

# Scope of Accreditation

(Measurement Method)

Accreditation Number : VLAC-013

Expiration Date : July 3, 2023

[Name of Laboratory]

**TÜV SÜD Japan Ltd.**

[Test site name]

**Yonezawa Testing Center**

[Test site Address]

**5-4149-7, Hachimanpara, Yonezawa-shi, Yamagata, 992-1128, Japan**

[Measurement Method]

## Emission test

**Radiated disturbance : Enclosure Port**

**Disturbance electric field test**

[Test condition] On the reference ground plane, Measurement distance : 3m/10m

Measurement Frequency Range : 30 MHz - 2 GHz

[Test condition] Quasi Free Space, Measurement Frequency Range : 1GHz - 40 GHz

**Disturbance magnetic field strength measurement** [Test condition] Loop Antenna

**Disturbance power measurement** [Test condition] Absorption clamp

**Conducted disturbance Measurement: AC mains port**

**Voltage measurement** [Test condition] AMN, High impedance voltage probe

**Conducted disturbance Measurement: Telecommunication port**

**Voltage measurement** [Test condition] ISN, AAN

**Current measurement** [Test condition] Current probe

**Conductive interference DC power line port**

**Voltage measurement** [Test condition] AMN, High impedance voltage probe

**Antenna port, RF modulator output port, Tuner port, Fiber port**

**Current measurement** [Test condition] Current probe

## Immunity test

**Electro static discharge test** Contact discharge, Air discharge, Indirect discharge

**Radiated electromagnetic field strength** Measurement frequency : 80 MHz - 6 GHz

**Electrical fast transient/burst (EFT/B)** Mains port, Telecommunication/Signal port

**Surge** Mains port, Telecommunication/Signal port

**RF conducted interference** Mains port measurement frequency range : 150 kHz – 80 MHz

Telecommunication port measurement frequency range : 150 kHz – 80 MHz

**Test for immunity to conducted, common mode disturbances in the frequency range : DC - 150 kHz**

**Radiated magnetic field**

**Pulse magnetic immunity test**

**Interruptions and Voltage variations**

## Harmonic current

**Harmonic current test**

**Voltage changes, Voltage fluctuations and Flicker test**

## Telecommunication equipment performance 1

Based on European Standards : EMC Test only

## Telecommunication equipment performance 2

**Magnetic field strength** [Test condition] Magnetic probe

**Electric field strength** [Test condition] Electric probe

**Voluntary EMC Laboratory Accreditation Center Inc.**

# Scope of Accreditation

(Test standards)

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[Test standards]

**Emission test**

**VCCI Technical Requirement : VCCI-CISPR 32\*<sup>1</sup>**

**FCC 47CFR Part15 Subpart B : ANSI C63.4 -2014\*<sup>1</sup>, ANSI C63.4a-2017\*<sup>1</sup>**

**FCC 47CFR Part18 : FCC MP-5 (February 1986)**

**CISPR 11, CISPR 14-1, CISPR 32\*<sup>1</sup>, EN 55011, EN 55014-1, EN 55032\*<sup>1</sup>**

**Technical requirements under the Electrical Appliances and Materials safety Act appendix 10 Chapter 2, 4, 5, and 7**

**Emission Clause 1 of Ministerial Ordinance Chapter 2, Chapter 4, Chapter 5, Chapter 7**

**J 55011, J 55014-1, J55032\*<sup>1</sup>, CISPRJ 32\*<sup>1</sup>**

**AS CISPR 11, AS CISPR 14.1, AS/NZS CISPR 32\*<sup>1</sup>**

**AS/NZS 61000.6.3, AS/NZS 61000.6.4, AS 61000.6.4**

**KN 11, KS C 9811, KN 61000-6-4, KS C 9610-6-4**

**ICES-001, ICES-003, CNS 13438, CNS 13783-1, GB/T 9254**

**IEC 61000-6-3, EN 61000-6-3, IEC 61000-6-4, EN 61000-6-4, EN IEC 61000-6-4**

**IEC 61000-6-8, EN IEC 61000-6-8**

**IEC 60945, EN 60945, IEC 61131-2, EN 61131-2, EN 12015**

**IEC 61800-3, EN 61800-3, EN IEC 61800-3**

**IEC 62236-3-2, IEC 62236-4, IEC 62236-5**

**EN 50121-3-2, EN 50121-4, EN 50121-5, EN 50370-1**

**IEC 61326-1, IEC 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6**

**EN 61326-1, EN 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6, EN IEC 61326-3-2**

**JIS C 61326-1, JIS C 61326-2-1/2-2/-2-3/-2-6**

**IEC 60601-1-2, IEC 60601-2-2/-2-3/-2-4/-2-5/-2-6/-2-10/-2-16/-2-18/-2-21/-2-24/-2-25/-2-37**

**EN 60601-1-2, EN 60601-2-2/-2-3/-2-4/-2-5/-2-6/-2-10/-2-16/-2-18/-2-21/-2-24/-2-25/-2-37**

**EN IEC 60601-2-16**

**JIS T 0601-1-2, JIS T 0601-2-2/-2-3/-2-5/-2-6/-2-10/-2-16/-2-18/-2-21/-2-24/-2-25/-2-37**

**AS IEC 60601.1.2, EN IEC 61000-2-2**

**\*<sup>1</sup>: Except for satellite receiving systems**

### **Immunity test**

CISPR 14-2, CISPR 24, CISPR 35<sup>\*2</sup>, EN 55014-2, EN 55024, EN 55035<sup>\*2</sup>  
IEC 61000-6-1, EN 61000-6-1, EN IEC 61000-6-1  
IEC 61000-6-2, EN 61000-6-2, EN IEC 61000-6-2, KN 61000-6-2, KS C 9610-6-2  
JIS C 61000-6-1, JIS C 61000-6-2, IEC 61000-6-7, EN 61000-6-7  
IEC 60945, EN 60945, IEC 61131-2, EN 61131-2, EN 12016  
IEC 61800-3, EN 61800-3, EN IEC 61800-3, IEC 61800-5-2, EN 61800-5-2  
IEC 61326-3-1, EN 61326-3-1, IEC 61326-3-2, EN 61326-3-2, EN 50130-4  
IEC 62236-3-2, IEC 62236-4, IEC 62236-5  
EN 50121-3-2, EN 50121-4, EN 50121-5, EN 50370-2  
IEC 61326-1, IEC 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6  
EN 61326-1, EN 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6, EN IEC 61326-3-2  
JIS C 61326-1, JIS C 61326-2-1/2-2/-2-3/-2-6, JIS C 61326-3-1  
IEC 60601-1-2, IEC 60601-2-2/-2-3/-2-4/-2-5/-2-6/-2-10/-2-16/-2-18/-2-21/-2-24/-2-25/-2-37  
EN 60601-1-2, EN 60601-2-2/-2-3/-2-4/-2-5/-2-6/-2-10/-2-16/-2-18/-2-21/-2-24/-2-25/-2-37  
EN IEC 60601-2-16  
JIS T 0601-1-2, JIS T 0601-2-2/-2-3/-2-5/-2-6/-2-10/-2-16/-2-18/-2-21/-2-24/-2-25/-2-37  
AS IEC 60601.1.2, EN IEC 61000-2-2  
<sup>\*2</sup>: Except for Broadband impulse noise disturbances

### **Harmonic Test in Public Low Voltage Systems**

IEC 61000-3-2, IEC 61000-3-3, IEC 61000-3-11, IEC 61000-3-12  
EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12  
EN IEC 61000-3-2, EN IEC 61000-3-11  
JIS C 61000-3-2, GB 17625.1  
IEC 61000-6-3, EN 61000-6-3, IEC 61326-1, EN 61326-1, JIS C 61326-1  
IEC 60601-1-2, EN 60601-1-2, JIS T 0601-1-2

### **Telecommunication characteristic test 1**

EN 301 489-1, EN 301 489-3, EN 301 489-7, EN 301 489-17, EN 301 489-24  
EN 301 843-1, EN 301 843-2, EN 301 843-5

### **Telecommunication characteristic test 2**

IEC 62233, EN 62233  
IEC 62311, EN 62311, EN IEC 62311  
IEC 62479, EN 62479  
EN 50364<sup>\*3</sup>, EN 50663, EN 50664, EN 50665  
<sup>\*3</sup>: Except for contact and limb currents

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