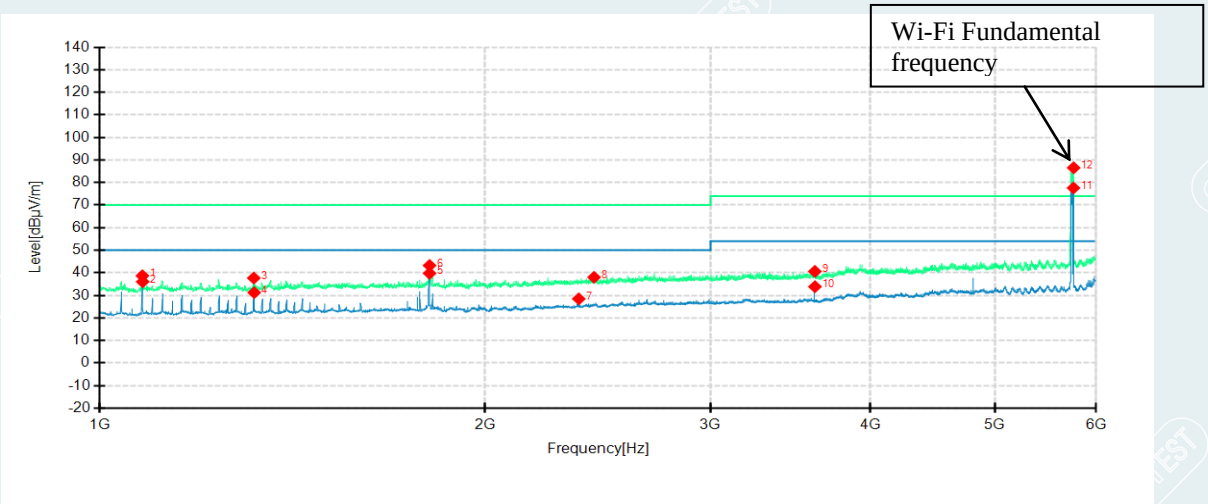
EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	25.0℃/60%RH/101kPa	Test Mode	Mode 1(Adapter 1)
Power supply	AC230V/50Hz	Tested By	Chen Xiaocong
Test Date	2021-08-02	Sample No.	E20210426746801-0001



Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1080.0000	61.43	36.47	-24.96	70.00	33.53	200	308	Vertical
2	1080.5000	56.20	31.25	-24.95	50.00	18.75	200	334	Vertical
3	1500.0000	59.92	37.03	-22.89	70.00	32.97	100	5	Vertical
4	1500.5000	53.68	30.79	-22.89	50.00	19.21	100	310	Vertical
5	1810.0000	54.39	32.37	-22.02	50.00	17.63	100	327	Vertical
6	1887.0000	59.99	38.11	-21.88	70.00	31.89	100	356	Vertical
7	2455.5000	94.60	74.98	-19.62	70.00	-4.98	100	101	Vertical
8	2456.0000	85.65	66.03	-19.62	50.00	-16.03	100	169	Vertical
9	2651.5000	49.39	30.85	-18.54	50.00	19.15	100	351	Vertical
10	2711.5000	62.71	44.28	-18.43	70.00	25.72	100	26	Vertical
11	3564.5000	55.83	39.81	-16.02	74.00	34.19	200	192	Vertical
12	3619.5000	45.86	30.29	-15.57	54.00	23.71	100	11	Vertical

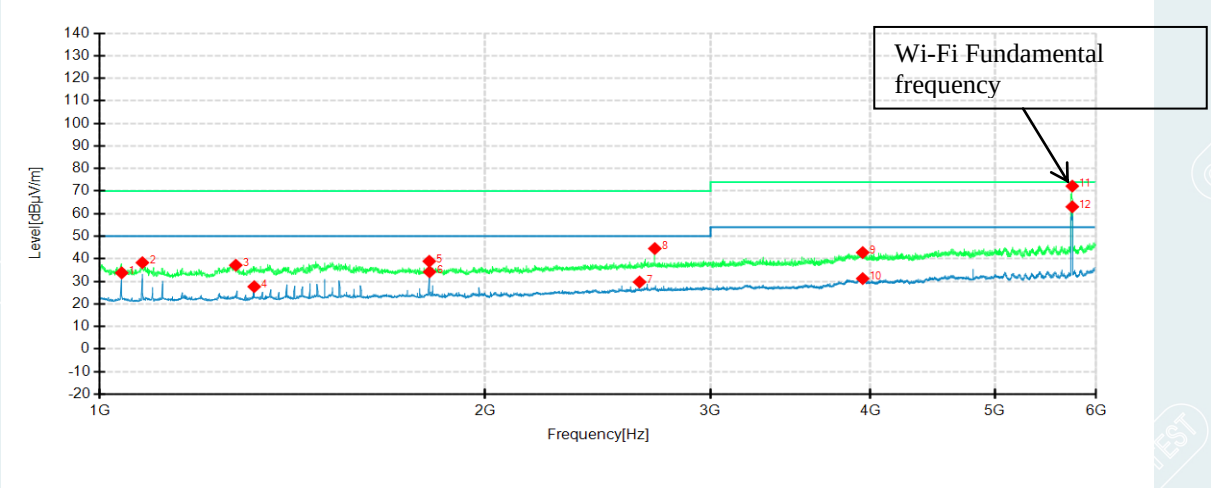
EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	25.0℃/60%RH/101kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC110V/60Hz	Tested By	Chen Xiaocong
Test Date	2021-08-02	Sample No.	E20210426746801-0001



Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1080.0000	63.62	38.66	-24.96	70.00	31.34	100	180	Horizontal
2	1080.5000	60.98	36.03	-24.95	50.00	13.97	100	180	Horizontal
3	1319.5000	61.53	37.66	-23.87	70.00	32.34	100	222	Horizontal
4	1320.5000	55.09	31.23	-23.86	50.00	18.77	100	188	Horizontal
5	1810.0000	61.78	39.76	-22.02	50.00	10.24	100	272	Horizontal
6	1810.0000	65.24	43.22	-22.02	70.00	26.78	200	172	Horizontal
7	2367.0000	48.73	28.44	-20.29	50.00	21.56	200	180	Horizontal
8	2433.0000	57.70	37.97	-19.73	70.00	32.03	100	280	Horizontal
9	3619.0000	56.19	40.61	-15.58	74.00	33.39	100	247	Horizontal
10	3619.5000	49.41	33.84	-15.57	54.00	20.16	200	164	Horizontal
11	5762.0000	86.19	77.59	-8.60	54.00	-23.59	200	115	Horizontal
12	5763.5000	95.16	86.54	-8.62	74.00	-12.54	200	115	Horizontal

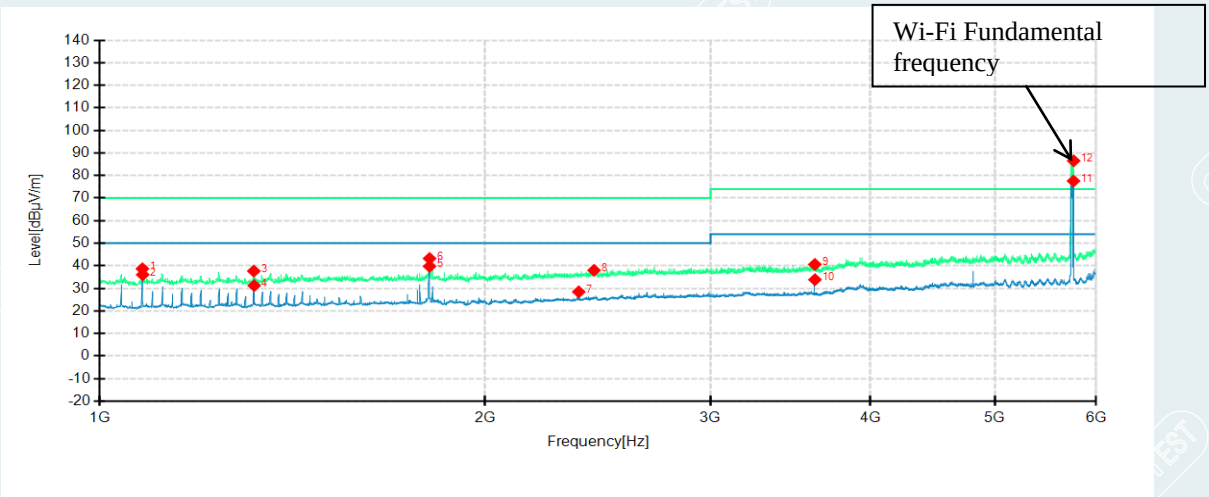
EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	25.0℃/60%RH/101kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC110V/60Hz	Tested By	Chen Xiaocong
Test Date	2021-08-02	Sample No.	E20210426746801-0001



Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1040.5000	58.85	33.76	-25.09	50.00	16.24	100	180	Vertical
2	1080.0000	63.24	38.28	-24.96	70.00	31.72	200	180	Vertical
3	1277.5000	61.18	37.14	-24.04	70.00	32.86	100	180	Vertical
4	1320.5000	51.49	27.63	-23.86	50.00	22.37	200	180	Vertical
5	1809.0000	60.92	38.89	-22.03	70.00	31.11	200	180	Vertical
6	1810.0000	56.21	34.19	-22.02	50.00	15.81	200	180	Vertical
7	2640.5000	48.39	29.70	-18.69	50.00	20.30	100	288	Vertical
8	2714.0000	62.96	44.53	-18.43	70.00	25.47	200	180	Vertical
9	3944.0000	55.60	42.77	-12.83	74.00	31.23	100	297	Vertical
10	3944.0000	44.05	31.22	-12.83	54.00	22.78	100	180	Vertical
11	5749.5000	80.73	72.21	-8.52	74.00	1.79	100	180	Vertical
12	5749.5000	71.54	63.02	-8.52	54.00	-9.02	100	254	Vertical

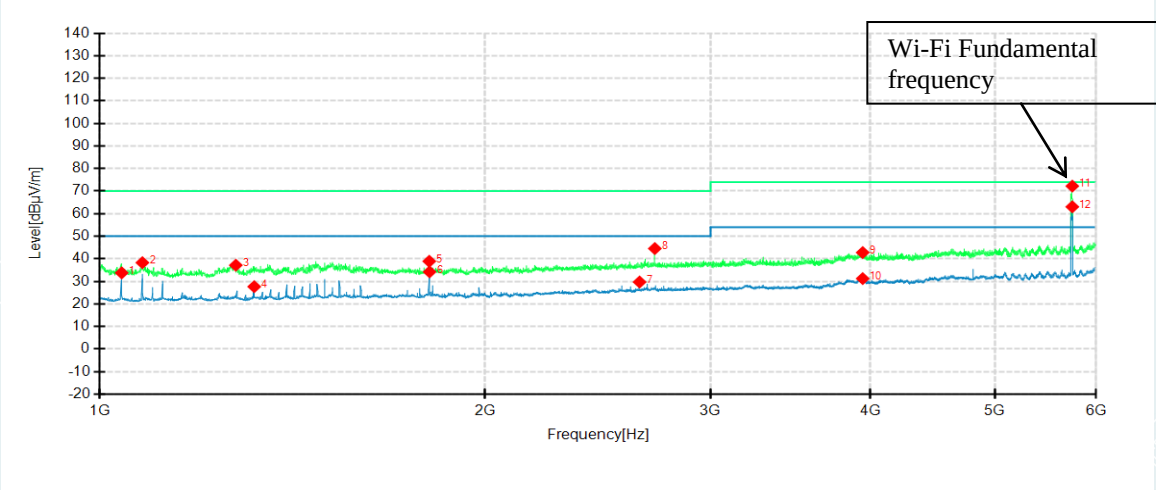
EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	25.0℃/60%RH/101kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Chen Xiaocong
Test Date	2021-08-02	Sample No.	E20210426746801-0001



Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1080.0000	63.62	38.66	-24.96	70.00	31.34	100	180	Horizontal
2	1080.5000	60.98	36.03	-24.95	50.00	13.97	100	180	Horizontal
3	1319.5000	61.53	37.66	-23.87	70.00	32.34	100	222	Horizontal
4	1320.5000	55.09	31.23	-23.86	50.00	18.77	100	188	Horizontal
5	1810.0000	61.78	39.76	-22.02	50.00	10.24	100	272	Horizontal
6	1810.0000	65.24	43.22	-22.02	70.00	26.78	200	172	Horizontal
7	2367.0000	48.73	28.44	-20.29	50.00	21.56	200	180	Horizontal
8	2433.0000	57.70	37.97	-19.73	70.00	32.03	100	280	Horizontal
9	3619.0000	56.19	40.61	-15.58	74.00	33.39	100	247	Horizontal
10	3619.5000	49.41	33.84	-15.57	54.00	20.16	200	164	Horizontal
11	5762.0000	86.19	77.59	-8.60	54.00	-23.59	200	115	Horizontal
12	5763.5000	95.16	86.54	-8.62	74.00	-12.54	200	115	Horizontal

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	25.0℃/60%RH/101kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Chen Xiaocong
Test Date	2021-08-02	Sample No.	E20210426746801-0001



NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1040.5000	58.85	33.76	-25.09	50.00	16.24	100	180	Vertical
2	1080.0000	63.24	38.28	-24.96	70.00	31.72	200	180	Vertical
3	1277.5000	61.18	37.14	-24.04	70.00	32.86	100	180	Vertical
4	1320.5000	51.49	27.63	-23.86	50.00	22.37	200	180	Vertical
5	1809.0000	60.92	38.89	-22.03	70.00	31.11	200	180	Vertical
6	1810.0000	56.21	34.19	-22.02	50.00	15.81	200	180	Vertical
7	2640.5000	48.39	29.70	-18.69	50.00	20.30	100	288	Vertical
8	2714.0000	62.96	44.53	-18.43	70.00	25.47	200	180	Vertical
9	3944.0000	55.60	42.77	-12.83	74.00	31.23	100	297	Vertical
10	3944.0000	44.05	31.22	-12.83	54.00	22.78	100	180	Vertical
11	5749.5000	80.73	72.21	-8.52	74.00	1.79	100	180	Vertical
12	5749.5000	71.54	63.02	-8.52	54.00	-9.02	100	254	Vertical

Remark: The fundamental frequency or multiple of fundamental frequency's limit is controlled to the standard of Radio frequency.

5.2 CONDUCTED EMISSION MEASUREMENT (CE)

Test Requirement:	ETSI EN 301 489-3 V2.1.1/ Annex A ETSI EN 301 489-17 V3.2.4/7.1.1 ETSI EN 301 489-1 V2.2.3/8.4 EN55032:2015/A11:2020
Test Method:	EN 55032 /annex A.3

5.2.1 LIMITS

Frequency (MHz)	Quasi-peak（dBμV）	Average（dBμV）
0.15 ~ 0.5	66~56	56~46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: (1) The lower limit shall apply at the transition frequencies.

(2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 ～0.5 MHz.

5.2.2 TEST PROCEDURES

The test method shall be in accordance with CENELEC EN 55032 [1] annex A.3 and the Artificial Mains Networks (AMNs) shall be connected to the AC mains power source.

The measurement frequency range extends from 150 kHz to 30 MHz. When the EUT is a transmitter operating at frequencies below 30 MHz, then the exclusion band for transmitters applies for measurements in the transmit mode of operation.

(1) Procedure of Preliminary Test

For measurement of the disturbance voltage the equipment under test (EUT) is connected to the power supply mains and any other extended network via one or more artificial network(s). A EUT, whether intended to be grounded or not, and which is to be used on a table is configured as follows:

--Either the bottom or the rear of the EUT shall be at a controlled distance of 40 cm from a reference ground plane. This ground plane is normally the wall or floor of a shielded room. It may also be a grounded metal plane of at least 2m by 2m. This is physically accomplished as follows:

1) Place the EUT on a table of non-conducting material which is at least 80 cm high. Place the EUT so that it is 40 cm from the wall of the shielded room, or
2) Place the EUT on a table of non-conducting material which is 40 cm high so that the bottom of the EUT is 40 cm above the ground plane.

-- All other conductive surfaces of the EUT shall be at least 80 cm from the reference ground plane.

-- The AANs are placed on the floor that one side of the AAN housings is 40 cm from the vertical reference ground plane and other metallic parts.

-- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth forming a bundle 30 cm to 40 cm long, hanging approximately in the middle between the ground plane and the table.

-- I/O cables that are connected to a peripheral shall be bundled in the centre. The end of the cable may be terminated if required using correct terminating impedance. The total length shall not exceed 1 m.

The test mode(s) were scanned during the preliminary test. After the preliminary scan, we found the test mode producing the highest emission level. The EUT configuration and cable configuration of the above highest emission levels were recorded for reference of the final test.

(2) Procedure of Final Test

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test. A scan was taken on both power lines, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

5.2.3 TEST SETUP

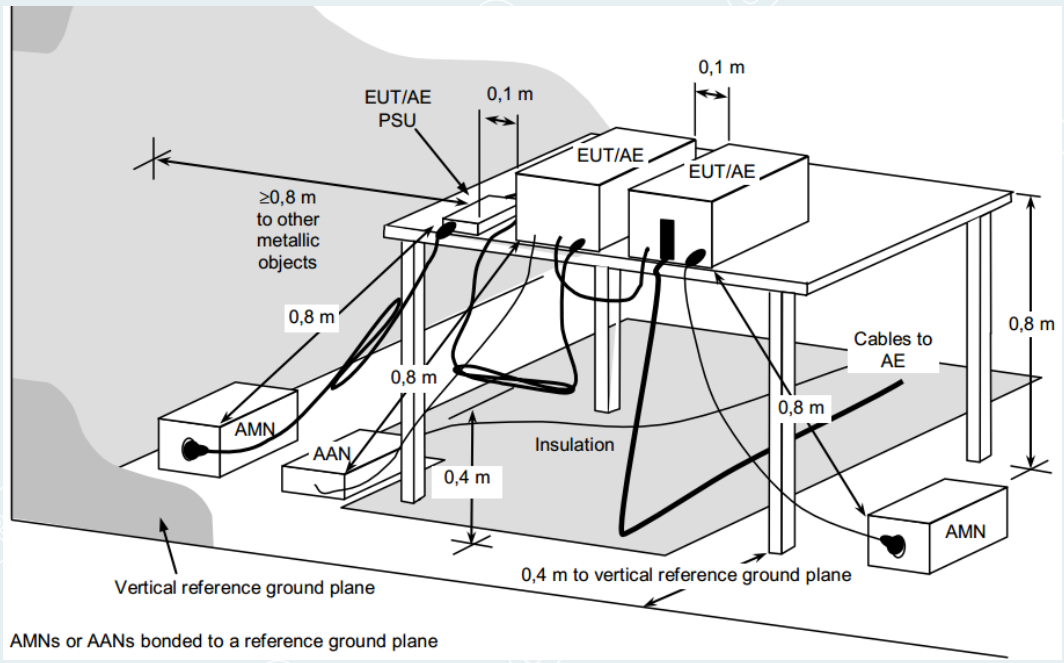


Figure 7.2-1: Test arrangement for Conducted emission measurement

5.2.4 DATE SAMPLE

Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)
X.XXXX	32.69	25.65	11.52	44.21	37.17	65.78	55.79	-21.57	-18.62

Factor = Insertion loss of LISN + Cable Loss
Result = Quasi-peak Reading/ Average Reading + Factor
Limit = Limit stated in standard
Margin = Result (dBuV) – Limit (dBuV)

5.2.5 PHOTOGRAPH OF THE TEST ARRANGEMENT

Mode 1 (Adapter 1)

Mode 2 (Adapter 1)

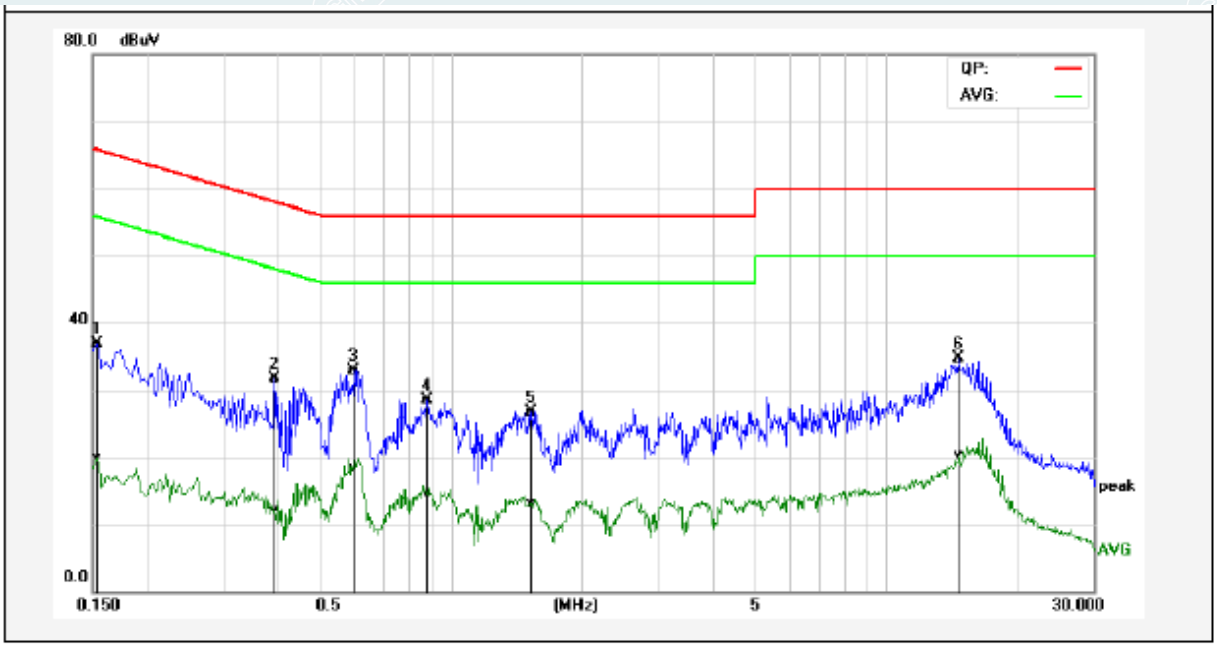
Mode 1 (Adapter 2)

Mode 2 (Adapter 2)

5.2.6 TEST RESULTS

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/40%RH/101kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Wang Xinyuan
Test Date	2021-07-02	Sample No.	E20210426746801-0001

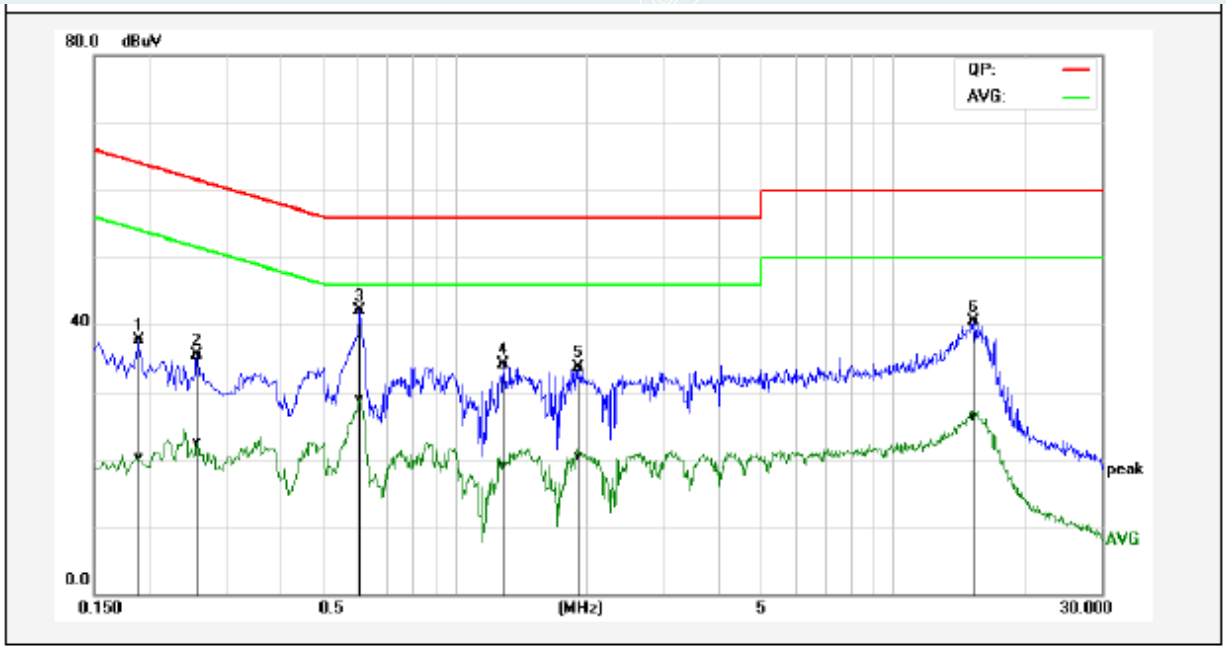
Line: **L1**



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.1539	27.35	10.39	9.61	36.96	20.00	65.78	55.79	-28.82	-35.79	Pass
2	0.3940	21.94	2.36	9.66	31.60	12.02	57.98	47.98	-26.38	-35.96	Pass
3*	0.5980	23.33	8.61	9.66	32.99	18.27	56.00	46.00	-23.01	-27.73	Pass
4	0.8820	18.78	4.85	9.67	28.45	14.52	56.00	46.00	-27.55	-31.48	Pass
5	1.5339	17.12	3.47	9.66	26.78	13.13	56.00	46.00	-29.22	-32.87	Pass
6	14.6980	24.66	10.35	9.94	34.60	20.29	60.00	50.00	-25.40	-29.71	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/40%RH/101kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Wang Xinyuan
Test Date	2021-07-02	Sample No.	E20210426746801-0001

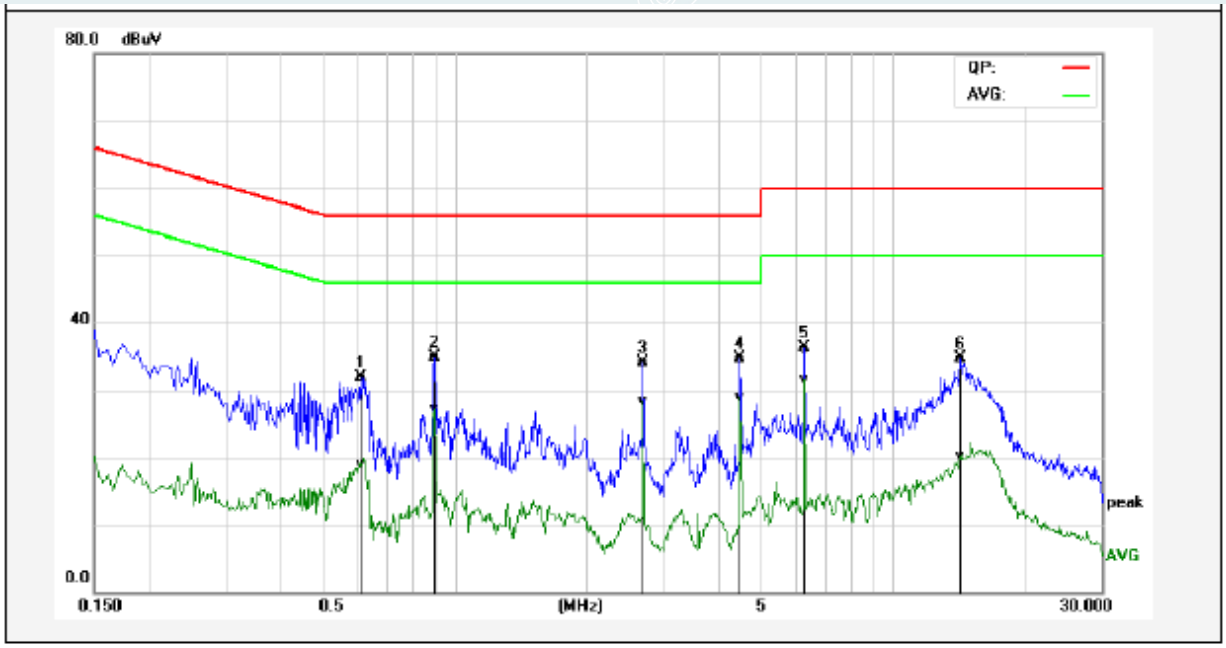
Line: **N**



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.1900	28.00	10.64	9.62	37.62	20.26	64.03	54.04	-26.41	-33.78	Pass
2	0.2580	25.90	12.87	9.63	35.53	22.50	61.49	51.50	-25.96	-29.00	Pass
3*	0.6060	32.43	19.15	9.66	42.09	28.81	56.00	46.00	-13.91	-17.19	Pass
4	1.2940	24.42	9.17	9.66	34.08	18.83	56.00	46.00	-21.92	-27.17	Pass
5	1.9100	24.00	10.94	9.66	33.66	20.60	56.00	46.00	-22.34	-25.40	Pass
6	15.3260	30.51	16.24	9.97	40.48	26.21	60.00	50.00	-19.52	-23.79	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/40%RH/101kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Wang Xinyuan
Test Date	2021-07-02	Sample No.	E20210426746801-0001

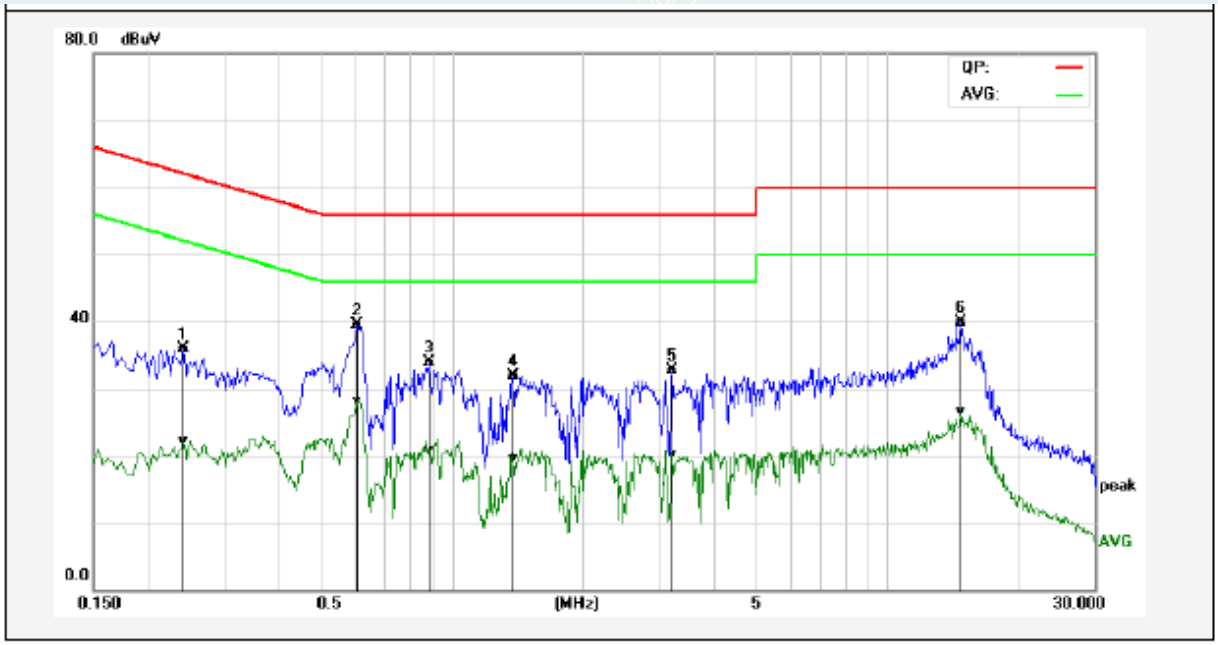
Line: **L1**



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.6100	22.17	9.24	9.66	31.83	18.90	56.00	46.00	-24.17	-27.10	Pass
2	0.9020	25.30	17.47	9.66	34.96	27.13	56.00	46.00	-21.04	-18.87	Pass
3	2.6980	24.51	18.63	9.67	34.18	28.30	56.00	46.00	-21.82	-17.70	Pass
4*	4.4980	24.93	19.20	9.73	34.66	28.93	56.00	46.00	-21.34	-17.07	Pass
5	6.2940	26.42	21.65	9.78	36.20	31.43	60.00	50.00	-23.80	-18.57	Pass
6	14.2540	24.75	10.17	9.96	34.71	20.13	60.00	50.00	-25.29	-29.87	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/40%RH/101kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Wang Xinyuan
Test Date	2021-07-02	Sample No.	E20210426746801-0001

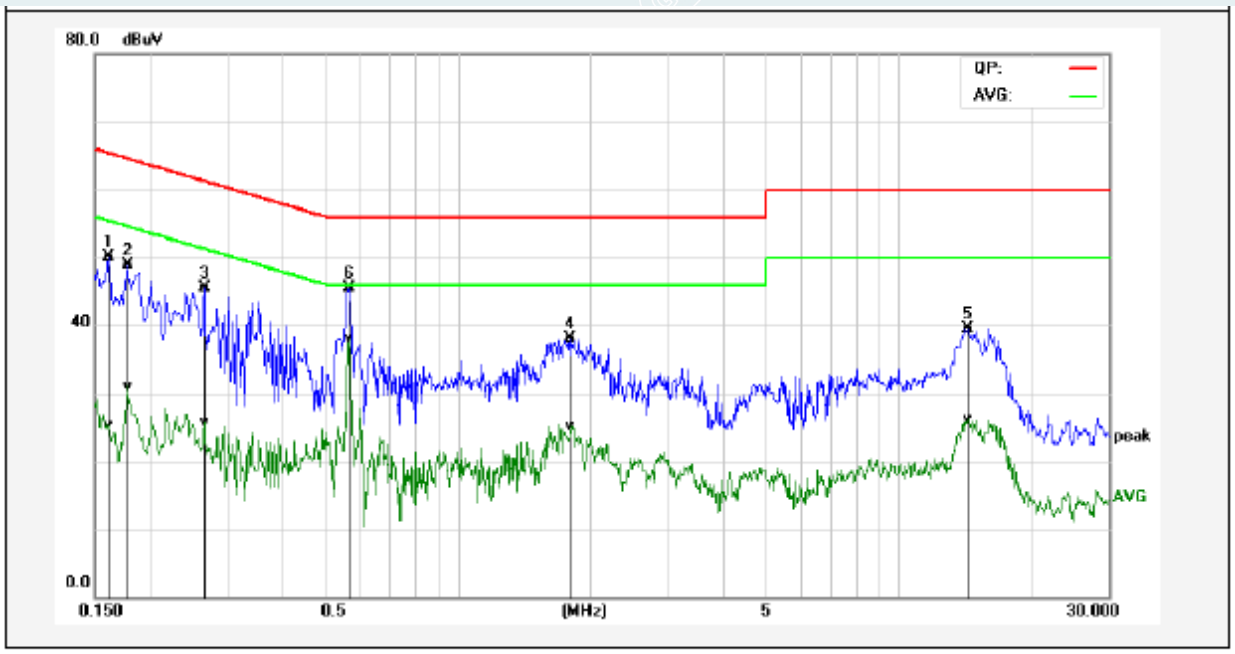
Line: **N**



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.2420	26.24	12.38	9.63	35.87	22.01	62.02	52.03	-26.15	-30.02	Pass
2*	0.6060	29.91	18.54	9.66	39.57	28.20	56.00	46.00	-16.43	-17.80	Pass
3	0.8860	24.20	11.00	9.66	33.86	20.66	56.00	46.00	-22.14	-25.34	Pass
4	1.3820	22.26	9.75	9.66	31.92	19.41	56.00	46.00	-24.08	-26.59	Pass
5	3.2100	23.02	10.40	9.69	32.71	20.09	56.00	46.00	-23.29	-25.91	Pass
6	14.8020	29.86	16.54	9.97	39.83	26.51	60.00	50.00	-20.17	-23.49	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/40%RH/101kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC110V/60Hz	Tested By	Wang Xinyuan
Test Date	2021-07-02	Sample No.	E20210426746801-0001

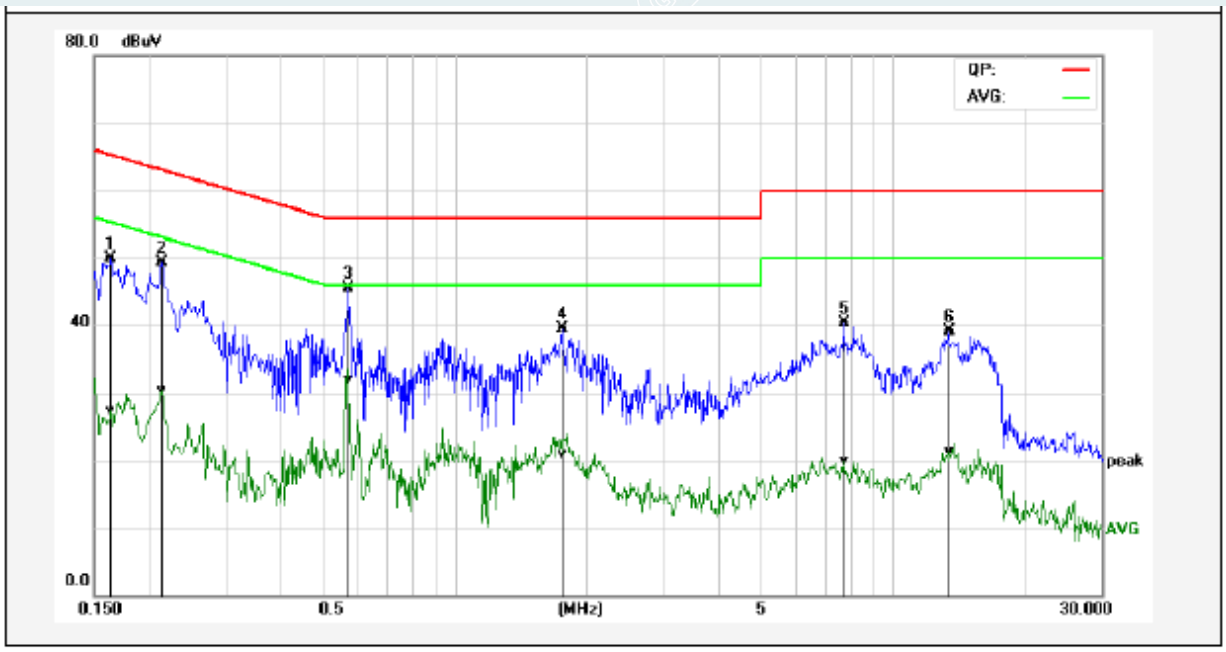
Line: **L1**



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.1620	40.55	15.64	9.61	50.16	25.25	65.36	55.36	-15.20	-30.11	Pass
2	0.1780	39.26	21.38	9.62	48.88	31.00	64.57	54.58	-15.69	-23.58	Pass
3	0.2660	35.96	16.17	9.63	45.59	25.80	61.24	51.24	-15.65	-25.44	Pass
4	1.8060	28.48	15.54	9.66	38.14	25.20	56.00	46.00	-17.86	-20.80	Pass
5	14.3660	29.65	16.18	9.93	39.58	26.11	60.00	50.00	-20.42	-23.89	Pass
6*	0.5700	35.90	28.52	9.67	45.57	38.19	56.00	46.00	-10.43	-7.81	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/40%RH/101kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC110V/60Hz	Tested By	Wang Xinyuan
Test Date	2021-07-02	Sample No.	E20210426746801-0001

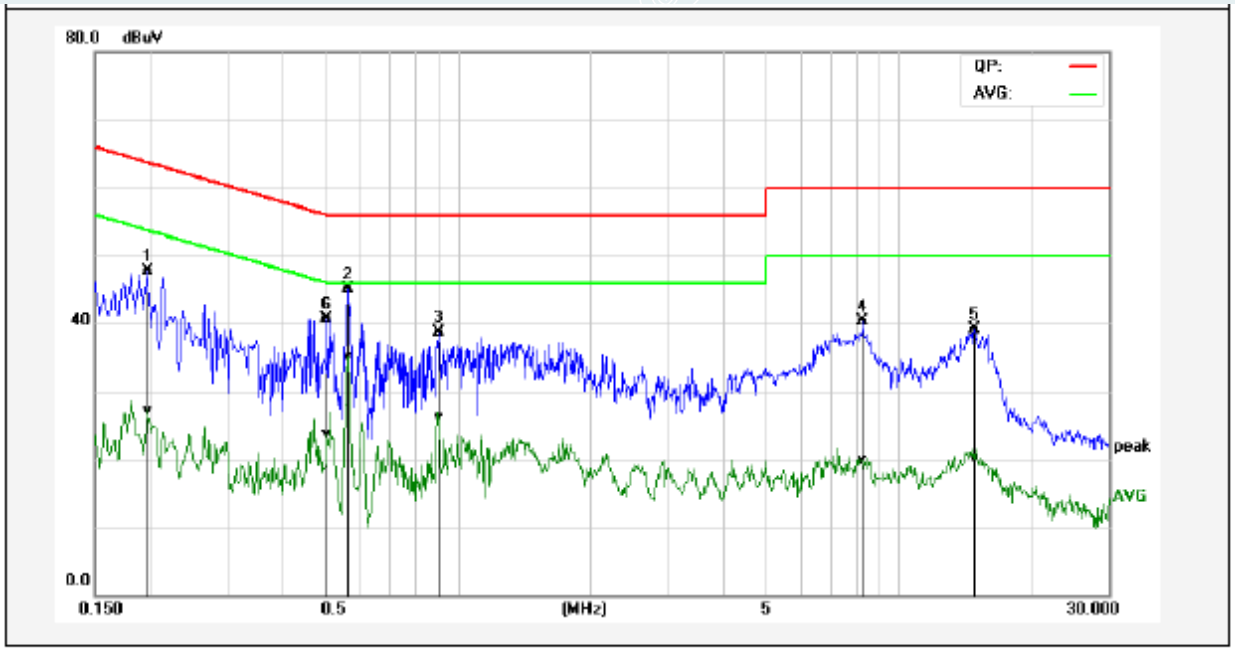
Line: **N**



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.1640	40.23	17.73	9.61	49.84	27.34	65.25	55.26	-15.41	-27.92	Pass
2	0.2140	39.65	20.64	9.62	49.27	30.26	63.04	53.05	-13.77	-22.79	Pass
3*	0.5740	35.85	22.34	9.66	45.51	32.00	56.00	46.00	-10.49	-14.00	Pass
4	1.7540	29.83	11.33	9.66	39.49	20.99	56.00	46.00	-16.51	-25.01	Pass
5	7.7660	30.42	10.09	9.83	40.25	19.92	60.00	50.00	-19.75	-30.08	Pass
6	13.4780	29.18	11.42	9.94	39.12	21.36	60.00	50.00	-20.88	-28.64	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/40%RH/101kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC110V/60Hz	Tested By	Wang Xinyuan
Test Date	2021-07-02	Sample No.	E20210426746801-0001

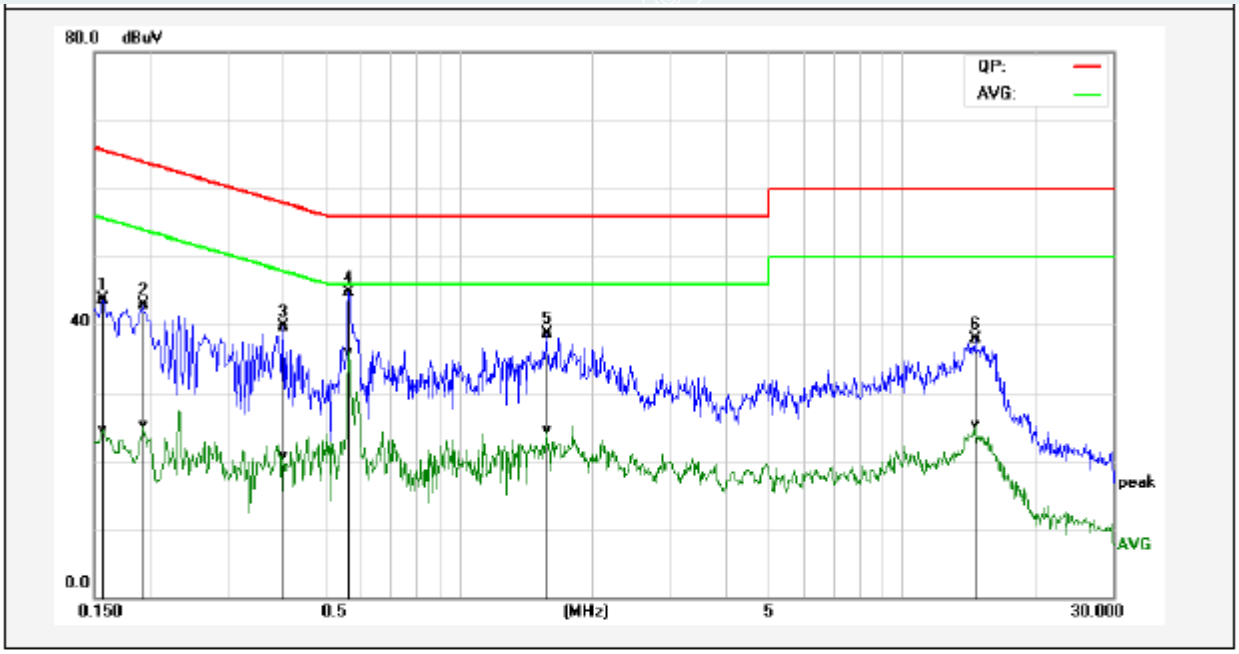
Line: **L1**



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.1980	38.11	17.58	9.62	47.73	27.20	63.69	53.69	-15.96	-26.49	Pass
2*	0.5660	35.43	25.43	9.66	45.09	35.09	56.00	46.00	-10.91	-10.91	Pass
3	0.9060	29.08	16.45	9.66	38.74	26.11	56.00	46.00	-17.26	-19.89	Pass
4	8.2860	30.47	10.02	9.84	40.31	19.86	60.00	50.00	-19.69	-30.14	Pass
5	14.8780	29.17	10.17	9.97	39.14	20.14	60.00	50.00	-20.86	-29.86	Pass
6	0.5060	31.10	14.02	9.66	40.76	23.68	56.00	46.00	-15.24	-22.32	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/40%RH/101kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC110V/60Hz	Tested By	Wang Xinyuan
Test Date	2021-07-02	Sample No.	E20210426746801-0001

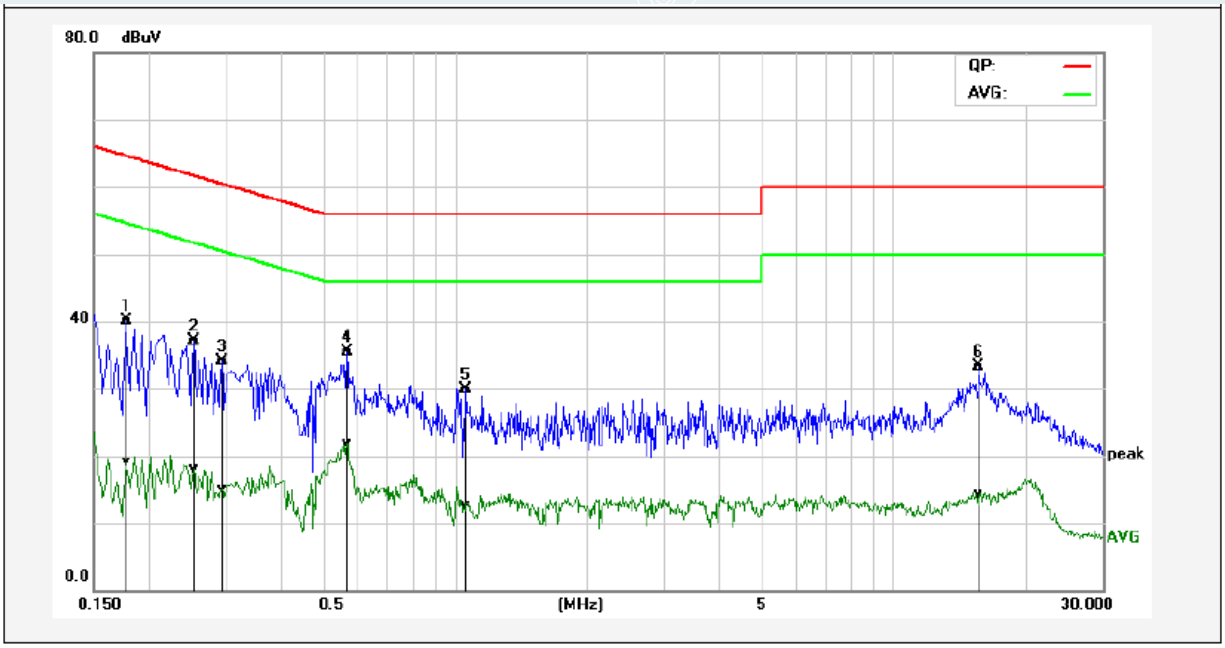
Line: **N**



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.1580	34.07	14.86	9.60	43.67	24.46	65.56	55.57	-21.89	-31.11	Pass
2	0.1940	33.21	15.66	9.62	42.83	25.28	63.86	53.86	-21.03	-28.58	Pass
3	0.4020	30.00	11.06	9.65	39.65	20.71	57.81	47.81	-18.16	-27.10	Pass
4*	0.5660	35.12	26.32	9.66	44.78	35.98	56.00	46.00	-11.22	-10.02	Pass
5	1.5780	28.99	14.79	9.66	38.65	24.45	56.00	46.00	-17.35	-21.55	Pass
6	14.6060	27.88	15.37	9.96	37.84	25.33	60.00	50.00	-22.16	-24.67	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 1 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

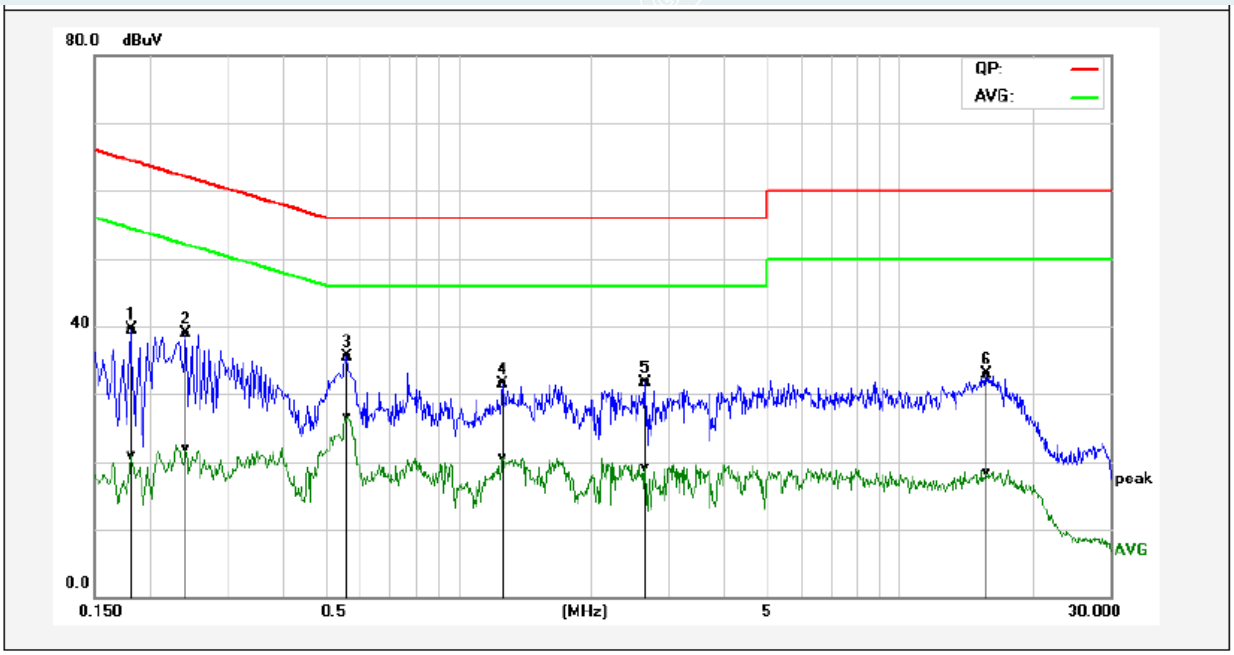
Line: **L1**



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1780	30.55	9.44	9.62	40.17	19.06	64.57	54.58	-24.40	-35.52	Pass
2	0.2540	27.42	8.48	9.63	37.05	18.11	61.62	51.63	-24.57	-33.52	Pass
3	0.2940	24.55	5.54	9.64	34.19	15.18	60.41	50.41	-26.22	-35.23	Pass
4*	0.5700	25.86	12.22	9.67	35.53	21.89	56.00	46.00	-20.47	-24.11	Pass
5	1.0620	20.26	3.02	9.67	29.93	12.69	56.00	46.00	-26.07	-33.31	Pass
6	15.6900	23.25	4.38	9.96	33.21	14.34	60.00	50.00	-26.79	-35.66	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 1 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

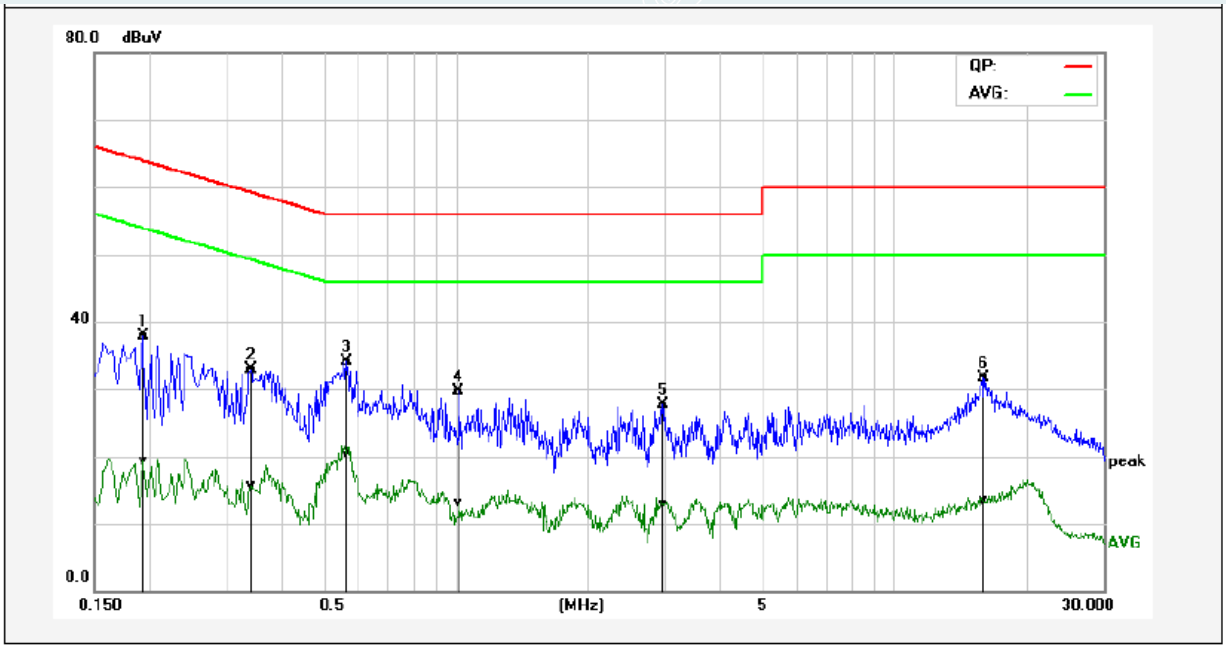
Line: **N**



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1819	29.87	11.38	9.61	39.48	20.99	64.39	54.40	-24.91	-33.41	Pass
2	0.2420	29.21	12.36	9.63	38.84	21.99	62.02	52.03	-23.18	-30.04	Pass
3*	0.5620	25.86	16.90	9.66	35.52	26.56	56.00	46.00	-20.48	-19.44	Pass
4	1.2660	21.80	10.78	9.66	31.46	20.44	56.00	46.00	-24.54	-25.56	Pass
5	2.6540	22.03	9.51	9.67	31.70	19.18	56.00	46.00	-24.30	-26.82	Pass
6	15.7940	22.98	8.36	9.98	32.96	18.34	60.00	50.00	-27.04	-31.66	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

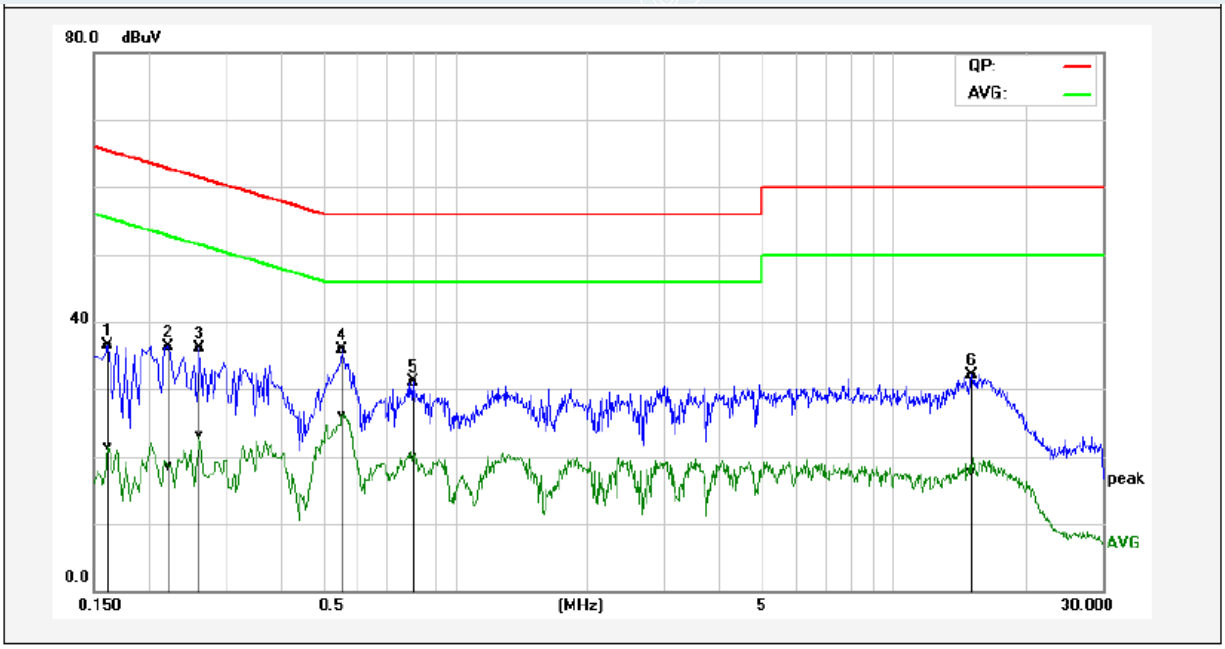
Line: **L1**



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1940	28.36	9.64	9.62	37.98	19.26	63.86	53.86	-25.88	-34.60	Pass
2	0.3420	23.34	6.05	9.64	32.98	15.69	59.15	49.15	-26.17	-33.46	Pass
3*	0.5660	24.42	10.86	9.67	34.09	20.53	56.00	46.00	-21.91	-25.47	Pass
4	1.0180	20.04	3.45	9.67	29.71	13.12	56.00	46.00	-26.29	-32.88	Pass
5	2.9700	17.93	3.14	9.69	27.62	12.83	56.00	46.00	-28.38	-33.17	Pass
6	15.9660	21.66	3.51	9.96	31.62	13.47	60.00	50.00	-28.38	-36.53	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

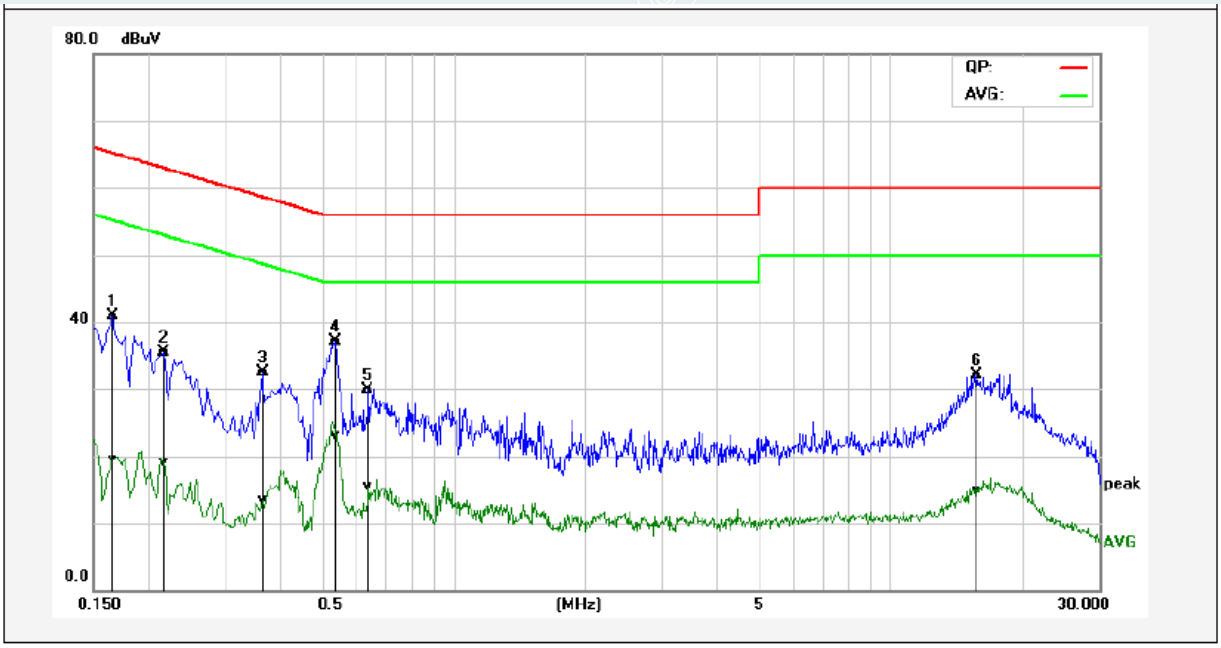
Line: **N**



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1620	26.90	11.87	9.60	36.50	21.47	65.36	55.36	-28.86	-33.89	Pass
2	0.2220	26.72	8.82	9.62	36.34	18.44	62.74	52.74	-26.40	-34.30	Pass
3	0.2620	26.46	13.45	9.63	36.09	23.08	61.36	51.37	-25.27	-28.29	Pass
4*	0.5540	26.29	16.50	9.66	35.95	26.16	56.00	46.00	-20.05	-19.84	Pass
5	0.8020	21.53	10.28	9.66	31.19	19.94	56.00	46.00	-24.81	-26.06	Pass
6	15.1180	22.06	7.72	9.97	32.03	17.69	60.00	50.00	-27.97	-32.31	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 1 (Adapter 2)
Power supply	AC110V/60Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

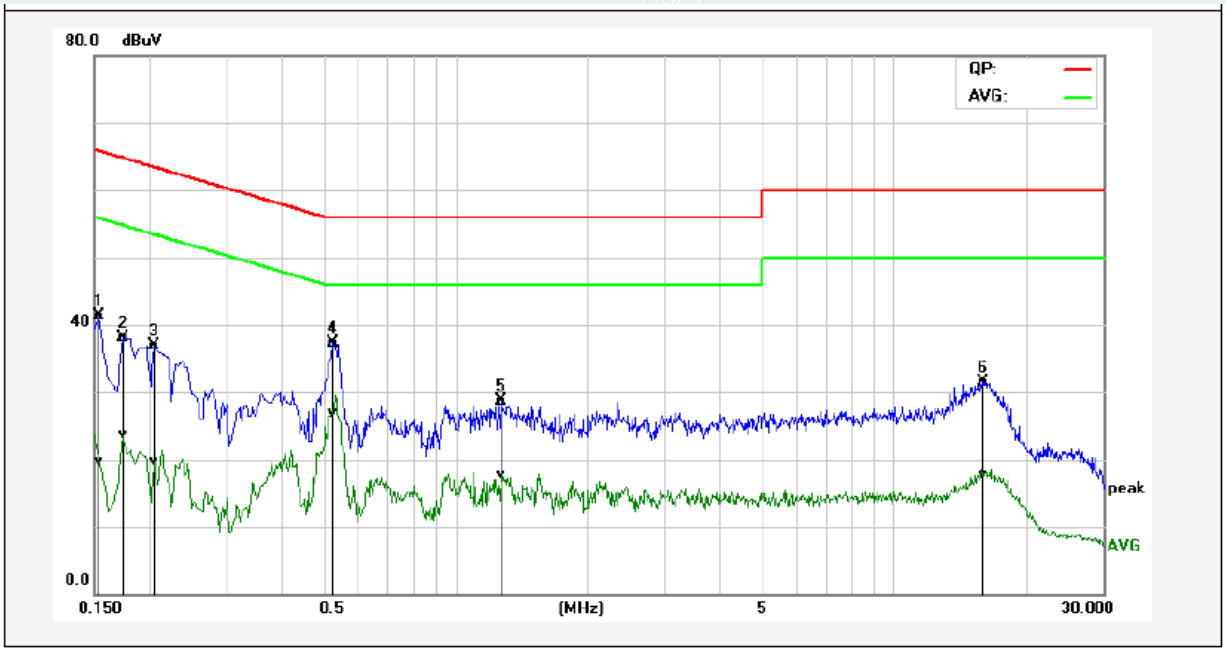
Line: **L1**



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1660	31.22	9.90	9.61	40.83	19.51	65.15	55.16	-24.32	-35.65	Pass
2	0.2180	25.81	9.53	9.62	35.43	19.15	62.89	52.89	-27.46	-33.74	Pass
3	0.3660	22.85	3.93	9.66	32.51	13.59	58.59	48.59	-26.08	-35.00	Pass
4*	0.5380	27.37	13.39	9.67	37.04	23.06	56.00	46.00	-18.96	-22.94	Pass
5	0.6380	20.34	5.84	9.66	30.00	15.50	56.00	46.00	-26.00	-30.50	Pass
6	15.7500	22.11	5.04	9.96	32.07	15.00	60.00	50.00	-27.93	-35.00	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 1 (Adapter 2)
Power supply	AC110V/60Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

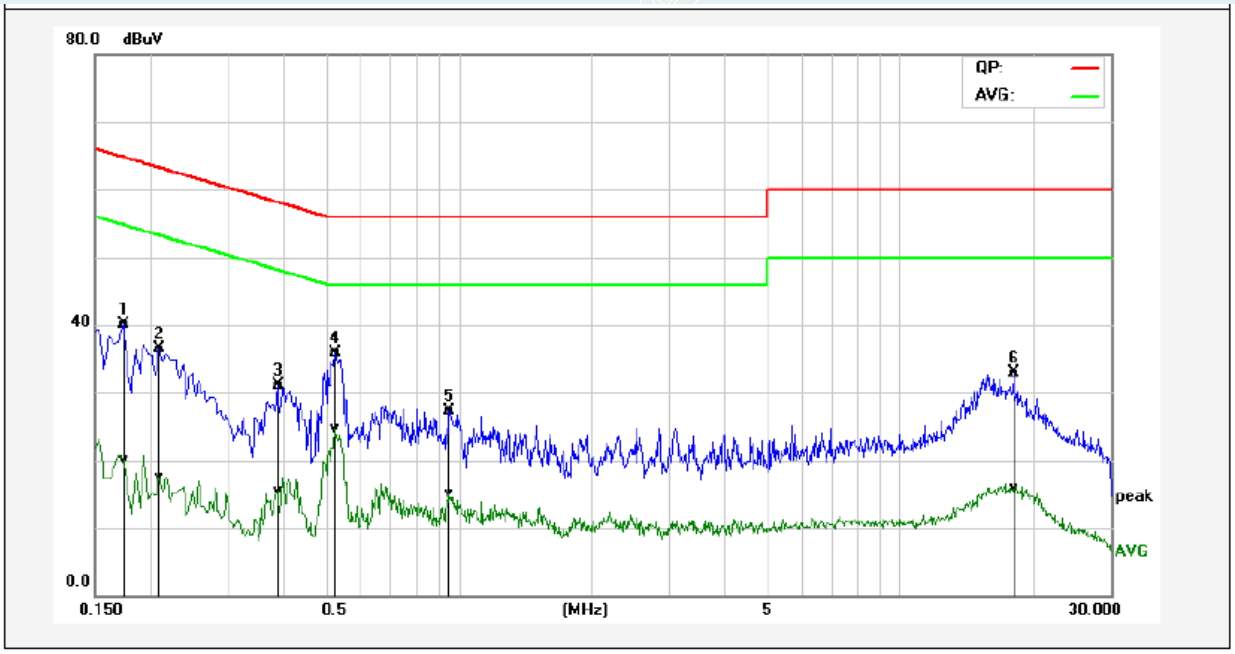
Line: **N**



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.1539	31.65	10.17	9.60	41.25	19.77	65.78	55.79	-24.53	-36.02	Pass
2	0.1740	28.51	14.00	9.61	38.12	23.61	64.76	54.77	-26.64	-31.16	Pass
3	0.2060	27.37	10.18	9.62	36.99	19.80	63.36	53.37	-26.37	-33.57	Pass
4*	0.5260	27.71	17.32	9.66	37.37	26.98	56.00	46.00	-18.63	-19.02	Pass
5	1.2740	19.04	7.99	9.66	28.70	17.65	56.00	46.00	-27.30	-28.35	Pass
6	16.0060	21.48	7.67	9.98	31.46	17.65	60.00	50.00	-28.54	-32.35	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC110V/60Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

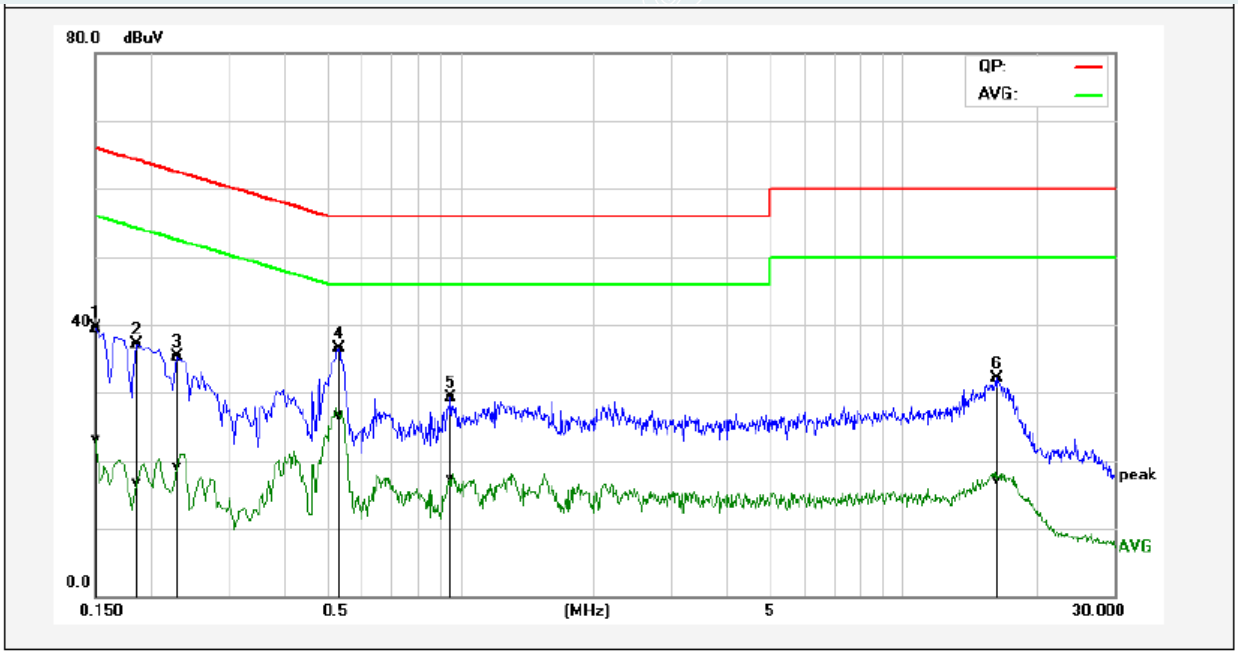
Line: **L1**



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.1740	30.57	10.58	9.61	40.18	20.19	64.76	54.77	-24.58	-34.58	Pass
2	0.2100	26.94	7.93	9.62	36.56	17.55	63.20	53.21	-26.64	-35.66	Pass
3	0.3899	21.42	5.91	9.66	31.08	15.57	58.06	48.07	-26.98	-32.50	Pass
4*	0.5260	26.16	14.98	9.67	35.83	24.65	56.00	46.00	-20.17	-21.35	Pass
5	0.9580	17.66	5.43	9.67	27.33	15.10	56.00	46.00	-28.67	-30.90	Pass
6	18.1220	22.81	5.90	10.01	32.82	15.91	60.00	50.00	-27.18	-34.09	Pass

EUT Name	Camera Hub G3	Model:	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC110V/60Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

Line: **N**



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.1500	29.97	13.45	9.60	39.57	23.05	65.99	56.00	-26.42	-32.95	Pass
2	0.1860	27.56	7.09	9.61	37.17	16.70	64.21	54.21	-27.04	-37.51	Pass
3	0.2300	25.66	9.47	9.63	35.29	19.10	62.45	52.45	-27.16	-33.35	Pass
4*	0.5340	26.78	17.11	9.66	36.44	26.77	56.00	46.00	-19.56	-19.23	Pass
5	0.9580	19.60	7.55	9.66	29.26	17.21	56.00	46.00	-26.74	-28.79	Pass
6	16.2820	22.09	7.17	9.98	32.07	17.15	60.00	50.00	-27.93	-32.85	Pass

5.3 HARMONIC CURRENT

Test Requirement:	ETSI EN 301 489-3 V2.1.1/ Annex A ETSI EN 301 489-17 V3.2.4/7.1.1 ETSI EN 301 489-1 V2.2.3/8.5
Test Method:	EN 61000-3-2:2019

5.3.1 LIMITS

Limits for Class A equipment	
Harmonics Order n	Max. permissible harmonics current A
Odd harmonics	
3	2.30
5	1.14
7	0.77
9	0.40
11	0.33
13	0.21
15<=n<=39	0.15x15/n
Even harmonics	
2	1.08
4	0.43
6	0.30
8<=n<=40	0.23x8/n

Limits for Class D equipment		
Harmonics Order n	Max. permissible harmonics current per watt mA/W	Max. permissible harmonics current A
Odd Harmonics only		
3	3.4	2.30
5	1.9	1.14
7	1.0	0.77
9	0.5	0.40
11	0.35	0.33
13	0.30	0.21
15<=n<=39	3.85/n	0.15x15/n

Note:

1. *Class A and Class D are classified according to item 7.4.3.*
2. *According to section 7 of EN 61000-3-2, the above limits for all equipment except for lighting equipment having an active input power > 75 W and no limits apply for equipment with an active input power up to and including 75 W.*

5.3.2 TEST PROCEDURE

The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce the maximum harmonic components under normal operating conditions for each successive harmonic component in turn.

The classification of EUT is according to section 5 of EN 61000-3-2.

The EUT is classified as follows:

Class A: Balanced three-phase equipment, Household appliances excluding equipment as Class D, Tools excluding portable tools, Dimmers for incandescent lamps, audio equipment, equipment not specified in one of the three other classes.

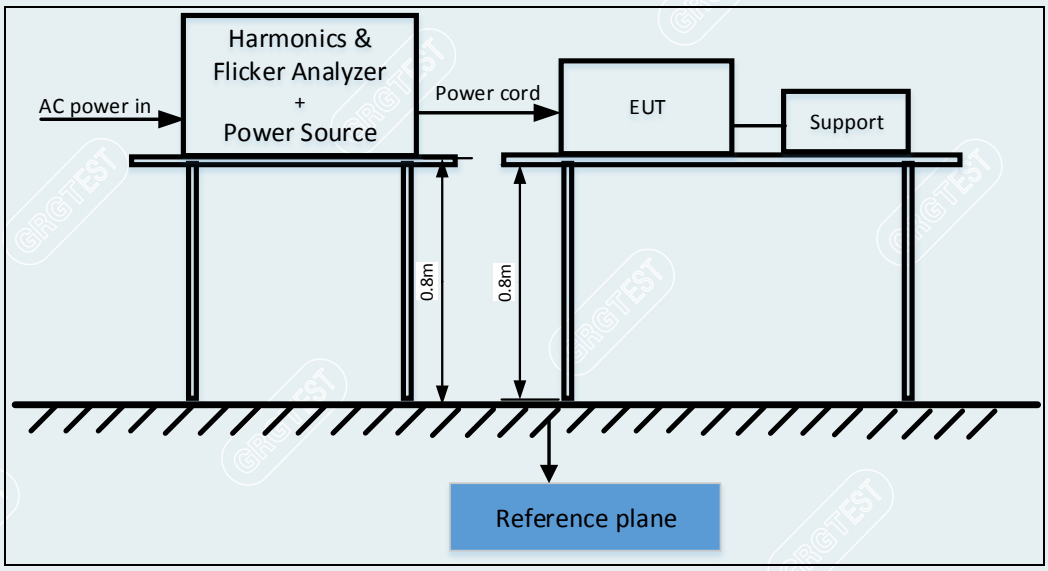
Class B: Portable tools; Arc welding equipment which is not professional equipment.

Class C: Lighting equipment.

Class D: Equipment having a specified power less than or equal to 600 W of the following types: Personal computers and personal computer monitors and television receivers.

The correspondent test program of test instrument to measure the current harmonics emanated from EUT is chosen. The measure time shall be not less than the time necessary for the EUT to be exercised.

5.3.3 TEST SETUP



5.3.4 PHOTOGRAPH OF THE TEST ARRANGEMENT

Mode 1 (Adapter 1)

Mode 2 (Adapter 1)

Mode 1 (Adapter 2)

Mode 2 (Adapter 2)

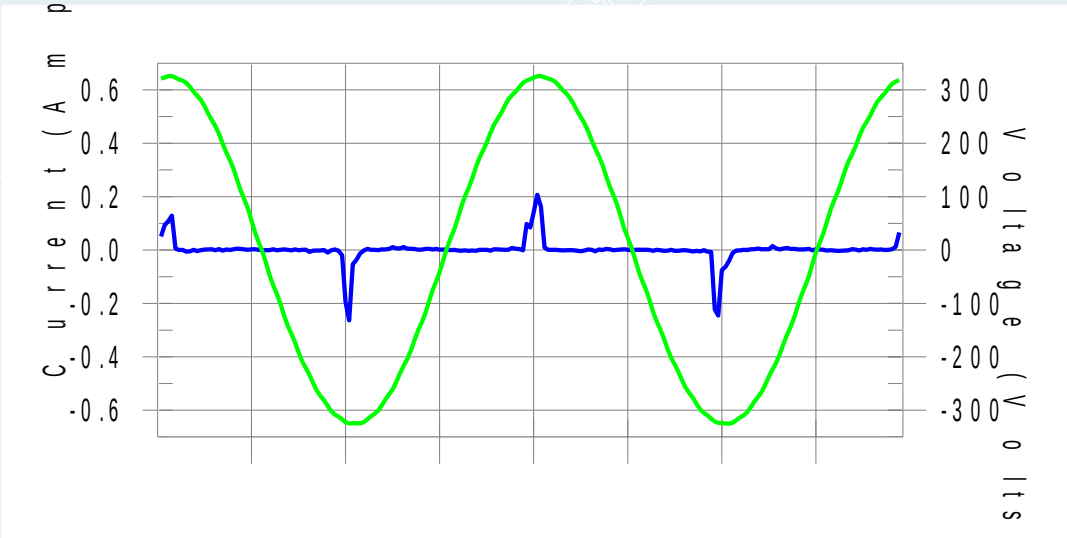
5.3.5 TEST RESULTS

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/45%RH/101 kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Wang Xinyuan
Test Date	2021-07-03	Sample No.	E20210426746801-0001

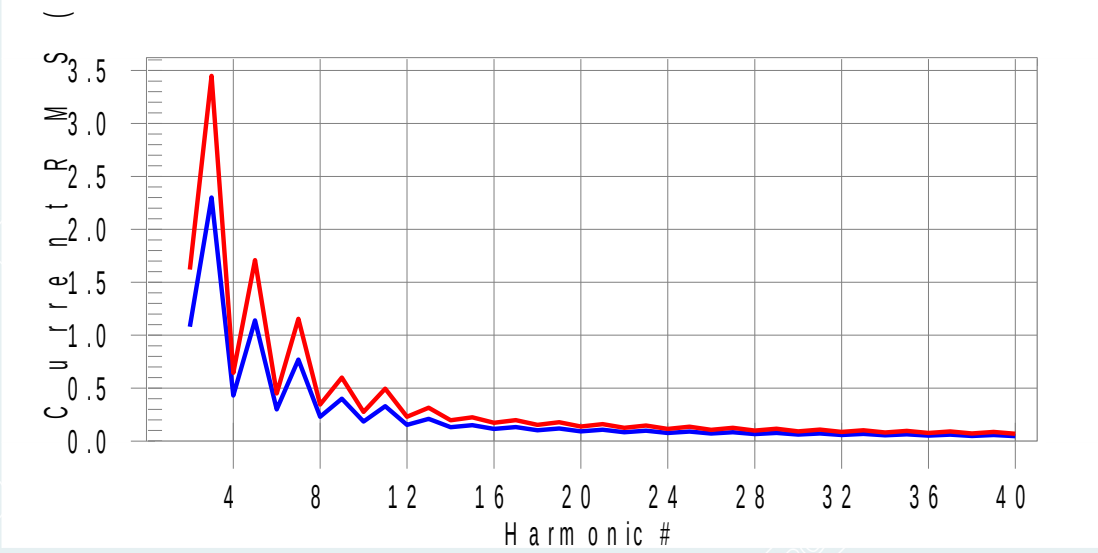
EUT: Camera Hub G3
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021-07-03 Start time: 10:54:45 End time: 10:57:27
Test duration (min): 2.5 Data file name: H-000677.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line European Limits



Test result: Pass Worst harmonics H15-3.3% of 150% limit, H15-4.6% of 100% limit

Current Test Result Summary (Run time)

EUT: Camera Hub G3 Tested by: Wang Xinyuan
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021-07-03 Start time: 10:54:45 End time: 10:57:27
Test duration (min): 2.5 Data file name: H-000677.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal
THC(A): 0.029 I-THD(%): 200.1 POHC(A): 0.005 POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts): 230.08 Frequency(Hz): 50.00
I_Peak (Amps): 0.368 I_RMS (Amps): 0.045
I_Fund (Amps): 0.015 Crest Factor: 9.352
Power (Watts): 3.3 Power Factor: 0.372

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	N/A	0.002	1.620	N/A	Pass
3	0.013	2.300	0.6	0.015	3.450	0.4	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.012	1.140	1.1	0.014	1.710	0.8	Pass
6	0.000	0.300	N/A	0.001	0.450	N/A	Pass
7	0.011	0.770	1.5	0.013	1.155	1.1	Pass
8	0.000	0.230	N/A	0.000	0.345	N/A	Pass
9	0.010	0.400	2.6	0.012	0.600	1.9	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.009	0.330	2.8	0.010	0.495	2.1	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.008	0.210	3.9	0.009	0.315	2.8	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.007	0.150	4.6	0.007	0.225	3.3	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.006	0.132	4.3	0.006	0.198	3.0	Pass
18	0.000	0.102	N/A	0.001	0.153	N/A	Pass
19	0.004	0.118	N/A	0.005	0.178	N/A	Pass
20	0.000	0.092	N/A	0.001	0.138	N/A	Pass
21	0.003	0.107	N/A	0.003	0.161	N/A	Pass
22	0.001	0.084	N/A	0.001	0.125	N/A	Pass
23	0.003	0.098	N/A	0.003	0.147	N/A	Pass
24	0.001	0.077	N/A	0.001	0.115	N/A	Pass
25	0.002	0.090	N/A	0.002	0.135	N/A	Pass
26	0.001	0.071	N/A	0.001	0.107	N/A	Pass
27	0.001	0.083	N/A	0.001	0.125	N/A	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.001	0.078	N/A	0.001	0.116	N/A	Pass
30	0.001	0.061	N/A	0.001	0.092	N/A	Pass
31	0.001	0.073	N/A	0.001	0.109	N/A	Pass
32	0.001	0.058	N/A	0.001	0.086	N/A	Pass
33	0.001	0.068	N/A	0.001	0.102	N/A	Pass
34	0.001	0.054	N/A	0.001	0.081	N/A	Pass
35	0.001	0.064	N/A	0.001	0.096	N/A	Pass
36	0.001	0.051	N/A	0.001	0.077	N/A	Pass
37	0.001	0.061	N/A	0.001	0.091	N/A	Pass
38	0.001	0.048	N/A	0.001	0.073	N/A	Pass
39	0.001	0.058	N/A	0.001	0.087	N/A	Pass
40	0.000	0.046	N/A	0.001	0.069	N/A	Pass

Voltage Source Verification Data (Run time)

EUT: Camera Hub G3 Tested by: Wang Xinyuan
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021-07-03 Start time: 10:54:45 End time: 10:57:27
Test duration (min): 2.5 Data file name: H-000677.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms):	230.08	Frequency(Hz):	50.00
I_Peak (Amps):	0.368	I_RMS (Amps):	0.045
I_Fund (Amps):	0.015	Crest Factor:	9.352
Power (Watts):	3.3	Power Factor:	0.372

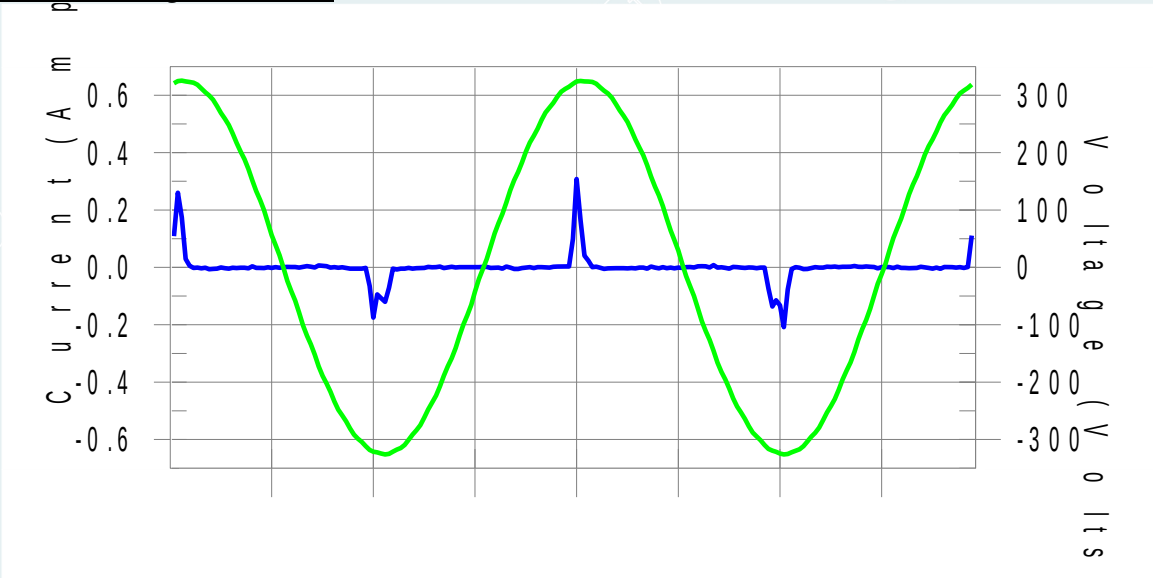
Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.165	0.460	35.96	OK
3	0.487	2.070	23.51	OK
4	0.073	0.460	15.96	OK
5	0.052	0.920	5.66	OK
6	0.034	0.460	7.43	OK
7	0.025	0.690	3.68	OK
8	0.019	0.460	4.19	OK
9	0.013	0.460	2.93	OK
10	0.032	0.460	6.85	OK
11	0.017	0.230	7.51	OK
12	0.019	0.230	8.34	OK
13	0.019	0.230	8.35	OK
14	0.014	0.230	6.05	OK
15	0.012	0.230	5.13	OK
16	0.014	0.230	5.92	OK
17	0.017	0.230	7.49	OK
18	0.016	0.230	6.91	OK
19	0.011	0.230	4.68	OK
20	0.013	0.230	5.60	OK
21	0.009	0.230	4.13	OK
22	0.008	0.230	3.46	OK
23	0.010	0.230	4.28	OK
24	0.006	0.230	2.47	OK
25	0.007	0.230	3.05	OK
26	0.011	0.230	4.58	OK
27	0.009	0.230	3.79	OK
28	0.009	0.230	4.02	OK
29	0.006	0.230	2.70	OK
30	0.008	0.230	3.34	OK
31	0.006	0.230	2.57	OK
32	0.007	0.230	3.15	OK
33	0.006	0.230	2.66	OK
34	0.004	0.230	1.71	OK
35	0.005	0.230	1.98	OK
36	0.004	0.230	1.81	OK
37	0.006	0.230	2.51	OK
38	0.004	0.230	1.69	OK
39	0.005	0.230	2.31	OK
40	0.005	0.230	2.37	OK

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/45%RH/101 kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Wang Xinyuan
Test Date	2021-07-03	Sample No.	E20210426746801-0001

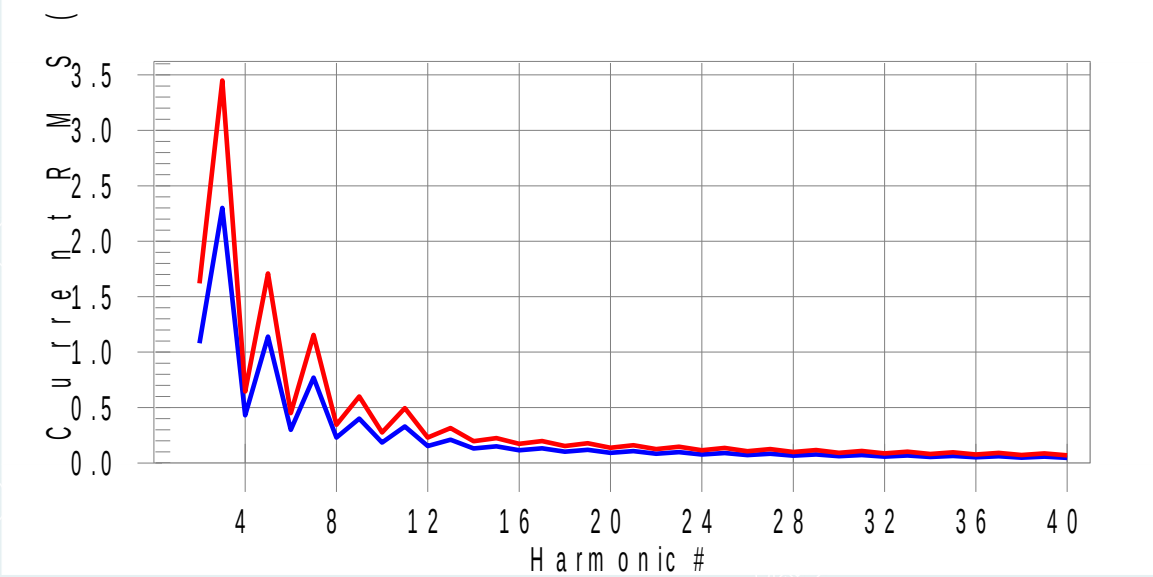
EUT: Camera Hub G3
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021-07-03 Start time: 10:58:58 End time: 11:01:40
Test duration (min): 2.5 Data file name: H-000678.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line European Limits



Test result: Pass Worst harmonics H15-3.3% of 150% limit, H15-4.6% of 100% limit

Current Test Result Summary (Run time)

EUT: Camera Hub G3 Tested by: Wang Xinyuan
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021-07-03 Start time: 10:58:58 End time: 11:01:40
Test duration (min): 2.5 Data file name: H-000678.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal
THC(A): 0.029 I-THD(%): 199.3 POHC(A): 0.006 POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts):	230.07	Frequency(Hz):	50.00
I_Peak (Amps):	0.376	I_RMS (Amps):	0.046
I_Fund (Amps):	0.015	Crest Factor:	9.467
Power (Watts):	3.4	Power Factor:	0.375

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	N/A	0.001	1.620	N/A	Pass
3	0.013	2.300	0.6	0.015	3.450	0.4	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.012	1.140	1.1	0.014	1.710	0.8	Pass
6	0.000	0.300	N/A	0.001	0.450	N/A	Pass
7	0.012	0.770	1.5	0.013	1.155	1.1	Pass
8	0.000	0.230	N/A	0.001	0.345	N/A	Pass
9	0.011	0.400	2.7	0.012	0.600	1.9	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.009	0.330	2.9	0.010	0.495	2.1	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.008	0.210	3.9	0.009	0.315	2.8	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.007	0.150	4.6	0.007	0.225	3.3	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.006	0.132	4.3	0.006	0.198	3.0	Pass
18	0.000	0.102	N/A	0.001	0.153	N/A	Pass
19	0.005	0.118	N/A	0.005	0.178	N/A	Pass
20	0.000	0.092	N/A	0.001	0.138	N/A	Pass
21	0.003	0.107	N/A	0.004	0.161	N/A	Pass
22	0.001	0.084	N/A	0.001	0.125	N/A	Pass
23	0.003	0.098	N/A	0.003	0.147	N/A	Pass
24	0.001	0.077	N/A	0.001	0.115	N/A	Pass
25	0.002	0.090	N/A	0.002	0.135	N/A	Pass
26	0.001	0.071	N/A	0.001	0.107	N/A	Pass
27	0.001	0.083	N/A	0.002	0.125	N/A	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.001	0.078	N/A	0.001	0.116	N/A	Pass
30	0.001	0.061	N/A	0.001	0.092	N/A	Pass
31	0.001	0.073	N/A	0.001	0.109	N/A	Pass
32	0.001	0.058	N/A	0.001	0.086	N/A	Pass
33	0.001	0.068	N/A	0.001	0.102	N/A	Pass
34	0.001	0.054	N/A	0.001	0.081	N/A	Pass
35	0.001	0.064	N/A	0.001	0.096	N/A	Pass
36	0.001	0.051	N/A	0.001	0.077	N/A	Pass
37	0.001	0.061	N/A	0.001	0.091	N/A	Pass
38	0.001	0.048	N/A	0.001	0.073	N/A	Pass
39	0.001	0.058	N/A	0.001	0.087	N/A	Pass
40	0.000	0.046	N/A	0.001	0.069	N/A	Pass

Voltage Source Verification Data (Run time)

EUT: Camera Hub G3 Tested by: Wang Xinyuan
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021-07-03 Start time: 10:58:58 End time: 11:01:40
Test duration (min): 2.5 Data file name: H-000678.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms):	230.07	Frequency(Hz):	50.00
I_Peak (Amps):	0.376	I_RMS (Amps):	0.046
I_Fund (Amps):	0.015	Crest Factor:	9.467
Power (Watts):	3.4	Power Factor:	0.375

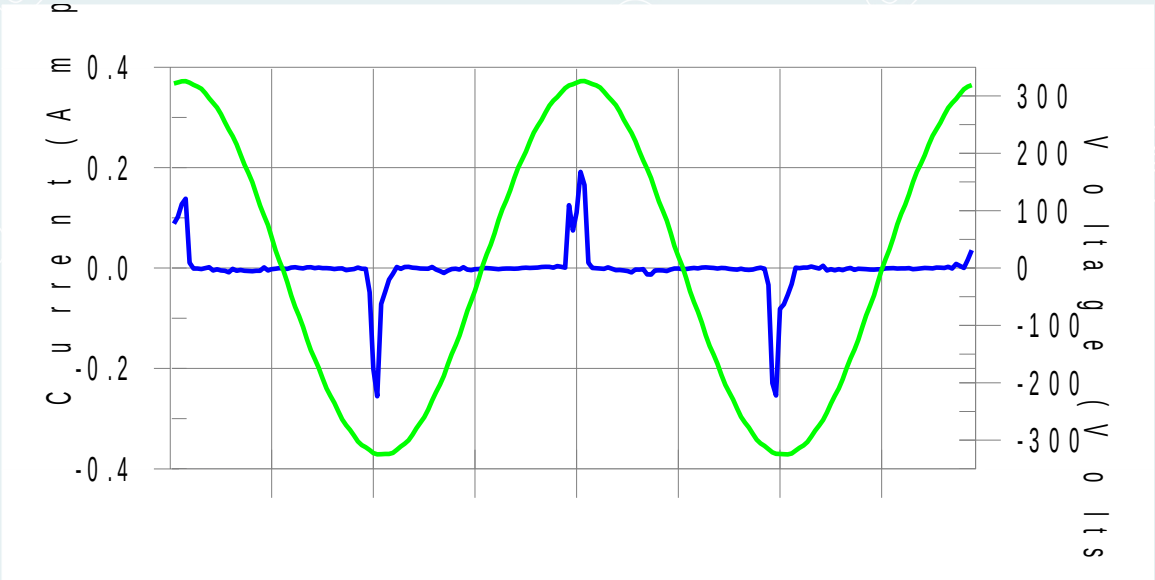
Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.158	0.460	34.24	OK
3	0.488	2.070	23.59	OK
4	0.075	0.460	16.23	OK
5	0.053	0.920	5.78	OK
6	0.035	0.460	7.58	OK
7	0.023	0.690	3.35	OK
8	0.019	0.460	4.14	OK
9	0.012	0.460	2.62	OK
10	0.032	0.460	6.91	OK
11	0.016	0.230	7.16	OK
12	0.019	0.230	8.42	OK
13	0.018	0.230	8.02	OK
14	0.014	0.230	6.05	OK
15	0.012	0.230	5.39	OK
16	0.014	0.230	6.01	OK
17	0.018	0.230	7.63	OK
18	0.016	0.230	7.14	OK
19	0.011	0.230	4.98	OK
20	0.013	0.230	5.54	OK
21	0.009	0.230	4.07	OK
22	0.008	0.230	3.59	OK
23	0.010	0.230	4.19	OK
24	0.005	0.230	2.35	OK
25	0.007	0.230	2.93	OK
26	0.011	0.230	4.79	OK
27	0.008	0.230	3.69	OK
28	0.009	0.230	4.08	OK
29	0.006	0.230	2.55	OK
30	0.007	0.230	3.10	OK
31	0.006	0.230	2.44	OK
32	0.007	0.230	2.88	OK
33	0.006	0.230	2.58	OK
34	0.004	0.230	1.61	OK
35	0.003	0.230	1.20	OK
36	0.004	0.230	1.92	OK
37	0.005	0.230	2.35	OK
38	0.003	0.230	1.52	OK
39	0.004	0.230	1.59	OK
40	0.006	0.230	2.41	OK

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/45%RH/101 kPa	Test Mode	Mode 1 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-07-03	Sample No.	E20210426746801-0003

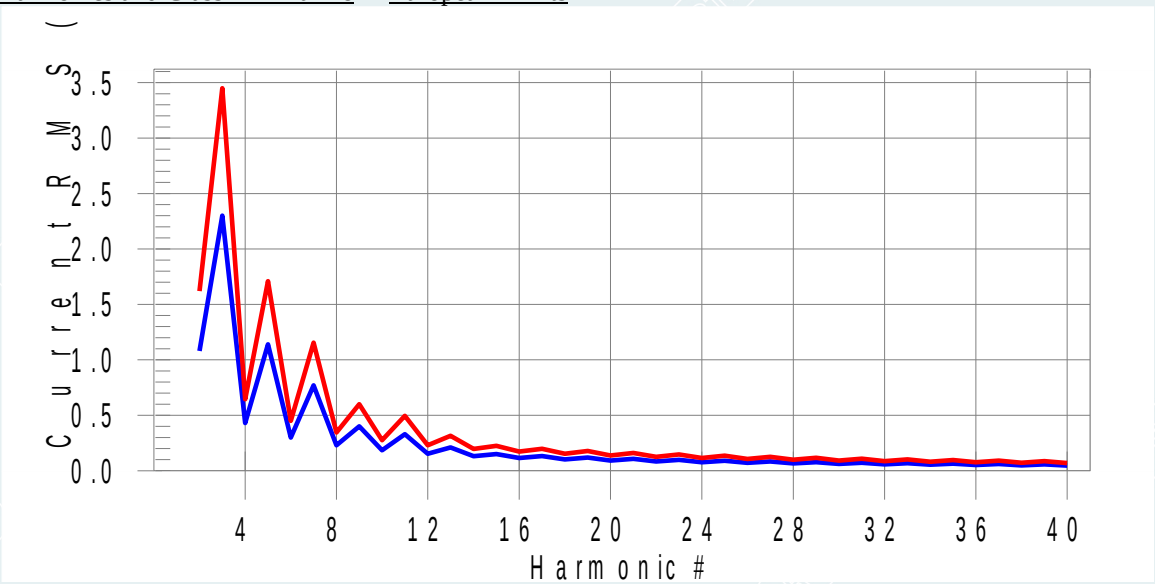
EUT: Camera Hub G3
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021/7/3 Start time: 14:57:11 End time: 14:59:53
Test duration (min): 2.5 Data file name: H-000712.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line European Limits



Test result: Pass Worst harmonics H15-2.7% of 150% limit, H15-3.8% of 100% limit

Current Test Result Summary (Run time)

EUT: Camera Hub G3 Tested by: Zhongfuping
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021/7/3 Start time: 14:57:11 End time: 14:59:53
Test duration (min): 2.5 Data file name: H-000712.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal
THC(A): 0.026 I-THD(%): 188.7 POHC(A): 0.003 POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts):	230.05	Frequency(Hz):	50.00
I_Peak (Amps):	0.301	I_RMS (Amps):	0.044
I_Fund (Amps):	0.014	Crest Factor:	8.694
Power (Watts):	3.2	Power Factor:	0.399

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	N/A	0.001	1.620	N/A	Pass
3	0.012	2.300	0.5	0.014	3.450	0.4	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.011	1.140	1.0	0.013	1.710	0.7	Pass
6	0.000	0.300	N/A	0.001	0.450	N/A	Pass
7	0.011	0.770	1.4	0.012	1.155	1.0	Pass
8	0.000	0.230	N/A	0.001	0.345	N/A	Pass
9	0.010	0.400	2.4	0.011	0.600	1.8	Pass
10	0.000	0.184	N/A	0.001	0.276	N/A	Pass
11	0.008	0.330	2.5	0.009	0.495	1.8	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.007	0.210	3.4	0.008	0.315	2.4	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.006	0.150	3.8	0.006	0.225	2.7	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.005	0.132	N/A	0.005	0.198	N/A	Pass
18	0.000	0.102	N/A	0.000	0.153	N/A	Pass
19	0.003	0.118	N/A	0.003	0.178	N/A	Pass
20	0.000	0.092	N/A	0.000	0.138	N/A	Pass
21	0.002	0.107	N/A	0.002	0.161	N/A	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.002	0.098	N/A	0.002	0.147	N/A	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.001	0.090	N/A	0.001	0.135	N/A	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.001	0.083	N/A	0.001	0.125	N/A	Pass
28	0.000	0.066	N/A	0.000	0.099	N/A	Pass
29	0.001	0.078	N/A	0.001	0.116	N/A	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.001	0.073	N/A	0.001	0.109	N/A	Pass
32	0.000	0.058	N/A	0.000	0.086	N/A	Pass
33	0.001	0.068	N/A	0.001	0.102	N/A	Pass
34	0.000	0.054	N/A	0.000	0.081	N/A	Pass
35	0.001	0.064	N/A	0.001	0.096	N/A	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.001	0.061	N/A	0.001	0.091	N/A	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.000	0.058	N/A	0.000	0.087	N/A	Pass
40	0.000	0.046	N/A	0.000	0.069	N/A	Pass

Voltage Source Verification Data (Run time)

EUT: Camera Hub G3 Tested by: Zhongfuping
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021/7/3 Start time: 14:57:11 End time: 14:59:53
Test duration (min): 2.5 Data file name: H-000712.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms):	230.05	Frequency(Hz):	50.00
I_Peak (Amps):	0.301	I_RMS (Amps):	0.044
I_Fund (Amps):	0.014	Crest Factor:	8.694
Power (Watts):	3.2	Power Factor:	0.399

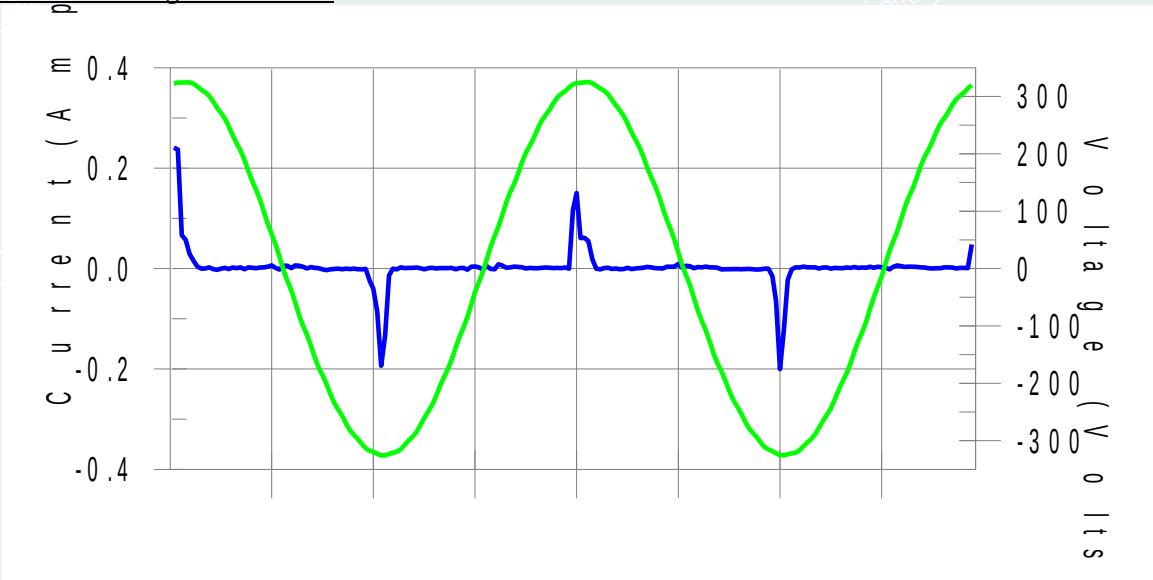
Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.164	0.460	35.60	OK
3	0.487	2.070	23.53	OK
4	0.071	0.460	15.47	OK
5	0.055	0.920	5.97	OK
6	0.036	0.460	7.84	OK
7	0.024	0.690	3.48	OK
8	0.022	0.460	4.70	OK
9	0.013	0.460	2.92	OK
10	0.029	0.460	6.29	OK
11	0.015	0.230	6.66	OK
12	0.019	0.230	8.18	OK
13	0.019	0.230	8.41	OK
14	0.011	0.230	4.94	OK
15	0.009	0.230	4.06	OK
16	0.014	0.230	5.96	OK
17	0.016	0.230	7.02	OK
18	0.014	0.230	6.13	OK
19	0.009	0.230	3.92	OK
20	0.011	0.230	5.00	OK
21	0.010	0.230	4.18	OK
22	0.008	0.230	3.61	OK
23	0.009	0.230	3.88	OK
24	0.006	0.230	2.43	OK
25	0.007	0.230	3.17	OK
26	0.010	0.230	4.28	OK
27	0.008	0.230	3.46	OK
28	0.009	0.230	3.99	OK
29	0.006	0.230	2.46	OK
30	0.008	0.230	3.51	OK
31	0.005	0.230	2.30	OK
32	0.007	0.230	2.94	OK
33	0.006	0.230	2.44	OK
34	0.004	0.230	1.82	OK
35	0.003	0.230	1.13	OK
36	0.004	0.230	1.76	OK
37	0.005	0.230	2.07	OK
38	0.004	0.230	1.63	OK
39	0.004	0.230	1.53	OK
40	0.005	0.230	2.29	OK

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/45%RH/101 kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-07-03	Sample No.	E20210426746801-0003

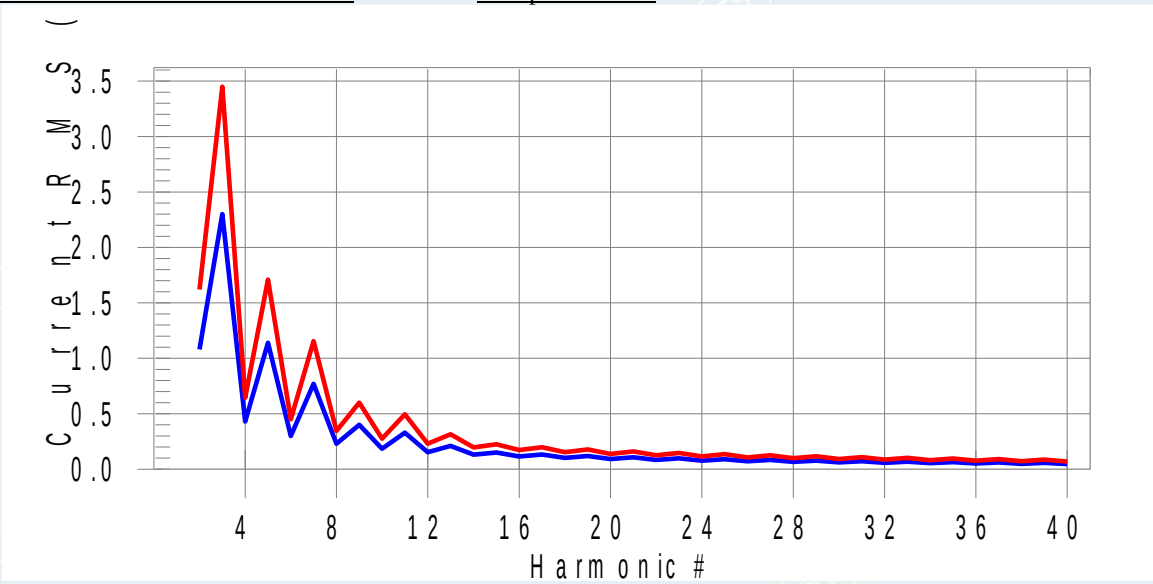
EUT: Camera Hub G3
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021/7/3 Start time: 15:28:41 End time: 15:31:23
Test duration (min): 2.5 Data file name: H-000715.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line European Limits



Test result: Pass Worst harmonics H15-2.6% of 150% limit, H15-3.9% of 100% limit

Current Test Result Summary (Run time)

EUT: Camera Hub G3 Tested by: Zhongfuping
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021/7/3 Start time: 15:28:41 End time: 15:31:23
Test duration (min): 2.5 Data file name: H-000715.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal
THC(A): 0.026 I-THD(%): 209.2 POHC(A): 0.004 POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts):	230.03	Frequency(Hz):	50.00
I_Peak (Amps):	0.292	I_RMS (Amps):	0.034
I_Fund (Amps):	0.012	Crest Factor:	9.094
Power (Watts):	2.8	Power Factor:	0.380

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	N/A	0.001	1.620	N/A	Pass
3	0.012	2.300	0.5	0.013	3.450	0.4	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.011	1.140	1.0	0.011	1.710	0.7	Pass
6	0.000	0.300	N/A	0.001	0.450	N/A	Pass
7	0.010	0.770	1.4	0.011	1.155	0.9	Pass
8	0.000	0.230	N/A	0.001	0.345	N/A	Pass
9	0.009	0.400	2.4	0.010	0.600	1.6	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.008	0.330	2.5	0.008	0.495	1.7	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.007	0.210	3.4	0.007	0.315	2.3	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.006	0.150	3.9	0.006	0.225	2.6	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.005	0.132	N/A	0.005	0.198	N/A	Pass
18	0.000	0.102	N/A	0.000	0.153	N/A	Pass
19	0.003	0.118	N/A	0.004	0.178	N/A	Pass
20	0.000	0.092	N/A	0.000	0.138	N/A	Pass
21	0.002	0.107	N/A	0.003	0.161	N/A	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.002	0.098	N/A	0.002	0.147	N/A	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.001	0.090	N/A	0.001	0.135	N/A	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.001	0.083	N/A	0.001	0.125	N/A	Pass
28	0.000	0.066	N/A	0.000	0.099	N/A	Pass
29	0.001	0.078	N/A	0.001	0.116	N/A	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.001	0.073	N/A	0.001	0.109	N/A	Pass
32	0.000	0.058	N/A	0.000	0.086	N/A	Pass
33	0.001	0.068	N/A	0.001	0.102	N/A	Pass
34	0.000	0.054	N/A	0.000	0.081	N/A	Pass
35	0.001	0.064	N/A	0.001	0.096	N/A	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.001	0.061	N/A	0.001	0.091	N/A	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.000	0.058	N/A	0.000	0.087	N/A	Pass
40	0.000	0.046	N/A	0.000	0.069	N/A	Pass

Voltage Source Verification Data (Run time)

EUT: Camera Hub G3 Tested by: Zhongfuping
Test category: Class-A per Ed. 5.0 (2018) (European limits) Test Margin: 100
Test date: 2021/7/3 Start time: 15:28:41 End time: 15:31:23
Test duration (min): 2.5 Data file name: H-000715.cts_data
Comment: CH-H03

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms):	230.03	Frequency(Hz):	50.00
I_Peak (Amps):	0.292	I_RMS (Amps):	0.034
I_Fund (Amps):	0.012	Crest Factor:	9.094
Power (Watts):	2.8	Power Factor:	0.380

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.153	0.460	33.19	OK
3	0.482	2.070	23.29	OK
4	0.068	0.460	14.82	OK
5	0.054	0.920	5.88	OK
6	0.036	0.460	7.90	OK
7	0.022	0.690	3.25	OK
8	0.025	0.460	5.51	OK
9	0.014	0.460	2.97	OK
10	0.026	0.460	5.67	OK
11	0.015	0.230	6.49	OK
12	0.018	0.230	7.97	OK
13	0.020	0.230	8.72	OK
14	0.010	0.230	4.52	OK
15	0.010	0.230	4.22	OK
16	0.014	0.230	6.05	OK
17	0.017	0.230	7.35	OK
18	0.015	0.230	6.39	OK
19	0.009	0.230	4.04	OK
20	0.011	0.230	4.79	OK
21	0.009	0.230	3.78	OK
22	0.009	0.230	3.73	OK
23	0.009	0.230	3.72	OK
24	0.006	0.230	2.82	OK
25	0.007	0.230	3.18	OK
26	0.010	0.230	4.41	OK
27	0.008	0.230	3.52	OK
28	0.010	0.230	4.28	OK
29	0.006	0.230	2.46	OK
30	0.008	0.230	3.58	OK
31	0.005	0.230	2.26	OK
32	0.007	0.230	2.97	OK
33	0.006	0.230	2.46	OK
34	0.004	0.230	1.84	OK
35	0.003	0.230	1.22	OK
36	0.005	0.230	1.96	OK
37	0.005	0.230	2.23	OK
38	0.004	0.230	1.54	OK
39	0.004	0.230	1.65	OK
40	0.006	0.230	2.50	OK

5.4 VOLTAGE FLUCTUATIONS AND FLICKER

Test Requirement:	ETSI EN 301 489-3 V2.1.1/ Annex A ETSI EN 301 489-17 V3.2.4/7.1.1 ETSI EN 301 489-1 V2.2.3/8.6
Test Method:	EN 61000-3-3:2013

5.4.1 LIMITS

Test Item	Limit	Remark
P_{st}	1.0	P_{st}means short-term flicker indicator.
P_{lt}	0.65	P_{lt} means long-term flicker indicator.
T_{dt} (ms)	500	T_{dt}means maximum time that dt exceeds 3 %.
d_{max} (%)	4%	d_{max} means maximum relative voltage change.
dc (%)	3.3%	dc means relative steady-state voltage change

5.4.2 TEST PROCEDURES

The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce the most unfavorable sequence of voltage changes under normal operating conditions.

During the flick measurement, the measure time shall include that part of whole operation cycle in which the EUT produce the most unfavorable sequence of voltage changes. The observation period for short-term flicker indicator is 10 minutes and the observation period for long-term flicker indicator is 2 hours.

5.4.3 TEST SETUP

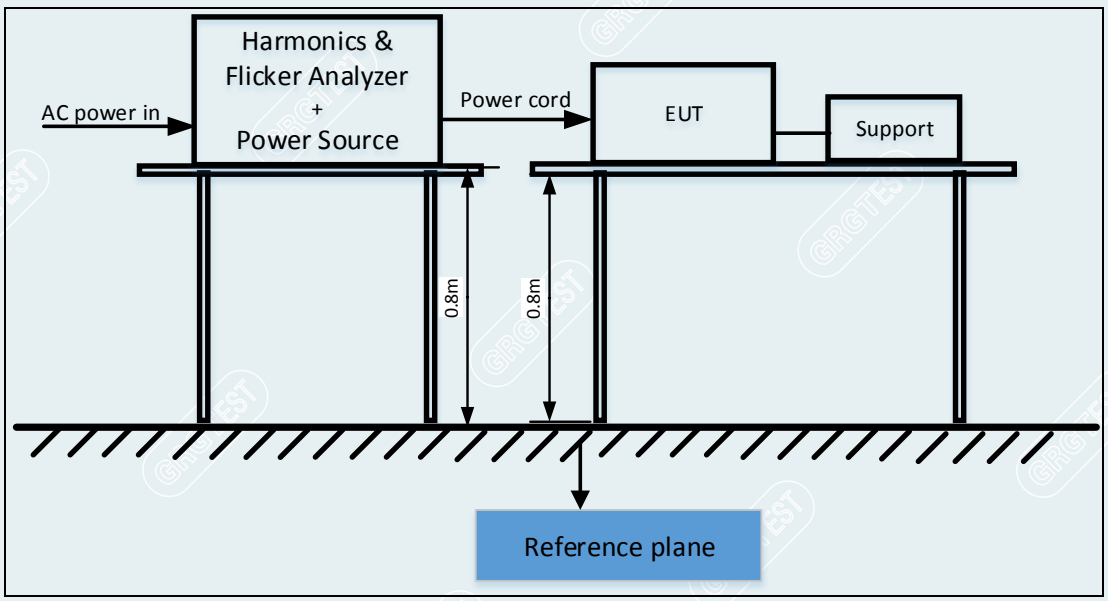


Figure 7.4-1: Test arrangement for Voltage fluctuations and flicker measurement.

5.4.4 PHOTOGRAPH OF THE TEST ARRANGEMENT

Mode 1 (Adapter 1)

Mode 2 (Adapter 1)

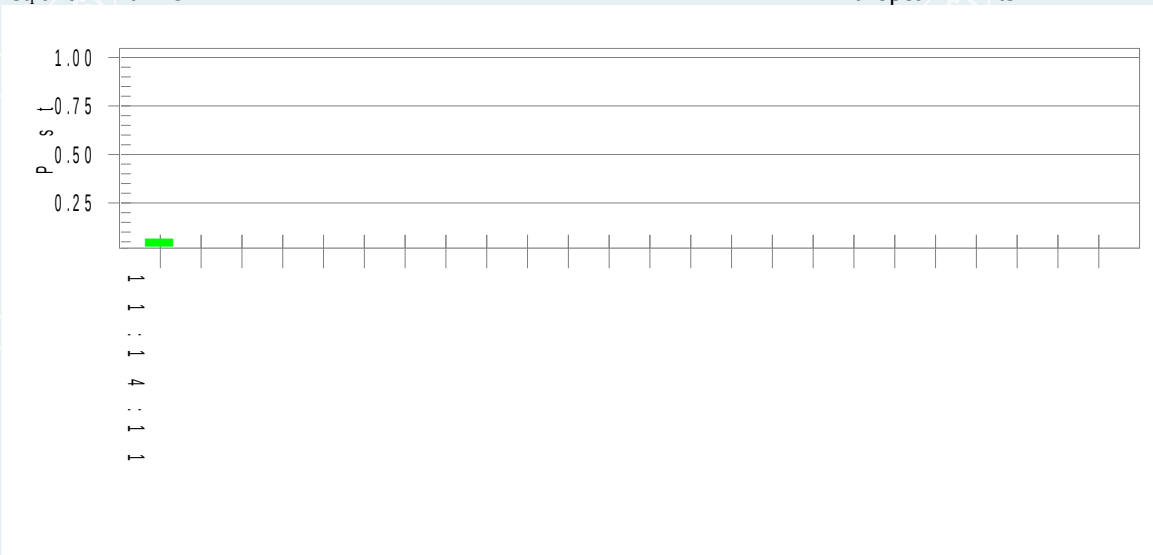
Mode 1 (Adapter 2)

Mode 2 (Adapter 2)

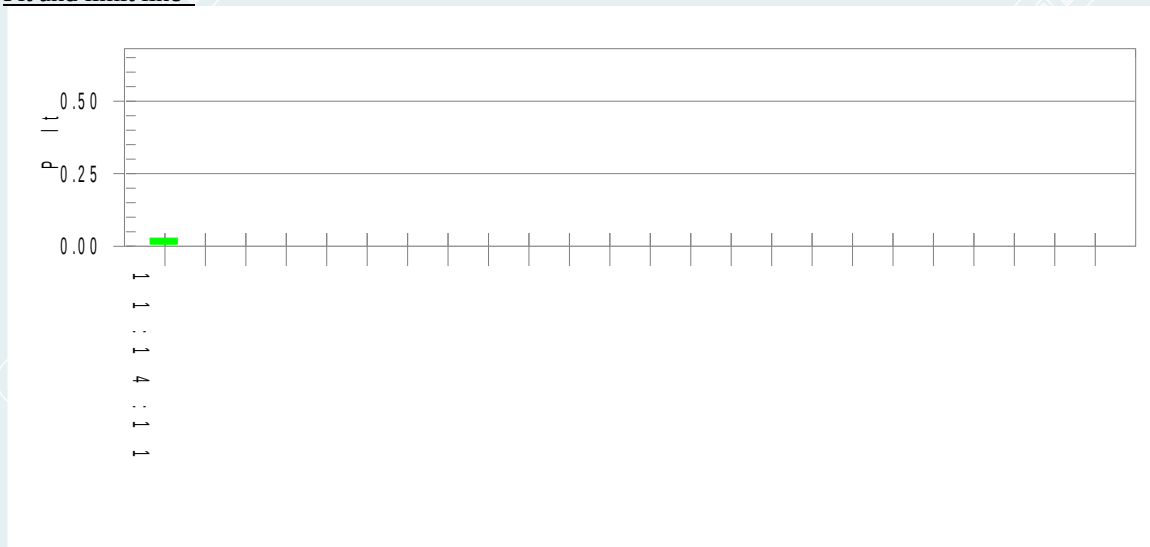
5.4.5 TEST RESULTS

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/45%RH/101 kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Wang Xinyuan
Test Date	2021-07-03	Sample No.	E20210426746801-0001

Test category: All parameters (European limits) Test Margin: 100
Test date: 2021-07-03 Start time: 11:03:50 End time: 11:14:18
Test duration (min): 10 Data file name: F-000679.cts_data
Test Result: Pass Status: Test Completed
Pst_i and limit line European Limits



Plt and limit line



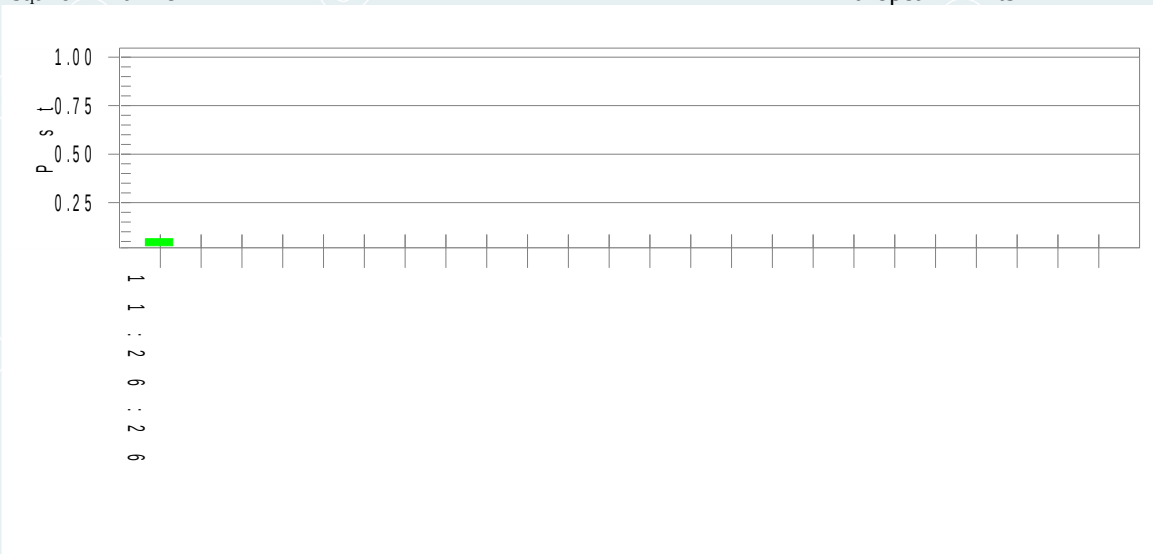
Parameter values recorded during the test:
Vrms at the end of test (Volt): 230.06

T-max (mS):	0	Test limit (mS):	500.0	Pass
Highest dc (%):	0.00	Test limit (%):	3.30	Pass
Highest dmax (%):	0.00	Test limit (%):	4.00	Pass
Highest Pst (10 min. period):	0.064	Test limit:	1.000	Pass
Highest Plt (2 hr. period):	0.028	Test limit:	0.650	Pass

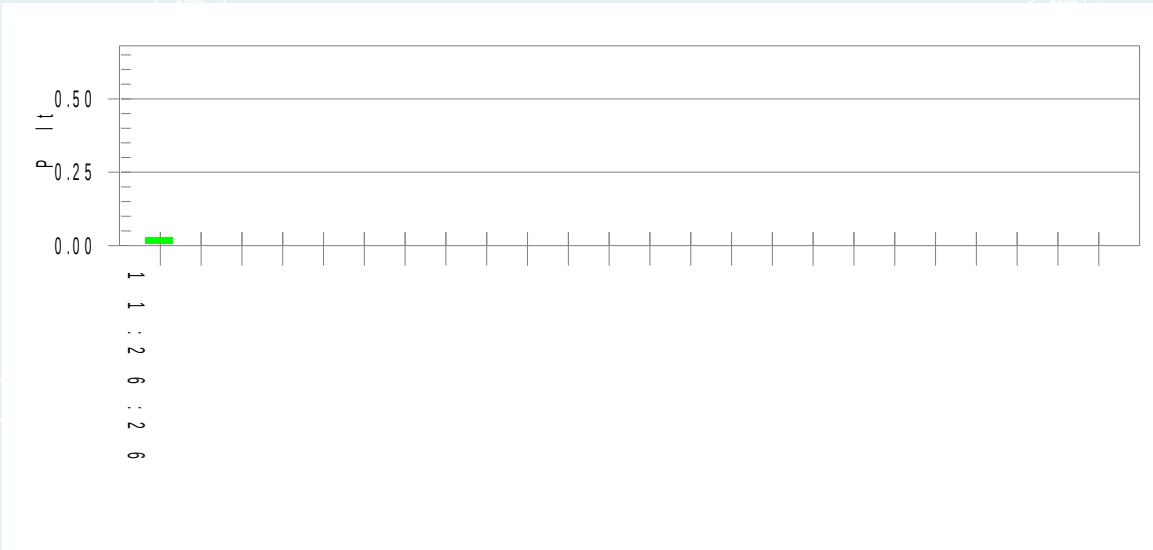
EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/45%RH/101 kPa	Test Mode	Mode 2 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Wang Xinyuan
Test Date	2021-07-03	Sample No.	E20210426746801-0001

Test category: All parameters (European limits) Test Margin: 100
Test date: 2021-07-03 Start time: 11:16:05 End time: 11:26:32
Test duration (min): 10 Data file name: F-000680.cts_data

Test Result: Pass Status: Test Completed
Pst_i and limit line European Limits



Plt and limit line

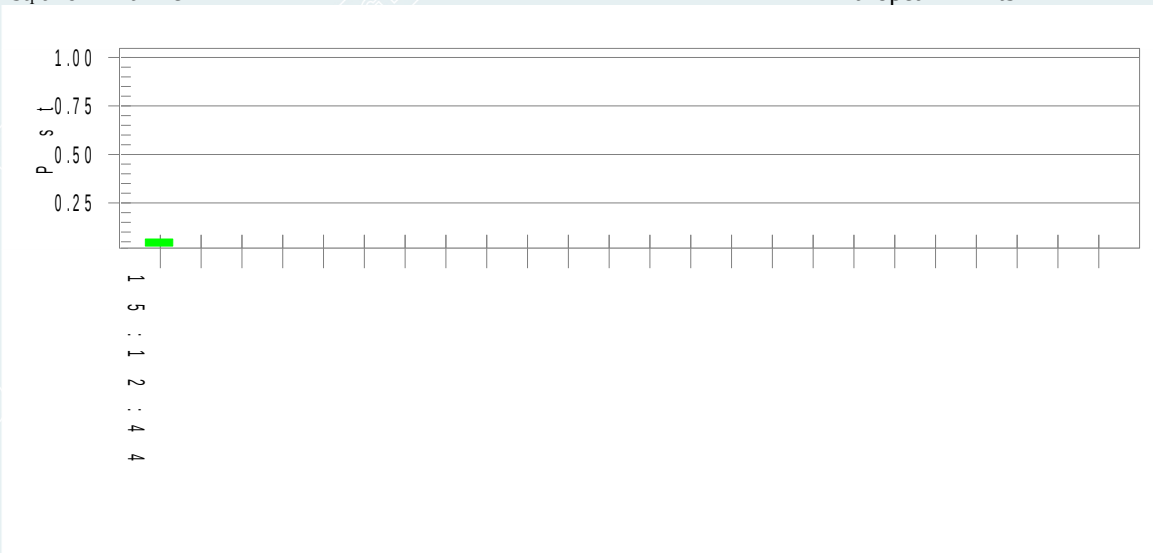


Parameter values recorded during the test:
Vrms at the end of test (Volt): 230.01

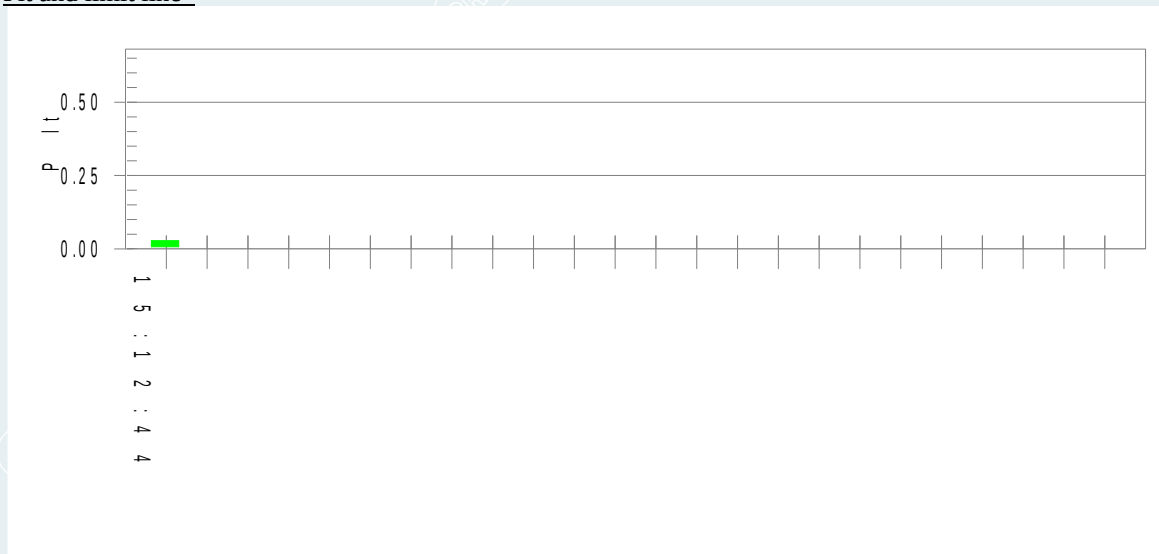
T-max (mS):	0	Test limit (mS):	500.0	Pass
Highest dc (%):	0.00	Test limit (%):	3.30	Pass
Highest dmax (%):	0.00	Test limit (%):	4.00	Pass
Highest Pst (10 min. period):	0.064	Test limit:	1.000	Pass
Highest Plt (2 hr. period):	0.028	Test limit:	0.650	Pass

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/45%RH/101 kPa	Test Mode	Mode 1 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-07-03	Sample No.	E20210426746801-0003

Test category: All parameters (European limits) Test Margin: 100
Test date: 2021/7/3 Start time: 15:02:23 End time: 15:12:50
Test duration (min): 10 Data file name: F-000713.cts_data
Test Result: Pass Status: Test Completed
Pst_i and limit line European Limits



Plt and limit line



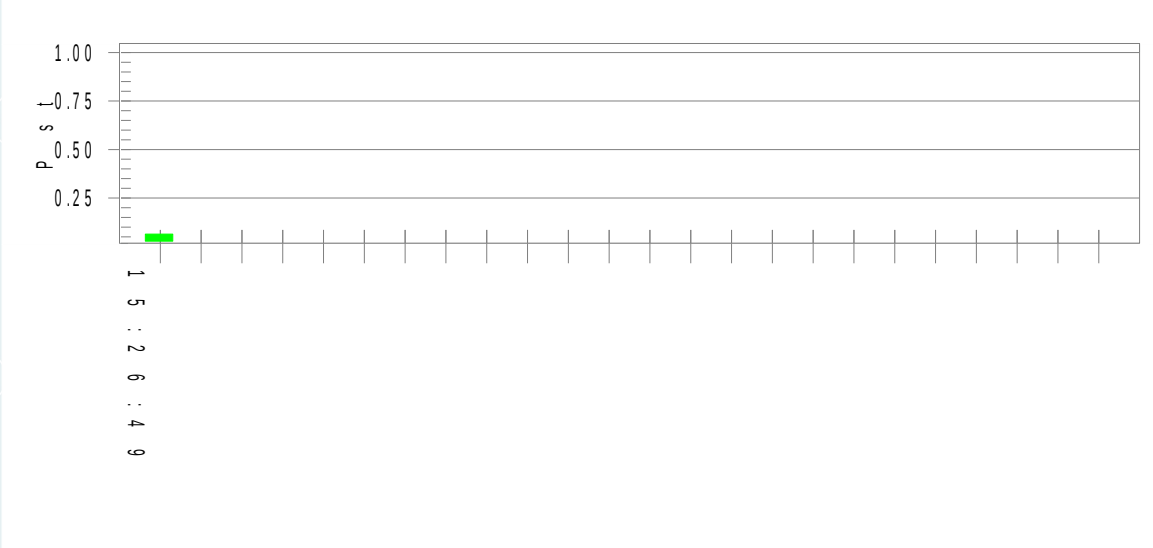
Parameter values recorded during the test:

Vrms at the end of test (Volt):	230.00			
T-max (mS):	0	Test limit (mS):	500.0	Pass
Highest dc (%):	0.00	Test limit (%):	3.30	Pass
Highest dmax (%):	0.00	Test limit (%):	4.00	Pass
Highest Pst (10 min. period):	0.064	Test limit:	1.000	Pass
Highest Plt (2 hr. period):	0.028	Test limit:	0.650	Pass

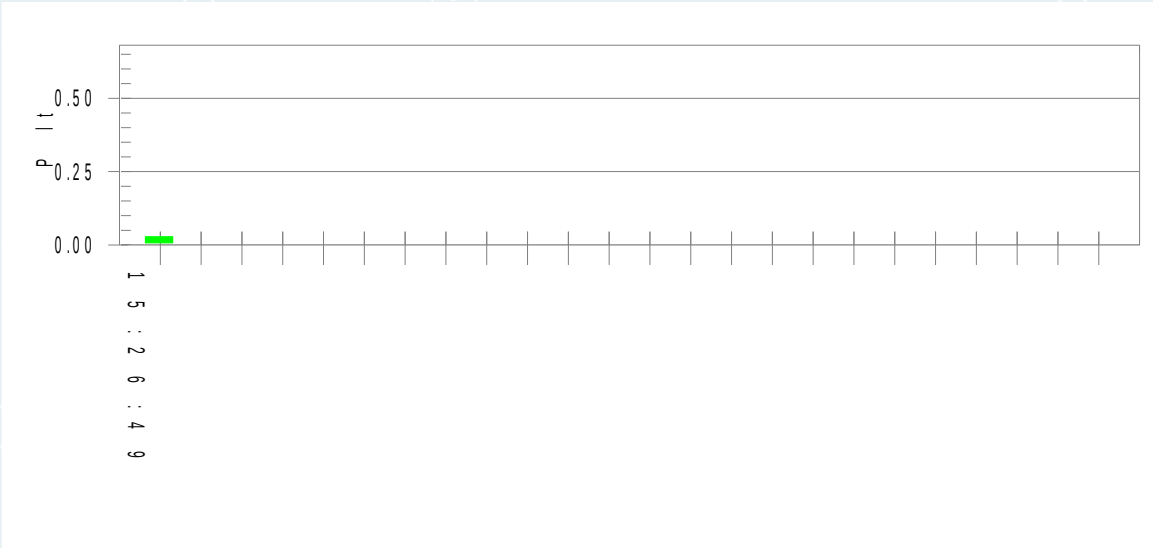
EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/45%RH/101 kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-07-03	Sample No.	E20210426746801-0003

Test category: All parameters (European limits) Test Margin: 100
Test date: 2021/7/3 Start time: 15:16:28 End time: 15:26:55
Test duration (min): 10 Data file name: F-000714.cts_data

Test Result: Pass Status: Test Completed
Pst_i and limit line European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt):	230.04			
T-max (mS):	0	Test limit (mS):	500.0	Pass
Highest dc (%):	0.00	Test limit (%):	3.30	Pass
Highest dmax (%):	0.00	Test limit (%):	4.00	Pass
Highest Pst (10 min. period):	0.064	Test limit:	1.000	Pass
Highest Plt (2 hr. period):	0.028	Test limit:	0.650	Pass

6 IMMUNITY TEST

6.1 GENERAL DESCRIPTION

EMC Immunity					
ETSI EN 301 489-3 V2.1.1&ETSI EN 301 489-17 V3.2.4&ETSI EN 301 489-1 V2.2.3&EN 55035:2017					
Item	Application port	Basic Standard	Test method	Performance Criterion	Result
Electrostatic discharge (ESD)	Enclosure port	ETSI EN 301 489-17 V3.2.4 /7.2.1 ETSI EN 301 489-1 V2.2.3/9.3 ETSI EN 301 489-3 V2.1.1/Annex A EN 55035:2017 Table 1	EN 61000-4-2	Test specification: ±8kV air discharge ±4kV Contact discharge Performance : Criteria B	PASS
Radiated radio-frequency electromagnetic (RS)	Enclosure port	ETSI EN 301 489-17 V3.2.4 /7.2 ETSI EN 301 489-1 V2.2.3/9.2	EN 61000-4-3	Test specification: Test level: For the frequency range 80MHz to 1000MHz , 1000MHzto 2700MHz and 2700MHz to 6000MHz, test level shall be 3 V/m, 80% AM(400Hz) Performance: Criteria A	PASS
Radiated radio-frequency electromagnetic (RS)	Enclosure port	EN 55035:2017 Table 1	EN 61000-4-3	Test specification: Test level: For the frequency range 80MHz to 1000MHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz test level shall be 3 V/m, 80% AM(400Hz) Performance: Criteria A	PASS
Radiated radio-frequency electromagnetic (RS)	Enclosure port	ETSI EN 301 489-3 V2.1.1/7.3	EN 61000-4-3	Test specification: Test level: For the frequency range 80MHz to 2700MHz, test level shall be 3 V/m, 80% AM(1kHz) Performance: Criteria A	PASS
Electrical fast transients(EFT)	AC mains power input port/signal ports	ETSI EN 301 489-3 V2.1.1/Annex A EN 301 489-17 V3.2.2 /7.2.1 EN 301 489-1 V2.2.3 /9.4 EN 55035:2017 Table 4	EN 61000-4-4	Test specification: AC power Port: ±1kV repetition rate: 5 kHz Performance: Criteria B	PASS
Surge	AC mains power input port	ETSI EN 301 489-3 V2.1.1/Annex A EN 301 489-17 V3.2.2 /7.2 EN 301 489-1 V2.2.3 /9.8	EN 61000-4-5	Test specification: AC Power Port: 1.2/50 us pulse line to line: ±1 kV; Performance : Criteria B	PASS

Surge	AC mains power input port	EN 55035:2017 Table 4	EN 61000-4-5	Test specification: AC Power Port: 1.2/50 us pulse line to line: ±1 kV; Performance : Criteria B	PASS
Radio frequency continuous conducted(CS)	AC mains power input port	ETSI EN 301 489-3 V2.1.1/Annex A EN 301 489-17 V3.2.2 /7.2 EN 301 489-1 V2.2.3 /9.5 EN 55035:2017 Table 4	EN 61000-4-6	Test specification: AC power port 0.15~80 MHz, 3Vrms, 80% AM, 1kHz Performance: Criteria A	PASS
Radio frequency continuous conducted(CS)	AC mains power input port	EN 55035:2017 Table 4	EN 61000-4-6	Test specification: AC power port 0.15~10 MHz, 3Vrms, 80% AM, 1kHz 10MHz ~ 30MHz, 1-3Vrms, 80% AM, 1kHz 30MHz ~ 80MHz, 1Vrms, 80% AM, 1kHz Performance: Criteria A	PASS
Power frequency magnetic field(PFMF)	Enclosure ports	EN 55035:2017 Table 1	IEC 61000-4-8	1A/m 50Hz or 60Hz Performance Criterion A	PASS
Voltage Dips & Short Interruptions	AC mains power input port	ETSI EN 301 489-3 V2.1.1/Annex A EN 301 489-17 V3.2.2 /7.2 EN 301 489-1 V2.2.3 /9.7	EN 61000-4-11	Test specification: 1. Voltage dips: i)0% residual voltage 0.5 cycle. Performance: Criteria B; ii) 0% residual voltage 1 cycle, Performance: Criteria B; iii)70% residual voltage 25 cycle. Performance: Criteria C; 2. Voltage interruption: 0% residual voltage during 250 cycles. Performance: Criteria C;	PASS
Voltage Dips & Short Interruptions	AC mains power input port	EN 55035:2017 Table 4	EN 61000-4-11	Test specification: 1. Voltage dips: i)0% residual voltage 0.5 cycle. Performance: Criteria B; ii) 70% residual voltage 25 cycle for 50Hz, 2. Voltage interruption: 0% residual voltage during 250 cycles for 50Hz.Performance: Criteria C;	PASS

Note: Theimmunity test items were tested in all modes, and only the test data in the worst mode status is shown in the report.

6.2 GENERAL PERFORMANCE CRITERIA DESCRIPTION (ETSI EN 301 489-1/17)

6.2.1 GENERAL PERFORMANCE CRITERIA

The performance criteria are:

- Performance criteria A for immunity tests with phenomena of a continuous nature;
- Performance criteria B for immunity tests with phenomena of a transient nature;
- Performance criteria C for immunity tests with power interruptions exceeding a certain time.

The equipment shall meet the minimum performance criteria as specified in the following clauses.

Performance table

Criteria	During Test	After test (i.e. as a result of the application of the test)
A	Shall operate as intended. (See note). Shall be no loss of function. Shall be no unintentional transmissions.	Shall operate as intended. Shall be no degradation of performance. Shall be no loss of function. Shall be no loss of critical stored data.
B	May be loss of function.	Functions shall be self-recoverable. Shall operate as intended after recovering. Shall be no loss of critical stored data.
C	May be loss of function.	Functions shall be recoverable by the operator. Shall operate as intended after recovering. Shall be no loss of critical stored data.
NOTE:Operate as intended during the test allows a level of degradation in accordance with clause 6.2.2.		

6.2.2.Minimum performance level

For equipment that supports a PER or FER, the minimum performance level shall be a PER or FER less than or equal to10 %.

For equipment that does not support a PER or a FER, the minimum performance level shall be no loss of the wirelesstransmission function needed for the intended use of the equipment.

6.3 Performance criteria for Continuous phenomena

The performance criteria A shall apply.

Where the EUT is a transmitter in standby mode, unintentional transmission shall not occur during the test.

Where the EUT is a transceiver in receive mode, unintentional transmission shall not occur during the test.

6.4 Performance criteria for Transient phenomena

The performance criteria B shall apply, except for voltage dips greater than or equal to 100 ms and voltage interruptionsof 5 000 ms duration, for which performance criteria C shall apply.

Where the EUT is a transmitter in standby mode, unintentional transmission shall not occur as a result of the applicationof the test.

Where the EUT is a transceiver in receive mode, unintentional transmission shall not occur as a result of the applicationof the test.

6.3 GENERAL PERFORMANCE CRITERIA DESCRIPTION (ETSI EN 301 489-3)

For the purposes of the present document the provisions of ETSI EN 301 489-1 [1], clause 6, shall not apply.

The performance criteria are used to make an assessment whether a radio equipment passes or fails immunity tests.

6.3.1 PERFORMANCE CRITERIA

In the table below:

- performance criterion A applies for immunity tests with phenomena of a continuous nature;
- performance criterion B applies for immunity tests with phenomena of a transient nature.

NOTE: Whether a phenomenon is considered transient, continuous or otherwise is indicated in the test proceduresfor the phenomenon in ETSI EN 301 489-1 [1], clause 9.

Table 2: Performance Requirements

Criterion	During test	After test
A	Operate as intended No loss of function No unintentional responses	Operate as intended No loss of function No degradation of performance No loss of stored data or user programmable functions
B	May show loss of function No unintentional responses	Operate as intended Lost function(s) shall be self-recoverable No degradation of performance No loss of stored data or user programmable functions

Where "operate as intended" or "no loss of function" is specified, the EUT shall demonstrate correct functioning asdescribed in clause 5.

Where the EUT has more than one mode of operation (see clause 4.5.2), an unplanned transition from one mode toanother is considered as an unintentional response. The EUT shall be tested in sufficient modes to confirm there are nosuch unintentional responses.

6.4 GENERAL PERFORMANCE CRITERIA DESCRIPTION (EN 55035)

6.4.1 GENERAL PERFORMANCE CRITERIA

Performance criterion A

The equipment shall continue to operate as intended without operator intervention. No degradation of performance, loss of function or change of operating state is allowed below a performance level specified by the manufacturer when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

Performance criterion B

During the application of the disturbance, degradation of performance is allowed. However, no unintended change of actual operating state or stored data is allowed to persist after the test.

After the test, the equipment shall continue to operate as intended without operator intervention; no degradation of performance or loss of function is allowed, below a performance level specified by the manufacturer, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance.

If the minimum performance level (or the permissible performance loss), or recovery time, is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

Performance criterion C

Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer’s instructions. A reboot or re-start operation is allowed.

Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

6.5 ELECTROSTATIC DISCHARGE(ESD)

6.5.1 TEST SPECIFICATION

Test Requirement:	ETSI EN 301 489-3 V2.1.1/ Annex A ETSI EN 301 489-17 V3.2.4 /7.2.1 ETSI EN 301 489-1 V2.2.3/9.3 EN 55035:2017 Table 1
Test Method:	EN 61000-4-2:2009
Discharge Impedance:	330 ohm / 150 pF
Discharge Voltage:	Air Discharge : ±8 kV; Contact Discharge: ±4 kV
Polarity:	Positive & Negative
Number of Discharge:	Minimum 10 times at each test point
Discharge Mode:	Single Discharge 1 second minimum

6.5.2 TEST PROCEDURE

The basic test procedure was in accordance with IEC 61000-4-2:

(1) The EUT was located 0.1 m minimum from all side of the HCP (dimensions 1.6m * 0.8m).

(2) The support units were located another table 30 cm away from the EUT, but direct support unit was/were located at same location as EUT on the HCP and keep at a distance of 10 cm with EUT.

(3) The time interval between two successive single discharges was at least 1 second.

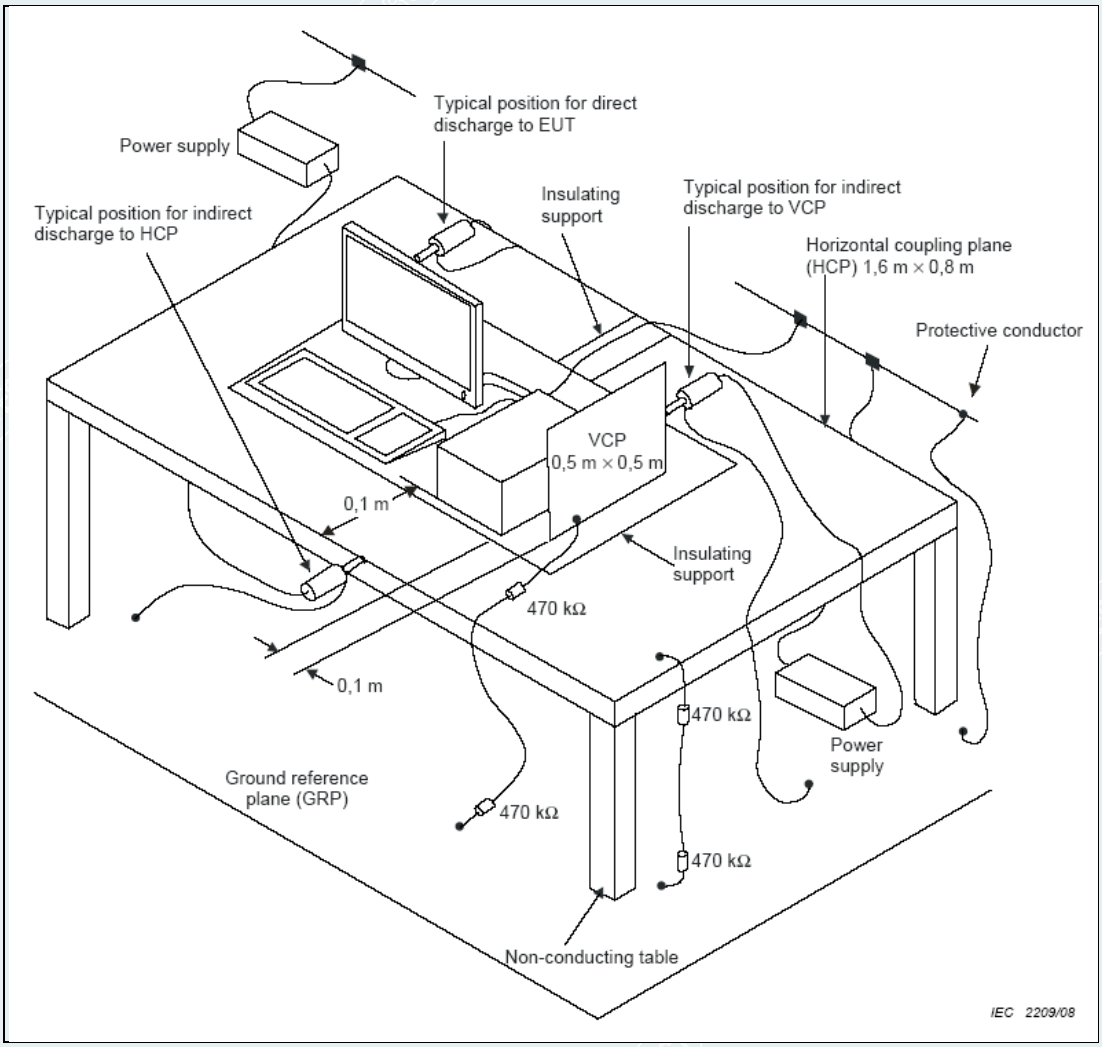
(4) Contact discharges were applied to the non-insulating coating, with the pointed tip of the generator penetrating the coating and contacting the conducting substrate.

(5) Air discharges were applied with the round discharge tip of the discharge electrode approaching the EUT as fast as possible (without causing mechanical damage) to touch the EUT. After each discharge, the ESD generator was removed from the EUT and re-triggered for a new single discharge. The test was repeated until all discharges were complete.

(6) At least ten single discharges (in the most sensitive polarity) were applied at the front edge of each HCP opposite the center point of each unit of the EUT and 0.1 meters from the front of the EUT. The long axis of the discharge electrode was in the plane of the HCP and perpendicular to its front edge during the discharge.

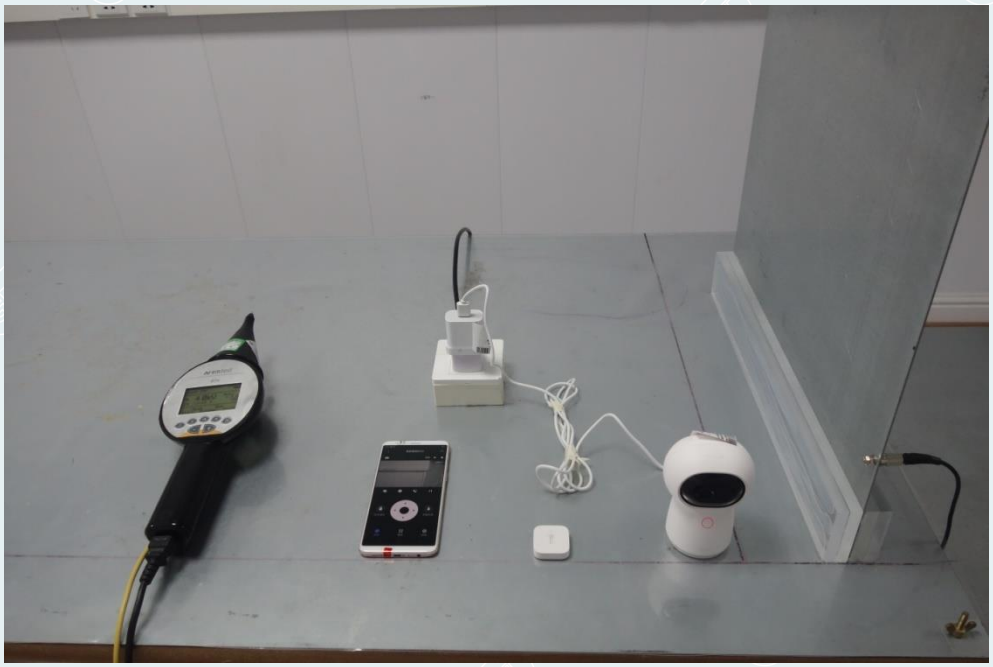
(7) At least ten single discharges (in the most sensitive polarity) were applied to the center of one vertical edge of the Vertical Coupling Plane (VCP) in sufficiently different positions that the four faces of the EUT were completely illuminated. The VCP (dimensions 0.5m * 0.5m) was placed vertically to and 0.1 meters from the EUT.

6.5.3 TEST SETUP



6.5.4 PHOTOGRAPH OF THE TEST ARRANGEMENT

Adapter 1



Adapter 2

6.5.5 TEST RESULTS

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-07-07	Sample No.	E20210426746801-0001

Discharge point	Discharge voltage	C-Conduct A-Air	Required Performance	Actual performance	Result
Vertical coupling plane	±4kV	C	Criterion B	Criterion A[1)]	PASS
Horizontal coupling plane	±4kV	C	Criterion B	Criterion A[1)]	PASS
Screw	±4kV	C	Criterion B	Criterion A[1)]	PASS
Charging mouth	±8kV	A	Criterion B	Criterion A[1)]	PASS
Speaker mouth	±8kV	A	Criterion B	Criterion A[1)]	PASS
Camera	±8kV	A	Criterion B	Criterion A[1)]	PASS
Buttons	±8kV	A	Criterion B	Criterion A[1)]	PASS
Shellgaps	±8kV	A	Criterion B	Criterion A[1)]	PASS
NOTE: [1)]Before test, during the test, and after test, the EUT function is normal.					

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	21.7℃/50%RH/101kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-08-19	Sample No.	E20210426746801-0003

Discharge point	Discharge voltage	C-Conduct A-Air	Required Performance	Actual performance	Result
Vertical coupling plane	±4kV	C	Criterion B	Criterion A[1)]	PASS
Horizontal coupling plane	±4kV	C	Criterion B	Criterion A[1)]	PASS
Screw	±4kV	C	Criterion B	Criterion A[1)]	PASS
Charging mouth	±8kV	A	Criterion B	Criterion A[1)]	PASS
Speaker mouth	±8kV	A	Criterion B	Criterion A[1)]	PASS
Camera	±8kV	A	Criterion B	Criterion A[1)]	PASS
Buttons	±8kV	A	Criterion B	Criterion A[1)]	PASS
Shellgaps	±8kV	A	Criterion B	Criterion A[1)]	PASS
NOTE: [1)]Before test, during the test, and after test, the EUT function is normal.					

6.6 RADIATED RADIO-FREQUENCY ELECTROMAGNETIC FIELD (RS)

6.6.1 TEST SPECIFICATION

Test Requirement:	ETSI EN 301 489-3 V2.1.1/ Annex A ETSI EN 301 489-17 V3.2.4 /7.2 ETSI EN 301 489-1 V2.2.3/9.2 EN 55035:2017 Table 1
Test Method:	EN 61000-4-3:2006+A1:2008+A2:2010
Frequency Range:	**EN 55035:2017:** 80MHz~1000MHz,1800MHz, 2600MHz, 3500MHz, 5000MHz **ETSI EN 301 489-3 V2.1.1** 80MHz ~ 2700MHz **ETSI EN 301 489-17&ETSI EN 301 489-1:** 80MHz~1000MHz, 1000MHz~2700MHz, 2700MHz~6000MHz
Field Strength:	3 V/m
Modulation:	1kHz Sine Wave, 80%, AM Modulation
Polarity of Antenna:	Horizontal and Vertical
Test Distance:	3 m
Antenna Height:	1.55m

6.6.2 TEST PROCEDURE

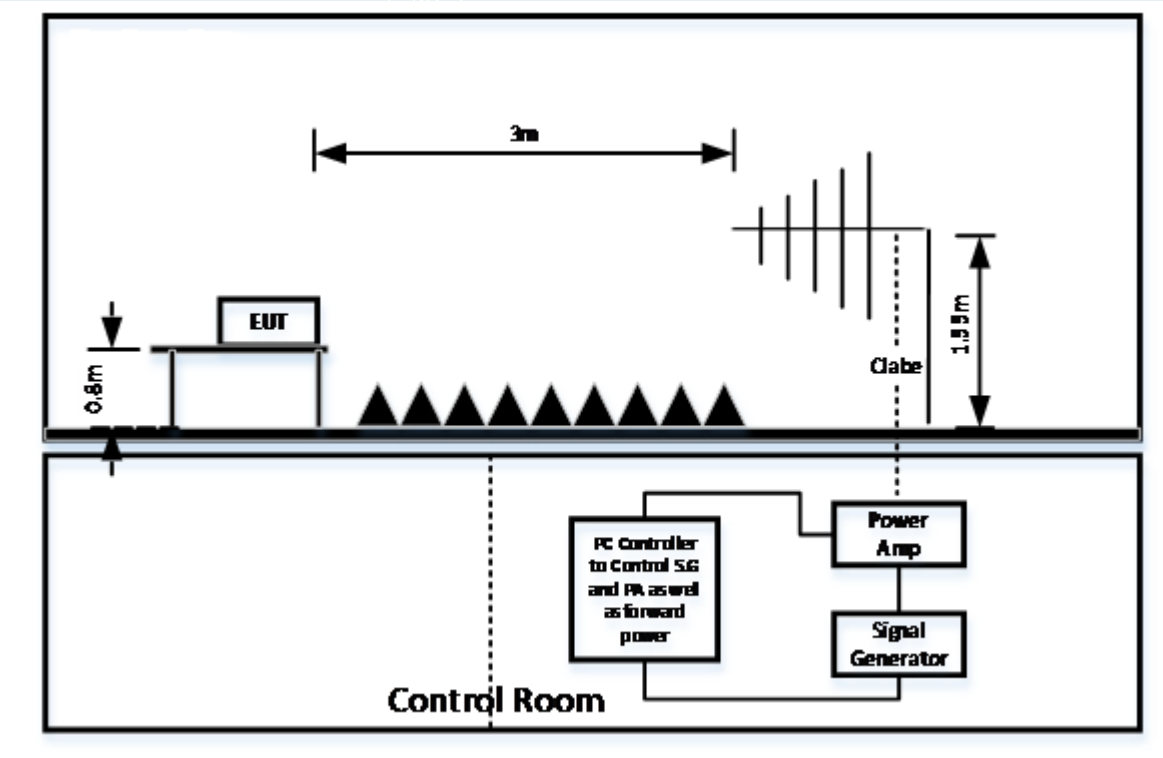
(1) The testing is performed in a fully anechoic chamber. The transmit antenna was located at a distance of 3 meters from the EUT.

(2) The frequency range is swept from 80 MHz ~6000 MHz, with the signal 80% amplitude modulated with a 1 kHz sine-wave. The rate of sweep did not exceed 1.5×10-3 decade/s, where the frequency range is swept incrementally; the step size is 1% of preceding frequency value.

(3) The dwell time at each frequency shall be not less than the time necessary for the EUT to be able to respond.

(4) The test is performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.

6.6.3 TEST SETUP



NOTE:

(1) Table-top equipment

The EUT installed in a representative system as described in section 7 of IEC 61000-4-3 was placed on a non-conductive table 0.8 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

(2) Floor-standing equipment

The EUT installed in a representative system as described in section 7 of IEC 61000-4-3 was placed on a non-conductive wood support 0.1 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

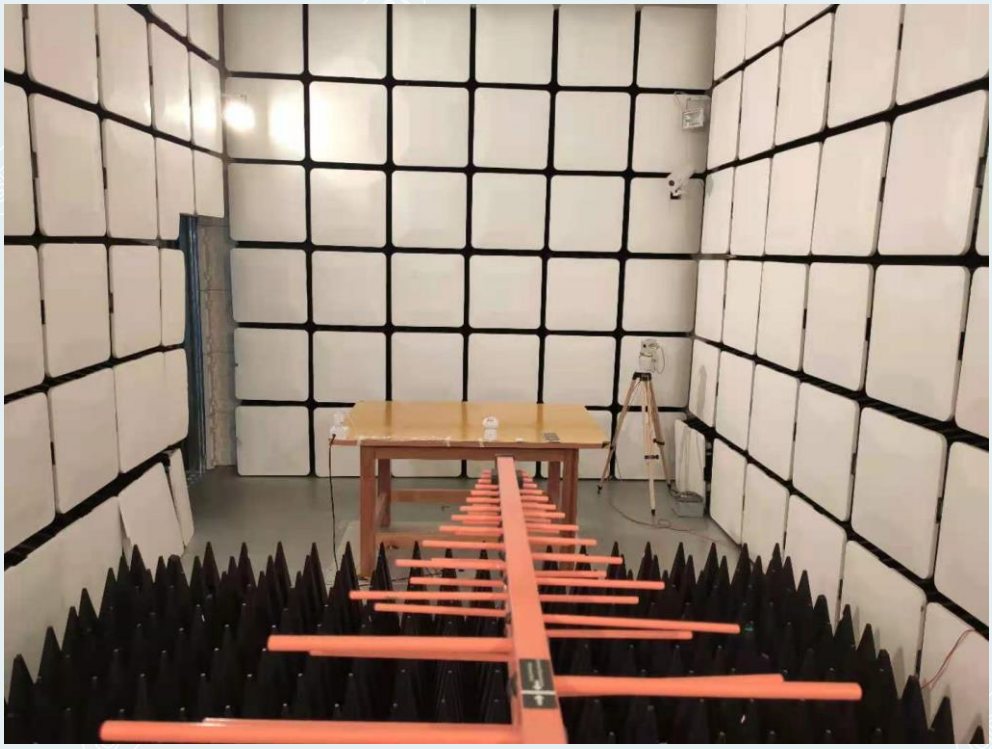
Note: the EUT is a Table-top equipment.

Note: the EUT is a table-top equipment.

6.6.4 PHOTOGRAPH OF THE TEST ARRANGEMENT

80MHz~1000MHz (Adapter 1)

1000MHz~6000MHz (Adapter 1)



80MHz~1000MHz (Adapter 2)

1000MHz~6000MHz (Adapter 2)

6.6.5 TEST RESULTS

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	22.4℃/56%RH/101kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Jiang Tao
Test Date	2021-07-09	Sample No.	E20210426746801-0001

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80MHz~1000MHz	3	Front	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Left	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Right	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Rear	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
1000MHz MHz~2700MHz	3	Front	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Left	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Right	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Rear	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
2700MHz MHz~6000MHz	3	Front	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Left	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Right	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Rear	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass

NOTE: 1)Before test, during the test, and after test, the EUT function is normal. The RF frequency 2280~2603.5MHz is exempted as required by the standards. When the test frequency 2412MHz, the Per is 4.21%.

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80MHz~2700MHz	3	Front	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
		Left	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
		Right	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
		Rear	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
NOTE: [1)] Before test, during the test, and after test, the EUT function is normal. The RF frequency 2280~2603.5MHz is exempted as required by the standards. When the test frequency 2412MHz, the Per is 4.21%.						

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80MHz~1000MHz	3	Front	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
		Left	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
		Right	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
		Rear	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
1800MHz,2600MHz, 3500MHz, 5000MHz	3	Front	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
		Left	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
		Right	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
		Rear	H	Criterion A	Criterion A [1)]	pass
			V	Criterion A	Criterion A [1)]	pass
NOTE: [1)]Before test, during the test, and after test, the EUT function is normal.						

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	23.7℃/47%RH/101kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	Jiang Tao
Test Date	2021-08-18	Sample No.	E20210426746801-0003

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80MHz~1000MHz	3	Front	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Left	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Right	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Rear	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
1000MHz MHz~2700MHz	3	Front	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Left	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Right	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Rear	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
2700MHz MHz~6000MHz	3	Front	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Left	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Right	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Rear	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass

NOTE: 1) Before test, during the test, and after test, the EUT function is normal. The RF frequency 2280~2603.5MHz is exempted as required by the standards. When the test frequency 2412MHz, the Per is 4.11%.

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80MHz~2700MHz	3	Front	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Left	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Right	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Rear	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
NOTE: 1) Before test, during the test, and after test, the EUT function is normal. The RF frequency 2280~2603.5MHz is exempted as required by the standards. When the test frequency 2412MHz, the Per is 4.21%.						

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80MHz~1000MHz	3	Front	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Left	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Right	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Rear	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
1800MHz,2600MHz, 3500MHz, 5000MHz	3	Front	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Left	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Right	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
		Rear	H	Criterion A	Criterion A 1)	pass
			V	Criterion A	Criterion A 1)	pass
NOTE: 1)Before test, during the test, and after test, the EUT function is normal.						

6.7 ELECTRICAL FAST TRANSIENTS (EFT)

6.7.1 TEST SPECIFICATION

Test Requirement:	ETSI EN 301 489-3 V2.1.1/ Annex A ETSI EN 301 489-17 V3.2.4 /7.2.1 ETSI EN 301 489-1 V2.2.3/9.4 EN 55035:2017 Table 4
Test Method:	EN 61000-4-4:2012
Test Voltage:	AC power Port: ±1kV
Polarity:	Positive and Negative
Impulse Frequency:	5 kHz
Impulse Wave-shape:	5 ns/50ns for voltage
Burst Duration:	15 ms
Burst Period:	300 ms
Test Duration:	1 min for each polarity

6.7.2 TEST PROCEDURE

(1) EUTs, whether stationary floor-mounted or table top, and equipment designed to be mounted in other configurations, shall be placed on a ground reference plane and shall be insulated from it by an insulating support 0.1 m ±0.01 m thick. The test generator and the coupling/ decoupling network shall be placed directly on, and bonded to, the ground reference plane.

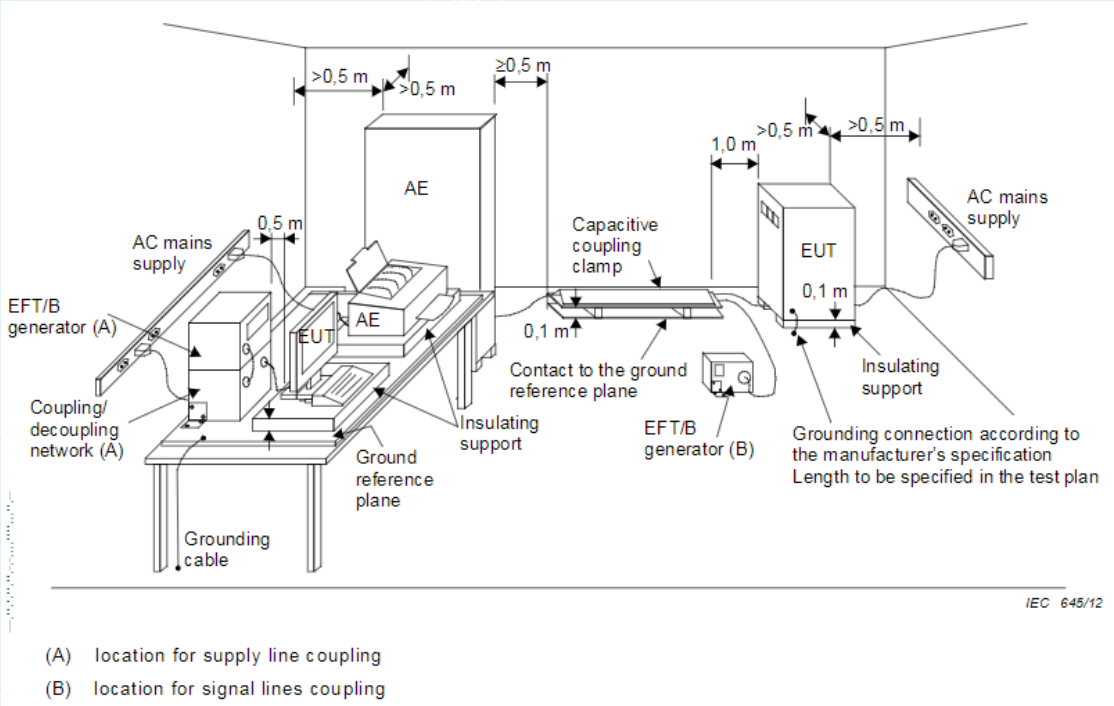
(2) The minimum distance between the EUT and all other conductive structures (e.g. the walls of a shielded room), except the ground reference plane shall be more than 0.5 m. If the manufacturer provides a non-detachable supply cable more than 0.5 m ±0.05 m long with the equipment, the excess length of this cable shall be folded to avoid a flat coil and situated at a distance of 0,1 m above the ground reference plane.

(3) For input and AC power ports:

The EUT is connected to the power mains by using a coupling device which couples the EFT interference signal to AC power lines. Both polarities of the test voltage should be applied during compliance test and the duration of the test can't less than 1min.

(4) The transient/burst waveform was in accordance with EN 61000-4-4, 5/50ns.

6.7.3 TEST SETUP



(A) location for supply line coupling

(B) location for signal lines coupling

6.7.4 PHOTOGRAPH OF THE TEST ARRANGEMENT

Adapter 1

Adapter 2

6.7.5 TEST RESULTS

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/42%RH/101kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Jiang Tao
Test Date	2021-07-13	Sample No.	E20210426746801-0001

Test Point	Polarity	Test Level (kV)	Required Performance	Actual performance	Result
L	+	1	Criterion B	Criterion A[1)]	PASS
	-	1	Criterion B	Criterion A[1)]	PASS
N	+	1	Criterion B	Criterion A[1)]	PASS
	-	1	Criterion B	Criterion A[1)]	PASS
L-N	+	1	Criterion B	Criterion A[1)]	PASS
	-	1	Criterion B	Criterion A[1)]	PASS
NOTE: [1)]Before test, during the test, and after test, the EUT function is normal.					

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

Test Point	Polarity	Test Level (kV)	Required Performance	Actual performance	Result
L	+	1	Criterion B	Criterion A[1)]	PASS
	-	1	Criterion B	Criterion A[1)]	PASS
N	+	1	Criterion B	Criterion A[1)]	PASS
	-	1	Criterion B	Criterion A[1)]	PASS
L-N	+	1	Criterion B	Criterion A[1)]	PASS
	-	1	Criterion B	Criterion A[1)]	PASS
NOTE: [1)]Before test, during the test, and after test, the EUT function is normal.					

6.8 SURGES

6.8.1 TEST SPECIFICATION

Test Requirement:	ETSI EN 301 489-3 V2.1.1/ Annex A ETSI EN 301 489-17 V3.2.4 /7.2 ETSI EN 301 489-1 V2.2.3/9.8 EN 55035:2017 Table 4
Test Method:	EN 61000-4-5: 2014+ A1:2017 EN 61000-4-5: 2014
Wave-Shape:	AC power supply port: Combination Wave 1.2/50 μs Open Circuit Voltage **ETSI EN 301 489-3/ETSI EN 301 489-17/** **ETSI EN 301 489-1:** Signal port:1.2/50 μs waveform **EN 55035:**10/700 us waveform
Test Voltage:	AC Port: line to line: ±1 kV Signal Ports: line to ground: ±0.5kV Performance Criterion B
Generator Source Impedance:	AC power supply port: Line to line 2ohm, Line to PE12ohm Signal port:25/100 ohm
Polarity:	Positive and Negative
Phase Angle:	**ETSI EN 301 489-3/ETSI EN 301 489-17/** **ETSI EN 301 489-1:** 0 °, 90 °, 180 °, 270 ° **EN 55035:** +90 °, -270 °
Pulse Repetition Rate:	1 minute
Number of tests:	5 positive and 5 negative at the selected points

6.8.2 TEST PROCEDURE

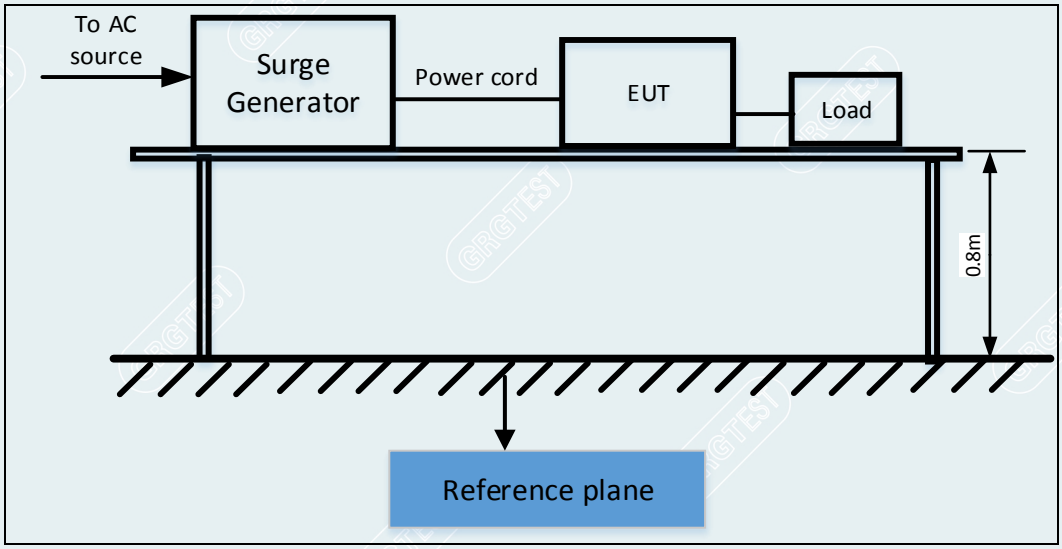
(1) For EUT power supply:

The surge is applied to the EUT power supply terminals via the capacitive coupling network. Decoupling networks are required in order to avoid possible adverse effects on equipment not under test that may be powered by the same lines, and to provide sufficient decoupling impedance to the surge wave. The power cord between the EUT and the coupling/decoupling networks was shorter than 2 meters in length.

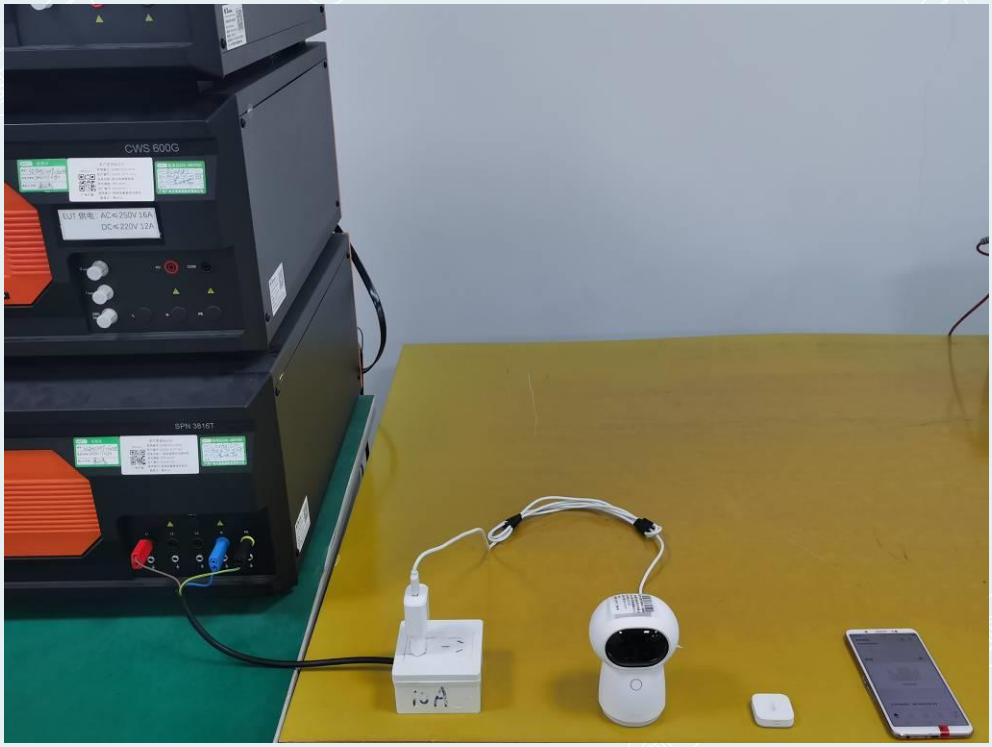
(2) For test applied to unshielded un-symmetrically operated interconnection lines of EUT: The surge was applied to the lines via the capacitive coupling. The coupling / decoupling networks didn't influence the specified functional conditions of the EUT. The interconnection line between the EUT and the coupling/decoupling networks was shorter than 2 meters in length.

(3) For test applied to unshielded symmetrically operated interconnection / telecommunication lines of EUT: The surge was applied to the lines via gas arrestors coupling. Test levels below the ignition point of the coupling arrestors were not specified. The interconnection line between the EUT and the coupling/decoupling networks was shorter than 2 meters in length.

6.8.3 TEST SETUP



6.8.4 PHOTOGRAPH OF THE TEST ARRANGEMENT



Adapter 1

Adapter 2

6.8.5 TEST RESULTS

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-07-06	Sample No.	E20210426746801-0001

Test port	Polarity	Test Level	Phase	Required Performance	Actual performance	Result
L-N	+/-	1kV	0 °	Criterion B	Criterion A [1)]	PASS
	+/-	1kV	90 °	Criterion B	Criterion A [1)]	PASS
	+/-	1kV	180 °	Criterion B	Criterion A [1)]	PASS
	+/-	1kV	270 °	Criterion B	Criterion A [1)]	PASS
NOTE: [1)] Before test, during the test, and after test, the EUT function is normal.						

Test port	Polarity	Test Level	Phase	Required Performance	Actual performance	Result
L-N	+	1kV	90 °	Criterion B	Criterion A [1)]	PASS
	-	1kV	270 °	Criterion B	Criterion A [1)]	PASS
NOTE: [1)] Before test, during the test, and after test, the EUT function is normal.						

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

Test port	Polarity	Test Level	Phase	Required Performance	Actual performance	Result
L-N	+/-	1kV	0 °	Criterion B	Criterion A [1)]	PASS
	+/-	1kV	90 °	Criterion B	Criterion A [1)]	PASS
	+/-	1kV	180 °	Criterion B	Criterion A [1)]	PASS
	+/-	1kV	270 °	Criterion B	Criterion A [1)]	PASS
NOTE: [1)] Before test, during the test, and after test, the EUT function is normal.						

Test port	Polarity	Test Level	Phase	Required Performance	Actual performance	Result
L-N	+	1kV	90 °	Criterion B	Criterion A [1)]	PASS
	-	1kV	270 °	Criterion B	Criterion A [1)]	PASS
NOTE: [1)] Before test, during the test, and after test, the EUT function is normal.						

6.9 RADIO FREQUENCY CONTINUOUS CONDUCTED (CS)

6.9.1 TEST SPECIFICATION

Test Requirement:	ETSI EN 301 489-3 V2.1.1/ Annex A ETSI EN 301 489-17 V3.2.4 /7.2 ETSI EN 301 489-1 V2.2.3/9.5 EN 55035:2017 Table 4
Test Method:	EN 61000-4-6:2014
Frequency Range:	0.15 MHz~80 MHz
Field Strength:	3V (r.m.s), 80%, 1kHz
Modulation:	1 kHz, 80% AM
Frequency Step:	1% of the preceding frequency value
Dwell Time:	2s

6.9.2 TEST PROCEDURE

(1) Set up the EUT, CDN and Injection clamp as shown on Section 8.5.3

(2) Let the EUT work in test mode and measure it.

(3) The EUT are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane about 0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).

(4) The disturbance signal described below is injected to EUT through CDN.

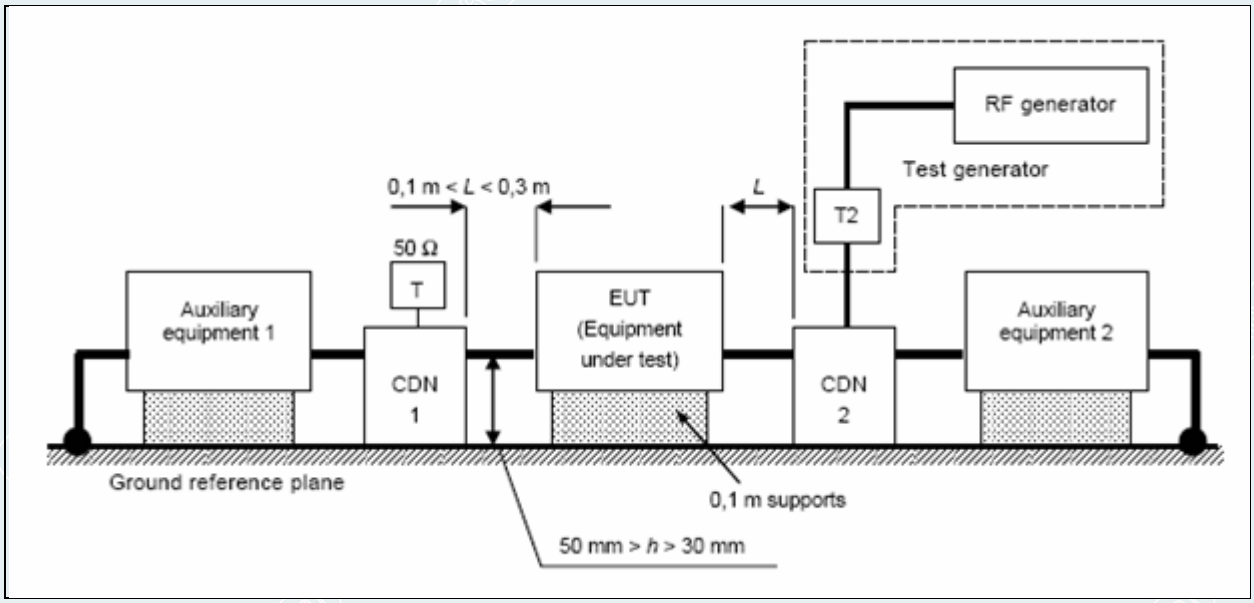
(5) The EUT operates within its operational mode(s) under intended climatic conditions after power on.

(6) The frequency range is swept from 150 kHz to 80MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1 kHz sine wave.

(7) The rate of sweep shall not exceed 1.5×10-3decades/s. Where the frequency is swept incrementally, the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.

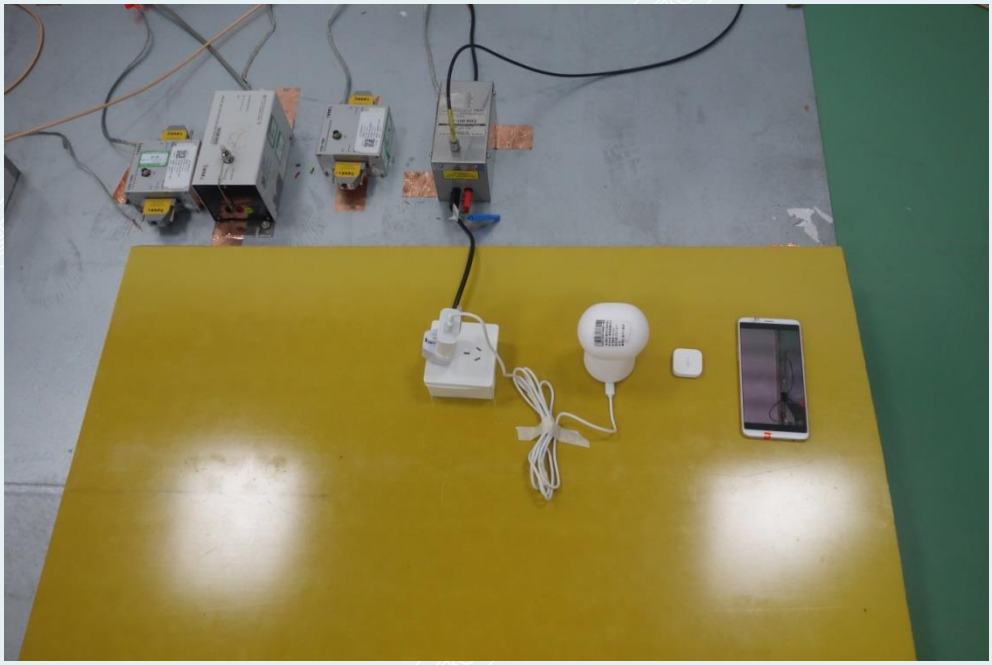
(8) Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

6.9.3 TEST SETUP



6.9.4 PHOTOGRAPH OF THE TEST ARRANGEMENT

Adapter 1



Adapter 2

6.9.5 TEST RESULTS

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/45%RH/101kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Wang Xinyuan
Test Date	2021-07-03	Sample No.	E20210426746801-0001

Test Ports	Frequency Band(MHz)	Field Strength (Vrms)	Injection Method	Required Performance	Actual performance	Result
Power port	0.15~80	3	CDN	Criterion A	Criterion A[1)]	Pass
NOTE: [1)]Before test, during the test, and after test, the EUT function is normal.						

Test Ports	Frequency Band(MHz)	Field Strength (Vrms)	Injection Method	Required Performance	Actual performance	Result
Power port	0.15~10	3	CDN	Criterion A	Criterion A[1)]	Pass
	10~30	3 to 1	CDN	Criterion A	Criterion A[1)]	Pass
	30~80	1	CDN	Criterion A	Criterion A[1)]	Pass
NOTE: [1)]Before test, during the test, and after test, the EUT function is normal.						

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	21.7℃/52%RH/101kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-08-19	Sample No.	E20210426746801-0003

Test Ports	Frequency Band(MHz)	Field Strength (Vrms)	Injection Method	Required Performance	Actual performance	Result
Power port	0.15~80	3	CDN	Criterion A	Criterion A[1)]	Pass
NOTE: [1)]Before test, during the test, and after test, the EUT function is normal.						

Test Ports	Frequency Band(MHz)	Field Strength (Vrms)	Injection Method	Required Performance	Actual performance	Result
Power port	0.15~10	3	CDN	Criterion A	Criterion A[1)]	Pass
	10~30	3 to 1	CDN	Criterion A	Criterion A[1)]	Pass
	30~80	1	CDN	Criterion A	Criterion A[1)]	Pass
NOTE: [1)]Before test, during the test, and after test, the EUT function is normal.						

6.10 POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST

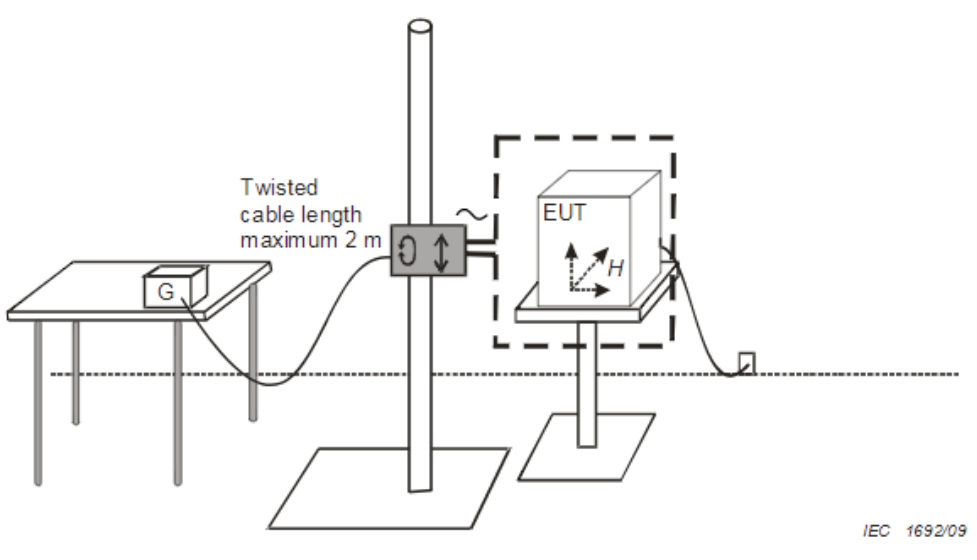
6.10.1 TEST SPECIFICATION

Test Requirement	EN 55035:2017
Test Method	IEC 61000-4-8:2009
Frequency	50Hz or 60Hz
Field Strength	1 A/m
Observation Time	5 min
Inductance Coil	Rectangular type, 1mx1m
Direction	X-axis, Y -axis, Z -axis

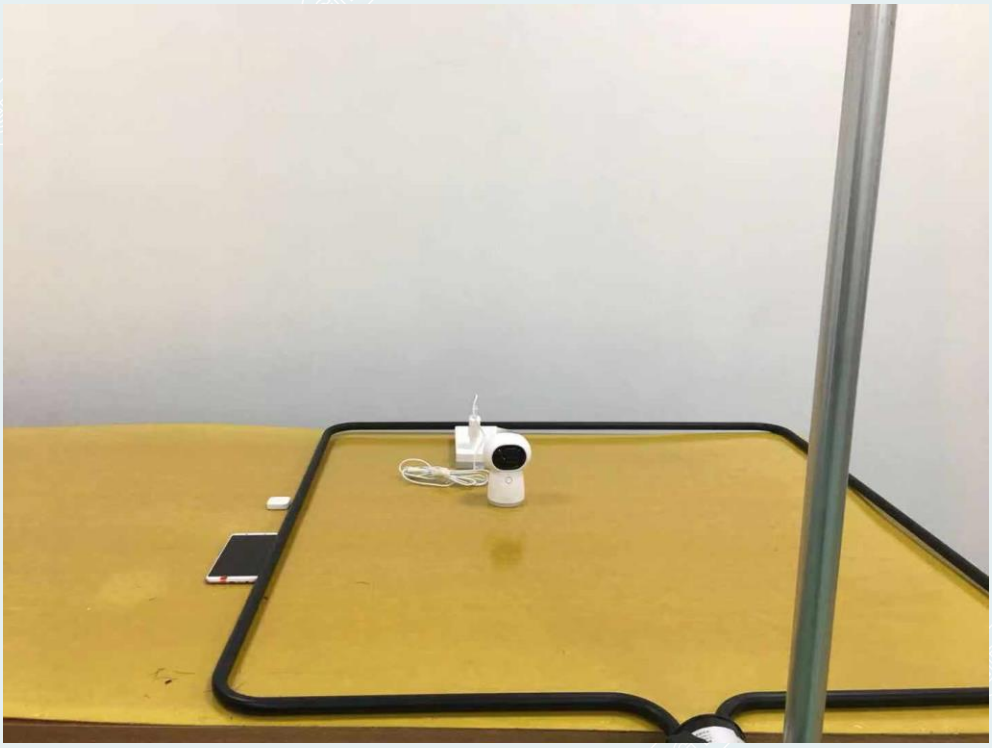
6.10.2 TEST PROCEDURE

a) The equipment is configured and connected to satisfy its functional requirements. It shall be placed on the GRP with the interposition of a 0.1m-thick insulating support.
b) The equipment cabinets shall be connected to the safety earth directly on the GRP via the earth terminal of the EUT.
c) The power supply, input and output circuits shall be connected to the sources of power supply, control and signal.
d) The cables supplied or recommended by the equipment manufacturer shall be used. 1 meter of all cables used shall be exposed to the magnetic field.

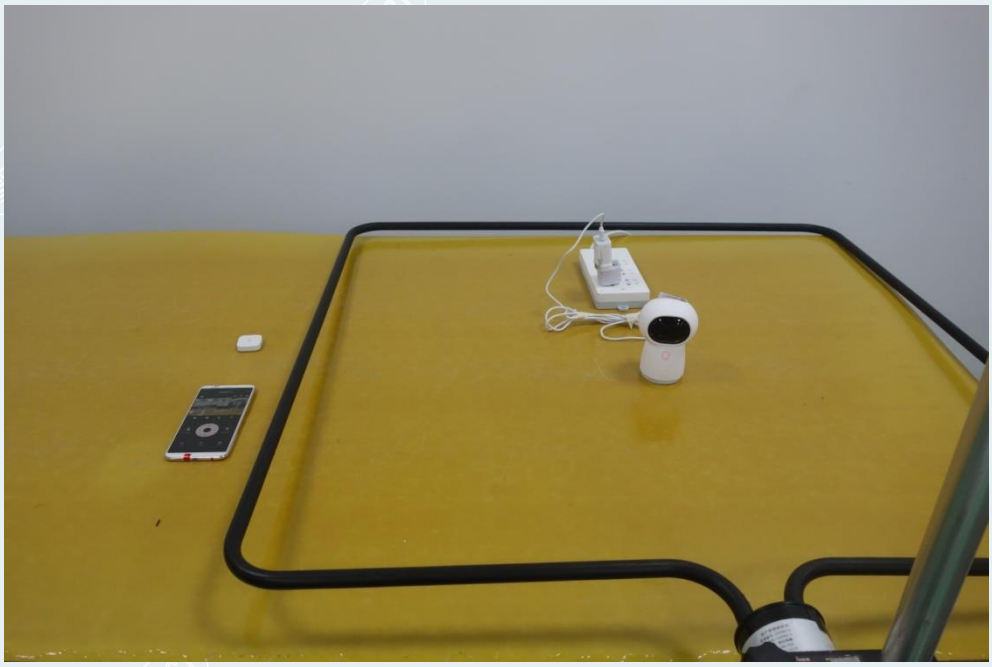
6.10.3 TEST SETUP



6.10.4 PHOTOGRAPH OF THE TEST ARRANGEMENT



Adapter 1



Adapter 2

6.10.5 TEST RESULTS

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/45%RH/101kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Wang Xinyuan
Test Date	2021-07-03	Sample No.	E20210426746801-0001

Field Strength (A/m)	Frequency (Hz)	Observation Time （min）	Direction	Required Performance	Actual performance	Result
1	50	5	X	A	A[1)]	PASS
1	50	5	Y	A	A[1)]	PASS
1	50	5	Z	A	A[1)]	PASS
1	60	5	X	A	A[1)]	PASS
1	60	5	Y	A	A[1)]	PASS
1	60	5	Z	A	A[1)]	PASS
Note:[1)]Before test, during the test, and after test, the EUT function is normal.						

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	21.1℃/51%RH/101kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

Field Strength (A/m)	Frequency (Hz)	Observation Time （min）	Direction	Required Performance	Actual performance	Result
1	50	5	X	A	A[1)]	PASS
1	50	5	Y	A	A[1)]	PASS
1	50	5	Z	A	A[1)]	PASS
1	60	5	X	A	A[1)]	PASS
1	60	5	Y	A	A[1)]	PASS
1	60	5	Z	A	A[1)]	PASS
Note:[1)]Before test, during the test, and after test, the EUT function is normal.						

6.11 VOLTAGE DIPS & SHORT INTERRUPTIONS

6.11.1 TEST SPECIFICATION

Test Requirement:	ETSI EN 301 489-3 V2.1.1/ Annex A ETSI EN 301 489-17 V3.2.4 /7.2 ETSI EN 301 489-1 V2.2.3/9.7 EN 55035:2017 Table 4
Test Method:	EN 61000-4-11:2004
Test duration time:	**ETSI EN 301 489-3 / ETSI EN 301 489-17 / ETSI EN 301 489-1** Test specification: 1. Voltage dips: i)0% residual voltage 0.5 cycle. Performance: Criteria B; ii) 0% residual voltage 1 cycle, Performance: Criteria B; iii)70% residual voltage 25 cycle. Performance: Criteria C; 2. Voltage interruption: 0% residual voltage during 250 cycles. Performance: Criteria C; **EN 55035:2017** Test specification: 1. Voltage dips: i)0% residual voltage 0.5 cycle. Performance: Criteria B; ii) 70% residual voltage 25 cycle. Performance: Criteria C; 2. Voltage interruption: 0% residual voltage during 250 cycles. Performance: Criteria C
Interval between event:	10s for each dips at each test angle
Phase Angle:	0 °, 180 °
Test cycle:	3

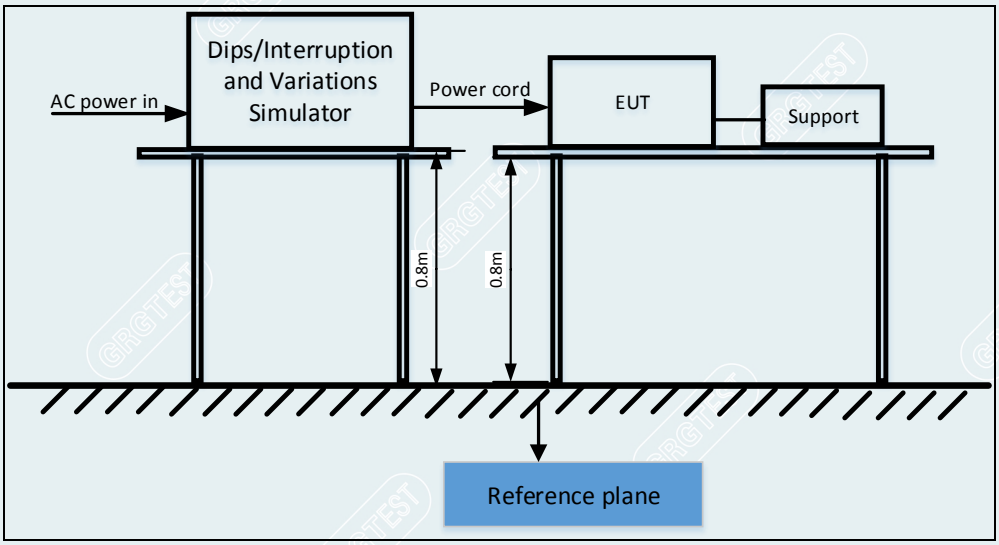
6.11.2 TEST PROCEDURE

(1) The EUT and test generator were setup as shown on Section

(2) The interruption is introduced at selected phase angles with specified duration.

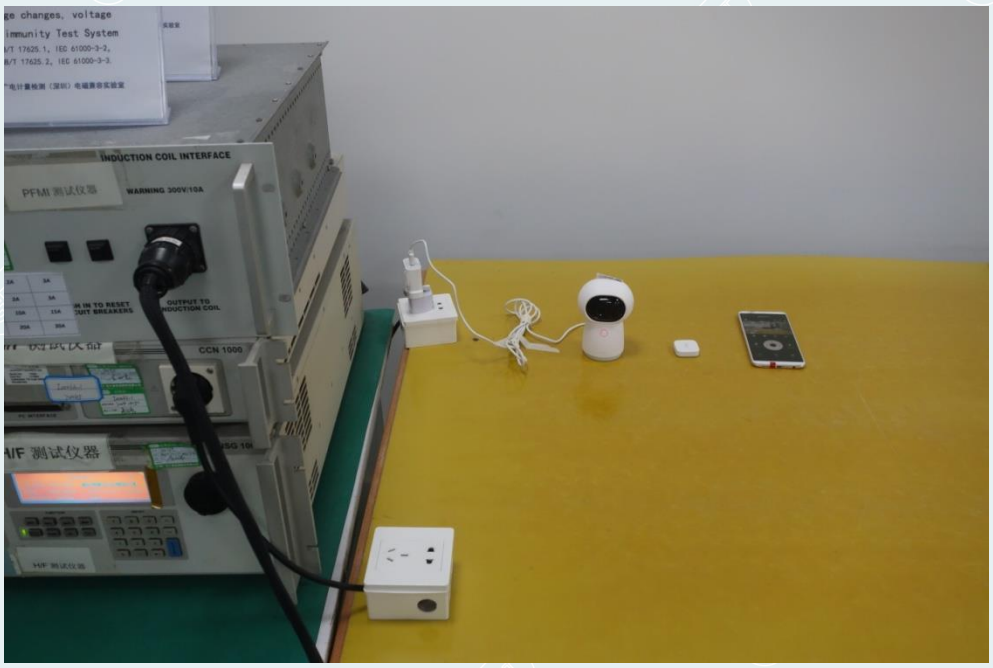
(3) Record any degradation of performance.

6.11.3 TEST SETUP



6.11.4 PHOTOGRAPH OF THE TEST ARRANGEMENT

Adapter 1



Adapter 2

6.11.5 TEST RESULTS

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	24.1℃/45%RH/101kPa	Test Mode	Mode 1 (Adapter 1)
Power supply	AC230V/50Hz	Tested By	Wang Xinyuan
Test Date	2021-07-03	Sample No.	E20210426746801-0001

Voltage(%Residual)		Duration (Period)	Angle	Required Performance	Actual performance	Result
Voltage dips	0	0.5	0 °, 180 °	Criterion B	Criterion A [1)]	PASS
	0	1	0 °, 180 °	Criterion B	Criterion A [1)]	PASS
	70	25	0 °, 180 °	Criterion B	Criterion A[1)]	PASS
Voltage interruptions	0	250	0 °, 180 °	Criterion C	Criterion B[2)]	PASS
NOTE: [1)]Before test, during the test, and after test, the EUT function is normal. [2)] The EUT can work normally before the test, Power failure during test and the EUT can automatic restores normally.						

Voltage(%Residual)		Duration (Period)	Angle	Required Performance	Actual performance	Result
Voltage dips	0	0.5	0 °, 180 °	Criterion B	Criterion A [1)]	PASS
	70	25	0 °, 180 °	Criterion C	Criterion A [1)]	PASS
Voltage interruptions	0	250	0 °, 180 °	Criterion C	Criterion B[2)]	PASS
NOTE: [1)]Before test, during the test, and after test, the EUT function is normal. [2)] The EUT can work normally before the test, Power failure during test and the EUT can automatic restores normally.						

EUT Name	Camera Hub G3	Model	CH-H03
Environmental Conditions	21.1℃/50%RH/101kPa	Test Mode	Mode 2 (Adapter 2)
Power supply	AC230V/50Hz	Tested By	ZhongFuping
Test Date	2021-08-18	Sample No.	E20210426746801-0003

Voltage(%Residual)		Duration (Period)	Angle	Required Performance	Actual performance	Result
Voltage dips	0	0.5	0 °, 180 °	Criterion B	Criterion A 1)	PASS
	0	1	0 °, 180 °	Criterion B	Criterion A 1)	PASS
	70	25	0 °, 180 °	Criterion B	Criterion A1)	PASS
Voltage interruptions	0	250	0 °, 180 °	Criterion C	Criterion B2)	PASS
NOTE: 1)Before test, during the test, and after test, the EUT function is normal. 2) The EUT can work normally before the test, Power failureduring test and the EUT can automatic restores normally.						

Voltage(%Residual)		Duration (Period)	Angle	Required Performance	Actual performance	Result
Voltage dips	0	0.5	0 °, 180 °	Criterion B	Criterion A 1)	PASS
	70	25	0 °, 180 °	Criterion C	Criterion A 1)	PASS
Voltage interruptions	0	250	0 °, 180 °	Criterion C	Criterion B2)	PASS
NOTE: 1)Before test, during the test, and after test, the EUT function is normal. 2) The EUT can work normally before the test, Power failureduring test and the EUT can automatic restores normally.						

APPENDIX B: PHOTOGRAPHS OF EUT

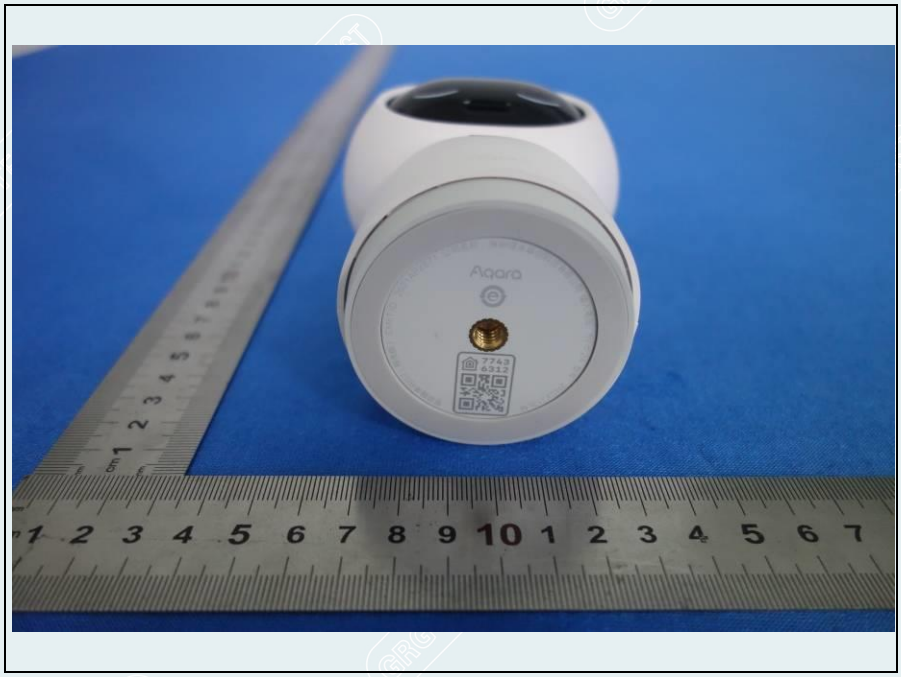
External Photos of EUT

EUT-1

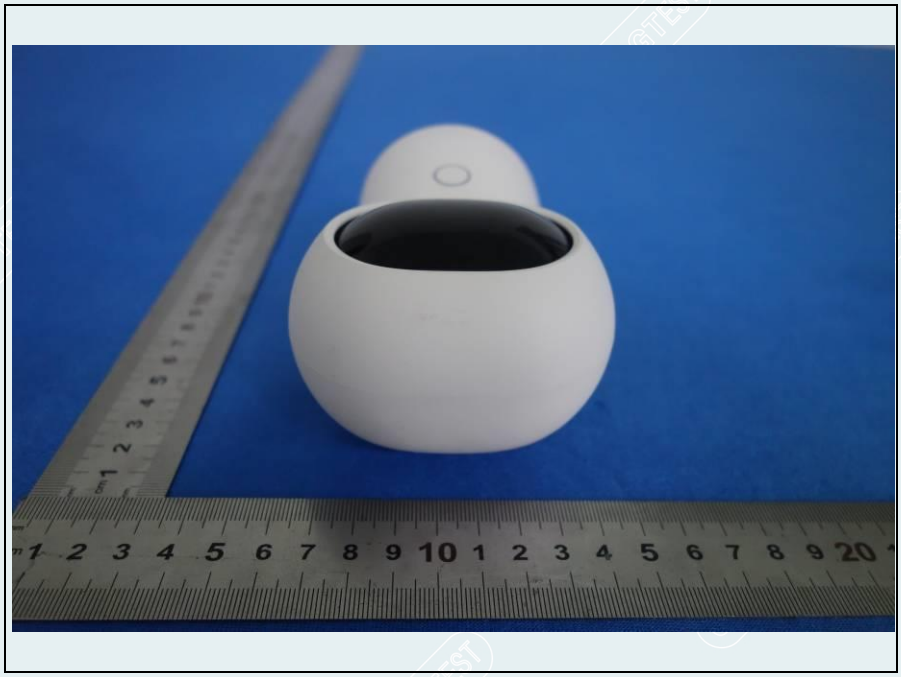
EUT-2

EUT-3

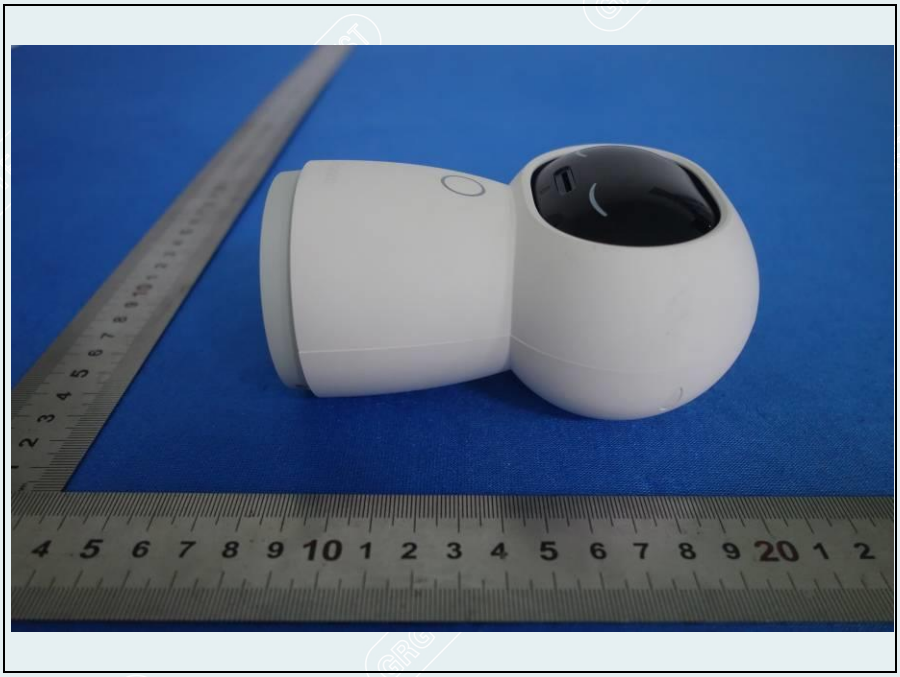
EUT-4



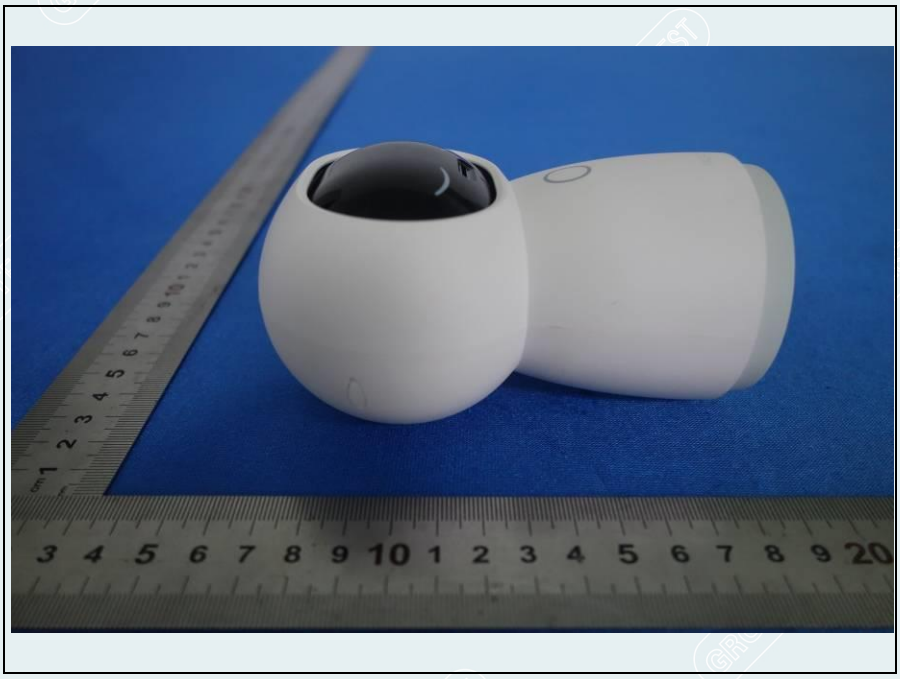
EUT-5



EUT-6

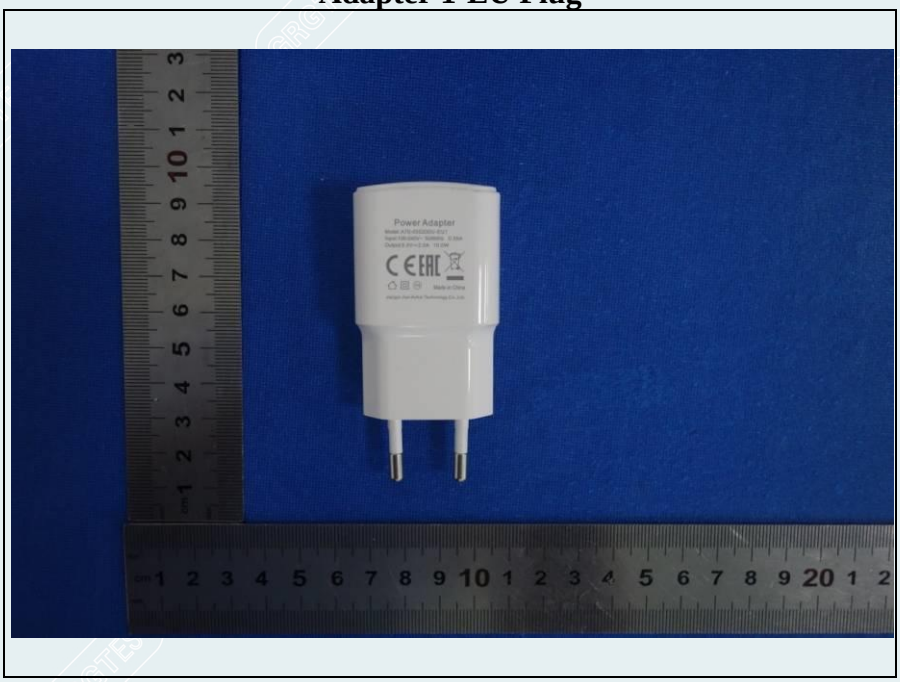


EUT-7



EUT-8

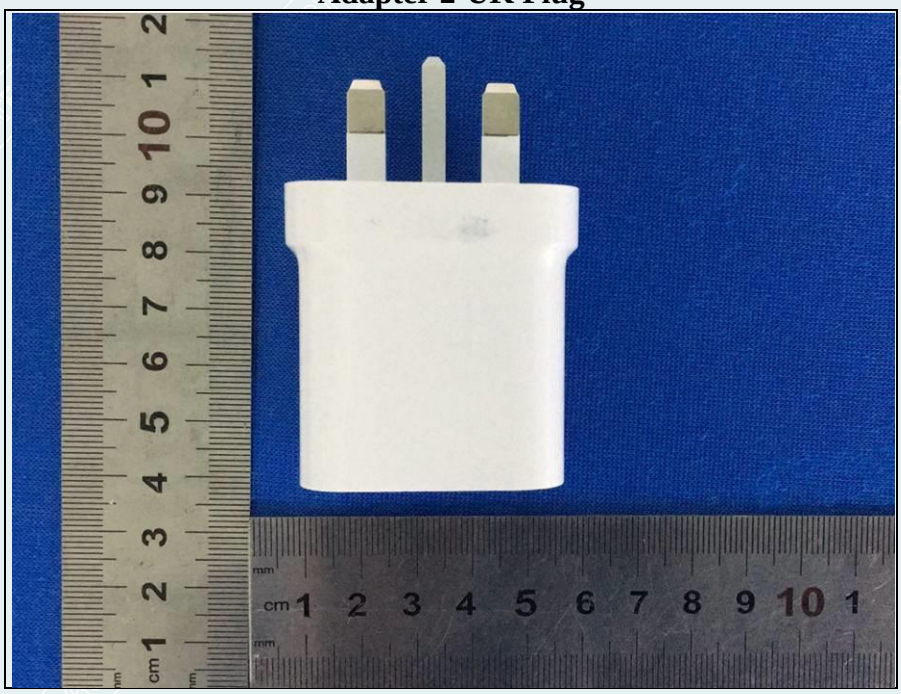
Adapter 1-EU Plug



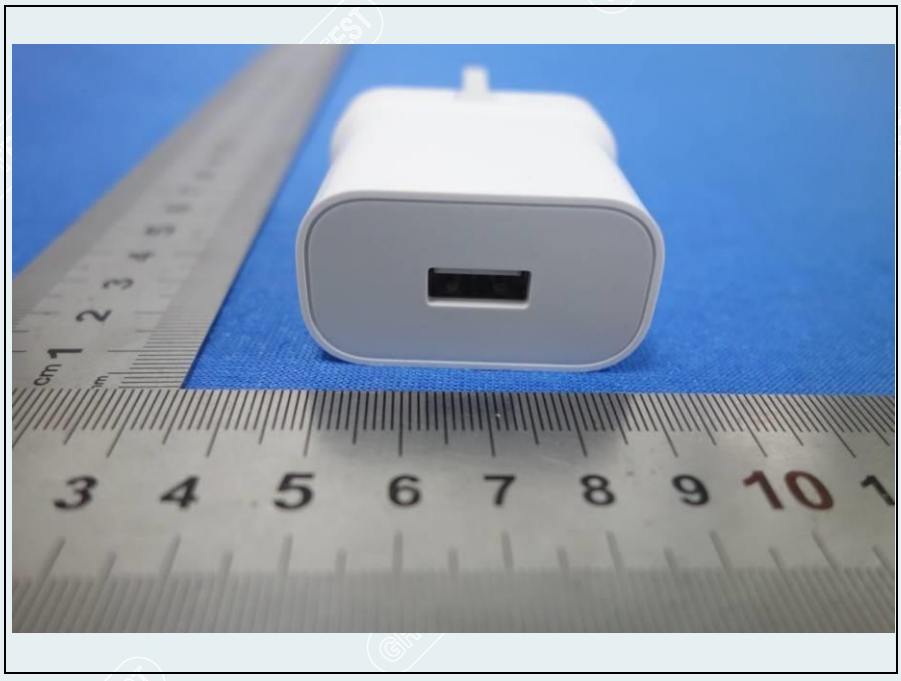
EUT-1

EUT-2

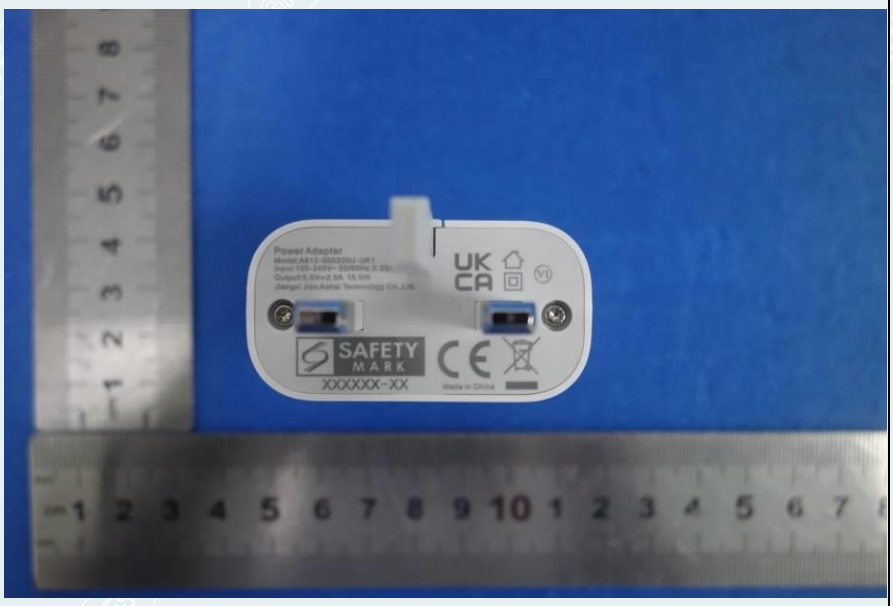
Adapter 2-UK Plug



EUT-3

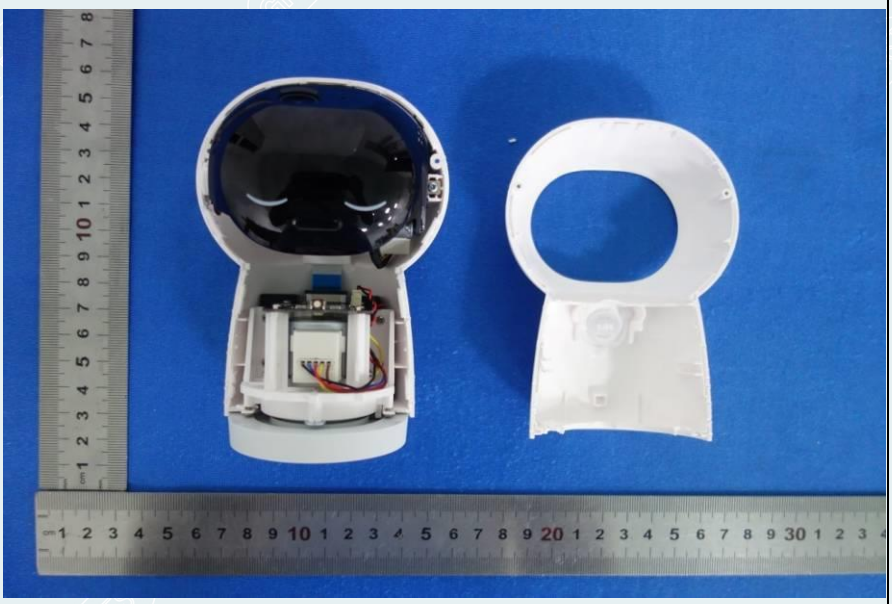


EUT-4

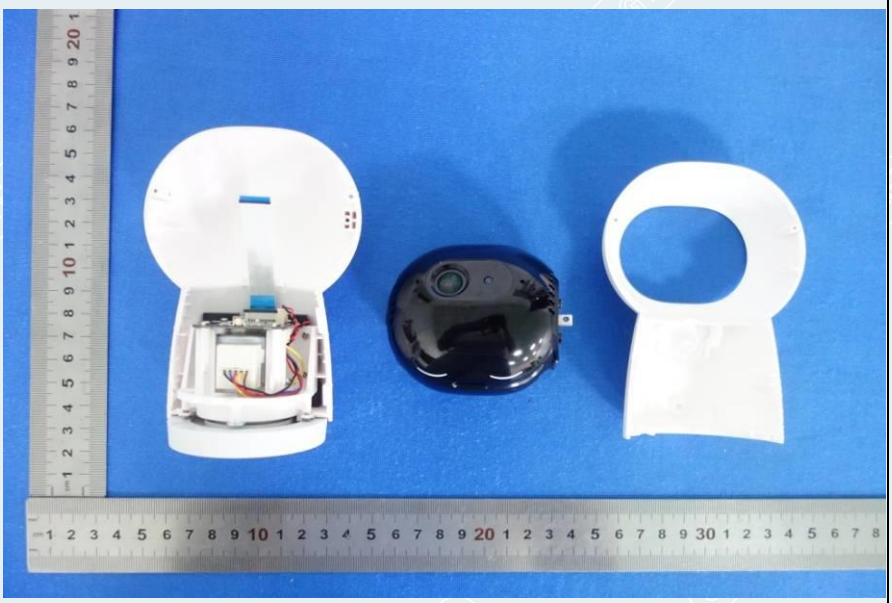


EUT-5

Internal Photos of EUT

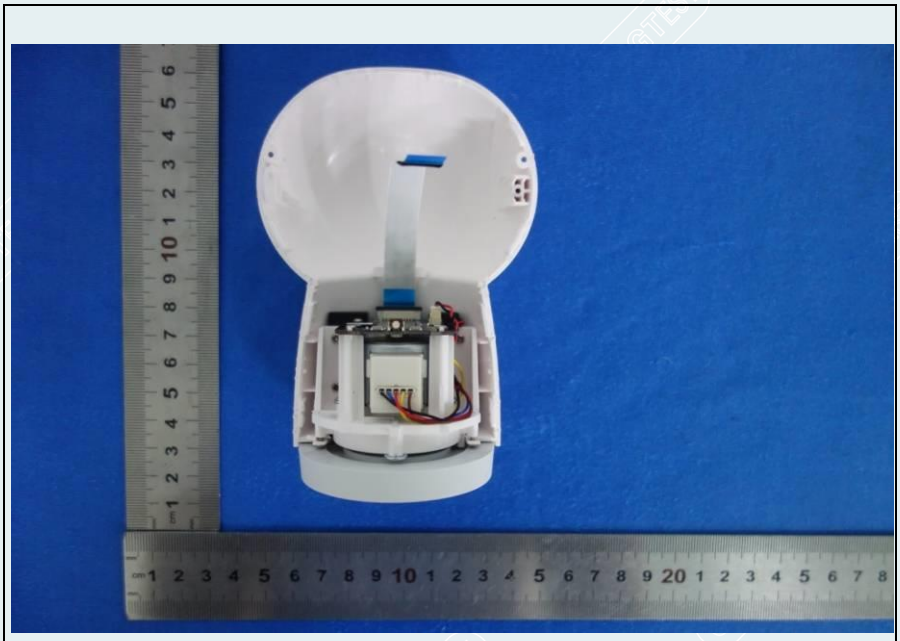


EUT-1

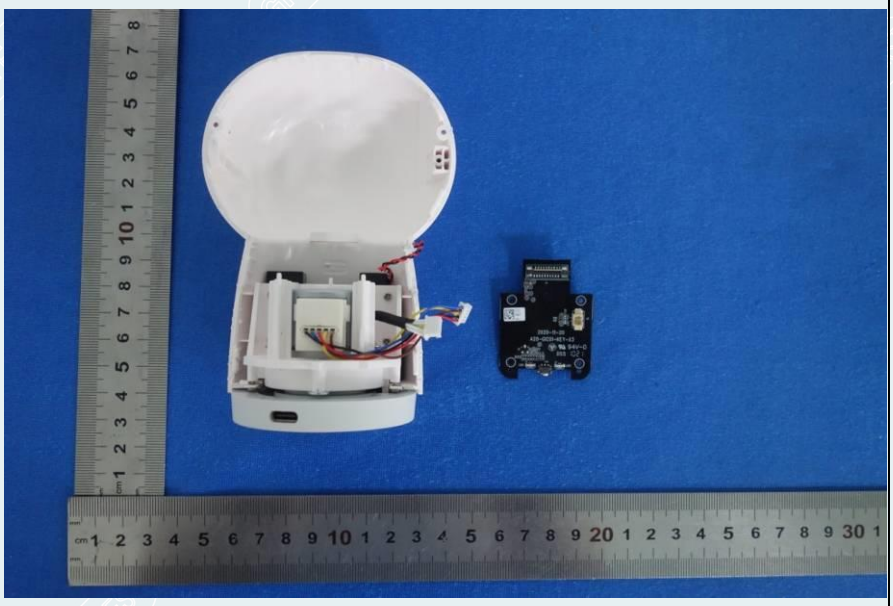


EUT-2

EUT-3



EUT-4



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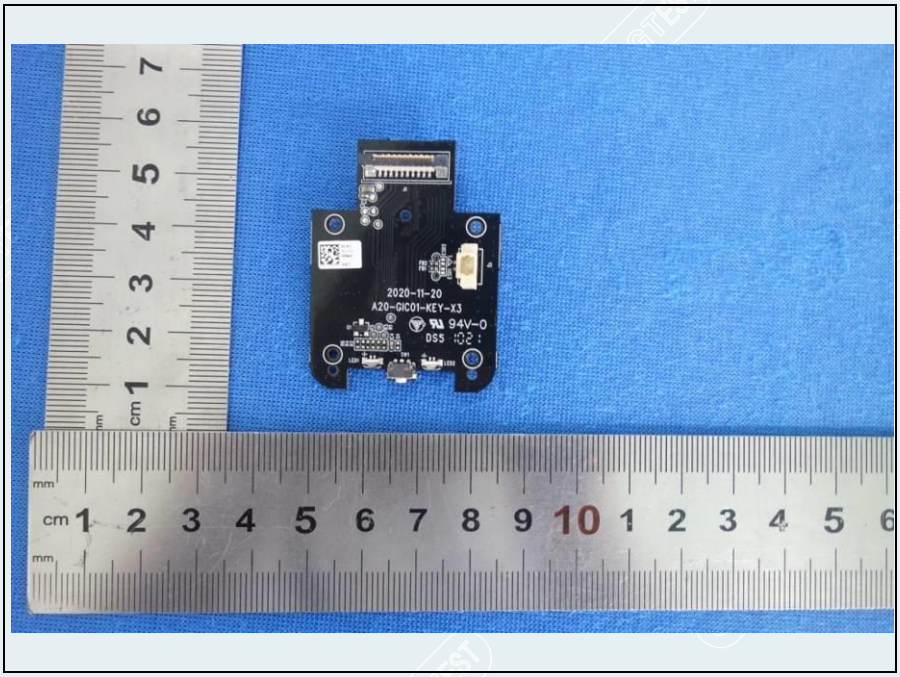

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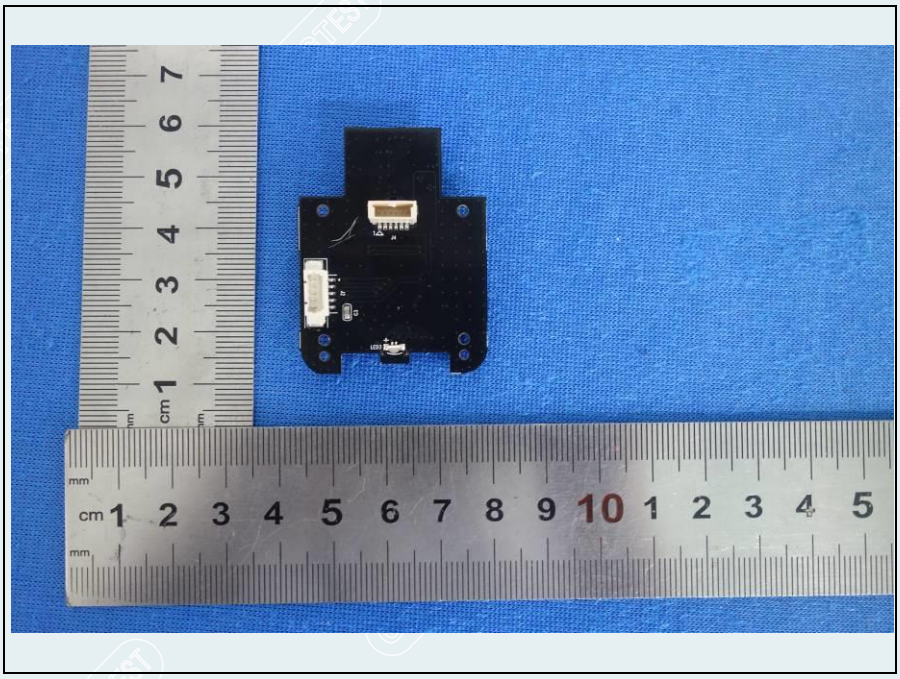

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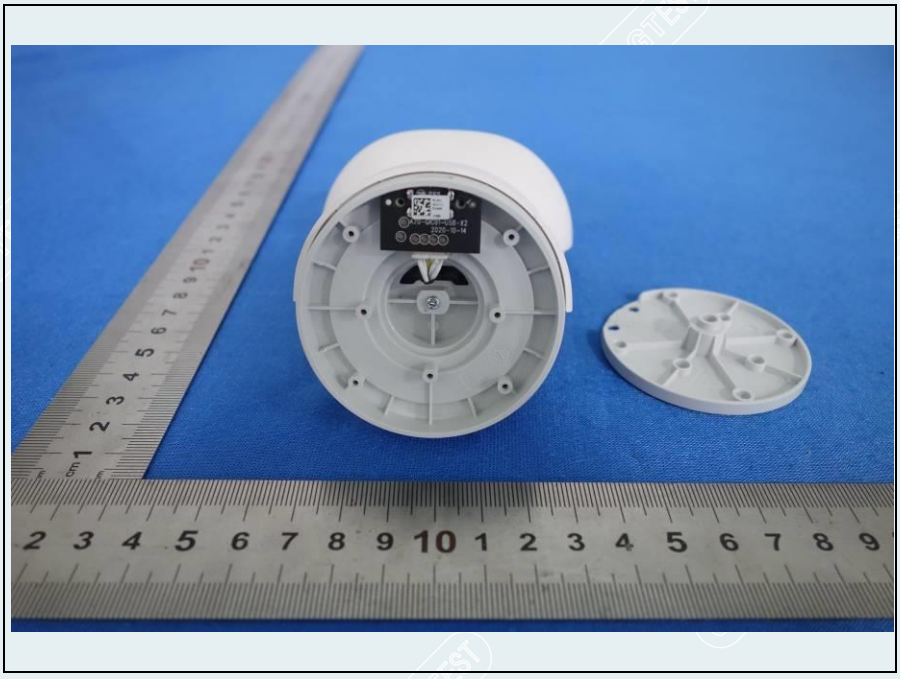

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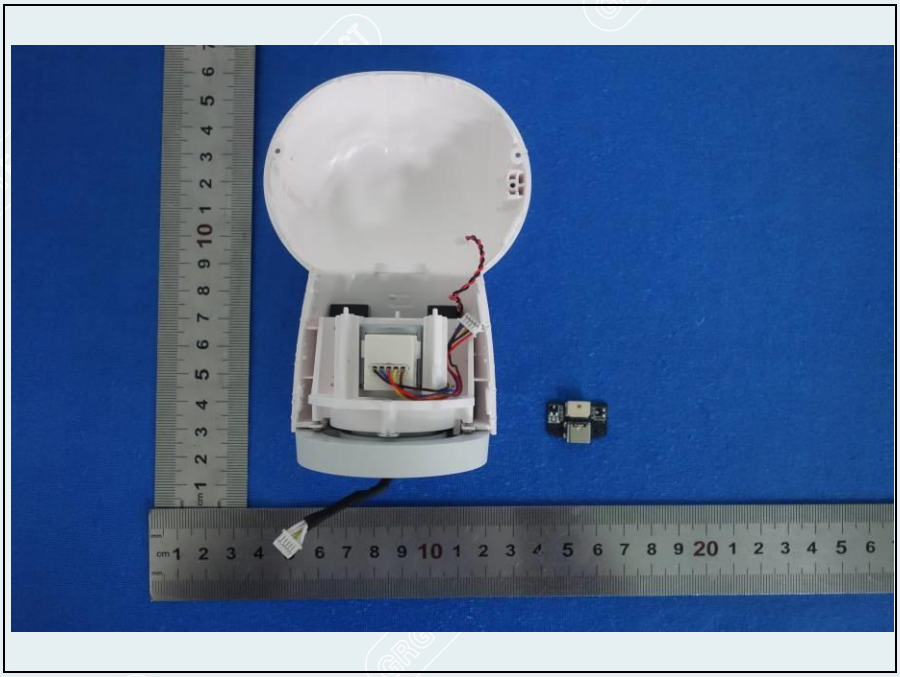

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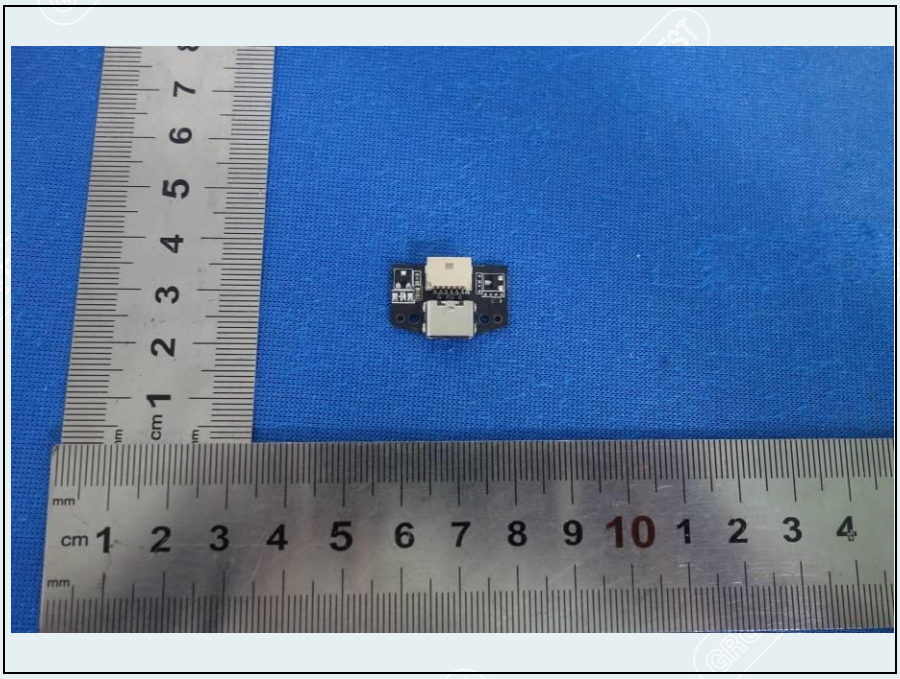

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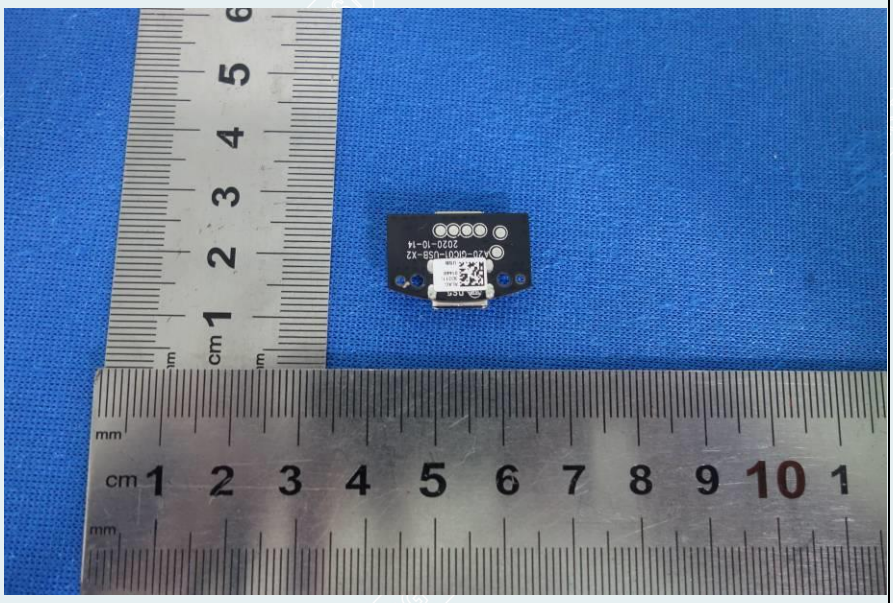
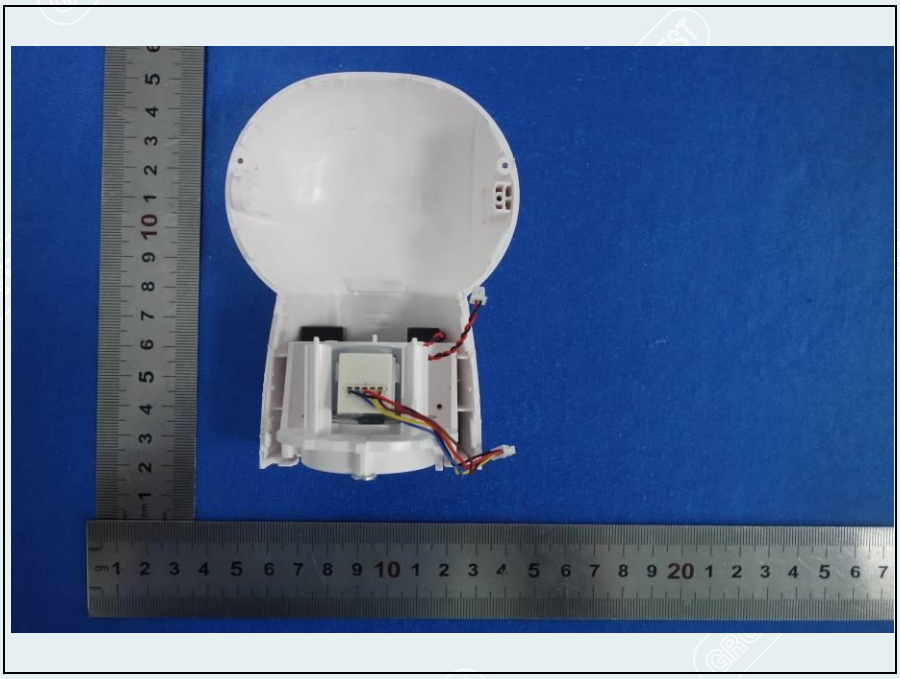


EUT-11

EUT-12

EUT-13



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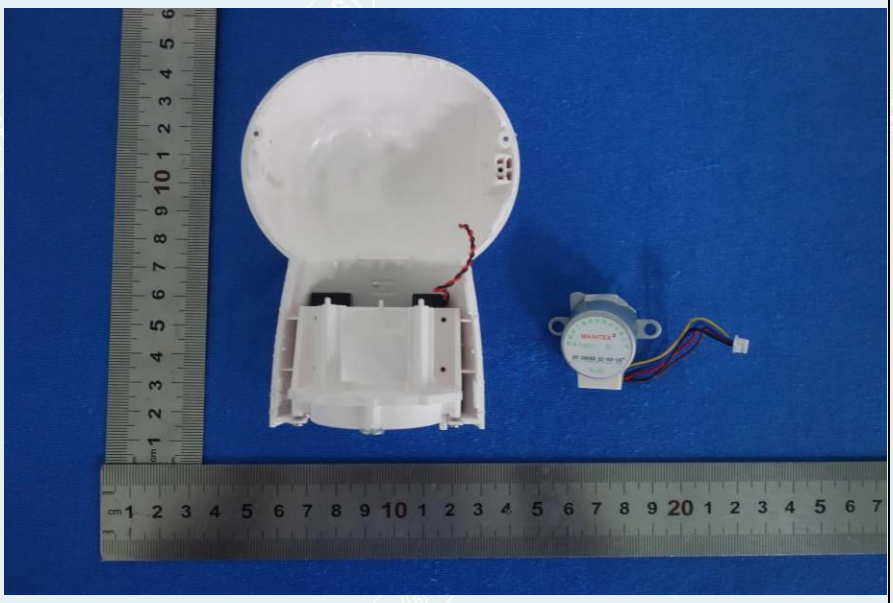

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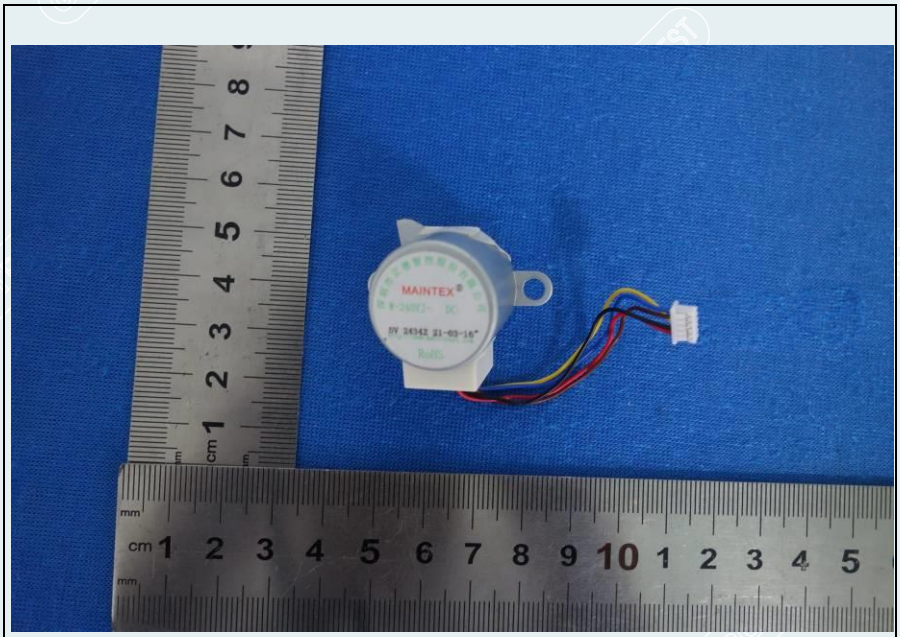

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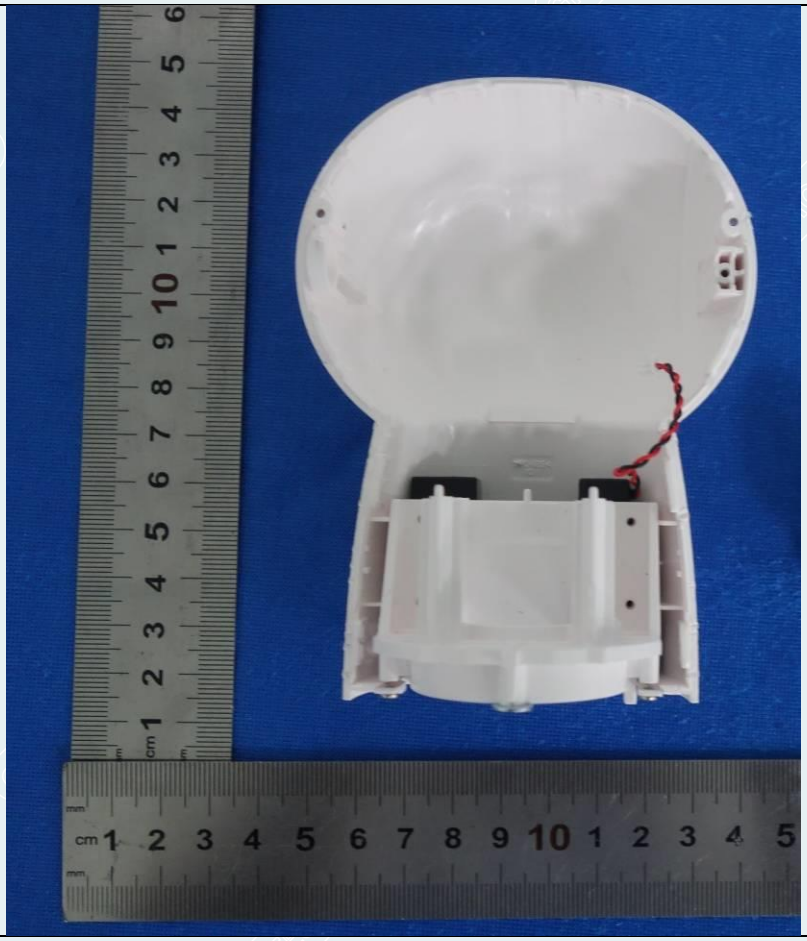

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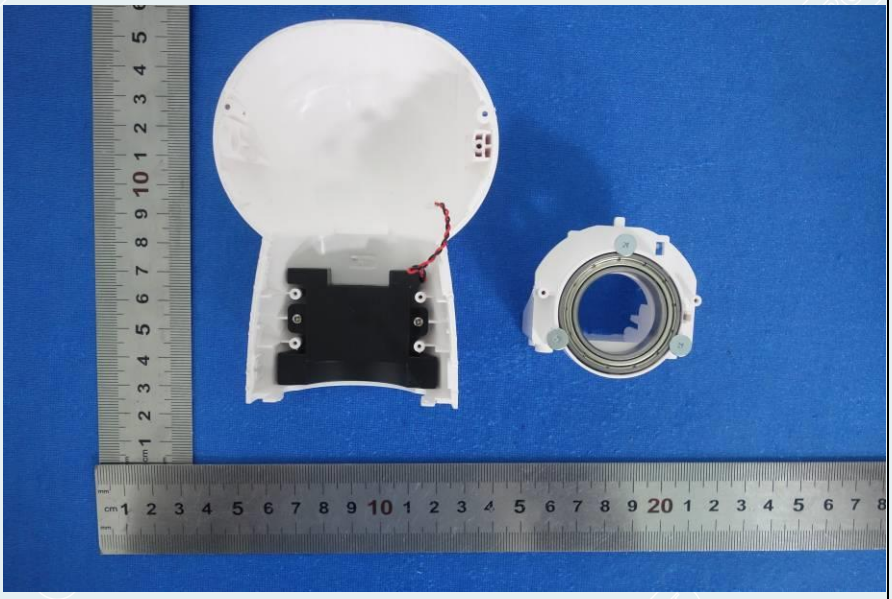

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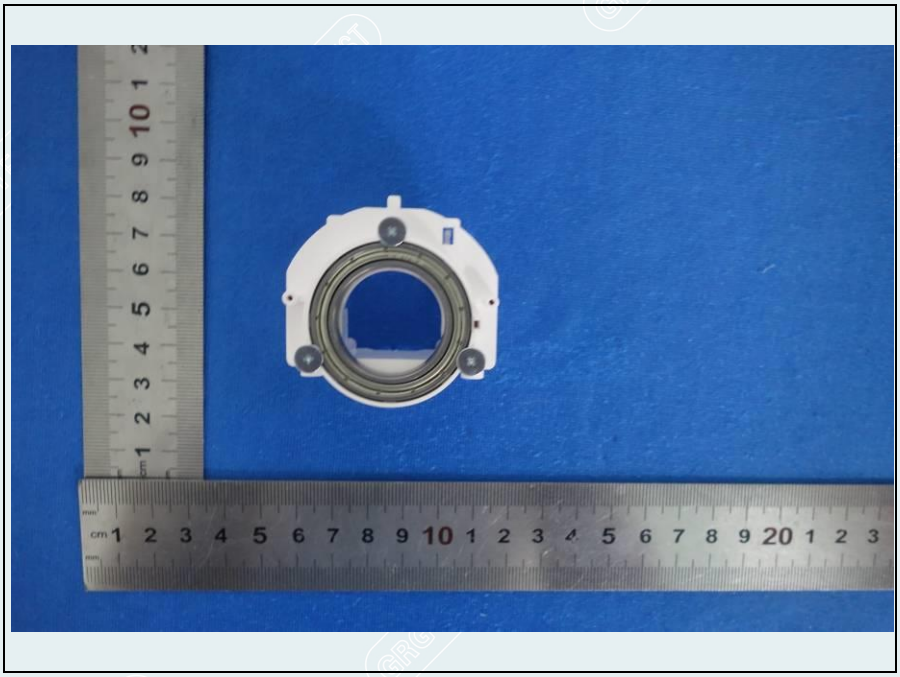

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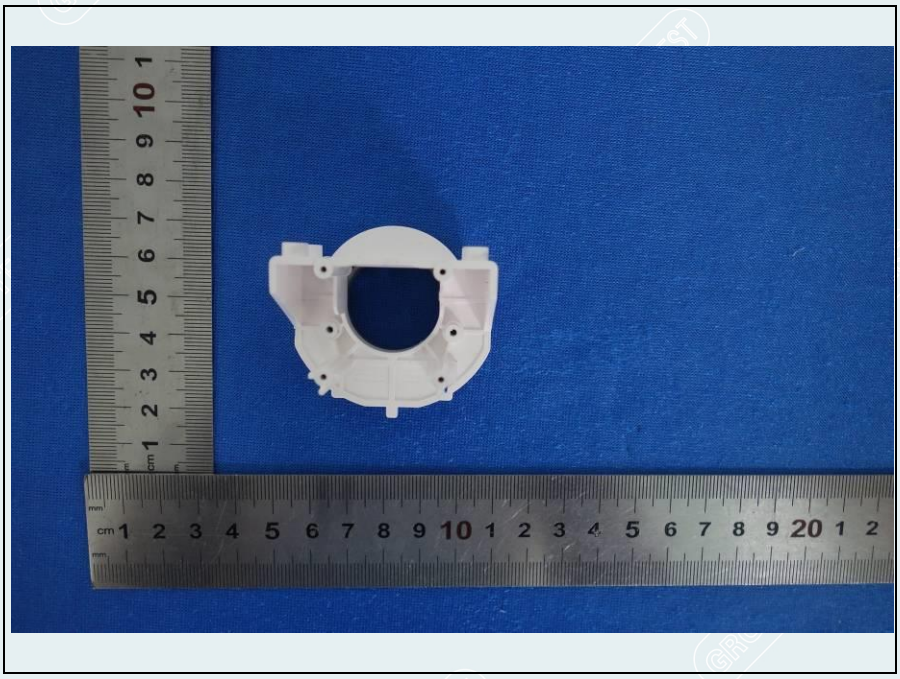

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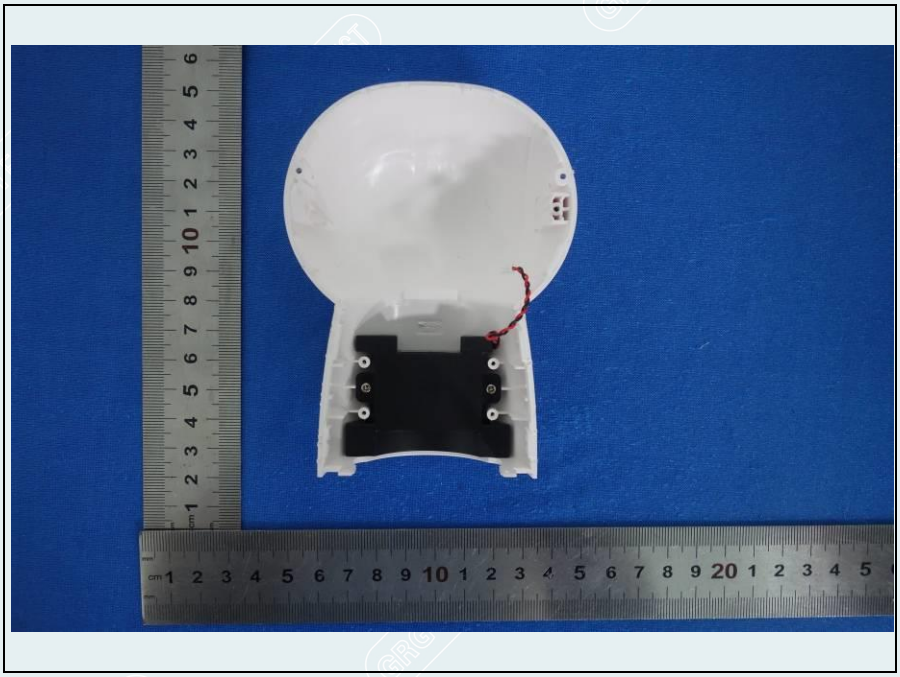

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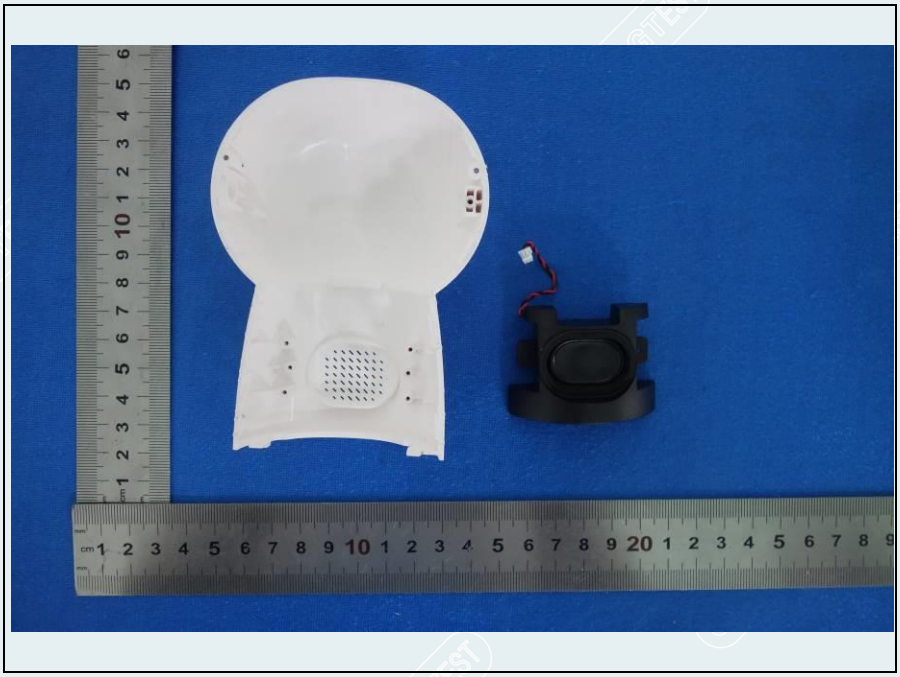

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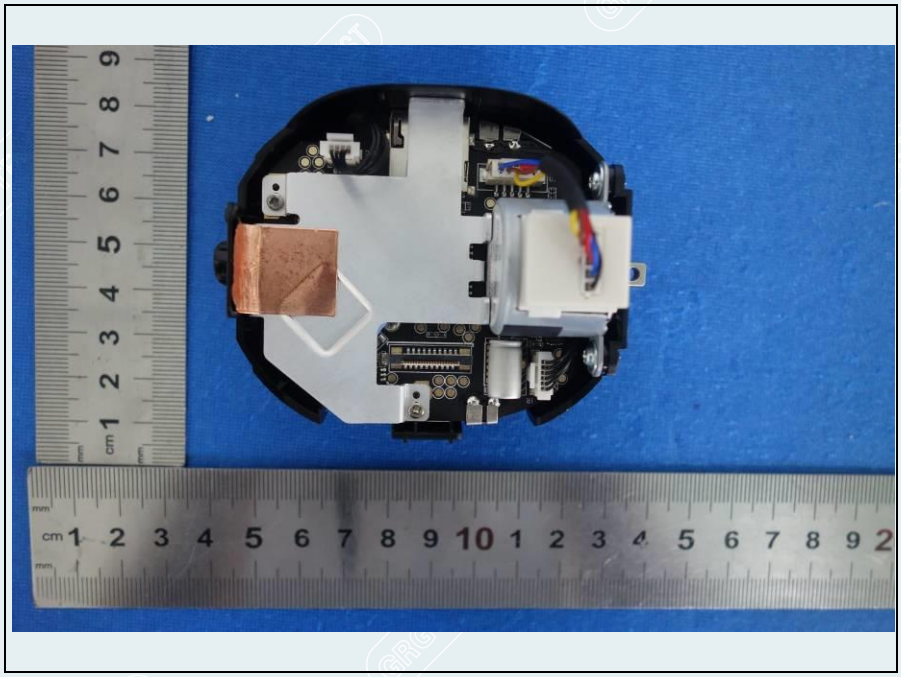

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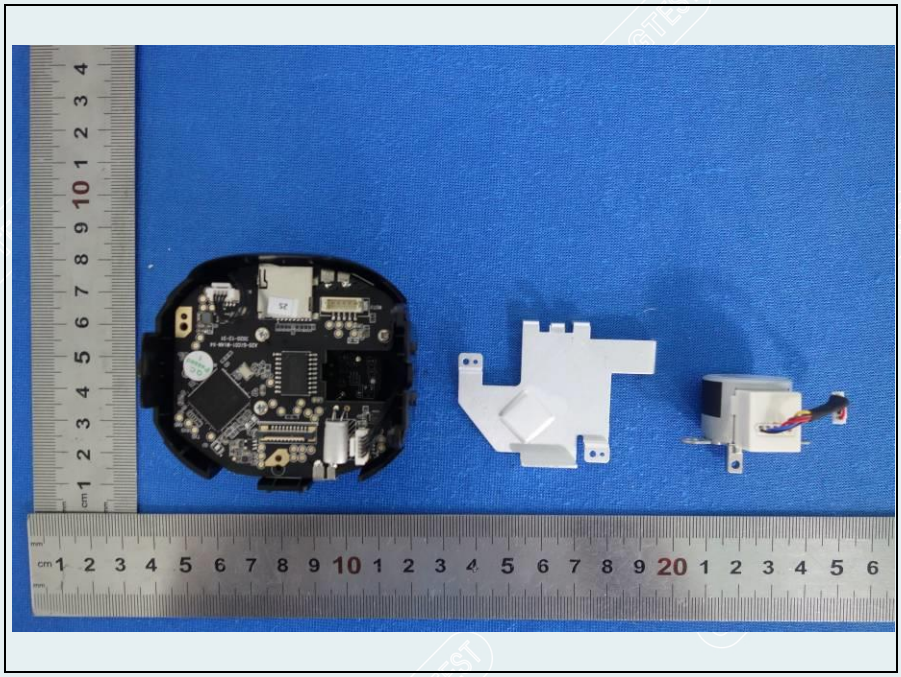

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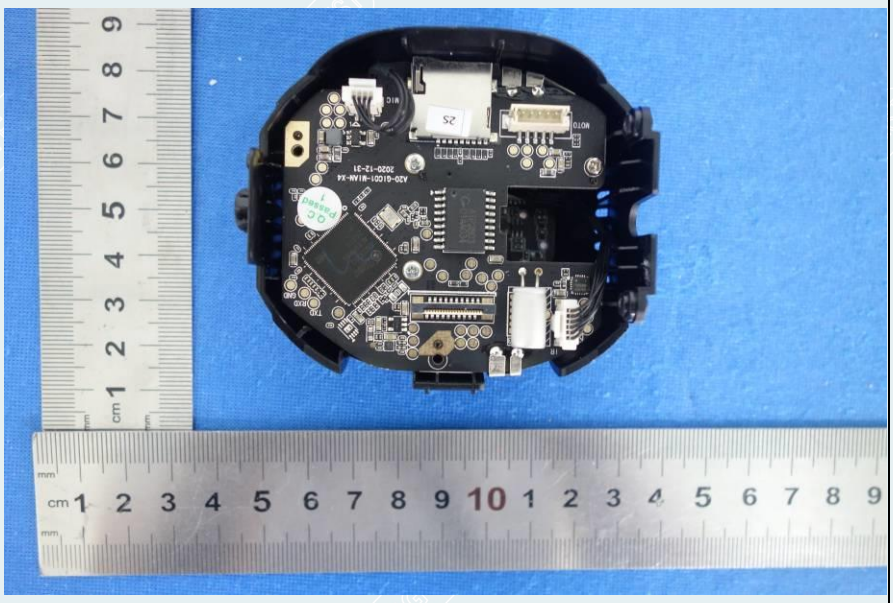

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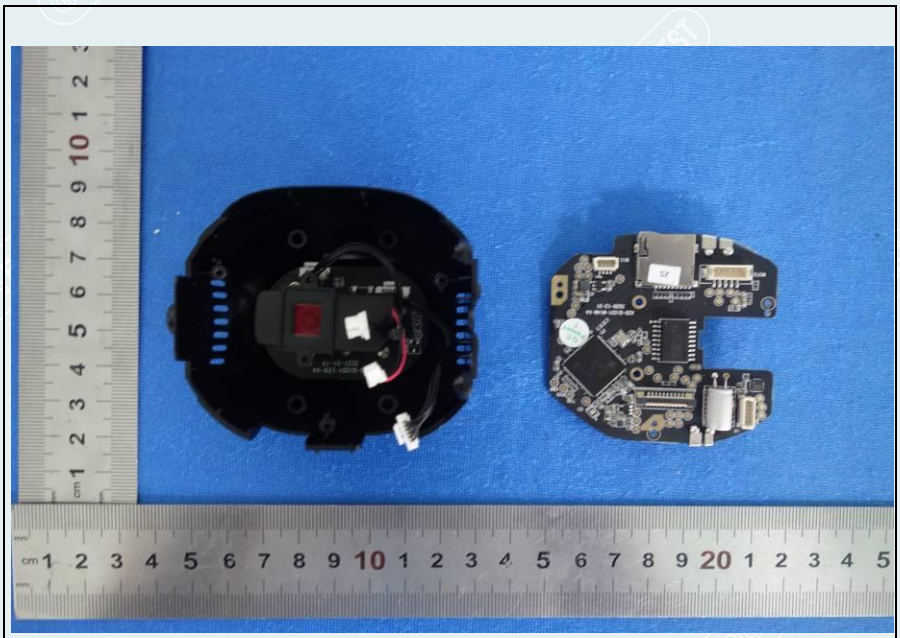

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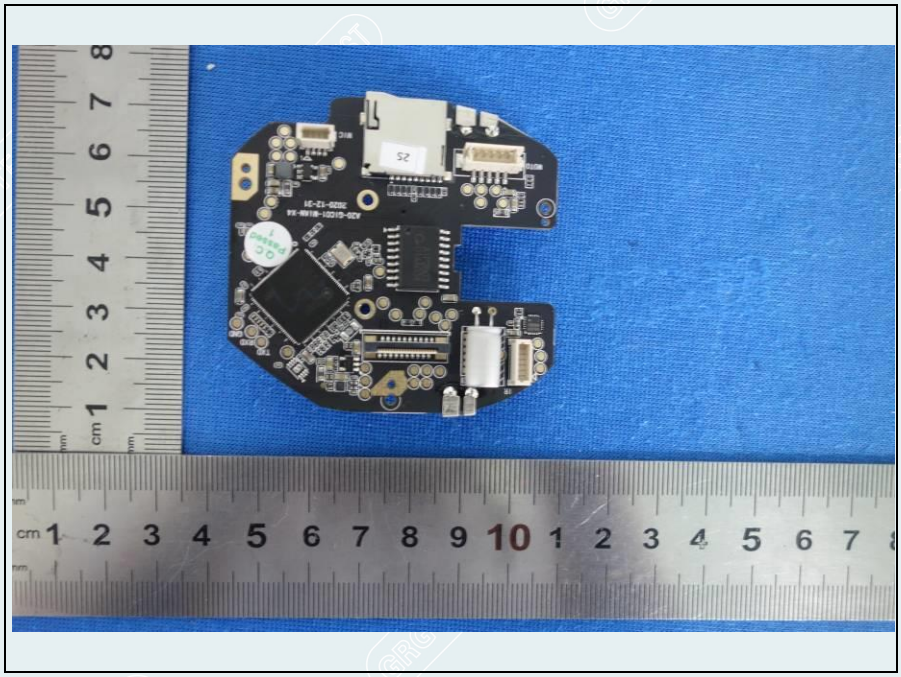

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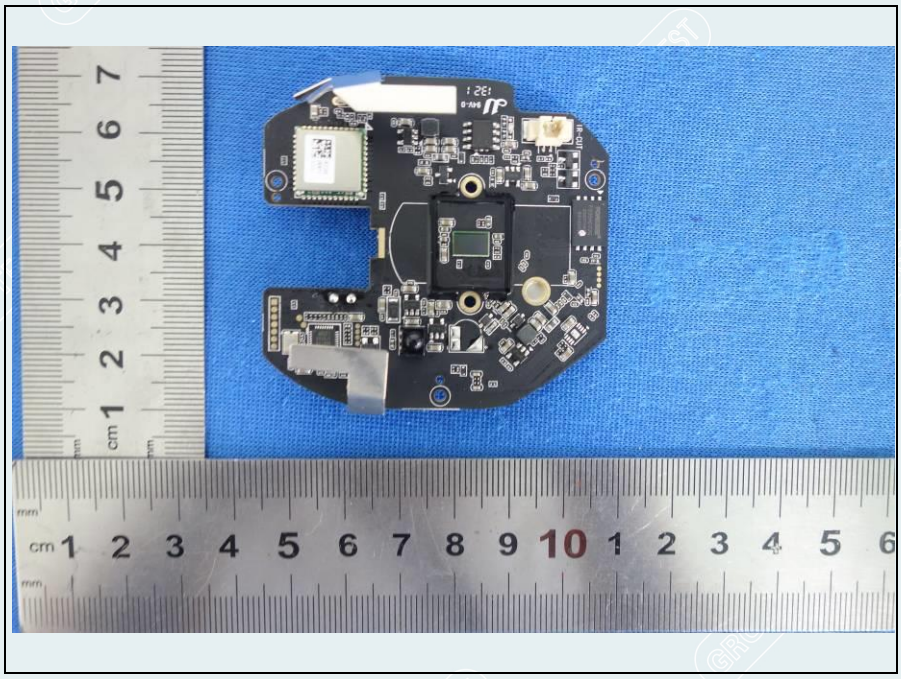

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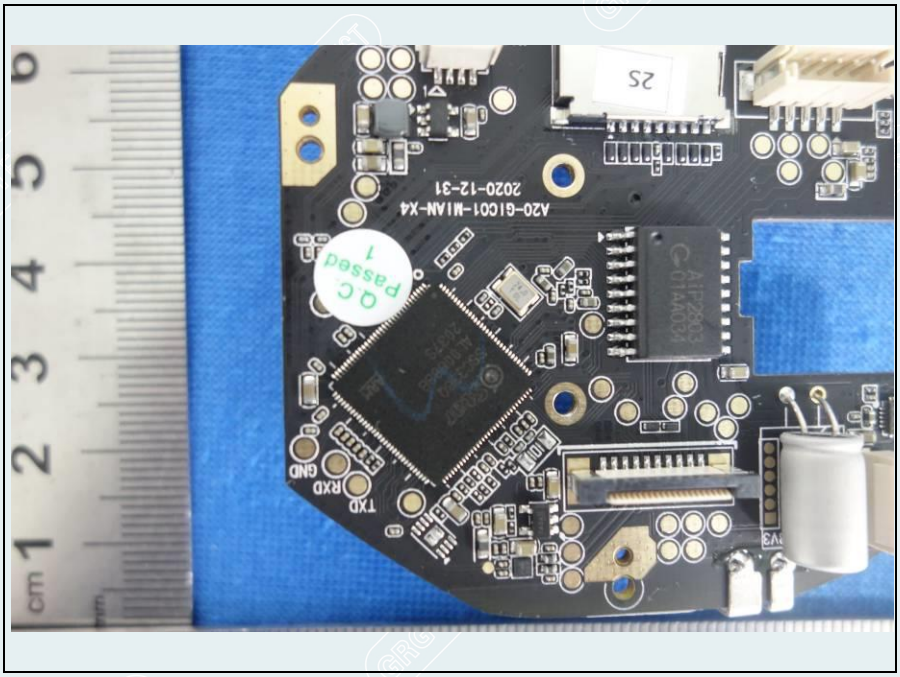

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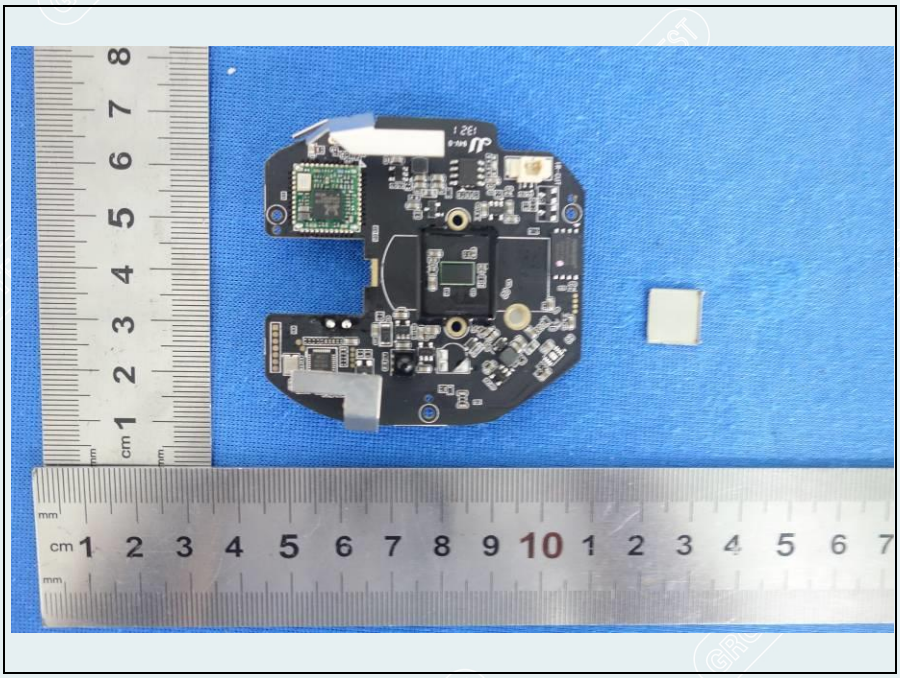

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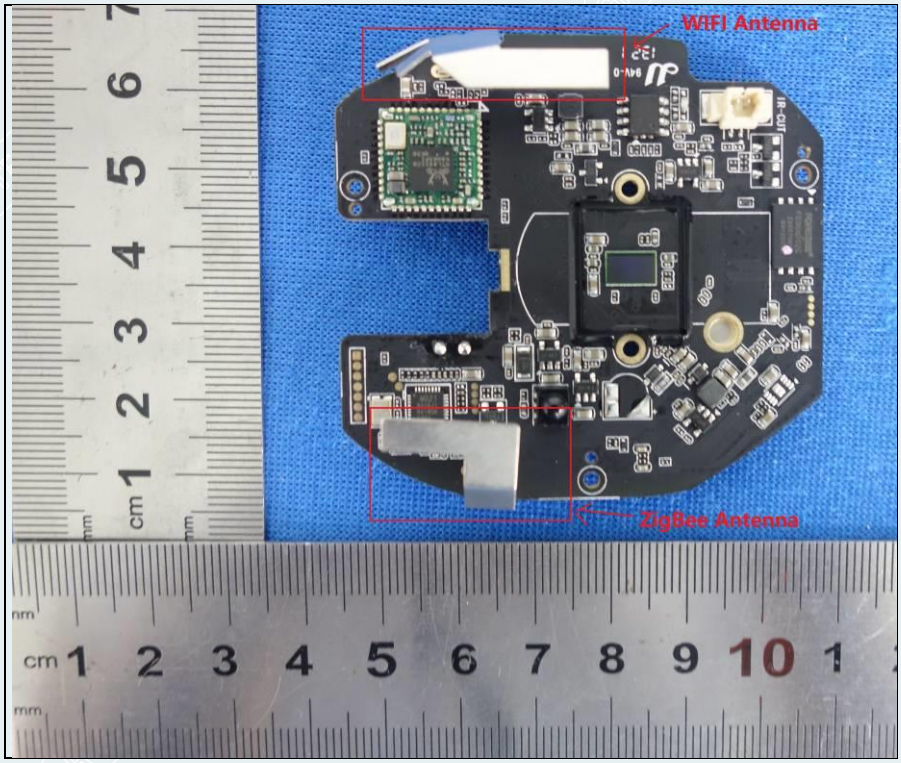

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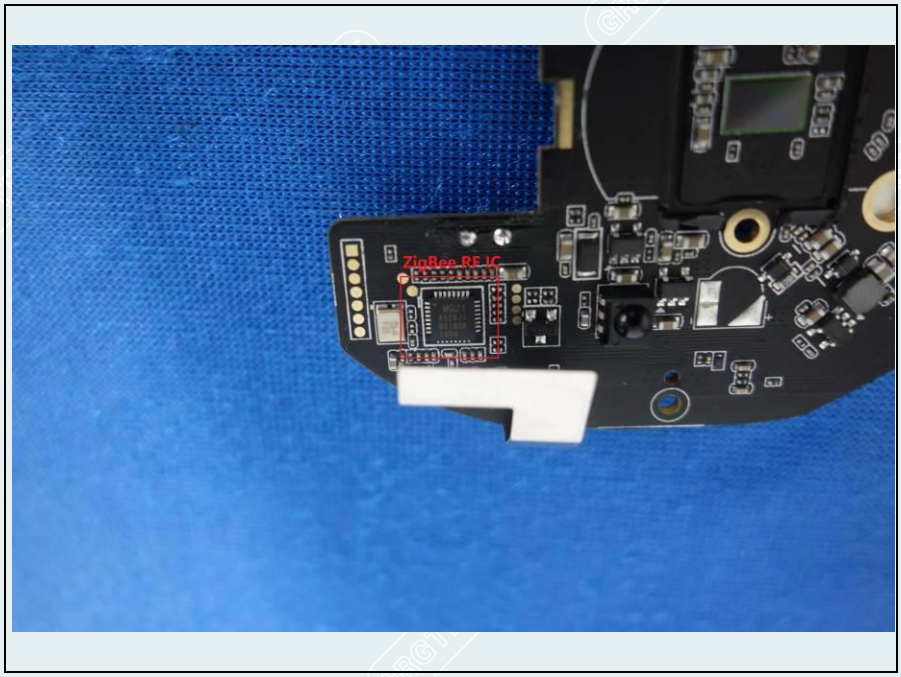

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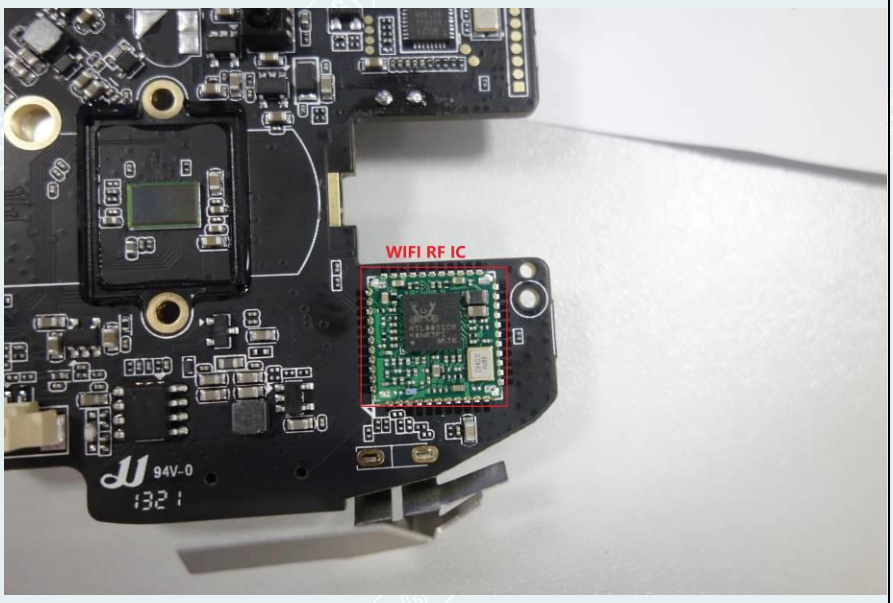

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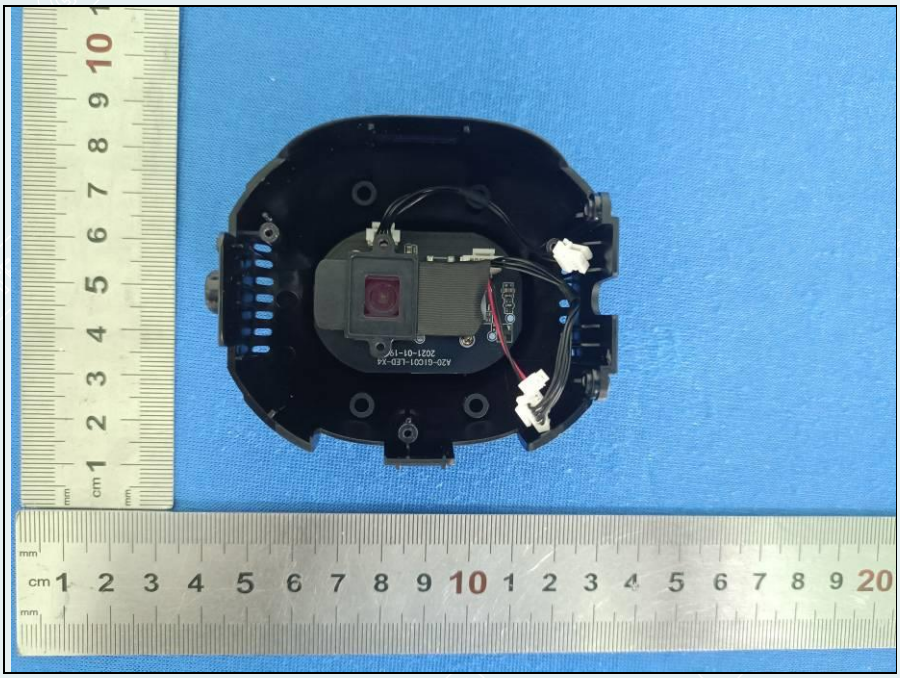

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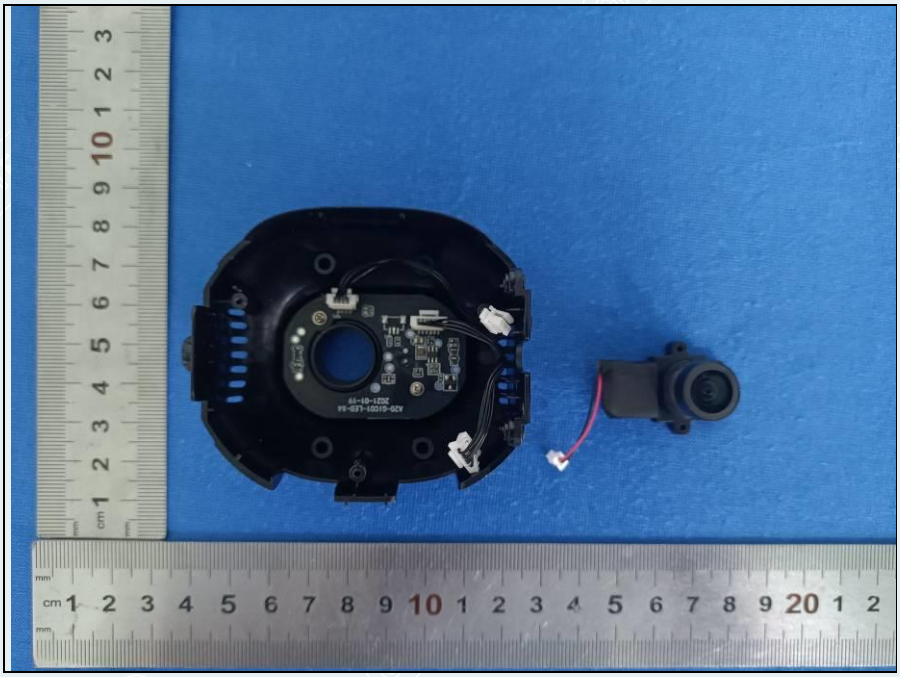

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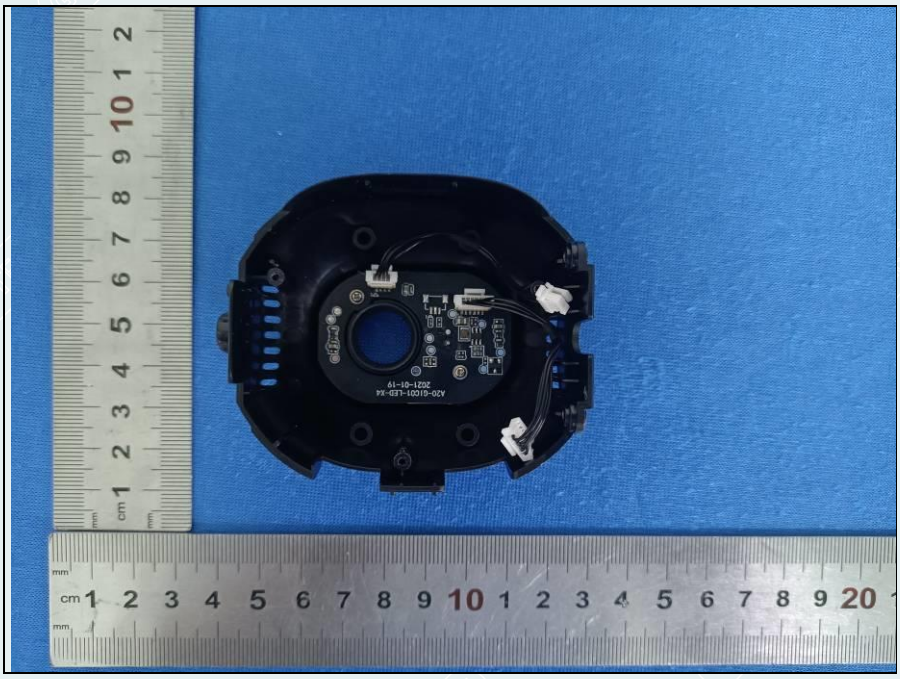

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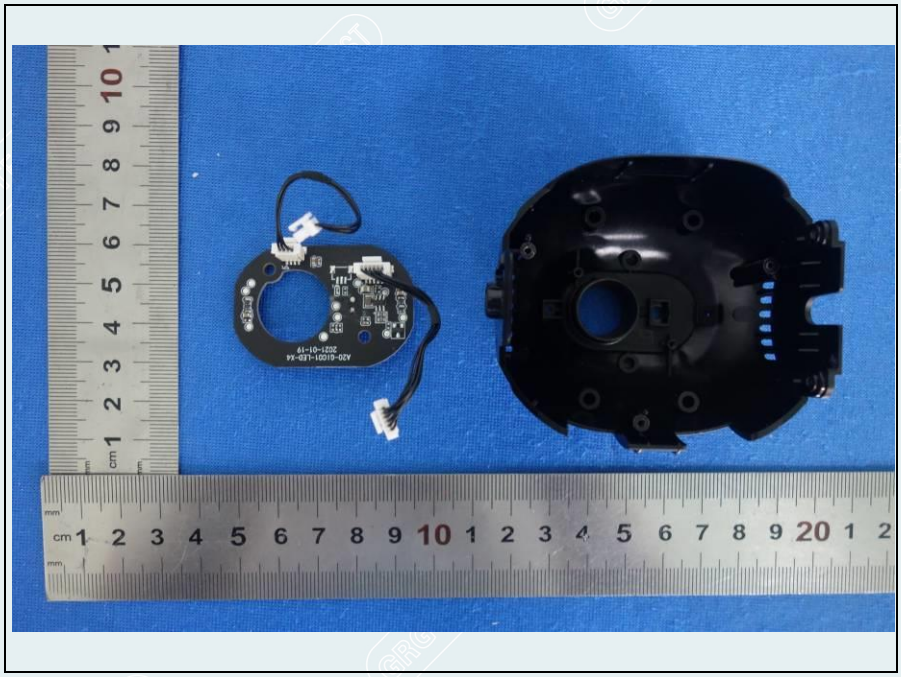

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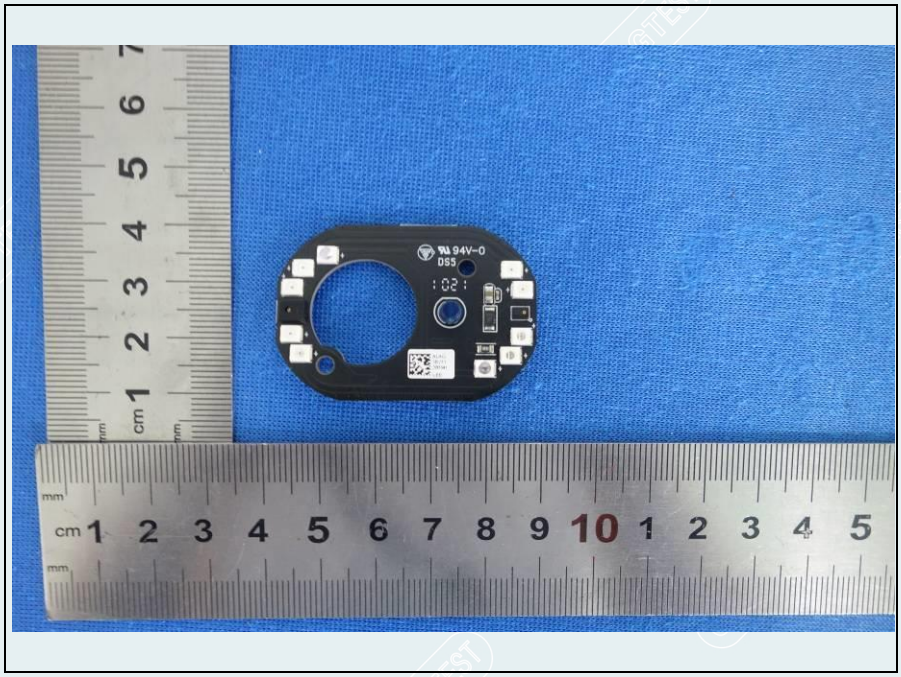

EUT-38

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