Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-PL-12104-05-02 according to DIN EN ISO/IEC 17025:2018

Valid from: **19.10.2020**

Date of issue: 05.04.2023

This annex is a part of the accreditation certificate D-PL-12104-05-00.

Holder of partial accreditation certificate:

Robert Bosch Gesellschaft mit beschränkter Haftung

with its testing laboratory

Robert Bosch Gesellschaft mit beschränkter Haftung
EMV-Zentrum XC/QMM-VR2
Robert-Bosch-Straße 200, 31139 Hildesheim

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and confirm generally with the principles of DIN EN ISO 9001.

Flexibility
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.

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1 Tests in the field of electromagnetic compatibility (EMC)

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
1.1	**Basic Standards**		
EMC	DIN EN 61000-4-2: 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	EN 61000-4-2:2009	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test (IEC 61000-4-2:2008);	
EMC	IEC 61000-4-2:2008	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	DIN EN 61000-4-3: 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	Up to 6 GHz max
EMC	EN 61000-4-3 Mai 2006 + A1 Februar 2008 + A2 Juli 2010	E 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)	Up to 6 GHz max
EMC	IEC 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	Up to 6 GHz max
EMC	DIN EN 61000-4-6: 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	EN 61000-4-6: 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)	
EMC	IEC 61000-4-6:2013	Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields	

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
1.2	**Basic technical standards**		
EMC	DIN EN 61000-6-1: 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	EN 61000-6-1: 2007	Electromagnetic compatibility (EMC) – Part 6-1: Generic standards – Immunity for residential, commercial and light- industrial environments (IEC 61000-6-1:2005)	
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 61000-6-2: 2006 + Ber1: 2011	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments (IEC 61000-6-2:2005); German version EN 61000-6-2:2005, Corrigendum to DIN EN 61000-6-2 (VDE 0839 6 2):2006-03; German version CENELEC-Cor. :2005 to EN 61000-6-2:2005	
EMC	EN 61000-6-2: 2005	Electromagnetic compatibility (EMC) Part 6-2: Generic standards Immunity for industrial environments (IEC 61000-6-2:2005)	
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	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission for residential, commercial and light-industrial environments (IEC 61000-6-3:2006 + A1:2010); German version EN 61000-6-3:2007 + A1:2011	

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	EN 61000-6-3 Januar 2007 + A1 März 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)	
EMC	IEC 61000-6-3: 2006 + A1:2010	Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for residential, commercial and light-industrial environments	
EMC	DIN EN 61000-6-4: 2011	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards Part 6-4: Generic standards - Emission requirements for industrial environments (IEC 61000-6-4:2006 + A1:2010); German version EN 61000-6-4:2007 + A1:2011	Without Tab.1: Section 1.1
EMC	EN 61000-6-4 Januar 2007 + A1 Februar 2011	Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emission standard for industrial environments (IEC 61000-6-4:2006 + A1:2010)	Without Tab.1: Section 1.1
EMC	IEC 61000-6-4:2006 + A1:2010	Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emission standard for industrial environments	Without Tab.1: Section 1.1
1.3	**Product family standards**		
EMC	DIN EN 55011: 2018	Industrial, scientific and medical equipment - Radio disturbance characteristics - Limits and methods of measurement (CISPR 11:2015, modified + A1:2017); German version EN 55011:2016 + A1:2017	Only the following measurements : - 6.2.1 Interference voltages - 6.2.2 Interference radiation For 3m measuring distance - 6.2.3 Interference voltage - 6.3.2 Interference radiation For 3m measuring distance

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	EN 55011 April 2016 + A1 April 2017	Industrial, scientific and medical equipment - Radio disturbance characteristics - Limits and methods of measurement (CISPR 11:2015, modified + A1:2017);	Only the following measurements : - 6.2.1 Interference voltages; - 6.2.2 Interference radiation For 3m measuring distance - 6.2.3 Interference voltage - 6.3.2 Interference radiation For 3m measuring distance
EMC	CISPR 11:2015, modified + A1:2017	Industrial, scientific and medical equipment - Radio disturbance characteristics - Limits and methods of measurement	Only the following measurements : - 6.2.1 Interference voltages - 6.2.2 Interference radiation For 3m measuring distance - 6.2.3 Interference voltage - 6.3.2 Interference radiation For 3m measuring distance
EMC	DIN EN 55016-2-3: 2014	Requirements for equipment and installations, and definition of methods of measurement of radio-frequency emissions (RFI) and immunity - Part 2-3: Methods of measurement of radio-frequency emissions (RFI) and immunity - Radiated emissions measurement (CISPR 16-2-3:2010 + A1:2010 + A2:2014); German version EN 55016-2-3:2010 + A1:2010 + AC:2013 + A2:2014	Section 7.6 only "Measurements in the full-absorber chamber and in the free field/semi Semi-absorber chamber (en: SAC) with ground absorbers (1 GHz to 18 GHz)". Max. Measuring distance 5 m in SAC

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	EN 55016-2-3 Juni 2010 + A1 Oktober 2010 + AC März 2013 + A2 Juni 2014	Requirements for equipment and installations, and definition of methods of measurement of radio-frequency emissions (RFI) and immunity - Part 2-3: Methods of measurement of radio-frequency emissions (RFI) and immunity - Radiated emissions measurement (CISPR 16-2-3:2010 + A1:2010 + A2:2014)	Section 7.6 only "Measurements in the full-absorber chamber and in the free field/semi Semi-absorber chamber (en: SAC) with ground absorbers (1 GHz to 18 GHz)". Max. Measuring distance 5 m in SAC
EMC	CISPR 16-2-3:2010 + A1:2010 + A2:2014	Requirements for equipment and installations, and definition of methods of measurement of radio-frequency emissions (RFI) and immunity - Part 2-3: Methods of measurement of radio-frequency emissions (RFI) and immunity - Radiated emissions measurement	Section 7.6 only "Measurements in the full-absorber chamber and in the free field/semi Semi-absorber chamber (en: SAC) with ground absorbers (1 GHz to 18 GHz)". Max. Measuring distance 5 m in SAC
EMC	DIN EN 55025: 2018	Vehicles, boats and internal combustion engine driven equipment - 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	Without 6.6 and 6.7
EMC	EN 55025 Februar 2017 + AC November 2017	Vehicles, boats and internal combustion engine driven equipment - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receivers (CISPR 25:2016 + COR1:2017)	Without 6.6 and 6.7
EMC	CISPR 25:2016 + COR1:2017	Vehicles, boats and internal combustion engine driven equipment - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receivers	Without 6.6 and 6.7

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	DIN EN 55032: 2016	Electromagnetic compatibility of multimedia equipment and devices - Emission requirements (CISPR 32:2015); German version EN 55032:2015	Sections only: A.1.1, A.1.3, A.1.4, A.4.1, A.4.2, A.4.3, A.4.4, A.5.1, A.5.2, A.6.1, A.6.2, A.6.3, A.6.4, A.8.1, A.8.2, A.8.5, A.8.6, A12.1, A13
EMC	EN 55032: 2015	Electromagnetic compatibility of multimedia equipment and devices - Emission requirements (CISPR 32:2015)	Sections only: A.1.1, A.1.3, A.1.4, A.4.1, A.4.2, A.4.3, A.4.4, A.5.1, A.5.2, A.6.1, A.6.2, A.6.3, A.6.4, A.8.1, A.8.2, A.8.5, A.8.6, A12.1, A13
EMC	CISPR 32:2015	Electromagnetic compatibility of multimedia equipment and devices - Emission requirements	Sections only: A.1.1, A.1.3, A.1.4, A.4.1, A.4.2, A.4.3, A.4.4, A.5.1, A.5.2, A.6.1, A.6.2, A.6.3, A.6.4, A.8.1, A.8.2, A.8.5, A.8.6, A12.1, A13
EMC	DIN EN 55035: 2018	Electromagnetic compatibility of multimedia equipment - Immunity requirements (CISPR 35:2016 , modified) German Version EN 55035:2017	Only tests according to: Tab.1: 1.2, 1.3, 1.4 Tab.2: 2.1, 2.4, 2.5 Tab.3: 3.1, 3.2, 3.3 Tab.4: 4.1, 4.4, 4.5
EMC	EN 55035: 2017	Electromagnetic compatibility of multimedia equipment - Immunity requirements (CISPR 35:2016 , modified)	Only tests according to: Tab.1: 1.2, 1.3, 1.4 Tab.2: 2.1, 2.4, 2.5 Tab.3: 3.1, 3.2, 3.3 Tab.4: 4.1, 4.4, 4.5

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	CISPR 35:2016, modified	Electromagnetic compatibility of multimedia equipment – Immunity requirements	Only tests according to: Tab.1: 1.2, 1.3, 1.4 Tab.2: 2.1, 2.4, 2.5 Tab.3: 3.1, 3.2, 3.3 Tab.4: 4.1, 4.4, 4.5
1.4	**Radio (RED Chp. 3.2)**		
EMC	ETSI EN 301 489-1 V.2.2.3 (2019-11)	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; harmonized Standard for Electromagnetic Compatibility	Without 8.4 AC mains power input/output ports 8.5 Harmonic current emissions (AC mains input port) 8.6 Voltage fluctuations and flicker (AC mains input port) 9.7 Voltage dips and interruptions 9.8 Surges
EMC	ETSI EN 301 489-3 V2.1.1 (2019-03)	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; harmonized Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	
EMC	Draft ETSI EN 301 489-3 V2.1.2 (2021-03)	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; harmonized Standard for Electromagnetic Compatibility	

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	ETSI EN 301 489-17 V3.2.4 (2020-09)	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems; harmonized Standard for Electromagnetic Compatibility	
EMC	Draft ETSI EN 301 489-19 V2.2.0 (2020-09)	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; harmonized Standard for Electromagnetic Compatibility	
EMC	ETSI EN 301 489-52 V1.2.1 (2021-11)	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication User Equipment (UE) radio and ancillary equipment; harmonized Standard for Electromagnetic Compatibility	
1.5	**EMC/EMF**		
EMC (EMF)	EN 50385:2017	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; German version EN 50385:2017	only “RF exposure calculation regarding chapter 6”
EMC (EMF)	prEN 62232:2016	Determination of RF field strength, power density and SAR in the vicinity of radio communication base stations for the purpose of evaluating human exposure	only “RF exposure calculation regarding chapter 6.1.1 and B.4.2.1”
EMC (EMF)	DIN EN 50663: 2017	Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10 MHz - 300 GHz); German version EN 50663:2017	

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC (EMF)	EN 50663:2017	Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10 MHz - 300 GHz)	
EMC (EMF)	EN 50665: 2017	Generic standard for assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz); German version EN 50665:2017	Only: Chapter 7 / Annex A of EN 62311:2008
EMC (EMF)	DIN EN 62311: 2008	Assessment of electrical and electronic equipment in relation to limitations of exposure of persons to electromagnetic fields (0 Hz to 300 GHz) (IEC 62311:2007, modified); German version EN 62311:2008	Only chapter 7 / Annex A
EMC (EMF)	EN 62311:2008	Assessment of electrical and electronic equipment in relation to limitations of exposure of persons to electromagnetic fields (0 Hz to 300 GHz) (IEC 62311:2007, modified	Only chapter 7 / Annex A
EMC (EMF)	DIN EN 62479: 2011	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) (IEC 62479:2010, modified); German version EN 62479:2010	Only : Chapter 4; Without Annex: D: Measurement body currents E: Measurement Specific absorption rate
EMC (EMF)	EN 62479:2010	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) (IEC 62479:2010, modified);	Only : Chapter 4; Without Annex: D: Measurement body currents E: Measurement Specific absorption rate
EMC (EMF)	AS/NZS 2772.2:2011	Radiofrequency fields Principles and methods of measurement and computation - 3 kHz to 300 GHz	Only chapter 3.7.3

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC (EMF)	AS/NZS 2772.2:2016 +Amdt 1:2018	Radiofrequency fields Principles and methods of measurement and computation - 3 kHz to 300 GHz	only chapter 3.7.3
1.6	**Motor vehicles (Automotive)**		
EMC	Anlage 6, 7, Anhänge 7 - 10 der Regelung **UN ECE R10 Rev. 5**	Regulation No 10 of the Economic Commission for Europe of the United Nations (UN/ECE) - Uniform provisions concerning the approval of vehicles with regard to electromagnetic compatibility (EMC)	Annex 9 only: Absorber chamber and current injection according to ISO 11452-2 and ISO 11452-4
EMC	Anlage 6, 7, Anhänge 7 - 10 der Regelung **UN ECE R10 Rev. 6**	Regulation No 10 of the Economic Commission for Europe of the United Nations (UN/ECE) - Uniform provisions concerning the approval of vehicles with regard to electromagnetic compatibility (EMC)	Annex 9 only: Absorber chamber and current injection according to ISO 11452-2 and ISO 11452-4
EMC	BMW Group Standard GS 95003-2: 2013	Motor vehicles Electromagnetic compatibility (EMC) Requirements and tests on components up to 60 V nominal voltage	Without stripline
EMC	BMW Group Standard GS 95002-5: 2015	Motor vehicles Electromagnetic compatibility (EMC) Requirements and tests in the frequency range 9 kHz to 30 MHz	Without stripline
EMC	Chrysler CS-11809: 2009	Electrical and EMC Performance Requirements – E/E Components	
EMC	CS.00054: 2015	Fiat Chrysler Automobiles (FCA) – General electrical and EMC performance requirements for E/E components	
EMC	Ford EMC-CS-2009.1: 2010	Electromagnetic Compatibility Specification for Electrical/ Electronic Components and Subsystems	
EMC	GMW3097: 2012	General Specification for Electrical/Electronic Components and Subsystems, Electromagnetic Compatibility	Without 3.4.3 Reverb (Mode Tuning)

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	GMW3097: 2015	General Specification for Electrical/Electronic Components and Subsystems, Electromagnetic Compatibility	Without 3.4.3 Reverb (Mode Tuning)
EMC	GMW3097: 2019	General Specification for Electrical/Electronic Components and Subsystems, Electromagnetic Compatibility	Without 3.4.3 Reverb (Mode Tuning)
EMC	GMW3172:2015	General Specification for Electrical/Electronic Components - Environmental/Duration	
EMC	JLR-EMC-CS v1.0 Amendment 1, 2013 Amendment 2, 2014 Amendment 3, 2014 Amendment 4, 2015	Electromagnetic Compatibility Specification For Electrical/Electronic Components and Subsystems	
EMC	28401NDS02 [6]: 2006	NISSAN DESIGN SPECIFICATION (NDS) for EMC specifications of electrical and electronic parts	Without EQ/IC 09: Immunity to ignition high voltage
EMC	28401NDS02 [7]: 2014	NISSAN DESIGN SPECIFICATION (NDS) for EMC specifications of electrical and electronic parts	Without EQ/IC 09: Immunity to ignition high voltage
EMC	28401NDS02 [8]: 2016	NISSAN DESIGN SPECIFICATION (NDS) for EMC specifications of electrical and electronic parts	Without EQ/IC 09: Immunity to ignition high voltage
EMC	MBN 10284-2: 2015	EMC Performance Requirements - Component Tests (Passenger Cars and Vans)	
EMC	MBN 10284-2: 2019	EMC Requirements - Component Tests (Passenger Car and Vans)	Without 9 Magnetic field emissions: Measurement with isotropic test probe (ICNIRP B test) 10 Magnetic field emissions: Measurement with current clamp (ICNIRP I test) 15 RF immunity – reverberation chamber (CRC test) Annex E: No tests > 6 GHz

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	MBN 10284-4: 2017	EMC requirements - Component testing (Commercial vehicles and buses)	Without 8 Emissions - Measurement of magnetic field with isotropic test probe (ICNIRP test) 13 RF immunity - floor turbulence chamber (CRC test
EMC	B21 7110: 2012	Environment Specifications for electrical and electronic equipments, Electrical Characteristics	
EMC	36-00-808/--M:2012	Resistance to electrical disturbances and electromagnetic compatibility instructions concerning electrical, electronic, and pyrotechnic equipment	Without EQ/IC 09: Immunity to ignition high voltage
EMC	36-00-808/--N:2016	Resistance to electrical disturbances and electromagnetic compatibility instructions concerning electrical, electronic, and pyrotechnic equipment	Without EQ/IC 09: Immunity to ignition high voltage
EMC	RNDS-C-00517 v1.0: 2018	RENAULT NISSAN DESIGN SPECIFICATION (RNDS) Part/module generic specifications, containing	Without EQ/IC 09: Immunity to ignition high voltage
EMC	Volkswagen AG TL 81000, 2013	EMC of automotive electronic components	Without Stripline
EMC	Volkswagen AG TL 81000, 2014	EMC of automotive electronic components	Without Stripline
EMC	Volkswagen AG TL 81000, 2016	EMC of automotive electronic components	Without Stripline
EMC	Volkswagen AG TL 81000, 2018	EMC of automotive electronic components	Without Stripline
EMC	Standard Volvo Group STD 515-0003, 2009	Parts and Components, Electro-magnetic compatibility, EMC	BCI up to 3 GHz (tube coupler)

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	STD 515-0003: 2017	PARTS AND COMPONENTS Electro-magnetic compatibility, EMC	Without 6.1 Complete vehicle test 7.2 Complete vehicle test 9.2.1 Test set-up, complete vehicle
EMC	Volvo Car Corporation REQ-043878/2 2014	VCG EMC: Component Requirements Electromagnetic Compatibility Specification Components	
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 10605:2008 + TC 1 2010 + Amd 1 2014	Road vehicles – Electrical disturbances from electrostatic discharges	
EMC	ISO 11451-2: 2015	Road vehicles — Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 2: Off-vehicle radiation sources	Max. 100 V/m 80 MHz up to 6 GHz
EMC	ISO 11451-3: 2015	Road vehicles — Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 3: On-board transmitter simulation	
EMC	ISO 11451-4:2013	Road vehicles — Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 4: Bulk current injection (BCI)	
EMC	ISO 11452-2:2019-01	Road vehicles — Component test methods for electrical disturbances from narrowband radiated electromagnetic energy —Part 2: Absorber-lined shielded enclosure	

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	ISO 11452-4:2011	Road vehicles — Component test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 4: Harness excitation methods	
EMC	ISO 11452-4: 2020	Road vehicles — Component test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 4: Harness excitation methods	Without 6.2 TWC test method
EMC	ISO 11452-7: 2003 + Amd1: 2013	Road vehicles — Component test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 7: Direct radio frequency (RF) power injection	
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 11452-10:2009	Road vehicles -- Component test methods for electrical disturbances from narrowband radiated electromagnetic energy -- Part 10: Immunity to conducted disturbances in the extended audio frequency range	
EMC	ISO 13766:2006	Earth-moving machinery — Electromagnetic compatibility	
EMC	DIN EN ISO 14982: 2009	Agricultural and forestry machinery - Electromagnetic compatibility - Test methods and evaluation criteria (ISO 14982:1998); German version EN ISO 14982:2009	
EMC	ISO 16750-2:2012	Road vehicles – Environmental conditions and testing for electrical and electronic equipment. Part 2: Electrical loads	

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
1.7	**Military Equipment**		
EMC	MIL-STD-461E: 1999	Requirements for the control of electromagnetic interference characteristics of subsystems and equipment	Only Test RS101
1.8	**Procedures of foreign organizations**		
EMC	FCC CFR47 Part 15: 2017-09	Radio Frequency Devices	Subpart B Measuring distance 3m
EMC	ANSI C63.4: 2003	American National Standard for Methods of Measurement of Radio- Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	No AC powerline measurements
EMC	ANSI C63.4: 2009	American National Standard for Methods of Measurement of Radio- Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	No AC powerline measurements
EMC	ANSI C63.4: 2014	American National Standard for Methods of Measurement of Radio- Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	No AC powerline measurements
EMC	SAE J1113/4: 2004	Immunity to Radiated Electromagnetic Fields – Bulk Current Injection (BCI) Method	
EMC	SAE J1113/4: 2014	(R) Immunity to Radiated Electromagnetic Fields - Bulk Current Injection (BCI) Method	
EMC	SAE J1113/12:2006	Electrical Interference by Conduction and Coupling - Capacitive and Inductive Coupling via Lines Other than Supply Lines	
EMC	SAE J1113/13:2011	Electromagnetic Compatibility Measurement Procedure for Vehicle Components – Part 13: Immunity to Electrostatic Discharge	

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	SAE J1113/13:2015	Electromagnetic Compatibility Measurement Procedure for Vehicle Components – Part 13: Immunity to Electrostatic Discharge	
1.9	**Withdrawn procedures or procedures for which newer editions exist (but which are still referenced)**		
EMC	DIN EN 61000-4-2: 2001	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques – Electrostatic Discharge immunity test (IEC 61000-4-2:1995 + A1:1998 + A2:2000) German version EN 61000-4-2:1995 + A1:1998 + A2:2001	
EMC	IEC 61000-4-2: 2001	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques – Electrostatic Discharge immunity test (IEC 61000-4-2:1995 + A1:1998 + A2:2000)	
EMC	DIN EN 61000-4-6: 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	DIN EN 55011: 2011	Industrial, scientific, and medical equipment - Radio disturbance characteristics - Limits and methods of measurement (IEC/CISPR 11:2009, modified + A1:2010); German version EN 55011:2009 + A1:2010	Only the following measurements : - 6.2.1 Interference voltages; - 6.2.2 Interference radiation for 3m measurement distance - 6.2.3 Interference voltage - 6.3.2 Interference radiation for 3m measuring distance
EMC	DIN EN 55020: 2007	Sound and television broadcast receivers and associated equipment - Immunity characteristics - Limits and test methods (IEC/CISPR 20:2006); German version EN 55020:2007	

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	DIN EN 55013: 2013	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement (CISPR 13:2009, modified); German version EN 55013:2013	
EMC	DIN EN 55024: 2011	Information technology equipment - Immunity characteristics - Limits and test methods (CISPR 24:2010); German version EN 55024:2010	Without sections : 4.2.4 Magnetic field IEC 61000-4-8 4.2.6 Sp.dips IEC 61000-4-11
EMC	DIN EN 55025: 2003	Radio disturbance characteristics for the protection of receivers in vehicles, boats and appliances - Limits and methods of measurement (IEC/CISPR 25:2002) German version EN 55025:2003	
EMC	CISPR 25: 2008	Vehicles, boats and internal combustion engines – Radio disturbance characteristics – Limits and methods of measurement for the protection of on-board receivers	
EMC	DIN EN 55032: 2012 +Ber1: 2013	Electromagnetic compatibility of multimedia equipment and devices - Emission requirements (CISPR 32:2012 + Cor.1:2012 + Cor.2:2012); German version EN 55032:2012, Corrigendum to DIN EN 55032 (VDE 0878-32):2012-12; German version EN 55032:2012/AC:2012	
EMC	DIN IEC 60315-1:1991	Methods of measurement of radio receivers for different types of transmission; Part 1: General conditions and methods of measurement including audio frequency measurement methods Identical with IEC 60315-1: 1988	Section 14 only "Compatibility against surge voltage discharges of limited energy at the antenna input
EMC	ISO 7637-2: 2004 + Amd 1: 2008	Road vehicles — Electrical disturbances from conduction and coupling — Part 2: Electrical transient conduction along supply lines only	

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	ISO 7637-3: 1995	Road vehicles — Electrical disturbances by conduction and coupling — Part 3: Vehicles with nominal 12 V or 24 V supply voltage — Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines	
EMC	ISO 10605:2001	Road vehicles – Electrical disturbances from electrostatic discharges	
EMC	ISO 11451-2: 2005	Road vehicles — Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 2: Off-vehicle radiation sources	
EMC	ISO 11451-3: 2007	Road vehicles — Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 3: On-board transmitter simulation	
EMC	ISO 11452-2: 2004	Road vehicles — Component test methods for electrical disturbances from narrowband radiated electromagnetic energy —Part 2: Absorber-lined shielded enclosure	
EMC	ISO 11452-4:2005	Road vehicles — Component test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 4: Bulk current injection (BCI)	
EMC	ISO 11452-8: 2007	Road vehicles -- Component test methods for electrical disturbances from narrowband radiated electromagnetic energy -- Part 8: Immunity to magnetic fields	
EMC	ISO 16750-2:2010	Road vehicles – Environmental conditions and testing for electrical and electronic equipment. Part 2: Electrical loads	
EMC	SAE J1113/21: 2005	Electromagnetic Compatibility Measurement Procedure for Vehicle Components – Part 21: Immunity to Electromagnetic Fields, 30 MHz to 18 GHz, Absorber-Lined Chamber	

Technical -area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
EMC	SAE J1113/41:2006	Limits and Methods of Measurement of Radio Disturbance Characteristics of Components and Modules for the Protection of Receivers Used On Board Vehicles	
EMC	SAE J1113/42: 2006	Electromagnetic Compatibility – Component Test Procedure: Part 42 Conducted transient emissions	
EMC	DIN EN 55013: 2006	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement (IEC/CISPR 13:2001 modified + A1:2003 + A2:2006) Radio disturbance characteristics - Limits and methods of measurement (IEC/CISPR 13:2001, modified + A1:2003 + A2:2006); German version EN 55013:2001 + A1:2003 + A2:2006	
EMC	FCC CFR47 Part 15: 2014	Radio Frequency Devices	Subpart B Measuring distance 3m
EMC	ISO 7637-3: 2007	Road vehicles — Electrical disturbances from conduction and coupling — Part 3: Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines	

2 Procedures of Telecommunications (TK)

Technical area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
TK	ETSI EN 300 220-1 V3.1.1 (2017-02)	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 1: Technical characteristics and methods of measurement	only 5.1 Operating frequency, 5.9 Unwanted emissions in the spurious domain

Technical area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
TK	ETSI EN 300 220-2 V3.2.1 (2018-06)	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 2: harmonized Standard for access to radio spectrum for non specific radio equipment	Only 4.2.1 Operating frequency, 4.2.2 Unwanted emissions in the spurious domain
TK	ETSI EN 300 328 V2.2.2 (2019-07)	Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz band; harmonized Standard for access to radio spectrum	
TK	ETSI EN 300 330 V2.1.1 (2017-02)	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	
TK	ETSI EN 300 440 V2.2.1 (2018-07)	Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; harmonized Standard for access to radio spectrum	All tests without 4.2.5 Duty cycle 4.2.6 Additional requirements for FHSS equipment 4.3.3 Adjacent channel selectivity 4.4 Spectrum access techniques 4.5 2,45 GHz RFID systems 4.6 GBSAR systems
TK	ETSI EN 301 511 V12.5.1 (2017-03)	Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; harmonized Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Only 4.2.12 Conducted spurious emissions - MS allocated a channel, 4.2.13 Conducted spurious emissions - MS in idle mode, 4.2.16 Radiated spurious emissions - MS allocated a channel, 4.2.17 Radiated spurious emissions - MS in idle mode
TK	ETSI EN 301 893 V2.1.1 (2017-05)	5 GHz RLAN; harmonized Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	

Technical area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
TK	ETSI EN 301 908-1 V13.1.1 (2019-11)	IMT cellular networks; harmonized Standard for access to radio spectrum; Part 1: Introduction and common requirements	Without 4.2.3 radiated emissions (BS and repeater)
TK	ETSI EN 303 340 V1.2.1 (2020-09)	Digital Terrestrial TV Broadcast Receivers; harmonized Standard for access to radio spectrum	
TK	ETSI EN 302 571: V2.1.1 (2017-02)	Intelligent Transport Systems (ITS); Radiocommunications equipment operating in the 5 855 MHz to 5 925 MHz frequency band; harmonized Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Only 5.3.4 Transmitter unwanted emissions out-side the 5 GHz ITS frequency band, 5.3.6 Receiver Spurious Emission
TK	EN 303 413 V1.2.1 (2021-04)	Satellite Earth Stations and Systems (SES); Global Navigation Satellite System (GNSS) receivers; Radio equipment operating in the 1 164 MHz to 1 300 MHz and 1 559 MHz to 1 610 MHz frequency bands; harmonized Standard for access to radio spectrum	
TK	ETSI EN 303 345-1 V1.1.1 (2019-06)	Broadcast Sound Receivers; Part 1: Generic requirements and measuring methods	
TK	ETSI EN 303 345-2 V1.2.1 (2021-12)	Broadcast Sound Receivers; Part 2: AM broadcast sound service; harmonized Standard for access to radio spectrum	
TK	ETSI EN 303 345-3 V1.1.1 (2021-06)	Broadcast Sound Receivers; Part 3: FM broadcast sound service; harmonized Standard for access to radio spectrum	
TK	ETSI EN 303 345-4 V1.1.1 (2021-06)	Broadcast Sound Receivers; Part 4: DAB broadcast sound service; harmonized Standard for access to radio spectrum	
TK	ETSI TS 151 010-1 V12.8.0 (2016-05)	Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (3GPP TS 51.010-1 version 12.8.0 Release 12)	Only 12.1 Conducted spurious emissions, 12.2 Radiated spurious emissions

Technical area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
TK	Ministry of Posts and Telecommunication Notification No. 127: March 28, 1988 Ministry of Internal Affairs and Communications Notification No. 72: 2006	Provisions concerning the Methods for Measuring the Electric Field Strength of Radio Stations Operating with Extremely Low Power of Emission	
TK	AS/NZS 4268:2017	Radio equipment and systems—Short range devices—Limits and methods of measurement	Restrictions according to respective radio standard
TK	EN 300328: V1.7.1	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive	
TK	DIN EN 300 328 V.1.9.1: 2015	Electromagnetic compatibility and Radio spectrum Matters (ERM) - Wideband Transmission systems - Data transmission equipment operating in the 2,4 GHz ISM band and using wideband modulation techniques - Harmonized EN covering essential requirements of Article 3.2 of the R&TTE Directive (Endorsement of English version EN 300328 V1.9.1 (2015-02) as German standard)	

Technical area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
TK	DIN EN 300 328 V.1.8.1: 2012	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive (Anerkennung der english version EN 300328 V1.8.1 (2012-06) as german standard)	
TK	DIN EN 300 330-1 V1.8.1: 2015	Electromagnetic compatibility and Radio spectrum Matters (ERM) - 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 - Part 1: Technical characteristics and test methods (Endorsement of the English version EN 300 330-1 V1.8.1 (2015-03) as German standard)	
TK	DIN EN 300 330-2 V1.6.1: 2015	Electromagnetic compatibility and Radio spectrum Matters (ERM) - 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 - Part 2: Harmonized EN covering essential requirements of Article 3.2 of the R&TTE Directive (Endorsement of the English version EN 300 330-2 V1.6.1 (2015-03) as German standard)	
TK	DIN EN 300 440-1 V1.6.1: 2011	Electromagnetic compatibility and Radio spectrum Matters (ERM) - Short Range Devices - Radio equipment to be used in the 1 GHz to 40 GHz frequency range - Part 1: Technical characteristics and test methods (Endorsement of the English version EN 300440-1 V1.6.1 (2010-08) as German standard)	Only measurements for Spurious emission for receivers: Section 8.3

Technical area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
TK	DIN EN 300 440-2: V1.4.1: 2011	Electromagnetic compatibility and Radio spectrum Matters (ERM) - Short Range Devices - Radio equipment to be used in the 1 GHz to 40 GHz frequency range - Part 2: Harmonized EN covering essential requirements of Article 3.2 of the R&TTE Directive (Endorsement of the English version EN 300440-2 V1.4.1 (2010-08) as German standard)	Only measurements for Spurious emission for receivers: Section 5.4.3
TK	ETSI EN 300 440 V2.1.1: 2017	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	Nur die Tests: Störaussendung (gestrahlt und leitungsgebunden)
TK	EN 301 489-3:2002 V1.4.1	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 40 GHz	Up to 40 GHz
TK	EN 301 489-3:2002 V1.4.1	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 40 GHz	Up to 40 GHz
TK	Final Draft ETSI EN 301 489-3 V.2.1.1: 2017	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; harmonized Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	Up to 40 GHz

Technical area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
TK	ETSI EN 301 489-7 V1.3.1: 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)	
TK	EN 301 489-17 V1.3.2: 2008	Electromagnetic compatibility and Radio spectrum Matters (ERM) - Electromagnetic Compatibility (EMC) standard for radio equipment - Part 17: Specific conditions for 2,4 GHz wideband transmission systems, 5 GHz high performance RLAN equipment and 5,8 GHz Broadband Data Transmitting Systems	
TK	Draft ETSI EN 301 489-19 V2.1.0: 2017	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; harmonized Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	
TK	EN 301 511 V9.0.2: 2003	Global System for Mobile communications (GSM); Harmonized EN for mobile stations in the GSM 900 and GSM 1800 bands covering essential requirements under article 3.2 of the R&TTE directive (1999/5/EC)	
TK	EN 301 511 V12.1.1: 2015	Global System for Mobile communications (GSM); harmonized EN for mobile stations in the GSM 900 and GSM 1800 bands covering essential requirements under article 3.2 of the R&TTE directive (1999/5/EC)	
TK	EN 301 893 V1.7.1: 2012	Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive	

Technical area	Standard or House procedure / Issue status	Title of the standard or house procedure	Test area/ Restrictions
TK	EN 301 893 V1.8.1: 2015	Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive	
TK	Final draft ETSI EN 303 345 V1.1.7 (2017-03)	Broadcast Sound Receivers. harmonized Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	
TK	ETSI TS 151 010-1 V4.9.0: 2002	Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (3GPP TS 51.010-1 version 4.9.0 Release 4)	Spurious emission only according to: Section 4.3 Section 5.4
TK	ETSI TS 151 010-1 V12.2.0: 2014	Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (3GPP TS 51.010-1 Version 12.2.0 Release 12)	Only sections: Spurious emission Conducted 12.1 Radiated 12.2