

Scope of Accreditation

(Measurement Method)

Accreditation Number: VLAC-008-4

Expiration Date: December 31, 2025

[Name of Laboratory]

Intertek Japan K.K.

[Test site name]

Nagano Laboratory

[Test site Address]

3226 Yokokawa, Tatsuno-machi, Kamiina-gun, Nagano 399-0511 Japan

[Measurement Methods]

Emission test

Radiated disturbance: Enclosure Port

Disturbance electric field test

[Test condition] **On the reference ground plane, Measurement distance: 3 m / 10 m
Measurement Frequency Range: 30 MHz - 1 GHz**

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

Disturbance magnetic field strength measurement

[Test condition] **Loop Antenna, Three axis loop antenna**

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

Conducted disturbance Measurement: AC mains port / DC power line port

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

Conducted disturbance Measurement: Telecommunication port

Voltage measurement [Test condition] **AAN, Capacitive voltage probe**

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

Conducted disturbance Measurement:

Antenna port, RF modulator output port, Tuner port, fiber port

Wanted signal and disturbance voltage test at the RF output, Selective voltmeter

Immunity test

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

Radiated electromagnetic field strength **Measurement frequency: 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, Telecommunication/Signal port**

RF conducted interference

Mains port measurement frequency range: 150 kHz - 230 MHz

Telecommunication/Signal port measurement frequency range: 150 kHz - 230 MHz

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

Radiated magnetic field

Interruptions and Voltage variations

Low frequency immunity **Mains Harmonics and Interharmonics**

Harmonic current

Harmonic current test

Voltage changes, Voltage fluctuations and Flicker test

Telecommunication equipment performance 1
Intentional Radiators (FCC Part 15 Subpart C)
Based on European standards

Telecommunication equipment performance 2
Magnetic field strength [Test condition] Magnetic probe

Voluntary EMC Laboratory Accreditation Center Inc.

Scope of Accreditation

(Test standards)

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[Test Standards]

Emission test

VCCI Technical Requirements: VCCI-CISPR 32:2016^{*1*2}

**Technical requirements under the Electrical Appliances and Materials safety Act appendix 10
Chapter 4, 5 and 7, JIS C 4421:2008**

J55014-1(H27), J55015(H29), CISPRJ 15:2017, J55032(H29)^{*1*2}, CISPRJ 32:2017^{*1*2}

FCC 47 CFR Part 15 Subpart B: ANSI C63.4-2014 (Up to 40 GHz)

FCC 47 CFR Part 15 Subpart B: ANSI C63.4a-2017 (Up to 40 GHz)

FCC 47 CFR Part 18: FCC MP-5 (February 1986) (Up to 40 GHz)

CISPR 11:2009+A1:2010 / 2015+A1:2016+A2:2019, CISPR 14-1:2016 / 2020

CISPR 15:2013+A1:2015 / 2018, CISPR 32:2012^{*1*2} / 2015+A1:2019^{*1*2}

EN 55011:2009+A1:2010 / 2016+A1:2017+A11:2020+A2:2021, EN 55014-1:2017+A11:2020

EN IEC 55014-1:2021, EN 55015:2019, EN IEC 55015:2019+A11:2020, EN 50370-1:2005

EN 55032:2015+A11:2020+A1:2020^{*1*2}

IEC 61000-6-3:2006+A1:2010 / 2020, IEC 61000-6-4:2006+A1:2010 / 2018, IEC 61000-6-8:2020

EN 61000-6-3:2007+A1:2011, EN IEC 61000-6-3:2021, EN 61000-6-4:2007+A1:2011

EN IEC 61000-6-4:2019, EN IEC 61000-6-8:2020

IEC 61800-3:2017 / 2022, EN IEC 61800-3:2018

AS CISPR 11:2017+A1:2020, AS CISPR 14.1:2018, AS CISPR 15:2017

AS/NZS CISPR 32:2015+A1:2020^{*1*2}

AS/NZS 3200.1.2:2005, AS/NZS 61000.6.3:2021, AS/NZS 61000.6.4:2012

ICES-001(Issue5), ICES-003(Issue7), ICES-005(Issue5), ICES-Gen(Issue1+A1:2021)

CNS 13803:2003, CNS 13438:2006, CNS 13783-1:2013, CNS 15936:2016^{*1*2}

KS C 9811:2019, KS C 9832:2019^{*1*2} / 2023^{*1*2}

KS C 9610-6-3:2023, KS C 9610-6-4:2022, KS C 9800-3:2017

KS C 9816-2-1:2020, KS C 9816-2-2:2020, KS C 9816-2-3:2020

^{*1} Except for measurement in a FAR.

^{*2} Except for broadcast radio receivers.

The following groups of test standards are included in Emission tests, Immunity tests and Harmonic Test in Public Low Voltage Systems. [Note.1]

IEC 61326-1:2012 / 2020, IEC 61326-2-1:2012 /-2-1:2020 /-2-2:2012 /-2-2:2020 /-2-3:2012 /-2-3:2020 /-2-4:2012 /-2-4:2020 /-2-5:2012 /-2-5:2020 /-2-6:2012 /-2-6:2020
EN 61326-1:2013, EN IEC 61326-1:2021, EN 61326-2-1:2013 /-2-2:2013 /-2-3:2013 /-2-4:2013 /-2-5:2013 /-2-6:2006 /-2-6:2013, EN IEC 61326-2-1:2021 /-2-2:2021 /-2-3:2021 /-2-4:2021 /-2-5:2021 /-2-6:2021
JIS C 61326-1:2017 / 2022, JIS C 61326-2-1:2017 /-2-1:2022 /-2-2:2017 /-2-3:2019 /-2-6:2019 /-2-6:2023

IEC 60601-1-2:2014+A1:2020, IEC 60601-2-1:2020 /-2-2:2017+A1:2023
/-2-3:2012+A1:2016+A2:2022 /-2-4:2010+A1:2018 /-2-5:2009 /-2-6:2012+A1:2016+A2:2022
/-2-8:2010+A1:2015 /-2-10:2012+A1:2016+A2:2023 /-2-11:2013 /-2-16:2018 /-2-17:2013
/-2-18:2009 /-2-19:2020 /-2-20:2020 /-2-21:2020 /-2-22:2019 /-2-23:2011 /-2-24:2012 /-2-25:2011
/-2-27:2011 /-2-28:2017 /-2-29:2008 /-2-31:2020 /-2-33:2022 /-2-34:2011 /-2-35:2020 /-2-36:2014
/-2-37:2007+A1:2015 /-2-39:2018 /-2-40:2016 /-2-41:2021 /-2-43 :2022
/-2-44:2009+A1:2012+A2:2016 /-2-45:2011+A1:2015+A2:2022 /-2-47:2012 /-2-50:2020
/-2-52:2009+A1:2015 /-2-54:2022 /-2-57:2011 /-2-62:2013 /-2-63:2012+A1:2017+A2:2021
/-2-64:2014 /-2-65:2012+A1:2017+A2:2021 /-2-66:2019 /-2-68:2014 /-2-75:2017+1:2023 /-2-76:2018
/-2-83:2019+A1:2022, IEC 80601-2-26:2019 /-2-30:2018 /-2-49:2018 /-2-58:2014+A1:2016
/-2-59:2017+A1:2023 /-2-60:2019 /-2-71:2015 /-2-77:2019 /-2-78:2019, ISO 80601-2-12:2020
/-2-13:2022 /-2-55:2018 /-2-56:2017+A1:2018 /-2-61:2017 /-2-67:2020 /-2-69:2020 /-2-70:2020
/-2-72:2015 /-2-74:2021 /-2-79:2018 /-2-80:2018

EN 60601-1-2:2015+A1:2021, EN 60601-2-3:2015+A1:2016 /-2-4:2011+A1:2019 /-2-5:2015
/-2-6:2015+A1:2016 /-2-8:2015+A1:2016 /-2-10:2015+A1:2016 /-2-11:2015 /-2-12:2006 /-2-17:2015
/-2-18:2015 /-2-23:2015 /-2-24:2015 /-2-25:2015 /-2-27:2014 /-2-29:2008+A11:2011
/-2-33:2010+A12:2016 /-2-34:2014 /-2-36:2015 /-2-37:2008+A1:2015 /-2-40:2019
/-2-44:2009+A2:2016 /-2-45:2011+A1:2015 /-2-47:2015 /-2-52:2010+A1:2015
/-2-54:2009+A1:2015+A2:2019 /-2-57:2011 /-2-62:2015 /-2-63:2015+A1:2019+A2:2021 /-2-64:2015
/-2-65:2013+A1:2020+A2:2021 /-2-68:2015, EN IEC 60601-2-1:2021 /-2-2:2018 /-2-16:2019
/-2-19:2021 /-2-20:2020 /-2-21:2021 /-2-22:2020/-2-28:2019 /-2-31:2020 /-2-35:2021 /-2-39:2019
/-2-41:2021 /-2-43:2023 /-2-50:2021 /-2-66:2020 /-2-75:2019 /-2-76:2019 /-2-83:2020+A11:2021
EN 80601-2-58:2015+A1:2019 , EN IEC 80601-2-26:2020 /-2-30:2019 /-2-49:2019
/-2-59:2019+A1:2023 /-2-60:2020 /-2-71:2018, EN ISO 80601-2-12:2020 /-2-13:2022 /-2-55:2018
/-2-56:2017+A1:2020 /-2-61:2019 /-2-67:2020 /-2-69:2020 /-2-70:2020 /-2-74:2021 /-2-79:2019
/-2-80:2019

JIS T 0601-1-2:2018 / 2023, JIS T 0601-2-2:2020 /-2-3:2015 /-2-5:2015 /-2-6:2015 /-2-10:2015
/-2-16:2022 /-2-18:2013 /-2-21:2019 /-2-24:2018 /-2-25:2014 /-2-35:2015 /-2-37:2018 /-2-39:2023
/-2-64:2016 /-2-66:2015 /-2-201:2015 /-2-202:2015 /-2-203:2015 /-2-204:2015 /-2-205:2015
/-2-206:2015 /-2-207:2015 /-2-208:2015, JIS T 60601-2-47:2018 /-2-63:2019 /-2-65:2019
/-2-68:2019, JIS T 80601-2-55:2014 /-2-60:2021 /-2-61:2014 /-2-78:2022

Immunity test

[Including the test standards listed in Note 1.]

CISPR 14-2:2015 / 2020, CISPR 35:2016^{*3}

IEC 61000-4-2:2008 /-4-3:2020 /-4-4:2012 /-4-5:2014+A1:2017 /-4-6:2023 /-4-8:2009 /-4-11:2020
/-4-13:2002+A1:2009+A2:2015 /-4-16:2015 /-4-29:2000 /-4-34:2005+A1:2009
/-4-39:2017 (9 kHz - 26 MHz) , IEC TR 60601-4-2:2016

IEC 61000-6-1:2005 / 2016, IEC 61000-6-2:2005 / 2016, IEC 61000-6-7:2014

IEC 61326-3-1:2017, IEC 61326-3-2:2017, IEC 61547:2020

EN 55014-2:1997+A1:2001+A2:2008 / 2015, EN IEC 55014-2:2021, EN 55035:2017+A11:2020*³
EN 50370-2:2003, EN 61000-6-1:2007, EN IEC 61000-6-1:2019, EN 61000-6-2:2005
EN IEC 61000-6-2:2019, EN 61000-6-7:2015
EN 61326-3-1:2017, EN IEC 61326-3-2:2018, EN 61547:2009, EN IEC 61547:2023
EN 61000-4-2:2009 /-4-4:2012 /-4-5:2014+A1:2017 /-4-6:2014 /-4-8:2010
/-4-13:2002+A1:2009+A2:2016 /-4-29:2000 /-4-34:2007+A1:2009 /-4-39:2017 (9 kHz - 26 MHz)
EN IEC 61000-4-3:2020 /-4-6:2023 /-4-11:2020

AS/NZS CISPR 14.2:2021, AS/NZS 3200.1.2:2005
AS/NZS 61000.6.1:2006, AS/NZS 61000.6.2:2022
J1000(H14), JIS C 61000-6-1:2019, JIS C 61000-6-2:2019, JIS C 61000-6-7:2020
JIS C 61326-3-1:2020
KS C 9610-4-2:2017 /-4-3:2017 /-4-4:2020 /-4-5:2020 /-4-6:2020 /-4-8:2017 /-4-11:2020
KS C 9610-6-1:2019 /-6-2:2019, KS C 9835:2019*³

*³ Except for Annex A, Annex H and xDSL Equipments.

Harmonic Test in Public Low Voltage Systems [Including the test standards listed in Note 1.]

IEC 61000-3-2:2014 / 2018+A1:2020, IEC 61000-3-3:2013+A1:2017+A2:2021
IEC 61000-3-12:2011+A1:2021
IEC 61000-6-3:2020, IEC 61000-6-8:2020

EN 61000-3-2:2014, EN IEC 61000-3-2:2019+A1:2021
EN 61000-3-3:2013+A1:2019+A2:2021, EN 61000-3-12:2011
EN 61000-6-3:2007+A1:2011, EN IEC 61000-6-3:2021, EN IEC 61000-6-8:2020

AS/NZS 3200.1.2:2005, AS/NZS 61000.3.2:2013, AS/NZS 61000.3.3:2012
AS/NZS 61000.6.3:2021
JIS C 61000-3-2:2011 / 2019
KS C 9610-3-2:2020, KS C 9610-3-3:2020

Telecommunication equipment performance 1

Intentional Radiators (FCC Part 15 Subpart C): ANSI C63.10-2013 (Up to 26.5 GHz)
Intentional Radiators (FCC Part 15 Subpart C): ANSI C63.10-2020 (Up to 26.5 GHz)
EN 300 330:V2.1.1 (Limited to Product Class 1)
EN 301 489-1:V2.2.3, EN 301 489-3:V2.1.1 / V2.3.2, EN 301 489-17:V3.2.4

Telecommunication equipment performance 2

IEC 62233:2005, IEC 62311:2019, IEC 62479:2010
EN 62233:2008, EN 62311:2008, EN IEC 62311:2020, EN 62479:2010

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 (1.1, 2024).