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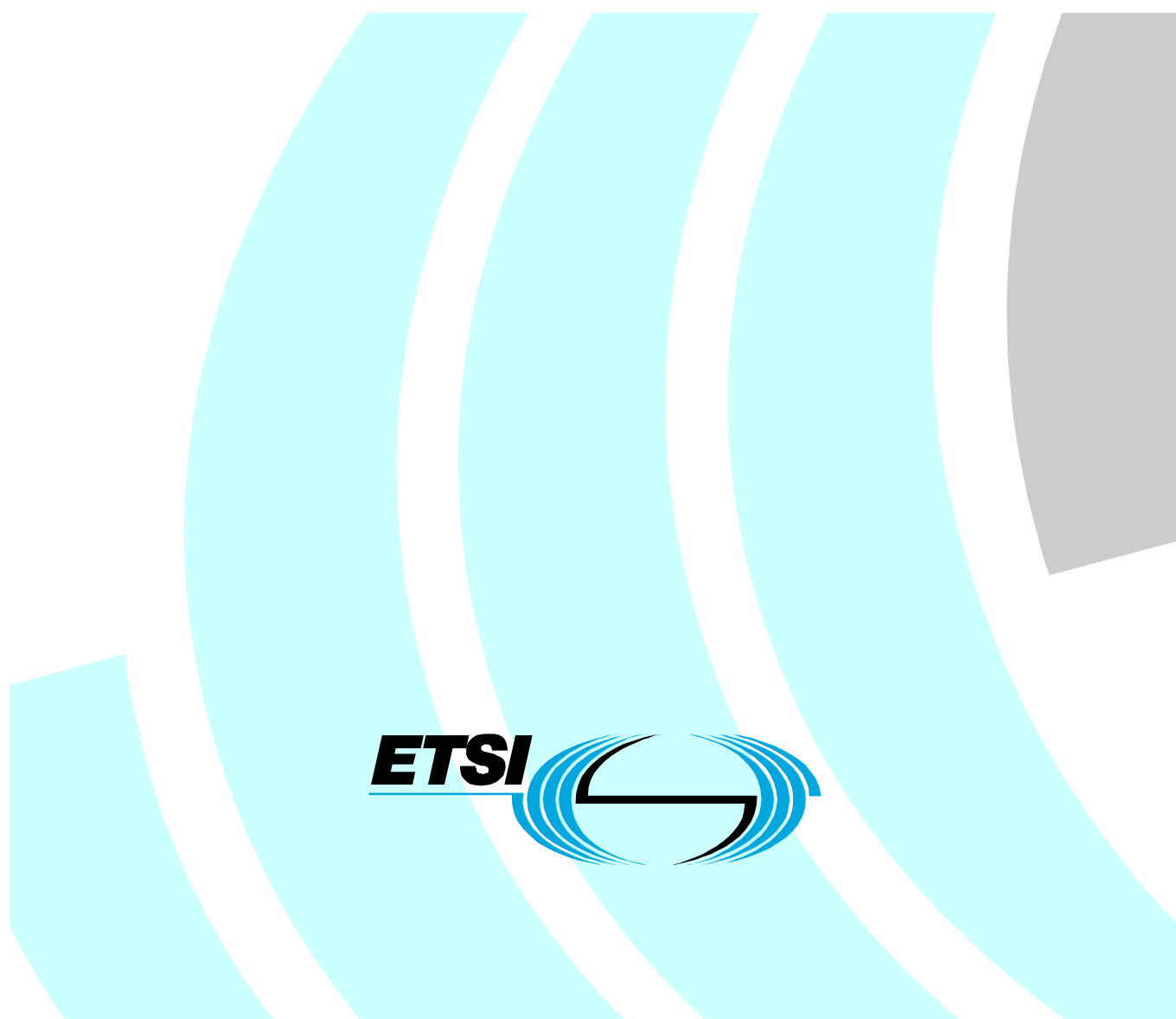
Technical Report

Terrestial Trunked Radio (TETRA);
Voice plus Data (V+D);
Part 17: TETRA V+D and DMO specifications;
Sub-part 1: Release 1.1

Reference

RTR/TETRA-03140

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ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00   Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
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Foreword

This Technical Report (TR) has been produced by ETSI Project Terrestrial Trunked Radio (TETRA).

The present document is part 17 sub-part 1 of a multi-part deliverable covering Voice plus Data (V+D), as identified below:

EN 300 392-1: "General network design";

EN 300 392-2: "Air Interface (AI)";

EN 300 392-3: "Interworking at the Inter-System Interface (ISI)";

ETS 300 392-4: "Gateways basic operation";

EN 300 392-5: "Peripheral Equipment Interface (PEI)";

EN 300 392-7: "Security";

EN 300 392-9: "General requirements for supplementary services";

EN 300 392-10: "Supplementary services stage 1";

EN 300 392-11 "Supplementary services stage 2";

EN 300 392-12: "Supplementary services stage 3";

ETS 300 392-13: "SDL model of the Air Interface (AI)";

ETS 300 392-14: "Protocol Implementation Conformance Statement (PICS) proforma specification";

TS 100 392-15: "TETRA frequency bands, duplex spacings and channel numbering";

TS 100 392-16: "Network Performance Metrics";

TR 100 392-17: "TETRA V+D and DMO specifications";

> **Sub-part 1: "Release 1.1";**
>
> Sub-part 2: "Release 1.2".

NOTE: Part 13 (SDL) and part 14 (PICS) of this multi-part deliverable are of status "historical" and will not be updated according to this version of the standard.

Introduction

The present document was developed to satisfy the unique user requirements of PMR/PAMR which, when combined, cannot be met by any other existing or planned ETSI standard. TETRA is a technology that offers a unique range of services and features that are not available from other systems.

TETRA Releases 1.x are defined in the original Terms of Reference of ETSI Project TETRA [1]. The work continues according to the revised Terms of Reference for TETRA Releases 2.x [1].

1 Scope

The present document identifies ETSI specifications for TETRA V+D and DMO Release 1.1.

Release 1.1 specifications were functionally frozen after the 14th EP TETRA meeting in March 2001.

NOTE 1: Functionally frozen means that no further functionality/features may be incorporated into the set of specifications, and that only corrective Change Requests (CRs) are to be accepted and agreed.

NOTE 2: It can be expected that corrective CRs will be introduced into the Release 1.1 specifications throughout year 2001.

NOTE 3: Some of the CRs that will be produced during 2001 will be for the next release as they add new functionalities/features.

NOTE 4: Only published documents are included into this release 1.1.

2 References

For the purposes of this Technical Report the following references apply:

[1] Terms of Reference of ETSI Project TETRA: http://www.etsi.org/TETRA/TETRA_ToR.htm

3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

CR   Change Request
DMO   Direct Mode Operation
PAMR   Public Access Mobile Radio
PMR   Private Mobile Radio
TETRA   Terrestial Trunked Radio
V+D   Voice plus Data

4 Specifications of TETRA Release 1.1

The following clauses contain ETSI deliverables included in TETRA V+D and DMO Release 1.1.

4.1 Voice plus Data (V+D)

ETSI ETS 300 392-1 (1996): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 1: General network design".

NOTE: Only those clauses, which are referred to in other standards, will be maintained.

ETSI EN 300 392-2 (V2.3.2): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 2: Air Interface (AI)".

ETSI ETS 300 392-3-1 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 1: General design".

ETSI EN 300 392-3-2 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 2: Additional Network Feature Individual Call (ANF-ISIIC)".

ETSI TS 100 392-3-2 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 2: Additional Network Feature Individual Call (ANF-ISIIC)".

ETSI ETS 300 392-3-3 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 3: Additional Network Feature Group Call (ANF-ISIGC)".

ETSI EN 300 392-3-4 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 4: Additional Network Feature Short Data Service (ANF-ISISDS)".

ETSI ETS 300 392-3-5 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 5: Additional Network Feature for Mobility Management (ANF-ISIMM)".

ETSI ETS 300 392-4-1 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 4: Gateways basic operation; Sub-part 1: Public Switched Telephone Network (PSTN)".

ETSI ETS 300 392-4-2 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 4: Gateways basic operation; Sub-part 2: Integrated Services Digital Network (ISDN) gateway".

ETSI ETS 300 392-4-3 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 4: Gateways basic operation; Sub-part 3: Data networks gateway".

ETSI TS 100 392-7 (V2.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 7: Security".

ETSI EN 300 392-7 (V2.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 7: Security".

ETSI ETS 300 392-10-1 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 1: Call identification".

ETSI ETS 300 392-10-2 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 2: Call report".

ETSI ETS 300 392-10-3 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 3: Talking Party Identification (TPI)".

ETSI ETS 300 392-10-5 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 5: List Search Call (LSC)".

ETSI ETS 300 392-10-6 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 6: Call Authorized by Dispatcher (CAD)".

ETSI ETS 300 392-10-7 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 7: Short number addressing".

ETSI ETS 300 392-10-8 (1996): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 8: Area selection".

ETSI ETS 300 392-10-9 (1998): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 9: Access priority".

ETSI ETS 300 392-10-10 (1996): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 10: Priority Call (PC)".

ETSI ETS 300 392-10-11 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 11: Call Waiting (CW)".

ETSI ETS 300 392-10-12 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 12: Call Hold (CH)".

ETSI ETS 300 392-10-13 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 13: Call completion to busy subscriber".

ETSI ETS 300 392-10-16 (1996): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 16: Pre-emptive priority call".

ETSI ETS 300 392-10-20 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 20: Discreet Listening (DL)".

ETSI ETS 300 392-10-22 (1996): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 22: Dynamic group number assignment".

ETSI ETS 300 392-10-23 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 10: Supplementary services stage 1; Sub-part 23: Call completion on no reply".

ETSI ETS 300 392-10-24 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 10: Supplementary services stage 1; Sub-part 24: Call Retention (CRT)".

ETSI ETS 300 392-11-1 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 11: Supplementary
services stage 2; Sub-part 1: Call Identification (CI)".

ETSI ETS 300 392-11-2 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 11: Supplementary
services stage 2; Sub-part 2: Call Report (CR)".

ETSI ETS 300 392-11-3 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 11: Supplementary
services stage 2; Sub-part 3: Talking Party Identification (TPI)".

ETSI ETS 300 392-11-5 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 11: Supplementary
services stage 2; Sub-part 5: List Search Call (LSC)".

ETSI ETS 300 392-11-6 (1998): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 11: Supplementary
services stage 2; Sub-part 6: Call Authorized by Dispatcher (CAD)".

ETSI ETS 300 392-11-7 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 11: Supplementary
services stage 2; Sub-part 7: Short Number Addressing (SNA)".

ETSI EN 300 392-11-8 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 11: Supplementary services stage 2; Sub-part 8: Area Selection (AS)".

ETSI TS 100 392-11-8 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 11: Supplementary services stage 2; Sub-part 8: Area Selection (AS)".

ETSI ETS 300 392-11-9 (1998): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 11: Supplementary
services stage 2; Sub-part 9: Access Priority (AP)".

ETSI EN 300 392-11-10 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 11: Supplementary services stage 2; Sub-part 10: Priority Call (PC)".

ETSI ETS 300 392-11-11 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 11: Supplementary services stage 2; Sub-part 11: Call Waiting (CW)".

ETSI EN 300 392-11-12 (2001): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 11: Supplementary
services stage 2; Sub-part 12: Call Hold (CH)".

ETSI ETS 300 392-11-13 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 11: Supplementary services stage 2; Sub-part 13: Call Completion to Busy Subscriber (CCBS)".

ETSI ETS 300 392-11-16 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 11: Supplementary services stage 2; Sub-part 16: Pre-emptive Priority Call (PPC)".

ETSI ETS 300 392-11-20 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 11: Supplementary services stage 2; Sub-part 20: Discreet Listening (DL)".

ETSI ETS 300 392-11-22 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 11: Supplementary services stage 2; Sub-part 22: Dynamic Group Number Assignment (DGNA)".

ETSI ETS 300 392-11-23 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 11: Supplementary services stage 2; Sub-part 23: Call Completion on No Reply (CCNR)".

ETSI ETS 300 392-11-24 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D);
Part 11: Supplementary services stage 2; Sub-part 24: Call Retention (CRT)".

ETSI ETS 300 392-12-1 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary
services stage 3; Sub-part 1: Call Identification (CI)".

ETSI ETS 300 392-12-2 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary
services stage 3; Sub-part 2: Call Report (CR)".

ETSI ETS 300 392-12-3 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 3: Talking Party Identification (TPI)".

ETSI ETS 300 392-12-5 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 5: List Search Call (LSC)".

ETSI ETS 300 392-12-6 (1998): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 6: Call Authorized by Dispatcher (CAD)".

ETSI ETS 300 392-12-7 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 7: Short Number Addressing (SNA)".

ETSI EN 300 392-12-8 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 8: Area Selection (AS)".

ETSI TS 100 392-12-8 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 8: Area Selection (AS)".

ETSI ETS 300 392-12-9 (1998): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 9: Access Priority (AP)".

ETSI EN 300 392-12-10 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 10: Priority Call (PC)".

ETSI ETS 300 392-12-11 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 11: Call Waiting (CW)".

ETSI EN 300 392-12-12 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 12: Call Hold (CH)".

ETSI ETS 300 392-12-13 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 13: Call Completion to Busy Subscriber (CCBS)".

ETSI ETS 300 392-12-16 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 16: Pre-emptive Priority Call (PPC)".

ETSI ETS 300 392-12-20 (1999): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 20: Discreet Listening (DL)".

ETSI ETS 300 392-12-22 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 22: Dynamic Group Number Assignment (DGNA)".

ETSI ETS 300 392-12-23 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 23: Call Completion on No Reply (CCNR)".

ETSI ETS 300 392-12-24 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 24: Call Retention (CRT)".

ETSI TS 100 392-15 (V1.1.1): "Terrestial Trunked Radio (TETRA) Voice plus DATA (V+D) Part 15: TETRA frequency bands, duplex spacings and channel numbering".

4.2 Conformance testing

ETSI EN 300 394-1 (V2.3.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 1: Radio".

ETSI TS 100 394-1 (V2.3.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 1: Radio".

ETSI ETS 300 394-2-1 (1998): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 2: Protocol testing specification for Voice plus Data (V+D); Sub-part 1: Test suite structure and test purposes".

ETSI ETS 300 394-2-2 (1998): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 2: Protocol testing specification for Voice plus Data (V+D); Sub-part 2: Abstract Test Suite (ATS) for Network (NWK) layer".

ETSI ETS 300 394-2-3 (1998): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 2: Protocol testing specification for Voice plus Data (V+D); Sub-part 3: Abstract Test Suite (ATS) for Logical Link Control (LLC)".

ETSI ETS 300 394-2-4 (1998): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 2: Protocol testing specification for Voice plus Data (V+D); Sub-part 4: Abstract Test Suite (ATS) for Medium Access Control (MAC)".

ETSI ETS 300 394-4-1 (1999): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 1: Test Suite Structure and Test Purposes (TSS&TP) for Mobile Station to Mobile Station (MS-MS) Air Interface (AI)".

ETSI ETS 300 394-4-2 (1999): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 2: Abstract Test Suite (ATS) for Mobile Station to Mobile Station (MS-MS) Air Interface (AI)".

ETSI EN 300 394-4-3 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 3: Test Suite Structure and Test Purposes (TSS&TP) for Mobile Station (MS) Repeater type 1".

ETSI TS 100 394-4-3 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 3: Test Suite Structure and Test Purposes (TSS&TP) for Mobile Station (MS) Repeater type 1".

ETSI EN 300 394-4-4 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 4: Test Suite Structure and Test Purposes (TSS&TP) for Direct Mode Repeater (DM-REP) type 1".

ETSI TS 100 394-4-4 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 4: Test Suite Structure and Test Purposes (TSS&TP) for Direct Mode Repeater (DM-REP) type 1".

ETSI EN 300 394-4-5 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 5: Abstract Test Suite (ATS) for Mobile Station (MS) Repeater type 1".

ETSI TS 100 394-4-5 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 5: Abstract Test Suite (ATS) for Mobile Station (MS) Repeater type 1".

ETSI EN 300 394-4-6 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 6: Abstract Test Suite (ATS) for Direct Mode Repeater (DM-REP) type 1".

ETSI TS 100 394-4-6 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 6: Abstract Test Suite (ATS) for Direct Mode Repeater (DM-REP) type 1".

ETSI ETS 300 394-4-7 (1999): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 7: Test Suite Structure and Test Purposes (TSS&TP) for Mobile Station to GateWay (MS-GW) Air Interface (AI)".

ETSI ETS 300 394-4-8 (1999): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 8: Test Suite Structure and Test Purposes (TSS&TP) for Direct Mode Gateway (DM-GATE)".

ETSI ETS 300 394-4-9 (1999): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 9: Abstract Test Suite (ATS) for Mobile Station (MS) Gateway".

ETSI ETS 300 394-4-10 (1999): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 10: Abstract Test Suite (ATS) for Direct Mode Gateway (DM-GATE)".

ETSI EN 300 394-4-11 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 11: Test Suite Structure and Test Purposes (TSS&TP) for Mobile Station Repeater type 2".

ETSI TS 100 394-4-11 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 11: Test Suite Structure and Test Purposes (TSS&TP) for Mobile Station Repeater type 2".

ETSI EN 300 394-4-12 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 12: Test Suite Structure and Test Purposes (TSS&TP) for Repeater type 2".

ETSI TS 100 394-4-12 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 12: Test Suite Structure and Test Purposes (TSS&TP) for Repeater type 2".

ETSI EN 300 394-4-13 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 13: Abstract Test Suite (ATS) for Mobile station Repeater type 2".

ETSI TS 100 394-4-13 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 13: Abstract Test Suite (ATS) for Mobile station Repeater type 2".

ETSI EN 300 394-4-14 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 14: Abstract Test Suite (ATS) for Repeater type 2".

ETSI TS 100 394-4-14 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 4: Protocol testing specification for Direct Mode Operation (DMO); Sub-part 14: Abstract Test Suite (ATS) for Repeater type 2".

ETSI ETS 300 394-5-1 (1999): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 5: Security; Sub-part 1: Protocol Implementation Conformance Statement (PICS) proforma specification".

ETSI ETS 300 394-5-2 (1999): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 5: Security; Sub-part 2: Protocol testing specification for TETRA security".

ETSI ETS 300 394-5-3 (1999): "Terrestrial Trunked Radio (TETRA); Conformance testing specification; Part 5: Security; Sub-part 3: Abstract Test Suite (ATS)".

4.3 Speech codec

ETSI ETS 300 395-1 (1997): "Terrestrial Trunked Radio (TETRA); Speech codec for full-rate traffic channel; Part 1: General description of speech functions".

ETSI ETS 300 395-2 (1998): "Terrestrial Trunked Radio (TETRA); Speech codec for full-rate traffic channel; Part 2: TETRA codec".

ETSI ETS 300 395-3 (1997): "Terrestrial Trunked Radio (TETRA); Speech codec for full-rate traffic channel; Part 3: Specific operating features".

ETSI ETS 300 395-4 (2000): "Terrestrial Trunked Radio (TETRA); Speech codec for full-rate traffic channel; Part 4: Codec conformance testing".

4.4 Direct Mode Operation (DMO)

ETSI ETS 300 396-1 (1998): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 1: General network design".

ETSI ETS 300 396-2 (1998): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 2: Radio aspects".

ETSI ETS 300 396-3: "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 3: Mobile Station to Mobile Station (MS-MS) Air Interface (AI) protocol (1998)".

ETSI EN 300 396-4 (V1.2.1): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 4: Type 1 repeater air interface".

ETSI TS 100 396-4 (V1.2.1): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 4: Type 1 repeater air interface".

ETSI ETS 300 396-5 (2000): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 5: Gateway air interface".

ETSI ETS 300 396-6 (1998): "Terrestrial Trunked Radio (TETRA); Direct Mode Operation (DMO); Part 6: Security".

ETSI EN 300 396-7 (V1.2.1): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 7: Type 2 repeater air interface".

ETSI TS 100 396-7 (V1.2.1): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 7: Type 2 repeater air interface".

ETSI ETS 300 396-8-1 (2000): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 8: Protocol Implementation Conformance Statement (PICS) proforma specification; Sub-part 1: Mobile Station to Mobile Station (MS-MS) Air Interface (AI)".

ETSI EN 300 396-8-2 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 8: Protocol Implementation Conformance Statement (PICS) proforma specification; Sub-part 2: Type 1 repeater Air Interface (AI)".

ETSI TS 100 396-8-2 (V1.1.1, 2000): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 8: Protocol Implementation Conformance Statement (PICS) proforma specification; Sub-part 2: Type 1 repeater Air Interface (AI)".

ETSI ETS 300 396-8-3 (1999): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 8: Protocol Implementation Conformance Statement (PICS) proforma specification; Sub-part 3: Gateway Air Interface (AI)".

ETSI EN 300 396-8-4 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 8: Protocol Implementation Conformance Statement (PICS) proforma specification; Sub-part 4: Type 2 repeater Air Interface (AI)".

ETSI TS 100 396-8-4 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 8: Protocol Implementation Conformance Statement (PICS) proforma specification; Sub-part 4: Type 2 repeater Air Interface (AI)".

ETSI TS 100 396-10 (V1.1.1): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 10: Managed Direct Mode Operation (M-DMO)".

4.5 Subscriber Identity Module (SIM)

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4.6 Type approval

ETSI TBR 035 (Citation in the OJ 07/04/2000): "Terrestrial Trunked Radio (TETRA); Emergency access".

ETSI EN 301 435-1 (V1.2.4): "Terrestial Trunked Radio (TETRA) Attachment requirements for TETRA terminal equipment; Part 1: Civil access".

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4.7 Other specifications

ETSI TS 101 789-1 (V1.1.1): "Terrestial Trunked Radio (TETRA); TMO Repeaters; Part 1: Requirements, test methods and limits".

ETSI EN 301 040 (V2.0.0): "Terrestrial Trunked Radio (TETRA); Security; Lawful Interception (LI) interface".

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ETSI ETR 300-1 (1997): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Designers' guide; Part 1: Overview, technical description and radio aspects".

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ETSI ETR 300-3 (2000): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Designers' guide; Part 3: Direct Mode Operation (DMO)".

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History

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