

Details regarding VLAC-001(Branch #2) Site

Accreditation No.	VLAC-001-2
Laboratory Name	Japan Quality Assurance Organization
Site Name	Kita-Kansai Testing Center Saito EMC Branch
Address	7-3-10, Saito Asagi, Ibaraki-shi, Osaka
Responsible Person	Kousei Shibata
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—SCOPE OF ACCREDITATION—

[Measurement Method]

Emission Test

Radiated disturbance: Enclosure Port

Radiated field strength measurement (CISPR 16-2-3, ANSI C63.4:2003/2009)

[Test Condition] * On the ground reference plane, Measurement distance: 3m, 10m
Frequency Range (30MHz~40GHz)

[Test Facilities] Kita-Kansai Testing Center Kameoka EMC Branch No.1 Site,
Kita-Kansai Testing Center Anechoic Chamber (3m, 1GHz-40GHz)
(*)Kita-Kansai testing Center SAITO EMC Branch Anechoic Chamber 1, Anechoic Chamber 2

[Test Condition] Quasi Free Space, Frequency Range (1GHz~6GHz)

[Test Facilities] Kita-Kansai Testing Center Anechoic Chamber, Kameoka EMC Branch No.1 Site
(*)Kita-Kansai testing Center SAITO EMC Branch Anechoic Chamber 1, Anechoic Chamber 2, Anechoic Chamber

Radiated magnetic field strength measurement (CISPR16-2-3)

[Test Facilities] Kita-Kansai Testing Center Anechoic Chamber, Kameoka EMC Branch No.1 Site
(*)Kita-Kansai testing Center SAITO EMC Branch Anechoic Chamber 1, Anechoic Chamber 2

Disturbance power measurement (CISPR16-2-2)

[Test Facilities] Kita-Kansai Testing Center Anechoic Chamber,
(*)Kita-Kansai testing Center SAITO EMC Branch Anechoic Chamber 1, Shielded Room 1

Conducted disturbance measurement: AC mains port

Disturbance voltage measurement (CISPR 16-2-1, ANSI C63.4:2003/2009)

[Test Condition] AMN, High-impedance Probe (CISPR 16-1-2)

[Test Facilities] Kita-Kansai Testing Center Anechoic Chamber, Shielded Room,
Kameoka EMC Branch No.1 Site, Shielded Room, Shielded Floor at No.1 Site.
(*)Kita-Kansai testing Center SAITO EMC Branch Anechoic Chamber 1, Measurement Room 1,
Measurement Room 2, Measurement Room 3, Shielded Room 1, Shielded Room 2,
Shielded room 4

Conducted disturbance measurement: Telecommunications port

Disturbance voltage measurement (CISPR 22 Clause 9.6 and Annex C)

[Test Condition] AAN (CISPR 16-1-2)

Disturbance current measurement (CISPR 22 Clause 9.6 and Annex C)

[Test Condition] Current probe (CISPR 16-1-2)

[Test Facilities] Kita-Kansai Testing Center Anechoic Chamber, Shielded Room,
Kameoka EMC Branch No.1 Site, Shielded Room, Shielded Floor at No.1 Site.
(*)Kita-Kansai testing Center SAITO EMC Branch Anechoic Chamber 1, Measurement Room 1,
Measurement Room 2, Measurement Room 3, Shielded Room 1, Shielded Room 2,
Shielded room 4

Conducted disturbance measurement: DC mains port

Disturbance voltage measurement (CISPR 16-2-1, ANSI C63.4:2003/2009)

[Test Condition] High-impedance Probe (CISPR 16-1-2)

[Test Facilities] Kita-Kansai Testing Center Anechoic Chamber, Shielded Room,
Kameoka EMC Branch No.1 Site, Shielded Room, Shielded Floor at No.1 Site.
(*)Kita-Kansai testing Center SAITO EMC Branch Anechoic Chamber 1, Measurement Room 1,
Measurement Room 2, Measurement Room 3, Shielded Room 1, Shielded Room 2,
Shielded room 4

Conducted disturbance measurement: PLT port

Disturbance current measurement

[Test Condition] Current Probe (CISPR 16-1-2)

[Test Facilities] Kita-Kansai Testing Center Anechoic Chamber, Shielded Room,
Kameoka EMC Branch No.1 Site, Shielded Room, Shielded Floor at No.1 Site.
(*)Kita-Kansai testing Center SAITO EMC Branch Anechoic Chamber 1, Measurement Room 1,
Measurement Room 2, Measurement Room 3, Shielded Room 1, Shielded Room 2, Shielded Room 4

【Measurement Method】

Immunity Test

ESD (IEC61000-4-2), Radiated electromagnetic field strength (IEC61000-4-3),

EFT/B (IEC61000-4-4): AC mains port/Telecommunications port,

Surge (IEC61000-4-5): AC mains port,

RF conducted (IEC61000-4-6): AC mains port/Telecommunications port,

Power frequency magnetic field (IEC61000-4-8),

Interruptions and voltage variations/dip (IEC61000-4-11)

[Test Facilities] Kita-Kansai Testing Center (All Immunity tests above) Anechoic Chamber

(Except Radiated field immunity test) Shielded Room and No. 2 Shielded Room

(*)Kita-Kansai Testing Center SAITO EMC Branch (All Immunity tests above) Anechoic Chamber 1

(Radiated Field Immunity test only) Anechoic Chamber 3

(Except Radiated field immunity test) Measurement Room 1, Measurement Room 2,

Measurement Room 3, Shielded Room 1, Shielded Room 2, Shielded room 4

Immunity Test for Broadcast Receiver

Antenna Input immunity (CISPR20), RF Induced voltage immunity (CISPR20)

[Test Facilities] (*)Kita-Kansai Testing Center Shielded room 4

Harmonic Test in Public Low Voltage Systems

Harmonic current (IEC61000-3-2), Voltage fluctuations and flicker (IEC61000-3-3)

[Test Facilities] (*)Kita-Kansai Testing Center SAITO EMC Branch

Telecommunications Equipment Performance Test 1

Transmission Power (Antenna terminal, Radiated), Spurious (Antenna terminal, Radiated)

Signal Characteristics (Frequency Stability, Modulation characteristics, OBW, Signal spectrum)

Others (FCC Part15 Subpart C, E, Tests based on EN Standards and Canada Standards)

[Test Facilities] Kita-Kansai Testing Center Anechoic Chamber (All performance tests above)

Shielded Room (Except Radiated tests), Kameoka EMC Branch No.1 Site (Radiated tests only)

(*)Kita-Kansai Testing Center SAITO EMC Branch

(Radiated Characteristics test only): Anechoic Chamber 1, Anechoic Chamber 2, Anechoic Chamber 3

(Antenna port, signal characteristics only): Measurement Room 1, Measurement Room 2,

Measurement Room 3, Shielded Room 1, Shielded Room 2,
Shielded room 4

Telecommunications Equipment Performance Test 2

Specific Absorption Rate measurement

[Test Condition] Phantom + Electric Field Probe

[Test Facilities] Kita-Kansai Testing Center SAITO EMC Branch: Shielded Room 3

Magnetic Field Measurement

[Test Condition] Magnetic Field Probe

[Test Facilities] Kita-Kansai Testing Center No. 2 Shielded Room, Anechoic Chamber

(*)Kita-Kansai Testing Center SAITO EMC Branch:

Anechoic Chamber 1, Anechoic Chamber 2, Anechoic Chamber 3, Shielded Room 1, Shielded Room 2,
Shielded room 4

【Measurement Standards】

Emission Test

V-3 : VCCI Technical Requirement

FCC 47CFR/Part15 Subpart B (Broadcast receiver, other receivers, including MP-2) &
Subpart C/ANSI C63.4 (2003/2009)

FCC 47CFR/Part18/MP-5

CISPR11, CISPR12, CISPR13, CISPR14-1, CISPR22, EN55011, EN55012, EN55013, EN55014-1, EN55022

Technical requirement of Electrical Appliances and Material Safety Act for the disturbance noise level:

Clause 1 of Ministerial Ordinance (Chapter 2, 3, 4, 5, 7 and 8)

J55001, J55011, J55013, J55014-1, J55022

Enforcement rule of Radio Law : Article 46.2 Clause 1 Section 5 (Broadband Power Line Communications
Equipment) / Notification No.520

Article 46.7 (Microwave Oven or IH Cooking Heater) / attached Table No.8

AS/NZS CISPR11, AS/NZS CISPR12, AS/NZS CISPR13, AS/NZS CISPR14.1, AS/NZS CISPR22

ICES-001, ICES-002, ICES-003, BETS 7, CNS13803, CNS13438, CNS13439, CNS13783-1

K00013, K00014-1, K00022, GOST R51318.13, GOST R51318.14.1, GOST R51318.22

GB13837, GB4343.1, GB9254,

IEC61000-6-3, IEC61000-6-4, EN61000-6-3, EN61000-6-4, AS/NZS61000.6.3, AS/NZS61000.6.4

IEC61326-1, JIS C1806-1, EN61326-1, IEC60601-1-2, JIS T0601-1-2, EN60601-1-2, AS/NZS3200.1.2

IEC61326-2-1~2-6, EN61326-2-1~2-6

IEC60601-2-XX (XX=1~54), EN60601-2-XX (XX=1~54) , JIS T0601-2-YY (YY=2~208)

IEC60533, IEC60945, Nippon Kaiji Kyokai Technical rule of Materials and Equipment for Marine Use:

Article 7 Chapter 1 (Rules for the Automatic and Remote control)

Immunity Test

CISPR14-2, CISPR24, (*)CISPR20, EN55014-2, EN55024, (*)EN55020

IEC61000-6-1, IEC61000-6-2, EN61000-6-1, EN61000-6-2, JIS C61000-6-1, JIS C61000-6-2

IEC61326-1, JIS C1806-1, EN61326-1, IEC60601-1-2, JIS T0601-1-2, EN60601-1-2, AS/NZS3200.1.2

IEC61326-2-1~2-6, EN61326-2-1~2-6

IEC60601-2-XX (XX=1~54), EN60601-2-XX (XX=1~54) , JIS T0601-2-YY (YY=2~208)

AS/NZS CISPR14.2, AS/NZS CISPR24, AS/NZS 61000.6.1, AS/NZS 61000.6.2

K00014-2, (*)K00020, K00024, GB4343.2, GOST R51318.24

Harmonic Test in Public Low Voltage Systems

IEC61000-3-2, JIS C61000-3-2, EN61000-3-2, IEC61000-3-3, EN61000-3-3

AS/NZS 61000.3.2, AS/NZS 61000.3.3, AS/NZS 61000.6.3, AS/NZS 61000.6.4, AS/NZS3200.1.2

IEC61000-6-3, IEC61000-6-4, EN61000-6-3, EN61000-6-4

IEC61326-1, JIS C1806-1, EN61326-1, GB17625.1, GOST R51317.3.2, GOST R51317.3.3

IEC60601-1-2, JIS T0601-1-2, EN60601-1-2, IEC61326-2-1~2-6, EN61326-2-1~2-6

Telecommunications Equipment Performance Test 1

FCC 47CFR/Part15 Subpart C, D, E/Part22 Subpart H/Part24 Subpart E, IC RSS-Gen/-210/-132/-133/-310

EN300 328, EN301 489-1/-3/-17/-19, EN300 330-1, EN300 330-2, EN300 422-1/-2, TIA/EIA-603-C (*)

Telecommunications Equipment Performance Test 2

IEC62209 Part1/Part2, FCC OET65/Supplement C, ANSI/IEEE1528, IC RSS102

EN50360, EN50361, EN62209-1, EN62209-2, IEC62233, EN62233, EN50366, CNS14958-1

Enforcement rule of Radio Law : Article 14.2 Clause 2 / Notification No.628(2001.10.10), ARIB STD-T56

Australia Radiocommunications (Electromagnetic Radiation-Human Exposure) Standard