Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-19882-01-02 according to DIN EN ISO/IEC 17025:2018

Valid from: **11.07.2022**

Date of issue: 28.09.2022

Holder of certificate:

Keysight Technologies Deutschland GmbH
Hardware Test Center Europe
Herrenberger Straße 130, 71034 Böblingen

Tests in the fields:

Electromagnetic Compatibility (EMC)
Safety of Electrical Appliances
Environmental Simulation

The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates.

The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.

The certificate together with the annex reflects the status as indicated by the date of issue.
The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at https://www.dakks.de/en/content/accredited-bodies-dakks.

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Safety	DIN EN 61010-1:2020 VDE 0411-1:2020	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements (IEC 61010-1:2010 + COR:2011 + A1:2016, modified + A1:2016/COR1:2019); German version EN 61010-1:2010 + A1:2019 + A1:2019/AC:2019	
Safety	DIN EN 61010-1:2011 VDE 0411-1:2011	Safety requirements for electrical equipment for measurement, control and laboratory use – Part 1: General requirements (IEC 61010-1:2010 + Cor.:2011); German version EN 61010-1:2010	
Safety	IEC 61010-1:2010 + AMD1:2016 + COR1:2019	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements	
Safety	UL 61010-1, third edition (2012), AMD1: 2018	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements (IEC 61010-1:2010 + A1:2016, MOD) National Standard of USA	
Safety	CAN/CSA-C22.2 No. 61010-1-12 , UPD1: 2015, UPD2: 2016, AMD1: 2018	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements (IEC 61010-1:2010 + A1:2016, MOD) National Standard of Canada	

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Safety	DIN EN 61010-2-010:2015 VDE 0411-2-010: 2015	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 2-010: Particular requirements for laboratory equipment for the heating of materials (IEC 61010-2-010:2014); German version EN 61010-2-010:2014	
Safety	IEC 61010-2-010:2014	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 2-010: Particular requirements for laboratory equipment for the heating of materials	
Safety	IEC 61010-2-010:2019	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 2-010: Particular requirements for laboratory equipment for the heating of materials	
Safety	UL 61010-2-010:2019	Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 2-010: Particular Requirements for Laboratory Equipment for the Heating of Materials (IEC 61010-2-010:2019)	
Safety	CSA C22.2 No. 61010-2-010:2019	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-010: Particular requirements for laboratory equipment for the heating of materials (IEC 61010-2-010:2019, MOD)	

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Safety	DIN EN 61010-2-011:2017-12	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-011: Particular requirements for refrigerating equipment (IEC 61010-2-011:2016); German version EN 61010-2-011:2017	
Safety	IEC 61010-2-011:2016	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-011: Particular requirements for refrigerating equipment	
Safety	IEC 61010-2-011:2019	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-011: Particular requirements for refrigerating equipment	
Safety	UL 61010-2-011:2017	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-011: Particular Requirements for Refrigerating Equipment (IEC 61010-2-011:2016)	
Safety	CSA C22.2 No. 61010-2-011:2019	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-011: Particular requirements for refrigerating equipment (IEC 61010-2-011:2019, MOD)	
Safety	DIN EN 61010-2-030:2011	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-030: Particular requirements for testing and measuring circuits (IEC 61010-2-030:2010 + Cor.:2011); German version EN 61010-2-030:2010	

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Safety	IEC 61010-2-030:2017	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-030: Particular requirements for equipment having testing or measuring circuits	
Safety	UL 61010-2-030:2018	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-030: Particular Requirements for Equipment Having Testing or Measuring Circuits (IEC 61010-2-030:2017, MOD)	
Safety	CSA C22.2 No. 61010-2-030:2018	Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 2-030: Particular requirements for equipment having testing or measuring circuits (IEC 61010-2-030:2017, MOD)	
Safety	DIN EN 61010-2-081:2015 VDE 0411-2-081:2015	Safety requirements for electrical equipment for measurement, control and laboratory use – Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes (IEC 61010-2-081:2015); German version EN 61010-2-081:2015	

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Safety	IEC 61010-2-081:2015	Safety requirements for electrical equipment for measurement, control and laboratory use – Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes	
Safety	IEC 61010-2-081:2019	Safety requirements for electrical equipment for measurement, control and laboratory use – Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes	
Safety	UL 61010-2-081:2019	Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 2-081: Particular Requirements for Automatic and Semi-Automatic Laboratory Equipment for Analysis and Other Purposes (IEC 61010-2-081:2019)	
Safety	CSA C22.2 No. 61010-2-081:2019	Safety requirements for electrical equipment for measurement. control, and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes (IEC 61010-2-081:2019, MOD)	

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Safety	DIN EN 60825-1:2014 VDE 0837-1:2014	Safety of laser products – Part 1: Equipment classification and requirements (IEC 60825-1:2014); German version EN 61010-1:2014	
Safety	IEC 60825-1:2014	Safety of laser products – Part 1: Equipment classification and requirements	
Environment	DIN EN 60068-2-1:2008 VDE 0468-2-1:2008	Environmental testing - Part 2-1: Tests - Test A: Cold (IEC 60068-2-1:2007); German version EN 60068-2-1:2007	
Environment	IEC 60068-2-1:2007	Environmental testing - Part 2-1: Tests - Tests A: Cold	
Environment	DIN EN 60068-2-2:2008 VDE 0468-2-2:2008	Environmental testing - Part 2-2: Tests - Test B: Dry heat (IEC 60068-2-2:2007); German version EN 60068-2-2:2007	180°C <= T
Environment	IEC 60068-2-2:2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat	180°C <= T
Environment	DIN EN 60068-2-6:2008 VDE 0468-2-6:2008	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal) (IEC 60068-2-6:2007); German version EN 60068-2-6:2008	5 Hz <= f <= 3000 Hz

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Environment	IEC 60068-2-6:2007	Environmental testing - Part 2-6: Tests - Tests Fc: Vibration (sinusoidal)	5 Hz <= f <= 3000 Hz
Environment	DIN EN 60068-2-14:2010 VDE 0468-2-14:2010	Environmental testing - Part 2-14: Tests - Test N: Change of temperature (IEC 60068-2-14:2009); German version EN 60068-2-14:2009	
Environment	IEC 60068-2-14:2009	Environmental testing - Part 2-14: Tests - Test N: Change of temperature	
Environment	DIN EN 60068-2-27:2010 VDE 0468-2-27:2010	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock (IEC 60068-2-27:2008); German version EN 60068-2-27:2009	
Environment	IEC 60068-2-27:2008	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	
Environment	DIN EN 60068-2-30:2006	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle) (IEC 60068-2-30:2005); German version EN 60068-2-30:2005	
Environment	IEC 60068-2-30:2005	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Environment	DIN EN 60068-2-31:2009 VDE 0468-2-31:2009	Environmental testing - Part 2-31: Tests - Test Ec: Rough handling shocks, primarily for equipment-type specimens (IEC 60068-2-31:2008); German version EN 60068-2-31:2008	
Environment	IEC 60068-2-31:2008	Environmental testing - Part 2-31: Tests - Test Ec: Rough handling shocks, primarily for equipment-type specimens	
Environment	DIN EN 60068-2-38:2010 VDE 0468-2-38:2010	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test (IEC 60068-2-38:2009); German version EN 60068-2-38:2009	
Environment	IEC 60068-2-38:2009	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test	
Environment	DIN EN 60068-2-64:2020 VDE 0468-2-64:2020	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance (IEC 60068-2-64:2008 + A1:2019); German version EN 60068-2-64:2008 + A1:2019	5 Hz <= f <= 3000 Hz
Environment	DIN EN 60068-2-64:2009 VDE 0468-2-64:2009	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance (IEC 60068-2-64:2008); German version EN 60068-2-64:2008	5 Hz <= f <= 3000 Hz

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Environment	IEC 60068-2-64:2008 + AMD1:2019	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance	5 Hz <= f <= 3000 Hz
Environment	DIN EN 60068-2-78:2014 VDE 0468-2-78:2014	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state (IEC 60068-2-78:2012); German version EN 60068-2-78:2013	
Environment	IEC 60068-2-78:2012	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state	
Environment	DIN EN 60945:2003	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results (IEC 60945:2002); German version EN 60945:2002	Excluded: 8.6.2 Drop into water, 8.8 Rain and spray, 8.9 Immersion, 8.10 Solar radiation, 8.11 Oil resistance, 8.12 Corrosion (salt mist)
Environment	EN 60945:2002	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results (IEC 60945:2002)	Excluded: 8.6.2 Drop into water, 8.8 Rain and spray, 8.9 Immersion, 8.10 Solar radiation, 8.11 Oil resistance, 8.12 Corrosion (salt mist)

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Environment	IEC 60945:2002	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results	Excluded: 8.6.2 Drop into water, 8.8 Rain and spray, 8.9 Immersion, 8.10 Solar radiation, 8.11 Oil resistance, 8.12 Corrosion (salt mist)
Environment	DNVGL-CG-0339:2019	Environmental test specification for electrical, electronic and programmable equipment and systems	Insulation resistance test only with EUTs at a rated voltage over 65V. Excluded: Extreme vibration strain (Table 9), Salt mist test, Inclination test
EMC	DIN EN 61000-4-2:2009 VDE 0847-4-2:2009	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test (IEC 61000-4-2:2008); German version EN 61000-4-2:2009	
EMC	IEC 61000-4-2:2008	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test.	

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	DIN EN 61000-4-3:2011 VDE 0847-4-3:2011	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test (IEC 61000-4-3:2006 + A1:2007 + A2:2010); German version EN 61000-4-3:2006 + A1:2008 + A2:2010	f ≤ 6 GHz illuminated area > 1 GHz: 1,5 m x 1,5 m
EMC	lEC 61000-4-3:2006 + A1:2007 + A2:2010	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test.	f ≤ 6 GHz illuminated area > 1 GHz: 1,5 x 1,5 m
EMC	DIN EN 61000-4-4:2013 VDE 0847-4-4:2013	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test (IEC 61000-4-4:2012); German version EN 61000-4-4:2012	Only single phase equipment
EMC	lEC 61000-4-4:2012	Electromagnetic compatibility (EMG) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test.	Only single phase equipment
EMC	DIN EN 61000-4-4:2010 VDE 0847-4-4:2010	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test (IEC 61000-4-4:2004 + Cor. 1:2006 + Cor. 2:2007 + A1:2010); German version EN 61000-4-4:2004 + A1:2010	Only single phase equipment

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EMC	lEC 61000-4-4:2004 + A1:2010	Electromagnetic compatibility (EMG) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test.	Only single phase equipment
EMC	DIN EN 61000-4-4:2005 VDE 0847-4-4:2005	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test (IEC 61000-4-4:2004); German version EN 61000-4-4:2006	Only single phase equipment
EMC	DIN EN 61000-4-5:2019-03 VDE 0847-4-5:2019-03	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test (IEC 61000-4-5:2014 + A1:2017); German version EN 61000-4-5:2014 + A1:2017	Only single phase equipment
EMC	lEC 61000-4-5:2014 + AMD1:2017	Electromagnetic compatibility (EMG) - Part 4-5: Testing and measurement techniques - Surge immunity test.	Only single phase equipment
EMC	DIN EN 61000-4-5:2007 VDE 0847-4-5:2007	Electromagnetic Compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test (IEC 61000-4-5:2005); German version EN 61000-4-5:2006	Only single phase equipment

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EMC	IEC 61000-4-5:2005	Electromagnetic compatibility (EMG) - Part 4-5: Testing and measurement techniques - Surge immunity test.	Only single phase equipment
EMC	DIN EN 61000-4-6:2014 VDE 0847-4-6:2014	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields (IEC 61000-4-6:2013); German version EN 61000-4-6:2014	
EMC	IEC 61000-4-6:2013	Electromagnetic compatibility (EMG) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields.	
EMC	DIN EN 61000-4-6:2009 VDE 0847-4-6:2009	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields (IEC 61000-4-6:2008); German version EN 61000-4-6:2009	
EMC	IEC 61000-4-6:2008	Electromagnetic compatibility (EMG) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields.	

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EMC	DIN EN 61000-4-8:2010 VDE 0847-4-8:2010	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test (IEC 61000-4-8:2009); German version EN 61000-4-8:2010	
EMC	lEC 61000-4-8:2009	Electromagnetic compatibility (EMG) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test.	
EMC	DIN EN 61000-4-11:2019 VDE 0847-4-11:2019	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests (IEC 61000-4-11:2004 + A1:2017); German version EN 61000-4-11:2004 + A1:2017	Only single phase equipment
EMC	DIN EN 61000-4-11:2005 VDE 0847-4-11:2005	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests (IEC 61000-4-11:2004); German version EN 61000-4-11:2004	Only single phase equipment
EMC	IEC 61000-4-11:2020	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	Only single phase equipment

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EMC	IEC 61000-4-11:2004 + AMD1:2017	Electromagnetic compatibility (EMG) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests.	Only single phase equipment
EMC	DIN EN 61000-4-13:2016 VDE 0847-4-13:2016	Electromagnetic compatibility (EMC) - Part 4-13: Testing and measurement techniques - Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests (IEC 61000-4-13:2002 + A1:2009 + A2:2015); German version EN 61000-4-13:2002 + A1:2009 + A2:2016	Only single phase equipment
EMC	IEC 61000-4-13:2002 + A1:2009 + A2:2015	Electromagnetic compatibility (EMC) - Part 4-13: Testing and measurement techniques - Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests	Only single phase equipment
EMC	DIN EN 61000-4-39:2019 VDE 0847-4-39:2019	Electromagnetic Compatibility (EMC) - Part 4-39: Testing and measurement techniques - Radiated fields in close proximity - Immunity test (IEC 61000-4-39:2017); German version EN 61000-4-39:2017	Only magnetic field immunity

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EMC	IEC 61000-4-39:2017	Electromagnetic compatibility (EMC) - Part 4-39: Testing and measurement techniques - Radiated fields in close proximity - Immunity test	Only magnetic field immunity
EMC	DIN EN IEC 61000-3-2:2019 VDE 0838-2:2019	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase) (IEC 61000-3-2:2018); German version EN IEC 61000-3-2:2019	Only single phase equipment
EMC	IEC 61000-3-2:2018	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)	Only single phase equipment
EMC	DIN EN 61000-3-2:2015-03; VDE 0838-2:2015-03	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase) (IEC 61000-3-2:2014); German version EN 61000-3-2:2014	Only single phase equipment
EMC	IEC 61000-3-2:2014	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current <= 16 A per phase) (IEC 61000-3-2:2014)	Only single phase equipment

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EMC	DIN EN 61000-3-2:2010 VDE 0838-2:2010	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current <= 16 A per phase) (IEC 61000-3-2:2005 + A1:2008 + A2:2009); German version EN 61000-3-2:2006 + A1:2009 + A2:2009	Only single phase equipment
EMC	IEC 61000-3-2:2005 + A1:2008 + A2:2009	Electromagnetic compatibility (EMG) - Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16 A per phase).	Only single phase equipment
EMC	DIN EN 61000-3-3:2020 VDE 0838-3:2020	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection (IEC 61000-3-3:2013 + A1:2017); German version EN 61000-3-3:2013 + A1:2019	Only single phase equipment
EMC	DIN EN 61000-3-3:2014-03; VDE 0838-3:2014-03	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 (IEC 61000-3-3:2013); German version EN 61000-3-3:2013	Only single phase equipment

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EMC	IEC 61000-3-3:2013 +AMD 1:2017	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 subjected to conditional connection.	Only single phase equipment
EMC	DIN EN 61000-3-3:2009 VDE 0838-3:2009	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 (IEC 61000-3-3:2008); German version EN 61000-3-3:2008	Only single phase equipment
EMC	IEC 61000-3-3:2008	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 subjected to conditional connection.	Only single phase equipment
EMC	DIN EN IEC 61000-6-1:2019 VDE 0839-6-1:2019	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments (IEC 61000-6-1:2016); German version EN IEC 61000-6-1:2019	

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EMC	DIN EN 61000-6-1:2007 VDE 0839-6-1:2007	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments (IEC 61000-6-1:2005); German version EN 61000-6-1:2007	
EMC	IEC 61000-6-1:2016	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments	
EMC	IEC 61000-6-1:2005	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments.	
EMC	DIN EN IEC 61000-6-2:2019 VDE 0839-6-2:2019	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments (IEC 61000-6-2:2016); German version EN IEC 61000-6-2:2019	
EMC	DIN EN 61000-6-2:2006 VDE 0839-6-2:2006	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments (IEC 61000-6-2:2005); German version EN 61000-6-2:2005	

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EMC	IEC 61000-6-2:2016	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments	
EMC	IEC 61000-6-2:2005	Electromagnetic compatibility (EMC) - Part 6-2: Generic Standards - Immunity for industrial environments.	
EMC	DIN EN 61000-6-3:2011 VDE 0839-6-3:2011	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments (IEC 61000-6-3:2006 + A1:2010); German version EN 61000-6-3:2007 + A1:2011	
EMC	IEC 61000-6-3:2006 + A1:2010	Electromagnetic compatibility (EMC) - Part 6-3: Generic Standards - Emission for residential, commercial and light-industrial environments.	
EMC	DIN EN IEC 61000-6-4:2020 VDE 0839-6-4:2020	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments (IEC 61000-6-4:2018); German version EN IEC 61000-6-4:2019	
EMC	IEC 61000-6-4:2018	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments	

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EMC	DIN EN 61000-6-4:2011 VDE 0839-6-4:2011	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments (IEC 61000-6-4:2006 + A1:2010); German version EN 61000-6-4:2007 + A1:2011	
EMC	IEC 61000-6-4:2006 + A1:2010	Electromagnetic compatibility (EMC) - Part 6-4: Generic Standards - Emission standard for industrial environments.	
EMC	DIN EN 61000-6-7:2015 VDE 0839-6-7:2015	Electromagnetic compatibility (EMC) - Part 6-7: Generic standards - Immunity requirements for equipment intended to perform functions in a safety-related system (functional safety) in industrial locations (IEC 61000-6-7:2014); German version EN 61000-6-7:2015	
EMC	IEC 61000-6-7:2014	Electromagnetic compatibility (EMC) - Part 6-7: Generic standards - Immunity requirements for equipment intended to perform functions in a safety-related system (functional safety) in industrial locations	
EMC	DIN EN 55011:2018-05 VDE 0875-11:2018-05	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement (CISPR 11:2015, modified + A1:2017); German version EN 55011:2016 + A1:2017	150 kHz ≤ f ≤ 6 GHz no frame antenna no 150 Ohm artificial DC network

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	DIN EN 55011:2011 VDE 0875-11:2011	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement (IEC/CISPR 11:2009, modified + A1:2010); German version EN 55011:2009 + A1:2010	150 kHz ≤ f ≤ 6 GHz no frame antenna
EMC	IEC/CISPR 11:2015 + AMD1:2016 + AMD2:2019	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement	150 kHz ≤ f ≤ 6 GHz no frame antenna no 150 Ohm artificial DC network
EMC	IEC/CISPR 11:2009 + A1:2010	Industrial, scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement.	150 kHz ≤ f ≤ 6 GHz no frame antenna
EMC	DIN EN 55022:2011 + Berichtigung 1:2016 VDE 0878-22:2011 + Berichtigung 1:2016	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement (CISPR 22:2008, modified); German version EN 55022:2010	

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	IEC/CISPR 22:2008	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.	
EMC	DIN EN 55024:2016 VDE 0878-24:2016	Information technology equipment - Immunity characteristics - Limits and methods of measurement (CISPR 24:2010 + Cor.:2011 + A1:2015); German version EN 55024:2010 + A1:2015	
EMC	DIN EN 55024:2011 VDE 0878-24:2011	Information technology equipment - Immunity characteristics - Limits and methods of measurement (CISPR 24:2010); German version EN 55024:2010	
EMC	IEC/CISPR 24:2010 + A1:2015	Information technology equipment - Immunity characteristics - Limits and methods of measurement.	
EMC	DIN EN 61326-1:2013 VDE 0843-20-1:2013	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements (IEC 61326-1:2012); German version EN 61326-1:2013	
EMC	IEC 61326-1:2012	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements.	

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	DIN EN 61326-2-1:2013 VDE 0843-20-2-1:2013	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-1: Particular requirements - Test configurations, operational conditions and performance criteria for sensitive test and measurement equipment for EMC unprotected applications (IEC 61326-2-1:2012); German version EN 61326-2-1:2013	
EMC	IEC 61326-2-1:2012	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-1: Particular requirements - Test configurations, operational conditions and performance criteria for sensitive test and measurement equipment for EMC unprotected applications.	
EMC	DIN EN 61326-2-2:2013 VDE 0843-20-2-2:2013	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-2: Particular requirements - Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems (IEC 61326-2-2:2012); German version EN 61326-2-2:2013	

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	IEC 61326-2-2:2012	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-2: Particular requirements – Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems.	
EMC	DIN EN 61326-2-3:2013 VDE 0843-20-3:2013	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-3: Particular requirements - Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning (IEC 61326-2-3:2012); German version EN 61326-2-3:2013	
EMC	IEC 61326-2-3:2012	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-3: Particular requirements – Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning.	
EMC	DIN EN 61326-3-1:2018 VDE 0843-20-3-1:2018	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 3-1: Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) - General industrial applications (IEC 61326-3-1:2017); German version EN 61326-3-1:2017	

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	IEC 61326-3-1:2017	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 3-1: Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) - General industrial applications	
EMC	DIN EN IEC 61800-3:2019 VDE 0160-103:2019	Adjustable speed electrical power drive systems - Part 3: EMC requirements and specific test methods (IEC 61800-3:2017); German version EN IEC 61800-3:2018	Only single phase equipment
EMC	IEC 61800-3:2017	Adjustable speed electrical power drive systems - Part 3: EMC requirements and specific test methods	Only single phase equipment
EMC	FCC Part 15 Subpart B FCC Part 18	Code of federal regulations, Title 47: Telecommunication Federal Communications Commission (FCC): - Part 15: Radio frequency devices - Subpart B: Unintentional radiators - Part 18: Industrial, scientific, and medical equipment	Part 15 Subpart B only: Radiated Emissions 30 MHz < f < 1 GHz Part 18: No induction cooking or ultrasonic equipment No certification
EMC	MIL-STD-461G:2015	Requirements for the control of electromagnetic interference characteristics of subsystems and equipment	Sub-clause 5.16 RE101 and RS101 only

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	DIN EN 301489-1:2020	Electromagnetic Compatibility (EMC) standard for radio equipment and services - Part 1: Common technical requirements - Harmonised Standard for Electromagnetic Compatibility (Endorsement of the English version EN 301 489-1 V2.2.3 (2019-11) as a German standard)	
EMC	ETSI EN 301489-1:2019	Electromagnetic Compatibility (EMC) standard for radio equipment and services - Part 1: Common technical requirements - Harmonised Standard for Electromagnetic Compatibility	
EMC	DIN EN 301489-1:2017	Electromagnetic Compatibility (EMC) standard for radio equipment and services - Part 1: Common technical requirements - Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU and the essential requirements of article 6 of Directive 2014/30/EU (Endorsement of the English version EN 301 489-1 V2.1.1 (2017-02) as German standard)	
EMC	ETSI EN 301489-1:2017	Electromagnetic Compatibility (EMC) standard for radio equipment and services - Part 1: Common technical requirements	
EMC	ETSI EN 301489-1:2011	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	ETSI EN 301489-7:2005	Electromagnetic compatibility and Radio spectrum Matters (ERM) - Electromagnetic 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)	Data calls only
EMC	DIN EN 301489-17:2021	Electromagnetic Compatibility (EMC) standard for radio equipment and services - Part 17: Specific conditions for Broadband Data Transmission Systems - Harmonised Standard for Electromagnetic Compatibility (Endorsement of the English version EN 301 489-17 V3.2.4 (2020-09) as a German standard)	
EMC	DIN EN 301489-3:2019	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 - Harmonised standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU (Endorsement of the English version EN 301 489-3 V2.1.1 (2019-03) as a German standard)	
EMC	ETSI EN 301489-3:2019	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	

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	DIN EN 301489-3:2013	Electromagnetic compatibility and Radio spectrum Matters (ERM) - 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 (Endorsement of the English version EN 301 489-3 V1.6.1 (2013-08) as German standard)	
EMC	ETSI EN 301489-3:2013-08	Electromagnetic compatibility and Radio spectrum Matters (ERM);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	
EMC	DIN EN 301489-17:2017	Electromagnetic Compatibility (EMC) standard for radio equipment and services - Part 17: Specific conditions for Broadband Data Transmission Systems - Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU (Endorsement of the English version EN 301 489-17 V3.1.1 (2017-02) as German standard)	
EMC	ETSI EN 301489-17:2020	Electromagnetic Compatibility (EMC) standard for radio equipment and services - Part 17: Specific conditions for Broadband Data Transmission Systems - Harmonised Standard for Electromagnetic Compatibility	

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	ETSI EN 301489-17:2017	Electromagnetic Compatibility (EMC) standard for radio equipment and services - Part 17: Specific conditions for Broadband Data Transmission Systems	
EMC	ETSI EN 301489-17:2012	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment; Part 17: Specific conditions for Broadband Data Transmission Systems	
EMC	ETSI EN 301489-52:2016	Electromagnetic Compatibility (EMC) standard for radio equipment and services - Part 52: Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	Data calls only
EMC	UN ECE-R10 Rev. 6	Uniform provisions concerning the approval of vehicles with regard to electromagnetic compatibility	Annex 7-10 und 17-22: only components/modules (ESA), Excluded: REESS with current > 16A or more than 1 phase, TEM, Stripline
EMC	ECE-R10, rev. 5	Uniform provisions concerning the approval of vehicles with regard to electromagnetic compatibility	Annex 7-10 und 17-22: only components/modules (ESA), Excluded: REESS with current > 16A or more than 1 phase, TEM, Stripline

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	DIN EN 55025:2018; VDE 0879-2:2018	Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receivers (CISPR 25:2016 + COR1:2017); German version EN 55025:2017 + AC:2017	Only components/modules, Excluded: TEM, Stripline
EMC	CISPR 25:2016 + Cor1:2017	Vehicles, boats and internal combustion engines – Radio disturbance characteristics – Limits and methods of measurement for the protection of on-board receivers	Only components/modules, Excluded: TEM, Stripline
EMC	ISO 11452-2:2019	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 2: Absorber-lined shielded enclosure	min. 180V/m (200 MHz to 5 GHz), min. 70V/m (5-6 GHz)
EMC	ISO 11452-2:2004	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 2: Absorber-lined shielded enclosure	min. 180V/m (200 MHz to 5 GHz), min. 70V/m (5-6 GHz)
EMC	ISO 11452-4:2020	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 4: Harness excitation methods	Excluded: TWC
EMC	ISO 11452-4:2011	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 4: Harness excitation methods	Excluded: TWC

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	ISO 11452-8:2015	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 8: Immunity to magnetic fields	
EMC	ISO 11452-9:2012	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 9: Portable transmitters	
EMC	ISO 10605:2008 + Cor1:2010 + AMD 1:2014	Road vehicles - Test methods for electrical disturbances from electrostatic discharge	
EMC	ISO 7637-2:2011	Road vehicles - Electrical disturbances from conduction and coupling - Part 2: Electrical transient conduction along supply lines only	
EMC	ISO 7637-3:2016	Road vehicles - Electrical disturbances from conduction and coupling - Part 3: Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines	
EMC	ISO 16750-2:2012	Road vehicles -- Environmental conditions and testing for electrical and electronic equipment -- Part 2: Electrical loads	
EMC	DIN EN 55032:2016-02; VDE 0878-32:2016-02	Electromagnetic compatibility of multimedia equipment - Emission Requirements (CISPR 32:2015); German version EN 55032:2015	No FM broadcast receivers, antenna ports, tuner ports, RF modulator output ports

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	CISPR 32:2015	Electromagnetic compatibility of multimedia equipment - Emission requirements	No FM broadcast receivers, antenna ports, tuner ports, RF modulator output ports
EMC	DIN EN 55035:2018-04; VDE 0878-35:2018-04	Electromagnetic compatibility of multimedia equipment - Immunity requirements (CISPR 35:2016, modified); German version EN 55035:2017	Excluded: xDSL-Ports, telephony equipment, 10/700 surges, automated display evaluation
EMC	CISPR 35:2016	Electromagnetic compatibility of multimedia equipment - Immunity requirements	Excluded: xDSL-Ports, telephony equipment, 10/700 surges, automated display evaluation
EMC	DIN EN 50121-3-2:2017 + A1:2020 VDE 0115-121-3-2:2017 + A1:2020	Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus; German version EN 50121-3-2:2016 + A1:2019	
EMC	EN 50121-3-2:2016 + A1:2019	Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock – Apparatus	
EMC	DIN EN 60945:2003	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results (IEC 60945:2002); German version EN 60945:2002	

Testing Field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
EMC	IEC 60945:2002	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results	
EMC	DNVGL-CG-0339:2019	Environmental test specification for electrical, electronic and programmable equipment and systems	