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检测
TESTING
CNAS L0446



Test Report

Verified code: 426836

Report No.: E20220818423001-3

Customer: Lumi United Technology Co., Ltd

Address: Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No.3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

Sample Name: Smart Video Doorbell G4, Chime Repeater

Sample Model: SVD-C01,SVD-C02

Receive Sample Date: Aug.19,2022

Test Date: Aug.19,2022 ~ Nov.16,2022

Reference Document: ETSI EN 301 489-17 V3.2.4 (2020-09) ElectroMagnetic Compatibility (EMC) standard for radio equipment and services;Part 17:Specific conditions for Broadband Data Transmission Systems;Harmonised Standard for ElectroMagnetic Compatibility 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 EN 55032:2015/A11:2020Electromagnetic compatibility of multimedia equipment – Emission Requirements EN 55035:2017/A11:2020Electromagnetic compatibility of multimedia equipment - Immunity requirements EN IEC 61000-3-2:2019/A1:2021 Electromagnetic compatibility(EMC) – Part 3-2: Limits– Limits for harmonic Current emissions (equipment input current ≤ 16 A per phase) EN 61000-3-3:2013/A2:2021 Electromagnetic compatibility (EMC) – Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection

Test Result: Pass

Prepared by: *Huang Lifang*

Reviewed by: *Wu Haoting*

Approved by: *Xiao Liang*

GUANGZHOU GRG METROLOGY & TEST CO., LTD

Issued Date: 2022-12-07

GUANGZHOU GRG METROLOGY & TEST CO., LTD.

Address: No.163, Pingyun Road, West of Huangpu Avenue, Guangzhou, Guangdong, China
Tel: (+86) 400-602-0999 FAX: (+86) 020-38698685 Web: <http://www.grgtest.com>



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REPORT ISSUED HISTORY

Report Version	Report No.	Description	Compile Date
1.0	E20220818423001-3	Original Issue	2022-11-16

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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 301 489-17 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 Mode 3	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.1.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/8.4	EN 55032:2015 annex A.3	Table A.10 Class B	PASS
Conducted Emission	Mode 1 Mode 2 Mode 3	EN 55032:2015/A11:2020	EN 55032:2015/A11:2020 annex A.3	Table A.10 Class B	PASS
Asymmetric mode conducted emissions	/	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.1.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/8.7	EN 55032:2015 annex A.3	Table A.12 Class B	Note ¹⁾
Asymmetric mode conducted emissions	/	EN 55032:2015/A11:2020	EN 55032:2015/A11:2020 annex A.3	Table A.12 Class B	Note ¹⁾
Radiated Emission	Mode 1 Mode 2 Mode 3	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.1.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/8.2 EN 55032:2015/A11:2020	EN 55032:2015/A11:2020 Table A.4 and A.5	Table A.4 Class B Table A.5 Class B	PASS
Harmonic current	Mode 1 Mode 2 Mode 3	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.1.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/8.5	EN 61000-3-2:2014	Class A	Note ²⁾
Harmonic current	Mode 1 Mode 2 Mode 3	EN IEC 61000-3-2:2019/A1:2021	EN IEC 61000-3-2:2019/A1:2021	Class A	Note ²⁾
Voltage fluctuations and flicker	Mode 1 Mode 2 Mode 3	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.1.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/8.6	EN 61000-3-3:2013	Meet Standards Limits For Pst, Tp = 10 min	PASS
Voltage fluctuations and flicker	Mode 1 Mode 2 Mode 3	EN 61000-3-3:2013/A2:2021	EN 61000-3-3:2013/A2:2021	Meet Standards Limits For Pst, Tp = 10 min	PASS

Immunity

Test Item	Test mode	Equipment test requirement	Test Method	Class / Severity	Test Result
Performance Standard: ETSI EN 301 489-17 V3.2.4 (2020-09) & ETSI EN 301 489-1 V2.2.3 (2019-11) & EN 55035:2017/A11:2020					
Electrostatic discharge (ESD)	Mode 1 Mode 2 Mode 3	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.2.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/9.3 EN 55035:2017/A11:2020 Table 1	EN 61000-4-2:2009	Test specification: ±2, ±4, ±8kV air discharge ±4kV Contact discharge Performance : Criteria B	PASS

RF electromagnetic field (RS)	Mode 1 Mode 2 Mode 3	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.2.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/9.2	EN61000-4-3	Test specification: Test level: For the frequency range 80MHz to 6000MHz, test level shall be 3 V/m, 80% AM(1kHz) Performance: Criteria A	PASS
RF electromagnetic field (RS)	Mode 1 Mode 2 Mode 3	EN 55035:2017/A11:2020 Table 1	IEC 61000-4-3	Test specification: For the frequency range 80MHz to 1000MHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz test level shall be 3 V/m, 80% AM(1kHz) Performance: Criteria A	PASS
Electrical fast transients(EFT)	Mode 1 Mode 2 Mode 3	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.2.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/9.4 EN 55035:2017/A11:2020 Table 4	EN 61000-4-4:2012	Test specification: AC power port: ± 1 kV, repetition rate: 5 kHz Performance: Criteria B	PASS
Surges	Mode 1 Mode 2 Mode 3	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.2.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/9.8	EN 61000-4-5	Test specification: AC power port: 1.2/50 us pulse line to line: ± 0.5 kV, ± 1 kV; Performance : Criteria B	PASS
Surges	Mode 1 Mode 2 Mode 3	EN 55035:2017/A11:2020 Table 4	IEC 61000-4-5	Test specification: AC power port: 1.2/50 us pulse line to line: ± 0.5 kV, ± 1 kV; Performance : Criteria B	PASS
Radio frequency continuous conducted(CS)	Mode 1 Mode 2 Mode 3	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.2.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/9.5	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)	Mode 1 Mode 2 Mode 3	EN 55035:2017/A11:2020 Table 4	IEC 61000-4-6	AC Input Power: 0.15MHz-10MHz 3V 10MHz-30MHz 3 to 1V 30MHz-80MHz 1V 80% AM(1kHz) Performance: Criteria A	PASS
Power frequency magnetic field	Mode 1 Mode 2 Mode 3	EN 55035:2017/A11:2020	IEC 61000-4-8	1A/m 50Hz/60Hz Performance Criterion A	PASS
Voltage Dips & Short Interruptions	Mode 1 Mode 2 Mode 3	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.2.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/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;	PASS

				iii)70% residual voltage 25 cycle. Performance: Criteria C; 2. Voltage interruption: 0% residual voltage during 250 cycles. Performance: Criteria C	
Voltage Dips & Short Interruptions	Mode 1 Mode 2 Mode 3	EN 55035:2017/A11:2020 Table 4	IEC 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 Performance: Criteria C 2. Voltage interruption: 0% residual voltage during 250 cycles for 50Hz. Performance: Criteria C	PASS

Note1:

- 1): Not applicable, since the EUT no telecommunication port.
- 2): Not applicable, since The EUT with a rated power of less 75 W.

Note2:

Pre-scan all modes of power supply to Smart Video Doorbell G4,AC 12V/ 24V supply by AC power convert,DC 8V/24V supply by DC adapter and DC 4.5V supply by battery,then the report display the worst case and data.(AC 24V supply by AC power convert, DC 24V supply by DC adapter and DC 4.5V supply by battery)

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2. GENERAL DESCRIPTION OF EUT

2.1 APPLICANT

Name: Lumi United Technology Co., Ltd
Address: Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No.3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

2.2 MANUFACTURER

Name: Lumi United Technology Co., Ltd
Address: Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No.3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

2.3 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Equipment: Smart Video Doorbell G4, Chime Repeater
Model No.: SVD-C01,SVD-C02
Adding Models: SVD-C03,SVD-C04
Models Difference: That EUT (Smart Video Doorbell G4) Model Numbers SVD-C01 and SVD-C03 have the same technical construction including circuit diagram,PCB LAYOUT,hardware version and software version identical,except color of enclosures and sales method are different.
That EUT (Chime Repeater) Model Numbers SVD-C02 and SVD-C04 have the same technical construction including circuit diagram,PCB LAYOUT,hardware version and software version identical,except color of enclosures and sales method are different.
Trade Name: Aqara
Power Supply: Smart Video Doorbell G4:
AC 12-24V power supplied by AC power convert
DC 8-24V power supplied by DC adapter
DC 4.5V power supplied by battery
Chime Repeater:
Input power:5V ---1A
Frequency Band: 2412MHz to 2472MHz
Antenna Type: FPC antenna
Hardware Version: 1.0.4_0010
Software Version: Smart Video Doorbell G4: T0
Chime Repeater: X1
Sample submitting way: Provided by customer Sampling
Sample No: E20220818423001-0005, E20220818423001-0006
Note: Smart Video Doorbell G4 and Chime Repeater are used in combination.Models of this test are Smart Video Doorbell G4 (SVD-C01) and Chime Repeater (SVD-C02).

2.4 TEST MODE

Mode No.	Description of the modes
Mode 1	Smart Video Doorbell G4 power supply by battery, Chime Repeater power supply by adapter. Under the same external network, the repeater is connected to the mobile phone, and the doorbell is connected to the repeater through the internal network. Open the mobile phone APP to have a video conversation with the doorbell. Open the screen recording,content automatically stored to Chime Repeater TF card.When the doorbell is pressed, the repeater makes a sound.
Mode 2	Smart Video Doorbell G4 power supply by AC power convert, Chime Repeater power supply by adapter. Under the same external network, the repeater is connected to the mobile phone, and the doorbell is connected to the repeater through the internal network. Open the mobile phone APP to have a video conversation with the doorbell. Open the screen recording,content automatically stored to Chime Repeater TF card.When the doorbell is pressed, the repeater makes a sound.
Mode 3	Smart Video Doorbell G4 power supply by DC adapter, Chime Repeater power supply by adapter. Under the same external network, the repeater is connected to the mobile phone, and the doorbell is connected to the repeater through the internal network. Open the mobile phone APP to have a video conversation with the doorbell. Open the screen recording,content automatically stored to Chime Repeater TF card.When the doorbell is pressed, the repeater makes a sound.

2.5 LOCAL SUPPORTIVE INSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Note
Router	Fenglian	P2	100007770-30001051	/
Phone	OPPO	ACE2	A00000A528001E	/
Adapter 1	Fenglian	NTGP1201000GB	/	/
Adapter 2	Tianyin	TPA-98B050100CU01	/	/
AC power convert	Jingsai	JS-AC2410	/	/
DC Adapter 3	Xiaerduo	HMQ-Z24T-24C	/	/

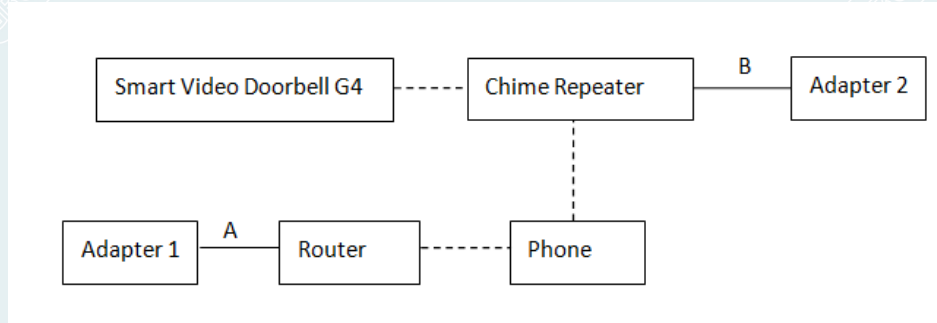
Cable:

No.	Cable Type	Qty.	Shielded Type	Ferrite Core(Qty.)	Length
A	DC cable	1	No	0	1.5m
B	USB cable	1	No	0	1.0m
C	AC Cable	1	No	0	1.2m
D	DC Cable	1	No	0	1.2m

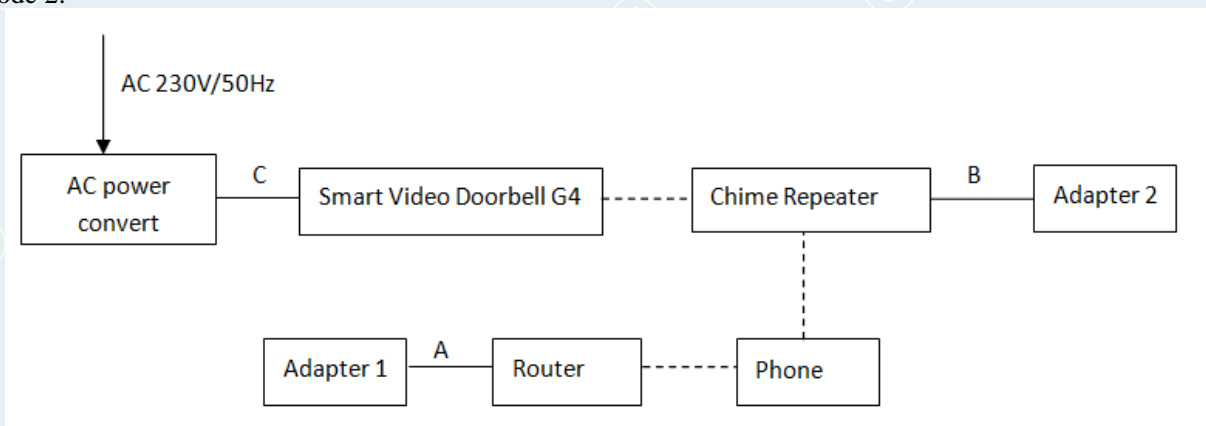
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2.6 CONFIGURATION OF SYSTEM UNDER TEST

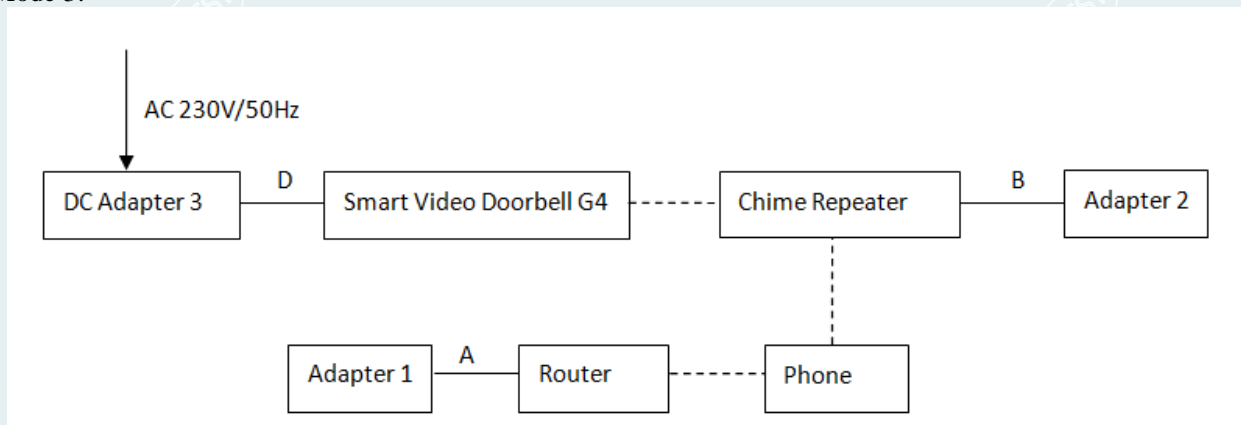
Mode 1:



Mode 2:



Mode 3:



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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.: 518110

Tel : 0755-61180008

Fax: 0755-61180008

3.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA A2LA(Certificate#:2861.01)

China CNAS(L0446)

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

Canada ISED (Company Number: 24897, CAB identifier:CN0069)

USA FCC (Registration Number: 759402, Designation Number:CN1198)

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

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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	150kHz~30MHz	3.4 dB ¹⁾
Radiated Emission (3m)	30MHz~200MHz(H)	4.5 dB ¹⁾
	200MHz~1000MHz(H)	4.4 dB ¹⁾
	30MHz~200MHz(V)	4.5 dB ¹⁾
	200MHz~1000MHz(V)	4.4 dB ¹⁾
	1GHz~6GHz(H)	4.5 dB ¹⁾
	1GHz~6GHz(V)	4.5 dB ¹⁾
Harmonic Current	/	2)
Voltage Fluctuation and Flicks	/	2)
Electrostatic discharge	/	2)
Radio-Frequency Electromagnetic Field	/	2)
Electrical fast transient/burst	/	2)
Surge	/	2)
Conducted radio frequency disturbances	/	2)
Power frequency magnetic field	/	2)
Voltage Dip & Voltage Interruptions	/	2)

Note¹⁾: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

²⁾ Tests have proved that, EMS test item equipment meet the requirements of the standard with a confidence level of not less than 95%.

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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				
Test software	EZ	CCS-3A1-CE	/	/
Test Receiver	R&S	ESCI	100783	2023-08-28
LISN(EUT)	R&S	ENV216	101543	2023-09-13
Radiated Emission (Below 1GHz)				
Test S/W	EZ	CCS-03A1	/	/
Test Receiver	R&S	ESR7	102444	2023-09-02
Preamplifier	EMEC	EM330	I00426	2023-03-05
Bi-log Antenna	Schwarzbeck	VULB9160	VULB9160-3402	2023-10-23
Radiated Emission (Above 1GHz)				
Test software	Tonscend	JS32-RE	/	/
Spectrum Analyzer	KEYSIGHT	N9010A	MY52221469	2023-06-29
Preamplifiers	Tonscend	TAP01018048	AP20E8060075	2023-05-05
Horn antenna	Schwarzbeck	BBHA 9120D	02143	2022-10-22
Harmonic Current, Voltage Fluctuation and Flicks				
Test S/W	/	CTS4	/	/
Power Source	SCHAFFNER	NSG1007	54789	2023-03-08
Harmonic & Flicker Tester	SCHAFFNER	CCN1000	72045	2023-08-28
Electrostatic discharge				
Dito ESD Simulator	EM Test	dito	V0809103493	2023-10-21
Radio-Frequency Electromagnetic Field				
Test S/W	Tonscend	JS35-RS	/	/
Signal generator	R&S	SMA100A	100434	2023-08-19
Switch	TOYO	BS5000	/	/
Power Meter	Keysight	N1914A	MY57090009	2023-09-29
Power Probe	Keysight	E9301A	MY57060008	2023-08-19
Power Probe	Keysight	E9301A	MY56520006	2023-08-19
Log-periodic broadband antenna	Schaffner	CBL6143	5082	2023-01-08

Dual directional Coupler	AR	DC 6180A	0328212	2023-09-07
Power Amplifier	SCHAFFNER	CBA9433	3007	2023-07-12
Microwave Log.-Per. Antenna	Schwarzbeck	STLP9149	9149-163	2023-09-11
Power Amplifier	Milmega	AS1860-50	1079232	2023-10-20
Power Amplifier	TESEQ	CBA 3G-050	T44161	2023-04-06
Dual directional Coupler	AR	DC 7144A	327057	2023-09-07
Electrical fast transient/burst				
Test S/W	/	Win3025 Version 4.00	/	/
Fast Transients/Burst Generator	TESEQ	NSG 3025	26861	2023-08-28
Surge				
Combined wave lightning surge simulator	3ctest	CWS 600G	ES0381813	2022-10-29
Lightning surge coupling decoupling network	3ctest	SPN 3618T	ES0941720	2022-11-05
Conducted radio frequency disturbances				
Test S/W	Tonscend	JS35-CS	/	/
Conduction and radiation immunity testing system	TESEQ	NSG4070	25807	2023-04-06
Attenuator	Weinschel corp	40-6-34	QQ986	2023-08-19
CDN	Luthi	CDN801-M2	1897	2023-08-28
Voltage Dip & Voltage Interruptions				
Test S/W	AMETEK	AC Source CIGuiSII-500lix	2.0.0.7-No v.2006	/
Power Source	SCHAFFNER	NSG1007	54789	2023-03-08
current switchgear	TESEQ	NSG2200-1	A17820	2023-09-07
Harmonic & Flicker Tester	SCHAFFNER	CCN1000	72045	2023-08-28

Power frequency magnetic field				
Test S/W	TESEQ	Win2120 Ver6.00	/	/
Power Source	SCHAFFNER	NSG1007	54789	2023-03-08
Harmonic & Flicker Tester	SCHAFFNER	CCN1000	72045	2023-08-28
Power Frequency Magnetic Field Signal Generator	SCHAFFNER	INA2141	6003	2023-08-28
Induction coil Interface	SCHAFFNER	INA-702	711-1115	2023-08-28

Note: The calibration interval of the above test instruments is 12 months.

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5. EMISSION TEST

5.1 RADIATED EMISSION MEASUREMENT (RE)

Test Requirement: ETSI EN 301 489-17 V3.2.4(2020-09)/7.1.1
 ETSI EN 301 489-1 V2.2.3(2019-11)/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 (dBuV/m)		
			Peak (PK)	Quasi-peak (QP)	Average (Avg)
30 to 230	10	120kHz	/	30	/
230 to 1000	10	120kHz	/	37	/

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

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

----- The following blanks -----

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 or 10m 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 $0.8\text{ m} \pm 0.01\text{ m}$, 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 Floor-standing equipment.

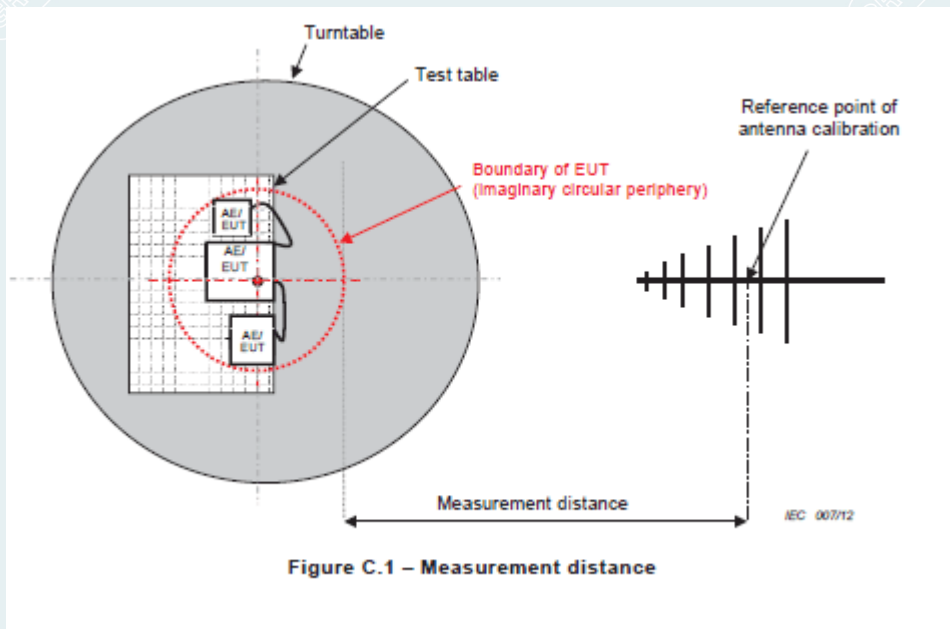
Interface cables, loads, and devices should be connected to at least one of each type of the interface ports of the EUT and, where practical, each cable shall be terminated in a device typical for its actual use. Where there are multiple interface ports of the same type, a typical number of these devices 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.

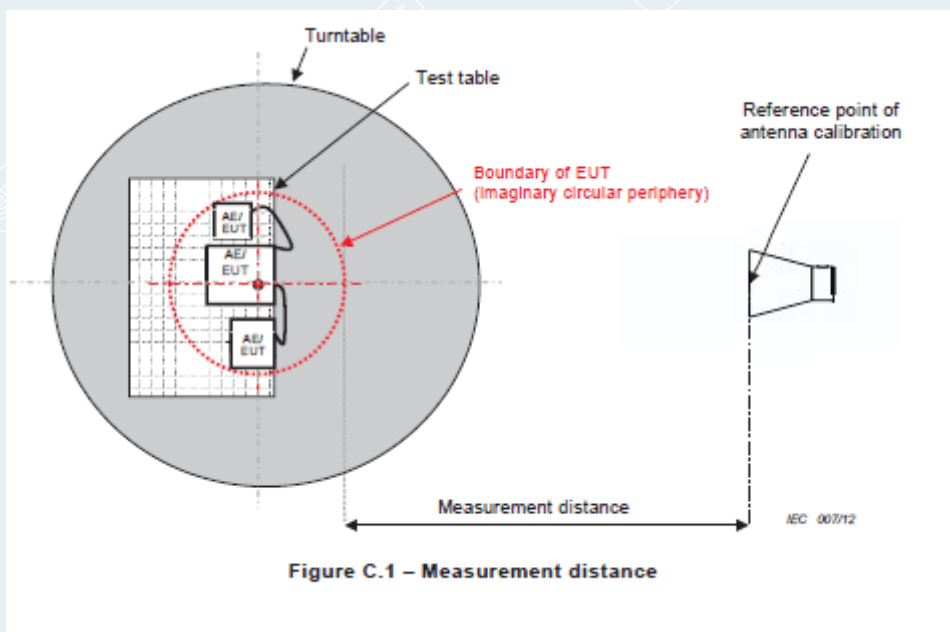
(2) Procedure of Final Test

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



Below the frequency of 1GHz



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
XXXX	53.74	-31.44	22.30	30	-7.70	QP

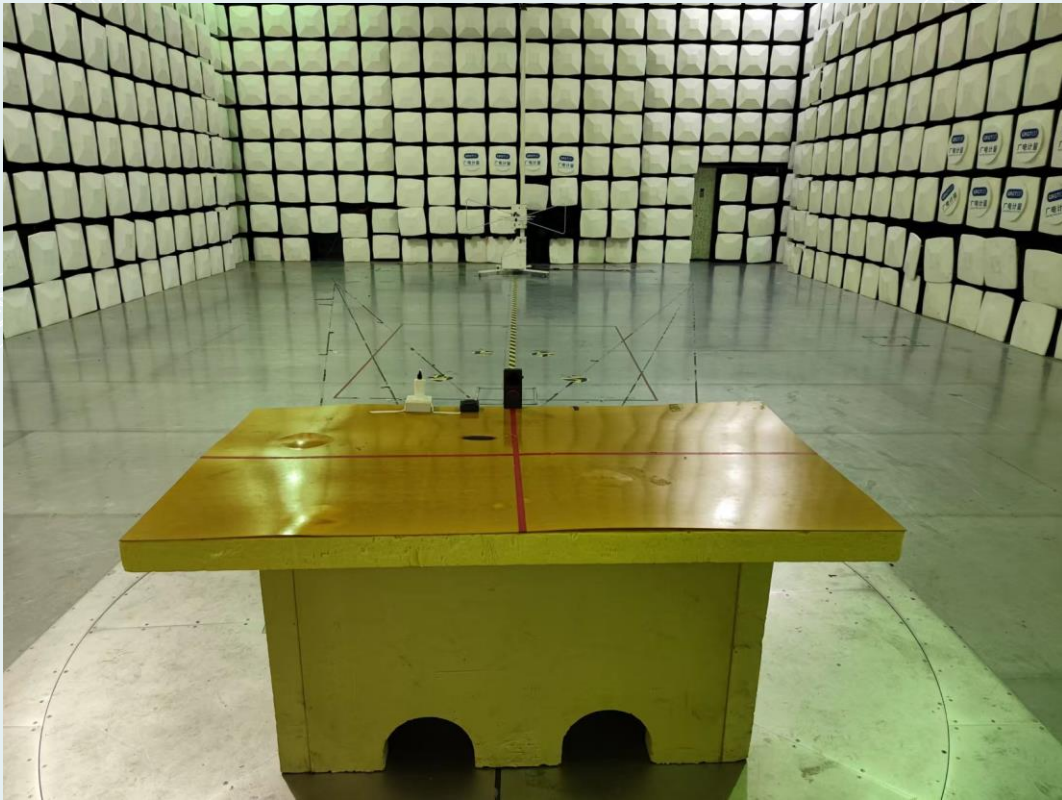
- Frequency (MHz) = Emission frequency in MHz
- Reading (dBuV) = Uncorrected Analyzer / Receiver reading
- Correct Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain
- Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)
- Limit (dBuV/m) = Limit stated in standard
- Over (dB) = Result (dBuV/m) – Limit(dBuV/m)
- QP = Quasi-peak Reading

Above 1GHz

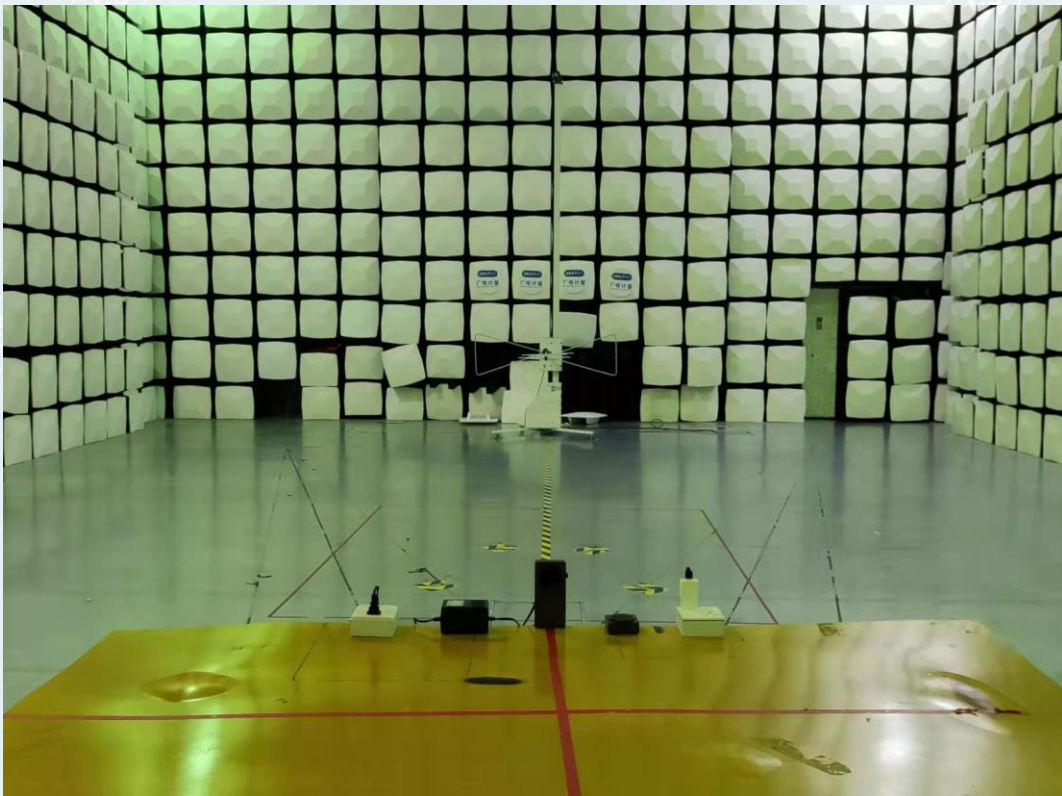
Frequency (MHz)	Reading (dBuV)	Level (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Remark
XXXX	56.70	34.18	-22.52	74	39.82	Peak
XXXX	46.34	23.80	-22.54	54	30.20	AVG

- 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

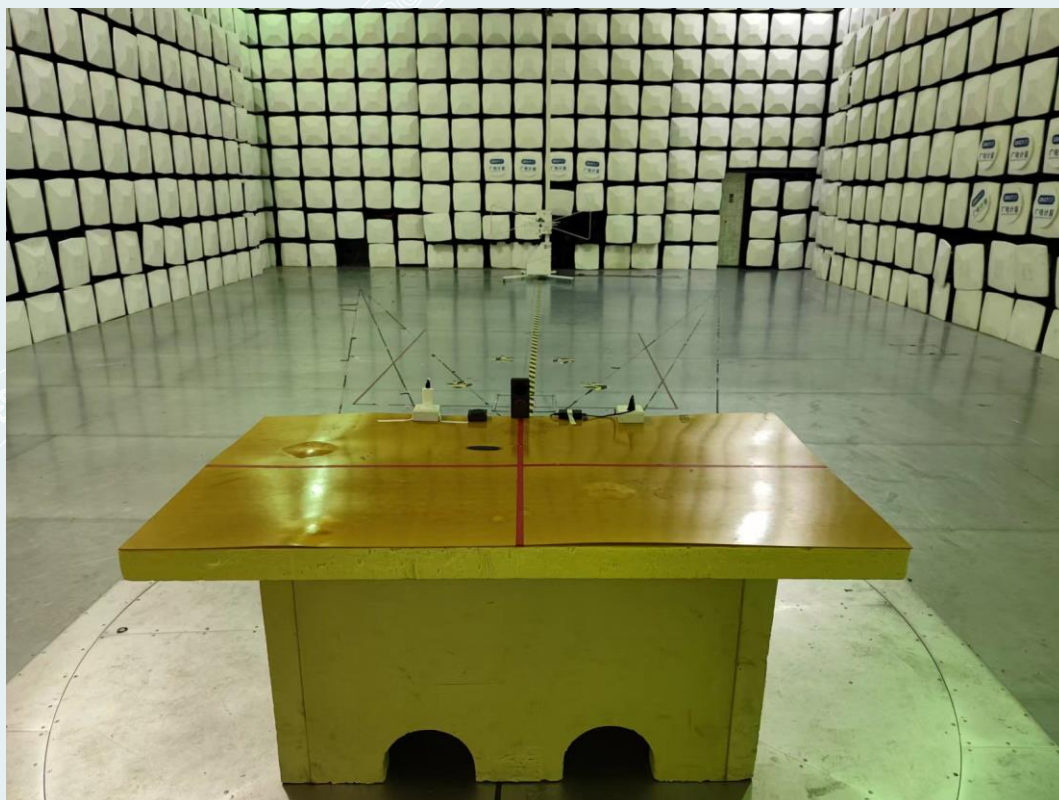
5.1.5 PHOTOGRAPH OF THE TEST ARRANGEMENT



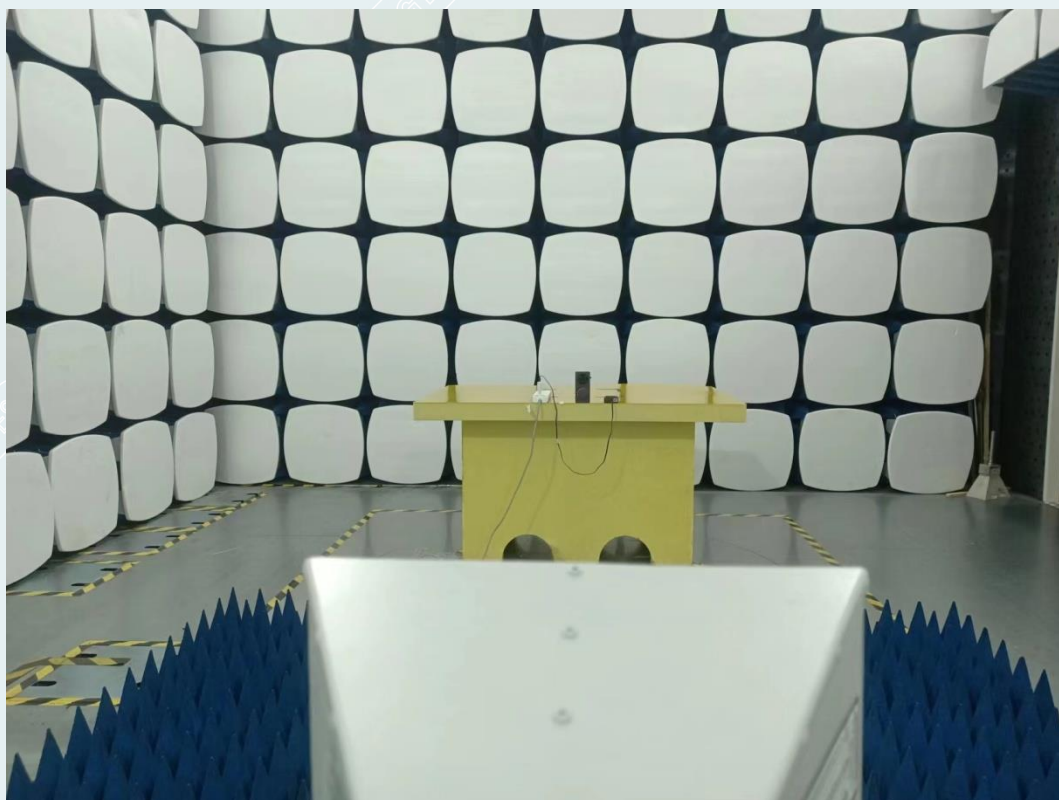
Below 1GHz (Mode 1)



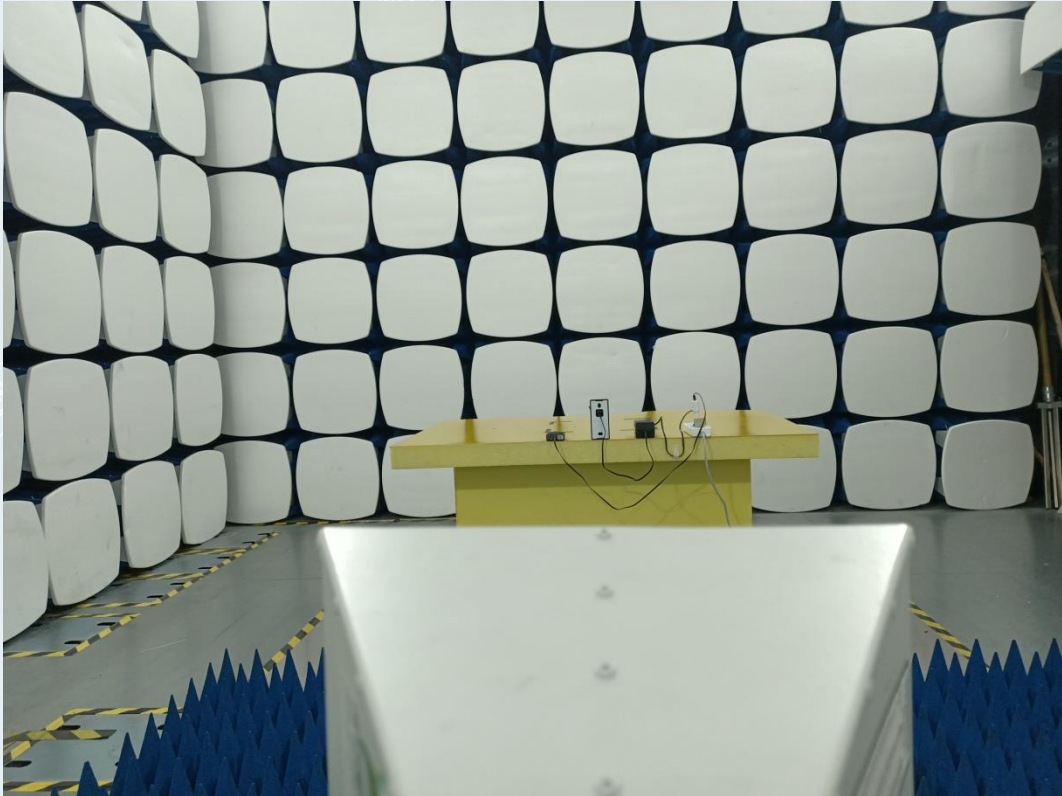
Below 1GHz (Mode 2)



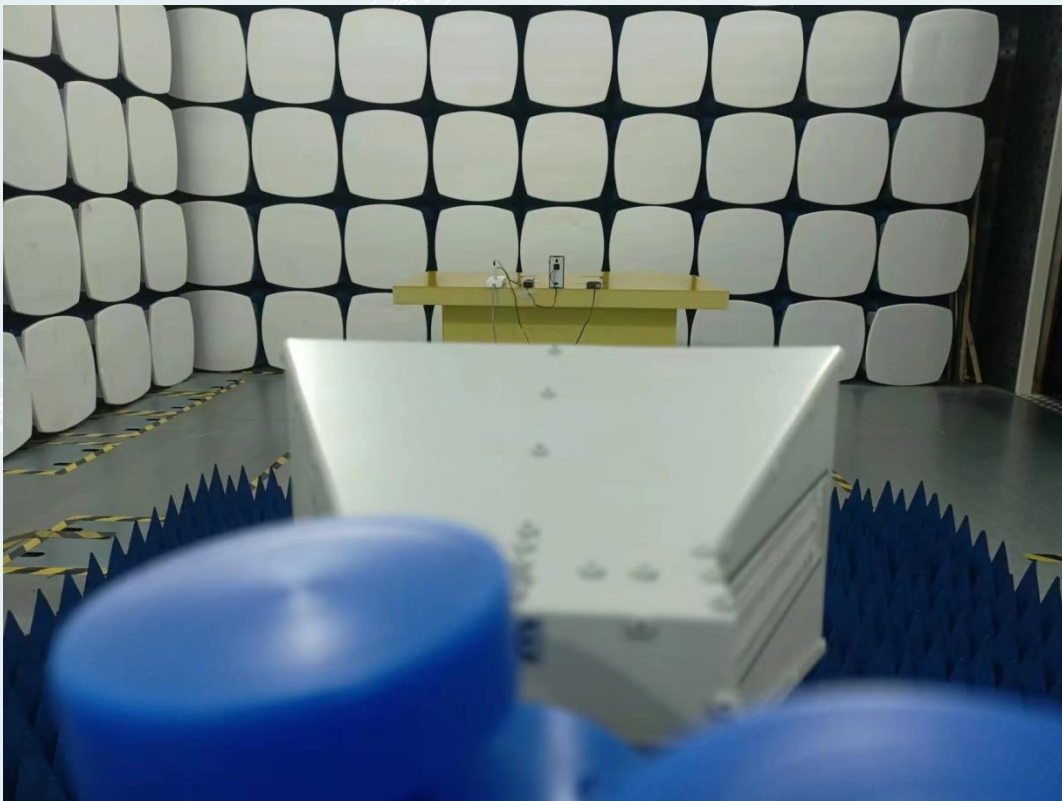
Below 1GHz (Mode 3)



Above 1GHz (Mode 1)



Above 1GHz (Mode 2)



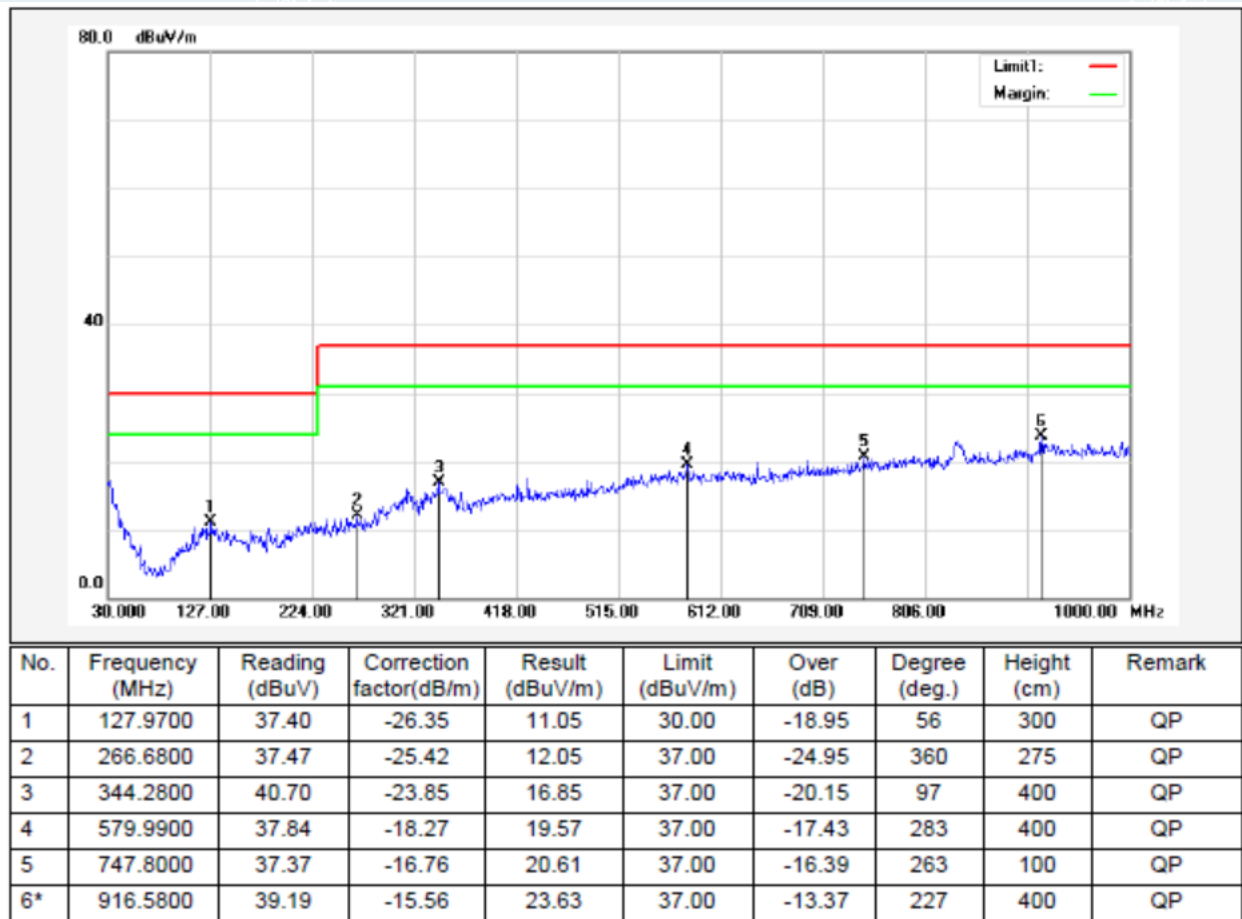
Above 1GHz (Mode 3)

5.1.6 TEST RESULTS

Below 1GHz

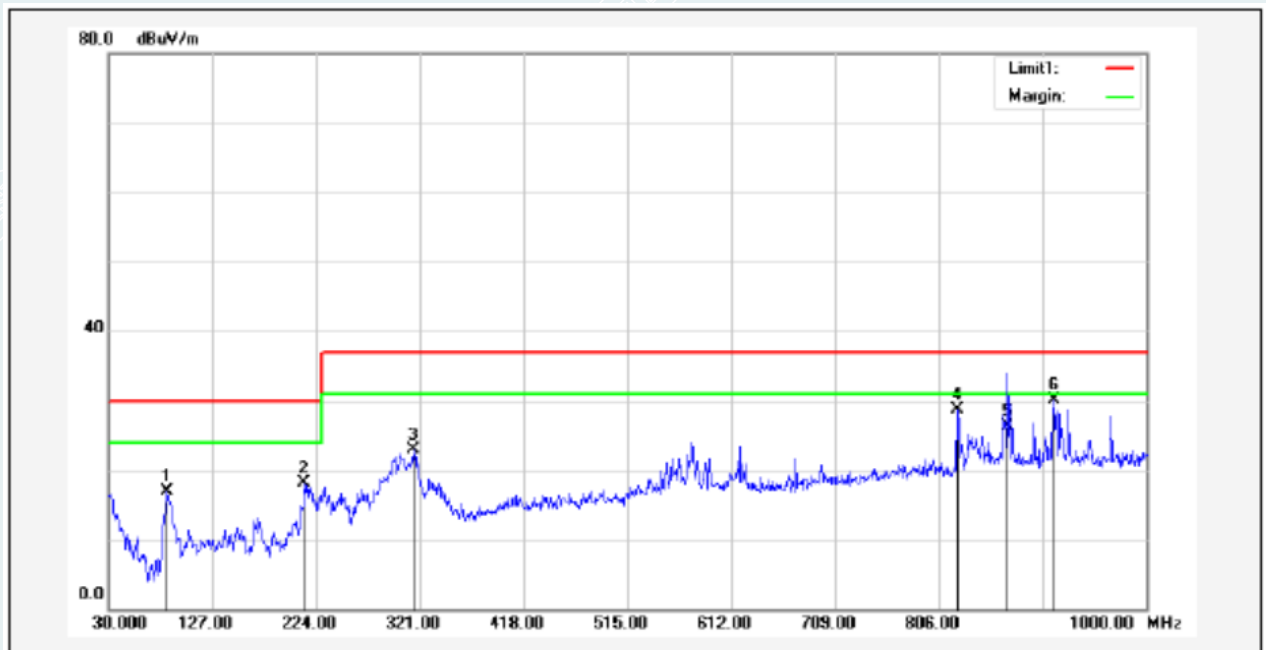
EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model	SVD-C01/ SVD-C02
Environmental Conditions	22.5°C/37%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 4.5V supply by battery to Smart Video Doorbell G4 / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Huang Xinlong
Test Date	2022-11-03	Sample No.	E20220818423001-0005, E20220818423001-0006

Polarity: Horizontal



EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model	SVD-C01/ SVD-C02
Environmental Conditions	22.5°C/37%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 4.5V supply by battery to Smart Video Doorbell G4 / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Huang Xinlong
Test Date	2022-11-03	Sample No.	E20220818423001-0005, E20220818423001-0006

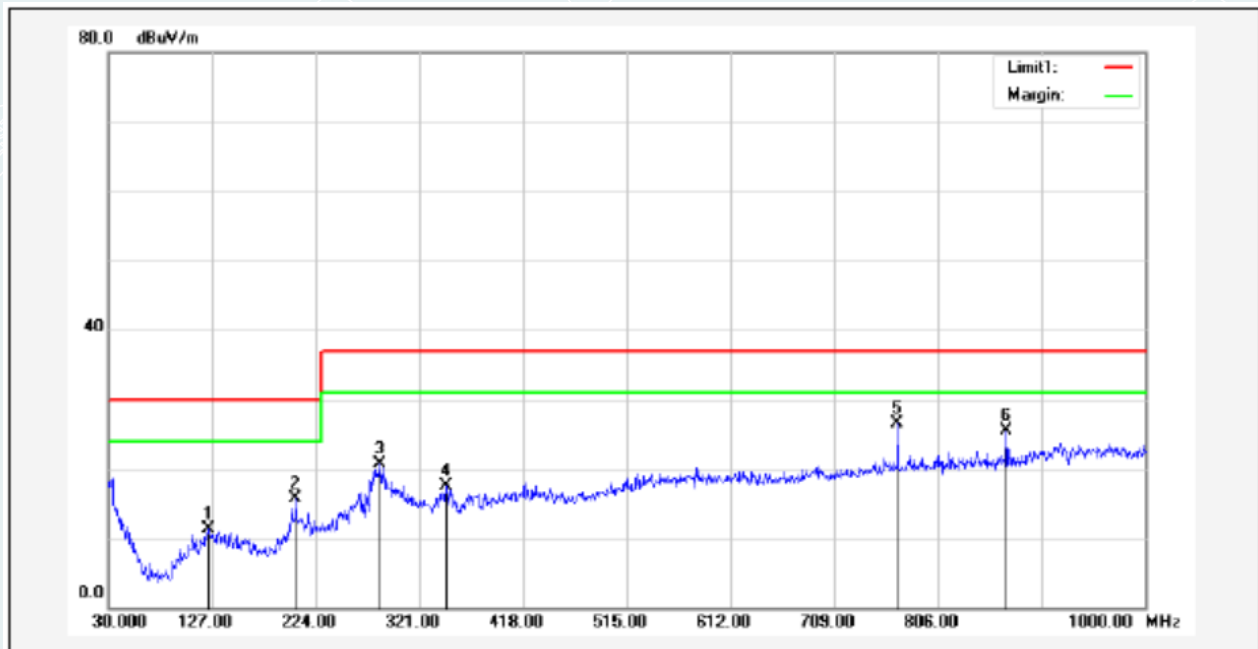
Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	85.2900	48.42	-31.57	16.85	30.00	-13.15	185	100	QP
2	213.3300	44.38	-26.34	18.04	30.00	-11.96	215	100	QP
3	315.1800	47.29	-24.30	22.99	37.00	-14.01	195	100	QP
4	823.4600	45.02	-16.24	28.78	37.00	-8.22	296	200	QP
5	870.0200	42.30	-16.00	26.30	37.00	-10.70	147	400	QP
6*	913.6700	45.58	-15.57	30.01	37.00	-6.99	74	100	QP

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model	SVD-C01/ SVD-C02
Environmental Conditions	22.5°C/37%RH/101.0kPa	Test Mode	Mode 2
Power supply	AC 24V supply by AC power convert to Smart Video Doorbell G4 from AC 230V/50Hz / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Huang Xinlong
Test Date	2022-11-03	Sample No.	E20220818423001-0005, E20220818423001-0006

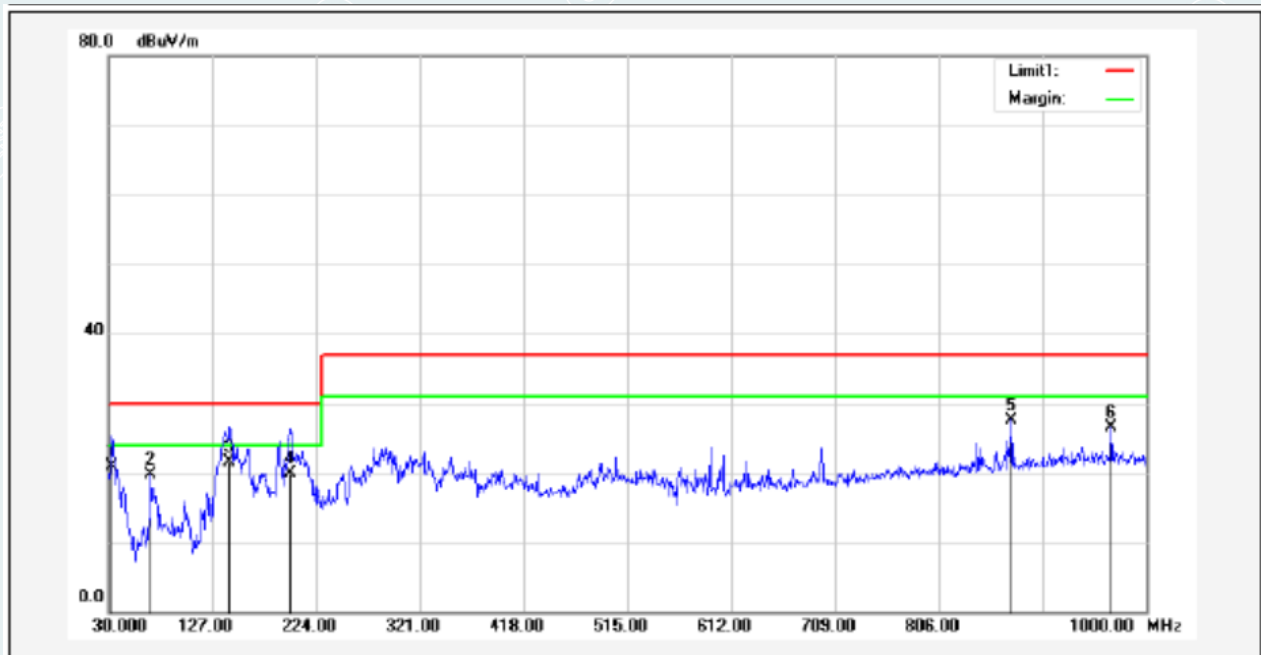
Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	124.0900	37.68	-26.40	11.28	30.00	-18.72	209	200	QP
2	205.5700	42.72	-26.96	15.76	30.00	-14.24	282	300	QP
3	284.1400	46.00	-25.29	20.71	37.00	-16.29	221	400	QP
4	346.2200	41.18	-23.75	17.43	37.00	-19.57	249	200	QP
5*	768.1700	43.04	-16.52	26.52	37.00	-10.48	126	300	QP
6	870.0200	41.41	-16.00	25.41	37.00	-11.59	291	400	QP

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model	SVD-C01/ SVD-C02
Environmental Conditions	22.5°C/37%RH/101.0kPa	Test Mode	Mode 2
Power supply	AC 24V supply by AC power convert to Smart Video Doorbell G4 from AC 230V/50Hz / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Huang Xinlong
Test Date	2022-11-03	Sample No.	E20220818423001-0005, E20220818423001-0006

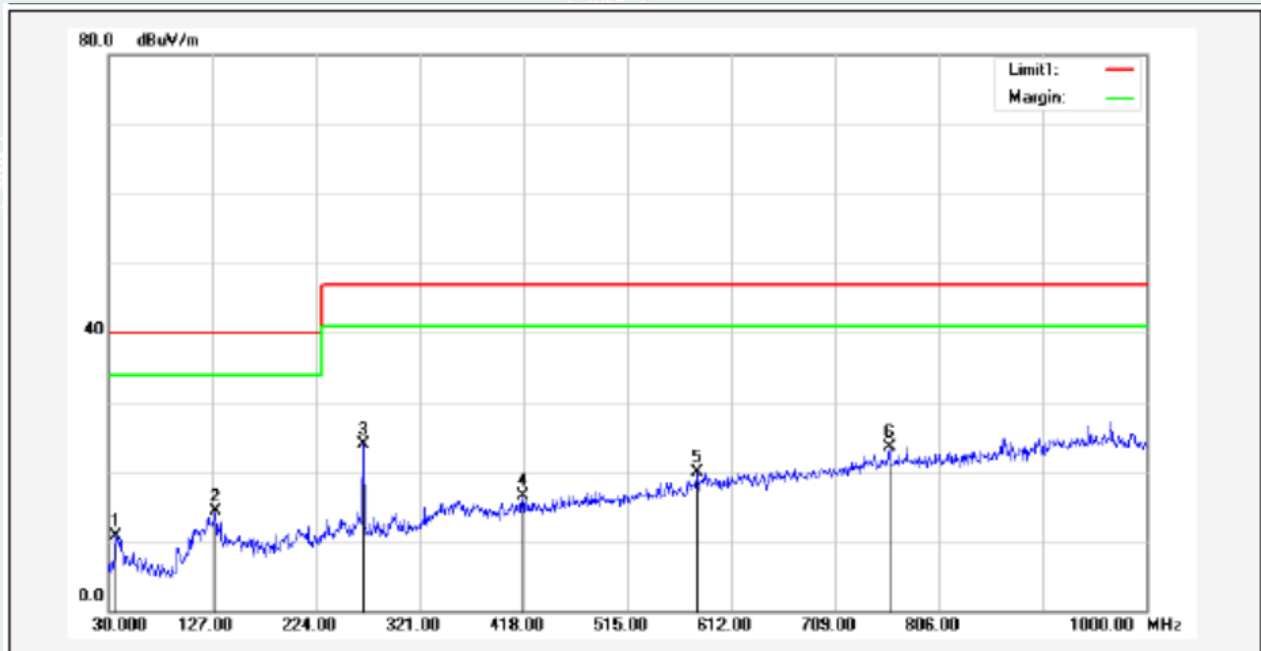
Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	32.9100	39.24	-18.34	20.90	30.00	-9.10	256	100	QP
2	69.7700	50.94	-31.23	19.71	30.00	-10.29	8	100	QP
3*	143.4900	48.27	-26.77	21.50	30.00	-8.50	1	100	QP
4	199.7500	47.42	-27.42	20.00	30.00	-10.00	1	100	QP
5	873.9000	43.55	-15.95	27.60	37.00	-9.40	151	400	QP
6	967.0200	41.73	-15.27	26.46	37.00	-10.54	1	100	QP

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model	SVD-C01/ SVD-C02
Environmental Conditions	24.9°C/51%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 24V supply by adapter to Smart Video Doorbell G4 from AC 230V/50Hz / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Tang Shenghui
Test Date	2022-11-03	Sample No.	E20220818423001-0005, E20220818423001-0006

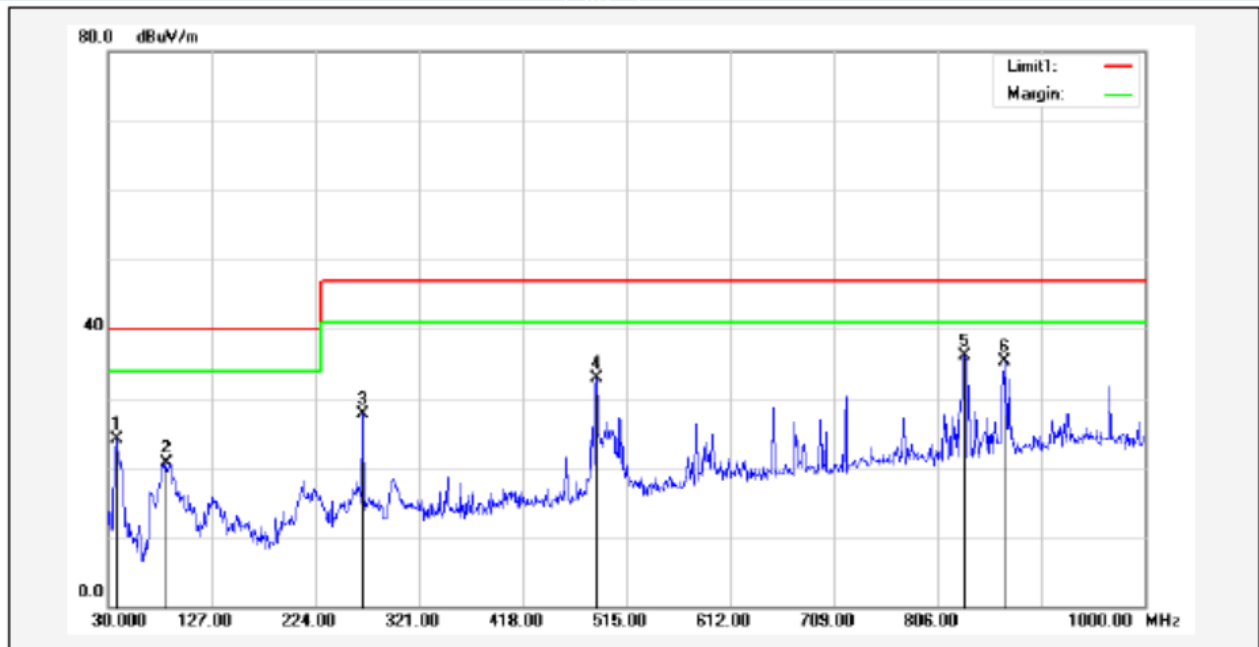
Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	36.7900	38.45	-27.72	10.73	40.00	-29.27	6	400	peak
2	129.9100	41.09	-26.70	14.39	40.00	-25.61	0	234	peak
3*	268.6200	49.66	-25.79	23.87	47.00	-23.13	196	300	peak
4	417.0300	37.88	-21.47	16.41	47.00	-30.59	85	100	peak
5	579.9900	37.63	-17.68	19.95	47.00	-27.05	113	300	peak
6	759.4400	38.05	-14.53	23.52	47.00	-23.48	0	221	peak

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model	SVD-C01/ SVD-C02
Environmental Conditions	24.9°C/51%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 24V supply by adapter to Smart Video Doorbell G4 from AC 230V/50Hz / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Tang Shenghui
Test Date	2022-11-03	Sample No.	E20220818423001-0005, E20220818423001-0006

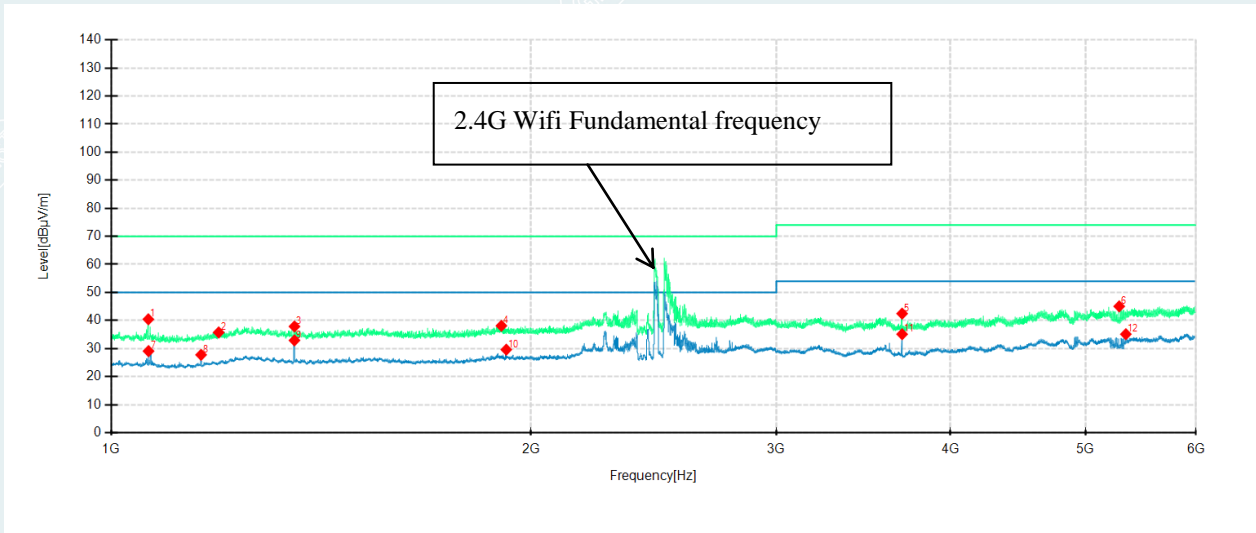
Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	37.7600	51.63	-27.62	24.01	40.00	-15.99	286	100	peak
2	84.3200	52.44	-31.75	20.69	40.00	-19.31	214	200	peak
3	268.6200	53.46	-25.79	27.67	47.00	-19.33	23	200	peak
4	486.8700	52.78	-19.89	32.89	47.00	-14.11	237	300	peak
5*	831.2200	49.86	-13.71	36.15	47.00	-10.85	208	300	peak
6	868.0800	48.54	-13.31	35.23	47.00	-11.77	231	100	peak

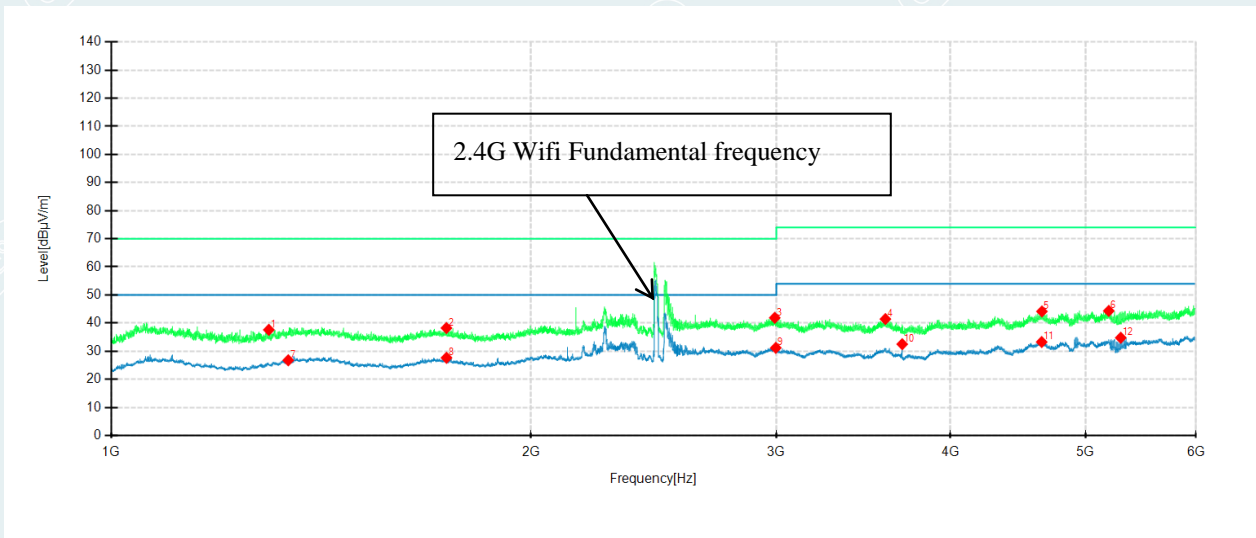
Above 1GHz

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model:	SVD-C01/ SVD-C02
Environmental Conditions	22.9°C/52%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 4.5V supply by battery to Smart Video Doorbell G4 / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Zhang Zishan
Test Date	2022-10-13	Sample No.	E20220818423001-0005, E20220818423001-0006



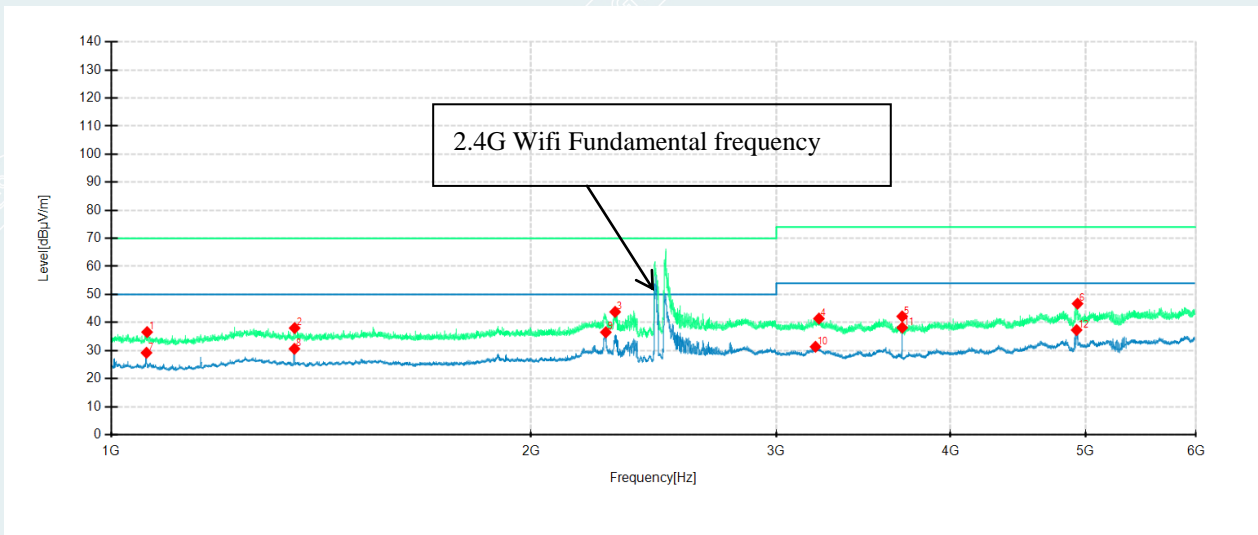
Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1063.2	65.44	40.43	-25.01	70.00	29.57	100	43	Horizontal
2	1194.2	59.79	35.74	-24.05	70.00	34.26	200	264	Horizontal
3	1353.4	61.16	37.87	-23.29	70.00	32.13	100	176	Horizontal
4	1905	59.12	38.10	-21.02	70.00	31.90	200	46	Horizontal
5	3692.7	59.93	42.45	-17.48	74.00	31.55	100	92	Horizontal
6	5285.4	58.28	45.04	-13.24	74.00	28.96	100	184	Horizontal
7	1063.6	54.09	29.08	-25.01	50.00	20.92	100	43	Horizontal
8	1160	52.48	27.75	-24.73	50.00	22.25	200	194	Horizontal
9	1353.4	56.19	32.90	-23.29	50.00	17.10	100	15	Horizontal
10	1920.4	50.69	29.60	-21.09	50.00	20.40	100	110	Horizontal
11	3692.7	52.60	35.12	-17.48	54.00	18.88	100	92	Horizontal
12	5343.6	46.42	35.12	-11.30	54.00	18.88	100	0	Horizontal

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model:	SVD-C01/ SVD-C02
Environmental Conditions	22.9°C/52%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 4.5V supply by battery to Smart Video Doorbell G4 / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Zhang Zishan
Test Date	2022-10-13	Sample No.	E20220818423001-0005, E20220818423001-0006



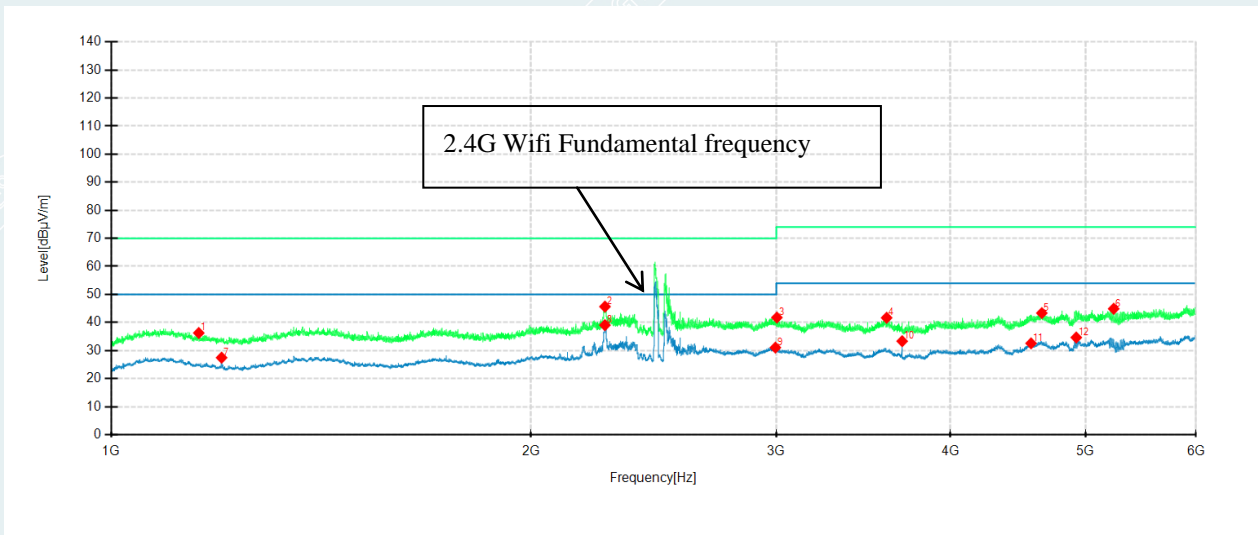
Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1297.4	61.23	37.59	-23.64	70.00	32.41	200	121	Vertical
2	1739.6	59.92	38.24	-21.68	70.00	31.76	100	233	Vertical
3	2992.2	58.32	41.86	-16.46	70.00	28.14	200	14	Vertical
4	3592.2	57.10	41.43	-15.67	74.00	32.57	200	226	Vertical
5	4652.1	56.18	44.14	-12.04	74.00	29.86	100	116	Vertical
6	5195.1	55.37	44.34	-11.03	74.00	29.66	100	279	Vertical
7	1339.6	49.07	26.76	-22.31	50.00	23.24	100	360	Vertical
8	1739.8	49.32	27.64	-21.68	50.00	22.36	100	233	Vertical
9	2997.2	47.58	31.19	-16.39	50.00	18.81	200	245	Vertical
10	3693.3	49.78	32.49	-17.29	54.00	21.51	100	74	Vertical
11	4650.3	45.25	33.26	-11.99	54.00	20.74	100	130	Vertical
12	5298.9	47.87	34.77	-13.10	54.00	19.23	200	80	Vertical

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model:	SVD-C01/ SVD-C02
Environmental Conditions	22.9°C/52%RH/101.0kPa	Test Mode	Mode 2
Power supply	AC 24V supply by AC power convert to Smart Video Doorbell G4 from AC 230V/50Hz / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Zhang Zishan
Test Date	2022-10-13	Sample No.	E20220818423001-0005, E20220818423001-0006



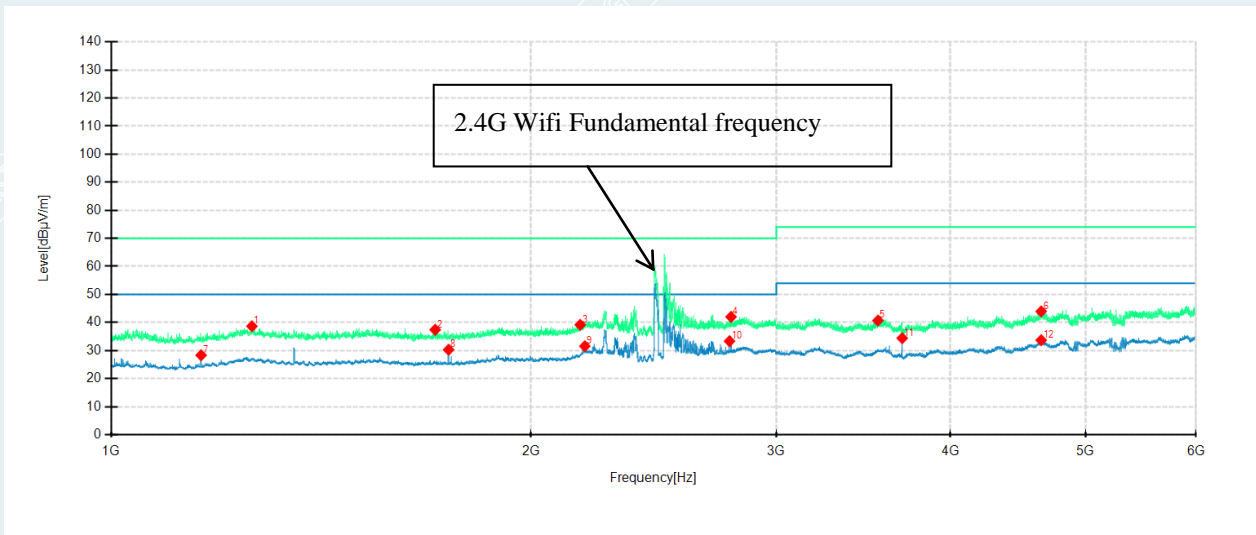
Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1061	61.53	36.56	-24.97	70.00	33.44	100	40	Horizontal
2	1353.8	61.30	38.01	-23.29	70.00	31.99	100	260	Horizontal
3	2298.6	62.54	43.76	-18.78	70.00	26.24	200	170	Horizontal
4	3218.7	57.94	41.39	-16.55	74.00	32.61	200	16	Horizontal
5	3693	59.65	42.17	-17.48	74.00	31.83	100	103	Horizontal
6	4933.8	58.94	46.71	-12.23	74.00	27.29	100	103	Horizontal
7	1060	54.15	29.19	-24.96	50.00	20.81	100	15	Horizontal
8	1353.4	53.89	30.60	-23.29	50.00	19.40	100	15	Horizontal
9	2263.6	55.17	36.51	-18.66	50.00	13.49	200	184	Horizontal
10	3200.4	47.57	31.34	-16.23	54.00	22.66	100	161	Horizontal
11	3693.3	55.63	38.16	-17.47	54.00	15.84	100	103	Horizontal
12	4926.3	49.80	37.31	-12.49	54.00	16.69	100	187	Horizontal

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model:	SVD-C01/ SVD-C02
Environmental Conditions	22.9°C/52%RH/101.0kPa	Test Mode	Mode 2
Power supply	AC 24V supply by AC power convert to Smart Video Doorbell G4 from AC 230V/50Hz / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Zhang Zishan
Test Date	2022-10-13	Sample No.	E20220818423001-0005, E20220818423001-0006



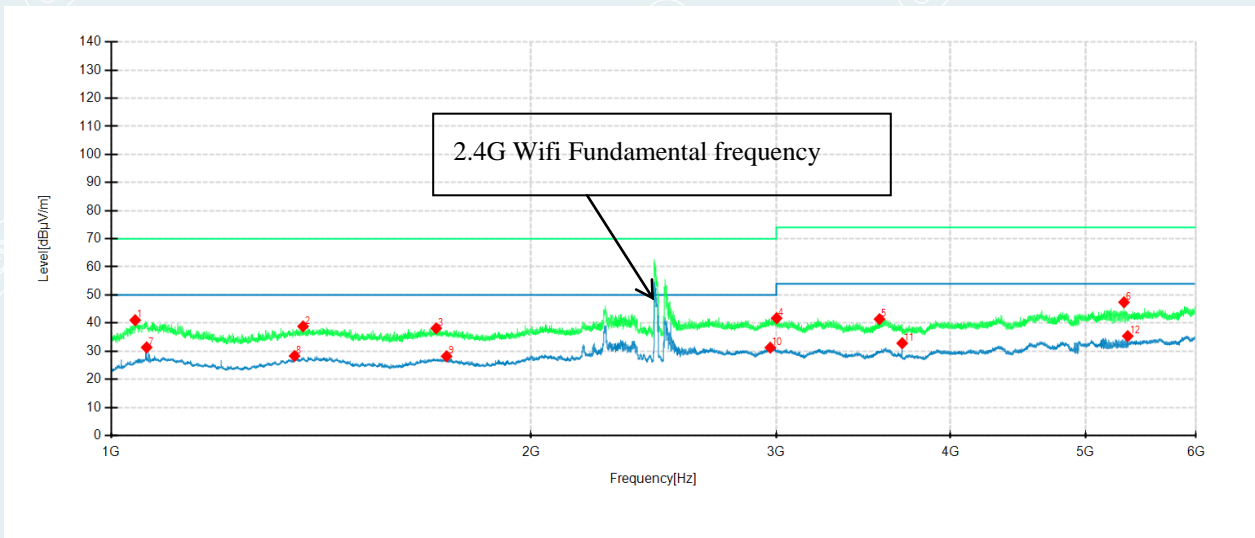
Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1155.6	60.30	36.25	-24.05	70.00	33.75	100	180	Vertical
2	2260.4	64.72	45.65	-19.07	70.00	24.35	200	135	Vertical
3	3002.7	58.90	41.77	-17.13	74.00	32.23	200	318	Vertical
4	3599.7	57.08	41.67	-15.41	74.00	32.33	100	308	Vertical
5	4651.2	55.36	43.35	-12.01	74.00	30.65	100	2	Vertical
6	5237.4	57.04	44.89	-12.15	74.00	29.11	200	292	Vertical
7	1200	52.49	27.46	-25.03	50.00	22.54	200	352	Vertical
8	2260.2	58.13	39.06	-19.07	50.00	10.94	200	257	Vertical
9	2995.4	47.46	31.05	-16.41	50.00	18.95	200	326	Vertical
10	3693	50.62	33.33	-17.29	54.00	20.67	100	320	Vertical
11	4569.3	45.66	32.56	-13.10	54.00	21.44	100	94	Vertical
12	4923.6	46.99	34.64	-12.35	54.00	19.36	200	209	Vertical

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model:	SVD-C01/ SVD-C02
Environmental Conditions	22.9°C/52%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 24V supply by adapter to Smart Video Doorbell G4 from AC 230V/50Hz / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Zhang Zishan
Test Date	2022-10-13	Sample No.	E20220818423001-0005, E20220818423001-0006



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1261.6	60.75	38.65	-22.10	70.00	31.35	200	201	Horizontal
2	1707.6	60.18	37.40	-22.78	70.00	32.60	100	24	Horizontal
3	2169.8	58.55	39.15	-19.40	70.00	30.85	100	184	Horizontal
4	2783.8	59.71	42.00	-17.71	70.00	28.00	100	115	Horizontal
5	3548.1	57.60	40.71	-16.89	74.00	33.29	200	15	Horizontal
6	4646.4	56.15	43.95	-12.20	74.00	30.05	100	134	Horizontal
7	1160	53.05	28.32	-24.73	50.00	21.68	200	214	Horizontal
8	1745.8	53.22	30.28	-22.94	50.00	19.72	200	1	Horizontal
9	2186.4	50.13	31.55	-18.58	50.00	18.45	200	12	Horizontal
10	2776.8	51.14	33.33	-17.81	50.00	16.67	100	102	Horizontal
11	3693.3	51.87	34.40	-17.47	54.00	19.60	100	148	Horizontal
12	4646.7	45.87	33.68	-12.19	54.00	20.32	100	134	Horizontal

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model:	SVD-C01/ SVD-C02
Environmental Conditions	22.9°C/52%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 24V supply by adapter to Smart Video Doorbell G4 from AC 230V/50Hz / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Zhang Zishan
Test Date	2022-10-13	Sample No.	E20220818423001-0005, E20220818423001-0006



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1040.4	64.67	41.04	-23.63	70.00	28.96	200	114	Vertical
2	1372.8	60.59	38.82	-21.77	70.00	31.18	100	288	Vertical
3	1710.6	59.58	38.15	-21.43	70.00	31.85	200	86	Vertical
4	3001.5	58.86	41.73	-17.13	74.00	32.27	200	137	Vertical
5	3557.4	58.28	41.40	-16.88	74.00	32.60	100	217	Vertical
6	5327.4	59.36	47.41	-11.95	74.00	26.59	200	124	Vertical
7	1060.2	54.20	31.34	-22.86	50.00	18.66	200	154	Vertical
8	1353.6	50.23	28.29	-21.94	50.00	21.71	100	157	Vertical
9	1740	49.87	28.19	-21.68	50.00	21.81	100	5	Vertical
10	2970	48.06	31.25	-16.81	50.00	18.75	200	42	Vertical
11	3693.3	50.11	32.82	-17.29	54.00	21.18	200	152	Vertical
12	5360.4	46.39	35.38	-11.01	54.00	18.62	100	242	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 301 489-17 V3.2.4(2020-09)/7.1.1 ETSI EN 301 489-1 V2.2.3(2019-11)/8.4 EN55032:2015/A11:2020
Test Method:	EN 55032 /annex A.3

5.2.1 LIMITS

Frequency (MHz)	Quasi-peak (dB μ V)	Average (dB μ V)
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 0.15~0.5MHz.

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

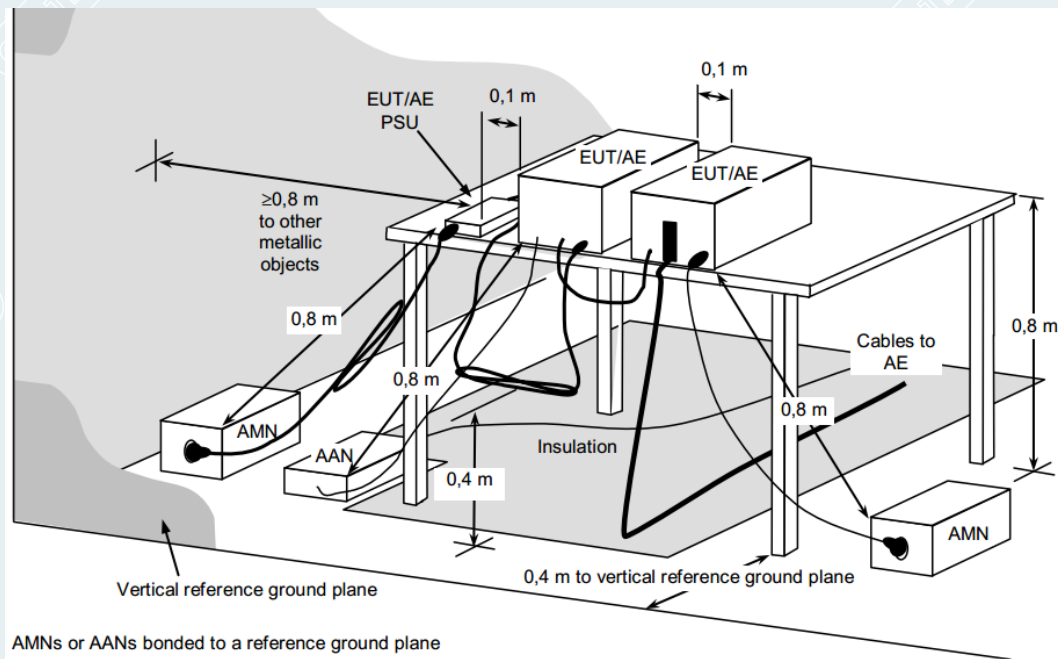


Figure 7.2-1: Test arrangement for Conducted emission measurement

5.2.4 DATE SAMPLE

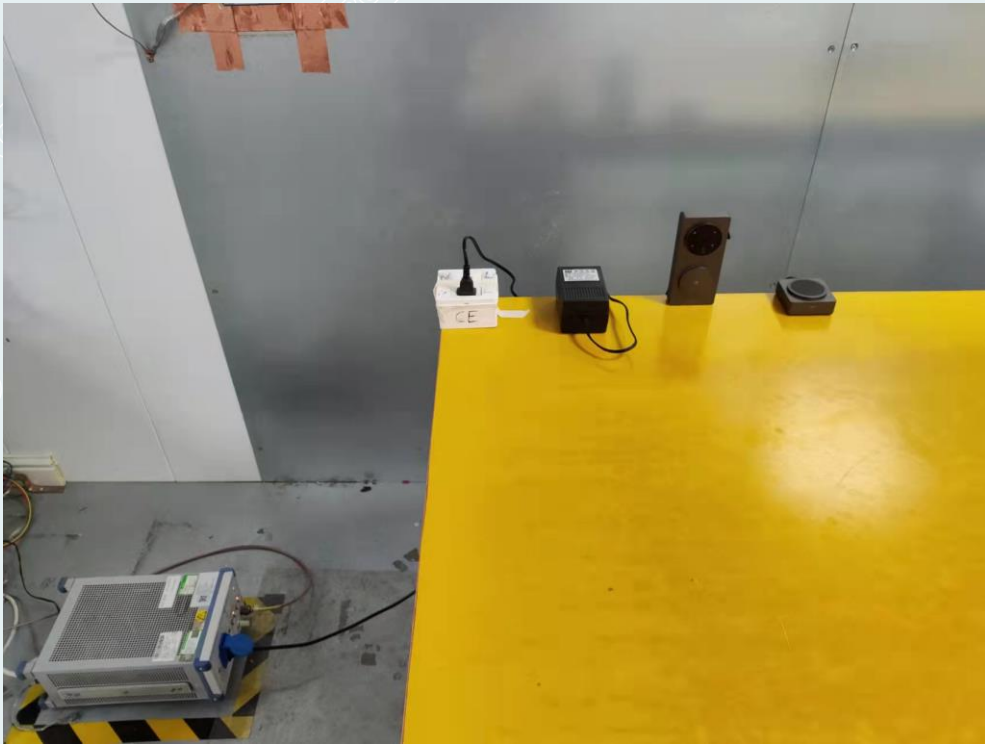
Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)
X.XXXX	32.69	25.65	11.52	44.21	37.17	65.78	55.79	-21.57	-18.62

- 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



Mode 2

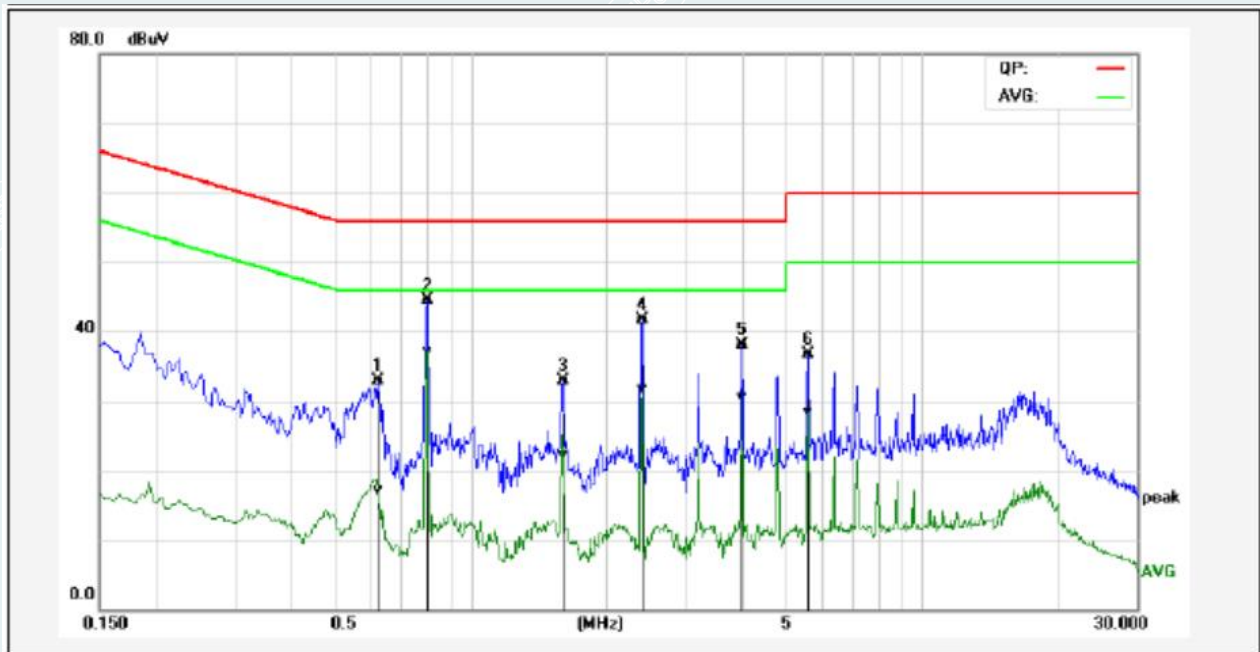


Mode 3

5.2.6 TEST RESULTS

EUT Name	Chime Repeater	Model:	SVD-C02
Environmental Conditions	24.5°C/47%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 5V supply by adapter from AC 230V/50Hz	Tested By	Tang Shenghui
Test Date	2022-09-26	Sample No.	E20220818423001-0006

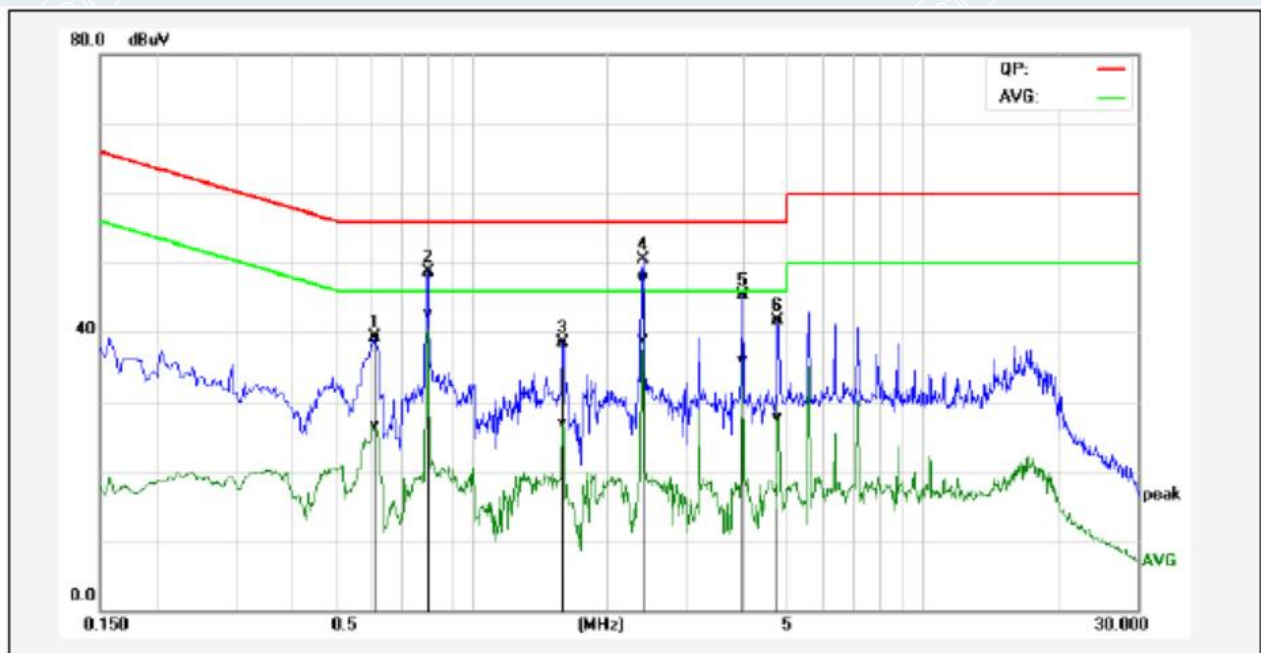
Line: L1



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	0.6220	23.28	7.41	9.60	32.88	17.01	56.00	46.00	-23.12	-28.99	Pass
2*	0.8020	34.90	27.45	9.60	44.50	37.05	56.00	46.00	-11.50	-8.95	Pass
3	1.6019	23.24	12.44	9.63	32.87	22.07	56.00	46.00	-23.13	-23.93	Pass
4	2.3980	32.03	21.98	9.63	41.66	31.61	56.00	46.00	-14.34	-14.39	Pass
5	3.9940	28.41	20.81	9.65	38.06	30.46	56.00	46.00	-17.94	-15.54	Pass
6	5.5980	27.07	18.69	9.66	36.73	28.35	60.00	50.00	-23.27	-21.65	Pass

EUT Name	Chime Repeater	Model:	SVD-C02
Environmental Conditions	24.5°C/47%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 5V supply by adapter from AC 230V/50Hz	Tested By	Tang Shenghui
Test Date	2022-09-26	Sample No.	E20220818423001-0006

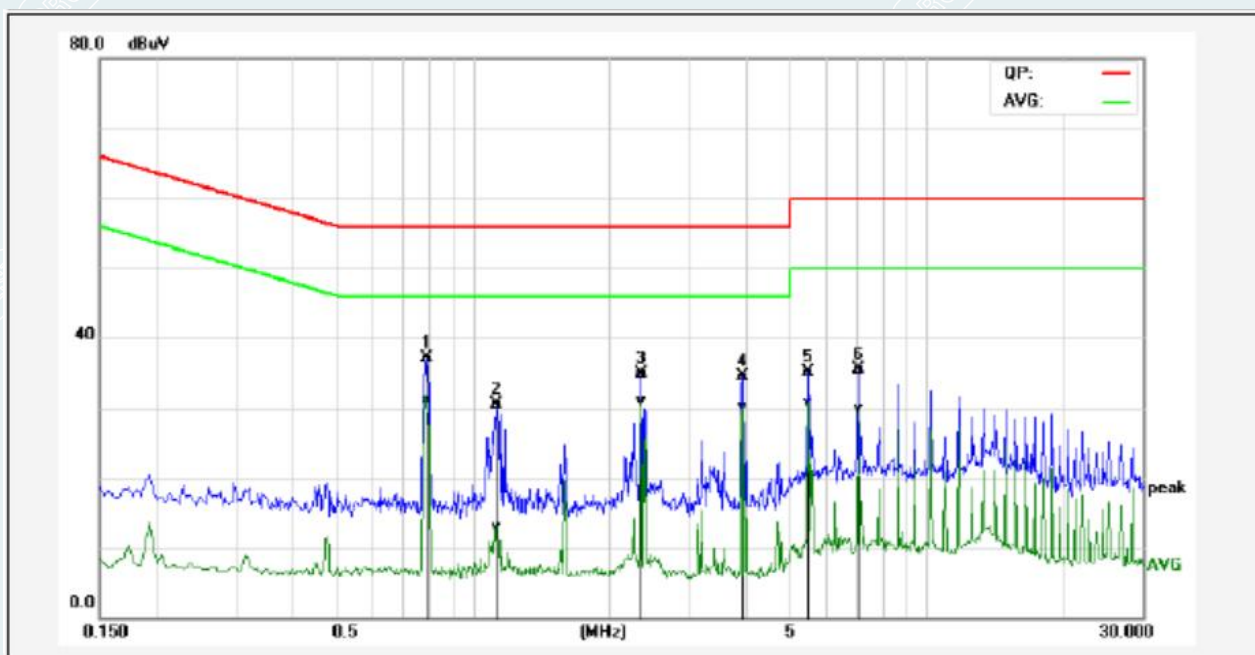
Line: N



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	0.6100	29.74	16.90	9.59	39.33	26.49	56.00	46.00	-16.67	-19.51	Pass
2*	0.8020	38.91	33.11	9.59	48.50	42.70	56.00	46.00	-7.50	-3.30	Pass
3	1.5980	28.92	17.36	9.62	38.54	26.98	56.00	46.00	-17.46	-19.02	Pass
4	2.3980	38.58	29.48	9.62	48.20	39.10	56.00	46.00	-7.80	-6.90	Pass
5	3.9980	35.56	26.22	9.65	45.21	35.87	56.00	46.00	-10.79	-10.13	Pass
6	4.7940	32.06	17.95	9.66	41.72	27.61	56.00	46.00	-14.28	-18.39	Pass

EUT Name	Smart Video Doorbell G4	Model:	SVD-C01
Environmental Conditions	25.8°C/51%RH/101.0kPa	Test Mode	Mode 2
Power supply	AC 24V supply by AC power convert from AC 230V/50Hz	Tested By	Tang Shenghui
Test Date	2022-11-03	Sample No.	E20220818423001-0005

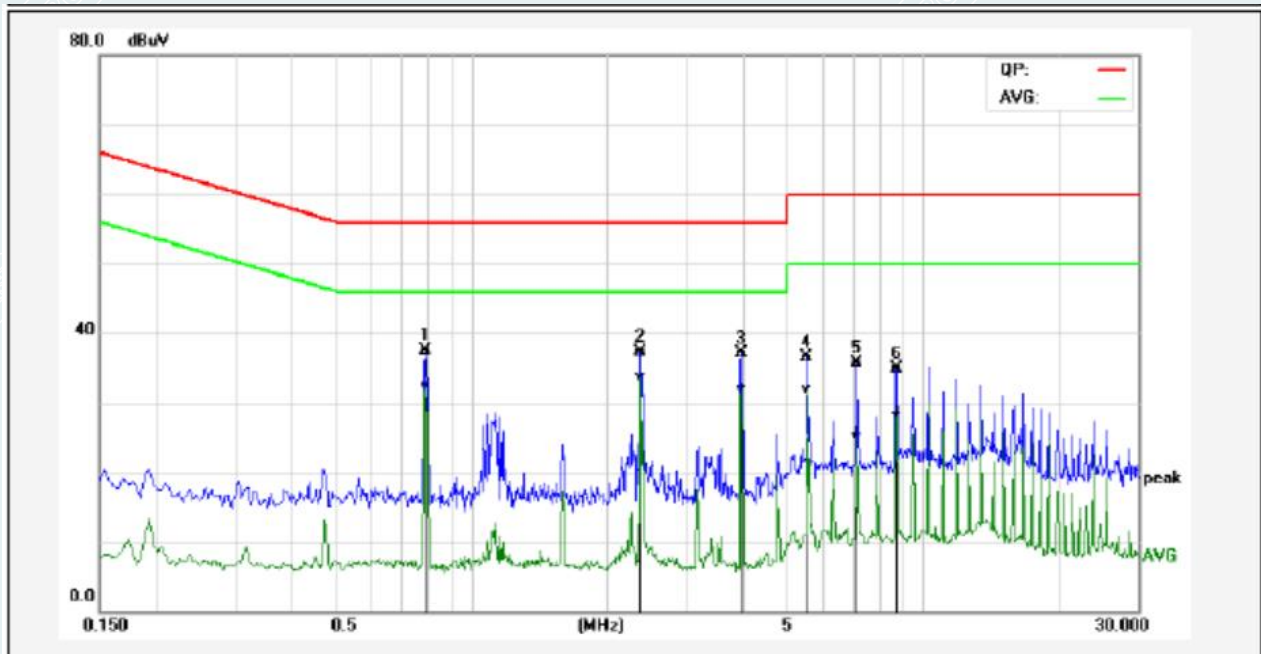
Line: L1



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*	0.7940	27.45	21.26	9.60	37.05	30.86	56.00	46.00	-18.95	-15.14	Pass
2	1.1340	20.82	3.33	9.61	30.43	12.94	56.00	46.00	-25.57	-33.06	Pass
3	2.3540	25.19	21.20	9.63	34.82	30.83	56.00	46.00	-21.18	-15.17	Pass
4	3.9260	24.92	20.55	9.65	34.57	30.20	56.00	46.00	-21.43	-15.80	Pass
5	5.4980	25.38	20.98	9.66	35.04	30.64	60.00	50.00	-24.96	-19.36	Pass
6	7.0700	25.86	20.31	9.68	35.54	29.99	60.00	50.00	-24.46	-20.01	Pass

EUT Name	Smart Video Doorbell G4	Model:	SVD-C01
Environmental Conditions	25.8°C/51%RH/101.0kPa	Test Mode	Mode 2
Power supply	AC 24V supply by AC power convert from AC 230V/50Hz	Tested By	Tang Shenghui
Test Date	2022-11-03	Sample No.	E20220818423001-0005

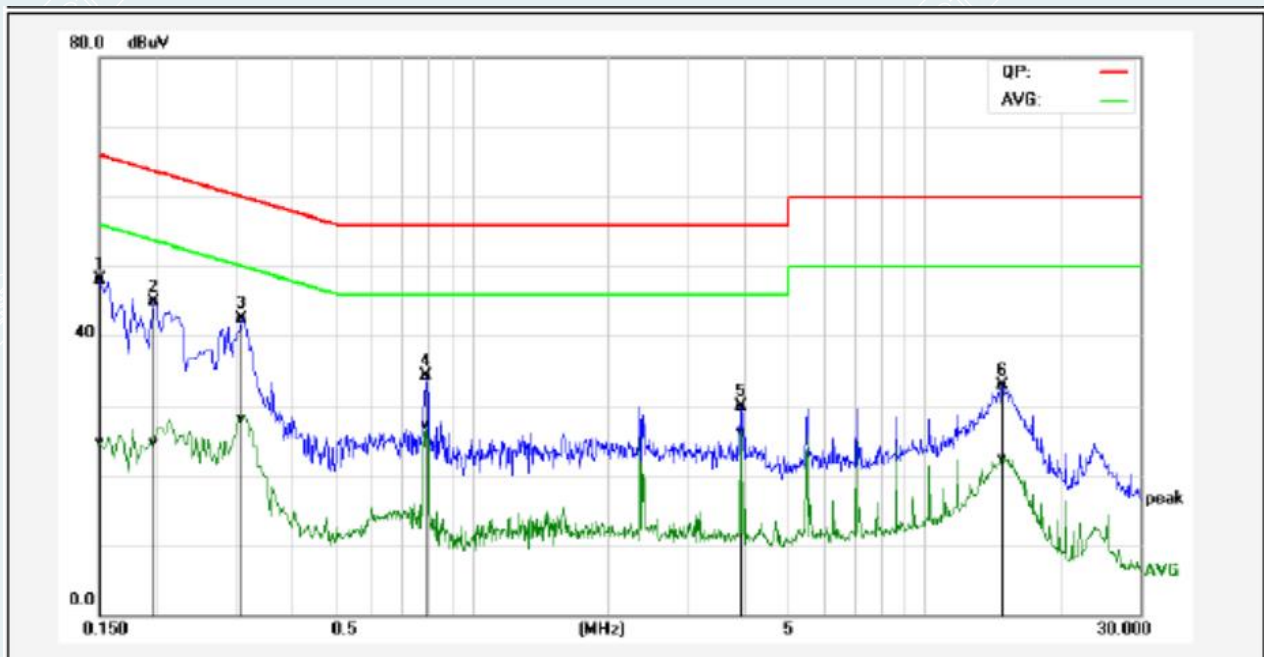
Line: N



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	0.7940	27.85	22.75	9.59	37.44	32.34	56.00	46.00	-18.56	-13.66	Pass
2*	2.3780	27.61	24.06	9.62	37.23	33.68	56.00	46.00	-18.77	-12.32	Pass
3	3.9660	27.37	22.24	9.65	37.02	31.89	56.00	46.00	-18.98	-14.11	Pass
4	5.5500	26.75	22.19	9.67	36.42	31.86	60.00	50.00	-23.58	-18.14	Pass
5	7.1420	26.03	15.51	9.69	35.72	25.20	60.00	50.00	-24.28	-24.80	Pass
6	8.7299	25.22	18.39	9.72	34.94	28.11	60.00	50.00	-25.06	-21.89	Pass

EUT Name	Smart Video Doorbell G4	Model:	SVD-C01
Environmental Conditions	25.8°C/51%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 24V supply by DC adapter from AC 230V/50Hz	Tested By	Tang Shenghui
Test Date	2022-11-03	Sample No.	E20220818423001-0005

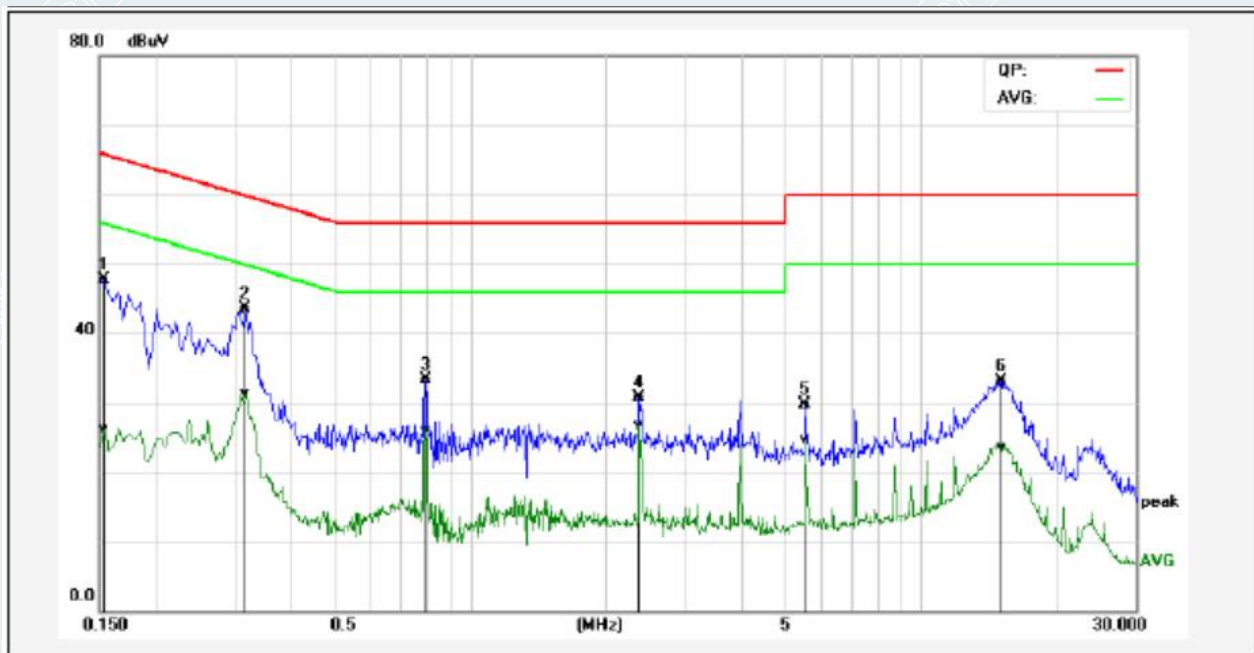
Line: L1



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	0.1500	38.47	15.08	9.61	48.08	24.69	65.99	56.00	-17.91	-31.31	Pass
2	0.1980	35.28	15.16	9.60	44.88	24.76	63.69	53.69	-18.81	-28.93	Pass
3*	0.3100	32.91	18.44	9.60	42.51	28.04	59.97	49.97	-17.46	-21.93	Pass
4	0.7940	24.62	17.55	9.60	34.22	27.15	56.00	46.00	-21.78	-18.85	Pass
5	3.9300	20.22	16.55	9.65	29.87	26.20	56.00	46.00	-26.13	-19.80	Pass
6	14.8580	23.10	12.57	9.74	32.84	22.31	60.00	50.00	-27.16	-27.69	Pass

EUT Name	Smart Video Doorbell G4	Model:	SVD-C01
Environmental Conditions	25.8°C/51%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 24V supply by DC adapter from AC 230V/50Hz	Tested By	Tang Shenghui
Test Date	2022-11-03	Sample No.	E20220818423001-0005

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	38.04	16.47	9.60	47.64	26.07	65.78	55.79	-18.14	-29.72	Pass
2*	0.3180	33.85	21.63	9.59	43.44	31.22	59.76	49.76	-16.32	-18.54	Pass
3	0.7980	23.79	16.23	9.59	33.38	25.82	56.00	46.00	-22.62	-20.18	Pass
4	2.3820	21.13	17.15	9.62	30.75	26.77	56.00	46.00	-25.25	-19.23	Pass
5	5.5620	20.12	15.12	9.67	29.79	24.79	60.00	50.00	-30.21	-25.21	Pass
6	15.1260	23.27	13.68	9.81	33.08	23.49	60.00	50.00	-26.92	-26.51	Pass

5.3 HARMONIC CURRENT

Test Requirement: ETSI EN 301 489-17 V3.2.4(2020-09)/7.1.1
ETSI EN 301 489-1 V2.2.3(2019-11)/8.5

Test Method: EN 61000-3-2, EN IEC 61000-3-2

5.3.1 LIMITS

Limits for Class A equipment		Limits for Class D equipment		
Harmonics Order n	Max. permissible harmonics current A	Harmonics Order n	Max. permissible harmonics current per watt mA/W	Max. permissible harmonics current A
Odd harmonics		Odd Harmonics only		
3	2.30	3	3.4	2.30
5	1.14	5	1.9	1.14
7	0.77	7	1.0	0.77
9	0.40	9	0.5	0.40
11	0.33	11	0.35	0.33
13	0.21	13	0.30	0.21
15≤n≤39	0.15x15/n	15≤n≤39	3.85/n	0.15x15/n
Even harmonics				
2	1.08			
4	0.43			
6	0.30			
8≤n≤40	0.23x8/n			

Note:

1. Class A and Class D are classified according to item 7.4.3.
2. 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 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.

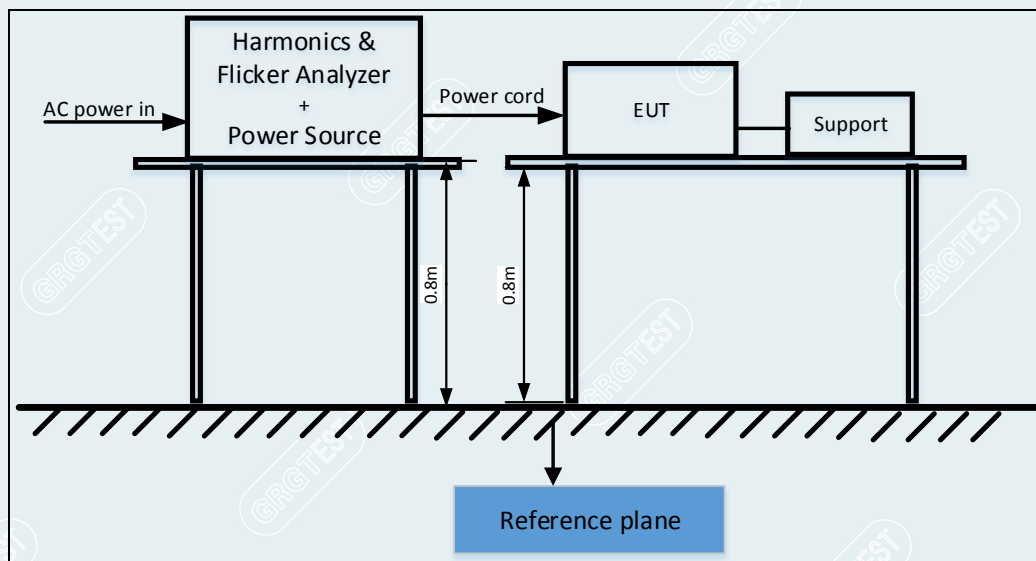
Class B: Portable tools; Arc welding equipment which is not professional equipment.

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



Mode 2



Mode 3

----- The following blanks -----

5.3.5 TEST RESULTS

EUT Name	Chime Repeater	Model:	SVD-C02
Environmental Conditions	24.5°C/45%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 5V supply by adapter from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-10-10	Sample No.	E20220818423001-0006

Test category: Class-A (European limits)

Test Margin: 100

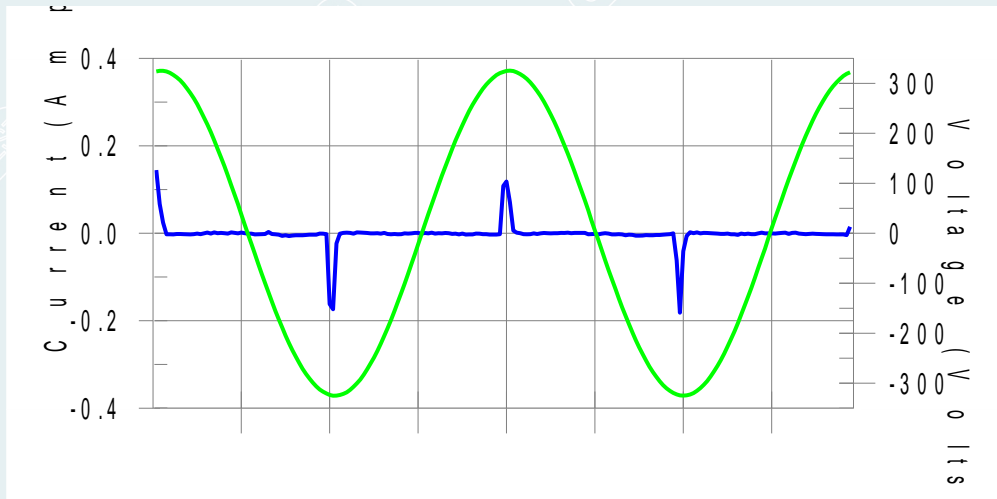
Test duration (min): 2.5

Data file name: H-000421.cts_data

Test Result: Pass

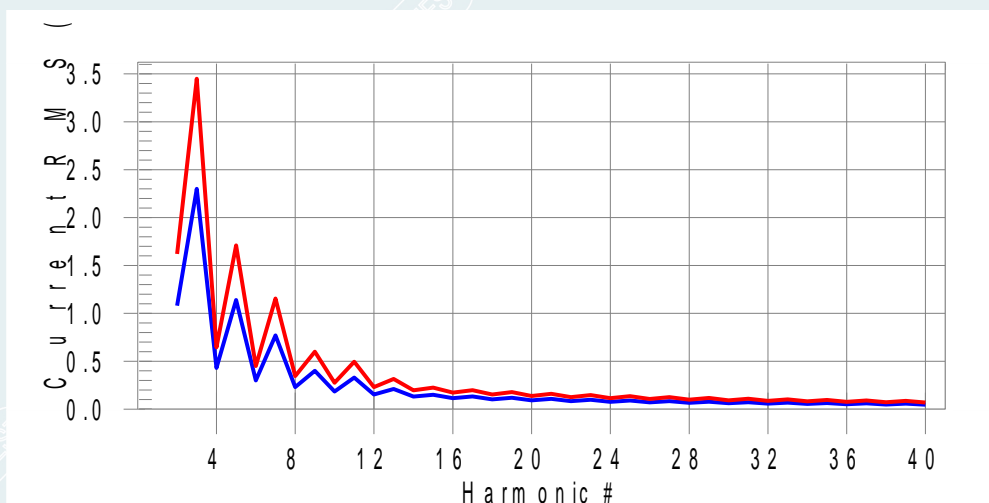
Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line

European Limits



Test result: Pass Worst harmonics H15-2.3% of 150% limit, H15-3.4% of 100% limit

Current Test Result Summary (Run time)

Test category: Class-A (European limits) Test Margin: 100
 Test duration (min): 2.5 Data file name: H-000421.cts_data

Test Result: Pass Source qualification: Normal
 THC(A): 0.019 I-THD(%): 289.7 POHC(A): 0.009 POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts): 230.04 Frequency(Hz): 50.00
 I_Peak (Amps): 0.230 I_RMS (Amps): 0.026
 I_Fund (Amps): 0.007 Crest Factor: 9.804
 Power (Watts): 1.5 Power Factor: 0.307

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	0.006	2.300	0.3	0.007	3.450	0.2	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.006	1.140	0.5	0.006	1.710	0.4	Pass
6	0.000	0.300	N/A	0.001	0.450	N/A	Pass
7	0.006	0.770	0.8	0.006	1.155	0.5	Pass
8	0.000	0.230	N/A	0.001	0.345	N/A	Pass
9	0.006	0.400	1.5	0.006	0.600	1.0	Pass
10	0.000	0.184	N/A	0.001	0.276	N/A	Pass
11	0.006	0.330	1.7	0.006	0.495	1.2	Pass
12	0.000	0.153	N/A	0.001	0.230	N/A	Pass
13	0.005	0.210	2.6	0.006	0.315	1.8	Pass
14	0.000	0.131	N/A	0.001	0.197	N/A	Pass
15	0.005	0.150	3.4	0.005	0.225	2.3	Pass
16	0.000	0.115	N/A	0.001	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	0.001	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	0.004	0.107	N/A	0.004	0.161	N/A	Pass
22	0.000	0.084	N/A	0.001	0.125	N/A	Pass
23	0.004	0.098	N/A	0.004	0.147	N/A	Pass
24	0.000	0.077	N/A	0.001	0.115	N/A	Pass
25	0.004	0.090	N/A	0.004	0.135	N/A	Pass
26	0.000	0.071	N/A	0.001	0.107	N/A	Pass
27	0.003	0.083	N/A	0.003	0.125	N/A	Pass
28	0.000	0.066	N/A	0.001	0.099	N/A	Pass
29	0.003	0.078	N/A	0.003	0.116	N/A	Pass
30	0.000	0.061	N/A	0.001	0.092	N/A	Pass
31	0.003	0.073	N/A	0.003	0.109	N/A	Pass
32	0.000	0.058	N/A	0.001	0.086	N/A	Pass
33	0.002	0.068	N/A	0.002	0.102	N/A	Pass
34	0.000	0.054	N/A	0.001	0.081	N/A	Pass
35	0.002	0.064	N/A	0.002	0.096	N/A	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.002	0.061	N/A	0.002	0.091	N/A	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.002	0.058	N/A	0.002	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)

Test category: Class-A (European limits) Test Margin: 100
Test duration (min): 2.5 Data file name: H-000421.cts_data

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 230.04	Frequency(Hz): 50.00
I_Peak (Amps): 0.230	I_RMS (Amps): 0.026
I_Fund (Amps): 0.007	Crest Factor: 9.804
Power (Watts): 1.5	Power Factor: 0.307

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.158	0.460	34.24	OK
3	0.428	2.070	20.67	OK
4	0.071	0.460	15.39	OK
5	0.052	0.920	5.65	OK
6	0.035	0.460	7.56	OK
7	0.025	0.690	3.62	OK
8	0.019	0.460	4.22	OK
9	0.017	0.460	3.75	OK
10	0.029	0.460	6.39	OK
11	0.017	0.230	7.38	OK
12	0.018	0.230	8.04	OK
13	0.013	0.230	5.56	OK
14	0.012	0.230	5.30	OK
15	0.012	0.230	5.33	OK
16	0.013	0.230	5.71	OK
17	0.014	0.230	6.28	OK
18	0.014	0.230	6.17	OK
19	0.012	0.230	5.40	OK
20	0.011	0.230	4.93	OK
21	0.010	0.230	4.49	OK
22	0.008	0.230	3.40	OK
23	0.013	0.230	5.65	OK
24	0.005	0.230	2.35	OK
25	0.009	0.230	3.97	OK
26	0.010	0.230	4.28	OK
27	0.010	0.230	4.38	OK
28	0.009	0.230	3.79	OK
29	0.005	0.230	2.28	OK
30	0.008	0.230	3.30	OK
31	0.007	0.230	3.24	OK
32	0.007	0.230	2.92	OK
33	0.007	0.230	2.83	OK
34	0.004	0.230	1.82	OK
35	0.006	0.230	2.55	OK
36	0.004	0.230	1.60	OK
37	0.002	0.230	0.78	OK
38	0.003	0.230	1.51	OK
39	0.006	0.230	2.54	OK
40	0.005	0.230	2.10	OK

EUT Name	Smart Video Doorbell G4	Model:	SVD-C01
Environmental Conditions	24.2°C/48%RH/101.0kPa	Test Mode	Mode 2
Power supply	AC 24V supply by AC power convert from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-11-16	Sample No.	E20220818423001-0005

Test category: Class-A (European limits)

Test Margin: 100

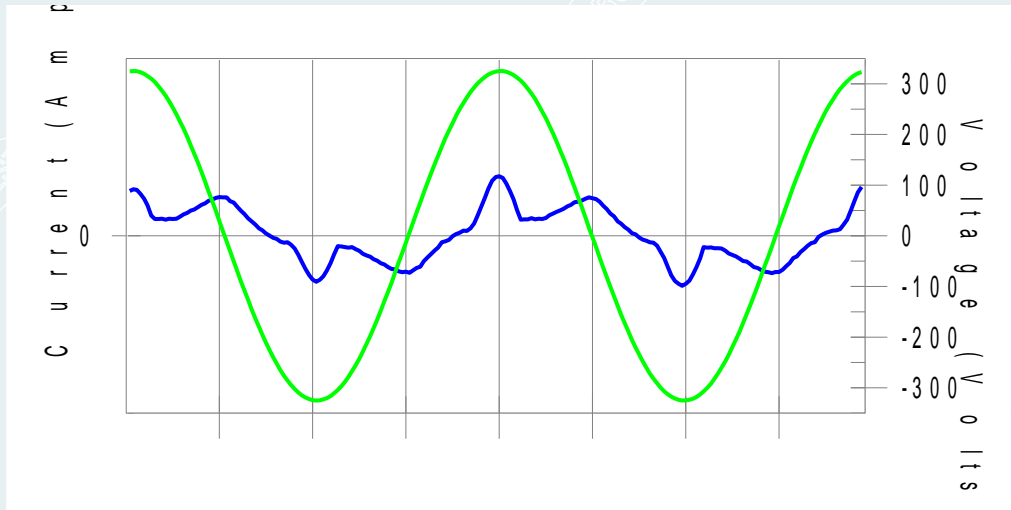
Test duration (min): 2.5

Data file name: H-000442.cts_data

Test Result: Pass

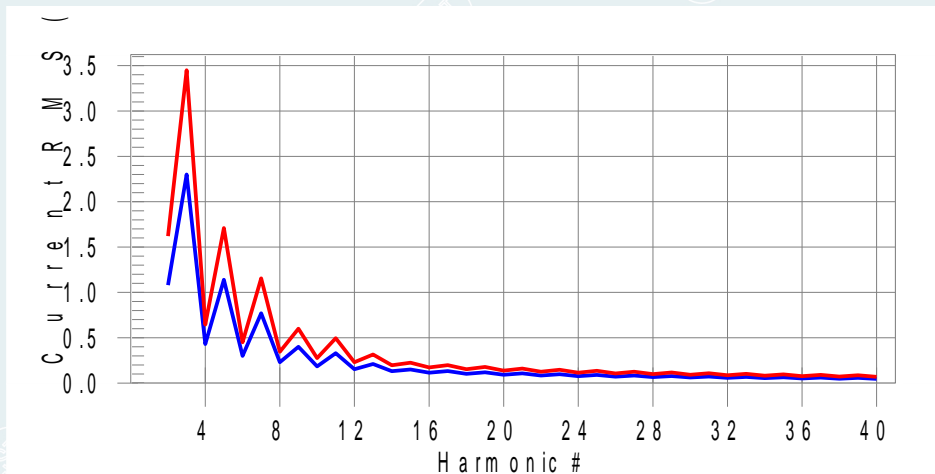
Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line

European Limits



Test result: Pass Worst harmonics H5-0.4% of 150% limit, H5-.5% of 100% limit

Current Test Result Summary (Run time)

Test category: Class-A (European limits) Test Margin: 100
 Test duration (min): 2.5 Data file name: H-000442.cts_data

Test Result: Pass Source qualification: Normal
 THC(A): 0.012 I-THD(%): 45.1 POHC(A): 0.000 POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts): 230.08 Frequency(Hz): 50.00
 I_Peak (Amps): 0.068 I_RMS (Amps): 0.030
 I_Fund (Amps): 0.026 Crest Factor: 2.336
 Power (Watts): 4.1 Power Factor: 0.630

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	0.009	2.300	0.4	0.010	3.450	0.3	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.006	1.140	0.5	0.006	1.710	0.4	Pass
6	0.000	0.300	N/A	0.000	0.450	N/A	Pass
7	0.004	0.770	N/A	0.004	1.155	N/A	Pass
8	0.000	0.230	N/A	0.000	0.345	N/A	Pass
9	0.002	0.400	N/A	0.002	0.600	N/A	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.001	0.330	N/A	0.001	0.495	N/A	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.000	0.210	N/A	0.000	0.315	N/A	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.000	0.150	N/A	0.000	0.225	N/A	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.000	0.132	N/A	0.000	0.198	N/A	Pass
18	0.000	0.102	N/A	0.000	0.153	N/A	Pass
19	0.000	0.118	N/A	0.000	0.178	N/A	Pass
20	0.000	0.092	N/A	0.000	0.138	N/A	Pass
21	0.000	0.107	N/A	0.000	0.161	N/A	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.000	0.098	N/A	0.000	0.147	N/A	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.000	0.090	N/A	0.000	0.135	N/A	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.000	0.083	N/A	0.000	0.125	N/A	Pass
28	0.000	0.066	N/A	0.000	0.099	N/A	Pass
29	0.000	0.078	N/A	0.000	0.116	N/A	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.000	0.073	N/A	0.000	0.109	N/A	Pass
32	0.000	0.058	N/A	0.000	0.086	N/A	Pass
33	0.000	0.068	N/A	0.000	0.102	N/A	Pass
34	0.000	0.054	N/A	0.000	0.081	N/A	Pass
35	0.000	0.064	N/A	0.000	0.096	N/A	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.000	0.061	N/A	0.000	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)

Test category: Class-A (European limits) Test Margin: 100
Test duration (min): 2.5 Data file name: H-000442.cts_data

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 230.08	Frequency(Hz): 50.00
I_Peak (Amps): 0.068	I_RMS (Amps): 0.030
I_Fund (Amps): 0.026	Crest Factor: 2.336
Power (Watts): 4.1	Power Factor: 0.630

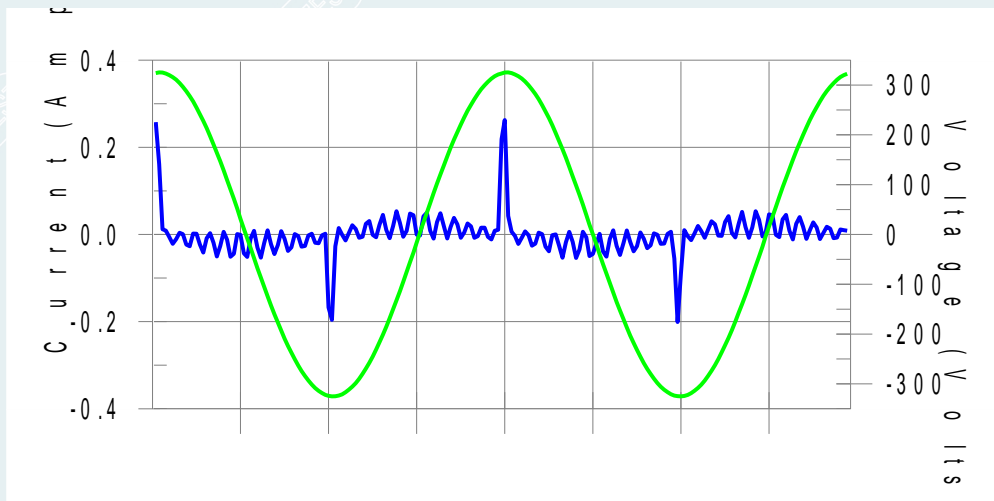
Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.157	0.460	34.05	OK
3	0.423	2.071	20.44	OK
4	0.073	0.460	15.88	OK
5	0.057	0.920	6.15	OK
6	0.039	0.460	8.47	OK
7	0.023	0.690	3.30	OK
8	0.023	0.460	4.93	OK
9	0.021	0.460	4.50	OK
10	0.025	0.460	5.36	OK
11	0.015	0.230	6.45	OK
12	0.021	0.230	8.92	OK
13	0.012	0.230	5.42	OK
14	0.013	0.230	5.65	OK
15	0.011	0.230	4.66	OK
16	0.013	0.230	5.58	OK
17	0.014	0.230	6.18	OK
18	0.017	0.230	7.31	OK
19	0.009	0.230	3.97	OK
20	0.014	0.230	6.29	OK
21	0.010	0.230	4.15	OK
22	0.009	0.230	3.75	OK
23	0.007	0.230	2.86	OK
24	0.006	0.230	2.63	OK
25	0.008	0.230	3.56	OK
26	0.010	0.230	4.30	OK
27	0.006	0.230	2.55	OK
28	0.009	0.230	4.08	OK
29	0.005	0.230	2.22	OK
30	0.008	0.230	3.48	OK
31	0.004	0.230	1.81	OK
32	0.012	0.230	5.10	OK
33	0.006	0.230	2.73	OK
34	0.008	0.230	3.51	OK
35	0.003	0.230	1.17	OK
36	0.010	0.230	4.18	OK
37	0.003	0.230	1.42	OK
38	0.006	0.230	2.46	OK
39	0.004	0.230	1.75	OK
40	0.005	0.230	2.19	OK

EUT Name	Smart Video Doorbell G4	Model:	SVD-C01
Environmental Conditions	24.5°C/45%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 24V supply by DC adapter from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-10-10	Sample No.	E20220818423001-0005

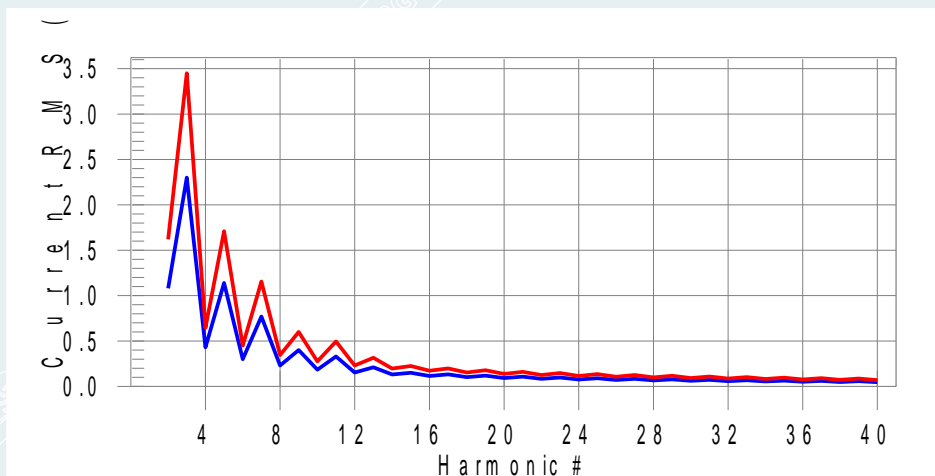
Test category: Class-A (European limits) Test Margin: 100
 Test duration (min): 2.5 Data file name: H-000420.cts_data

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass **Worst harmonics H27-4.8% of 150% limit, H25-6.9% of 100% limit**

Current Test Result Summary (Run time)

Test category: Class-A (European limits) Test Margin: 100
 Test duration (min): 2.5 Data file name: H-000420.cts_data

Test Result: Pass Source qualification: Normal
 THC(A): 0.031 I-THD(%): 164.1 POHC(A): 0.017 POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts): 230.04 Frequency(Hz): 50.00
 I_Peak (Amps): 0.311 I_RMS (Amps): 0.046
 I_Fund (Amps): 0.019 Crest Factor: 7.516
 Power (Watts): 2.3 Power Factor: 0.258

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	0.010	2.300	0.4	0.011	3.450	0.3	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.010	1.140	0.8	0.010	1.710	0.6	Pass
6	0.001	0.300	N/A	0.002	0.450	N/A	Pass
7	0.009	0.770	1.2	0.010	1.155	0.8	Pass
8	0.001	0.230	N/A	0.001	0.345	N/A	Pass
9	0.009	0.400	2.3	0.010	0.600	1.6	Pass
10	0.001	0.184	N/A	0.001	0.276	N/A	Pass
11	0.009	0.330	2.7	0.009	0.495	1.9	Pass
12	0.001	0.153	N/A	0.001	0.230	N/A	Pass
13	0.009	0.210	4.1	0.009	0.315	2.9	Pass
14	0.001	0.131	N/A	0.001	0.197	N/A	Pass
15	0.008	0.150	5.6	0.009	0.225	3.8	Pass
16	0.001	0.115	N/A	0.001	0.173	N/A	Pass
17	0.008	0.132	6.0	0.008	0.198	4.2	Pass
18	0.001	0.102	N/A	0.001	0.153	N/A	Pass
19	0.008	0.118	6.4	0.008	0.178	4.4	Pass
20	0.001	0.092	N/A	0.001	0.138	N/A	Pass
21	0.007	0.107	6.6	0.007	0.161	4.6	Pass
22	0.001	0.084	N/A	0.001	0.125	N/A	Pass
23	0.007	0.098	6.8	0.007	0.147	4.7	Pass
24	0.001	0.077	N/A	0.001	0.115	N/A	Pass
25	0.006	0.090	6.9	0.006	0.135	4.7	Pass
26	0.001	0.071	N/A	0.001	0.107	N/A	Pass
27	0.006	0.083	6.9	0.006	0.125	4.8	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.005	0.078	6.8	0.005	0.116	4.7	Pass
30	0.001	0.061	N/A	0.001	0.092	N/A	Pass
31	0.005	0.073	N/A	0.005	0.109	N/A	Pass
32	0.000	0.058	N/A	0.001	0.086	N/A	Pass
33	0.004	0.068	N/A	0.005	0.102	N/A	Pass
34	0.000	0.054	N/A	0.001	0.081	N/A	Pass
35	0.004	0.064	N/A	0.004	0.096	N/A	Pass
36	0.000	0.051	N/A	0.001	0.077	N/A	Pass
37	0.003	0.061	N/A	0.004	0.091	N/A	Pass
38	0.000	0.048	N/A	0.001	0.073	N/A	Pass
39	0.003	0.058	N/A	0.003	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)

Test category: Class-A (European limits) **Test Margin: 100**
Test duration (min): 2.5 **Data file name: H-000420.cts_data**

Test Result: Pass **Source qualification: Normal**

Highest parameter values during test:

Voltage (Vrms): 230.04	Frequency(Hz): 50.00
I_Peak (Amps): 0.311	I_RMS (Amps): 0.046
I_Fund (Amps): 0.019	Crest Factor: 7.516
Power (Watts): 2.3	Power Factor: 0.258

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.154	0.460	33.37	OK
3	0.428	2.070	20.68	OK
4	0.069	0.460	14.95	OK
5	0.053	0.920	5.79	OK
6	0.036	0.460	7.77	OK
7	0.022	0.690	3.17	OK
8	0.019	0.460	4.17	OK
9	0.016	0.460	3.53	OK
10	0.030	0.460	6.50	OK
11	0.016	0.230	7.06	OK
12	0.019	0.230	8.38	OK
13	0.014	0.230	6.28	OK
14	0.012	0.230	5.14	OK
15	0.012	0.230	5.28	OK
16	0.013	0.230	5.80	OK
17	0.018	0.230	7.63	OK
18	0.014	0.230	6.24	OK
19	0.012	0.230	5.01	OK
20	0.011	0.230	4.81	OK
21	0.012	0.230	5.31	OK
22	0.008	0.230	3.53	OK
23	0.013	0.230	5.76	OK
24	0.006	0.230	2.79	OK
25	0.010	0.230	4.53	OK
26	0.010	0.230	4.21	OK
27	0.011	0.230	4.60	OK
28	0.009	0.230	3.88	OK
29	0.006	0.230	2.75	OK
30	0.009	0.230	3.79	OK
31	0.009	0.230	4.01	OK
32	0.006	0.230	2.78	OK
33	0.008	0.230	3.53	OK
34	0.004	0.230	1.93	OK
35	0.008	0.230	3.67	OK
36	0.004	0.230	1.90	OK
37	0.005	0.230	1.99	OK
38	0.004	0.230	1.54	OK
39	0.008	0.230	3.52	OK
40	0.005	0.230	2.22	OK

5.4 VOLTAGE FLUCTUATIONS AND FLICKER

Test Requirement: ETSI EN 301 489-17 V3.2.4(2020-09)/7.1.1
ETSI EN 301 489-1 V2.2.3(2019-11)/8.6

Test Method: EN 61000-3-3

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

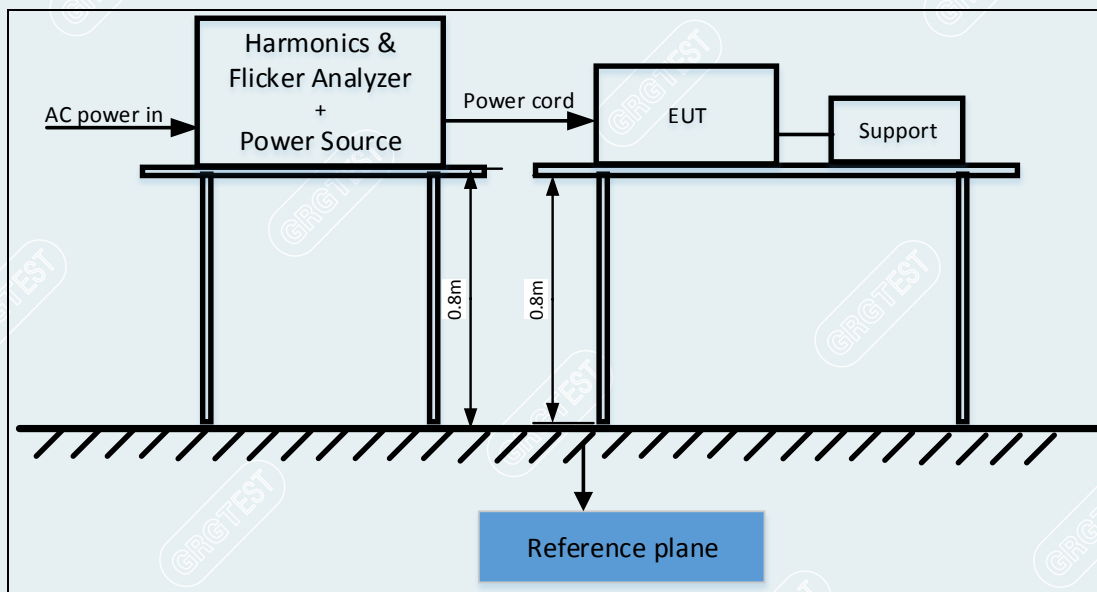


Figure 7.4-1: Test arrangement for Voltage fluctuations and flicker measurement.

5.4.4 PHOTOGRAPH OF THE TEST ARRANGEMENT



Mode 1



Mode 2



Mode 3

----- The following blanks -----

5.4.5 TEST RESULTS

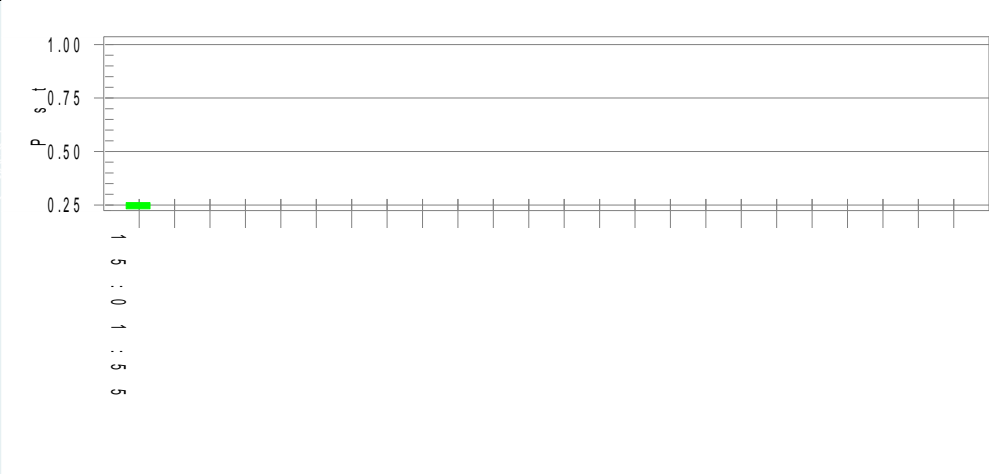
EUT Name	Chime Repeater	Model:	SVD-C02
Environmental Conditions	24.5°C/45%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 5V supply by adapter from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-10-10	Sample No.	E20220818423001-0006

Test category: All parameters (European limits) Test Margin: 100
 Test duration (min): 10 Data file name: F-000423.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

Highest dt (%):

T-max (mS): 0

Highest dc (%): 0.00

Highest dmax (%): 0.00

Highest Pst (10 min. period): 0.261

Highest Plt (2 hr. period): 0.114

Test limit (%):

Test limit (mS): 500.0 Pass

Test limit (%): 3.30 Pass

Test limit (%): 4.00 Pass

Test limit: 1.000 Pass

Test limit: 0.650 Pass

EUT Name	Smart Video Doorbell G4	Model:	SVD-C01
Environmental Conditions	24.2°C/48%RH/101.0kPa	Test Mode	Mode 2
Power supply	AC 24V supply by AC power convert from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-11-16	Sample No.	E20220818423001-0005

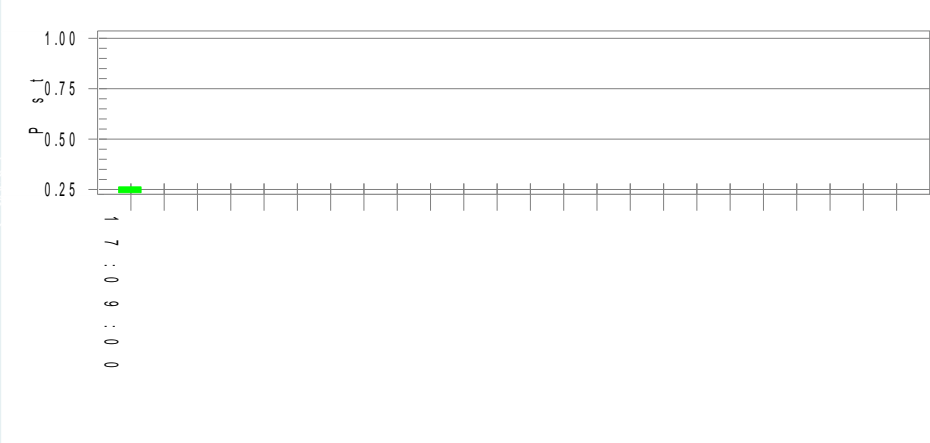
Test category: All parameters (European limits) Test Margin: 100

Test duration (min): 10 Data file name: F-000443.cts_data

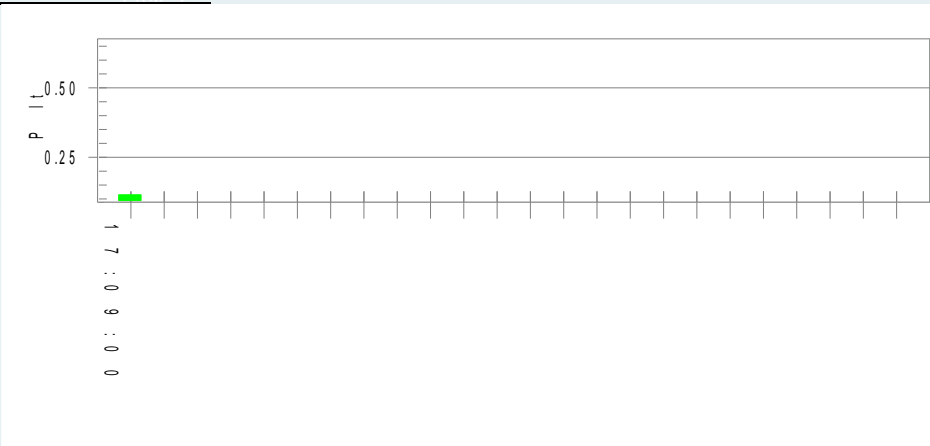
Test Result: Pass Status: Test Completed

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

Highest dt (%):

T-max (mS): 0

Highest dc (%): 0.00

Highest dmax (%): 0.00

Highest Pst (10 min. period): 0.263

Highest Plt (2 hr. period): 0.115

Test limit (%):

Test limit (mS): 500.0 Pass

Test limit (%): 3.30 Pass

Test limit (%): 4.00 Pass

Test limit: 1.000 Pass

Test limit: 0.650 Pass

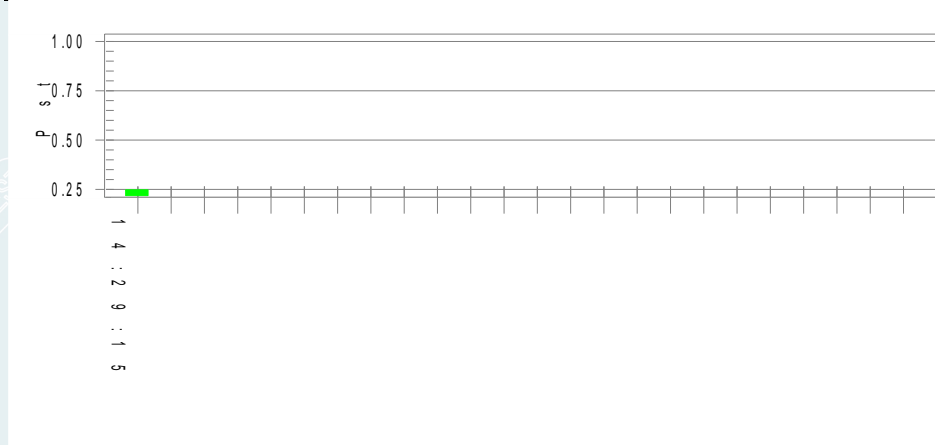
EUT Name	Smart Video Doorbell G4	Model:	SVD-C01
Environmental Conditions	24.5°C/45%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 24V supply by DC adapter from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-10-10	Sample No.	E20220818423001-0005

Test category: All parameters (European limits) Test Margin: 100
Test duration (min): 10 Data file name: F-000419.cts_data

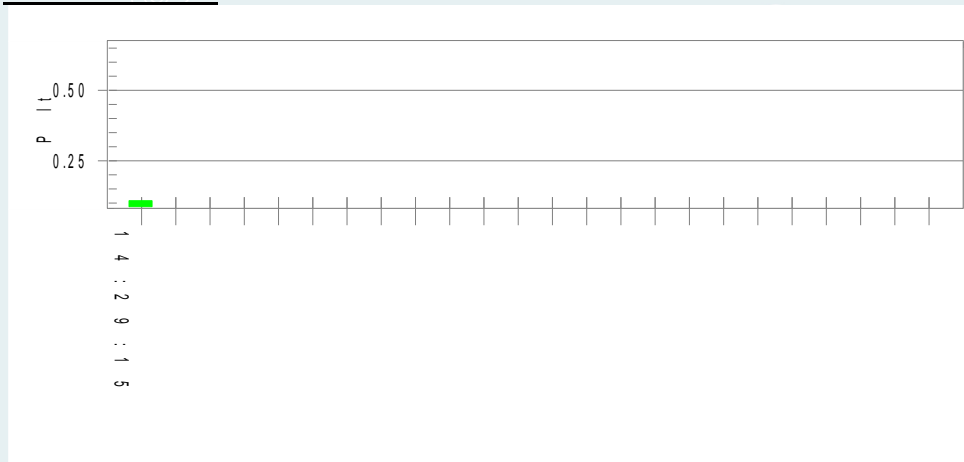
Test Result: Pass Status: Test Completed

Pst_i and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 230.03

Highest dt (%):

T-max (mS):

Highest dc (%):

Highest dmax (%):

Highest Pst (10 min. period):

Highest Plt (2 hr. period):

0

0.00

0.00

0.248

0.108

Test limit (%):

Test limit (mS): 500.0

Test limit (%): 3.30

Test limit (%): 4.00

Test limit: 1.000

Test limit: 0.650

Pass

Pass

Pass

Pass

Pass

6. IMMUNITY TEST

6.1 GENERAL DESCRIPTION

EMC Immunity					
ETSI EN 301 489-17 V3.2.4 (2020-09)&ETSI EN 301 489-1 V2.2.3 (2019-11)&EN 55035:2017/A11:2020					
Item	Application port	Equipment test requirement	Test method	Performance Criterion	Result
Electrostatic discharge (ESD)	Enclosure port	ETSI EN 301 489-17 V3.2.4 (2020-09) /7.2.1 ETSI EN 301 489-1 V2.2.3 (2019-11)/9.3 EN 55035:2017/A11:2020 Table 1	EN 61000-4-2	Test specification: ±2, ±4, ±8kV air discharge ±4kV Contact discharge Performance : Criteria B	PASS
Radiated radio-frequency electromagnetic (RS)	Enclosure port	ETSI EN 301 489-1 V2.2.3 (2019-11)/9.2 ETSI EN 301 489-17 V3.2.4 (2020-09) /7.2.1	EN 61000-4-3	Test specification: Test level: For the frequency range 80MHz to 6000MHz, test level shall be 3 V/m, 80% AM(1kHz) Performance: Criteria A	PASS
Radiated radio-frequency electromagnetic (RS)	Enclosure port	EN 55035:2017/A11:2020 Table 1	IEC 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(1kHz) Performance: Criteria A	PASS
Electrical fast transients(EFT)	AC mains power input port/signal ports	EN 301 489-17 V3.2.4 /7.2.1 EN 301 489-1 V2.2.3 /9.4 EN 55035:2017/A11:2020 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	EN 301 489-17 V3.2.4 /7.2.1 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: ±0.5 kV, ±1 kV; Performance : Criteria B	PASS
Surge	AC mains power input port	EN 55035:2017/A11:2020 Table 4	IEC 61000-4-5	Test specification: AC Power Port: 1.2/50 us pulse line to line: ±0.5 kV, ±1 kV; Performance : Criteria B	PASS

Radio frequency continuous conducted(CS)	AC mains power input port	EN 301 489-17 V3.2.4 /7.2.1 EN 301 489-1 V2.2.3 /9.5	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/A11:2020 Table 4	IEC 61000-4-6	Test specification: AC power port 0.15~10 MHz, 3Vrms, 80% AM, 1kHz 10MHz ~ 30MHz, 3-1Vrms, 80% AM, 1kHz 30MHz ~ 80MHz, 1Vrms, 80% AM, 1kHz Performance: Criteria A	PASS
Power frequency magnetic field(PFMF)	Enclosure ports	EN 55035:2017/A11:2020 Table 1	IEC 61000-4-8	1A/m 50Hz and 60Hz Performance Criterion A	PASS
Voltage Dips & Short Interruptions	AC mains power input port	EN 301 489-17 V3.2.4 /7.2.1 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/A11:2020 Table 4	IEC 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, Performance: Criteria C; 2. Voltage interruption: 0% residual voltage during 250 cycles for 50Hz. Performance: Criteria C;	PASS

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

----- The following blanks -----

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.

Performance Criteria	Description
Performance criteria for continuous phenomena applied to transmitters and receivers	If no further details are given in the relevant part of EN 301 489 series [i.13] dealing with the particular type of radio equipment, the following general performance criteria for continuous phenomena shall apply. During and after the test, the apparatus shall continue to operate as intended. No degradation of performance or loss of function is allowed below a permissible performance level specified by the manufacturer when the apparatus is used as intended. In some cases this permissible performance level may be replaced by a permissible loss of performance. During the test the EUT shall not unintentionally transmit or change its actual operating state and stored data. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be deduced from the product description and documentation and what the user may reasonably expect from the apparatus if used as intended.
Performance criteria for transient phenomena applied to transmitters and receivers	If no further details are given in the relevant part of EN 301 489 series [i.13] dealing with the particular type of radio equipment, the following general performance criteria for transient phenomena shall apply. For surges applied to symmetrically operated wired network ports intended to be connected directly to outdoor lines the following criteria applies: <ul style="list-style-type: none"> • For products with only one symmetrical port intended for connection to outdoor lines, 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 SW reboot is not allowed.

	<p>Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.</p> <ul style="list-style-type: none"> • For products with more than one symmetrical port intended for connection to outdoor lines, loss of function on the port under test is allowed, provided the function is self-recoverable. A SW reboot is not allowed. Information stored in non-volatile memory, or protected by a battery backup, shall not be lost. <p>For all other ports the following applies:</p> <ul style="list-style-type: none"> • After the test, the equipment shall continue to operate as intended. No degradation of performance or loss of function is allowed below a permissible performance level specified by the manufacturer, when the equipment is used as intended. In some cases this permissible performance level may be replaced by a permissible loss of performance. • During the EMC exposure to an electromagnetic phenomenon, a degradation of performance is, however, allowed. No change of the actual mode of operation (e.g. unintended transmission) or stored data is allowed. • If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be deduced from the product description and documentation and what the user may reasonably expect from the equipment if used as intended.
<p>Performance criteria for equipment which does not provide a continuous communication link</p>	<p>For radio equipment which does not provide a continuous communication link, the performance criteria described in clauses 6.1 and 6.2 are not appropriate, in these cases the manufacturer shall declare, for inclusion in the test report, his own specification for an acceptable level of performance or degradation of performance during and/or after the immunity tests. The performance specification shall be included in the product description and documentation. The related specifications set out in clause 5.3 have also to be taken into account. The performance criteria specified by the manufacturer shall give the same degree of immunity protection as called for in clauses 6.1 and 6.2.</p>
<p>Performance criteria for ancillary equipment tested on a stand alone basis</p>	<p>If ancillary equipment is intended to be tested on a stand alone basis, the performance criteria described in clauses 6.1 and 6.2 are not appropriate, in these cases the manufacturer shall declare, for inclusion in the test report, his own specification for an acceptable level of performance or degradation of performance during and/or after the immunity tests. The performance specification shall be included in the product description and documentation. The related specifications set out in clause 5.3 have also to be taken into account. The performance criteria specified by the manufacturer shall give the same degree of immunity protection as called for in clauses 6.1 and 6.2.</p>

Performance Criteria	Description
CT	The performance criteria A shall apply. Tests shall be repeated with the EUT in standby mode (if applicable) to ensure that unintentional transmission does not occur. In systems using acknowledgement signals, it is recognized that an ACKnowledgement (ACK) or Not ACKnowledgement (NACK) transmission may occur, and steps should be taken to ensure that any transmission resulting from the application of the test is correctly interpreted.
TT	The performance criteria B shall apply, except for voltage dips of 100 ms and voltage interruptions of 5 000 ms duration, for which performance criteria C shall apply. Tests shall be repeated with the EUT in standby mode (if applicable) to ensure that unintentional transmission does not occur. In systems using acknowledgement signals, it is recognized that an acknowledgement (ACK) or not-acknowledgement (NACK) transmission may occur, and steps should be taken to ensure that any transmission resulting from the application of the test is correctly interpreted.
CR	The performance criteria A shall apply. Where the EUT is a transceiver, under no circumstances, shall the transmitter operate unintentionally during the test. In systems using acknowledgement signals, it is recognized that an ACK or NACK transmission may occur, and steps should be taken to ensure that any transmission resulting from the application of the test is correctly interpreted.
TR	The performance criteria B shall apply, except for voltage dips of 100 ms and voltage interruptions of 5 000 ms duration for which performance criteria C shall apply. Where the EUT is a transceiver, under no circumstances, shall the transmitter operate unintentionally during the test. In systems using acknowledgement signals, it is recognized that an ACK or NACK transmission may occur, and steps should be taken to ensure that any transmission resulting from the application of the test is correctly interpreted.

Note:

Criterion A applies for immunity tests with phenomena of a continuous nature. (CT, CR)

Criterion B applies for immunity tests with phenomena of a transient nature. (TT, TR)

Criterion C for immunity tests with power interruptions exceeding a certain time.

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 to 10 %.

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

6.2.3 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.

6.2.4 PERFORMANCE CRITERIA FOR TRANSIENT PHENOMENA

The performance criteria B shall apply, except for voltage dips greater than or equal to 100 ms and voltage interruptions of 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 application of the test.

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

----- **The following blanks** -----

6.3 GENERAL PERFORMANCE CRITERIA DESCRIPTION (EN 55035)

6.3.1 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.

----- The following blanks -----

6.4 ELECTROSTATIC DISCHARGE(ESD)

6.4.1 TEST SPECIFICATION

Test Requirement:	ETSI EN 301 489-17 V3.2.4(2020-09) /7.2.1 ETSI EN 301 489-1 V2.2.3(2019-11)/9.3 EN 55035:2017/A11:2020 Table 1
Test Method:	EN 61000-4-2:2009
Discharge Impedance:	330 ohm / 150 pF
Discharge Voltage:	Air Discharge : ± 2 kV, ± 4 kV, ± 8 kV; Contact Discharge: ± 4 kV
Polarity:	Positive & Negative
Number of Discharge:	At least 10 times at each test point
Discharge Mode:	Single Discharge 1 second

6.4.2 TEST PROCEDURE

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

The test generator necessary to perform direct and indirect application of discharges to the EUT in the following manner:

- (1) The test shall be performed with single discharges. On each pre-selected point at least 10 single discharges (in the most sensitive polarity) shall be applied.

NOTE 1 The minimum number of discharges applied is depending on the EUT; for products with synchronized circuits the number of discharges should be larger.

For the time interval between successive single discharges an initial value of 1 s is recommended. Longer intervals may be necessary to determine whether a system failure has occurred.

NOTE 2 The points to which the discharges should be applied may be selected by means of an exploration carried out at a repetition rate of 20 discharges per second, or more.

Vertical Coupling Plane (VCP):

The coupling plane, of dimensions 0.5m x 0.5m, is placed parallel to, and positioned at a distance 0.1m from, the EUT, with the Discharge Electrode touching the coupling plane.

The four faces of the EUT will be performed with electrostatic discharge.

Horizontal Coupling Plane (HCP):

The coupling plane is placed under to the EUT. The generator shall be positioned vertically at a distance of 0.1m from the EUT, with the Discharge Electrode touching the coupling plane.

The four faces of the EUT will be performed with electrostatic discharge.

- (2) Air discharges at insulation surfaces of the EUT.

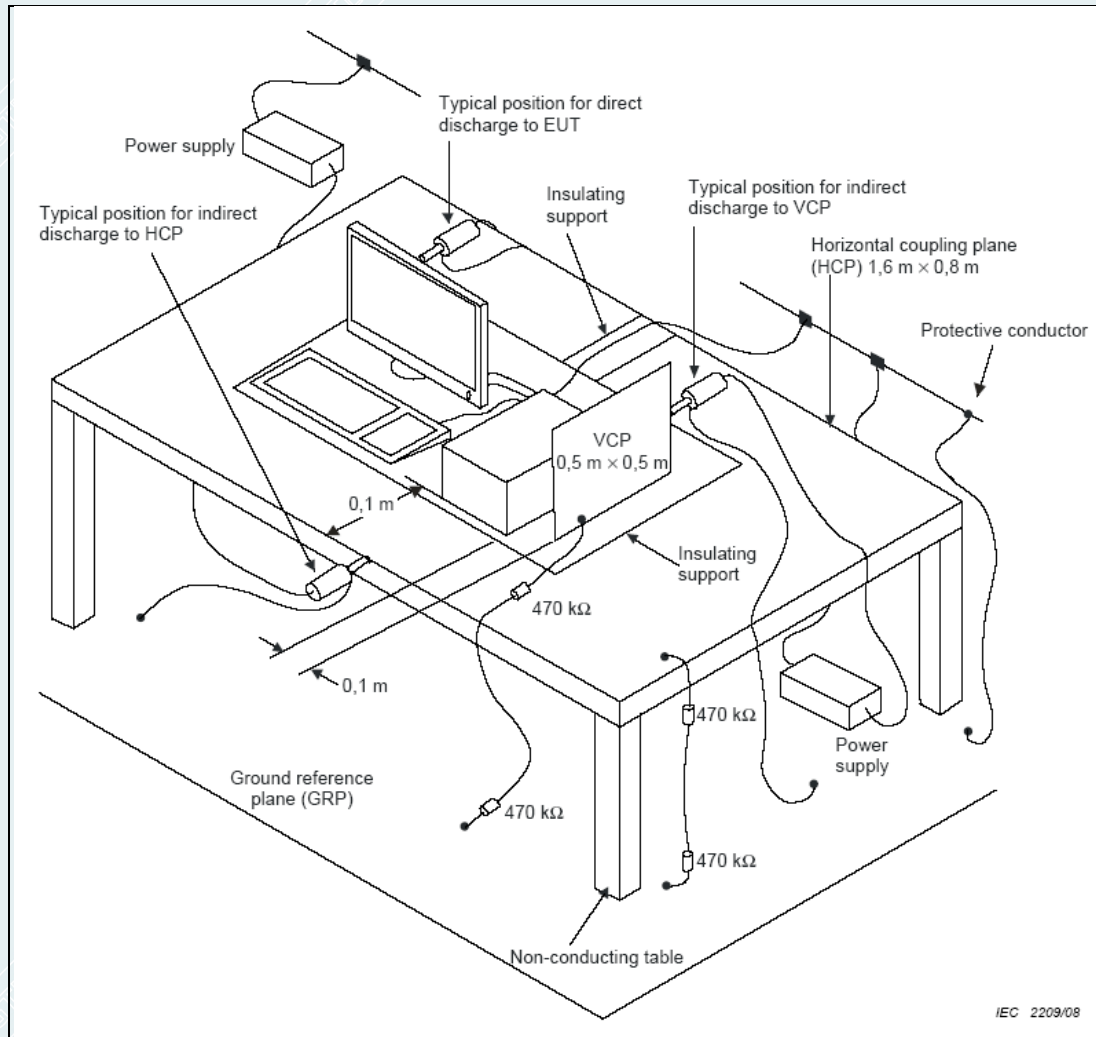
It was at least ten single discharges with positive and negative at the same selected point.

- (3) For TABLE-TOP equipment:

The configuration consisted of a wooden table 0.8 meters high standing on the Ground Reference Plane. The GRP consisted of a sheet of aluminum at least 0.25mm thick, and 2.5 meters square connected to the protective

grounding system. A Horizontal Coupling Plane (1.6m x 0.8m) was placed on the table and attached to the GRP by means of a cable with 940k total impedance. The equipment under test was installed in a representative system as described in EN 61000-4-2, and its cables were placed on the HCP and isolated by an insulating support of 0.5mm thickness. A distance of 1-meter minimum was provided between the EUT and the walls of the laboratory and any other metallic structure.

6.4.3 TEST SETUP



6.4.4 PHOTOGRAPH OF THE TEST ARRANGEMENT



Mode 1



Mode 2



Mode 3

----- The following blanks -----

6.4.5 TEST RESULTS

EUT Name	Smart Video Doorbell G4	Model	SVD-C01
Environmental Conditions	24.6°C/45%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 4.5V supply by battery	Tested By	Jiang Tao
Test Date	2022-11-01	Sample No.	E20220818423001-0005

For EN55035:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Power port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Camera	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Infrared sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Photosensitive sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS

NOTE: ¹⁾Before test, during the test, and after test, the EUT function is normal,wifi connection communication is normal, the video conversation is normal.

----- The following blanks -----

For EN 301489-1/ EN301489-17:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Power port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Camera	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Infrared sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Photosensitive sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
NOTE: ¹⁾ Before test, during the test, and after test, the EUT function is normal,wifi connection communication is normal, the video conversation is normal.					

----- The following blanks -----

EUT Name	Chime Repeater	Model	SVD-C02
Environmental Conditions	24.6°C/45%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 5V supply by adapter from AC 230V/50Hz	Tested By	Jiang Tao
Test Date	2022-11-01	Sample No.	E20220818423001-0006

For EN55035:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Charging port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
TF card slot	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
NOTE: ¹⁾ Before test, during the test, and after test, the EUT function is normal,wifi connection communication is normal, the video conversation is normal.					

For EN 301489-1/ EN301489-17:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Charging port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
TF card slot	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
NOTE: ¹⁾ Before test, during the test, and after test, the EUT function is normal,wifi connection communication is normal, the video conversation is normal.					

EUT Name	Smart Video Doorbell G4	Model	SVD-C01
Environmental Conditions	24.6°C/45%RH/101.0kPa	Test Mode	Mode 2
Power supply	AC 24V supply by AC power convert from AC 230V/50Hz	Tested By	Jiang Tao
Test Date	2022-11-01	Sample No.	E20220818423001-0005

For EN55035:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Power port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Camera	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Infrared sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Photosensitive sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
NOTE: ¹⁾ Before test, during the test, and after test, the EUT function is normal, wifi connection communication is normal, the video conversation is normal.					

----- The following blanks -----

For EN 301489-1/ EN301489-17:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Power port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Camera	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Infrared sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Photosensitive sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
NOTE: ¹⁾ Before test, during the test, and after test, the EUT function is normal,wifi connection communication is normal, the video conversation is normal.					

----- The following blanks -----

EUT Name	Chime Repeater	Model	SVD-C02
Environmental Conditions	24.6°C/45%RH/101.0kPa	Test Mode	Mode 2
Power supply	DC 5V supply by adapter from AC 230V/50Hz	Tested By	Jiang Tao
Test Date	2022-11-01	Sample No.	E20220818423001-0006

For EN55035:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Charging port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
TF card slot	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
NOTE: ¹⁾ Before test, during the test, and after test, the EUT function is normal,wifi connection communication is normal, the video conversation is normal.					

For EN 301489-1/ EN301489-17:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Charging port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
TF card slot	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
NOTE: ¹⁾ Before test, during the test, and after test, the EUT function is normal,wifi connection communication is normal, the video conversation is normal.					

EUT Name	Smart Video Doorbell G4	Model	SVD-C01
Environmental Conditions	24.6°C/45%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 24V supply by adapter from AC 230V/50Hz	Tested By	Jiang Tao
Test Date	2022-11-01	Sample No.	E20220818423001-0005

For EN55035:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Power port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Camera	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Infrared sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Photosensitive sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
NOTE: ¹⁾ Before test, during the test, and after test, the EUT function is normal, wifi connection communication is normal, the video conversation is normal.					

----- The following blanks -----

For EN 301489-1/ EN301489-17:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Power port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Camera	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Infrared sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Photosensitive sensor	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
NOTE: ¹⁾ Before test, during the test, and after test, the EUT function is normal,wifi connection communication is normal, the video conversation is normal.					

----- The following blanks -----

EUT Name	Chime Repeater	Model	SVD-C02
Environmental Conditions	24.6°C/45%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 5V supply by adapter from AC 230V/50Hz	Tested By	Jiang Tao
Test Date	2022-11-01	Sample No.	E20220818423001-0006

For EN55035:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Charging port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
TF card slot	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
NOTE: ¹⁾ Before test, during the test, and after test, the EUT function is normal,wifi connection communication is normal, the video conversation is normal.					

For EN 301489-1/ EN301489-17:

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
Shell gaps	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Charging port	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Indicator light	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Key	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
Horn	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
TF card slot	±2kV, ±4kV, ±8kV	A	Criterion B	Criterion A ¹⁾	PASS
NOTE: ¹⁾ Before test, during the test, and after test, the EUT function is normal,wifi connection communication is normal, the video conversation is normal.					

6.5 RADIATED RADIO-FREQUENCY ELECTROMAGNETIC FIELD (RS)

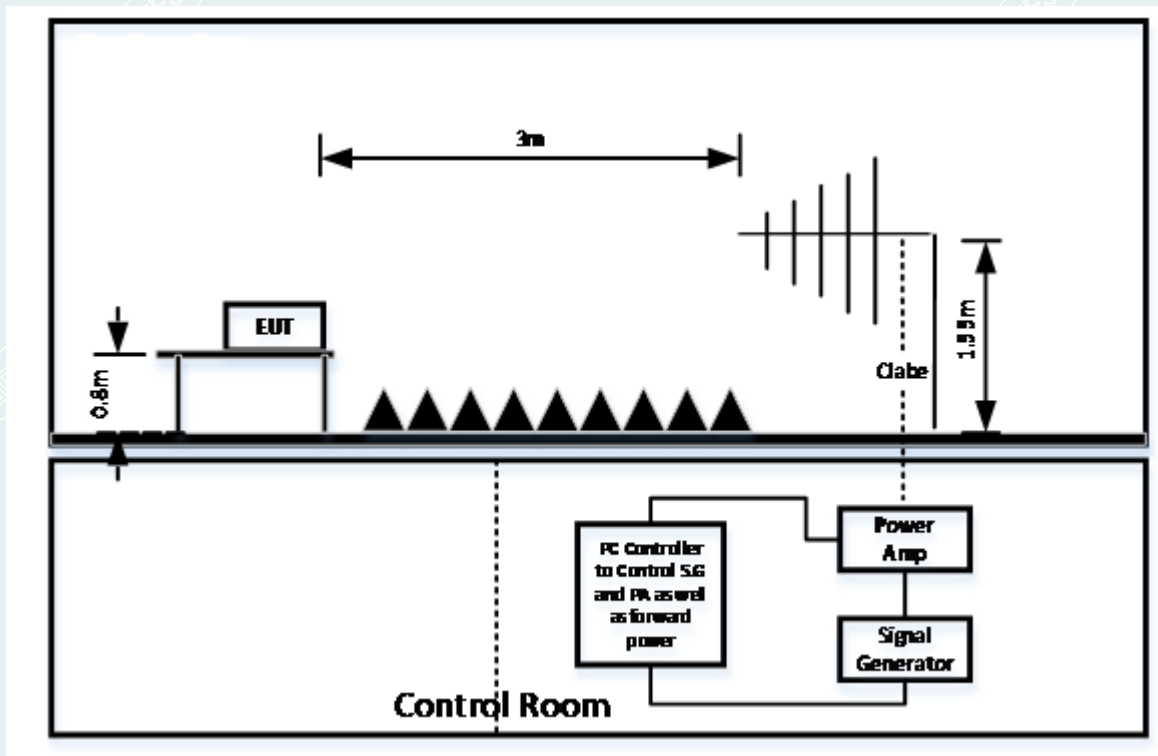
6.5.1 TEST SPECIFICATION

Test Requirement:	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.2.1 ETSI EN 301 489-1 V2.2.3(2019-11)/9.2 EN 55035:2017/A11:2020 Table 1
Test Method:	EN 61000-4-3, IEC 61000-4-3
Frequency Range:	EN 55035: 80MHz~1000MHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz ETSI EN 301 489-1, ETSI EN 301 489-17 80MHz ~ 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

6.5.2 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.

6.5.3 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.

6.5.4 PHOTOGRAPH OF THE TEST ARRANGEMENT

80MHz~1000MHz (Mode 1)



1000MHz~6000MHz (Mode 1)



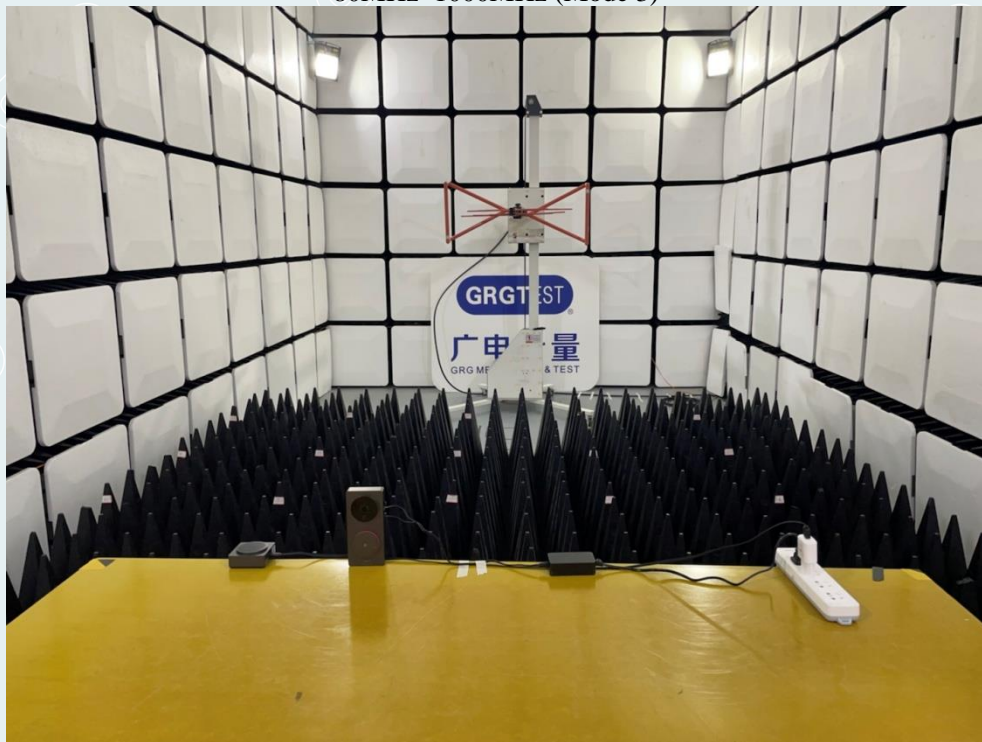
80MHz~1000MHz (Mode 2)



1000MHz~6000MHz (Mode 2)



80MHz~1000MHz (Mode 3)



1000MHz~6000MHz (Mode 3)



6.5.5 TEST RESULTS

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model	SVD-C01/ SVD-C02
Environmental Conditions	24.5°C/45%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 4.5V supply by battery to Smart Video Doorbell G4 / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-10-14	Sample No.	E20220818423001-0005, E20220818423001-0006

For EN 301489-1/ EN301489-17:

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80~6000	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,wifi connection communication is normal, the video conversation is normal.

For EN 55035:

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80~1000	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
1800, 2600, 3500, 5000	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,wifi connection communication is normal, the video conversation is normal.

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model	SVD-C01/ SVD-C02
Environmental Conditions	24.0°C/48%RH/101.0kPa	Test Mode	Mode 2
Power supply	AC 24V supply by AC power convert to Smart Video Doorbell G4 from AC 230V/50Hz / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-11-04	Sample No.	E20220818423001-0005, E20220818423001-0006

For EN 301489-1/ EN301489-17:

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80~6000	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,wifi connection communication is normal, the video conversation is normal.

For EN 55035:

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80~1000	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
1800, 2600, 3500, 5000	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,wifi connection communication is normal, the video conversation is normal.

EUT Name	Smart Video Doorbell G4/ Chime Repeater	Model	SVD-C01/ SVD-C02
Environmental Conditions	24.5°C/45%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 24V supply by adapter to Smart Video Doorbell G4 from AC 230V/50Hz / DC 5V supply by adapter to Chime Repeater from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-10-14	Sample No.	E20220818423001-0005, E20220818423001-0006

For EN 301489-1/ EN301489-17:

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80~6000	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,wifi connection communication is normal, the video conversation is normal.

For EN 55035:

Frequency (MHz)	Field strength (V/m)	EUT orientation	Antenna polarization	Required criterion	Actual performance	Result
80~1000	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

1800, 2600, 3500, 5000	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,wifi connection communication is normal, the video conversation is normal.

6.6 ELECTRICAL FAST TRANSIENTS (EFT)

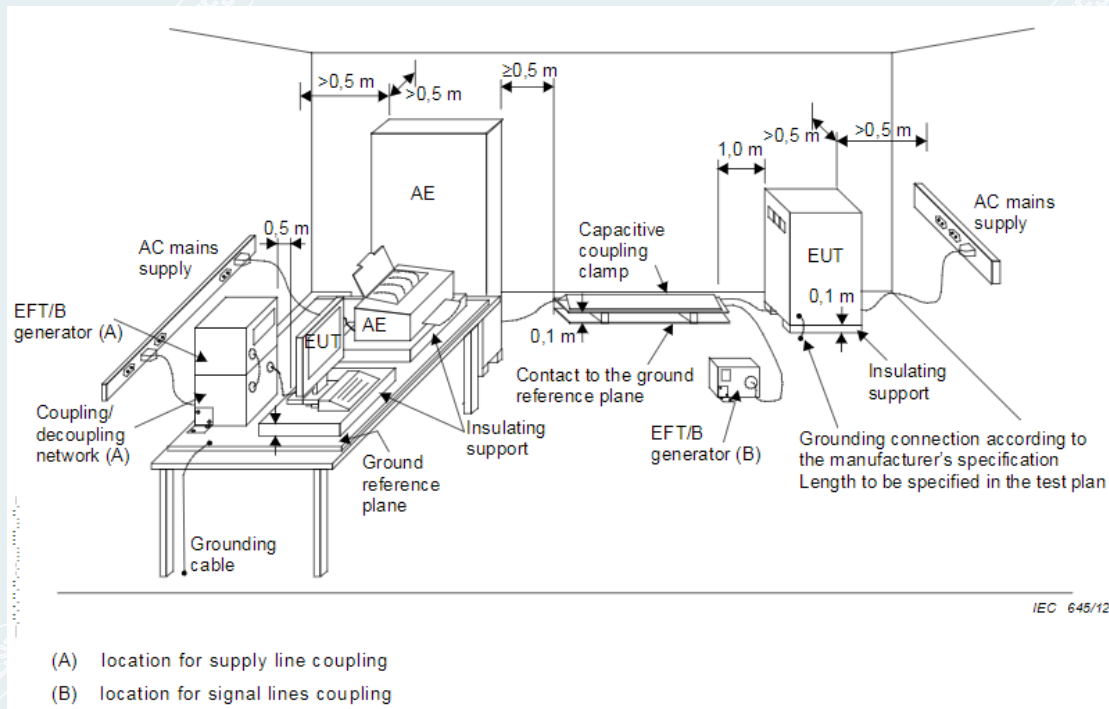
6.6.1 TEST SPECIFICATION

Test Requirement:	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.2.1 ETSI EN 301 489-1 V2.2.3(2019-11)/9.4 EN 55035:2017/A11:2020 Table 4
Test Method:	EN 61000-4-4:2012
Test Voltage:	AC power Port: $\pm 1\text{kV}$
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

6.6.2 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 $0.1\text{ m} \pm 0.01\text{ m}$ 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 $0.5\text{ m} \pm 0.05\text{ m}$ 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.

6.6.3 TEST SETUP



----- The following blanks -----

6.6.4 PHOTOGRAPH OF THE TEST ARRANGEMENT



Mode 1



Mode 2



Mode 3

----- The following blanks -----

6.6.5 TEST RESULTS

EUT Name	Chime Repeater	Model	SVD-C02
Environmental Conditions	24.5°C/45%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 5V supply by adapter from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-10-14	Sample No.	E20220818423001-0006

For EN55035:

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,wifi connection communication is normal, the video conversation is normal.

For EN301489-1/ EN301489-17:

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,wifi connection communication is normal, the video conversation is normal.

EUT Name	Smart Video Doorbell G4	Model	SVD-C01
Environmental Conditions	24.5°C/45%RH/101.0kPa	Test Mode	Mode 2
Power supply	AC 24V supply by AC power convert from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-10-20	Sample No.	E20220818423001-0005

For EN55035:

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,wifi connection communication is normal, the video conversation is normal.

For EN301489-1/ EN301489-17:

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,wifi connection communication is normal, the video conversation is normal.

EUT Name	Smart Video Doorbell G4	Model	SVD-C01
Environmental Conditions	24.5°C/45%RH/101.0kPa	Test Mode	Mode 3
Power supply	DC 24V supply by DC adapter from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-10-14	Sample No.	E20220818423001-0005

For EN55035:

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,wifi connection communication is normal, the video conversation is normal.

For EN301489-1/ EN301489-17:

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,wifi connection communication is normal, the video conversation is normal.

6.7 SURGES

6.7.1 TEST SPECIFICATION

Test Requirement:	ETSI EN 301 489-17 V3.2.4 (2020-09)/7.2.1 ETSI EN 301 489-1 V2.2.3(2019-11)/9.8 EN 55035:2017/A11:2020 Table 4
Test Method:	EN 61000-4-5, IEC 61000-4-5
Wave-Shape:	ETSI EN 301 489-17/ ETSI EN 301 489-1&EN 55035:2017/A11:2020: AC power supply port: Combination Wave 1.2/50 μ s Open Circuit Voltage 8/20 μ s Short Circuit Current
Test Voltage:	AC Port: line to line: ± 0.5 kV, ± 1 kV
Generator Source Impedance:	AC power supply port: Line to line 2ohm
Polarity:	Positive and Negative
Phase Angle:	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

6.7.2 TEST PROCEDURE

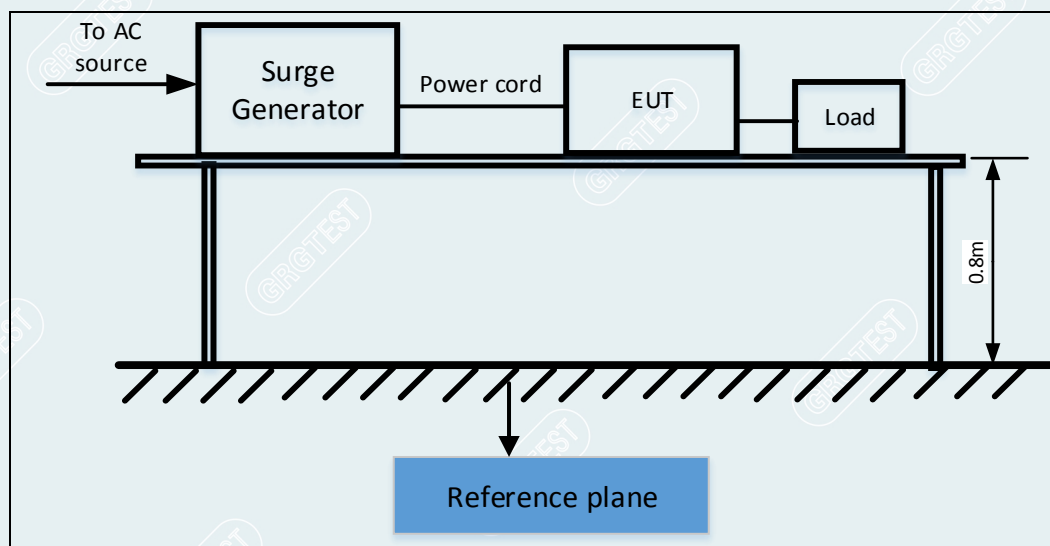
(1) For EUT power supply:

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.

6.7.3 TEST SETUP



----- The following blanks -----

6.7.4 PHOTOGRAPH OF THE TEST ARRANGEMENT



Mode 1



Mode 2



Mode 3

----- The following blanks -----

6.7.5 TEST RESULTS

EUT Name	Chime Repeater	Model	SVD-C02
Environmental Conditions	24.5°C/45%RH/101.0kPa	Test Mode	Mode 1
Power supply	DC 5V supply by adapter from AC 230V/50Hz	Tested By	Wang Xinyuan
Test Date	2022-10-14	Sample No.	E20220818423001-0006

For EN55035:

Test port	Polarity	Test Level	Phase	Required Performance	Actual performance	Result
L-N	+	0.5kV	+90°	Criterion B	Criterion A ¹⁾	PASS
	-	0.5kV	-270°	Criterion B	Criterion A ¹⁾	PASS
	+	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,wifi connection communication is normal, the video conversation is normal.

For EN301489-1/EN301489-17:

Test port	Polarity	Test Level	Phase	Required Performance	Actual performance	Result
L-N	+/-	0.5kV	0°	Criterion B	Criterion A ¹⁾	PASS
	+/-	0.5kV	90°	Criterion B	Criterion A ¹⁾	PASS
	+/-	0.5kV	180°	Criterion B	Criterion A ¹⁾	PASS
	+/-	0.5kV	270°	Criterion B	Criterion A ¹⁾	PASS
	+/-	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,wifi connection communication is normal, the video conversation is normal.

----- The following blanks -----