

---

**Prizemni snopovni radio (TETRA) - Specifikacija za preskušanje skladnosti - 2. del:  
Specifikacija preskušalnega protokola za govor in podatke (V+D) -1. poglavje:  
Zgradba preskušalnega niza (TSS) in nameni preskušanja (TP)**

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

**Ta slovenski standard je istoveten z: ETS 300 394-2-1 E1.% - , !\$'**

**ICS:**

33.020	Telekomunikacije na splošno	Telecommunications in general
33.070.10	Prizemni snopovni radio (TETRA)	Terrestrial Trunked Radio (TETRA)

**DSIST ETS 300 394-2-1:1999** en





**E**UROPEAN  
**T**ELECOMMUNICATION  
**S**TANDARD

**ETS 300 394-2-1**

February 1998

---

Source: TETRA

Reference: DE/RES-06009-2-1

ICS: 33.020

**Key words:** TETRA, V+D, protocol, testing, voice, data, TSS&TP

**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**

European Telecommunications Standards Institute

**ETSI Secretariat**

**Postal address:** F-06921 Sophia Antipolis CEDEX - FRANCE

**Office address:** 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

**X.400:** c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

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

---

**Copyright Notification:** No part may be reproduced except as authorized by written permission. The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 1998. All rights reserved.



## Contents

Foreword .....	5
1 Scope .....	7
2 Normative references .....	7
3 Definitions and abbreviations .....	8
3.1 TETRA definitions .....	8
3.2 TETRA abbreviations .....	8
3.3 ISO 9646 definitions .....	8
3.4 ISO 9646 abbreviations .....	8
4 Test Suite Structure (TSS) .....	9
4.1 Network (NWK) layer .....	9
4.1.1 Network (NWK) layer TSS overview .....	9
4.1.2 NWK layer test groups .....	10
4.2 Logical Link Control (LLC) layer .....	11
4.2.1 Logical Link Control (LLC) layer TSS overview .....	11
4.2.2 LLC layer test groups .....	11
4.3 Medium Access Control (MAC) layer .....	12
4.3.1 Medium Access Control (MAC) layer TSS overview .....	12
4.3.2 MAC layer test groups .....	12
4.4 Test group description .....	12
5 Introduction to Test Purposes (TPs) .....	13
5.1 Test purpose definition conventions .....	13
5.2 Test purpose naming conventions .....	14
6 NWK layer test purposes .....	14
6.1 Circuit Mode Control Entity (CMCE) .....	14
6.1.1 Individual call .....	14
6.1.1.1 Capability tests .....	14
6.1.1.1.1 Call setup .....	15
6.1.1.1.2 Call disconnection .....	16
6.1.1.2 Valid behaviour tests .....	17
6.1.1.2.1 Outgoing call .....	17
6.1.1.2.2 Colliding calls .....	18
6.1.1.2.3 Call maintenance .....	18
6.1.1.2.3.1 Transmission control .....	18
6.1.1.2.3.2 Call modification .....	20
6.1.1.3 Invalid behaviour tests .....	20
6.1.1.3.1 Call setup .....	20
6.1.1.3.2 Call maintenance .....	21
6.1.1.3.3 Call disconnection .....	21
6.1.1.4 Timer tests .....	22
6.1.2 Group call .....	25
6.1.2.1 Capability tests .....	25
6.1.2.1.1 Call setup .....	25
6.1.2.1.2 Call disconnection .....	25
6.1.2.2 Valid behaviour tests .....	26
6.1.2.2.1 Outgoing call .....	26
6.1.2.2.2 Colliding calls .....	26
6.1.2.2.3 Call maintenance .....	27
6.1.2.2.3.1 Transmission control .....	27
6.1.2.2.3.2 Call restoration .....	28
6.1.2.2.4 Call disconnection .....	29
6.1.2.3 Timer tests .....	29

6.1.3	Short Data Service (SDS).....	31
6.1.3.1	Incoming messages.....	31
6.1.3.2	Outgoing messages.....	31
6.2	Mobility Management (MM).....	32
6.2.1	Capability tests.....	32
6.2.2	Valid behaviour tests .....	33
6.2.2.1	Registration.....	33
6.2.2.2	Enable/disable.....	35
6.2.2.3	Energy economy mode .....	36
6.2.2.4	Attachment/detachment of group identities.....	37
6.2.3	Invalid behaviour tests .....	38
6.2.4	Timer tests.....	39
6.3	Specific Connectionless Network Protocol (SCLNP) .....	39
6.3.1	Capability tests.....	39
6.4	Mobile Link Entity (MLE) .....	40
6.4.1	Capability tests.....	40
6.4.1.1	Cell reselection.....	40
6.4.2	Valid behaviour tests .....	41
6.4.2.1	Cell reselection.....	41
6.4.2.2	Network broadcast .....	44
6.4.2.3	Call restoration .....	44
6.4.3	Timer tests.....	45
7	LLC layer test purposes.....	46
7.1	Capability tests .....	46
7.1.1	Basic link, acknowledged service .....	46
7.1.2	Basic link, unacknowledged service .....	48
7.1.3	Advanced link, acknowledged service .....	49
7.1.3.1	Link establishment .....	49
7.1.3.2	Data transfer .....	50
7.1.3.3	Link release.....	52
7.2	Valid behaviour tests .....	53
7.2.1	Basic link, acknowledged service .....	53
7.2.2	Basic link, unacknowledged service .....	54
7.2.3	Advanced link, acknowledged service .....	54
7.2.3.1	Link establishment .....	54
7.2.3.2	Data transfer .....	55
7.2.3.3	Link release.....	57
7.3	Invalid behaviour tests.....	58
7.3.1	Basic link, acknowledged service .....	58
7.3.2	Basic link, unacknowledged service .....	58
7.3.3	Advanced link, acknowledged service .....	59
7.4	Timer tests .....	60
7.4.1	Basic link, acknowledged service .....	60
7.4.2	Advanced link, acknowledged service .....	60
8	MAC layer test purposes .....	61
8.1	Capability tests .....	61
8.2	Valid behaviour tests .....	61
8.2.1	Minimum mode .....	61
8.2.2	Addressing.....	62
8.2.3	Random access.....	62
8.2.4	Reserved access .....	62
8.3	Invalid behaviour tests.....	63
8.3.1	Addressing.....	63
8.3.2	Minimum mode .....	64
8.3.3	Random access.....	64
8.4	Timer tests .....	64
	History.....	66

## Foreword

This European Telecommunication Standard (ETS) has been produced by the Terrestrial Trunked Radio (TETRA) Project of the European Telecommunications Standards Institute (ETSI).

Every ETS prepared by ETSI is a voluntary standard. This ETS contains text concerning conformance testing of the equipment to which it relates. This text should be considered only as guidance and does not make this ETS mandatory.

This ETS will consist of two parts with various sub-parts:

Part 1: "Radio";

**Part 2: "Protocol testing specification for Voice plus Data (V+D)".**

Transposition dates	
Date of adoption of this ETS:	6 February 1998
Date of latest announcement of this ETS (doa):	31 May 1998
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	30 November 1998
Date of withdrawal of any conflicting National Standard (dow):	30 November 1998

Blank page