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| |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | **Specifications** |  | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 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**Note** | | 03 | SUBSET-023 | [Glossary of Terms and Abbreviations](http://www.era.europa.eu/Document-Register/Pages/Set-3-Glossary-of-Terms-and-Abbreviations.aspx) | 3.3.0 |  | | 04 | SUBSET-026 | [System Requirements Specification](http://www.era.europa.eu/Document-Register/Pages/Set-3-System-Requirements-Specification.aspx) | 3.6.0 |  | | 05 | SUBSET-027 | [FIS Juridical Recording](http://www.era.europa.eu/Document-Register/Pages/Set-3-FIS-Juridical-Recording.aspx) | 3.3.0 |  | | 06 | ERA\_ERTMS\_015560 | [ETCS Driver Machine Interface](http://www.era.europa.eu/Document-Register/Pages/Set-3-ETCS-Driver-Machine-Interface.aspx) | 3.6.0 |  | | 07 | SUBSET-034 | [Train Interface FIS](http://www.era.europa.eu/Document-Register/Pages/Set-3-Train-Interface-FIS-.aspx) | 3.2.0 |  | | 08 | SUBSET-035 | [Specific Transmission Module FFFIS](http://www.era.europa.eu/Document-Register/Pages/Set-3-Specific-Transmission-Module.aspx) | 3.2.0 |  | | 09 | SUBSET-036 | [FIS for Eurobalise](http://www.era.europa.eu/Document-Register/Pages/Set-3-FIS-for-Eurobalise.aspx) | 3.1.0 |  | | 10 | SUBSET-037 | [EuroRadio FIS](http://www.era.europa.eu/Document-Register/Pages/Set-3-EuroRadio-FIS.aspx) | 3.2.0 |  | | 11 | SUBSET-038 | [Offline Key Management FIS](http://www.era.europa.eu/Document-Register/Pages/Set-3-Offline-Key-Management-FIS.aspx) | 3.1.0 |  | | 12 | SUBSET-039 | [FIS for RBC/RBC handover](http://www.era.europa.eu/Document-Register/Pages/Set-3-FIS-for-RBCRBC-handover.aspx) | 3.2.0 |  | | 13 | SUBSET-040 | [Dimensioning and Engineering Rules](http://www.era.europa.eu/Document-Register/Pages/Set-3-Dimensioning-and-Engineering-Rules.aspx) | 3.4.0 |  | | 14 | SUBSET-041 | [Performance Requirements for Interoperability](http://www.era.europa.eu/Document-Register/Pages/Set-3-Performance-Requirements-for-Interoperability.aspx) | 3.2.0 |  | | 16 | SUBSET-044 | [FFFIS for Euroloop](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-FFFIS-for-Euroloop.aspx) | 2.4.0 |  | | 19 | SUBSET-047 | [Trackside-Trainborne FIS for Radio infill](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-Trackside-Trainborne-FIS-for-Radio-infill.aspx) | 3.0.0 |  | | 20 | SUBSET-048 | [Trainborne FFFIS for Radio infill](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-Trainborne-FFFIS-for-Radio-infill.aspx) | 3.0.0 |  | | 23 | SUBSET-054 | [Responsibilities and rules for the assignment of values to ETCS variables](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-Responsibilities-and-rules-for-the-assignment-of-values-to-ETCS.aspx) | 3.0.0 |  | | 25 | SUBSET-056 | [STM FFFIS Safe time layer](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-STM-FFFIS-Safe-time-layer.aspx) | 3.0.0 |  | | 26 | SUBSET-057 | [STM FFFIS Safe link layer](http://www.era.europa.eu/Document-Register/Pages/Set-3-STM-FFFIS-Safe-link-layer.aspx) | 3.1.0 |  | | 27 | SUBSET-091 | [Safety Requirements for the Technical Interoperability of ETCS in Levesl 1 and 2](http://www.era.europa.eu/Document-Register/Pages/Set-3-Safety-Requirements-for-the-Technical-Interoperability-of-ETCS-in-Levesl-1-and-2.aspx) | 3.6.0 |  | | 29 | SUBSET-102 | [Test specification for interface "K"](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-Test-specification-for-interface-K.aspx) | 2.0.0 |  | | 31 | SUBSET-094 | [Functional requirements for an onboard reference test facility](http://www.era.europa.eu/Document-Register/Pages/Set-3-Functional-Requirements-for-an-onboard-reference-test-facility.aspx) | Reserved | Note 13 | | 32 | EIRENE FRS | [GSM-R Functional Requirements Specification](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-EIRENE-FRS.aspx) | 8.0.0 | Note 10 | | 33 | EIRENE SRS | [GSM-R System Requirements Specification](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-EIRENESRS.aspx) | 16.0.0 | Note 10 | | 34 | A11T6001 | [(MORANE) Radio Transmission FFFIS for EuroRadio](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-A11T6001.aspx) | 13.0.0 |  | | 36c | SUBSET-074-2 | [FFFIS STM Test cases document](http://www.era.europa.eu/Document-Register/Pages/Set-3-FFFIS-STM-Test-cases-document.aspx) | 3.1.0 |  | | 37b | SUBSET-76-5-2 | [Test cases related to features](http://www.era.europa.eu/Document-Register/Pages/Set-3-Test-cases-related-to-features.aspx) | Reserved | Note 13 | | 37c | SUBSET-076-6-3 | [Test sequences](http://www.era.europa.eu/Document-Register/Pages/Set-3-Test-sequences.aspx) | Reserved | Note 13 | | 37d | SUBSET-076-7 | [Scope of the test specifications](http://www.era.europa.eu/Document-Register/Pages/Set-3-Scope-of-the-test-specifications.aspx) | Reserved | Note 13 | | 38 | 06E068 | [ETCS marker-board definition](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-06E068.aspx) | 2.0 |  | | 39 | SUBSET-092-1 | [ERTMS EuroRadio Conformance Requirements](http://www.era.europa.eu/Document-Register/Pages/Set-3-ERTMS-EuroRadio-Conformance-Requirements.aspx) | 3.1.0 |  | | 40 | SUBSET-092-2 | [ERTMS EuroRadio test cases safety layer](http://www.era.europa.eu/Document-Register/Pages/Set-3-ERTMS-EuroRadio-test-cases-safety-layer.aspx) | 3.1.0 |  | | 43 | SUBSET-085 | [Test specification for Eurobalise FFFIS](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-Test-specification-for-Eurobalise-FFFIS.aspx) | 3.0.0 |  | | 44 | Intentionally deleted | [Odometry FIS](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-Odometry-FIS.aspx) |  | Note 9 | | 45 | SUBSET-101 | [Interface "K" Specification](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-Set-3-Interface-K-Specification.aspx) | 2.0.0 |  | | 46 | SUBSET-100 | [Interface "G" Specification](http://www.era.europa.eu/Document-Register/Pages/Interface-G-Specification.aspx) | 2.0.0 |  | | 48 | Reserved | [Test specification for mobile equipment GSM-R](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-Test-specification-for-mobile-equipment-GSM-R.aspx) |  | Note 4 | | 49 | SUBSET-059 | [Performance requirements for STM](http://www.era.europa.eu/Document-Register/Pages/Set-3-Performance-requirements-for-STM.aspx) | 3.1.0 |  | | 50 | SUBSET-103 | [Test specification for Euroloop](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-Test-specification-for-Euroloop.aspx) | 1.1.0 |  | | 52 | SUBSET-058 | [FFFIS STM Application layer](http://www.era.europa.eu/Document-Register/Pages/Set-3-FFFIS-STM-Application-layer.aspx) | 3.2.0 |  | | 60 | SUBSET-104 | [ETCS System Version Management](http://www.era.europa.eu/Document-Register/Pages/Set-3-ETCS-System-Version-Management.aspx) | 3.3.0 |  | | 63 | SUBSET-098 | [RBC-RBC Safe Communication Interface](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-RBC-RBC-Safe-Communication-Interface.aspx) | 3.0.0 |  | | 64 | EN 301 515 | [Global System for Mobile Communication; Requirements for GSM operation on railways](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-EN301515.aspx) | 2.3.0 | Note 2 | | 65 | TS 102 281 | [Detailed requirements for GSM operation on railways](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-TS102281.aspx) | 3.0.0 | Note 3 | | 66 | TS 103 169 | [ASCI Options for Interoperability](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-A01T004.aspx) | 1.1.1 |  | | 67 | (MORANE) P 38 T 9001 | [FFFIS for GSM-R SIM Cards](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-P38T9001.aspx) | 5.0 |  | | 68 | ETSI TS 102 610 | [Railway Telecommunication; GSM; Usage of the UUIE for GSM operation on railways](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-ETSI%20TS102610.aspx) | 1.3.0 |  | | 69 | (MORANE) F 10 T 6002 | [FFFS for Confirmation of High Priority Calls](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-F10T6002.aspx) | 5.0 |  | | 70 | (MORANE) F 12 T 6002 | [FIS for Confirmation of High Priority Calls](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-F12T6002.aspx) | 5.0 |  | | 71 | (MORANE) E 10 T 6001 | [FFFS for Functional Addressing](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-E10T6001.aspx) | 4.1 |  | | 72 | (MORANE) E 12 T 6001 | [FIS for Functional Addressing](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-E12T6001.aspx) | 5.1 |  | | 73 | (MORANE) F 10 T 6001 | [FFFS for Location Dependent Addressing](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-F10T6001.aspx) | 4 |  | | 74 | (MORANE) F 12 T 6001 | [FIS for Location Dependent Addressing](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-F12T6001.aspx) | 3 |  | | 75 | (MORANE) F 10 T 6003 | [FFFS for Presentation of Functional Numbers to Called and Calling Parties](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-F10T6003.aspx) | 4 |  | | 76 | (MORANE) F 12 T 6003 | [FIS for Presentation of Functional Numbers to Called and Calling Parties](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-F12T6003.aspx) | 4 |  | | 77 | ERA/ERTMS/033281 | [Interfaces between CCS track-side and other subsystems](http://www.era.europa.eu/Document-Register/Pages/Set-1-and-2-and-3-ERA%20ERTMS%20033281.aspx) | 3.0 | Note 7 | | 78 | Intentionally deleted | [Safety requirements for ETCS DMI functions](http://www.era.europa.eu/Document-Register/Pages/Set-2and-3-Safety-requirements-for-ETCS-DMI-functions.aspx) |  | Note 6 | | 79 | SUBSET-114 | [KMC-ETCS Entity Off-line KM FIS](http://www.era.europa.eu/Document-Register/Pages/Set-3-KMC-ETCS-Entity-Off-line-KM-FIS.aspx) | 1.1.0 |  | | 80 | Intenionally deleted | [GSM-R Driver Machine Interface](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-GSM-R-Driver-Machine-Interface.aspx) |  | Note 5 | | 81 | SUBSET-119 | [Train Interface FFFIS](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-Train-Interface-FFFIS.aspx) |  | Note 12 | | 82 | SUBSET-120 | [FFFIS TI - Safety Analysis](http://www.era.europa.eu/Document-Register/Pages/Set-2-and-3-FFFIS-TI---Safety-Analysis.aspx) |  | Note 12 | | 83 | SUBSET-137 | [On-line Key Management FFFIS](http://www.era.europa.eu/Document-Register/Pages/Set-3-On-line-Key-Management-FFFIS.aspx) | 1.0.0 |  | | | |
| |  |  |  |  | | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | |  | **Notes** |  | | | ​  Note 1: only the functional description of information to be recorded is mandatory, not the technical characteristics of the interface.    Note 2: the clauses of the specifications listed in point 2.1 of EN 301 515 which are referenced in Index 32 and Index 33 as ‘MI’ are mandatory.    Note 3: the change requests (CRs) listed in Tables 1 and 2 of TS 102 281 which affect clauses referenced in Index 32 and Index 33 as ‘MI’ are mandatory.    Note 4: Index 48 refers only to test cases for GSM-R mobile equipment. It is kept ‘reserved’ for the time being. The application guide will contain a catalogue of available harmonised test cases for the assessment of mobileequipment and networks, according to the steps indicated in point 6.1.2 of this TSI.    Note 5: the products which are on the market are already tailored to the needs of the RU related to GSM-R Driver-Machine Interface and fully interoperable so there is no need for a standard in the TSI CCS.    Note 6: information that was intended for Index 78 is now incorporated in Index 27 (SUBSET-091).    Note 7: this document is ETCS and GSM-R baseline independent.    Note 8: Intentionally deleted.    Note 9: ERA analysis showed there is no need for a mandatory specification for odometry interface.    Note 10: Only the (MI) requirements are mandated by TSI CCS.    Note 11: Intentionally deleted.    Note 12: Reference to these specifications will be published in the Application Guide, waiting for clarifications on the rolling stock side of the interface.    Note 13: Specifications to be set out in a technical opinion of the Agency.    Note 14: The Agency Technical Document developed in cooperation with the sector in line with the request of the Committee referred to in Article 29(1) of Directive 2008/57/EC defines the additional elements of information on the Driver-Machine Interface and identifies the changes in the relevant specification documents. The content of the Agency’s technical document is consolidated with the other requirements relevant for the Driver-Machine Interface resulting in the updated documents in the Indices 3, 4, 5, 6 and 27. | |