

Scope of Accreditation

(Measurement Method)

Accreditation Number: VLAC-052
Expiration Date: February 28, 2025

[Name of Laboratory]

PFU Limited

[Test site name]

PFU Product Certification Center

[Test site Address]

Nu 98-2 Unoke, Kahoku-shi, Ishikawa, 929-1192 Japan

[Measurement Method]

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

Conducted disturbance Measurement: AC mains port

Voltage measurement [Test condition] AMN, High impedance probe

Conducted disturbance Measurement: Telecommunication port

Voltage measurement [Test condition] ISN/AAN, Capacitive voltage probe

Current measurement [Test condition] Current probe

Conducted disturbance Measurement: DC mains port

Voltage measurement [Test condition] AMN, High impedance probe

Immunity test

Electro static discharge test

Contact discharge, Air discharge, Indirect discharge

Radiated electromagnetic field strength

Measurement frequency: 80 MHz – 6 GHz

Electrical fast transient/burst (EFT/B)

Mains port, Telecommunication/Signal port,

Immunity to transient disturbances conducted along supply lines / other than supply lines

Surge

Mains port, Telecommunication/Signal port

RF conducted interference

Mains port measurement frequency range:150 kHz – 80 MHz

Telecommunication/Signal port measurement frequency range:150 kHz – 80 MHz

Radiated magnetic field

Interruptions and Voltage variations

Harmonic current

Harmonic current test

Voltage changes, Voltage fluctuations and Flicker test

Telecommunication equipment performance 2

Magnetic field strength [Test condition] Magnetic probe

Environment (Power consumption)

Standard power consumption level TEC method

Operation method OM method

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^{*1}

FCC 47 CFR Part 15 Subpart B : ANSI C63.4-2014

FCC 47 CFR Part 15 Subpart B : ANSI C63.4a-2017

ICES-003 (Issue 7), AS/NZS CISPR 32^{*1}: 2015+A1:2020 / 2015

CISPR 11^{*2}: 2015+A1:2016+A2:2019 / 2015+A1:2016 / 2015

CISPR 22:2008, CISPR 32^{*1}: 2015+A1:2019 / 2015

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

IEC 61326-1: 2020 / 2012, IEC 61326-2-6: 2020 / 2012

EN 50370-1, EN 55011^{*2}: 2016+A1:2017+A11:2020+A2:2021 / 2016+A11:2020 / 2016+A1:2017 / 2016

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

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

EN IEC 61000-6-4, EN 61000-6-4:2007+A1:2011, EN IEC 61000-6-8

EN IEC 61326-1, EN 61326-1:2013, EN IEC 61326-2-6, EN 61326-2-6 :2013

JIS T 0601-1-2^{*3}:2023 / 2012, IEC 60601-1-2^{*3}: 2014+A1:2020 / 2014, EN 60601-1-2^{*3} : 2015+A1:2021 / 2015

^{*1} Except for antenna port, broadcast receiver tuner port, RF modulator output port and outdoor unit of home satellite receiving systems

^{*2} Except for DC power port

^{*3} Except for electrical transient conduction along supply lines test

Immunity test

CISPR 24^{*4} : 2010+A1:2015 / 2010, CISPR 35^{*5}

IEC 61000-4-2, IEC 61000-4-3: 2020 / 2006+A1:2007+A2:2010, IEC 61000-4-4: 2012 / 2004+A1:2010

IEC 61000-4-5: 2014+A1:2017 / 2014 / 2005, IEC 61000-4-6: 2013 / 2008, IEC 61000-4-8

EN IEC 61000-4-11, IEC 61000-4-11: 2020 / 2004+A1:2017

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

IEC 61326-1: 2020 / 2012, IEC 61326-2-6: 2020 / 2012

EN 50370-2, EN 55024^{*4}: 2010+A1:2015 / 2010, EN 55035^{*5}: 2017+A11:2020 / 2017

EN 61000-4-2, EN IEC 61000-4-3, EN 61000-4-3:2006+A1:2008+A2:2010

EN 61000-4-4: 2012 / 2004+A1:2010, EN 61000-4-5: 2014+A1:2017 / 2014 / 2006

EN 61000-4-6: 2014 / 2009, EN 61000-4-8, EN 61000-4-11: 2020 / 2004 +A1:2017

EN IEC 61000-6-1, EN 61000-6-1:2007, EN IEC 61000-6-2, EN 61000-6-2:2005

EN IEC 61326-1, EN 61326-1:2013, EN IEC 61326-2-6, EN 61326-2-6 :2013

JIS T 0601-1-2^{*3,*6}:2023 / 2012, IEC 60601-1-2^{*3,*6}: 2014+A1:2020 / 2014

EN 60601-1-2^{*3,*6} : 2015+A1:2021 / 2015

^{*3} Except for electrical transient conduction along supply lines test

^{*4} Except for sound pressure level test

^{*5} Except for antenna port, broadcast receiver tuner port, RF modulator output port, xDSL port and sound pressure level test

^{*6} Except for proximity magnetic fields

Harmonic Test in Public Low Voltage Systems

IEC 61000-3-2: 2018+A1:2020 / 2018 / 2014

IEC 61000-3-3: 2013+A1:2017+A2:2021 / 2013+A1:2017 / 2013

EN IEC 61000-3-2: 2019+A1:2021 / 2019, EN 61000-3-2:2014

EN 61000-3-3: 2013+A1:2019+A2:2021 / 2013+A1:2019 / 2013, JIS C 61000-3-2

JIS T 0601-1-2:2023 / 2012, IEC 60601-1-2: 2014+A1:2020 / 2014, EN 60601-1-2 : 2015+A1:2021 / 2015

Telecommunication characteristic 2

IEC 62233, IEC 62311^{*7}: 2019 / 2007

EN 62233, EN IEC 62311^{*7}, EN 62311^{*7}:2008, EN 62479(Only for inherently compliant)

^{*7} Only for 10 Hz - 400 kHz

Environment (Power consumption)

International Energy Star Program operational byelaw: Imaging Equipment

USA Energy Star program operational byelaw: Imaging Equipment

IEC 62301, EN 50564, EN 50643: 2018+A1:2020 / 2018

[Note-1] Underlined standards are added as of February 20, 2024.

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 (3.1, 2023).**