Korea Laboratory Accreditation Scheme

CERTIFICATE OF ACCREDITATION

CTK Co., Ltd.

Accreditation No. : KT119

Corporation Registration No. : 134511-0029478

Address of Laboratory :
(Branch site) (Ho-Dong) 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea
(Branch site-1) (Unhak-Dong) 142, Dongbu-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea
(Branch site-2) (Unhak-Dong) 5, 221beon-gil, Dongbu-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea
(Satellite facilities-1) (Ho-Dong) 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea
(Satellite facilities-2) (Unhak-Dong) 142, Dongbu-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea
(Satellite facilities-3) (Unhak-Dong) 5, 221beon-gil, Dongbu-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea

Date of Initial Accreditation : November 18, 2000

Validity of Accreditation : March 26, 2026 ~ March 25, 2030

Scope of Accreditation : Attached Annex

Date of issue : April 16, 2026

This testing laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to Joint ISO-ILAC-IAF Communiqué).

ilac-MRA

KOREA LABORATORY ACCREDITATION SCHEME KOLAS

Kim daeju

Head
Korea Laboratory Accreditation Scheme

Korea Laboratory Accreditation Scheme(KOLAS) is a signatory to the ILAC Mutual Recognition Arrangement

03. Electrical Testing

03.004 Electrical materials and components

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS 3112:2017+Amd1:2021	Electrical materials and components	Approval and test specification - Plugs and socket-outlets	AC voltage: 440 V or less AC current: 32 A or less	SF-3	N
IEC 62133:2012	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications [Exception] 7 Specific requirements and tests (nickel systems) 8.3.5 Crush 8.3.9 Design evaluation - Forced internal short circuit (cells)	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Temperature : (-40 ~ 150) °C Pressure : (0 ~ 30) kN	BS	N
IEC 61960:2011	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Secondary lithium cells and batteries for portable applications	DC voltage: 1 000 V or less	BS-1	N
IEC 61960:2011	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Secondary lithium cells and batteries for portable applications	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Temperature : (-40 ~ 150) °C ESD : 8 kV or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60884-2-5:2017	Electrical materials and components	Plugs and socket-outlets for household and similar purposes - Part 2-5: Particular requirements for adaptors [Exception] 10 Protection against electric shock 17 Insulation resistance and electric strength 19 Temperature rise 20 Breaking capacity 22 Force necessary to withdraw the plug 23 Flexible cables and their connection 24 Mechanical strength 28 Resistance of insulating material to abnormal heat, to fire and to tracking 29 Resistance to rusting 30 Additional tests on pins provided with insulating sleeves	AC voltage: 600 V or less AC current: 30 A or less	SF-3	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60884-1 ed3.2:2013	Electrical materials and components	Plugs and socket-outlets for household and similar purposes - Part 1: General requirements [Exception] 10 Protection against electric shock 17 Insulation resistance and electric strength 19 Temperature rise 20 Breaking capacity 22 Force necessary to withdraw the plug 23 Flexible cables and their connection 24 Mechanical strength 28 Resistance of insulating material to abnormal heat, to fire and to tracking 29 Resistance to rusting 30.1 Pressure test at high temperature	AC voltage: 600 V or less AC current: 30 A or less	SF-3	N
IEC 60695-2-10:2013	Electrical materials and components	Fire hazard testing-Part 2-10 : Glowing/hot-wire based test methods.-Glow-wire apparatus and common test procedure	Temperature: 960 °C or less	BS	N
IEC 60695-10-2:2014	Electrical materials and components	Fire hazard testing-Part 10-2:Abnormal heat- Ball pressure test method	Temperature : 300 °C or less Pressure : 20N or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60695-11-5 ed1.0 2016	Electrical materials and components	Fire hazard testing-Part 11-5 : Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	Temperature: 1 200 °C or less	BS	N
IEC 60112:2020	Electrical materials and components	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	DC: 600 V or less	BS	N
EN 62133:2013	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications [Exception] 7 Specific requirements and tests (nickel systems) 8.3.9 Design evaluation – Forced internal short circuit (cells)	DC voltage: 1 000 V or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62133:2013	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications [Exception] 7 Specific requirements and tests (nickel systems) 8.3.5 Crush 8.3.9 Design evaluation - Forced internal short circuit (cells)	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Temperature : (-40 ~ 150) °C Pressure : (0 ~ 30) kN	BS	N
EN 50075:2002	Electrical materials and components	Flat non-rewirable two-pole plugs, 2,5 A, 250 V, with cord, for the connection of class II-equipment for household and similar purposes [Exception] 12 Flexible cords and their connection	AC voltage: 440 V or less AC current: 32 A or less	SF-3	N
BS 1363-2:2016+ A1:2018	Electrical materials and components	13 A plugs, socket-outlets, adaptors and connection units Part 2. Specification for 13 A switched and unswitched socket oulets	AC voltage: 250 V or less AC current: 13 A or less	SF-3	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
BS 1363-1:2016+ A1:2018	Electrical materials and components	13 A plugs, socket-outlets, adaptors and connection units Part 1. Specification for rewirable and non-rewirable 13A fused plugs	AC voltage: 440 V or less AC current: 32 A or less	SF-3	N
BS 1363-1:2023	Electrical materials and components	13 A plugs, socket-outlets, adaptors and connection units Part 1. Specification for rewirable and non-rewirable 13A fused plugs	AC voltage: 440 V or less AC current: 32 A or less	SF-3	N
IEC 62133:2012	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications [Exception] 7 Specific requirements and tests (nickel systems) 8.3.5 Crush 8.3.9 Design evaluation - Forced internal short circuit (cells)	DC voltage :1 000 V or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62133-2:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems [Exception] 7.3.5 Crush(cells) 7.3.9 Design evaluation - Forced internal short-circuit(cells)	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Temperature : (-40 ~ 150) °C Pressure : (0 ~ 30) kN	BS	N

Uncontrolled

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62133-2:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems [Exception] 7.3.5 Crush(cells) 7.3.9 Design evaluation - Forced internal short-circuit(cells)	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Temperature : (-40 ~ 150) °C Pressure : (0 ~ 30) kN	BS	N

Uncontrolled

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62133-2:2017 /AMD1:2021	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems [Exception] 7.3.5 Crush(cells) 7.3.9 Design evaluation - Forced internal short-circuit(cells)	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Temperature : (-40 ~ 150) °C Pressure : (0 ~ 30) kN	BS	N

Uncontrolled

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62133-2:2017 /A1:2021	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems [Exception] 7.3.5 Crush(cells) 7.3.9 Design evaluation - Forced internal short-circuit(cells)	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Temperature : (-40 ~ 150) °C Pressure : (0 ~ 30) kN	BS	N
ST/SG/AC.10/11/Rev.7/:2019	Electrical materials and components	Recommendations on the TRANSPORT OF DANGEROUS GOODS - Manual of Tests and Criteria (38.3 Lithium metal and lithium ion batteries)	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Pressure : (0 ~ 20) kPa Temperature : (-40 ~ 150) °C Frequency : (0 ~ 20) Hz Acceleration : (0.98 ~ 1 470) m/s^2 Impact height : (0.1 ~ 1.5) m	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ST/SG/AC.10/11/Rev.7/:2019	Electrical materials and components	Recommendations on the TRANSPORT OF DANGEROUS GOODS - Manual of Tests and Criteria (38.3 Lithium metal and lithium ion batteries) [Exception] 38.3.4.2 Thermal test 38.3.4.3 Vibration test 38.3.4.4 Shock test	DC voltage : (0 ~ 100) V DC current : (0 ~ 120) A Pressure : (0 ~ 20) kPa Temperature : (-40 ~ 150) °C Frequency : (0 ~ 20) Hz Acceleration : (0.98 ~ 1 470) m/s²	BS-1	N
SASO 2203:2018	Electrical materials and components	PLUGS AND SOCKET-OUTLETS FOR HOUSEHOLD AND SIMILAR PURPOSES-SAFETY REQUIREMENTS AND TEST METHODS 250 V/13 A	AC voltage: 250 V or less AC current: 13 A or less	SF-3	N

Uncontrolled

Test method	Materials Products	Standard designation	Test range	Site	Field testing
NM 60884-1:2009	Electrical materials and components	Plugs and sockets for household and similar purposes - Part 1: General requirements (IEC 60884-1: 2006 MOD) [Exception] 10 Protection against electric shock 17 Insulation resistance and dielectric strength 19 Heating 20 Breaking capacity 22 Withdrawal force of the plug 23 Flexible cables and their connections 24 Mechanical strength 25 Resistance to heat	AC voltage: 440 V or less AC current:: 32 A or less	SF-3	N
ST/SG/AC.10/11/Rev.8:2023	Electrical materials and components	Recommendations on the TRANSPORT OF DANGEROUS GOODS - Manual of Tests and Criteria (38.3 Lithium metal and lithium ion batteries)	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Pressure : (0 ~ 20) kPa Temperature : (-40 ~ 150) °C Frequency : (0 ~ 20) Hz Acceleration : (0.98 ~ 1 470) m/s^2 Impact height : (0.1 ~ 1.5) m	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ST/SG/AC.10/11/Rev.8/Amend.1:2025	Electrical materials and components	Recommendations on the TRANSPORT OF DANGEROUS GOODS - Manual of Tests and Criteria (38.3 Lithium metal and lithium ion batteries)	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Pressure : (0 ~ 20) kPa Temperature : (-40 ~ 150) °C Frequency : (0 ~ 20) Hz Acceleration : (0.98 ~ 1470) m/s² Impact height : (0.1 ~ 1.5) m	BS	N
KS C IEC 61960:2008	Electrical materials and components	Portable lithium secondary battery	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Temperature : (-40 ~ 150) °C ESD : 8 Kv or less	BS	N
ST/SG/AC.10/11/Rev.8:2023	Electrical materials and components	Recommendations on the TRANSPORT OF DANGEROUS GOODS - Manual of Tests and Criteria (38.3 Lithium metal and lithium ion batteries) [Exception] 38.3.4.2 Thermal test 38.3.4.3 Vibration test 38.3.4.4 Shock test	DC voltage : (0 ~ 100) V DC current : (0 ~ 120) A Pressure : (0 ~ 20) kPa Temperature : (-40 ~ 150) °C Frequency : (0 ~ 20) Hz Acceleration : (0.98 ~ 1470) m/s²	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ST/SG/AC.10/11/Rev.8/Amend.1:2025	Electrical materials and components	Recommendations on the TRANSPORT OF DANGEROUS GOODS - Manual of Tests and Criteria (38.3 Lithium metal and lithium ion batteries) [Exception] 38.3.4.2 Thermal test 38.3.4.3 Vibration test 38.3.4.4 Shock test	DC voltage : (0 ~ 100) V DC current : (0 ~ 120) A Pressure : (0 ~ 20) kPa Temperature : (-40 ~ 150) °C Frequency : (0 ~ 20) Hz Acceleration : (0.98 ~ 1 470) m/s²	BS-1	N
KS C IEC 61960:2008	Electrical materials and components	Portable lithium secondary battery	1 000 V or less	BS-1	N
KS C IEC 60695-2-10:2013	Electrical materials and components	Fire hazard testing - Part 2-10: Glowing/hot-wire based test methods - Glow-wire apparatus and common test procedure	Temperature: 960 °C or less	BS	N
KS C IEC 60695-10-2:2014	Electrical materials and components	Fire hazard testing — Part 10-2: Abnormal heat — Ball pressure test method	Temperature : 300 °C or less Pressure : 20N or less	BS	N
KS C IEC 60112:2009	Electrical materials and components	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	Temperature: 600 V or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 62133-2:2020	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems [Exception] 7.3.9 Design evaluation - Forced internal short circuit(cells)	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Temperature : (-40 ~ 150) °C Pressure : (0 ~ 30) kN	BS	N
KC 62133-2:2025	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems [Exception] 7.3.9 Design evaluation - Forced internal short circuit(cells)	DC voltage : (0 ~ 100) V DC current: (0 ~ 120) A Temperature : (-40 ~ 150) °C Pressure : (0 ~ 30) kN	BS	N
KC 60695-2-2:2015	Electrical materials and components	Fire hazard testing. Test methods. Glowing/hot-wire based test methods. Glow-wire flammability test method for end-products	Temperature: 1 200 °C or less length of Flame: 13 mm or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60112:2015	Electrical materials and components	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	Temperature: 600 V or less	BS	N
IS 1293:2019	Electrical materials and components	Plugs and socket-outlets for Household and Similar Purposes of Rated Voltage up to and Including 250 V and Rated Current up to and Including 16 A - Specification	AC voltage: 440 V or less AC current: 32 A or less	SF-3	N
IRAM 2063:2009	Electrical materials and components	Two poles plugs without earthing contact for domestic and similar purposes, rated 10 A, 250 V a.c.	DC voltage: 250 V DC current: 10A	SF-3	N

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03. Electrical Testing

03.007 Electrical machinery for households

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 62368-1:2020 +A11:2020	Electrical machinery for households	Audio/video, Information and communication technology equipment – Part 1: Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted-Vicat test B of ISO 306 10 Radiation Annex G.7 Main supply cords Annex G.9 Integrated circure (IC) curent limiters Annex G.15.3 Hygrostatic pressure tubling and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark source of batteries with aqueous electrolyte Annex S Tests for resistance to heat and fire Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to	AC/DC 600 V or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		corrosion Annex Y.3.3 Water-saturated Sulphur dioxide atmosphere Annex Y.4.3 Tensile strength and elongation tests Annex Y.4.4 Compression tests Annex Y.4.5 Oil resistance			
EN IEC 62368-1:2024	Electrical machinery for households	Audio/video, Information and communication technology equipment – Part 1: Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted – Vicat test B of ISO 306 10 Radiation Annex G.7 Main supply cords Annex G.9 Integrated circuit (IC) current limiters Annex G.15.3 Hygrostatic pressure tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark source of batteries with aqueous	AC/DC 600 V or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		electrolyte Annex S Tests for resistance to heat and fire Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to corrosion Annex Y.3.3 Water-saturated sulphur dioxide atmosphere Annex Y.4.3 Tensile strength and elongation tests Annex Y.4.4 Compression tests Annex Y.4.5 Oil resistance			
EN 62684:2010	Electrical machinery for households	Interoperability specifications of common external power supply(EPS) for use with data-enabled mobile telephones [Exception] 6.2 D) Common-mode noise probe	Input voltage: DC 20 V or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS 62368.1:2018	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1: Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted – Vicat test B of ISO 306 10 Radiation Annex G.15.3 Hygrostatic pressure tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex U Mechanical strength of CRTs and protection against the effects of implosion	AC/DC 600 V or less	BS	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS 62368.1:2018	Electrical machinery for households	Audio/video,informationand communicationtechnologye quipment-Part1:Safetyrequir ements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted-Vicat test B of ISO 306 10 Radiation Annex G.15.3 Hygrostatic pressure Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex U Mechanical strength of CRTs and protection against the effects of implosion	AC/DC 600 V or less	BS-1	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS 62368.1:2022	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1: Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted – Vicat test B of ISO 306 10 Radiation Annex G.15.3 Hygrostatic pressure tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex U Mechanical strength of CRTs and protection against the effects of implosion	AC/DC 600 V or less	BS	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS 62368.1:2022	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1: Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted – Vicat test B of ISO 306 10 Radiation Annex G.15.3 Hygrostatic pressure tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex U Mechanical strength of CRTs and protection against the effects of implosion	AC/DC 600 V or less	BS-1	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60065:2014	Electrical machinery for households	Audio, video and similar electronic apparatus safety requirements [Exception] 6.1 Ionizing radiation 6.2 Laser radiation 7.2 Heating resistance of insulating material 12.3 Remote control devices held in hand 16.1 Flexible cord test 18 Mechanical strength of picture tubes and protection against the effects of implosion. Annex H. Insulated winding wires for use without interleaved insulation.	AC/DC 600 V, 20 A or less	BS-1	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60065:2014	Electrical machinery for households	Audio, video and similar electronic apparatus safety requirements [Exception] 6.1. Ionizing radiation 6.2. Laser radiation 7.2 Heating resistance of insulating material 12.3 Remote control devices held in hand 16.1 Flexible cord test 18. Mechanical strength of picture tubes and protection against the effects of implosion. Annex H. Insulated winding wires for use without interleaved insulation.	AC/DC 600 V, 20 A or less	BS	N
EN 60335-1:2012 +AMD:2017+AMD 2:2019	Electrical machinery for households	Household and similar electrical appliances-Safety-Part 1:General requirements [Exception] 22 Construction - Oxygen bomb Methylated sprits and Pressure apparatus Annex F Capacitors Annex G Safety isolating transformers Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-1:2012 +AMD:2017+AMD 2:2019	Electrical machinery for households	Household and similar electrical appliances-Safety-Part 1:General requirements [Exception] 22 Construction - Oxygen bomb Methylated sprits and Pressure apparatus 30.2 Parts of non-metallic shall be resistant to ignition and spread of fire - Glow wire test Annex N Proof tracking test Annex F Capacitors Annex G Safety isolating transformers Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60950-1:2006 +A11:2009+A1:20 10+A12:2011+A2: 2013	Electrical machinery for households	Information technology equipment - Safety - Part 1: General requirements [Exception] 3.2.5.1 AC power supply cords 3.2.8 Cord guards 4.2.8 Cathode ray tubes 4.2.9 High pressure lamps 4.3.12 Flammable liquids 4.3.13 Radiation Annex A Tests for resistance to heat and fire Annex B B.4 Running overload test B.6 Running overload test for d.c. motors in secondary circuit Annex T (information) Guidance on protection against ingress of water	AC/DC 600 V, 20 A or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60950-1:2006 +A11:2009+A1:20 10+A12:2011+A2: 2013	Electrical machinery for households	Information technology equipment - Safety - Part 1: General requirements [Exception] 3.2.5.1 AC power supply cords 3.2.8 Cord guards 4.2.8 Cathode ray tubes 4.2.9 High pressure lamps 4.3.12 Flammable liquids 4.3.13 Radiation Annex B B.4. Running overload test B.6 Running overload test for d.c. motors in secondary circuit	AC/DC 600 V, 20 A or less	BS	N
EN 60950-22:2017	Electrical machinery for households	Information technology equipment - Safety - Part 22: Equipment to be installed outdoors [Exception] 8.2 Resistance to ultra-violet radiation 8.5.2 Oil resistance Annex A Water - saturated sulphur dioxide atmosphere	AC/DC 600 V, 20 A or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60950-22:2017	Electrical machinery for households	Information technology equipment - Safety - Part 22: Equipment to be installed outdoors [Exception] 8.2 Resistance to ultra-violet radiation 8.5.2 Oil resistance Annex A Water - saturated sulphur dioxide atmosphere	AC/DC 600 V, 20 A or less	BS	N
EN IEC 62368-1:2020 +A11:2020	Electrical machinery for households	Audio/video,information and communication technology equipment- Part1:Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted- Vicat test B of ISO 306 10 Radiation Annex G.7 Main supply cords Annex G.9 Integrated circuit (IC) current limiters Annex G.15.3 Hygrostatic pressure Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from	AC/DC 600 V or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		external spark source of batteries with aqueous electrolyte Annex S Tests for resistance to heat and fire Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to corrosion Annex Y.3.3 Water-saturated Sulphur dioxide atmosphere Annex Y.4.3 Tensile strength and elongation tests Annex Y.4.4 Compression tests Annex Y.4.5 Oil resistance			
EN IEC 62368-1:2024	Electrical machinery for households	Audio/video,information and communication technology equipment- Part1:Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted- Vicat test B of ISO 306 10 Radiation Annex G.7 Main supply cords Annex G.9 Integrated circuit (IC) current limiters	AC/DC 600 V or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		Annex G.15.3 Hygrostatic pressure Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark source of batteries with aqueous electrolyte Annex S Tests for resistance to heat and fire Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to corrosion Annex Y.3.3 Water-saturated Sulphur dioxide atmosphere Annex Y.4.3 Tensile strength and elongation tests Annex Y.4.4 Compression tests Annex Y.4.5 Oil resistance			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60950-22:2016	Electrical machinery for households	Information technology equipment - Safety - Part 22: Equipment to be installed outdoors [Exception] 8.2 Resistance to ultra-violet radiation 8.5.2 Oil resistance Annex A Water - saturated sulphur dioxide atmosphere	AC/DC 600 V, 20 A or less	BS	N
IEC 60950-1:2005 (Second Edition) +Am1:2009+Am2: 2013	Electrical machinery for households	Information technology equipment - Safety - Part 1: General requirements [Exception] 3.2.5.1 AC power supply cords 3.2.8 Cord guards 4.2.8 Cathode ray tubes 4.2.9 High pressure lamps 4.3.12 Flammable liquids 4.3.13 Radiation Annex B B.4. Running overload test B.6 Running overload test for d.c. motors in secondary circuit	AC/DC 600 V, 20 A or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60950-1:2005 (Second Edition) +Am1:2009+Am2: 2013	Electrical machinery for households	Information technology equipment - Safety - Part 1: General requirements [Exception] 3.2.5.1 AC power supply cords 3.2.8 Cord guards 4.2.8 Cathode ray tubes 4.2.9 High pressure lamps 4.3.12 Flammable liquids 4.3.13 Radiation Annex A Tests for resistance to heat and fire Annex B B.4 Running overload test B.6 Running overload test for d.c. motors in secondary circuit Annex T (information) Guidance on protection against ingress of water	AC/DC 600 V, 20 A or less	BS-1	N
IEC 60335-2-84: 2002 +A1:2008+ A2:2013	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-84: Particular requirements for toilet appliances	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-84: 2002 +A1:2008+ A2:2013	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-84: Particular requirements for toilet appliances	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N
IEC 60335-2-29: 2016 +A1:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N
IEC 60335-2-29: 2016 +A1:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-24: 2010 +A1:2012+A 2:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice makers [Exception] 21. Mechanical strength - Vibration 22. Construction - Test for Flammable refrigerants	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N
IEC 60335-2-24: 2010 +A1:2012+A 2:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice makers [Exception] 21. Mechanical strength - Vibration 22. Construction - Test for Flammable refrigerants	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N
IEC 60335-2-2:2009 +A1:2012+A2:201 6	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21 Mechanical strength	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-2:2009 +A1:2012+A2:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21 Mechanical strength	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N
IEC 60335-1:2010 +AMD:2013+AMD 2:2016	Electrical machinery for households	Household and similar electrical appliances-Safety-Part 1:General requirements [Exception] 22 Construction - Oxygen bomb Methylated sprits and Pressure apparatus Annex F Capacitors Annex G Safety isolating transformers Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-1:2010 +AMD:2013+AMD 2:2016	Electrical machinery for households	Household and similar electrical appliances-Safety-Part 1:General requirements [Exception] 22 Construction - Oxygen bomb Methylated sprits and Pressure apparatus 30.2 Parts of non-metallic material shall be resistant to ignition and spread of fire - Glow wire test Annex N Proof tracking test Annex E Needle flame test Annex F Capacitors Annex G Safety isolating transformers Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60065:2014	Electrical machinery for households	Audio, video and similar electronic apparatus safety requirements [Exception] 6.1 Ionizing radiation 6.2 Laser radiation 7.2 Heating resistance of insulating material 12.3 Remote control devices held in hand 16.1 Flexible cord test 18 Mechanical strength of picture tubes and protection against the effects of implosion. Annex H. Insulated winding wires for use without interleaved insulation.	AC/DC 600 V, 20 A or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60065:2014	Electrical machinery for households	Audio, video and similar electronic apparatus safety requirements [Exception] 6.1. Ionizing radiation 6.2. Laser radiation 7.2 Heating resistance of insulating material 12.3 Remote control devices held in hand 16.1 Flexible cord test 18. Mechanical strength of picture tubes and protection against the effects of implosion. Annex H. Insulated winding wires for use without interleaved insulation.	AC/DC 600 V, 20 A or less	BS	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62368-1:2014 +A11:2017	Electrical machinery for households	Audio/video,information and communication technology equipment- Part1:Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted- Vicat test B of ISO 306 10 Radiation Annex G.7 Main supply cords Annex G.9 Integrated circuit (IC) current limiters Annex G.15.3 Hygrostatic pressure Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark source of batteries with aqueous electrolyte Annex S Tests for resistance to heat and fire Annex U Mechanical strength of CRTs and protection against the effects of implosion	AC/DC 600 V or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62368-1:2014 +A11:2017	Electrical machinery for households	Audio/video, Information and communication technology equipment – Part 1: Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted-Vicat test B of ISO 30610 Radiation Annex G.15.3 Hygrostatic pressure Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark source of batteries with aqueous electrolyte Annex U Mechanical strength of CRTs and protection against the effects of implosion	AC/DC 600 V or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60065:2015	Electrical machinery for households	Audio, video and similar electronic apparatus safety requirements [Exception] 6.1. Ionizing radiation 6.2. Laser radiation 7.2 Heating resistance of insulating material 12.3 Remote control devices held in hand 16.1 Flexible cord test 18. Mechanical strength of picture tubes and protection against the effects of implosion. Annex A. Additional requirements for apparatus with protection against splashing water Annex G Flammability test methods Annex H. Insulated winding wires for use without interleaved insulation.	AC/DC 600 V, 20 A or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
K 60950-1:2011	Electrical machinery for households	Information technology equipment - Safety - Part 1: General requirements [Exception] 3.2.5.1 AC power supply cords 3.2.8 Cord guards 4.2.8 Cathode ray tubes 4.2.9 High pressure lamps 4.3.12 Flammable liquids 4.3.13 Radiation Annex B B.4 Running overload test B.6 Running overload test for d.c. motors in secondary circuit	AC/DC 600 V, 20 A or less	BS-1	N
K 60950-1:2011	Electrical machinery for households	Information technology equipment - Safety - Part 1: General requirements [Exception] 3.2.5.1 AC power supply cords 3.2.8 Cord guards 4.2.8 Cathode ray tubes 4.2.9 High pressure lamps 4.3.12 Flammable liquids 4.3.13 Radiation Annex B B.4. Running overload test B.6 Running overload test for d.c. motors in secondary circuit	AC/DC 600 V, 20 A or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62684 edition 1.0:2011	Electrical machinery for households	Interoperability specifications of common external power supply(EPS) for use with data-enabled mobile telephones [Exception] 6.2 D) Common-mode noise probe	Input voltage: DC 20 V or less	BS-1	N
IEC 62684 edition 1.0:2011	Electrical machinery for households	Interoperability specifications of common external power supply(EPS) for use with data-enabled mobile telephones [Exception] 6.2 D) Common-mode noise probe	Input voltage: DC 20 V or less	BS	N
IEC 62368-1:2023	Electrical machinery for households	Audio/video,information and communication technology equipment- Part1:Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted- Vicat test B of ISO 306 10 Radiation Annex G.7 Main supply cords Annex G.9 Integrated circuit (IC) current limiters Annex G.15.3 Hygrostatic pressure Tubing and fittings	AC/DC 600 V or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark source of batteries with aqueous electrolyte Annex S Tests for resistance to heat and fire Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to corrosion Annex Y.3.3 Water-saturated Sulphur dioxide atmosphere Annex Y.4.3 Tensile strength and elongation tests Annex Y.4.4 Compression tests Annex Y.4.5 Oil resistance			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62368-1:2023	Electrical machinery for households	Audio/video, Information and communication technology equipment – Part 1: General requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted-Vicat test B of ISO 306 10 Radiation Annex G.15.3 Hygrostatic pressure Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to corrosion Annex Y.3.3 Water-saturated Sulphur dioxide atmosphere Annex Y.4.3 Tensile strength and elongation tests Annex Y.4.4 Compression tests Annex Y.4.5 Oil resistance	AC/DC 600 V or less	BS	N
IEC 62368-1:2018	Electrical machinery for households	Audio/video,information and communication technology equipment-	AC/DC 600 V or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		Part1:Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted- Vicat test B of ISO 306 10 Radiation Annex G.7 Main supply cords Annex G.9 Integrated circuit (IC) current limiters Annex G.15.3 Hygrostatic pressure Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark source of batteries with aqueous electrolyte Annex S Tests for resistance to heat and fire Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to corrosion Annex Y.3.3 Water-saturated Sulphur dioxide atmosphere Annex Y.4.3 Tensile			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		strength and elongation tests Annex Y.4.4 Compression tests Annex Y.4.5 Oil resistance			

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62368-1:2018	Electrical machinery for households	Audio/video, Information and communication technology equipment – Part 1: General requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted-Vicat test B of ISO 30610 Radiation Annex G.15.3 Hygrostatic pressure Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark source of batteries with aqueous electrolyte Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to corrosion Annex Y.3.3 Water-saturated Sulphur dioxide atmosphere Annex Y.4.3 Tensile strength and elongation tests Annex Y.4.4 Compression tests Annex Y.4.5 Oil resistance	AC/DC 600 V or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62368-1:2014	Electrical machinery for households	Audio/video,information and communication technology equipment-Part1:Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted-Vicat test B of ISO 306 10 Radiation Annex G.7 Main supply cords Annex G.9 Integrated circuit (IC) current limiters Annex G.15.3 Hygrostatic pressure Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark source of batteries with aqueous electrolyte Annex S Tests for resistance to heat and fire Annex U Mechanical strength of CRTs and protection against the effects of implosion	AC/DC 600 V or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60065:2015	Electrical machinery for households	Audio, video and similar electronic apparatus safety requirements [Exception] 6.1. Ionizing radiation 6.2. Laser radiation 7.2 Heating resistance of insulating material 12.3 Remote control devices held in hand 16.1 Flexible cord test 18. Mechanical strength of picture tubes and protection against the effects of implosion. Annex H. Insulated winding wires for use without interleaved insulation.	AC/DC 600 V, 20 A or less	BS	N
KC 60335-1:2016	Electrical machinery for households	Household and similar electrical appliances-Safety-Part 1:General requirements [Exception] 22 Construction - Oxygen bomb Methylated sprits and Pressure apparatus Annex F Capacitors Annex G Safety isolating transformers Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-1:2016	Electrical machinery for households	Household and similar electrical appliances-Safety-Part 1:General requirements [Exception] 22 Construction - Oxygen bomb Methylated sprits and Pressure apparatus Annex E Needle Flame test Annex F Capacitors Annex G Safety isolating transformers Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N
KC 60335-2-2:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21 Mechanical strength	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62684:2010	Electrical machinery for households	Interoperability specifications of common external power supply(EPS) for use with data-enabled mobile telephones [Exception] 6.2 D) Common-mode noise probe	Input voltage: DC 20 V or less	BS	N
IEC 60950-22:2016	Electrical machinery for households	Information technology equipment - Safety - Part 22: Equipment to be installed outdoors [Exception] 8.2 Resistance to ultra-violet radiation 8.5.2 Oil resistance Annex A Water - saturated sulphur dioxide atmosphere	AC/DC 600 V, 20 A or less	BS-1	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62368-1:2014	Electrical machinery for households	Audio/video, information and communication technology equipment-Part1: Safety requirements [Exception] 5.4.1.11 Thermoplastic parts on which conductive metallic parts are directly mounted-Vicat test B of ISO 30610 Radiation Annex G.15.3 Hygrostatic pressure Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark source of batteries with aqueous electrolyte Annex U Mechanical strength of CRTs and protection against the	AC/DC 600 V or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 62368-1:2021	Electrical machinery for households	Audio/video, Information and communication technology equipment – Part 1: General requirements [Exception] 5.4.1.10.2 Vicat test 10. Radiation G.15.2.1 Hydrostatic pressure test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark sources of batteries with aqueous electrolyte Annex S Tests for resistance to heat and fire Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to corrosion Annex Y.4 Gaskets	AC/DC 600 V or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 62368-1:2021	Electrical machinery for households	Audio/video, Information and communication technology equipment – Part 1: General requirements [Exception] 5.4.1.10.2 Vicat test 10. Radiation G.15.2.1 Hydrostatic pressure test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark sources of batteries with aqueous electrolyte Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to corrosion Annex Y.4 Gaskets	AC/DC 600 V or less	BS	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 62368-1:2025	Electrical machinery for households	Audio/video, Information and communication technology equipment – Part 1: General requirements [Exception] 5.4.1.10.2 Vicat test 10. Radiation G.15.2.1 Hydrostatic pressure test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark sources of batteries with aqueous electrolyte Annex S Tests for resistance to heat and fire Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to corrosion Annex Y.4 Gaskets	AC/DC 600 V or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 62368-1:2025	Electrical machinery for households	Audio/video, Information and communication technology equipment – Part 1: General requirements [Exception] 5.4.1.10.2 Vicat test 10. Radiation G.15.2.1 Hydrostatic pressure test Annex J Insulated winding wires for use without interleaved insulation Annex M.8 Protection against internal ignition from external spark sources of batteries with aqueous electrolyte Annex U Mechanical strength of CRTs and protection against the effects of implosion Annex Y.3 Resistance to corrosion Annex Y.4 Gaskets	AC/DC 600 V or less	BS	N
KC 60335-2-84:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-84: Particular requirements for toilet appliances	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-84:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-84: Particular requirements for toilet appliances	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N
KC 60335-2-29:2020	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N
KC 60335-2-29:2020	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-29:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N
KC 60335-2-29: 2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N
KC 60335-2-24:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice makers [Exception] 21. Mechanical strength - Vibration 22. Construction - Test for Flammable refrigerants	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-24:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice makers [Exception] 21. Mechanical strength - Vibration 22. Construction - Test for Flammable refrigerants	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N
KC 60335-2-24:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice makers [Exception] 21. Mechanical strength - Vibration 22. Construction - Test for Flammable refrigerants	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-24:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice makers [Exception] 21. Mechanical strength - Vibration 22. Construction - Test for Flammable refrigerants	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS	N
KC 60335-2-2:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21 Mechanical strength	Input: AC/DC (3 ~ 450) V, 50 A Temperature: 200 °C or less Humidity: 95 % R.H. or less Electric strength : AC/DC 5 000 V or less Leakage current: 50 mA or less	BS-1	N

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03. Electrical Testing

03.008 Wired/wireless communication devices

Test method	Materials Products	Standard designation	Test range	Site	Field testing
3GPP TS 25.104 V15.4.0 (2018)	wireless com munication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Base Station (BS) radio transmission and reception(FDD)	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
3GPP TS 25.141 V15.3.0 (2018)	wireless com munication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Base Station (BS) radio transmission and reception (FDD)	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
3GPP TS 36.104 V15.4.0 (2018)	wireless com munication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
3GPP TS 36.141 V18.4.0 (2024)	wireless com munication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing (Release 18) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.4, 8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
3GPP TS 36.141 V18.5.0 (2024)	wireless com munication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing (Release 18) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.4, 8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
3GPP TS 37.104 V15.4.0 (2018)	wireless com munication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; E-UTRA, UTRA and GSM/EDGE; Multi-Standard Radio (MSR) Base Station (BS) radio transmission and reception [Exception] New Radio (NR) Requirements(Clauses 6.3.6, 6.5.1.6, 6.5.2.6, 6.5.3.5, 6.6.4.6, 7.2.6, 7.3.6, 7.8.2, 8.5)	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
3GPP TS 37.105 V18.6.0 (2024)	wireless com munication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Active Antenna System (AAS) Base Station (BS) transmission and reception (Release 18) [Exception] Clause 6.2.3, 6.2.4, 6.2.5, 6.2.6, 6.3, 6.4, 6.5, 7.3, 7.8, 8, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 11	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
3GPP TS 37.141 V18.5.0 (2024)	wireless com munication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR, E-UTRA, UTRA and GSM/EDGE; Multi-Standard Radio (MSR) Base Station (BS) conformance testing (Release 18) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
3GPP TS 37.141 V18.7.0 (2024)	wireless com munication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR, E-UTRA, UTRA and GSM/EDGE; Multi-Standard Radio (MSR) Base Station (BS) conformance testing (Release 18) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
3GPP TS 37.145-1 V18.6.0 (2024)	wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Active Antenna System (AAS) Base Station (BS) conformance testing; Part 1: Conducted conformance testing (Release 18) [Exception] Clause 6.2.3, 6.2.4, 6.2.5, 6.2.6, 6.3, 6.4, 6.5, 7.3, 7.8, 8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
3GPP TS 37.145-2 V18.8.0 (2024)	wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Active Antenna System (AAS) Base Station (BS) conformance testing; Part 2: radiated conformance testing (Release 18) [Exception] Clause 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
3GPP TS 38.104 V18.8.0 (2024)	wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; Base Station (BS) radio transmission and reception (Release 18) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.8, 8, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 11	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
3GPP TS 38.141-1 V18.8.0 (2024)	wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; Base Station (BS) conformance testing Part 1: Conducted conformance testing (Release 18) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.8, 8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
3GPP TS 38.141-2 V18.8.0 (2024)	wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; Base Station (BS) conformance testing Part 2: Radiated conformance testing (Release 18) [Exception] Clause 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
3GPP TS 51.021 V18.0.0 (2024)	wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Base Station System (BSS) equipment specification; Radio aspects (Release 18) [Exception] Clauses 6.4, 6.9, 6.10, 6.11, 7.1, 7.2, 7.4, 9	Frequency Range: 100 kHz ~ 12.75 GHz	BS-2	N
AS/NZS 4268:2017	wireless communication devices	Radio equipment and systems - Short range devices - Limits and methods of measurement	Frequency Range: 30 MHz ~ 26 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 50364:2010	wireless com munication devices	Limitation of human exposure to electromagnetic fields from devices operating in the frequency range 0 Hz to 300 GHz, used in Electronic Article Surveillance (EAS), Radio Frequency Identification (RFID) and similar applications [Exception] SAR assessment (Clauses 5.2.3)	Frequency Range: 20 Hz ~ 40 GHz	BS-2	N
EN 50385:2017	wireless com munication devices	Product standard to demonstrate the compliance of base station equipment with radiofrequency electromagnetic field exposure limits (110 MHz - 100 GHz), when placed on the market	human exposure assessment: 110 MHz ~ 40 GHz	BS-2	N
EN 62311:2008	wireless com munication devices	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz) [Exception] SAR assessment (Annex B, E)	human exposure assessment: 9 kHz ~ 40 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62311:2020	wireless communication devices	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz) [Exception] SAR Measurement	human exposure assessment: 9 kHz ~ 40 GHz	BS-2	N
EN 62479:2010	wireless communication devices	Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)	Frequency Range: 10 MHz ~ 40 GHz	BS-2	N
ETSI EN 300 220-1 V3.1.1 (2017)	wireless communication devices	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 1: Technical characteristics and methods of measurement	Frequency Range: 9 kHz ~ 6 GHz	BS-2	N
ETSI EN 300 220-2 V3.1.1 (2017)	wireless communication devices	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 2: Harmonized Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU for non specific radio equipment	Frequency Range: 9 kHz ~ 6 GHz Frequency Resolution: 0.01 Hz Maximum Input Level: 1 W	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 300 220-2 V3.2.1 (2018)	wireless com munication devices	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1000 MHz ;Part 2: Harmonized Standard covering the essential requirements of article 3.2of Directive 2014/53/EU for nonspecific radio equipment	Frequency Range: 9 kHz ~ 6 GHz	BS-2	N
ETSI EN 300 220-2 V3.3.1 (2025)	wireless com munication devices	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1000 MHz with power levels ranging up to 500 mW e.r.p.; Part 2: Harmonized Standard for access to radio spectrum for non specific radio equipment [Exception] Extreme temperature category: Automotive	Frequency Range: 9 kHz ~ 6 GHz	BS-2	N
ETSI EN 300 328 V2.2.2 (2019)	wireless com munication devices	Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz band; Harmonised Standard for access to radio spectrum	Frequency Range: 30 MHz ~ 12.75 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 300 330 V2.1.1 (2017)	wireless com munication devices	Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Harmonized Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Frequency Range: 9 kHz ~ 1 GHz	BS-2	N
ETSI EN 300 440 V2.1.1 (2017)	wireless com munication devices	Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Harmonized Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Frequency Range: 9 kHz ~ 40 GHz Frequency Resolution: 0.01 Hz Maximum Input Level: 1 W	BS-2	N
ETSI EN 300 440 V2.2.1 (2018)	wireless com munication devices	Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Harmonized Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Frequency Range: 9 kHz ~ 40 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 357 V2.1.1 (2017)	wireless com munication devices	Cordless audio devices in the range 25 MHz to 2 000 MHz; Harmonized Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Frequency Range: 9 kHz ~ 12.75 GHz	BS-2	N
ETSI EN 301 502 V12.5.2 (2017)	wireless com munication devices	Global System for Mobile communications (GSM); Base Station (BS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Frequency Range: 100 kHz ~ 12.75 GHz	BS-2	N
ETSI EN 301 893 V2.1.1 (2017)	wireless com munication devices	5 GHz RLAN; Harmonized Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Frequency Range: 30 MHz ~ 26 GHz	BS-2	N
ETSI EN 301 893 V2.2.1 (2024)	wireless com munication devices	5 GHz WAS/RLAN; Harmonised Standard for access to radio spectrum	Frequency Range: 30 MHz ~ 26 GHz	BS-2	N
ETSI EN 301 908-1 V13.1.1 (2019)	wireless com munication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements [Exception] User Equipment(Clauses 4.2.2, 4.2.4, 5.3.1, 5.3.3)	Frequency Range: 30 MHz ~ 12.75 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 908-1 V15.2.1 (2023)	wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements Release 15	Frequency Range: 9 kHz ~ 40 GHz	BS-2	N
ETSI EN 301 908-14 V13.1.1 (2019)	wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 14: Evolved Universal Terrestrial Radio Access (E-UTRA) Base Stations (BS)	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
ETSI EN 301 908-14 V17.1.1 (2025)	wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 14: Evolved Universal Terrestrial Radio Access (E-UTRA) Base Stations (BS) Release 17	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
ETSI EN 301 908-15 V15.1.1 (2020)	wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 15: Evolved Universal Terrestrial Radio Access (E-UTRA FDD) Repeaters	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
ETSI EN 301 908-18 V13.1.1 (2019)	wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 18: E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS)	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 908-18 V17.1.1 (2025)	wireless com munication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 18: NR, E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS) Release 17	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
ETSI EN 301 908-23 V15.1.1 (2023)	wireless com munication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 23: Active Antenna System (AAS) Base Station (BS); Release 15 [Exception] Clause 4.3.13, 4.3.14, 4.3.15, 4.3.16, 4.3.18, 4.3.19, 4.3.20, 4.3.21, 4.3.22, 4.3.23, 4.3.25	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
ETSI EN 301 908-24 V15.1.1 (2023)	wireless com munication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 24: New Radio (NR) Base Stations (BS) Release 15	Frequency Range: 9 kHz ~ 40 GHz Frequency range designation : FR1	BS-2	N
ETSI EN 301 908-3 V13.1.1 (2019)	wireless com munication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 3: CDMA Direct Spread (UTRA FDD) Base Stations (BS)	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 302 065-1 V2.1.1 (2016)	wireless communication devices	Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1: Requirements for Generic UWB applications	Frequency Range: 30 MHz ~ 40 GHz	BS-2	N
ETSI EN 302 208 V3.1.1 (2016)	wireless communication devices	Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W and in the band 915 MHz to 921 MHz with power levels up to 4 W; Harmonized Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU	Frequency Range: 9 kHz ~ 12.75 GHz Operation band: 865 MHz ~ 868 MHz	BS-2	N
ETSI EN 302 208 V3.3.1 (2020)	wireless communication devices	Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W and in the band 915 MHz to 921 MHz with power levels up to 4 W; Harmonised Standard for access to radio spectrum	Frequency Range: 9 kHz ~ 12.75 GHz Operation band: 865 MHz ~ 868 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 302 208 V3.4.1 (2023)	wireless communication devices	Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W and in the band 915 MHz to 921 MHz with power levels up to 4 W; Harmonised Standard for access to radio spectrum	Frequency Range:9 kHz ~ 12.75 GHz	BS-2	N
ETSI EN 303 417 V1.1.1 (2017)	wireless communication devices	Wireless power transmission systems, using technologies other than radio frequency beam in the 19 - 21 kHz, 59 - 61 kHz, 79 - 90 kHz, 100 - 300 kHz, 6 765 - 6 795 kHz ranges; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Frequency Range: 100 kHz ~ 1 GHz	BS-2	N
ETSI EN 303 687 V1.1.1 (2023)	wireless communication devices	6 GHz WAS/RLAN; Harmonised Standard for access to radio spectrum	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
ETSI EN 303 883 V1.1.1 (2016)	wireless communication devices	Short Range Devices (SRD) using Ultra Wide Band (UWB); Measurement Techniques	Frequency Range: 30 MHz ~ 40 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI TS 136 141 V18.5.0 (2025)	wireless communication devices	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing (3GPP TS 36.141 version 18.5.0 Release 18) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.4, 8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
ETSI TS 137 105 V18.6.0 (2025)	wireless communication devices	Universal Mobile Telecommunications System (UMTS); LTE; 5G; Active Antenna System (AAS) Base Station (BS) transmission and reception (3GPP TS 37.105 version 18.6.0 Release 18) [Exception] Clause 6.2.3, 6.2.4, 6.2.5, 6.2.6, 6.3, 6.4, 6.5, 7.3, 7.8, 8, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 11	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI TS 137 141 V18.7.0 (2025)	wireless com munication devices	Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; 5G; NR, E-UTRA, UTRA and GSM/EDGE; Multi-Standard Radio (MSR) Base Station (BS) conformance testing (3GPP TS 37.141 version 18.7.0 Release 18) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
ETSI TS 137 145-1 V18.6.0 (2025)	wireless com munication devices	Universal Mobile Telecommunications System (UMTS); LTE; 5G; Active Antenna System (AAS) Base Station (BS) conformance testing; Part 1: conducted conformance testing (3GPP TS 37.145-1 version 18.6.0 Release 18) [Exception] Clause 6.2.3, 6.2.4, 6.2.5, 6.2.6, 6.3, 6.4, 6.5, 7.3, 7.8, 8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI TS 137 145-2 V18.8.0 (2025)	wireless communication devices	Universal Mobile Telecommunications System (UMTS); LTE; 5G; Active Antenna System (AAS) Base Station (BS) conformance testing; Part 2: radiated conformance testing (3GPP TS 37.145-2 version 18.8.0 Release 18) [Exception] Clause 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
ETSI TS 138 104 V18.8.0 (2025)	wireless communication devices	5G; NR; Base Station (BS) radio transmission and reception (3GPP TS 38.104 version 18.8.0 Release 18) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.8, 8, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 11	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
ETSI TS 138 141-1 V18.8.0 (2025)	wireless communication devices	5G; NR; Base Station (BS) conformance testing Part 1: Conducted conformance testing (3GPP TS 38.141-1 version 18.8.0 Release 18) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.8, 8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI TS 138 141-2 V18.8.0 (2025)	wireless communication devices	5G; NR; Base Station (BS) conformance testing Part 2: Radiated conformance testing (3GPP TS 38.141-2 version 18.8.0 Release 18) [Exception] Clause 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 8	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
ETSI TS 151 021 V18.0.0 (2024)	wireless communication devices	Digital cellular telecommunications system (Phase 2+) (GSM); Base Station System (BSS) equipment specification; Radio aspects (3GPP TS 51.021 version 18.0.0 Release 18) [Exception] Clauses 6.4, 6.9, 6.10, 6.11, 7.1, 7.2, 7.4, 9	Frequency Range: 100 kHz ~ 12.75 GHz	BS-2	N
FCC Part 22 (2020)	wireless communication devices	Public mobile services	Frequency Range: 9 kHz - 40 GHz	BS-2	N
FCC Part 24 (2020)	wireless communication devices	Personal communications services	Frequency Range: 9 kHz - 40 GHz	BS-2	N
FCC Part 27 (2024)	wireless communication devices	MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
FCC Part 90 (2023)	wireless communication devices	PRIVATE LAND MOBILE RADIO SERVICES	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
FCC Part 96 (2020)	wireless communication devices	CITIZENS BROADBAND RADIO SERVICE	Frequency Range: 9 kHz ~ 40 GHz	BS-2	N
QCVN 110:2023/BTTTT	wireless communication devices	National technical regulation on Evolved Universal Terrestrial Radio Access (E-UTRA) Base stations (BS) - Radio Access	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
QCVN 128:2021/BTTTT	wireless communication devices	National technical regulation on 5G Base Station - Radio Access [Exception] Band n258 Base station Type 1-O Base station Type 2-O Clauses 2.3, 2.4, 3.3, 3.4	Frequency Range: 9 kHz ~ 26.5 GHz	BS-2	N
QCVN 54:2020/BTTTT	wireless communication devices	National technical regulation on wideband data transmission equipment operating in the 2,4 GHz band	Frequency Range: 30 MHz ~ 12.75 GHz	BS-2	N
QCVN 55:2023/BTTTT	wireless communication devices	National technical regulation on Short Range Device (SRD)- Radio equipment to be used in the 9 kHz to 25 MHz frequency range and inductive loop systems in the frequency range 9 kHz to 30 MHz	Frequency Range: 9 kHz ~ 1 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
QCVN 65:2021/BTTTT	wireless com munication devices	National technical regulation on radio access equipment operating in the 5 GHz RLAN band	Frequency Range: 30 MHz ~ 26 GHz	BS-2	N

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03. Electrical Testing

03.009 Lighting devices

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60598-1:2015 /A1:2018	Lighting devices	Luminaires - Part 1: General requirements and tests [Exception] 4.4.4 Lampholder (7006-47C for G5 lampholders, (7006-60C for G13, G13 lampholders) 4.24/Annex P Protective measures against UV radiation	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
EN 60598-1:2021	Lighting devices	Luminaires - Part 1: General requirements and tests [Exception] 4.4.4 Lampholder (7006-47C for G5 lampholders, (7006-60C for G13, G13 lampholders) 4.24/Annex P Protective measures against UV radiation	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60598-2-1:2021	Lighting devices	Luminaires - Part 2-1: Particular requirements. Section One: Fixed general purpose luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
EN 60598-2-2:2012	Lighting devices	Luminaires - Part 2-2: Particular requirements - Recessed luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60598-2-3:2003+A1:2011	Lighting devices	Luminaires - Part 2-3: Particular requirements - Luminaires for road and street lighting	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
EN 60598-2-4:2018	Lighting devices	Luminaires - Part 2: Particular requirements - Section 4: Portable general purpose luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60598-2-5:2015	Lighting devices	Luminaires - Part 2-5: Particular requirements - Floodlights	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
EN 60598-2-8:2013	Lighting devices	Luminaires - Part 2-8: Particular requirements - Handlamps	Input Voltage: Max 250 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61347-1:2015	Lighting devices	Lamp controlgear - Part 1: General and safety requirements [Exception] 13. Thermal endurance test for windings of ballasts Annex B. Particular requirements for thermally protected lamp controlgear Annex H Tests Annex I Additional requirements for built-in magnetic ballasts with double or reinforced insulation	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
EN 61347-2-13:2014	Lighting devices	Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62031:2020	Lighting devices	LED modules for general lighting - Safety specifications	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
EN 62493:2015	Lighting devices	Assessment of lighting equipment related to human exposure to electromagnetic fields	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62560:2012/A 1:2015/A11:2019	Lighting devices	Self-ballasted LED-lamps for general lighting services by voltage > 50 V - Safety specifications [Exception] 5.2 c) Eye protection	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
IEC 60598-1:2014 /AMD1:2017	Lighting devices	Luminaires - Part 1: General requirements and tests [Exception] 4.4.4 Lampholder (7006-47C for G5 lampholders, (7006-60C for G13 lampholders) 4.24/Annex P Protective measures against UV radiation	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60598-1:2020	Lighting devices	Luminaires - Part 1: General requirements and tests [Exception] 4.4.4 Lampholder (7006-47C for G5 lampholders, (7006-60C for G13 lampholders) 4.24.1 UV radiation	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
IEC 60598-2-1:2020	Lighting devices	Luminaires - Part 2-1: Particular requirements. Section One: Fixed general purpose luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60598-2-2:2023	Lighting devices	Luminaires - Part 2-2: Particular requirements - Recessed luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
IEC 60598-2-3:2002+A1:2011	Lighting devices	Luminaires - Part 2-3: Particular requirements - Luminaires for road and street lighting	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60598-2-4:2017	Lighting devices	Luminaires - Part 2: Particular requirements - Section 4: Portable general purpose luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA insulation resistance : Max 5 000 GΩ operation Temp. : (-30 170) °C	BS	N
IEC 60598-2-5:2015	Lighting devices	Luminaires - Part 2-5: Particular requirements - Floodlights	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60598-2-8:2013	Lighting devices	Luminaires - Part 2-8: Particular requirements - Handlamps	Input Voltage: Max 250 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
IEC 61347-1:2015 /AMD1:2017	Lighting devices	Lamp controlgear - Part 1: General and safety requirements [Exception] 13. Thermal endurance test for windings of ballasts Annex B. Particular requirements for thermally protected lamp controlgear Annex H Tests Annex I Additional requirements for built-in magnetic ballasts with double or reinforced insulation	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61347-2-13:2014+A1:2016	Lighting devices	Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
IEC 62031:2018	Lighting devices	LED modules for general lighting - Safety specifications	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
IEC 62471:2006	Lighting devices	Photobiological safety of lamps and lamp systems	Irradiance : (250 ~ 2 400) nm Radiance : (300 ~ 1 400) nm	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62493:2015	Lighting devices	Assessment of lighting equipment related to human exposure to electromagnetic fields	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
IEC 62560:2011+ A1:2015	Lighting devices	Self-ballasted LED-lamps for general lighting services by voltage > 50 V - Safety specifications [Exception] 5.2 c) Eye protection	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
IEC TR 62778:2014	Lighting devices	Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires	Irradiance : (250 ~ 2 400) nm Radiance : (300 ~ 1 400) nm	BS	N

No. KT119

Test method	Materials Products	Standard designation	Test range	Site	Field testing
K 10005:2011	Lighting devices	Safety requirements for electrodeless fluorescent lamps	Input Voltage: 220 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
K 10006:2006	Lighting devices	PLS type electrodeless lamp safety requirements [Exception] 6.2 Power Density of Leakage Propagation 6.3 Radiation resistance, toxicity	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
K 60598-2-3:2000	Lighting devices	Particular requirements - Luminaires for road and street lighting	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KC 10023:2022	Lighting devices	Self - ballasted LED lamps for general lighting services	220 V, 60 Hz, 150 W or less, operation Temp: (10 ~ 30) °C Wiaght: 1 kg or less, Torque driver: 3 Nm or less, Insulation resistance: More than 4 MΩ Cap temperature: 120 °C or less, Moment: More than 3 Nm	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 20001:2015	Lighting devices	Straight LED lamp-converter external	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KC 60598-1:2025	Lighting devices	Luminaires - Part 1: General requirements and tests [Exception] 4.4.4 Lampholder (7006-47C for G5 lampholders, (7006-60C for G13, G13 lampholders) 4.24 Annex P Protective measures against UV radiation	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60598-2-1:2022	Lighting devices	Luminaires - Part 2-1: Particular requirements - Fixed general purpose luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KC 60598-2-2:2022	Lighting devices	Luminaires - Part 2-2: Particular requirements - Recessed luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60598-2-4:2022	Lighting devices	Luminaires - Part 2-4: Particular requirements - Portable general purpose luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KC 60598-2-5:2022	Lighting devices	Luminaires - Part 2-5: Particular requirements - Floodlights	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60598-2-8:2021	Lighting devices	Luminaires - Part 2-8: Particular requirements - Handlamps	Input Voltage: Max 250 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KC 61347-1:2022	Lighting devices	Lamp controlgear - Part 1: General and safety requirements [Exception] 13. Thermal endurance test for windings of ballasts Annex B. Particular requirements for thermally protected lamp controlgear Annex H Tests Annex I Additional requirements for built-in magnetic ballasts with double or reinforced insulation	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 61347-2-13:2022	Lighting devices	Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KC 62031:2025	Lighting devices	LED modules for general lighting - Safety specifications	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 7528:2020	Lighting devices	LED traffic signals [Exception] 9.17 Accelerated Weathering Test 9.21 Relative Luminous Transmittance Test	Input Voltage: 220 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C 7612:1987	Lighting devices	Illuminance measurements for lighting installations	(0 ~ 100,000) lx	BS	N
KS C 7613:2024	Lighting devices	Methods of luminance measurements in lighting fields	(0 15 000) cd/m²	BS	N
KS C 7620:2003	Lighting devices	Railway car luminaries for fluorescent lamps [Exception] 7.13 Noise strength test 7.11 Luminous Ratio Test	Input voltage: DC. 220 V operation Temp. : 200 °C or less, Electric strength: 5 kV, 100 mA Insulation resistance: More than 4 MΩ Earth continuity: Max 12 V, 40 A illuminance : Max 100 000 lx	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 7651:2025	Lighting devices	Self-ballasted LED lamps	Input Voltage: 220 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C 7652:2022	Lighting devices	Non-ballasted LED lamps	Input Voltage: Max 50 V insulation resistance: More than 4 MΩ Cap temperature: More than 120 °C	BS	N
KS C 7653:2024	Lighting devices	Recessed LED luminaires and Fixed LED luminaires	Input Voltage: 220 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 7655:2024	Lighting devices	Electronic control gear for LED modules	Input Voltage: 220 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C 7656:2021	Lighting devices	Portable LED/OLED lumininaires	Input Voltage: 220 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

No. KT119

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 7658:2024	Lighting devices	LED luminaires for road, street and area lighting	Input Voltage: 220 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C 7659:2013	Lighting devices	LED module for Channel Letter Signs- Safety and Performance Requirements	IP68 min temp: (-30 ± 2) °C max temp: (70 ± 2) °C	BS	N
KS C 7711:2021	Lighting devices	LED ground recessed luminaires	Input Voltage: Max 600 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 7712:2024	Lighting devices	LED flood-lighting luminaire	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C 7713:2021	Lighting devices	LED landscape lighting	Input Voltage: Max 600 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 7716:2024	Lighting devices	LED tunnel luminaires	Input Voltage: Max 600 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C 7717:2021	Lighting devices	LED Crosswalk Luminaires	Input Voltage: 220 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C 8000:1992	Lighting devices	Luminaires	Insulation resistance: More than 4 MΩ Leakage current: 3.5 mA	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 8010:2014	Lighting devices	Luminaries for road lighting	Input Voltage: Max 600 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C IEC 60598-1:2014	Lighting devices	Luminaires - Part 1: General requirements and tests	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60598-2-1:2020	Lighting devices	Luminaires - Part 2-1: Particular requirements. Section One: Fixed general purpose luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C IEC 60598-2-2:2011	Lighting devices	Luminaires - Part 2-2: Particular requirements - Recessed luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60598-2-3:2014	Lighting devices	Luminaires - Part 2-3: Particular requirements - Luminaires for road and street lighting	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C IEC 60598-2-4:2017	Lighting devices	Luminaires - Part 2-4: Particular requirements - Portable general purpose luminaires	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60598-2-5:2015	Lighting devices	Luminaires - Part 2-5: Particular requirements - Floodlights	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C IEC 60598-2-8:2013	Lighting devices	Luminaires - Part 2-8: Particular requirements - Handlamps	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 61347-1:2015	Lighting devices	Lamp controlgear - Part 1: General and safety requirements	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C IEC 61347-2-13:2014	Lighting devices	Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 62031:2018	Lighting devices	LED modules for general lighting - Safety specifications	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
KS C IEC 62471:2006	Lighting devices	Photobiological safety of lamps and lamp systems	Irradiance : (250 ~ 2 400) nm Radiance : (300 ~ 1 400) nm	BS	N
KS C IEC 62560:2015	Lighting devices	Self-ballasted LED-lamps for general lighting services by voltage > 50 V - Safety specifications	Input Voltage: Max 600 V Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC TR 62778:2014	Lighting devices	Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires	Irradiance : (250 ~ 2 400) nm Radiance : (300 ~ 1 400) nm	BS	N
National Police Agency, Standard Guidelines for Variable Traffic Safety Signs:2022	Lighting devices	Standard Guidelines for Variable Traffic Safety Signs [Exception] 10.2.4 Impact test 10.2.8 Luminance and Luminance Ratio Test 10.2.9 Luminance Uniformity and Chromaticity Test 10.2.10 Beam Width Test 10.2.12 Optical output frequency test	Input Voltage: Max 250 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
National Police Agency, Standard Guidelines for Illuminated and Illuminated Traffic Safety Signs:2018	Lighting devices	Standard Guidelines for Illuminated and Illuminated Traffic Safety Signs [Exception] 10.2.4 Impact test 10.2.8 Light sensitivity test 10.2.13 Retroreflective sheet test	Input Voltage: Max 250 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
Integrated Guidelines for Testing and Inspection of Traffic Safety Facilities, etc. Revision 02 (R02) _August 22, 2025	Lighting devices	Integrated Guidelines for Testing and Inspection of Traffic Safety Facilities [Exception] 3.3 Detailed Functional Test 4.2 Compatibility Test 4.4.2 Button Durability Test 4.4.3.1 Slip Resistance Test 4.4.3.4 Static Load Structural Test 4.5.9 On/Off Response Test 4.6.4.1 LED Traffic Lights 4.6.5 Luminance and Luminance Ratio Test 4.7 Material Test 4.8.3 Sound Volume Control Test 7. Field Inspection	Input Voltage: Max 250 V~ Input Current: Max 20 A Measured Temp : Max 200 °C Ground continue : Max 12 V, 60 A electric strength : 5 kV, 100 mA Insulation resistance: More than 4 MΩ operation Temp. : (-30 170) °C	BS	N
ME Notice No. 2023-297 (12.29.2023.)	Lighting devices	Eco-labeled products and certification standards EL209 LED lamp for general lighting EL210 LED luminaire [Exception] - Environmental standards - 8.5 of EL210 LED luminaires Detection type luminaire detection range test method	Rating Voltage: Max 1 000 V	BS	N

03. Electrical Testing

03.011 EMC (Electromagnetic Compatibility)

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS 61000.6.4:2020	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6.4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
AS 61000.6.4:2020	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6.4: Generic standards - Emission standard for industrial environments [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
AS 61000.6.4:2020	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6.4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
AS CISPR 11:2017	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS CISPR 11:2017	Electrical machinery for industries	Industrial, scientific and medical (ISM) radio-frequency equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
AS CISPR 14.1:2018	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission [Exception] 3 phase	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
AS CISPR 14.1:2018	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission [Exception] 3 phase	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS CISPR 11:2017	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
AS CISPR 15:2017	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [Exception] 4.2 Insertion loss	RE: 9 kHz ~ 300 MHz CE: 9 kHz ~ 30 MHz	BS	N
AS/NZS 61000.6.3:2012	Wired/wireless communication devices	Generic standards - Emission standard for residential, commercial and light - industrial environment [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
AS/NZS 61000.6.3:2012	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6.3: Generic standards - Emission standard for residential, commercial and light - industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS 61000.6.3:2021	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6.3: Generic standards - Emission standard for residential, commercial and light - industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
AS/NZS 61000.6.4:2012	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6.4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
AS/NZS CISPR 11:2011	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
AS CISPR 11:2017 AMD 1:2020	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS CISPR 13:2012	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
AS/NZS 61000.6.3:2021	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6.3: Generic standards - Emission standard for residential, commercial and light - industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
AS/NZS 61000.6.3:2021	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6.3: Generic standards - Emission standard for residential, commercial and light - industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
AS/NZS CISPR 14.1:2013	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS	N
AS/NZS 61000.6.4:2012	Electrical machinery for industries	Generic standards - Emission standard for industrial environments [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS 61000.6.4:2012	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6.4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
AS/NZS CISPR 11:2011	Electrical machinery for industries	Industrial, scientific and medical (ISM) radio-frequency equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
AS/NZS CISPR 13:2012	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
AS/NZS CISPR 14.1:2013	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission [Exception] 3 phase	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS CISPR 14.1:2021	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
AS/NZS CISPR 14.1:2021	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
AS/NZS CISPR 22:2009 +A1:2010	Wired/wireless communication devices	Information technology equipment - Radio disturbance characteristics - Limits and methods of measure [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
AS/NZS CISPR 11:2011	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS CISPR 15:2011	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [Exception] 4.2 Insertion loss	RE: 9 kHz ~ 300 MHz CE: 9 kHz ~ 30 MHz	BS	N
AS/NZS CISPR 14.1:2021	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
AS/NZS CISPR 22:2009+A1:2010	Wired/wireless communication devices	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
AS/NZS CISPR 32:2013	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
AS/NZS CISPR 32:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
AS/NZS CISPR 32:2013	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS CISPR 32:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
AS/NZS CISPR 32:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
AS/NZS CISPR 32:2015 +A1:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
AS/NZS CISPR 32:2015 +A1:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
CISPR 11:2009 +A1:2010	Electrical machinery for industries	Industrial, scientific and medical (ISM) radio-frequency equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 11:2009 +A1:2010	Electrical machinery for industries	Industrial, scientific and medical (ISM) radio-frequency equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30m measuring distance 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
AS/NZS CISPR 32:2015 +A1:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
CISPR 11:2015	Electrical machinery for industries	Industrial, scientific and medical (ISM) radio-frequency equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 11:2015	Electrical machinery for industries	Industrial, scientific and medical (ISM) radio-frequency equipment ? Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30m measuring distance 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
CISPR 11:2015 +A1:2016 +A2:2019	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
CISPR 11:2015 +A1:2016	Electrical machinery for industries	Industrial, scientific and medical (ISM) radio-frequency equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30m measuring distance 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 11:2015 +A1:2016	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
CISPR 11:2024	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
CISPR 14-1:2020	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
CISPR 14-2:2020	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 11:2015 +A1:2016 +A2:2019	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [exception] 6.2 rated input power 20 kVA over, 30 m measuring distance [exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
CISPR 11:2015 +A1:2016 +A2:2019	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
CISPR 32:2015 +A1:2019	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
CISPR 35:2016	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 13:2009(modified)	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
CISPR 14-1:2005 +A1:2008 +A2:2011	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission [Exception] 3 phase	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
CISPR 13:2009(modified)	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN 50121-3-2:2016+A1:2019	Wired/wireless communication devices	Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus [Exception] Table1. AC power outlet port for public use (IEC 61000-4-30)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ± 8 kV RS: 80 MHz ~ 6 GHz EFT: ± 2 kV Surge: ± 2 kV CS: 150 kHz ~ 80 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 50121-4:2016 +A1:2019	Wired/wireless communication devices	Railway applications - Electromagnetic compatibility - Part 4: Emission and immunity of the signalling and telecommunications apparatus [Exception] - Table 2. Power - frequency magnetic field	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ± 8 kV RS: 80 MHz ~ 6 GHz EFT: ± 2 kV Surge: ± 2 kV CS: 150 kHz ~ 80 MHz	BS-2	N
CISPR 14-1:2005 +A1:2008 +A2:2011	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS	N
CISPR 14-1:2016 +ISH1:2017	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
CISPR 14-1:2016 +ISH1:2017	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 14-1:2020	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
CISPR 14-1:2020	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
CISPR 14-2:1997 +A2:2008	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-1	N
CISPR 14-2:1997 +A2:2008	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 14-2:2015	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-1	N
CISPR 14-2:2015	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS	N
CISPR 14-2:2020	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-1	N
CISPR 14-2:2020	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 22:2008	Wired/wireless communication devices	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
CISPR 15:2013 + IS1:2013 + IS2:2013	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [Exception] 4.2 Insertion loss	RE: 9 kHz ~ 300 MHz CE: 9 kHz ~ 30 MHz	BS	N
CISPR 24:2010	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS-1	N
CISPR 24:2010 +A1:2015	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS-1	N
CISPR 32:2012	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment- Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 15:2013 +A1:2015	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [Exception] 4.2 Insertion loss	RE: 9 kHz ~ 300 MHz CE: 9 kHz ~ 30 MHz	BS	N
EN 50121-5:2017 +A1:2019	Wired/wireless communication devices	Railway applications - Electromagnetic compatibility - Part 5: Emission and immunit of fixed power supply installations and apparatus [Exception] - Table 1. Power - frequency magnetic field - Table 3. Damped Oscillatory Voltage	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ± 8 kV RS: 80 MHz ~ 6 GHz EFT: ± 4 kV Surge: ± 4 kV CS: 150 kHz ~ 80 MHz	BS-2	N
CISPR 15:2018	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [Exception] 4.2 Insertion los	RE: 9 kHz ~ 300 MHz CE: 9 kHz ~ 30 MHz	BS	N
CISPR 32:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 32:2015 /COR1:2016	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
EN 50130-4:2011 +A1:2014	Wired/wireless communication devices	Alarm systems - Part 4: Electromagnetic compatibility - Product family standard: Immunity requirements for components of fire, intruder, hold up, CCTV, access control and social alarm systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±30 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 100 MHz V-DIP: 20 %, 30 %, 60 %, 100 %	BS-2	N
CISPR 22:2008	Wired/wireless communication devices	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
CISPR 32:2015 +A1:2019	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
CISPR 24:2010	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 35:2016	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS-1	N
EN 50155:2021	Wired/wireless communication devices	Railway applications - Rolling stock - Electronic equipment [Exception] - 13.4.3 DC Power supply test - 13.4.4 Low temperature start-up test - 13.4.5 Dry heat test - 13.4.6 Low temperature storage test - 13.4.7 Insulation test - 13.4.8 Cyclic damp heat test (see NOTE 2) - 13.4.10 Shock and vibration test - 13.4.11 Stress screening test - 13.4.12 Rapid Temperature variation test - 13.4.13 Salt mist test	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ± 8 kV RS: 80 MHz ~ 6 GHz EFT: ± 2 kV Surge: ± 2 kV CS: 150 kHz ~ 80 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 1060-3:1997+ A2:2009	Medical devices	Non-invasive sphygmomanometers - Part 3:Supplementary requirements for electro-mechanical blood pressure measuring systems [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
CISPR 24:2010 +A1:2015	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS	N
EN 55011:2016 +A1:2017 +A2:2021	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
CISPR 25:2008/COR1:2009	Wired/wireless communication devices	Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receivers	RE: 150 kHz ~ 2.5 GHz CE: 150 kHz ~ 108 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 50130-4:2011 +A1:2014	Wired/wireless communication devices	Alarm systems - Part 4: Electromagnetic compatibility - Product family standard: Immunity requirements for components of fire, intruder and social alarm systems [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±30 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 100 MHz V-DIP: 20 %, 30 %, 60 %, 100 %	BS-1	N
EN 55014-1:2017 +A11:2020	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
CISPR 25:2016	Wired/wireless communication devices	Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receivers	RE: 150 kHz ~ 2.5 GHz CE: 150 kHz ~ 108 MHz	BS	N
EN 50270:2015	Wired/wireless communication devices	Electromagnetic compatibility – Electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen [Exception] - 3 phase - Table 3 – Immunity -DC power ports (3.4, 3.5)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55011:2009 +A1:2010	Electrical machinery for industries	Industrial, scientific and medical (ISM) adio-frequency equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
CISPR 32:2012	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment- Emission requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN 55011:2016	Electrical machinery for industries	Industrial, scientific and medical (ISM) radio-frequency equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m test method 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55011:2016 +A1:2017	Electrical machinery for industries	Industrial, scientific and medical (ISM) radio-frequency equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
CISPR 32:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
EN 55011:2016 +A1:2017 +A2:2021	Electrical machinery for industries	Industrial, scientific and medical (ISM) radio-frequency equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
EN 55013:2013	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 32:2015 /COR1:2016	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
CISPR 32:2015 +A1:2019	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN 55013:2013 +A1:2016	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
EN 55014-1:2006 +A1:2009 +A2:2011	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission [Exception] 3 phase	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
CISPR 35:2016	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55014-2:2015	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-2	N
EN 55014-1:2017	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
EN 55032:2015 +A1:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
EN 1060-3:1997+ A2:2009	Medical devices	Non-invasive sphygmomanometers - Part 3:Supplementary requirements for electro-mechanical blood pressure measuring systems	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55014-1:2017 +A11:2020	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
EN 55032:2015 +A11:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
EN 50130-4:2011 +A1:2014	Wired/wireless communication devices	Alarm systems - Part 4: Electromagnetic compatibility - Product family standard: Immunity requirements for components of fire, intruder, hold up, CCTV, access control and social alarm systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±30 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 100 MHz V-DIP: 20 %, 30 %, 60 %, 100 %	BS	N
EN 55014-2:1997 +A2:2008	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55035:2017 +A11:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS-2	N
EN 55011:2009 +A1:2010	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
EN 55014-2:2015	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55011:2016	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
EN 55022:2010 /AC:2011	Wired/wireless communication devices	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
EN 55011:2016 +A1:2017	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
EN 55024:2010	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55011:2016 +A1:2017 +A2:2021	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
EN 60601-1-2:2015	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests [Exception] - Table 6. Electrical transient conduction along supply line	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-2	N
EN 55013:2013	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN 55024:2010 +A1:2015	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-1-2:2015 +A1:2021	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests [Exception] - Table 6. Electrical transient conduction along supply line - Table 4. Proximity magnetic fields	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-2	N
EN 55032:2012/AC:2013	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
EN 61000-4-11:2004	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0 ~ 100) %	BS-2	N
EN 55013:2013 +A1:2016	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55032:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
EN 55014-1:2006 +A1:2009 +A2:2011	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN 55014-1:2017	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
EN 55032:2015 +A1:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
EN 55014-1:2017 +A11:2020	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
EN 55032:2015 +A11:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-4-11:2004 +A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0 ~ 100) %	BS-2	N
EN 55014-2:1997 +A2:2008	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS	N
EN 55035:2017	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS-1	N
EN 55014-2:2015	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-4-2:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	±30 kV	BS-2	N
EN 55015:2013	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [Exception] 4.2 Insertion loss	RE: 9 kHz ~ 300 MHz CE: 9 kHz ~ 30 MHz	BS	N
EN 55035:2017 +A11:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS-1	N
EN 60601-1-11:2015	Medical devices	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-1-12:2015	Medical devices	Medical electrical equipment - Part 1-12: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency medical services environment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
EN 60601-1-12:2015 +A1:2020	Medical devices	Medical electrical equipment - Part 1-12: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency medical services environment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55015:2013 +A1:2015	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [Exception] 4.2 Insertion loss	RE: 9 kHz ~ 300 MHz CE: 9 kHz ~ 30 MHz	BS	N
EN 55022:2010 /AC:2011	Wired/wireless communication devices	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN 55024:2010	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS	N
EN 60601-1-2:2015	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests [Exception] - 3 phase - Table 6. Electrical transient conduction along supply line	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-4-3:2006 +A1:2008+A2:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS-2	N
EN 55024:2010 +A1:2015	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS	N
EN 61000-4-4:2012	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	±4 kV	BS-2	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-1-2:2015 +A1:2021	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests [Exception] - 3 phase - Table 6. Electrical transient conduction along supply line - Table 4. Proximity magnetic fields	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
EN 55032:2012/AC:2013	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN 61000-4-5:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	±5 kV	BS-2	N
EN 55032:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-2-25:2015	Medical devices	Medical electrical equipment - Part 2-25: Particular requirements for the basic safety and essential performance of electrocardiographs [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
EN 61000-4-5:2014+A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	±5 kV	BS-2	N
EN 55032:2015 +A1:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN 60601-2-26:2015	Medical devices	Medical electrical equipment - Part 2-26: Particular requirements for the basic safety and essential performance of electroencephalographs [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
EN 61000-4-6:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-2-27:2014	Medical devices	Medical electrical equipment - Part 2-27: Particular requirements for the basic safety and essential performance of electrocardiographic monitoring equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
EN 55032:2015 +A11:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN 61000-4-8:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	30 A/m	BS-2	N
EN 55035:2017	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS	N
EN 55035:2017 +A11:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-6-1:2007	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N
EN 60601-1-11:2015	Medical devices	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
EN 60601-2-34:2014	Medical devices	Medical electrical equipment - Part 2-34: Particular requirements for the basic safety and essential performance of invasive blood pressure monitoring equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-6-2:2005	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-2	N
EN 60601-1-12:2015	Medical devices	Medical electrical equipment - Part 1-12: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency medical services environment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
EN 60601-2-37:2008 +A1:2015	Medical devices	Medical electrical equipment - Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medicaldiagnostic and monitoring equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-1-12:2015 +A1:2020	Medical devices	Medical electrical equipment - Part 1-12: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency medical services environment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
EN 60601-2-4:2011	Medical devices	Medical electrical equipment - Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
EN 60601-1-2:2015	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-2-4:2011 +A1:2019	Medical devices	Medical electrical equipment - Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
EN 61000-6-3:2007+A1:2011	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
EN 60601-1-2:2015 +A1:2021	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
EN 60601-2-25:2015	Medical devices	Medical electrical equipment - Part 2-25: Particular requirements for the basic safety and essential performance of electrocardiographs	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-3-2:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 3-2: Limits-Limit for harmonics current emissions (equipment input current ≤ 16 A per phase)	one-phase 240 V, ≤ 16 A	BS-1	N
EN 60601-2-26:2015	Medical devices	Medical electrical equipment - Part 2-26: Particular requirements for the basic safety and essential performance of electroencephalographs	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
EN 61000-6-4:2007+A1:2011	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
EN 60601-2-27:2014	Medical devices	Medical electrical equipment - Part 2-27: Particular requirements for the basic safety and essential performance of electrocardiographic monitoring equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-3-3:2013	Wired/wireless communication devices	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 <= 16 A per phase and not subject to conditional connection	one-phase 240 V, ≤ 16 A	BS-1	N
EN 61204-3:2000	Electrical machinery for households	Low voltage power supplies, d.c. output - Part 3: Electromagnetic compatibility (EMC)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±30 kV RS: 80 MHz ~ 1.0 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 60 %, >95 %	BS-2	N
EN 61000-3-3:2013+A1:2019	Wired/wireless communication devices	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 <= 16 A per phase and not subject to conditional connection	one-phase 240 V, ≤ 16 A	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-3-3:2013+A1:2019+A2:2021	Wired/wireless communication devices	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 <= 16 A per phase and not subject to conditional connection	one-phase 240 V, ≤ 16 A	BS-1	N
EN 60601-2-34:2014	Medical devices	Medical electrical equipment - Part 2-34: Particular requirements for the basic safety and essential performance of invasive blood pressure monitoring equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
EN 60601-2-37:2008+A1:2015	Medical devices	Medical electrical equipment - Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medicaldiagnostic and monitoring equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-2-4:2011	Medical devices	Medical electrical equipment - Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
EN 60601-2-4:2011 +A1:2019	Medical devices	Medical electrical equipment - Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
EN 61000-4-11:2004	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0~100) %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-4-11:2004 +A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0~100) %	BS-1	N
EN 61000-3-2:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 3-2: Limits-Limit for harmonics current emissions (equipment input current ≤ 16 A per phase)	three-phase 380 V, 16 A	BS	N
EN 61000-4-2:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC)- Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test [Exception] 3 phase	±30 kV	BS-1	N
EN 61000-3-3:2013	Wired/wireless communication devices	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 ≤ 16 A per phase and not subject to conditional connection	three-phase 380 V, 16 A	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-3-3:2013+A1:2019	Wired/wireless communication devices	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 <= 16 A per phase and not subject to conditional connection	3 phase 380 V, 16 A	BS	N
EN 61000-3-3:2013+A1:2019+A2:2021	Wired/wireless communication devices	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 <= 16 A per phase and not subject to conditional connection	one phase 380 V, 16 A	BS	N
EN 61000-4-3:2006+A1:2008+A2:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test [Exception] 3 phase	80 MHz ~ 6 GHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-4-4:2012	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test [Exception] 3 phase	±4 kV	BS-1	N
EN 61326-1:2013	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-2	N
EN 61000-4-11:2004	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	V-DIP: (0~100) %	BS	N
EN 61000-4-5:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test [Exception] 3 phase	±5 kV	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61326-2-6:2013	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, 100 %	BS-2	N
EN 61000-4-5:2014+A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test [Exception] 3 phase	±5 kV	BS-1	N
EN 61000-4-11:2004+A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	V-DIP: (0~100) %	BS	N
EN 61000-4-13:2002+A2:2016	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-13: Testing and measurement techniques - Harmonics and interharmonics includingmains signalling at a.c. power port, low frequency immunity tests	three-phase 380 V, 16 A	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-4-6:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields [Exception] 3 phase	150 kHz ~ 230 MHz	BS-1	N
EN 61547:2009	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N
EN 61000-4-2:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC)- Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	±30 kV	BS	N
EN 61000-4-6:2014/AC:2015	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields [Exception] 3 phase	150 kHz ~ 230 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 55014-1:2021	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
EN 61000-4-8:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test [Exception] 3 phase	30 A/m	BS-1	N
EN 61000-4-29:2001	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-29: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations on d.c. input power port immunity tests	V-DIP: (0 ~ 100) %	BS	N
EN IEC 55014-2:2021	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-4-3:2006 +A1:2008+A2:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS	N
EN IEC 61000-4-11:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0~100) %	BS-2	N
EN 61000-6-1:2007	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments [exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N
EN IEC 61000-4-3:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-4-4:2012	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	±4 kV	BS	N
EN 61000-6-2:2005	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments [exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N
EN 61000-4-5:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	±15 kV	BS	N
EN 61000-6-3:2007+A1:2011	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environment [exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61000-4-6:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS-2	N
EN 61000-4-5:2014+A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	±15 kV	BS	N
EN 61000-6-4:2007+A1:2011	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments [exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
EN IEC 61000-6-1:2019	Wired/wireless communication devices	Generic standards - Immunity for residential, commercial and light-industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N
EN 61000-4-6:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61204-3:2000	Electrical machinery for households	Low voltage power supplies, d.c. output - Part 3: Electromagnetic compatibility (EMC) [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±30 kV RS: 80 MHz ~ 1.0 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 60 %, >95 %	BS-1	N
EN 61000-4-6:2014/AC:2015	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS	N
EN 61326-1:2013	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61326-2-6:2013	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N
EN 61000-4-8:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	30 A/m	BS	N
EN 61000-6-1:2007	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N
EN 61547:2009	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-6-2:2005	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS	N
EN 80601-2-30:2010+A1:2015	Medical devices	Medical electrical equipment - Part 2-30: Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
EN IEC 61000-6-2:2019	Electrical machinery for industries	Generic standards - Immunity for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-2	N
EN IEC 55014-1:2021	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-6-3:2007+A1:2011	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN IEC 55014-2:2021	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-1	N
EN 61000-6-4:2007+A1:2011	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN 61204-3:2000	Electrical machinery for households	Low voltage power supplies, d.c. output - Part 3: Electromagnetic compatibility (EMC)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±30 kV RS: 80 MHz ~ 1.0 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 60 %, >95 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61000-3-2:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 3-2: Limits-Limit for harmonics current emissions (equipment input current ≤ 16 A per phase)	one-phase 240 V, ≤ 16 A	BS-1	N
EN 61326-1:2013	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS	N
EN IEC 61000-3-2:2019 +A1:2021	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase) [Exception] 3 phase	one-phase 240 V, ≤ 16 A	BS-1	N
EN 61326-2-6:2013	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61000-3-2:2019 +A1:2021 +A2:2024	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase) [Exception] 3 phase	one-phase 240 V, ≤ 16 A	BS-1	N
EN 61547:2009	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N
EN IEC 61000-4-11:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0~100) %	BS-1	N
EN IEC 61000-4-3:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test [Exception] 3 phase	80 MHz ~ 6 GHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61800-3:2004 +A1:2012	Electrical machinery for industries	Adjustable speed electrical power drive systems - Part 3: EMC requirements and specific test methods	RE: 30 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: (0 ~ 100) %	BS	N
EN IEC 61000-6-3:2021	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
EN IEC 61000-6-4:2019	Electrical machinery for industries	Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
EN 80601-2-30:2010+A1:2015	Medical devices	Medical electrical equipment - Part 2-30: Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61000-4-6:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields [Exception] 3 phase	150 kHz ~ 230 MHz	BS-1	N
EN IEC 55014-1:2021	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
EN IEC 61000-6-1:2019	Wired/wireless communication devices	Generic standards - Immunity for residential, commercial and light-industrial environments [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N
EN IEC 55014-2:2021	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity - Product family standard	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61000-6-2:2019	Electrical machinery for industries	Generic standards - Immunity for industrial environments [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N
EN IEC 55015:2019	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [Exception] 4.2 Insertion loss	RE: 9 kHz ~ 300 MHz CE: 9 kHz ~ 30 MHz	BS	N
EN IEC 61000-6-3:2021	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environment [exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
EN IEC 61000-3-2:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 3-2: Limits-Limit for harmonics current emissions (equipment input current ≤ 16 A per phase)	3 phase 380 V, 16 A	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61000-6-8:2020	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-8: Generic standards - Emission standard for professional equipment in commercial and light-industrial locations	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
EN IEC 61000-6-4:2019	Electrical machinery for industries	Generic standards - Emission standard for industrial environments [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
EN IEC 61000-3-2:2019 +A1:2021	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)	three-phase 380 V, 16 A	BS	N
EN IEC 61000-6-8:2020	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-8: Generic standards - Emission standard for professional equipment in commercial and light-industrial locations	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61204-3:2018	Electrical machinery for households	Low voltage switch mode power supplies - Part 3: Electromagnetic compatibility (EMC)	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 1 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 60 %, 100 %	BS-2	N
EN IEC 61204-3:2018	Electrical machinery for households	Low voltage switch mode power supplies - Part 3: Electromagnetic compatibility (EMC) [Exception] 3 phase	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 1 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 60 %, 100 %	BS-1	N
EN IEC 61000-3-2:2019 +A1:2021 +A2:2024	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)	three-phase 380 V, 16 A	BS	N
EN IEC 61326-1:2021	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61326-1:2021	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N
EN IEC 61000-4-11:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	V-DIP: (0~100) %	BS	N
EN IEC 61326-2-6:2021	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-2	N
EN IEC 61000-4-3:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61326-2-6:2021	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N
ETSI EN 301 489-1 V2.2.3:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
EN IEC 61000-4-6:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS	N
EN IEC 61000-6-1:2019	Wired/wireless communication devices	Generic standards - Immunity for residential, commercial and light-industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 80601-2-30:2019	Medical devices	Medical electrical equipment - Part 2-30: Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
EN IEC 80601-2-49:2019	Medical devices	Medical electrical equipment - Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
EN IEC 61000-6-2:2019	Electrical machinery for industries	Generic standards - Immunity for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS	N
EN ISO 80601-2-55:2011	Medical devices	Medical electrical equipment - Part 2-55: Particular requirements for the basic safety and essential performance of respiratory gas monitors [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61000-6-3:2021	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
ETSI EN 301 489-13 V1.2.1:2002	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 13: Specific conditions for Citizens' Band (CB) radio and ancillary equipment (speech and non-speech)	RE: 30 MHz ~ 6 GHz CE: 150 kHZ ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
EN ISO 80601-2-55:2018	Medical devices	Medical electrical equipment - Part 2-55: Particular requirements for the basic safety and essential performance of respiratory gas monitors [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN ISO 80601-2-56:2012	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-15 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 15: Specific conditions for commercially available amateur radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
EN IEC 61000-6-4:2019	Electrical machinery for industries	Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
EN ISO 80601-2-56:2017	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN ISO 80601-2-56:2017+A1:2020	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
EN IEC 61000-6-8:2020	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-8: Generic standards - Emission standard for professional equipment in commercial and light-industrial locations	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
ETSI EN 301 489-17 V3.2.4:2020	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
EN ISO 80601-2-61:2011	Medical devices	Medical electrical equipment - Part 2-61: Particular requirements for basic safety and essential performance of pulse oximeter equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61204-3:2018	Electrical machinery for households	Low voltage switch mode power supplies - Part 3: Electromagnetic compatibility (EMC)	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 1 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 60 %, 100 %	BS	N
EN ISO 80601-2-61:2019	Medical devices	Medical electrical equipment - Part 2-61: Particular requirements for basic safety and essential performance of pulse oximeter equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-17 V3.2.6:2023	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61326-1:2021	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS	N
ETSI EN 301 489-1 V2.1.1:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
EN IEC 61326-2-6:2021	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-17 V3.3.1:2024	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
EN IEC 61800-3:2018	Electrical machinery for industries	Adjustable speed electrical power drive systems - Part 3: EMC requirements and specific test methods	RE: 30 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: (0 ~ 100) %	BS	N
ETSI EN 301 489-1 V2.2.0:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-18 V1.3.1:2002	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 18: Specific conditions for Terrestrial Trunked Radio (TETRA) equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 80601-2-30:2019	Medical devices	Medical electrical equipment - Part 2-30: Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
EN IEC 80601-2-49:2019	Medical devices	Medical electrical equipment - Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-1 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
EN ISO 80601-2-55:2011	Medical devices	Medical electrical equipment - Part 2-55: Particular requirements for the basic safety and essential performance of respiratory gas monitors	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-1 V2.2.2:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
EN ISO 80601-2-55:2018	Medical devices	Medical electrical equipment - Part 2-55: Particular requirements for the basic safety and essential performance of respiratory gas monitors	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-1 V2.2.3:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
EN ISO 80601-2-56:2012	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-13 V1.2.1:2002	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 13: Specific conditions for Citizens' Band (CB) radio and ancillary equipment (speech and non-speech)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
EN ISO 80601-2-56:2017	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-15 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 15: Specific conditions for commercially available amateur radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-17 V3.1.1:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions For Broadband Data Transmission Systems;	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
EN ISO 80601-2-56:2017+A1:2020	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-19 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 19: Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications and GNSS receivers operating in the RNSS band (ROGNSS) providing positioning, navigation, and timing data	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-17 V3.2.0:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
EN ISO 80601-2-61:2011	Medical devices	Medical electrical equipment - Part 2-61: Particular requirements for basic safety and essential performance of pulse oximeter equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-2 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 2: Specific conditions for radio paging equipment;	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN ISO 80601-2-61:2019	Medical devices	Medical electrical equipment - Part 2-61: Particular requirements for basic safety and essential performance of pulse oximeter equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-17 V3.2.4:2020	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-17 V3.3.1:2024	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-1 V2.1.1:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-18 V1.3.1:2002	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 18: Specific conditions for Terrestrial Trunked Radio (TETRA) equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-1 V2.2.0:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-19 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 19: Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications and GNSS receivers operating in the RNSS band (ROGNSS) providing positioning, navigation, and timing data	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-1 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-19 V2.2.1:2022	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 19: Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications and GNSS receivers operating in the RNSS band providing positioning, navigation, and timing data; Harmonised Standard for ElectroMagnetic Compatibility	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-1 V2.2.2:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-2 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 2: Specific conditions for radio paging equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-20 V2.1.2:2021	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-1 V2.2.3:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-20 V2.1.1:2019	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-23 V1.5.1:2011	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 23: Specific conditions for IMT-2000 CDMA, Direct Spread (UTRA and E-UTRA) Base Station (BS) radio, repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-13 V1.2.1:2002	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 13: Specific conditions for Citizens' Band (CB) radio and ancillary equipment (speech and non-speech)	RE: 30 MHz ~ 6 GHz CE: 150 kHZ ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-20 V2.1.2:2021	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-20 V2.2.1:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS); Harmonised Standard for ElectroMagnetic Compatibility	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-15 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 15: Specific conditions for commercially available amateur radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-23 V1.5.1:2011	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 23: Specific conditions for IMT-2000 CDMA, Direct Spread (UTRA and E-UTRA) Base Station (BS) radio, repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-17 V3.1.1:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions For Broadband Data Transmission Systems;	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-17 V3.2.0:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-24 V1.5.1:2010	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility(EMC) standard for radio equipment and services; Part 24:Specific conditions for IMT-2000 CDMA Direct Spread (UTRA and E-UTRA) for Mobile and portable (UE) radio and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-17 V3.2.4:2020	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-24 V1.5.1:2010	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility(EMC) standard for radio equipment and services; Part 24:Specific conditions for IMT-2000 CDMA Direct Spread (UTRA and E-UTRA) for Mobile and portable (UE) radio and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-17 V3.3.1:2024	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-18 V1.3.1:2002	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 18: Specific conditions for Terrestrial Trunked Radio (TETRA) equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-25 V2.3.2:2005	Wired/wireless communication devices	Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 25: Specific conditions for CDMA 1x Spread Spectrum Mobile Stations and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-19 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 19: Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications and GNSS receivers operating in the RNSS band (ROGNSS) providing positioning, navigation, and timing data	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-25 V2.3.2:2005	Wired/wireless communication devices	Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 25: Specific conditions for CDMA 1x Spread Spectrum Mobile Stations and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-19 V2.2.1:2022	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 19: Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications and GNSS receivers operating in the RNSS band providing positioning, navigation, and timing data standard for radio equipment and services; Part 19: Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications and GNSS receivers operating in the RNSS band (ROGNSS) providing positioning, navigation, and timing data	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-26 V2.3.2:2005	Wired/wireless communication devices	Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 26: Specific conditions for CDMA 1x spread spectrum base stations, repeaters and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-3 V2.1.1:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD)operating on frequencies between 9 kHz and 246 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-2 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 2: Specific conditions for radio paging equipment;	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-20 V2.1.1:2019	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-3 V2.1.2:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD)operating on frequencies between 9 kHz and 246 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-20 V2.1.2:2021	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-3 V2.3.2:2023	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD)operating on frequencies between 9 kHz and 246 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-26 V2.3.2:2005	Wired/wireless communication devices	Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 26: Specific conditions for CDMA 1x spread spectrum base stations, repeaters and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-20 V2.2.1:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS); Harmonised Standard for ElectroMagnetic Compatibility	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-34 V2.1.1:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 34: Specific conditions for External Power Supply (EPS) for mobile phones	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-3 V2.1.1:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD)operating on frequencies between 9 kHz and 246 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-23 V1.5.1:2011	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 23: Specific conditions for IMT-2000 CDMA, Direct Spread (UTRA and E-UTRA) Base Station (BS) radio, repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-4 V3.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 4: Specific conditions for fixed radio links and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-3 V2.1.2:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD)operating on frequencies between 9 kHz and 246 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-24 V1.5.1:2010	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility(EMC) standard for radio equipment and services; Part 24:Specific conditions for IMT-2000 CDMA Direct Spread (UTRA and E-UTRA) for Mobile and portable (UE) radio and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-4 V3.3.1:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 4: Specific conditions for fixed radio links and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-3 V2.3.2:2023	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD)operating on frequencies between 9 kHz and 246 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-5 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 5: Specific conditions for Private land Mobile Radio (PMR) and ancillary equipment (speech and non-speech) and Terrestrial Trunked Radio (TETRA)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-25 V2.3.2:2005	Wired/wireless communication devices	Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 25: Specific conditions for CDMA 1x Spread Spectrum Mobile Stations and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-34 V2.1.1:2017	Wired/wireless communication devices	Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 34: Specific conditions for External Power Supply (EPS) for mobile phones	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-50 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 50: Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-26 V2.3.2:2005	Wired/wireless communication devices	Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 26: Specific conditions for CDMA 1x spread spectrum base stations, repeaters and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-4 V3.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 4: Specific conditions for fixed radio links and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-3 V2.1.1:2017	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD)operating on frequencies between 9 kHz and 246 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-50 V2.2.2:2020	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 50: Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-5 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 5: Specific conditions for Private land Mobile Radio (PMR) and ancillary equipment (speech and non-speech) and Terrestrial Trunked Radio (TETRA)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-3 V2.1.2:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD)operating on frequencies between 9 kHz and 246 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-50 V2.3.1:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 50: Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-50 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 50: Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-3 V2.3.2:2023	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD)operating on frequencies between 9 kHz and 246 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-34 V2.1.1:2017	Wired/wireless communication devices	Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 34: Specific conditions for External Power Supply (EPS) for mobile phones	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-51 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 51: Specific conditions for Automotive, Ground based Vehicles and Surveillance Radar Devices using 24,05 GHz to 24,25 GHz, 24,05 GHz to 24,5 GHz, 76 GHz to 77 GHz and 77 GHz to 81 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-4 V3.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 4: Specific conditions for fixed radio links and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-4 V3.3.1:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 4: Specific conditions for fixed radio links and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-52 V1.1.0:2016	Wired/wireless communication devices	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication Mobile and portable (UE)\ radio and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-5 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 5: Specific conditions for Private land Mobile Radio (PMR) and ancillary equipment (speech and non-speech) and Terrestrial Trunked Radio (TETRA)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-52 V1.1.2:2020	Wired/wireless communication devices	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-50 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 50: Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-52 V1.2.1:2021	Wired/wireless communication devices	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-6 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 6: Specific conditions for Digital Enhanced Cordless Telecommunications (DECT) equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-50 V2.2.2:2020	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 50: Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-50 V2.3.1:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 50: Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-7 V1.3.1:2005	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 7: Specific conditions for mobile and portable radio and ancillary equipment of digital cellular radio telecommunications systems (GSM and DCS)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-50 V2.2.2:2020	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 50: Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-51 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 51: Specific conditions for Automotive, Ground based Vehicles and Surveillance Radar Devices using 24,05 GHz to 24,25 GHz, 24,05 GHz to 24,5 GHz, 76 GHz to 77 GHz and 77 GHz to 81 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-8 V1.2.1:2002	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 8: Specific conditions for GSM base stations	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-51 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 51: Specific conditions for Automotive, Ground based Vehicles and Surveillance Radar Devices using 24,05 GHz to 24,25 GHz, 24,05 GHz to 24,5 GHz, 76 GHz to 77 GHz and 77 GHz to 81 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-52 V1.1.0:2016	Wired/wireless communication devices	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-9 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 9: Specific conditions for wireless microphones, similar Radio Frequency (RF) audio link equipment, cordless audio and in-ear monitoring devices	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
ETSI EN 301 489-52 V1.1.0:2016	Wired/wireless communication devices	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-52 V1.1.2:2020	Wired/wireless communication devices	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 303 340 V1.1.2:2016	Wired/wireless communication devices	Digital Terrestrial TV Broadcast Receivers; Harmonised Standard covering the essential requirements	Receiver sensitivity Receiver adjacent channel Receiver selectivity Receiver Blocking Receiver overloading	BS-1	N
ETSI EN 301 489-52 V1.1.2:2020	Wired/wireless communication devices	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 303 340 V1.2.1:2020	Wired/wireless communication devices	Digital Terrestrial TV Broadcast Receivers; Harmonised Standard covering the essential requirements	Receiver sensitivity Receiver adjacent channel Receiver selectivity Receiver Blocking Receiver overloading	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-52 V1.2.1:2021	Wired/wireless communication devices	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 301 489-6 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 6: Specific conditions for Digital Enhanced Cordless Telecommunications (DECT) equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ETSI EN 303 372-2 V1.1.1:2016	Wired/wireless communication devices	Satellite Earth Stations and Systems (SES); Satellite broadcast reception equipment;	Adjacent signal selectivity Dynamic range	BS-1	N
ETSI EN 301 489-7 V1.3.1:2005	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 7: Specific conditions for mobile and portable radio and ancillary equipment of digital cellular radio telecommunications systems (GSM and DCS)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 303 372-2 V1.2.1:2021	Wired/wireless communication devices	Satellite Earth Stations and Systems (SES); Satellite broadcast reception equipment;	Adjacent signal selectivity Dynamic range	BS-1	N
ETSI EN 301 489-6 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 6: Specific conditions for Digital Enhanced Cordless Telecommunications (DECT) equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-7 V1.3.1:2005	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 7: Specific conditions for mobile and portable radio and ancillary equipment of digital cellular radio telecommunications systems (GSM and DCS)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
ETSI EN 301 489-8 V1.2.1:2002	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 8: Specific conditions for GSM base stations	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
FCC PART 15	Wired/wireless communication devices	Radio frequency devices [Exception] 3 phase	RE: 30 MHz ~ 40 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
ETSI EN 301 489-9 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 9: Specific conditions for wireless microphones, similar Radio Frequency (RF) audio link equipment, cordless audio and in-ear monitoring devices	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
FCC PART 18	Electrical machinery for industries	Industrial, scientific, and medical equipment [Exception] 3 phase	RE: 9 kHz ~ 40 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
ETSI EN 301 489-8 V1.2.1:2002	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 8: Specific conditions for GSM base stations	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
FCC PART 15	Wired/wireless communication devices	Radio frequency devices	RE: 30 MHz ~ 40 GHz CE: 150 kHz ~ 30 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-9 V2.1.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 9: Specific conditions for wireless microphones, similar Radio Frequency (RF) audio link equipment, cordless audio and in-ear monitoring devices	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
ICES-003	Wired/wireless communication devices	Information Technology Equipment (Including Digital Apparatus) - Limits and Methods of Measurement [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
FCC PART 18	Electrical machinery for industries	Industrial, scientific, and medical equipment	RE: 9 kHz ~ 40 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
FCC PART 15	Wired/wireless communication devices	Radio frequency devices	RE: 30 MHz ~ 40 GHz CE: 150 kHz ~ 30 MHz	BS	N

Uncontrolled

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-1-11:2015	Medical devices	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
ICES-003	Wired/wireless communication devices	Information Technology Equipment (Including Digital Apparatus) - Limits and Methods of Measurement	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
IEC 60601-1-11:2015 +A1:2020	Medical devices	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-1-12:2014	Medical devices	Medical electrical equipment - Part 1-12: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency medical services environment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 60571:2012	Wired/wireless communication devices	Railway applications- Electronic equipment used on rolling stock [Exception] - 12.2.4 Cold start test - 12.2.5 Dry heat test - 12.2.6 Damp heat test, cyclic - 12.2.7 Supply overvoltage - 12.2.10 insulation test - 12.2.11 Salt mist test - 12.2.12 Vibration, shock and bump test - 12.2.13 Watertightness test - 12.2.14 Equipment stress screening - 12.2.15 Low temperature storage test	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-1-12:2014 +A1:2020	Medical devices	Medical electrical equipment - Part 1-12: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency medical services environment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 60601-1-2:2014	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests [Exception] - 3 phase - Table 6. Electrical transient conduction along supply line	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
FCC PART 18	Wired/wireless communication devices	Industrial, scientific, and medical equipment	RE: 9 kHz ~ 40 GHz CE: 9 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-1-2:2014 +A1:2020	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests [Exception] - 3 phase - Table 6. Electrical transient conduction along supply line - Table 4. Proximity magnetic fields	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
ICES-003	Wired/wireless communication devices	Information Technology Equipment (Including Digital Apparatus) - Limits and Methods of Measurement	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
IEC 60601-1-2:2014 +A1:2020	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests [Exception] - Table 6. Electrical transient conduction along supply line - Table 4. Proximity magnetic fields	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-1-11:2015	Medical devices	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 60601-1-11:2015 +A1:2020	Medical devices	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 61000-4-11:2004	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0 ~ 100) %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-1-12:2014	Medical devices	Medical electrical equipment - Part 1-12: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency medical services environment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 60601-1-12:2014 +A1:2020	Medical devices	Medical electrical equipment - Part 1-12: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency medical services environment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-25:2011	Medical devices	Medical electrical equipment - Part 2-25: Particular requirements for the basic safety and essential performance of electrocardiographs [Exception] 3 phase	RE: 9 KHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 60601-2-26:2012	Medical devices	Medical electrical equipment - Part 2-26: Particular requirements for the basic safety and essential performance of electroencephalographs [Exception] 3 phase	RE: 9 KHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 60601-1-2:2014	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-1-2:2014 +A1:2020	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 60601-2-27:2011 / COR1:2012	Medical devices	Medical electrical equipment - Part 2-27: Particular requirements for the basic safety and essential performance of electrocardiographic monitoring equipment [Exception] 3 phase	RE: 9 KHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61000-4-11:2004 +A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0 ~ 100) %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-25:2011	Medical devices	Medical electrical equipment - Part 2-25: Particular requirements for the basic safety and essential performance of electrocardiographs	RE: 9 KHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 60601-2-34:2011	Medical devices	Medical electrical equipment - Part 2-34: Particular requirements for the basic safety and essential performance of invasive blood pressure monitoring equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 60601-2-26:2012	Medical devices	Medical electrical equipment - Part 2-26: Particular requirements for the basic safety and essential performance of electroencephalographs	RE: 9 KHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-37:2007 +A1:2015	Medical devices	Medical electrical equipment - Part 2-37:Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 60601-2-26:2019	Medical devices	Medical electrical equipment - Part 2-26: Particular requirements for the basic safety and essential performance of electroencephalographs	RE: 9 KHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 60601-2-4:2010	Medical devices	Medical electrical equipment - Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators [Exception] 3 phase	RE: 9 KHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-11:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0 ~ 100) %	BS-2	N
IEC 60601-2-27:2011 / COR1:2012	Medical devices	Medical electrical equipment - Part 2-27: Particular requirements for the basic safety and essential performance of electrocardiographic monitoring equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 60601-2-4:2010 +A1:2018	Medical devices	Medical electrical equipment - Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61000-4-2:2008	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	±30 kV	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-34:2011	Medical devices	Medical electrical equipment - Part 2-34: Particular requirements for the basic safety and essential performance of invasive blood pressure monitoring equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 60601-2-37:2007 +A1:2015	Medical devices	Medical electrical equipment - Part 2-37:Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 61000-3-2:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase) [Exception] 3 phase	one-phase 240 V, ≤ 16 A	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-4:2010	Medical devices	Medical electrical equipment - Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators	RE: 9 KHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 60601-2-4:2010 +A1:2018	Medical devices	Medical electrical equipment - Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 61000-3-2:2018	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase) [Exception] 3 phase	one-phase 240 V, ≤ 16 A	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-3-2:2018 +A1:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase) [Exception] 3 phase	one-phase 240 V, ≤ 16 A	BS-1	N
IEC 61000-3-2:2018 +A1:2020 +A2:2024	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase) [Exception] 3 phase	one-phase 240 V, ≤ 16 A	BS-1	N
IEC 61000-3-2:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)	three-phase 380 V, 16 A	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-3-3:2013	Wired/wireless communication devices	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 <= 16 A per phase and not subject to conditional connection [Exception] 3 phase	one-phase 240 V, ≤ 16 A	BS-1	N
IEC 61000-3-2:2018	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)	three-phase 380 V, 16 A	BS	N
IEC 61000-3-3:2013 +A1:2017	Wired/wireless communication devices	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 <= 16 A per phase and not subject to conditional connection [Exception] 3 phase	one-phase 240 V, ≤ 16 A	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-3-2:2018 +A1:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)	three-phase 380 V, 16 A	BS	N
IEC 61000-3-3:2013 +A1:2017 +A2:2021	Wired/wireless communication devices	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 <= 16 A per phase and not subject to conditional connection [Exception] 3 phase	one-phase 240 V, ≤ 16 A	BS-1	N
IEC 61000-3-2:2018 +A1:2020 +A2:2024	Wired/wireless communication devices	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)	three-phase 380 V, 16 A	BS	N
IEC 61000-4-3:2006 +A1:2007 +A2:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-11:2004	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0 ~ 100) %	BS-1	N
IEC 61000-3-3:2013	Wired/wireless communication devices	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 ≤ 16 A per phase and not subject to conditional connection	three-phase 380 V, 16 A	BS	N
IEC 61000-4-11:2004 +A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0 ~ 100) %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-3-3:2013 +A1:2017	Wired/wireless communication devices	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 ≤ 16 A per phase and not subject to conditional connection	three-phase 380 V, 16 A	BS	N
IEC 61000-4-11:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0~100) %	BS-1	N
IEC 61000-3-3:2013 +A1:2017 +A2:2021	Wired/wireless communication devices	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 ≤ 16 A per phase and not subject to conditional connection	three-phase 380 V, 16 A	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-2:2008	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test [Exception] 3 phase	±30 kV	BS-1	N
IEC 61000-4-11:2004	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	V-DIP: (0 ~ 100) %	BS	N
IEC 61000-4-3:2006 +A1:2007 +A2:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Electrostatic discharge immunity test [Exception] 3 phase	80 MHz ~ 6 GHz	BS-1	N
IEC 61000-4-11:2004 +A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	V-DIP: (0 ~ 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-3:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Electrostatic discharge immunity test [Exception] 3 phase	80 MHz ~ 6 GHz	BS-1	N
IEC 61000-4-4:2012	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test [Exception] 3 phase	±4 kV	BS-1	N
IEC 61000-4-11:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase	V-DIP: (0~100) %	BS	N
IEC 61000-4-5:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test [Exception] 3 phase	± 5 kV	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-3:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS-2	N
IEC 61000-4-4:2012	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	±4 kV	BS-2	N
IEC 61000-4-13:2002 +A2:2015	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-13: Testing and measurement techniques - Harmonics and interharmonics includingmains signalling at a.c. power port, low frequency immunity tests	three-phase 380 V, 16 A	BS	N
IEC 61000-4-5:2014 +A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test [Exception] 3 phase	±5 kV	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-5:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	±5 kV	BS-2	N
IEC 61000-4-2:2008	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	±30 kV	BS	N
IEC 61000-4-29:2000	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-29: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations on d.c. input power port immunity tests	V-DIP: (0 ~ 100) %	BS	N
IEC 61000-4-6:2013	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields [Exception] 3 phase	150 kHz ~ 230 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-3:2006 +A1:2007 +A2:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS	N
IEC 61000-4-6:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields [Exception] 3 phase	150 kHz ~ 230 MHz	BS-1	N
IEC 61000-4-5:2014 +A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	±5 kV	BS-2	N
IEC 61000-4-8:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test [Exception] 3 phase	30 A/m	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-3:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS	N
IEC 61000-4-6:2013	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS-2	N
IEC 61000-6-1:2005	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light - industrial environments [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61000-4-4:2012	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	±4 kV	BS	N
IEC 61000-4-5:2014	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	±15 kV	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-6-1:2016	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61000-4-5:2014 +A1:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	±15 kV	BS	N
IEC 61000-4-6:2013	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS	N
IEC 61000-6-2:2005	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-6:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS	N
IEC 61000-6-2:2016	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61000-4-8:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	30 A/m	BS	N
IEC 61000-6-3:2006 +A1:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environments [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-6-1:2005	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light - industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N
IEC 61000-6-1:2016	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N
IEC 61000-6-2:2005	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS	N
IEC 61000-6-3:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environments [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-6-4:2006 +A1:2010	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
IEC 61000-4-6:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS-2	N
IEC 61000-6-2:2016	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N
IEC 61000-6-4:2018	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-6-8:2020	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-8: Generic standards - Emission standard for professional equipment in commercial and light-industrial locations	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
IEC 61000-6-3:2006 +A1:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
IEC 61000-6-3:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
IEC 61204-3:2016	Electrical machinery for households	Low-voltage switch mode power supplies - Part 3: Electromagnetic compatibility (EMC) [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 20 %, 30 %, 60 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-6-4:2006 +A1:2010	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
IEC 61326-1:2012	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60%, 100 %	BS-1	N
IEC 61000-6-4:2018	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
IEC 61326-1:2020	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60%, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-6-8:2020	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-8: Generic standards - Emission standard for professional equipment in commercial and light-industrial locations	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
IEC 61326-2-6:2012	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment [Exception] 3 phase	RE: 9 KHz ~ 18 GHz CE: 150 kHZ ~ 30 MHZ ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N
IEC 61204-3:2016	Electrical machinery for households	Low-voltage switch mode power supplies - Part 3: Electromagnetic compatibility (EMC)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 20 %, 30 %, 60 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61326-2-6:2020	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment [Exception] 3 phase	RE: 9 KHz ~ 18 GHz CE: 150 kHZ ~ 30 MHZ ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N
IEC 61326-1:2012	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60%, 100 %	BS	N
IEC 61547:2009	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61000-4-8:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	30 A/m	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61547:2020	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61000-6-1:2005	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light - industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N
IEC 61326-1:2020	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60%, 100 %	BS	N
IEC 61326-2-6:2012	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment	RE: 9 KHz ~ 18 GHz CE: 150 kHZ ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 80601-2-26:2019	Medical devices	Medical electrical equipment - Part 2-26: Particular requirements for the basic safety and essential performance of electroencephalographs [Exception] 3 phase	RE: 9 KHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61326-2-6:2020	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment	RE: 9 KHz ~ 18 GHz CE: 150 kHZ ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, 100 %	BS	N
IEC 61000-6-1:2016	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N
IEC 61547:2009	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 80601-2-30:2009	Medical devices	Medical electrical equipment - Part 2-30: Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61000-6-2:2005	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-2	N
IEC 61547:2020	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N
IEC 80601-2-30:2009 +A1:2013	Medical devices	Medical electrical equipment - Part 2-30: Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-6-2:2016	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N
IEC 61800-3:2004 +A1:2011	Electrical machinery for industries	Adjustable speed electrical power drive systems - Part 3: EMC requirements and specific test methods	RE: 30 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: (0 ~ 100) %	BS	N
IEC 80601-2-30:2018	Medical devices	Medical electrical equipment - Part 2-30: Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61000-6-3:2006 +A1:2010	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61800-3:2017	Electrical machinery for industries	Adjustable speed electrical power drive systems - Part 3: EMC requirements and specific test methods	RE: 30 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: (0 ~ 100) %	BS	N
IEC 80601-2-30:2009	Medical devices	Medical electrical equipment - Part 2-30: Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 80601-2-49:2018	Medical devices	Medical electrical equipment - Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IS/CISPR 32:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-6-3:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light - industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
IEC 61000-6-4:2006 +A1:2010	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
ISO 80601-2-55:2011	Medical devices	Medical electrical equipment - Part 2-55: Particular requirements for the basic safety and essential performance of respiratory gas monitors [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 80601-2-30:2009 +A1:2013	Medical devices	Medical electrical equipment - Part 2-30: Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 80601-2-30:2018	Medical devices	Medical electrical equipment - Part 2-30: Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 80601-2-49:2018	Medical devices	Medical electrical equipment - Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 61000-6-4:2018	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
ISO 80601-2-55:2018	Medical devices	Medical electrical equipment - Part 2-55: Particular requirements for the basic safety and essential performance of respiratory gas monitors [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-6-8:2020	Electrical machinery for industries	Electromagnetic compatibility (EMC) - Part 6-8: Generic standards - Emission standard for professional equipment in commercial and light-industrial locations	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
IS/CISPR 32:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
ISO 80601-2-56:2009	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
ISO 7637-2:2004	Wired/wireless communication devices	Road vehicles - Electrical disturbances from conduction and coupling - Part 2: Electrical transient conduction along supply lines only	12 V and 24 V system	BS	N
ISO 7637-2:2011	Wired/wireless communication devices	Road vehicles - Electrical disturbances from conduction and coupling - Part 2: Electrical transient conduction along supply lines only	12 V and 24 V system	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 80601-2-56:2017	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61204-3:2016	Electrical machinery for households	Low-voltage switch mode power supplies - Part 3: Electromagnetic compatibility (EMC)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 20 %, 30 %, 60 %, 100 %	BS-2	N
ISO 80601-2-56:2017 +A1:2018	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 80601-2-55:2011	Medical devices	Medical electrical equipment - Part 2-55: Particular requirements for the basic safety and essential performance of respiratory gas monitors	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 61326-1:2012	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60%, 100 %	BS-2	N
ISO 80601-2-55:2018	Medical devices	Medical electrical equipment - Part 2-55: Particular requirements for the basic safety and essential performance of respiratory gas monitors	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 80601-2-61:2011	Medical devices	Medical electrical equipment - Part 2-61: Particular requirements for basic safety and essential performance of pulse oximeter equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
IEC 61326-1:2020	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60%, 100 %	BS-2	N
ISO 80601-2-56:2009	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 80601-2-61:2017	Medical devices	Medical electrical equipment - Part 2-61: Particular requirements for basic safety and essential performance of pulse oximeter equipment [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
ISO 80601-2-56:2017	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
KN 60945:2015	Wired/wireless communication devices	Electromagnetic compatibility standard for Maritime navigation radio equipment and Marine electric and electronic equipment [Exception] 3 phase	RE: 150 kHz ~ 2 GHz CE: 10 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.0 GHz EFT: ±2 kV SURGE: ±1 kV CS: 150 kHz ~ 80 MHz V-DIP: ±10 %, ±20 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 80601-2-56:2017 +A1:2018	Medical devices	Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 61326-2-6:2012	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment	RE: 9 KHz ~ 18 GHz CE: 150 kHZ ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, 100 %	BS-2	N
ISO 80601-2-61:2011	Medical devices	Medical electrical equipment - Part 2-61: Particular requirements for basic safety and essential performance of pulse oximeter equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61326-2-6:2020	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment	RE: 9 kHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-2	N
KS C 9547:2020	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N
ISO 80601-2-61:2017	Medical devices	Medical electrical equipment - Part 2-61: Particular requirements for basic safety and essential performance of pulse oximeter equipment	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
IEC 61547:2009	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-3-2:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 3-2: Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	one-phase 240 V, ≤ 16 A	BS-1	N
KN 60945:2015	Wired/wireless communication devices	Maritime navigation and radio communication equipment and systems. General requirements. Methods of testing and required test results	RE: 150 kHz ~ 2 GHz CE: 10 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.0 GHz EFT: ±2 kV SURGE: ±1 kV CS: 150 kHz ~ 80 MHz V-DIP: ±10 %, ±20 %, 100 %	BS	N
IEC 61547:2020	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N
KS C 9547:2020	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-3-2:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 3-2: Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	3 phase 380 V, 16 A	BS	N
KS C 9610-3-3:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 3-3: Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems (equipment input current ≤ 16 A per phase)	one-phase 240 V, ≤ 16 A	BS-1	N
KS C 9610-4-11:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-11: test and method - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0 ~ 100) %	BS-1	N
IEC 62236-3-2:2018	Wired/wireless communication devices	Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus [Exception] - Table1. AC power outlet port for public use (IEC 61000-4-30)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62236-4:2018	Wired/wireless communication devices	Railway applications - Electromagnetic compatibility - Part 4: Emission and immunity of the signalling and telecommunications apparatus [Exception] - Table 2. Power - frequency magnetic field	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz	BS-2	N
KS C 9610-3-3:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 3-3: Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems (equipment input current ≤ 16 A per phase)	3 phase 380 V, 16 A	BS	N
KS C 9610-4-2:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-2: test and method - Electrostatic discharge immunity test [Exception] 3 phase	±30 kV	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62236-5:2018	Wired/wireless communication devices	Railway applications - Electromagnetic compatibility - Part 5: Emission and immunity of fixed power supply installations and apparatus [Exception] - Table 1. Power - frequency magnetic field - Table 3. Damped Oscillatory Voltage	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±4 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz	BS-2	N
KS C 9610-4-11:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-11: test and method - Voltage dips, short interruptions and voltage variations immunity tests	V-DIP: (0 ~ 100) %	BS	N
KS C 9610-4-3:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-3: test and method - Radiated, radio-frequency, electromagnetic field immunity test [Exception] 3 phase	80 MHz ~ 6 GHz	BS-1	N
IS/CISPR 32:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9547:2020	Lighting devices	Equipment for general lighting purposes- EMC immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N
KS C 9610-4-4:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-4: test and method - Electrical fast transient/burst immunity test [Exception] 3 phase	±4 kV	BS-1	N
KS C 9610-4-5:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-5: test and method - Surge immunity test [Exception] 3 phase	±5 kV	BS-1	N
KS C 9610-4-2:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-2: test and method - Electrostatic discharge immunity test	±30 kV	BS	N
KS C 9610-4-11:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-11: test and method - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0 ~ 100) %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-4-3:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-3: test and method - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS	N
KS C 9610-4-6:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-6: test and method - Immunity to conducted disturbances, induced by radio-frequency fields [Exception] 3 phase	150 kHz ~ 230 MHz	BS-1	N
KS C 9610-4-2:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-2: test and method - Electrostatic discharge immunity test	±30 kV	BS-2	N
KS C 9610-4-4:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-4: test and method - Electrical fast transient/burst immunity test	±4 kV	BS	N
KS C 9610-4-8:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-8: test and method - Power frequency magnetic field immunity test [Exception] 3 phase	30 A/m	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-4-3:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-3: test and method - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS-2	N
KS C 9610-4-5:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-5: test and method - Surge immunity test	±15 kV	BS	N
KS C 9610-6-1:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N
KS C 9610-4-4:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-4: test and method - Electrical fast transient/burst immunity test	±4 kV	BS-2	N
KS C 9610-4-6:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-6: test and method - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-6-2:2019	Electrical machinery for industries	Electromagnetic compatibility (EMC) - part 6-2: Generic standards - Immunity for industrial environments [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N
KS C 9610-4-5:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-5: test and method - Surge immunity test	±5 kV	BS-2	N
KS C 9610-4-8:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-8: test and method - Power frequency magnetic field immunity test	30 A/m	BS	N
KS C 9610-6-3:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
KS C 9610-4-6:2020	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-6: test and method - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-6-4:2022	Electrical machinery for industries	Electromagnetic compatibility (EMC) - part 6-4: Generic standards - Emission standard for industrial environments [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
KS C 9610-6-1:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N
KS C 9610-4-8:2017	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 4-8: test and method - Power frequency magnetic field immunity test	30 A/m	BS-2	N
KS C 9811:2019	Electrical machinery for industries	Industrial, scientific and medical (ISM) equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30m measuring distance, 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-6-2:2019	Electrical machinery for industries	Electromagnetic compatibility (EMC) - part 6-2: Generic standards - Immunity for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS	N
KS C 9610-6-3:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
KS C 9814-1:2022	Electrical machinery for households	Electromagnetic compatibility (EMC) - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
KS C 9814-2:2020	Electrical machinery for households	Electromagnetic compatibility (EMC) - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-6-4:2022	Electrical machinery for industries	Electromagnetic compatibility (EMC) - part 6-4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
KS C 9800-3:2017	Electrical machinery for industries	Adjustable speed electrical power drive systems - Part 3: EMC requirements and specific test methods	RE: 30 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: (0 ~ 100) %	BS	N
KS C 9832:2024	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
KS C 9811:2019	Electrical machinery for industries	Industrial, scientific and medical (ISM) equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9835:2019	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS-1	N
KS C 9991:2019	Measuring instruments	Limits and methods of measurement of meter equipment [Exception] 3 phase	RE: 30 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
KS C 9814-1:2022	Electrical machinery for households	Electromagnetic compatibility (EMC) - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
KS C 9992:2019	Wired/wireless communication devices	Limits and methods of measurement of meter equipment [Exception] 3 phase	RE: 30 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 1 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m	BS-1	N
KS C 9814-2:2020	Electrical machinery for households	Electromagnetic compatibility (EMC) - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9815:2019	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [Exception] 4.2 Insertion loss	RE: 9 kHz ~ 1 GHz CE: 9 kHz ~ 30 MHz	BS	N
KS C 9994:2021	Electrical machinery for households	Limits and methods of measurement of electric bicycle	RE: 30 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 20 MHz ~ 2 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 60 %, 100 %	BS-1	N
KS C 9832:2024	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
KS C 9835:2019	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60601-1-2:2012	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests [Exception] 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N
KS C 9610-6-1:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N
KS C IEC 60601-1-2:2020	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests [Exception] - 3 phase - Table 6. Electrical transient conduction along supply line - Table 4. Proximity magnetic fields	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-6-2:2019	Electrical machinery for industries	Electromagnetic compatibility (EMC) - part 6-2: Generic standards - Immunity for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-2	N
KS C 9991:2019	Measuring instruments	Limits and methods of measurement of meter equipment	RE: 30 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS	N
KS C 9992:2019	Wired/wireless communication devices	Limits and methods of measurement of meter equipment	RE: 30 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 1 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m	BS	N
KS C 9610-6-3:2023	Wired/wireless communication devices	Electromagnetic compatibility (EMC) - part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60601-1-2:2012	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N
KS C 9610-6-4:2022	Electrical machinery for industries	Electromagnetic compatibility (EMC) - part 6-4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
KS C 9811:2019	Electrical machinery for industries	Industrial, scientific and medical (ISM) equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
KS C IEC 60601-1-2:2020	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9814-1:2022	Electrical machinery for households	Electromagnetic compatibility (EMC) - Requirements for household appliances, Electric tools and similar apparatus - Part1: Emission	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
KS C 9814-2:2022	Electrical machinery for households	Electromagnetic compatibility (EMC) - Requirements for household appliances, Electric tools and similar apparatus - Part2: Immunity	ESD: ±30 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-2	N
KS C 9832:2024	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
KS C 9835:2019	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS-2	N
KS C 9992:2019	Wired/wireless communication devices	Limits and methods of measurement of meter equipment	RE: 30 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 1 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60571:2012	Wired/wireless communication devices	Railway applications- Electronic equipment used on rolling stock [Exception] - 12.2.4 Cold start test - 12.2.5 Dry heat test - 12.2.6 Damp heat test, cyclic - 12.2.7 Supply overvoltage - 12.2.10 insulation test - 12.2.11 Salt mist test - 12.2.12 Vibration, shock and bump test - 12.2.13 Watertightness test - 12.2.14 Equipment stress screening - 12.2.15 Low temperature storage test	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz	BS-2	N
KS C IEC 60601-1-2:2020	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests [Exception] - Table 6. Electrical transient conduction along supply line - Table 4. Proximity magnetic fields	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz ESD: ±15 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 62236-3-2:2018	Wired/wireless communication devices	Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz	BS-2	N
KS X 3124:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for radio paging equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS C IEC 62236-4:2018	Wired/wireless communication devices	Railway applications - Electromagnetic compatibility - Part 4: Emission and immunity of the signalling and telecommunications apparatus [Exception] - Table 2. Power - frequency magnetic field	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz	BS-2	N
KS X 3124:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for radio paging equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3125:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for Short-Range Devices (SRD)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS C IEC 62236-5:2018	Wired/wireless communication devices	Railway applications - Electromagnetic compatibility - Part 5: Emission and immunity of fixed power supply installations and apparatus [Exception] - Table 1. Power - frequency magnetic field - Table 3. Damped Oscillatory Voltage	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ± 8 kV RS: 80 MHz ~ 6 GHz EFT: ± 4 kV Surge: ± 4 kV CS: 150 kHz ~ 80 MHz	BS-2	N
KS X 3124:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for radio paging equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
KS X 3126:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3125:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for Short-Range Devices (SRD)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
KS X 3127:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Private land Mobile Radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3125:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for Short-Range Devices (SRD)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
KS X 3126:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3128:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Digital Enhanced Cordless Telecommunications equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3126:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for Broadband Data Transmission Systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
KS X 3129:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for mobile subsciption radio telephone equipment and radio equipment for personal cell phones	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3127:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Private land Mobile Radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3130:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for audio and audio signal transmission Short-Range Devices	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3128:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Digital Enhanced Cordless Telecommunications equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
KS X 3131:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Citizens' Band (CB) radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3129:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for mobile subsciption radio telephone equipment and radio equipment for personal cell phones	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3132:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for TRS equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3134:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Implantable wireless medical equiepment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3135:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for Mobile phone, personal cell phone, mobile communication base station, wireless repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3130:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for audio and audio signal transmission Short-Range Devices	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3136:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for amateur radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3127:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Private land Mobile Radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
KS X 3137:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for radio paging equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3131:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Citizens' Band (CB) radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3132:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for TRS equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
KS X 3138:2015	Wired/wireless communication devices	Electromagnetic compatibility standard for Ground and Wall Probing Radar applications	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3128:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Digital Enhanced Cordless Telecommunications equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
KS X 3134:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Implantable wireless medical equiepment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3139:2014	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3129:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for mobile subsciption radio telephone equipment and radio equipment for personal cell phones	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
KS X 3135:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for Mobile phone, personal cell phone, mobile communication base station, wireless repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3140:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Maritime navigation radio equipment and Marine electric and electronic equipment	RE: 150 kHz ~ 2 GHz CE: 10 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.0 GHz EFT: ±2 kV SURGE: ±1 kV CS: 150 kHz ~ 80 MHz V-DIP: ±10 %, ±20 %, 100 %	BS-1	N
KS X 3130:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for audio and audio signal transmission Short-Range Devices	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
KS X 3131:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Citizens' Band (CB) radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
KS X 3132:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for TRS equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3134:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Implantable wireless medical equiepment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
KS X 3136:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for amateur radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
KS X 3143:2020	Wired/wireless communication devices	Limits and methods of measurement of Home wireless power transmission equipment	RE: 9 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
KS X 3135:2020	Wired/wireless communication devices	Electromagnetic compatibility standard for Mobile phone, personal cell phone, mobile communication base station, wireless repeater and ancillary equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3137:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for radio paging equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
KS X 3136:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for amateur radio equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
QCVN 103:2016/BTTTT	Wired/wireless communication devices	Electromagnetic compatibility for Base Station, Repeater, ancillary equipment of digital cellular telecomunications systems GSM, W-CDMA FDD and LTE	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3138:2015	Wired/wireless communication devices	Electromagnetic compatibility standard for Ground and Wall Probing Radar applications	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
QCVN 112:2017/BTTTT	Wired/wireless communication devices	General electromagnetic compatibility for radio broadband data transmission equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
QCVN 118:2018/BTTTT	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
KS X 3139:2014	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
KS X 3137:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for radio paging equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
QCVN 18:2014/BTTTT	Wired/wireless communication devices	General electromagnetic compatibility for radio communications equipment [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
KS X 3140:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Maritime navigation radio equipment and Marine electric and electronic equipment	RE: 150 kHz ~ 2 GHz CE: 10 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.0 GHz EFT: ±2 kV SURGE: ±1 kV CS: 150 kHz ~ 80 MHz V-DIP: ±10 %, ±20 %, 100 %	BS	N
KS X 3138:2015	Wired/wireless communication devices	Electromagnetic compatibility standard for Ground and Wall Probing Radar applications	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
QCVN 86:2019/BTTTT	Wired/wireless communication devices	Electromagnetic compatibility for mobile terminals and ancillary equipment of digital cellular telecommunication systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3143:2020	Electrical machinery for households	Limits and methods of measurement of Home wireless power transmission equipment	RE: 9 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS	N
QCVN 96:2015 BTTTT	Wired/wireless communication devices	Electromagnetic compatibility for Short Range Devices (SRD) operating on frequencies between 9 kHz and 40 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-1	N
QCVN 103:2016/BTTTT	Wired/wireless communication devices	Electromagnetic compatibility for Base Station, Repeater, ancillary equipment of digital cellular telecomunications systems GSM, W-CDMA FDD and LTE	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
KS X 3139:2014	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS)	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
QCVN 112:2017/BTTTT	Wired/wireless communication devices	General electromagnetic compatibility for radio broadband data transmission equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
SANS 211:2010	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30m measuring distance 3 phase	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-1	N
QCVN 118:2018/BTTTT	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
QCVN 18:2014/BTTTT	Wired/wireless communication devices	General electromagnetic compatibility for radio communications equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
QCVN 86:2019/BTTTT	Wired/wireless communication devices	Electromagnetic compatibility for mobile terminals and ancillary equipment of digital cellular telecommunication systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
KS X 3140:2014	Wired/wireless communication devices	Electromagnetic compatibility standard for Maritime navigation radio equipment and Marine electric and electronic equipment	RE: 150 kHz ~ 2 GHz CE: 10 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.0 GHz EFT: ±2 kV SURGE: ±1 kV CS: 150 kHz ~ 80 MHz V-DIP: ±10 %, ±20 %, 100 %	BS-2	N
QCVN 96:2015 BTTTT	Wired/wireless communication devices	Electromagnetic compatibility for Short Range Devices (SRD) operating on frequencies between 9 kHz and 40 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS	N
SANS 213:2011	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 211:2010	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS	N
KS X 3143:2020	Electrical machinery for households	Limits and methods of measurement of Home wireless power transmission equipment	RE: 9 kHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
SANS 213:2011	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
SANS 214-1:2009	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission [Exception] 3 phase	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
QCVN 103:2016/BTTTT	Wired/wireless communication devices	Electromagnetic compatibility for Base Station, Repeater, ancillary equipment of digital cellular telecomunications systems GSM, W-CDMA FDD and LTE	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
SANS 214-1:2009	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS	N
SANS 214-2:2009	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity - Product family standard [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-1	N
SANS 214-2:2009	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity - Product family standard	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 222:2009	Wired/wireless communication devices	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
QCVN 112:2017/BTTTT	Wired/wireless communication devices	General electromagnetic compatibility for radio broadband data transmission equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
SANS 215:2009	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [Exception] 4.2 Insertion loss	RE: 9 kHz ~ 300 MHz CE: 9 kHz ~ 30 MHz	BS	N
SANS 2200:2010	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Immunity characteristics - Limits and methods of measurement	ESD: ±8 kV EFT: ±1 kV	BS	N
QCVN 118:2018/BTTTT	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
QCVN 18:2022/BTTTT	Wired/wireless communication devices	General electromagnetic compatibility for radio communications equipment	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
SANS 222:2009	Wired/wireless communication devices	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
SANS 224:2010	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS-1	N
QCVN 86:2019/BTTTT	Wired/wireless communication devices	Electromagnetic compatibility for mobile terminals and ancillary equipment of digital cellular telecommunication systems	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 224:2010	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS	N
SANS 2332:2017	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
QCVN 96:2015 BTTTT	Wired/wireless communication devices	Electromagnetic compatibility for Short Range Devices (SRD) operating on frequencies between 9 kHz and 40 GHz	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz V-DIP: 30 %, 100 %	BS-2	N
SANS 2332:2017	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
SANS 2335:2018	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 211:2010	Electrical machinery for industries	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement [Exception] 6.2 rated input power 20 kVA over, 30 m measuring distance	RE: 9 kHz ~ 18 GHz CE: 9 kHz ~ 30 MHz	BS-2	N
SANS 2335:2018	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS	N
SANS 60601-1-2:2014	Medical devices	Medical electrical equipment Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests [Exception] 3 phase	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.5 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, >95 %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 214-1:2009	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission	RE: 30 MHz ~ 1 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
SANS 61000-3-2:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	one-phase 240 V, ≤ 16 A	BS-1	N
SANS 60601-1-2:2014	Medical devices	Medical electrical equipment Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.5 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 60 %, >95 %	BS	N
SANS 214-2:2009	Electrical machinery for households	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity - Product family standard	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 230 MHz V-DIP: 30 %, 60 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-3-3:2009	Wired/wireless communication devices	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 ≤16 A per phase and not subject to conditional connection	one-phase 240 V, ≤ 16 A	BS-1	N
SANS 61000-3-2:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	three-phase 380 V, 16 A	BS	N
SANS 2332:2017	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
SANS 61000-4-11:2005	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0 ~ 100) %	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-3-3:2009	Wired/wireless communication devices	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 ≤16 A per phase and not subject to conditional connection	three-phase 380 V, 16 A	BS	N
SANS 61000-4-2:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test [Exception] 3 phase	±30 kV	BS-1	N
SANS 2335:2018	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 6 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-4-11:2005	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [Exception] 3 phase	V-DIP: (0 ~ 100) %	BS-2	N
SANS 61000-4-3:2008	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test [Exception] 3 phase	80 MHz ~ 6 GHz	BS-1	N
SANS 61000-4-11:2005	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	V-DIP: (0 ~ 100) %	BS	N
SANS 61000-4-2:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	±30 kV	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-4-4:2011	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test [Exception] 3 phase	±4 kV	BS-1	N
SANS 61000-4-2:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	±30 kV	BS	N
SANS 61000-4-3:2008	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS-2	N
SANS 61000-4-3:2008	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	80 MHz ~ 6 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-4-5:2006	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-5: Testing and measurement techniques - Surge immunity test [Exception] 3 phase	±5 kV	BS-1	N
SANS 61000-4-4:2011	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	±4 kV	BS-2	N
SANS 61000-4-4:2011	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	±4 kV	BS	N
SANS 61000-4-6:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields [Exception] 3 phase	150 kHz ~ 230 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-4-5:2006	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-5: Testing and measurement techniques - Surge immunity test	±15 kV	BS	N
SANS 61000-4-5:2006	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-5: Testing and measurement techniques - Surge immunity test	±5 kV	BS-2	N
SANS 61000-4-6:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS	N
SANS 61000-4-8:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	30 A/m	BS	N
SANS 61000-4-8:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test [Exception] 3 phase	30 A/m	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-4-6:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	150 kHz ~ 230 MHz	BS-2	N
SANS 61000-6-1:2005	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N
SANS 61000-6-1:2005	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N
SANS 61000-4-8:2009	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	30 A/m	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-6-2:2005	Electrical machinery for industries	Electromagnetic compatibility (EMC) Part 6-2: Generic standards - Immunity for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS	N
SANS 61000-6-3:2011	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
SANS 61000-6-2:2005	Electrical machinery for industries	Electromagnetic compatibility (EMC) Part 6-2: Generic standards - Immunity for industrial environments [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N
SANS 61000-6-4:2011	Electrical machinery for industries	Electromagnetic compatibility (EMC) Part 6-4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-6-3:2011	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
SANS 61326-1:2007	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements Part 1: General requirements	RE: 9 KHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS	N
SANS 61000-6-4:2011	Electrical machinery for industries	Electromagnetic compatibility (EMC) Part 6-4: Generic standards - Emission standard for industrial environments [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
SANS 61000-6-1:2005	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61547:2012	Lighting devices	Equipment for general lighting purposes - EMC immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS	N
SANS 61326-1:2007	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements Part 1: General requirements [Exception] 3 phase	RE: 9 KHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-1	N
SANS 61000-6-2:2005	Electrical machinery for industries	Electromagnetic compatibility (EMC) Part 6-2: Generic standards - Immunity for industrial environments	ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-2	N
TCVN 7189:2009	Wired/wireless communication devices	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
TCVN 7317:2003	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS	N
SANS 61547:2012	Lighting devices	Equipment for general lighting purposes - EMC immunity requirements [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-1	N
TCVN 7600:2010	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS	N
SANS 61000-6-3:2011	Wired/wireless communication devices	Electromagnetic compatibility (EMC) Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
TCVN 7189:2009	Wired/wireless communication devices	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
TCVN 7317:2003	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement [Exception] 3 phase	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±4 kV CS: 150 kHz ~ 80 MHz M/F: 1 A/m V-DIP: 70 %, 100 %	BS-1	N
SANS 61000-6-4:2011	Electrical machinery for industries	Electromagnetic compatibility (EMC) Part 6-4: Generic standards - Emission standard for industrial environments	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N
TCVN 7600:2010	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	RE: 30 MHz ~ 18 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
VCCI-CISPR 32:2016	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS	N
SANS 61326-1:2007	Measuring instruments	Electrical equipment for measurement, control and laboratory use - EMC requirements Part 1: General requirements	RE: 9 KHz ~ 18 GHz CE: 150 kHz ~ 30 MHz ESD: ±8 kV RS: 80 MHz ~ 2.7 GHz EFT: ±2 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 30 A/m V-DIP: 30 %, 60 %, 100 %	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
VCCI-CISPR 32:2016	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements [Exception] 3 phase	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-1	N
SANS 61547:2012	Lighting devices	Equipment for general lighting purposes - EMC immunity requirements	ESD: ±8 kV RS: 80 MHz ~ 1.0 GHz EFT: ±1 kV SURGE: ±2 kV CS: 150 kHz ~ 80 MHz M/F: 3 A/m V-DIP: 30 %, 100 %	BS-2	N
VCCI-CISPR 32:2016	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission requirements	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz	BS-2	N

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03. Electrical Testing

03.013 Energy Efficiency

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS 4474.1:2007/A2:2011	Electrical machinery for households	Performance of household electrical appliances - Refrigerating appliances - Energy consumption and performance Part 1:Energy consumption and performance	AC input power 10 kW or less	BS	N
AS/NZS 4665.1:2005	Electrical machinery for households	Performance of external power supplies Part 1: Test method and energy performance mark	AC and DC input power 600 W or less	BS	N
AS/NZS 62087.1:2010	Electrical machinery for households	Power consumption of audio, video and related equipment - Methods of measurement	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
AS/NZS 62087.2.2:2011	Electrical machinery for households	Power consumption of audio, video and related equipment - Part 2.2: Minimum energy performance standards (MEPS) and energy rating label requirements for television sets	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
AS/NZS IEC 62301:2014	Electrical machinery for households	Household electrical appliances - Measurement of standby power	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
Code of Conduct on Energy Efficiency of External Power Supplies Version 5:2013	Electrical machinery for households	External Power Supplies Code of Conduct - Version 5, 29 October2013	AC and DC input/output power Output 0.3 W to 250 W	BS	N
DOE:EERE-2008-BT-STD-0005:2012	Electrical machinery for households	Energy Conservation Program: Energy Conservation Standards for External Power Supplies; Final Rule	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
EN 50563:2011 /A1:2013	Electrical machinery for households	External a.c.- d.c. and a.c.-a.c. power supplies - Determination of no-load power and average efficiency of active modes [Exception] 3 phase product	AC and DC input/output power 0.3 W ~ 2 400 W	BS	N
EN 50564:2011	Electrical machinery for households	Electrical and electronic house hold and office equipment- Measurement of low power consumption [Exception] 3 phase product	AC and DC input/output power 0.3 W ~ 2 400 W	BS	N
EN 62018:2003	Electrical machinery for households	Power consumption of information technology equipment - Measurement methods	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
EN 62087:2012	Electrical machinery for households	Methods of measurement for the power consumption of audio, video and related equipment	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62087-1:2016	Electrical machinery for households	Audio, video, and related equipment - Determination of power consumption - Part 1: General	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
EN 62087-3:2016	Electrical machinery for households	Audio, video, and related equipment - Determination of power consumption - Part 3: Television sets	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
EN 62623:2013	Electrical machinery for households	Desktop and notebook computers - Measurement of energy consumption	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
ENERGY STAR Program Requirements for Computers	Electrical machinery for households	ENERGY STAR® Program Requirements Product Specification for Computers Eligibility CriteriaVersion 9.0	AC and DC input power 0.3 W ~ 2 400 W	BS	N
ENERGY STAR® Program Requirements for Displays	Electrical machinery for households	ENERGY STAR® Program Requirements Product Specification for Displays Eligibility Criteria Version 8.0 (Rev. February-2020)	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
ENERGY STAR® Program Requirements for Imaging Equipment	Electrical machinery for households	ENERGY STAR® Product Specification for Imaging Equipment Eligibility Criteria Version 3.1	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
ENERGY STAR® Program Requirements for Residential Refrigerators and Freezers	Electrical machinery for households	ENERGY STAR® Program Requirements Product Specification for Residential Refrigerators and Freezers Eligibility Criteria Version 5.0	AC input power 10 kW or less	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ENERGY STAR® Program Requirements for Televisions	Electrical machinery for households	ENERGY STAR® Program Requirements for Televisions Eligibility Criteria Version 8.0	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
Greenhouse and Energy Minimum Standards (Television) Determination 2013 (No.2) 1	Electrical machinery for households	Greenhouse and Energy Minimum Standards (Television) Determination 2013 (No.2).	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
IEC 62018:2003	Electrical machinery for households	Power consumption of information technology equipment - Measurement methods	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
IEC 62087-1:2015	Electrical machinery for households	Audio, video, and related equipment - Determination of power consumption - Part 1: General	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
IEC 62087-3:2015	Electrical machinery for households	Audio, video, and related equipment - Determination of power consumption - Part 3: Television sets	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
IEC 62087-BD:2011	Electrical machinery for households	Methods of measurement for the power consumption of audio, video and related equipment	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
IEC 62301:2011	Electrical machinery for households	Household electrical appliances - Measurement of standby power	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62552-1:2015	Electrical machinery for households	Household Refrigerating Appliances - Characteristics And Test Methods Part 1 : General Requirements	AC input power 10 kW or less	BS	N
IEC 62552-1:2015 /AMD1:2020	Electrical machinery for households	Amendment 1 - Household refrigerating appliances - Characteristics and test methods - Part 1: General requirements	AC input power 10 kW or less	BS	N
IEC 62552-2:2015	Electrical machinery for households	Household Refrigerating Appliances - Characteristics And Test Methods Part 2 : Performance requirements	AC input power 10 kW or less	BS	N
IEC 62552-2:2015/AMD1:2020	Electrical machinery for households	Amendment 1 - Household refrigerating appliances - Characteristics and test methods - Part 2: Performance requirements	AC input power 10 kW or less	BS	N
IEC 62552-3:2015	Electrical machinery for households	Household Refrigerating Appliances - Characteristics And Test Methods Part 3 : Energy consumption and volume	AC input power 10 kW or less	BS	N
IEC 62552-3:2015/AMD1:2020	Electrical machinery for households	Amendment 1 - Household refrigerating appliances - Characteristics and test methods - Part 3: Energy consumption and volume	AC input power 10 kW or less	BS	N
IEC 62623:2012	Electrical machinery for households	Desktop and notebook computers - Measurement of energy consumption	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62623-2022 Ed 2.0	Electrical machinery for households	Desktop and notebook computers - Measurement of energy consumption	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
KS C IEC 62018:2003	Electrical machinery for households	Power consumption of information technology equipment—Measurement methods	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
KS C IEC 62087:2002	Electrical machinery for households	Methods of measurement for the power consumption of audio, video and related equipment	AC and DC input power (0 ~ 2 200) W	BS	N
KS C IEC 62301:2011	Electrical machinery for households	Household electrical appliances - Measurement of standby power	AC and DC input power 100 W or less	BS	N
KS C IEC 62552:2014	Electrical machinery for households	Household Refrigerating Appliances - Characteristics And Test Methods	AC input power 10 kW or less	BS	N
MS IEC 62301:2012	Electrical machinery for households	Household electrical appliance-Measurement of standby power	AC and DC input power 500 W or less	BS	N
NRCan:Amendment 14:2018	Electrical machinery for households	Energy Efficiency Regulations for External Power Supplies, published on October 31, 2018 in the Canada Gazette, Part II	AC and DC output power 250 W or less	BS	N
SANS 62087:2010 (Ed. 1.00)	Electrical machinery for households	Methods of measurement for the power consumption of audio, video and related equipment	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 62087-1:2017 (Ed. 1.00)	Electrical machinery for households	Audio, video, and related equipment - Determination of power consumption - Part 1: General	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
SANS 62087-3:2017 (Ed. 1.00)	Electrical machinery for households	Audio, video, and related equipment - Determination of power consumption - Part 3: Television sets	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
SANS 62301:2012 (Ed. 2.00)	Electrical machinery for households	Household electrical appliances - Measurement of standby power	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N
TCVN 9508:2012 (IEC 62301:2011)	Electrical machinery for households	Requirements on Energy Efficiency of Computer Monitor	Input Voltage: 500 V or less Input Frequency: (50/60) Hz	BS	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
MOTIE Notice No. 2022-33(15.02.2022.)	Electrical machinery for households	Standby power reduction program management regulation 1- 3. Printer 1- 4. Fax Machines 1- 5. Copiers 1- 6. Scanners 1- 7. Multifunctional Devices 1- 8. Energy-saving & Controlling Devices 1- 10. Home Audio Products 1- 11. DVD player 1- 12. Radio Cassette Players 1- 13. Microwave Ovens 1- 15. Doorphones 1- 16. Cordless/ Corded Phones 1- 17. Bidets 1- 20. Hand Dryers 1- 21. Servers 1- 22. Digital converters 1- 23. Wireless/ Wired Routers	 3 000 W or less 3 000 W or less 5 000 W or less 1 000 W or less 5 000 W or less - 1 000 W or less 150 W or less 1 000 W or less 4 000 W or less 100 W or less 150 W or less 2 000 W or less 3 000 W or less - 100 W or less -	BS	N
MOTIE Notice No. 2025-145(08.13.2025.)	Electrical machinery for households	Regulation for Efficient Management Products 1. Electric refrigerator 3. Kimchi refrigerator 9. Electric cold and hot water dispensers a) Storage tank-type 10. Rice cooker 12. Electric fan 20. Adapter . charger 22. Commercial refrigerator	Adjusted volume : 1 000 L or less Adjusted volume : 1 000 L or less rated power consumption 1 000 W or less 20 person or less wing diameter 20 cm ~ 41 cm Adapter nameplate	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		26. Television set 28. Electric heater 30. Dehumidifier 36. Electric range 37. set-top box 38. Converter internal-type LED lamp 39. Converter external-type LED lamp 42. signage displays 44. Monitors 47. Straight LED lampconverter external 49. Computers	output power 150 W or less charger of input power 20 W or less Commercial (business) refrigerator and refrigerator-freezer : Adjusted volume 300 L ~ 2 000 L display cabinets : Adjusted volume 300L ~ 1 500L diagonal screen length between not less than (47 ~ 216) cm rated power consumption 500 W ~ 10 kW rated power consumption 1 000 W or less rated power consumption 1 kW ~ 10 kW rated power consumption 150 W or less 150 W or less 300 W or less diagonal screen length between not less than (30.48 ~ 154.94) cm diagonal screen length between not less than (153 cm less) tube LED lamp (converter exterior)		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
			with a lamp power of not more than 22 W and using the G13 cap specified in KC 60061-1 and the D12 cap specified in KC 20001 and a converter for supplying LED modules Desktop Computer, Integrated Desktop Computer, Notebook Computer		
MOTIE Notice No. 2025-148(08.14.2025.)	Electrical machinery for households	Ministry of trade, Industry and energy notice No.2020-10 1- 9. LED Guide lights 1-14. LED module for test signs 1- 18. Luminaires 1- 19. LED Lamps 1- 20. Smart LED Lamps	AC 220 V, 60 Hz DC 50 V or less 2 000 W	BS	N

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03. Electrical Testing

03.014 Environmental and Reliability

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60529:1991+ A1:1992+A2:2013	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Degrees of protection provided by enclosures(IP code)	IP00 ~ IP68	SF-1	N
IEC 60068-2-1:2025	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-1: Tests - Test A: Cold [Exception] 5.3 Test Ad 5.4 Test Ae	Temperature:(-50 ~ 5) °C	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-1:2025	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-1: Tests - Test A: Cold [Exception] 5.3 Test Ad 5.4 Test Ae	Temperature : (-55 ~ 5) °C	SF-1	N
EN 60529:1991 + A1:1992+A2:2013	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Degrees of protection provided by enclosures(IP code)	IP00 ~ IP66	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
BS EN 60945:2002	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Maritime navigation and radiocommunication equipment and systems. General requirement - Methods of testing and required test results [Applicable item] 7.1 Extreme power supply 8.1 General 8.2 Dry heat 8.3 Damp heat 8.4 Low temperature 8.5 Thermal shock 8.6.1 Drop on hard 8.7 Vibration 8.12 Corrosion	8.2 Temperature: 55 °C 8.3 Temperature: 40 °C Humidity: 93 % R.H. 8.4 Temperature: -30 °C 8.6.1 (0 ~ 1 000) mm 8.7 Frequency (2 ~ 13.2) Hz Acceleration: 7 m/s² 8.8 IPX7 8.12 Temperature : (23 ~ 60) °C Humidity: (30 ~ 95) % R.H. spray : (1.0 ~ 2.0) mL/h, NaCl: 5 % Ph : (6.5 ~ 7.2)	BS-2	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
BS EN 60945:2002	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Maritime navigation and radiocommunication equipment and systems. General requirement - Methods of testing and required test results [Applicable item] 8.7 Vibration	Displacement: ±1 mm Frequency: (2 ~ 13.2) Hz Acceleration: 7 m/s^2	SF-2	N
IEC 60068-2-75: 2014/AMD1:2025	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-75: Tests - Test Eh: Hammer tests	Energy : (0.14 ~ 50) J	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-78: 2025	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing-Part 2-78 : Tests-Test Cab : Damp heat, steady state	Humidity : (85 ~ 93) % R.H.	BS-2	N
IEC 60068-2-11:2021	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-11: Tests - Test Ka: Salt mist	Temperature: 35 °C spray: (1.0 ~ 2.0) mL/h NaCl: 5 % pH: (6.5 ~ 7.2) Humidity : 85 % R.H.	SF-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-2:2007	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-2: Tests - Test B: Dry heat [Exception] 5.3 Test Bd 5.4 Test Be	Temperature: (30 ~100) °C	SF-2	N
KS C IEC 60068-2-2:2007	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-2: Tests - Test B: Dry heat [Exception] 5.3 Test Bd 5.4 Test Be	Temperature: (30 ~100) °C	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-1:2025	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-1: Tests - Test A: Cold [Exception] 5.3 Test Ad 5.4 Test Ae	Temperature: (-65 ~ 5) °C	BS-2	N
IEC 60068-2-11:2021	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-11: Tests - Test Ka: Salt mist	Temperature: 35 °C spray: (1.0 ~ 2.0) mL/h NaCl: 5 % pH: (6.5 ~ 7.2) Humidity : 85 % R.H.	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-2:2025	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-2: Tests - Test B: Dry heat [Exception] 5.3 Test Bd 5.4 Test Be	Temperature : (30 ~ 100) °C	SF-1	N
IEC 60068-2-14:2023	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-14: Tests - Test N: Change of temperature [Exception] 9 Test Nc : Rapid change of temperature, two-fluid-bath method	low temperature : (-60 ~ -5) °C, high temperature : (30 ~ 150) °C	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-2:2025	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-2: Tests - Test B: Dry heat [Exception] 5.3 Test Bd 5.4 Test Be	Temperature : (30 ~ 100) °C	BS-2	N
IEC 60068-2-52:2017	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-52: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution)	Temperature: (23 ~ 40) °C Humidity: (45 ~95) % R.H. spray: (1.0 ~ 2.0) mL/h NaCl: 5 % pH: (6.5 ~ 7.2)	SF-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-2:2025	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-2: Tests - Test B: Dry heat [Exception] 5.3 Test Bd 5.4 Test Be	Temperature: (30 ~100) °C	SF-2	N
IEC 60068-2-27: 2008	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	Acceleration: (50 ~ 500) m/s² Shock duration: (2.0 ~ 30.0) ms	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-27: 2008	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	Acceleration: (50 ~ 1 500) m/s² Shock duration: (2.0 ~ 30.0) ms	BS-2	N
IEC 60068-2-30: 2025	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	Temperature : (23 ~ 55) °C Humidity : (45 ~ 95) % R.H.	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-31:2008	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-31: Tests - Test Ec: Rough handling shocks, primarily for equipment-type specimens	heights : (25 ~ 1 500) mm mass : (1 ~ 50) kg	BS-2	N
IEC 60068-2-38:2021	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test	Temperature : (23 ~ 65) °C Humidity : (45 ~ 95) % R.H.	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-14:2023	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-14: Tests - Test N: Change of temperature [Exception] 9 Sudden change of test Nc temperature	low temperature: (-60 ~ -5) °C high temperature: (30 ~ 150) °C	BS-2	N
KS C IEC 60068-2-11:2021	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Basic environmental testing procedures - Part 2-11: Tests - Test Ka: Salt mist	Temperature: 35 °C spray: (1.0 ~ 2.0) mL/h NaCl: 5 % pH: (6.5 ~ 7.2) Humidity : 85 % R.H.	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60529:1989 + A1:1999+A2:2013	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Degrees of protection provided by enclosures(IP code)	IP00 ~ IP68	SF-1	N
ISO 20653:2023	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Road vehicles – Degrees of protection (IP Code) – Protection of electrical equipment against foreign objects, water and access [Excption] IP1X to IP6KX IPX4K, IPX9K	IPX1 to IPX8	SF-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 16750-4:2023	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Road vehicles - Environmental conditions and testing for electrical and electronic equipment - Part 4: Climatic loads 5.1 Tests at constant temperature 5.2 Temperature step test 5.3 Temperature cycling tests 5.5 Salt spray tests 5.6 Humid heat, cyclic tests 5.7 Damp heat, steady state test 5.11 Dust test [Exception] 5.4 Cold water shock tests 5.8 Condensation test 5.9 Corrosion test with flow of mixed gas 5.10 Solar radiation test 5.12 Atmospheric pressure test	Temperature: (-50 150) °C Humidity: (10 98) % R.H. Salt spray temperature: 35 °C NaCl: (5 ± 1) % pH: (6.5 ~ 7.2) pH	BS-2	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 16750-3:2023	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Road vehicles - Environmental conditions and testing for electrical and electronic equipment - Part 3: Mechanical loads 4.1 Vibration 4.2 Mechanical shock [Exception] 4.3 Free fall 4.4 Surface strength/scratch and abrasion resistance 4.5 Gravel bombardment	Temperature: (-50 150) °C Frequency: (5 2 000) Hz Acceleration: (0.98 ~ 500) m/s² Duration: (1 ~ 30) ms	SF-2	N
ISO 16750-3:2023	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Road vehicles - Environmental conditions and testing for electrical and electronic equipment - Part 3: Mechanical loads 4.1 Vibration 4.2 Mechanical shock 4.3 Free fall [Exception] 4.4 Surface strength/scratch and abrasion resistance 4.5 Gravel bombardment	Temperature: (-50 150) °C Frequency: (5 2 000) Hz Acceleration: (0.98 ~ 500) m/s² Duration: (1 ~ 30) ms Free fall : 1 m Concrete Plate, Steel Plate, Wood Plate	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 16750-2:2023	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Road vehicles - Environmental conditions and testing for electrical and electronic equipment - Part 2: Electrical loads	12 V and 24 V system	BS-2	N
ISO 10055:1996	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Mechanical vibration-Vibration testing requirements for shipboard equipment and machinery components	Frequency (2 ~ 100) Hz Displacement (1 ~ 2.5) mm Acceleration (7 ~ 40) m/s^2	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 10055:1996	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Mechanical vibration-Vibration testing requirements for shipboard equipment and machinery components	Frequency: (2 ~ 100) Hz Displacement: (1 ~ 2.5) mm Acceleration: (7 ~ 40) m/s^2	SF-2	N
IEC 62262:2002+ AMD1:2021	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts(IK code)	Energy level: (0.14 ~ 50) J	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61373:2010	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Railway applications - Rolling stock equipment - Shock and vibration tests	Vibration Frequency: (5 ~ 200) Hz Acceleration: (0.37 ~ 144) m/s² Shock Acceleration: (30 ~ 300) m/s² Shock duration: (18 ~ 30) ms	SF-2	N
IEC 61373:2010	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Railway applications - Rolling stock equipment - Shock and vibration tests	Vibration 1) Frequency: (5 ~ 200) Hz 2) Acceleration: (0.37 ~ 144) m/s² Shock 1) Acceleration: (30 ~ 1 000) m/s² 2) Shock duration: (6 ~ 30) ms	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60945:2002	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Maritime navigation and radio communication equipment and systems - General requirements - Methods of testing and required test results [Applicable item] 8.2 Dry heat 8.3 Damp heat 8.4 Low temperature 8.6.1 Drop on hard surface 8.7 Vibration 8.8 Rain and Sprat(exposed equipment) 8.12 Corrosion(Salt spray)(All kinds of equipment)	8.2 Temperature: 55 °C 8.3 Temperature: 40 °C Humidity: 93 % R.H. 8.4 Temperature: -30 °C 8.6.1 (0 ~ 1 000) mm 8.7 Frequency: (2 ~ 13.2) Hz Acceleration: 7 m/s² 8.8 IPX7 8.12 Temperature : (23 ~ 60) °C Humidity: (30 ~ 95) % R.H. spray : (1.0 ~ 2.0) mL/h NaCl: 5 % pH : (6.5 ~ 7.2)	BS-2	N
IEC 60945:2002	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Maritime navigation and radio communication equipment and systems - General requirements - Methods of testing and required test results [Applicable item] 8.7 Vibration	Displacement: ±1 mm Frequency: (2 ~ 13.2) Hz Acceleration: 7 m/s²	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60529:1989 + A1:1999+A2:2013	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Degrees of protection provided by enclosures(IP code)	IP00 ~ IP66	SF-2	N
KC 60529:2015	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Degrees of protection provided by enclosures(IP code)	IP00 ~ IP68	SF-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 20653:2023	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Road vehicles – Degrees of protection (IP Code) – Protection of electrical equipment against foreign objects, water and access [Exception] IPX1 to IPX9K	IP1X to IP6KX	BS-2	N
KC 60529: 2015	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Degrees of protection provided by enclosure(IP Code)	IP00 ~ IP66	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-1:2007	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-1: Tests - Test A: Cold [Exception] 5.3 Test Ad 5.4 Test Ae	Temperature: (-55 ~ 5) °C	SF-1	N
KS B ISO 10055:1996	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Mechanical vibration - Vibration testing requirements for shipboard equipment and machinery components	Frequency: (2 ~ 100) Hz Displacement: (1 ~ 2.5) mm Acceleration: (7 ~ 40) m/s^2	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS B ISO 10055:1996	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Mechanical vibration - Vibration testing requirements for shipboard equipment and machinery components	Frequency: (2 ~ 100) Hz Displacement: (1 ~ 2.5) mm Acceleration: (7 ~ 40) m/s^2	BS-2	N
KS C IEC 60068-2-1:2007	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-1: Tests - Test A: Cold [Exception] 5.3 Test Ad 5.4 Test Ae	Temperature: (-50 ~ 5) °C	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-1:2007	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-1: Tests - Test A: Cold [Exception] 5.3 Test Ad 5.4 Test Ae	Temperature: (-65 ~ 5) °C	BS-2	N
KS C IEC 60068-2-11:2021	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Basic environmental testing procedures - Part 2-11: Tests - Test Ka: Salt mist	Temperature: 35 °C spray: (1.0 ~ 2.0) mL/h NaCl: 5 % pH: (6.5 ~ 7.2) Humidity : 85 % R.H.	SF-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-52:2017	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-52: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution)	Temperature: (23 ~ 40) °C Humidity: (45 ~95) % R.H. spray: (1.0 ~ 2.0) mL/h NaCl 5 % pH: (6.5 ~ 7.2)	BS-2	N
KS C IEC 60068-2-6:2015	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	Frequency: (5 ~ 2 000) Hz Acceleration: (20 ~ 200) m/s^2 Amplitude: (0.15 ~ 1.5) mm	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-57:2013	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-57: Tests - Test Ff: Vibration - Time-history and sine-beat method	Frequency: (5 ~ 2 000) Hz Acceleration: (0.98 ~ 200) m/s^2	BS-2	N
KS C IEC 60068-2-57:2013	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-57: Tests - Test Ff: Vibration - Time-history and sine-beat method	Frequency: (5 ~ 2 000) Hz Acceleration: (0.98 ~ 200) m/s^2	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-52:2017	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-52: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution)	Temperature: (23 ~ 40) °C Humidity: (45 ~ 95) % R.H. spray: (1.0 ~ 2.0) mL/h NaCl: 5 % pH: (6.5 ~ 7.2)	BS-2	N
KS C IEC 60068-2-2:2007	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-2: Tests - Test B: Dry heat [Exception] 5.3 Test Bd 5.4 Test Be	Temperature: (30 ~ 100) °C	SF-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-38:2021	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test	Temperature: (-10 ~ 65) °C Humidity: (45 ~ 95) % R.H.	BS-2	N
KS C IEC 60068-2-31:2008	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-31: Tests - Test Ec: Rough handling shocks, primarily for equipment-type specimens	heights: (25 ~ 1 500) mm mass: (1 ~ 50) kg	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-6:2015	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	Frequency: (5 ~ 2 000) Hz Acceleration: (20 ~ 200) m/s² Amplitude: (0.15 ~ 1.5) mm	BS-2	N
KS C IEC 60068-2-61:1991	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing — Part 2-61: Test methods — Test Z/ABDM: Climatic sequence [Exception] 8.2.4 Low air pressur	Temperature: (-55 ~ 100) °C Humidity: (45 ~ 95) % R.H.	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-64:2019	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance	Frequency: (5 ~ 2 000) Hz ASD range (Sample weight: under 500 kg): (0.001 3 ~ 55.5) $(m/s^2)^2/Hz$	BS-2	N
KS C IEC 60068-2-64:2019	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance	Frequency: (5 ~ 2 000) Hz ASD range (Sample weight: under 500 kg) (0.001 3 ~ 55.5) $(m/s^2)^2/Hz$	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-66:1994	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing — Part 2-66: Tests methods — Test Cx: Damp heat, steady state(unsaturated pressurized vapour)	Temperature: (110 ~ 130) °C Humidity: 85 % R.H.	BS-2	N
KS C IEC 60068-2-67:2019	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-67: Tests - Test Cy: Damp heat, steady state, accelerated test primarily intended for components	Temperature: 85 °C Humidity: 85 % R.H.	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-75:2014	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-75: Tests - Test Eh: Hammer tests	Energy : (0.14 ~ 50) J	BS-2	N
KS C IEC 60068-2-78:2012	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state	Temperature: (30 ~ 40) °C Humidity: (85 ~ 93) % R.H.	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
RTCA/DO-160G:2010	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environment Condition and Test Procedure for Airbone Equipment [Applicable item] Section 4: Temperature and Altitude Section 7: Operational Shocks and Crash Safety Section 8: Vibration [Exception] 4.6 Altitude, Decompression and Overpressure Tests	Section 4: Temperature: (-50 ~ 150) °C Section 7: Acceleration: (98 ~ 1 500) m/s² Duration: (1 ~ 30) ms Section 8: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s²	SF-2	N
KS C IEC 60068-2-52:2017	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-52: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution)	Temperature: (23 ~ 40) °C Humidity: (45 ~95) % R.H. spray: (1.0 ~ 2.0) mL/h NaCl: 5 % pH: (6.5 ~ 7.2)	SF-1	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS R 9186:2021	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Parts for railway signal - Vibration test methods	Frequency: (10 ~ 1 000) Hz Acceleration: (4.90 ~ 147) m/s²	SF-2	N
KS R 9144:2021	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Test methods for vibration of parts of railway rolling stock	Frequency: (1 ~ 70) Hz Acceleration: (4.90 ~ 490) m/s²	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS R 9144:2021	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Test methods for vibration of parts of railway rolling stock	Frequency: (1 ~ 70) Hz Acceleration: (4.90 ~ 490) m/s^2	BS-2	N
KS C IEC 62262:2002	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)	Energy level: (0.14 ~ 50) J	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 61373:2010	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Railway applications - Rolling stock equipment - Shock and vibration tests	Vibration Frequency: (5 ~ 200) Hz Acceleration: (0.37 ~ 144) m/s² Shock Acceleration: (30 ~ 300) m/s² Shock duration: (18 ~ 30) ms	SF-2	N
KS C IEC 61373:2010	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Railway applications - Rolling stock equipment - Shock and vibration tests	Vibration 1) Frequency: (5 ~ 200) Hz 2) Acceleration: (0.37 ~ 144) m/s² Shock 1) Acceleration: (30 ~ 1000) m/s² 2) Shock duration: (6 ~ 30) ms	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-27:2008	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	Acceleration: (50 ~ 1 500) m/s² Shock duration: (2.0 ~ 30.0) ms	SF-2	N
KS C IEC 60068-2-27:2008	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	Acceleration: (50 ~ 1 500) m/s² Shock duration: (2.0 ~ 30.0) ms	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-67:1995	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-67: Tests - Test Cy: Damp heat, steady state, accelerated test primarily intended for components	Temperature: 85 °C Humidity: 85 % R.H.	BS-2	N
IEC 60068-2-66:1994	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2- Test methods - Test Cx: Damp heat, steady state (unsaturated pressurized vapour)	Temperature: (110 ~ 130) °C Humidity: 85 % R.H.	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-64: 2008	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance	Frequency: (5 ~ 2 000) Hz ASD range (Sample weight: under 500 kg): (0.001 3 ~ 55.5) $(m/s^2)^2/Hz$	BS-2	N
IEC 60068-2-64: 2008	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance	Frequency: (5 ~ 2 000) Hz ASD range (Sample weight: under 500 kg): (0.001 3 ~ 55.5) $(m/s^2)^2/Hz$	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-6:2007	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	Frequency: (5 ~ 2 000) Hz Acceleration: (20 ~ 200) m/s² Amplitude: (0.15 ~ 1.5) mm	SF-2	N
IEC 60068-2-6:2007	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	Frequency: (5 ~ 2 000) Hz Acceleration: (20 ~ 200) m/s² Amplitude: (0.15 ~ 1.5) mm	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-57:2013	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-57: Tests - Test Ff: Vibration - Time-history and sine-beat method	Frequency: (5 ~ 2 000) Hz Acceleration: (0.98 ~ 200) m/s^2	SF-2	N
IEC 60068-2-57:2013	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-57: Tests - Test Ff: Vibration - Time-history and sine-beat method	Frequency: (5 ~ 2 000) Hz Acceleration: (0.98 ~ 200) m/s^2	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS R 9186:2021	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Parts for railway signal - Vibration test methods	Frequency: (10 ~ 1 000) Hz Acceleration: (4.90 ~ 147) m/s²	BS-2	N
KS R 9191:1996	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	HIGH AND LOW TEMPERATURE TESTING METHODS FOR PARTS OF RAILWAY SIGNALING	Temperature: (-30 ~ 60) °C	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X IEC 60945:2002	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Maritime navigation and radio communication equipment and systems - General requirements - Methods of testing and required test results [Applicable item] 8.7 Vibration 8.8 Rain and Sprat(exposed equipment)	Displacement: ±1 mm Frequency: (2 ~ 13.2) Hz Acceleration: 7 m/s^2	SF-2	N
KS C IEC 60529:2013	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Degrees of protection provided by enclosures(IP code) [Exception] 14.2.9 Test for second characteristic numeral 9 with a spray nozzle	IP00 ~ IP66	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60529:2013	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Degrees of protection provided by enclosures (IP Code) [Exception] 14.2.9 Test for second characteristic numeral 9 with a spray nozzle	IP00 ~ IP68	SF-1	N

Uncontrolled

Test method	Materials Products	Standard designation	Test range	Site	Field testing
RTCA/DO-160G:2010	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environment Condition and Test Procedure for Airbone Equipment [Applicable item] Section 7: Operational Shocks and Crash Safety Section 8: Vibration Section 14: Salt Spray	Section 4 : Temperature: (-60 ~ 180) °C Humidity: (20 ~ 95) % R.H. Section 7 : Acceleration: (98 ~ 1 500) m/s² Duration (1 ~ 30) ms Section 8 : Frequency (4 ~ 2 000) Hz Acceleration (1 ~ 980) m/s² Section 14: Salt Spray Temperature: (25 ~ 50) °C Salt Spray Humidity: (20 ~ 95) % R.H. NaCl: (5 ± 1) % Ph: (6.5 ~ 7.2)	BS-2	N

Uncon

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810H:2019	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD: ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS [Applicable item] 501.7 High temperature 502.7 Low temperature 514.8 Vibration 516.8 Shock	501.7: Max. 150 °C 502.7: Min. -50 °C 514.8: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s^2 516.8: Acceleration: (98 ~ 500) m/s^2 Duration: (1 ~ 30) ms	SF-2	N

Uncontrolled

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810H:2019	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD: ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS [Applicable item] 501.7 High temperature 502.7 Low temperature 503.7 Temperature shock 507.6 Humidity 509.7 Salt Fog 514.8 Vibration 516.8 Shock	501.7: Max. 180 °C 502.7: Min. -60 °C 503.7: Temperature (-60 ~ 180) °C 507.6: (20 ~ 95) % R.H. 509.7: Salt Fog Temperature: (25 ~ 50) °C Salt Fog Humidity: (20 ~ 95) % R.H. NaCl: (5 ±1) % Ph: (6.5 ~ 7.2) 514.8: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s^2 516.8: Acceleration: (98 ~ 980) m/s^2 Duration: (1 ~ 30) ms	BS-2	N

Uncon

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810G:2014	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD: ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS [Applicable item] 501.6 High temperature 502.6 Low temperature 514.7 Vibration 516.7 Shock	501.6: Max. 150 °C 502.6: Min. -50 °C 514.7: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s^2 516.7: Acceleration: (98 ~ 500) m/s^2 Duration: (1 ~ 30) ms	SF-2	N

Uncontrolled

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810G:2014	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD: ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS [Applicable item] 501.6 High temperature 502.6 Low temperature 503.6 Temperature shock 507.6 Humidity 509.6 Salt Fog 514.7 Vibration 516.7 Shock	501.6: Max. 180 °C 502.6: Min. -60 °C 503.6: Temperature (-60 ~ 180) °C 507.6: (20 ~ 95) % R.H. 509.6: Salt Fog Temperature: (25 ~ 50) °C Salt Fog Humidity: (20 ~ 95) % R.H. NaCl: (5 ±1) % Ph: (6.5 ~ 7.2) 514.7: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s^2 516.7: Acceleration: (98 ~ 980) m/s^2 Duration: (1 ~ 30) ms	BS-2	N

Uncon

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810G:2008	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD: ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS [Applicable item] 501.5 High temperature 502.5 Low temperature 514.6 Vibration 516.6 Shock	501.5: Max. 150 °C 502.5: Min. -50 °C 514.6: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s^2 516.6: Acceleration: (98 ~ 500) m/s^2 Duration: (1 ~ 30) ms	SF-2	N

Uncontrolled

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810G:2008	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD: ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS [Applicable item] 501.5 High temperature 502.5 Low temperature 503.5 Temperature shock 507.5 Humidity 509.5 Salt Fog 514.6 Vibration 516.6 Shock	501.5: Max. 180 °C 502.5: Min. -60 °C 503.5: Temperature (-60 ~ 180) °C 507.5: (20 ~ 95) % R.H. 509.5: Salt Fog Temperature: (25 ~ 50) °C Salt Fog Humidity: (20 ~ 95) % R.H. NaCl: (5 ±1) % Ph: (6.5 ~ 7.2) 514.6: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s^2 516.6: Acceleration: (98 ~ 980) m/s^2 Duration: (1 ~ 30) ms	BS-2	N

Uncon

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810F:2000	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD FOR ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS [Applicable item] 501.4 High temperature 502.4 Low temperature 514.5 Vibration 516.5 Shock	501.4: Max. 150 °C 502.4: Min. -50 °C 514.5: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s^2 516.5: Acceleration: (98 ~ 500) m/s^2 Duration: (1 ~ 30) ms	SF-2	N

Uncontrolled

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810F:2000	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD FOR ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS [Applicable item] 501.4 High temperature 502.4 Low temperature 503.4 Temperature shock 507.4 Humidity 509.4 Salt Fog 514.5 Vibration 516.5 Shock	501.4: Max. 180 °C 502.4: Min. -60 °C 503.4: Temperature (-60 ~ 180) °C 507.4: (20 ~ 95) % R.H. 509.4: Salt Fog Temperature: (25 ~ 50) °C Salt Fog Humidity: (20 ~ 95) % R.H. NaCl: (5 ±1) % Ph: (6.5 ~ 7.2) 514.5: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s^2 516.5: Acceleration: (98 ~ 980) m/s^2 Duration: (1 ~ 30) ms	BS-2	N

Uncon

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810C:1975	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD FOR ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS [Applicable item] 501.4 High temperature 502.4 Low temperature 503.4 Temperature shock 507.4 Humidity 509.4 Salt Fog 514.5 Vibration 516.5 Shock	501.4: Max. 150 °C 502.4: Min. -50 °C 507.4: (20 ~ 95) % R.H. 514.5: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s^2 516.5: Acceleration: (98 ~ 500) m/s^2 Duration: (1 ~ 30) ms	BS-2	N
MIL-STD-167-1A: 2005	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD MECHANICAL VIBRATIONS OF SHIPBOARD EQUIPMENT (TYPE I – ENVIRONMENTAL AND TYPE II – INTERNALLY EXCITED)	Frequency: (16 ~ 33) Hz Acceleration: (0.98 ~ 980) m/s^2 Amplitude: (0.254 ~ 0.508) mm	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-167-1A: 2005	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD MECHANICAL VIBRATIONS OF SHIPBOARD EQUIPMENT (TYPE I – ENVIRONMENTAL AND TYPE II – INTERNALLY EXCITED) [Exception] TYPE II – INTERNALLY EXCITED	Frequency: (16 ~ 33) Hz Acceleration: (0.98 ~ 980) m/s² Amplitude: (0.254 ~ 0.508) mm	BS-2	N
MIL-STD-810E:1989	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD FOR ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS [Applicable item] 501.4 High temperature 502.4 Low temperature 503.4 Temperature shock 507.4 Humidity 509.3 Salt Fog 514.5 Vibration 516.5 Shock	501.4: Max. 150 °C 502.4: Min. -50 °C 507.4: (20 ~ 95) % R.H. 514.5: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s² 516.5: Acceleration: (98 ~ 500) m/s² Duration: (1 ~ 30) ms	BS-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810D:1983	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	DEPARTMENT OF DEFENSE TEST METHOD STANDARD FOR ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS [Applicable item] 501.4 High temperature 502.4 Low temperature 503.4 Temperature shock 507.4 Humidity 509.4 Salt Fog 514.5 Vibration 516.5 Shock	501.4: Max. 150 °C 502.4: Min. -50 °C 507.4: (20 ~ 95) % R.H. 514.5: Frequency: (4 ~ 2 000) Hz Acceleration: (1 ~ 980) m/s^2 516.5: Acceleration: (98 ~ 500) m/s^2 Duration: (1 ~ 30) ms	BS-2	N

Uncontrolled

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X IEC 60945:2002	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Maritime navigation and radio communication equipment and systems - General requirements - Methods of testing and required test results [Applicable item] 8.2 Dry heat 8.3 Damp heat 8.4 Low temperature 8.5 thermal shock(portable device) 8.6.1 Drop on hard surface 8.7 Vibration 8.8 Rain and Sprat(exposed equipment) 8.12 Corrosion(Salt spray)(All kinds of equipment)	8.2 Temperature: 55 °C 8.3 Temperature: 40 °C Humidity: 93 % R.H. 8.4 Temperature: -30 °C 8.6.1 Height: (0 ~ 1 000) mm 8.7 Frequency: (2 ~ 13.2) Hz Acceleration: 7 m/s² 8.8 IPX7 8.12 Temperature: (23 ~ 60) °C Humidity: (30 ~ 95) % R.H. spray: (1.0 ~ 2.0) mL/h NaCl: 5 % pH: (6.5 ~ 7.2)	BS-2	N

Uncontrolled

No. KT119

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-30:2005	Railroad vehicles, automobiles and related products, Industrial and household electrical products, Wired/wireless communication devices, Optical communications equipments and related products	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	Temperature: (23 ~ 55) °C Humidity: (45 ~ 95) % R.H.	BS-2	N

END.

Uncontrolled