

VINNO Technology (Suzhou) Co., Ltd.

TEST REPORT

SCOPE OF WORK:

IEC 60601-1-2: 2014 – EMC report

Model:

VINNO E20, VINNO E10, VINNO E10P,
VINNO E10E, VINNO X2, VINNO X2P,
VINNO X2E, VINNO X1, VINNO X1P,
VINNO X1E, VINNO X3

REPORT NUMBER

191100498SHA-001

ISSUE DATE

Nov 5, 2019

DOCUMENT CONTROL NUMBER

TTRF60601-1-2_V1

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TEST REPORT

Report no. 191100498SHA-001

Applicant : VINNO Technology (Suzhou) Co., Ltd.
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Park, 215123, China

Manufacturer : Same as applicant

Manufacturing site : Same as applicant

Summary

The equipment complies with the requirements according to the following standard(s) or Specification:

IEC 60601-1-2: 2014: Medical electrical equipment Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests

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Project Engineer



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Reviewer

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Revision History

| Report No. | Version | Description | Date Issued |
|------------------|---------|-------------------------|-------------|
| 191100498SHA-001 | Rev. 01 | Initial issue of report | Nov 5, 2019 |

Measurement Result Summary

| TEST ITEM | TEST RESULT | NOTE |
|---|-------------|--|
| Conducted emission | Pass | |
| Continuous disturbance power | NA | <i>The main functions of the product are not performed by motors and switching or regulating devices</i> |
| Radiation emission | Pass | |
| Harmonic current emission | Pass | |
| Voltage fluctuations and flicker | Pass | |
| Electrostatic discharge | Pass | |
| RF Electromagnetic Field | Pass | |
| Proximity fields from RF wireless communications EQUIPMENT | Pass | |
| Electrical Fast Transients | Pass | |
| Surge | Pass | |
| Conducted Disturbances Induced by RF Field | Pass | |
| Voltage dips and interruptions | Pass | |
| Power frequency magnetic field immunity | Pass | |
| Electrical transient conduction along supply line | NA | <i>The product is not intended for vehicular use</i> |

Notes: 1: NA =Not Applicable

2: Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

3: Additions, Deviations and Exclusions from Standards: None.

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1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name : ULTRASOUND DIAGNOSTIC SYSTEMS

Type/Model : VINNO E20, VINNO E10, VINNO E10P, VINNO E10E, VINNO X2, VINNO X2P, VINNO X2E, VINNO X1, VINNO X1P, VINNO X1E, VINNO X3

Ultrasound Probes : D3-6C, D3-6CE, F2-5C, F4-9E, F4-12L, G1-4P, G4-9E, G4-9M, X4-12L

Detachable parts : Ultrasound probes, ECG leads, Printer, foot switch

Description of EUT : These products are divided into eleven models: VINNO E20, VINNO E10, VINNO E10E, VINNO E10P, VINNO X3, VINNO X2, VINNO X2E, VINNO X2P, VINNO X1, VINNO X1E, VINNO X1P. The main difference between the models is software function differences, fit of different probes, minor mechanical differences, No other substantial difference. After evaluation, throughout this report VINNO E20 and VINNO X1 are tested as typical models.

| Model | Software & Function | Mechanical construction |
|---|---|---|
| VINNO E10, VINNO E10E, VINNO E10P | Part functions of VINNO E20 Supported ultrasonic probe models: same as VINNO E20 | 1)Same as VINNO E20, or 2)Same as VINNO E20 except support arm of keyboard can't be lifted |
| VINNO X3 | Part functions of VINNO E20 Supported ultrasonic probe models: same as VINNO E20 | Same as VINNO E20 |
| VINNO X2, VINNO X2E, VINNO X2P | Part functions of VINNO E20 Supported ultrasonic probe models: same as VINNO E20 | Same as VINNO E20 |
| VINNO X1, VINNO X1E, VINNO X1P | Part functions of VINNO E20 Supported ultrasonic probe models: same as VINNO E20 except model X4-12L | Same as VINNO E20 except support arm of keyboard can't be lifted and can support 15.6" monitor and 8" touch panel |
| The products with same model names except add an "E" or a "P" are same except software functions difference for commercial use. | | |

Rating : 100-240Vac, 50/60Hz, 400 VA

Trade Mark : VINNO

Category of EUT : Group 1 Class A

Intended use : Professional healthcare environment
environment

EUT type : Floor standing

Software version : 1.X.X

Firmware version : 1.X.X

Sample Number : 0190312-10-001/002

Sample received date : 2019/03/12

Date of test : 2019/03/12 ~ 2019/04/12

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1.2 Description of Test Facility

Name : Intertek Testing Services Shanghai

Address : Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China

Telephone : 86 21 61278200

Telefax : 86 21 54262353

The test facility is : CNAS Accreditation Lab
recognized, certified, Registration No. CNAS L0139
or accredited by these FCC Accredited Lab
organizations Designation Number: CN1175

IC Registration Lab
Registration code No.: 2042B-1

VCCI Registration Lab
Registration No.: R-4243, G-845, C-4723, T-2252

A2LA Accreditation Lab
Certificate Number: 3309.02

TEST REPORT**2 TEST SPECIFICATIONS****2.1 Normative references**

CISPR 11: 2009/+A1: 2010: Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement

CISPR 14-1:2005: Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission

CISPR 32: 2012: Electromagnetic compatibility of multimedia equipment – Emission requirements

IEC 61000-3-2: 2005/+A1: 2008/+A2: 2009: Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)

IEC 61000-3-3:2013, Electromagnetic compatibility (EMC) – Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection

IEC 61000-4-2: 2008: Electromagnetic Compatibility (EMC) – Part 4-2: testing and measurement techniques – Electrostatic discharge immunity test

IEC 61000-4-3: 2006/+A1:2007/+A2:2010: Electromagnetic Compatibility (EMC) – Part 4-3: testing and measurement techniques – Radiated, radio frequency, electromagnetic field immunity test

IEC 61000-4-4: 2012: Electromagnetic Compatibility (EMC) – Part 4-4: testing and measurement techniques – Electric fast transient/burst immunity test

IEC 61000-4-5: 2005: Electromagnetic Compatibility (EMC) – Part 4-5: testing and measurement techniques – Surge immunity test

IEC 61000-4-6: 2013: Electromagnetic Compatibility (EMC) – Part 4-6: testing and measurement techniques – Immunity to conducted disturbance, induced by radio frequency field.

IEC 61000-4-8: 2009: Electromagnetic Compatibility (EMC) – Part 4-8: Testing and measurement techniques — Power frequency magnetic field immunity test

IEC 61000-4-11: 2004: Electromagnetic Compatibility (EMC) – Part 4-11: testing and measurement techniques – Voltage dips, short interruption and voltage variations immunity test

ISO 7637-2: 2011: Road vehicles – Electrical disturbances from conduction and coupling – Part 2: Electrical transient conduction along supply lines only

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2.2 Frequencies in the radio-frequency (RF) range designated by ITU for use as fundamental ISM frequencies

| Centre Frequency (MHz) | Frequency range (MHz) | Maximum radiation limit |
|---|-----------------------|-------------------------|
| 6.780 | 6.765 – 6.795 | Under consideration |
| 13.560 | 13.553 – 13.567 | Unrestricted |
| 27.120 | 26.957 – 27.283 | Unrestricted |
| 40.680 | 40.66 – 40.70 | Unrestricted |
| 433.920 | 433.05 – 434.79 | Unrestricted |
| 915.000 | 902 – 928 | Unrestricted |
| 2450 | 2400 – 2500 | Unrestricted |
| 5800 | 5725 – 5 875 | Unrestricted |
| 24125 | 24 000 – 24 250 | Unrestricted |
| 61250 | 61000 – 61500 | Under consideration |
| 122500 | 122000 – 123000 | Under consideration |
| 245000 | 244000 – 246000 | Under consideration |
| Note: The term “unrestricted” applies to the fundamental and all other frequency components falling within the designated band. | | |

2.3 Variant Models

☒ The following variant models were not tested as part of this evaluation, but have been identified by the manufacturer as being electrically identical models, depopulated models, or with reasonable similarity to the model(s) tested. Intertek does not make any claims of compliance for samples or variants which were not tested.

Variant model name: VINNO E10/E10P/E10E, VINNO X2, VINNO X1P/X1E, VINNO X3

☐ No variant.

2.4 Mode of operation during the test

Within this test report, EUT was tested under following operation modes and tested under its rating voltage and frequency. Other voltage and frequency is specified if used.

2.4.1 EUT Operation Modes

| Mode # | Description |
|--------|------------------|
| 1 | “Auto scan” mode |

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2.4.2 Nominal input voltages and frequencies under test

| Input Used | Voltage (V) | Frequency (DC/AC-Hz) | Phases (No.) | Comments |
|-------------------------------------|-------------|----------------------|--------------|----------|
| <input checked="" type="checkbox"/> | 230V | AC-50 | Single | |
| <input type="checkbox"/> | 120V | AC-60 | Single | |
| <input type="checkbox"/> | 380V | AC-50 | Three | |
| <input type="checkbox"/> | | | | Others |

2.4.3 SIP/SOP and Input/output Ports

| PORT No. | Name | Type* | Cable Length | Cable Shielded (Y/N) | Comments** |
|----------|----------------------|---------|--------------|----------------------|--|
| 0 | Enclosure | N/E | — | — | |
| 1 | Mains | AC | >3m | N | Connected with power supply cord, unshielded |
| 2 | USB (5 pcs) | SIP/SOP | <3m | Y | USB port for data transmission, for connection with USB device |
| 3 | DVI | SIP/SOP | <3m | Y | DVI port for connection to external display |
| 4 | USB port for printer | SIP/SOP | <3m | Y | For connection to external printer |
| 5 | S – VIDEO | SIP/SOP | >3m | N | S-Video port for connection to external display |
| 6 | VCR audio output | SIP/SOP | >3m | N | Audio port for connection to external sound box |
| 7 | Probe | PC | <3m | N | ultrasound diagnostic |
| 8 | ECG | PC | >3m | N | Only to be used for reference purposes in normal ultrasound scanning |
| 9 | Foot switch | SIP/SOP | >3m | N | Connect to foot switch |

*Note

AC= AC Power PORT

DC = DC Power PORT

Batt=Battery

N/E = Non-Electrical

SIP/SOP= SIGNAL INPUT/OUTPUT PORT

PC – PATIENT-Coupled Cable

TP= Telecommunication Ports IC = Interconnecting cable

**Note

SIP/SOP lines must include description of use.

PATIENT-coupled cable termination must be described.

Interconnecting cables – describe construction details, ferrites, etc.

2.5 Test peripherals and accessory equipment used

| Item No | Peripheral and accessory | Manufacturer | Model | Description |
|---------|--------------------------|--------------|-------|--------------------------------|
| 1 | Simulator | - | - | Physiological signal simulator |
| 2 | Simulator | - | - | Artificial hand and RC element |

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2.6 Record of climatic conditions

| Test Item | Temperature (°C) | Relative Humidity (%) | Pressure (Kpa) |
|--|------------------|-----------------------|----------------|
| Conducted emission | 24 | 42 | NA |
| Continuous disturbance power | NA | NA | NA |
| Radiation emission | 24 | 42 | NA |
| Harmonic current emission | 24 | 42 | NA |
| Voltage fluctuations and flicker | 24 | 42 | NA |
| Electrostatic discharge | 24 | 42 | 101.0 |
| RF Electromagnetic Field | 24 | 42 | NA |
| Proximity fields from RF wireless communications EQUIPMENT | 24 | 42 | NA |
| Electrical Fast Transients | 24 | 42 | NA |
| Surge | 24 | 42 | NA |
| Conducted Disturbances Induced by RF Field | 24 | 42 | NA |
| Voltage dips and interruptions | 24 | 42 | NA |
| Power frequency magnetic field immunity | 24 | 42 | NA |
| Electrical transient conduction along supply line | NA | NA | NA |

Notes: NA =Not Applicable

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2.7 Instrument list

| Conducted Emission | | | | | |
|---|-------------------------|-------------------|---------------|--------------|------------|
| Used | Equipment | Manufacturer | Type | Internal no. | Due date |
| <input checked="" type="checkbox"/> | Test Receiver | R&S | ESCS 30 | EC 2107 | 2019-07-15 |
| <input checked="" type="checkbox"/> | A.M.N. | R&S | ESH2-Z5 | EC 3119 | 2019-11-29 |
| Radiated Emission | | | | | |
| Used | Equipment | Manufacturer | Type | Internal no. | Due date |
| <input checked="" type="checkbox"/> | Test Receiver | R&S | ESIB 26 | EC 3045 | 2019-09-12 |
| <input checked="" type="checkbox"/> | Bilog Antenna | TESEQ | CBL 6112D | EC 4206 | 2019-06-10 |
| Harmonics / Flicker / Low-frequency immunity test | | | | | |
| Used | Equipment | Manufacturer | Type | Internal no. | Due date |
| <input checked="" type="checkbox"/> | Harmonic-flicker | CI | 5001ix-PACS-1 | EC 2110 | 2019-12-11 |
| ESD | | | | | |
| Used | Equipment | Manufacturer | Type | Internal no. | Due date |
| <input checked="" type="checkbox"/> | ESD generator | TESEQ | NSG 437 | EC 4792-4 | 2020-03-27 |
| EFT/Surge Voltage Dips | | | | | |
| Used | Equipment | Manufacturer | Type | Internal no. | Due date |
| <input checked="" type="checkbox"/> | Conduct immunity system | EM TEST | UCS 500M6B | EC 2958 | 2020-04-02 |
| <input checked="" type="checkbox"/> | Automatic transformer | EM TEST | MV2616 | EC 2957 | 2020-04-02 |
| <input checked="" type="checkbox"/> | Capacity clamp | EM TEST | HFK | EC 2959 | 2020-02-21 |
| Conducted Immunity | | | | | |
| Used | Equipment | Manufacturer | Type | Internal no. | Due date |
| <input checked="" type="checkbox"/> | Signal generator | R&S | SML 01 | EC 2338 | 2019-09-12 |
| <input checked="" type="checkbox"/> | Power amplifier | AR | 75A250 | EC 3043-1 | 2019-07-15 |
| <input checked="" type="checkbox"/> | Attenuator | EM TEST | ATT6/75 | EC 3043-3 | 2020-02-11 |
| <input checked="" type="checkbox"/> | CDN | Frankonia | CDN M2M316 | EC 5969 | 2020-03-28 |
| <input checked="" type="checkbox"/> | EM clamp | EM TEST | EM 101 | EC 3043-6 | 2019-11-29 |
| Radiated Immunity | | | | | |
| Used | Equipment | Manufacturer | Type | Internal no. | Due date |
| <input checked="" type="checkbox"/> | Signal generator | R&S | SMR 20 | EC 3044-1 | 2020-01-13 |
| <input checked="" type="checkbox"/> | Power amplifier | AR | 250W1000B | EC 5818-2 | 2020-04-14 |
| <input checked="" type="checkbox"/> | Power amplifier | BONN | BLMA1060-100 | EC 5818-4 | 2020-04-14 |
| <input checked="" type="checkbox"/> | Log-period antenna | AR | AT 1080 | EC 3044-7 | 2020-03-04 |
| <input type="checkbox"/> | Horn antenna | Schwarzbeck | STLP 9149 | EC5881 | 2019-06-19 |
| <input checked="" type="checkbox"/> | Field meter | AR | FL17000 | EC 5818-1 | 2019-05-21 |
| <input checked="" type="checkbox"/> | Power sensor | Keysight | N1914A | EC 5818-3 | 2020-04-14 |
| Test Site | | | | | |
| Used | Equipment | Manufacturer | Type | Internal no. | Due date |
| <input checked="" type="checkbox"/> | Shielded room | Zhongyu | - | EC 2838 | 2020-01-13 |
| <input checked="" type="checkbox"/> | Shielded room | Zhongyu | - | EC 2839 | 2020-01-13 |
| <input checked="" type="checkbox"/> | Semi-anechoic chamber | Albatross project | - | EC 3048 | 2019-07-31 |
| <input checked="" type="checkbox"/> | Fully-anechoic chamber | Albatross project | - | EC 3047 | 2019-07-31 |

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2.8 Measurement Uncertainty

| Measurement | Frequency | Expanded Uncertainty (k=2) (\pm) |
|--|----------------|---|
| Conducted emission at mains ports | 9kHz ~ 150kHz | 3.52 dB |
| | 150kHz ~ 30MHz | 3.19 dB |
| Continuous disturbance voltage at telecom ports | 150kHz ~ 30MHz | 3.64 dB |
| Continuous disturbance current at telecom ports | 150kHz ~ 30MHz | 2.62 dB |
| Radiated Emissions up to 1 GHz | 30MHz ~ 1GHz | 4.90 dB |
| Radiated Emissions above 1 GHz | 1GHz ~ 6GHz | 5.02 dB |
| | 6GHz ~ 18GHz | 5.28 dB |
| Harmonic current emission | - | 3.90% |
| Voltage fluctuations and flicker | - | 10.34% |

3 Conducted emission

Test result: Pass

3.1 Limits

3.1.1 Limits of Mains terminal disturbance voltage limits for class A group 1 equipment measured on a test site

| Frequency range (MHz) | Rated input power of ≤ 20 kVA | | Rated input power of > 20 kVA | |
|-----------------------|------------------------------------|----------------------|--|----------------------|
| | Quasi-peak (dB μ V) | Average (dB μ V) | Quasi-peak (dB μ V) | Average (dB μ V) |
| 0.15 ~ 0.5 | 79 | 66 | 100 | 90 |
| 0.5 ~ 5 | 73 | 60 | 86 | 76 |
| 5 ~ 30 | 73 | 60 | 90 decreasing linearly with logarithm of frequency to 73 | 80 60 |

Note:

1. If the limit for the measurement with the average detector is met when using a receiver with a Quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.

2. High-frequency (HF) surgical equipment shall meet the limits of Clause 3.1.1 or 3.1.2 specified for group 1 equipment, in stand-by mode of operation. For high-frequency (HF) surgical equipment operating at frequencies outside designated ISM bands as specified in Clause 2.2, these limits also apply at the operating frequency and inside the designated frequency bands.

3.1.2 Limits of Mains terminal disturbance voltage for class B group 1 and group 2 equipment measured on a test site

| Frequency range (MHz) | Quasi-peak (dB μ V) | Average (dB μ V) |
|-----------------------|--|----------------------|
| 0.15 ~ 0.5 | 66 | 56 |
| | decreasing linearly with logarithm of frequency to | |
| | 56 | 46 |
| 0.5 ~ 5 | 56 | 46 |
| 5 ~ 30 | 60 | 50 |

Note:

1. If the limit for the measurement with the average detector is met when using a receiver with a Quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.

2. High-frequency (HF) surgical equipment shall meet the limits of Clause 3.1.1 or 3.1.2 specified for group 1 equipment, in stand-by mode of operation. For high-frequency (HF) surgical equipment operating at frequencies outside designated ISM bands as specified in Clause 2.2, these limits also apply at the operating frequency and inside the designated frequency bands.

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3.1.3 Limits of Mains terminal disturbance voltage for class A group 2 equipment measured on a test site

| Frequency range (MHz) | Rated input power of ≤ 75 kVA | | Rated input power of > 75 kVA | |
|--------------------------|--|-------------------------|---------------------------------|-------------------------|
| | Quasi-peak (dB μ V) | Average (dB μ V) | Quasi-peak (dB μ V) | Average (dB μ V) |
| 0.15 ~ 0.5 | 100 | 90 | 130 | 120 |
| 0.5 ~ 5 | 86 | 76 | 125 | 115 |
| 5 ~ 30 | 90 decreasing linearly with logarithm of frequency to 73 | 80 60 | 115 | 105 |

Note: If the limit for the measurement with the average detector is met when using a receiver with a Quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.

3.1.4 Limits of Mains terminal disturbance voltage for group 1 and group 2 class A equipment measured *in situ*

☐ For group 1 class A or class B PERMANENTLY INSTALLED LARGE ME EQUIPMENT and LARGE ME SYSTEMS tested in situ shall comply with the CISPR 11 limits for equipment measured on a test site. The limit specified in Clause 3.1.1 or 3.1.3 shall be selected.

3.1.5 Limits of ME EQUIPMENT whose main functions are performed by motors and switching or regulating devices

3.1.5.1 For mains terminal of electric power tools

| Frequency | Rated motor power not exceeding 700W | | Rated motor power above 700W and not exceeding 1000W | | Rated motor power above 1000W | |
|-----------|--------------------------------------|---------|--|---------|-------------------------------|---------|
| (MHz) | dB(μ V) | | dB(μ V) | | dB(μ V) | |
| | Quasi-Peak | Average | Quasi-Peak | Average | Quasi-Peak | Average |
| 0.15~0.35 | 66~59* | 59~49* | 70~63* | 63~53* | 76~69* | 69~59* |
| 0.35~5 | 59 | 49 | 63 | 53 | 69 | 59 |
| 5~30 | 64 | 54 | 68 | 58 | 74 | 64 |

Notes :

- * means the limit value decreasing linearly with the logarithm of the frequency.
- If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.

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3.1.5.2 For mains terminal of other appliance

| Frequency range (MHz) | Limits dB(μ V) | |
|--------------------------|---------------------|-----------|
| | Quasi-peak | Average |
| 0.15 ~ 0.5 | 66 ~ 56 * | 59 ~ 46 * |
| 0.5 ~ 5 | 56 | 46 |
| 5 ~ 30 | 60 | 50 |

Notes:

- * means the limit decreasing linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.
- If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.

3.1.5.3 Limits for Load /Additional Terminal

| Frequency range (MHz) | Limits dB(μ V) | |
|--------------------------|---------------------|---------|
| | Quasi-peak | Average |
| 0.15 ~ 0.5 | 80 | 70 |
| 0.5 ~ 5 | 74 | 64 |
| 5 ~ 30 | 74 | 64 |

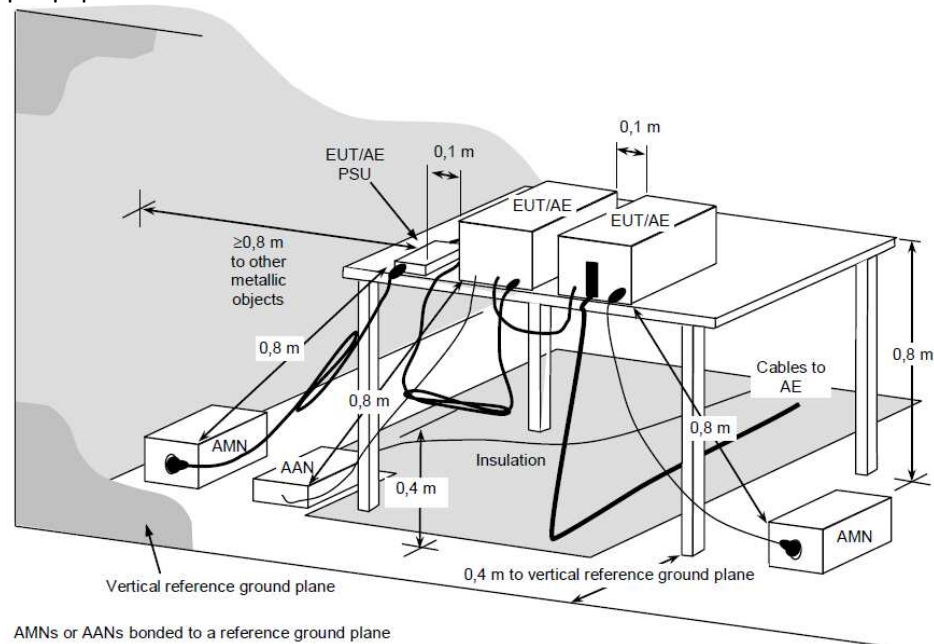
Notes:

- If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.

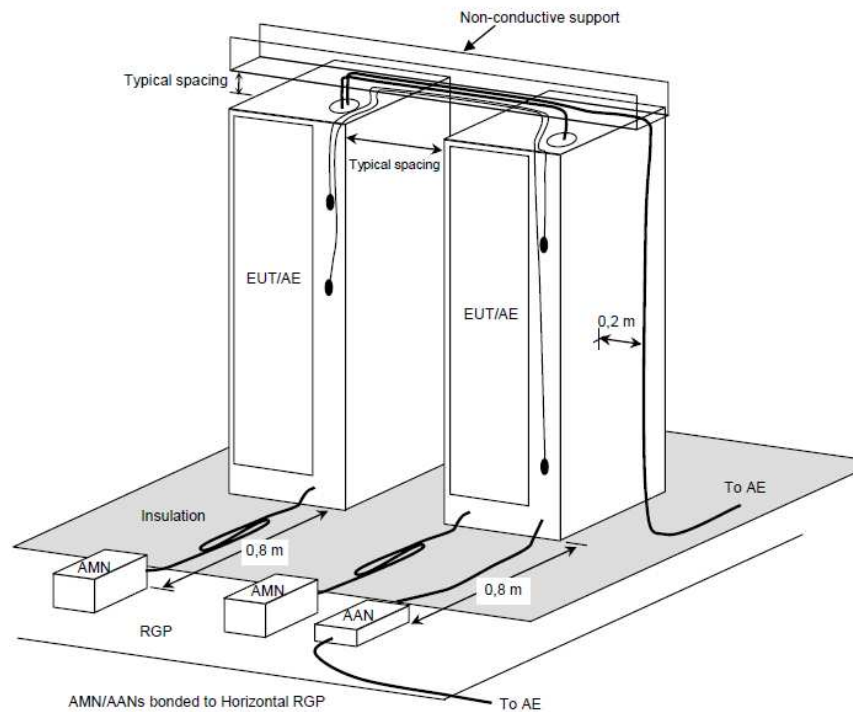
TEST REPORT

3.2 Block diagram of test setup

For table-top equipment



For floor standing equipment



TEST REPORT

3.3 Test Procedure

Measurement was performed in shielded room, and instruments used were following Clause 7 of CISPR 11.

Detailed test procedure was following Clause 8 of CISPR 11

EUT arrangement and operation conditions were according to Clause 7 of CISPR 11.

Frequency range 150kHz-30MHz was checked and EMI receiver measurement bandwidth was set to 9 kHz.

For ME EQUIPMENT whose main functions are performed by motors and switching or regulating devices:

Measurement was performed in shielded room, and instruments used were following Clause 5 of CISPR 14-1 if applicable.

Detailed test procedure and arrangement was following clause 5 of CISPR 14-1.

Measurement methods and operation conditions of EUT was according to clause 7 of CISPR 14-1.

TEST REPORT

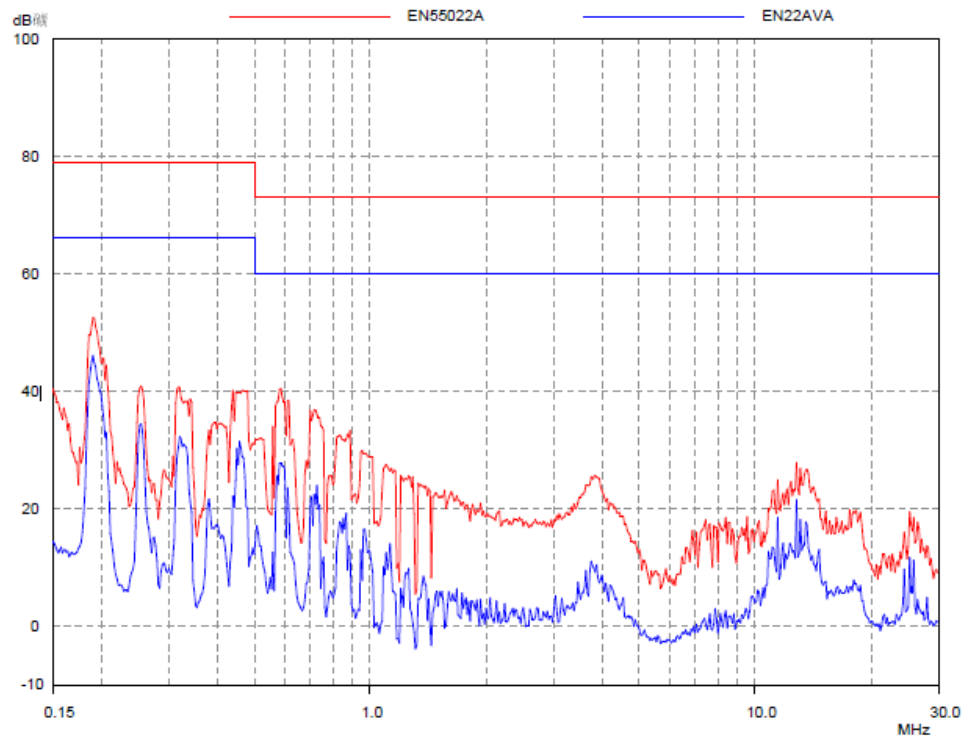
3.4 Test Result

Test Curve & data:

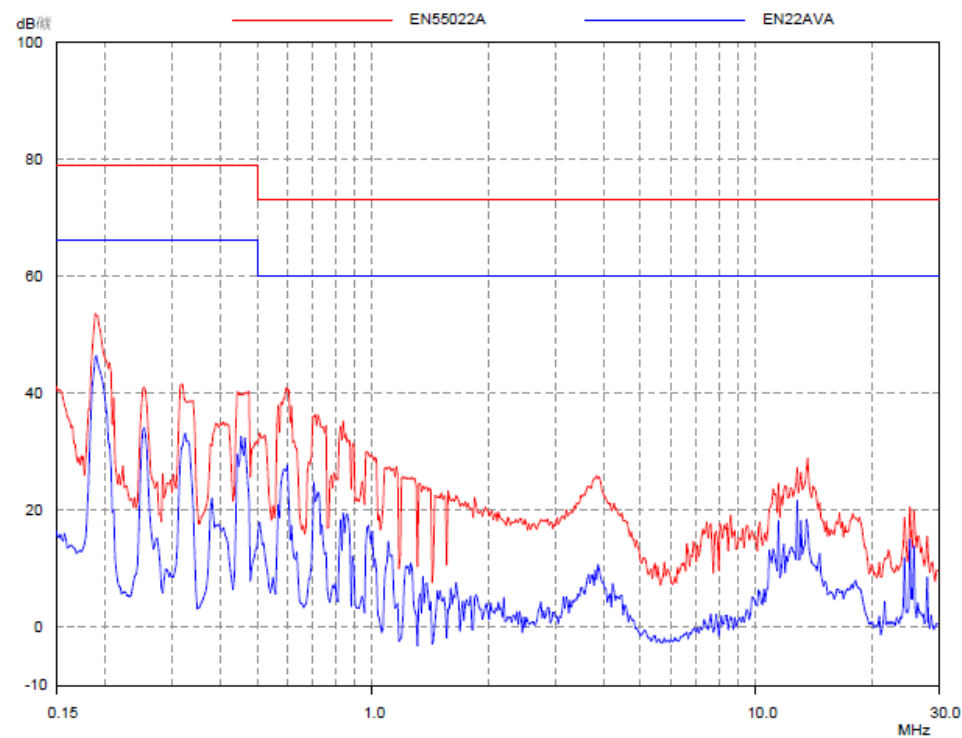
VINNO E20

Test with Probe: D3-6C

L line



N line



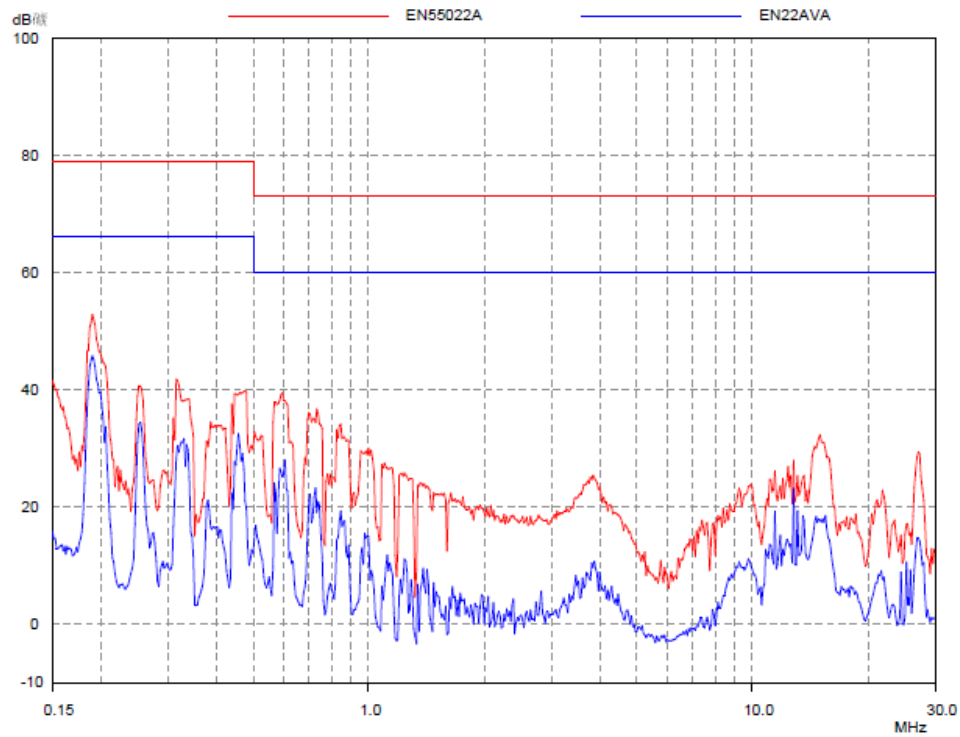
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------------|-----------------------|----------------|--------------------------------------|-----------------------|----------------|------|
| | Corrected Reading (dB μ V) | Limit (dB μ V) | Margin (dB) | Corrected Reading (dB μ V) | Limit (dB μ V) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

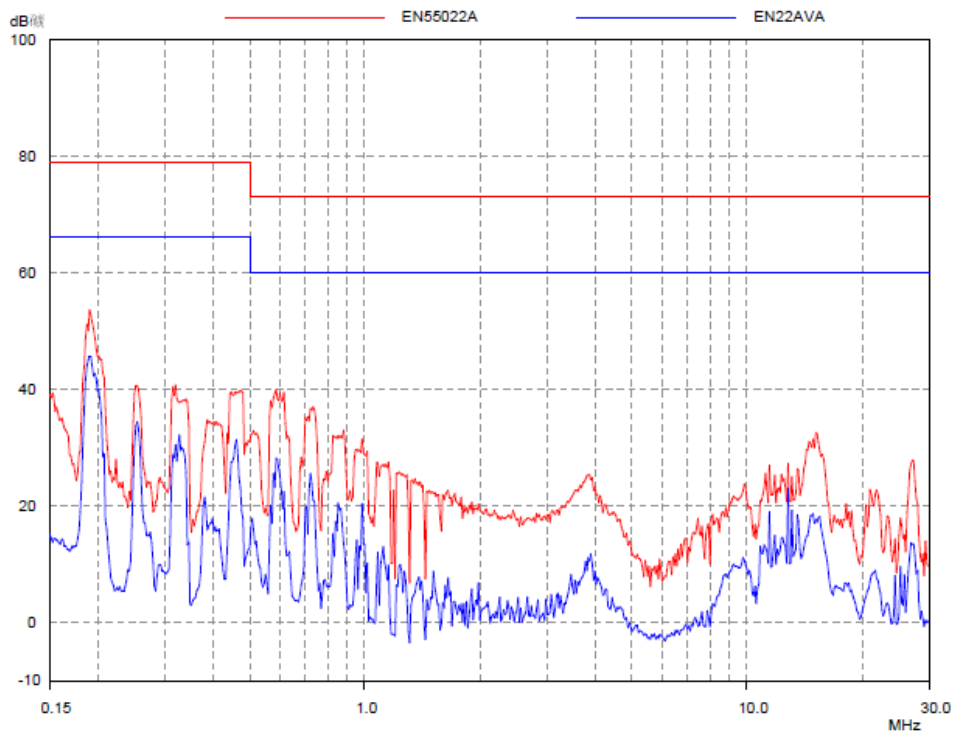
TEST REPORT

Test with Probe: D3-6CE

L line



N line



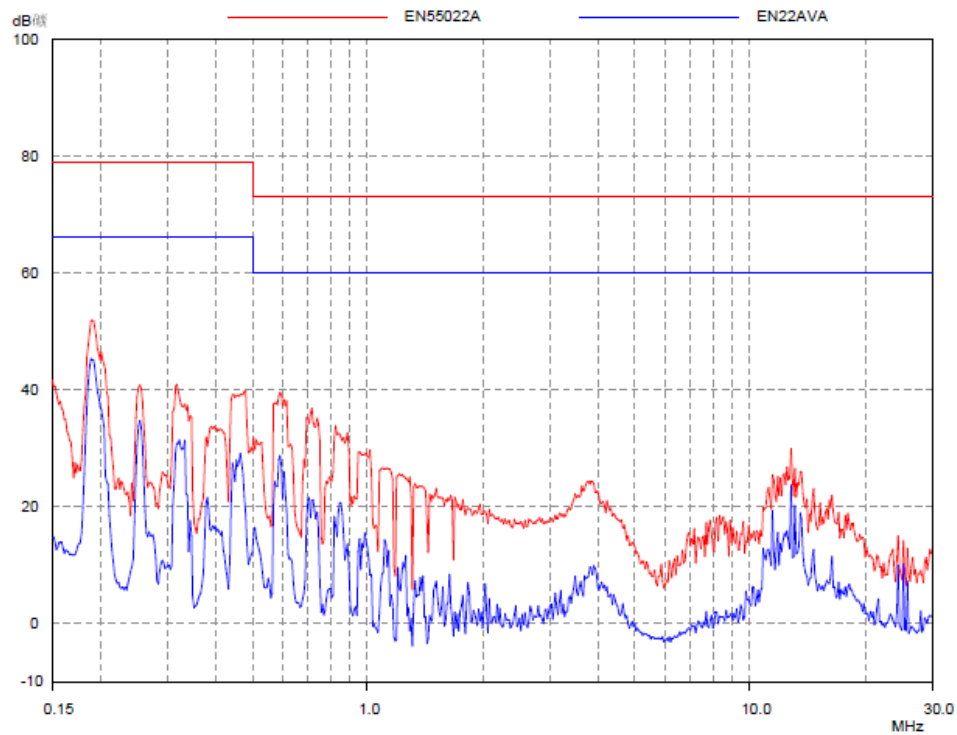
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

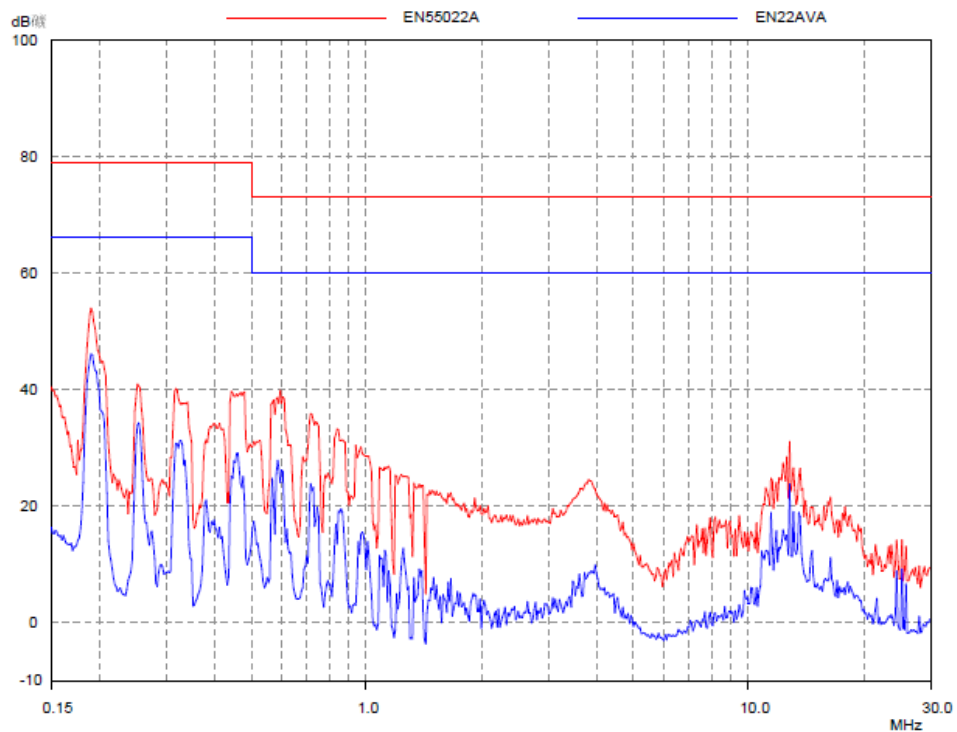
TEST REPORT

Test with Probe: F2-5C

L line



N line



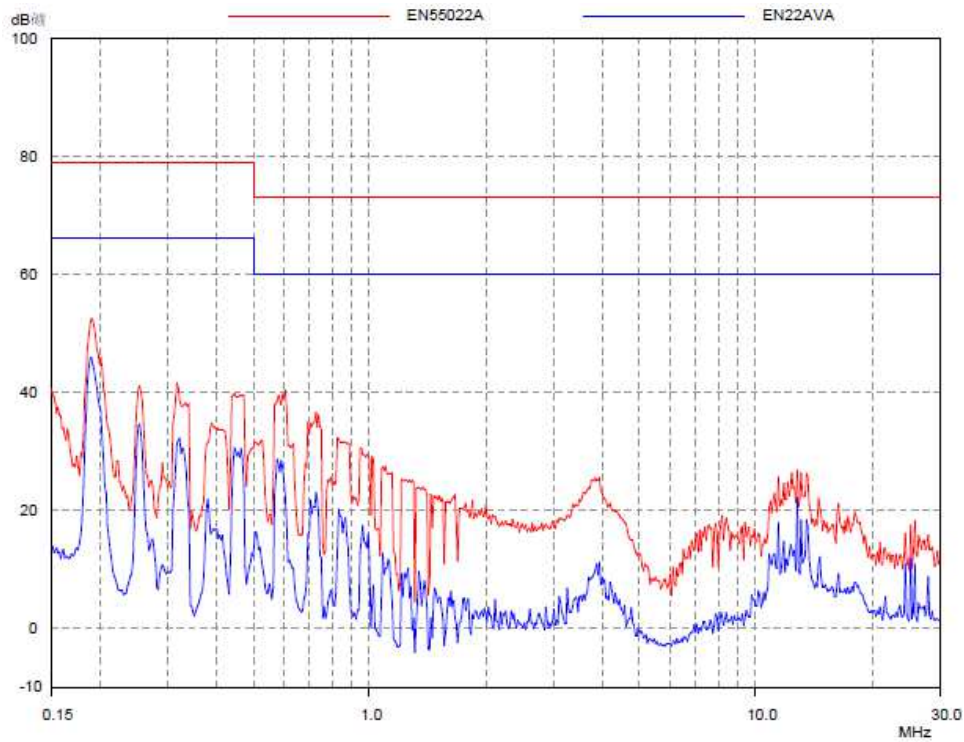
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

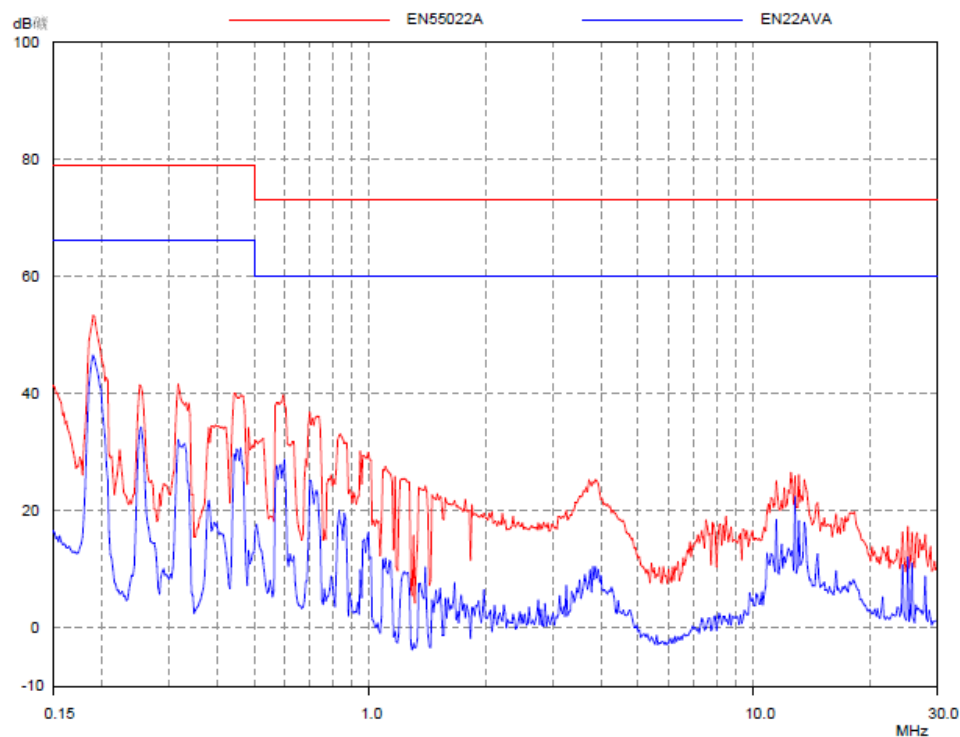
TEST REPORT

Test with Probe: F4-9E

L line



N line



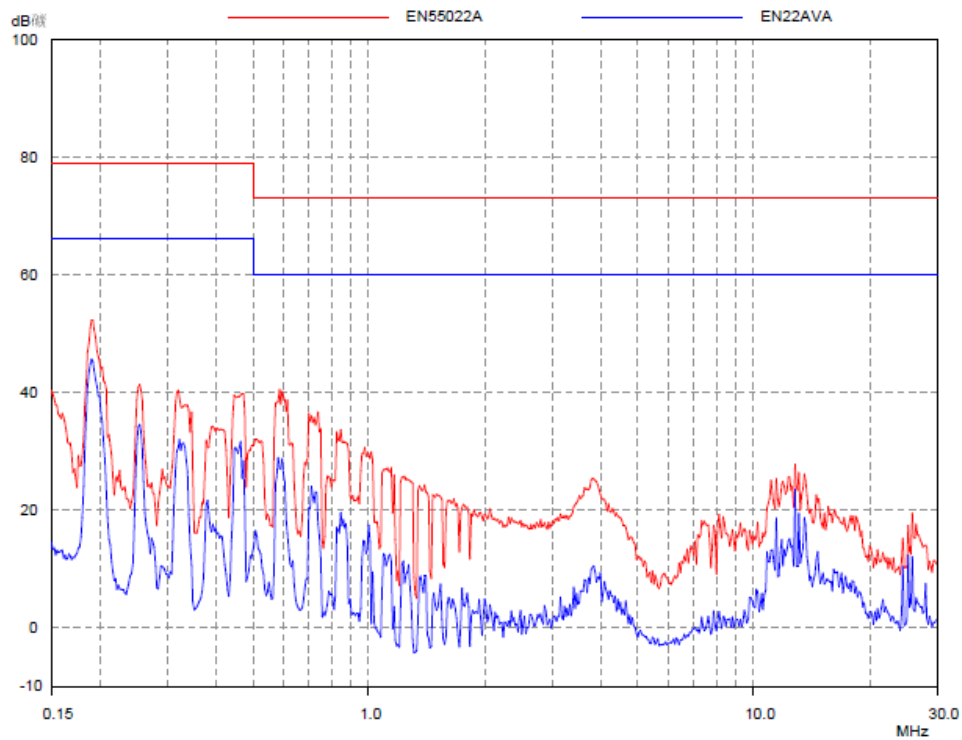
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

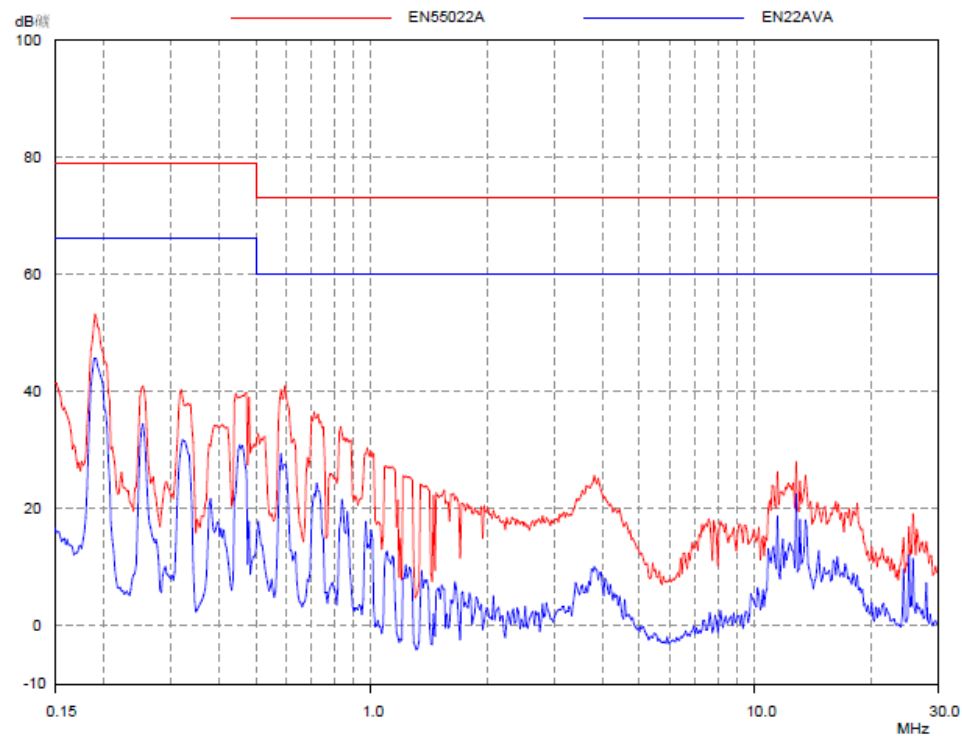
TEST REPORT

Test with Probe: F4-12L

L line



N line



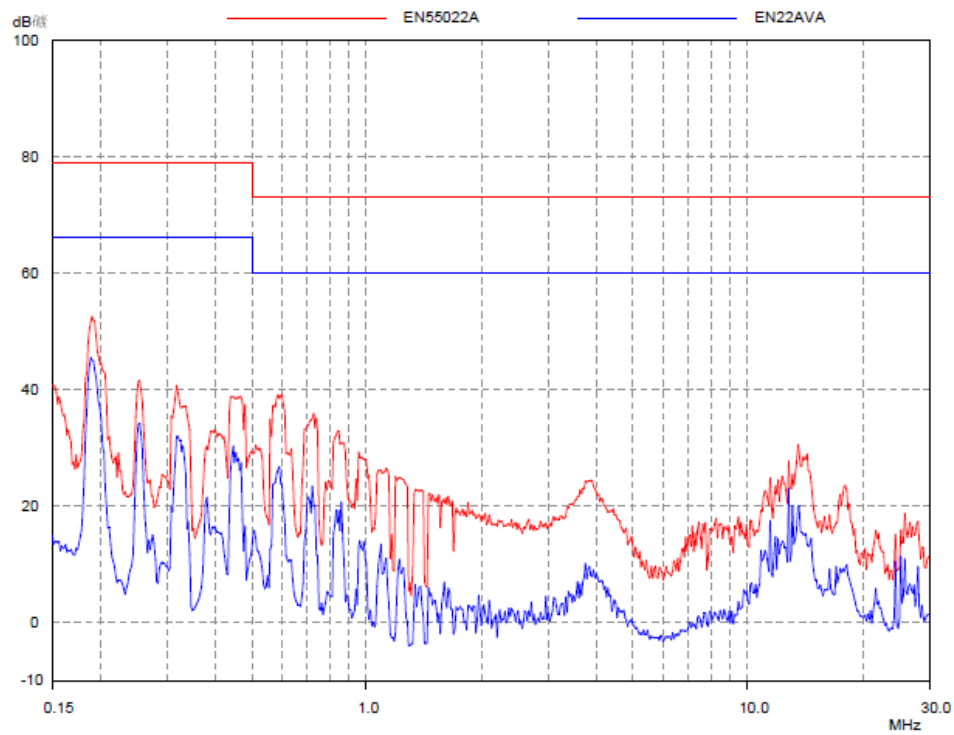
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

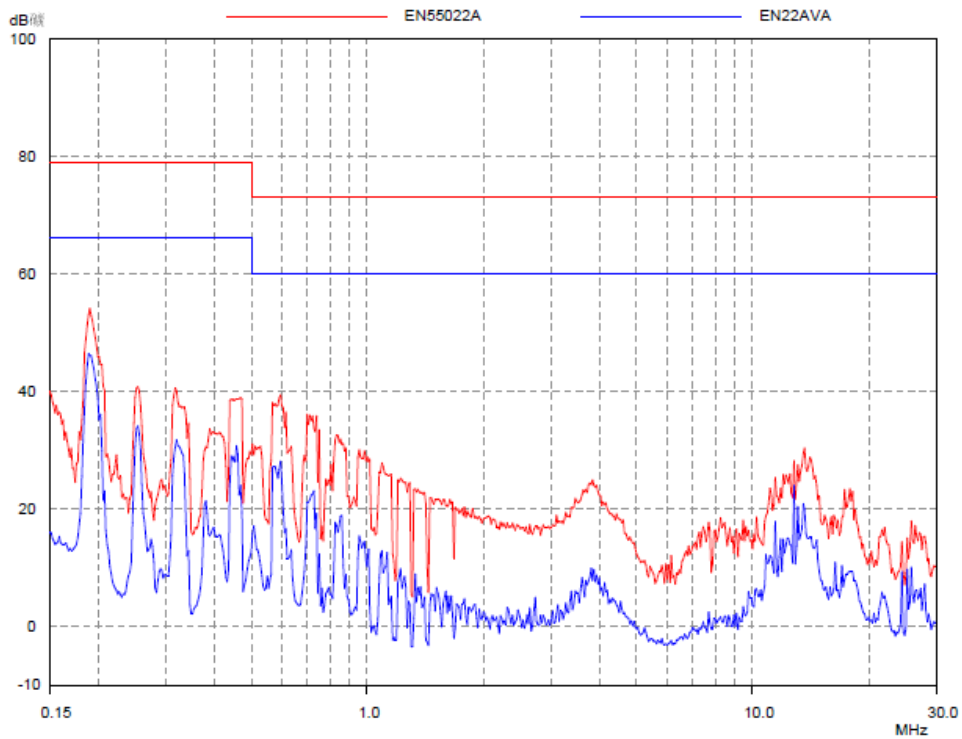
TEST REPORT

Test with Probe: G1-4P

L line



N line



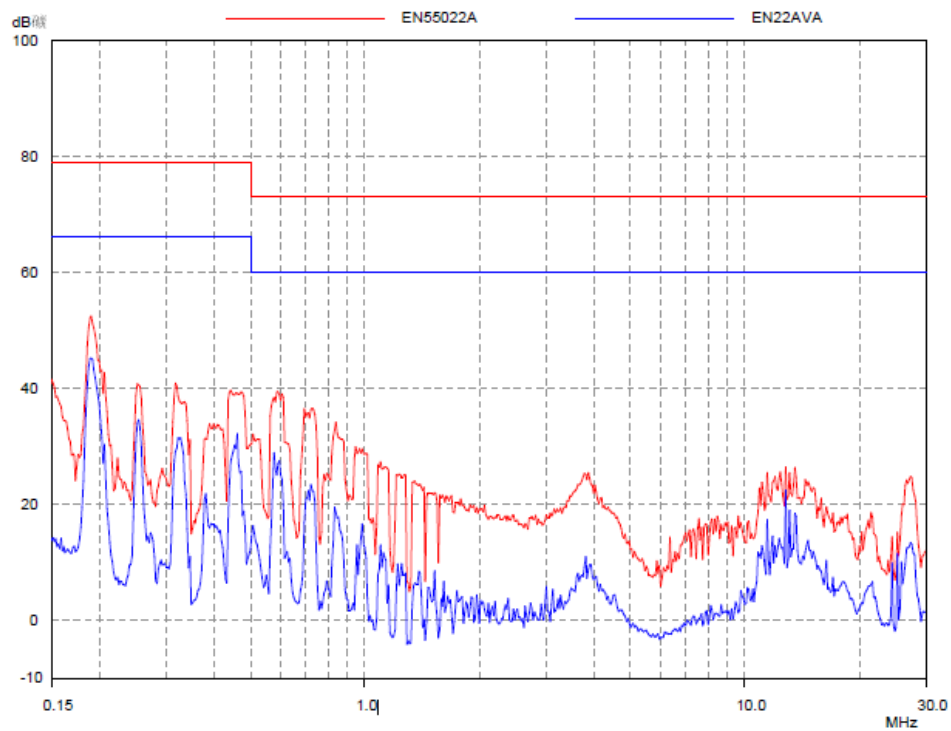
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

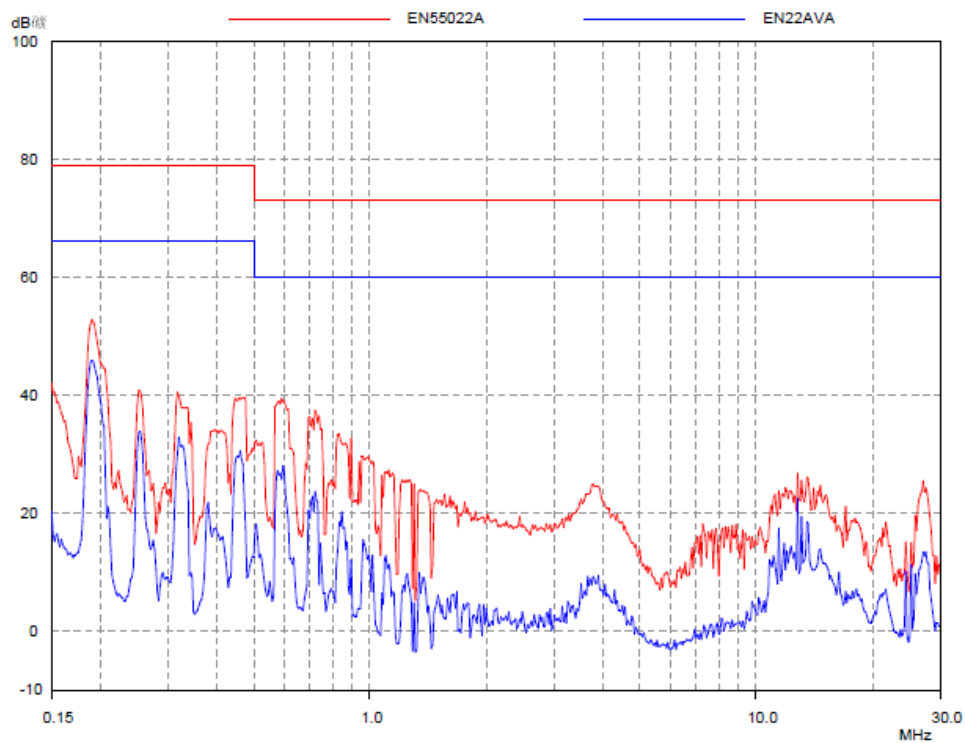
TEST REPORT

Test with Probe: G4-9E

L line



N line



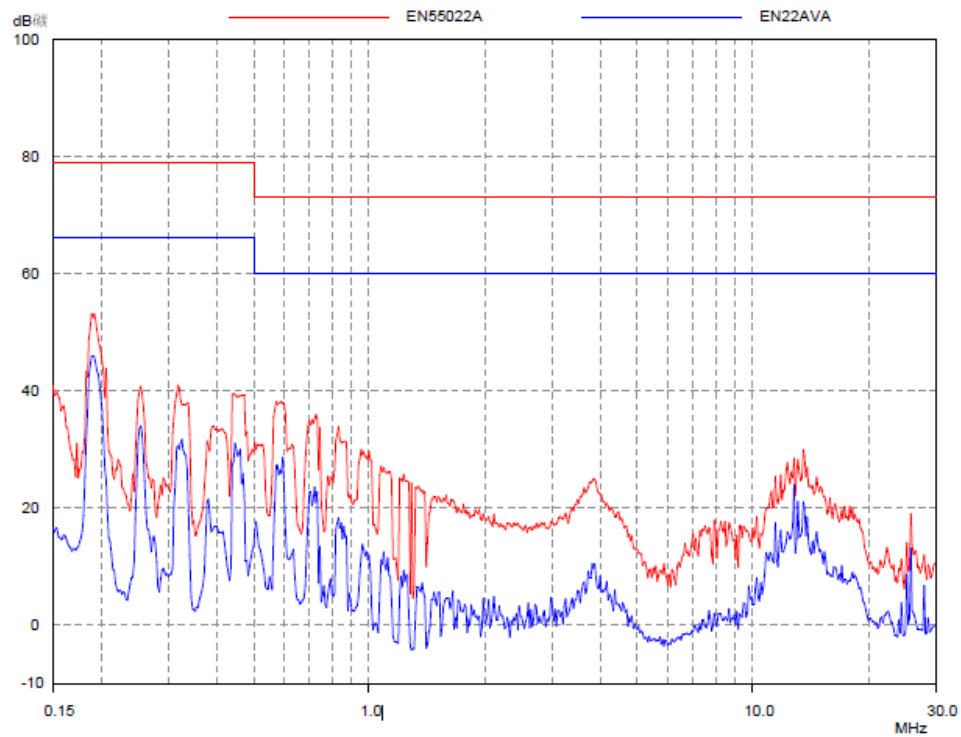
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

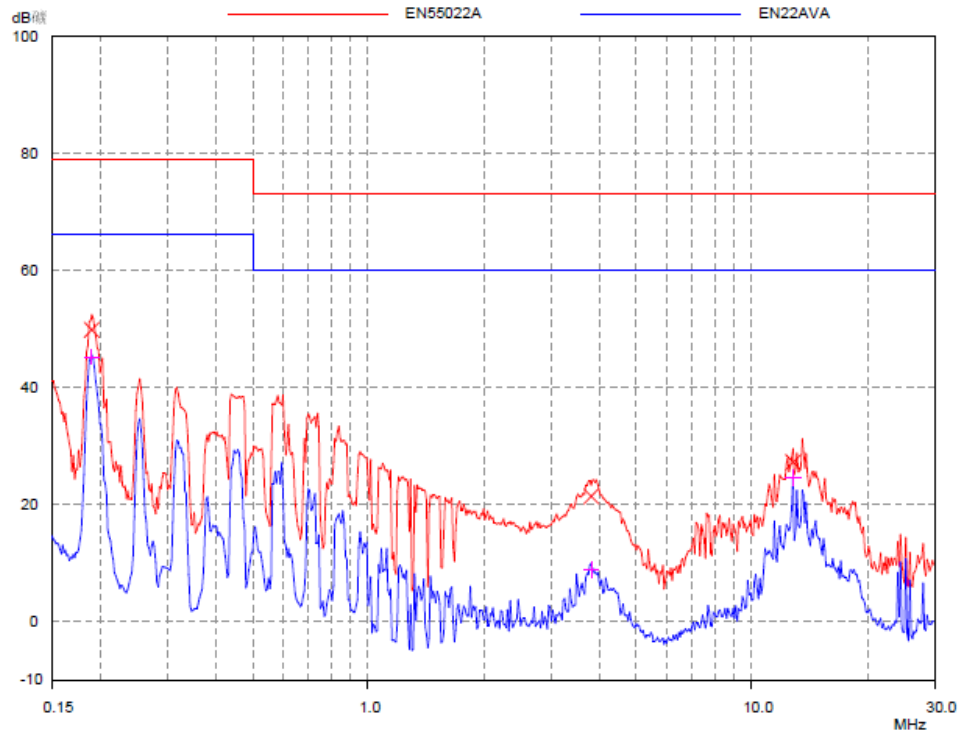
TEST REPORT

Test with Probe: G4-9M

L line



N line



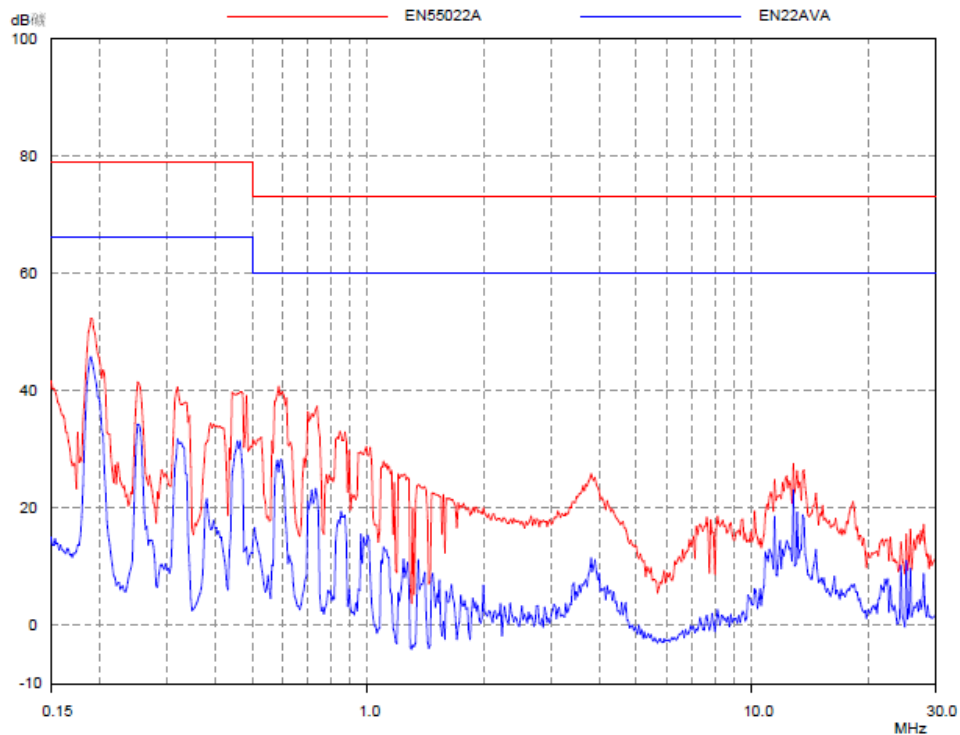
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------------|-----------------------|----------------|--------------------------------------|-----------------------|----------------|------|
| | Corrected Reading (dB μ V) | Limit (dB μ V) | Margin (dB) | Corrected Reading (dB μ V) | Limit (dB μ V) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

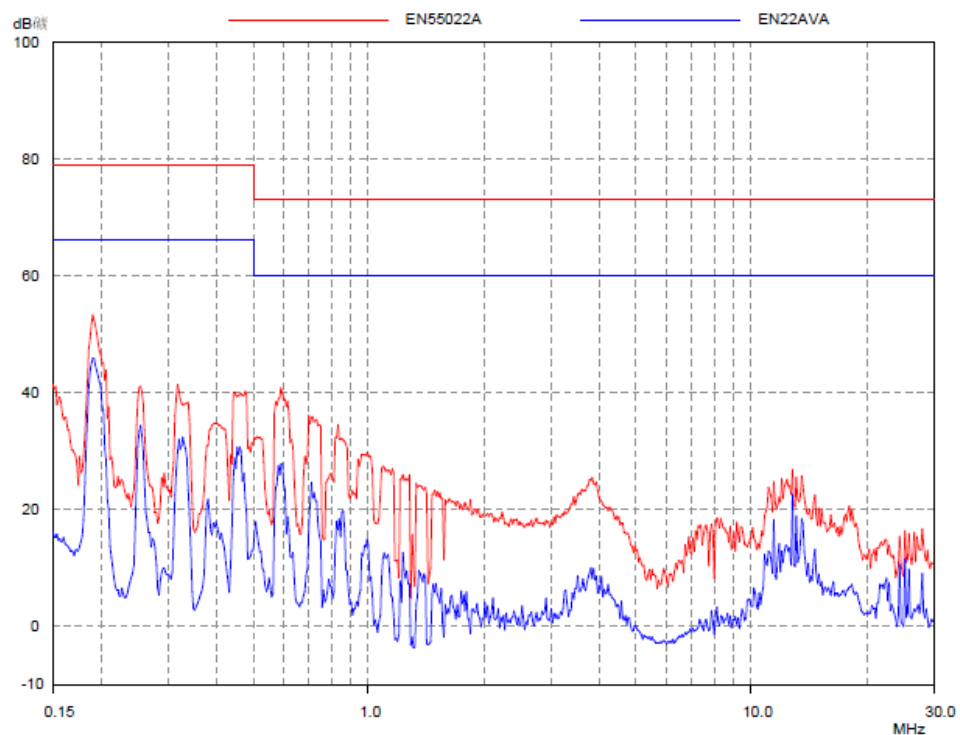
TEST REPORT

Test with Probe: X4-12L

L line



N line



TEST REPORT

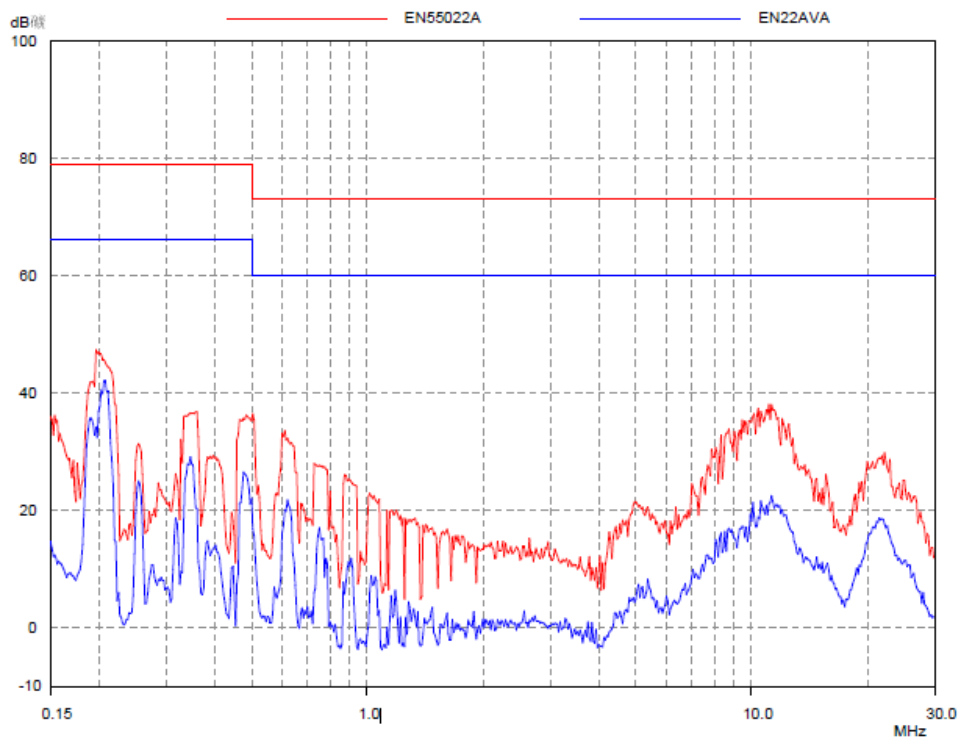
| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------------|-----------------------|----------------|--------------------------------------|-----------------------|----------------|------|
| | Corrected Reading (dB μ V) | Limit (dB μ V) | Margin (dB) | Corrected Reading (dB μ V) | Limit (dB μ V) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

TEST REPORT

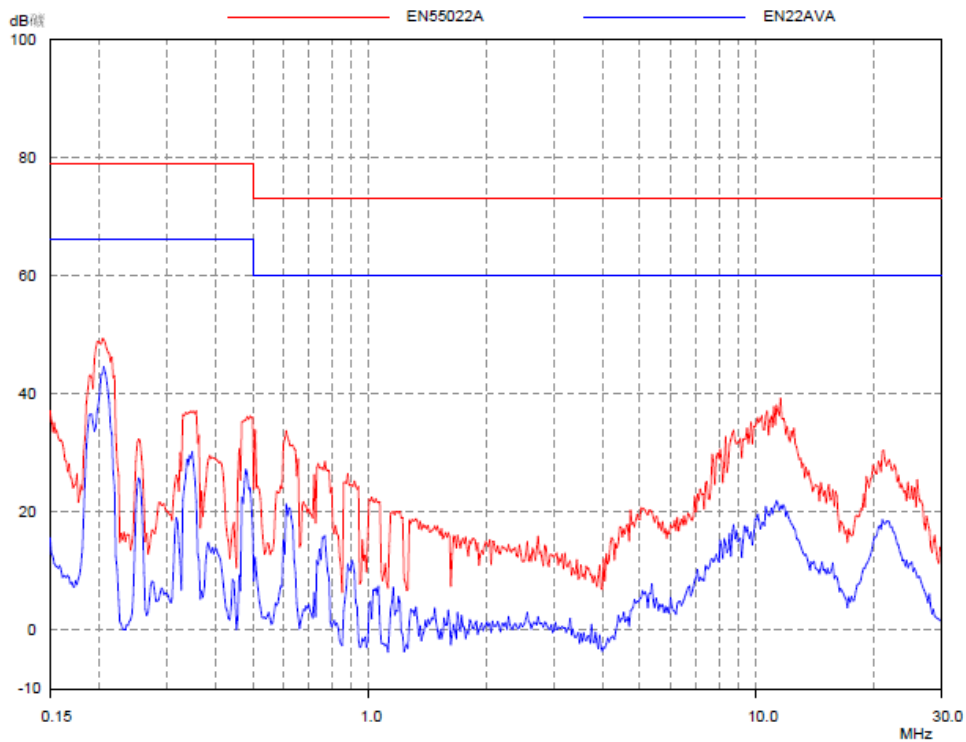
VINNO X1

Test with Probe: D3-6C

L line



N line



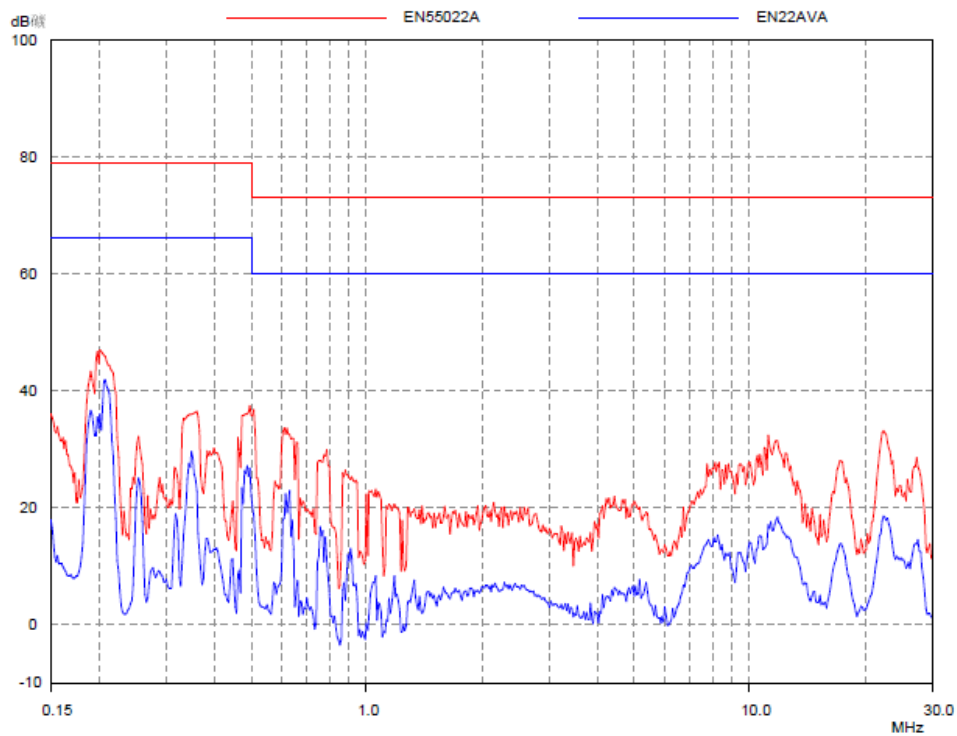
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

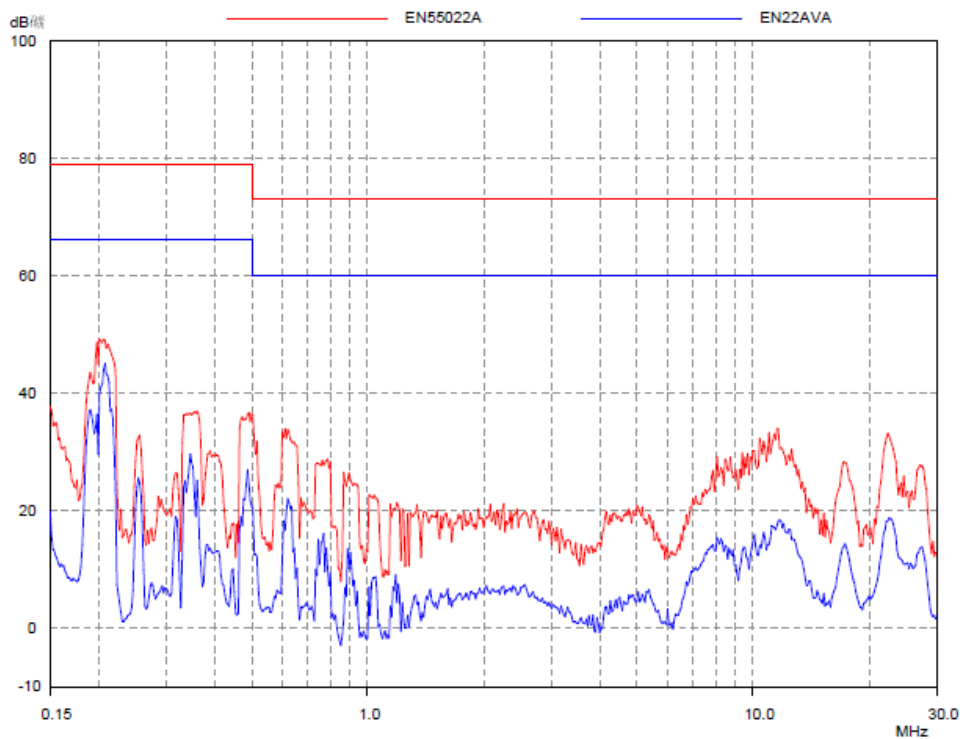
TEST REPORT

Test with Probe: D3-6CE

L line



N line



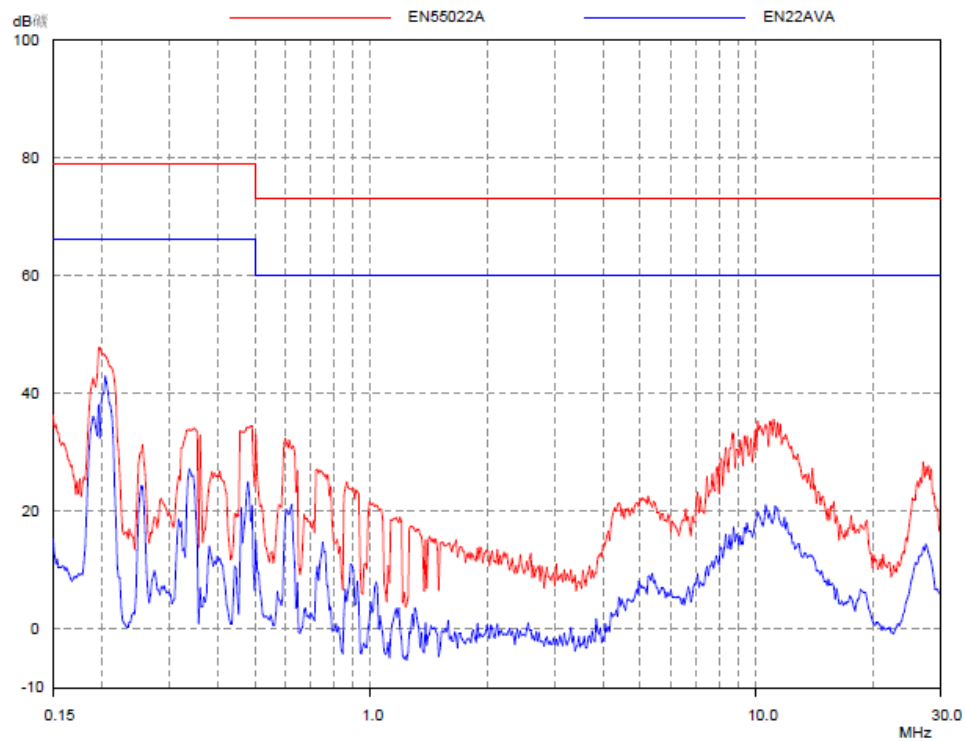
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

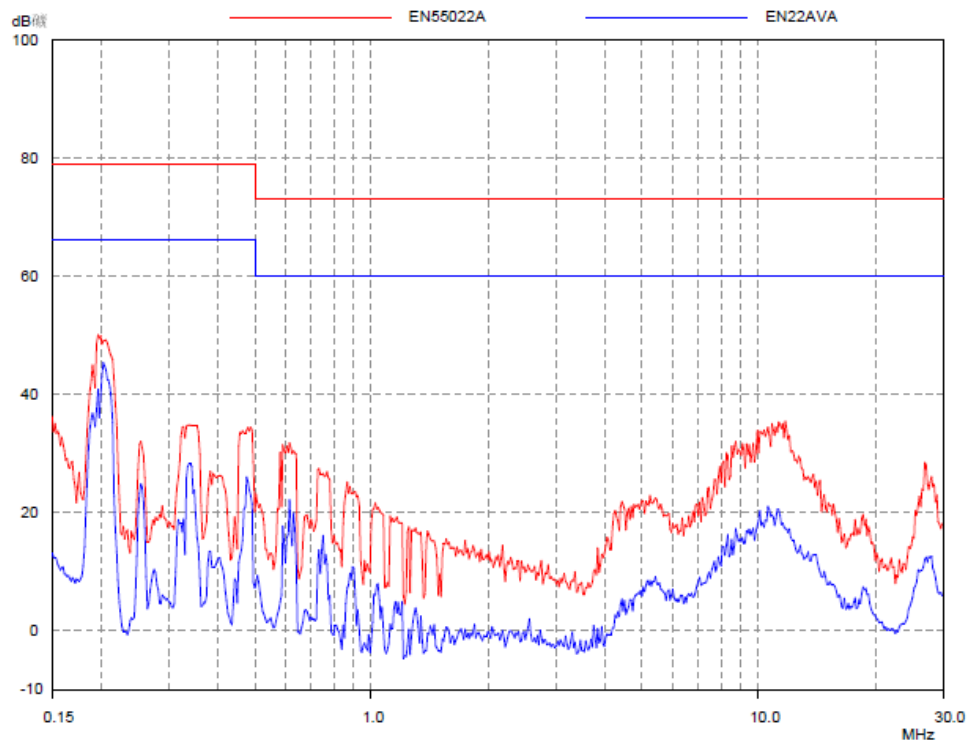
TEST REPORT

Test with Probe: F2-5C

L line



N line



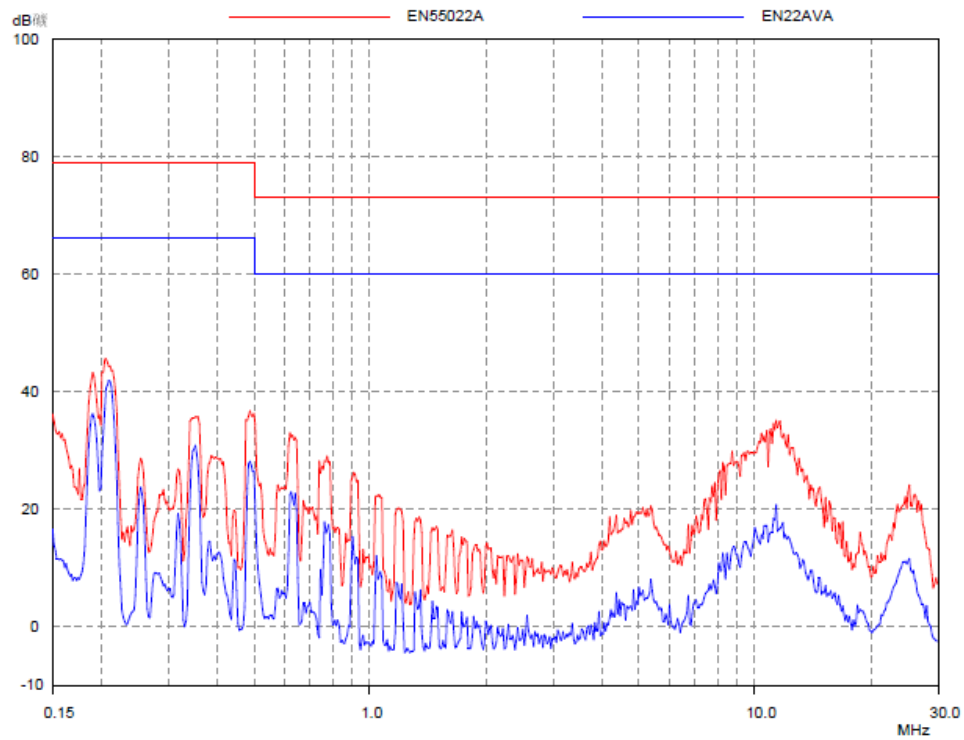
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------------|-----------------------|----------------|--------------------------------------|-----------------------|----------------|------|
| | Corrected Reading (dB μ V) | Limit (dB μ V) | Margin (dB) | Corrected Reading (dB μ V) | Limit (dB μ V) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

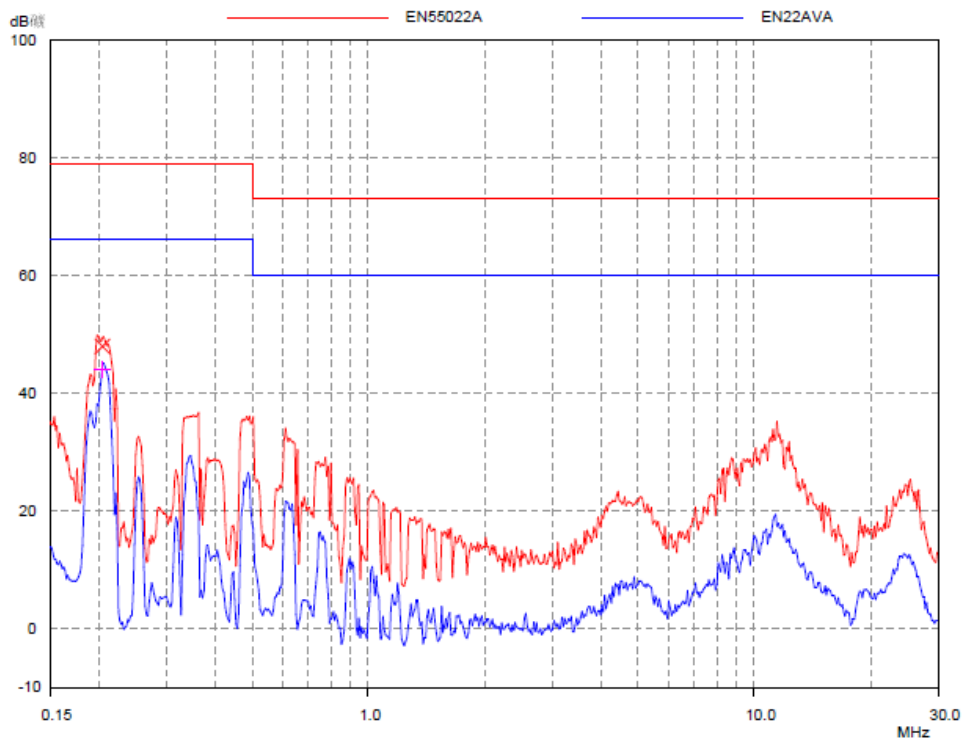
TEST REPORT

Test with Probe: F4-9E

L line



N line



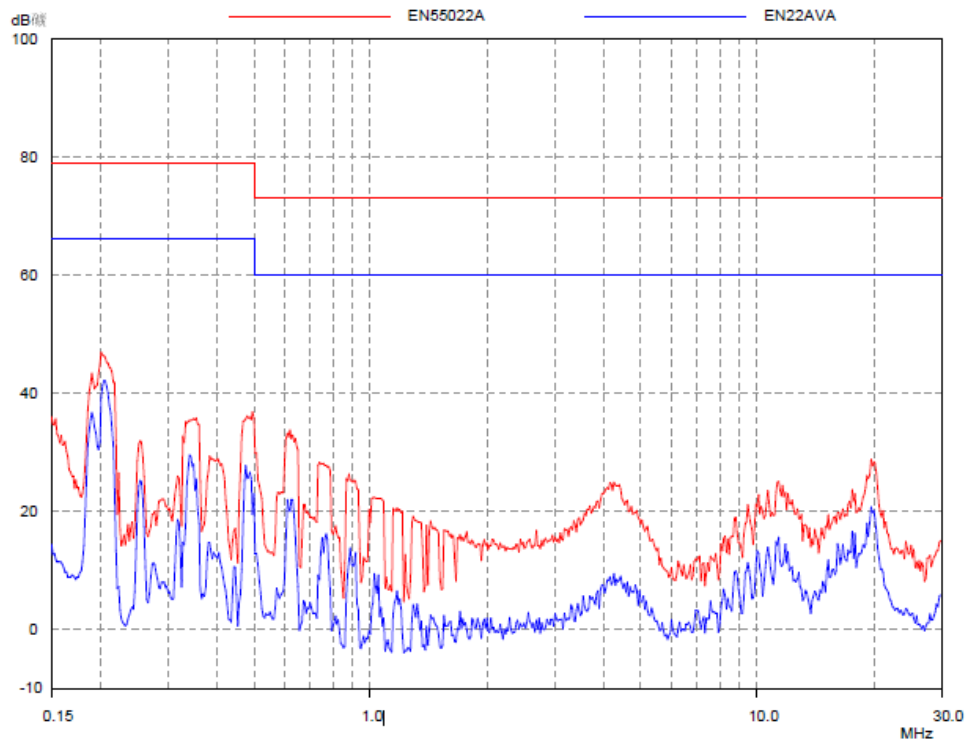
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

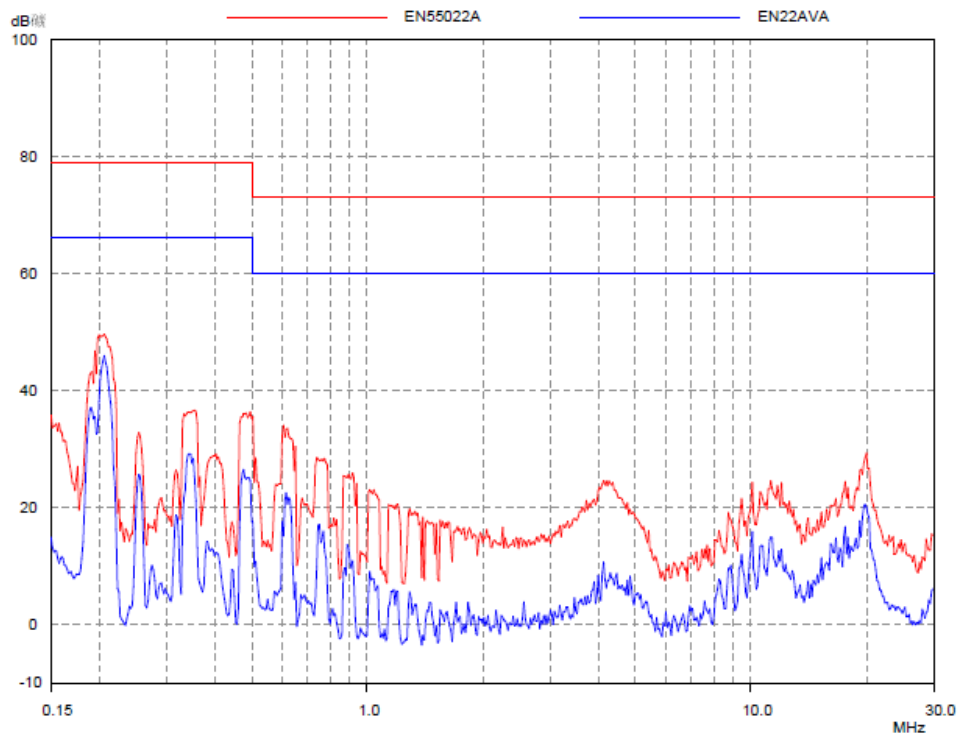
TEST REPORT

Test with Probe: F4-12L

L line



N line



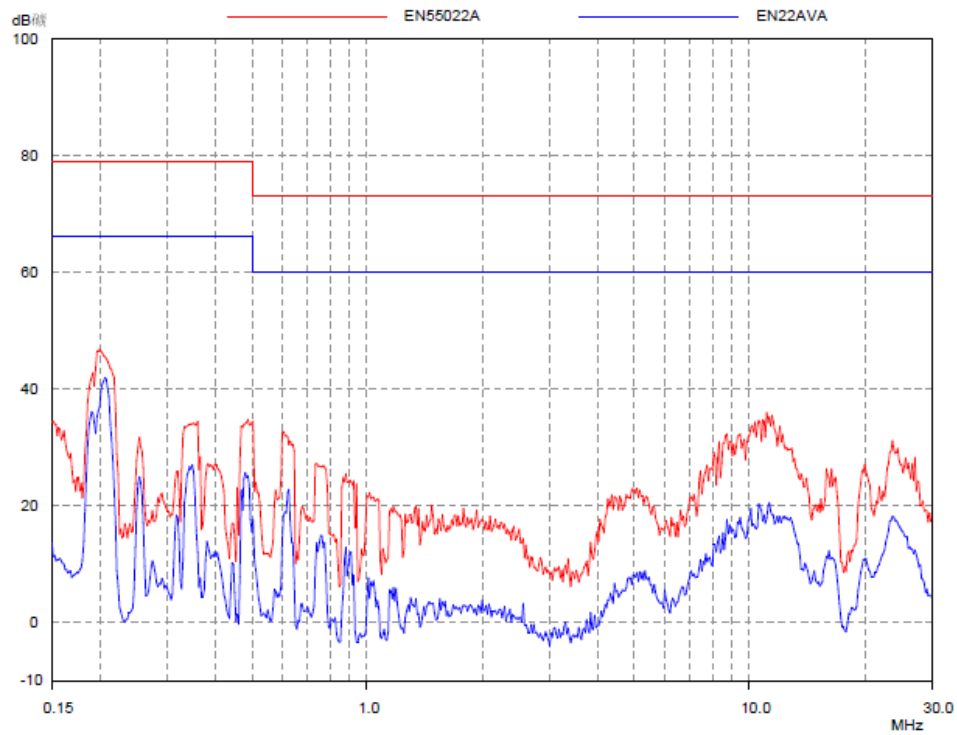
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

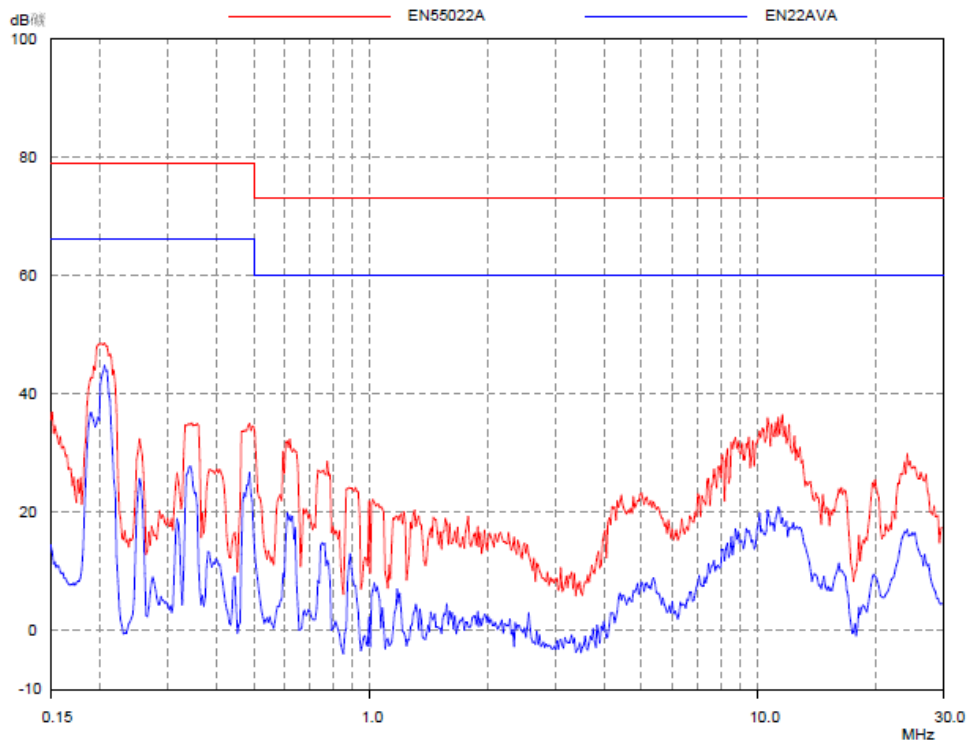
TEST REPORT

Test with Probe: G1-4P

L line



N line



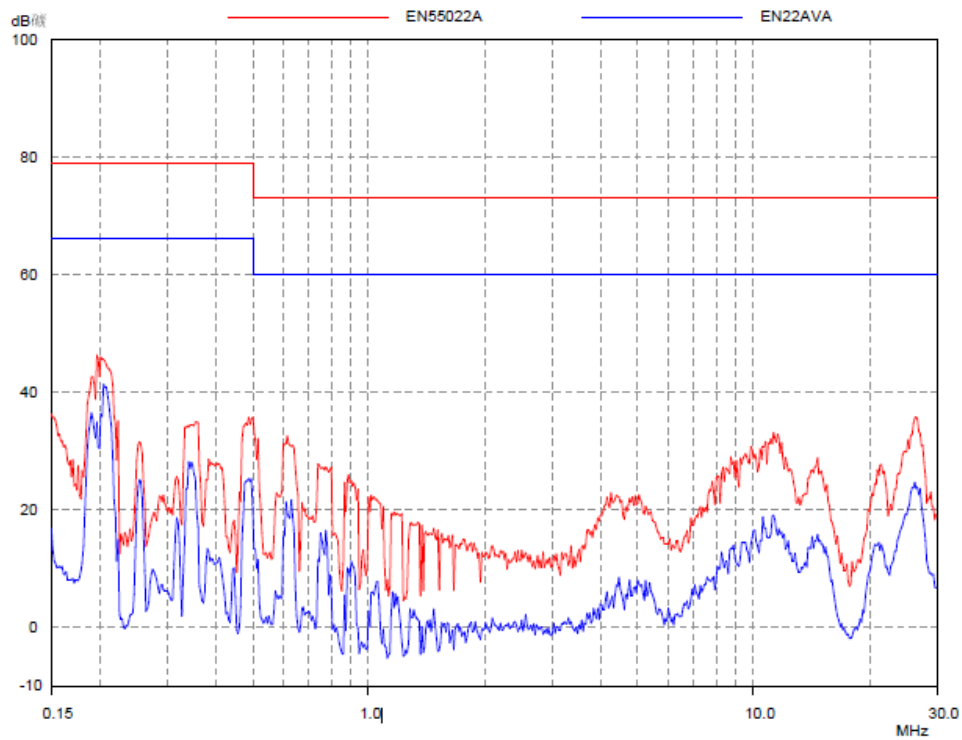
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

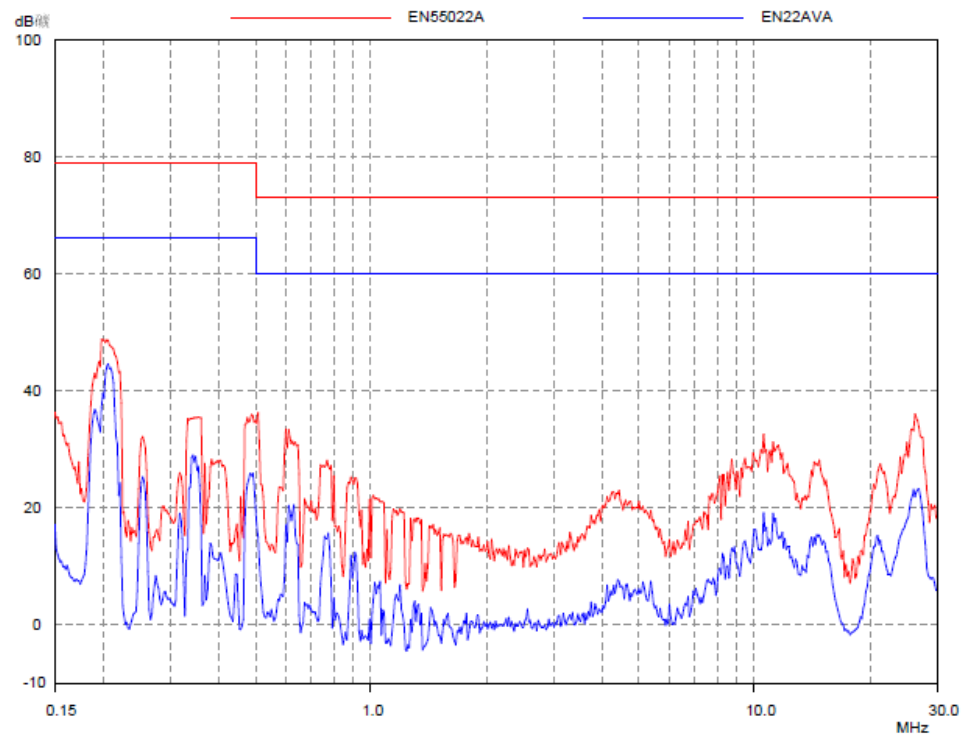
TEST REPORT

Test with Probe: G4-9E

L line



N line



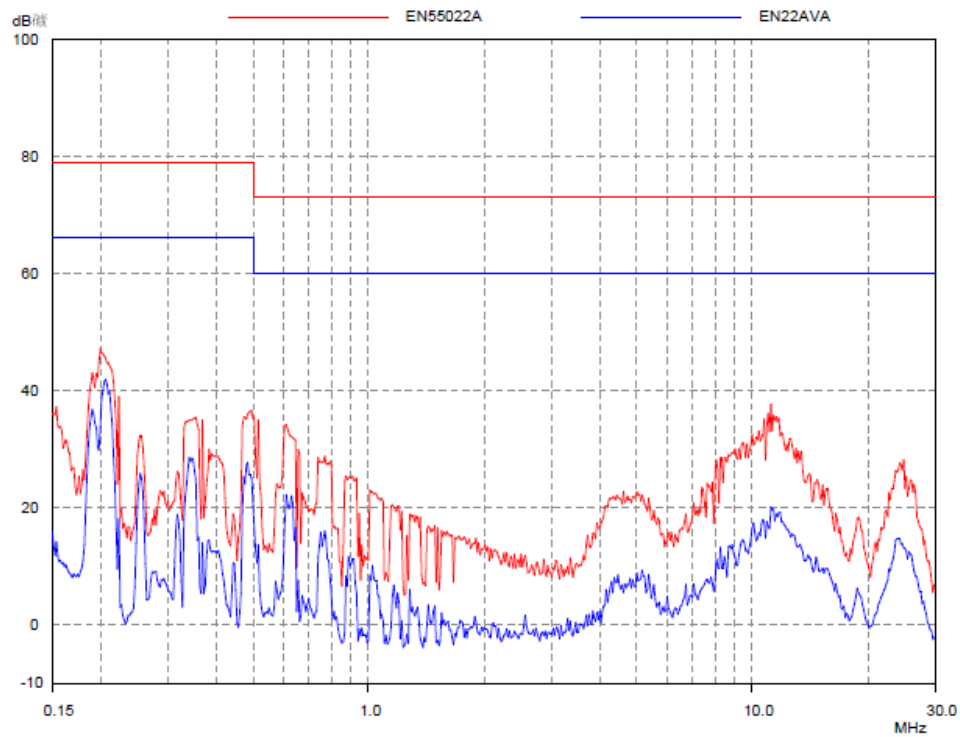
TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

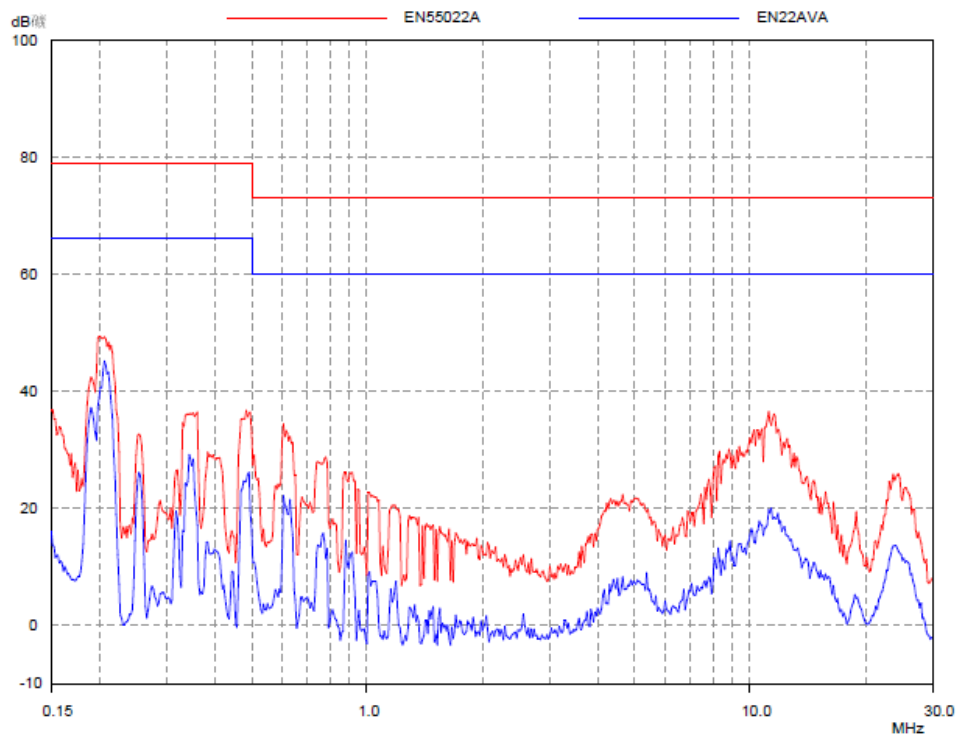
TEST REPORT

Test with Probe: G4-9M

L line



N line



TEST REPORT

| Frequency (MHz) | Quasi-peak | | | Average | | | Line |
|---|--------------------------------|-----------------|----------------|--------------------------------|-----------------|----------------|------|
| | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | Corrected Reading (dBμV) | Limit (dBμV) | Margin (dB) | |
| 0.15 | * | 79.00 | * | * | 66.00 | * | L |
| 0.20 | * | 79.00 | * | * | 66.00 | * | L |
| 0.50 | * | 73.00 | * | * | 60.00 | * | L |
| 1.00 | * | 73.00 | * | * | 60.00 | * | L |
| 0.15 | * | 79.00 | * | * | 66.00 | * | N |
| 0.20 | * | 79.00 | * | * | 66.00 | * | N |
| 0.50 | * | 73.00 | * | * | 60.00 | * | N |
| 1.00 | * | 73.00 | * | * | 60.00 | * | N |
| Note: * means the emission level 20dB below the relevant limit. | | | | | | | |

Remark: 1. Correct Factor = LISN Factor + Cable Loss, the value was added to Original Receiver Reading by the software automatically.

2. Corrected Reading = Original Receiver Reading + Correct Factor

3. Margin = Limit - Corrected Reading

4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

Example: Assuming LISN Factor = 10.00dB, Cable Loss = 2.00dB,
Original Receiver Reading = 10.00dBμV, Limit = 66.00dBμV.
Then Correct Factor = 10.00 + 2.00 = 12.00dB;
Corrected Reading = 10dBμV + 12.00dB = 22.00dBμV;
Margin = 66.00dBμV – 22.00dBμV = 44.00dB.

TEST REPORT

4 Continuous Disturbance Power

Test result: NA

☒ Test does not apply. Device under test whose main functions are not performed by motors and switching or regulating devices.

4.1 Disturbance Power Limits for the frequency range 30MHz to 300MHz

4.1.1 Limits for electric tools

| Frequency | Rated motor power not exceeding 700W | | Rated motor power above 700W and not exceeding 1000W | | Rated motor power above 1000W | |
|-----------|--------------------------------------|---------|--|---------|-------------------------------|---------|
| (MHz) | dB(pW) | | dB(pW) | | dB(pW) | |
| | Quasi-peak | Average | Quasi-peak | Average | Quasi-peak | Average |
| 30~300 | 45~55* | 35~45* | 49~59* | 39~49* | 55~65* | 45~55* |

Notes:

- * means the limit increasing linearly with the frequency.
- If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement with the receiver with average detector need not be carried out.

4.1.2 Limits for other appliances

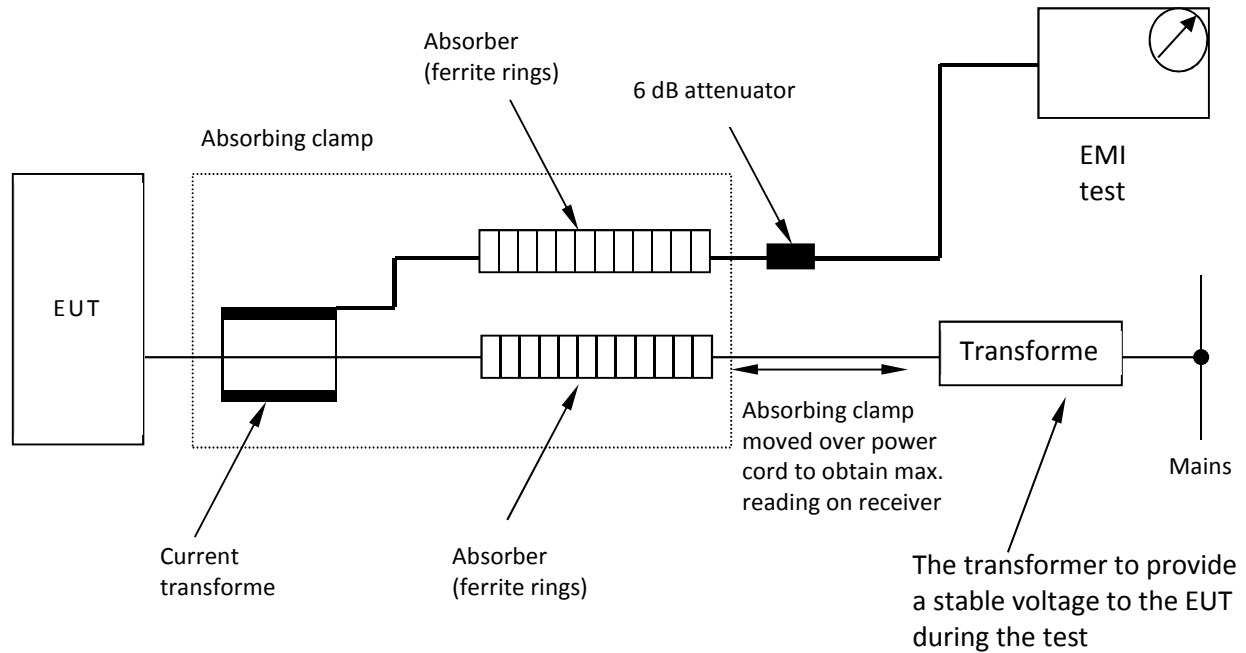
| Frequency (MHz) | Quasi-peak dB(pW) | Average dB (pW) |
|-----------------|-------------------|-----------------|
| 30 ~ 300 | 45~55* | 35 ~ 45* |

Notes:

- * means the limit increasing linearly with the frequency.
- If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement with the receiver with average detector need not be carried out.

TEST REPORT

4.2 Block Diagram of test Setup



4.3 Test Procedure

Measurement was performed in shielded room.

Instruments used were following clause 6 of CISPR 14-1.

Detailed test procedure and arrangement was following clause 6 of CISPR 14-1.

Operation conditions of EUT were according to clause 7 of CISPR 14-1.

Frequency range 30MHz – 300MHz was checked and EMI receiver measurement bandwidth was set to 120kHz.

TEST REPORT

4.4 Test Result

Temperature : °C

Relative Humidity : %

At mains lead

| Frequency (MHz) | Quasi-peak | | Average | |
|--|-----------------------------|---------------------------|-----------------------------|---------------------------|
| | Disturbance level dB(pW) | Permitted limit dB(pW) | Disturbance level dB(pW) | Permitted limit dB(pW) |
| 30.00 | | | | |
| 45.00 | | | | |
| 65.00 | | | | |
| 90.00 | | | | |
| 150.00 | | | | |
| 180.00 | | | | |
| 220.00 | | | | |
| 300.00 | | | | |
| Note: * means the emission level 20dB lower than the relevant limit. | | | | |

Remark: 1. Correct Factor = LISN Factor + Cable Loss, the value was added to Original Receiver Reading by the software automatically.

2. Corrected Reading = Original Receiver Reading + Correct Factor

3. Margin = Limit - Corrected Reading

4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

Example: Assuming LISN Factor = 10.00dB, Cable Loss = 2.00dB,
Original Receiver Reading = 10.00dBμV, Limit = 66.00dBμV.
Then Correct Factor = 10.00 + 2.00 = 12.00dB;
Corrected Reading = 10dBμV + 12.00dB = 22.00dBμV;
Margin = 66.00dBμV – 22.00dBμV = 44.00dB.

TEST REPORT

At auxiliary leads

| Frequency (MHz) | Quasi-peak | | Average | |
|--|-----------------------------|---------------------------|-----------------------------|---------------------------|
| | Disturbance level dB(pW) | Permitted limit dB(pW) | Disturbance level dB(pW) | Permitted limit dB(pW) |
| 30.00 | - | - | - | - |
| 45.00 | - | - | - | - |
| 65.00 | - | - | - | - |
| 90.00 | - | - | - | - |
| 150.00 | - | - | - | - |
| 180.00 | - | - | - | - |
| 220.00 | - | - | - | - |
| 300.00 | - | - | - | - |
| Note: * means the emission level 20dB lower than the relevant limit. | | | | |

- Remark: 1. Correct Factor = LISN Factor + Cable Loss, the value was added to Original Receiver Reading by the software automatically.
2. Corrected Reading = Original Receiver Reading + Correct Factor
3. Margin = Limit - Corrected Reading
4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

Example: Assuming LISN Factor = 10.00dB, Cable Loss = 2.00dB,
Original Receiver Reading = 10.00dBμV, Limit = 66.00dBμV.
Then Correct Factor = 10.00 + 2.00 = 12.00dB;
Corrected Reading = 10dBμV + 12.00dB = 22.00dBμV;
Margin = 66.00dBμV – 22.00dBμV = 44.00dB.

TEST REPORT

5 Radiated emission

Test result: Pass

5.1 Limits for group 1 equipment measured on a test site

5.1.1 Electromagnetic radiation disturbance limits for class A group 1 equipment measured on a test site

| Frequency (MHz) | 10 m measuring distance rated input power of | | 3 m measuring distance rated input power of | |
|--|--|---------------------|---|---------------------|
| | ≤ 20 kVA | > 20 kVA | ≤ 20 kVA | > 20 kVA |
| | Quasi-peak (dBμV/m) | Quasi-peak (dBμV/m) | Quasi-peak (dBμV/m) | Quasi-peak (dBμV/m) |
| 30-230 | 40 | 50 | 50 | 60 |
| 230-1000 | 47 | 50 | 57 | 60 |
| Note: At the transition frequency, the more stringent limit shall apply. | | | | |

5.1.2 Electromagnetic radiation disturbance limits for class B group 1 equipment measured on a test site

| Frequency (MHz) | 10 m measuring distance | 3 m measuring distance |
|--|-------------------------|------------------------|
| | Quasi-peak (dBμV/m) | Quasi-peak (dBμV/m) |
| 30-230 | 30 | 40 |
| 230-1000 | 37 | 47 |
| Note: At the transition frequency, the more stringent limit shall apply. | | |

TEST REPORT

5.2 Limits for group 2 equipment measured on a test site

Except for the designated frequency range listed in Clause 2.2, the electromagnetic radiation disturbance limits for the frequency range 150 kHz to 1 GHz for group 2 class A equipment are specified in Clause 5.2.1; and for group 2 class B equipment in Clause 5.2.2.

5.2.1 Limits of Electromagnetic radiation disturbance for class A group 2 equipment measured on a test site

| Frequency (MHz) | Limits for a measuring distance D from the equipment | | | | | |
|----------------------|--|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| | On a test site D = 30 m | | On a test site D = 10 m | | On a test site D = 3 m | |
| | E-field | M-field | E-field | M-field | E-field | M-field |
| | Quasi-peak (dB μ V/m) | Quasi-peak (dB μ A/m) | Quasi-peak (dB μ V/m) | Quasi-peak (dB μ A/m) | Quasi-peak (dB μ V/m) | Quasi-peak (dB μ A/m) |
| 0.15 – 0.49 | – | 33,5 | – | 57,5 | – | 57,5 |
| 0.49 – 1.705 | – | 23,5 | – | 47,5 | – | 47,5 |
| 1.705 – 2.194 | – | 28,5 | – | 52,5 | – | 52,5 |
| 2.194 – 3.95 | – | 23,5 | – | 43,5 | – | 43,5 |
| 3.95 – 20 | – | 8,5 | – | 18,5 | – | 18,5 |
| 20 – 30 | – | –1,5 | – | 8,5 | – | 8,5 |
| 30 – 47 | 58 | – | 68 | – | 78 | – |
| 47 – 53.91 | 40 | – | 50 | – | 60 | – |
| 53.91 – 54.56 | 40 | – | 50 | – | 60 | – |
| 54.56 – 68 | 40 | – | 50 | – | 60 | – |
| 68 – 80.872 | 53 | – | 63 | – | 73 | – |
| 80.872 – 81.848 | 68 | – | 78 | – | 88 | – |
| 81.848 – 87 | 53 | – | 63 | – | 73 | – |
| 87 – 134.786 | 50 | – | 60 | – | 70 | – |
| 134.786 – 136.414 | 60 | – | 70 | – | 80 | – |
| 136.414 – 156 | 50 | – | 60 | – | 70 | – |
| 156 – 174 | 64 | – | 74 | – | 84 | – |
| 174 – 188.7 | 40 | – | 50 | – | 60 | – |
| 188.7 – 190.979 | 50 | – | 60 | – | 70 | – |
| 190.979 – 230 | 40 | – | 50 | – | 60 | – |
| 230 – 400 | 50 | – | 60 | – | 70 | – |
| 400 – 470 | 53 | – | 63 | – | 73 | – |
| 470 – 1 000 | 50 | – | 60 | – | 70 | – |

TEST REPORT

5.2.2 Limits of Electromagnetic radiation disturbance for class B group 2 equipment measured on a test site

| Frequency (MHz) | Limits for a measuring distance D from the equipment | | | | |
|----------------------|--|---------------------|------------------------|---------------------|--|
| | E-field | | | | M-field |
| | D = 10m | | D = 3 m | | D = 3 m |
| | Quasi-peak (dBμV/m) | Average (dBμV/m) | Quasi-peak (dBμV/m) | Average (dBμV/m) | Quasi-peak (dBμA/m) |
| 0,15 – 30 | - | - | - | - | 39 Decreasing linearly with the logarithm of frequency to 3 |
| 30 – 80,872 | 30 | 25 | 40 | 35 | - |
| 80,872 – 81,848 | 50 | 45 | 60 | 55 | |
| 81,848 – 134,786 | 30 | 25 | 40 | 35 | |
| 134,786 – 136,414 | 50 | 45 | 60 | 55 | |
| 136,414 – 230 | 30 | 25 | 40 | 35 | |
| 230 – 1 000 | 37 | 32 | 47 | 42 | - |

Note 1: The average limits apply to magnetron driven equipment only. If magnetron driven equipment exceeds the quasi-peak limit at certain frequencies, then the measurement shall be repeated at these frequencies with the average detector, and the average limits specified in this table apply.

Note 2: For ISM RF lighting devices operating in dedicated ISM frequency bands as specified in Clause 2.2, the limits of Clause 5.2.2 apply.

5.2.3 Limits for group 2 equipment operating at frequencies above 400 MHz measured on a test site within 1 GHz to 18GHz

The limits specified in this clause apply only to RF disturbances appearing outside designated ISM bands as specified in Clause 2.2. The equipment shall meet either the limits of Clause 5.2.3.1 or the limits of both Clause 5.2.3.2 and Clause 5.2.3.3.

5.2.3.1 Peak limits of Electromagnetic radiation disturbance for group 2 equipment producing CW type disturbances and operating at frequencies above 400 MHz

| Frequency (MHz) | Limits for a measurement distance of 3 m | |
|-------------------------------------|--|---------|
| | Peak (dBμV/m) | |
| 1-18 | Class A | Class B |
| Within harmonic frequency bands | 82 | 70 |
| Outside harmonic frequency bands | 70 | 70 |

Note 1: At the upper and lower edge frequency of harmonic frequency bands, the more stringent limit of 70 dBμV/m applies.

Note 2: For microwave-powered UV irradiators, the limits specified in this Clause apply.

Note 3: ISM RF lighting devices operating in dedicated ISM frequency bands as specified in Clause 2.2 shall either meet the class B limits of this Clause or the limits of both Clause 5.2.3.2 and 5.2.3.3.

TEST REPORT

5.2.3.2 Peak limits of Electromagnetic radiation disturbance for class B group 2 equipment producing fluctuating disturbances other than CW and operating at frequencies above 400 MHz

| Frequency (GHz) | Limits for a measurement distance of 3 m |
|---|--|
| 1-18 | Peak (dB μ V/m) |
| 1 – 2.3 | 92 |
| 2.3 – 2.4 | 110 |
| 2.5 – 5.725 | 92 |
| 5.875 – 11.7 | 92 |
| 11.7 – 12.7 | 73 |
| 12.7 – 18 | 92 |
| Note 1: At the transition frequency, the more stringent limit shall apply. Note 2: Peak measurements with a resolution bandwidth of 1 MHz and a video signal bandwidth higher or equal to 1 MHz. | |

5.2.3.3 Electromagnetic radiation disturbance weighted limits for class B group 2 equipment producing fluctuating disturbances other than CW and operating at frequencies above 400 MHz

| Frequency (GHz) | Limits for a measurement distance of 3 m |
|---|--|
| 1-18 | Peak (dB μ V/m) |
| 1 – 2.4 | 60 |
| 2.5 – 5.725 | 60 |
| 5.875 – 18 | 60 |
| Note: Weighted measurements with a RBW of 1 MHz and a VBW of 10 Hz. | |

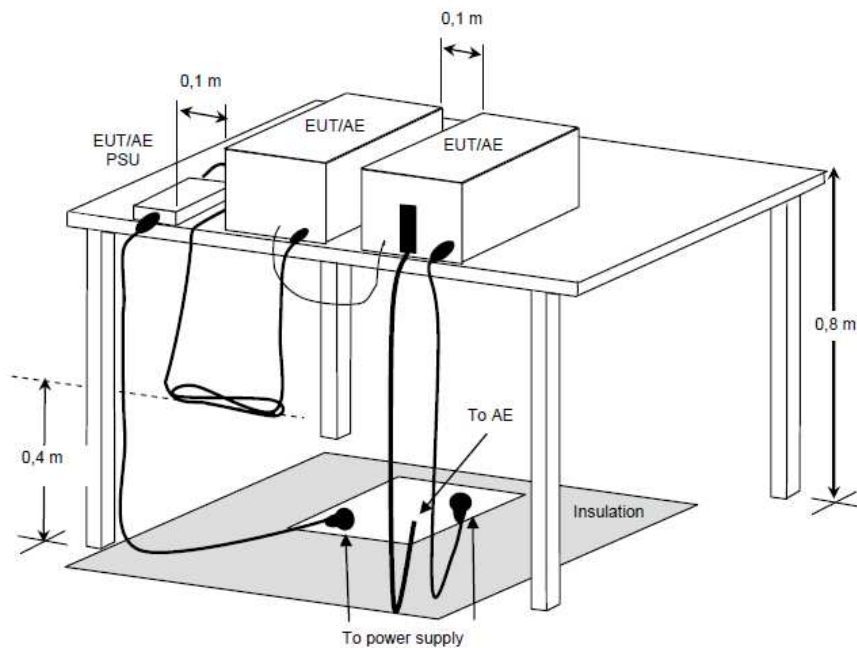
5.3 Limits for group 1 and group 2 class A equipment measured in situ

☐ For group 1 class A or class B PERMANENTLY INSTALLED LARGE ME EQUIPMENT and LARGE ME SYSTEMS tested in situ shall comply with the CISPR 11 limits for equipment measured on a test site. The limit specified in Clause 5.1 is selected.

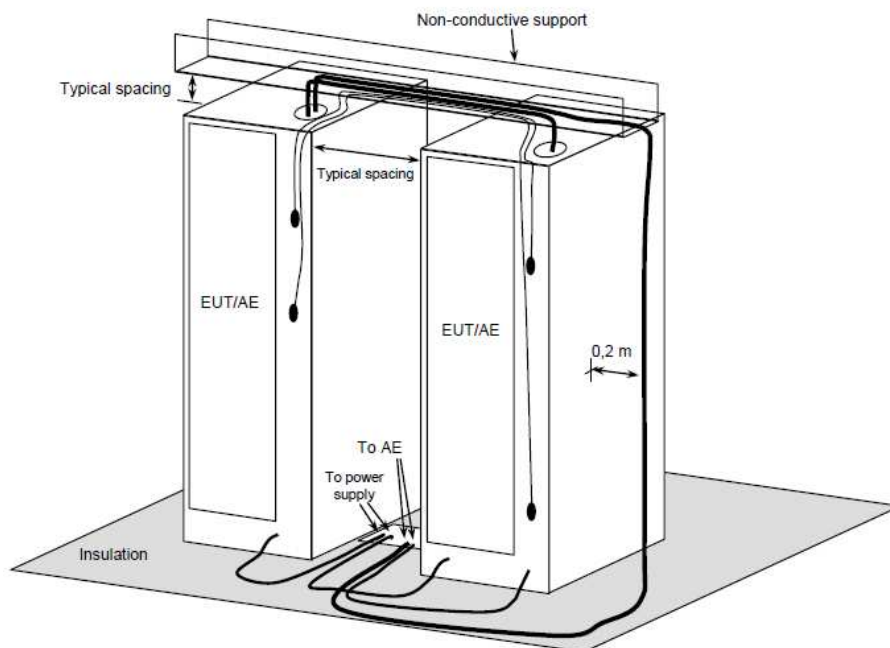
TEST REPORT

5.4 Block diagram of test set up

For table-top equipment



For floor standing equipment



TEST REPORT

5.5 Test Procedure

The measurement was performed in a semi-anechoic chamber.

The distance from EUT to receiving antenna is 3 meter.

Measurement was performed according to clause 8 of CISPR 11.

EUT arrangement and operate condition were according to clause 7 of CISPR 11.

The bandwidth setting of measurement below 1GHz on Test Receiver was 120 kHz.

For ME EQUIPMENT whose main functions are performed by motors and switching or regulating devices:

The measurement was applied in a semi-anechoic chamber.

The distance from EUT to receiving antenna is 3 meter.

Measurement was performed according to CISPR 14-1.

Setting of EUT is according to clause 7 of CISPR 14-1.

The bandwidth setting on Test Receiver was 120kHz.

The frequency range from 30MHz to 1000MHz was checked.

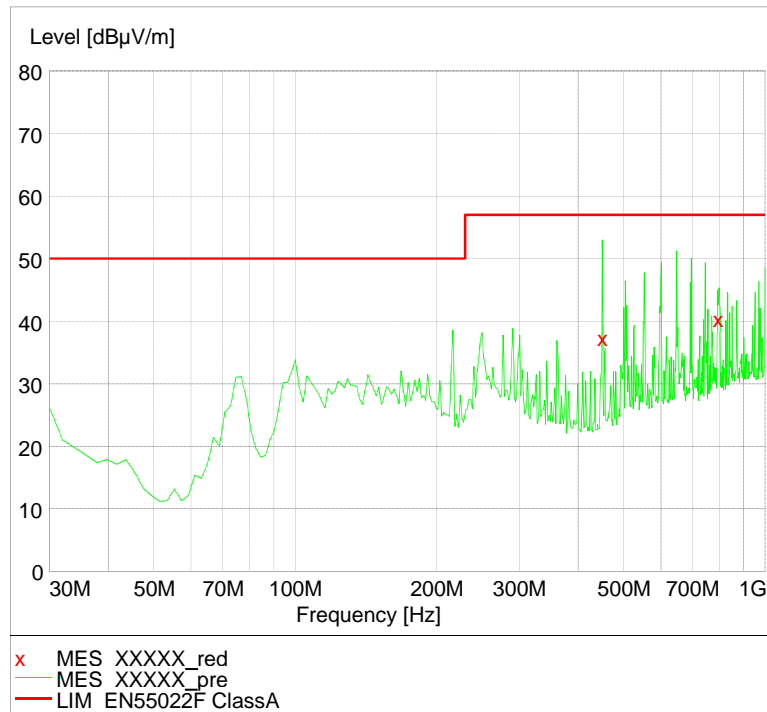
TEST REPORT

5.6 Test Result

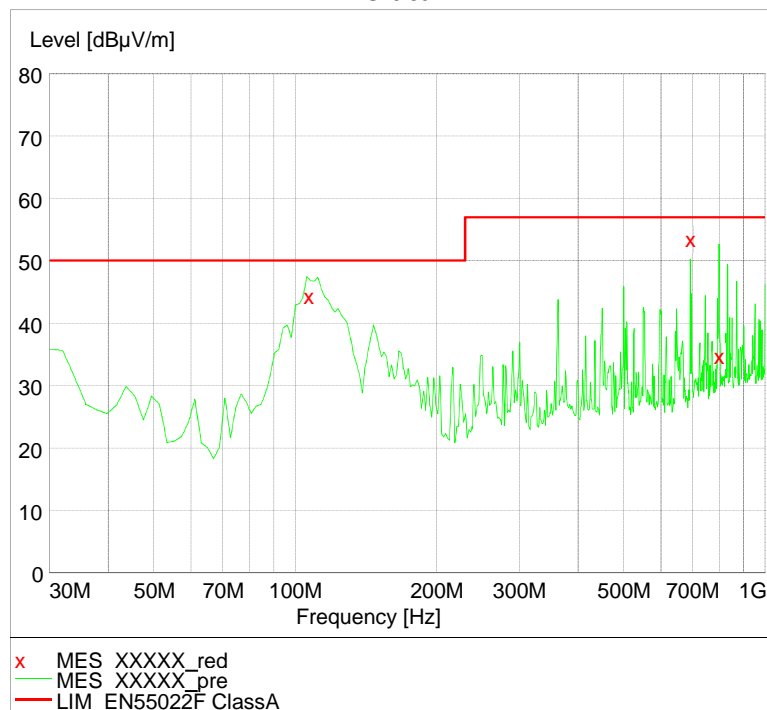
VINNO E20

Test with Probe: D3-6C

Horizontal



Vertical



TEST REPORT

Test data:

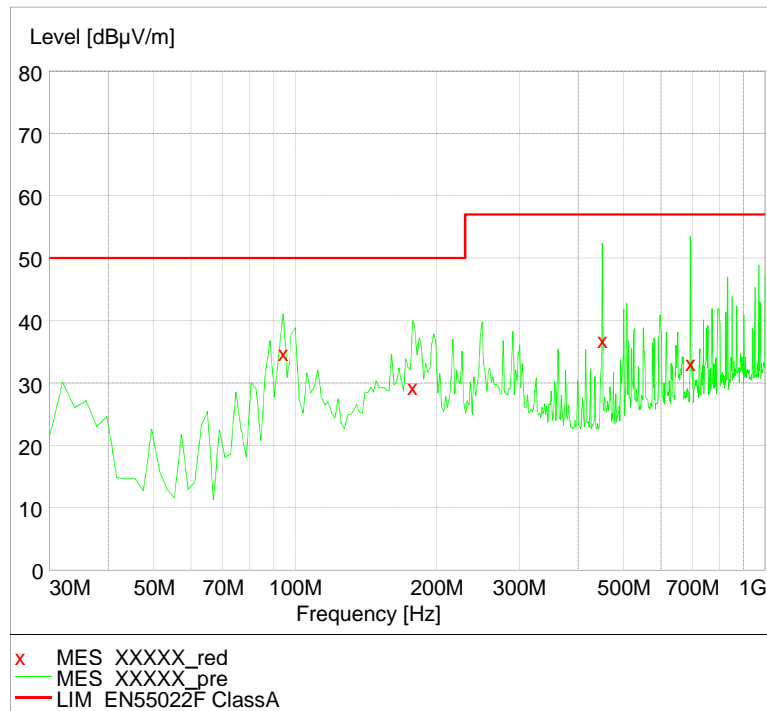
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 135.0 | * | - | 50.0 | * |
| | 449.8 | 37.5 | 19.3 | 57.0 | 19.5 |
| | 793.5 | 40.5 | 21.8 | 57.0 | 16.5 |
| Vertical | 30.0 | * | - | 50.0 | * |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 106.8 | 44.6 | 12.70 | 50.0 | 5.3 |
| | 692.5 | 53.7 | 23.50 | 57.0 | 3.3 |
| | 797.8 | 35.0 | 23.50 | 57.0 | 22.0 |

Note: * means the related margin is more than 10 dB.

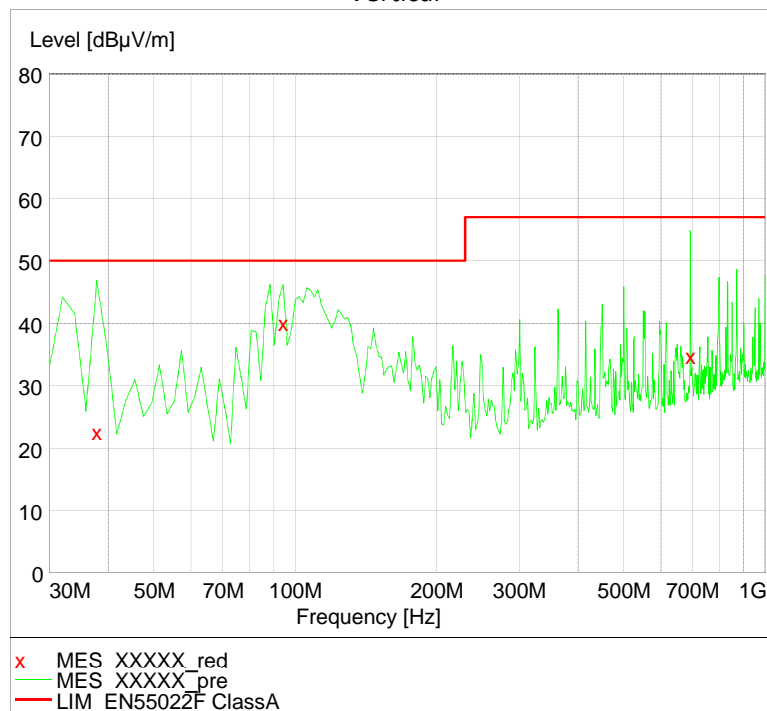
TEST REPORT

Test with Probe: D3-6CE

Horizontal



Vertical



TEST REPORT

Test data:

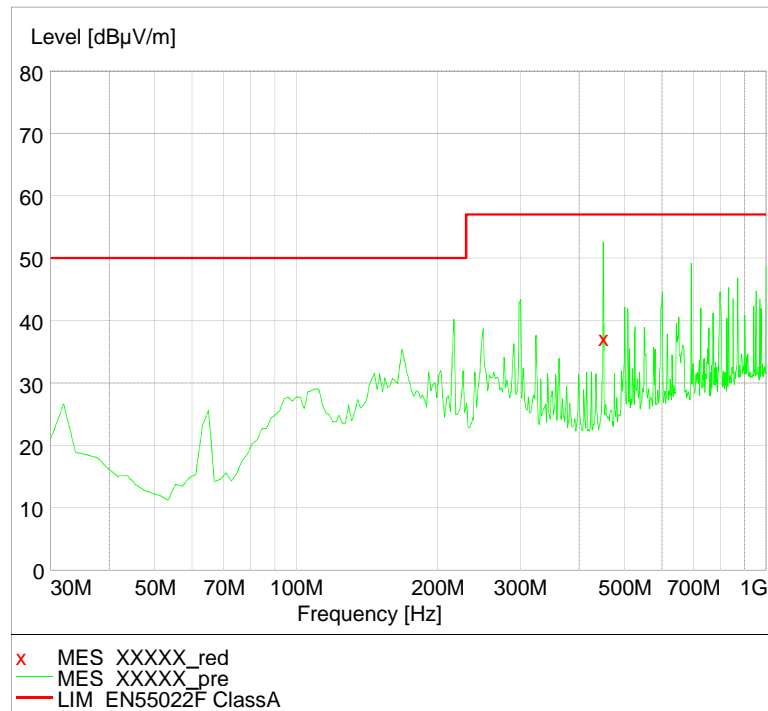
| Polarization | Frequency (MHz) | Corrected Reading (dB μ V/m) | Corrected Factor (dB/m) | Limits (dB μ V/m) | Margin (dB μ V/m) |
|--------------|-----------------|----------------------------------|-------------------------|-----------------------|-----------------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 94.2 | 35.0 | 11.1 | 50.0 | 15.0 |
| | 177.7 | 29.6 | 11.0 | 50.0 | 20.4 |
| | 449.9 | 37.1 | 19.3 | 57.0 | 19.9 |
| | 692.9 | 33.3 | 22.1 | 57.0 | 23.7 |
| Vertical | 37.8 | 22.8 | 14.7 | 50.0 | 27.2 |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 64.9 | * | - | 50.0 | * |
| | 94.2 | 40.4 | 11.1 | 50.0 | 9.6 |
| | 692.9 | 35.0 | 22.1 | 57.0 | 22.0 |

Note: * means the related margin is more than 10 dB.

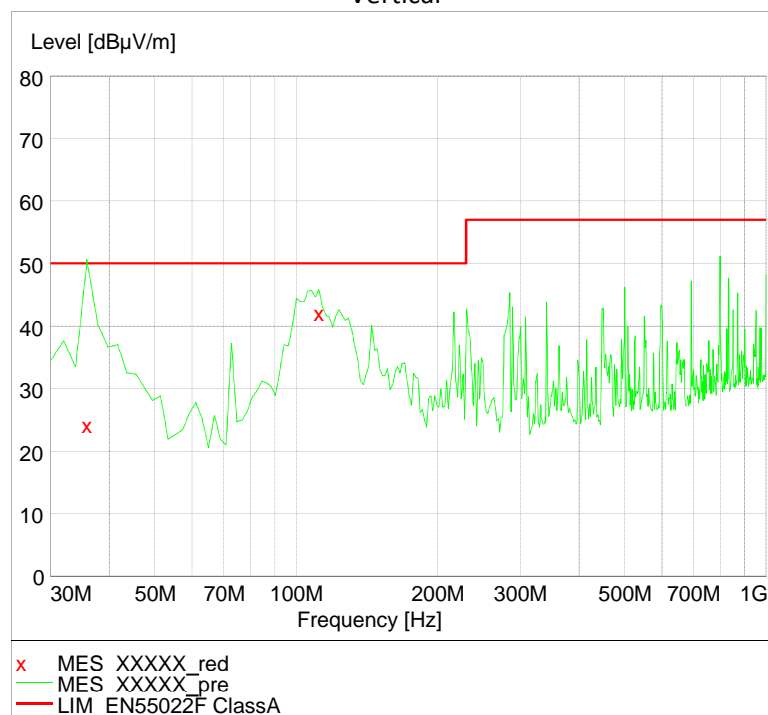
TEST REPORT

Test with Probe: F2-5C

Horizontal



Vertical



TEST REPORT

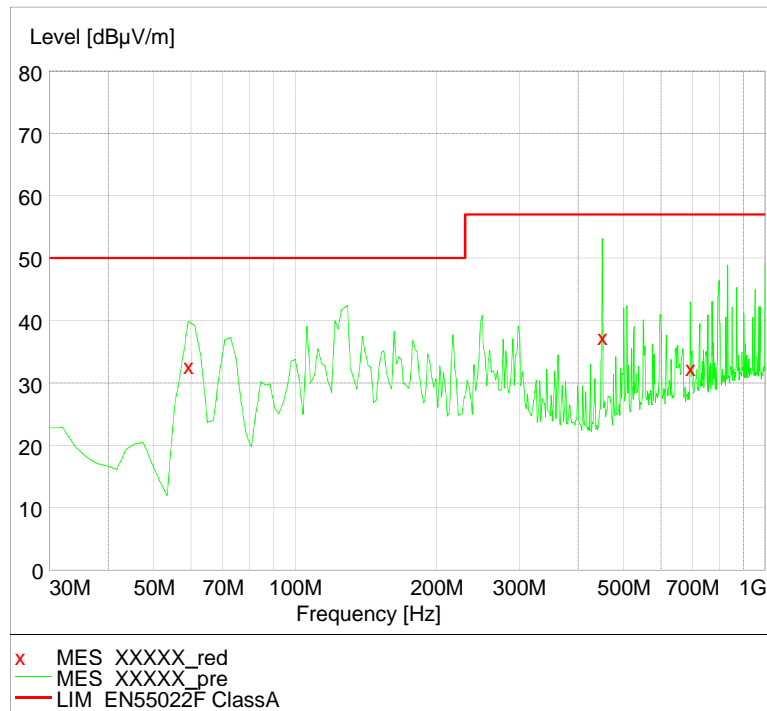
Test data:

| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 135.0 | * | - | 50.0 | * |
| | 449.9 | 37.5 | 19.3 | 57.0 | 19.5 |
| | 1000.0 | * | - | 57.0 | * |
| Vertical | 35.8 | 24.4 | 15.7 | 50.0 | 25.6 |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 64.9 | * | - | 50.0 | * |
| | 107.0 | * | - | 50.0 | * |
| | 111.6 | 42.4 | 13.1 | 50.0 | 7.6 |
| Note: * means the related margin is more than 10 dB. | | | | | |

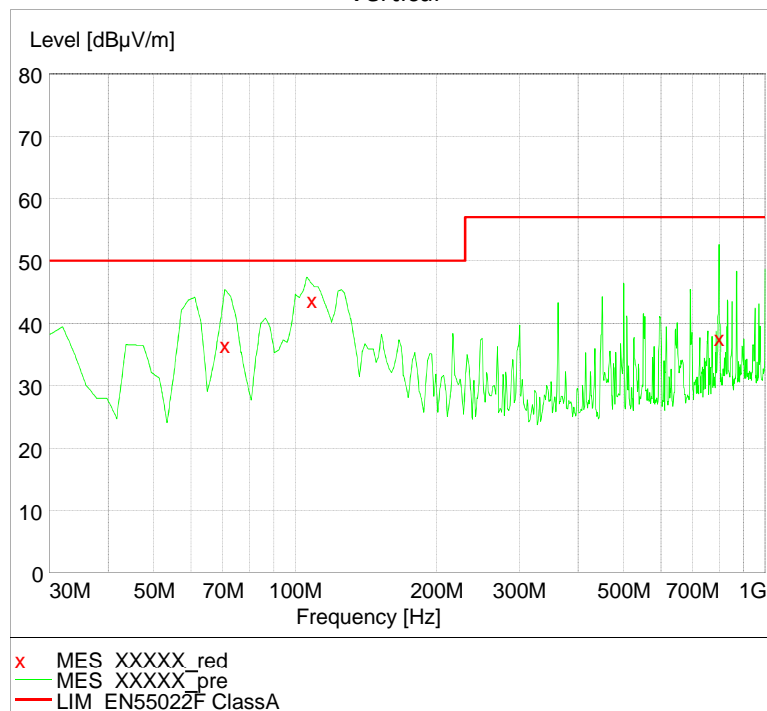
TEST REPORT

Test with Probe: F4-9E

Horizontal



Vertical



TEST REPORT

Test data:

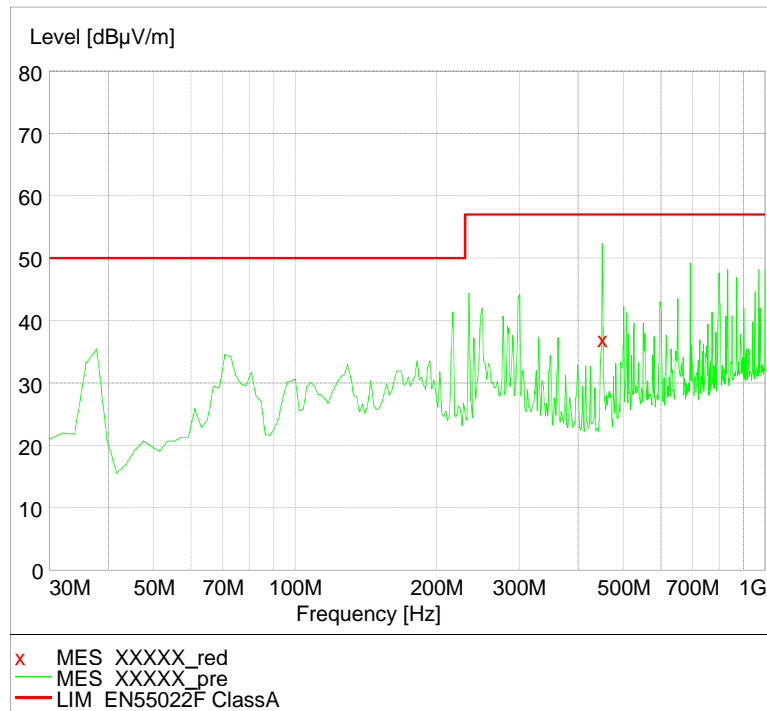
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 59.2 | 32.8 | 7.0 | 50.0 | 17.2 |
| | 116.7 | * | - | 50.0 | * |
| | 449.9 | 37.5 | 19.3 | 57.0 | 19.5 |
| | 692.8 | 32.6 | 19.3 | 57.0 | 24.4 |
| Vertical | 30.0 | * | - | 50.0 | * |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 70.8 | 36.8 | 7.3 | 50.0 | 13.2 |
| | 108.3 | 43.9 | 12.7 | 50.0 | 6.1 |
| | 797.8 | 37.9 | 23.5 | 57.0 | 19.1 |

Note: * means the related margin is more than 10 dB.

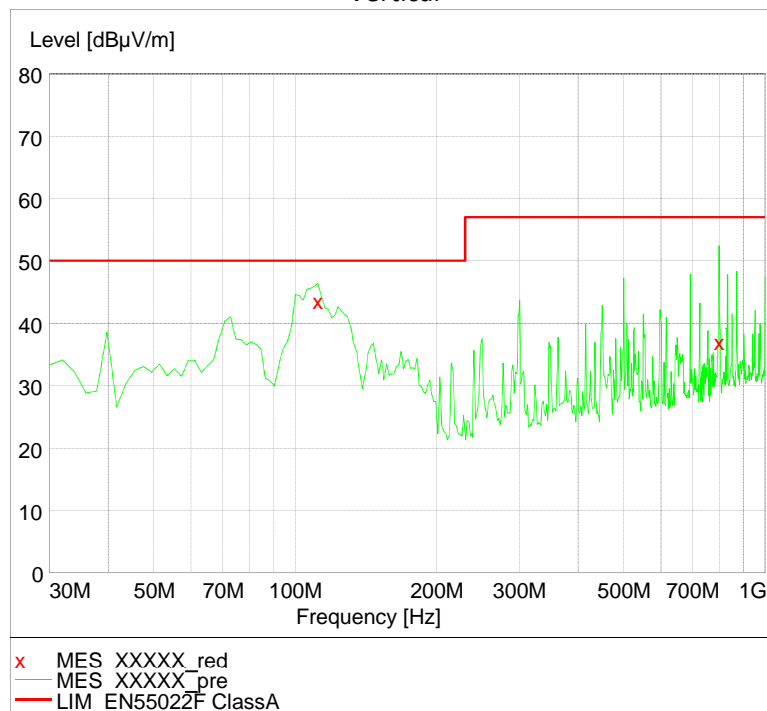
TEST REPORT

Test with Probe: F4-12L

Horizontal



Vertical



TEST REPORT

Test data:

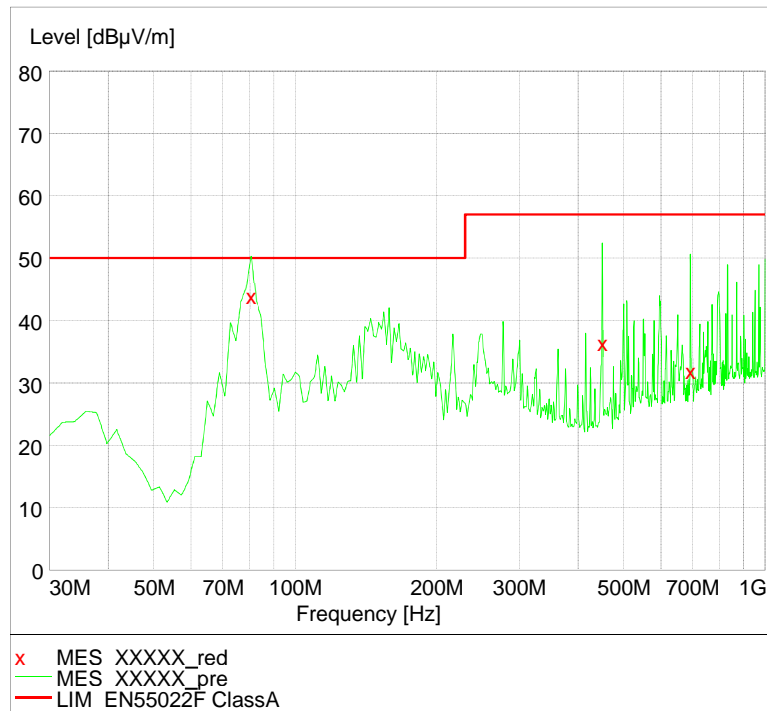
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 135.0 | * | - | 50.0 | * |
| | 449.9 | 37.2 | 19.3 | 57.0 | 19.8 |
| | 1000.0 | * | - | 57.0 | * |
| Vertical | 30.0 | * | - | 50.0 | * |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 64.9 | * | - | 50.0 | * |
| | 111.6 | 43.7 | 13.1 | 50.0 | 6.3 |
| | 797.8 | 37.2 | 23.5 | 57.0 | 19.8 |

Note: * means the related margin is more than 10 dB.

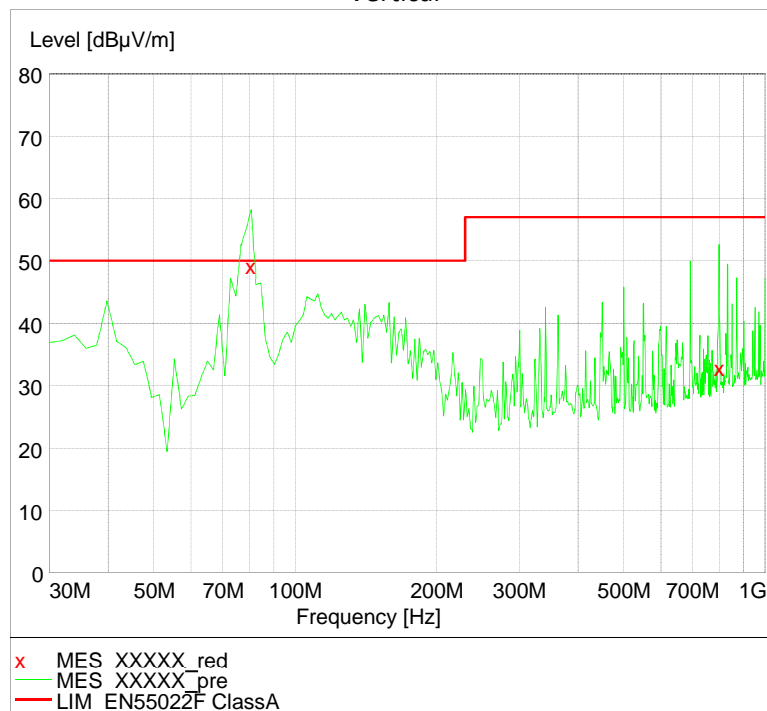
TEST REPORT

Test with Probe: G1-4P

Horizontal



Vertical



TEST REPORT

Test data:

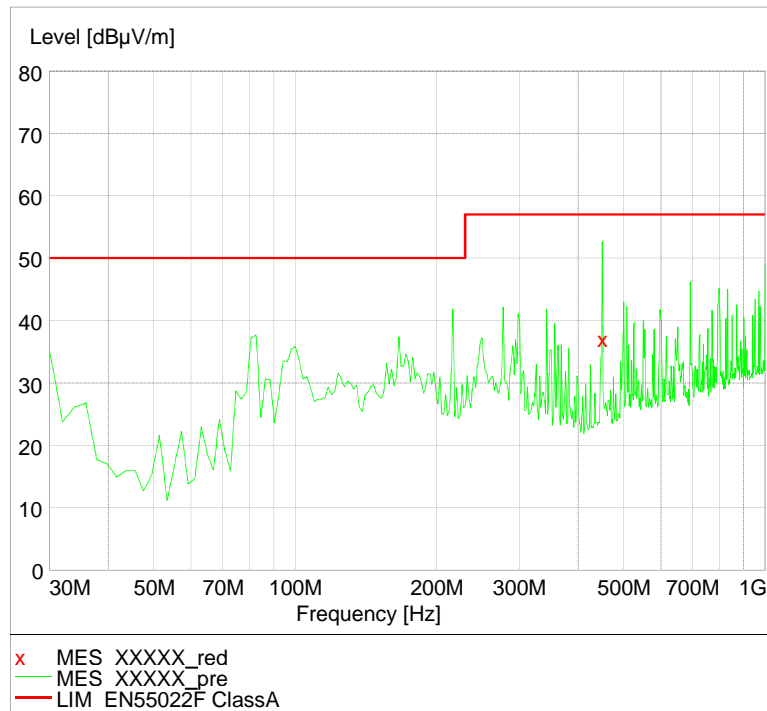
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 80.5 | 44.2 | 7.8 | 50.0 | 5.8 |
| | 116.7 | * | - | 50.0 | * |
| | 135.0 | * | - | 50.0 | * |
| | 449.9 | 36.6 | 19.3 | 57.0 | 20.4 |
| | 692.9 | 32.1 | 22.1 | 57.0 | 24.9 |
| Vertical | 30.0 | * | - | 50.0 | * |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 80.3 | 49.5 | 7.8 | 50.0 | 0.5 |
| | 107.0 | * | - | 50.0 | * |
| | 797.8 | 33.1 | 23.5 | 57.0 | 23.9 |

Note: * means the related margin is more than 10 dB.

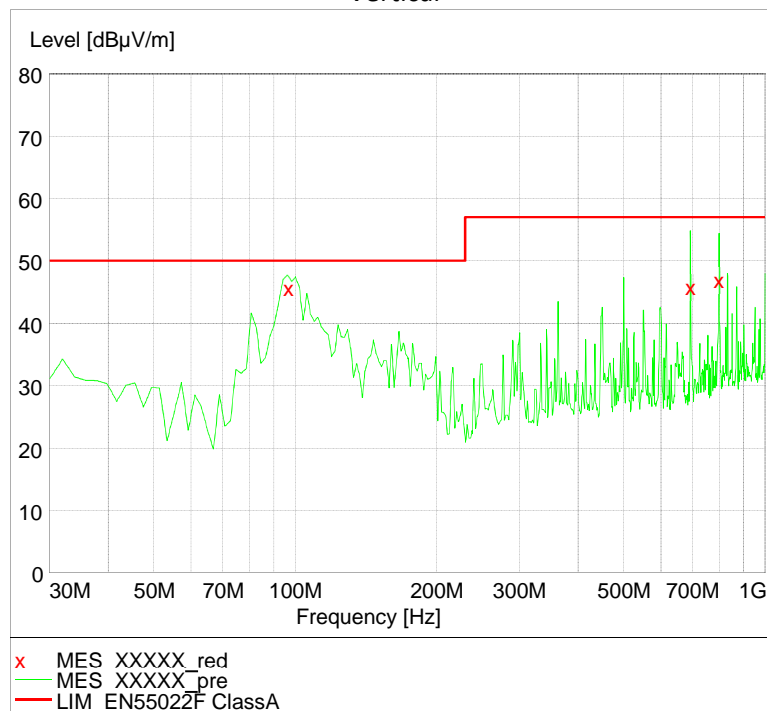
TEST REPORT

Test with Probe: G4-9E

Horizontal



Vertical



TEST REPORT

Test data:

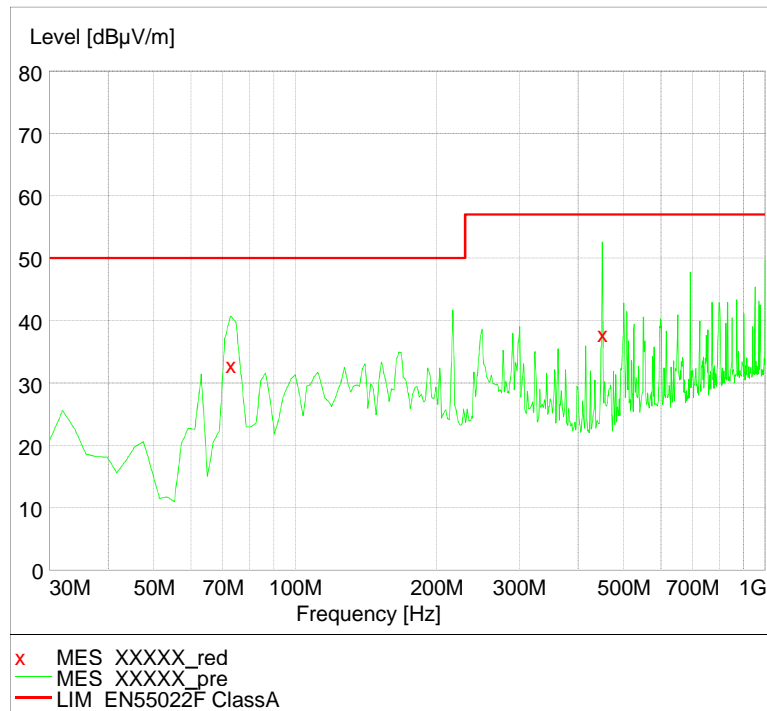
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 135.0 | * | - | 50.0 | * |
| | 449.9 | 37.3 | 19.3 | 57.0 | 19.7 |
| | 1000.0 | * | - | 57.0 | * |
| Vertical | 30.0 | * | - | 50.0 | * |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 96.5 | 46.0 | 11.5 | 50.0 | 4.1 |
| | 692.9 | 46.1 | 22.1 | 57.0 | 10.9 |
| | 796.8 | 47.1 | 22.1 | 57.0 | 9.9 |

Note: * means the related margin is more than 10 dB.

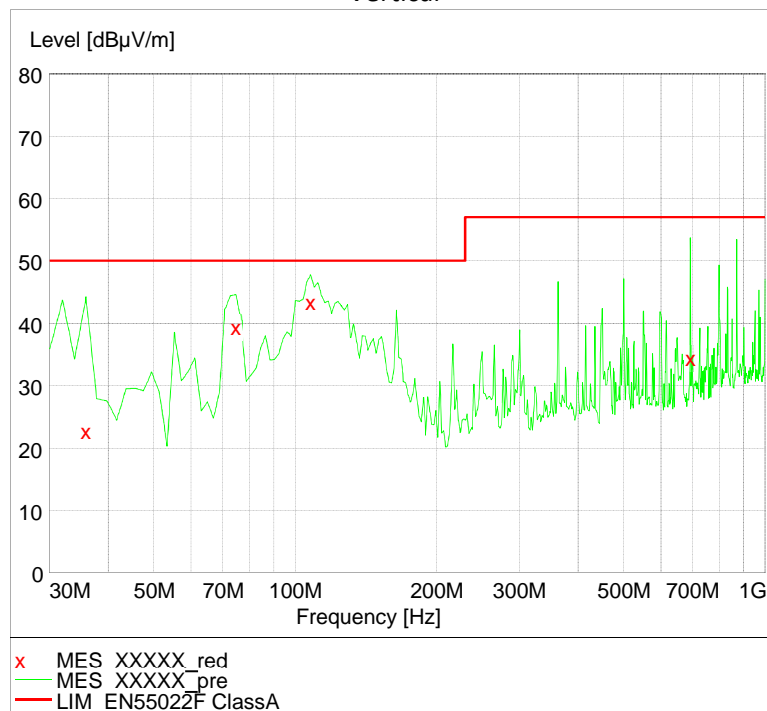
TEST REPORT

Test with Probe: G4-9M

Horizontal



Vertical



TEST REPORT

Test data:

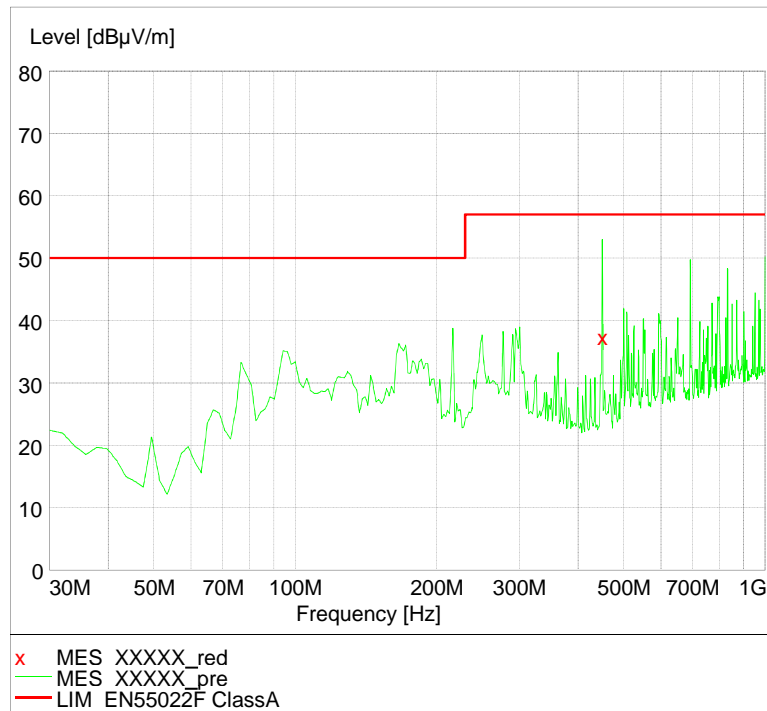
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 72.8 | 33.1 | 7.4 | 50.0 | 16.9 |
| | 116.7 | * | - | 50.0 | * |
| | 135.0 | * | - | 50.0 | * |
| | 449.9 | 38.0 | 19.3 | 57.0 | 19.0 |
| | 1000.0 | * | - | 57.0 | * |
| Vertical | 35.8 | 23.0 | 15.7 | 50.0 | 27.0 |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 74.7 | 39.6 | 7.5 | 50.0 | 10.4 |
| | 107.8 | 43.6 | 12.8 | 50.0 | 6.4 |
| | 692.9 | 34.6 | 22.1 | 57.0 | 22.4 |

Note: * means the related margin is more than 10 dB.

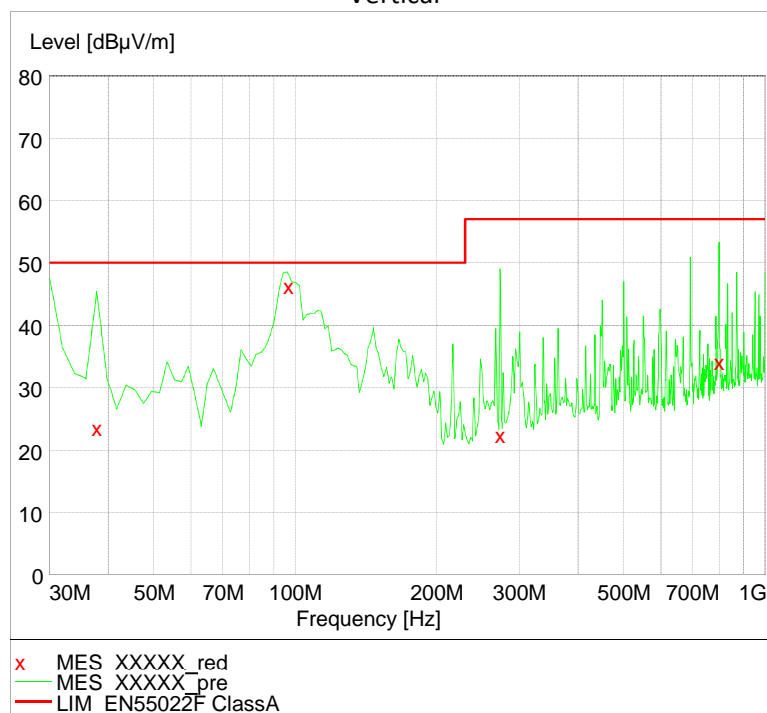
TEST REPORT

Test with Probe: X4-12L

Horizontal



Vertical



TEST REPORT

Test data:

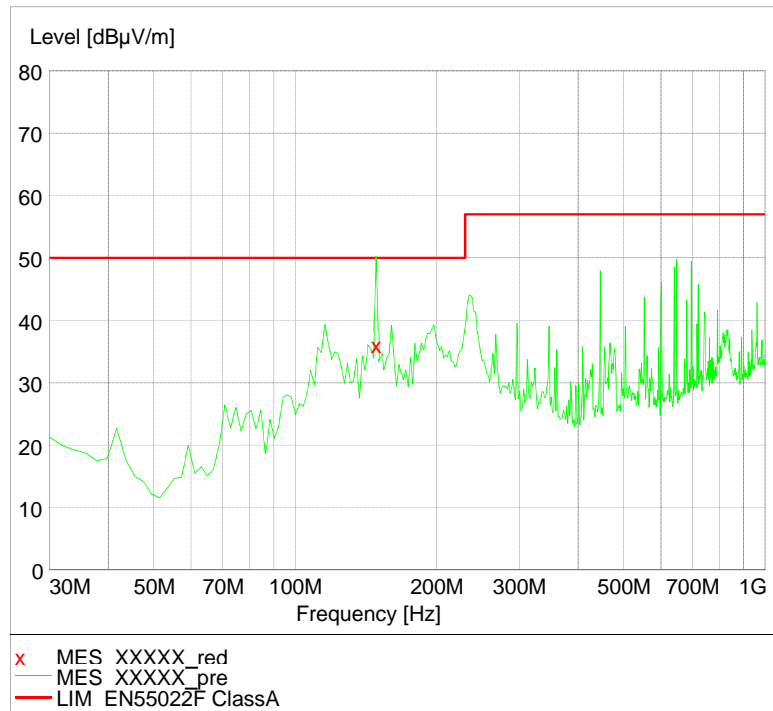
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 135.0 | * | - | 50.0 | * |
| | 449.9 | 37.6 | 19.3 | 57.0 | 19.4 |
| | 1000.0 | * | - | 57.0 | * |
| Vertical | 37.8 | 23.8 | 18.9 | 50.0 | 26.2 |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 96.5 | 46.6 | 11.5 | 50.0 | 3.4 |
| | 273.0 | 22.7 | 15.2 | 57.0 | 34.3 |
| | 797.8 | 34.3 | 23.5 | 57.0 | 22.7 |

Note: * means the related margin is more than 10 dB.

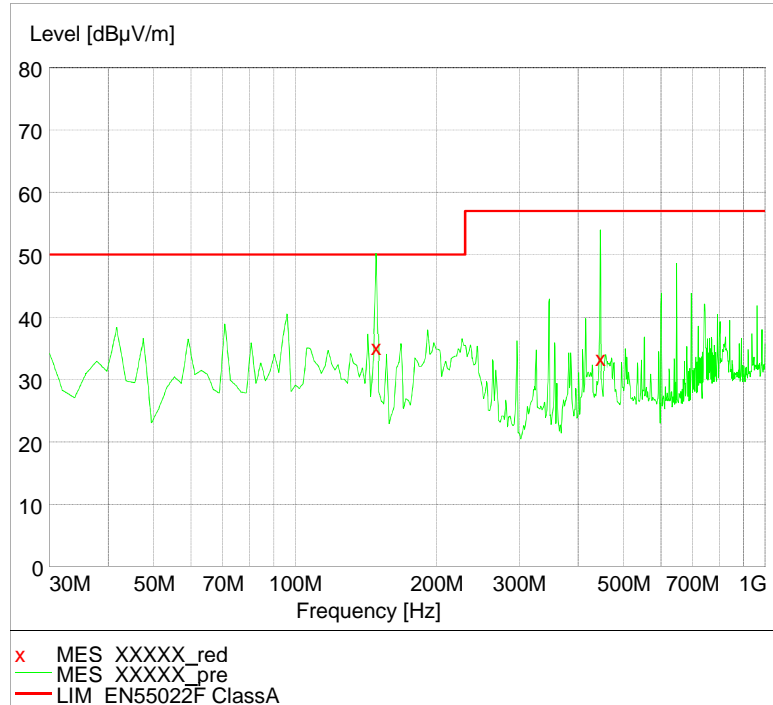
VINNO X1

Test with Probe: D3-6C

Horizontal



Vertical



TEST REPORT

Test data:

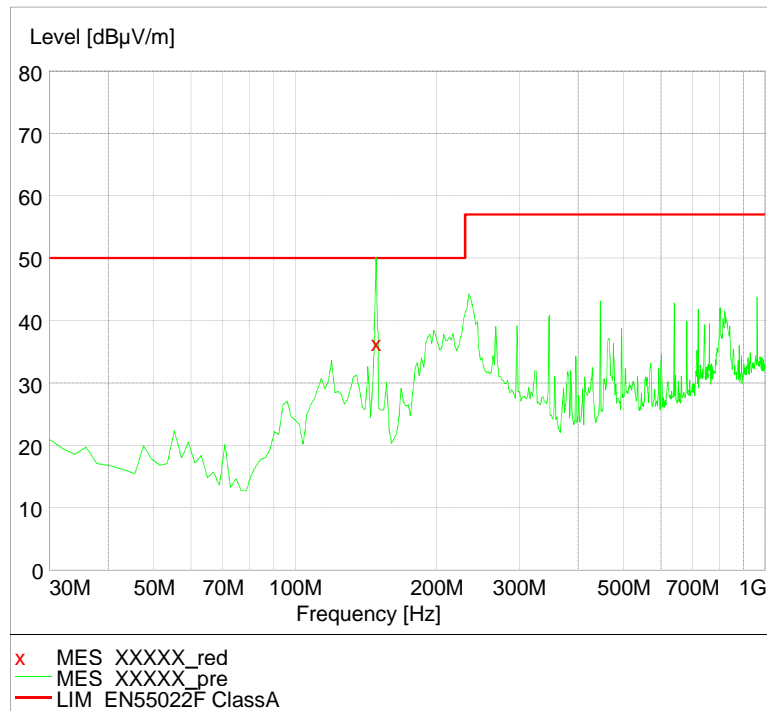
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 148.6 | 36.2 | 12.3 | 50.0 | 13.8 |
| | 500.0 | * | - | 57.0 | * |
| | 1000.0 | * | - | 57.0 | * |
| Vertical | 30.0 | * | - | 50.0 | * |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 64.9 | * | - | 50.0 | * |
| | 148.6 | 35.4 | 12.3 | 50.0 | 14.6 |
| | 446.0 | 33.8 | 19.2 | 57.0 | 23.2 |

Note: * means the related margin is more than 10 dB.

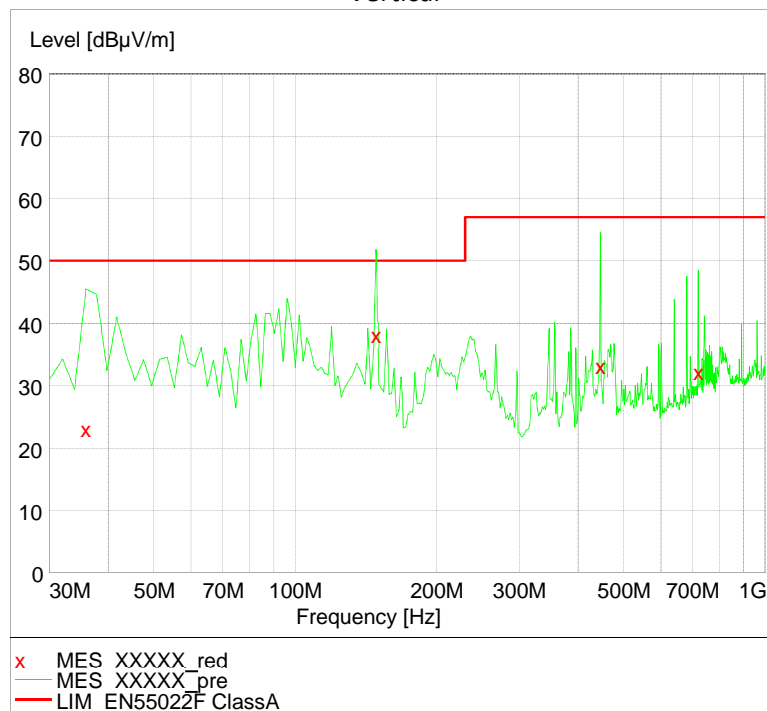
TEST REPORT

Test with Probe: D3-6CE

Horizontal



Vertical



TEST REPORT

Test data:

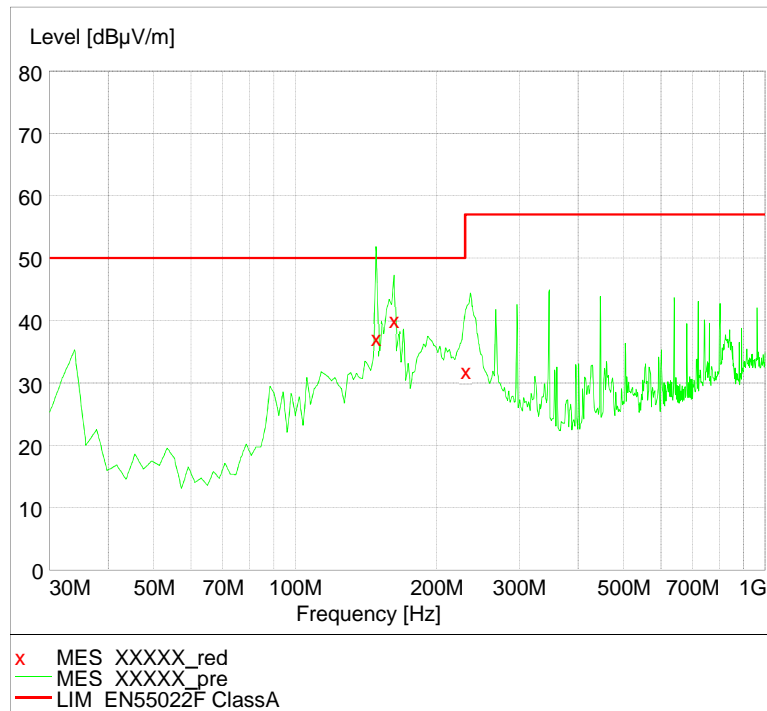
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 135.0 | * | - | 50.0 | * |
| | 148.6 | 36.5 | 12.3 | 50.0 | 13.5 |
| | 1000.0 | * | - | 57.0 | * |
| Vertical | 35.8 | 23.3 | 15.7 | 50.0 | 26.7 |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 148.6 | 38.4 | 12.3 | 50.0 | 11.6 |
| | 446.0 | 33.5 | 19.2 | 57.0 | 23.6 |
| | 720.1 | 32.4 | 22.4 | 57.0 | 24.6 |

Note: * means the related margin is more than 10 dB.

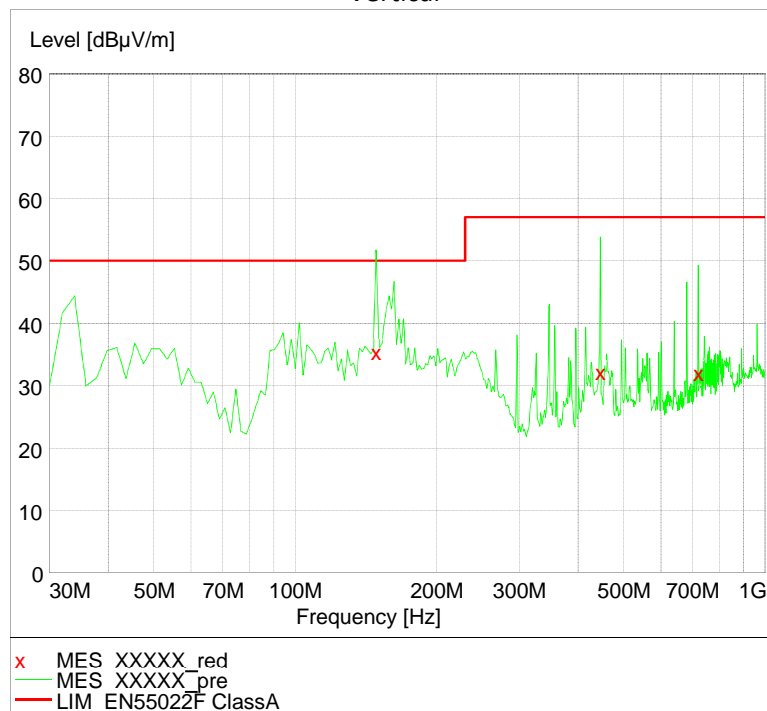
TEST REPORT

Test with Probe: F2-5C

Horizontal



Vertical



TEST REPORT

Test data:

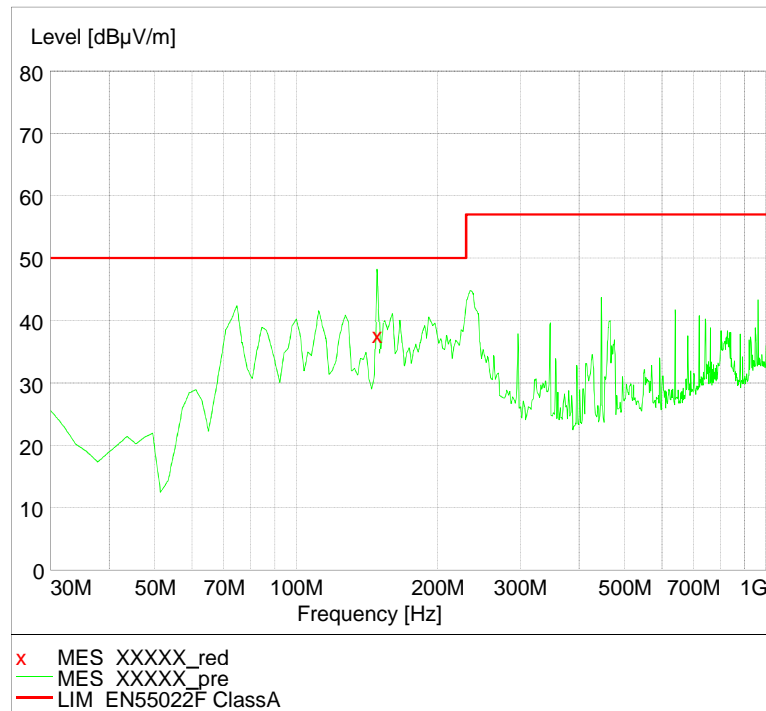
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 148.6 | 37.5 | 12.3 | 50.0 | 12.5 |
| | 230.2 | 32.0 | 12.3 | 57.0 | 25.0 |
| | 162.2 | 40.3 | 12.3 | 50.0 | 9.7 |
| Vertical | 30.0 | * | - | 50.0 | * |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 148.6 | 35.5 | 12.3 | 50.0 | 14.5 |
| | 446.0 | 32.4 | 19.2 | 57.0 | 24.6 |
| | 720.1 | 32.3 | 22.4 | 57.0 | 24.7 |

Note: * means the related margin is more than 10 dB.

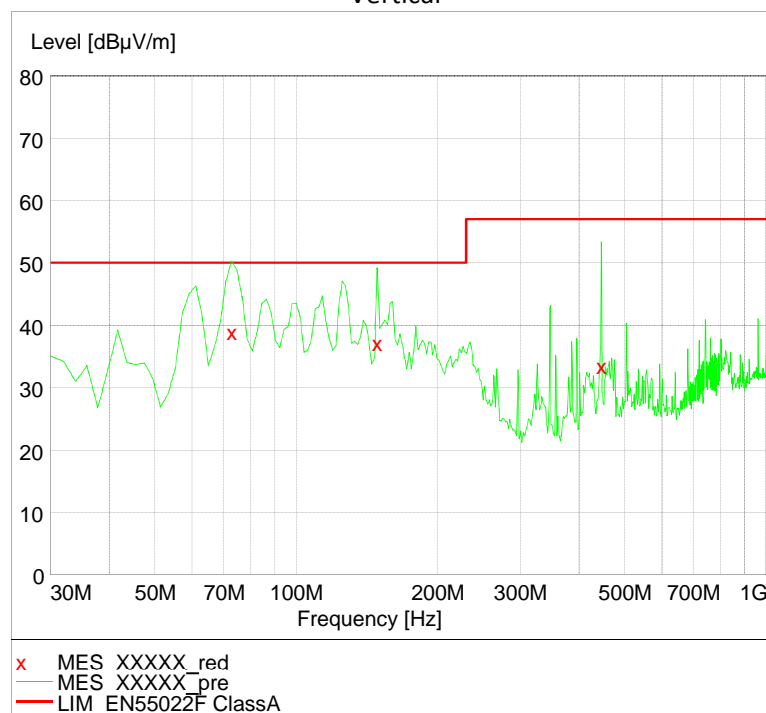
TEST REPORT

Test with Probe: F4-9E

Horizontal



Vertical



TEST REPORT

Test data:

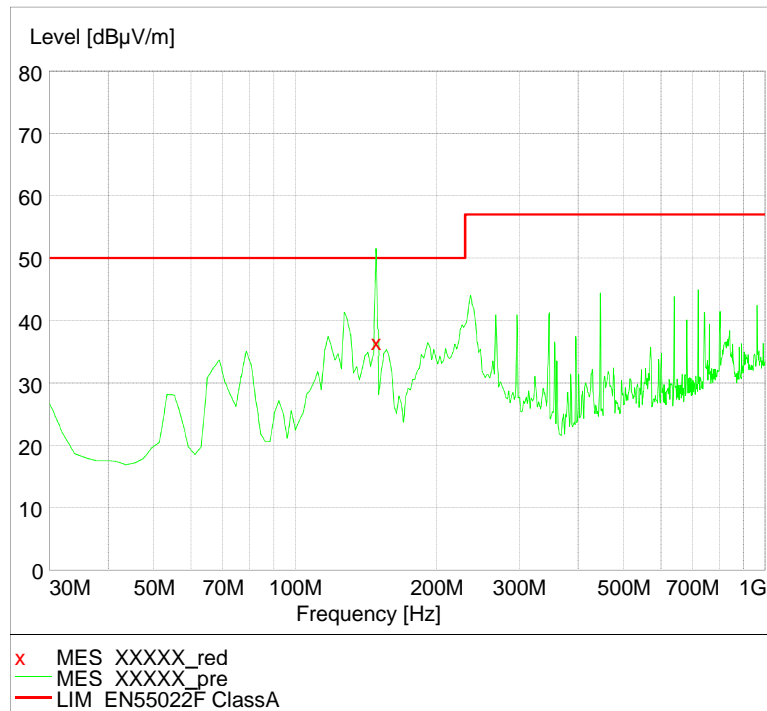
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 148.6 | 37.9 | 12.3 | 50.0 | 12.1 |
| | 500.0 | * | - | 57.0 | * |
| | 1000.0 | * | - | 57.0 | * |
| Vertical | 30.0 | * | - | 50.0 | * |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 72.8 | 39.1 | 7.4 | 50.0 | 10.9 |
| | 148.6 | 37.4 | 12.3 | 50.0 | 12.6 |
| | 446.0 | 33.8 | 19.2 | 57.0 | 23.2 |

Note: * means the related margin is more than 10 dB.

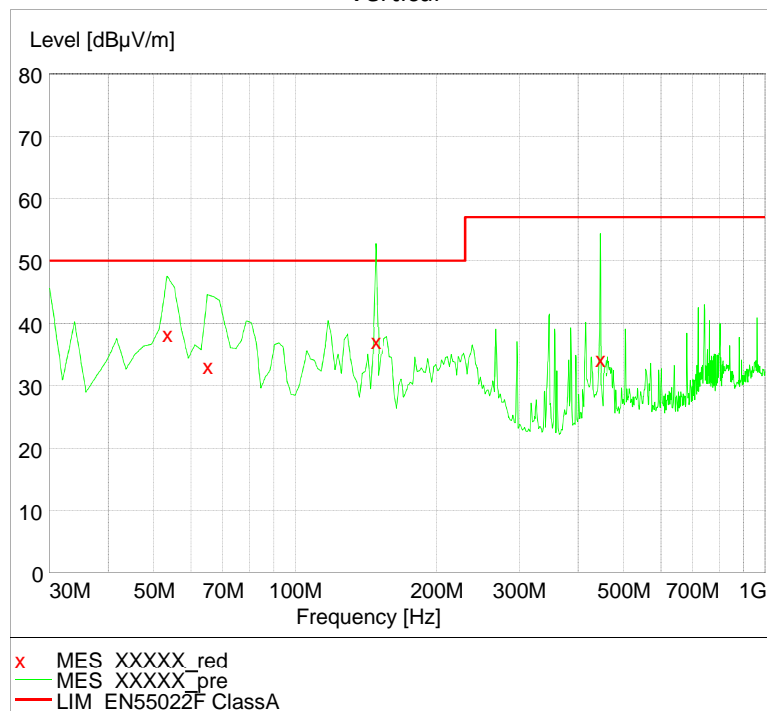
TEST REPORT

Test with Probe: F4-12L

Horizontal



Vertical



TEST REPORT

Test data:

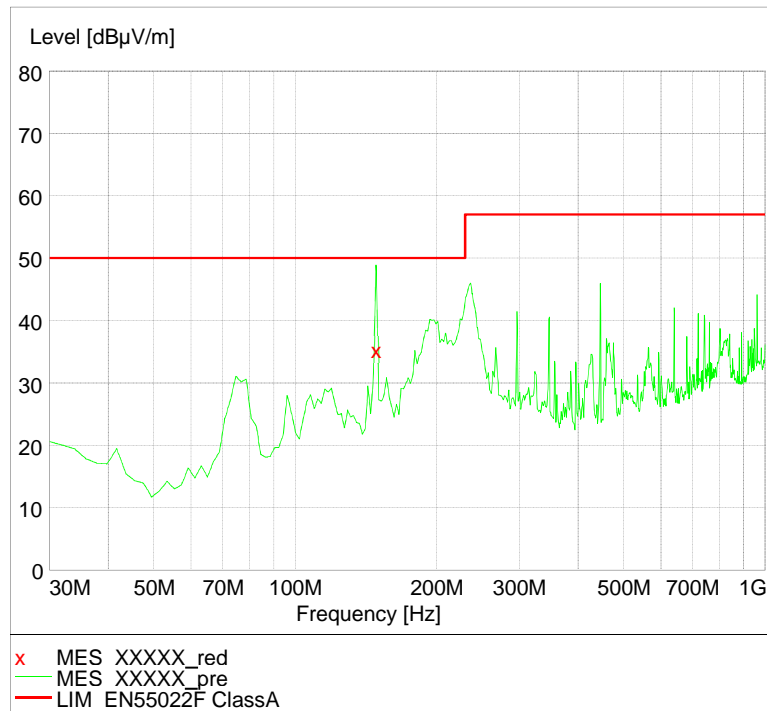
| Polarization | Frequency (MHz) | Corrected Reading (dB μ V/m) | Corrected Factor (dB/m) | Limits (dB μ V/m) | Margin (dB μ V/m) |
|--------------|-----------------|----------------------------------|-------------------------|-----------------------|-----------------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 148.6 | 36.8 | 12.3 | 50.0 | 13.3 |
| | 500.0 | * | - | 57.0 | * |
| | 1000.0 | * | - | 57.0 | * |
| Vertical | 30.0 | * | - | 50.0 | * |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | 38.5 | 8.2 | 50.0 | 11.5 |
| | 65.0 | 33.4 | 7.1 | 50.0 | 16.6 |
| | 148.6 | 37.5 | 12.3 | 50.0 | 12.5 |
| | 446.0 | 34.5 | 19.2 | 57.0 | 22.5 |

Note: * means the related margin is more than 10 dB.

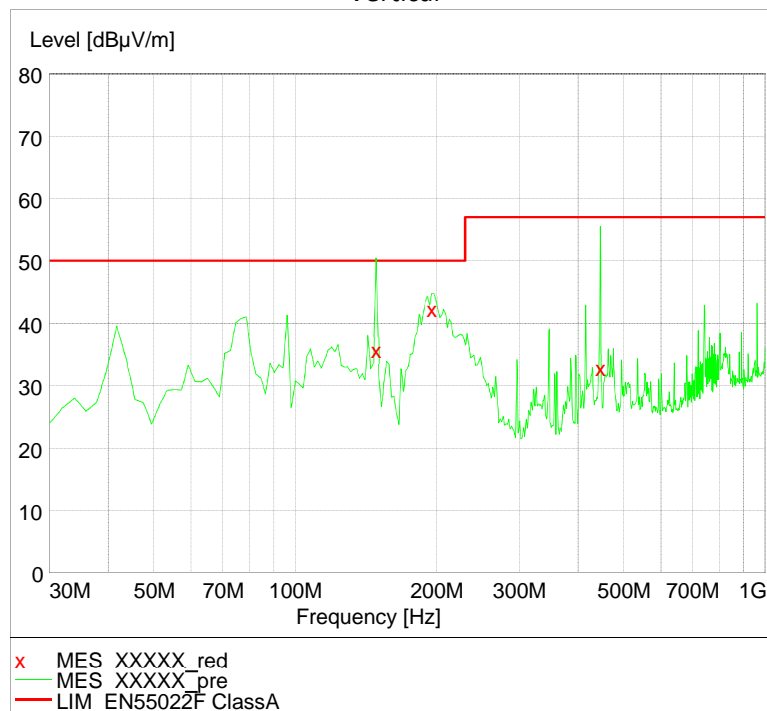
TEST REPORT

Test with Probe: G1-4P

Horizontal



Vertical



TEST REPORT

Test data:

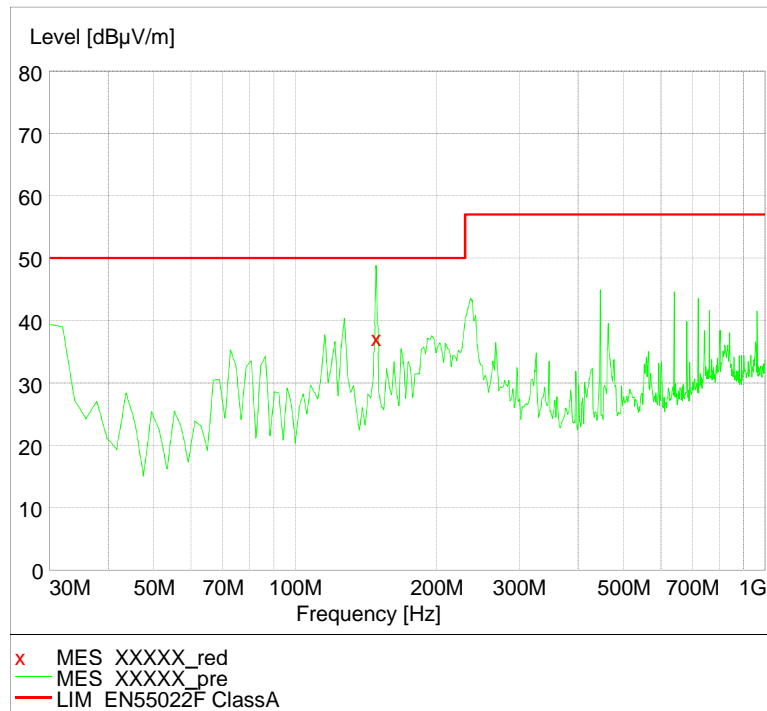
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 148.6 | 35.6 | 12.3 | 50.0 | 14.4 |
| | 500.0 | * | - | 57.0 | * |
| | 1000.0 | * | - | 57.0 | * |
| Vertical | 30.0 | * | - | 50.0 | * |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 148.6 | 35.9 | 12.3 | 50.0 | 14.1 |
| | 195.2 | 42.5 | 11.3 | 50.0 | 7.5 |
| | 446.0 | 33.1 | 19.2 | 57.0 | 23.9 |

Note: * means the related margin is more than 10 dB.

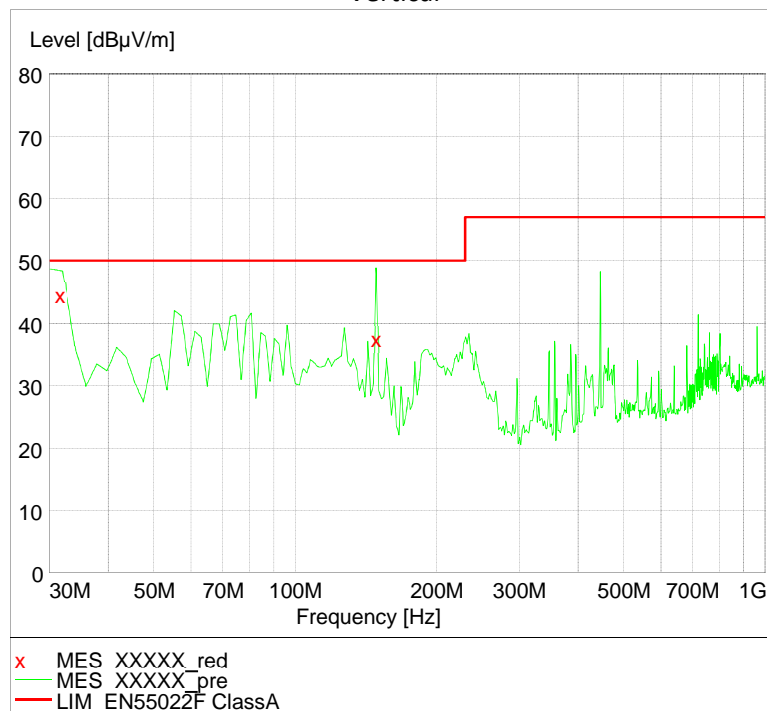
TEST REPORT

Test with Probe: G4-9E

Horizontal



Vertical



TEST REPORT

Test data:

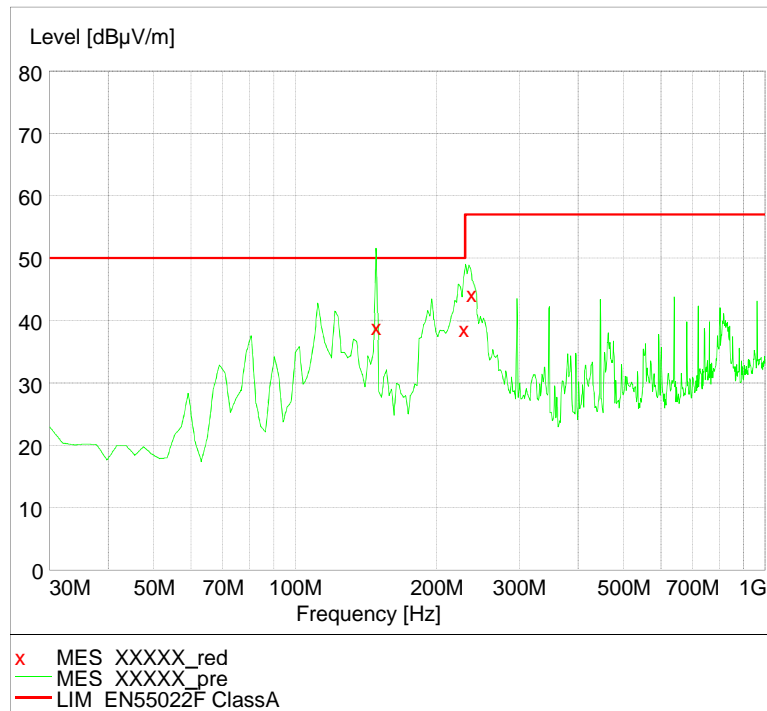
| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 148.6 | 37.4 | 12.3 | 50.0 | 12.6 |
| | 500.0 | * | - | 57.0 | * |
| | 1000.0 | * | - | 57.0 | * |
| Vertical | 31.5 | 44.7 | 18.9 | 50.0 | 5.3 |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 64.9 | * | - | 50.0 | * |
| | 107.0 | * | - | 50.0 | * |
| | 148.6 | 37.7 | 12.3 | 50.0 | 12.3 |

Note: * means the related margin is more than 10 dB.

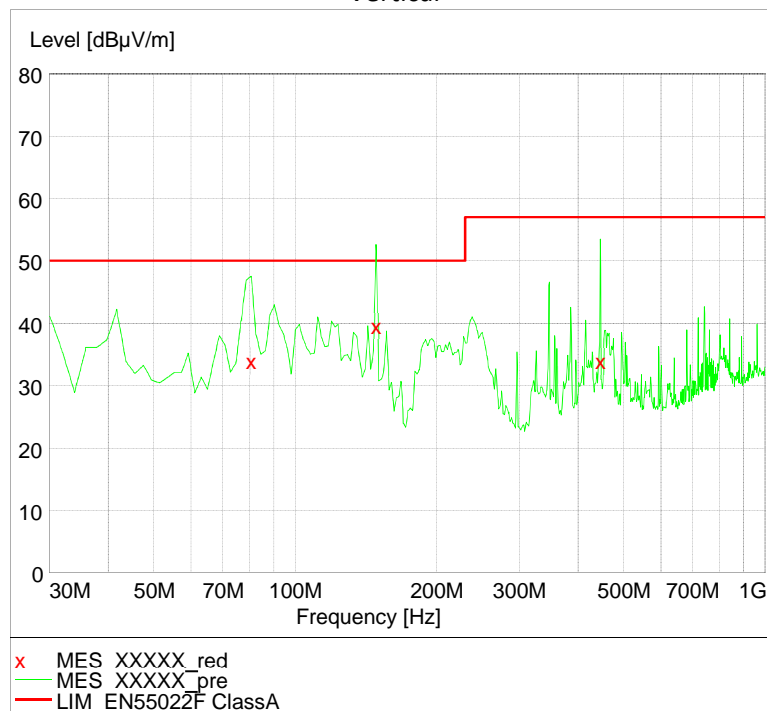
TEST REPORT

Test with Probe: G4-9M

Horizontal



Vertical



TEST REPORT

Test data:

| Polarization | Frequency (MHz) | Corrected Reading (dBμV/m) | Corrected Factor (dB/m) | Limits (dBμV/m) | Margin (dBμV/m) |
|--------------|-----------------|----------------------------|-------------------------|-----------------|-----------------|
| Horizontal | 30.0 | * | - | 50.0 | * |
| | 50.0 | * | - | 50.0 | * |
| | 116.7 | * | - | 50.0 | * |
| | 148.6 | 39.2 | 12.3 | 50.0 | 10.8 |
| | 228.3 | 38.9 | 12.1 | 50.0 | 11.1 |
| | 237.1 | 44.4 | 15.2 | 57.0 | 12.6 |
| Vertical | 30.0 | * | - | 50.0 | * |
| | 41.6 | * | - | 50.0 | * |
| | 53.3 | * | - | 50.0 | * |
| | 80.5 | 34.2 | 7.8 | 50.0 | 15.8 |
| | 148.6 | 39.9 | 12.3 | 50.0 | 10.2 |
| | 446.0 | 34.1 | 19.2 | 57.0 | 22.9 |

Note: * means the related margin is more than 10 dB.

- Remark: 1. Correct Factor = Antenna Factor + Cable Loss (+ Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.
2. Corrected Reading = Original Receiver Reading + Correct Factor
3. Margin = Limit - Corrected Reading
4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

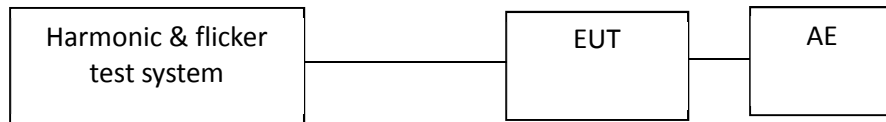
Example: Assuming Antenna Factor = 30.20dB/m, Cable Loss = 2.00dB,
Gain of Preamplifier = 32.00dB, Original Receiver Reading = 10.00dBμV,
Limit = 40.00dBμV/m.
Then Correct Factor = 30.20 + 2.00 – 32.00 = 0.20dB/m;
Corrected Reading = 10dBμV + 0.20dB/m = 10.20dBμV/m;
Margin = 40.00dBμV/m - 10.20dBμV/m = 29.80dB.

TEST REPORT

6 Harmonic current emission

Test result: Pass

6.1 Block diagram of test Setup



6.2 Test Procedure

Harmonics of the fundamental current were measured up to 40 order harmonics using a digital power meter with an analogue output and frequency analyzer which was integrated in the harmonic & flicker test system. The measurements were carried out under steady conditions.

☒ Measuring instrumentation according to IEC 61000-4-7:2002+A1:2008

☐ This product is not defined as lighting equipment, and has rated power less than 75W, therefore, no limit applies according to EN 61000-3-2

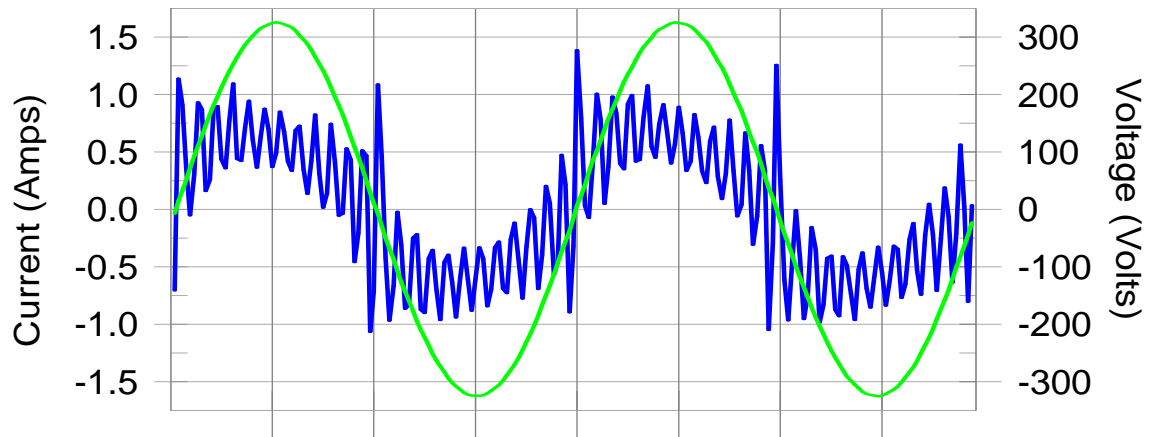
☐ The product is not intended to connect to the PUBLIC MAINS NETWORK, and this test is not applicable in this environment.

6.3 Test Result

VINNO E20

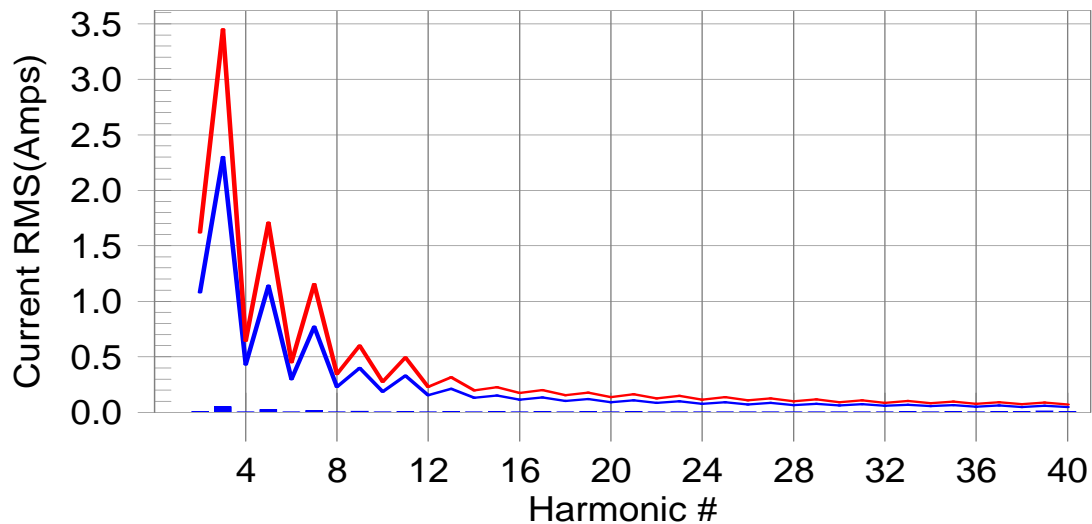
Test with Probe: G1-4P

Current & voltage waveforms



Harmonics and Class A limit line

European Limits



Test result: Pass Worst harmonic was #39 with 13.29% of the limit.

TEST REPORT

Current Test Result Summary (Run time)

Test Result: Pass Source qualification: Normal

THC(A): 0.06 I-THD(%): 13.72 POHC(A): 0.016 POHC Limit(A): 0.251

Highest parameter values during test:

| | | | |
|----------------|--------|----------------|-------|
| V_RMS (Volts): | 230.01 | Frequency(Hz): | 49.99 |
| I_Peak (Amps): | 1.532 | I_RMS (Amps): | 0.631 |
| I_Fund (Amps): | 0.484 | Crest Factor: | 2.515 |
| Power (Watts): | 106.9 | Power Factor: | 0.779 |

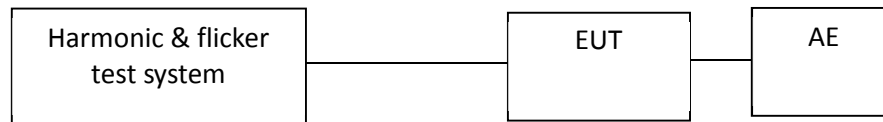
| Harm# | Harms(avg) | 100%Limit | %of Limit | Harms(max) | 150%Limit | %of Limit | Status |
|-------|------------|-----------|-----------|------------|-----------|-----------|--------|
| 2 | 0.006 | 1.080 | 0.6 | 0.007 | 1.620 | 0.41 | Pass |
| 3 | 0.050 | 2.300 | 2.2 | 0.051 | 3.450 | 1.47 | Pass |
| 4 | 0.003 | 0.430 | 0.8 | 0.003 | 0.645 | 0.54 | Pass |
| 5 | 0.023 | 1.140 | 2.0 | 0.023 | 1.710 | 1.36 | Pass |
| 6 | 0.002 | 0.300 | 0.8 | 0.003 | 0.450 | 0.59 | Pass |
| 7 | 0.015 | 0.770 | 1.9 | 0.015 | 1.155 | 1.31 | Pass |
| 8 | 0.002 | 0.230 | 0.9 | 0.002 | 0.345 | 0.68 | Pass |
| 9 | 0.010 | 0.400 | 2.6 | 0.011 | 0.600 | 1.75 | Pass |
| 10 | 0.002 | 0.184 | 1.2 | 0.002 | 0.276 | 0.85 | Pass |
| 11 | 0.006 | 0.330 | 1.9 | 0.006 | 0.495 | 1.30 | Pass |
| 12 | 0.002 | 0.153 | 1.5 | 0.003 | 0.230 | 1.10 | Pass |
| 13 | 0.006 | 0.210 | 3.1 | 0.007 | 0.315 | 2.11 | Pass |
| 14 | 0.002 | 0.131 | 1.8 | 0.003 | 0.197 | 1.28 | Pass |
| 15 | 0.006 | 0.150 | 4.0 | 0.006 | 0.225 | 2.78 | Pass |
| 16 | 0.002 | 0.115 | 2.1 | 0.003 | 0.173 | 1.52 | Pass |
| 17 | 0.005 | 0.132 | 4.2 | 0.006 | 0.199 | 2.90 | Pass |
| 18 | 0.002 | 0.102 | 2.4 | 0.003 | 0.153 | 1.74 | Pass |
| 19 | 0.007 | 0.118 | 5.5 | 0.007 | 0.178 | 3.87 | Pass |
| 20 | 0.003 | 0.092 | 2.7 | 0.003 | 0.138 | 1.99 | Pass |
| 21 | 0.006 | 0.107 | 5.2 | 0.006 | 0.161 | 3.61 | Pass |
| 22 | 0.003 | 0.084 | 3.2 | 0.003 | 0.125 | 2.25 | Pass |
| 23 | 0.004 | 0.098 | 3.8 | 0.004 | 0.147 | 2.71 | Pass |
| 24 | 0.003 | 0.077 | 3.9 | 0.003 | 0.115 | 2.76 | Pass |
| 25 | 0.004 | 0.090 | 4.6 | 0.004 | 0.135 | 3.19 | Pass |
| 26 | 0.003 | 0.071 | 4.2 | 0.003 | 0.106 | 3.18 | Pass |
| 27 | 0.004 | 0.083 | 4.4 | 0.004 | 0.125 | 3.17 | Pass |
| 28 | 0.003 | 0.066 | 4.6 | 0.003 | 0.099 | 3.39 | Pass |
| 29 | 0.004 | 0.078 | 5.1 | 0.004 | 0.116 | 3.64 | Pass |
| 30 | 0.004 | 0.061 | 6.0 | 0.004 | 0.092 | 4.34 | Pass |
| 31 | 0.004 | 0.073 | 5.8 | 0.004 | 0.109 | 4.06 | Pass |
| 32 | 0.004 | 0.058 | 6.9 | 0.005 | 0.086 | 5.39 | Pass |
| 33 | 0.006 | 0.068 | 8.9 | 0.006 | 0.102 | 6.34 | Pass |
| 34 | 0.004 | 0.054 | 7.7 | 0.005 | 0.081 | 6.03 | Pass |
| 35 | 0.007 | 0.064 | 10.3 | 0.007 | 0.096 | 7.31 | Pass |
| 36 | 0.004 | 0.051 | 7.5 | 0.005 | 0.077 | 5.92 | Pass |
| 37 | 0.007 | 0.061 | 12.2 | 0.008 | 0.091 | 8.97 | Pass |
| 38 | 0.004 | 0.048 | 8.9 | 0.005 | 0.073 | 7.52 | Pass |
| 39 | 0.010 | 0.058 | 17.3 | 0.012 | 0.087 | 13.29 | Pass |
| 40 | 0.005 | 0.046 | 10.5 | 0.008 | 0.069 | 11.70 | Pass |

TEST REPORT

7 Voltage fluctuations and flicker

Test result: Pass

7.1 Block diagram of test Setup



7.2 Test Procedure

7.2.1 Definition

- Flicker: impression of unsteadiness of visual sensation induced by a lighting stimulus whose luminance or spectral distribution fluctuates with time.
- Pst: Short-term flicker indicator the flicker severity evaluated over a short period (in minutes); Pst=1 is the conventional threshold of irritability
- Plt: long-term flicker indicator; the flicker severity evaluated over a long period (a few hours) using successive Pst values.
- dc: the relative steady-state voltage change
- dmax: the maximum relative voltage change
- d(t): the value during a voltage change

7.2.2 Test Procedure

The following limits apply

- "Plt" shall not exceed 0.65.
- "Pst" shall not exceed 1.0.
- "dc" shall not exceed 3.3%.
- "d(t)" shall not exceed 3.3% for more than 500ms.
- "dmax" shall not exceed:
 - ☒ 4% without additional conditions,
 - ☐ 6% switched manually or automatically more than twice per day,
 - ☐ 7% attended whilst in use or switched automatically for no more than twice per day or attended while in use.
 - ☐ For manual switch, dmax is measured in accordance with Annex B of standard, average dmax is calculated from 24 times measurement.
 - ☐ The EUT is unlikely to produce significant voltage fluctuations or flicker by technical analysis and evaluation. So it is deemed to fulfil the requirements without testing.
 - ☐ The product is not intended to connect to the PUBLIC MAINS NETWORK, and this test is not applicable in this environment.

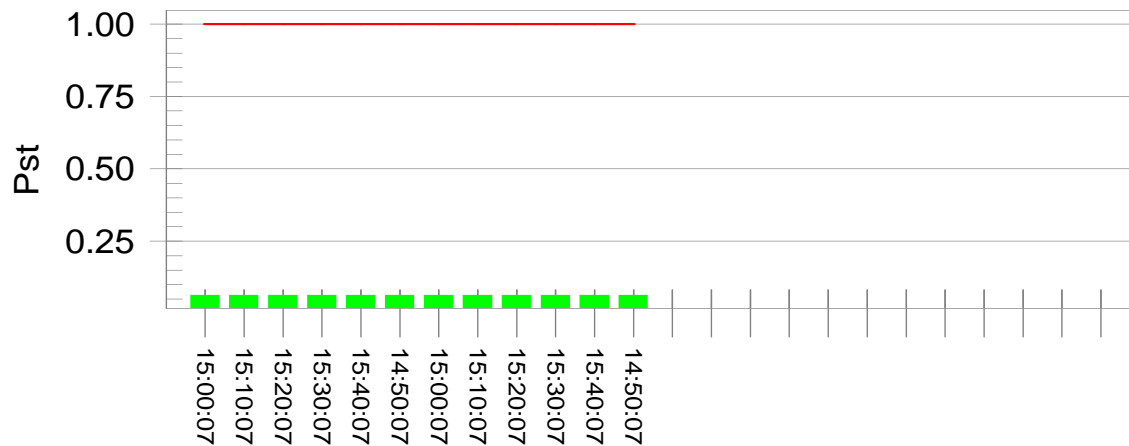
TEST REPORT

7.3 Test Result

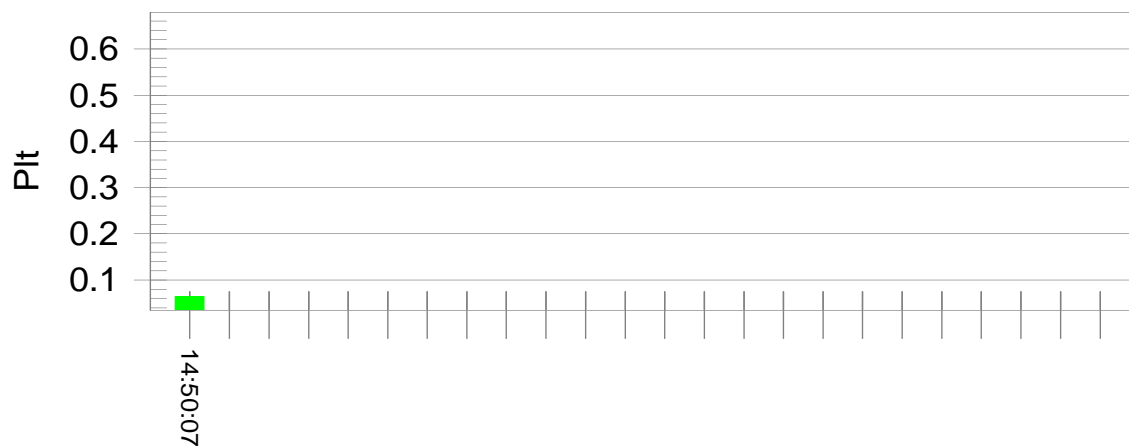
For the selection of probe is unlikely to produce significant voltage fluctuations or flicker, only the probe G1-4P was tested as representative.

Pst_i and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 229.51

Highest dt (%): -0.20

Time(mS) > dt: 0.0

Highest dc (%): 0.00

Highest dmax (%): -0.22

Highest Pst (10 min. period): 0.068

Highest Plt (2 hr. period): 0.068

Test limit (%): 3.30 Pass

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

Immunity Test

Performance as required by IEC 60601-1-2 and applicable particular standards. Basic Safety and Essential Performance must be maintained throughout testing.

Description of basic safety and essential performance

Product Essential Performance (Expected Performance where RMF identifies no Essential Performance):

| No. | Description |
|-----|--|
| 1 | Display of physiological images |
| 2 | Display of physiological traces |
| 3 | Display quantified data including distance, angle, square and volume |
| 4 | Display ultrasound indices as aid for safe use |

Description of Product Essential/Specific Performance:

| No. | Description |
|-----|---|
| 1 | No component failures |
| 2 | No changes in programmable parameters (gain) |
| 3 | No reset to factory defaults (manufacturer's presets) |
| 4 | No change of operating mode |
| 5 | No false alarms |
| 6 | No cessation or interruption of any intended operation |
| 7 | The disturbance shall not produce noise on a waveform or artifacts or distortion in an image or error of a displayed numerical value which may be attributed to a physiological |
| 8 | The disturbance shall not produce an error in a display of incorrect numerical values associated with the diagnosis to be performed after 1st dash |
| 9 | The disturbance shall not produce an error in a displayed safety related indication |
| 10 | The disturbance shall not produce unintended or excessive ultrasound output |
| 11 | The disturbance shall not produce unintended or excessive TRANSDUCER ASSEMBLY surface temperature; |
| 12 | The disturbance shall not produce unintended or uncontrolled motion of TRANSDUCER ASSEMBLIES intended for intra-corporeal use |
| 13 | Failure of automatic diagnosis or treatment ME equipment or ME systems to diagnose or treat, even if accompanied by an alarm |

Description how the basic safety and essential performance were monitored during each test

| No. | Description |
|-----|-----------------------------|
| 1 | Observing EUT's LCD display |

TEST REPORT**Performance Criteria**

Under the test conditions, the ME EQUIPMENT or ME SYSTEM shall be able to provide the BASIC SAFETY and ESSENTIAL PERFORMANCE. The following DEGRADATIONS, if associated with BASIC SAFETY and ESSENTIAL PERFORMANCE, shall not be allowed:

- malfunction;
- non-operation when operation is required;
- unwanted operation when no operation is required;
- deviation from normal operation that poses an unacceptable RISK to the PATIENT or OPERATOR;

The additional immunity performance criteria of IEC 60601-2-37:2015 were considered as below:

- component failures;
- changes in programmable parameters;
- reset to factory defaults (manufacturer's presets);
- change of operating mode;
- false alarms;
- cessation or interruption of any intended operation, even if accompanied by an alarm;
- initiation of any unintended operation, including unintended or uncontrolled motion, even if accompanied by an alarm;
- * the disturbance shall not produce noise on a waveform or artifacts or distortion in an image or error of a displayed numerical value which may be attributed to a physiological;
- the disturbance shall not produce an error in a display of incorrect numerical values associated with the diagnosis to be performed after dash mark as -*;
- the disturbance shall not produce an error in a displayed safety related indication;
- the disturbance shall not produce unintended or excessive ultrasound output;
- the disturbance shall not produce unintended or excessive TRANSDUCER ASSEMBLY surface temperature;
- the disturbance shall not produce unintended or uncontrolled motion of TRANSDUCER ASSEMBLIES intended for intra-corporeal use;

For ME EQUIPMENT and ME SYSTEMS with multiple FUNCTIONS, the criteria apply to each FUNCTION, parameter and channel.

The ME EQUIPMENT or ME SYSTEM may exhibit DEGRADATION of performance (e.g. deviation from MANUFACTURER'S specifications) that does not affect BASIC SAFETY or ESSENTIAL PERFORMANCE.

TEST REPORT

8 Electrostatic Discharge (ESD)

Test result: Pass

8.1 Severity Level and Performance Criterion

8.1.1 Test level

| Contact discharge | | Air discharge | |
|-------------------|-------------------|---------------|-------------------|
| Level | Test voltage (kV) | Level | Test voltage (kV) |
| 1 | 2 | 1 | 2 |
| 2 | 4 | 2 | 4 |
| 3 | 6 | 3 | 8 |
| 4 | 8 | 4 | 15 |
| X | Special | X | Special |

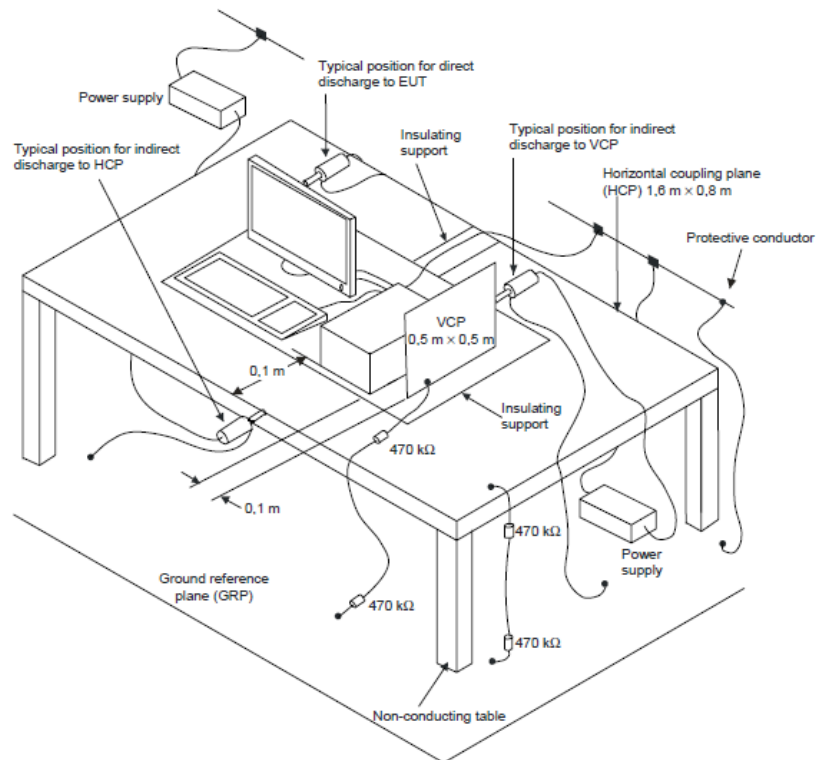
Notes:

- The requirements above shall apply to equipment and systems used in all environments. When the expected electromagnetic characteristics of the intended use environment justify higher immunity test levels, these higher immunity test levels shown as "X" may be needed and shall take precedence.
- The yellow rows were the selected test level.

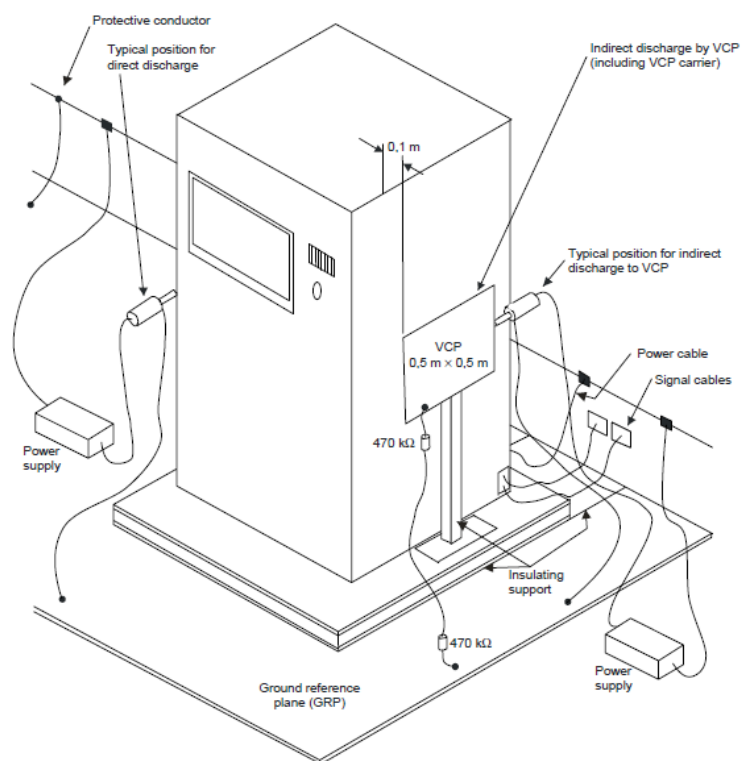
TEST REPORT

8.2 Block diagram of test Setup

For table-top equipment



For floor standing equipment



TEST REPORT

8.3 Test Procedure

Measurement was performed in shielded room.

Measurement procedure was applied according to EN 61000-4-2 Clause 8.

The test method and equipment was specified by EN 61000-4-2 with the modifications by IEC60601-1-2 clause 8.9.

TEST REPORT

8.4 Test Result

Direct discharges were applied at the following selected points:

| Test level [kV] | Air/Contact | Polarity (+/-) | Pass/Fail/NA | Comment |
|-----------------|-------------|----------------|--------------|-----------------------------------|
| 8 | Contact | +/- | Pass | Accessible metal parts of the EUT |
| 8 | Contact | +/- | Pass | All touchable screws of enclosure |
| 2/4/8/15 | Air | +/- | Pass | Air gap of the switch, button |
| 2/4/8/15 | Air | +/- | Pass | Slots around the EUT |
| 2/4/8/15 | Air | +/- | Pass | All probes |

Indirect contact discharges were applied to the VCP and the HCP at the following selected points:

For table-top equipment

| Position | Description | Point | Pass/Fail/NA |
|-----------|-------------------------------------|-----------------------|--------------|
| HCP front | 0,1m from the front of the EUT | Edge of centre on HCP | NA |
| HCP back | 0,1m from the back of the EUT | Edge of centre on HCP | NA |
| HCP right | 0,1m from the right side of the EUT | Edge of centre on HCP | NA |
| HCP left | 0,1m from the left side of the EUT | Edge of centre on HCP | NA |
| VCP front | 0,1m from the front of the EUT | Edge of centre on VCP | NA |
| VCP back | 0,1m from the back of the EUT | Edge of centre on VCP | NA |
| VCP right | 0,1m from the right of the EUT | Edge of centre on VCP | NA |
| VCP left | 0,1m from the left of the EUT | Edge of centre on VCP | NA |

For floor standing equipment

| Position | Description | Point | Pass/Fail/NA |
|----------|--------------------------------|-----------------------|--------------|
| CP front | 0,1m from the front of the EUT | Edge of centre on VCP | Pass |
| CP back | 0,1m from the back of the EUT | Edge of centre on VCP | Pass |
| CP right | 0,1m from the right of the EUT | Edge of centre on VCP | Pass |
| CP left | 0,1m from the left of the EUT | Edge of centre on VCP | Pass |

Observation: All the functions were operated as normal after the test.

Conclusion: The EUT providing the essential performance and remaining safe.

TEST REPORT

9 Radio frequency electromagnetic field

Test result: Pass

9.1 Severity Level and Performance Criterion

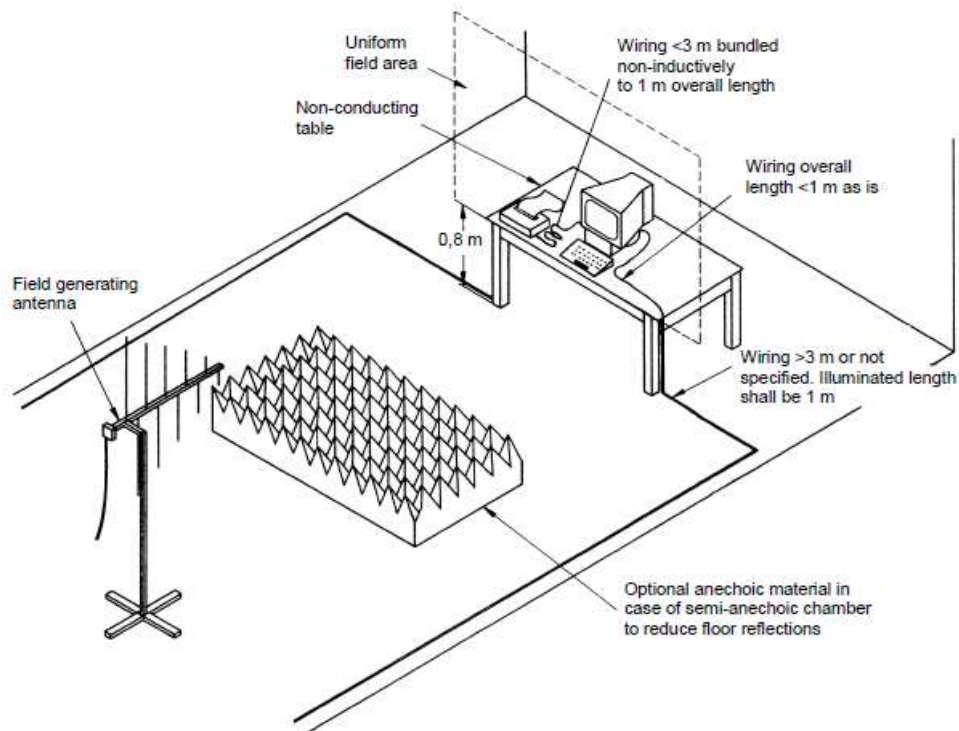
9.1.1 Test level

| Level | Test field strength V/m | Intended use environment |
|--|-------------------------|--|
| 1 | 3 | Professional healthcare facility environment |
| 2 | 10 | Home healthcare environment |
| X | Special | |
| <p>Note:</p> <ol style="list-style-type: none"> 1. "X" is an open test level. When the expected electromagnetic characteristics of the intended use environment justify higher immunity test levels, these higher immunity test levels shown as "X" may be needed and shall take precedence. 2. The yellow row is the selected test level. | | |

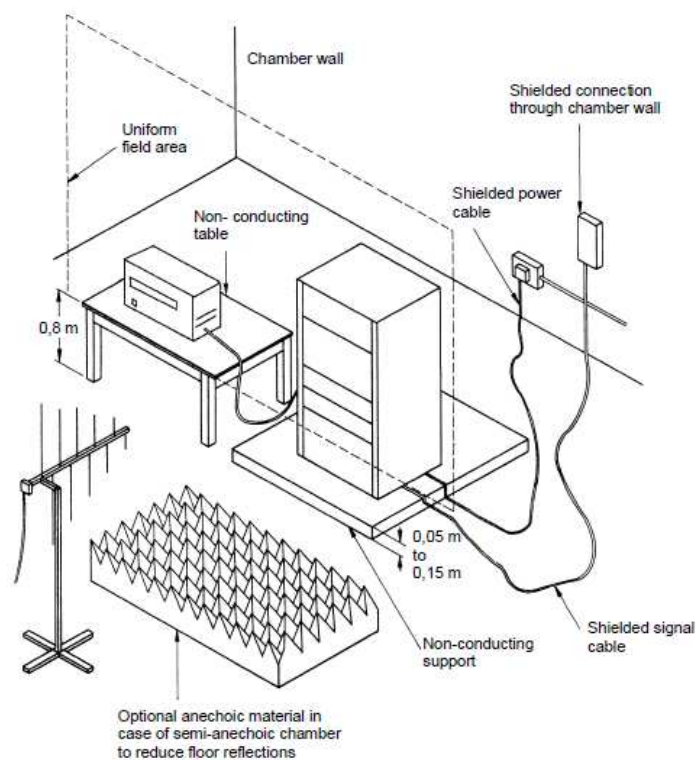
TEST REPORT

9.2 Block diagram of test setup

For table-top equipment



For floor standing equipment



9.3 Test Procedure

Measurement was performed in full-anechoic chamber.

Measurement procedure was applied according to EN 61000-4-3 Clause 8.

The test method and equipment was specified by EN 61000-4-3.

Testing of permanently installed large ME equipment or large ME system in situ.

Using the RF sources that are expected to be operating in any of the locations of INTENDED USE.

Testing in the range 80 MHz to 6 GHz at frequencies designated by the International Telecommunications Union (ITU) for ISM use, listed as follows:

| Centre Frequency (MHz) | Frequency range (MHz) |
|------------------------|-----------------------|
| 433.920 | 433.05 – 434.79 |
| 915.000 | 902 – 928 |
| 2450 | 2400 – 2500 |
| 5800 | 5725 – 5 875 |

TEST REPORT

9.4 Test Result

All probes were tested with VINNO G55 under test levels as follows:

| Test no. | Frequency (MHz) | Polarization | Test level (V/m) | Modulation | Dwell time (s) | Exposed location | Pass/Fail/NA |
|----------|-----------------|--------------|------------------|--------------------------------------|----------------|------------------|--------------|
| 1 | 80-1000 | H & V | 3 | 1 kHz, 80% AM 1 % increment | 3 | All sides | Pass |
| 2 | 1000-2700 | H & V | 3 | 1 kHz, 80% AM 1 % increment | 3 | All sides | Pass |

| | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|
| Testing of permanently installed large ME equipment or large ME system: | | | | | | | | | |
| Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | | | | | | | | |
| If Yes, include the following information | | | | | | | | | |
| Frequencies tested | | | | | | | | | |
| Power levels of RF test sources | | | | | | | | | |
| Modulation of RF test sources | | | | | | | | | |
| Test distance used | | | | | | | | | |
| Other relevant information related to test | | | | | | | | | |

Observation: All the functions were operated as normal during and after test.

Conclusion: The EUT providing the essential performance and remaining safe.

TEST REPORT

10 Proximity fields from RF wireless communication equipment

Test result: **Pass**

10.1 Severity Level and Performance Criterion

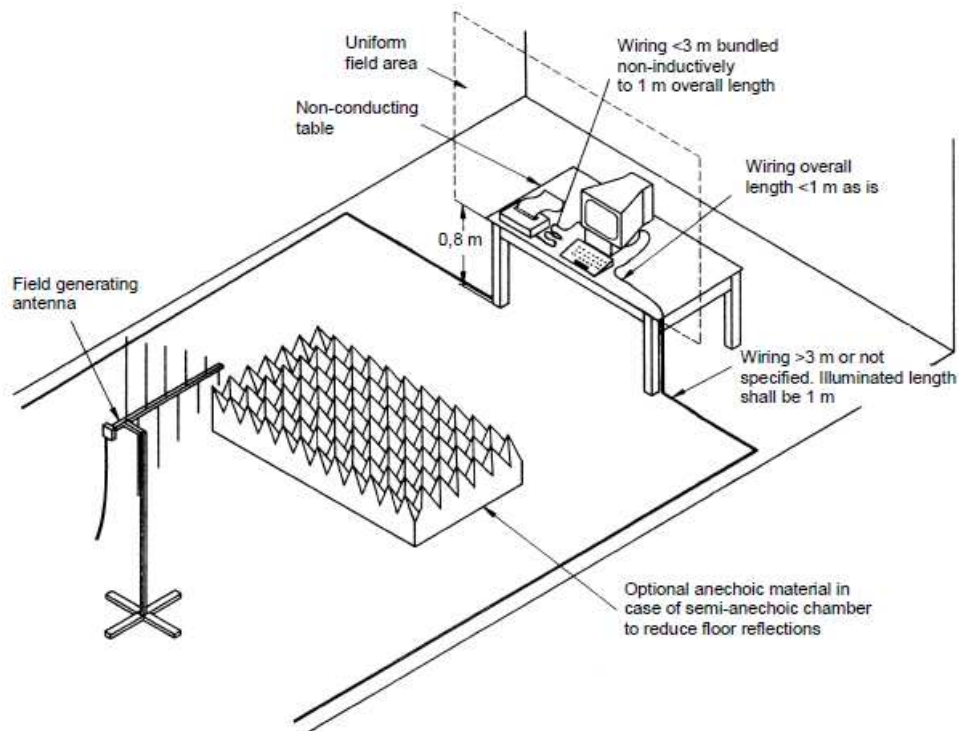
10.1.1 Test level

| Test Frequency (MHz) | Modulation | Minimum IMMUNITY Level (V/m) | IMMUNITY Level Applied (V/m) |
|---|---|------------------------------|------------------------------|
| 385 | **Pulse Modulation: 18 Hz | 27 | 27 |
| 450 | <input type="checkbox"/> *FM \pm 5 Hz deviation: 1 kHz sine | 28 | 28 |
| | <input checked="" type="checkbox"/> **Pulse Modulation: 18 Hz | | |
| 710 745 780 | **Pulse Modulation: 217 Hz | 9 | 9 |
| 810 870 930 | **Pulse Modulation: 18 Hz | 28 | 28 |
| 1720 1845 1970 | **Pulse Modulation: 217 Hz | 28 | 28 |
| 2450 | **Pulse Modulation: 217 Hz | 28 | 28 |
| 5240 5500 5785 | **Pulse Modulation: 217 Hz | 9 | 9 |
| <p>Note *: As an alternative to FM modulation, 50 % pulse modulation at 18 Hz may be used because while it does not represent actual modulation, it would be worst case.</p> <p>Note **: The carrier shall be modulated using a 50 % duty cycle square wave signal.</p> | | | |

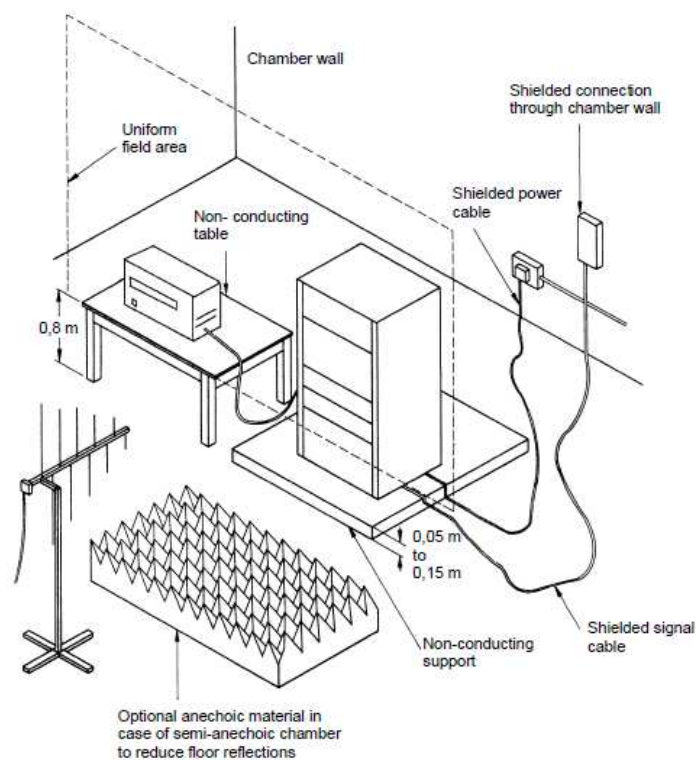
TEST REPORT

10.2 Block diagram of test setup

For table-top equipment



For floor standing equipment



TEST REPORT

10.3 Test Procedure

Measurement was performed in full-anechoic chamber.

Measurement procedure was applied according to EN 61000-4-3 Clause 8.

The test method and equipment was specified by EN 61000-4-3 with the modification of IEC60601-1-2 Clause 8.10.

10.4 Test Result

All probes were tested with VINNO G55 under test levels as follows:

| Test frequency (MHz) | Antenna polarization (V/H) | Dwell Time (second) | Exposed location | Result |
|----------------------|----------------------------|---------------------|------------------|--------|
| 385 | H & V | 20 | All sides | Pass |
| 450 | H & V | 20 | All sides | Pass |
| 710 745 780 | H & V | 20 | All sides | Pass |
| 810 870 930 | H & V | 20 | All sides | Pass |
| 1720 1845 1970 | H & V | 20 | All sides | Pass |
| 2450 | H & V | 20 | All sides | Pass |
| 5240 5500 5785 | H & V | 20 | All sides | Pass |

Observation: All the functions were operated as normal during and after test.

Conclusion: The EUT providing the essential performance and remaining safe.

TEST REPORT

11 Fast transients, common mode

Test result: Pass

11.1 Severity Level and Performance Criterion

11.1.1 Test level

| Open circuit output test voltage (+/-10%) and repetition rate of the impulses (+/- 20%) | | | |
|---|------------------------|--|------------------------|
| On A.C and D.C power cables ports | | On signal and interconnecting cables ports | |
| Voltage peak kV | Repetition rate kHz | Voltage peak kV | Repetition rate kHz |
| 2 | 100 | 1 | 100 |

Notes:

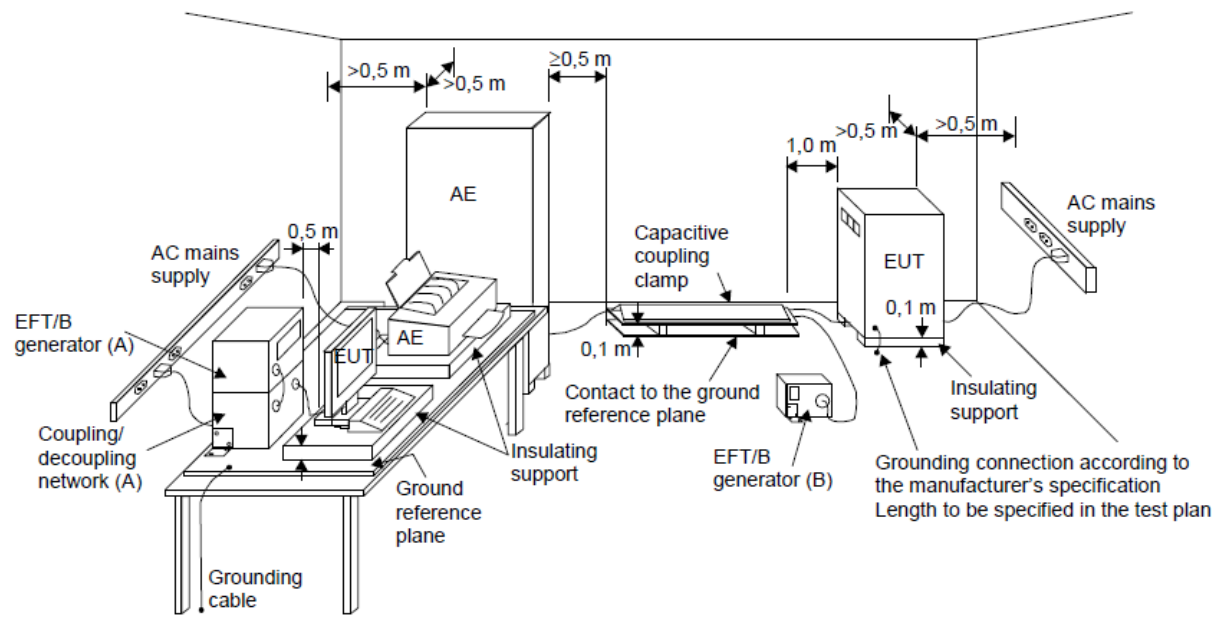
1. The yellow rows were the selected test level.
2. The requirements above shall apply to equipment and systems used in all environments.

When the expected electromagnetic characteristics of the intended use environment justify higher immunity test levels, these higher immunity test levels shall take precedence.

3. Signal and interconnecting cables specified to be (i.e. restricted to) less than 3 m in length by the manufacturer of the equipment or system and all patient-coupled cables are not tested directly. However, the effects of any coupling between cables that are tested directly and cables that are not tested directly shall be taken into account.

TEST REPORT

11.2 Block diagram of test setup



(A) location for supply line coupling

(B) location for signal lines coupling

11.3 Test Procedure

Measurement was performed in shielded room.

Measurement procedure was applied according to IEC 61000-4-4 Clause 8.

The test method and equipment was specified by IEC 61000-4-4 with the modification of IEC60601-1-2 Clause 8.9.

TEST REPORT

11.4 Test Result

| Test No. | Level (kV) | Polarity (+/-) | Line for test | Pass/Fail/NA |
|----------|------------|----------------|-----------------------------|--------------|
| 1 | 2 | +/- | AC mains power input ports | Pass |
| 2 | 2 | +/- | DC power input ports | NA |
| 3 | 1 | +/- | Signal/control ports | Pass |
| 4 | 1 | +/- | Interconnecting cable ports | NA |

Observation: All the functions were operated as normal after the test.

Conclusion: The EUT providing the essential performance and remaining safe.

TEST REPORT

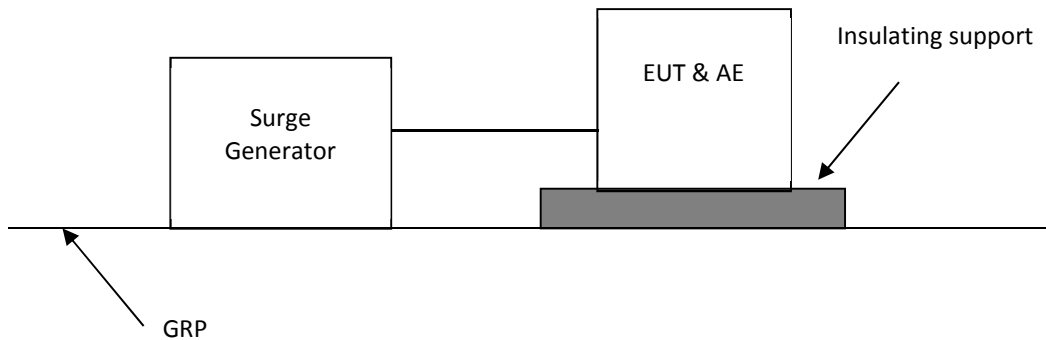
12 Surges

Test result: Pass

12.1 Severity Level and Performance Criterion

12.1.1 Test level

| Level | Open-circuit test voltage (kV) |
|--|--------------------------------|
| 1 | 0.5 |
| 2 | 1.0 |
| 3 | 2.0 |
| 4 | 4.0 |
| X* | Special |
| Notes: 1. "X" is an open class. This level can be specified in the product specification 2. The yellow rows are the selected level. | |

TEST REPORT**12.2 Block diagram of test setup****12.3 Test Procedure**

Measurement was performed in shielded room.

Measurement procedure was applied according to EN 61000-4-5 Clause 8.

The test method and equipment was specified by EN 61000-4-5 with the modification of IEC60601-1-2 Clause 8.9.

TEST REPORT

12.4 Test Result

| Test No. | Level [kV] | Polarity +/- | Line for test | Pass/Fail/NA |
|----------|------------|--------------|---|--------------|
| 1 | 0.5/1 | +/- | AC mains power input port (line to line) | Pass |
| 2 | 0.5/1/2 | +/- | AC mains power input port (line to earth) | Pass |
| 3 | 0.5/1 | +/- | Input d.c. power port (line to line) | NA |
| 4 | 0.5/1/2 | +/- | Input d.c. power port (line to earth) | NA |

Observation: All the functions were operated as normal after the test.

Conclusion: The EUT providing the essential performance and remaining safe.

TEST REPORT

13 Conducted disturbances induced by RF fields

Test result: Pass

13.1 Severity Level and Performance Criterion

13.1.1 Test level

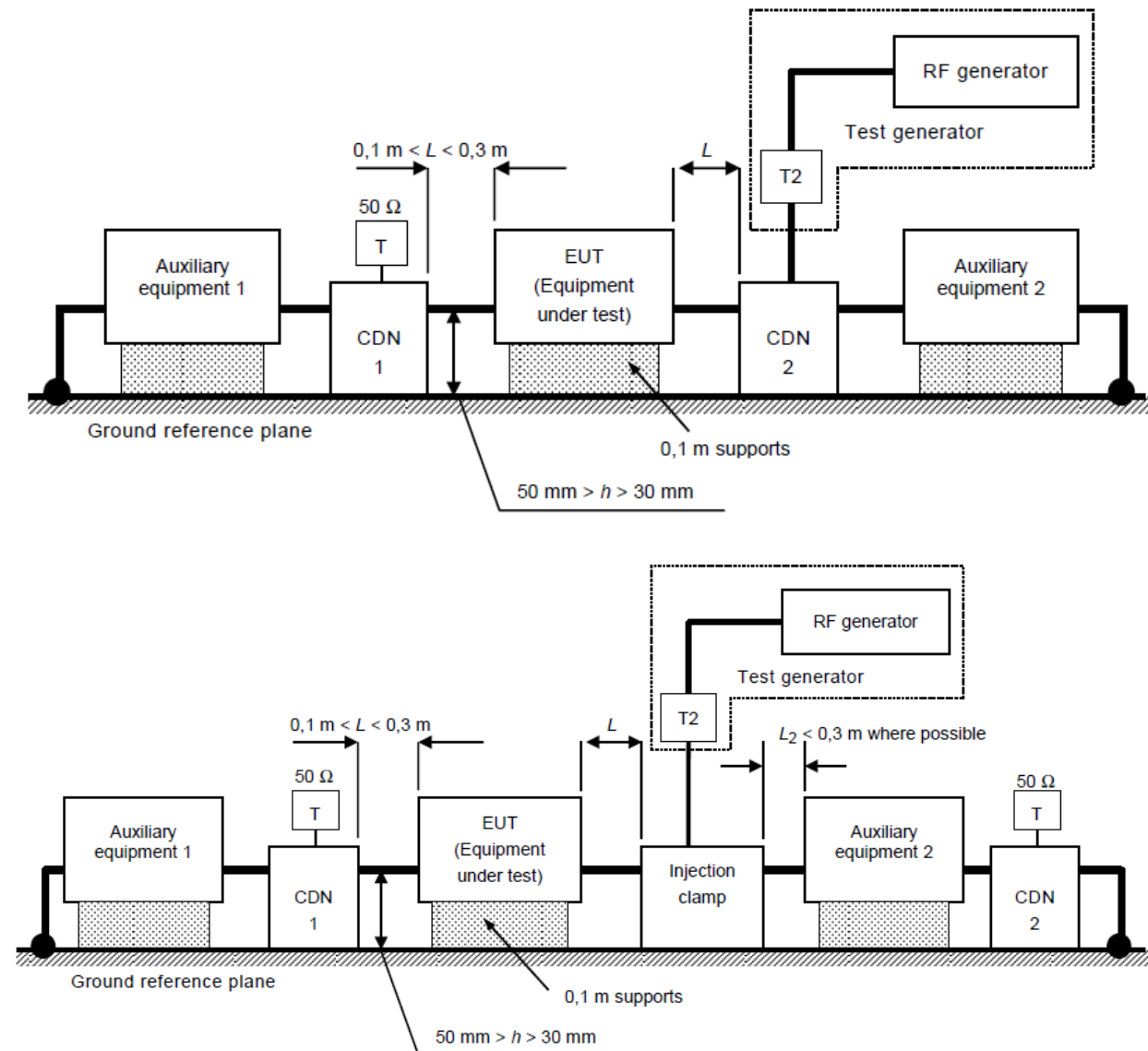
| Level | Test field strength V/m | Equipment | Frequency range |
|-------|----------------------------|---|--|
| 1 | 3 | Professional healthcare facility environment | 0.15MHz-80MHz |
| 2 | 3 | Home healthcare environment | 0.15MHz-80MHz |
| 3 | 6 | Professional healthcare facility environment | In the ISM frequency band |
| 4 | 6 | Home healthcare environment | In the ISM and amateur frequency band |

Notes:

1. The yellow rows were the selected test level.
2. The requirements above shall apply to equipment and systems used in all environments. When the expected electromagnetic characteristics of the intended use environment justify higher immunity test levels, these higher immunity test levels shall take precedence.
4. "ISM" means the industrial, scientific and medical.
5. For internally powered equipment and systems that cannot be used during battery charging, do not have an option for AC power input and have no connection to ground, telecommunications systems, any other equipment or system or a patient, the start frequency shall be determined from figure B.1 of IEC 61000-4-6, using the maximum dimension of the equipment or system, including the maximum length of each cable connected.

TEST REPORT

13.2 Block diagram of test setup



- T termination 50Ω
- T2 power attenuator (6 dB)
- CDN coupling and decoupling network

13.3 Test Procedure

Measurement procedure was applied according to EN 61000-4-6 Clause 8.

The test method and equipment was specified by EN 61000-4-6 with the modification of IEC60601-1-2 Clause 8.9.

TEST REPORT

13.4 Test Result

All probes were tested with VINNO G55 under test levels as follows:

| Test No. | Frequency (MHz) | Level (V) | Modulation | Dwell time (s) | Injected point | Pass/Fail/NA |
|----------|---|-----------|-------------------|----------------|--------------------------------|--------------|
| 1 | 0.15~80 | 3 | 80%, 1 kHz, AM | 3 | Input AC mains power port | Pass |
| | <input checked="" type="checkbox"/> ISM frequency band <input type="checkbox"/> ISM and amateur frequency band | 6 | | | | |
| 2 | 0.15~80 | 3 | 80%, 1 kHz, AM | 3 | Input DC power port | NA |
| | <input type="checkbox"/> ISM frequency band <input type="checkbox"/> ISM and amateur frequency band | 6 | | | | |
| 3 | 0.15~80 | 3 | 80%, 1 kHz, AM | 3 | Patient coupling port | Pass |
| | <input checked="" type="checkbox"/> ISM frequency band <input type="checkbox"/> ISM and amateur frequency band | 6 | | | | |
| 4 | 0.15~80 | 3 | 80%, 1 kHz, AM | 3 | Signal input/output parts PORT | Pass |
| | <input checked="" type="checkbox"/> ISM frequency band <input type="checkbox"/> ISM and amateur frequency band | 6 | | | | |

Observation: All the functions were operated as normal during and after test.

Conclusion: The EUT providing the essential performance and remaining safe.

TEST REPORT

14 Voltage dips and interruptions

Test result: Pass

14.1 Severity Level and Performance Criterion

14.1.1 Test level

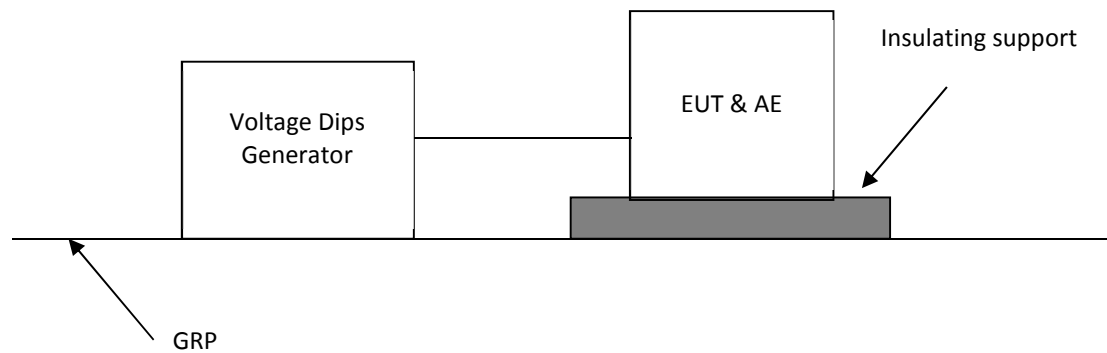
| Voltage Dips (% U_T)** | Cycles | Sync Angle (degrees) |
|---------------------------------|--------------------------|------------------------------------|
| 0 | 0.5* | 0; 45; 90; 135; 180; 225; 270; 315 |
| 0 | 1 | 0 |
| 70 | 25 (50 Hz) 30 (60 Hz) | 0 |
| Voltage Interruption % U_T | Cycles | Sync Angle [degrees] |
| 0 | 250 (50 Hz), 300 (60 Hz) | Any |

Note:

1. If the Rated voltage range <25 % of the lowest rated input voltage, one rated input voltage. Otherwise, minimum and maximum rated voltage.
2. ME equipment and ME systems with power input voltage selection by transformer taps tested at only one tap setting.

Note* - Only applicable to me equipment with single phase a.c. mains

Note** - Applicable to ME EQUIPMENT and ME SYSTEMS with RATED input current ≤ 16 A / phase.

TEST REPORT**14.2 Block diagram of test setup****14.3 Test Procedure**

Measurement was performed in shielded room.

Measurement procedure was applied according to EN 61000-4-11 Clause 8.

The test method and equipment was specified by EN 61000-4-11 with the modification of IEC60601-1-2 Clause 8.9.

14.4 Test Result

| Supply Voltage Range | Difference of Max Voltage – Min Voltage | 25 % of Lowest Rated input Voltage | Test at Min/Max Voltages required (Y/N) | |
|---------------------------------------|---|------------------------------------|---|---|
| 220V-240V | 20V | >20V | N | |
| Supply Voltage Voltage under Test (V) | | | <input type="checkbox"/> 100 | <input checked="" type="checkbox"/> 230 |
| Frequency (Hz) | | | 60 | 50 |
| Voltage Dips | Period (Cycles) | | Pass/ Fail/ NA | |
| 0 | 0.5 | | NA | Pass |
| 0 | 1 | | NA | Pass |
| 70 | 25/30 (50/60 Hz) | | NA | Pass |
| Voltage Interruptions | Period (Cycles) | | Pass/ Fail/ NA | |
| 0 | 250/300 (50/60 Hz) | | NA | Pass |

Observation: All the functions were operated as normal after test.

Conclusion: The EUT providing the essential performance and remaining safe.

TEST REPORT

15 Power frequency magnetic field IMMUNITY

Test result: Pass

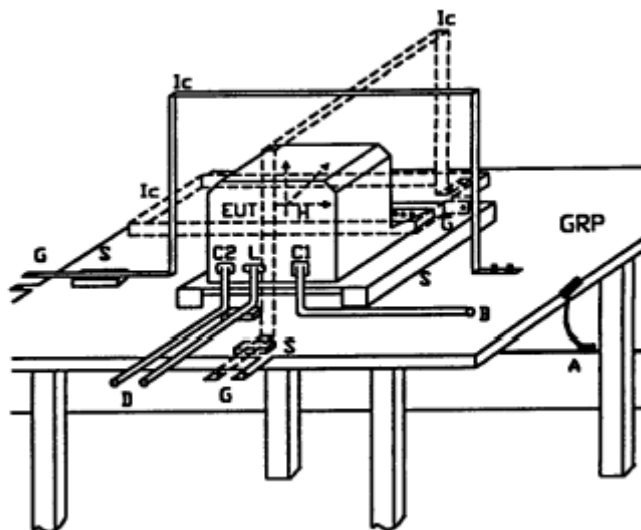
☐ Test does not apply. Device under test does not contain magnetically sensitive components or circuitry.

15.1 Severity Level and Performance Criterion

15.1.1 Test level

| Level | Magnetic field strength A/m |
|--|-----------------------------|
| 1 | 30 |
| Note: The yellow row is the selected test level. | |

15.2 Block diagram of test setup



15.3 Test Procedure

Measurement was performed in shielded room.

Measurement and setting of EUT was applied according to IEC61000-4-8 clause 7.

The test method and equipment is specified by IEC61000-4-8 with modification of IEC60601-1-2 Clause 8.9.

TEST REPORT

15.4 Test Result

All probes were tested with VINNO G55 under test levels as follows:

| Test No. | Level A/m | Frequency Hz | Axis | Pass/ Fail/ NA |
|----------|--------------|---|------|----------------|
| 1 | 30 | <input checked="" type="checkbox"/> 50Hz <input type="checkbox"/> 60Hz | X | Pass |
| 2 | 30 | | Y | Pass |
| 3 | 30 | | Z | Pass |

Observation: All the functions were operated as normal during and after test.

Conclusion: The EUT providing the essential performance and remaining safe.

TEST REPORT

16 Electrical transient conduction along supply lines

Test result: NA

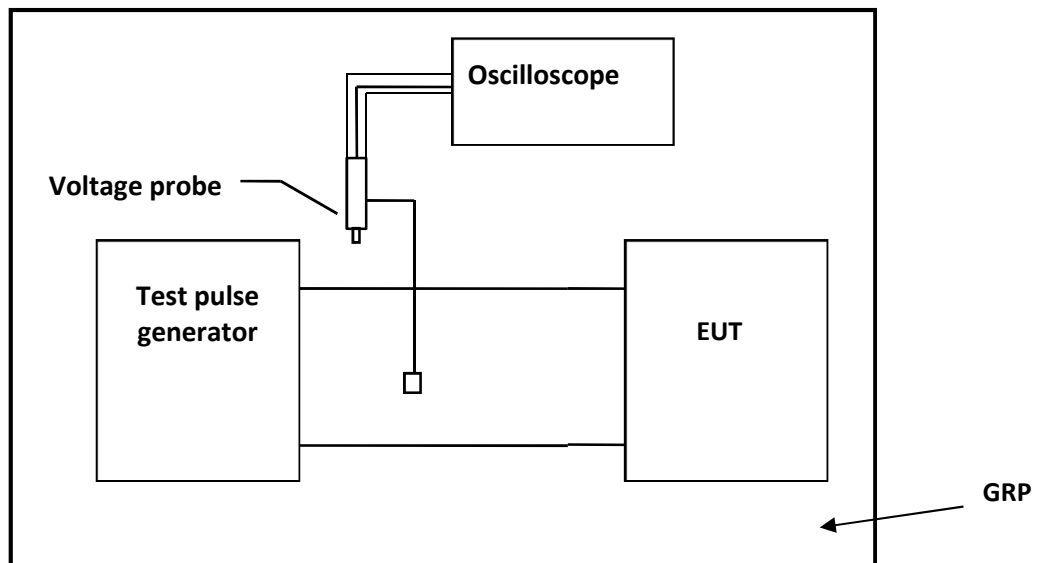
☒ Test does not apply. Device under test is not intended to be installed in passenger cars and light commercial vehicles including ambulances fitted with 12 V electrical systems or commercial vehicles including ambulances fitted with 24 V electrical systems.

16.1 Severity Level and Performance Criterion

16.1.1 Test level

| Application Point | Test pulse and level | Coupling Method |
|---|---|------------------|
| Input d.c. Power ports (transportation) | 1 (-150 V) | Direct Injection |
| | 2a (+112 V) | Direct Injection |
| | 2b (10 V for 12 V system; 20 V for 24 V system) | Direct Injection |
| | 3a (-220 V for 12V system; -300 V for 24 V system) | Direct Injection |
| | 3b (+150 V for 12 V system; +300 V for 24 V system) | Direct Injection |

16.2 Block diagram of test setup



16.3 Test Procedure

Measurement was performed in shielded room.

Measurement and setting of EUT was applied according to ISO 7637-2 Clause 4.4.

The test method and equipment was specified by ISO 7637-2 with additions and modification of IEC60601-1-2 Clause 8.9.

TEST REPORT

16.4 Test Result

| Point of application | Number of Pulses or Application Time | Burst/pulse cycle time | Pass/ Fail/ NA |
|----------------------|--------------------------------------|------------------------|----------------|
| Mains Pulse 1 | 10 pulses | 0,5 s | NA |
| Mains Pulse 2a | 10 pulses | 0,2 s | NA |
| Mains Pulse 2b | 10 pulses | 0,5 s | NA |
| Mains Pulse 3a | 20 minutes | 90 ms | NA |
| Mains Pulse 3b | 20 minutes | 90 ms | NA |

Observation:

Conclusion:

Appendix I: Photograph of Test setup

Conducted emission
VINNO E20



VINNO X1

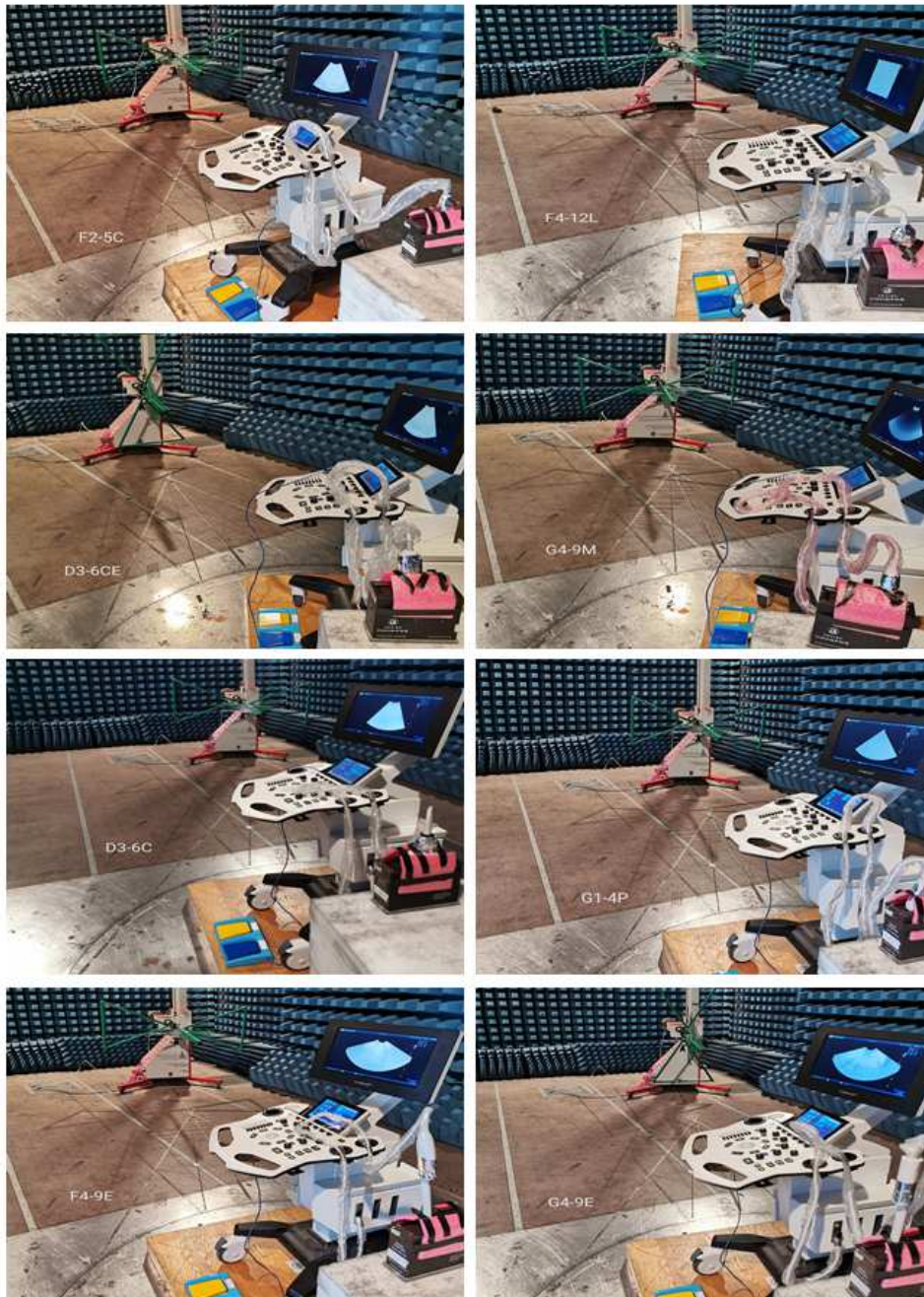


Radiation emission

VINNO E20



VINNO X1



Harmonic current emission & Voltage fluctuations and flicker



Electrostatic discharge

Air discharge

Contact discharge

Indirect discharge



TEST REPORT

RF Electromagnetic Field & Proximity fields from RF wireless communications EQUIPMENT
(Test Frequency Below 1GHz)

VINNO E20



VINNO X1



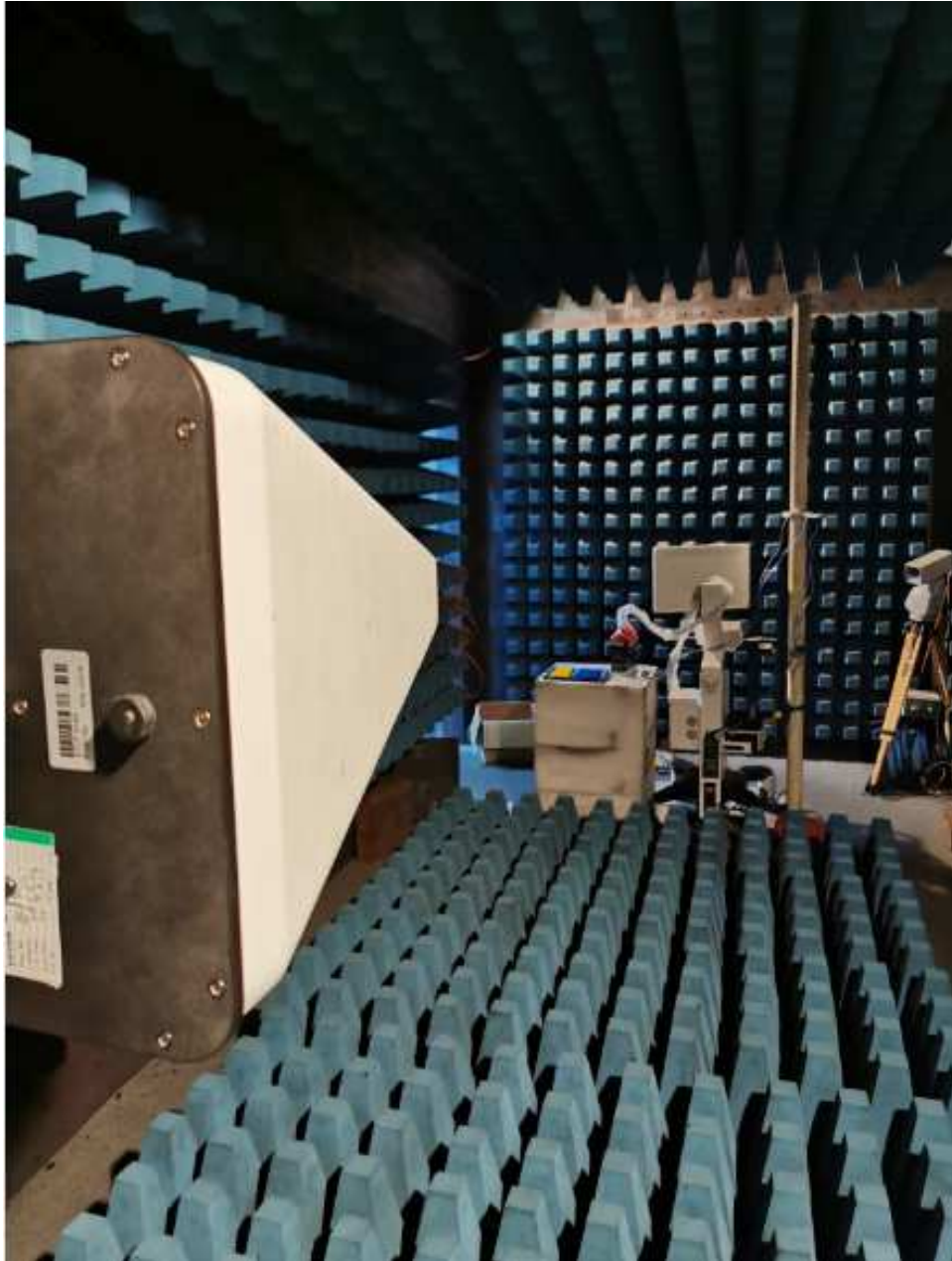
TEST REPORT

RF Electromagnetic Field & Proximity fields from RF wireless communications EQUIPMENT
(Test Frequency Above 1GHz)

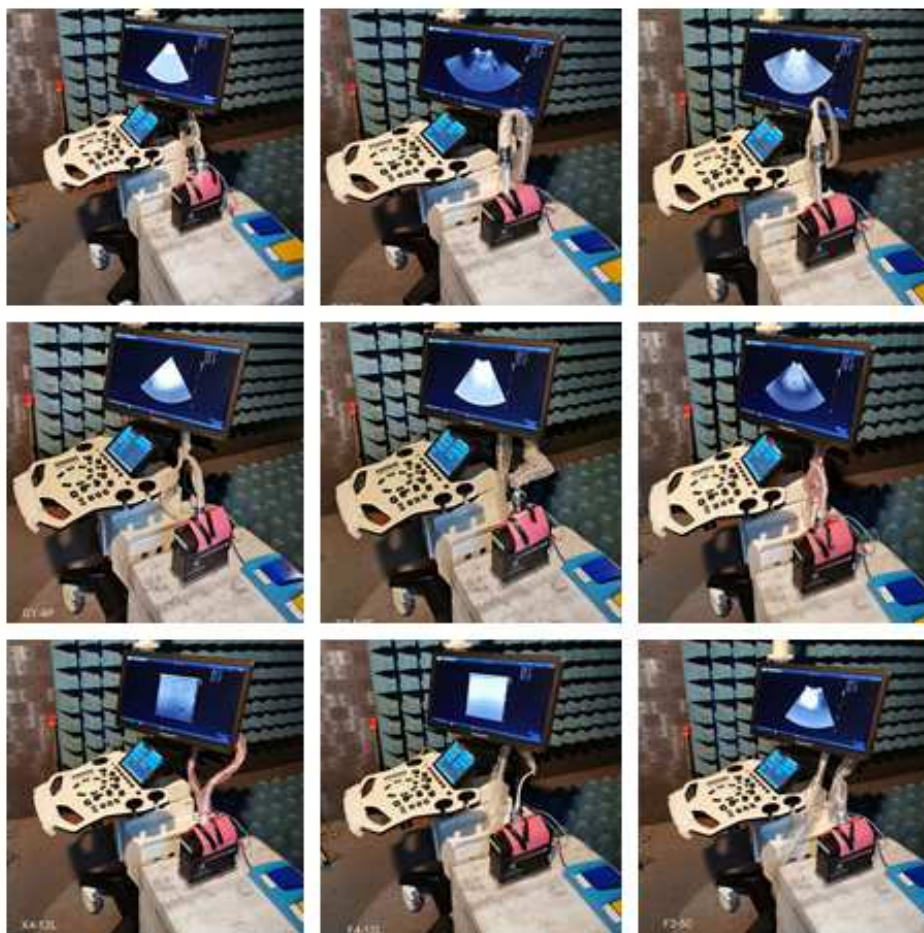
VINNO E20



VINNO X1



Details of setup for VINNO E20



Details of setup for VINNO X1



TEST REPORT

Electrical Fast Transients & Surge & Voltage dips and interruptions on mains terminal

VINNO E20



VINNO X1



Electrical Fast Transients on Signal port
VINNO E20



VINNO X1



Conducted Disturbances Induced by RF Field
On Mains Power Port
VINNO E20



VINNO X1



On Patient Coupling Port
VINNO E20



VINNO X1



On ECG signal input/output Port
VINNO E20



VINNO X1



On foot switch Port

VINNO E20



VINNO X1



Power frequency magnetic field immunity

VINNO E20



VINNO X1



Appendix II: Photograph of equipment under test

Overall - Front view- VINNO E20 with 21.5" monitor



Overall - Front view- VINNO E20 with 18.5" monitor



Overall – Left side view- VINNO E20



Overall – Right side view- VINNO E20



Overall – Rear view- VINNO E20



Overall - Front view- VINNO X1 with 21.5" monitor and 8" touch panel



Overall - Front view- VINNO X1 with 18.5" monitor and 8" touch panel



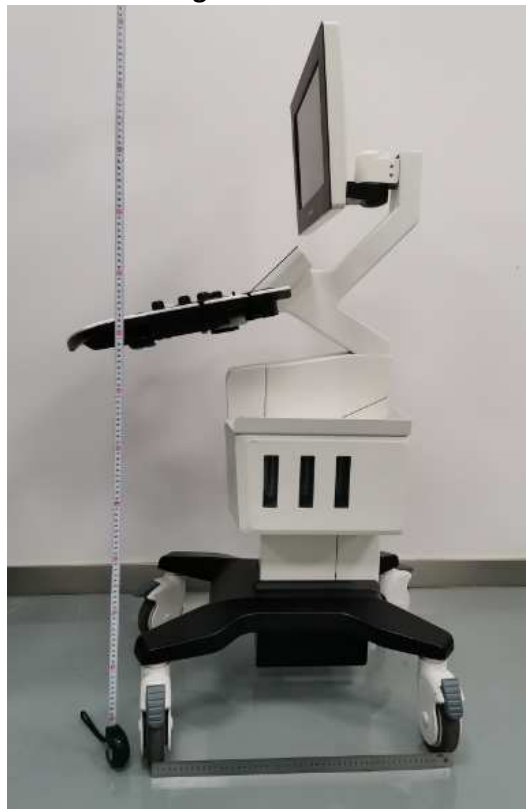
Overall - Front view- VINNO X1 with 15.6" monitor and 8" touch panel



Overall – Left side view- VINNO X1



Overall – Right side view- VINNO X1



Overall – Rear view- VINNO X1



Control panel with 10.1" touch panel



Control panel with 8" touch panel



External view – Nameplate and Ports



Internal view – Front cover removed



Internal view – Rear cover removed



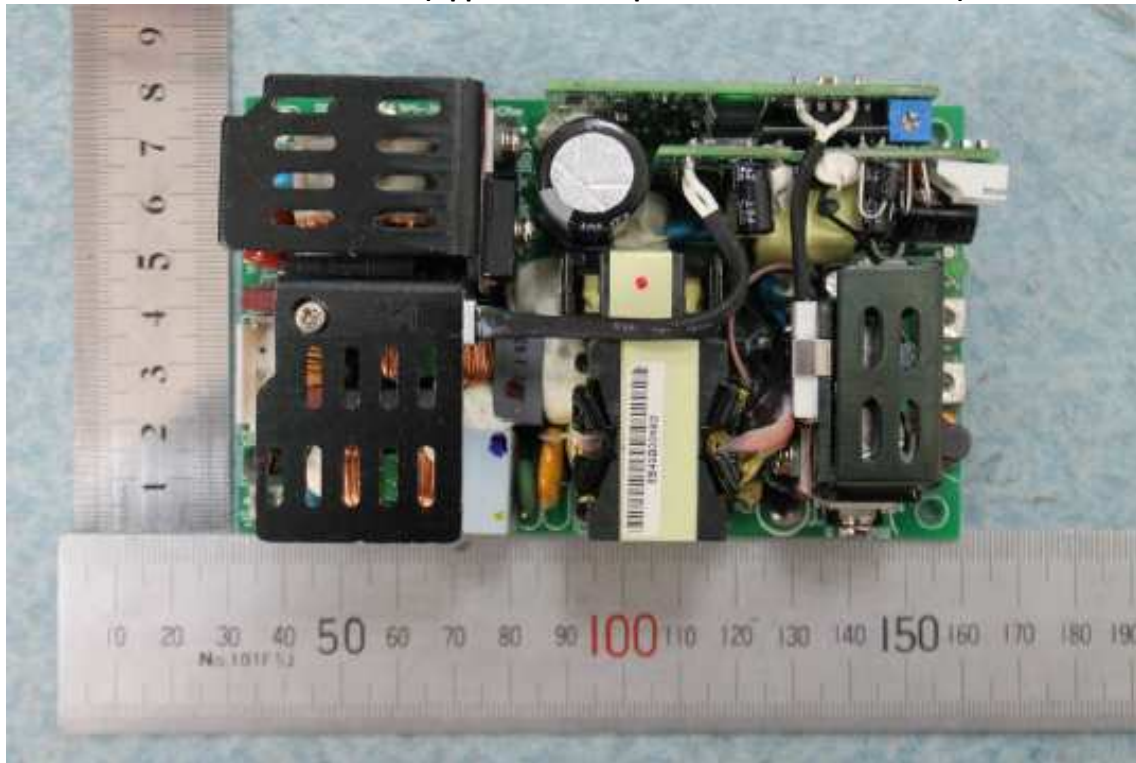
Internal view – TT enclosure disassembled



Internal view - AC mains panel and HDD)



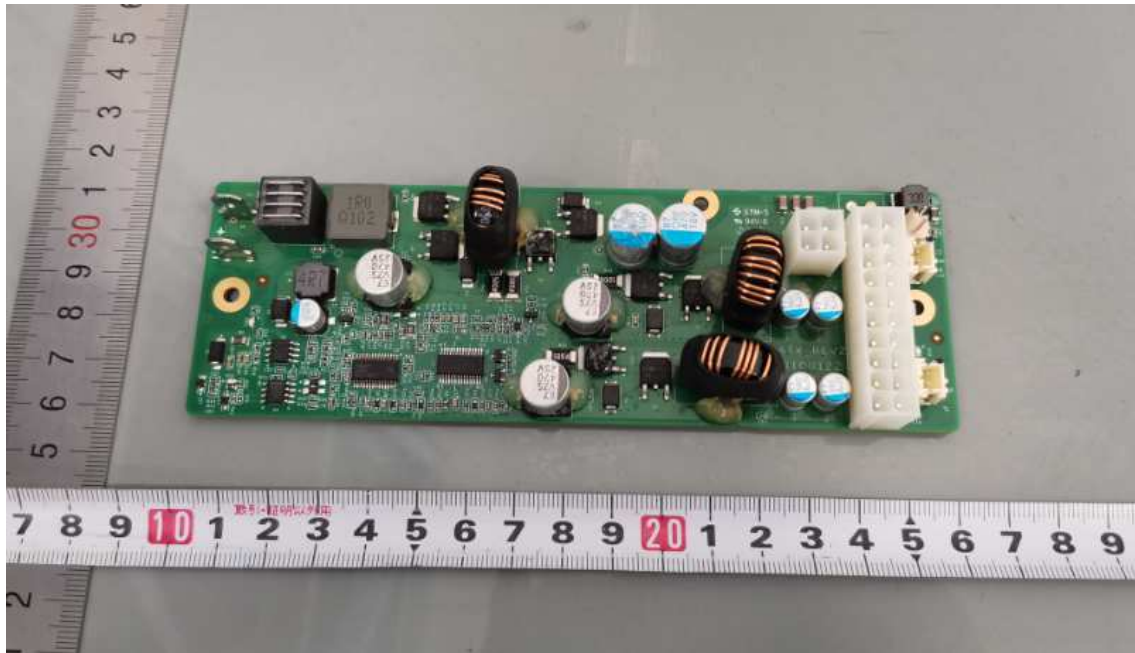
PCB of ACDC board (Approved SMPS power module RPS-300-12)



PCB of PC



PCB of Power board for PC



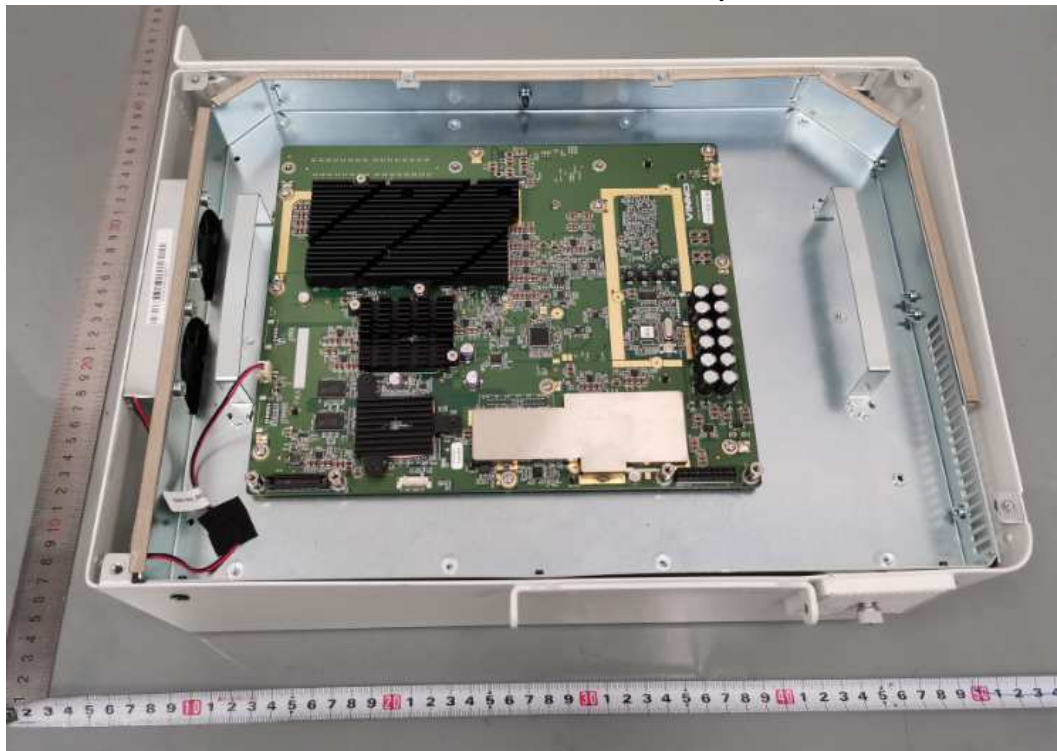
PCB of T-power board – VINNO E20/X3



PCB of T-power board – VINNO X1/X1E/X1P/X2/X2E/X2P/E10/E10E/E10P



PCB of T-Main board – VINNO E20/X3



PCB of T-Main board – VINNO X1/X1E/X1P/X2/X2E/X2P/E10/E10E/E10P



PCB of TT board – 4 Probe Connector



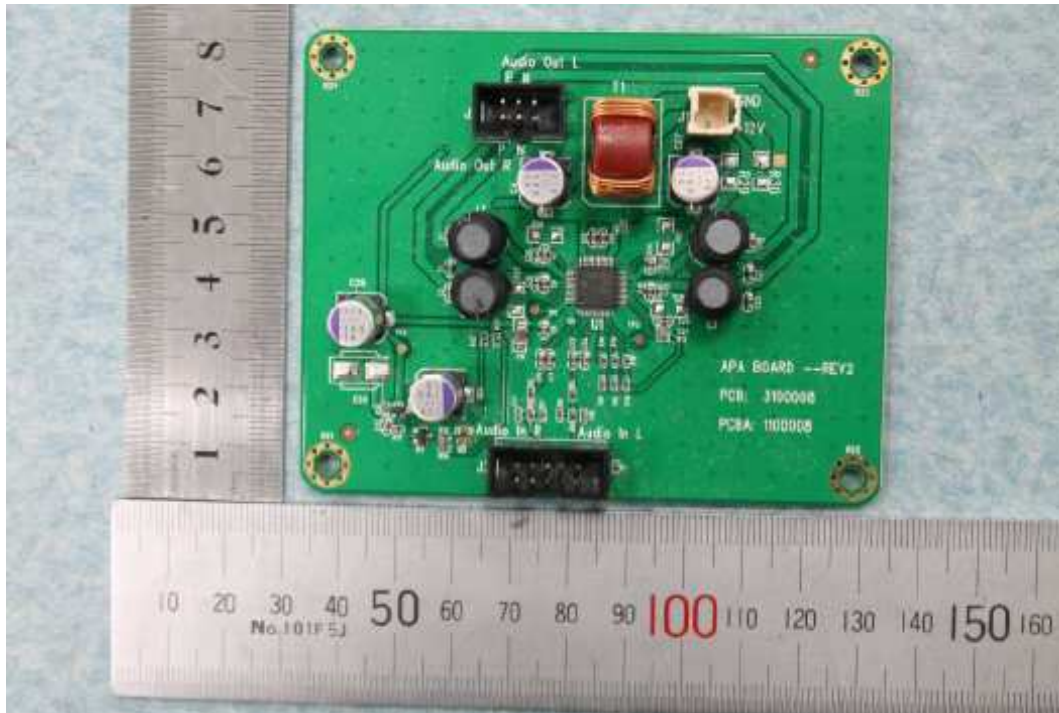
PCB of TT board – 3 Probe Connector



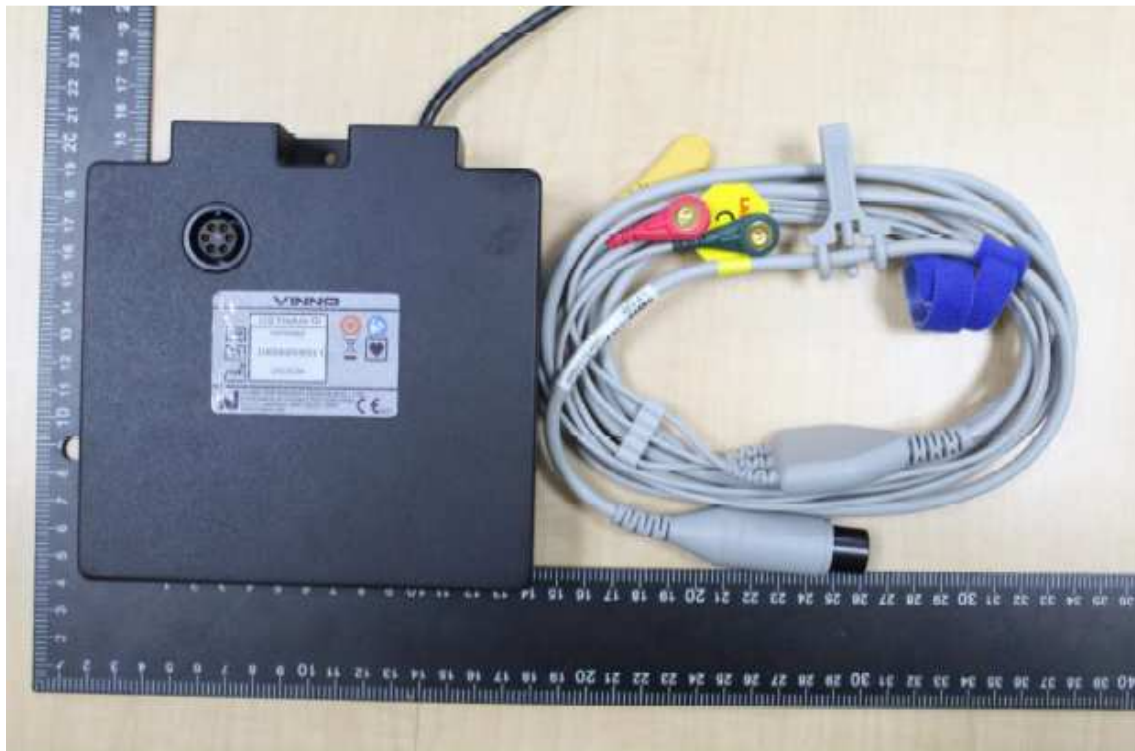
PCB of Control board



PCB of Audio Board



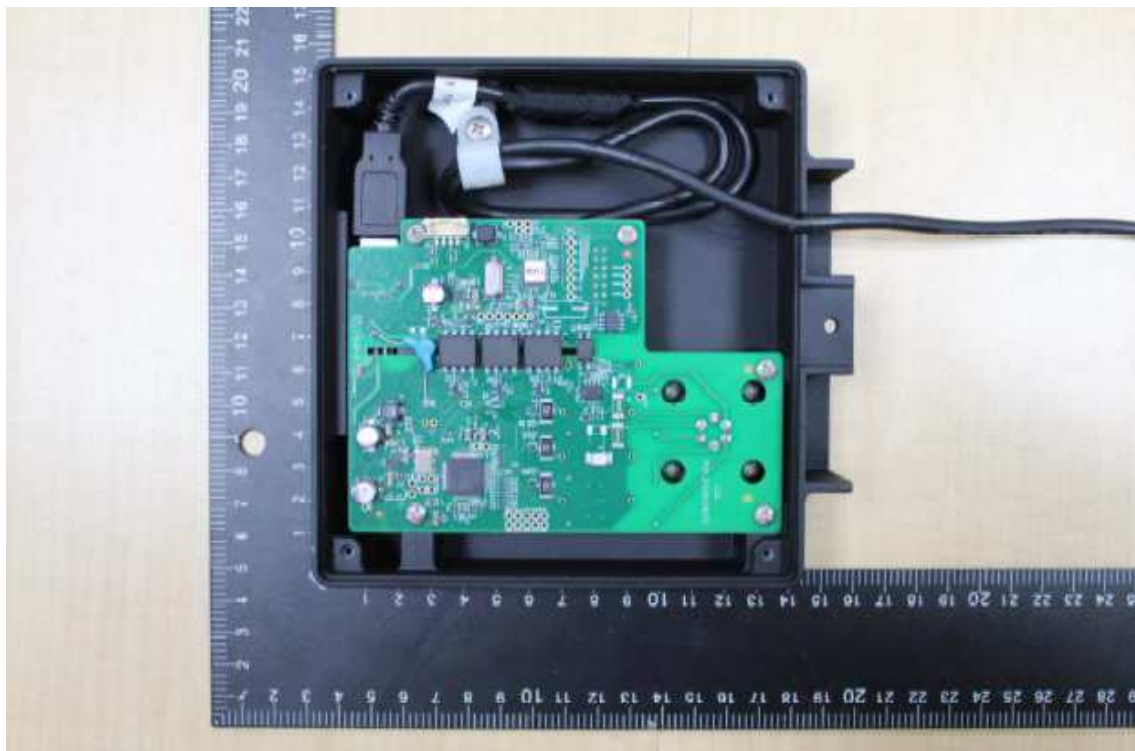
Front View of ECG module kit and ECG lead



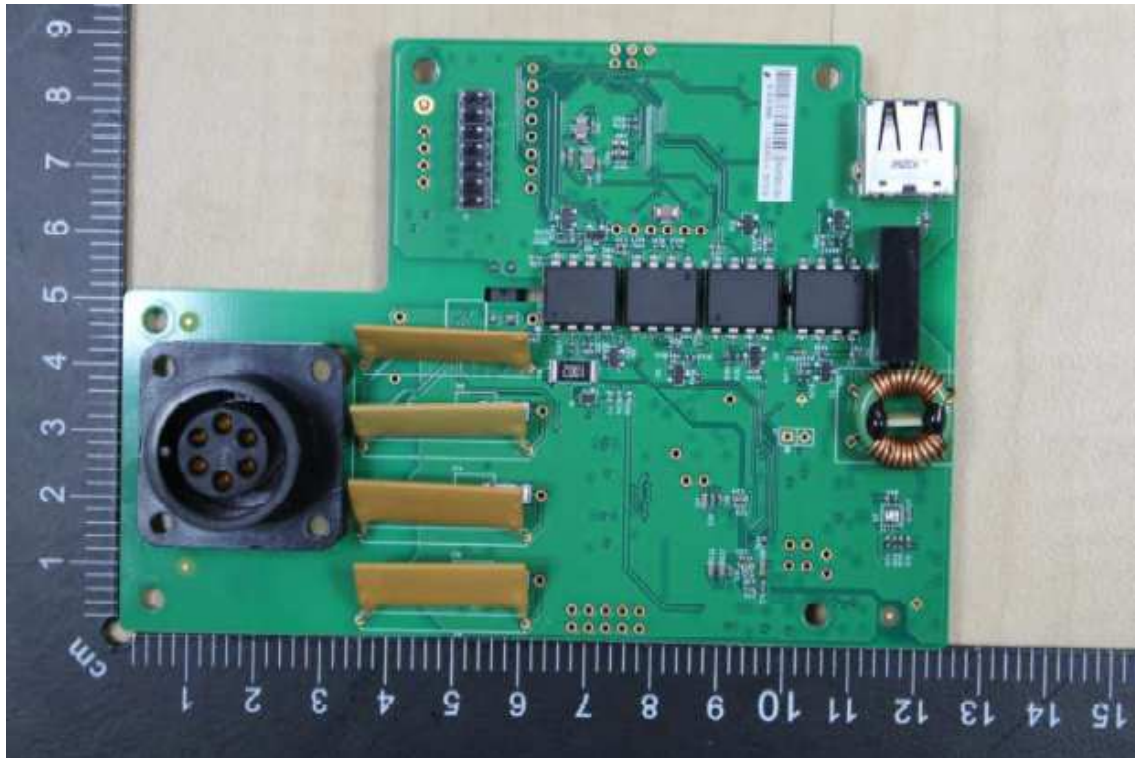
Rear View of ECG module kit and ECG lead



Internal View of ECG module kit



PCB of ECG module kit



Optional single-key foot switch (KACON HRF-M5-U IP 68)



Optional dual-key foot switch (KACON HRF-M52-U IP68)



Optional medical use printer (UP-X898MD)



Optional medical use printer (UP-D25MD)



View of probe (F2-5C)



View of probe (D3-6C)



View of probe (D3-6CE)



View of probe (F4-9E)



View of probe (G4-9E)



View of probe (G4-9M)



View of probe (F4-12L)



View of probe (X4-12L)



View of probe (G1-4P)



TEST REPORT
Appendix III IEC 60601-1-2 ed4.0 (2014-02) Clause 4 and Clause 5 Worksheet

| 4 | GENERAL REQUIREMENTS | | |
|-------|---|---|-----|
| 4.1 | RISKS resulting from reasonably foreseeable ELECTROMAGNETIC DISTURBANCES taken into account in the RISK MANAGEMENT PROCESS. | risk management plan (Doc#: RMP-V60, VER#: 2); products intended use and safety feature analysis (Doc#: SFA-V60, VER#: 3); risk assessment and control (Doc#: RAC-V60, VER#: 5); risk management report (Doc#: RMR-V60, VER#: 3) | P |
| 4.2 | Non-ME EQUIPMENT used in an ME SYSTEM | | N/A |
| | Check 16.1 of general standard, checked by inspection of the RISK MANAGEMENT FILE and OBJECTIVE EVIDENCE of compliance with the respective EMC standards, or by the tests of this collateral standard | No Non-ME Equipment used | N/A |
| | non-ME EQUIPMENT used in an ME SYSTEM complies with IEC and ISO EMC standards applicable to that EQUIPMENT, checked by inspection of the RISK MANAGEMENT FILE and OBJECTIVE EVIDENCE of compliance with the respective EMC standards, or by the tests of this collateral standard | | N/A |
| | non- ME EQUIPMENT used in an ME SYSTEM for which the intended EM ENVIRONMENT could result in the loss of BASIC SAFETY or ESSENTIAL PERFORMANCE of the ME SYSTEM due to the non-ME EQUIPMENT tested according to the requirements of this collateral standard, checked by inspection of the RISK MANAGEMENT FILE and OBJECTIVE EVIDENCE of compliance with the respective EMC standards, or by the tests of this collateral standard | | N/A |
| 4.3.1 | Configurations | | P |
| | ME EQUIPMENT and ME SYSTEMS tested in representative configurations, consistent with INTENDED USE, that are most likely to result in unacceptable RISK as determined by the MANUFACTURER (This was determined using RISK ANALYSIS, experience, engineering analysis, or pretesting). Compliance checked by inspection of the test report and the RISK MANAGEMENT FILE. | See chapter 2 "TEST SPECIFICATIONS" in report and RMF Reference Document | P |

TEST REPORT

| | | | |
|----------|--|---|-----|
| 4.3.3 | Power input and frequencies | See 2.4 "Mode of operation during the test" and individual test in report | P |
| 5 | IDENTIFICATION, MARKING AND DOCUMENTS | | |
| 5.1 | Additional requirements for marking on the outside of ME EQUIPMENT and ME SYSTEMS specified for use only in a shielded location SPECIAL ENVIRONMENT | | N/A |
| | ME EQUIPMENT and ME SYSTEMS specified for use only in a shielded location SPECIAL ENVIRONMENT labelled with a CLEARLY LEGIBLE warning that they should be used only in the specified type of shielded location | NOT for use only in a shielded location | N/A |
| 5.2 | ACCOMPANYING DOCUMENTS | | |
| 5.2.1 | Instructions for use | | |
| 5.2.1.1 | General | | |
| a) | A statement of the environments for which the ME EQUIPMENT OR ME SYSTEM is suitable. Relevant exclusions determined by RISK ANALYSIS, are listed. | Refer to user manual clause 2.5.5 "Electrical Safety" - Profession healthcare facility | P |
| b) | The ESSENTIAL PERFORMANCE of ME EQUIPMENT and a description of what the operator can expect if the ESSENTIAL PERFORMANCE is lost or degraded due to EM disturbances. | Refer to user manual clause 2.5.5 "Electrical Safety" - Essential performance & In the event of issues relevant to EMC | P |
| c) | A warning regarding stacking and location close to other EQUIPMENT | Refer to user manual clause 2.5.5 "Electrical Safety" - Use of this equipment adjacent to or stacked with other equipment should be avoided | P |
| d) | List of cables, transducers and accessories | Refer to user manual clause 2.5.5 "Electrical Safety" - Information of all the cables | P |
| e) | A warning that other cables and accessories may negatively affect EMC performance | Refer to user manual clause 2.5.5 "Electrical Safety" - Use of accessories, transducers and cables other than | P |

TEST REPORT

| | | | |
|---------|--|--|-----|
| f) | A statement that portable RF communications EQUIPMENT including antennas, can effect medical electrical EQUIPMENT. The warning includes a use distance such as "...be used no closer than 30 cm (12 inches) to any part of the [ME EQUIPMENT or ME SYSTEM], including cables specified by manufacturer" | Refer to user manual clause 2.5.5 "Electrical Safety" - Recommended separation distances | P |
| 5.2.1.2 | Requirements applicable to ME EQUIPMENT and ME SYSTEMS classified class A according to CISPR 11 | | P |
| | FOR ME EQUIPMENT and ME SYSTEMS that are classified as class A according to CISPR 11, the instructions for use include the following note: NOTE: "The EMISSIONS characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment." | Refer to user manual clause 2.5.5 "Electrical Safety" – The EMISSIONS characteristics of this equipment make it suitable for use | P |
| 5.2.2 | Technical description | | |
| 5.2.2.1 | Requirements applicable to all ME EQUIPMENT and ME SYSTEMS | | |
| | The technical description describes precautions to be taken to prevent adverse events to the PATIENT and Operator due to electromagnetic disturbances | Reference Document: user manual "Electromagnetic Compatibility (EMC)" section | P |
| a) | Compliance for each EMISSIONS and IMMUNITY standard or test specified by this collateral standard, e.g. EMISSIONS class and group and IMMUNITY TEST LEVEL | Refer to user manual clause 2.5.5 "Electrical Safety" – electromagnetic emissions & electromagnetic immunity | P |
| b) | Any deviations from this collateral standard and allowances used | No deviation | N/A |
| c) | All necessary instructions for maintaining BASIC SAFETY and ESSENTIAL PERFORMANCE with regard to ELECTROMAGNETIC DISTURBANCES for the EXPECTED SERVICE LIFE | Refer to user manual clause 2.5.5 "Electrical Safety" – General information | P |
| 5.2.2.2 | Requirements applicable to ME EQUIPMENT specified for use only in shielded location SPECIAL ENVIRONMENT | | |
| | The technical description includes the following information: | | |

TEST REPORT

| | | | |
|---------|---|--|-----|
| a) | A warning to the effect that: WARNING: Failure to use this EQUIPMENT in the specified type of shielded location could result in degradation of performance, interference with other equipment or interference with radio services | NOT for use only in a shielded location | N/A |
| b) | Specifications for shielded location including: – minimum RF shielding effectiveness; – for each cable that enters or exits the shielded location, the minimum RF filter attenuation; and – the frequency range(s) over which the specifications apply | | N/A |
| c) | Test methods for measurement of RF shielding effectiveness and RF filter attenuation | | N/A |
| d) | One or more of the following and a recommendation that a notice containing this information be posted at the entrance(s) to the shielded location: – a specification of the EMISSIONS characteristics of other EQUIPMENT allowed inside the shielded location with the ME EQUIPMENT OR ME SYSTEM; – a list of specific EQUIPMENT allowed; – a list of types of EQUIPMENT prohibited. | | N/A |
| 5.2.2.3 | Requirements applicable to ME EQUIPMENT that intentionally receive RF electromagnetic energy include the following information: - each frequency or frequency of reception, - the preferred frequency or frequency band, if applicable, and - the bandwidth of the receiving section of the ME Equipment in those bands | Not ME EQUIPMENT that intentionally receives RF electromagnetic energy | N/A |
| 5.2.2.4 | Requirements applicable to the ME EQUIPMENT that include RF transmitters the technical description includes the frequency or frequency band of transmission, the type and frequency characteristics of the modulation and the EFFECTIVE RADIATED POWER (ERP)..... : | Not ME EQUIPMENT that includes RF transmitters, | N/A |
| 5.2.2.5 | Requirements applicable to PERMANENTLY INSTALLED LARGE ME EQUIPMENT and LARGE ME SYSTEMS | | |
| | The technical description includes the following information: | | |
| a) | A statement that an exemption has been used and that the EQUIPMENT has not been tested for radiated RF IMMUNITY over the entire frequency range 80 MHz to 6 GHz | Not Permanently installed Large ME Equipment or Large ME Systems | N/A |

TEST REPORT

| | | | |
|---------|---|--|-----|
| b) | WARNING: "This EQUIPMENT has been tested for radiated RF IMMUNITY only at selected frequencies, and use nearby of emitters at other frequencies could result in improper operation" | | N/A |
| c) | A list of the frequencies and modulations used to test the IMMUNITY of the ME EQUIPMENT OR ME SYSTEMS | | N/A |
| 5.2.2.6 | Requirements applicable to ME EQUIPMENT that claim compatibility with HF Surgical EQUIPMENT | | N/A |
| | Technical description includes a statement of HF SURGICAL EQUIPMENT compatibility and the conditions of INTENDED USE during HF Surgery | Not for use with HF SURGICAL EQUIPMENT | N/A |

***** END *****