Scope of Accreditation

（Measurement Method）

Accreditation Number : VLAC-001-2

Expiration Date : March 30, 2020

〔Name of Laboratory〕

Japan Quality Assurance Organization

〔Test site name〕

KITA-KANSAI Testing Center, SAITO EMC Branch

〔Test site Address〕

7-3-10, Saito Asagi, Ibaraki-shi, Osaka-fu

Measurement Method

Emission test

Radiated disturbance : Enclosure Port

Disturbance electric field test (CISPR 16-2-3, ANSI C63.4-2003/2009/2014)

[Test condition] On the reference ground plane, Measurement distance : 3m/10m
Measurement Frequency Range : 30 MHz – 40 GHz

[Test condition] Quasi Free Space
Measurement Frequency Range : 1 GHz – 18 GHz

Disturbance magnetic field strength measurement (CISPR 16-2-3)

[Test condition] Loop Antenna, 3-axis Loop Antenna (CISPR 16-1-4)

Disturbance power measurement (CISPR 16-2-2)

[Test condition] CMAD(CISPR 16-1-3)

Conducted disturbance Measurement: AC mains port (CISPR 16-2-1, ANSI C63.4-2003/2009/2014)

[Test condition] AMN, High impedance voltage probe (CISPR 16-1-2)

Conducted disturbance Measurement: Telecommunication port

Disturbance voltage measurement (CISPR 22, CISPR 32)

[Test condition] AMN/AAN

Disturbance current measurement (CISPR 22, CISPR 32)

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

Conducted disturbance Measurement: DC power line port

Disturbance voltage measurement

[Test condition] AMN, High impedance probe (CISPR 16-1-2)

Conducted disturbance Measurement: PLC power line port

Disturbance current measurement

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

Disturbance electric field test Antenna port

Disturbance voltage test [Test condition] AAN, Capacitive voltage probe

Disturbance current test [Test condition] current probe (CISPR 16-1-2)

Wanted signal and disturbance voltage test at the RF output
[Test condition] Selective voltmeter

Local oscillator power at the input terminal of the outdoor unit

Immunity test

Electro static discharge test	**IEC 61000-4-2/EN 61000-4-2**
Radiated electromagnetic field strength	**IEC 61000-4-3/EN 61000-4-3**
	Measurement Frequency Range : 26 MHz – 6 GHz
Electrical fast transient/burst (EFT/B)	**IEC 61000-4-4/EN 61000-4-4**
	Mains port, Telecommunication/Signal port
Surge	**IEC 61000-4-5/EN 61000-4-5**
	Mains port, Telecommunication/Signal port
RF conducted interference	**IEC 61000-4-6/EN 61000-4-6**
	Mains port measurement frequency range: 150 kHz – 230 MHz
	Telecommunication/Signal port measurement frequency range: 150 kHz – 230 MHz
Radiated magnetic field	**IEC 61000-4-8/EN 61000-4-8**
Interruptions and Voltage variations	**IEC 61000-4-11/EN 61000-4-11**
	IEC 61000-4-13/IEC 61000-4-16/ IEC 61000-4-29

Broadcasting receiver immunity

Antenna terminal Two signals/Three signals characteristics test (S1)
Coaxial shield attenuation test (S4), RF conducted interference
Mains terminal RF conducted immunity test (S2)
Radiated electromagnetic field/Electric magnetic field immunity test (open strip line) (S3)

Harmonic current

Harmonic current test (IEC 61000-3-2), Flicker test (IEC 61000-3-3)

Telecommunication equipment performance 1

FCC Intentional Radiators
FCC U-NII without DFS Intentional Radiators
FCC U-NII with DFS Intentional Radiators
Commercial Mobile Services (FCC licensed Radio Service Equipment)
(Part 22/Part 24/Part 25/Part 27)
General Mobile Radio Services (FCC Licensed Radio Service Equipment)
(Part 22/Part 90/Part 95/Part 97/Part 101)
Test based on European standards and Canadian standards

Telecommunication equipment performance 2

Exposure to electric, magnetic, and electromagnetic fields SAR
[Test condition] Artificial Body Phantom + Electric field probe
Magnetic field strength **[Test condition] Magnetic probe**
Electric field strength **[Test condition] Electric field probe**

Voluntary EMC Laboratory Accreditation Center Inc.

Scope of Accreditation

（Test standards）

Accreditation Number :VLAC-001-2
Expiration Date : March 30, 2020

〔Name of Laboratory〕

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〔Test site name〕

KITA-KANSAI Testing Center, SAITO EMC Branch

〔Test site Address〕

7-3-10, Saito Asagi, Ibaraki-shi, Osaka-fu

Test standards

Emission test

VCCI Technical requirements : V-3/VCCI-CISPR 32
FCC 47CFR/Part15 Subpart B/ANSI C63.4-2003/2009/2014
FCC 47CFR/Part15 Subpart C/ANSI C63.4-2003/2009/2014, FCC 47CFR/Part18/MP-5
CISPR 11, CISPR 12, CISPR13, CISPR 14-1, CISPR 15, CISPR 22, CISPR 32
EN 55011, EN 55012, EN 55013, EN 55014-1, EN 55015, EN 55022, EN 5 5025, EN 55032
Technical requirements under the Electrical Appliances and Materials safety Act appendix 10 Chapter2/3/4/5/6/7/8/9)
J55001, J55013, J55014-1, J55015, J55022
Enforcement rule of Radio Law: Article 46.2.5 (Broad band electric power line carrier communication facility) / Ministry of Public Management, Home Affairs, Posts and Telecommunications notification No.520(H18.10.4)
Enforcement rule of Radio Law: Article 46.7 (Microwave Oven or IH Cooking Heater)
AS/NZS CISPR 11, AS/NZS CISPR 12, AS/NZS CISPR 13, AS/NZS CISPR 14.1, AS/NZS CISPR 15, AS/NZS CISPR 22
AS/NZS CISPR 32, AS/NZS 61000.6.3, AS/NZS 61000.6.4, IEC 61131-2, EN 61131-2, ICES-001, ICES-002
ICES-003, ICES-005, BETS-7, CNS 13803, CNS 13438, CNS 13439, CNS 13783-1, CNS 14115
KN15, KN22, GB13837, GB4343.1, GB9254, GB17743, GOST R51318.13, GOST R51318.14.1, GOST R51318.15
GOST R51318.22, IEC 61000-6-3, IEC 61000-6-4, EN 61000-6-3, EN 61000-6-4, IEC 60533, EN 60533
IEC 60945, EN 60945, IEC 62236-3-2, EN 50121-3-2
Nippon Kaiji Kyokai Technical rule of Materials and Equipment for Marine Use : Article 7 Chapter 1, IACS E10
IEC 61326-1(Particular requirement IEC 61326-2serias), EN 61326-1(Particular requirement EN 61326-2series)
IEC 60601-1-2(Particular requirement IEC 60601-2 series), EN 60601-1-2(Particular requirement EN 60601-2 series)
JIS C 1806-1(Particular requirement JIS C 1806-2 series), JIS T 0601-1-2(Particular requirement JIS T 0601-2 series)
IEC/EN 60974-10, IEC/EN 62040-2, IEC/EN 61204-3
AS/NZS 3200.1.2 (Particular requirement AS/NZS 3200.2 series)
KN60601-1-2(Particular requirement KN60601-2 series), KN11, KN12, KN13, KN14-1, KN32, KN61000-6-3
KN61000-6-4, GB4824, GB14023, GB17799.3, GB17799.4, GOST R51318.11, GOST R51318.12
GOST R51317.6.3, GOST R51317.6.4, YY0505, J55011, JIS T 9206
JIS C 61326-1(Particular requirement JIS C 61326-2 series), JIS F 8081, EN 50270, J55032(CISPRJ 32)

Immunity test

CISPR 14-2, CISPR 24, EN 55014-2, EN 55024, IEC 61000-6-1, IEC 61000-6-2, EN 61000-6-1, EN 61000-6-2
AS/NZS CISPR 14.2, AS/NZS CISPR 24, AS/NZS 61000.6.1, AS/NZS 61000.6.2, JIS C 61000-6-1, JIS C 61000-6-2
KN24, GB4343.2, GOST R51318.14.2, GOST R51318.24, IEC 61326-3-1, IEC 61547, EN 61547
EN 50130-4, IEC 60533, EN 60533, IEC 60945, EN 60945, IEC 62236-3-2, EN 50121-3-2, KN61547
Nippon Kaiji Kyokai Technical rule of Materials and Equipment for Marine Use : Article 7 Chapter 1, IACS E10
IEC 61326-1(Particular requirement IEC 61326-2 series), EN 61326-1(Particular requirement EN 61326-2 series)
IEC 60601-1-2(Particular requirement IEC 60601-2 sries), EN 60601-1-2(Particular requirement EN 60601-2 series)
JIS T 0601-1-2(Particular requirement JIS T 0601-2 series)
IEC 61131-2, EN 61131-2, IEC 60974-10, EN 60974-10, IEC 62040-2, EN 62040-2, IEC 61204-3, EN 61204-3
IEC 61000-6-7, EN 61000-6-7
JIS C 1806-1(Particular requirement JIS C 1806-2 series), AS/NZS 3200.1.2 (Particular requirement AS/NZS 3200.2 series)
KN60601-1-2(Particular requirement KN60601-2series)
CISPR 20, EN 55020, CISPR 35, EN 55035, EN 61326-3-1, KN14-2, KN20, KN35

KN61000-6-1, KN61000-6-2, GOST R51317.6.1, GOST R51317.6.2, YY0505, JIS T 9206
JIS B 7611-2 Appendix B.3, IEC 60335-1 section 19.11.4, EN 60335-1 section 19.11.4
IEC 61496-1section 4.3.2 and 5.4.3, EN 61496-1 section 4.3.2 and 5.4.3
JIS B 9704-1 section 4.3.2 and 5.4.3, JIS C 1806-3-1
JIS C 61326-1(Particular requirement JIS C 61326-2 series), JIS F 8081
EN 50270, IEC 61000-4-13, EN 61000-4-13

Harmonic Test in Public Low Voltage Systems

IEC 61000-3-2, IEC 61000-3-3, JIS C 61000-3-2, IEC 61000-6-3, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3
AS/NZS 61000.3.2, AS/NZS 61000.3.3, AS/NZS 61000.6.3, GB17625.1,GOST R51317.3.2, GOST R51317.3.3
IEC 61326-1(Particular requirement IEC 61326-2 series), EN 61326-1(Particular requirement EN 61326-2 series)
IEC 60601-1-2(Particular requirement IEC 60601-2 series), EN 60601-1-2(Particular requirement EN 60601-2series)
JIS T 0601-1-2(Particular requirement JIS T 0601-2series)
IEC 60974-10, EN 60974-10, IEC 62040-2, EN 62040-2, IEC 61204-3, EN 61204-3
JIS C 1806-1 Particular requirement JIS C 1806-2series)
AS/NZS 3200.1.2 (Particular requirement AS/NZS 3200.2series)
KN60601-1-2(Particular requirement KN60601-2series)
GB17625.2, KN61000-6-3, GB17799.3, GOST R51317.6.3, YY0505
JIS C 61326-1(Particular requirement JIS C 61326-2 series), EN 50270

Telecommunication characteristic test 1

Intentional Radiators (FCC Part 15 Subpart C) : ANSI C63.10-2013
U-NII without DFS Intentional Radiators (FCC Part 15 Subpart E) : ANSI C63.10-2013
U-NII with DFS Intentional Radiators (FCC Part 15 Subpart E) : ANSI C63.10-2013
Commercial Mobile Services (FCC licensed Radio Service Equipment) (Part 22/Part 24/Part 25/Part 27) : ANSI/TIA-603-D, TIA-102.CAAA-D, ANSI/TIA-603-E, TIA-102.CAAA-E, ANSI C63.26-2015
General Mobile Radio Services (FCC Licensed Radio Service Equipment) (Part 22/Part 90/Part 95/Part 97/Part 101) : ANSI/TIA-603-D, TIA-102.CAAA-D, ANSI/TIA-603-E, TIA-102.CAAA-E, ANSI C63.26-2015
IC RSS-Gen, IC RSS210, IC RSS247, IC RSS310, IC RSS132, IC RSS133, EN 301 893
EN 301 489-1/ -3/ -9/ -17/ -19/ -34, EN 301 511, EN 301 908-1, EN 302 291-1/-2
EN 300 220-1/ -2, EN 300 330, EN 300 440
EN 300 220-3-1, EN 300 220-3-2, EN 300 220-4, EN 300 328

Telecommunication equipment performance 2

IEC 62209 Part1, IEC 62209 Part2, EN 62209-1, EN 62209-2, FCC ANSI/IEEE1528
IC RSS102, IEC 62311, EN 62311, IEC 62479, EN 62479, EN 50566, IEC 62233, EN 62233, EN 50360
Ministry of internal Affairs and communications Radio transmission facility enforcement rule(SAR), ARIB STD-T56
FCC 47CFR/Part2.1093, Radiocommunications(Electromagnetic Radiation – Human Exposure) Standard
CNS 14958-1, IEC 62493, EN 62493

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