



MEASUREMENT REPORT

EMC Test Report

Applicant: AREC Inc.

Address: 3F, No. 367, Sec.2, Wenhua Rd., Banqiao Dist., New Taipei City 220, Taiwan (R.O.C.)

Product: PTZ Tracking Camera 10X

Model No.: CI-T21H

Trademark: 

Standards: EN 55032: 2015+A11: 2020 (Class A)
EN IEC 61000-3-2: 2019+A1:2021
EN 61000-3-3: 2013+A1:2019
EN 55035: 2017+A11 2020

Result: Complies

Received Date: August 8, 2018

Test Date: August 13, 2018~April 01, 2022

Tested By : *Peter Syu*
(Peter Syu)

Reviewed By : *Paddy Chen*
(Paddy Chen)

Approved By : *Chenz Ker*
(Chenz Ker)

The test results only relate to the tested sample.

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

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Revision History

| Report No. | Version | Description | Issue Date |
|---------------|---------|---|------------|
| 1808TW0502-E1 | 1.0 | Original Report | 2019-01-03 |
| 1808TW0502-E1 | 2.0 | 1. Update the standard version of EN 55032 2.Update the standard EN IEC 61000-3-2 & EN 61000-3-3 only test Power Harmonic & Power Flicker item. 3.Update the standard EN 55024 to EN 55035, only test RS 、CS | 2022-04-06 |

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1. General Information

| | |
|-----------------------------|---|
| Applicant | AREC Inc. |
| Applicant Address | 3F, No. 367, Sec.2, Wenhua Rd., Banqiao Dist., New Taipei City 220, Taiwan (R.O.C.) |
| Manufacturer | AREC Inc. |
| Manufacturer Address | 3F, No. 367, Sec.2, Wenhua Rd., Banqiao Dist., New Taipei City 220, Taiwan (R.O.C.) |
| Test Site | MRT Technology (Taiwan) Co., Ltd |
| Test Site Address | No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C) |


Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Fuxing Rd., Taoyuan, Taiwan (R.O.C)

- MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
- MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.
- MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Taiwan, EU and TELEC Rules.

2. PRODUCT INFORMATION

2.1. Equipment Description

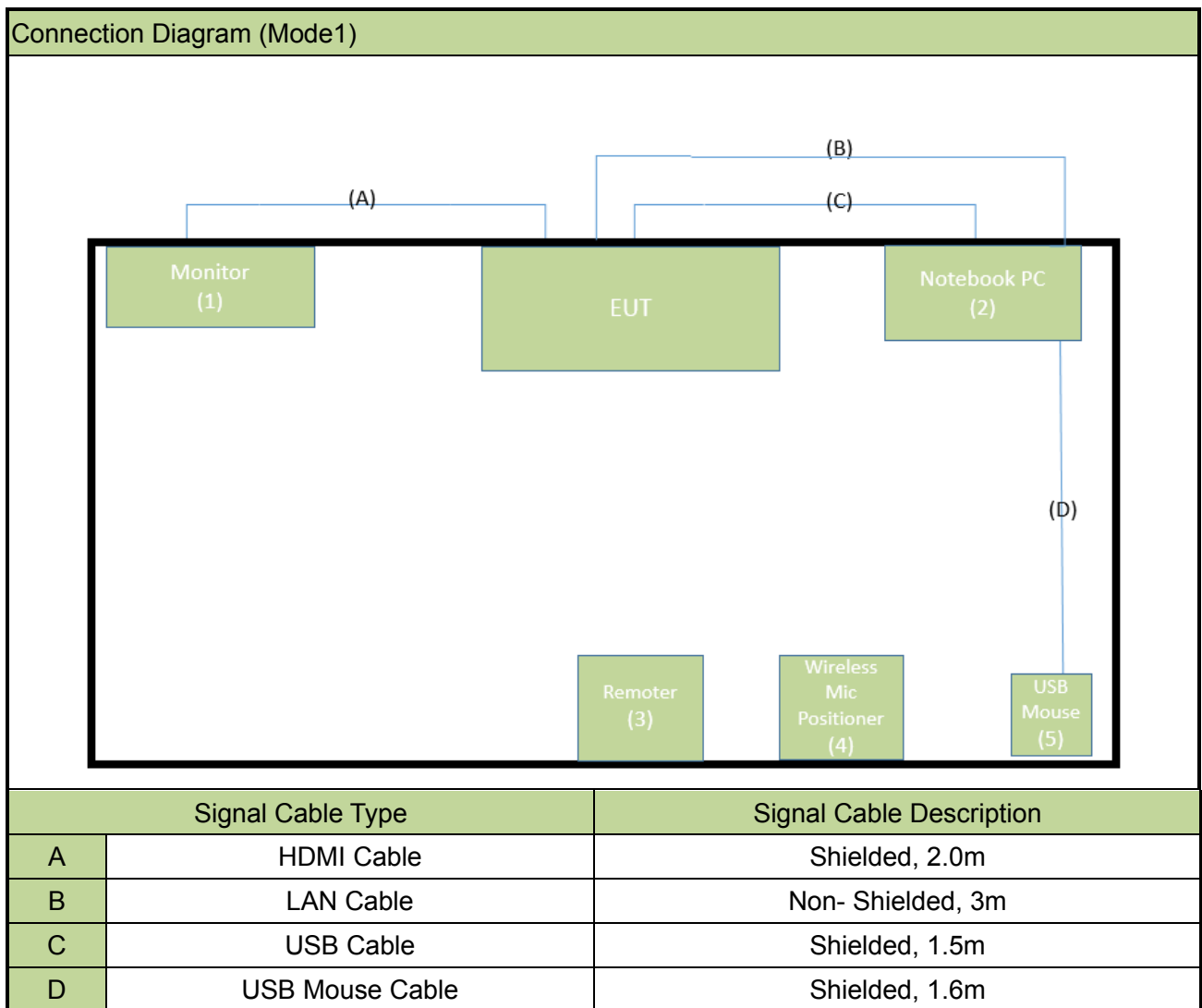
| | |
|---------------|---|
| Product Name | PTZ Tracking Camera 10X |
| Trademark |  |
| Model Number | CI-T21H |
| Power Adapter | Brand Name: GEM Model No: GEM24A-120200FDS2 Input: AC 100-240V, 50-60Hz, 0.8A Output: DC 12V, 2A Cable Out: Non-shielding, 1.5m with Core*1 |

2.2. Test Mode

| | |
|-----------------|-------------------------|
| Pre-Test Mode | |
| EMI Mode | Mode1: Normal Operation |
| EMS Mode | Mode1: Normal Operation |
| Final Test Mode | |
| EMI Mode | Mode1: Normal Operation |
| EMS Mode | Mode1: Normal Operation |

2.3. Configuration of Tested System

The EUT was tested per the guidance EN 55032, EN 55035 was used to reference the appropriate EUT setup for EMI testing and EMS conducted testing.



2.4. Test System Details

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

Mode1:

| | Product | Manufacturer | Model No. | Serial No. | Power Cord |
|---|----------------------------|--------------|---------------|----------------------------------|--------------------|
| 1 | Monitor | DELL | P2415Q | CN-0J1P7F-QDC0 0-79R-05JB-A06 | Non-shielded, 1.8m |
| 2 | Notebook PC | Lenovo | ThinkPad T450 | PC0BH4FR | Non-shielded, 0.8m |
| 3 | Remoter | N/A | N/A | N/A | N/A |
| 4 | Wireless Mic Positioner | Arec | AM-600 | AM600181200075 | N/A |
| 5 | USB Mouse | Lenovo | M-U0025-O | HS427HA10UV | N/A |

2.5. EUT Test Procedure

| | |
|----|---|
| 1. | Setup the EUT and simulators as shown on 2.3. |
| 2. | Turn on the power of all equipment. |
| 3. | Turn on the test software, make the EUT with full load. |
| 4. | Start test. |

2.6. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the Electromagnetic compatibility of multimedia equipment - Emission Requirements (EN 55032, EN 55035) was used in the measurement of the **PTZ Tracking Camera 10X**

Deviation from measurement procedure.....None

3.2. EN 55035 Performance Criteria

Performance criterion A:

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

Performance criterion B:

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

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

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

Performance criterion C:

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

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

3.3. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$

EMI Measurement Uncertainty

| |
|---|
| AC Conducted Emission Measurement – SR2 |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 0.15MHz~30MHz: $\pm 2.53\text{dB}$ |
| Impedance Stabilization Network Measurement – SR2 |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 0.15MHz~30MHz: $\pm 3.96\text{dB}$ |
| Radiated disturbance Measurement – AC1 |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 9kHz~30MHz: $\pm 3.92\text{dB}$ 30MHz~1GHz: $\pm 4.25\text{dB}$ 1GHz~18GHz: $\pm 4.40\text{dB}$ 18GHz~40GHz: $\pm 4.45\text{dB}$ |
| Harmonic current emissions |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): The maximum measurement uncertainty is evaluated as $\pm 0.69\%$. |
| Voltage fluctuation and flicker |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): The maximum measurement uncertainty is evaluated as d_c and d_{\max} : $\pm 0.04\%$, P_{st} : $\pm 0.25\%$, $d_{(t)}$: $\pm 1.5\%$. |

EMS Measurement Uncertainty

| |
|--|
| Electrostatic discharge – SR4 |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): Voltage: $\pm 1.9\%$; Timing: $\pm 6.9\%$ |
| Radio-frequency electromagnetic field – AC1 |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 80MHz~6GHz: $\pm 4.34\text{dB}$. |
| Fast transients – SR3 |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): Voltage: $\pm 1.6\%$; Timing: $\pm 5.2\%$ |
| Surges – SR3 |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): Voltage: $\pm 3.6\%$, Current: $\pm 2.7\%$, Timing: $\pm 4.3\%$. |
| Radio-frequency continuous conducted – SR3 |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 2.15\text{dB}$ (CDN); $\pm 3.3\text{dB}$ (EM Clamp) |
| Power-frequency magnetic field – SR3 |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 0.33\%$ |
| DIP – SR3 |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): Voltage: $\pm 6.1\%$; Time: $\pm 5.5\%$ |

4. TEST EQUIPMENT CALIBRATION DATE

Conducted Emissions and Impedance Stabilization Network - SR2

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cal. Date |
|--------------------|--------------|----------|-------------|----------------|-----------|
| Two-Line V-Network | R&S | ENV216 | MRTTWA00019 | 1 year | 2019/3/20 |
| Two-Line V-Network | R&S | ENV216 | MRTTWA00020 | 1 year | 2019/3/20 |
| 8-Wire ISN (T8) | R&S | ENY81 | MRTTWA00018 | 1 year | 2019/4/24 |
| EMI Test Receiver | R&S | ESR3 | MRTTWA00009 | 1 year | 2019/3/19 |

Radiated Disturbance – AC1

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cal. Date |
|--------------------------|--------------|------------|-------------|----------------|-----------|
| Broadband TRILOG Antenna | Schwarzbeck | VULB 9162 | MRTTWA00001 | 1 year | 2019/5/22 |
| Broadband Horn antenna | Schwarzbeck | BBHA 9120D | MRTTWA00003 | 1 year | 2019/4/24 |
| Broadband Preamplifier | Schwarzbeck | BBV 9718 | MRTTWA00005 | 1 year | 2019/4/23 |
| Signal Analyzer | R&S | FSV40 | MRTTWA00007 | 1 year | 2019/3/20 |
| EMI Test Receiver | R&S | ESR3 | MRTTWA00009 | 1 year | 2019/3/19 |

EMI Test Software

| Software | Manufacturer | Version No. |
|----------|--------------|-------------|
| e3 | Audix | 9.160520a |
| EMI | Quietek | V3 |

Power Harmonics and Voltage Fluctuation and Flicker -SR2

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cal. Date |
|------------------------------|--------------|----------|-------------|----------------|-----------|
| Precision Power Analyzer | Newtons4th | PPA5511 | MRTTWA00066 | 1 year | 2022/6/17 |
| Impedance Network | Newtons4th | IMP161 | MRTTWA00067 | 1 year | 2022/6/17 |
| Programmable AC Power Source | Newtons4th | N4A03A | MRTTWA00068 | 1 year | 2022/7/18 |

Electrostatic Discharge-SR4

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cal. Date |
|---------------|--------------|----------|-------------|----------------|------------|
| ESD Simulator | TESEQ | NSG 435 | MRTTWA00049 | 1 year | 2019/11/29 |

Radio-Frequency Electromagnetic Field – AC1

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cal. Date |
|-----------------------------|--------------|----------------|-------------|----------------|------------|
| EXA Analog Signal Generator | KEYSIGHT | N5173B | MRTTWA00072 | 1 year | 2023/1/10 |
| Power Sensor | KEYSIGHT | U2021XA | MRTTWA00014 | 1 year | 2022/4/21 |
| Broadband Antenna | SCHWARZBECK | STLP 9129 | MRTTWA00075 | N/A | N/A |
| Field Probe | narda | PMM EP601 | MRTTWA00076 | 1 year | 2022/12/10 |
| Power Amplifier | rflight | NTWPA-00810300 | MRTTWA00077 | N/A | N/A |
| Power Amplifier | rflight | NTWPA-1060100P | MRTTWA00085 | N/A | N/A |

Fast Transients-SR3

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cal. Date |
|------------------------------|--------------|----------|-------------|----------------|------------|
| Compact Immunity Test System | 3cTest | CCS 600 | MRTTWA00056 | 1 year | 2019/11/22 |
| EFT Clamp | 3cTest | EFTC | MRTTWA00060 | 1 year | 2019/11/22 |

Surges-SR3

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cal. Date |
|-----------------------------------|--------------|------------|-------------|----------------|------------|
| Compact Immunity Test System | 3cTest | CCS 600 | MRTTWA00056 | 1 year | 2019/11/22 |
| Corrbination Wave Surge Simulator | 3cTest | CWS 600T | MRTTWA00057 | 1 year | 2019/11/22 |
| CDN | 3cTest | CDN-405AF8 | MRTTWA00062 | 1 year | 2019/11/22 |

Radio-Frequency Continuous Conducted -SR3

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cal. Date |
|---------------------------|--------------|-----------|-------------|----------------|------------|
| Conducted Immunity Tester | Frankonia | CIT-10/75 | MRTTWA00051 | 1 year | 2022/11/13 |
| CDN | Frankonia | CDN M2+M3 | MRTTWA00052 | 1 year | 2022/11/21 |
| CDN | R&S | ENY81 CA6 | MRTTWA00017 | 1 year | 2022/11/21 |
| EM Clamp | Frankonia | EMCL-20 | MRTTWA00055 | 1 year | 2022/11/21 |

Power-Frequency Magnetic Field-SR3

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cal. Date |
|------------------------------|--------------|-----------|-------------|----------------|------------|
| Compact Immunity Test System | 3cTest | CCS 600 | MRTTWA00056 | 1 year | 2019/11/22 |
| Dips Module | 3cTest | VMT 2612S | MRTTWA00058 | 1 year | 2019/11/22 |
| PFM Antenna | 3cTest | VMT 2612S | MRTTWA00059 | 1 year | 2019/12/5 |

Voltage Dips and Interruptions-SR3

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cal. Date |
|------------------------------|--------------|-----------|-------------|----------------|------------|
| Compact Immunity Test System | 3cTest | CCS 600 | MRTTWA00056 | 1 year | 2019/11/22 |
| CDN | 3cTest | VMT 2612S | MRTTWA00058 | 1 year | 2019/11/22 |

5. Test Summary

| Clause | Test Item | Test Standard | Result (Pass/Fail) | Remark |
|------------------------------|--|---|--------------------|--------|
| Emission Measurements | | | | |
| EN 55032 Annex A.3 | Conducted Emission | EN 55032 (2015+A11:2020) | Pass | --- |
| EN 55032 Annex A.3 | Impedance Stabilization Network | EN 55032 (2015+A11:2020) | Pass | --- |
| EN 55032 Annex A.3 | Radiated Emission | EN 55032 (2015+A11:2020) | Pass | --- |
| --- | Harmonic current emissions | EN IEC 61000-3-2 (2019+A1:2021) | Pass | --- |
| --- | Voltage fluctuations and flicker | EN 61000-3-3 (2013+A1:2019) | Pass | --- |
| Immunity Measurements | | | | |
| EN 55024 Clause 4.2.1 | Electrostatic discharge | IEC 61000-4-2 (2008) | Pass | --- |
| EN 55024 Clause 4.2.3.2 | Radio-frequency electromagnetic field | IEC 61000-4-3 (2006+AMD1: 2007+AMD2:2010) | Pass | --- |
| EN 55024 Clause 4.2.2 | Fast transients, common mode | IEC 61000-4-4 (2012) | Pass | --- |
| EN 55024 Clause 4.2.5 | Surges | IEC 61000-4-5 (2014/AMD1:2017) | Pass | --- |
| EN 55024 Clause 4.2.3.2 | Radio-Frequency Continuous Conducted | IEC 61000-4-6 (2013/COR1:2015) | Pass | --- |
| EN 55024 Clause 4.2.4 | Power-frequency magnetic field | IEC 61000-4-8 (2009) | Pass | --- |
| EN 55024 Clause 4.2.6 | Voltage dips and interruptions | IEC 61000-4-11 (2020) | Pass | --- |

Note: Determining compliance is based on the test results met the regulation limits or requirements declared by clients, and the test results don't take into account the value of measurement uncertainty.

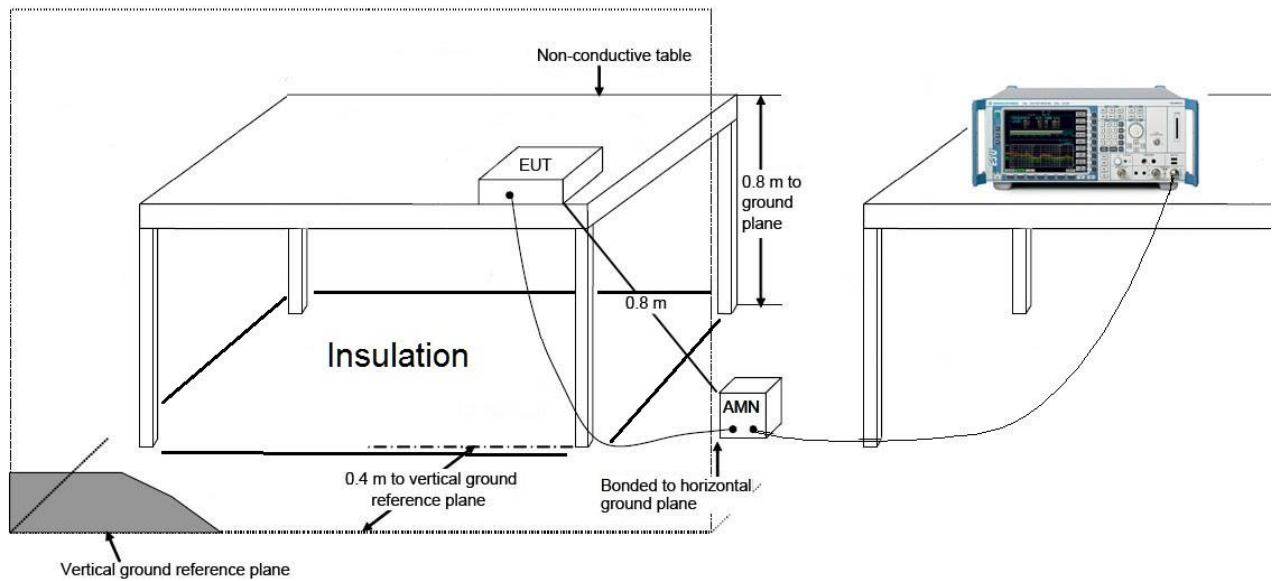
6. Conducted Emission and Impedance Stabilization Network Measurement

6.1. Test Limit

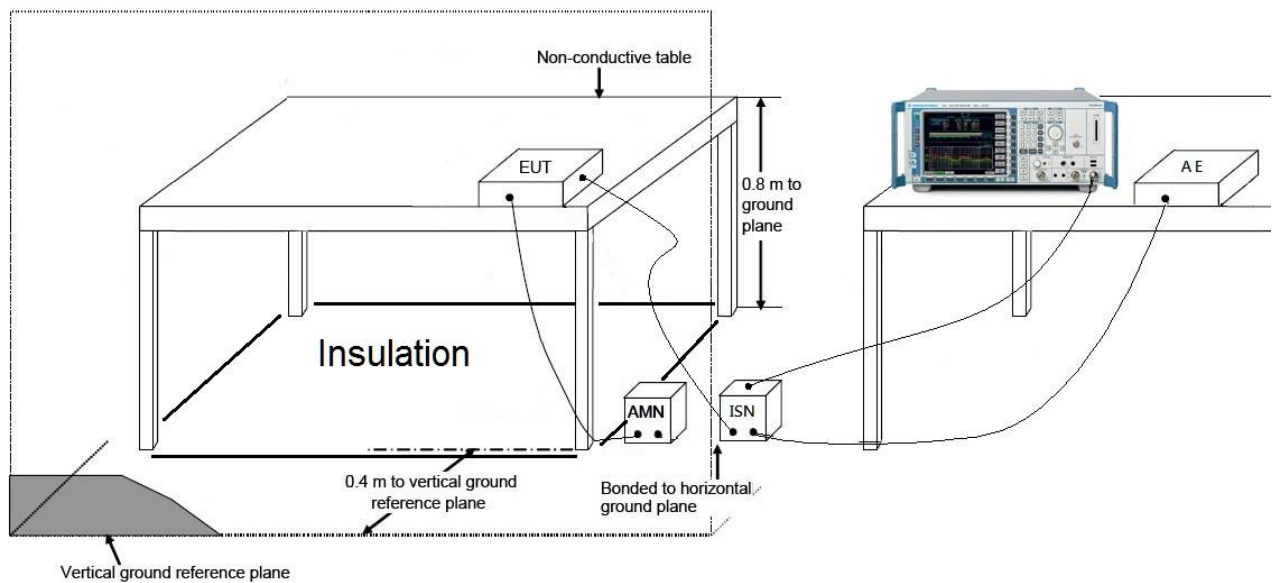
| Limits of conducted emission for AC mains power input/output ports | | | | |
|---|------------------|----------|------------|----------|
| Frequency range MHz | Limits dB(μV) | | | |
| | Class A | | | |
| | Quasi-peak | | Average | |
| 0.15 to 0.50 | 79 | | 66 | |
| 0.50 to 30 | 73 | | 60 | |
| Frequency range MHz | Class B | | | |
| | Quasi-peak | | Average | |
| 0.15 to 0.50 | 66 to 56 | | 56 to 46 | |
| 0.50 to 5 | 56 | | 46 | |
| 5 to 30 | 60 | | 50 | |
| Limits of conducted emission for telecommunication ports | | | | |
| Frequency range MHz | Limits dB(μV) | | | |
| | Class A | | Class B | |
| | Quasi-peak | Average | Quasi-peak | Average |
| 0.15 to 0.50 | 97 to 87 | 84 to 74 | 84 to 74 | 74 to 64 |
| 0.50 to 30 | 87 | 74 | 74 | 64 |
| Note 1: The lower limit shall apply at the transition frequencies. | | | | |
| Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz. | | | | |

6.2. Test Setup

Conducted Emission Test Setup:



Impedance Stabilization Network Test Setup:



6.3. Test Procedure

The receiver or associated equipment under measurement and the artificial mains network are disposed as shown in 2.3. Measurements shall be carried out using a selective voltmeter having a quasi-peak detector for broadband measurements and an Average detector for narrow-band measurements in accordance with CISPR 16-2.

The mains lead shall be arranged to follow the shortest possible path between the receiver and artificial mains network on the ground. The mains lead in excess of 0,8 m separating the equipment under test from the artificial mains network shall be folded back and forth parallel to the lead so as to form a bundle with a length of 0,3 m to 0,4 m.

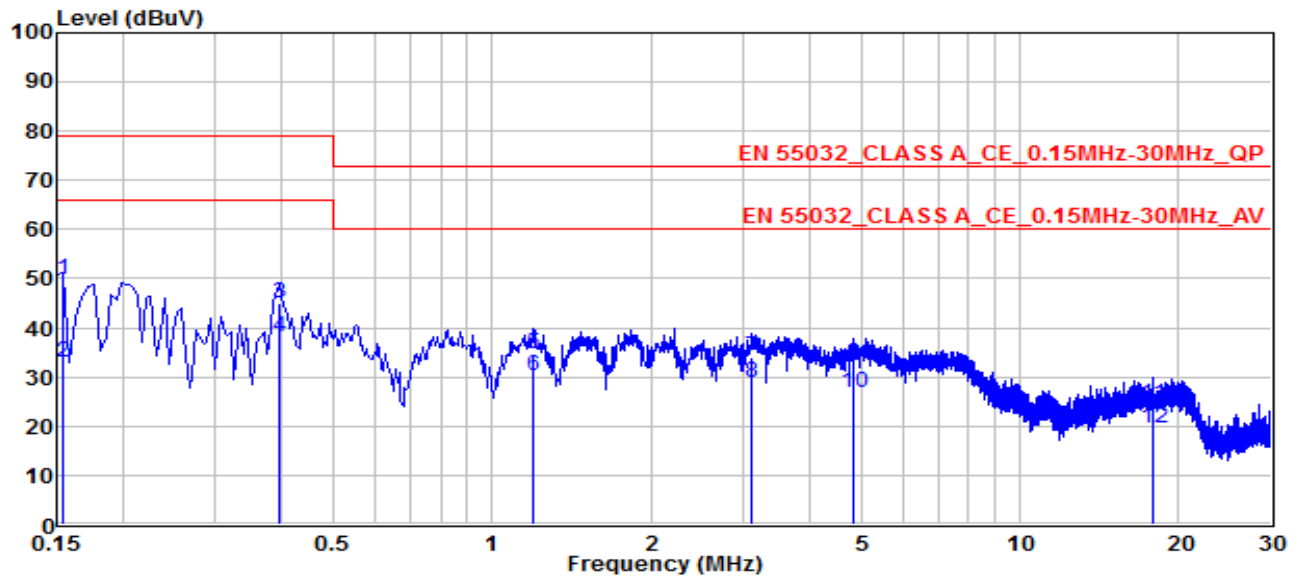
Earthing of the equipment under test if provided with a safety earth connection, shall be made to the earth terminal provided on the artificial mains network with the shortest possible lead.

If the equipment under test has a coaxial RF input connector, tests shall be performed with and without an earth connection made to the outer conductor screen of the coaxial RF input connector. When these tests are being carried out, no other earth connections shall be made to any additional earth terminal whatever.

If the equipment under test has no coaxial RF input connector and if it has an earth terminal, tests shall be performed with this terminal earthed.

6.4. Test Result

| | | | |
|-----------|--------------------------|----------------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/11/9 |
| Factor | CE_ENV216-L1 (Filter ON) | Temp. / Humidity | 25°C / 66% |
| Polarity | Line | Site / Test Engineer | SR2 / Peter |
| Test Mode | Mode1 | Test Voltage | AC 230V/50Hz |

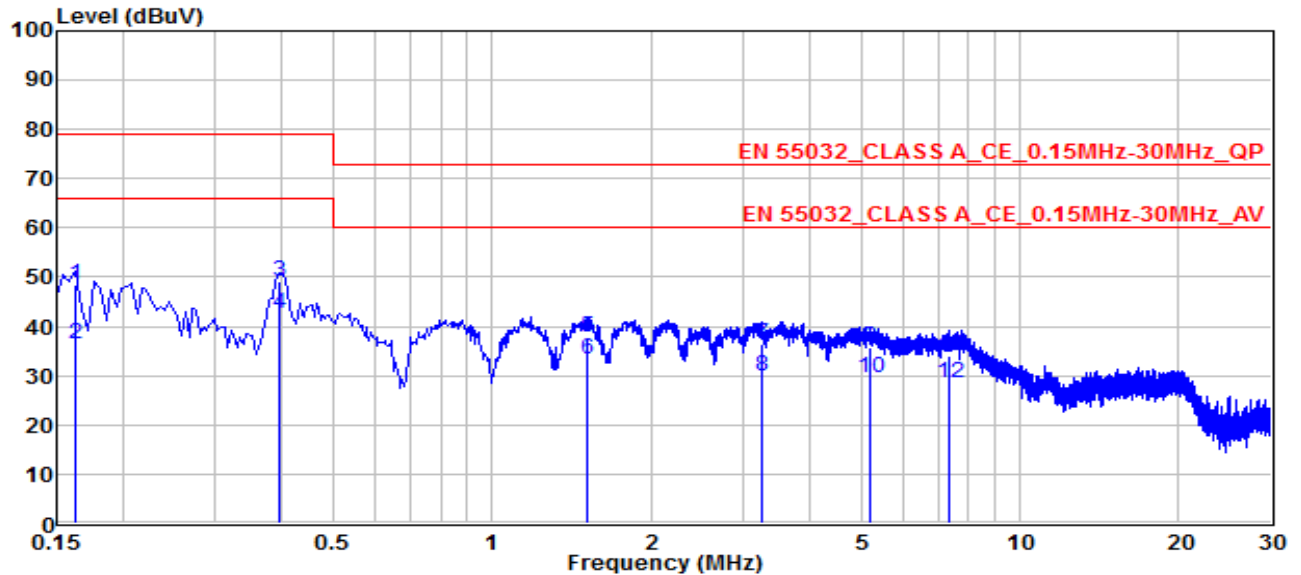


| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV) | Margin (dB) | Limit (dBuV) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|--------------------|-------------|--------------|-------------------|
| 1 | | 0.1545 | 39.77 | 9.94 | 49.71 | -29.29 | 79 | QP |
| 2 | | 0.1545 | 23.03 | 9.94 | 32.97 | -33.03 | 66 | Average |
| 3 | * | 0.39748 | 35 | 10.04 | 45.04 | -33.96 | 79 | QP |
| 4 | * | 0.39748 | 28.05 | 10.04 | 38.09 | -27.91 | 66 | Average |
| 5 | | 1.203 | 24.99 | 9.88 | 34.87 | -38.13 | 73 | QP |
| 6 | | 1.203 | 20.52 | 9.88 | 30.4 | -29.6 | 60 | Average |
| 7 | | 3.102 | 24.3 | 9.83 | 34.13 | -38.87 | 73 | QP |
| 8 | | 3.102 | 18.89 | 9.83 | 28.72 | -31.28 | 60 | Average |
| 9 | | 4.861 | 23.02 | 9.77 | 32.79 | -40.21 | 73 | QP |
| 10 | | 4.861 | 17.07 | 9.77 | 26.84 | -33.16 | 60 | Average |
| 11 | | 17.892 | 14.42 | 9.98 | 24.4 | -48.6 | 73 | QP |
| 12 | | 17.892 | 9.44 | 9.98 | 19.42 | -40.58 | 60 | Average |

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Factor (dB)+ Cable Loss (dB).
3. Measurement (dBuV) = Reading(dBuV) + C.F (Correction Factor).

| | | | |
|-----------|--------------------------|----------------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/11/9 |
| Factor | CE_ENV216-L1 (Filter ON) | Temp. / Humidity | 25°C / 66% |
| Polarity | Neutral | Site / Test Engineer | SR2 / Peter |
| Test Mode | Mode1 | Test Voltage | AC 230V/50Hz |

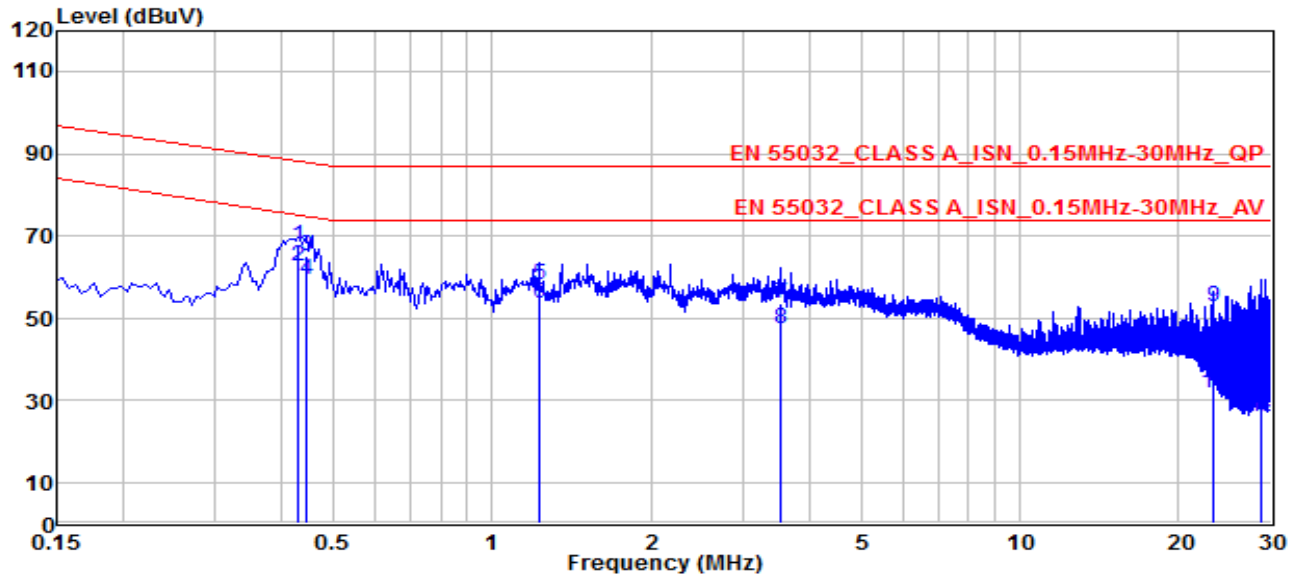


| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV) | Margin (dB) | Limit (dBuV) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|--------------------|-------------|--------------|-------------------|
| 1 | | 0.1635 | 38.51 | 10.1 | 48.61 | -30.39 | 79 | QP |
| 2 | | 0.1635 | 26.34 | 10.1 | 36.44 | -29.56 | 66 | Average |
| 3 | * | 0.39748 | 38.99 | 10.04 | 49.03 | -29.97 | 79 | QP |
| 4 | * | 0.39748 | 32.41 | 10.04 | 42.45 | -23.55 | 66 | Average |
| 5 | | 1.522 | 28.02 | 9.87 | 37.89 | -35.11 | 73 | QP |
| 6 | | 1.522 | 23.62 | 9.87 | 33.49 | -26.51 | 60 | Average |
| 7 | | 3.241 | 26.52 | 9.8 | 36.32 | -36.68 | 73 | QP |
| 8 | | 3.241 | 20.13 | 9.8 | 29.93 | -30.07 | 60 | Average |
| 9 | | 5.225 | 25.9 | 9.73 | 35.63 | -37.37 | 73 | QP |
| 10 | | 5.225 | 19.85 | 9.73 | 29.58 | -30.42 | 60 | Average |
| 11 | | 7.381 | 24.36 | 9.78 | 34.14 | -38.86 | 73 | QP |
| 12 | | 7.381 | 18.88 | 9.78 | 28.66 | -31.34 | 60 | Average |

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Factor (dB)+ Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV)+ C.F (Correction Factor).

| | | | |
|-----------|-------------------------|----------------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/11/9 |
| Factor | ISN_ENY81 | Temp. / Humidity | 26°C / 65% |
| Polarity | -- | Site / Test Engineer | SR2 / Peter |
| Test Mode | Mode1_LAN-100M | Test Voltage | AC 230V/50Hz |

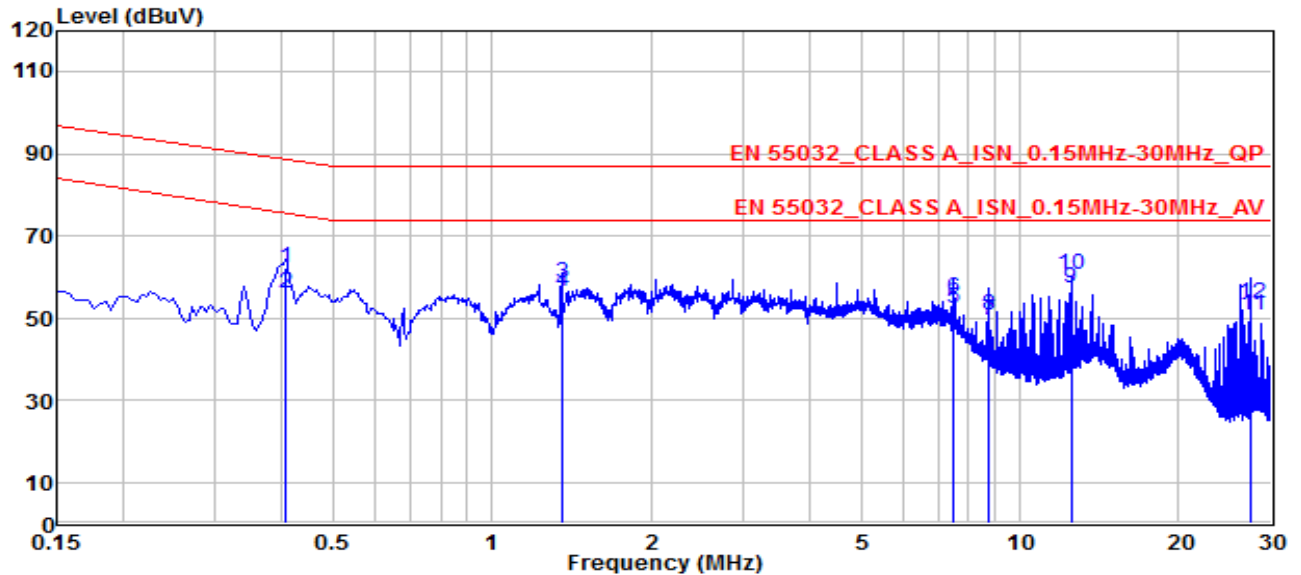


| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV) | Margin (dB) | Limit (dBuV) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|--------------------|-------------|--------------|-------------------|
| 1 | * | 0.42897 | 57.62 | 9.85 | 67.47 | -20.8 | 88.27 | QP |
| 2 | * | 0.42897 | 52.89 | 9.85 | 62.74 | -12.53 | 75.27 | Average |
| 3 | | 0.44697 | 55.41 | 9.84 | 65.25 | -22.68 | 87.93 | QP |
| 4 | | 0.44697 | 49.46 | 9.84 | 59.3 | -15.63 | 74.93 | Average |
| 5 | | 1.23 | 48.4 | 9.74 | 58.14 | -28.86 | 87 | QP |
| 6 | | 1.23 | 43.92 | 9.74 | 53.66 | -20.34 | 74 | Average |
| 7 | | 3.525 | 43.87 | 9.71 | 53.58 | -33.42 | 87 | QP |
| 8 | | 3.525 | 37.89 | 9.71 | 47.6 | -26.4 | 74 | Average |
| 9 | | 23.327 | 42.12 | 10.56 | 52.68 | -34.32 | 87 | QP |
| 10 | | 23.327 | 21.01 | 10.56 | 31.57 | -42.43 | 74 | Average |
| 11 | | 28.682 | 32.11 | 10.65 | 42.76 | -44.24 | 87 | QP |
| 12 | | 28.682 | 15.15 | 10.65 | 25.8 | -48.2 | 74 | Average |

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Factor (dB)+ Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).

| | | | |
|-----------|-------------------------|----------------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/11/9 |
| Factor | ISN_ENY81 | Temp. / Humidity | 26°C / 65% |
| Polarity | -- | Site / Test Engineer | SR2 / Peter |
| Test Mode | Mode1_LAN-10M | Test Voltage | AC 230V/50Hz |



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV) | Margin (dB) | Limit (dBuV) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|--------------------|-------------|--------------|-------------------|
| 1 | | 0.40647 | 52.32 | 9.84 | 62.16 | -26.56 | 88.72 | QP |
| 2 | | 0.40647 | 46.21 | 9.84 | 56.05 | -19.67 | 75.72 | Average |
| 3 | | 1.356 | 48.77 | 9.75 | 58.52 | -28.48 | 87 | QP |
| 4 | | 1.356 | 46.66 | 9.75 | 56.41 | -17.59 | 74 | Average |
| 5 | | 7.498 | 42.57 | 9.76 | 52.33 | -34.67 | 87 | QP |
| 6 | | 7.498 | 44.93 | 9.76 | 54.69 | -19.31 | 74 | Average |
| 7 | | 8.749 | 39.5 | 9.83 | 49.33 | -37.67 | 87 | QP |
| 8 | | 8.749 | 40.95 | 9.83 | 50.78 | -23.22 | 74 | Average |
| 9 | * | 12.501 | 47.31 | 9.94 | 57.25 | -29.75 | 87 | QP |
| 10 | * | 12.501 | 50.7 | 9.94 | 60.64 | -13.36 | 74 | Average |
| 11 | | 27.498 | 40.15 | 10.64 | 50.79 | -36.21 | 87 | QP |
| 12 | | 27.498 | 42.77 | 10.64 | 53.41 | -20.59 | 74 | Average |

Note:

1. " * ", means this data is the worst emission level.
2. C.F (Correction Factor) = Factor (dB)+ Cable Loss (dB).
3. Measurement (dBuV) = Reading(dBuV) + C.F (Correction Factor).

6.5. Test Photo

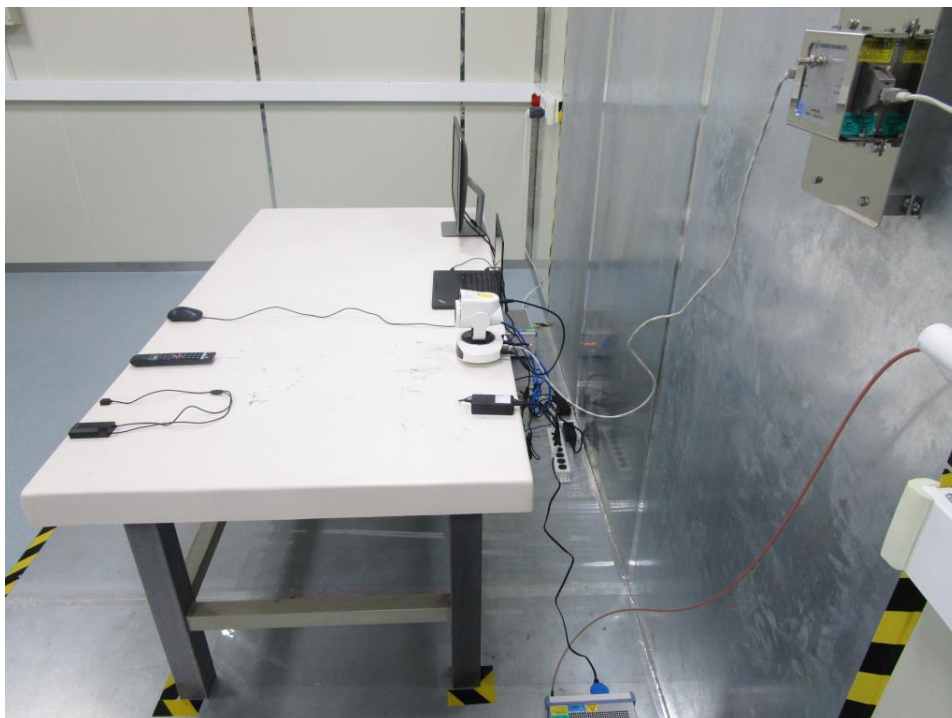
Test Mode: Mode 1

Description: Front View of Conducted Emission Test Setup



Test Mode: Mode 1

Description: Back View of Conducted Emission Test Setup



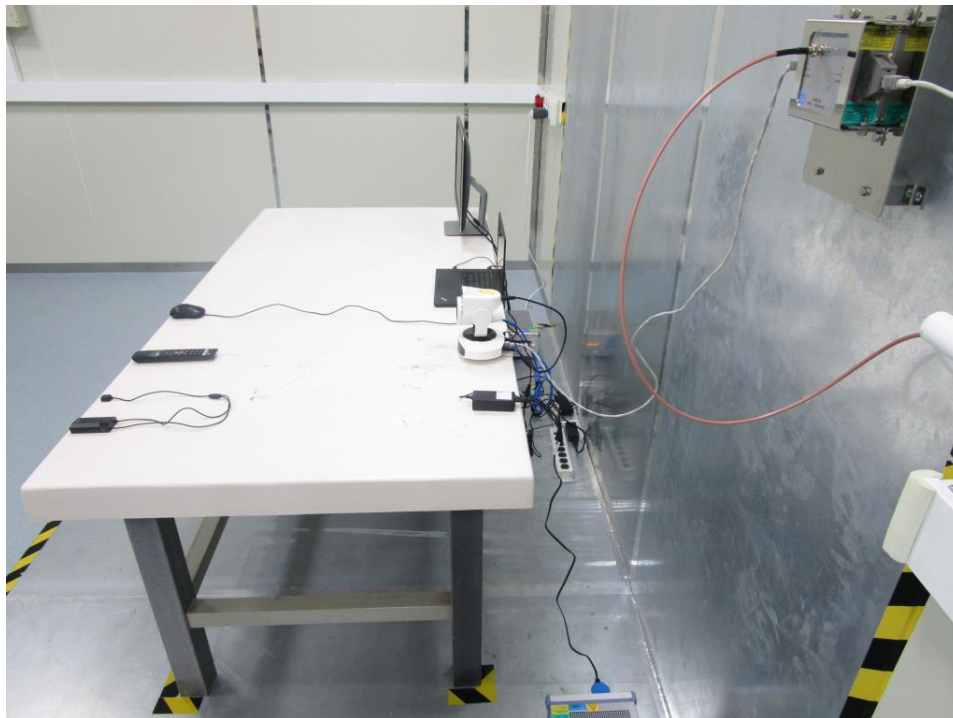
Test Mode: Mode 1

Description: Front View of Impedance Stabilization Network Test Setup



Test Mode: Mode 1

Description: Back View of Impedance Stabilization Network Test Setup



7. Radiated Emission Measurement

7.1. Test Limit

| Frequency range (MHz) | Quasi-peak limits dB(μ V/m) | |
|--------------------------|-------------------------------------|---------|
| | Class A | Class B |
| 30 to 230 | 50 | 40 |
| 230 to 1000 | 57 | 47 |

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Additional provisions may be required for cases where interference occurs.

| Frequency range GHz | Average limit dB(μ V/m) | | Peak limit dB(μ V/m) | |
|------------------------|---------------------------------|---------|------------------------------|---------|
| | Class A | Class B | Class A | Class B |
| 1 to 3 | 56 | 50 | 76 | 70 |
| 3 to 6 | 60 | 54 | 80 | 74 |

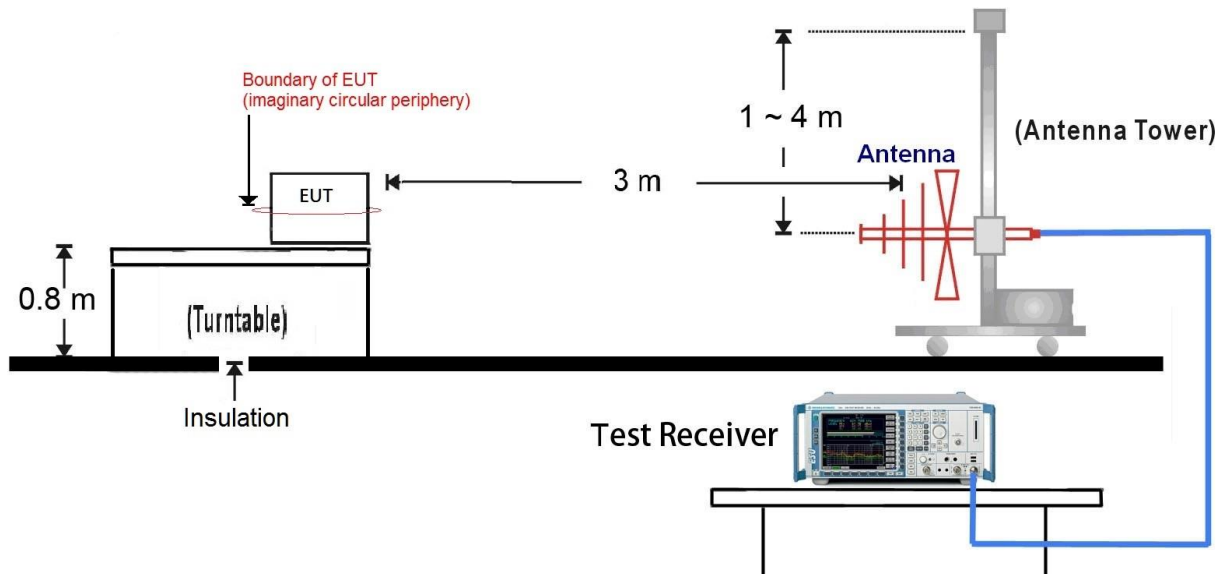
Note: The lower limit applies at the transition frequency.

| Required highest frequency for radiated measurement | |
|---|---|
| Highest internal frequency (F_x) | Highest measured frequency |
| $F_x \leq 108$ MHz | 1 GHz |
| $108 \text{ MHz} < F_x \leq 500$ MHz | 2 GHz |
| $500 \text{ MHz} < F_x \leq 1$ GHz | 5 GHz |
| $F_x > 1$ GHz | $5 \times F_x$ up to a maximum of 6 GHz |

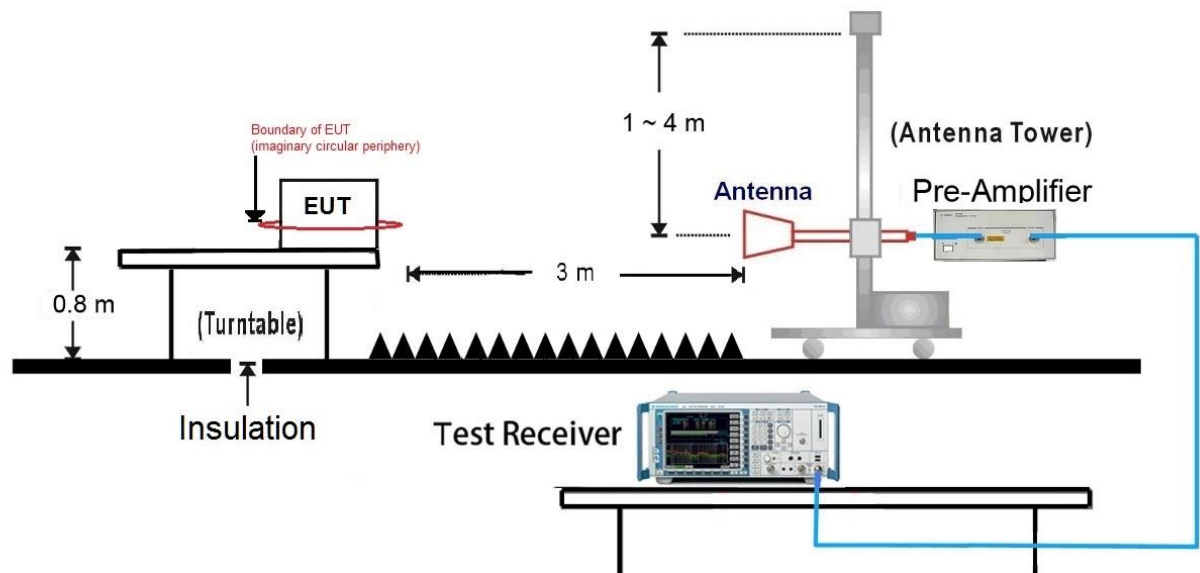
Note: Where F_x is unknown, the radiated emission measurements shall be performed up to 6 GHz

7.2. Test Setup

30MHz ~ 1GHz Test Setup:



1GHz ~ 6GHz Test Setup:



Note: About the radiated test setup, the EUT and local AE shall be arranged in the most compact practical arrangement within the test volume, while respecting typical spacing and the requirements defined in EN55032 Annex D. The central point of the arrangement shall be positioned at the centre of the turntable. The measurement distance is the shortest horizontal distance between an imaginary circular periphery just encompassing this arrangement and the calibration point of the antenna. See below Figure 1 and Figure 2.

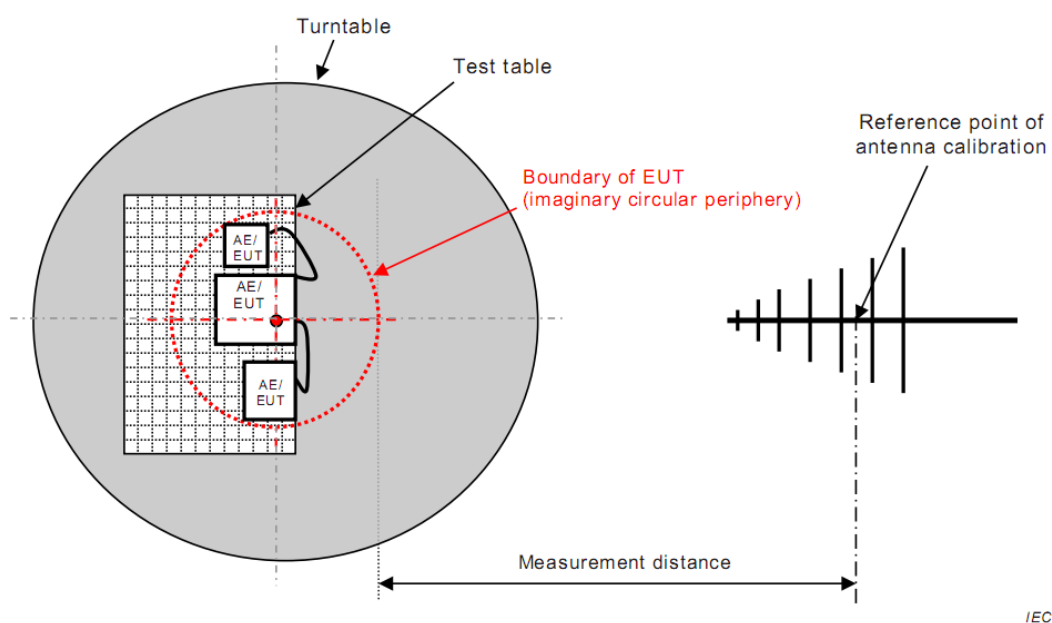


Figure 1

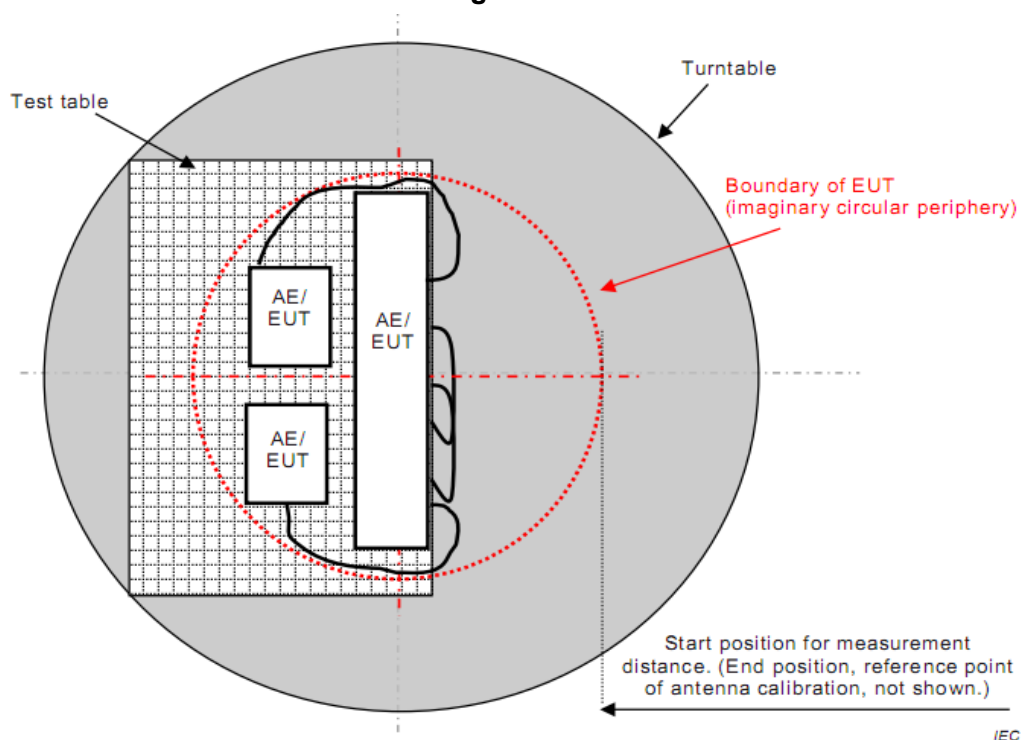


Figure 2

7.3. Test Procedure

Starting with the front of the receiver under test facing the measuring antenna, the measuring antenna is adjusted for horizontal polarization measurement and its height varied between 1 m and 4 m until the maximum reading is obtained.

The central point of the arrangement shall be positioned at the centre of the turntable and rotate the turntable until the maximum meter reading is obtained, after which the measuring antenna height is again varied between 1 m and 4 m and the maximum reading noted.

The procedure is repeated for vertical polarization of the measuring antenna.

The highest value found, following this procedure, is defined as the radiation figure of the receiver.

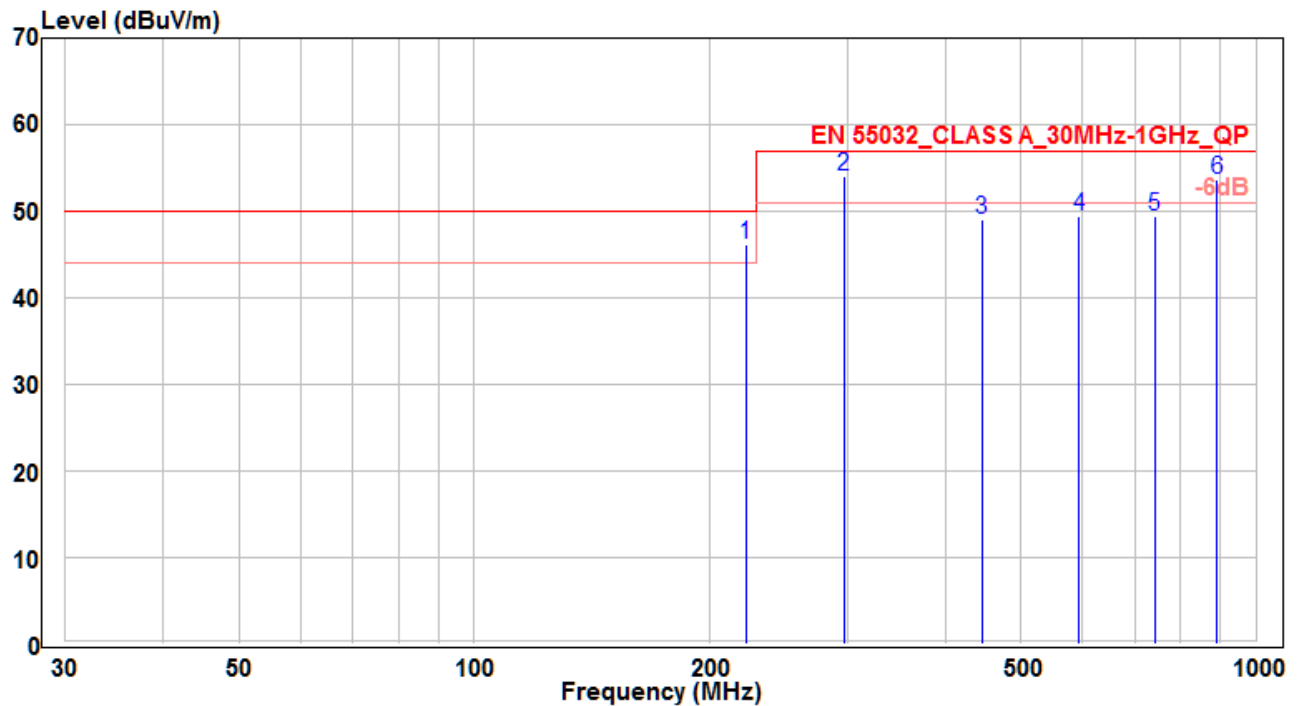
If at certain frequencies the ambient signal field strength is high at the position of the receiving antenna, one of the following methods may be used to show compliance of the equipment under test.

a) For small frequency bands with high ambient signals, the disturbance value may be interpolated from the adjacent values. The interpolated value shall lie on the curve describing a continuous function of the disturbance values adjacent to the ambient noise.

b) Another possibility is to use the method described in annex A of CISPR 16-2-3.

7.4. Test Result

| | | | |
|-----------|--------------------------|----------------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/11/9 |
| Factor | VUKB 9162 (30MHz~8GHz) | Temp. / Humidity | 24°C / 67% |
| Polarity | Horizontal | Site / Test Engineer | AC1 / Peter |
| Test Mode | Mode1 (Short Power Cord) | Test Voltage | AC 230V/50Hz |

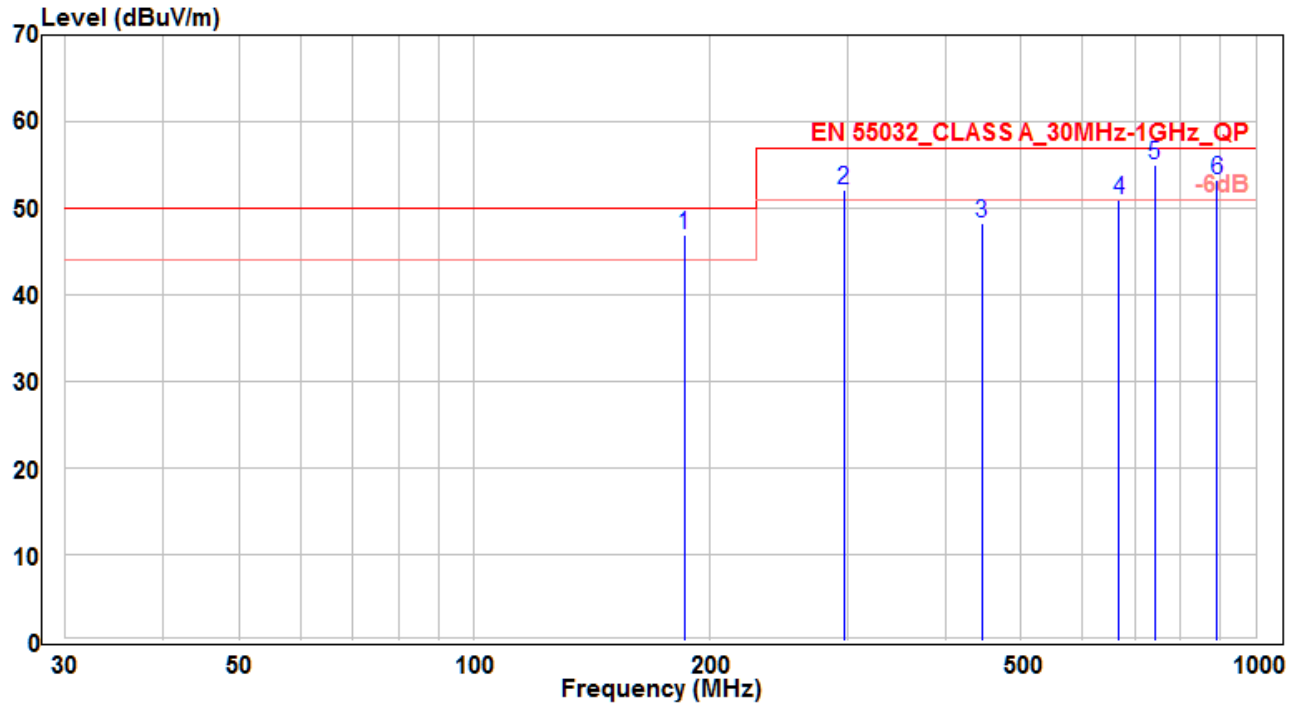


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------|-------------|-------------------|
| 1 | 222.757 | 27 | 19.25 | 46.25 | -3.75 | 50 | 125 | 300 | QP |
| 2 | * 296.993 | 32.7 | 21.33 | 54.03 | -2.97 | 57 | 100 | 145 | QP |
| 3 | 445.524 | 24.64 | 24.44 | 49.08 | -7.92 | 57 | 135 | 40 | QP |
| 4 | 594.025 | 22.04 | 27.47 | 49.51 | -7.49 | 57 | 155 | 160 | QP |
| 5 | 742.556 | 19.6 | 29.81 | 49.41 | -7.59 | 57 | 100 | 160 | QP |
| 6 | 891.057 | 22.4 | 31.35 | 53.75 | -3.25 | 57 | 110 | 45 | QP |

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).

| | | | |
|-----------|--------------------------|----------------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/11/9 |
| Factor | VUKB 9162 (30MHz~8GHz) | Temp. / Humidity | 24°C / 67% |
| Polarity | Vertical | Site / Test Engineer | AC1 / Peter |
| Test Mode | Mode1 (Short Power Cord) | Test Voltage | AC 230V/50Hz |

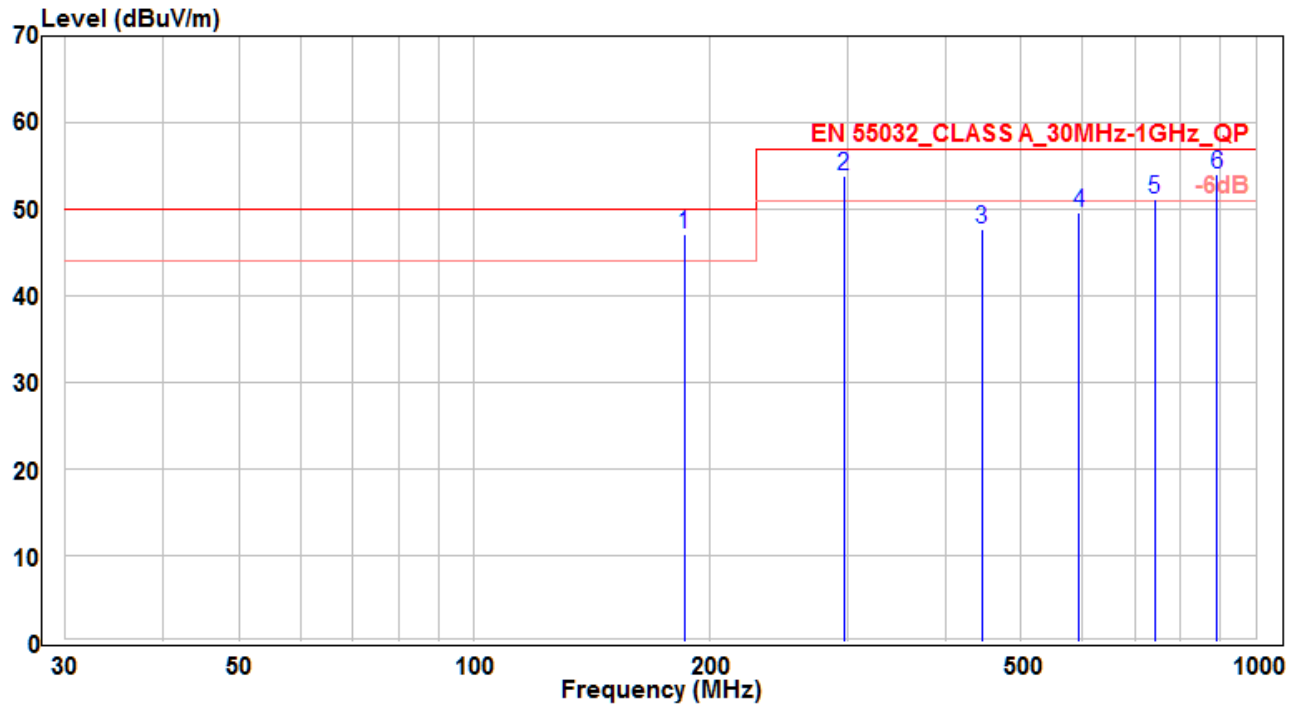


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------|-------------|-------------------|
| 1 | 185.624 | 29.06 | 17.9 | 46.96 | -3.04 | 50 | 120 | 390 | QP |
| 2 | 296.993 | 30.8 | 21.33 | 52.13 | -4.87 | 57 | 165 | 190 | QP |
| 3 | 445.524 | 23.78 | 24.44 | 48.22 | -8.78 | 57 | 145 | 20 | QP |
| 4 | 668.29 | 22.22 | 28.71 | 50.93 | -6.07 | 57 | 130 | 360 | QP |
| 5 | * 742.556 | 25.2 | 29.81 | 55.01 | -1.99 | 57 | 100 | 370 | QP |
| 6 | 891.057 | 21.98 | 31.35 | 53.33 | -3.67 | 57 | 110 | -20 | QP |

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).

| | | | |
|-----------|-------------------------|----------------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/11/9 |
| Factor | VUKB 9162 (30MHz~8GHz) | Temp. / Humidity | 24°C / 67% |
| Polarity | Horizontal | Site / Test Engineer | AC1 / Peter |
| Test Mode | Mode1 (Long Power Cord) | Test Voltage | AC 230V/50Hz |

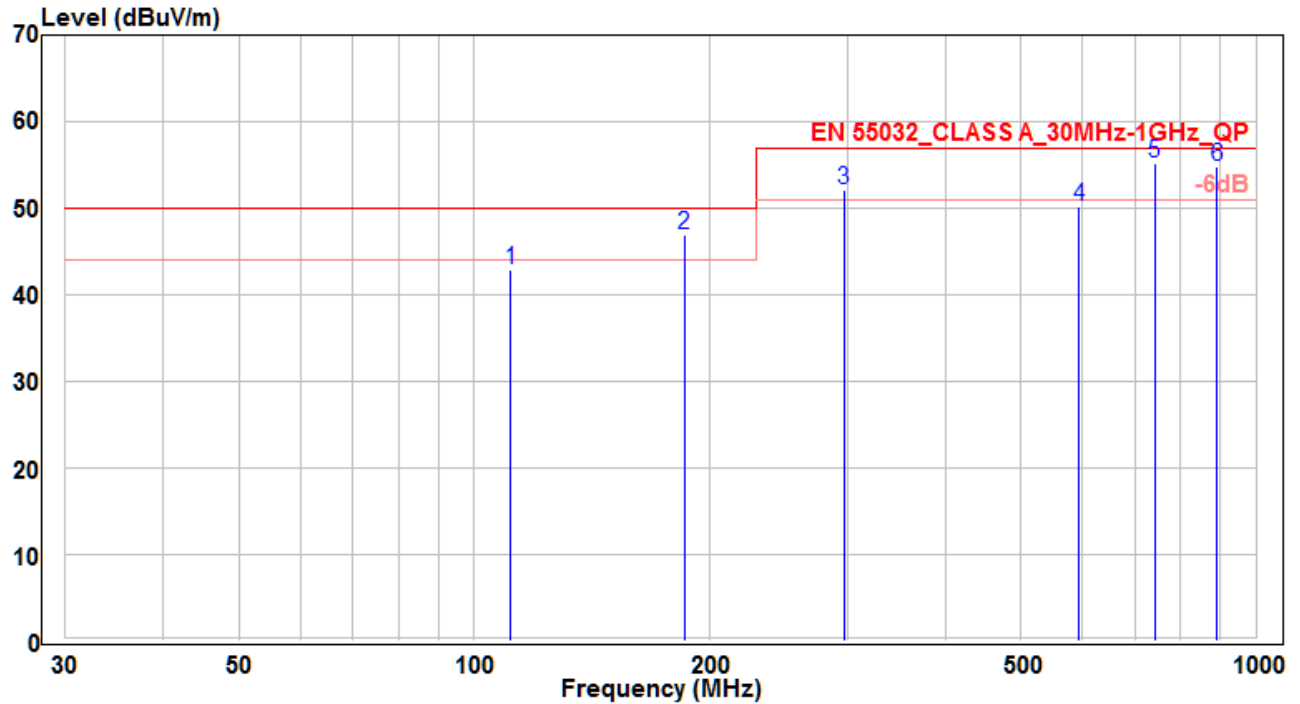


| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|----------------------|-------------|----------------|-------------|-------------|-------------------|
| 1 | * | 185.624 | 29.3 | 17.9 | 47.2 | -2.8 | 50 | 100 | 10 | QP |
| 2 | | 296.993 | 32.6 | 21.33 | 53.93 | -3.07 | 57 | 100 | 165 | QP |
| 3 | | 445.524 | 23.22 | 24.44 | 47.66 | -9.34 | 57 | 115 | 320 | QP |
| 4 | | 594.025 | 22.16 | 27.47 | 49.63 | -7.37 | 57 | 150 | 85 | QP |
| 5 | | 742.526 | 21.26 | 29.81 | 51.07 | -5.93 | 57 | 125 | 300 | QP |
| 6 | | 891.057 | 22.65 | 31.35 | 54 | -3 | 57 | 160 | 170 | QP |

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).

| | | | |
|-----------|-------------------------|----------------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/11/9 |
| Factor | VUKB 9162 (30MHz~8GHz) | Temp. / Humidity | 24°C / 67% |
| Polarity | Vertical | Site / Test Engineer | AC1 / Peter |
| Test Mode | Mode1 (Long Power Cord) | Test Voltage | AC 230V/50Hz |

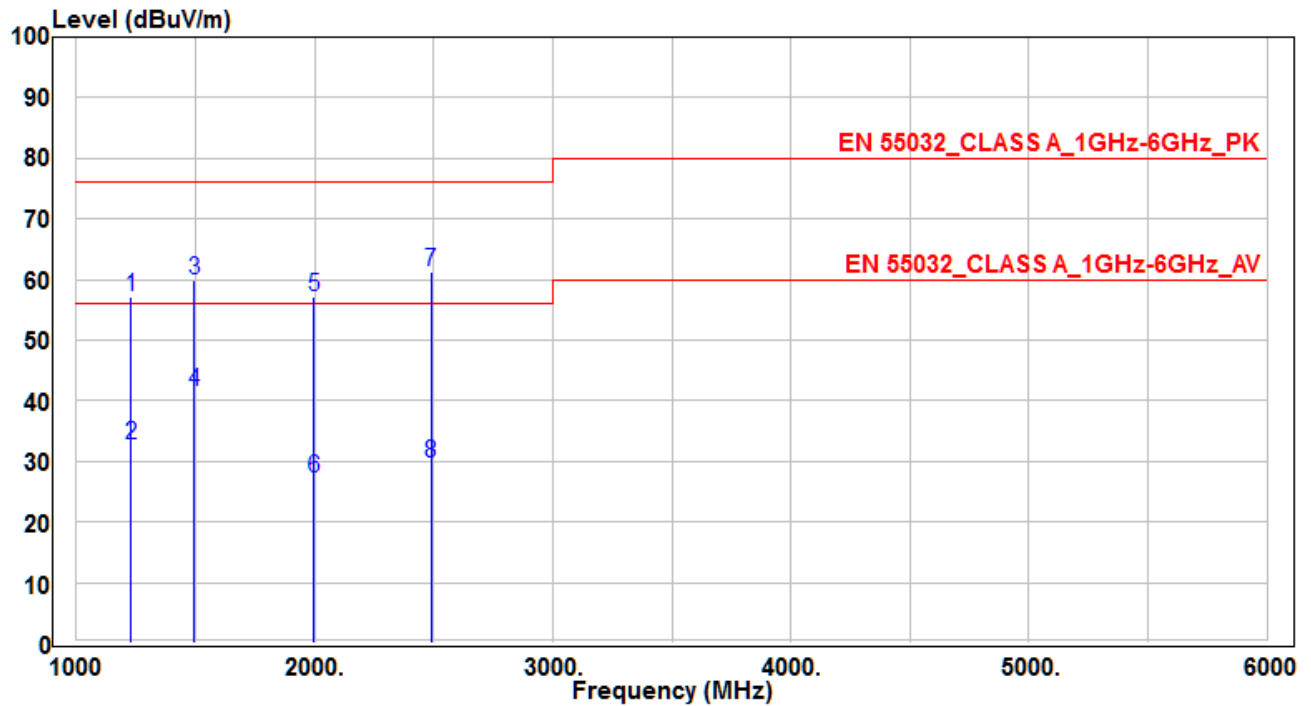


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------|-------------|-------------------|
| 1 | 111.359 | 23.84 | 19.03 | 42.87 | -7.13 | 50 | 145 | 260 | QP |
| 2 | 185.624 | 29.1 | 17.9 | 47 | -3 | 50 | 100 | 15 | QP |
| 3 | 297.023 | 30.8 | 21.33 | 52.13 | -4.87 | 57 | 160 | 210 | QP |
| 4 | 594.025 | 22.76 | 27.47 | 50.23 | -6.77 | 57 | 130 | 265 | QP |
| 5 | * 742.556 | 25.3 | 29.81 | 55.11 | -1.89 | 57 | 100 | 10 | QP |
| 6 | 891.057 | 23.4 | 31.35 | 54.75 | -2.25 | 57 | 100 | 125 | QP |

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).

| | | | |
|-----------|-------------------------|----------------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/11/6 |
| Factor | BBHA 9120D (1GHz~18GHz) | Temp. / Humidity | 23°C / 64% |
| Polarity | Horizontal | Site / Test Engineer | AC1 / Peter |
| Test Mode | Mode1 | Test Voltage | AC 230V/50Hz |

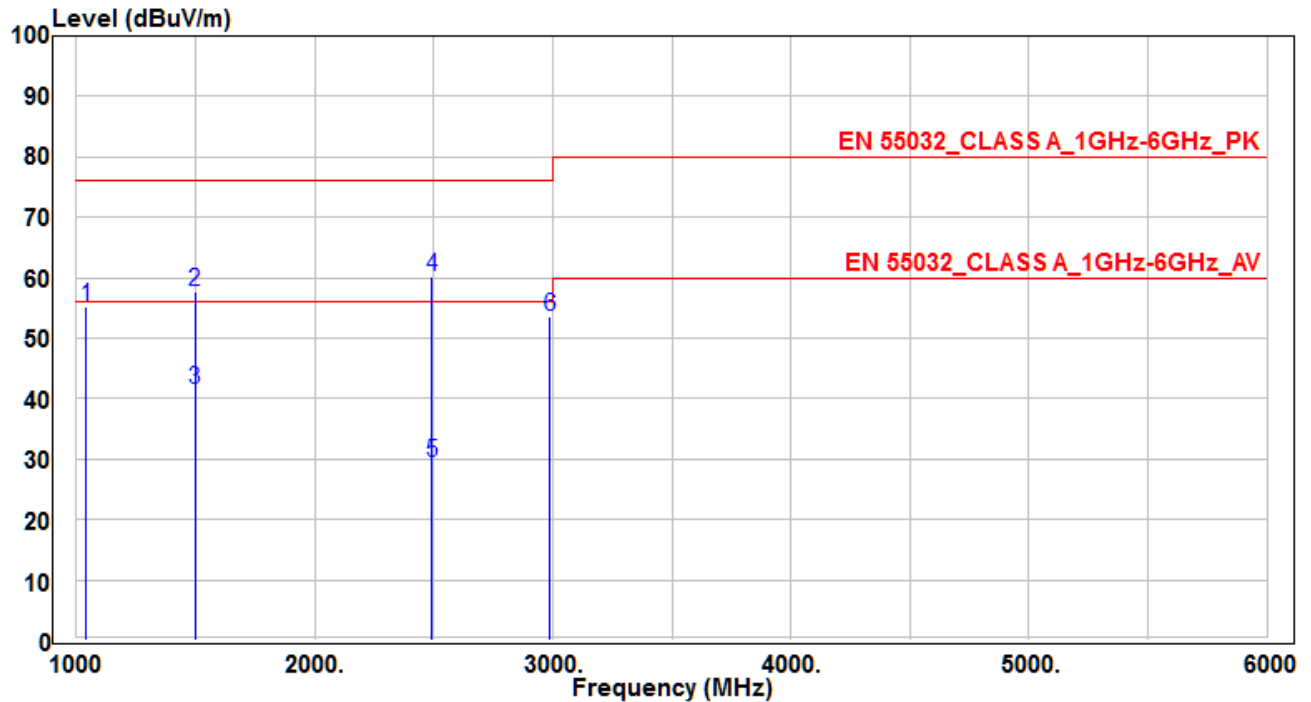


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------|-------------|-------------------|
| 1 | 1228.125 | 63.84 | -6.74 | 57.1 | -18.9 | 76 | 100 | 330 | Peak |
| 2 | 1228.125 | 39.43 | -6.74 | 32.69 | -23.31 | 56 | 100 | 330 | Average |
| 3 | * 1494.375 | 65.31 | -5.46 | 59.85 | -16.15 | 76 | 100 | 400 | Peak |
| 4 | * 1494.375 | 46.89 | -5.46 | 41.43 | -14.57 | 56 | 100 | 400 | Average |
| 5 | 1997.031 | 61.2 | -3.92 | 57.28 | -18.72 | 76 | 100 | 390 | Peak |
| 6 | 1997.031 | 31.11 | -3.92 | 27.19 | -28.81 | 56 | 100 | 390 | Average |
| 7 | 2490.938 | 63.24 | -1.96 | 61.28 | -14.72 | 76 | 100 | 300 | Peak |
| 8 | 2490.938 | 31.53 | -1.96 | 29.57 | -26.43 | 56 | 100 | 300 | Average |

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).

| | | | |
|-----------|-------------------------|----------------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/11/6 |
| Factor | BBHA 9120D (1GHz~18GHz) | Temp. / Humidity | 23°C / 64% |
| Polarity | Vertical | Site / Test Engineer | AC1 / Peter |
| Test Mode | Mode1 | Test Voltage | AC 230V/50Hz |



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|----------------------|-------------|----------------|-------------|-------------|-------------------|
| 1 | | 1039.375 | 62.79 | -7.66 | 55.13 | -20.87 | 76 | 100 | 400 | Peak |
| 2 | * | 1496.563 | 63.19 | -5.44 | 57.75 | -18.25 | 76 | 100 | 235 | Peak |
| 3 | * | 1496.563 | 46.98 | -5.44 | 41.54 | -14.46 | 56 | 100 | 235 | Average |
| 4 | | 2492.344 | 62.03 | -1.95 | 60.08 | -15.92 | 76 | 100 | 285 | Peak |
| 5 | | 2492.344 | 31.42 | -1.95 | 29.47 | -26.53 | 56 | 100 | 285 | Average |
| 6 | | 2987.188 | 56.32 | -2.81 | 53.51 | -22.49 | 76 | 100 | 400 | Peak |

Note:

1. " *", means this data is the worst emission level.

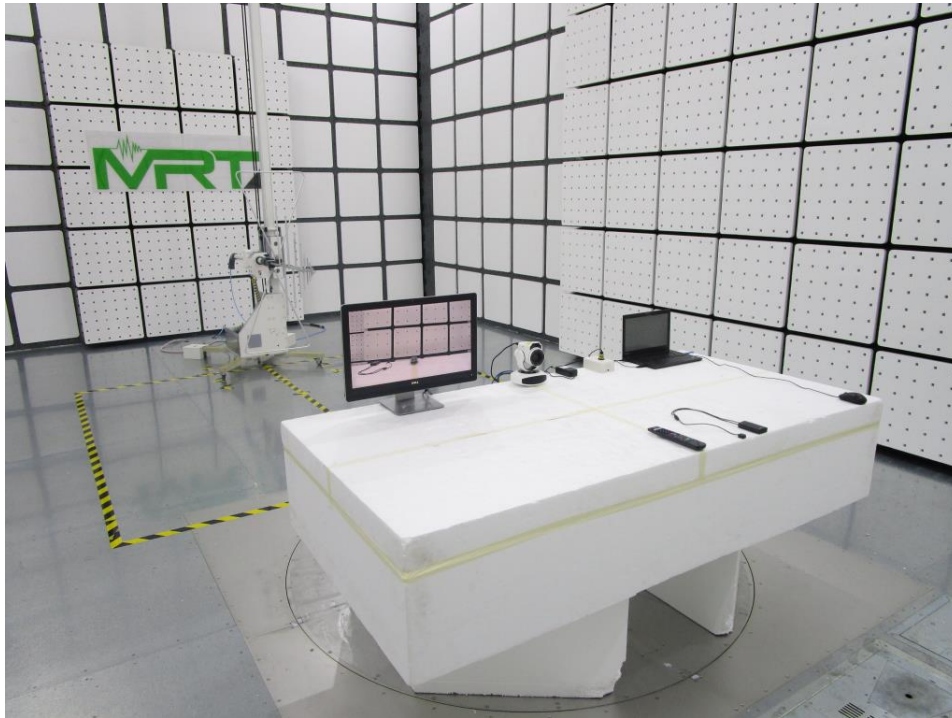
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB).

3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).

7.5. Test Photo

Test Mode: Mode1 (Short Power Cord)

Description: Radiated Disturbance Test Setup (30MHz ~ 1GHz)



Test Mode: Mode1 (Long Power Cord)

Description: Radiated Disturbance Test Setup (30MHz ~ 1GHz)



Test Mode: Mode1

Description: Radiated Disturbance Test Setup (1GHz ~ 6GHz)



8. Harmonic Current Emissions

8.1. Limit of Harmonic Current Emissions

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 | $8 \leq n \leq 40$ | $0.23 \cdot 8/n$ |
| 11 | 0.33 | -- | -- |
| 13 | 0.21 | -- | -- |
| $15 \leq n \leq 39$ | $0.15 \cdot 15/n$ | -- | -- |

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.

Limits of Class C Harmonics Currents

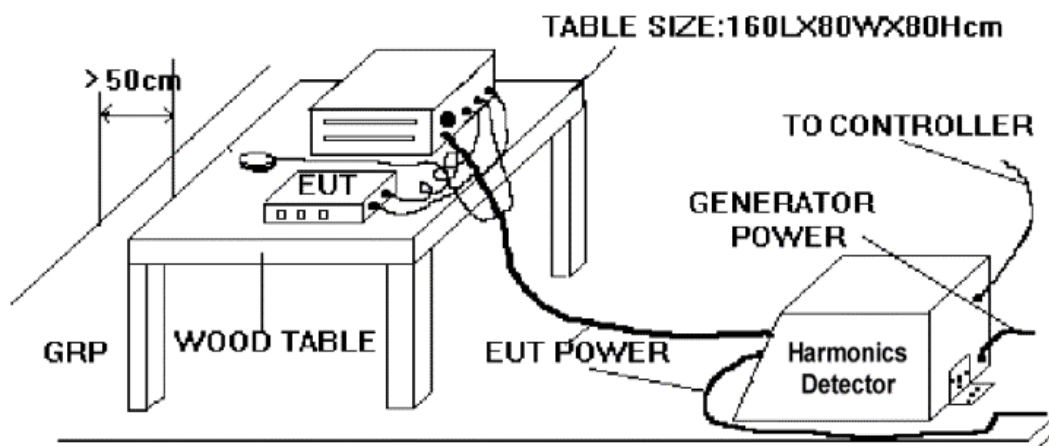
| Harmonics Order n | Maximum Permissible harmonic current Expressed as a percentage of the input current at the fundamental frequency % |
|---|---|
| 2 | 2 |
| 3 | $30 \cdot \lambda^*$ |
| 5 | 10 |
| 7 | 7 |
| 9 | 5 |
| $11 \leq n \leq 39$ (odd harmonics only) | 3 |

* λ is the circuit power factor

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 |

8.2. Test Setup



8.3. 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 0.98 times and 1.02 times shall be performed.

With the exception of lighting equipment section 7 of the IEC61000-3-2:2014 standard declares that no Harmonic current limits are specified for equipment with a rated power of 75W or less.

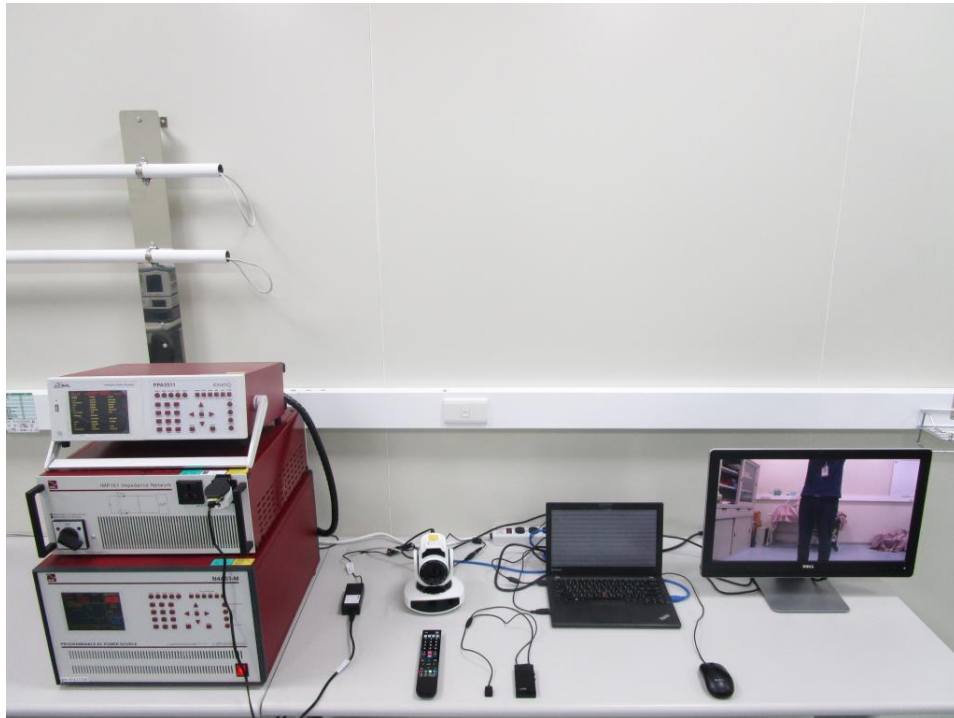
8.4. Test Result

| Instrument Details | | |
|-----------------------------|----------------------------------|-----------|
| Instrument Model | PPA5511 | |
| Serial Number | 162-04880 | |
| Firmware Version | 2.185 | |
| Instrument Version | Standard | |
| Test Settings | | |
| Class | Class A | |
| Mode | Measured | |
| Equipment Under Test | | |
| Brand | Arec | |
| Model | CI-T21H | |
| Serial | N/A | |
| Impedance Network ID | IMP161 | |
| Test Conditions | | |
| | User Entered | Measured |
| Rated Voltage | 230.000V | 230.292V |
| Rated Current | 800.000mA | 113.651mA |
| Rated Frequency | 50.000Hz | 50.000Hz |
| Rated Power | 24.000W | 9.378W |
| Additional Test Information | | |
| Measured Power Factor | 0.3583 | |
| Max Current THD | 0.00% | |
| Max THC | 108.870mA | |
| Max Power | 9.598W | |
| Max F.Current | 42.280mA | |
| Average F.Current | 40.954mA | |
| Minimum Current | 100A | |
| Test Duration | 3.0 minutes | |
| Additional Test Details | | |
| Operator | Jeff | |
| Lab Name | MRT-Taiwan | |
| Location | SR2 | |
| Results | Test - N/A. Rated Power < 75W | |

8.5. Test Photograph

Test Mode: Mode1

Description: Harmonic Current Emissions Test Setup



9. Voltage Fluctuations and Flicker

9.1. Limit of Voltage Fluctuations and Flicker

The following limits apply:

- the value of P_{st} shall not be greater than 1.0;
- the value of P_{lt} shall not be greater than 0.65;
- the value of $d(t)$ during a voltage change shall not exceed 3.3% for more than 500ms;
- 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.

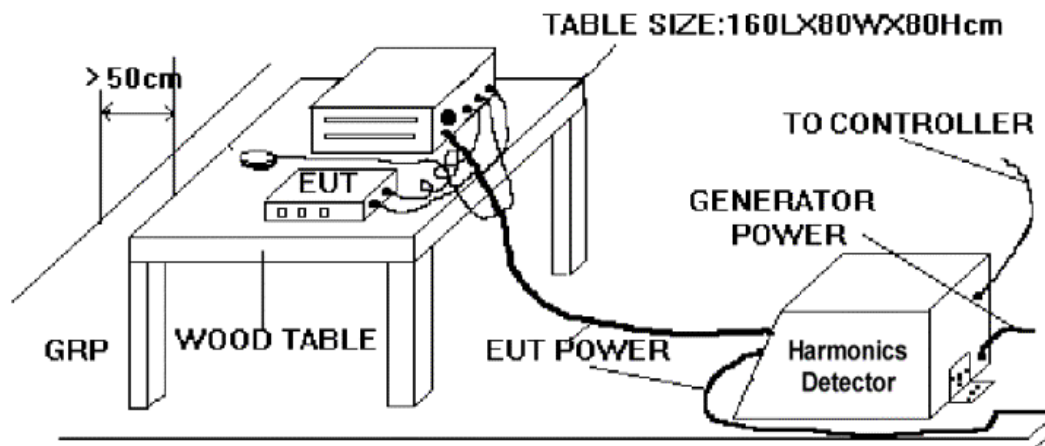
NOTE: The cycling frequency will be further limited by the P_{st} and P_{lt} limit.

For example: a d_{max} of 6% producing a rectangular voltage change characteristic twice per hour will give a P_{lt} 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_{lt} requirements shall not be applied to voltage changes caused by manual switching.

9.2. Test Setup



9.3. Test Procedure

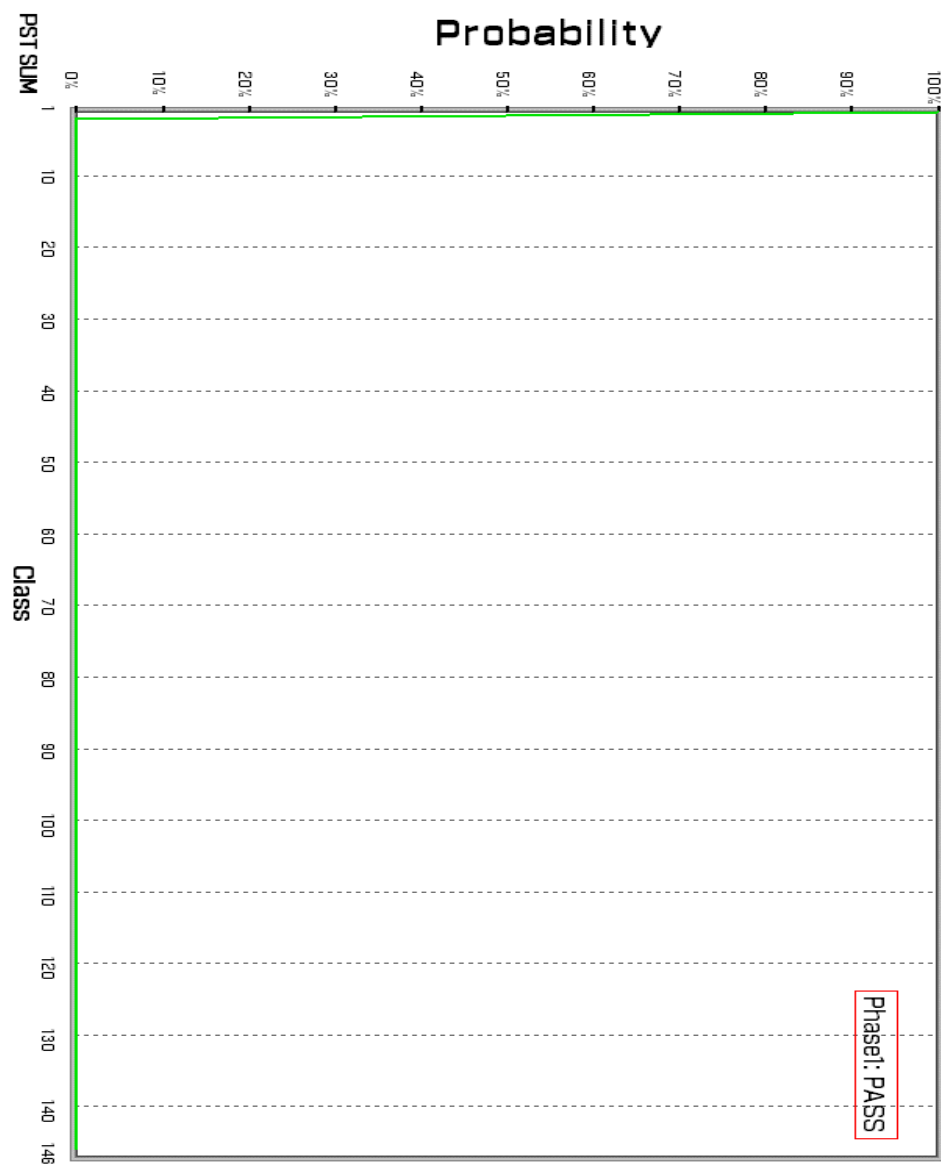
The EUT is supplied in series with power analyzer from a power source having the same normal voltage and frequency as the rated supply voltage and the equipment under test. And the rated voltage at the supply voltage of EUT of 0.98 times and 1.02 times shall be performed.

9.4. Test Result

| Instrument Details | | |
|-------------------------|-------------------------|----------|
| Instrument Model | PPA5511 | |
| Serial Number | 162-04880 | |
| Firmware Version | 2.185 | |
| Instrument Version | Standard | |
| Source Details | | |
| Source Model | N4A03 | |
| Source Serial | 91J-11738 | |
| Source Frequency | 50Hz | |
| Source Voltage RMS | 230V | |
| Test Settings | | |
| Class | Voltage | |
| Mode | Normal (4%) | |
| Minimum Current | 10A | |
| PST | 10.00 minutes | |
| PLT | 1 PSTs | |
| Equipment Under Test | | |
| Brand | Arec | |
| Model | CI-T21H | |
| Serial | N/A | |
| Impedance Network ID | IMP161 | |
| Test Conditions | | |
| | User Entered | Measured |
| Rated Voltage | 230.000V | 230.179V |
| Rated Current | 800.000mA | N/A |
| Rated Frequency | 50.000Hz | 50.000Hz |
| Rated Power | 24.000W | N/A |
| D max | 0.0404% (Limit: 4.0%) | |
| T max | 0.0000 s (Limit: 0.5 s) | |
| DC max | 0.0061% (Limit: 3.3%) | |
| Additional Test Details | | |
| Operator | Jeff | |
| Lab Name | MRT-Taiwan | |
| Location | SR2 | |

| | |
|---------|--------------|
| Results | Phase1: PASS |
|---------|--------------|

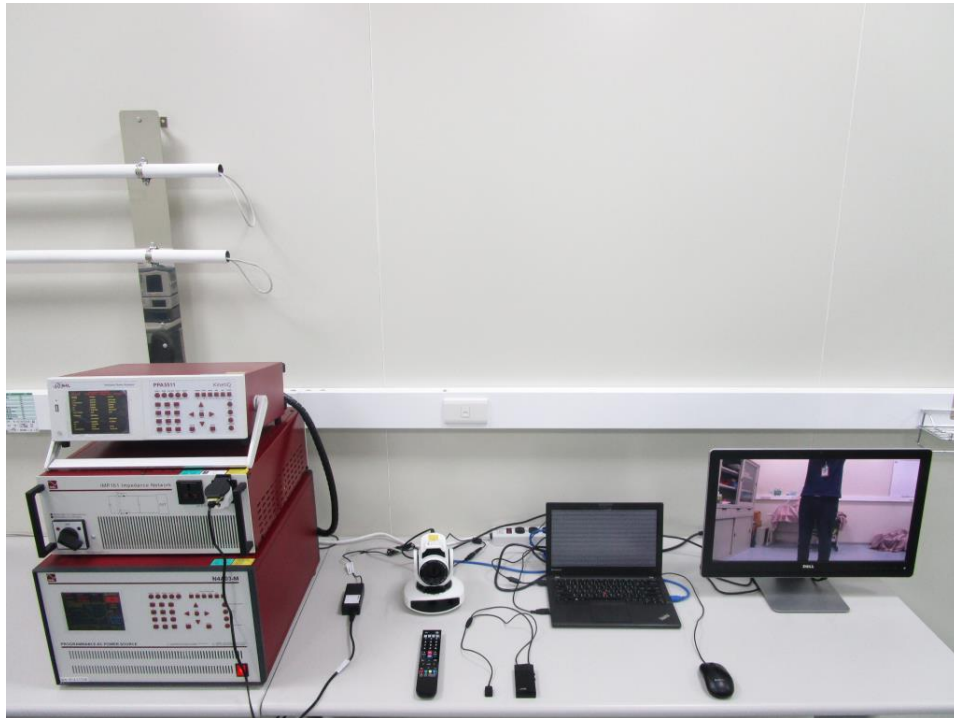
| Flicker Test Results | | | | | | | | |
|----------------------|--------------|---------|----------|----------|---------|---------|---------|---------|
| PST no. | Status | DC (%) | Dmax (%) | Tmax (s) | PST | PST Lim | PLT | PLT Lim |
| 1 | Phase1: PASS | 0.00609 | 0.04035 | 0.00000 | 0.08226 | 1.00000 | 0.08226 | 0.65000 |



9.5. Test Photograph

Test Mode: Mode1

Description: Voltage Fluctuations and Flicker Test Setup

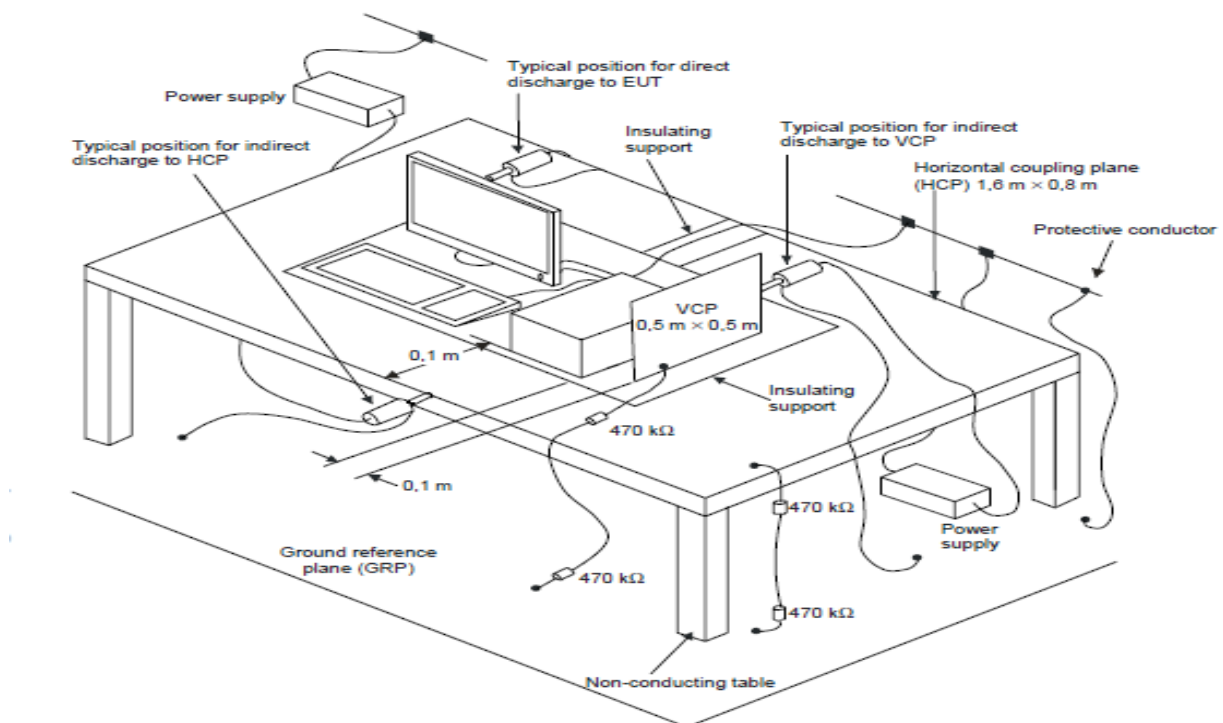


10. Electrostatic Discharge

10.1. Limit of Electrostatic Discharge

| Environmental phenomenon | Test specification | Units | Performance criterion |
|--------------------------|--|--|-----------------------|
| Enclosure port | | | |
| Electrostatic discharge | ± 4 (Contact discharge) ± 8 (Air discharge) | kV (Charge voltage) kV (Charge voltage) | B |

10.2. Test Setup



10.3. Test Procedure

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 twenty-five 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 twenty-five 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 twenty-five single discharges with positive and negative at the same selected point.

10.4. Test Result

| | | | |
|---------------|-------------------------|--------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/8/13 |
| Site | SR4 | Temp. | 24°C |
| Test Engineer | Peter | Humidity | 46% |
| Test Mode | Mode1 | Test Voltage | AC 230V/50Hz |

| Air Discharge (10 Discharges @ Per Test Point) | | | | | |
|--|---|----|-----------------------|--------|-------------|
| Test Location | Test Level (kV) & Test Result criterion | | Performance criterion | Result | Observation |
| | +8 | -8 | | | |
| 1~30 | B | B | B | Pass | Note1 |

Note1: When we discharge on the points 1~30, during the test, the EUT HDMI monitor flicker, but will reply on its own, thus it is determined criteria B.

| Contact Discharge (25 Discharges @ Per Test Point) | | | | | |
|--|---|----|-----------------------|--------|-------------|
| Test Location | Test Level (kV) & Test Result criterion | | Performance criterion | Result | Observation |
| | +4 | -4 | | | |
| 1~8 | B | B | B | Pass | Note1 |

Note1: When we discharge on the points 1~8, during the test, the EUT HDMI monitor flicker, but will reply on its own, thus it is determined criteria B.




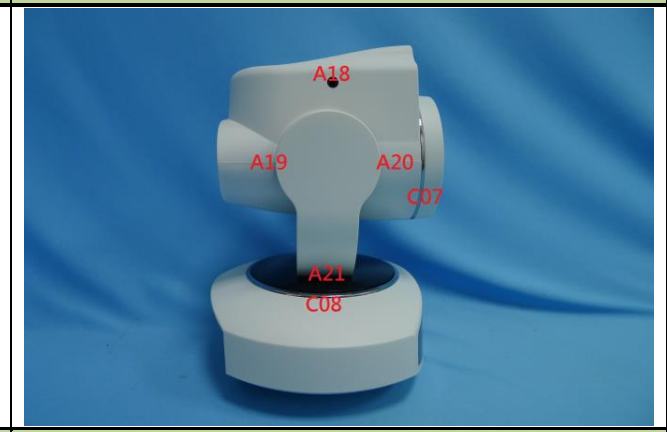


| Horizontal Coupling (25 Discharges @ Per Test Point) | | | | | |
|--|---|----|-----------------------|--------|-------------|
| Test Location | Test Level (kV) & Test Result criterion | | Performance criterion | Result | Observation |
| | +4 | -4 | | | |
| Horizontal | A | A | B | Pass | Note1 |

Note1: There is no any degradation of performance and function, and the test result criterion was A.

| Vertical Coupling (25 Discharges @ Per Test Point) | | | | | |
|--|---|----|-----------------------|--------|-------------|
| Test Location | Test Level (kV) & Test Result criterion | | Performance criterion | Result | Observation |
| | +4 | -4 | | | |
| Front | A | A | B | Pass | Note1 |
| Rear | A | A | B | Pass | Note1 |
| Left | A | A | B | Pass | Note1 |
| Right | A | A | B | Pass | Note1 |

Note1: There is no any degradation of performance and function, and the test result criterion was A.

Electrostatic Discharge Test Location

| Test Location Air 01~06/ Contact 01 | Test Location Air 07~09/ Contact 02~03 |
|---|--|
|  |  |
| Test Location Air 09~17/ Contact 04~06 | Test Location Air 18~21/ Contact 07~08 |
|  |  |
| Test Location Air 22 | Test Location Air 23~30 |
|  |  |

10.5. Test Photograph

Test Mode: Mode1

Description: Electrostatic Discharge Test Setup

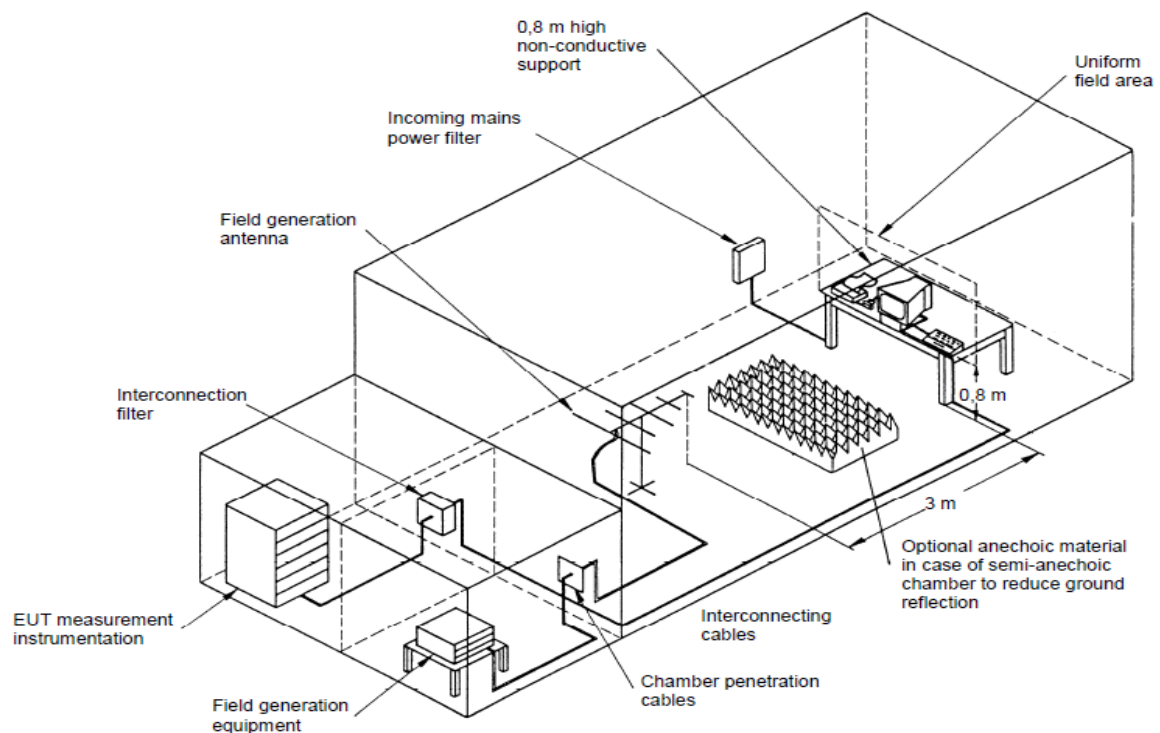


11. Radio-Frequency Electromagnetic Field

11.1. Limit of Radio-Frequency Electromagnetic Field

| Environmental phenomenon | Test specification | Units | Performance criterion |
|--|--------------------|--------------------------|-----------------------|
| Enclosure port | | | |
| Radio frequency electromagnetic field disturbances, swept test | 80 - 1000 | MHz | A |
| | 3 | V/m (unmodulated, r.m.s) | |
| | 80 | % AM (1kHz) | |
| Radio frequency electromagnetic field disturbances, spot test | 1800, 2600 | MHz ($\pm 1\%$) | A |
| | 3500, 5000 | | |
| | 3 | V/m (unmodulated, r.m.s) | |
| | 80 | % AM (1kHz) | |

11.2. Test Setup



11.3. Test Procedure

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 | 3V/m |
| 2. | Radiated Signal | AM 80% Modulated with 1kHz |
| 3. | Scanning Frequency | 80 - 1000MHz 1800, 2600, 3500, 5000MHz ($\pm 1\%$) |
| 4. | Dwell Time | 3 Seconds |
| 5. | Frequency Step Size Δf | 1% |

11.4. Test Result

| | | | |
|---------------|-------------------------|--------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2022/3/31 |
| Site | AC1 | Temp. | 24°C |
| Test Engineer | Dean | Humidity | 63% |
| Test Mode | Mode1 | Test Voltage | AC 230V/50Hz |

| Frequency (MHz) | Polarity | Test Position | Field Strength (V/m) | Test Result | Result |
|--------------------------------------|------------|---------------|----------------------|-------------|--------|
| 80-1000 | Horizontal | Front | 3 | A | Pass |
| | | Rear | | A | Pass |
| | | Left | | A | Pass |
| | | Right | | A | Pass |
| 80-1000 | Vertical | Front | 3 | A | Pass |
| | | Rear | | A | Pass |
| | | Left | | A | Pass |
| | | Right | | A | Pass |
| 1800, 2600, 3500, 5000 ($\pm 1\%$) | Horizontal | Front | 3 | A | Pass |
| | | Rear | | A | Pass |
| | | Left | | A | Pass |
| | | Right | | A | Pass |
| 1800, 2600, 3500, 5000 ($\pm 1\%$) | Vertical | Front | 3 | A | Pass |
| | | Rear | | A | Pass |
| | | Left | | A | Pass |
| | | Right | | A | Pass |

Note: There is no any degradation of performance and function, and the test result criterion was A

11.5. Test Photograph

Test Mode: Mode 1

Description: Radio-Frequency Electromagnetic Field Test Setup

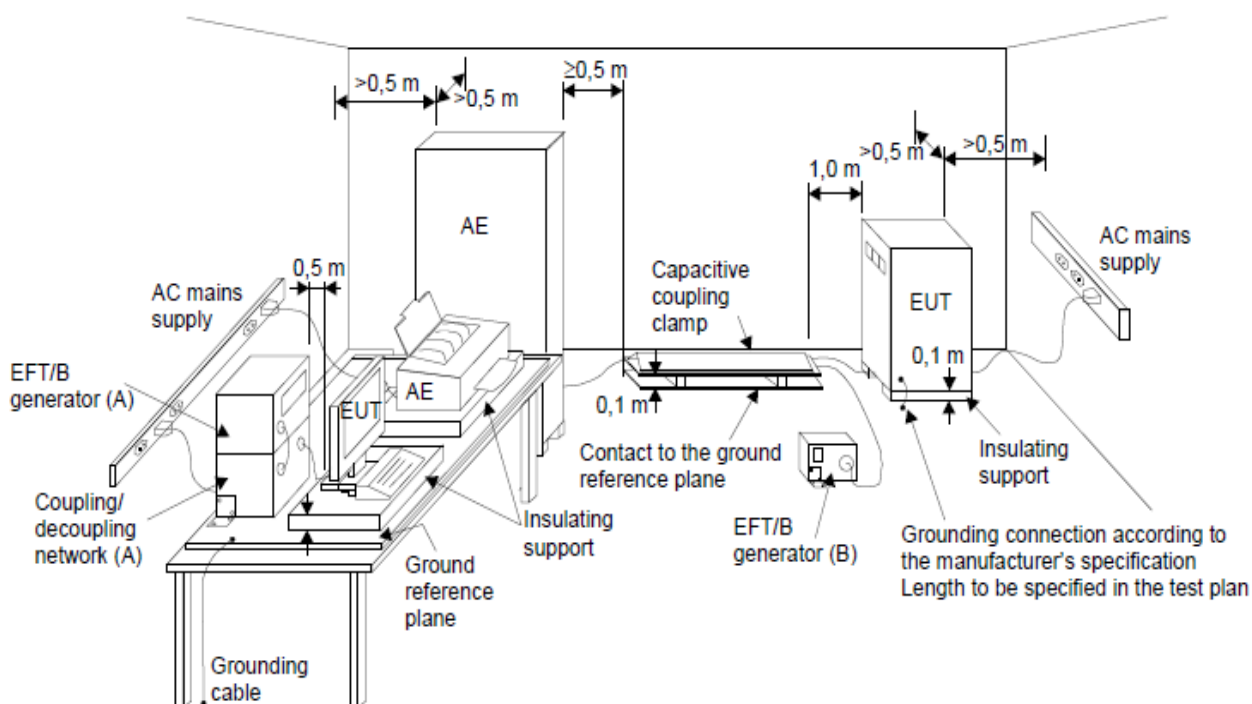


12. Electrical Fast Transients

12.1. Limit of Electrical Fast Transients

| Environmental phenomenon | Test specification | Units | Performance criterion |
|-------------------------------|--------------------|--------------------------------|-----------------------|
| Input AC Power Ports | | | |
| Electrical fast transients | ± 1 | kV (open circuit test voltage) | B |
| | 5 / 50 | Tr/Th (ns) | |
| | 5 | Repetition frequency (kHz) | |
| Input DC Power Port | | | |
| Electrical fast transients | ± 0.5 | kV (open circuit test voltage) | B |
| | 5 / 50 | Tr/Th (ns) | |
| | 5 | Repetition frequency (kHz) | |
| Analogue / Digital Data Ports | | | |
| Electrical fast transients | ± 0.5 | kV (open circuit test voltage) | B |
| | 5 / 50 | Tr/Th (ns) | |
| | 5 | Repetition frequency (kHz) | |

12.2. Test Setup



12.3. Test Procedure

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.

12.4. Test Result

| | | | |
|---------------|-------------------------|--------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/8/13 |
| Site | SR3 | Temp. | 25°C |
| Test Engineer | Peter | Humidity | 58% |
| Test Mode | Mode1 | Test Voltage | AC 230V/50Hz |

| Inject Line | Polarity | Test Level (kV) | Test Duration (second) | Inject Method | Test Result | Result |
|-------------|----------|-----------------|------------------------|---------------|-------------|--------|
| L | ± | 1 | 60 | Direct | A | Pass |
| N | ± | 1 | 60 | Direct | A | Pass |
| PE | ± | 1 | 60 | Direct | A | Pass |
| L-N | ± | 1 | 60 | Direct | A | Pass |
| LAN | ± | 0.5 | 60 | Clamp | A | Pass |

Note: There is no any degradation of performance and function, and the test result criterion was A.

12.5. Test Photograph

Test Mode: Mode1

Description: Electrical Fast Transients Test Setup



Test Mode: Mode1

Description: Electrical Fast Transients for LAN Test Setup



13. Surge

13.1. Limit of Surges

| Environmental phenomenon | Test specification | Units | Performance criterion |
|--|--|--|-----------------------|
| Input AC Power Ports | | | |
| Surges | 1.2/50 (8/20) ±1 line to line ±2 line to earth | Tr/Th (us) kV (open circuit test voltage) kV (open circuit test voltage) | B |
| Input DC Power Ports | | | |
| Surges | 1.2/50 (8/20) ± 0.5 line to earth | Tr/Th (us) kV (open circuit test voltage) | B |
| Analogue / Digital Data Port (See Note1, 2, 3) | | | |
| Port type: unshielded symmetrical, Apply: lines to ground. Apply where primary protection is intended | | | |
| Surges | 10/700 (5/320) ± 1 line to earth ± 4 line to earth | Tr/Th (us) kV (open circuit test voltage) kV (open circuit test voltage) | C |
| Apply where primary protection is not intended | | | |
| Surges | 10/700 (5/320) ± 1 line to earth | Tr/Th (us) kV (open circuit test voltage) | C |
| Port type: coaxial or shielded Apply: shield to ground | | | |
| Surges | 1.2/50 (8/20) ± 0.5 line to earth | Tr/Th (us) kV (open circuit test voltage) | B |

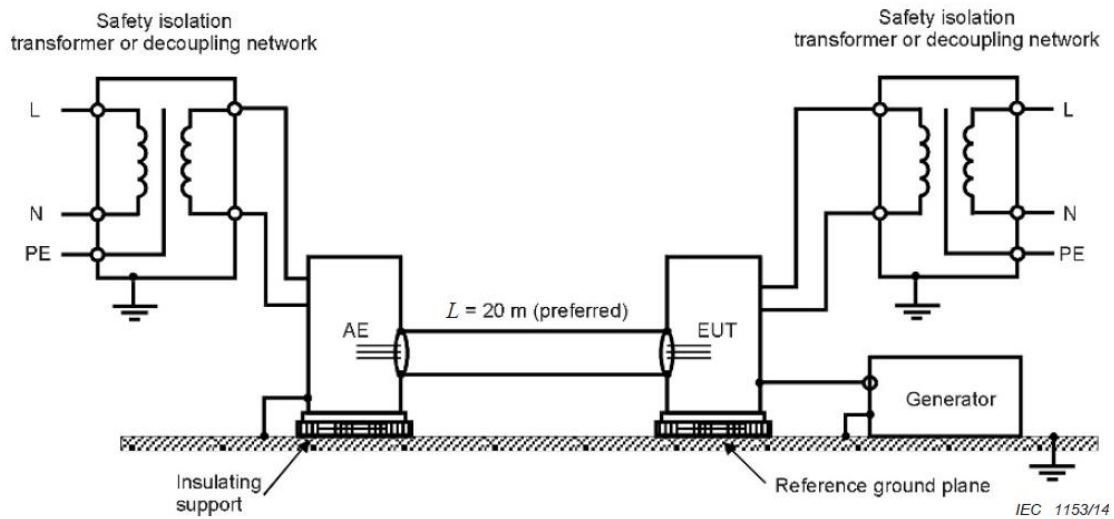
Notes:

Note1: Surges are applied with primary protection fitted. Where possible, use the actual primary protector intended to be used in the installation.

Note2: Where the surge coupling network for the 10/700 (5/320) µs waveform affects the functioning of high speed data ports, the test shall be carried out using a 1,2/50 (8/20) µs waveform and appropriate coupling network.

Note3: Surges are applicable to ports which satisfy all the following conditions:
may connect directly to cables that leave the building structure,
defined as an antenna port (3.1.3), a wired network port (3.1.34), or a broadcast receiver tuner port (3.1.8).

13.2. Test Setup



13.3. Test Procedure

The EUT is placed on a table that is 0.8 meter above a metal ground plane measured 1m*1m minimum and 0.65mm thick minimum 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 AC / DC 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 90⁰, 270⁰ and the peak value of the AC voltage wave. (Positive and negative)

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

13.4. Test Result

| | | | |
|---------------|-------------------------|--------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/8/13 |
| Site | SR3 | Temp. | 25°C |
| Test Engineer | Peter | Humidity | 58% |
| Test Mode | Mode1 | Test Voltage | AC 230V/50Hz |

| Inject Line | Impedance (Ω) | Polarity | Angle (degree) | Test Level (kV) | Test Interval (second) | Test Result | Result |
|-------------|------------------------|----------|----------------|-----------------|------------------------|-------------|--------|
| L-N | 2 | \pm | 0 | 1 | 60 | A | Pass |
| L-N | 2 | \pm | 90 | 1 | 60 | A | Pass |
| L-N | 2 | \pm | 180 | 1 | 60 | A | Pass |
| L-N | 2 | \pm | 270 | 1 | 60 | A | Pass |

Note: There is no any degradation of performance and function, and the test result criterion was A.

13.5. Test Photograph

Test Mode: Mode1

Description: Surge Test Setup



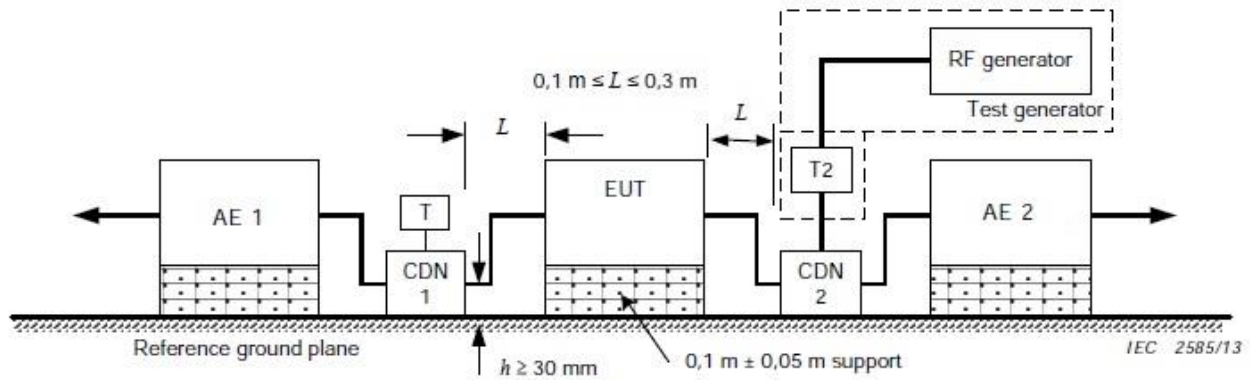
14. Radio-Frequency Continuous Conducted

14.1. Limit of Radio-Frequency Continuous Conducted

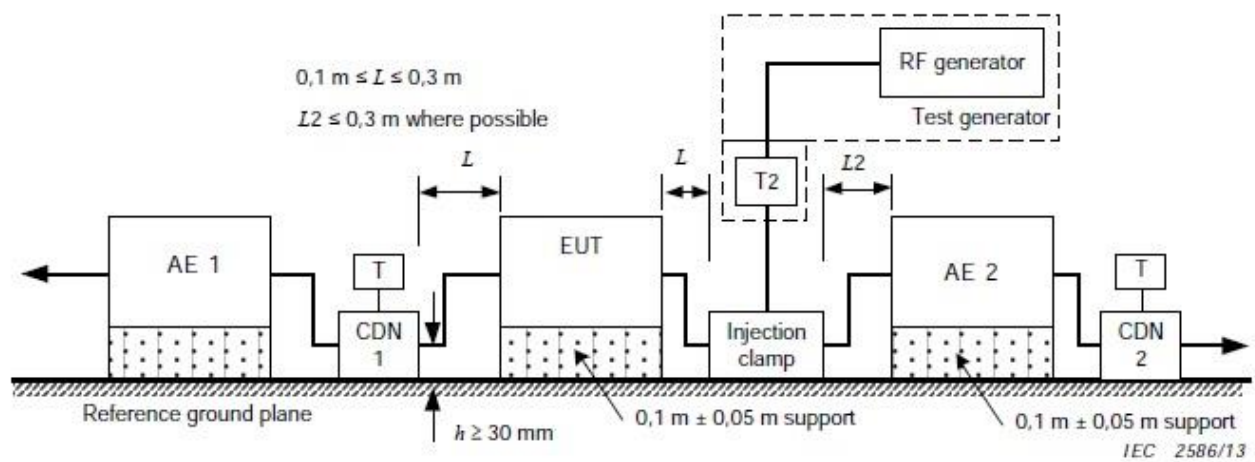
| Environmental phenomenon | Test specification | Units | Performance criterion |
|--|--|--|-----------------------|
| Input AC Power Ports | | | |
| Radio-frequency continuous conducted | 0.15 – 10 (3V), 10 – 30 (3V to 1V) 30 – 80 (1V) 80 1 | MHz V (unmodulated, r.m.s) % AM (1kHz) Frequency Step Size Δf % | A |
| Input DC Power Ports | | | |
| Radio-frequency continuous conducted | 0.15 – 10 (3V) 10 -30 (3V to 1V) 30 – 80 (1V) 80 1 | MHz V (unmodulated, r.m.s) % AM (1kHz) Frequency Step Size Δf % | A |
| Analogue / Digital Data Port | | | |
| Radio-frequency continuous conducted | 0.15 – 10 (3V) 10 -30 (3V to 1V) 30 – 80 (1V) 80 1 | MHz V (unmodulated, r.m.s) % AM (1kHz) Frequency Step Size Δf % | A |
| Applicable only to CPE xDSL ports | | | |
| Broadband impulse noise disturbances, repetitive | 0.15 – 0.5 (107dBuV) 0.5 -10 (107dBuV to 36dBuV) 10 – 30 (36dBuV to 30dBuV) 0.70 8.3 (for 60Hz), 10 (for 50Hz) | MHz dBuV Burst duration (ms) Burst period (ms) | A |
| Broadband impulse noise disturbances, isolated | 0.15 – 30 (110 dBuV) 0.24, 10, 300 | MHz dBuV Burst duration (ms) | B |

14.2. Test Setup

CDN Test Setup



EM-Clamp Test Setup



14.3. Test Procedure

The EUT is placed on a table that is 0.8 meter height, and a ground reference plane on the table, EUT is placed upon table and use 0.1m 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 | 3V, 3V to 1V, 1V |
| 2. | Radiated Signal | AM 80% Modulated with 1kHz |
| 3. | Scanning Frequency | 0.15MHz – 10MHz, 10MHz – 30MHz, 30MHz -80MHz |
| 4. | Dwell Time | 3 Seconds |
| 5. | Frequency step size Δf : | 1% |
| 6. | The rate of Swept of Frequency | 1.5×10^{-3} decades/s |

14.4. Test Result

| | | | |
|---------------|-------------------------|--------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2022/3/31 |
| Site | SR3 | Temp. | 23°C |
| Test Engineer | Tim | Humidity | 65% |
| Test Mode | Mode1 | Test Voltage | AC 230V/50Hz |

| Frequency (MHz) | Inject Voltage (V) | Inject Ports | Inject Method | Test Result | Result |
|-----------------|--------------------|--------------|---------------|-------------|--------|
| 0.15 - 10 | 3 | AC IN | CDN-M3 | A | Pass |
| 10 - 30 | 3 to 1 | AC IN | CDN-M3 | A | Pass |
| 30 - 80 | 1 | AC IN | CDN-M3 | A | Pass |
| 0.15 - 10 | 3 | LAN | CDN-RJ45 | A | Pass |
| 10 - 30 | 3 to 1 | LAN | CDN-RJ45 | A | Pass |
| 30 - 80 | 1 | LAN | CDN-RJ45 | A | Pass |

Note: There is no any degradation of performance and function, and the test result criterion was A.

14.5. Test Photograph

Test Mode: Mode1

Description: Radio-Frequency Common Mode Test Setup



Test Mode: Mode1

Description: Radio-Frequency Common Mode for LAN Test Setup

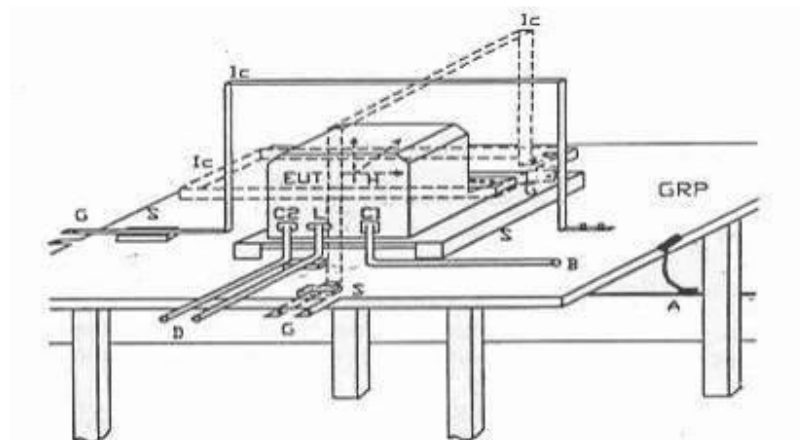


15. Power-Frequency Magnetic Field

15.1. Limit of Power-Frequency Magnetic Field

| Environmental phenomenon | Test specification | Units | Performance criterion |
|--------------------------------|--------------------|-----------|-----------------------|
| Enclosure port | | | |
| Power-frequency magnetic field | 50 or 60 1 | Hz A/m | A |

15.2. Test Setup



GRP: Ground plane

A: Safety earth

S: Insulating support

EUT: Equipment under test

Lc: Induction coil

E: Earth terminal

C1: Power supply circuit

C2: Signal circuit

L: Communication line

B: To power supply source

D: To signal source, simulator

G: To the test generator

15.3. Test Procedure

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

The test magnetic Field shall be applied 10 minutes by the immersion method to the EUT, and the induction coil shall be rotated by 90° in order to expose the EUT to the test field with different orientation (X, Y, Z Orientations).

15.4. Test Result

| | | | |
|---------------|-------------------------|--------------|--------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/8/13 |
| Site | SR3 | Temp. | 25°C |
| Test Engineer | Peter | Humidity | 58% |
| Test Mode | Mode1 | Test Voltage | AC 230V/50Hz |

| Test Coil Position | Frequency (Hz) | Magnetic Strength (A/m) | Test Result | Result |
|--------------------|----------------|-------------------------|-------------|--------|
| X Axis | 50 | 1 | A | Pass |
| Y Axis | 50 | 1 | A | Pass |
| Z Axis | 50 | 1 | A | Pass |

Note: There is no any degradation of performance and function, and the test result criterion was A.

15.5. Test Photograph

Test Mode: Mode1

Description: Power-Frequency Magnetic Field Test Setup

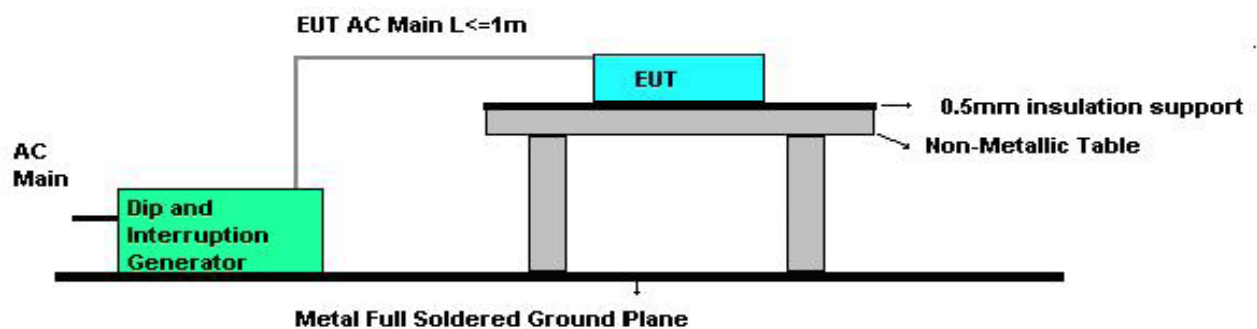


16. Voltage Dips and Interruptions

16.1. Limit of Voltage Dips and Interruptions

| Environmental phenomenon | Test specification | Units | Performance criterion |
|--------------------------|-------------------------------------|------------------|-----------------------|
| Input AC power ports | | | |
| Voltage dips | 70 25 for 50Hz 30 for 60Hz | % residual cycle | C |
| | < 5 0.5 | % residual cycle | B |
| Voltage interruptions | < 5 250 for 50Hz 300 for 60Hz | % residual cycle | C |

16.2. Test Setup



16.3. Test Procedure

The EUT is placed on a table which is 0.8 meter above a metal ground plane measured 1m*1m minimum, and 0.65mm thick minimum, and projected beyond the EUT by at least 0.1m on all sides. The power cord shall be used the shortest power cord as specified by the manufacturer.

For Voltage Dips/ Interruptions test:

The selection of test voltage is based on the rated power range. If the operation range is large than 20% of lower power range, both end of specified voltage shall be tested. Otherwise, the typical voltage specification is selected as test voltage.

The EUT is connected to the power mains through a coupling device that directly couples to the Voltage Dips and Interruption Generator.

The EUT shall be tested for 30% voltage dip of supplied voltage and duration 25 Periods, for 95% voltage dip of supplied voltage and duration 0.5 Periods with a sequence of three voltage dips with intervals of 10 seconds, and for 95% voltage interruption of supplied voltage and duration 250 Periods with a sequence of three voltage interruptions with intervals of 10 seconds. Voltage phase shifting are shall occur at 0° , 90° , 270° of the voltage.

16.4. Test Result

| | | | |
|---------------|-------------------------|--------------|------------------------------|
| EUT | PTZ Tracking Camera 10X | Date of Test | 2018/8/13 |
| Site | SR3 | Temp. | 25°C |
| Test Engineer | Peter | Humidity | 58% |
| Test Mode | Mode1 | Test Voltage | AC 100V/50Hz AC 240V/50Hz |

| Voltage Dips and Interruption Residual (%) | Angle | Test Duration (Periods) | Test Result | Result |
|--|-------|-------------------------|-------------|--------|
| 70 | 0 | 25 | A | PASS |
| 70 | 45 | 25 | A | PASS |
| 70 | 90 | 25 | A | PASS |
| 70 | 135 | 25 | A | PASS |
| 70 | 180 | 25 | A | PASS |
| 70 | 225 | 25 | A | PASS |
| 70 | 270 | 25 | A | PASS |
| 70 | 315 | 25 | A | PASS |
| 0 | 0 | 0.5 | A | PASS |
| 0 | 45 | 0.5 | A | PASS |
| 0 | 90 | 0.5 | A | PASS |
| 0 | 135 | 0.5 | A | PASS |
| 0 | 180 | 0.5 | A | PASS |
| 0 | 225 | 0.5 | A | PASS |
| 0 | 270 | 0.5 | A | PASS |
| 0 | 315 | 0.5 | A | PASS |

| | | | | |
|---|-----|-----|---|------|
| 0 | 0 | 250 | B | PASS |
| 0 | 45 | 250 | B | PASS |
| 0 | 90 | 250 | B | PASS |
| 0 | 135 | 250 | B | PASS |
| 0 | 180 | 250 | B | PASS |
| 0 | 225 | 250 | B | PASS |
| 0 | 270 | 250 | B | PASS |
| 0 | 315 | 250 | B | PASS |

Note1: There is no any degradation of performance and function, and the test result criterion was A.

Note2: The system shut down during the test, but the function can be restored by the operation after the test, and the test result criterion was B.

16.5. Test Photograph

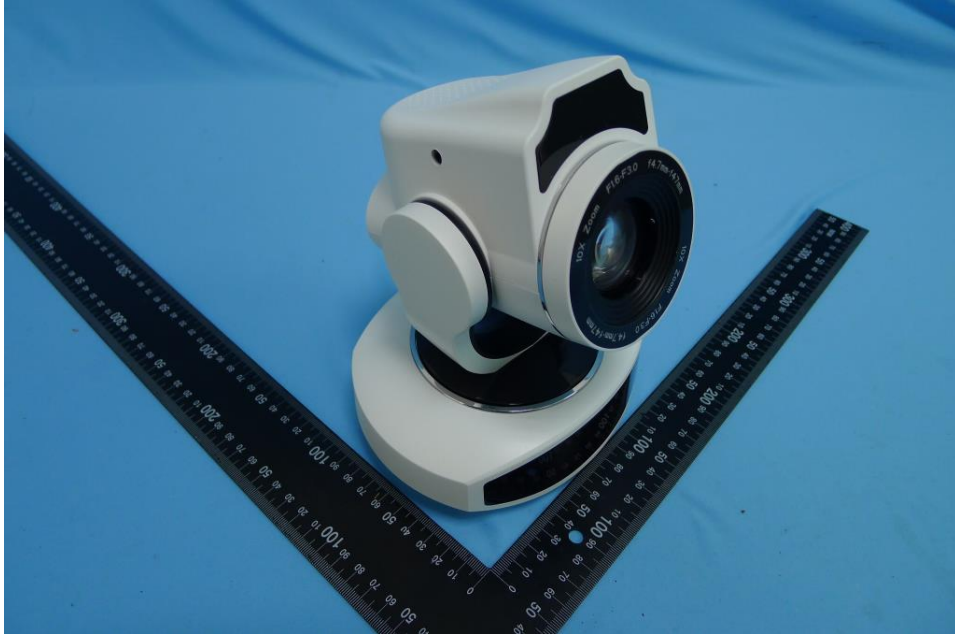
Test Mode: Mode1

Description: Voltage Dips and Interruptions Test Setup



Appendix A - EUT Photograph

(1) EUT Photo



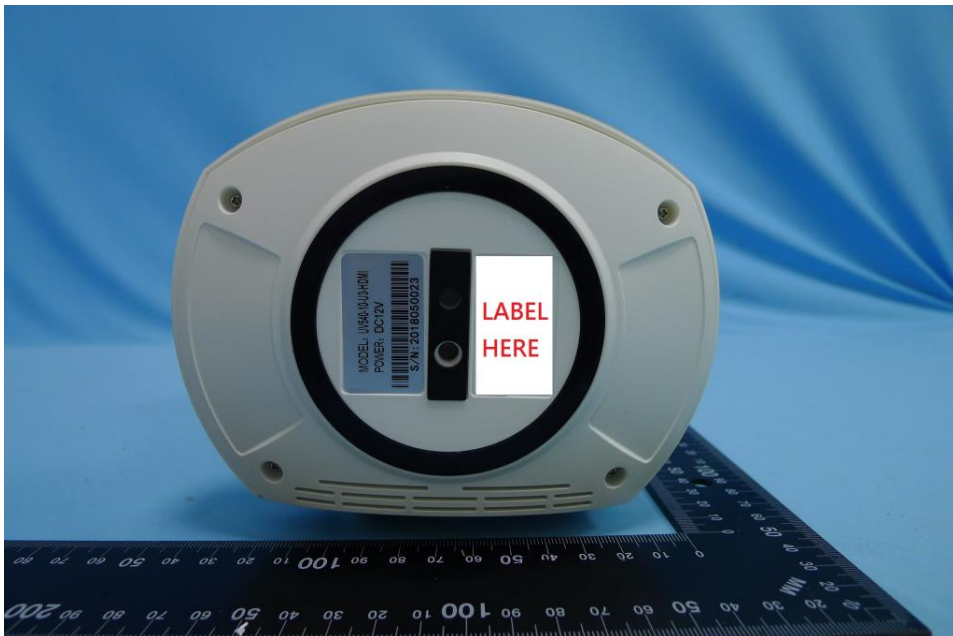
(2) EUT Photo



(3) EUT Photo



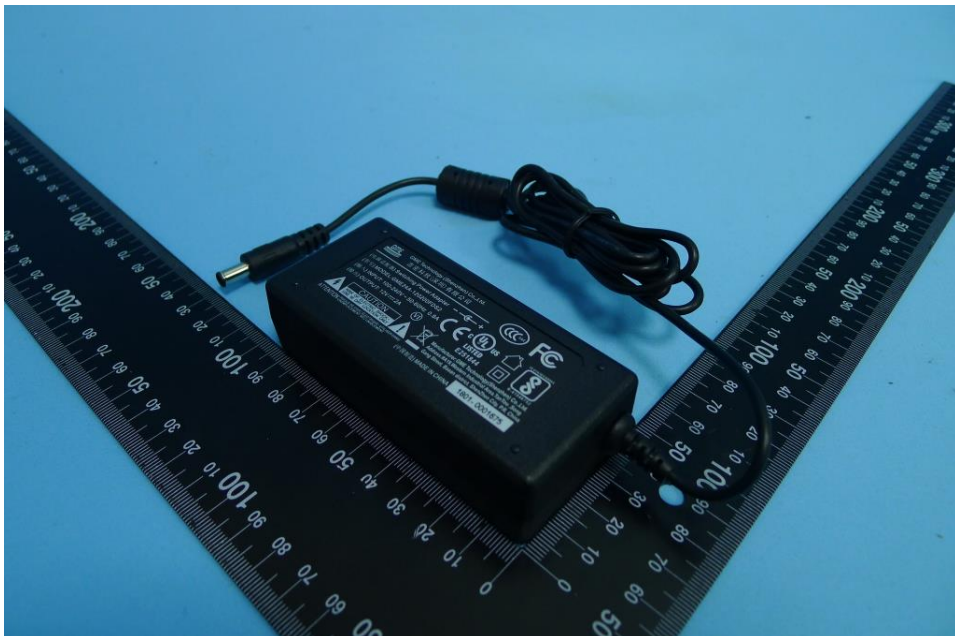
(4) EUT Photo



(5) EUT Photo



(6) EUT Photo



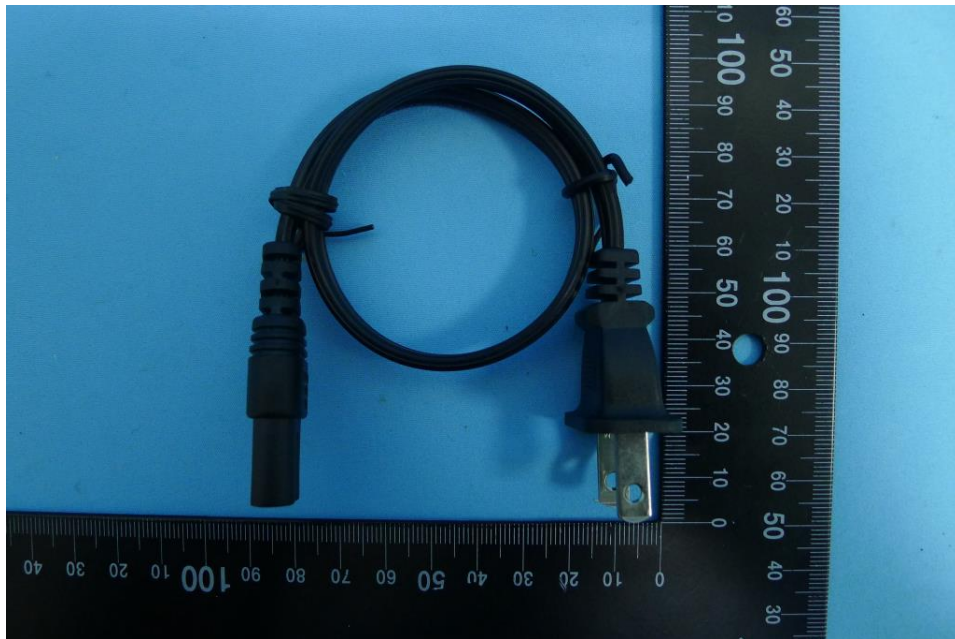
(7) EUT Photo



(8) EUT Photo



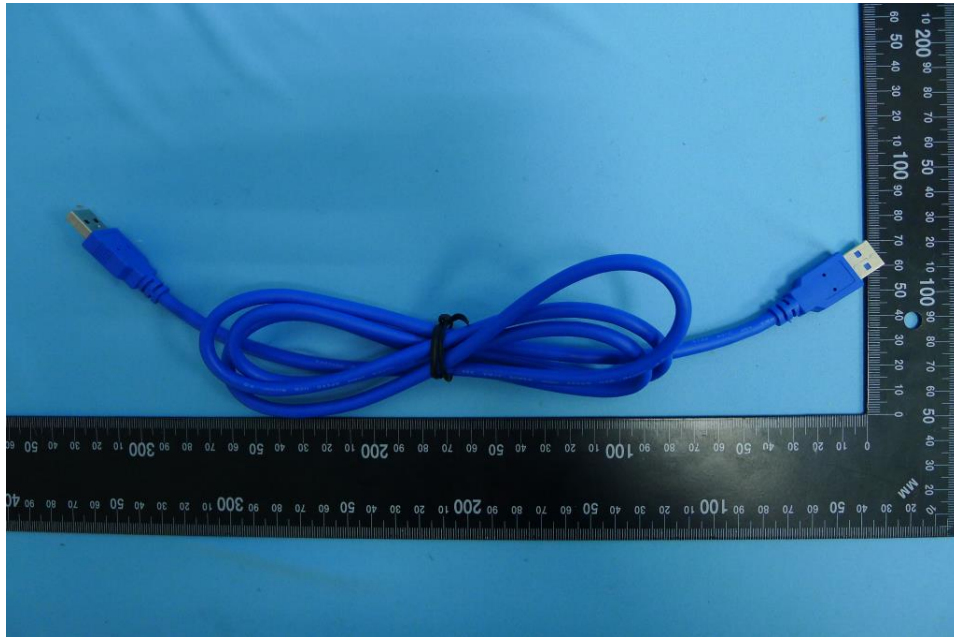
(9) EUT Photo



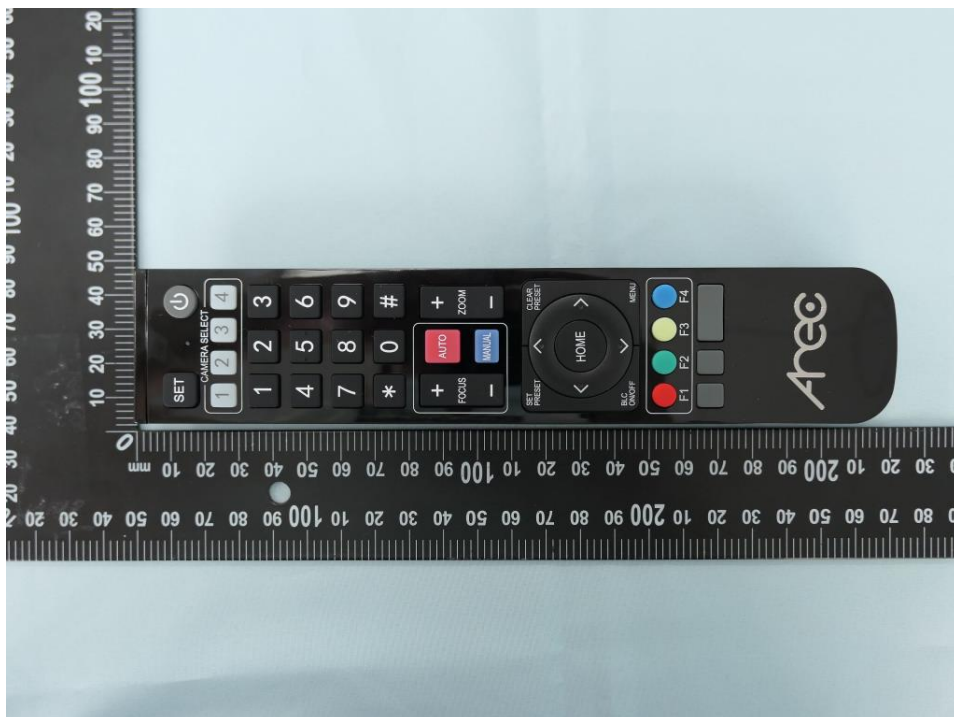
(10) EUT Photo



(11) EUT Photo



(12) EUT Photo



(13) EUT Photo



(14) EUT Photo



(15) EUT Photo



(16) EUT Photo



The End