

# Deutsche Akkreditierungsstelle GmbH

## Anlage zur Akkreditierungsurkunde D-PL-12076-01-01 nach DIN EN ISO/IEC 17025:2005

Gültigkeitsdauer: 01.09.2017 bis 21.04.2021      Ausstellungsdatum: 19.09.2017

Urkundeninhaber:

**CTC advanced GmbH**  
**Untertürkheimer Straße 6-10, 66117 Saarbrücken**

Prüfungen in den Bereichen:

**Elektromagnetische Verträglichkeit (EMV), Elektrotechnik**

Innerhalb der mit \* gekennzeichneten Akkreditierungsbereiche ist dem Prüflaboratorium, ohne dass es einer vorherigen Information und Zustimmung der DAkKS bedarf, die Anwendung der hier aufgeführten genormten oder ihnen gleichzusetzenden Prüfverfahren mit unterschiedlichen Ausgabeständen gestattet.

Das Prüflaboratorium verfügt über eine aktuelle Liste aller Prüfverfahren im flexiblen Akkreditierungsbereich.

Die mit \*\* gekennzeichneten Akkreditierungsbereiche unterliegen nicht der Flexibilisierung.

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## D Elektromagnetische Verträglichkeit (EMV)

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
<b>D.1 Grundnormen / Basic Standards *</b>			
EMV	EN 61000-3-2:2014 IEC 61000-3-2:2014	Electromagnetic compatibility (EMC) -- Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	
EMV	EN 61000-3-3:2013 IEC 61000-3-3:2013	... -- 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	
EMV	EN 61000-4-2:2009 IEC 61000-4-2:2008	... -- Part 4-2: Testing and measurement techniques – electrostatic discharge immunity test	
EMV	EN 61000-4-3: 2006 + A1:2008 + A2:2010 IEC 61000-4-3:2006 + A1:2007 + A2:2010	... -- Part 4-3: Testing and measurement techniques – radiated, radio frequency, electromagnetic field immunity test	
EMV	EN 61000-4-4:2012 IEC 61000-4-4:2012	... -- Part 4-4: Testing and measurement techniques – electrical fast transient/burst immunity test	
EMV	EN 61000-4-5:2014 IEC 61000-4-5:2014	... -- Part 4-5: Testing and measurement techniques – surge immunity test	
EMV	EN 61000-4-6:2014 IEC 61000-4-6:2013	... -- Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields	
EMV	EN 61000-4-8:2010 IEC 61000-4-8:2009	... -- Part 4-8: Testing and measurement techniques – power frequency magnetic field immunity test	
EMV	EN 61000-4-9:2016 IEC 61000-4-9:2016	... -- Part 4-9: Testing and measurement techniques – pulse magnetic field immunity test	
EMV	EN 61000-4-11:2004 IEC 61000-4-11:2004	... -- Part 4-11: Testing and measurement techniques – voltage dips, short interruptions and voltage variations immunity test	

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
<b>D.2 Fachgrundnormen / Generic Standards *</b>			
	EN 61000-6-1:2007 IEC 61000-6-1:2005	... -- Part 6-1: Generic standards – Immunity for residential, commercial and light-industrial environments	
	EN 61000-6-2:2005 IEC 61000-6-2:2005	... -- Part 6-2: Generic standards - Immunity for industrial environments	
	EN 61000-6-3: 2007 + A1:2011 IEC 61000-6-3 2006 + A1:2010 AS/NZS 61000.6.3:2012	... -- Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments	
	EN 61000-6-4: 2007 + A1:2010 IEC 61000-6-4 2006 + A1:2010 AS/NZS 61000.6.4:2007	... -- Part 6-4: Generic standards - Emission standard for industrial environments	
<b>D.3 Produktnormen / Product Standards</b>			
	EN 13241-1:2003+A2:2016 *	Tore- Produktnorm – Teil 1: Produkte ohne Feuer- und Rauchschutzeigenschaften;	
	EN 50065-1:2011 *	Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz -Part 1 : General requirements, frequency bands and Electromagnetic disturbances	
	DIN EN 50121-3-2: 2016-01 *	Bahnanwendungen - Elektromagnetische Verträglichkeit - Teil 3-2: Bahnfahrzeuge - Geräte; Deutsche Fassung EN 50121-3-2:2006	
	EN 50121-4:2015 *	Railway applications – Electromagnetic compatibility (EMC) –Part 4: Emission and immunity of signalling and telecommunications apparatus	
	EN 50130-4: 2011+A1:2014 *	Alarm Systems -Part 4: Electromagnetic compatibility - Product family Standard: Immunity requirements for components of fire, intruder and social alarm Systems	
	EN 50293:2012 *	Elektromagnetic compatibility – Road traffic signal systems – Product standard	

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	EN 50412-2-1:2005 * VDE 0808-121:2006-04	Power line communication apparatus and systems used in low-voltage installations in the frequency range 1,6 MHz to 30 MHz -- Part 2-1: Residential, commercial and industrial environment - Immunity requirements	
	DIN EN 50561-1: 2014-08 *	Power line communication apparatus used in low-voltage installations - Radio disturbance characteristics -	
	EN 55011:2016 * IEC/CISPR 11 2015, modifiziert AS/NZS CISPR 11:2011	Industrial, scientific and medical (ISM) radio frequency equipment - Radio disturbances characteristic - Limits and methods of measurement.	
	EN 55013:2013+A1:2016 * IEC/CISPR 13:2009, modifiziert+AMD1:2015, modifiziert AS/NZS CISPR 13:2012	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement.	
	EN 55014-1:2006 + A1:2009 + A2:2011 * IEC/CISPR 14-1 2005 + A1:2008 + Cor. :2009 + A2:2011 AS/NZS CISPR 14.1:2013	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus -Part 1 : Emission	
	EN 55014-2:2015 * IEC/CISPR 14-2:2015	... -Part 2: Immunity - Product family Standard	
	EN 55015:2013+A1:2015 * IEC/CISPR 15 2013+IS1:2013+ IS2:2013+A1:2015 AS/NZS CISPR 15:2011	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment	
	EN 55020:2007+ A12:2016 * IEC/CISPR 20:2006	Sound and television broadcast receivers and associated equipment - Immunity characteristics - Limits and methods of measurement	
	EN 55022:2010 * IEC/CISPR 22 2008, modifiziert AS/NZS CISPR 22: 2009/Amdt :2010	Information technology equipment –Radio disturbance characteristics - Limits and methods of measurement	

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 55024:2010+ A1:2015 * IEC/CISPR 24:2010+ Cor.:2011+A1:2015	Information technology equipment -Immunity characteristics - Limits and methods of measurement	
	DIN EN 55032:2016-02 *	Elektromagnetische Verträglichkeit von Multimediageräten und -einrichtungen - Anforderungen an die Störaussendung (CISPR 32:2012+ Cor. 1:2012 + Cor. 2:2012); Deutsche Fassung EN 55032:2012	
	EN 55103-1:2009 + A1:2012 *	Electromagnetic compatibility - Product family Standard for audio, video, audio-visual and entertainment lighting control apparatus for Professional use -Part 1 : Emission	
	EN 55103-2:2009 *	... -Part 2: Immunity	
	EN 60118-13:2011 * IEC 60118-13:2016	Electroacoustics Hearing aids -Part 13: Electromagnetic compatibility (EMC)	
	EN 60669-2-1:2004/A1:2009 *	Switches for household and similar fixed electrical installations -- Part 2-1: Particular requirements - Electronic switches	
	EN 60669-2-2:2006 * IEC 60669-2-2:2006	... -Part 2: Particular requirements -Section 2: Electromagnetic remote-control Switches (RCS)	
	EN 60669-2-3:2006 * IEC 60669-2-3:2006	... -- Part 2-3: Particular requirements - Time-delay switches (TDS)	
	EN 60945:2002 * IEC 60945 4th edition 2002:2002	Maritime navigation and radio communication equipment and Systems - General requirements - Methods of testing and required test results	only EMC
	EN 60974-10:2014+A1:2015* IEC 60974-10:2014+A1:2015	Arc welding equipment --Part 10: Electromagnetic compatibility (EMC) requirements	
	EN 61547:2009 * IEC 61547:2009	Equipment for general lighting purposes - EMC immunity requirements	
	EN 61800-3:2004 + A1:2012 * IEC 61800-3 2004 + A1:2011	Adjustable speed electrical power drive Systems -- Part 3: EMC requirements and specific test methods	
	EN 61204-3 :2000 * IEC 61204-3:2000	Stromversorgungsgeräte für Niederspannung mit Gleichstromausgang	

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	DIN EN 61326-1: 2013-07 *	Titel (deutsch): Elektrische Mess-, Steuer-, Regel- und Laborgeräte - EMV-Anforderungen - Teil 1: Allgemeine Anforderungen (IEC 61326-1:2012); Deutsche Fassung EN 61326-1:2013	
	EN 300 386 * V2.1.1 :2016-07	Electromagnetic compatibility and Radio spectrum Matters (ERM); Telecommunications network equipment Electromagnetic Compatibility (EMC) requirements	
	EN 301 843-1 * V1.3.1:2012-08	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services; Part 1: Common technical requirements	
	EN 301 843-2 * V1.2.1:2004-06	... Part 2: Specific conditions for radiotelephone transmitters and receivers	
	ETSI EN 301 843-4 * V1.2.1:2004-04	... Part 4: Specific conditions for Narrow-Band Direct-Printing (NBDP) NAVTEX receivers	
	Draft ETSI EN 301 489-1 * V2.2.0:2017-03	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1 : Common technical requirements	
	Draft ETSI EN 301 489-2 * V2.1.0:2017-03	... Part 2: Specific conditions for radio paging equipment	
	Final Draft ETSI EN 301 489-3 * V2.1.1:2017-03	... Part 3: Specific conditions for Short Range Devices (SRD) operating on frequencies between 9 kHz and 246 GHz	
	Draft ETSI EN 301 489-4 * V3.2.0:2017-03	... Part 4: Specific conditions for fixed radio links and ancillary equipment and services	
	Draft ETSI EN 301 489-5 * V2.2.0:2017-03	... Part 5: Specific conditions for Private land Mobil Radio (PMR) and ancillary equipment (speech and non-speech)	
	Draft ETSI EN 301 489-6 * V2.2.0:2017-03	... Part 6: Specific conditions for Digital Enhanced Cordless Telecommunications (DECT) equipment	
	EN 301 489-7 * V1.3.1:2005-11	... Part 7: Specific conditions for mobile and portable radio and ancillary equipment of digital cellular radio telecommunications systems (GSM and DCS)	
	EN 301 489-8 * V1.2.1:2002-08	... Part 8: Specific conditions for GSM base stations	

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	Final Draft ETSI EN 301 489-9 * V2.1.1:2017-03	... Part 9: Specific conditions for wireless microphones, similar Radio Frequency (RF) audio link equipment, cordless audio and in-ear monitoring devices	
	EN 301 489-10 * V1.3.1:2002-08	...; Part 10: Specific conditions for First (CT1 and CT1+) and Second Generation (CT2) Cordless Telephone equipment	
	EN 301 489-11 * V1.3.1:2006-05	... Part 11: Specific conditions for terrestrial sound broadcasting service transmitters	
	EN 301 489-12 * V2.2.2:2008-09	... Part 12: Specific conditions for Very Small Aperture Terminal, Satellite Interactive Earth Stations operated in the frequency ranges between 4 GHz and 30 GHz in the Fixed Satellite Service (FSS"	
	EN 301 489-13 * V1.2.1:2002-08	...; Part 13: Specific conditions for Citizens' Band (CB) radio and ancillary equipment (speech and non-speech)	
	EN 301 489-14 * V1.2.1:2003-05	... Part 14: Specific conditions for analogue and digital terrestrial TV broadcasting service transmitter"	
	Draft ETSI EN 301 489-15 * V2.2.0:2017-03	...; Part 15: Specific conditions for commercially available amateur radio equipment	
	EN 301 489-16 * V1.2.1:2002-08	...; Part 16: Specific conditions for analogue cellular radio communications equipment, mobile and portable	
	Draft ETSI EN 301 489-17 * V3.2.0:2017-03	...; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment	
	Draft ETSI EN 301 489-19 * V2.1.0:2017-03	...; Part 19: Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications	
	EN 301 489-20 * V1.2.1:2002-11	...; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS)	
	EN 301 489-22 * V1.3.1:2003-11	...; Part 22: Specific conditions for ground based VHF aeronautical mobile and fixed radio equipment	
	EN 301 489-23 * V1.5.1:2011-07	...; Part 23: Specific conditions for IMT-2000 CDMA Direct Spread (UTRA) Base Station (BS) radio, repeater and ancillary equipment	

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	EN 301 489-24 * V1.5.1:2010-10	...; Part 24: Specific conditions for IMT-2000 CDMA Direct Spread (UTRA) for Mobile and portable (UE) radio and ancillary equipment	
	EN 301 489-25 * V2.3.2:2005-07	...; Part 25: Specific conditions for IMT-2000 CDMA Multi-carrier Mobile Stations and ancillary equipment	
	EN 301 489-26 * V2.3.2:2005-07	...; Part 26: Specific conditions for IMT-2000 CDMA Multi-carrier Base Stations and ancillary equipment	
	Draft ETSI EN 301 489-27 * V2.2.0:2017-03	...; Part 27: Specific conditions for Ultra Low Power Active Medical Implants (ULP-AMI) and related peripheral devices (ULP-AMI-P)	
	EN 301 489-28 * V1.1.1:2004-09	...; Part 28: Specific conditions for wireless digital video links	
	Draft ETSI EN 301 489-31 * V2.2.0:2017-03	...; Part 31: Specific conditions for equipment in the 9 to 315 kHz band for Ultra Low Power Active Medical Implants (ULP-AMI) and related peripheral devices (ULP-AMI-P)	
	Draft ETSI EN 301489-33 * V2.2.0:2017-03	Electromagnetic compatibility and Radio spectrum Matters (ERM) - ElectroMagnetic Compatibility (EMC) standard for radio equipment and services - Part 33: Specific conditions for Ultra Wide Band (UWB) communication devices	
	Final Draft EN 301 489-34 * V2.1.1:2017-04	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	
	Draft ETSI EN 301 489-50 * V2.2.0:2017-03	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 50: Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment	
	Draft ETSI EN 301 489-51 * V2.1.0:2017-03	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; Harmonised Standard covering the essential requirements of article 3.1b of Directive 2014/53/EU	



Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	Draft ETSI EN 301 489-52 * V1.1.0 (2016-11)	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	
<b>D.4 Hearing Aids Compatibility *</b>			
	IEEE C63.19:2007 IEEE C63.19:2011	Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids	

## E Produktsicherheit

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 60065: 2015 * EN 60065:2011 2002/A1/A2/A11/A12/AC VDE 0860: 2015 IEC 60065: 2014 IEC 60065 : 2011 UL 60065: 2015 UL 60065: 2003 CAN/CSA-C22.2 NO. 60065: 2016 AS/NZS 60065: 2012/A1: 2015	Audio-, Video- und ähnliche elektronische Geräte - Sicherheitsanforderungen (Audio, Video and Similar Electronic Apparatus – Safety Requirements)	
	EN 60086-4: 2015* IEC 60086-4: 2014	Primary batteries - Part 4: Safety of lithium batteries	
	EN 60086-5: 2011* IEC 60086-5: 2011	Primary batteries - Part 5: Safety of batteries with aqueous electrolyte	
	EN 60215: 1989/A1/A2 * VDE 0866: 1993/A1/A2 IEC 60215: 1987/A1/A2 IEC 60215: 2016	Sicherheitsbestimmung für Funksender (Safety requirements for radio transmitting equipment)	
	EN 60335-1: 2012/A11: 2014 * IEC 60335-1: 2010/ Corr.1:2010/Corr. 2:2011/ A1:2013	Household and similar electrical appliances – Safety – Part 1: General requirements	

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 60335-2-29: 2004/ A2:2010 * E EN 60335-2-29: 2015 IEC 60335-2-29: 2002/A1:2004/A2:2009	- Teil 2-29: Besondere Anforderungen für Batterieladegeräte (-Part 2-29: Particular requirements for battery chargers)	
	EN60335-2-95: 2016 * IEC60335-2-95: 2011/ A1:2015	- Part 2-95: Particular requirements for drives for vertically moving garage doors for residential use	
	EN60335-2-97: 2010 * E EN 60335-2-97:2016 IEC60335-2-97: 2002/ A1:2004/A2:2008	- Part 2-97: Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment	
	EN 60669-1: 2009 * IEC 60669-1:1998/A1:1999 /A2:2006	Switches for household and similar fixed-electrical installations - Part 1: General requirements	
	EN 60669-2-1: 2010 * IEC 60669-2-1: 2002/ A1:2008	- Part 2-1: Particular requirements - Electronic switches	
	EN 60695-11-5:2005 * IEC 60695-11-5:2004	Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	
	EN 60695-2-10: 2014 * IEC 60 695-2-10: 2013	Part 2-10: Glowing/hot-wire based test methods – Glow-wire apparatus and common test procedure	
	EN 60695-2-11: 2014 * IEC 60695-2-11: 2014	Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products	
	EN 60695-2-12:2011/A1* IEC 60695-2-12: 2010/A1	Part 2-12: Glowing/hot-wire based test methods – Glow-wire flammability test method for materials	
	EN 60695-11-10:2014 * IEC 60695-11-10: 2013	Part 11-10: Test flames – 50 W horizontal and vertical flame test methods	
	EN 60695-11-20: 2015/AC * IEC 60 695-11-20: 2015/C1	Part 11-20: Test flames – 500 W flame test methods	
	EN 60730-1: 2012 * IEC 60730-1: 2013/A1	Automatic electrical controls for household and similar use - Part 1: General requirements	
	EN 60730-2-2: 2006 * IEC 60730-2-2: 2001/A1	Automatic electrical controls for household and similar use - Part 2-2: Particular requirements for thermal motor protectors	

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 60730-2-3: 2008 * IEC 60730-2-3: 2006	Automatic electrical controls for household and similar use - Part 2-3: Particular requirements for thermal protectors for ballasts for tubular fluorescent lamps	
	EN 60730-2-4: 2008 * IEC 60730-2-4: 2006	Automatic electrical controls for household and similar use - Part 2-4: Particular requirements for thermal motor protectors for motor-compressors of hermetic and semi-hermetic type	
	EN 60730-2-6: 2009 * IEC 60730-2-6: 2015	Automatic electrical controls for household and similar use - Part 2-6: Particular requirements for automatic electrical pressure sensing controls including mechanical requirements	
	EN 60730-2-7: 2011 * IEC 60730-2-7: 2015	Automatic electrical controls for household and similar use - Part 2-7: Particular requirements for timers and time switches	
	EN 60730-2-8: 2004 * IEC 60730-2-8: 2000/A1/A2	Automatic electrical controls for household and similar use - Part 2-8: Particular requirements for electrically operated water valves, including mechanical requirements	
	EN 60730-2-9: 2011 * IEC 60730-2-9: 2015	Automatic electrical controls for household and similar use - Part 2-9: Particular requirements for temperature sensing controls	
	EN 60730-2-10: 2008 * IEC 60730-2-10: 2006	Automatic electrical controls for household and similar use - Part 2-10: Particular requirements for motor-starting relays	
	EN 60730-2-11: 2008 * IEC 60730-2-11: 2006	Automatic electrical controls for household and similar use - Part 2-11: Particular requirements for energy regulators	
	EN 60730-2-12: 2006 * IEC 60730-2-12: 2015	Automatic electrical controls for household and similar use - Part 2-12: Particular requirements for electrically operated door locks	
	EN 60730-2-13: 2008 * IEC 60730-2-13: 2006	Automatic electrical controls for household and similar use - Part 2-13: Particular requirements for humidity sensing controls	
	EN 60730-2-14: 2009 * IEC 60730-2-14: 1995/A1/A2	Automatic electrical controls for household and similar use - Part 2-14: Particular requirements for electric actuators	
	EN 60730-2-15: 2011 * IEC 60730-2-15: 2008	Automatic electrical controls for household and similar use - Part 2-15: Particular requirements for automatic electrical air flow, water flow and water level sensing controls	

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	EN 60730-2-19: 2009 * IEC 60730-2-19: 1997/A1/A2	Automatic electrical controls for household and similar use - Part 2-19: Particular requirements for electrically operated oil valves, including mechanical requirements	
	EN 60825-1: 2015 * IEC 60825-1: 2014	Safety of laser products - Part 1: Equipment classification and requirements	
	EN 60825-2: 2011 * IEC 60825-2: 2004/A1/A2	Safety of laser products - Part 2: Safety of optical fibre communication systems (OFCS)	
	IEC 60 884-1:2002 /A1/A2 *	Plugs and socket-outlets for household and similar purposes –Part 1: General requirements	
	VDE 0620-1: 2016	Stecker und Steckdosen für den Hausgebrauch und ähnliche Anwendungen – Teil 1: Allgemeine Anforderungen an ortsfeste Steckdosen	
	VDE 0620-2-1: 2016	Stecker und Steckdosen für den Hausgebrauch und ähnliche Anwendungen – Teil 2-1: Allgemeine Anforderungen an Stecker und Kupplungsdosen	
	BS 1363-1: 2016	13 A plugs, socket-outlets, adaptors and connection units. Specification for rewirable and non-rewirable 13 A fused plugs	
	BS 1363-2: 2016	13 A plugs, socket-outlets, adaptors and connection units. Specification for 13 A switched and unswitched socket-outlet	
	BS 1363-3: 2016	13 A plugs, socket-outlets, adaptors and connection units. Specification for adaptors	
	AS/NZS 3112: 2016	Approval and Test specification – Plugs and socket-outlets	
	NF C61-314:2008/A1:2010	Plugs and socket-outlets for household and similar purposes – 6A/250V and 16A/250V	
	SEV 1011: 2009	Stecker und Steckdosen für den Hausgebrauch und ähnliche Zwecke	
	SEV-1011/A1:2012	Stecker und Steckdosen für den Hausgebrauch und ähnliche Zwecke – A1: Abzweig- und Zwischenstecker, Verlängerungskabel, Steckdosenleisten sowie Reise- und Fixadapter	

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 50075: 1990 VDE 0620-101:1992	Steckvorrichtungen bis 400 V 25 A Flache, nichtwiederanschließbare zweipolige Stecker, 2,5 A 250 V, mit Leitung, die für die Verbindung von Klasse-II-Geräten für Haushalt und ähnliche Zwecke (Plugs and socket-outlets up to 400 V 25 A; Flat non-wirable two pole plugs, 2,5 A 250 V, with cord, for the connection of class-II-equipment for household and similar purposes)	
	EN 60 950-1: 2014* VDE 0805-1: 2014 IEC 60950-1: 2005/A1/A2 UL 60950-1: 2007 CAN/CSA-C22.2 NO. 60950-1B-07: R2012 AS/NZS 60950.1: 2015	Einrichtungen der Informationstechnik – Sicherheit, Teil 1: Allgemeine Anforderungen (Information Technology Equipment – Safety – Part1: General requirements)	
	EN 60950-21: 2003 * VDE 0805-21: 2003 IEC 60950-21: 2002	Information technology equipment – Safety – Part 21: Remote power feeding	
	EN 60950-22: 2006/AC * VDE 0805-22: 2006 IEC 60950-22: 2016	Information technology equipment – Safety – Part 22: Equipment to be installed outdoors	
	EN 61010-1: 2011 * IEC 61010-1: 2010	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 1: General requirements	
	EN 61010-2-010: 2014 * 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	
	EN 61010-2-020: 2007 * IEC 61010-2-020: 2006	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-020: Particular requirements for laboratory centrifuges	
	EN 61010-2-030: 2011 * IEC 61010-2-030: 2010	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-030: Particular requirements for testing and measuring circuits	

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 61010-2-032:2012 * IEC 61010-2-032: 2012	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-032: Particular requirements for hand-held and hand manipulated current sensors for electrical test and measurement	
	EN 61010-2-040: 2015 * IEC 61010-2-040: 2015	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-040: Particular requirements for sterilizers and washer-disinfectors used to treat medical materials	
	EN 61010-2-051: 2015 * IEC 61010-2-051: 2015	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-051: Particular requirements for laboratory equipment for mixing and stirring	
	EN 61010-2-061: 2016 * IEC 61010-2-061: 2015	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-061: Particular requirements for laboratory atomic spectrometers with thermal atomization and ionization	
	EN 61010-2-081: 2015 * 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	
	EN 61010-2-101: 2003 * IEC 61010-2-101: 2015	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-101: Particular requirements for in vitro diagnostic (IVD) medical equipment	
	EN 61010-2-201: 2013/AC * IEC 61010-2-201: 2013	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-201: Particular requirements for control equipment	
	EN 61010-031: 2016 * IEC 61010-031: 2015	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 031: Safety requirements for hand-held probe assemblies for electrical measurement and test	
	EN 61058-1: 2002/A2:2008 * E EN 61058-1: 2015 IEC 61058-1:2000 /A1:2001/A2:2007	Switches for appliances - Part 1: General requirements	

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Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 61058-2-4:2005 * IEC 61058-2-4:1995 /A1:2003	Switches for appliances - Part 2-4: Particular requirements for independently mounted switches	
	EN 61558-1: 2006/A1: 2009 * IEC 61558-1: 2005/A1: 2009	Safety of power transformers, power supplies, reactors and similar products - Part 1: General requirements and tests	
	EN 61558-2-1: 2007 * IEC 61558-2-1: 2007	Safety of power transformers, power supplies, reactors and similar products - Part 2-1: Particular requirements and tests for separating transformers and power supplies incorporating separating transformers for general applications	
	EN 61558-2-2: 2007 * IEC 61558-2-2: 2007	Safety of power transformers, power supplies, reactors and similar products - Part 2-2: Particular requirements and tests for control transformers and power supplies incorporating control transformers	
	EN 61558-2-3: 2011 * IEC 61558-2-3: 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2-3: Particular requirements and tests for ignition transformers for gas and oil burners	
	EN 61558-2-4: 2009 * IEC 61558-2-4: 2009	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1100 V - Part 2-4: Particular requirements and tests for isolating transformers and power supply units incorporating isolating transformers	
	EN 61558-2-5: 2011 * IEC 61558-2-5: 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2-5: Particular requirements and tests for transformer for shavers, power supply units for shavers and shaver supply units	
	EN 61558-2-6: 2010 * IEC 61558-2-6: 2009	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1100 V - Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers	
	EN 61558-2-7: 2008 * IEC 61558-2-7: 2007	Safety of power transformers, power supplies, reactors and similar products - Part 2-7: Particular requirements and tests for transformers and power supplies for toys	

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 61558-2-8: 2011 * IEC 61558-2-8: 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2-8: Particular requirements and tests for transformers and power supply units for bells and chimes	
	EN 61558-2-9: 2011 * IEC 61558-2-9: 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2-9: Particular requirements and tests for transformers and power supply units for class III handlamps for tungsten filament lamps	
	EN 61558-2-13: 2009 * IEC 61558-2-13: 2009	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1100 V - Part 2-13: Particular requirements and tests for auto transformers and power supply units incorporating auto transformers	
	EN 61558-2-14: 2013 * IEC 61558-2-14: 2012	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1100 V - Part 2-14: Particular requirements and tests for variable transformers and power supply units incorporating variable transformers	
	EN 61558-2-15: 2012 * IEC 61558-2-15: 2011	Safety of transformers, reactors, power supply units and combinations thereof - Part 2-15: Particular requirements and tests for isolating transformers for the supply of medical locations	
	EN 61558-2-16:2010/ A1 * IEC 61558-2-16: 2009/A1	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1100 V - Part 2-16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units	
	EN 61558-2-19: 2001 * IEC 61558-2-19: 2000	Safety of power transformers, power supply units and similar devices - Part 2-19: Particular requirements for perturbation attenuation transformers	
	EN 61558-2-20: 2011 * IEC 61558-2-20: 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2-20: Particular requirements and tests for small reactors	
	EN 61558-2-23: 2011 * IEC 61558-2-23: 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2-23: Particular requirements and tests for transformers and power supply units for construction sites	



Anlage zur Akkreditierungsurkunde D-PL-12076-01-01

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 62133: 2013 * IEC 62133: 2012	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	
	EN 62281: 2013 * IEC 62281: 2012	Safety of primary and secondary lithium cells and batteries during transport	
	EN 62368-1: 2014/AC: 2015 * VDE 0868-1:2016 IEC 62368-1:2014/cor. 2015, Ed. 2 UL 62368-1: 2014 CAN/CSA-C22.2 NO. 62368-1-14	Audio/video, information and communication technology equipment Safety – Requirements	
	IEEE 1725: 2013 *	Rechargeable batteries for cellular telephones	
	IEEE 1625: 2014 *	Rechargeable batteries for multi-cell mobile computing devices	
	Battery System program Revision 2.5: 2013 **	CTIA Certification Requirements for Battery System Compliance to IEEE 1725	
	UN ST-SG-AC10-11 cl. 38.3 Revision 6 *	Recommendations on the TRANSPORT OF DANGEROUS GOODS Manual of Tests and Criteria ST-SG-AC10-11 Section 38.3 Lithium metal and lithium ion batteries	
	UL 1642: 2012 *	Lithium Batteries	
	UL 2054: 2004 *	Household and commercial batteries	

**F SAR / EMF**

*SAR/EMF*

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 50360:2001+Cor.: 2006+ A1:2012 *	Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields (300 MHz – 3 GHz)	
	EN 50364:2010 *	Limitation of human exposure to electromagnetic field from devices operating in the frequency range 0 Hz to 10 GHz, used in Electronic Article Surveillance (EAS), Radio Frequency Identification (RFID) and similar applications	
	EN 50383:2010 *	Basic standard for the calculation and measurement of electromagnetic field strength and SAR related to human exposure from radio base stations and fixed terminal stations for wireless telecommunication system (110 MHz – 40 GHz)	
	EN 50385:2002 *	Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to the general exposure to radio frequency electromagnetic fields (110 MHz – 40 GHz)	
	EN 50413:2009 +A1:2013 * VDE 0848-1	Basic standard on measurement and calculation procedures for human exposure to electric, magnetic and electromagnetic fields (0 Hz - 300 GHz)  In combination with: 26. BImSchV, 26. Verordnung zur Durchführung des Bundes-Immissionsschutzgesetzes (Verordnung über elektromagnetische Felder), Bekanntmachung 14.08.2013	
	EN 50566:2013 *	Product standard to demonstrate compliance of radio frequency fields from handheld and body-mounted wireless communication devices used by the general public (30 MHz - 6 GHz)	

**SAR/EMF**

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 62 209-1:2006 * IEC 62209-1:2005 IEC 62209-1:2016	Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures – Part 1: Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)	
	EN 62 209-2:2010 * IEC 62209-2:2010+Cor.:2010	... – Part 2: Procedure to determine the specific absorption rate (SAR) in the head and body for 30 MHz to 6 GHz hand-held and body-mounted devices used in close proximity to the body	
	EN 62 311:2008 * IEC 62 311:2007	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300 GHz)	
	DIN EN 62369-1:2010-03 *	Evaluation of human exposure to electromagnetic fields from short range devices (SRDs) in various applications over the frequency range 0 GHz to 300 GHz - Part 1: Fields produced by devices used for electronic article surveillance, radio frequency identification and similar systems (IEC 62369-1:2008); German version EN 62369-1:2009	
	EN 62 479:2010 * IEC 62 479:2010	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)	
	IEEE C95.1-1992 * IEEE C95.1-1999 IEEE C95.1-2005	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz	
	IEEE C95.3-2002 *	IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave	
	IEEE 1528-2003 * IEEE 1528-2011 IEEE 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques	

Anlage zur Akkreditierungsurkunde D-PL-12076-01-01

*SAR/EMF*

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	Canada: RSS-102 * Issue 3 (2009) Issue 4 (2010) Issue 5 (2015)	Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)	
	Australia: EMR 2003 *	Radio Communications (Electromagnetic Radiation – Human Exposure) Standard 2003	
	Australia ARPANSA RPS No.3 - 2002 *	Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz	

## G Umwelt

### Umwelt \*

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 60945: 2003 IEC 60945: 2002	Maritime navigation and radio communication equipment and Systems – General requirements – Methods of testing and required test results	
	EN 60068-2-1: 2008 IEC 60068-2-1: 2007	Environmental testing - Part 2-1: Tests - Test A: Cold	
	EN 60068-2-2: 2008 IEC 60068-2-2: 2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat	
	EN 60068-2-6: 2008 IEC 60068-2-6: 2007	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	
	EN 60068-2-14: 2010 IEC 60068-2-14: 2009	Environmental testing - Part 2-14: Tests - Test N: Change of temperature	
	EN 60068-2-27: 2010 IEC 60068-2-27: 2008	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	
	EN 60068-2-30: 2006 IEC 60068-2-30: 2005	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	
	EN 60068-2-38: 2010 IEC 60068-2-38: 2009	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test	
	EN 60068-2-47: 2006 IEC 60068-2-47: 2005	Environmental testing - Part 2-47: Tests - Mounting of specimens for vibration, impact and similar dynamic tests	
	EN 60068-2-48: 2000 IEC 60068-2-48: 1982	Environmental testing - Part 2: Tests; guidance on the application of the tests of IEC 60068 to simulate the effects of storage	
	EN 60068-2-64: 2009 IEC 60068-2-64: 2008	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance	
	EN 60068-2-78: 2013 IEC 60068-2-78: 2012	Environmental testing - Part 2-78: Tests; Test Cab: Damp heat, steady state	

## H Smart Card Technology

### H1 Smart Card Terminals, Level 1 Type Approval Test \*

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EMV 2000 / v4.3 / 11.2011	Integrated Circuit Card Specifications for Payment Systems; Book 1: Application Independent ICC to Terminal Interface Requirements	
	EMV 2000/ v4.3 / 11.2011	Integrated Circuit Card Specifications for Payment Systems; Book 2: Security and Key Management	
	EMV 2000/ v4.3 / 11.2011	Integrated Circuit Card Specifications for Payment Systems; Book 3: Application Specification	
	EMV 2000/ v4.3 / 11.2011	Integrated Circuit Card Specifications for Payment Systems; Book 4: Cardholder, Attendant and Acquirer Interface Requirements	
	EMV 2000/ v4.3 / 11.2011	Terminals Requirements of Chip Pay Now (Debit) and Pay Later (Credit) Cards	
	EMVCo / Version 4.3a /11.2011	EMVCo Terminal Type Approval Contact Level 1 Administrative Process	

### H2 RF Schnittstelle für ID-Dokumente (e-Passport)

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	BSI TR-03105 Part 2: Version 2.2 / 01.12.2009 Part 4: Version 2.2 / 17.03.2010 **	Teil 2 e-Passport Conformity Testing Teil 4 e-Passport Lesegeräte, PCD Layer 1-4	
	ICAO-TR Part 2 / Version 1.02 / 20.02.2007, Part 4 / Version 1.01 / 20.02.2007 **	RF Protocol and application, test standard for e-passport – part 2 / - part 4	
	ISO 10373-6 / Second edition / 15.01.2011 *	Identification cards -- Test methods -- Part 6: Proximity cards	

**I Bluetooth®**

*I Bluetooth® \**

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	Low energy RF PHY	RF-PHY.TS/4.0/4.1/4.2	
	RF Secification	Specification 2.1/2.1+EDR/3.0/3.0 + HS/4.0/4.1/4.2	
	Profile Specification	PTS 6.4.0	

**K Automotive**

*Automotive \**

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	ISO 11452-2 2nd edition:2004	Road vehicles – Component test methods for electrical disturbances from narrowband radiated electromagnetic energy – Part 2: Absorber-lined shielded enclosure.	
	ISO 11452-4 3rd edition:2005 Corr.1:2009	Road vehicles – Component test methods for electrical disturbances from narrowband radiated electromagnetic energy – Part 4: Bulk current injection (BCI).	
	ISO 11452-4 4th edition:2011	Road vehicles – Component test methods for electrical disturbances from narrowband radiated electromagnetic energy – Part 4: Harness excitation methods	
	ISO 11452-5 2nd edition:2002	Road vehicles – Component test methods for electrical disturbances from narrowband radiated electromagnetic energy – Part 5: Stripline.	
	ISO 11452-8 2nd edition:2015	Road vehicles – Component test methods for electrical disturbances from narrowband radiated electromagnetic energy – Part 8: Immunity to magnetic fields	

**Automotive \***

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	ISO 11452-9 1st edition:2012	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 9: Portable Transmitters	
	ISO 16750-2 4th edition:2012	Road vehicles – Environmental conditions and testing for electrical and electronic equipment - Part 2: Electrical loads	
	ISO 10605 2008/ Amd.1:2014	Road vehicles – Electrical disturbances from electrostatic discharges.	
	ISO 7637-1 1st edition:1990 DIN 40 839-1:1992	Road vehicles – Electrical disturbance by conduction and coupling – Part 1: Passenger cars and light commercial vehicles with nominal 12-V supply voltage – Electrical transient conduction along supply lines only.	
	ISO 7637-2 1st edition:1990 DIN 40 839-1:1992	Road vehicles – Electrical disturbance by conduction and coupling – Part 2: Commercial vehicles with nominal 24-V supply voltage – Electrical transient conduction along supply lines only.	
	ISO 7637-2 2nd edition:2004 Amd1:2008 3rd edition:2011	Road vehicles – Electrical disturbance from conduction and coupling – Part 2: Electrical transient conduction along supply lines only.	
	ISO 7637-3 1st edition:1995	Road vehicles – Electrical disturbance 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.	
	ISO 7637-3 2nd edition:2007	Road vehicles – Electrical disturbance from conduction and coupling – Part 3: Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines	
	ISO 14982 1st edition:1998 EN ISO 14982:2009	Agricultural and forestry machinery – Electromagnetic compatibility – Test methods and acceptance criteria	



**Automotive \***

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 12895:2015 DIN EN 12895:	Industrial trucks – Electromagnetic compatibility	
	EN 13309:2010 DIN EN 13309:2010	Construction machinery - Electromagnetic compatibility of machines with internal electrical power supply	
	EN 50498:2010 DIN EN 50498:2011	Electromagnetic compatibility (EMC) - Product family standard for aftermarket electronic equipment in vehicles; German version EN 50498:2010	
	EN 55012 2007/A1:2009 DIN EN 55012:2010 IEC/CISPR 12 6th edition:2007/ A1:2009 AS/NZS CISPR 12:2009	Vehicles, boats and internal combustion engine driven devices – Radio disturbance characteristics – Limits and methods of measurement for the protection of receivers except those installed in the vehicle/boat/device itself or in adjacent vehicles/boats/devices	
	EN 55025:2008 DIN EN 55025:2009 IEC/CISPR 25 3rd edition:2008	Radio disturbance characteristics for the protection of receivers used on board vehicles, boats and on devices – Limits and methods of measurement	
	ISO 13766 2nd edition:2006	Earth-moving machinery – Electromagnetic compatibility	
	UN ECE-R 10, Rev.4 Supplement 2	Regelung Nr. 10– Einheitliche Bedingungen für die Genehmigung der Fahrzeuge hinsichtlich der elektromagnetischen Verträglichkeit Anhang 7, 8, 9, 10	
	UN ECE-R 10, Rev.5	Regelung Nr. 10– Einheitliche Bedingungen für die Genehmigung der Fahrzeuge hinsichtlich der elektromagnetischen Verträglichkeit Anhang 7, 8, 9, 10, 17, 18, 19, 20, 21, 22	Anhang 17 u. 18: nur ≤16 A / Phase
	UN ECE-R 100 Rev.2 Änd.02 Erg.2	Regelung Nr. 100– Einheitliche Bedingungen für die Genehmigung der batteriebetriebenen Elektro-Fahrzeuge hinsichtlich der besonderen Anforderungen an die Bauweise und die Betriebssicherheit Annex 8 (8A - 8I)	

**O Akustik**

**Akustik**

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	EN 50332-1 * DIN EN 50332-1:2014	Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for "one package equipment";	
	DIN EN 50332-2:2014 *	Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Matching of sets with headphones if either or both are offered separately	
	EN 60118-0:1993+A1:1994 * DIN EN 60118-0:1994 IEC 60118-0:2015	Hörgeräte; Teil 0: Messung der elektroakustischen Eigenschaften	
	EN 60118-1:1999 * DIN EN 60118-1:1995+A1:1998 IEC 60118-1:1995+A1:1998	Hörgeräte - Teil 1: Hörgeräte mit Induktionsspuleneingang	
	EN 60118-2:1995+A2:1997 * DIN EN 60118-2:1998 IEC 60118-2:1983+A1:1993 +A2:1997	Hörgeräte - Teil 2: Hörgeräte mit automatischer Verstärkungsregelung	
	EN 60118-6:1999 * DIN EN 60118-6:2000 IEC 60118-6:1999	Hörgeräte - Teil 6: Eigenschaften elektrischer Eingänge von Hörgeräten	
	EN 60118-7:2005 * DIN EN 60118-7:2006 IEC 60118-7:2005	Akustik - Hörgeräte - Teil 7: Messung der Übertragungseigenschaften von Hörgeräten zum Zwecke der Qualitätssicherung in der Herstellung, Versorgung und Lieferung	
	EN 60118-13:2011 * DIN EN 60118-13:2012 IEC 60118-13:2016	Akustik - Hörgeräte - Teil 13: Elektromagnetische Verträglichkeit (EMV)	

**Akustik**

<b>Fachbereich</b>	<b>Norm oder Prüfverfahren (Ausgabestand)</b>	<b>Titel der Norm oder des Prüfverfahrens</b>	<b>Prüfbereich /Einschränkung</b>
	NSH 7.0 * 7th edition, 2007-03-01	Hearing Aids, requirements and guidelines	
	TBR 10 ** Third Edition: 1999-07	Digital European Cordless Telecommunications (DECT); Telephony applications	
	TBR 38:1998-05 **	Attachment requirements for a terminal equipment incorporating an analogue handset function capable of supporting the justified case Service when connected to the analogue interface of the PSTN in Europe	
	ETSI EG 202 518 * V1.4.1: 2014-01	Speech Processing, Transmission and Quality Aspects (STQ); Acoustic Output of Terminal Equipment; Maximum Levels and Test Methodology for Various Applications	
	ETSI EN 300 175-8 * V2.6.1: 2015-07	Radio Equipment and Systems (RES); Digital European Cordless Telecommunication (DECT); Common Interface (CI); Part 8: Speech coding and transmission	
	3GPP TS 26.131 * V13.1.0: 2016-01	3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Terminal acoustic characteristics for telephony; Requirements	
	3GPP TS 26.132 * V13.1.0: 2016-01	3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Speech and video telephony terminal acoustic test specification	
	IEEE C63.19:2011 *	Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids	
	EN 60950-1 * VDE 0805 Teil 1 IEC 60950-1:2011-02	Einrichtungen der Informationstechnik – Sicherheit, Teil 1: Allgemeine Anforderungen (Information Technology Equipment – Safety – Part1: General requirements)	
	CS-03 Part V * Issue 09:2015-10	Compliance Specification for Terminal Equipment, Terminal Systems, Network Protection Devices, Connection Arrangements and Hearing Aids Compatibility	
	47 CFR Part 68.316:2016-03 *	Hearing aid compatibility: Technical requirements.	Medizin
	47 CFR Part 68.317:2016-03 *	Hearing aid compatibility volume control: technical standards	

**Akustik**

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	UL 60950-1 * Annex NAD: 2007-03	Safety of information technology equipment – Part 1: General Requirements	
	AS/ACIF S040:2001 *	Requirements for Customer Equipment for use with Standard Telephone Service – Features for special needs of persons with disabilities	
	AS/CA S004:2013 *	Voice performance requirements for Customer Equipment	

**P Near Field Communication (NFC) \*\***

Fachbereich	Norm oder Prüfverfahren (Ausgabestand)	Titel der Norm oder des Prüfverfahrens	Prüfbereich /Einschränkung
	NFCForum-TS-DigitalProtocol-1.1 2014-07-14	NFC Digital Protocol Technical Specification, DIGITAL 1.1	
	NFCForum-TS-AnalogProtocol-1.1 2015-02-15	NFC Analog Technical Specification, ANALOG 1.1	
	NFCForum-TS-LLCP_1.2 2014-12-15	Logical Link Control Protocol, LLCP 1.2	
	NFCForum-TS-SNEP_1.0 2015-07-08	Simple NDEF Exchange Protocol Technical Specification, SNEP 1.0	