

Scope of Accreditation

(Measurement Method)

Accreditation Number : VLAC-045

Expiration Date : September 12, 2022

[Name of Laboratory]

KITAGAWA INDUSTRIES CO., LTD.

[Test site name]

EMC Laboratory Center

[Test site Address]

**1423-101, Aza-tonmyo, Akechi-cho, Kasugai City, Aichi Prefecture
480-0303, 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 - 1 GHz

[Test condition] On the reference ground plane, In-vehicle equipment test (1m Method)

Measurement Frequency Range : 150 kHz - 8 GHz

[Test condition] Quasi Free Space

Measurement Frequency Range : 1 GHz - 6 GHz

Disturbance magnetic field strength measurement

[Test condition] Loop Antenna, Three axis loop antenna

Disturbance electric power measurement

[Test Condition] Absorption clamp (CMAD)

Conducted disturbance Measurement: AC mains port

Voltage measurement [Test condition] AMN, High impedance probe

Conducted disturbance Measurement: Telecommunication port

Voltage measurement [Test condition] AAN

Current measurement [Test condition] Current probe

Conducted disturbance Measurement: DC power line port

Voltage measurement [Test condition] AMN, High impedance probe

Conductive interference test against in-vehicle equipment

Conducted disturbance Measurement:

Antenna port, RF Modulator output power, 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 Range : 80 MHz - 6 GHz

Electrical fast transient/burst (EFT/B)

Mains port, Telecommunication/Signal port

Surge

Mains port

RF conducted interference

Mains port measurement frequency range : 150 kHz - 230 MHz

Telecommunication port measurement frequency range : 150 kHz - 230 MHz

Radiated magnetic field

Interruptions and Voltage variations

Harmonic current

Harmonic current test

Voltage changes, Voltage fluctuations and Flicker test

Vehicle /In-vehicle equipment test

ESA (In-vehicle equipment) Emission

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*1
CISPR 11*2, CISPR 14-1*3, CISPR 15, CISPR 22, CISPR 32*1
EN 55011*2, EN 55014-1*3, EN 55015, EN 55032*1
IEC 61000-6-3*3, IEC 61000-6-4*3, EN 61000-6-3*3, EN 61000-6-4*3
IEC 61326-1, IEC 60601-1-2, IEC 60204-31(clause 4.4.2, Annex AA only), IEC 61131-2*4
EN 61326-1, EN 60601-1-2, EN 60204-31(clause 4.4.2, Annex AA only), EN 61131-2*4
JIS C 61326-1, JIS T 0601-1-2
Technical requirements under the Electrical Appliances and Materials safety Act appendix 10
Chapter 2*2, Chapter 4, Chapter 5, Chapter 6, Chapter 7
J55001, J55011*2, J55014-1*3, J55015, J55022, J55032*1, CISPRJ 32*1
AS CISPR 11*2, AS CISPR 14.1*3, AS CISPR 15
AS/NZS CISPR 22, AS/NZS CISPR 32*1, AS/NZS 61000.6.3*3, AS/NZS 61000.6.4*3
ETSI EN 301 489-1, ETSI EN 301 489-17

*1 : Except for conductive disturbance measurement for tuner port

*2 : Except for electric oven measurement

*3 : Except for discontinuous disturbance measurement

*4 : Except for tests for equipment installed in Zone C

Immunity test

CISPR 14-2, CISPR 24, CISPR 35*6, EN 55014-2, EN 55024, EN 55035*6
IEC 61000-4-2/-4-3/-4-4*5/-4-5*5*7/-4-6/-4-8/-4-11*5
EN 61000-4-2/-4-3/-4-4*5/-4-5*5*7/-4-6/-4-8/-4-11*5
JIS C 61000-4-2/-4-3/-4-4*5/-4-5*5*7/-4-6/-4-8/-4-11*5
IEC 61000-6-1, IEC 61000-6-2, EN 61000-6-1, EN 61000-6-2, JIS C 61000-6-1, JIS C 61000-6-2
IEC 61326-1, IEC 60601-1-2, IEC 60204-31(4.4.2 項、Annex AA のみ), IEC 61131-2*4
EN 61326-1, EN 60601-1-2, EN 60204-31(4.4.2 項、Annex AA のみ), EN 61131-2*4
JIS C 61326-1, JIS T 0601-1-2
AS/NZS CISPR 14.2, AS/NZS CISPR 24, AS/NZS 61000.6.1, AS/NZS 61000.6.2
ETSI EN 301 489-1, ETSI EN 301 489-17

*4 : Except for tests for equipment installed in Zone C

*5 : Excludes testing of equipment with three-phase power supply

*6 : Except for Broadband impulsive conducted disturbance test

*7 : Except for surge test using CDN for communication line exceed 30 m

Harmonic Test in Public Low Voltage Systems

IEC 61000-3-2, IEC 61000-3-3, IEC 61000-3-12, IEC 61000-6-3

EN 61000-3-2, EN 61000-3-3, EN 61000-3-12, EN 61000-6-3

JIS C 61000-3-2

IEC 61326-1, IEC 60601-1-2, IEC 60204-31(clause 4.4.2, Annex AA only), IEC 61131-2*⁴

EN 61326-1, EN 60601-1-2, EN 60204-31(clause 4.4.2, Annex AA only), EN 61131-2*⁴

JIS C 61326-1, JIS T 0601-1-2

AS/NZS 61000.3.2, AS/NZS 61000.3.3, AS/NZS 61000.3.12

AS/NZS 61000.6.3

ETSI EN 301 489-1, ETSI EN 301 489-17

***⁴ : Except for tests for equipment installed in Zone C**

***⁸ : Voltage changes, voltage fluctuations and flicker ; Excludes testing of equipment with three-phase power**

Vehicle /In-vehicle equipment test

CISPR 25 (Except clause 5, clause 6.6 and clause 6.7)

Voluntary EMC Laboratory Accreditation Center Inc.