

# CE Test Report

Product Name : Network Camera  
Model No. : IB9367-EHT-v2,IB9367-EHT-v2(5-50mm)

Applicant : VIVOTEK INC.  
Address : 6F, No.192, Lien-Cheng Rd., Chung-Ho,  
New Taipei City, Taiwan, R.O.C.

Date of Receipt : 2020/09/10  
Issued Date : 2021/12/23  
Report No. : 2090928R-E3012100081  
Report Version : V2.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

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Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

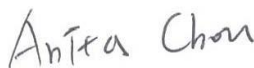
# Test Report


Issued Date : 2021/12/23

Report No. : 2090928R-E3012100081



Product Name : Network Camera  
Applicant : VIVOTEK INC.  
Address : 6F, No.192, Lien-Cheng Rd., Chung-Ho, New Taipei City, Taiwan,  
R.O.C.  
Manufacturer : VIVOTEK INC.  
Model No. : IB9367-EHT-v2,IB9367-EHT-v2(5-50mm)  
EUT Rated Voltage : PoE, DC12V, AC24V  
EUT Test Voltage : AC 230 V / 50 Hz, PoE  
Trade Name : VIVOTEK  
Applicable Standard : EN 50121-1: 2017  
EN 50121-4: 2016/A1: 2019  
EN IEC 61000-6-4: 2019  
EN IEC 61000-6-2: 2019  
EN IEC 61000-3-2: 2019/A1:2021  
EN 61000-3-3: 2013+A1: 2019  
Test Result : Complied  
Performed Location : DEKRA Testing and Certification Co., Ltd.  
Linkou Laboratory  
No. 5-22, Ruishukeng  
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( Senior Engineering Adm. Specialist / Anita Chou )

Approved By :   
( Director / Vincent Lin )

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**Revision History**

Report No.	Version	Description	Issued Date
2090928R-E3012100081	V1.0	Initial issue of report.	2020-12-24
2090928R-E3012100081	V2.0	Added EN IEC 61000-6-2 regulations and updated regulatory version applicable standard	2021-12-23

## 1. General Information

### 1.1. EUT Description

Product Name	Network Camera
Trade Name	VIVOTEK
Model No.	IB9367-EHT-v2,IB9367-EHT-v2(5-50mm)

Note:

The EUT is including two models for different marketing requirement.

## 1.2. Mode of Operation

DEKRA has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Pre-Test Mode	
Mode 1: Normal Operation, DC 12V (Adapter)	
Mode 2: Normal Operation, PoE	
Mode 3: Normal Operation, AC 24V (Adapter)	
Final Test Mode	
Emission	Mode 1: Normal Operation, DC 12V (Adapter) Mode 2: Normal Operation, PoE Mode 3: Normal Operation, AC 24V (Adapter)
Immunity	Mode 1: Normal Operation, DC 12V (Adapter) Mode 2: Normal Operation, PoE Mode 3: Normal Operation, AC 24V (Adapter)

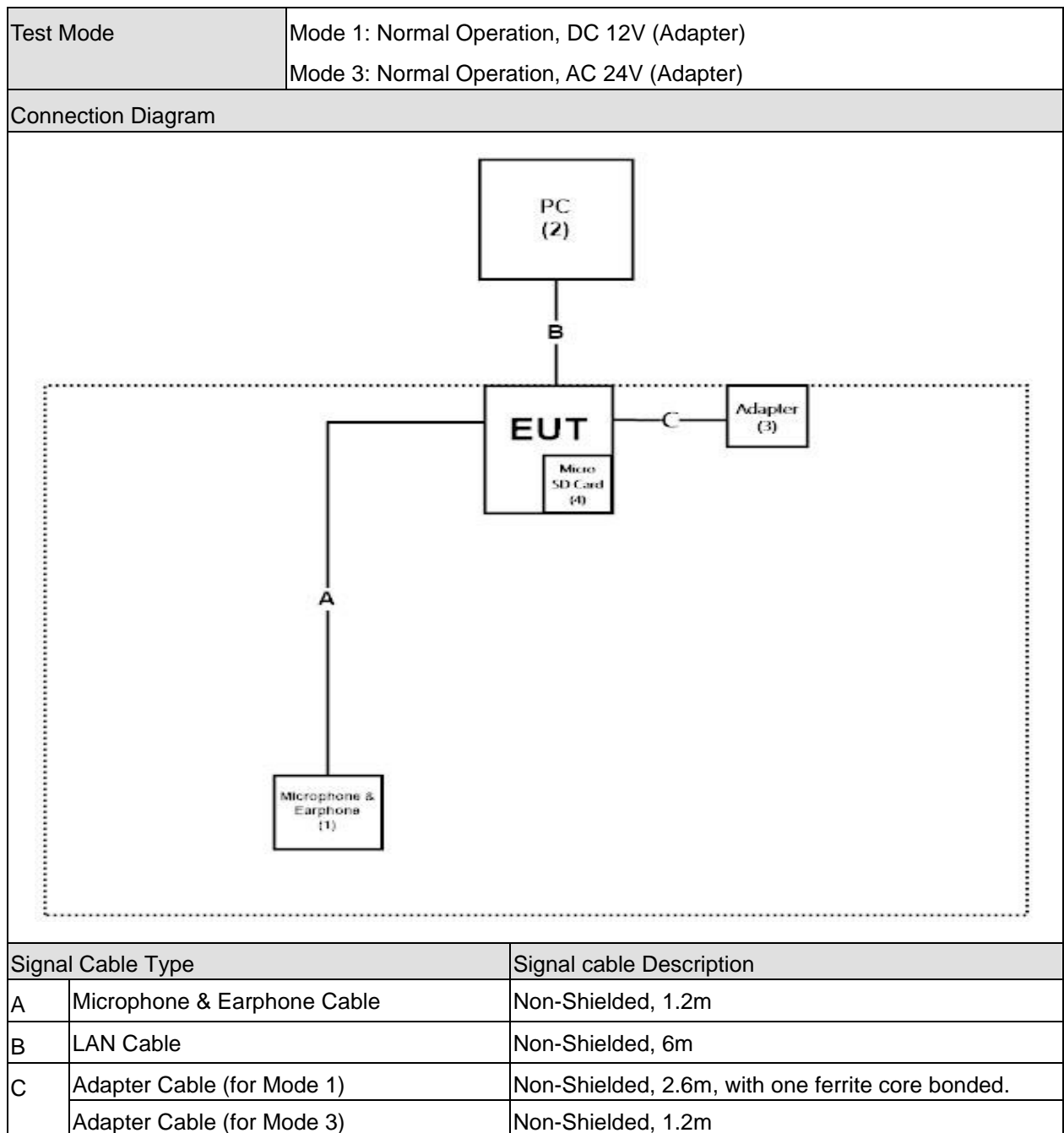
### 1.3. Tested System Details

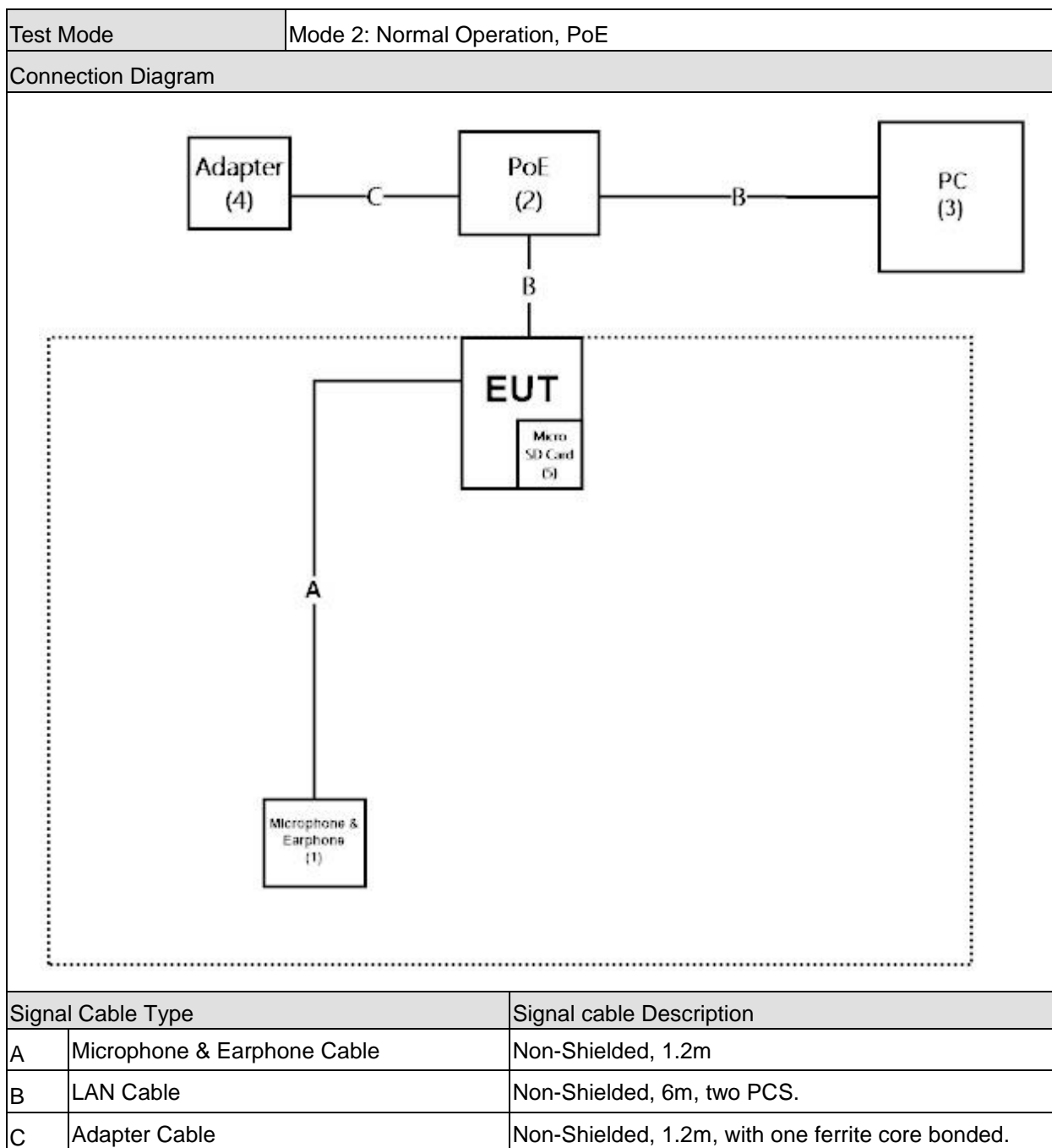
The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Test Mode		Mode 1: Normal Operation, DC 12V (Adapter) Mode 3: Normal Operation, AC 24V (Adapter)			
Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Microphone & Earphone	RONEVER	MOE240	N/A	N/A
2	PC	Lenovo	M920t	PC0ZXN0G	Non-Shielded, 1.8m
3	Adapter (Mode 1)	ENG	6A-181WU12	N/A	N/A
	Adapter (Mode 3)	Fonte De Alimentação	TAA66-2403500E	N/A	N/A
4	Micro SD Card 32G	N/A	N/A	N/A	N/A

Test Mode		Mode 2: Normal Operation, PoE			
Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Microphone & Earphone	RONEVER	MOE240	N/A	N/A
2	PoE	N/A	N/A	N/A	N/A
3	PC	Lenovo	M920t	PC0ZXN0G	Non-Shielded, 1.8m
4	Adapter	EDAC	EA11011P-560	N/A	N/A
5	Micro SD Card 32G	N/A	N/A	N/A	N/A

#### 1.4. Configuration of Tested System





### 1.5. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.4.
2	Turn on the power of all equipment.
3	All the features of the EUT operation normally.



## 2. Technical Test

### 2.1. Summary of Test Result

- ☒ No deviations from the test standards
- ☐ Deviations from the test standards as below description:

Emission			
Performed Item	Normative References	Test Performed	Deviation
Power Line Conducted Emission	EN IEC 61000-6-4: 2019 CISPR 16-2-1: 2003+A1:2005 CISPR 16-1-2: 2003/A2:2006	Yes	No
Impedance Stabilization Network (ISN)	EN IEC 61000-6-4: 2019 CISPR 32: 2015	Yes	No
Radiated Emission	EN IEC 61000-6-4: 2019 CISPR 16-2-3: 2006	Yes	No
Power Harmonics	EN IEC 61000-3-2:2019/A1:2021	Yes	No
Voltage Fluctuation and Flicker	EN 61000-3-3: 2013+A1:2019	Yes	No

Immunity			
Performed Item	Normative References	Test Performed	Deviation
Electrostatic Discharge	IEC 61000-4-2 Ed. 2.0: 2008	Yes	No
Radio-frequency electromagnetic field. (Radiated susceptibility)	IEC 61000-4-3 Ed. 4.0: 2020	Yes	No
Electrical fast transient/burst	IEC 61000-4-4 Ed. 3.0: 2012	Yes	No
Surge	IEC 61000-4-5 Ed. 3.1: 2014 +A1: 2017	Yes	No
Radio-frequency common mode (Conducted susceptibility)	IEC 61000-4-6 Ed. 4.0: 2013	Yes	No
Power frequency magnetic field	IEC 61000-4-8 Ed. 2.0: 2009	Yes	No

## 2.2. List of Test Equipment

### Power Line Conducted Emission / SR8

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
EMI Test Receiver	R&S	ESR3	101973	2021/11/12	2022/11/11
Two-Line V-Network	R&S	ENV216	101479	2021/08/13	2022/08/12
Two-Line V-Network	R&S	ENV216	100097	2021/03/24	2022/03/23
Coaxial Cable	SUHNER	RG 400	LC018-RG	2021/06/18	2022/06/17
Test Software version : DEKRA Test System V2.0					

### Impedance Stabilization Network / SR8

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
EMI Test Receiver	R&S	ESR3	101973	2021/11/12	2022/11/11
Two-Line V-Network	R&S	ENV216	101479	2021/08/13	2022/08/12
Two-Line V-Network	R&S	ENV216	100097	2021/03/24	2022/03/23
Coaxial Cable	SUHNER	RG 400	LC018-RG	2021/06/18	2022/06/17
Impedance Stabilization Network	TESEQ	ISN T800	42815	2021/09/13	2022/09/12
Test Software version : DEKRA Test System V2.0					

### Radiated Emission / Site2

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
Bilog Antenna	Schaffner	CBL6112B	2921	2021/08/11	2022/08/10
EMI Test Receiver	R&S	ESCS 30	100368	2021/11/08	2022/11/07
Coaxial Cable	SUHNER	RG 214	LC002A-RG LC002B-RG	2021/06/10	2022/06/09
Coaxial Switch	Anritsu	MP59B	6200436230	2021/06/10	2022/06/09
Preamplifier	Jet-Power	JPA-10M1G33	170101000330009	2021/06/10	2022/06/09
NSA	DEKRA	N/A	N/A	2021/06/10	2022/06/09
Test Software version : DEKRA Test System V2.0					

### Radiated Emission (Above 1GHz) / CB7

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
Double Ridged Guide Horn Antenna	ETS-Lindgren	3117	00202723	2021/10/12	2022/10/11
Signal Analyzer	R&S	FSV40	101176	2021/05/21	2022/05/20
Coaxial Cable	SUHNER	SUCOFLEX 104	LC034-SF	2021/06/21	2022/06/20
Coaxial Cable	ROSNOL	R-Test EW0630	LC046-SF	2021/06/21	2022/06/20
Coaxial Cable	ROSNOL	MP533A	AC031-MP	2021/06/21	2022/06/20
Microwave Preamplifier	SGH	SGH118	20200301	2021/07/30	2022/07/29
VSWR	DEKRA	N/A	N/A	2021/06/22	2022/06/21
Test Software version : DEKRA Test System V2.0					

### Power Harmonics & Flicker / SR3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
45kVA Power Source	TESEQ	NSG 1007-45	1847A00294	2021/09/17	2022/09/16
Signal conditioning unit	TESEQ	CCN 1000-3	1847A02132	2021/09/17	2022/09/16
Reference Impedance	TESEQ	INA 2196	1848A00853	2021/09/17	2022/09/16
Reference Impedance	TESEQ	INA 2197	1847A02133	2021/09/17	2022/09/16

## Electrostatic Discharge / SR6

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
ESD Simulator System	Noiseken	ESS-B3011	ESS1233479	2021/07/21	2022/07/20
ESD GUN	Noiseken	GT-30R	ESS2042226	2021/07/21	2022/07/20
Horizontal Coupling Plane(HCP)	Quietek	HCP AL50	N/A	N/A	N/A
Vertical Coupling Plane(VCP)	Quietek	VCP AL50	N/A	N/A	N/A

## Radiated susceptibility / CB9

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
Signal Generator	Keysight	N5171B	MY53051650	2021/05/28	2022/05/27
Power Sensor	R&S	NRP6A	101799/101800	2021/06/01	2022/05/31
Stacked double Log.-Per.-Broadband Antenna	SCHWARZBECK	STLP 9129	9129 011	N/A	N/A
Power Amplifier	MILMEGA	CBA 1G-1200B	W2346-0918	N/A	N/A
Power Amplifier	MILMEGA	AS0860B-50/50	1071482	N/A	N/A
Audio Analyzer	R&S	UPV	104461	2021/05/17	2022/05/16
Mouth Simulator	B&K	4227	3176440	2021/12/07	2022/12/06
Sound Calibrator	B&K	4231	3022024	2021/12/07	2022/12/06
Ear Simulator	B&K	4185	3023588	2021/12/07	2022/12/06
Conditioning Amplifiers	B&K	Type-2690--0S2	3140676	2021/12/07	2022/12/06
Probe Microphone	B&K	4182	3138351	2021/12/07	2022/12/06
uniform field calibration	Dekra	N/A	N/A	2021/03/19	2022/03/18

## Electrical fast transient/burst / SR6

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
EMS TEST System	TESEQ	NSG 3060	1685	2021/08/17	2022/08/16

## Surge / SR6

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
EMS TEST System	TESEQ	NSG 3060	1685	2021/08/17	2022/08/16

## Radio-frequency common mode (Conducted susceptibility) / SR6

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
TESEQ RF-Generator	TESEQ	NSG 4070B-30	37490	2021/08/12	2022/08/11

## Power frequency magnetic field / SR3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
45kVA Power Source	TESEQ	NSG 1007-45	1847A00294	2021/09/17	2022/09/16
Magnetic Loop Coil	Schaffner	INA 702	160	2021/10/15	2022/10/14
Magnetic Loop Coil	TESEQ	INA 703	2007	2021/10/15	2022/10/14

## 2.3. Measurement Uncertainty

### Power Line Conducted Emission

The measurement uncertainty is evaluated as  $\pm 3.49$  dB.

### Impedance Stabilization Network (ISN)

The measurement uncertainty is evaluated as  $\pm 3.88$  dB.

### Radiated Emission

The measurement uncertainty is evaluated as  $\pm 5.16$  dB.

### Radiated Emission Above 1GHz

The measurement uncertainty is evaluated as  $\pm 4.88$  dB.

### Harmonic Current Emission / Voltage Fluctuation and Flicker

The measurement uncertainty is evaluated as 0.87%

### Electrostatic Discharge

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025, the requirements for measurement uncertainty in ESD testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant ESD standards. The immunity test signal from the ESD system meet the required specifications in IEC 61000-4-2 through the calibration report with the calibrated uncertainty for the waveform of voltage, current and timing as being 3.0 %, 3.2% and 12%.

### Radiated susceptibility

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025, the requirements for measurement uncertainty in RS testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant RS standards. The immunity test signal from the RS system meet the required specifications in IEC 61000-4-3 through the calibration for the uniform field strength and monitoring for the test level with the uncertainty evaluation report for the electrical field strength as being 1.72 dB.

### Electrical fast transient/burst

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025, the requirements for measurement uncertainty in EFT/Burst testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant EFT/Burst standards. The immunity test signal from the EFT/Burst system meet the required specifications in IEC 61000-4-4 through the calibration report with the calibrated uncertainty for the waveform of voltage, frequency and timing as being 4.3 %,0.9% and 4.1%.

### Surge

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025, the requirements for measurement uncertainty in Surge testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant Surge standards. The immunity test signal from the Surge system meet the required specifications in IEC 61000-4-5 through the calibration report with the calibrated uncertainty for the waveform of voltage, current and timing as being 4.2%, 4.3% and 11%.

### Radio-frequency common mode (Conducted susceptibility)

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025, the requirements for measurement uncertainty in CS testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant CS standards. The immunity test signal from the CS system meet the required specifications in IEC 61000-4-6 through the calibration for unmodulated signal and monitoring for the test level with the uncertainty evaluation report for the injected modulated signal level through CDN and EM Clamp/Direct Injection as being 4.2 dB and 2.84 dB.

### Power frequency magnetic field

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025, the requirements for measurement uncertainty in PFM testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant PFM standards. The immunity test signal from the PFM system meet the required specifications in IEC 61000-4-8 through the calibration report with the calibrated uncertainty for the Gauss Meter to verify the output level of magnetic field strength as being 10 %.

## 2.4. Test Environment

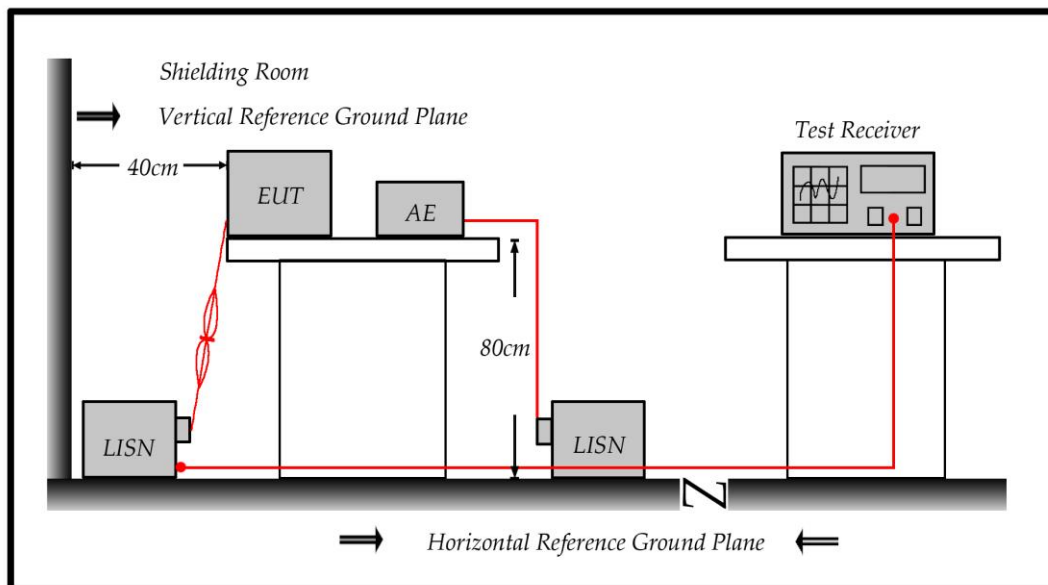
Performed Item	Items	Required
Power Line Conducted Emission	Temperature (°C)	10-40
	Humidity (%RH)	10-90
Impedance Stabilization Network	Temperature (°C)	10-40
	Humidity (%RH)	10-90
Radiated Emission	Temperature (°C)	10-40
	Humidity (%RH)	10-90
Electrostatic Discharge	Temperature (°C)	15-35
	Humidity (%RH)	30-60
	Barometric pressure (mbar)	860-1060
Radiated susceptibility	Temperature (°C)	10-40
	Humidity (%RH)	10-90
Electrical fast transient/burst	Temperature (°C)	10-40
	Humidity (%RH)	10-90
Surge	Temperature (°C)	10-40
	Humidity (%RH)	10-90
Radio-frequency common mode (Conducted susceptibility)	Temperature (°C)	10-40
	Humidity (%RH)	10-90
Power frequency magnetic field	Temperature (°C)	10-40
	Humidity (%RH)	10-90

### 3. Conducted Emission (Main Terminals)

#### 3.1. Test Specification

According to EN 50121-4 clause 5 and EN IEC 61000-6-4 Table 1

#### 3.2. Test Setup



#### 3.3. Limit

Limits		
Frequency MHz	QP dBuV	AV dBiV
0.15 - 0.50	79	66
0.50 - 5.0	73	60
5.0 - 30	73	60

Remarks: In the above table, the tighter limit applies at the band edges.

### **3.4. Test Procedure**

According to CISPR 16-2-1 clause 7.4.1 and CISPR 16-1-2 clause 4.3 :

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination.

(Please refers to the block diagram of the test setup and photographs.)

Both sides of D.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

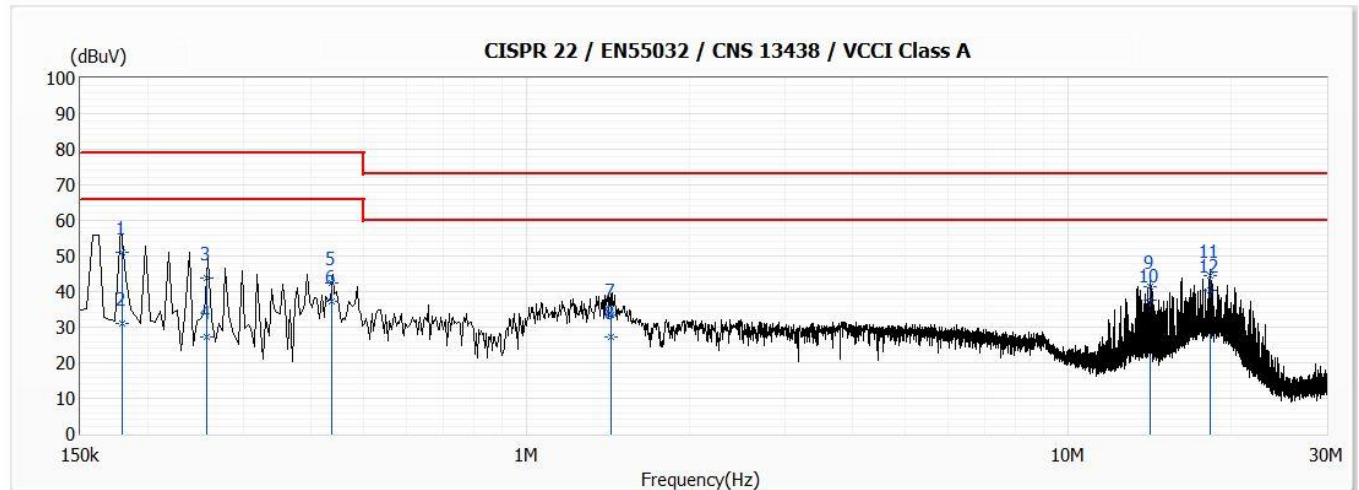
### **3.5. Deviation from Test Standard**

No deviation.



### 3.6. Test Result

Model No	IB9367-EHT-v2	Site	SR8
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 1	Engineer	Gary Luo
Phase	L1	Temperature (°C)	21.9
Test Condition	--	Humidity (%RH)	51

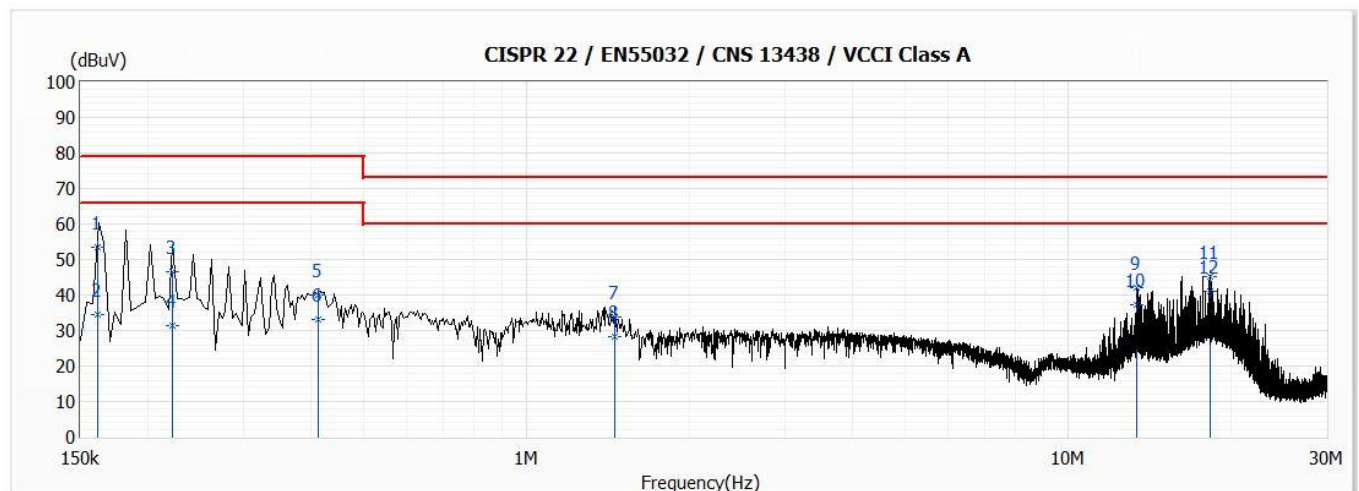


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.179	50.90	79.00	-28.10	41.30	9.60	QP
2	0.179	30.97	66.00	-35.03	21.37	9.60	AV
3	0.257	43.70	79.00	-35.30	34.09	9.61	QP
4	0.257	27.15	66.00	-38.85	17.54	9.61	AV
5	0.437	42.34	79.00	-36.66	32.71	9.63	QP
6	0.437	37.29	66.00	-28.71	27.66	9.63	AV
7	1.435	33.42	73.00	-39.58	23.74	9.68	QP
8	1.435	27.22	60.00	-32.78	17.54	9.68	AV
9	14.152	41.41	73.00	-31.59	31.44	9.97	QP
10	14.152	37.59	60.00	-22.41	27.62	9.97	AV
11	18.243	44.51	73.00	-28.49	34.50	10.01	QP
*12	18.243	40.32	60.00	-19.68	30.31	10.01	AV

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Model No	IB9367-EHT-v2	Site	SR8
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 1	Engineer	Gary Luo
Phase	N	Temperature (°C)	21.9
Test Condition	--	Humidity (%RH)	51

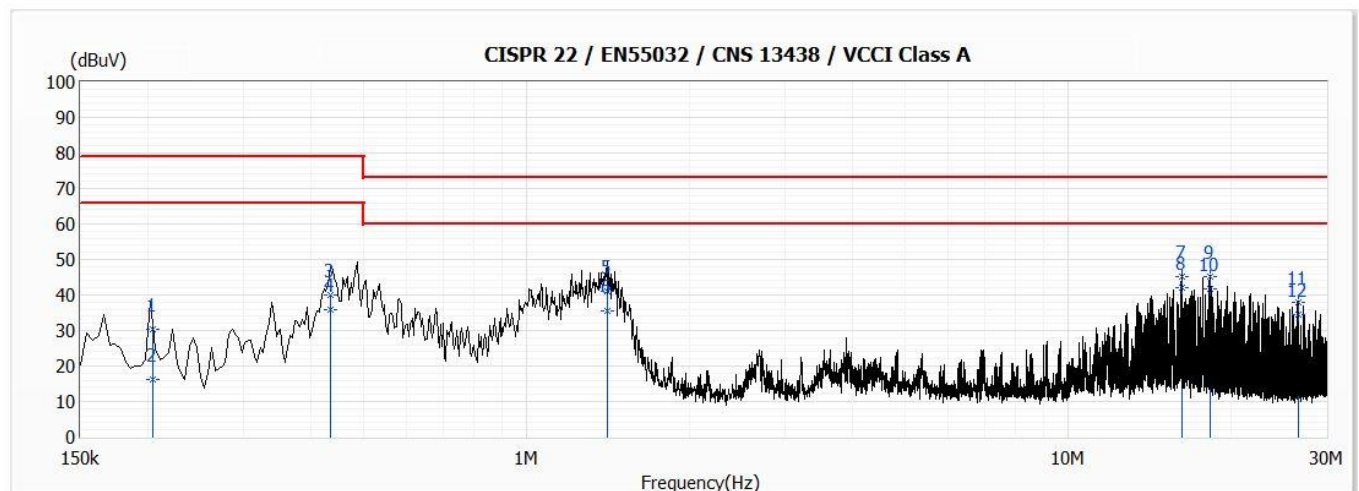


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.162	53.36	79.00	-25.64	43.76	9.60	QP
2	0.162	34.43	66.00	-31.57	24.83	9.60	AV
3	0.222	46.69	79.00	-32.31	37.09	9.60	QP
4	0.222	31.34	66.00	-34.66	21.74	9.60	AV
5	0.413	40.03	79.00	-38.97	30.41	9.62	QP
6	0.413	33.13	66.00	-32.87	23.51	9.62	AV
7	1.455	33.81	73.00	-39.19	24.14	9.67	QP
8	1.455	28.31	60.00	-31.69	18.64	9.67	AV
9	13.359	42.14	73.00	-30.86	32.15	9.99	QP
10	13.359	37.39	60.00	-22.61	27.40	9.99	AV
11	18.243	45.05	73.00	-27.95	34.95	10.10	QP
*12	18.243	40.89	60.00	-19.11	30.79	10.10	AV

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Model No	IB9367-EHT-v2	Site	SR8
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 3	Engineer	Gary Luo
Phase	L1	Temperature (°C)	21.9
Test Condition	--	Humidity (%RH)	51

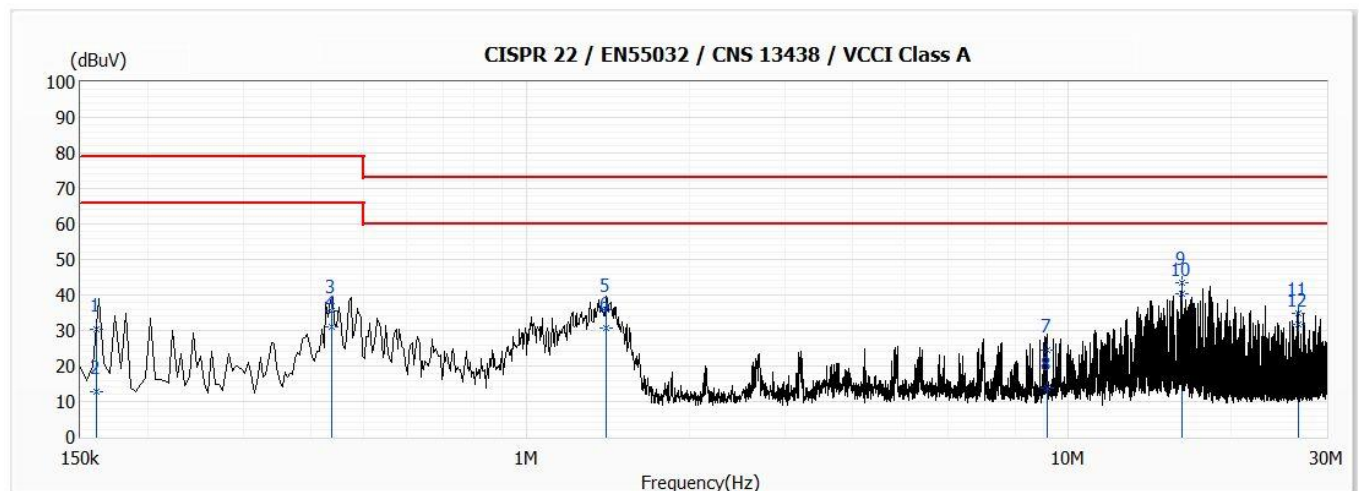


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.203	30.43	79.00	-48.57	20.83	9.60	QP
2	0.203	16.09	66.00	-49.91	6.49	9.60	AV
3	0.434	40.09	79.00	-38.91	30.46	9.63	QP
4	0.434	35.69	66.00	-30.31	26.06	9.63	AV
5	1.407	40.97	73.00	-32.03	31.29	9.68	QP
6	1.407	35.65	60.00	-24.35	25.97	9.68	AV
7	16.228	45.22	73.00	-27.78	35.23	9.99	QP
*8	16.228	41.90	60.00	-18.10	31.91	9.99	AV
9	18.243	45.04	73.00	-27.96	35.03	10.01	QP
10	18.243	41.67	60.00	-18.33	31.66	10.01	AV
11	26.609	37.81	73.00	-35.19	27.72	10.09	QP
12	26.609	34.43	60.00	-25.57	24.34	10.09	AV

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Model No	IB9367-EHT-v2	Site	SR8
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 3	Engineer	Gary Luo
Phase	N	Temperature (°C)	21.9
Test Condition	--	Humidity (%RH)	51



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.161	30.32	79.00	-48.68	20.72	9.60	QP
2	0.161	12.84	66.00	-53.16	3.24	9.60	AV
3	0.437	35.66	79.00	-43.34	26.04	9.62	QP
4	0.437	31.12	66.00	-34.88	21.50	9.62	AV
5	1.405	35.76	73.00	-37.24	26.09	9.67	QP
6	1.405	30.55	60.00	-29.45	20.88	9.67	AV
7	9.124	24.38	73.00	-48.62	14.50	9.88	QP
8	9.124	13.84	60.00	-46.16	3.96	9.88	AV
9	16.228	43.51	73.00	-29.49	33.46	10.05	QP
*10	16.228	40.22	60.00	-19.78	30.17	10.05	AV
11	26.609	34.93	73.00	-38.07	24.72	10.21	QP
12	26.609	31.58	60.00	-28.42	21.37	10.21	AV

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

### 3.7. Test Photograph

Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Front View of Conducted Test



Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Back View of Conducted Test





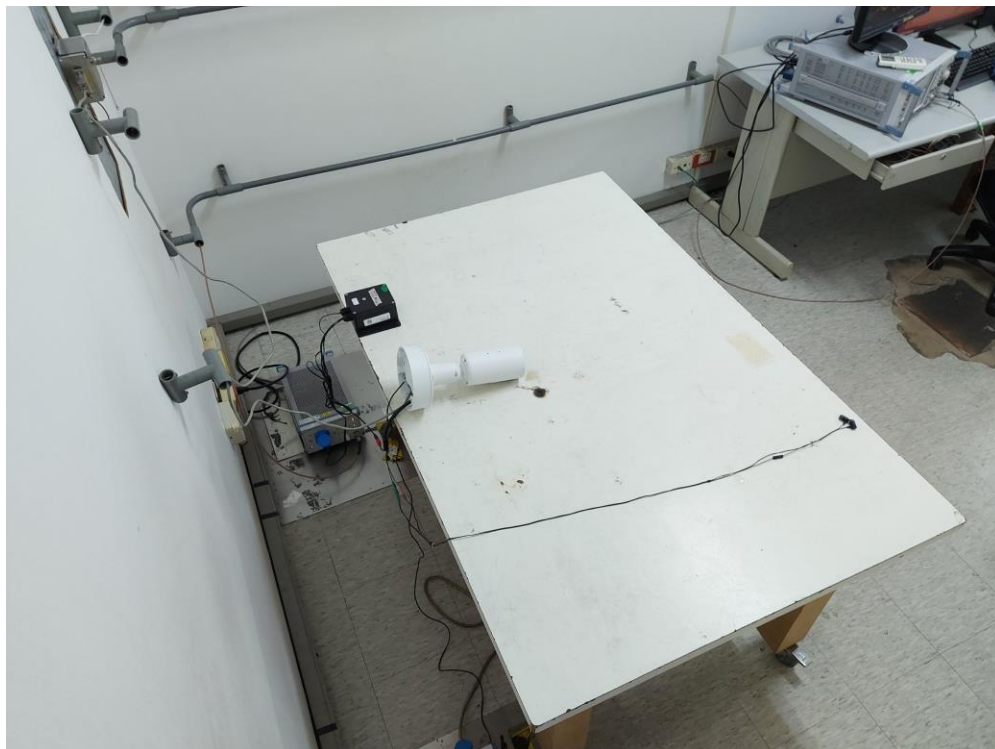
Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Front View of Conducted Test



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Back View of Conducted Test

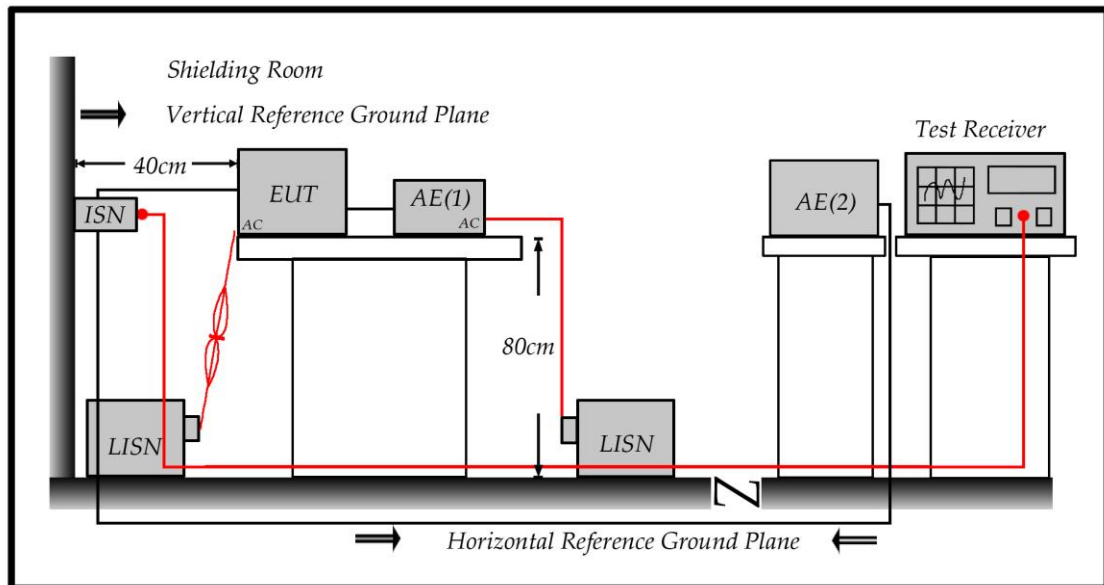


## 4. Conducted Emissions (Telecommunication Ports)

### 4.1. Test Specification

According to EN 50121-4 clause 5 and EN IEC 61000-6-4 Table 1

### 4.2. Test Setup



### 4.3. Limit

Frequency (MHz)	Voltage Limits		Current Limits	
	QP (dBuV)	AV (dBuV)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	97 – 87	84 – 74	53 – 43	40 – 30
0.50 - 30	87	74	43	30

Remarks:

The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz~0.50 MHz.

#### **4.4. Test Procedure**

##### **Telecommunication Port:**

The mains voltage shall be supplied to the EUT via the LISN when the measurement of telecommunication port is performed. The common mode disturbances at the telecommunication port shall be connected to the ISN, which is 150 ohm impedance.

Both alternative cables are tested related to the LCL requested. The measurement range is from 150kHz to 30MHz. The bandwidth of measurement is set to 9kHz.

The 75dB LCL ISN is used for cat. 6 cable, the 65dB LCL ISN is used for cat. 5 cable, 55dB LCL ISN is used for cat. 3.

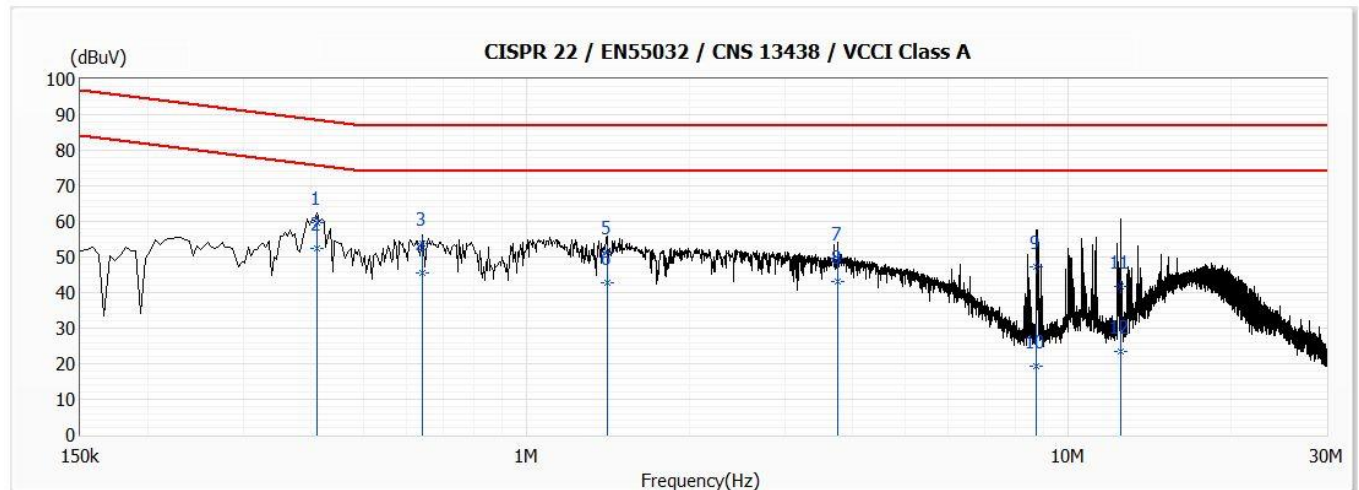
#### **4.5. Deviation from Test Standard**

No deviation.



#### 4.6. Test Result

Model No	IB9367-EHT-v2	Site	SR8
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 1	Engineer	Gary Luo
Phase	L1	Temperature (°C)	21.9
Test Condition	10Mbps	Humidity (%RH)	51

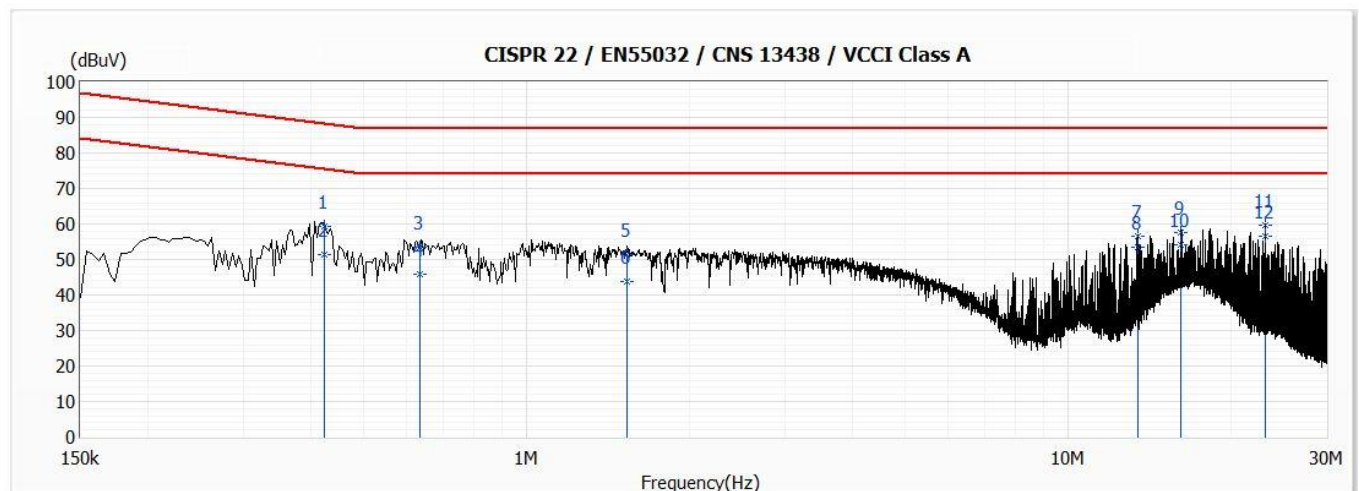


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.409	59.71	88.67	-28.96	49.85	9.86	QP
*2	0.409	52.45	75.67	-23.22	42.59	9.86	AV
3	0.643	53.67	87.00	-33.33	43.88	9.79	QP
4	0.643	45.48	74.00	-28.52	35.69	9.79	AV
5	1.408	51.36	87.00	-35.64	41.62	9.74	QP
6	1.408	42.79	74.00	-31.21	33.05	9.74	AV
7	3.752	49.80	87.00	-37.20	40.09	9.71	QP
8	3.752	43.26	74.00	-30.74	33.55	9.71	AV
9	8.748	47.24	87.00	-39.76	37.45	9.79	QP
10	8.748	19.45	74.00	-54.55	9.66	9.79	AV
11	12.499	41.85	87.00	-45.15	31.97	9.88	QP
12	12.499	23.44	74.00	-50.56	13.56	9.88	AV

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Model No	IB9367-EHT-v2	Site	SR8
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 1	Engineer	Gary Luo
Phase	L1	Temperature (°C)	21.9
Test Condition	100Mbps	Humidity (%RH)	51

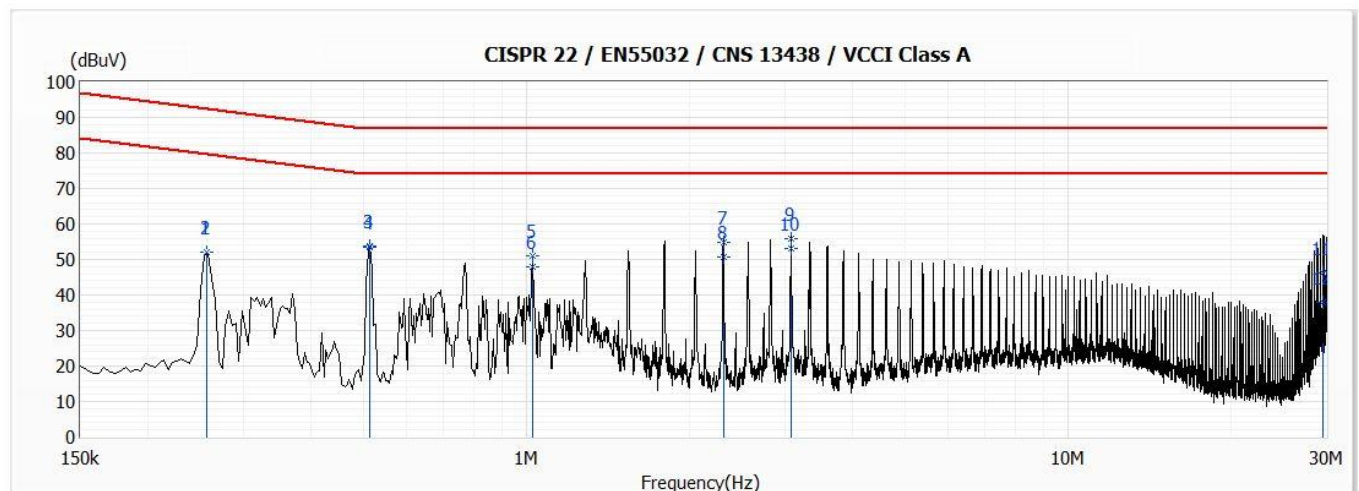


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.423	59.38	88.38	-29.00	49.52	9.86	QP
2	0.423	51.43	75.38	-23.95	41.57	9.86	AV
3	0.637	53.53	87.00	-33.47	43.74	9.79	QP
4	0.637	45.96	74.00	-28.04	36.17	9.79	AV
5	1.533	51.46	87.00	-35.54	41.73	9.73	QP
6	1.533	43.94	74.00	-30.06	34.21	9.73	AV
7	13.419	56.63	87.00	-30.37	46.73	9.90	QP
8	13.419	53.43	74.00	-20.57	43.53	9.90	AV
9	16.167	57.70	87.00	-29.30	47.74	9.96	QP
10	16.167	54.13	74.00	-19.87	44.17	9.96	AV
11	23.128	59.74	87.00	-27.26	49.57	10.17	QP
*12	23.128	56.67	74.00	-17.33	46.50	10.17	AV

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Model No	IB9367-EHT-v2	Site	SR8
Test Voltage	PoE	Test Date	2021/12/14
Test Mode	Mode 2	Engineer	Gary Luo
Phase	L1	Temperature (°C)	21.9
Test Condition	10Mbps	Humidity (%RH)	51

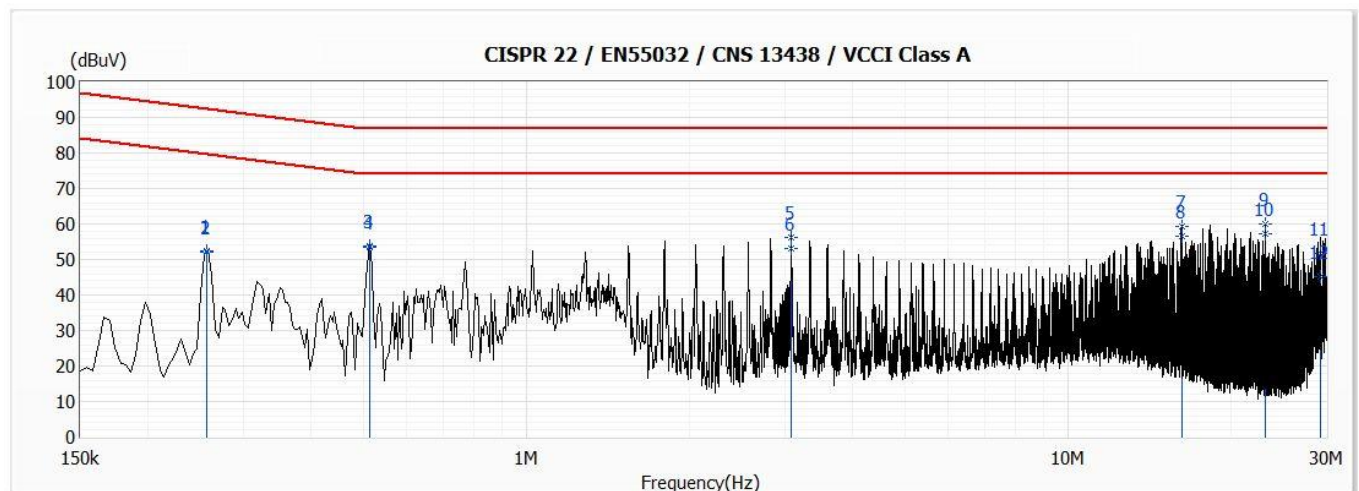


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.257	52.17	92.54	-40.37	42.18	9.99	QP
2	0.257	52.14	79.54	-27.40	42.15	9.99	AV
3	0.513	53.77	87.00	-33.23	43.95	9.82	QP
*4	0.513	53.38	74.00	-20.62	43.56	9.82	AV
5	1.025	50.95	87.00	-36.05	41.19	9.76	QP
6	1.025	47.96	74.00	-26.04	38.20	9.76	AV
7	2.308	54.99	87.00	-32.01	45.28	9.71	QP
8	2.308	50.56	74.00	-23.44	40.85	9.71	AV
9	3.077	55.69	87.00	-31.31	45.98	9.71	QP
10	3.077	53.19	74.00	-20.81	43.48	9.71	AV
11	29.489	46.35	87.00	-40.65	35.95	10.40	QP
12	29.489	37.86	74.00	-36.14	27.46	10.40	AV

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Model No	IB9367-EHT-v2	Site	SR8
Test Voltage	PoE	Test Date	2021/12/14
Test Mode	Mode 2	Engineer	Gary Luo
Phase	L1	Temperature (°C)	21.9
Test Condition	100Mbps	Humidity (%RH)	51

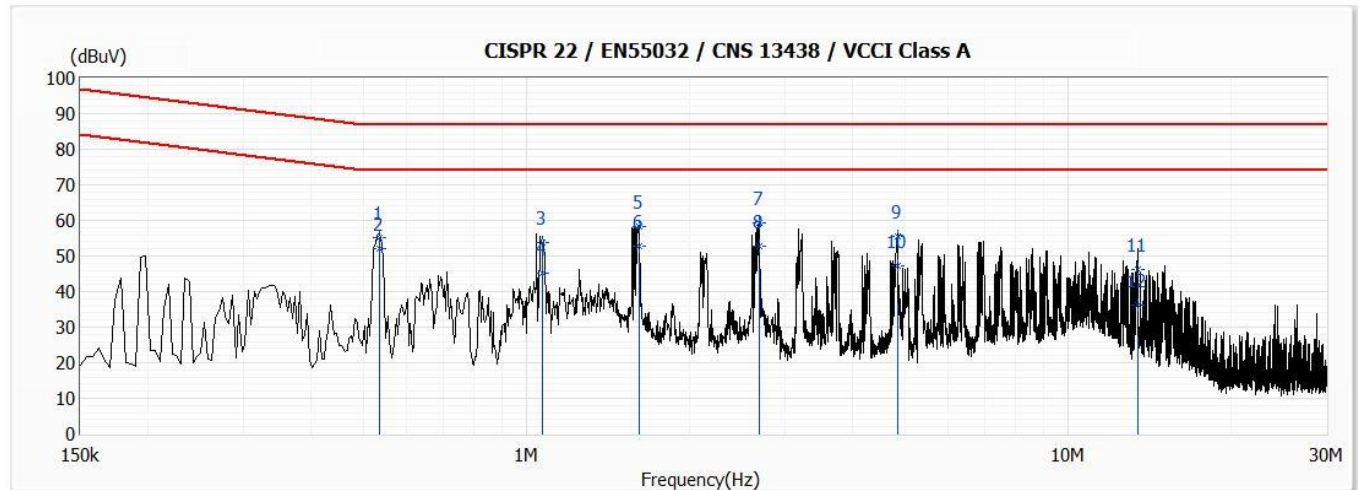


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.257	52.43	92.54	-40.11	42.44	9.99	QP
2	0.257	52.19	79.54	-27.35	42.20	9.99	AV
3	0.513	53.84	87.00	-33.16	44.02	9.82	QP
4	0.513	53.53	74.00	-20.47	43.71	9.82	AV
5	3.080	56.13	87.00	-30.87	46.42	9.71	QP
6	3.080	53.21	74.00	-20.79	43.50	9.71	AV
7	16.228	59.30	87.00	-27.70	49.34	9.96	QP
8	16.228	56.59	74.00	-17.41	46.63	9.96	AV
9	23.128	59.86	87.00	-27.14	49.69	10.17	QP
*10	23.128	57.10	74.00	-16.90	46.93	10.17	AV
11	29.253	51.59	87.00	-35.41	41.21	10.38	QP
12	29.253	45.32	74.00	-28.68	34.94	10.38	AV

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Model No	IB9367-EHT-v2	Site	SR8
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 3	Engineer	Gary Luo
Phase	L1	Temperature (°C)	21.9
Test Condition	10Mbps	Humidity (%RH)	51

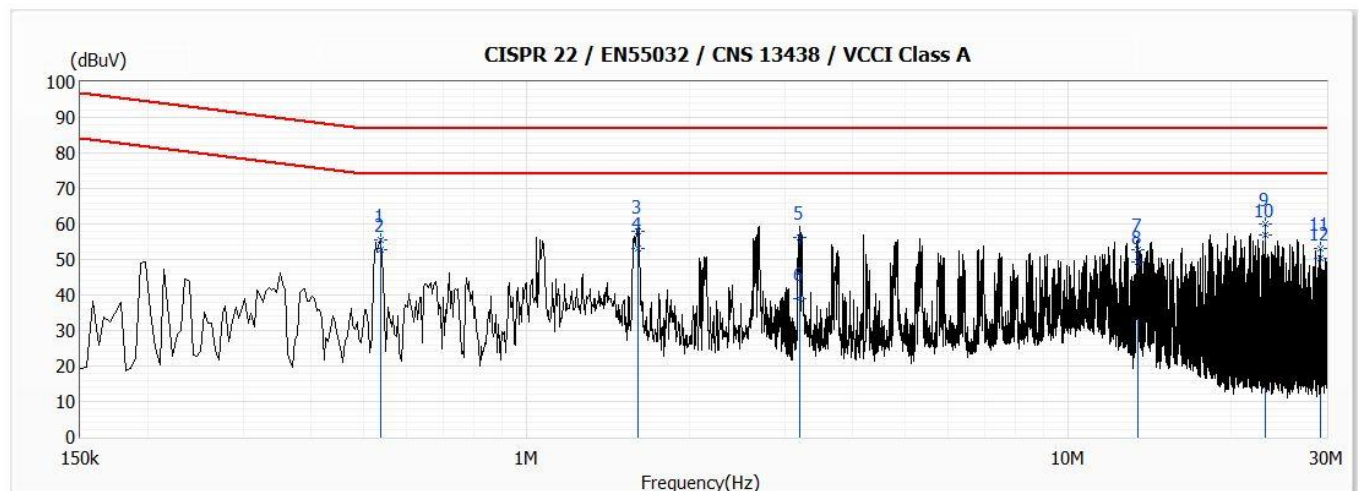


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.534	55.30	87.00	-31.70	45.49	9.81	QP
2	0.534	52.03	74.00	-21.97	42.22	9.81	AV
3	1.067	53.74	87.00	-33.26	43.98	9.76	QP
4	1.067	45.27	74.00	-28.73	35.51	9.76	AV
5	1.611	58.34	87.00	-28.66	48.61	9.73	QP
6	1.611	52.72	74.00	-21.28	42.99	9.73	AV
7	2.685	59.18	87.00	-27.82	49.47	9.71	QP
*8	2.685	52.83	74.00	-21.17	43.12	9.71	AV
9	4.835	55.66	87.00	-31.34	45.93	9.73	QP
10	4.835	47.36	74.00	-26.64	37.63	9.73	AV
11	13.424	46.05	87.00	-40.95	36.15	9.90	QP
12	13.424	36.25	74.00	-37.75	26.35	9.90	AV

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Model No	IB9367-EHT-v2	Site	SR8
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 3	Engineer	Gary Luo
Phase	L1	Temperature (°C)	21.9
Test Condition	100Mbps	Humidity (%RH)	51



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.537	55.64	87.00	-31.36	45.83	9.81	QP
2	0.537	52.71	74.00	-21.29	42.90	9.81	AV
3	1.609	58.04	87.00	-28.96	48.31	9.73	QP
4	1.609	53.21	74.00	-20.79	43.48	9.73	AV
5	3.188	56.31	87.00	-30.69	46.60	9.71	QP
6	3.188	39.06	74.00	-34.94	29.35	9.71	AV
7	13.416	52.64	87.00	-34.36	42.74	9.90	QP
8	13.416	49.17	74.00	-24.83	39.27	9.90	AV
9	23.128	59.83	87.00	-27.17	49.66	10.17	QP
*10	23.128	56.78	74.00	-17.22	46.61	10.17	AV
11	29.235	53.22	87.00	-33.78	42.84	10.38	QP
12	29.235	50.24	74.00	-23.76	39.86	10.38	AV

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit



#### 4.7. Test Photograph

Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Front View of ISN Test



Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Back View of ISN Test



Test Mode : Mode 2: Normal Operation, PoE

Description : Front View of ISN Test



Test Mode : Mode 2: Normal Operation, PoE

Description : Back View of ISN Test





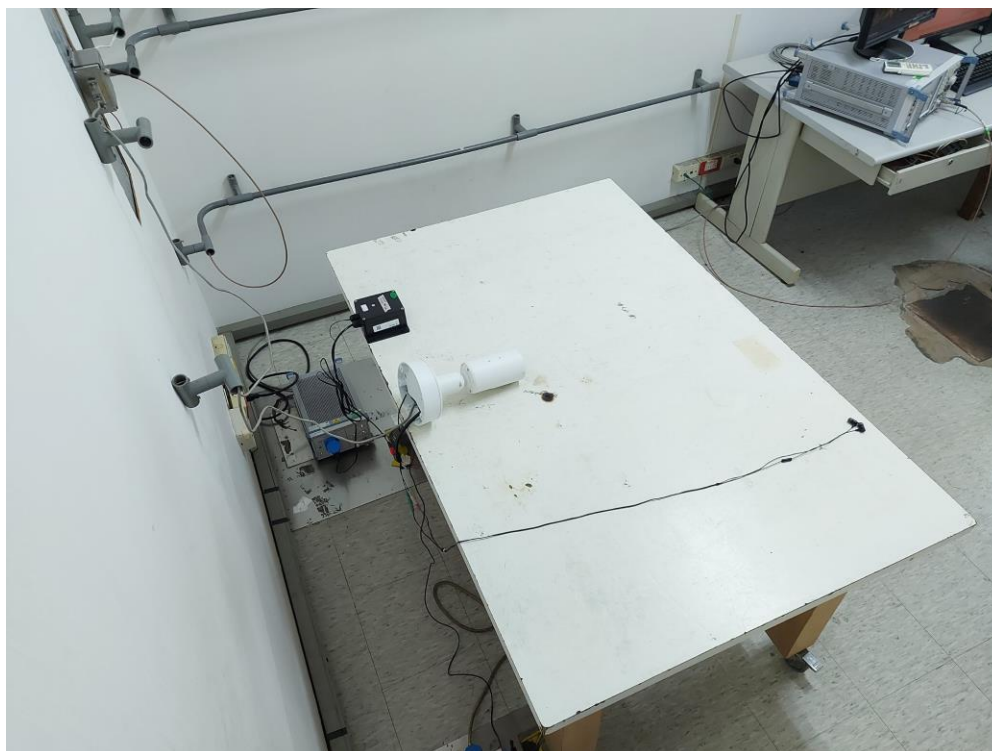
Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Front View of ISN Test



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Back View of ISN Test



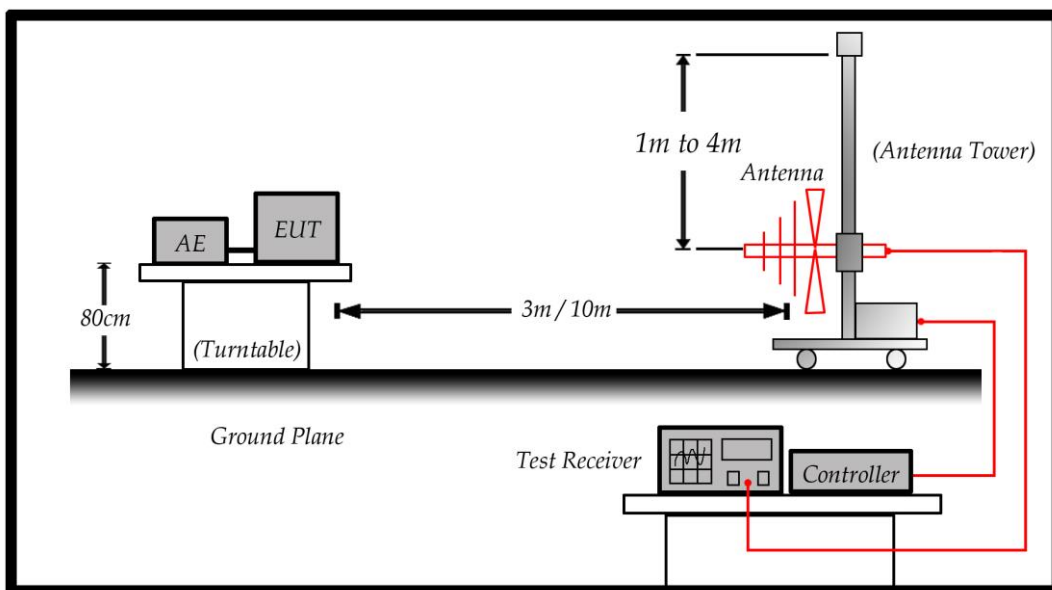
## 5. Radiated Emission

### 5.1. Test Specification

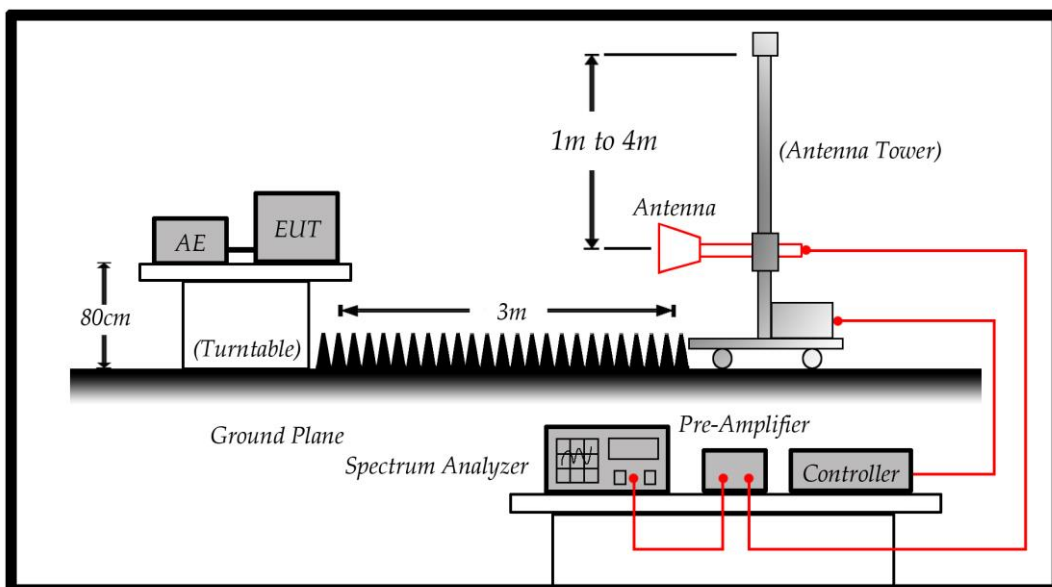
According to EN 50121-4 clause 5 and EN IEC 61000-6-4 Table 1

### 5.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



### 5.3. Limit

Limits		
Frequency MHz	Distance (m)	dBuV/m
30 – 230	10	40
230 – 1000	10	47

Limits			
Frequency (GHz)	Distance (m)	Peak (dBuV/m)	Average (dBuV/m)
1 – 3	3	76	56
3 – 6	3	80	60

Remark:

1. The tighter limit shall apply at the edge between two frequency bands.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 6 GHz, whichever is lower

## **5.4. Test Procedure**

According to CISPR 16-2-3.

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 10 meters. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated on radiated measurement.

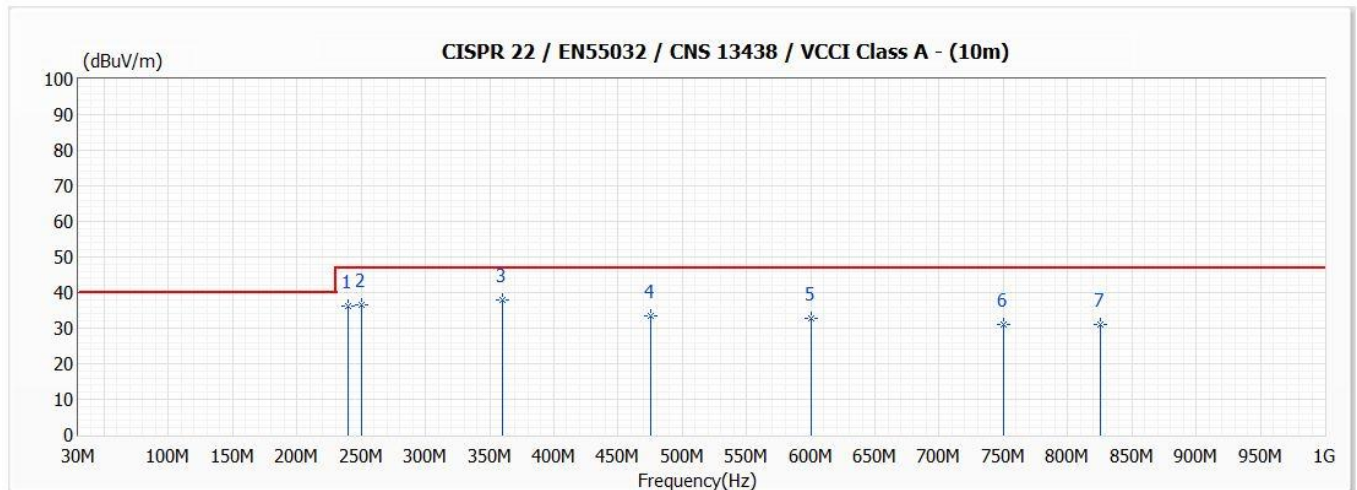
Radiated emissions were investigated over the frequency range from 30MHz to 1GHz using a receiver bandwidth of 120kHz. Radiated was performed at an antenna to EUT distance of 10 meters.

## **5.5. Deviation from Test Standard**

No deviation.

## 5.6. Test Result

Model No	IB9367-EHT-v2	Site	SITE2
Test Voltage	AC 230V/50Hz	Test Date	2021/12/10
Test Mode	Mode 1	Engineer	Edward Chi
Polarity	Horizontal	Temperature (°C)	26.3
Test Condition	--	Humidity (%RH)	65

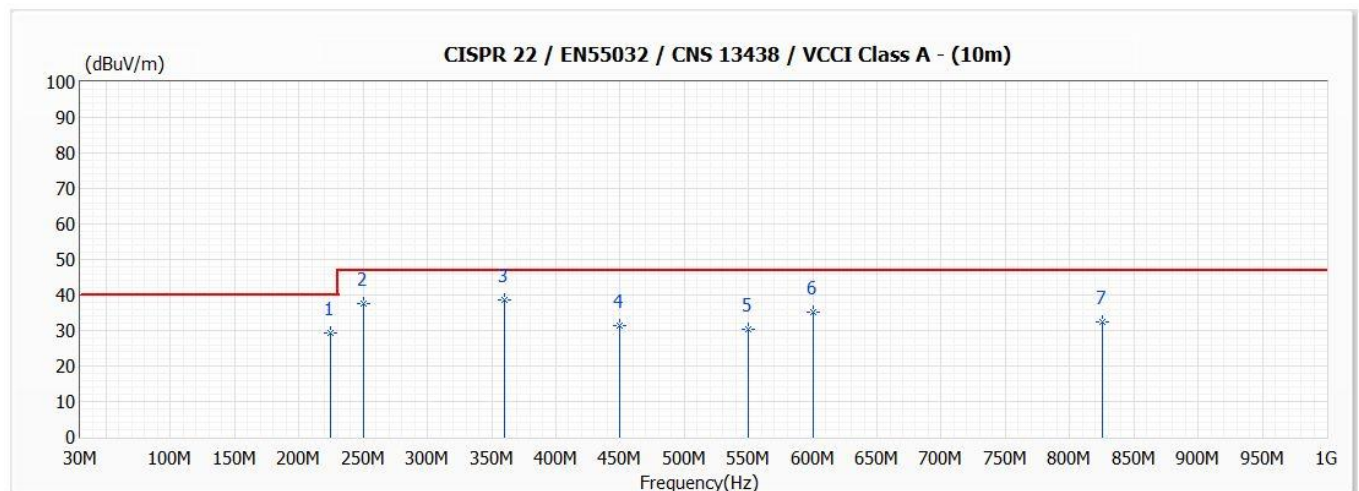


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	240.000	36.32	47.00	-10.68	48.10	-11.78	370	155	QP
2	250.000	36.69	47.00	-10.31	47.30	-10.61	370	-19	QP
* 3	360.000	37.97	47.00	-9.03	45.50	-7.53	300	-82	QP
4	475.000	33.51	47.00	-13.49	37.70	-4.19	200	15	QP
5	600.000	32.64	47.00	-14.36	34.20	-1.56	100	67	QP
6	750.000	30.94	47.00	-16.06	30.00	0.94	100	105	QP
7	825.000	31.01	47.00	-15.99	28.90	2.11	100	-102	QP

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin=Emission Level-Limit.

Model No	IB9367-EHT-v2	Site	SITE2
Test Voltage	AC 230V/50Hz	Test Date	2021/12/10
Test Mode	Mode 1	Engineer	Edward Chi
Polarity	Vertical	Temperature (°C)	26.3
Test Condition	--	Humidity (%RH)	65

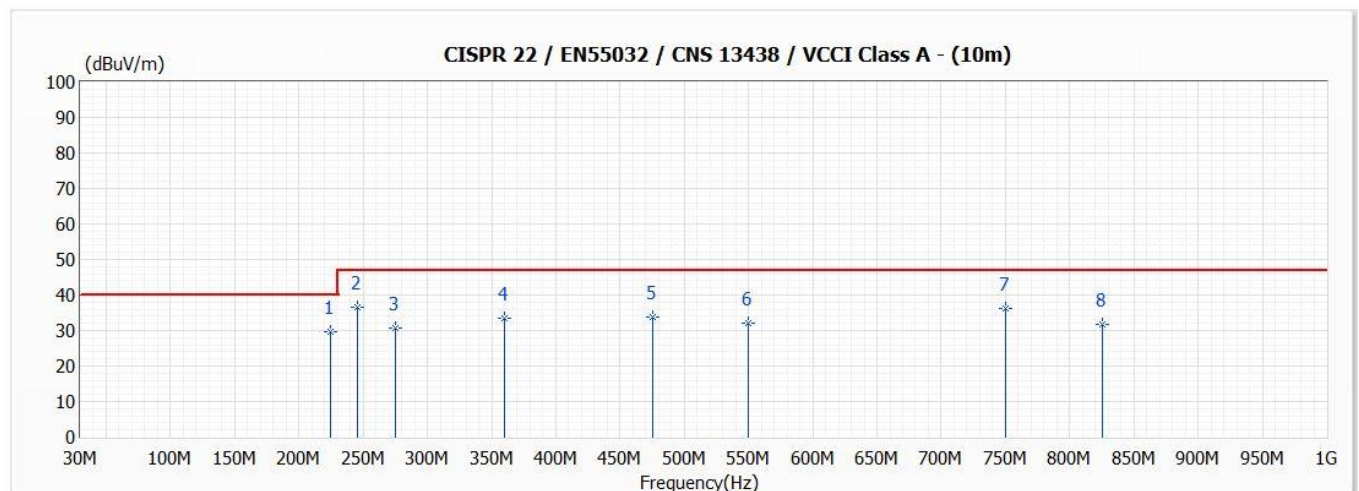


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	225.000	29.20	40.00	-10.80	42.80	-13.60	100	115	QP
2	250.000	37.59	47.00	-9.41	48.20	-10.61	100	-35	QP
* 3	360.000	38.67	47.00	-8.33	46.20	-7.53	100	-102	QP
4	450.000	31.33	47.00	-15.67	36.10	-4.77	300	152	QP
5	550.000	30.37	47.00	-16.63	32.20	-1.83	300	-71	QP
6	600.000	35.14	47.00	-11.86	36.70	-1.56	250	10	QP
7	825.000	32.51	47.00	-14.49	30.40	2.11	150	-39	QP

**Remark:**

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin=Emission Level-Limit.

Model No	IB9367-EHT-v2	Site	SITE2
Test Voltage	PoE	Test Date	2021/12/10
Test Mode	Mode 2	Engineer	Edward Chi
Polarity	Horizontal	Temperature (°C)	26.3
Test Condition	--	Humidity (%RH)	65



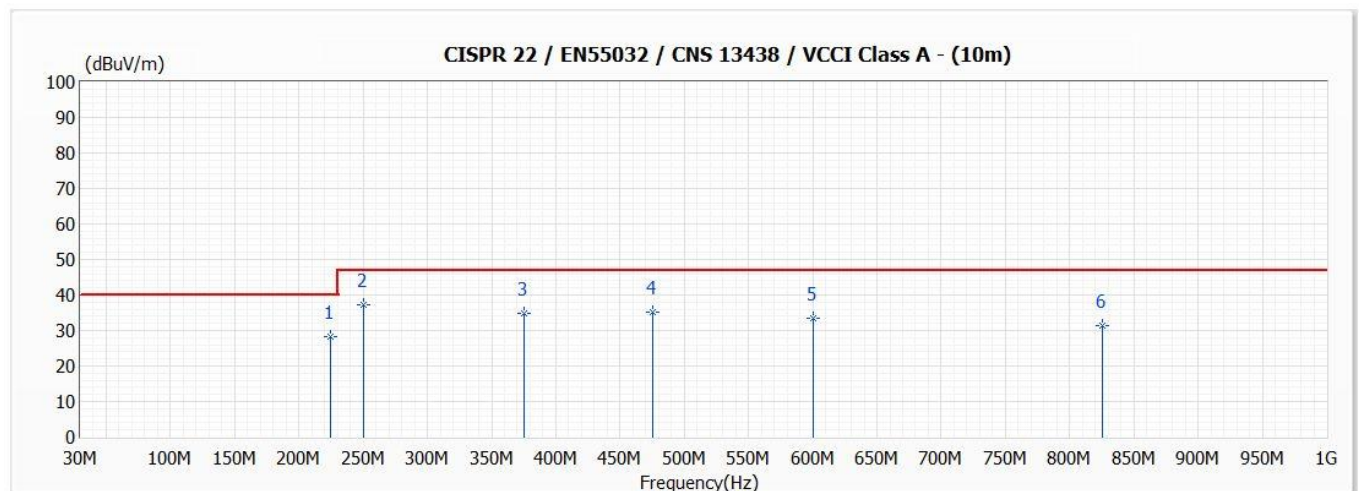
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	225.000	29.50	40.00	-10.50	43.10	-13.60	370	68	QP
* 2	245.800	36.66	47.00	-10.34	47.80	-11.14	370	-63	QP
3	274.900	30.82	47.00	-16.18	40.90	-10.08	370	121	QP
4	360.000	33.47	47.00	-13.53	41.00	-7.53	300	-45	QP
5	475.000	33.71	47.00	-13.29	37.90	-4.19	200	-50	QP
6	550.000	32.17	47.00	-14.83	34.00	-1.83	200	-190	QP
7	750.000	36.04	47.00	-10.96	35.10	0.94	100	-155	QP
8	825.000	31.81	47.00	-15.19	29.70	2.11	100	74	QP

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin=Emission Level-Limit.



Model No	IB9367-EHT-v2	Site	SITE2
Test Voltage	PoE	Test Date	2021/12/10
Test Mode	Mode 2	Engineer	Edward Chi
Polarity	Vertical	Temperature (°C)	26.3
Test Condition	--	Humidity (%RH)	65



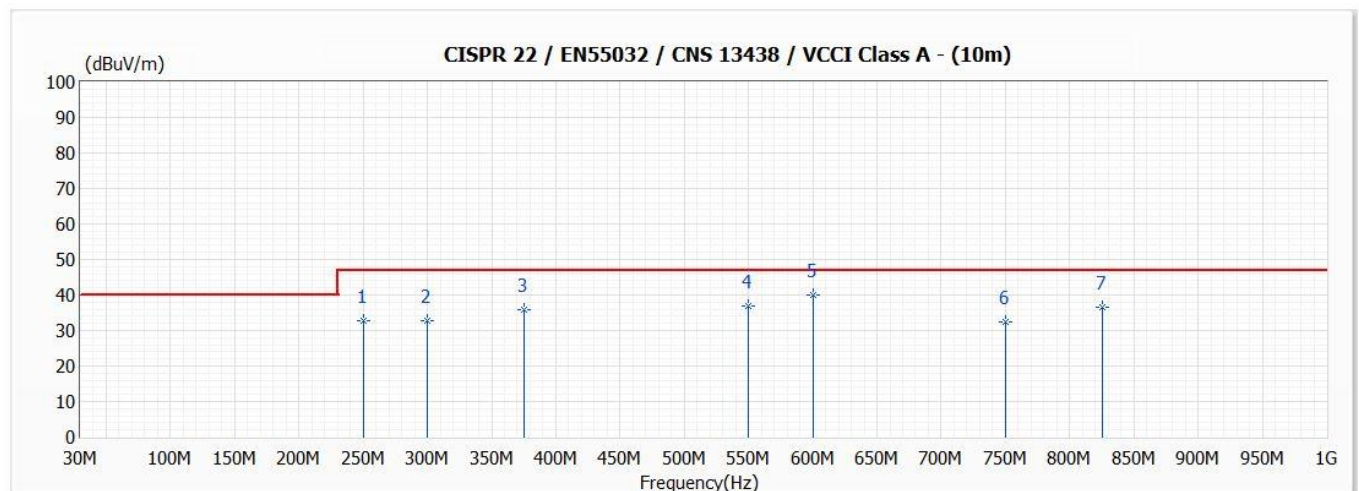
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	225.000	28.20	40.00	-11.80	41.80	-13.60	100	-136	QP
* 2	250.000	37.09	47.00	-9.91	47.70	-10.61	100	29	QP
3	375.000	34.88	47.00	-12.12	42.10	-7.22	100	-107	QP
4	475.000	35.31	47.00	-11.69	39.50	-4.19	300	-122	QP
5	600.000	33.44	47.00	-13.56	35.00	-1.56	250	165	QP
6	825.000	31.41	47.00	-15.59	29.30	2.11	150	60	QP

Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin=Emission Level-Limit.



Model No	IB9367-EHT-v2	Site	SITE2
Test Voltage	AC 230V/50Hz	Test Date	2021/12/10
Test Mode	Mode 3	Engineer	Edward Chi
Polarity	Horizontal	Temperature (°C)	26.3
Test Condition	--	Humidity (%RH)	65

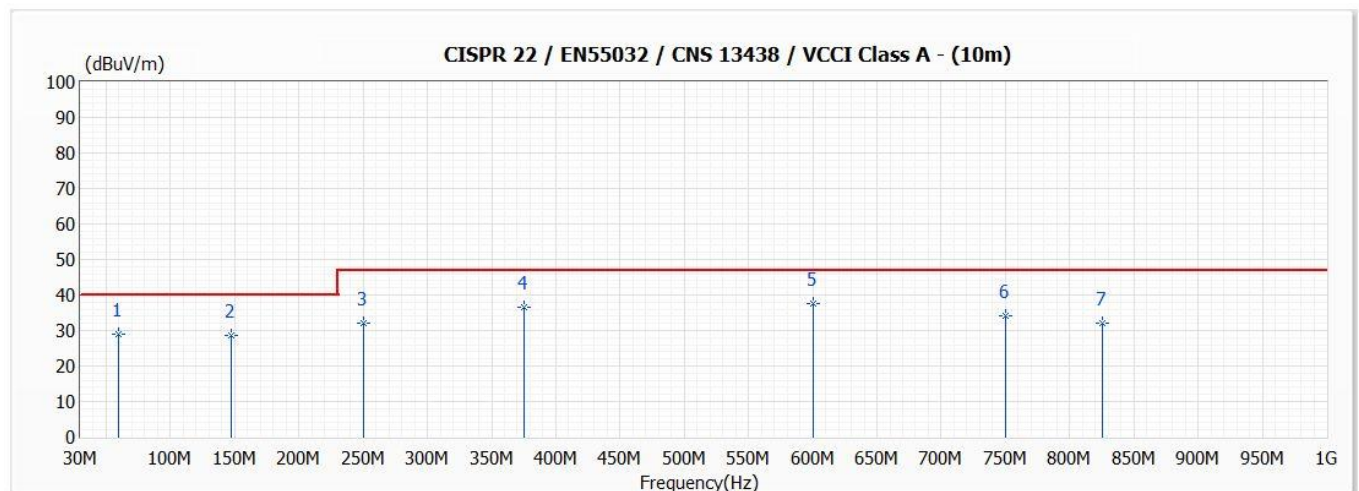


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	250.000	32.69	47.00	-14.31	43.30	-10.61	370	-111	QP
2	300.000	32.65	47.00	-14.35	42.00	-9.35	300	55	QP
3	375.000	35.98	47.00	-11.02	43.20	-7.22	300	69	QP
4	550.000	36.77	47.00	-10.23	38.60	-1.83	200	-12	QP
* 5	600.000	40.04	47.00	-6.96	41.60	-1.56	100	13	QP
6	750.000	32.34	47.00	-14.66	31.40	0.94	100	69	QP
7	825.000	36.41	47.00	-10.59	34.30	2.11	100	-107	QP

**Remark:**

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin=Emission Level-Limit.

Model No	IB9367-EHT-v2	Site	SITE2
Test Voltage	AC 230V/50Hz	Test Date	2021/12/10
Test Mode	Mode 3	Engineer	Edward Chi
Polarity	Vertical	Temperature (°C)	26.3
Test Condition	--	Humidity (%RH)	65

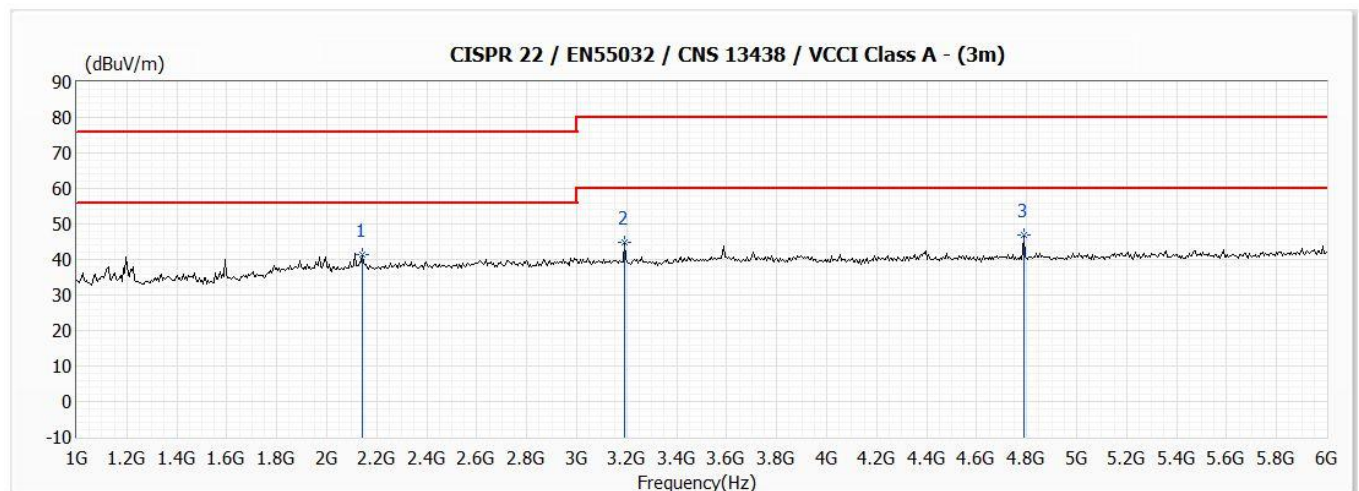


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	59.320	29.04	40.00	-10.96	47.60	-18.56	100	-106	QP
2	147.480	28.65	40.00	-11.35	41.90	-13.25	100	-102	QP
3	250.000	31.99	47.00	-15.01	42.60	-10.61	100	39	QP
4	375.000	36.38	47.00	-10.62	43.60	-7.22	100	44	QP
* 5	600.000	37.54	47.00	-9.46	39.10	-1.56	150	140	QP
6	750.000	34.24	47.00	-12.76	33.30	0.94	250	-69	QP
7	825.000	32.21	47.00	-14.79	30.10	2.11	150	109	QP

**Remark:**

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin=Emission Level-Limit.

Model No	IB9367-EHT-v2	Site	CB7
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 1	Engineer	Shianyu Chiou
Polarity	Horizontal	Temperature (°C)	22.9
Test Condition	--	Humidity (%RH)	75

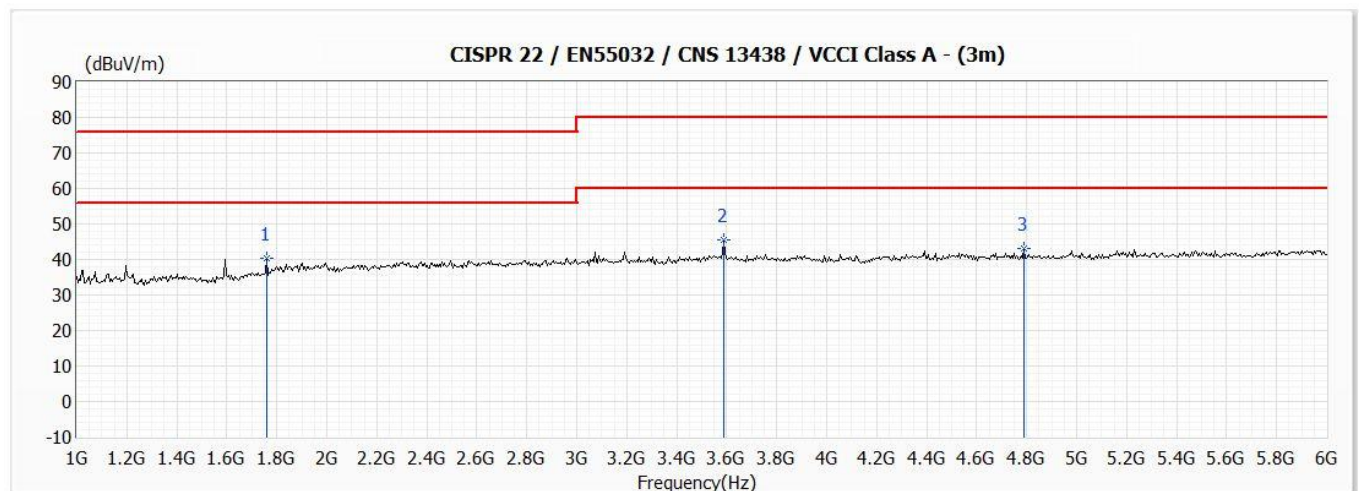


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	2140.000	41.47	76.00	-34.53	56.58	-15.11	100	177	PK
2	3190.000	44.68	80.00	-35.32	57.20	-12.52	100	168	PK
* 3	4790.000	46.96	80.00	-33.04	55.53	-8.57	100	-152	PK

#### Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor (Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin= Emission Level-Limit.
4. The above 1 GHz test. When PEAK measures level less than AV limit by 20 dBuV, its average is not measured separately.

Model No	IB9367-EHT-v2	Site	CB7
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 1	Engineer	Shianyu Chiou
Polarity	Vertical	Temperature (°C)	22.9
Test Condition	--	Humidity (%RH)	75

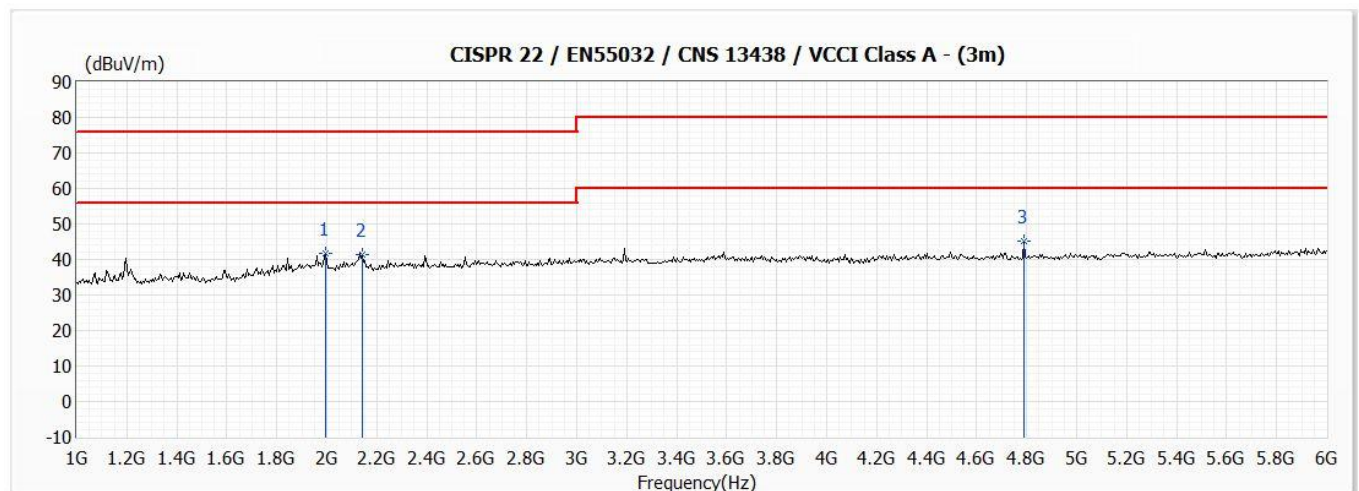


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	1760.000	40.37	76.00	-35.63	56.98	-16.61	100	-160	PK
* 2	3590.000	45.53	80.00	-34.47	56.92	-11.39	100	159	PK
3	4790.000	42.98	80.00	-37.02	51.55	-8.57	100	147	PK

**Remark:**

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor (Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin= Emission Level-Limit.
4. The above 1 GHz test. When PEAK measures level less than AV limit by 20 dBuV, its average is not measured separately.

Model No	IB9367-EHT-v2	Site	CB7
Test Voltage	PoE	Test Date	2021/12/14
Test Mode	Mode 2	Engineer	Shianyu Chiou
Polarity	Horizontal	Temperature (°C)	22.9
Test Condition	--	Humidity (%RH)	75



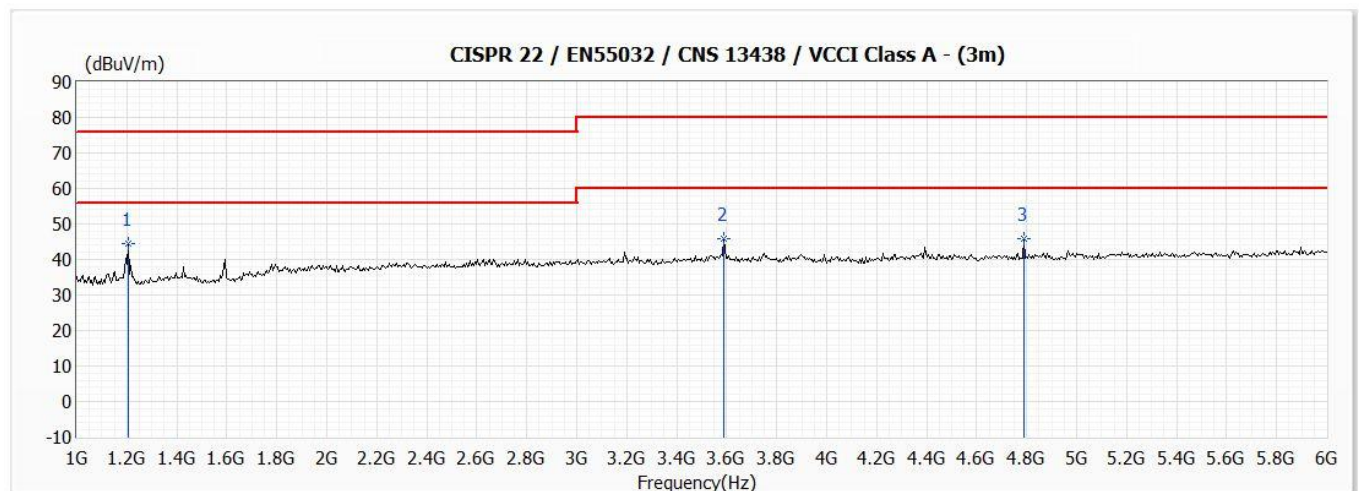
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
* 1	1995.000	41.77	76.00	-34.23	56.55	-14.78	100	167	PK
2	2140.000	41.51	76.00	-34.49	56.62	-15.11	100	191	PK
3	4790.000	45.06	80.00	-34.94	53.63	-8.57	100	-150	PK

**Remark:**

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor (Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin= Emission Level-Limit.
4. The above 1 GHz test. When PEAK measures level less than AV limit by 20 dBuV, its average is not measured separately.



Model No	IB9367-EHT-v2	Site	CB7
Test Voltage	PoE	Test Date	2021/12/14
Test Mode	Mode 2	Engineer	Shianyu Chiou
Polarity	Vertical	Temperature (°C)	22.9
Test Condition	--	Humidity (%RH)	75

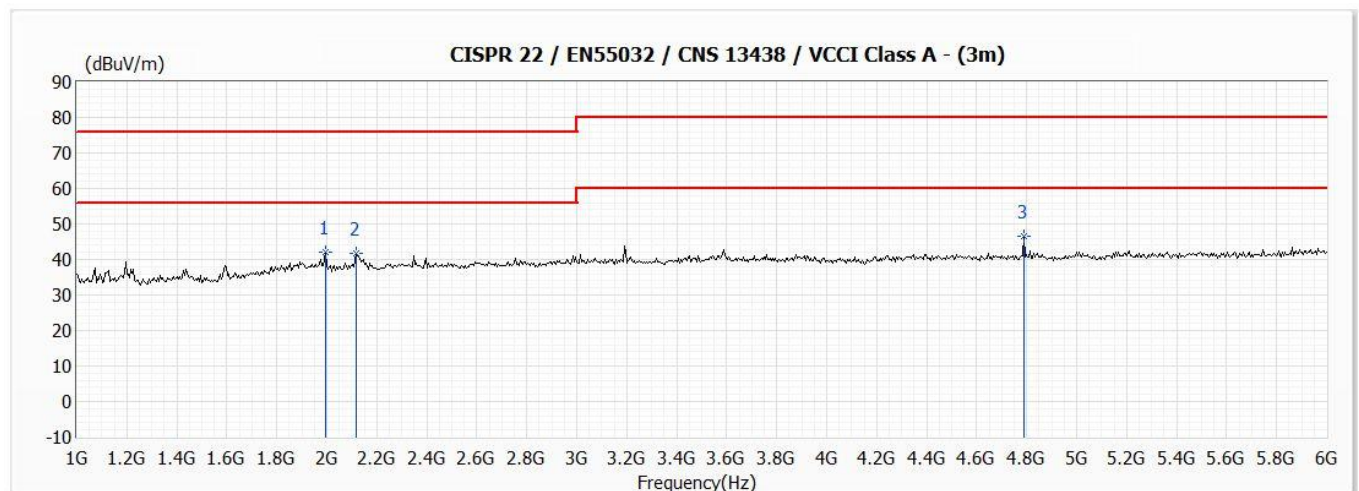


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
* 1	1205.000	44.41	76.00	-31.59	62.42	-18.01	100	133	PK
2	3590.000	45.80	80.00	-34.20	57.19	-11.39	100	-141	PK
3	4790.000	45.94	80.00	-34.06	54.51	-8.57	100	186	PK

#### Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor (Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin= Emission Level-Limit.
4. The above 1 GHz test. When PEAK measures level less than AV limit by 20 dBuV, its average is not measured separately.

Model No	IB9367-EHT-v2	Site	CB7
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 3	Engineer	Shianyu Chiou
Polarity	Horizontal	Temperature (°C)	22.9
Test Condition	--	Humidity (%RH)	75

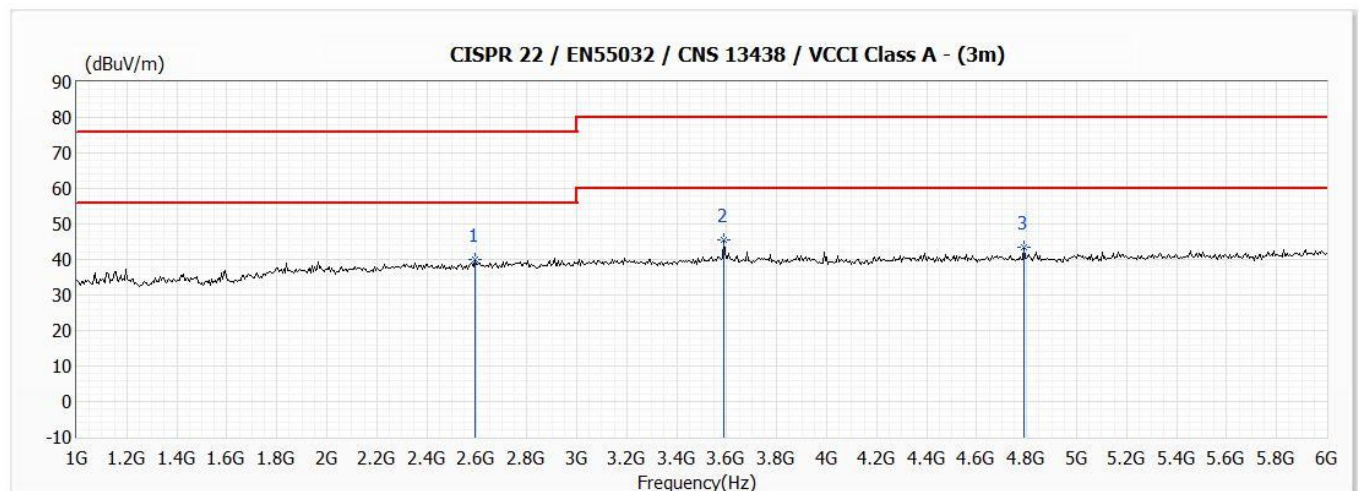


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	1995.000	42.22	76.00	-33.78	57.00	-14.78	100	180	PK
2	2120.000	41.87	76.00	-34.13	56.93	-15.06	100	-129	PK
* 3	4790.000	46.58	80.00	-33.42	55.15	-8.57	100	143	PK

#### Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor (Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin= Emission Level-Limit.
4. The above 1 GHz test. When PEAK measures level less than AV limit by 20 dBuV, its average is not measured separately.

Model No	IB9367-EHT-v2	Site	CB7
Test Voltage	AC 230V/50Hz	Test Date	2021/12/14
Test Mode	Mode 3	Engineer	Shianyu Chiou
Polarity	Vertical	Temperature (°C)	22.9
Test Condition	--	Humidity (%RH)	75



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	2595.000	39.95	76.00	-36.05	53.86	-13.91	100	174	PK
* 2	3590.000	45.54	80.00	-34.46	56.93	-11.39	100	-152	PK
3	4790.000	43.28	80.00	-36.72	51.85	-8.57	100	195	PK

#### Remark:

1. "\*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor (Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin= Emission Level-Limit.
4. The above 1 GHz test. When PEAK measures level less than AV limit by 20 dBuV, its average is not measured separately.



### 5.7. Test Photograph

Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Front View of Radiated Test



Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Back View of Radiated Test



Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Front View of High Frequency Radiated Test



Test Mode : Mode 2: Normal Operation, PoE

Description : Front View of Radiated Test





Test Mode : Mode 2: Normal Operation, PoE

Description : Back View of Radiated Test



Test Mode : Mode 2: Normal Operation, PoE

Description : Front View of High Frequency Radiated Test



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Front View of Radiated Test



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Back View of Radiated Test



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Front View of High Frequency Radiated Test



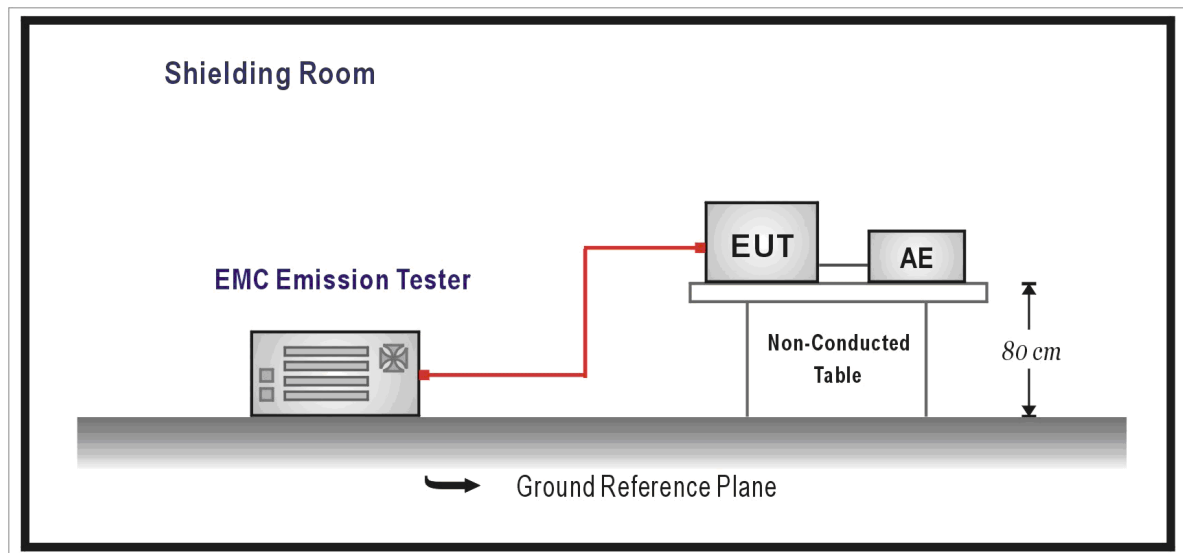


## 6. Harmonic Current Emission

### 6.1. Test Specification

According to EMC Standard : EN 61000-3-2

### 6.2. Test Setup



### 6.3. Limit

(a) Limits of Class A Harmonics Currents

Harmonics Order $n$	Maximum Permissible harmonic current A	Harmonics Order $n$	Maximum Permissible harmonic current A
Odd harmonics		Even harmonics	
3	2.30	2	1.08
5	1.14	4	0.43
7	0.77	6	0.30
9	0.40	$8 \leq n \leq 40$	$0.23 * 8/n$
11	0.33		
13	0.21		
$15 \leq n \leq 39$	$0.15 * 15/n$		

## (b) Limits of Class B Harmonics Currents

For Class B equipment, the harmonic of the input current shall not exceed the maximum permissible values given in table that is the limit of Class A multiplied by a factor of 1.5.

## (c) Limits of Class C Harmonics Currents

Harmonics Order n	Maximum Permissible harmonic current Expressed as a percentage of the input current at the fundamental frequency %
2	2
3	$30 \cdot \lambda^*$
5	10
7	7
9	5
$11 \leq n \leq 39$ (odd harmonics only)	3
* $\lambda$ is the circuit power factor	

## (d) Limits of Class D Harmonics Currents

Harmonics Order n	Maximum Permissible harmonic current per watt mA/W	Maximum Permissible harmonic current A
3	3.4	2.30
5	1.9	1.14
7	1.0	0.77
9	0.5	0.40
11	0.35	0.33
$11 \leq n \leq 39$ (odd harmonics only)	$3.85/n$	See limit of Class A

#### **6.4. Test Procedure**

The EUT is supplied in series with power analyzer from a power source having the same normal voltage and frequency as the rated supply voltage and the equipment under test. And the rated voltage at the supply voltage of EUT of 0.94 times and 1.06 times shall be performed.

#### **6.5. Deviation from Test Standard**

No deviation.



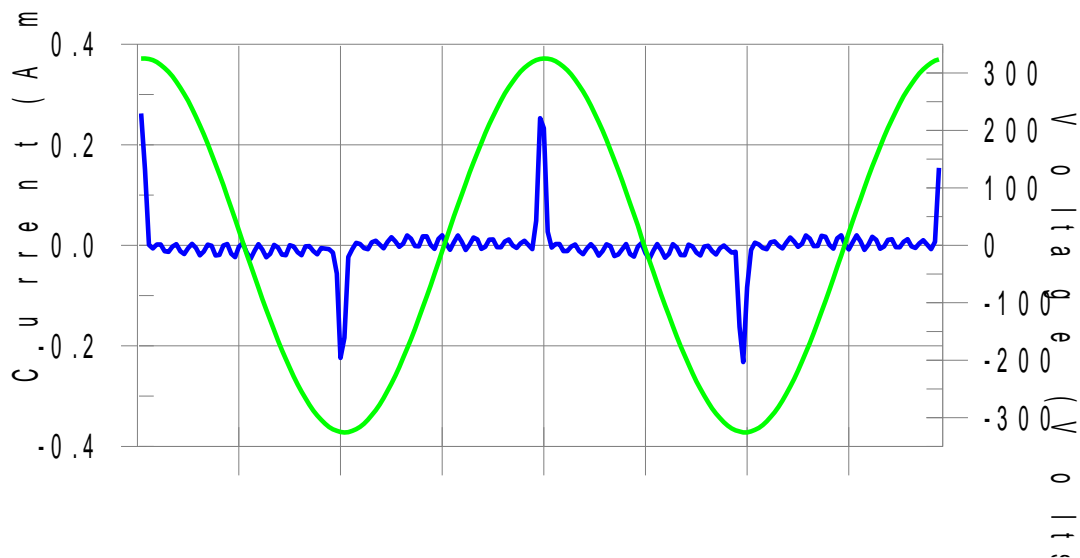
## 6.6. Test Result

Product	Network Camera		
Test Item	Power Harmonics		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.3 Shielded Room
Engineer	Ken Pan		

Test Result: Pass

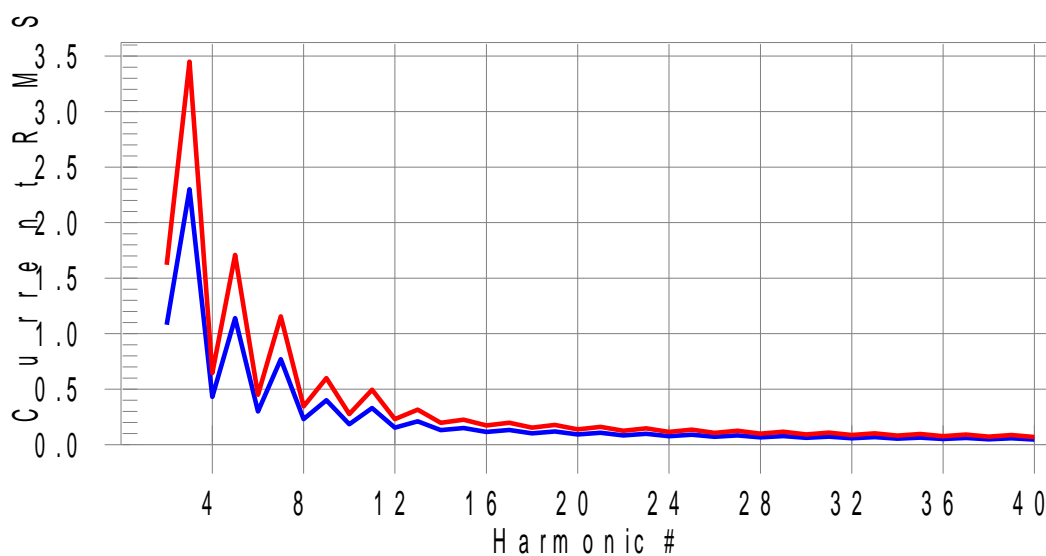
Source qualification: Normal

### Current & voltage waveforms



### Harmonics and Class A limit line

### European Limits



Test result: Pass Worst harmonics H23-5.5% of 150% limit, H21-8.3% of 100% limit

Test Result: Pass

Source qualification: Normal

THC(A): 0.041

I-THD(%): 248.3

POHC(A): 0.018

POHC Limit(A): 0.251

Highest parameter values during test:

V\_RMS (Volts): 230.19

Frequency(Hz): 50.00

I\_Peak (Amps): 0.288

I\_RMS (Amps): 0.045

I\_Fund (Amps): 0.017

Crest Factor: 6.439

Power (Watts): 3.4

Power Factor: 0.332

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	0.014	2.300	0.6	0.015	3.450	0.4	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.014	1.140	1.2	0.014	1.710	0.8	Pass
6	0.001	0.300	N/A	0.001	0.450	N/A	Pass
7	0.013	0.770	1.7	0.014	1.155	1.2	Pass
8	0.001	0.230	N/A	0.001	0.345	N/A	Pass
9	0.013	0.400	3.2	0.013	0.600	2.2	Pass
10	0.001	0.184	N/A	0.001	0.276	N/A	Pass
11	0.012	0.330	3.8	0.013	0.495	2.5	Pass
12	0.001	0.153	N/A	0.001	0.230	N/A	Pass
13	0.012	0.210	5.6	0.012	0.315	3.8	Pass
14	0.001	0.131	N/A	0.001	0.197	N/A	Pass
15	0.011	0.150	7.4	0.011	0.225	5.0	Pass
16	0.001	0.115	N/A	0.001	0.173	N/A	Pass
17	0.010	0.132	7.9	0.011	0.198	5.3	Pass
18	0.001	0.102	N/A	0.001	0.153	N/A	Pass
19	0.010	0.118	8.2	0.010	0.178	5.5	Pass
20	0.001	0.092	N/A	0.001	0.138	N/A	Pass
21	0.009	0.107	8.3	0.009	0.161	5.5	Pass
22	0.001	0.084	N/A	0.001	0.125	N/A	Pass
23	0.008	0.098	8.2	0.008	0.147	5.5	Pass
24	0.001	0.077	N/A	0.001	0.115	N/A	Pass
25	0.007	0.090	8.0	0.007	0.135	5.4	Pass
26	0.001	0.071	N/A	0.001	0.107	N/A	Pass
27	0.006	0.083	7.7	0.006	0.125	5.2	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.006	0.078	7.2	0.006	0.116	4.9	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	0.004	0.102	N/A	Pass
34	0.000	0.054	N/A	0.001	0.081	N/A	Pass
35	0.003	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	0.003	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

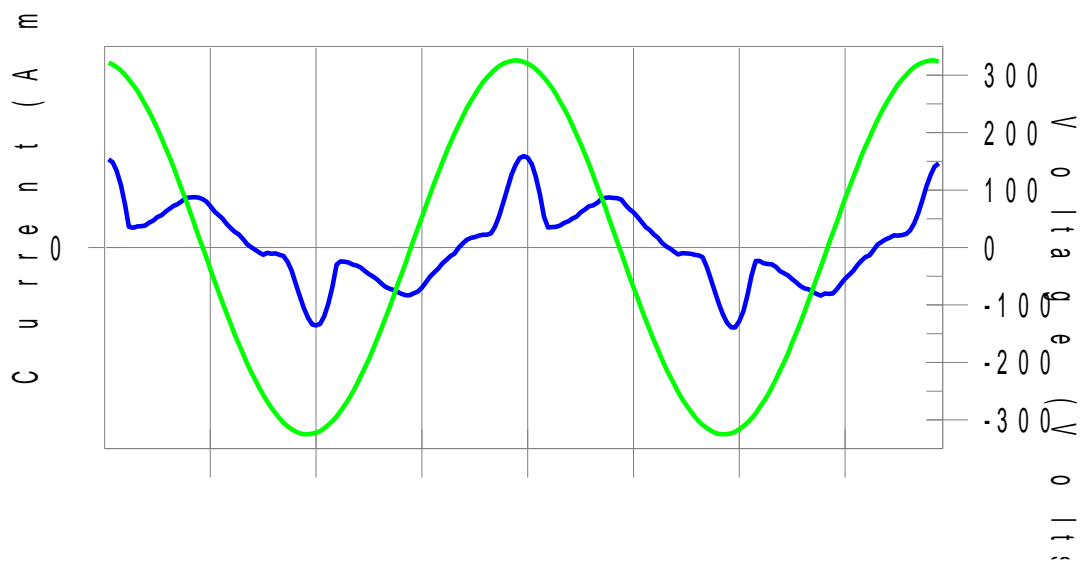
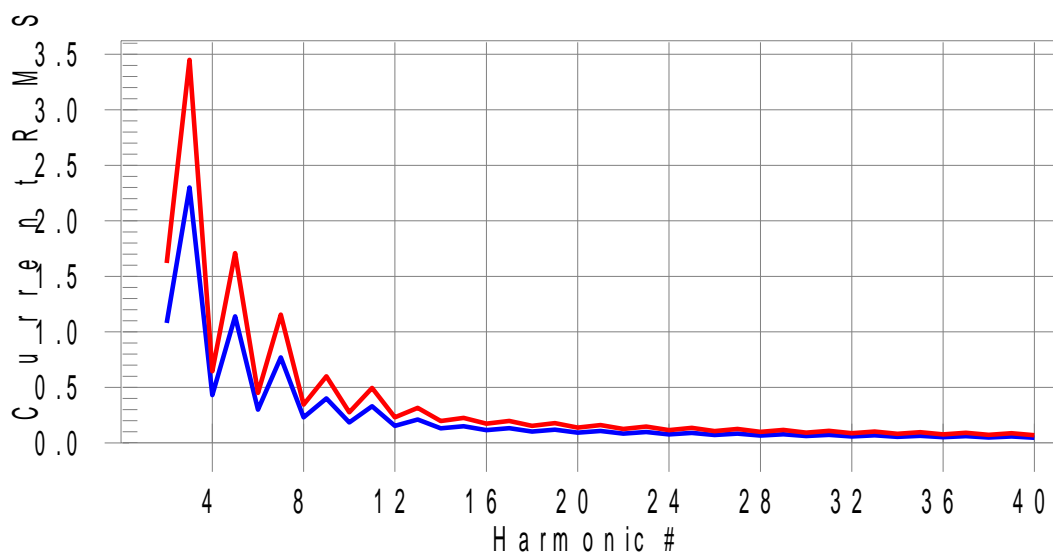
1.Dynamic limits were applied for this test. The highest harmonics values in the above table may not occur at the same window as the maximum harmonics/limit ratio.

2:According to EN61000-3-2 paragraph 7 the note 1 and 2 are valid for all applications having an active input power >75W. Others the result should be pass.

Product	Network Camera		
Test Item	Power Harmonics		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.3 Shielded Room
Engineer	Ken Pan		

Test Result: Pass

Source qualification: Normal

Current & voltage waveformsHarmonics and Class A limit lineEuropean Limits

Test result: Pass Worst harmonics H5-0.7% of 150% limit, H5-1.1% of 100% limit

Test Result: Pass Source qualification: Normal  
 THC(A): 0.019 I-THD(%): 53.2 POHC(A): 0.001 POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts):	230.20	Frequency(Hz):	50.00
I_Peak (Amps):	0.093	I_RMS (Amps):	0.040
I_Fund (Amps):	0.035	Crest Factor:	2.353
Power (Watts):	6.0	Power Factor:	0.662

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	0.011	2.300	0.5	0.012	3.450	0.3	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.012	1.140	1.1	0.012	1.710	0.7	Pass
6	0.000	0.300	N/A	0.001	0.450	N/A	Pass
7	0.007	0.770	0.9	0.007	1.155	0.6	Pass
8	0.000	0.230	N/A	0.000	0.345	N/A	Pass
9	0.004	0.400	N/A	0.004	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	0.001	0.210	N/A	0.001	0.315	N/A	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.001	0.150	N/A	0.001	0.225	N/A	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.001	0.132	N/A	0.001	0.198	N/A	Pass
18	0.000	0.102	N/A	0.000	0.153	N/A	Pass
19	0.001	0.118	N/A	0.001	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	0.001	0.098	N/A	0.001	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

1.Dynamic limits were applied for this test. The highest harmonics values in the above table may not occur at the same window as the maximum harmonics/limit ratio.

2:According to EN61000-3-2 paragraph 7 the note 1 and 2 are valid for all applications having an active input power >75W. Others the result should be pass.

### 6.7. Test Photograph

Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Power Harmonics Test Setup



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Power Harmonics Test Setup

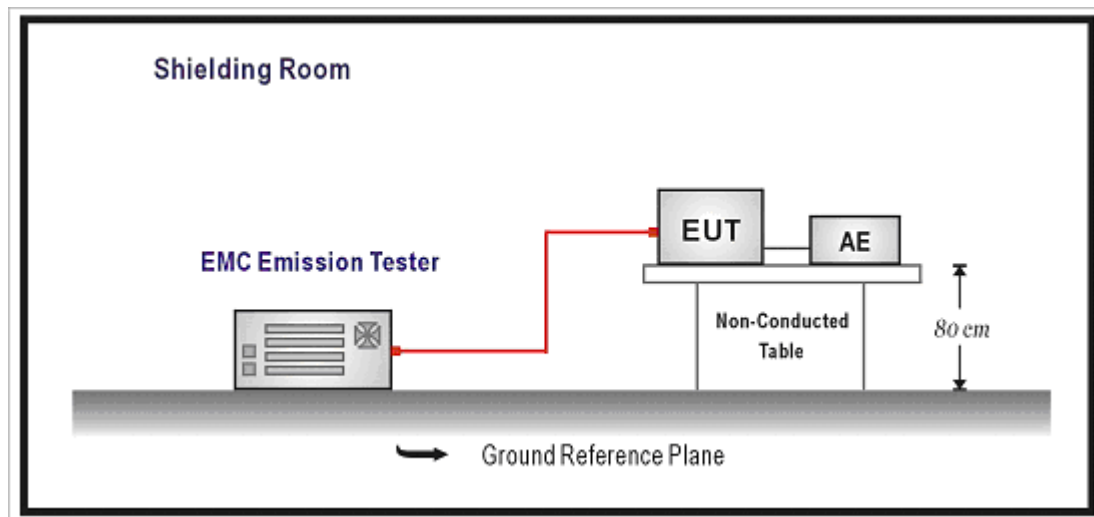


## 7. Voltage Fluctuation and Flicker

### 7.1. Test Specification

According to EMC Standard : EN 61000-3-3

### 7.2. Test Setup



### 7.3. Limit

The following limits apply:

- the value of  $P_{st}$  shall not be greater than 1.0;
  - the value of  $P_{1t}$  shall not be greater than 0.65;
  - the value of  $d(t)$  during a voltage change shall not exceed 3.3 % for more than 500 ms;
  - the relative steady-state voltage change,  $d_c$ , shall not exceed 3.3 %;
  - the maximum relative voltage change,  $d_{max}$ , shall not exceed;
- a) 4 % without additional conditions;
  - b) 6 % for equipment which is:
    - switched manually, or
    - switched automatically more frequently than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds), or manual restart, after a power supply interruption.

NOTE The cycling frequency will be further limited by the  $P_{st}$  and  $P_{1t}$  limit.

For example: a  $d_{max}$  of 6% producing a rectangular voltage change characteristic twice per hour will give a  $P_{1t}$  of about 0.65.

- c) 7 % for equipment which is:
- attended whilst in use (for example: hair dryers, vacuum cleaners, kitchen equipment such as mixers, garden equipment such as lawn mowers, portable tools such as electric drills), or
  - switched on automatically, or is intended to be switched on manually, no more than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds) or manual restart, after a power supply interruption.

$P_{st}$  and  $P_{1t}$  requirements shall not be applied to voltage changes caused by manual switching.

#### **7.4. Test Procedure**

The EUT is supplied in series with power analyzer from a power source having the same normal voltage and frequency as the rated supply voltage and the equipment under test. And the rated voltage at the supply voltage of EUT of 0.94 times and 1.06 times shall be performed.

#### **7.5. Deviation from Test Standard**

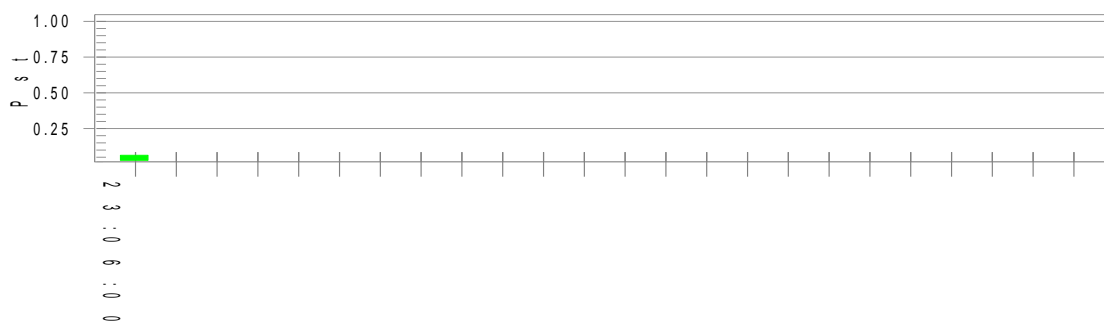
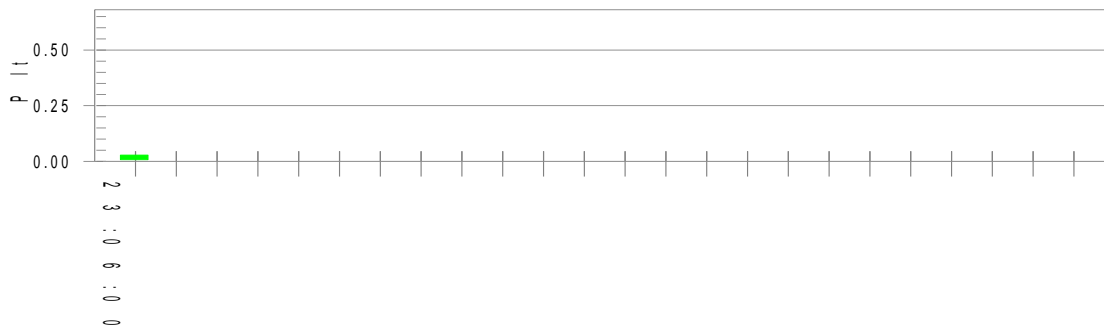
No deviation.

## 7.6. Test Result

Product	Network Camera		
Test Item	Voltage Fluctuation and Flicker		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.3 Shielded Room
Engineer	Ken Pan		

Test Result: Pass

Status: Test Completed

Pst<sub>i</sub> and limit lineEuropean LimitsPlt and limit line

Parameter values recorded during the test:

Vrms at the end of test (Volt): 230.14

Highest dt (%):

T-max (mS): 0

Highest dc (%): 0.00

Highest dmax (%): 0.00

Highest Pst (10 min. period): 0.064

Highest Plt (2 hr. period): 0.028

Test limit (%):

Test limit (mS): 500.0 Pass

Test limit (%): 3.30 Pass

Test limit (%): 4.00 Pass

Test limit: 1.000 Pass

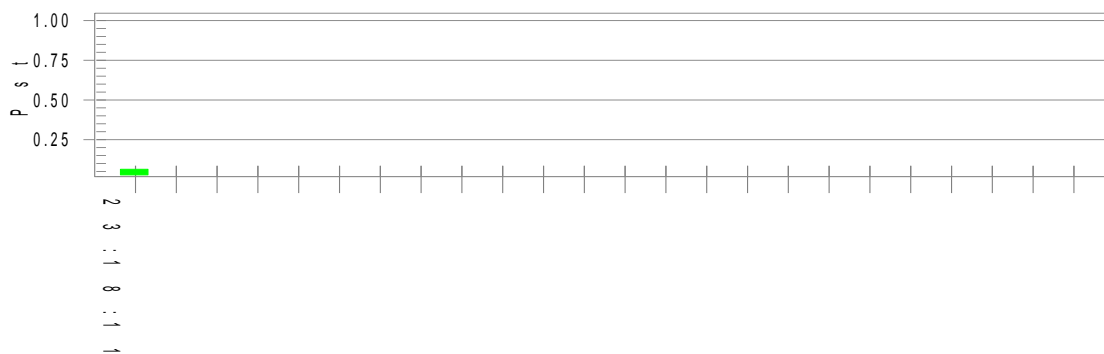
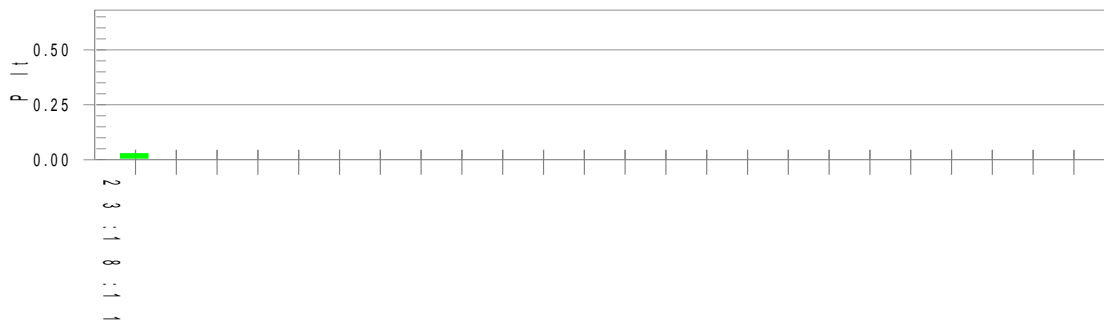
Test limit: 0.650 Pass



Product	Network Camera		
Test Item	Voltage Fluctuation and Flicker		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.3 Shielded Room
Engineer	Ken Pan		

Test Result: Pass

Status: Test Completed

Pst<sub>i</sub> and limit lineEuropean LimitsPlt and limit line

Parameter values recorded during the test:

Vrms at the end of test (Volt): 230.10

Highest dt (%):

T-max (mS): 0

Highest dc (%): 0.00

Highest dmax (%): 0.00

Highest Pst (10 min. period): 0.064

Highest Plt (2 hr. period): 0.028

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

### 7.7. Test Photograph

Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Flicker Test Setup



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Flicker Test Setup

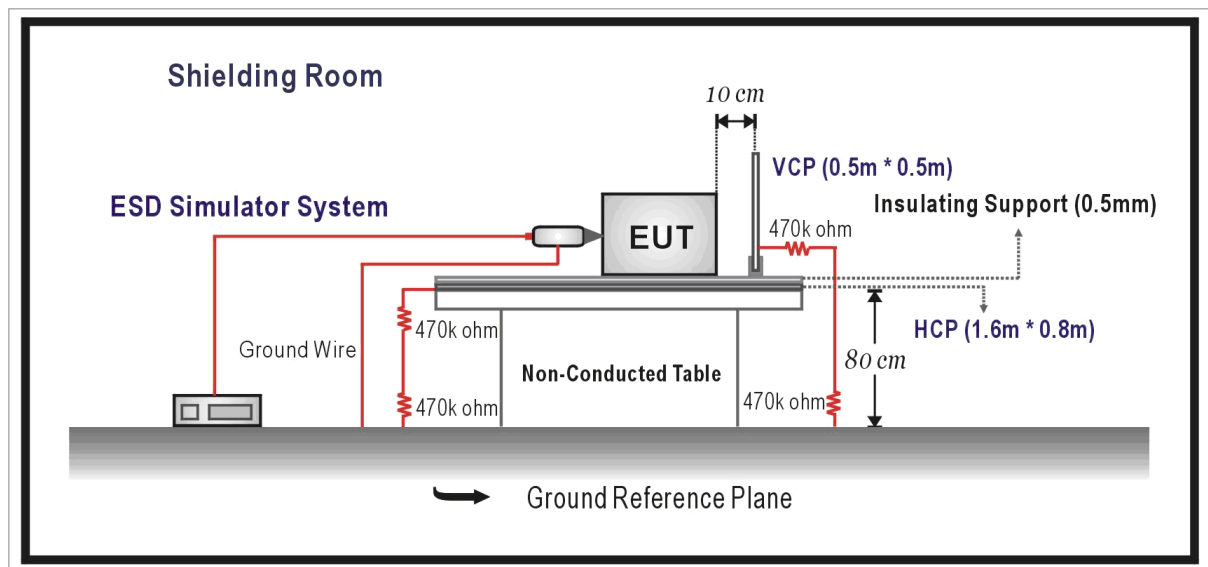


## 8. Electrostatic Discharge

### 8.1. Test Specification

According to EN 50121-4 clause 6.

### 8.2. Test Setup



### 8.3. Limit

Standard: EN 50121-4

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Enclosure Port				
	Electrostatic Discharge	kV(Charge Voltage)	±8 Air Discharge ±6 Contact Discharge	B

Standard: EN IEC 61000-6-2

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Enclosure Port				
	Electrostatic Discharge	kV(Charge Voltage)	±8 Air Discharge ±4 Contact Discharge	B

## **8.4. Test Procedure**

According to EN 61000-4-2.

Direct application of discharges to the EUT:

Contact discharge was applied only to conductive surfaces of the EUT.

Air discharges were applied only to non-conductive surfaces of the EUT.

During the test, it was performed with single discharges. For the single discharge time between successive single discharges will be keep longer 1 second. It was at least ten single discharges with positive and negative at the same selected point.

The selected point, which was performed with electrostatic discharge, was marked on the red label of the EUT.

Indirect application of discharges to the EUT:

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

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

## **8.5. Deviation from Test Standard**

No deviation..

## 8.6. Test Result

Product	Network Camera		
Test Item	Electrostatic Discharge		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 39(%RH) 1009(mbar)
Standard	EN 50121-4		

Item	Amount of Discharge	Voltage	Required Criteria	Complied To Criteria (A,B,C)	Results
Air Discharge	10	+8kV	B	A	Pass
	10	-8kV	B	A	Pass
Contact Discharge	10	+6kV	B	B	Pass
	10	-6kV	B	B	Pass
Indirect Discharge (HCP)	10	+6kV	B	A	Pass
	10	-6kV	B	A	Pass
Indirect Discharge (VCP)	10	+6kV	B	A	Pass
	10	-6kV	B	A	Pass

### Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

#### NR: No Requirement

- ☒ Meet criteria A: Operate as intended during and after the test
- ☒ Meet criteria B: Operate as intended after the test
- ☐ Meet criteria C: Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ kV.
  - ☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Electrostatic Discharge		
Test Mode	Mode 2: Normal Operation, PoE		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 39(%RH) 1009(mbar)
Standard	EN 50121-4		

Item	Amount of Discharge	Voltage	Required Criteria	Complied To Criteria (A,B,C)	Results
Air Discharge	10	+8kV	B	A	Pass
	10	-8kV	B	A	Pass
Contact Discharge	10	+6kV	B	B	Pass
	10	-6kV	B	B	Pass
Indirect Discharge (HCP)	10	+6kV	B	A	Pass
	10	-6kV	B	A	Pass
Indirect Discharge (VCP)	10	+6kV	B	A	Pass
	10	-6kV	B	A	Pass

## Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

## NR: No Requirement

- ☒ Meet criteria A: Operate as intended during and after the test
- ☒ Meet criteria B: Operate as intended after the test
- ☐ Meet criteria C: Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ kV.
  - ☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Electrostatic Discharge		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 39(%RH) 1009(mbar)
Standard	EN 50121-4		

Item	Amount of Discharge	Voltage	Required Criteria	Complied To Criteria (A,B,C)	Results
Air Discharge	10	+8kV	B	A	Pass
	10	-8kV	B	A	Pass
Contact Discharge	10	+6kV	B	A	Pass
	10	-6kV	B	A	Pass
Indirect Discharge (HCP)	10	+6kV	B	A	Pass
	10	-6kV	B	A	Pass
Indirect Discharge (VCP)	10	+6kV	B	A	Pass
	10	-6kV	B	A	Pass

## Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

## NR: No Requirement

- ☒ Meet criteria A: Operate as intended during and after the test
- ☐ Meet criteria B: Operate as intended after the test
- ☐ Meet criteria C: Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ kV.
  - ☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Electrostatic Discharge		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 50(%RH) 996(mbar)
Standard	EN IEC 61000-6-2		

Item	Amount of Discharge	Voltage	Required Criteria	Complied To Criteria (A,B,C)	Results
Air Discharge	10	+8kV	B	A	Pass
	10	-8kV	B	A	Pass
Contact Discharge	10	+4kV	B	B	Pass
	10	-4kV	B	B	Pass
Indirect Discharge (HCP)	10	+4kV	B	A	Pass
	10	-4kV	B	A	Pass
Indirect Discharge (VCP)	10	+4kV	B	A	Pass
	10	-4kV	B	A	Pass

**Note:**

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

**NR: No Requirement**

- ☒ Meet criteria A: Operate as intended during and after the test
- ☒ Meet criteria B: Operate as intended after the test
- ☐ Meet criteria C: Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ kV.
  - ☒ No false alarms or other malfunctions were observed during or after the test.



Product	Network Camera		
Test Item	Electrostatic Discharge		
Test Mode	Mode 2: Normal Operation, PoE		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 50(%RH) 996(mbar)
Standard	EN IEC 61000-6-2		

Item	Amount of Discharge	Voltage	Required Criteria	Complied To Criteria (A,B,C)	Results
Air Discharge	10	+8kV	B	A	Pass
	10	-8kV	B	A	Pass
Contact Discharge	10	+4kV	B	B	Pass
	10	-4kV	B	B	Pass
Indirect Discharge (HCP)	10	+4kV	B	A	Pass
	10	-4kV	B	A	Pass
Indirect Discharge (VCP)	10	+4kV	B	A	Pass
	10	-4kV	B	A	Pass

**Note:**

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

**NR: No Requirement**

- ☒ Meet criteria A: Operate as intended during and after the test
- ☒ Meet criteria B: Operate as intended after the test
- ☐ Meet criteria C: Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ kV.
  - ☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Electrostatic Discharge		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 50(%RH) 996(mbar)
Standard	EN IEC 61000-6-2		

Item	Amount of Discharge	Voltage	Required Criteria	Complied To Criteria (A,B,C)	Results
Air Discharge	10	+8kV	B	A	Pass
	10	-8kV	B	A	Pass
Contact Discharge	10	+4kV	B	B	Pass
	10	-4kV	B	B	Pass
Indirect Discharge (HCP)	10	+4kV	B	A	Pass
	10	-4kV	B	A	Pass
Indirect Discharge (VCP)	10	+4kV	B	A	Pass
	10	-4kV	B	A	Pass

**Note:**

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

**NR: No Requirement**

- ☒ Meet criteria A: Operate as intended during and after the test
- ☒ Meet criteria B: Operate as intended after the test
- ☐ Meet criteria C: Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ kV.
  - ☒ No false alarms or other malfunctions were observed during or after the test.

### 8.7. Test Photograph

Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : ESD Test Setup



Test Mode : Mode 2: Normal Operation, PoE

Description : ESD Test Setup



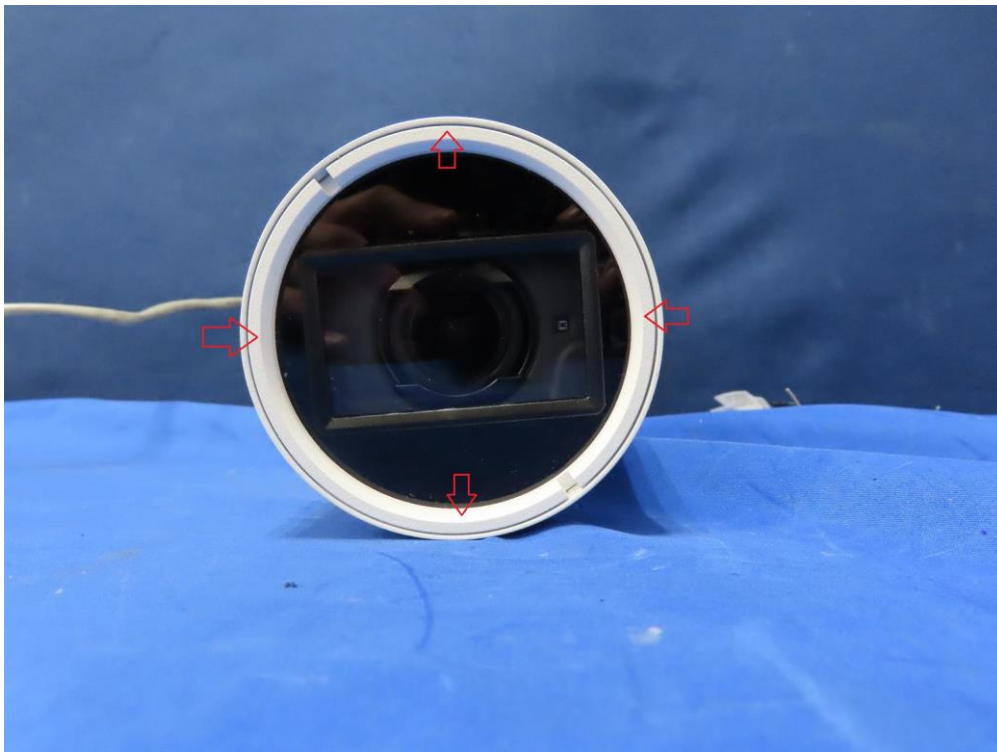
Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : ESD Test Setup

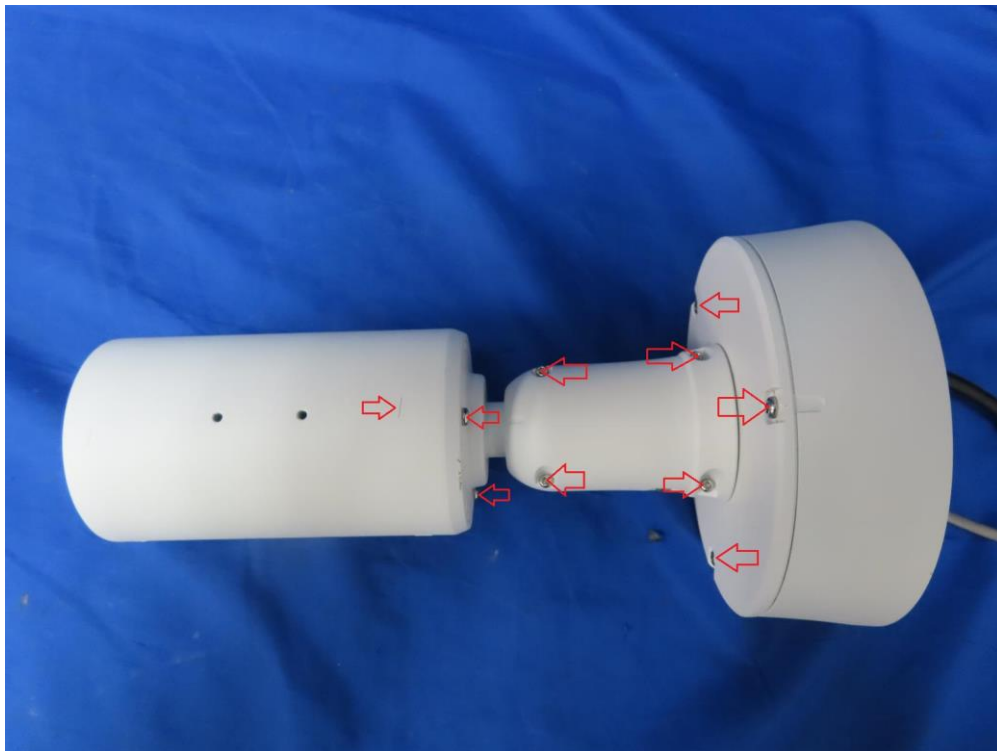


### 8.8. EUT to dot photo for ESD test

Test dot : (Contact Discharge)



Test dot : (Contact Discharge)



Test dot : (Contact Discharge)

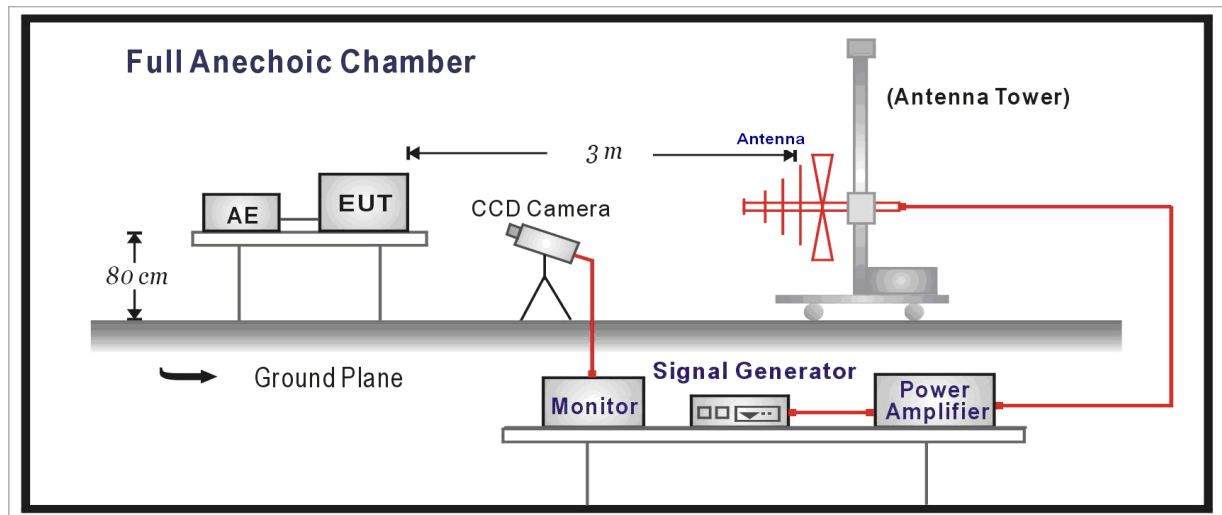


## 9. Radiated Susceptibility

### 9.1. Test Specification

According to EN 50121-4 clause 6.

### 9.2. Test Setup





### 9.3. Limit

Standard: EN 50121-4

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Enclosure Port				
Radio-Frequency		MHz	80-800	A
Electromagnetic Field		V/m(Un-modulated, rms)	10	
Amplitude Modulated		% AM (1kHz)	80	
Radio-Frequency		MHz	800-1000	A
Electromagnetic Field		V/m(Un-modulated, rms)	20	
Amplitude Modulated		% AM (1kHz)	80	
Radio-Frequency		MHz	1400-2000	A
Electromagnetic Field		V/m(Un-modulated, rms)	10	
Amplitude Modulated		% AM (1kHz)	80	
Radio-Frequency		MHz	2000-2700	A
Electromagnetic Field		V/m(Un-modulated, rms)	5	
Amplitude Modulated		% AM (1kHz)	80	
Radio-Frequency		MHz	5100-6000	A
Electromagnetic Field		V/m(Un-modulated, rms)	3	
Amplitude Modulated		% AM (1kHz)	80	

Standard: EN IEC 61000-6-2

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Enclosure Port				
Radio-Frequency		MHz	80-1000	A
Electromagnetic Field			1400-6000	
		V/m(Un-modulated, rms)	10,3	
Amplitude Modulated		% AM (1kHz)	80	

#### 9.4. Test Procedure

According to EN 61000-4-3

The EUT and load, which are placed on a table that is 0.8 meter above ground, are placed with one coincident with the calibration plane such that the distance from antenna to the EUT was 3 meters.

Both horizontal and vertical polarization of the antenna and four sides of the EUT are set on measurement.

In order to judge the EUT performance, a CCD camera is used to monitor EUT screen.

All the scanning conditions are as follows:

Condition of Test	Remarks
1. Field Strength	5, 10, 20V/m
2. Radiated Signal	AM 80% Modulated with 1kHz
3. Scanning Frequency	80MHz-800MHz for 10V/m 800MHz-1000MHz for 20V/m 1400MHz-2000MHz for 10V/m 2000MHz-2700MHz for 5V/m 5100MHz-6000MHz for 3V/m
4. Dwell Time	3 Seconds
5. Frequency step size $\Delta f$ :	1%
6. The rate of Swept of Frequency	$1.5 \times 10^{-3}$ decades/s

#### 9.5. Deviation from Test Standard

No deviation.

## 9.6. Test Result

Product	Network Camera		
Test Item	Radiated susceptibility		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	Chamber 9
Engineer	Ken Pan	Environmental	20(°C) 47(%RH)
Standard	EN 50121-4		

Frequency (MHz)	Position (Angle)	Polarity (H or V)	Field Strength (V/m)	Required Criteria	Complied To Criteria (A,B,C)	Results
80-800	0°	H/V	10	A	A	PASS
80-800	90°	H/V	10	A	A	PASS
80-800	180°	H/V	10	A	A	PASS
80-800	270°	H/V	10	A	A	PASS
800-1000	0°	H/V	20	A	A	PASS
800-1000	90°	H/V	20	A	A	PASS
800-1000	180°	H/V	20	A	A	PASS
800-1000	270°	H/V	20	A	A	PASS
1400-2000	0°	H/V	10	A	A	PASS
1400-2000	90°	H/V	10	A	A	PASS
1400-2000	180°	H/V	10	A	A	PASS
1400-2000	270°	H/V	10	A	A	PASS
2000-2700	0°	H/V	5	A	A	PASS
2000-2700	90°	H/V	5	A	A	PASS
2000-2700	180°	H/V	5	A	A	PASS
2000-2700	270°	H/V	5	A	A	PASS
5100-6000	0°	H/V	3	A	A	PASS
5100-6000	90°	H/V	3	A	A	PASS
5100-6000	180°	H/V	3	A	A	PASS
5100-6000	270°	H/V	3	A	A	PASS

### Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A: Operate as intended during and after the test
- ☐ Meet criteria B: Operate as intended after the test
- ☐ Meet criteria C: Loss/Error of function
- ☐ Additional Information
  - ☐ There was no observable degradation in performance.
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ V/m at frequency \_\_\_\_\_ MHz.

- ☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Radiated susceptibility		
Test Mode	Mode 2: Normal Operation, PoE		
Date of Test	2021/12/17	Test Site	Chamber 9
Engineer	Ken Pan	Environmental	20(°C) 47(%RH)
Standard	EN 50121-4		

Frequency (MHz)	Position (Angle)	Polarity (H or V)	Field Strength (V/m)	Required Criteria	Complied To Criteria (A,B,C)	Results
80-800	0°	H/V	10	A	A	PASS
80-800	90°	H/V	10	A	A	PASS
80-800	180°	H/V	10	A	A	PASS
80-800	270°	H/V	10	A	A	PASS
800-1000	0°	H/V	20	A	A	PASS
800-1000	90°	H/V	20	A	A	PASS
800-1000	180°	H/V	20	A	A	PASS
800-1000	270°	H/V	20	A	A	PASS
1400-2000	0°	H/V	10	A	A	PASS
1400-2000	90°	H/V	10	A	A	PASS
1400-2000	180°	H/V	10	A	A	PASS
1400-2000	270°	H/V	10	A	A	PASS
2000-2700	0°	H/V	5	A	A	PASS
2000-2700	90°	H/V	5	A	A	PASS
2000-2700	180°	H/V	5	A	A	PASS
2000-2700	270°	H/V	5	A	A	PASS
5100-6000	0°	H/V	3	A	A	PASS
5100-6000	90°	H/V	3	A	A	PASS
5100-6000	180°	H/V	3	A	A	PASS
5100-6000	270°	H/V	3	A	A	PASS

**Note:**

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A: Operate as intended during and after the test
- ☐ Meet criteria B: Operate as intended after the test
- ☐ Meet criteria C: Loss/Error of function
- ☐ Additional Information
  - ☐ There was no observable degradation in performance.
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ V/m at frequency \_\_\_\_\_ MHz.

- ☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Radiated susceptibility		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	Chamber 9
Engineer	Ken Pan	Environmental	20(°C) 47(%RH)
Standard	EN 50121-4		

Frequency (MHz)	Position (Angle)	Polarity (H or V)	Field Strength (V/m)	Required Criteria	Complied To Criteria (A,B,C)	Results
80-800	0°	H/V	10	A	A	PASS
80-800	90°	H/V	10	A	A	PASS
80-800	180°	H/V	10	A	A	PASS
80-800	270°	H/V	10	A	A	PASS
800-1000	0°	H/V	20	A	A	PASS
800-1000	90°	H/V	20	A	A	PASS
800-1000	180°	H/V	20	A	A	PASS
800-1000	270°	H/V	20	A	A	PASS
1400-2000	0°	H/V	10	A	A	PASS
1400-2000	90°	H/V	10	A	A	PASS
1400-2000	180°	H/V	10	A	A	PASS
1400-2000	270°	H/V	10	A	A	PASS
2000-2700	0°	H/V	5	A	A	PASS
2000-2700	90°	H/V	5	A	A	PASS
2000-2700	180°	H/V	5	A	A	PASS
2000-2700	270°	H/V	5	A	A	PASS
5100-6000	0°	H/V	3	A	A	PASS
5100-6000	90°	H/V	3	A	A	PASS
5100-6000	180°	H/V	3	A	A	PASS
5100-6000	270°	H/V	3	A	A	PASS

## Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A: Operate as intended during and after the test
- ☐ Meet criteria B: Operate as intended after the test
- ☐ Meet criteria C: Loss/Error of function
- ☐ Additional Information
  - ☐ There was no observable degradation in performance.
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ V/m at frequency \_\_\_\_\_ MHz.

- ☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Radiated susceptibility		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	Chamber 9
Engineer	Ken Pan	Environmental	21(°C) 50(%RH)
Standard	EN IEC 61000-6-2		

Frequency (MHz)	Position (Angle)	Polarity (H or V)	Field Strength (V/m)	Required Criteria	Complied To Criteria (A,B,C)	Results
80-1000	0°	H	10	A	A	PASS
80-1000	0°	V	10	A	A	PASS
80-1000	90°	H	10	A	A	PASS
80-1000	90°	V	10	A	A	PASS
80-1000	180°	H	10	A	A	PASS
80-1000	180°	V	10	A	A	PASS
80-1000	270°	H	10	A	A	PASS
80-1000	270°	V	10	A	A	PASS
1400-6000	0°	H	3	A	A	PASS
1400-6000	0°	V	3	A	A	PASS
1400-6000	90°	H	3	A	A	PASS
1400-6000	90°	V	3	A	A	PASS
1400-6000	180°	H	3	A	A	PASS
1400-6000	180°	V	3	A	A	PASS
1400-6000	270°	H	3	A	A	PASS
1400-6000	270°	V	3	A	A	PASS

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

☒ Meet criteria A: Operate as intended during and after the test

☐ Meet criteria B: Operate as intended after the test

☐ Meet criteria C: Loss/Error of function

☐ Additional Information

☐ There was no observable degradation in performance.

☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ V/m at frequency \_\_\_\_\_ MHz.

☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Radiated susceptibility		
Test Mode	Mode 2: Normal Operation, PoE		
Date of Test	2021/12/17	Test Site	Chamber 9
Engineer	Ken Pan	Environmental	21(°C) 50(%RH)
Standard	EN IEC 61000-6-2		

Frequency (MHz)	Position (Angle)	Polarity (H or V)	Field Strength (V/m)	Required Criteria	Complied To Criteria (A,B,C)	Results
80-1000	0°	H	10	A	A	PASS
80-1000	0°	V	10	A	A	PASS
80-1000	90°	H	10	A	A	PASS
80-1000	90°	V	10	A	A	PASS
80-1000	180°	H	10	A	A	PASS
80-1000	180°	V	10	A	A	PASS
80-1000	270°	H	10	A	A	PASS
80-1000	270°	V	10	A	A	PASS
1400-6000	0°	H	3	A	A	PASS
1400-6000	0°	V	3	A	A	PASS
1400-6000	90°	H	3	A	A	PASS
1400-6000	90°	V	3	A	A	PASS
1400-6000	180°	H	3	A	A	PASS
1400-6000	180°	V	3	A	A	PASS
1400-6000	270°	H	3	A	A	PASS
1400-6000	270°	V	3	A	A	PASS

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A: Operate as intended during and after the test
- ☐ Meet criteria B: Operate as intended after the test
- ☐ Meet criteria C: Loss/Error of function
- ☐ Additional Information
  - ☐ There was no observable degradation in performance.
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ V/m at frequency \_\_\_\_\_MHz.

- ☒ No false alarms or other malfunctions were observed during or after the test.



Product	Network Camera		
Test Item	Radiated susceptibility		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	Chamber 9
Engineer	Ken Pan	Environmental	21(°C) 50(%RH)
Standard	EN IEC 61000-6-2		

Frequency (MHz)	Position (Angle)	Polarity (H or V)	Field Strength (V/m)	Required Criteria	Complied To Criteria (A,B,C)	Results
80-1000	0°	H	10	A	A	PASS
80-1000	0°	V	10	A	A	PASS
80-1000	90°	H	10	A	A	PASS
80-1000	90°	V	10	A	A	PASS
80-1000	180°	H	10	A	A	PASS
80-1000	180°	V	10	A	A	PASS
80-1000	270°	H	10	A	A	PASS
80-1000	270°	V	10	A	A	PASS
1400-6000	0°	H	3	A	A	PASS
1400-6000	0°	V	3	A	A	PASS
1400-6000	90°	H	3	A	A	PASS
1400-6000	90°	V	3	A	A	PASS
1400-6000	180°	H	3	A	A	PASS
1400-6000	180°	V	3	A	A	PASS
1400-6000	270°	H	3	A	A	PASS
1400-6000	270°	V	3	A	A	PASS

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

☒ Meet criteria A: Operate as intended during and after the test

☐ Meet criteria B: Operate as intended after the test

☐ Meet criteria C: Loss/Error of function

☐ Additional Information

☐ There was no observable degradation in performance.

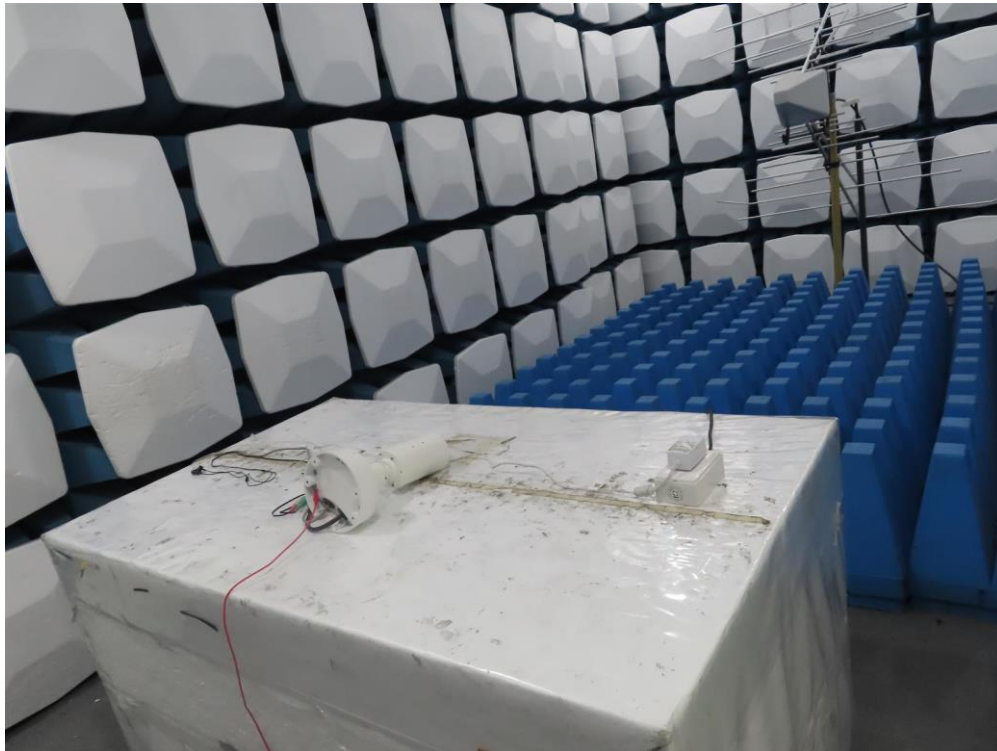
☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ V/m at frequency \_\_\_\_\_ MHz.

☒ No false alarms or other malfunctions were observed during or after the test.

### 9.7. Test Photograph

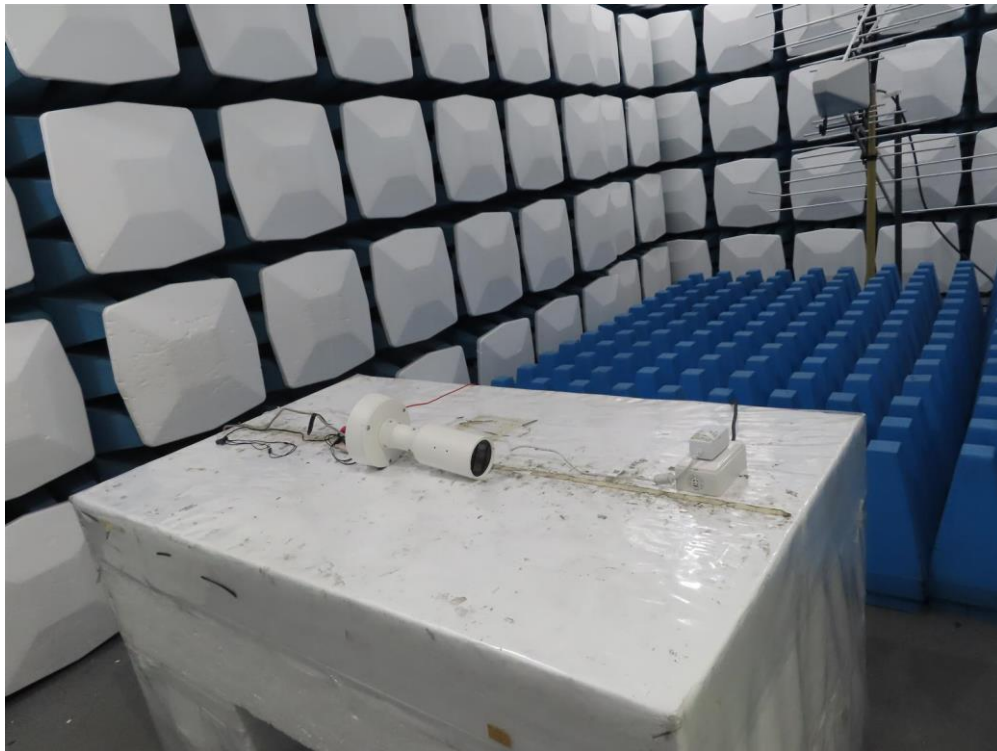
Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Radiated Susceptibility Test Setup



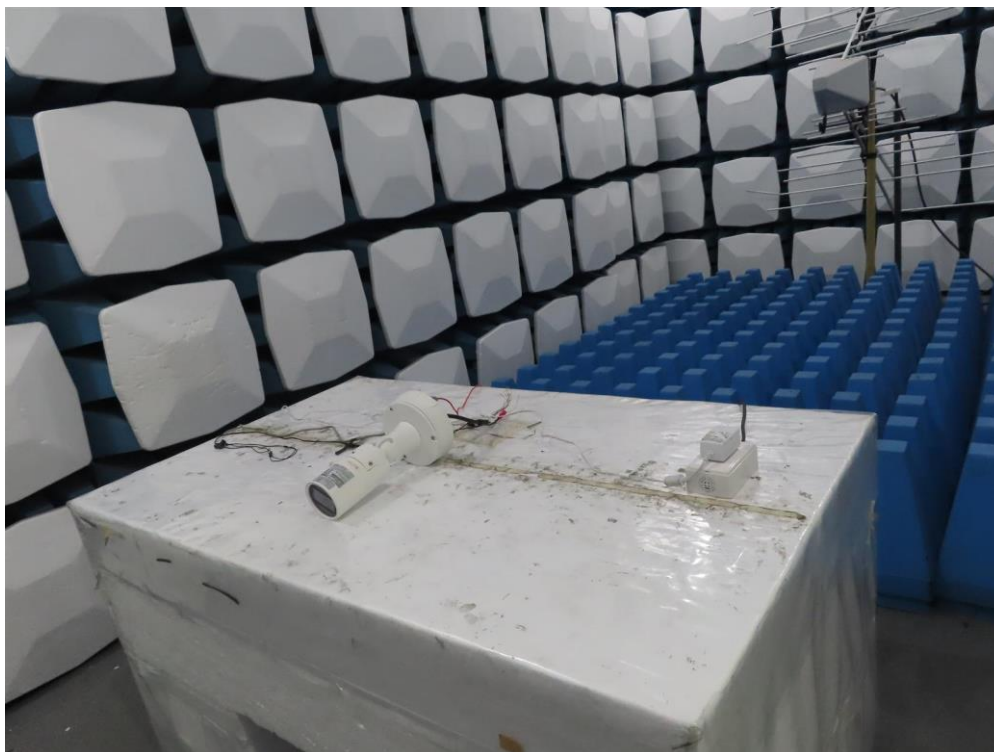
Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Radiated Susceptibility Test Setup



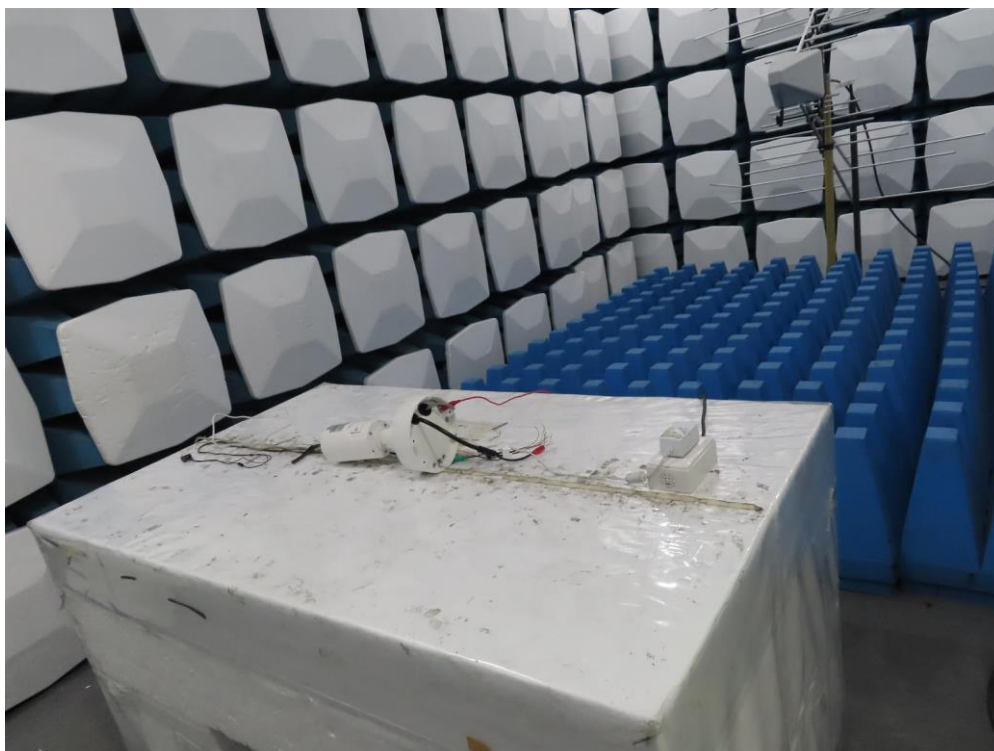
Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Radiated Susceptibility Test Setup



Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

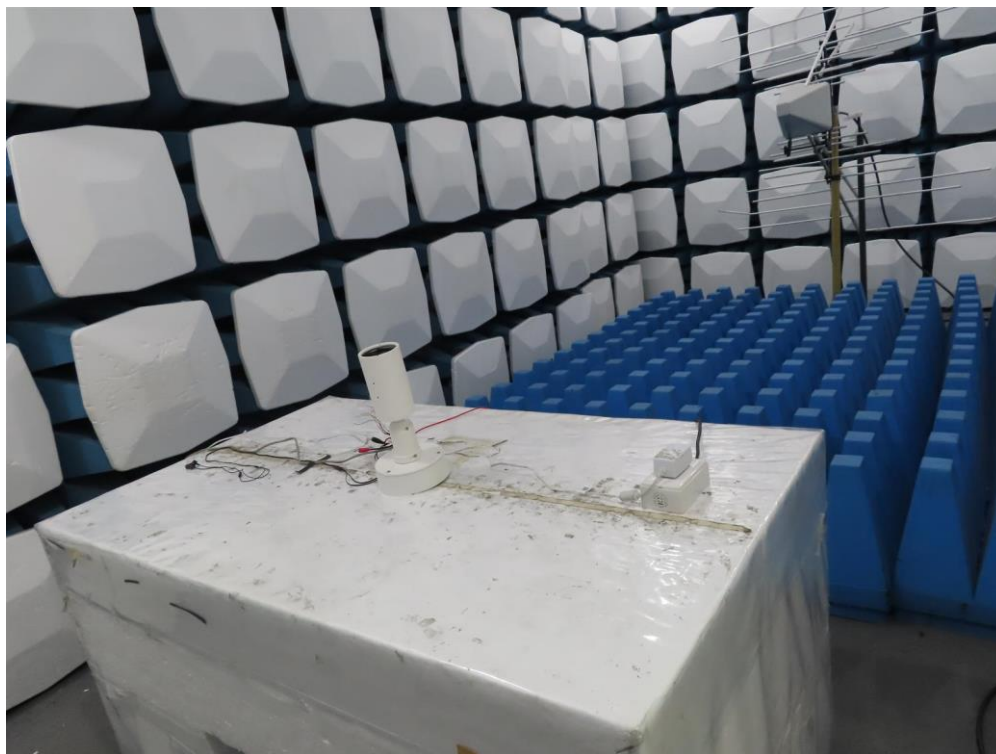
Description : Radiated Susceptibility Test Setup





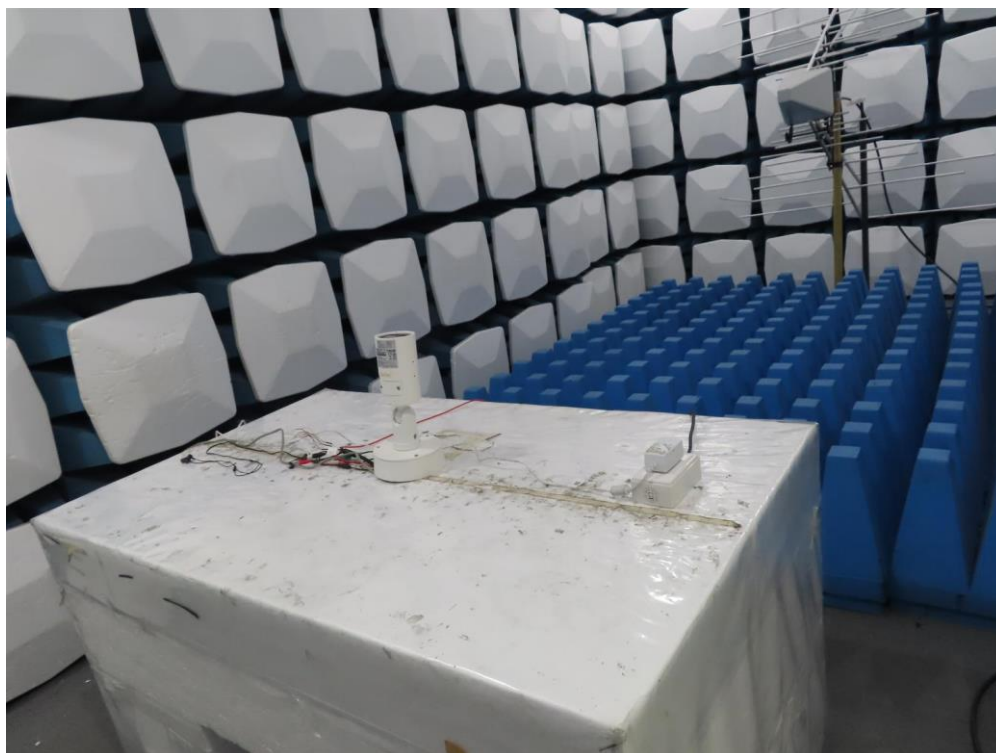
Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Radiated Susceptibility Test Setup



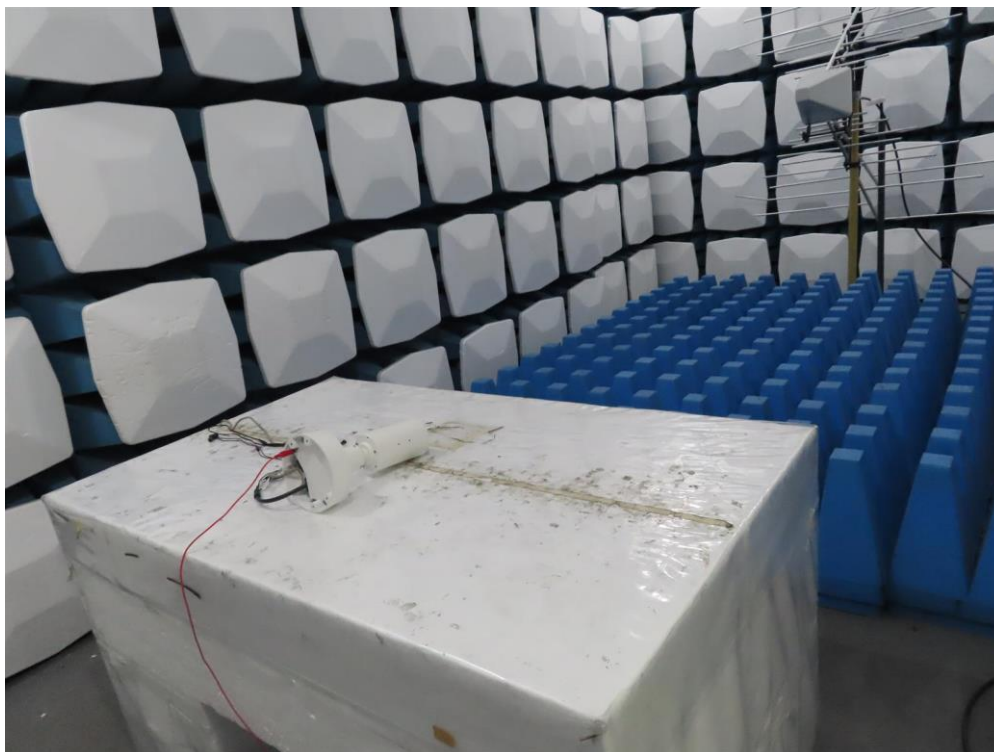
Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Radiated Susceptibility Test Setup



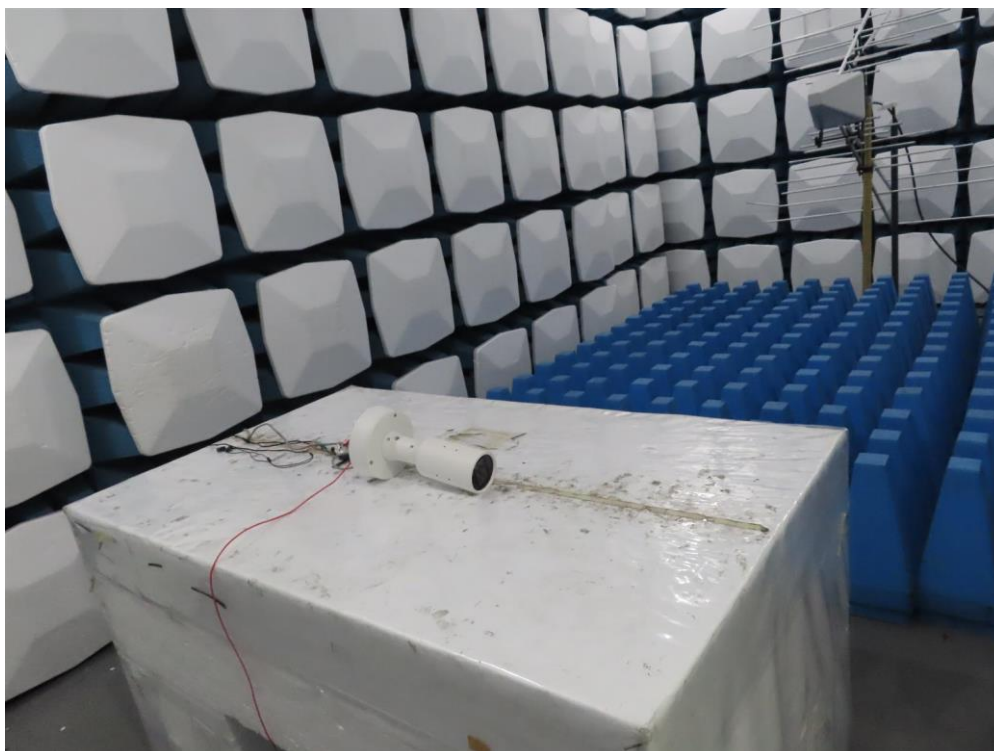
Test Mode : Mode 2: Normal Operation, PoE

Description : Radiated Susceptibility Test Setup



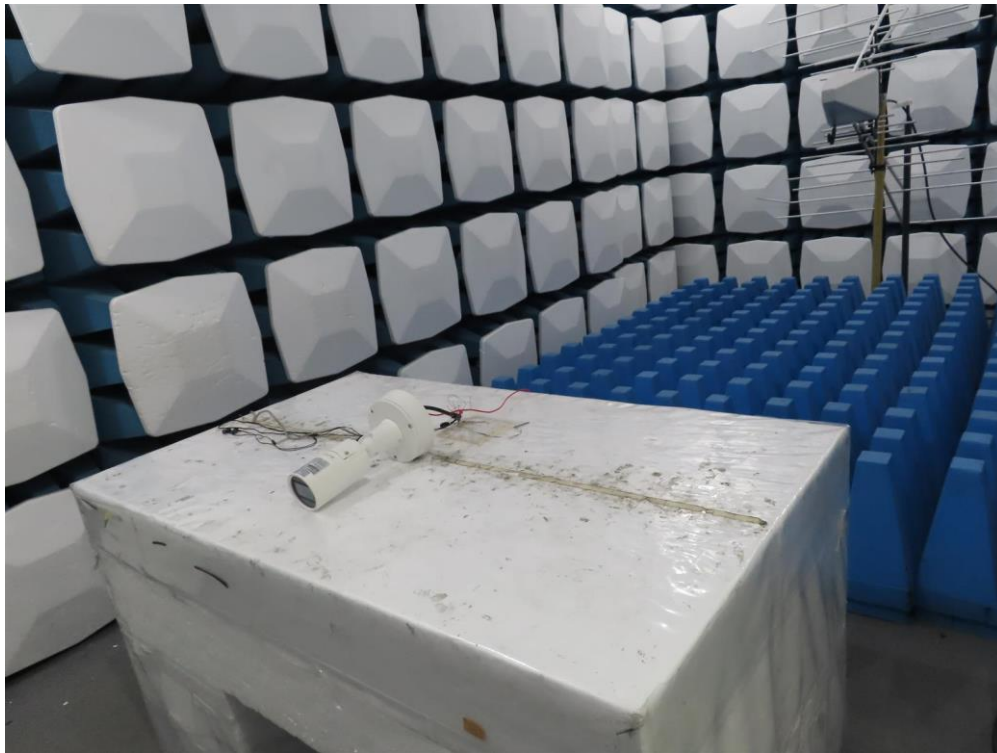
Test Mode : Mode 2: Normal Operation, PoE

Description : Radiated Susceptibility Test Setup



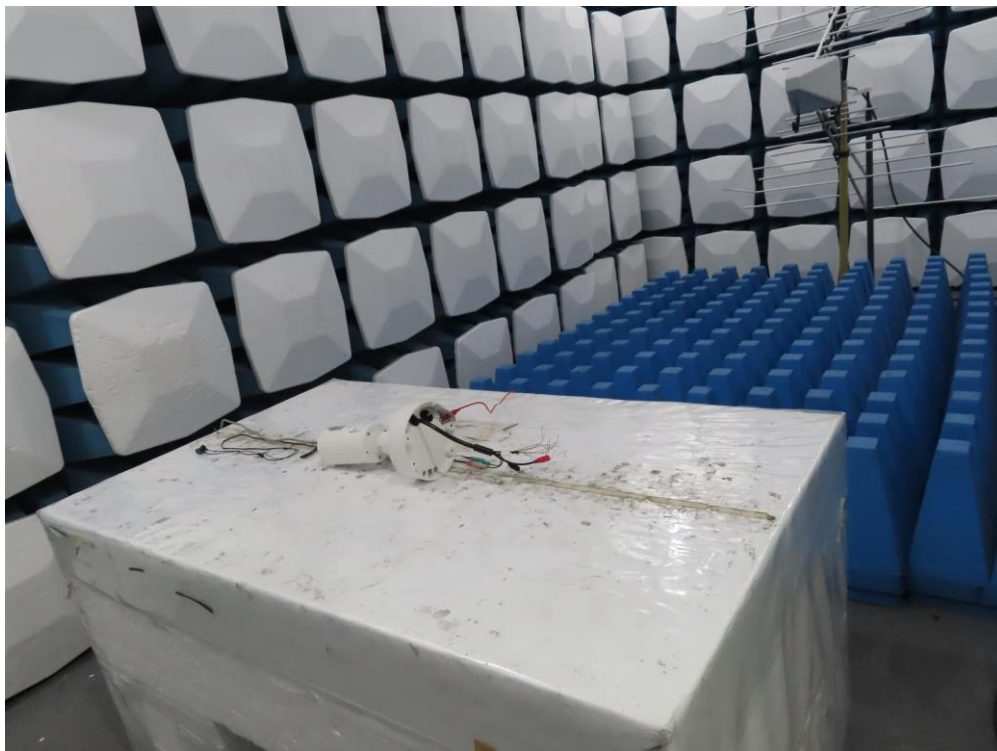
Test Mode : Mode 2: Normal Operation, PoE

Description : Radiated Susceptibility Test Setup



Test Mode : Mode 2: Normal Operation, PoE

Description : Radiated Susceptibility Test Setup





Test Mode : Mode 2: Normal Operation, PoE

Description : Radiated Susceptibility Test Setup



Test Mode : Mode 2: Normal Operation, PoE

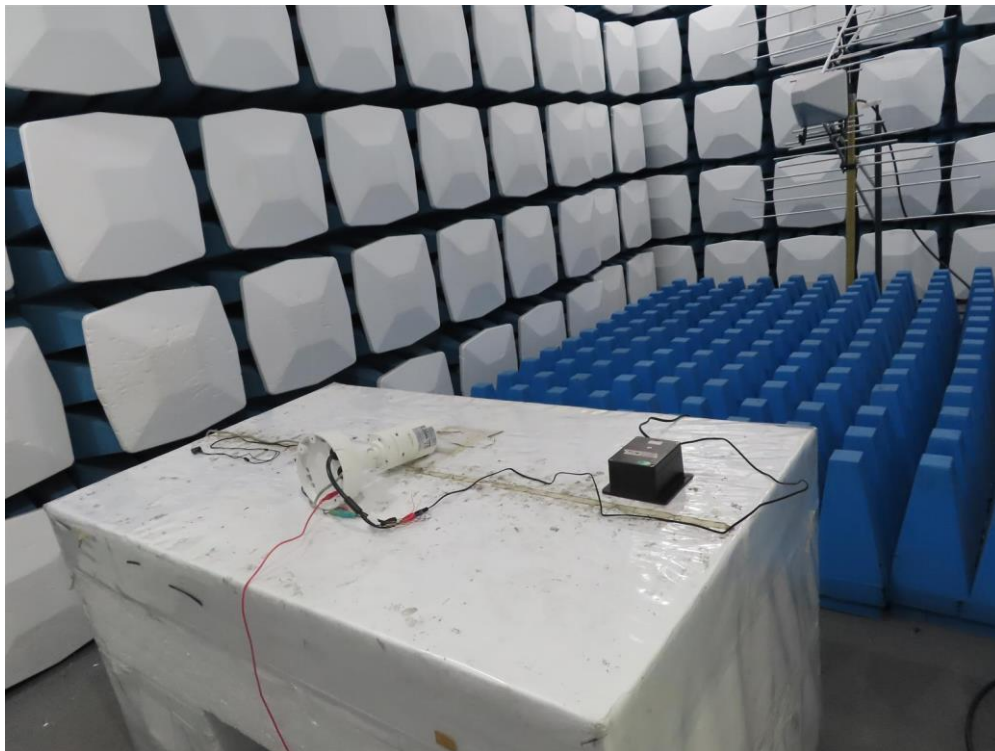
Description : Radiated Susceptibility Test Setup





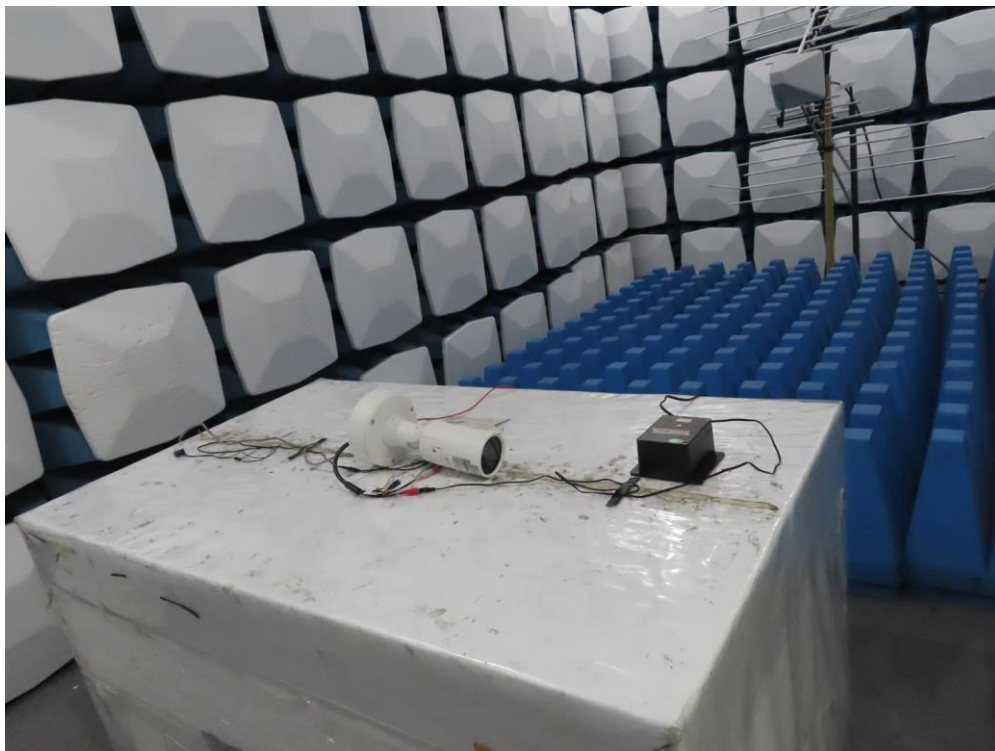
Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Radiated Susceptibility Test Setup



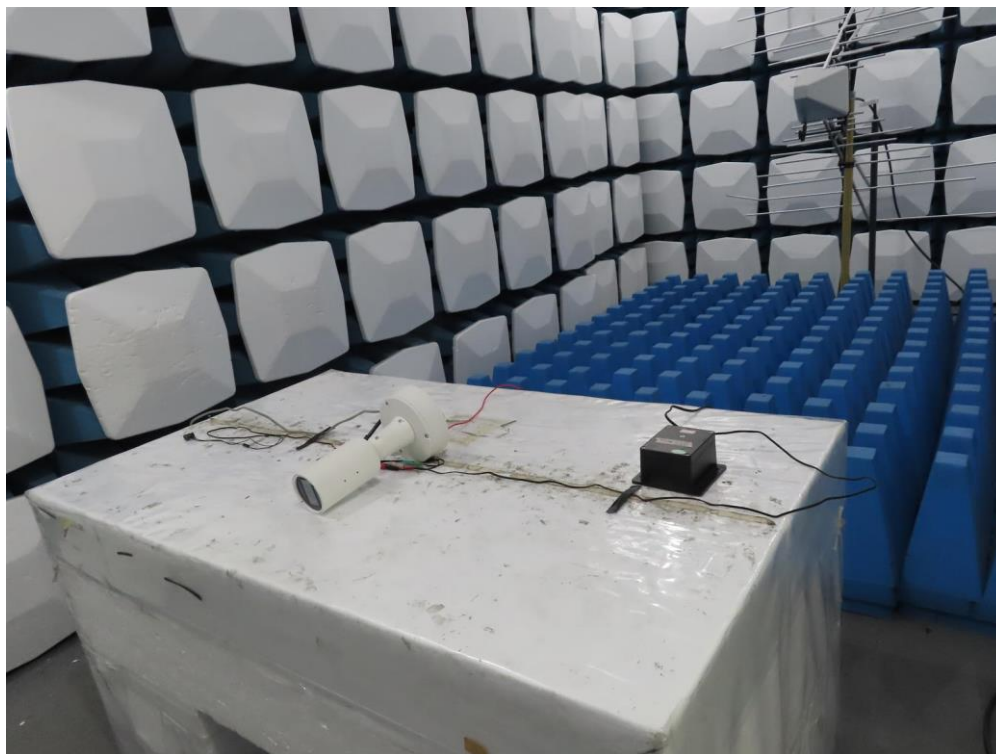
Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Radiated Susceptibility Test Setup



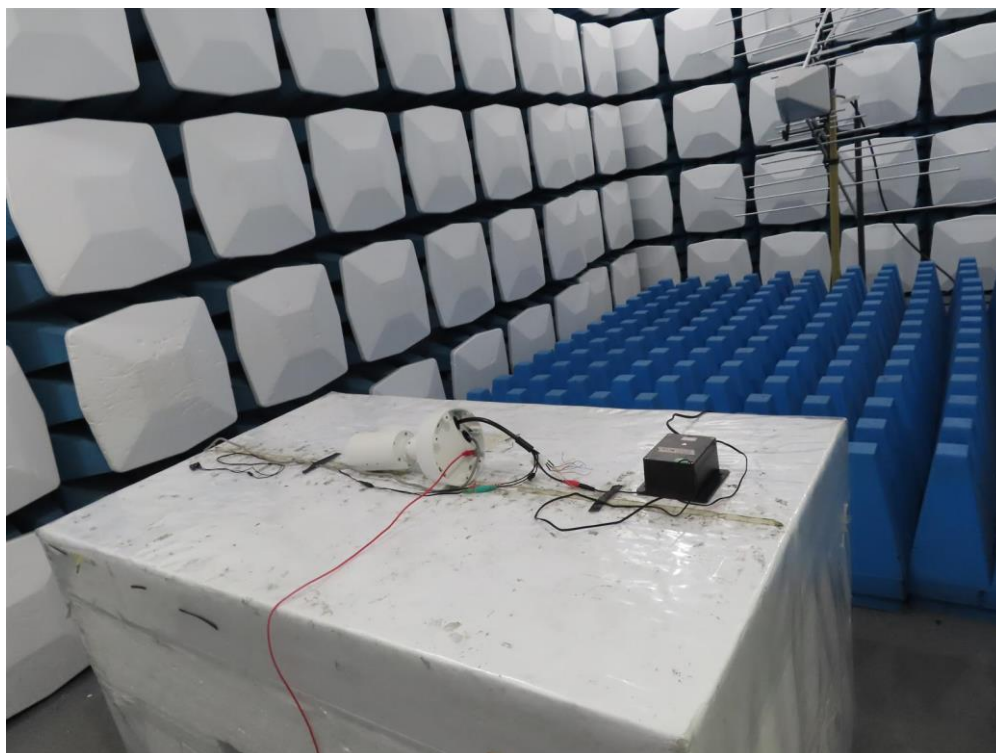
Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Radiated Susceptibility Test Setup



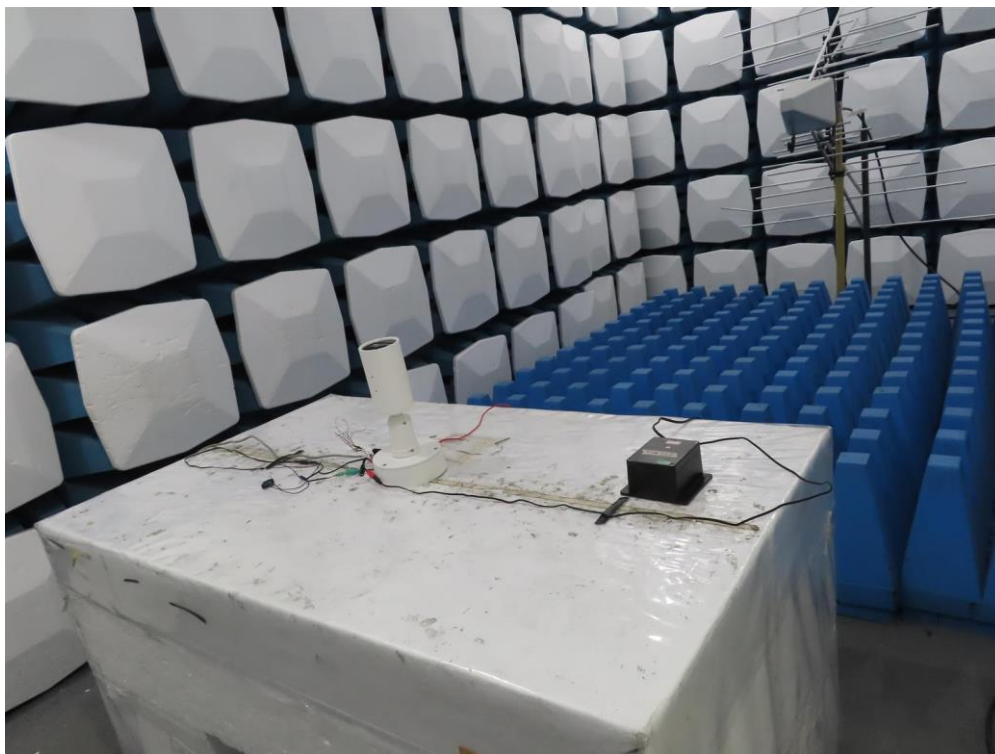
Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Radiated Susceptibility Test Setup



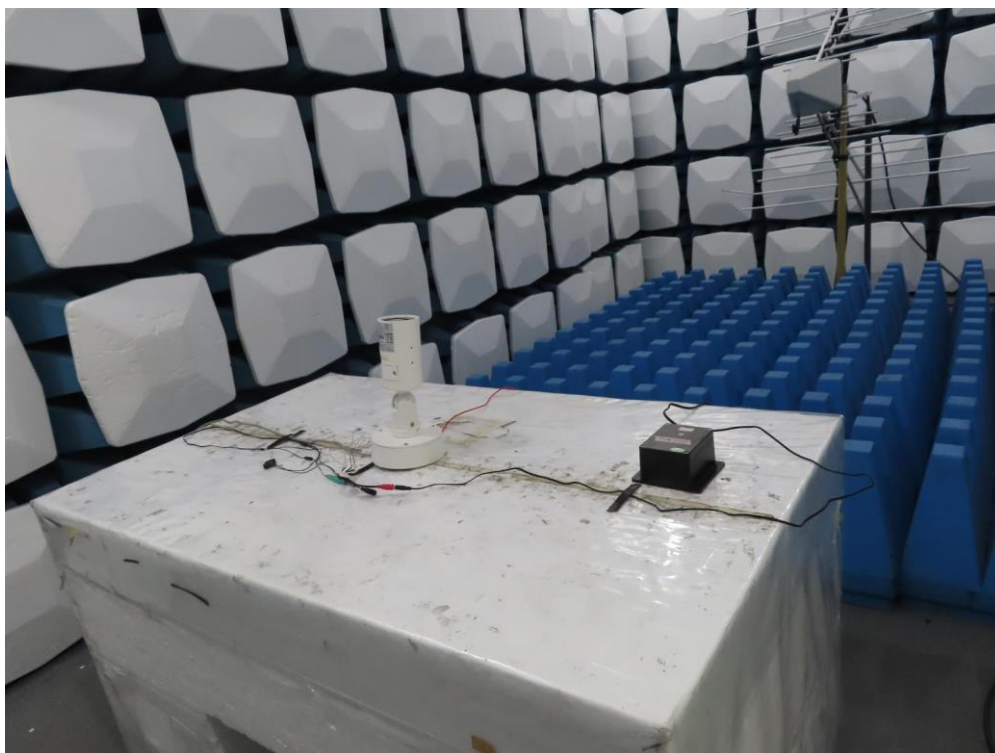
Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Radiated Susceptibility Test Setup



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Radiated Susceptibility Test Setup



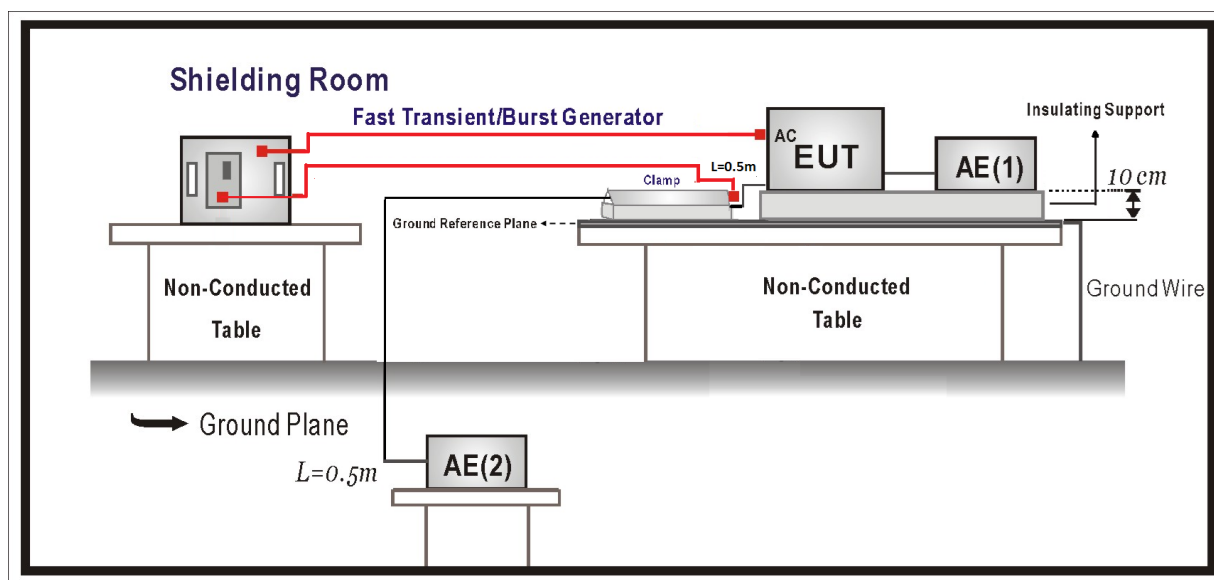


## 10. Electrical Fast Transient/Burst

### 10.1. Test Specification

According to EN 50121-4 clause 6.

### 10.2. Test Setup



### 10.3. Limit

Standard: EN 50121-4

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Signal and Telecommunication Ports				
	Fast Transients Common Mode	kV (Peak) Tr/Th ns Rep. Frequency kHz	$\pm 2$ 5/50 5	A
Input DC Power Ports				
	Fast Transients Common Mode	kV (Peak) Tr/Th ns Rep. Frequency kHz	$\pm 2$ 5/50 5	A
Input AC Power Ports				
	Fast Transients Common Mode	kV (Peak) Tr/Th ns Rep. Frequency kHz	$\pm 2$ 5/50 5	A

Standard: EN IEC 61000-6-2

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
I/O and communication ports				
	Fast Transients Common Mode	kV (Peak) Tr/Th ns Rep. Frequency kHz	$\pm 1$ 5/50 5 or 100	B
Input DC Power Ports				
	Fast Transients Common Mode	kV (Peak) Tr/Th ns Rep. Frequency kHz	$\pm 1$ 5/50 5 or 100	B
Input AC Power Ports				
	Fast Transients Common Mode	kV (Peak) Tr/Th ns Rep. Frequency kHz	$\pm 2$ 5/50 5 or 100	B

## **10.4. Test Procedure**

According to EN 61000-4-4.

The EUT is placed on a table that is 0.8 meter height. A ground reference plane is placed on the table, and uses a 0.1m insulation between the EUT and ground reference plane.

The minimum area of the ground reference plane is 1m\*1m, and 0.65mm thick min, and projected beyond the EUT by at least 0.1m on all sides.

Test on I/O and communication ports:

The EFT interference signal is through a coupling clamp device couples to the signal and control lines of the EUT with burst noise for 1minute.

Test on power supply ports:

The EUT is connected to the power mains through a coupling device that directly couples the EFT/B interference signal.

Each of the Line and Neutral conductors is impressed with burst noise for 1 minute.

The length of the signal and power lines between the coupling device and the EUT is 0.5m.

## **10.5. Deviation from Test Standard**

No deviation

## 10.6. Test Result

Product	Network Camera		
Test Item	Electrical fast transient/burst		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 48(%RH)
Standard	EN 50121-4		

Inject Line	Polarity	Voltage kV	Inject Time (Second)	Inject Method	Required Criteria	Complied to Criteria	Result
L	±	2 kV	60	Direct	A	A	PASS
N	±	2 kV	60	Direct	A	A	PASS
PE		2 kV	60	Direct	A	A	PASS
L-N-PE	±	2 kV	60	Direct	A	A	PASS
LAN	±	2 kV	60	Clamp	A	A	PASS

### Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test.



Product	Network Camera		
Test Item	Electrical fast transient/burst		
Test Mode	Mode 2: Normal Operation, PoE		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 48(%RH)
Standard	EN 50121-4		

Inject Line	Polarity	Voltage kV	Inject Time (Second)	Inject Method	Required Criteria	Complied to Criteria	Result
LAN	±	2 kV	60	Clamp	A	A	PASS

## Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Electrical fast transient/burst		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 48(%RH)
Standard	EN 50121-4		

Inject Line	Polarity	Voltage kV	Inject Time (Second)	Inject Method	Required Criteria	Complied to Criteria	Result
L	±	2 kV	60	Direct	A	A	PASS
N	±	2 kV	60	Direct	A	A	PASS
PE		2 kV	60	Direct	A	A	PASS
L-N-PE	±	2 kV	60	Direct	A	A	PASS
LAN	±	2 kV	60	Clamp	A	A	PASS

## Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Electrical fast transient/burst		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	22(°C) 50(%RH)
Standard	EN IEC 61000-6-2		

Inject Line	Polarity	Voltage kV	Inject Time (Second)	Inject Method	Required Criteria	Complied to Criteria	Result
L	±	2kV	60	Direct	B	A	PASS
N	±	2kV	60	Direct	B	A	PASS
PE	±	2kV	60	Direct	B	A	PASS
L-N-PE	±	2kV	60	Direct	B	A	PASS
LAN	±	1kV	60	Clamp	B	A	PASS

## Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Electrical fast transient/burst		
Test Mode	Mode 2: Normal Operation, PoE		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	22(°C) 50(%RH)
Standard	EN IEC 61000-6-2		

Inject Line	Polarity	Voltage kV	Inject Time (Second)	Inject Method	Required Criteria	Complied to Criteria	Result
LAN	±	1kV	60	Clamp	B	A	PASS

## Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Electrical fast transient/burst		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	22(°C) 50(%RH)
Standard	EN IEC 61000-6-2		

Inject Line	Polarity	Voltage kV	Inject Time (Second)	Inject Method	Required Criteria	Complied to Criteria	Result
L	±	2kV	60	Direct	B	A	PASS
N	±	2kV	60	Direct	B	A	PASS
PE	±	2kV	60	Direct	B	A	PASS
L-N-PE	±	2kV	60	Direct	B	A	PASS
LAN	±	1kV	60	Clamp	B	A	PASS

## Note:

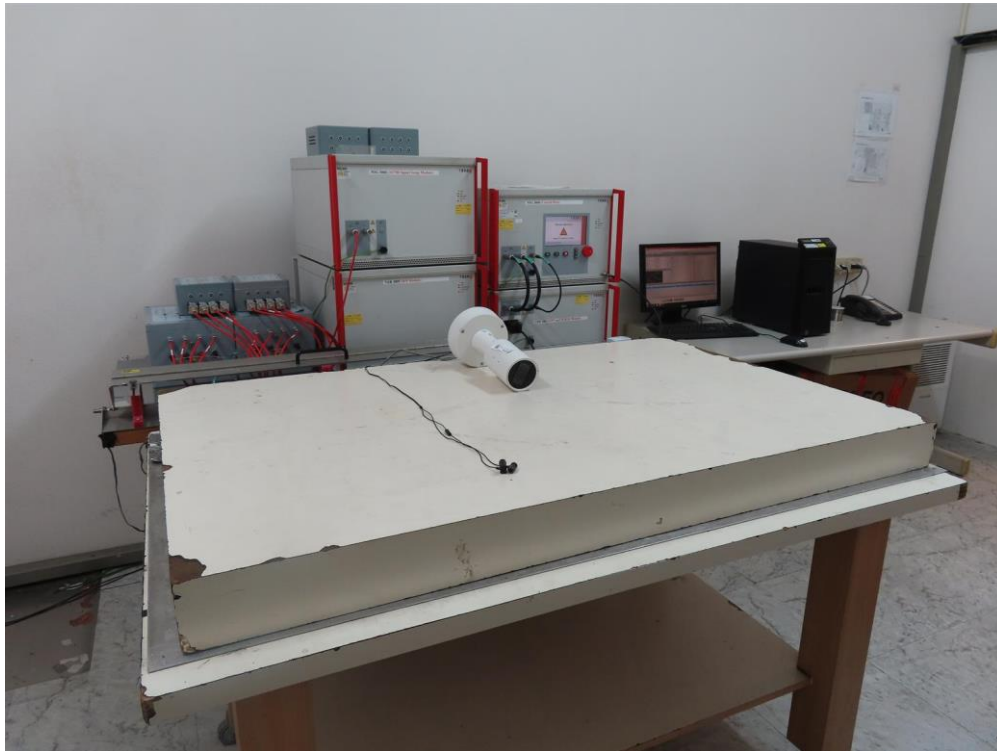
The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test.

### 10.7. Test Photograph

Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : EFT/B Test Setup



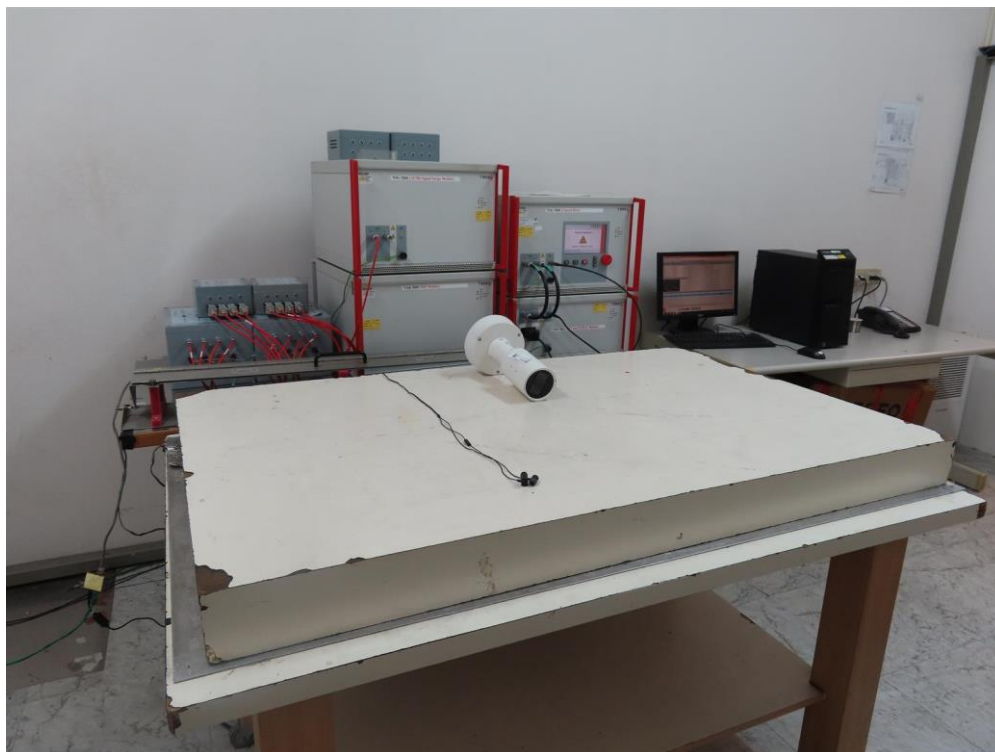
Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : EFT/B Test Setup - Clamp



Test Mode : Mode 2: Normal Operation, PoE

Description : EFT/B Test Setup - Clamp



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

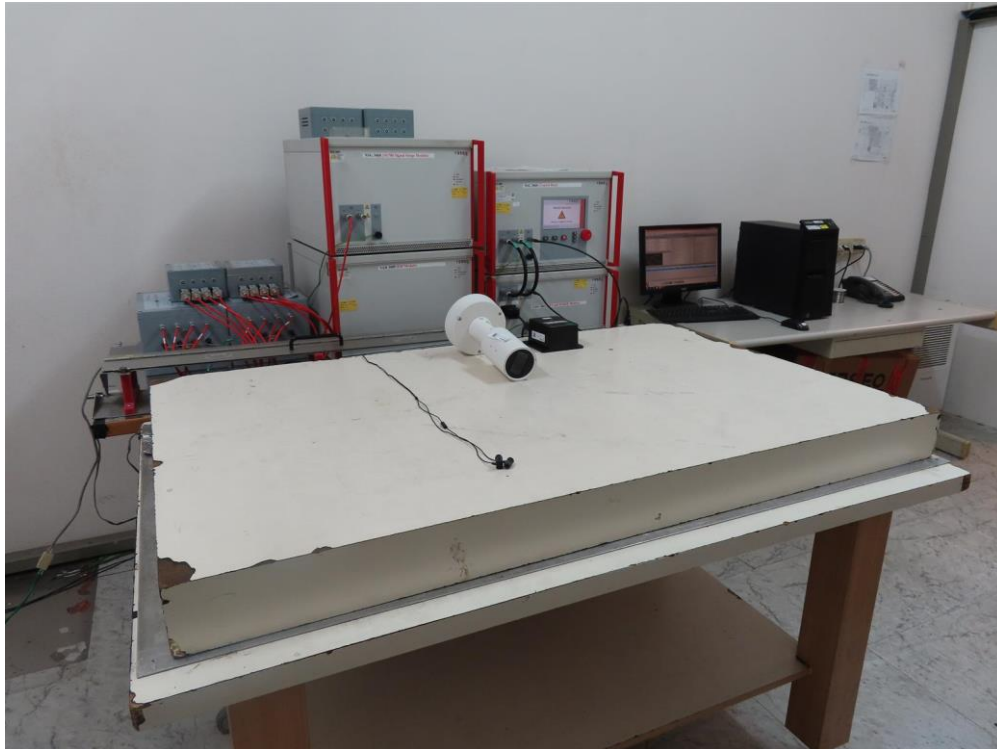
Description : EFT/B Test Setup





Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : EFT/B Test Setup - Clamp

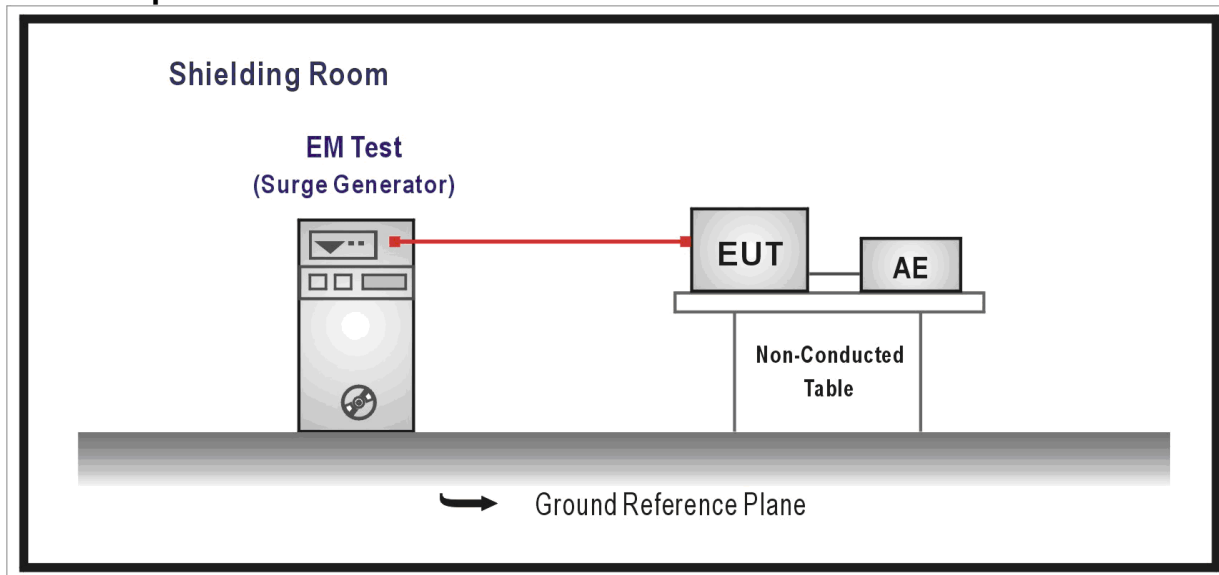


## 11. Surge

### 11.1. Test Specification

According to EN 50121-4 clause 6.

### 11.2. Test Setup



### 11.3. Limit

Standard: EN 50121-4

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Signal Ports and Telecommunication Ports(See 1) and 2) )				
	Surges Line to Line Line to Ground	Tr/Th us KV kV Output Impedance Ω Coupling Capacitance μF	1.2/50 (8/20) ± 1 ± 2 42 0.5	B
Input DC Power Ports				
	Surges Line to Line Line to Ground	Tr/Th us kV KV Output Impedance Ω Coupling Capacitance μF	1.2/50 (8/20) ± 1 ± 2 42 0.5	B
Input AC Power Ports				
	Surges Line to Line Line to Ground	Tr/Th us kV kV	1.2/50 (8/20) ± 1 ± 2	B

Notes:

- 1) For telecommunication ports and other ports intended for connection to highly balanced pairs, a line to line test is not required.
- 2) Ports directly connected to power ports or to the (public) low voltage network are classified as power ports also.

Standard: EN IEC 61000-6-2

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Signal Ports and Telecommunication Ports				
Surges Line to Ground		Tr/Th us kV	1.2/50 (8/20) ± 1	B
Input DC Power Ports				
Surges Line to Line Line to Ground		Tr/Th us kV	1.2/50 (8/20) ± 0.5 ± 1	B
AC Input and AC Output Power Ports				
Surges Line to Line Line to Ground		Tr/Th us kV kV	1.2/50 (8/20) ± 1 ± 2	B

#### **11.4. Test Procedure**

According to EN 61000-4-5.

The EUT and its load are placed on a table that is 0.8 meter above a metal ground plane measured 1m\*1m min. and 0.65mm thick min. And projected beyond the EUT by at least 0.1m on all sides. The length of power cord between the coupling device and the EUT shall be 2m or less.

For Input and Output AC Power or DC Input and DC Output Power Ports:

The EUT is connected to the power mains through a coupling device that directly couples the Surge interference signal.

The surge noise shall be applied synchronized to the voltage phase at 0°, 90°, 180°, 270° and the peak value of the a.c. voltage wave. (Positive and negative)

Each of Line-Earth and Line-Line is impressed with a sequence of five surge voltages with interval of 1 min.

#### **11.5. Deviation from Test Standard**

No deviation.

**11.6. Test Result**

Product	Network Camera		
Test Item	Surge		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	23(°C) 56(%RH)
Standard	EN 50121-4		

Inject Line	Polarity	Voltage kV	Angle	Time Interval (Second)	Inject Method	Required Criteria	Complied to Criteria	Result
L-N	±	1kV	0	60	Direct	B	A	PASS
L-N	±	1kV	90	60	Direct	B	A	PASS
L-N	±	1kV	180	60	Direct	B	A	PASS
L-N	±	1kV	270	60	Direct	B	A	PASS
L-PE	±	2kV	0	60	Direct	B	A	PASS
L-PE	±	2kV	90	60	Direct	B	A	PASS
L-PE	±	2kV	180	60	Direct	B	A	PASS
L-PE	±	2kV	270	60	Direct	B	A	PASS
N-PE	±	2kV	0	60	Direct	B	A	PASS
N-PE	±	2kV	90	60	Direct	B	A	PASS
N-PE	±	2kV	180	60	Direct	B	A	PASS
N-PE	±	2kV	270	60	Direct	B	A	PASS

**Note:**

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

☒ Meet criteria A : Operate as intended during and after the test

☒ Meet criteria B : Operate as intended after the test

☐ Meet criteria C : Loss/Error of function

☐ Additional Information

☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.

☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Surge		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	23(°C) 56(%RH)
Standard	EN 50121-4		

Inject Line	Polarity	Voltage kV	Angle	Time Interval (Second)	Inject Method	Required Criteria	Complied to Criteria	Result
L-N	±	1kV	0	60	Direct	B	A	PASS
L-N	±	1kV	90	60	Direct	B	A	PASS
L-N	±	1kV	180	60	Direct	B	A	PASS
L-N	±	1kV	270	60	Direct	B	A	PASS
L-PE	±	2kV	0	60	Direct	B	A	PASS
L-PE	±	2kV	90	60	Direct	B	A	PASS
L-PE	±	2kV	180	60	Direct	B	A	PASS
L-PE	±	2kV	270	60	Direct	B	A	PASS
N-PE	±	2kV	0	60	Direct	B	A	PASS
N-PE	±	2kV	90	60	Direct	B	A	PASS
N-PE	±	2kV	180	60	Direct	B	A	PASS
N-PE	±	2kV	270	60	Direct	B	A	PASS

**Note:**

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

☒ Meet criteria A : Operate as intended during and after the test

☐ Meet criteria B : Operate as intended after the test

☐ Meet criteria C : Loss/Error of function

☐ Additional Information

☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.

☒ No false alarms or other malfunctions were observed during or after the test.

Product	Network Camera		
Test Item	Surge		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 50(%RH)
Standard	EN IEC 61000-6-2		

Inject Line	Polarity	Voltage kV	Angle	Time Interval (Second)	Inject Method	Required Criteria	Complied to Criteria	Result
L-N	±	1kV	0	60	Direct	B	A	PASS
L-N	±	1kV	90	60	Direct	B	A	PASS
L-N	±	1kV	180	60	Direct	B	A	PASS
L-N	±	1kV	270	60	Direct	B	A	PASS
L-PE	±	2kV	0	60	Direct	B	A	PASS
L-PE	±	2kV	90	60	Direct	B	A	PASS
L-PE	±	2kV	180	60	Direct	B	A	PASS
L-PE	±	2kV	270	60	Direct	B	A	PASS
N-PE	±	2kV	0	60	Direct	B	A	PASS
N-PE	±	2kV	90	60	Direct	B	A	PASS
N-PE	±	2kV	180	60	Direct	B	A	PASS
N-PE	±	2kV	270	60	Direct	B	A	PASS

## Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information

☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.

- ☒ No false alarms or other malfunctions were observed during or after the test.



Product	Network Camera		
Test Item	Surge		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 50(%RH)
Standard	EN IEC 61000-6-2		

Inject Line	Polarity	Voltage kV	Angle	Time Interval (Second)	Inject Method	Required Criteria	Complied to Criteria	Result
L-N	±	1kV	0	60	Direct	B	A	PASS
L-N	±	1kV	90	60	Direct	B	A	PASS
L-N	±	1kV	180	60	Direct	B	A	PASS
L-N	±	1kV	270	60	Direct	B	A	PASS
L-PE	±	2kV	0	60	Direct	B	A	PASS
L-PE	±	2kV	90	60	Direct	B	A	PASS
L-PE	±	2kV	180	60	Direct	B	A	PASS
L-PE	±	2kV	270	60	Direct	B	A	PASS
N-PE	±	2kV	0	60	Direct	B	A	PASS
N-PE	±	2kV	90	60	Direct	B	A	PASS
N-PE	±	2kV	180	60	Direct	B	A	PASS
N-PE	±	2kV	270	60	Direct	B	A	PASS

## Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

☒ Meet criteria A : Operate as intended during and after the test

☐ Meet criteria B : Operate as intended after the test

☐ Meet criteria C : Loss/Error of function

☐ Additional Information

☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.

☒ No false alarms or other malfunctions were observed during or after the test.

### 11.7. Test Photograph

Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : SURGE Test Setup



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : SURGE Test Setup



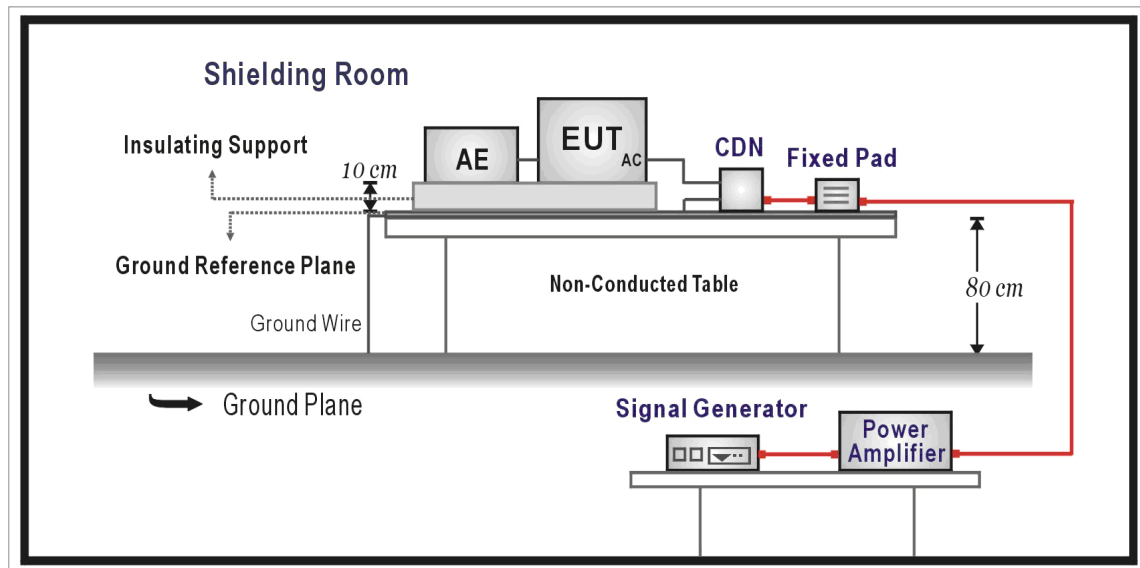
## 12. Conducted Susceptibility

### 12.1. Test Specification

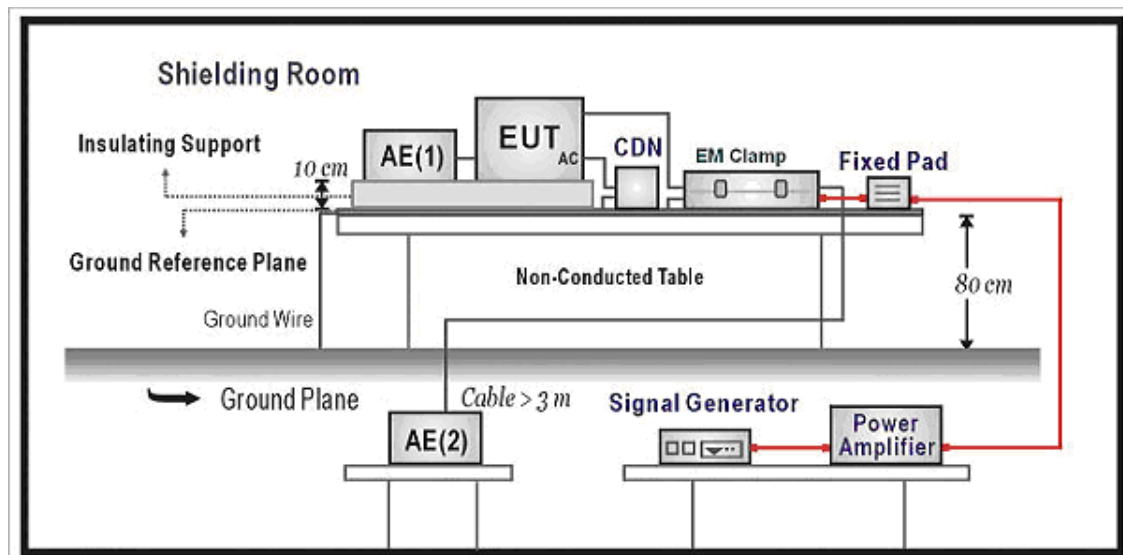
According to EN 50121-4 clause 6.

### 12.2. Test Setup

#### CDN Inject Method



#### EM Clamp Inject Method



### 12.3. Limit

Standard: EN 50121-4 / EN IEC 61000-6-2

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Signal Ports and Telecommunication Ports				
	Radio-Frequency Continuous Conducted	MHz V (rms, Un-modulated) % AM (1kHz)	0.15-80 10 80	A
Input DC Power Ports				
	Radio-Frequency Continuous Conducted	MHz V (rms, Un-modulated) % AM (1kHz)	0.15-80 10 80	A
Input AC Power Ports				
	Radio-Frequency Continuous Conducted	MHz V (rms, Un-modulated) % AM (1kHz)	0.15-80 10 80	A

### 12.4. Test Procedure

According to EN 61000-4-6.

The EUT are placed on a table that is 0.8 meter height, and a Ground reference plane on the table, EUT are placed upon table and use a 10cm insulation between the EUT and Ground reference plane.

For Signal Ports and Telecommunication Ports

The disturbance signal is through a coupling and decoupling networks (CDN) or EM-clamp device couples to the signal and Telecommunication lines of the EUT.

For Input DC and AC Power Ports

The EUT is connected to the power mains through a coupling and decoupling networks for power supply lines. And directly couples the disturbances signal into EUT.

Used CDN-M2 for two wires or CDN-M3 for three wires.

All the scanning conditions are as follows:

Condition of Test	Remarks
1. Field Strength	140dB $\mu$ V(10V) Level 3
2. Radiated Signal	AM 80% Modulated with 1kHz
3. Scanning Frequency	0.15MHz – 80MHz
4. Dwell Time	3 Seconds
5. Frequency step size $\Delta f$ :	1%

### 12.5. Deviation from Test Standard

No deviation.

## 12.6. Test Result

Product	Network Camera		
Test Item	Conducted susceptibility		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 50(%RH)
Standard	EN 50121-4		

Frequency Range (MHz)	Voltage Applied (V)	Inject Method	Tested Port of EUT	Required Criteria	Performance Criteria Complied To	Result
0.15~80	10V	CDN	AC IN	A	A	PASS
0.15~80	10V	CDN	LAN	A	A	PASS

### Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ dBuV(V) at frequency \_\_\_\_MHz.
  - ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

Product	Network Camera		
Test Item	Conducted susceptibility		
Test Mode	Mode 2: Normal Operation, PoE		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 50(%RH)
Standard	EN 50121-4		

Frequency Range (MHz)	Voltage Applied (V)	Inject Method	Tested Port of EUT	Required Criteria	Performance Criteria Complied To	Result
0.15~80	10V	CDN	LAN	A	A	PASS

**Note:**

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ dBuV(V) at frequency \_\_\_\_MHz.
  - ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

Product	Network Camera		
Test Item	Conducted susceptibility		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	21(°C) 50(%RH)
Standard	EN 50121-4		

Frequency Range (MHz)	Voltage Applied (V)	Inject Method	Tested Port of EUT	Required Criteria	Performance Criteria Complied To	Result
0.15~80	10V	CDN	AC IN	A	A	PASS
0.15~80	10V	CDN	LAN	A	A	PASS

## Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ dBuV(V) at frequency \_\_\_\_MHz.
  - ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.



Product	Network Camera		
Test Item	Conducted susceptibility		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	20(°C) 50(%RH)
Standard	EN IEC 61000-6-2		

Frequency Range (MHz)	Voltage Applied (V)	Inject Method	Tested Port of EUT	Required Criteria	Performance Criteria Complied To	Result
0.15~80	10V	CDN	AC IN	A	A	PASS
0.15~80	10V	CDN	LAN	A	A	PASS

**Note:**

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ dBuV(V) at frequency \_\_\_\_MHz.
  - ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

Product	Network Camera		
Test Item	Conducted susceptibility		
Test Mode	Mode 2: Normal Operation, PoE		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	20(°C) 50(%RH)
Standard	EN IEC 61000-6-2		

Frequency Range (MHz)	Voltage Applied (V)	Inject Method	Tested Port of EUT	Required Criteria	Performance Criteria Complied To	Result
0.15~80	10V	CDN	LAN	A	A	PASS

**Note:**

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ dBuV(V) at frequency \_\_\_\_MHz.
  - ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

Product	Network Camera		
Test Item	Conducted susceptibility		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.6 Shielded Room
Engineer	Ken Pan	Environmental	20(°C) 50(%RH)
Standard	EN IEC 61000-6-2		

Frequency Range (MHz)	Voltage Applied (V)	Inject Method	Tested Port of EUT	Required Criteria	Performance Criteria Complied To	Result
0.15~80	10V	CDN	AC IN	A	A	PASS
0.15~80	10V	CDN	LAN	A	A	PASS

**Note:**

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- ☒ Meet criteria A : Operate as intended during and after the test
- ☐ Meet criteria B : Operate as intended after the test
- ☐ Meet criteria C : Loss/Error of function
- ☐ Additional Information
  - ☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_ dBuV(V) at frequency \_\_\_\_MHz.
  - ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

## 12.7. Test Photograph

Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Conducted Susceptibility Test Setup



Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Conducted Susceptibility Test Setup \_CDN



Test Mode : Mode 2: Normal Operation, PoE

Description : Conducted Susceptibility Test Setup \_CDN



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Conducted Susceptibility Test Setup



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Conducted Susceptibility Test Setup \_CDN

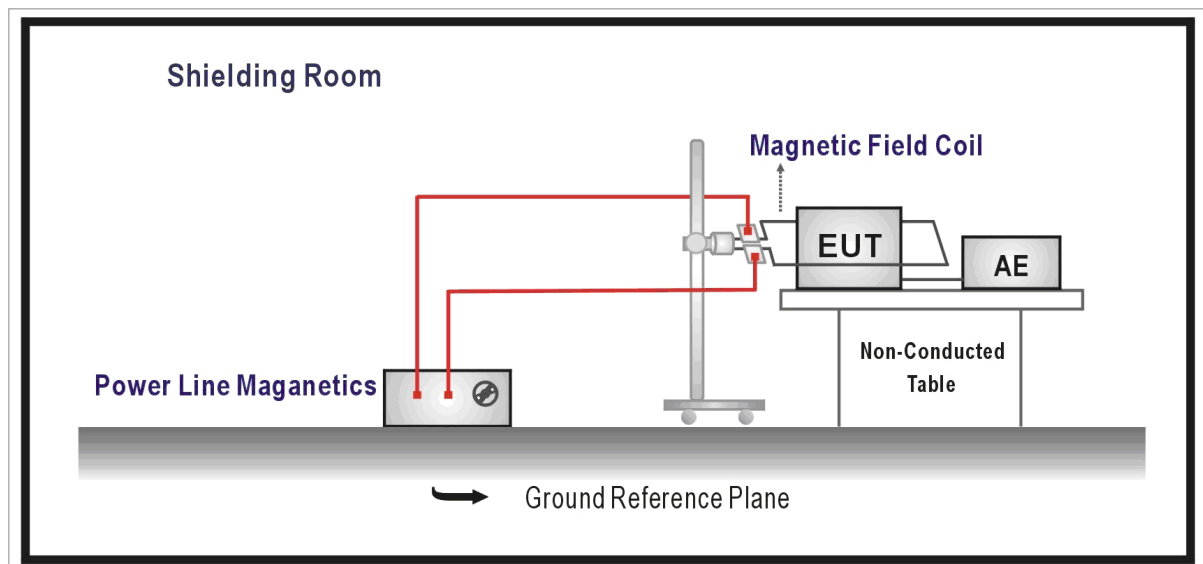


## 13. Power Frequency Magnetic Field

### 13.1. Test Specification

According to EN 50121-4 clause 6.

### 13.2. Test Setup



### 13.3. Limit

Standard: EN 50121-4

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Enclosure Port				
	Power-Frequency Magnetic Field	Hz	16.7	A
		Hz	50	
		Hz	0 d.c	
		A/m (r.m.s.)	100 a.c. systems	
		A/m (r.m.s.)	300 d.c. systems	

Note: Test only applies to apparatus containing devices sensitive to magnetic fields, such as Hall elements, electro-dynamic microphones etc.

Standard: EN IEC 61000-6-2

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Enclosure Port				
	Power-Frequency Magnetic Field	Hz	50/60	A
		A/m (r.m.s.)	30	



### **13.4. Test Procedure**

According to EN 61000-4-8.

The EUT and its load are placed on a table which is 0.8 meter above a metal ground plane measured at least 1m\*1m min. The test magnetic field shall be placed at central of the induction coil.

The plane of the inductive coil shall then be rotated by 90° in order to expose the EUT to the test field with different orientations(X, Y, Z Orientations) and the same procedure.

### **13.5. Deviation from Test Standard**

No deviation.

**13.6. Test Result**

Product	Network Camera		
Test Item	Power frequency magnetic field		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.3 Shielded Room
Engineer	Ken Pan	Environmental	24 (°C) 54(%RH)
Standard	EN 50121-4		

Polarization	Frequency (Hz)	Inject Time (s)	Magnetic Strength (A/m)	Required Performance Criteria	Performance Criteria Complied To	Test Result
X Orientation	50	60	100	A	A	PASS
Y Orientation	50	60	100	A	A	PASS
Z Orientation	50	60	100	A	A	PASS
X Orientation	16.7	60	100	A	A	PASS
Y Orientation	16.7	60	100	A	A	PASS
Z Orientation	16.7	60	100	A	A	PASS
X Orientation	0	60	300	A	A	PASS
Y Orientation	0	60	300	A	A	PASS
Z Orientation	0	60	300	A	A	PASS

- ☒ Meet criteria A: Operate as intended during and after the test  
☐ Meet criteria B: Operate as intended after the test  
☐ Meet criteria C: Loss/Error of function  
☐ Additional Information  
☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

Product	Network Camera		
Test Item	Power frequency magnetic field		
Test Mode	Mode 2: Normal Operation, PoE		
Date of Test	2021/12/17	Test Site	No.3 Shielded Room
Engineer	Ken Pan	Environmental	24 (°C) 54(%RH)
Standard	EN 50121-4		

Polarization	Frequency (Hz)	Inject Time (s)	Magnetic Strength (A/m)	Required Performance Criteria	Performance Criteria Complied To	Test Result
X Orientation	50	60	100	A	A	PASS
Y Orientation	50	60	100	A	A	PASS
Z Orientation	50	60	100	A	A	PASS
X Orientation	16.7	60	100	A	A	PASS
Y Orientation	16.7	60	100	A	A	PASS
Z Orientation	16.7	60	100	A	A	PASS
X Orientation	0	60	300	A	A	PASS
Y Orientation	0	60	300	A	A	PASS
Z Orientation	0	60	300	A	A	PASS

- ☒ Meet criteria A: Operate as intended during and after the test  
☐ Meet criteria B: Operate as intended after the test  
☐ Meet criteria C: Loss/Error of function  
☐ Additional Information  
☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

Product	Network Camera		
Test Item	Power frequency magnetic field		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.3 Shielded Room
Engineer	Ken Pan	Environmental	24 (°C) 54(%RH)
Standard	EN 50121-4		

Polarization	Frequency (Hz)	Inject Time (s)	Magnetic Strength (A/m)	Required Performance Criteria	Performance Criteria Complied To	Test Result
X Orientation	50	60	100	A	A	PASS
Y Orientation	50	60	100	A	A	PASS
Z Orientation	50	60	100	A	A	PASS
X Orientation	16.7	60	100	A	A	PASS
Y Orientation	16.7	60	100	A	A	PASS
Z Orientation	16.7	60	100	A	A	PASS
X Orientation	0	60	300	A	A	PASS
Y Orientation	0	60	300	A	A	PASS
Z Orientation	0	60	300	A	A	PASS

- ☒ Meet criteria A: Operate as intended during and after the test  
☐ Meet criteria B: Operate as intended after the test  
☐ Meet criteria C: Loss/Error of function  
☐ Additional Information  
☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

Product	Network Camera		
Test Item	Power frequency magnetic field		
Test Mode	Mode 1: Normal Operation, DC 12V (Adapter)		
Date of Test	2021/12/17	Test Site	No.3 Shielded Room
Engineer	Ken Pan	Environmental	20(°C) 53(%RH)
Standard	EN IEC 61000-6-2		

Polarization	Frequency (Hz)	Inject Time(s)	Magnetic Strength (A/m)	Required Performance Criteria	Performance Criteria Complied To	Test Result
X Orientation	50/60	60	30	A	A	PASS
Y Orientation	50/60	60	30	A	A	PASS
Z Orientation	50/60	60	30	A	A	PASS

- ☒ Meet criteria A: Operate as intended during and after the test  
☐ Meet criteria B: Operate as intended after the test  
☐ Meet criteria C: Loss/Error of function  
☐ Additional Information  
☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

Product	Network Camera		
Test Item	Power frequency magnetic field		
Test Mode	Mode 2: Normal Operation, PoE		
Date of Test	2021/12/17	Test Site	No.3 Shielded Room
Engineer	Ken Pan	Environmental	20(°C) 53(%RH)
Standard	EN IEC 61000-6-2		

Polarization	Frequency (Hz)	Inject Time(s)	Magnetic Strength (A/m)	Required Performance Criteria	Performance Criteria Complied To	Test Result
X Orientation	50/60	60	30	A	A	PASS
Y Orientation	50/60	60	30	A	A	PASS
Z Orientation	50/60	60	30	A	A	PASS

- ☒ Meet criteria A: Operate as intended during and after the test  
☐ Meet criteria B: Operate as intended after the test  
☐ Meet criteria C: Loss/Error of function  
☐ Additional Information  
☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

Product	Network Camera		
Test Item	Power frequency magnetic field		
Test Mode	Mode 3: Normal Operation, AC 24V (Adapter)		
Date of Test	2021/12/17	Test Site	No.3 Shielded Room
Engineer	Ken Pan	Environmental	20(°C) 53(%RH)
Standard	EN IEC 61000-6-2		

Polarization	Frequency (Hz)	Inject Time(s)	Magnetic Strength (A/m)	Required Performance Criteria	Performance Criteria Complied To	Test Result
X Orientation	50/60	60	30	A	A	PASS
Y Orientation	50/60	60	30	A	A	PASS
Z Orientation	50/60	60	30	A	A	PASS

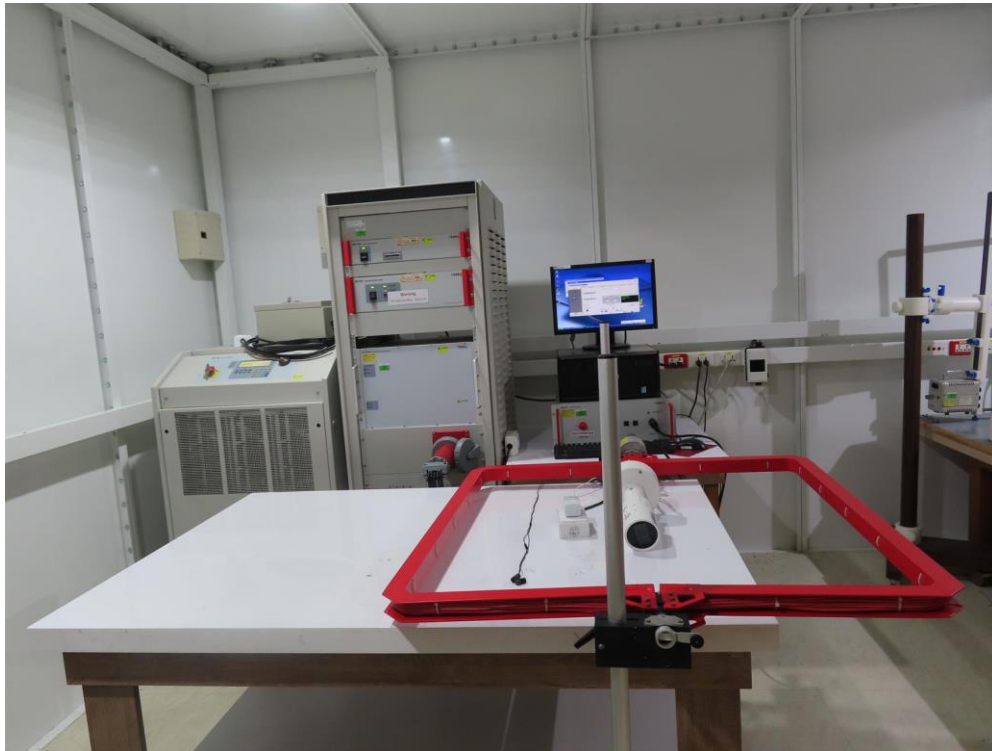
- ☒ Meet criteria A: Operate as intended during and after the test  
☐ Meet criteria B: Operate as intended after the test  
☐ Meet criteria C: Loss/Error of function  
☐ Additional Information  
☐ EUT stopped operation and could / could not be reset by operator at \_\_\_\_\_ kV of Line \_\_\_\_\_.
- ☒ No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.



### 13.7. Test Photograph

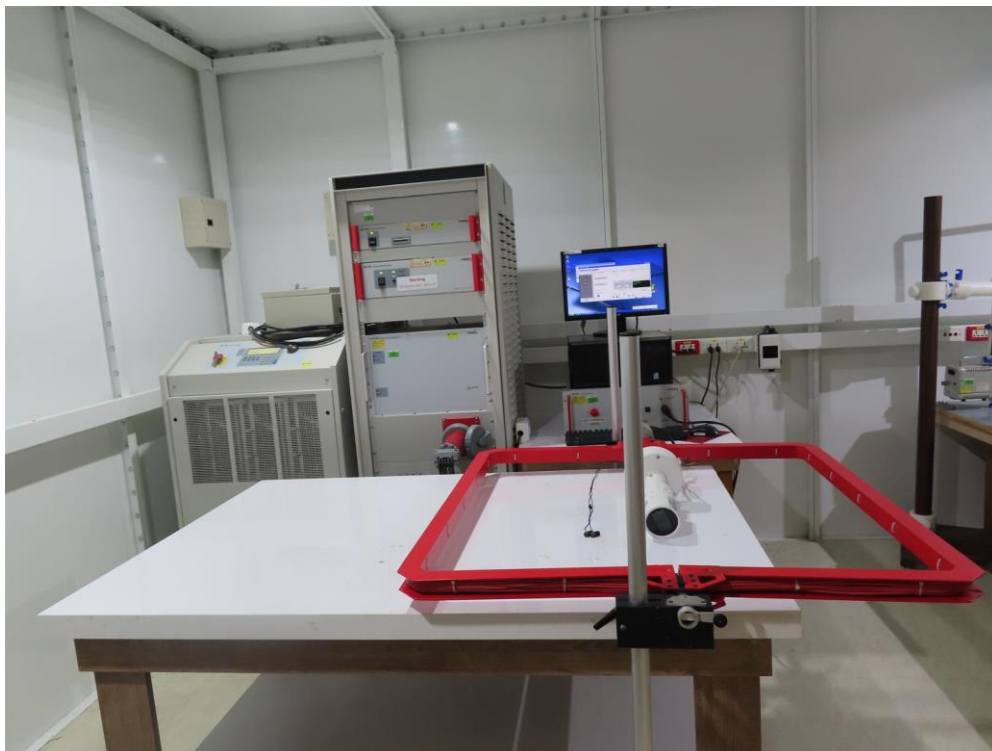
Test Mode : Mode 1: Normal Operation, DC 12V (Adapter)

Description : Power Frequency Magnetic Field Test Setup



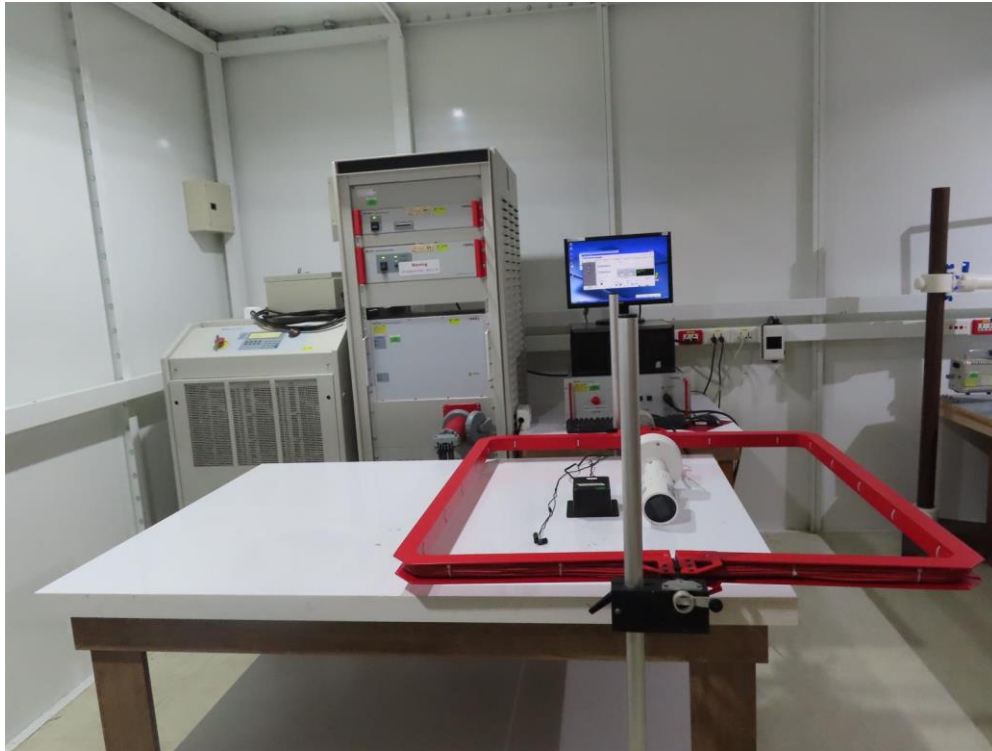
Test Mode : Mode 2: Normal Operation, PoE

Description : Power Frequency Magnetic Field Test Setup



Test Mode : Mode 3: Normal Operation, AC 24V (Adapter)

Description : Power Frequency Magnetic Field Test Setup



#### 14. Attachment

##### ➤ EUT Photograph

(1) EUT Photo



(2) EUT Photo

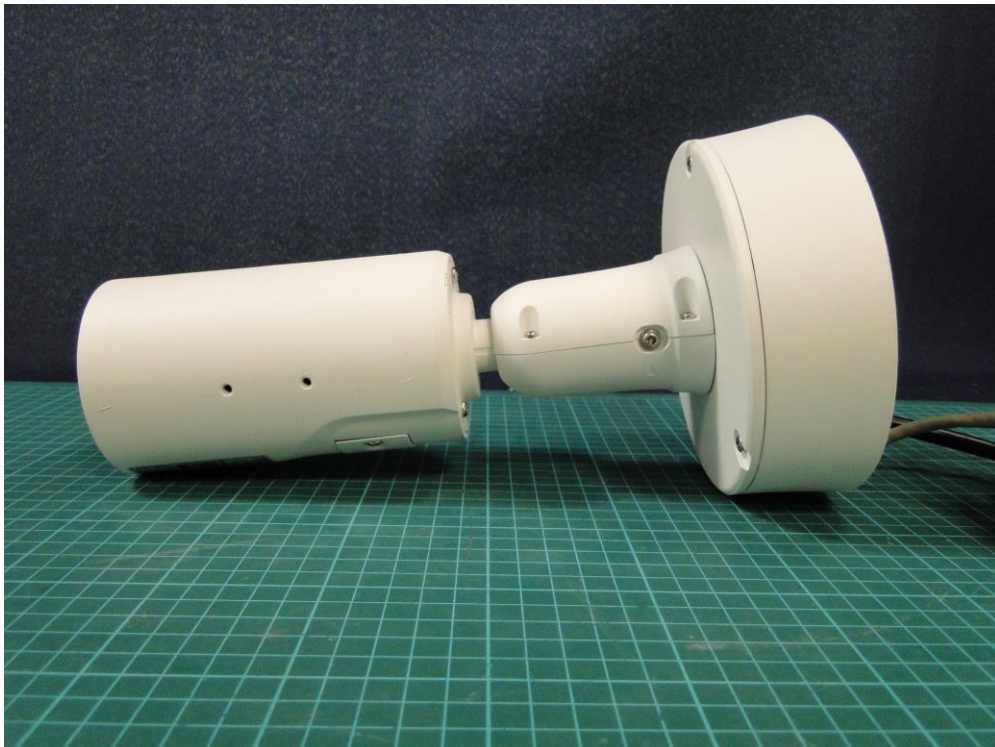




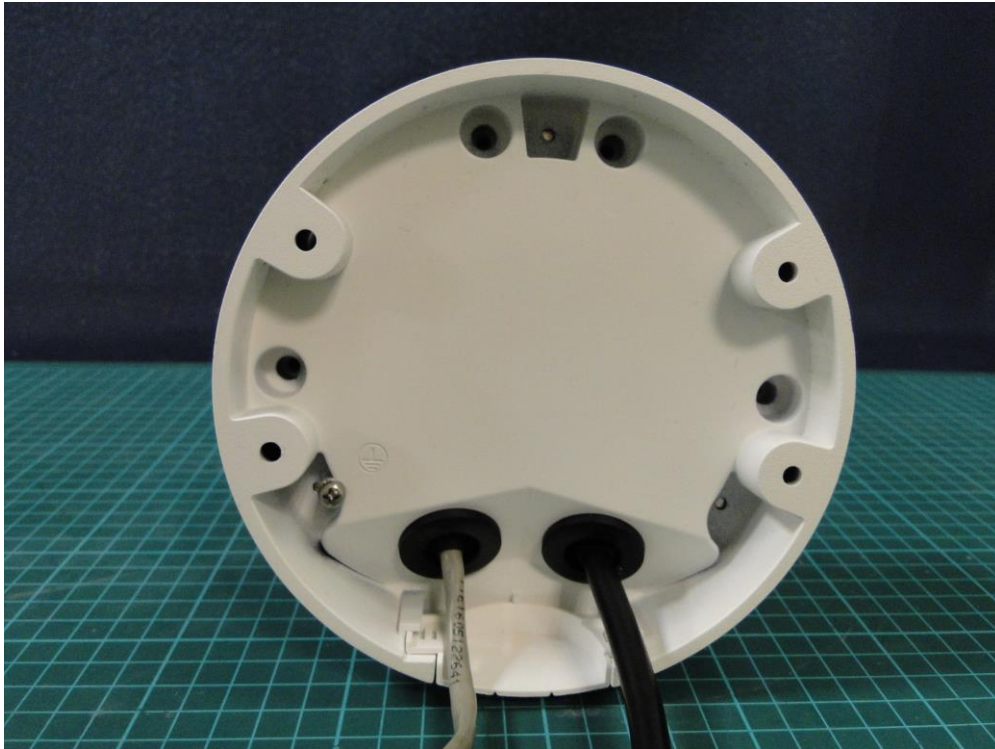
(3) EUT Photo



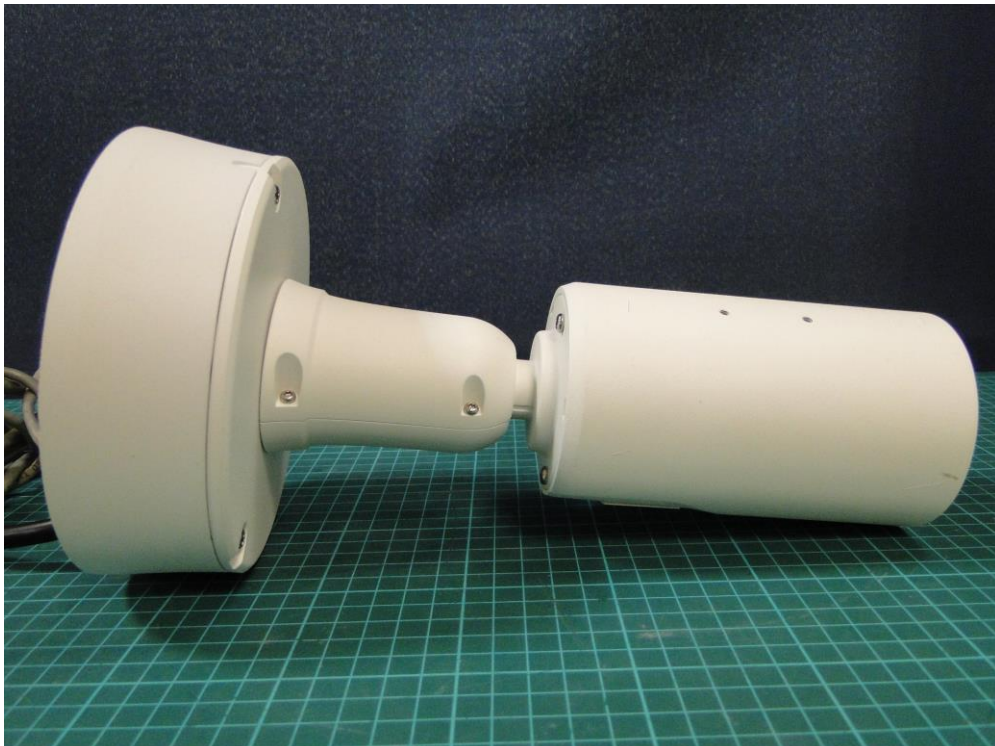
(4) EUT Photo



(5) EUT Photo

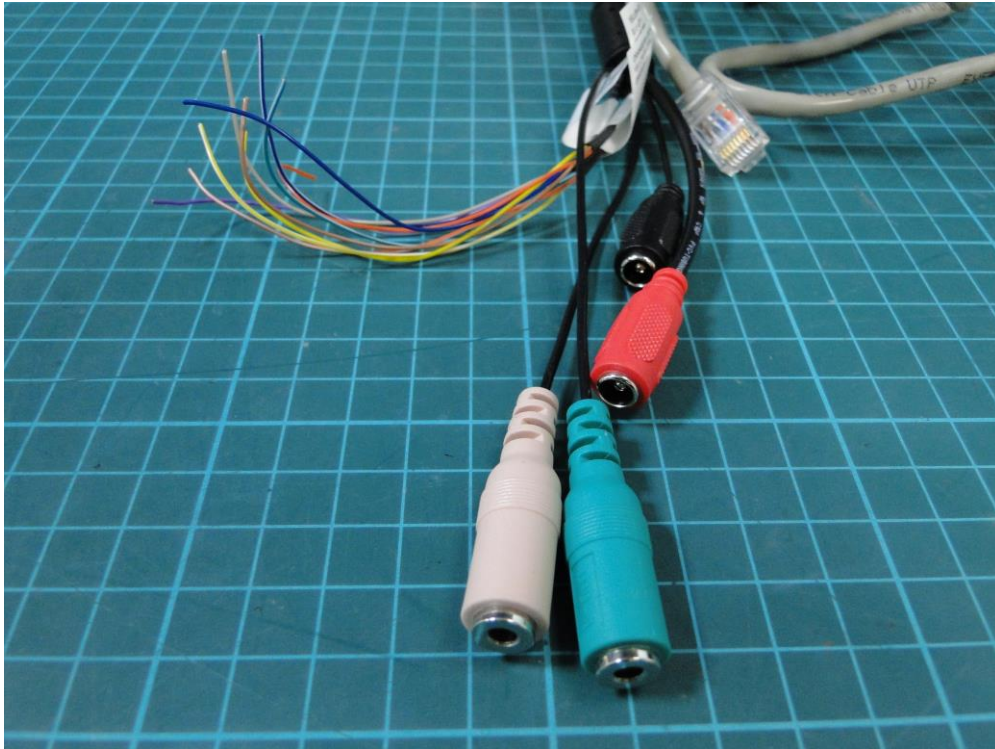


(6) EUT Photo





(7) EUT Photo



(8) EUT Photo

