

# Scope of Accreditation

(Measurement Method)

**Accreditation Number: VLAC-045**  
**Expiration Date: September 12, 2024**

[Name of Laboratory]

**KITAGAWA INDUSTRIES CO., LTD.**  
**EMC Laboratory Center**

[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] Absorbing clamp

**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**

**Radiated fields in close proximity**

**Measurement Frequency Range: 9 kHz – 26 MHz**

**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**

**ESA (In-vehicle equipment) Immunity**

**Voluntary EMC Laboratory Accreditation Center Inc.**

# Scope of Accreditation

(Test standards)

**Accreditation Number: VLAC-045**  
**Expiration Date: September 12, 2024**

[Name of Laboratory]

**KITAGAWA INDUSTRIES CO., LTD.**  
**EMC Laboratory Center**

[Test site name]

**EMC Laboratory Center**

[Test site Address]

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

[Test standards]

## Emission test

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

Technical requirements under the Electrical Appliances and Materials safety Act appendix 10  
Chapter 2\*<sup>2</sup>, Chapter 4, Chapter 5, Chapter 6, Chapter 7

J55011\*<sup>2</sup>, J55014-1\*<sup>3</sup>, J55015, J55032\*<sup>1</sup>, CISPRJ 32\*<sup>1</sup>, JIS C 61326-1, JIS T 0601-1-2

CISPR 11:2009+A1:2010\*<sup>2</sup> / 2015+A1:2016+A2:2019\*<sup>2</sup>

CISPR 14-1:2016+Cor1:2016+ISH1:2017\*<sup>3</sup> / 2020, CISPR 15, CISPR 22

CISPR 32:2012+Cor1:2012\*<sup>1</sup> / 2015+A1:2019\*<sup>1</sup>

IEC 61000-6-3\*<sup>3</sup>, IEC 61000-6-4\*<sup>3</sup>

IEC 61326-1, IEC 60601-1-2, IEC 60204-31(clause 4.4.2, Annex AA only), IEC 61131-2\*<sup>4</sup>

EN 55011:2016\*<sup>2</sup> / 2016+A11:2020+A2:2021\*<sup>2</sup>, EN 55014-1:2017+Cor1:2019+A11:2020\*<sup>3</sup> / 2021\*<sup>3</sup>

EN 55015:2019 / 2019+A11: 2020, EN 55032:2015+A11:2020\*<sup>1</sup> / 2015+A1:2020\*<sup>1</sup>

EN 61000-6-3:2007+A1:2011+AC:2012\*<sup>3</sup> / 2021\*<sup>3</sup>, EN 61000-6-4:2007+A1:2011+AC:2012\*<sup>3</sup> / 2019\*<sup>3</sup>

EN 61326-1:2013 / 2021, EN 60601-1-2:2015 / 2015+A1:2021

EN 60204-31(clause 4.4.2, Annex AA only), EN 61131-2:2007\*<sup>4</sup>

AS CISPR 11\*<sup>2</sup>, AS CISPR 14.1\*<sup>3</sup>, AS CISPR 15, AS/NZS CISPR 22, AS/NZS CISPR 32\*<sup>1</sup>

AS/NZS 61000.6.3\*<sup>3</sup>, AS/NZS 61000.6.4\*<sup>3</sup>

ETSI EN 301 489-1: V1.9.2 / V.2.2.3, ETSI EN 301 489-17: V.2.2.1 / V3.2.4

\*<sup>1</sup> : Except for conductive disturbance measurement for tuner port

\*<sup>2</sup> : Except for electric oven measurement

\*<sup>3</sup> : Except for discontinuous disturbance measurement

\*<sup>4</sup> : Except for tests for equipment installed in Zone C

## Immunity test

CISPR 14-2:2015 / 2020, CISPR 24, CISPR 35\*<sup>6</sup>

IEC 61000-4-2/-4-3/-4-4\*<sup>6</sup>/4-5\*<sup>6</sup>/4-6/-4-8/-4-11\*<sup>5</sup>/4-39(Except for Section 5.6)

IEC 61000-4-3:2006+A1:2007+A2:2010, IEC 61000-4-5:2005+Cor1:2009

IEC 61000-6-1, IEC 61000-6-2

IEC 61326-1, IEC 60601-1-2, IEC 60204-31(clause 4.4.2, Annex AA only), IEC 61131-2\*<sup>4</sup>

EN 55035\*<sup>6</sup>, EN 55014-2:1997+A2:2008 / 2015 / 2021, EN 55024

EN 61000-4-2/-4-3/-4-4\*<sup>6</sup>/4-5\*<sup>6</sup>/4-6/-4-8/-4-11\*<sup>5</sup>/4-39(Except for Section 5.6)

EN 61000-4-11: 2004+A1:2017

EN 61000-6-1, EN 61000-6-2,

EN 61326-1, EN 60601-1-2 :2015 / 2015+A1: 2021

EN 60204-31(clause 4.4.2, Annex AA only), EN 61131-2\*<sup>4</sup>  
JIS C 61000-4-2/-4-3/-4-4\*<sup>6</sup>/-4-5\*<sup>6</sup>/-4-6/-4-8/-4-11\*<sup>5</sup>  
JIS C 61000-6-1, JIS C 61000-6-2  
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: V1.9.2 / V.2.2.3, ETSI EN 301 489-17: V.2.2.1 / V3.2.4  
\*<sup>4</sup> : Except for tests for equipment installed in Zone C  
\*<sup>5</sup> : Excludes testing of equipment with three-phase power supply  
\*<sup>6</sup> : Except for Broadband impulsive conducted disturbance test

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

IEC 61000-3-2:2014 / 2018+A1:2020+ISH1:2021, IEC 61000-3-3  
IEC 61000-3-11:2000 / 2017, IEC 61000-3-12:2011 / 2011+A1:2021  
IEC 61000-6-3  
IEC 61326-1, IEC 60601-1-2, IEC 60204-31(clause 4.4.2, Annex AA only), IEC 61131-2\*<sup>4</sup>  
EN 61000-3-2:2014 / 2019, EN 61000-3-3, EN 61000-3-11:2000 / 2019, EN 61000-3-12  
EN 61000-6-3:2007+A1:2011+AC:2012 / 2021  
EN 61326-1, EN 60601-1-2, EN 60204-31(clause 4.4.2, Annex AA only), EN 61131-2\*<sup>4</sup>  
JIS C 61000-3-2  
JIS C 61326-1, JIS T 0601-1-2  
AS/NZS 61000.3.2, AS/NZS 61000.3.3, AS/NZS 61000.3.11, AS/NZS 61000.3.12  
AS/NZS 61000.6.3  
ETSI EN 301 489-1: V1.9.2 / V.2.2.3, ETSI EN 301 489-17: V.2.2.1 / V3.2.4  
\*<sup>4</sup> : Except for tests for equipment installed in Zone C

#### **Vehicle /In-vehicle equipment test**

CISPR 25 (Except for clause 5 and clause 6.5):2002  
CISPR 25 (Except for clause 5, clause 6.6 and clause 6.7):2008 / 2016 / 2021  
ISO 10605:2008+A1:2014\*<sup>7</sup>  
\*<sup>7</sup> : Added as of September 5, 2023

## **Voluntary EMC Laboratory Accreditation Center Inc.**

**The laboratory is only accredited for testing activities outlined within the test methods listed above.  
If test standards do not include the edition, it means the latest one at the date of renewal (9.13, 2022).**