
Flexible Scope of Accreditation to Certificate D-PL-20557-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 17.05.2024

Date of issue: 16.05.2024

Holder of certificate:

**Funkwerk Systems GmbH
Im Funkwerk 5, 99625 Köllda**

Applicable Documents:

- [RD 01] DAKKS Rule **R-17025-PL** | Revision: 1.0 | 31. January 2023
- [RD 02] ILAC Guide **ILAC-G18:12/2021**
- [RD 03] European Accreditation **EA-2/15 M: 2019** | Revision 1 | 16. April 2019

Tests in the fields:

Telecommunication, Environmental Tests

Within the accreditation areas marked with *, the testing laboratory is permitted to use the standardized or equivalent test methods listed here with different output levels without the need for prior information and consent of the DAKKS.

The testing laboratory has an up-to-date list of all test procedures in the flexible accreditation area.

The areas marked with ** are not subject to flexibility.

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

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

| Department | Standard / In house procedure / Version | Title of standard or in house procedure | Test area / Reductions |
|--|---|---|--|
| Mobile Communication* (flexible) | | | |
| Telecommunication | 3GPP TS 51.010-2 V13.11.0 (2020-06) ETSI TS 151 010-2 V13.11.0 (2019-07) | Digital cellular telecommunications system (Phase 2+) (GSM); Mobile Station (MS) conformance specification; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification | |
| Telecommunication | 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 | Not supported: 4.2.2, 4.2.3, 4.2.7, 4.2.8, 4.2.16-4.2.19, 4.2.33, 4.2.37, 4.2.39, 5.3.3, 5.3.7, 5.3.8, 5.3.16-5.3.19, 5.3.30, 5.3.31, 5.3.36, 5.3.37, 5.3.39, |
| Telecommunication | ETSI TS 102 933-1 V2.1.1 (2015-06) | Railway Telecommunications (RT); GSM-R improved receiver parameters; Part 1: Requirements for radio reception | |
| Telecommunication | ETSI TS 102 933-2 V2.1.1 (2015-06) | Railway Telecommunications (RT); GSM-R improved receiver parameters; Part 2: Radio conformance testing | |
| Telecommunication Railway Systems * (flexible) | | | |
| Telecommunication | EIRENE SRS Version 15.4.0 27.04.2014 | UIC Project EIRENE System Requirements Specification Standard test procedure - O-3001 Rev. 1.5.0, 28.01.2015 <i>In-house procedure</i> – Add-On O-3001 Version 6.0, 28.01.2015 | |
| Telecommunication | EIRENE FRS Version 8.0 18.12.2015 | UIC Project EIRENE System Requirements Specification Standard test procedure - O-3001 Part 1 – Cab Radio, Version 1.0.0, July 2017 Part 2 – EDOR, Version 1.0.0 July 2017 Part 3 – SIM cards, Version 1.0.0 July 2017 Part 4 – Network, Version 1.1.0, Nov. 2017 <i>In-house procedure</i> – Add-On O-3001 Version 8.0, 28.04.2016 | |

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| Telecommunication | EIRENE SRS Version 16.0 18.12.2015 | UIC Project EIRENE System Requirements Specification Standard-Test-Procedure - O-3001 Part 1 – Cab Radio, Version 1.0.0, July 2017 Part 2 – EDOR, Version 1.0.0 July 2017 Part 3 – SIM cards, Version 1.0.0 July 2017 Part 4 – Network, Version 1.1.0, Nov. 2017 <i>In-house procedure</i> – Add-On O-3001 Version 8.0, 28.04.2016 | |
| Telecommunication | Change Remark: EIRENE FRS version 8.1.0 and EIRENE SRS version 16.1.0 (both not yet published; publication within the framework of the TSI ZZS 2023) | UIC Project EIRENE System Requirements Specification Standard-Test-Procedure - O-3001 Part 1 – Cab Radio, Version 1.1.5, Apr 2024 Part 2 – EDOR, Version 1.1.2, Feb 2024 Part 3 – SIM cards, Version 1.1.0 Apr 2021 Part 4 – Network, Version 1.2.0, Apr. 2021 <i>In-house procedure</i> – Add-On O-3001 Version 8.03, 15.02.2024 | Evaluation and amendments to UIC for public consultation in February 2023; No final release yet; indicated status applicable in the laboratory |
| Telecommunication | UIC Code 751-3, 4. Issue, July 2005 | <i>In-house procedure</i> Test hand book ATR Germany Austria Version 06.01 15.05.2024 | No support of Semi-Duplex-Procedure. <u>Changes:</u> Extension of the procedure for Austria regarding new operational mode V (Simplified train radio) |
| Telecommunication | UIC Code 568, 3. Issue, 01.01.1996 | <i>In-house procedure</i> Test hand book ATR Germany Austria Version 06.01 15.05.2024 | Relevant for the connection of the train radio system, compliance with the control signals in accordance with sections 2.2, 6.1, 6.2, and 7.1, 7.6, 7.7 and 7.8 shall be checked. See comment to UIC code 751-3,4; no changes in section UIC 568,3 |

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| Telecommunication | UIC O-2475 Version 3.0 19.02.2007 | Standardised test method for ERTMS / GSM-R Quality of Service Test Specification | |
| Telecommunication | UIC O-2475 Version 4.0 March 2022 | Standardised test method for ERTMS / GSM-R Quality of Service Test Specification | New Release of the test procedure by UIC ERTMS/GSM-R OFG UNITEL; applicable in the laboratory |
| Telecommunication | UIC O-2875 Version 0.37 22.11.2015 Version 4.0 in preparation (2020-08) | Standardised test method for ERTMS / GSM-R Quality of Service Test Specification for (MI) EIRENE QoS requirements Voice and non-ETCS data | |
| Telecommunication | UIC O-2875 Version 2.0 23.11.2017 | Standardised test method for ERTMS / GSM-R Quality of Service Test Specification for (MI) EIRENE QoS requirements Voice and non-ETCS data | New Release of the test procedure by UIC ERTMS/GSM-R OFG UNITEL; applicable in the laboratory |

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| Environmental Tests * (flexible) | | | |
| Environmental tests | DIN EN 60068-2-1 | Environmental testing - Part 2-1: Tests - Test A: Cold (IEC 60068-2-1:2007); German version EN 60068-2-1:2007 | |
| Environmental tests | DIN EN 60068-2-2 | Environmental testing - Part 2-2: Tests - Test B: Dry Heat (IEC 60068-2-2:2007); German version EN 60068-2-2:2007 | |
| Environmental tests | DIN EN 60068-2-14 | Environmental testing - Part 2-14: Tests - Test N: Change of temperature (IEC 60068-2-14:2009); German version EN 60068-2-14:2009; Test Nb | |
| Environmental tests | DIN EN 60068-2-30 | Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle) (IEC 60068-2-30:2005); German version EN 60068-2-30:2005 | |

Abbreviations used:

DIN Deutsches Institut für Normung e.V.

NDS In house method of the CAB