

List of Test Methods – Location MD(CZ)

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Marešovský Lukáš Test Lab	Kout Jiří Test Lab	Quality & EHS Systems

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The list of test methods is intended to provide an overview of the accredited/non-accredited methods at the respective location in the test laboratory. The revision statuses specified in this document comply with those in the DAkkS certificate appendix or with a subsequent version that is within the framework of the flexible accreditation.

In addition to this document, the certificate of the German national accreditation body (Deutsche Akkreditierungsstelle GmbH) also applies with the tests regarding the fields specified on the certificate.

The following list contains all test methods including the publication date.

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1 List of test methods

1.1 Test range: Electrical engineering / EMC

Special field	Standard or test method / publication date	Title of the standard or test method	Limitations regarding the test method	Test method	
				Accr.	Non-accr.
Electrical engineering	DIN EN 13018: 2016-06	Non-destructive testing - Visual testing - General principles		X	
	DIN EN 50289-1-2: 2002-02 (Withdrawn)	Communication cables - Specifications for test methods - Part 1-2: Electrical test methods; DC resistance		X	
	DIN EN 50289-1-2 VDE 0819-289-1-2 2024-01	Communication cables - Specifications for test methods - Part 1-2: Electrical test methods; DC resistance		X	
	DIN EN 50289-1-3: 2002-02	Communication cables - Specifications for test methods - Part 1-3: Electrical test methods; Dielectric strength		X	
	DIN EN 50289-1-4: 2002-02	Communication cables - Specifications for test methods - Part 1-4: Electrical test methods; Insulation resistance		X	
	DIN EN 50289-1-5: 2002-02	Communication cables - Specifications for test methods - Part 1-5: Electrical test methods; Capacitance		X	
EMC	DIN EN 50289-1-6: 2002-12	Communication cables - Specifications for test methods - Part 1-6: Electrical test methods; Electromagnetic performance	<u>Limitation to:</u> 6.: surface transfer impedance, triaxial method; 8.: screening attenuation, triaxial method possible	X	
Electrical engineering	DIN EN 50289-1-7: 2002-02	Communication cables - Specifications for test methods - Part 1-7: Electrical test methods; Velocity of propagation		X	
	DIN EN 50289-1-8, VDE 0819-289-1-8: 2018-02	Communication cables - Specifications for test methods - Part 1-8: Electrical test methods - Attenuation		X	
	DIN EN 50289-1-9, VDE 0819-289-1-9: 2018-01	Communication cables - Specifications for test methods - Part 1-9: Electrical test methods - Unbalance attenuation (transverse conversion loss TCL transverse conversion transfer loss TCTL)		X	
	DIN EN 50289-1-10: 2002-07	Communication cables - Specifications for test methods - Part 1-10: Electrical test methods; Crosstalk	Is performed without balun measuring technique	X	
	DIN EN 50289-1-11, VDE 0819-289-1-11: 2018-08	Communication cables - Specifications for test methods - Part 1-11: Electrical test methods - Characteristic impedance, input impedance, return loss		X	

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Special field	Standard or test method / publication date	Title of the standard or test method	Limitations regarding the test method	Test method	
				Accr.	Non-accr.
	DIN EN 50289-1-12: 2005-10	Communication cables - Specifications for test methods - Part 1-12: Electrical test methods - Inductance		X	
	DIN EN 60512-1-1: 2003-01	Connectors for electronic equipment - Tests and measurements - Part 1-1: General examination; Test 1a: Visual examination		X	
	DIN EN 60512-2-1: 2003-01	Connectors for electronic equipment - Tests and measurements - Part 2-1: Electrical continuity and contact resistance tests; Test 2a: Contact resistance; Millivolt level method		X	
	DIN EN 60512-2-2: 2004-01	Connectors for electronic equipment - Tests and measurements - Part 2-2: Electrical continuity and contact resistance tests - Test 2b: Contact resistance - Specified test current method		X	
	DIN EN 60512-2-5: 2004-01	Connectors for electronic equipment - Tests and measurements - Part 2-5: Electrical continuity and contact resistance tests - Test 2e: Contact disturbance		X	
	DIN EN 60512-3-1: 2003-01	Connectors for electronic equipment - Tests and measurements - Part 3-1: Insulation tests; Test 3a: Insulation resistance		X	
	DIN EN 60512-4-1: 2004-01	Connectors for electronic equipment - Tests and measurements - Part 4-1: Voltage stress tests - Test 4a: Voltage proof		X	
	DIN EN 60512-25-1: 2002-08	Connectors for electronic equipment - Tests and measurements - Part 25-1: Test 25a: Crosstalk ratio		X	
	DIN EN 60512-25-2: 2002-12	Connectors for electronic equipment - Tests and measurements - Part 25-2: Test 25b: Attenuation (insertion loss)		X	
	DIN EN 60512-25-3: 2002-08	Connectors for electronic equipment - Tests and measurements - Part 25-3: Test 25c: Rise time degradation		X	
	DIN EN 60512-25-4: 2002-08	Connectors for electronic equipment - Tests and measurements - Part 25-4: Test 25d: Propagation delay		X	
	DIN EN 60512-25-5: 2005-05	Connectors for electronic equipment - Tests and measurements - Part 25-5: Test 25e - Return loss		X	
	DIN EN 60512-25-7: 2005-12	Connectors for electronic equipment - Tests and measurements - Part 25-7: Test 25g - Impedance, reflection coefficient and standing voltage wave ratio (VSWR)		X	

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Special field	Standard or test method / publication date	Title of the standard or test method	Limitations regarding the test method	Test method	
				Accr.	Non-accr.
EMC	IEC 62153-4-3, CEI 62153-4-3: 2013-10	Metallic communication cable test methods - Part 4-3: Electromagnetic Compatibility (EMC) - Surface transfer impedance - Triaxial method		X	
	IEC 62153-4-4, CEI 62153-4-4: 2015-04	Metallic communication cable test methods - Part 4-4: Electro Magnetic Compatibility (EMC) - Test method for measuring of the screening attenuation as up to and above 3 GHz, triaxial method		X	
	DIN EN 62153-4-7, VDE 0819-153-4-7: 2018-12 (Withdrawn)	Metallic communication cable test methods - Part 4-7: Electromagnetic compatibility (EMC) - Test method for measuring of transfer impedance ZT and screening attenuation as or coupling attenuation ac of connectors and assemblies up to and above 3 GHz - Triaxial tube in tube method		X	
	DIN EN IEC 62153-4-7, VDE 0819-153-4-7: 2023-06	Metallic communication cable test methods - Part 4-7: Electromagnetic compatibility (EMC) - Test method for measuring of transfer impedance ZT and screening attenuation as or coupling attenuation aC of connectors and assemblies up to and above 3 GHz - Triaxial tube in tube method		X	
	IEC 62153-4-7, CEI 62153-4-7: 2015-12 (Withdrawn)	Metallic communication cable test methods - Part 4-7: Electromagnetic compatibility (EMC) - Test method for measuring of transfer impedance ZT and screening attenuation as or coupling attenuation aC of connectors and assemblies up to and above 3 GHz - Triaxial tube in tube method		X	
	IEC 62153-4-7, CEI 62153-4-7: 2021-07	Metallic cables and other passive components test methods - Part 4-7: Electromagnetic compatibility (EMC) - Test method for measuring of transfer impedance ZT and screening attenuation aS or coupling attenuation aC of connectors and assemblies - Triaxial tube in tube method		X	
	DIN EN 62153-4-9, VDE 0819-153-4-9: 2016-12 (Withdrawn)	Metallic Communication Cable test methods - Part 4-9: Electromagnetic compatibility (EMC) - Coupling attenuation of screened balanced cables, triaxial method		X	
	IEC 62153-4-9, CEI 62153-4-9: 2018-05	Metallic communication cable test methods - Part 4-9: Electromagnetic compatibility (EMC) - Coupling attenuation of screened balanced cables, triaxial method		X	

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Special field	Standard or test method / publication date	Title of the standard or test method	Limitations regarding the test method	Test method	
				Accr.	Non-accr.
Electrical engineering	DIN 72594-2: 2009-05	Road vehicles - 50 ohm radio frequency interface (50 Ω RFI) - Part 2: Test procedures	In case of chapter 6.6 the currently valid standard is used <u>Limitations:</u> test group 4 mechan. shock/vibration is impossible	X	
	ISO 20860-1: 2008-10	Road vehicles - 50 ohms impedance radio frequency connection system interface - Part 1: Dimensions and electrical requirements		X	
	ISO 20860-2: 2009-03	Road vehicles - 50 ohms impedance radio frequency connection system interface - Part 2: Test procedures	In case of chapter 7.7 the currently valid standard is used <u>Limitations:</u> test sequence 4 mechan. shock/vibration is impossible	X	
	BMW GS 95006-7-1: 2016-03 (LV 214) (Withdrawn)	Wiring harnesses in motor vehicles – Plug connector – Tests		X	
	BMW GS 95006-7-1: 2021-11	Wiring harnesses in motor vehicles – Plug connector – Tests	<u>Limitations:</u> PG2; PG3; PG12; PG13; PG14; PG15; PG16; PG17; PG18A; PG18C PG19; PG22; B23.4; PG24; PG27; PG28; PG29; EP1; EP2; EP3; EP4 is impossible	X	
	BMW GS 95007-5-1: 2018-09	Radio-frequency cables for motor vehicles – Coaxial cables – Requirements, tests	<u>Limitations:</u> Bending test; flame retardance; physical and chemical properties of insulation; mechanical and electrical properties after mechanical, thermal or chemical stress; fungal test, compatibility test is impossible	X	
	BMW GS 95007-5-2: 2018-09	Radio-frequency cables for motor vehicles – Communication cables – Requirements, tests	<u>Limitations:</u> Chapter 11 Bending test is impossible	X	
	LAH V03 825 V06.01R: 2020-02	Component Performance Specification for Cables – Manufactured Coaxial Cables	<u>Limitations:</u> M-05 dyn. tensile test is impossible	X	
	LAH V03 825 D V04.02R: 2020-03	Component Performance Specification for Cables – Manufactured HSD and HSDe cables		X	

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Special field	Standard or test method / publication date	Title of the standard or test method	Limitations regarding the test method	Test method	
				Accr.	Non-accr.
	LAH 4N0 035 K V2: 2019-10 (Withdrawn)	Component test specification mini Coax – Test specification mini Coax	<u>Limitations:</u> PG2; PG3; PG12; PG13; PG14; PG15; PG16; PG17; PG18; PG19; PG22; PG28; PGZ2 Group 2; PGZ4 is impossible	X	
	LAH 4N0 035 K V3.1: 2022-11	Component test specification mini Coax – Test specification mini Coax	<u>Limitations:</u> PG2; PG3; PG12; PG13; PG14; PG15; PG16; PG17; PG18; PG19; PG22; PG28; PGZ2 Group 2; PGZ4 is impossible	X	
	LAH 85E 035 D_V03.1: 2022-08	Component test specification assembled Multi Gigabit Shielded Twisted Pair Cables		X	
	MBN 10384: 2010-11 (LV 214)	Motor Vehicle Connectors – Test Specification	<u>Limitations:</u> PG2; PG3; PG12; PG13; PG14; PG15; PG16; PG17; PG18A; PG18C; PG19; PG22A; PG22B; PG24; PG28; PG29 is impossible	X	
	QV 61 101: 2018-05	Release and validation guideline for prefabricated coaxial cables (FAKRA / Mini Coax)	<u>Limitations:</u> M-05 dyn. tensile test is impossible	X	
	QV 61 111: 2018-06	Release and validation guideline for prefabricated HSD cables		X	
	SAE/USCAR-2-7: 2020-02 (Withdrawn)	Performance Specification for Automotive Electrical Connector Systems	<u>Limitations:</u> Terminal Bend Resistance; Maximum Test Current Capability; Current Cycling; Vibration / Mechanical Shock; Connector-to- connector Audible Click Test; Connector Seal Retention – Unmated Connector; Fluid Resistance; High Pressure Spray is impossible	X	
	SAE/USCAR-17-5: 2016-11 (Withdrawn)	Performance Specification for Automotive RF Connector Systems	<u>Limitations:</u> Connector-to-connector Audible Click Test is impossible	X	
	SAE/USCAR-17-5: 2023-07	Performance Specification for Automotive RF Connector Systems	<u>Limitations:</u> Connector-to-connector Audible Click Test is impossible	X	

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Special field	Standard or test method / publication date	Title of the standard or test method	Limitations regarding the test method	Test method	
				Accr.	Non-accr.
	SAE/USCAR-21-4: 2020-01	Performance Specification for Cable-to-Terminal Electrical Crimps	<u>Limitations:</u> Electrical Current Cycling Test (ECC) is impossible	X	
	VW 75174: 2018-10	Motor Vehicle Connectors – Test	<u>Limitations:</u> PG2; PG3; PG12; PG13; PG14; PG15; PG16; PG17; PG18A; PG18B; PG19; PG22A; PG22B; PG24; PG28; PG29; PG31 is impossible	X	
	VW 75206-1: 2020-11	Radio-Frequency Cables in Motor Vehicles - Requirements for Coaxial Cables	<u>Limitations:</u> Bending test; flame retardance; physical and chemical properties of insulation; mechanical and electrical properties after mechanical, thermal or chemical stress; mycological test, compatibility test is impossible	X	
	VW 75206-2: 2009-04 (Withdrawn)	Radio-Frequency Cables in Motor Vehicles - that are no single coaxial cables	<u>Limitations:</u> Bending test is impossible	X	
	VW 75206-2: 2022-09	Radio-Frequency Cables - that are no single coaxial cables	<u>Limitations:</u> Chapters 10; 12.6.2; 12.6.3; 12.7.2; 12.7.3 are impossible	X	

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1.2 Test range: Environmental simulation

Special field	Standard or test method / publication date	Title of the standard or test method	Limitations regarding the test method	Test method	
				Accr.	Non-accr.
Environmental simulation	DIN EN 60068-2-1, VDE 0468-2-1: 2008-01	Environmental testing - Part 2-1: Tests - Test A: Cold	<u>Limitations:</u> air velocity in the working space cannot be changed	X	
	DIN EN 60068-2-2, VDE 0468-2-2: 2008-05	Environmental testing - Part 2-2: Tests - Test B: Dry heat	<u>Limitations:</u> air velocity in the working space cannot be changed	X	
	DIN EN 60068-2-14, VDE 0468-2-14: 2010-04	Environmental testing - Part 2-14: Tests - Test N: Change of temperature	<u>Limitations:</u> method Nc is impossible	X	
	DIN EN 60068-2-30: 2006-06	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)		X	
	DIN EN 60068-2-38, VDE 0468-2-38: 2010-06 (Withdrawn)	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test		X	
	DIN EN IEC 60068-2-38, VDE 0468-2-38: 2022-09	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test		X	
	DIN EN 60068-2-67, VDE 0468-2-67: 2020-08	Environmental testing - Part 2-67: Tests - Test Cy: Damp heat, steady state, accelerated test primarily intended for components		X	
	DIN EN 60068-2-78, VDE 0468-2-78: 2014-02	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state		X	
	DIN EN 60512-14-5: 2006-11	Connectors for electronic equipment - Tests and measurements - Part 14-5: Sealing tests - Test 14e: Immersion at low air pressure		X	

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1.3 Test range: Mechanical tests

Special field	Standard or test method / publication date	Title of the standard or test method	Limitations regarding the test method	Test method	
				Accr.	Non-accr.
Mechanical tests	DIN EN 60068-2-31, VDE 0468-2-31: 2009-04	Environmental testing - Part 2-31: Tests - Test Ec: Rough handling shocks, primarily for equipment-type specimens		X	
	DIN EN 60512-1-2: 2003-01	Connectors for electronic equipment - Tests and measurements - Part 1-2: General examination; Test 1b: Examination of dimension and mass		X	
	DIN EN 60512-7-1, VDE 0687-512-7-1: 2010-12	Connectors for electronic equipment - Tests and measurements - Part 7-1: Impact tests (free connectors) - Test 7a: Free fall (repeated)		X	
	DIN EN 60512-13-1: 2006-11 With corrigendum: 2008-11	Connectors for electronic equipment - Tests and measurements - Part 13-1: Mechanical operation tests - Test 13a: Engaging and separating forces		X	
	DIN EN 60512-13-2: 2006-11 With corrigendum: 2008-11	Connectors for electronic equipment - Tests and measurements - Part 13-2: Mechanical operation tests - Test 13b: Insertion and withdrawal forces		X	
	DIN EN 60512-15-6: 2009-03	Connectors for electronic equipment - Tests and measurements - Part 15-6: Connector tests (mechanical) - Test 15f: Effectiveness of connector coupling devices		X	
	DIN EN 60512-16-4: 2009-03	Connectors for electronic equipment - Tests and measurements - Part 16-4: Mechanical tests on contacts and terminations - Test 16d: Tensile strength (crimped connections)		X	
	DIN EN 60512-13-5: 2006-11 With corrigendum: 2008-11	Connectors for electronic equipment - Tests and measurements - Part 13-5: Mechanical operation tests - Test 13e: Polarizing and keying method		X	
	VW 60330: 2013-12	Crimp Connections Solderless electrical connections	<u>Limitations:</u> Chapter 4.2.1 General Chapter 4.2.2 Stripping Chapter 4.3.1 Contact elements Chapter 5.2 Crimping devices is impossible	X	

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2 Used abbreviations

- Accr. Accredited test methods
- Non-accr. Non-accredited test methods
- DIN German Institute for Standardization
- EMC electromagnetic compatibility
- IEC International Electrotechnical Commission
- ISO International Organization for Standardization
- VDE Association for Electrical, Electronic & Information Technologies

3 Modification history

Revision status	Originator	Type of modification	Modification date
70034602	Marešovský Lukáš	New creation This document replaces document C10543	10/25/2024

Modifications are carried out exclusively by the technically responsible organizational unit.
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