

**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017**

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**ELECTROMAGNETIC COMPATIBILITY &  
TELECOMMUNICATIONS**

**NVLAP LAB CODE 200063-0**

**Emissions**

**Designation**

**Description**

EN 55011 (2009) + A1 (2010)

Industrial, scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement

EN 55013 (2013)

Sound and television broadcast receivers and associated equipment. Radio disturbance characteristics. Limits and methods of measurement

EN 55015 (2013)

Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment

EN 55022 (2010)

Information technology equipment. Radio disturbance characteristics. Limits and methods of measurement

EN 55032 (2015)+A11(2020)

Electromagnetic compatibility of multimedia equipment - Emission Requirements

EN 55103-1 (2009)

Electromagnetic compatibility - Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use - Part 1: Emission

IEC 61000-3-2, Ed. 4.0 (2014-05)

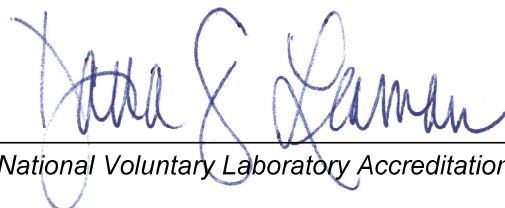
Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase)

KS C 9610-3-2:2020

Electromagnetic compatibility (EMC) — Part 3-2: Limits — Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase)

EN 61000-3-2 (2014)

Electromagnetic compatibility (EMC). Limits. Limits for harmonic current emissions (equipment input current = 16 A per phase)



*For the National Voluntary Laboratory Accreditation Program*

## ELECTROMAGNETIC COMPATIBILITY & TELECOMMUNICATIONS

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KS C 9610-3-3:2020	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16$ A per phase and not subject to conditional connection
EN 61000-3-3 (2013)	EMC- Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low- voltage supply systems, for equipment with rated current $\leq 16$ A per phase and not subject to conditional connection
IEC 61000-3-3 Ed. 2.0 (2008)	EMC- Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current =16 A per phase and not subject to conditional connection
EN 61000-6-3 (2007) + A1 (2011) + AC (2012)	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments
IEC 61000-6-3 (2006-06)	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments
IEC 61000-6-4 (2006-07)	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments
EN 61000-6-4 (2007) + A1 (2011)	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments
IEC/EN 61204-3 (2001)	Low-voltage power supplies, d.c. output - Part 3: Electromagnetic compatibility (EMC)
IEC 61326-1 (2005-12)	Electrical equipment for measurement, control and laboratory use - EMC requirements
IEC 61326-2-1 (2005)	EMC requirements. Particular requirements. Test configurations, operational conditions and performance criteria for EMC unprotected applications
IEC 61326-2-2 (2005)	EMC requirements. Particular requirements. Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems
EN 61326-2-3 (2013)	Electrical equipment for measurement, control and laboratory use. EMC requirements - Part 2-3: Particular requirements -Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning
IEC 61326-2-3 (2006)	EMC requirements - Part 2-3: Particular requirements - Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning
CNS 13438 (2006) (up to 6GHz)	Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment
CNS 15936 (2016)	Electromagnetic compatibility of multimedia equipment - Emission requirements
AS CISPR 11 (2017)	Industrial, scientific and medical equipment—Radio-frequency disturbance characteristics—Limits and methods of measurement (CISPR 11:2015 +AMD1:2016 (ED.6.1) MOD)

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IEC/CISPR 11 Ed. 5.1 (2010)	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement
CISPR 15 (Ed 8.0 2013)	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
AS/NZS CISPR 22 (2009) +A1 (2010)	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
AS/NZS CISPR 32 (2013)	Electromagnetic compatibility of multimedia equipment - Emission requirements
AS/NZS CISPR 32:2015+A1:2020	Electromagnetic compatibility of multimedia equipment - Emission requirements
CISPR 32 (2015)	Electromagnetic compatibility of multimedia equipment - Emission requirements
CISPR 32, Ed. 1 (2012-01)	Electromagnetic compatibility of multimedia equipment - Emission requirements
ANSI C63.4 (2014)	Unintentional Radiators in 47 CFR FCC Part 15, Subpart B
ANSI C63.10 (2013)	Intentional Radiators in 47 CFR FCC Part 15, Subpart C
DA 00-705 - March 30, 2000 and KDB Pub. No. 558074	47 CFR FCC Part 15, Subpart C: Intentional Radiators - (Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems - and - New Guidance on Measurements for Digital Transmission Systems in Section 15.247)
SS - MP with FCC Method - 15 CFR Part 15, Subpart C	Intentional Radiators
ANSI C63.10 (2013)	Unlicensed National Information Infrastructure Devices without DFS Intentional Radiators in 47 CFR FCC Part 15, Subpart E
FCC OST/MP-5 (1986)	FCC Methods of Measurement of Radio Noise Emissions for ISM Equipment (cited in 47 CFR FCC Part 18 - Industrial, Scientific, and Medical Equipment)
ICES-001	Industrial, Scientific and Medical (ISM) Radio Frequency Generators
ICES-003 Issue 7 (October 2020)	Information Technology Equipment (Including Digital Apparatus)
ICES-005 Issue 5 (Dec 2018)	Lighting Equipment
KCC Notice 2008-39	Korea Technical Requirements Electromagnetic Interference (EMI)
RRA Announce 2009-9, Dec 21, 2009	Conformity Assessment Procedure for Electromagnetic Interference, K only
RRA Public Notification 2011-05 (Jan. 19, 2011)	Technical requirements for Electromagnetic Interference; Korea only
RRA Public Notification 2011-18 (July 05, 2011)	Technical Requirements for Electromagnetic Interference; Korea only

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RRA Public Notification 2011-24 (Dec. 23, 2011)	Technical Requirements for Electromagnetic Interference; Korea only
RRA 2012-13 and RRA 2012-21, June 28, 2012, K only	Technical Requirements and Test Methods for Electromagnetic Interference; K only (See specific Annexes listed on scope)
RRA 2013-3 and 2013-24, June 17, 2013, Korean only	Technical Requirements and Test Methods for Electromagnetic Interference; K only (See specific Annexes listed on scope)
RRA 2014-8 and RRA 2014-37 (June 23, 2014)	Technical Requirements and Test Methods for Electromagnetic Interference; K only (See specific Annexes listed on scope)
VCCI-CISPR 32 (2016)	Agreement of VCCI Council - Technical Requirements: VCCI-CISPR 32:2016 (up to 6 GHz)
Agreement of VCCI V-3 (2015.04)	Agreement of VCCI Council - Technical Requirements: V-3/2015.04 (including radiated disturbance above 1 GHz)

## Immunity

### Designation

### Description

EN 50130-4 (2011)	Alarm systems. Electromagnetic compatibility. Product family standard. Immunity requirements for components of fire, intruder, hold up, CCTV, access control and social alarm systems
EN 55024 (2010)	Information technology equipment. Immunity characteristics. Limits and methods of measurement
EN 55035 (2017) +A11 (2020)	Electromagnetic Compatibility Of Multimedia Equipment - Immunity Requirements
EN 55103-2 (2009)	Electromagnetic compatibility - Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use - Part 2: Immunity
KS C 9610-4-2:2017	Electromagnetic compatibility (EMC) — Part 4—2: Testing and measurement techniques — Electrostatic discharge immunity test
IEC 61000-4-2, Ed. 2.0 (2008-12)	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test
KS C 9610-4-3:2017	Electromagnetic compatibility (EMC) — Part 4-3: Testing and measurement techniques — Radiated, radio-frequency, electromagnetic field (MOD IEC 61000-4-3:2010)
IEC 61000-4-3, Ed. 3.0 (2006-02) + A1 (2007)	Electromagnetic compatibility (EMC) - Part 4-3: Testing measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test
KS C 9610-4-4:2020	Electromagnetic compatibility (EMC) — Part 4-4: Testing and measurement techniques — Electrical fast transient, burst immunity test
IEC 61000-4-4, Ed. 3.0 (2012-04)	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test

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IEC 61000-4-5 Ed. 3.0 (May 2014)	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test
KS C 9610-4-5:2020	Electromagnetic compatibility (EMC) — Part 4-5: Testing and measurement techniques — Surge immunity test
IEC 61000-4-5, Ed. 1.1 (2001-04); EN 61000-4-5	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test
BS EN 61000-4-5 (2006)	Electromagnetic compatibility (EMC). Testing and measurement techniques. Surge immunity test
KS C 9610-4-6:2020	Electromagnetic compatibility (EMC) — Part 4-6: Testing and measurement techniques — Immunity to conducted disturbances, induced by radio-frequency fields (MOD IEC 61000-4-6:2013)
IEC 61000-4-6 Ed. 4.0 (2013)	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields
KS C 9610-4-8:2017	Electromagnetic compatibility (EMC) — Part 4—8: Testing and measurement techniques — Power frequency magnetic field immunity test
IEC 61000-4-8 (2009)	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test
KS C 9610-4-11:2020	Electromagnetic compatibility (EMC) — Part 4-11: Testing and measurement techniques — Voltage dips, short interruptions and voltage variations immunity tests
IEC 61000-4-11, Ed. 2 (2004-03) & EN 61000-4-11	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests
EN 61000-6-1 (2007)	Electromagnetic compatibility (EMC) - Part 6 - 1: Generic standards - Immunity for residential, commercial and light-industrial environments
EN 61000-6-2 (2005)	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
EN 61326-1 (2013)	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
IEC 61326-2-6, Ed. 1.0 (2005-12)	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment
EN 61547 (2009)	Equipment for general lighting purposes. EMC immunity requirements
IEC 61547 ed.2.0 (2009)	Equipment for general lighting purposes - EMC immunity requirements
IEC/CISPR 24 (1997) and EN 55024 (1998) + A1(2001), A2(2003)	Information technology equipment - Immunity characteristics - Limits and methods of measurement
CISPR 35 (2016)	Electromagnetic compatibility of multimedia equipment - Immunity requirements

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KS C 9835:2019	Electromagnetic compatibility of multimedia equipment - Immunity requirements (MOD CISPR 35:2016)
KCC Notice 2008-38	Korea Technical Requirements for Electromagnetic Susceptability (EMS)
KN 24 (December 2005) with RRL Notice No. 2006-127	Information technology equipment - Immunity characteristics - Limits and methods of measurement
KN 24 (Annex 5) with RRA Announce 2010-6 (Dec. 24, 2010)	Conformity Assessment Procedure for EMS (Information technology equipment - Immunity characteristics - Limits and methods of measurement)
KN 24 (Annex 5) with RRA Announce 2011-31 (Dec. 23, 2011)	Conformity Assessment Procedure for Electromagnetic Susceptibility; with KN24 (Annex 5). K Only
KN 24 (Annex 11) RRA Announce 2008-12 (Dec. 16, 2008)	Conformity Assessment Procedure for EMS (Information technology equipment - Immunity characteristics - Limits and methods of measurement)
KN 24 (Annex 11) RRA Announce 2009-10 (Dec. 21, 2009)	Conformity Assessment Procedure for EMS (Information technology equipment - Immunity characteristics - Limits and methods of measurement)
KN 35:2015 (Annex 11-2)	Testing method of electromagnetic wave endurance of multimedia device
Korea RRL Notice No. 31 (2004)	Conformity Assessment Procedures for Electromagnetic Susceptibility using KN 61000-4-2, KN 61000-4-3, KN 61000-4-4, KN 61000-4-5, KN 61000-4-8, KN 61000-4-11, KN 20, KN 41, and KN 50.
Korea RRL Notice 70 (2004)	Technical Requirements for Electromagnetic Susceptibility using KN 61000-4-2, KN 61000-4-3, KN61000-4-4, KN 61000-4-5, KN 61000-4-6, KN 61000-4-8, KN 20, KN 41, and KN 51
RRA Announce 2009-10, Dec 21, 2009	Conformity Assessment Procedure for Electromagnetic Susceptibility, K only
RRA Public Notification 2011-06 (Jan. 19, 2011)	Technical Requirements for Electromagnetic Susceptibility; Korea only
RRA Public Notification 2011-17 (July 05, 2011)	Technical Requirements for Electromagnetic Susceptibility; Korea only
RRA Public Notification 2011-25 (Dec. 23, 2011)	Technical Requirements for Electromagnetic Susceptibility; Korea only
RRA 2012-14 and RRA 2012-22 (June 28, 2012) K only	Technical Requirements and Test Methods for Electromagnetic Susceptibility; K only (See specific Annexes listed on scope)
RRA 2013-04 and RRA 2013-25, June 17, 2013, Korean only	Technical Requirements and Test Methods for Electromagnetic Susceptibility; Korean only (See specific Annexes listed on scope)
RRA 2014-09 and RRA 2014-38 (June 23, 2014) K only	Technical Requirements and Test Methods for Electromagnetic Susceptibility; Korean only (See specific annexes listed on scope)

## Product Safety

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**NVLAP LAB CODE 200063-0**

**Designation**

IEC 60601-1-2, Ed. 4, (2014-02)

**Description**

Medical electrical equipment-Part 1-2: General requirements for basic safety and essential performance-Collateral Standard: Electromagnetic disturbances-Requirements and tests

IEC 60601-1-2, Ed. 4.0 (2014) + A1 (2020)

Medical electrical equipment - Part 1-2: General requirements for safety - Collateral standard: Electromagnetic compatibility - Requirements and tests

AS/NZS 4117 (1999)

Surge protective devices for telecommunications applications

**Product Safety - FDA Pilot Accreditation Scheme for Conformity Assessment (ASCA)**

**Designation**

IEC 60601-1-2, Ed. 4.1 (2020-09) (FDA#19-36)

**Description**

CSV Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Electromagnetic disturbances - (Accreditation excludes Figure 3, "nursing homes" as an example of the HOME HEALTHCARE ENVIRONMENT, Subclause 8.9, Table 8 on Page 39: The citation of Note k) under "Conducted disturbances induced by RF fields" (4th Row))

**Radio**

**Designation**

ACMA Radiocommunications (Short Range Devices) Standard 2014

**Description**

For technical performance matters using AS/NZS 4268

AS/NZS 4268 (2017)

Radio equipment and systems-Short range devices-Limits and methods of measurement

AS/NZS 4268 (2008)

Radio equipment and systems - Short range devices - Limits and methods of measurement

AS/NZS 4771 (2000) + Amendment No. 1

Technical characteristics and test conditions for data transmission equipment operating in the 900 MHz, 2.4 GHz and 5.8 GHz bands and using spread spectrum modulation techniques

IDA TS SRD Issue 1 Rev 6, May 2011

Technical Specification for Short Range Devices

KCC Public Notification 2009-27, Nov 5, 2009

Technical Requirements for the Human Protection against Electromagnetic Waves, K only

RSS-102 Measurement, Issue 5 (March 2015) + A1 (February 2021)

Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) - RF Exposure (MEAS)

RSS-210, Issue 10 (December 2019) + A1 (April 2020)

Licence-Exempt Radio Apparatus: Category I Equipment

RSS-247, Issue 2 (February 2017)

Digital Transmission Systems (DTSSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

*without DFS*

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RSS-247, Issue 3 (August 2023)	Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices <i>without DFS</i>
RSS-248, Issue 1 (November 2021)	Radio Local Area Network (RLAN) Devices Operating in the 5925-7125 MHz Band
RSS-248, Issue 2 (December 2022)	Radio Local Area Network (RLAN) Devices Operating in the 5925-7125 MHz Band
RSS-310, Issue 4 (July 2015)	Licence-Exempt Radio Apparatus: Category II Equipment
RSS-Gen, Issue 5 + Amendment 2 (February 2021)	General Requirements for Compliance of Radio Apparatus

### RF Exposure

#### Designation

IEEE C95.3-2021

#### Description

IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic, and Electromagnetic Fields with Respect to Human Exposure to Such Fields, 0 Hz to 300 kHz

### Telecommunications

#### Designation

ETSI EN 300 386 V1.6.1 (2012-09)

#### Description

Electromagnetic compatibility and Radio spectrum Matters (ERM); Telecommunication network equipment; ElectroMagnetic Compatibility (EMC) requirements