Deutsche Akkreditierungsstelle GmbH

Anlage zur Akkreditierungsurkunde D-PL-20827-01-01 nach DIN EN ISO/IEC 17025:2018

Gültig ab: **24.01.2022**

Ausstellungsdatum: 09.02.2022

Urkundeninhaber:

Molex CVS Bochum GmbH
Molex CVS Lab
Meesmannstraße 103, 44807 Bochum

Prüfungen in den Bereichen:

Elektromagnetische Verträglichkeit (EMV), Funk und Umweltprüfverfahren

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 Anforderungen an das Managementsystem in der DIN EN ISO/IEC 17025 sind in einer für Prüflaboratorien relevanten Sprache verfasst und stehen insgesamt in Übereinstimmung mit den Prinzipien der DIN EN ISO 9001.

Die Urkunde samt Urkundenanlage gibt den Stand zum Zeitpunkt des Ausstellungsdatums wieder. Der jeweils aktuelle Stand des Geltungsbereiches der Akkreditierung ist der Datenbank akkreditierter Stellen der Deutschen Akkreditierungsstelle GmbH (DAkkS) zu entnehmen. https://www.dakks.de/content/datenbank-akkreditierter-stellen

Fachbereich	Norm oder Prüfverfahren / Ausgabestand	Titel der Norm oder des Prüfverfahrens	Einschränkungen zum Prüfverfahren
EMC Basic Standards			
EMC*	BS EN 61000-4-2: 2009	Electromagnetic compatibility (EMC) — Part 4-2: Testing and measurement techniques — Electrostatic discharge immunity test	
EMC*	BS EN 61000-4-3: 2006 +A1: 2008 +A2: 2010 EN 61000-4-3: 2020	Electromagnetic compatibility (EMC) Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	Max. Fieldstrength E = 10V/m
EMC*	BS EN 61000-4-6: 2014	Electromagnetic compatibility (EMC) — Part 4-6: Testing and measurement techniques — Immunity to conducted disturbances, induced by radio-frequency fields	
EMC Generic Standards			
EMC*	DIN EN 61000-6-2: 2006 +Ber1:2011 DIN EN 61000-6-2: 2019	Elektromagnetische Verträglichkeit (EMV) – Teil 6-2: Fachgrundnormen – Störfestigkeit für Industriebereiche (IEC 61000-6-2:2005); Deutsche Fassung EN 61000-6-2:2005	Die folgenden Standards sind ausgenommen: EN/IEC 61000-4-4 EN/IEC 61000-4-5 EN/IEC 61000-4-8 EN/IEC 61000-4-11
EMC*	BS EN 61000-6-2:2005 BS EN IEC 61000-6-2:2019	Electromagnetic compatibility (EMC) — Part 6-2: Generic standards — Immunity for industrial environments	The following standards are excluded: EN/IEC 61000-4-4 EN/IEC 61000-4-5 EN/IEC 61000-4-8 EN/IEC 61000-4-11

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EMC*	DIN EN 61000-6-3: 2011 +Ber1: 2012	Elektromagnetische Verträglichkeit (EMV) - Teil 6-3: Fachgrundnormen - Störaussendung für Wohnbereich, Geschäfts- und Gewerbebereiche sowie Kleinbetriebe (IEC 61000-6-3:2006 + A1:2010); Deutsche Fassung EN 61000-6-3:2007 + A1:2011	Die folgenden Standards sind ausgenommen: EN/IEC 61000-3-2 EN/IEC 61000-3-3 EN/IEC 61000-3-11 EN/IEC 61000-3-12
EMC*	BS EN 61000-6- 3:2007 +A1:2011 +COR1:2012	Electromagnetic compatibility (EMC) — Part 6-3: Generic standards — Emission standard for residential, commercial and light-industrial environments	The following standards are excluded: EN/IEC 61000-3-2 EN/IEC 61000-3-3 EN/IEC 61000-3-11 EN/IEC 61000-3-12
EMC Product Standards			
EMC*	BS EN 50498: 2010	Electromagnetic compatibility (EMC) — Product family standard for aftermarket electronic equipment in vehicles	
EMC*	BS EN 55011:2016+ A1: 2017 +A11: 2020	Industrial, scientific and medical equipment — Radio-frequency disturbance characteristics — Limits and methods of measurement	Max. Distance d = 3m SAC No in situ measurements
EMC*	CISPR11:2015+A1: 2016 + A1: 2016+A2: 2019	Industrial, scientific and medical equipment — Radio-frequency disturbance characteristics — Limits and methods of measurement	Max. Distance d = 3m SAC
EMC*	CISPR 16-2-1:Edition 3.0 (2014)+COR1:2020	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-1: Methods of measurement of disturbances and immunity - Conducted disturbance measurements	No in situ measurements

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EMC*	CISPR 16-2-3:Edition 3.0 (2010)+A1:2010+A2:2014 Edition 4.0 (2016)+A1:2019	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-3: Methods of measurement of disturbances and immunity - Radiated disturbance measurements	Max. Distance d = 3 m SAC, FSOATS
EMC*	CISPR 22:Edition 6.0 (2008)	Information technology equipment — Radio disturbance characteristics — Limits and methods of measurement	Max. Distance d = 3m SAC, FSOATS
EMC*	BS EN 55024: 2010+A1:2015	Information technology equipment - Immunity characteristics - Limits and methods of measurement	The following standards are excluded: EN/IEC 61000-4-4 EN/IEC 61000-4-5 EN/IEC 61000-4-8 EN/IEC 61000-4-11
EMC*	CISPR 25:Edition 3.0 (2008) +COR1:2009 Edition 4.0 (2016)+ Cor1:2017	Radio disturbance characteristics for the protection of receivers used on board vehicles, boats, and on devices — Limits and methods of measurement	
EMC*	BS EN 55032:2015+AC:2016 +A11:2020	Electromagnetic compatibility of multimedia equipment — Emission requirements	Max. Distance d = 3m SAC, FSOATS
EMC*	CISPR32:2015+AMD1:2019 (Edition 2.1)	Electromagnetic compatibility of multimedia equipment —Emission requirements	Max. Distance d = 3 m SAC, FSOATS
EMC*	BS EN 55035:2017	Electromagnetic compatibility of multimedia equipment — Immunity Requirements	The following standards are excluded: EN/IEC 61000-4-4 EN/IEC 61000-4-5 EN/IEC 61000-4-8 EN/IEC 61000-4-11

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EMC*	ISO 7637-1: 2015	Road vehicles - Electrical disturbances from conduction and coupling - Part 1: Definitions and general considerations	
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: 2007 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+CORR1: 2010 +A1:2014	Road vehicles – Test methods for electrical disturbances from electrostatic discharge	
EMC*	ISO 11452-1: 2015	Road vehicles -- Component test methods for electrical disturbances from narrowband radiated electromagnetic energy -- Part 1: General principles and terminology	
EMC*	ISO 11452-2: 2004 ISO 11452-2: 2019	Road vehicles – Component test method for electrical disturbances from narrowband radiated electromagnetic energy - Part 2: Absorber-lined shielded enclosure	
EMC*	ISO 11452-4: 2011 ISO 11452-4: 2020	Road vehicles – Component test method for electrical disturbances from narrowband radiated electromagnetic energy, Part 4: Bulc current injection (BCI)	

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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 method for electrical disturbances from narrowband radiated electromagnetic energy - Part 9: Portable transmitters	
EMC*	ISO 16750-1: 2006 ISO 16750-1: 2018	Road vehicles. Environmental conditions and testing for electrical and electronic equipment. Part 1: General	
EMC*	ISO 16750-2: 2012	Road vehicles -- Environmental conditions and testing for electrical and electronic equipment -- Part 2: Electrical loads	
Radio Standards			
Radio*	ETSI EN 300 328: v2.1.1 (2016) ETSI EN 300 328: v2.2.1 (2019) ETSI EN 300 328: v2.2.2 (2019)	Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	
Radio*	ETSI EN 300 330: V2.1.1 (2017)	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; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	The following tests are excluded: Receiver adjacent channel selectivity, Receiver Blocking or desensitation

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Radio*	ETSI EN 300 440: v2.1.1 (2017) ETSI EN 300 440: v2.2.1(2018)	Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Testing of Spurious Emission (Radiated and Conducted) only
Radio*	ETSI EN 301 489-1: v2.1.1 (2017) ETSI EN 301 489-1: v2.2.1 (2019) ETSI EN 301 489-1: v2.2.3 (2019)	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	The following standards are excluded: EN 61000-3-2 EN 61000-3-3 EN 61000-3-11 EN 61000-3-12 EN 61000-4-4, EN 61000-4-5 EN 61000-4-11 EN 61000-4-34
Radio*	ETSI EN 301 489-3: v2.1.1 (2019)	Electro Magnetic 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	

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Radio*	ETSI EN 301 489-17: v3.1.1 (2017) V3.2.0 (2017) V3.2.4 (2020)	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	
Radio*	ETSI EN 301 489-19: v2.1.0 (2017) v2.1.1 (2019)	Electro Magnetic 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; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	

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Radio*	ETSI EN 301 489-52: v1.1.0 (2016) v1.1.2 (2020)	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	
Radio*	ETSI EN 301 511: v12.5.1 (2017)	Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Testing of Radiated Spurious Emission only
Radio*	ETSI EN 301 893: v2.1.1 (2017)	5 GHz RLAN; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	
Radio*	ETSI EN 301 908-1: v11.1.1 (2016) ETSI EN 301 908-1: v11.1.7 (2019) ETSI EN 301 908-1:v13.1.1 (2019)	IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1: Introduction and common requirements	
Radio*	ETSI EN 303 413 v1.1.1 (2017)	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; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	

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Radio*	ETSI EN 303 417 v1.1.1 (2017)	Wireless power transmission systems, using technologies other than radio frequency beam in the 19 - 21 kHz, 59 - 61 kHz, 79 - 90 kHz, 100 - 300 kHz, 6 765 - 6 795 kHz ranges; Harmonized Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	
Radio/Audio*	ETSI TS 126 131:V12.4.0(2015)	Universal Mobile Telecommunications System (UMTS); LTE; Terminal acoustic characteristics for telephony; Requirements	Testing of 2G and 3G only
Radio/Audio*	ETSI TS 126 132:V12.7.0(2015)	Universal Mobile Telecommunications System (UMTS); LTE; Speech and video telephony terminal acoustic test specification	Testing of 2G and 3G only
Radio/Health*	BS 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)	
Radio/Health*	EN 62311:2008 EN 62311:2020	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)	EMF calculation (Annex A) and measurements for E-/H-field (Annex F) only
Environmental Standards			
Environment*	BS EN 60068-2-1:2007	Environmental testing - Part 2-1: Tests - Test A: Cold	
Environment*	BS EN 60068-2-2:2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat	

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Environment*	DIN EN 60068-2-5:2011	Umgebungseinflüsse – Teil 2-5: Prüfverfahren – Prüfung Sa: Nachgebildete Sonnenbestrahlung in Bodennähe und Leitfaden zur Sonnenstrahlung (IEC 60068-2-5:2010 + corrigendum Dec. 2010); Deutsche Fassung EN 60068-2-5:2011	
Environment*	IEC 60068-2-5:2018	Environmental testing – Part 2-5: Tests – Test S: Simulated solar radiation at ground level and guidance for solar radiation testing and weathering - Edition 3.0	**Without** "Sb: Solar radiation testing and weathering"
Environment*	BS EN 60068-2-6:2008	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	
Environment*	BS EN 60068-2-11:1999	Environmental testing - Part 2: Tests; test Ka: Salt mist	
Environment*	BS EN 60068-2-14:2009	Environmental testing - Part 2-14: Tests - Test N: Change of temperature	**Without** „Nc: Rapid Change of temperature, two-fluid-bath method"
Environment*	BS EN 60068-2-27:2009	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	
Environment*	BS EN 60068-2-30:2005	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	
Environment*	BS EN IEC 60068-2-38:2021	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test	
Environment*	BS EN 60068-2-53:2010	Environmental testing - Part 2-53: Tests and guidance: Combined climatic (temperature/humidity) and dynamic (vibration/shock) tests	

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Environment*	BS EN 60068-2-64:2008 +A1: 2019	Environmental testing - Part 2-53: Tests and guidance: Combined climatic (temperature/humidity) and dynamic (vibration/shock) tests	
Environment*	BS EN 60068-2-67:1996 +A1: 2019	Environmental testing - Part 2: Tests; test Cy: Damp heat, steady state, accelerated test primarily intended for components	
Environment*	BS EN 60068-2-78:2013	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state	