INTERIM
EUROPEAN
TELECOMMUNICATION
STANDARD

I-ETS 300 491-3

September 1996

Source: ETSI TC-TE

Reference: DI/TE-01060-3

ICS: 33.080, 35.180

Key words: ISDN, file transfer

Terminal Equipment (TE); Conformance testing for file transfer over the Integrated Services Digital Network (ISDN); Part 3: Conformance testing for ETS 300 075 restricted by ETS 300 383 - Abstract Test Suite (ATS)

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Foreword

Part 3 of this Interim European Telecommunication Standard (I-ETS) has been produced by the Terminal Equipment (TE) Technical Committee of the European Telecommunications Standards Institute (ETSI).

An ETSI standard may be given I-ETS status either because it is regarded as a provisional solution ahead of a more advanced standard, or because it is immature and requires a "trial period". The life of an I-ETS is limited to three years after which it can be converted into an ETS, have its life extended for a further two years, be replaced by a new version, or be withdrawn.

This part of the I-ETS provides the EUROFILE profile conformance testing specification to ETS 300 383 [2]. To produce such a profile test specification an Abstract Test Suite (ATS) has been created for general aspects of file transfer over the Integrated Services Digital Network (ISDN) that are relevant for ETS 300 075 [1] and ETS 300 383 [2]. This I-ETS is not a complete conformance test specification to ETS 300 075 [1] but is restricted to ETS 300 383 [2]. This ATS should be used for further production of complete conformance testing for ETS 300 075 [1].

This is the third part of an I-ETS which comprises three parts as follows:

Terminal Equipment (TE); Conformance testing for file transfer over the Integrated Services Digital Network (ISDN):

Part 1: ETS 300 075 Protocol Implementation Conformance Statement (PICS) proforma;

Part 2: ETS 300 075 Test Suite Structure and Test Purposes (TSS&TP);

Part 3: Conformance testing for ETS 300 075 restricted by ETS 300 383 - Abstract Test Suite (ATS).

Proposed announcement date	
Date of adoption of this I-ETS:	30 August 1996
Date of latest announcement of this I-ETS (doa):	31 December 1996

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1 Scope

Part 3 of this Interim European Telecommunication Standard (I-ETS) describes all the aspects of conformance testing for ETS 300 075 [1] restricted to ETS 300 383 [2] (EUROFILE profile). Currently this I-ETS describes only the common aspects of ETS 300 075 [1] and ETS 300 383 [2]. Specific aspects for ETS 300 383 [2] are detailed in I-ETS 300 490-3 [14].

The objective of this I-ETS is to provide an Abstract Test Suite (ATS) which provides conformance tests giving a high probability of inter-operability of two EUROFILE applications from different manufacturers over the Integrated Services Digital Network (ISDN). Thus, this test specification checks all the Protocol Data Units (PDUs) and Parameters of ETS 300 075 [1] in the context of ETS 300 383 [2].

ISO/IEC 9646 is used as the basis for the test methodology. Furthermore, this I-ETS follows the specific European Telecommunications Standards Institute (ETSI) rules specified in ETS 300 406.

Annex A (normative) provides the ATS in both graphical or machine processable electronic forms. The ATS describes a set of Test Cases based on the Test Suite Structure and Test Purposes given in I-ETS 300 491-2 [8].

2 Normative references

Part 3 of this I-ETS incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this part of the I-ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

[1] ETS 300 075 (1994): "Terminal Equipment (TE); Processable data File transfer".

[2] ETS 300 383 (1995): "Integrated Services Digital Network (ISDN); File transfer over the ISDN EUROFILE transfer profile".

[3] ETS 300 012 (1992): "Integrated Service Digital Network (ISDN); Basic user-network interface, Layer 1 specification and test principles".

[4] ETS 300 011 (1992): "Integrated Service Digital Network (ISDN); Primary rate user-network interface, Layer 1 specification and test principles".

[5] ETS 300 125 (1991): "Integrated Service Digital Network (ISDN); User-network interface data layer link layer specification, Application of CCITT Recommendations Q.920/I.440 and Q.921/I.441".

[6] ETS 300 102-1 (1993): "Integrated Services Digital Network (ISDN); User-network interface layer 3, Specifications for basic call control".

[7] ETS 300 080 (1992): "Integrated Services Digital Network (ISDN); ISDN lower layer protocols for telematic terminals".

[8] I-ETS 300 491-2 (1996): "Terminal Equipment (TE); Conformance testing for file transfer over the Integrated Services Digital Network (ISDN); Part 2: ETS 300 075 Test Suite Structure and Test Purposes (TSS&TP)".

[9] ISO/IEC 9646-3 (1992): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: Tree and Tabular combined Notation (TTCN)".

[10] ETS 300 079 (1991): "Integrated Services Digital Network (ISDN); Syntax-based Videotex End-to-end protocols, Circuit mode DTE-DTE".

[11] I-ETS 300 236 (1993): "Terminal Equipment (TE); Syntax-based Videotex protocol, Terminal conformance testing".

[12] I-ETS 300 491-1 (1996): "Terminal Equipment (TE); Conformance testing for file transfer over the Integrated Services Digital Network (ISDN); Part 1: ETS 300 075 Protocol Implementation Conformance Statement (PICS) proforma".

[13] ISO/IEC 9646-5 (1992): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 5: Requirements on test laboratories and clients for the conformance assessment process".

[14] I-ETS 300 490-3 (1996): "Terminal Equipment (TE); File transfer over the Integrated Services Digital Network (ISDN); Conformance testing specification - Part 3: Profile Specific Test Specification (PSTS) for the EUROFILE profile (ETS 300 383)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this part of the I-ETS, the definitions given in ISO/IEC 9646, ETS 300 075 [1] and ETS 300 383 [2] apply.

3.2 Abbreviations

For the purposes of this part of the I-ETS, the following abbreviations apply:

ASP	Abstract Service Primitive
ATM	Abstract Test Method
ATS	Abstract Test Suite
HLC	High Layer Compatibility
ICS	Implementation Conformance Statement
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
IXIT	Implementation eXtra Information for Testing
LT	Lower Tester
PCO	Point of Control and Observation
PCTR	Protocol Conformance Test Report
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
SBV	Syntax-Based Videotex
SCS	System Conformance Statement
SCTR	System Conformance Test Report
SUT	System Under Test
TC	Test Case
TDU	Telesoftware Data Unit
TE	Terminal Equipment
TSS&TP	Test Suite Structure and Test Purposes
TTCN	Tree and Tabular Combined Notation
UT	Upper Tester

4 General

This part of the I-ETS describes all the aspects of testing. This I-ETS is not fully developed because the testing is restricted by ETS 300 383 [2]. It covers the symmetrical service, the Telesoftware Data Unit (TDU) layer and Syntax-Based Videotex (SBV).

The ATS is specified in annex A.

NOTE: The ATS is written in Tree and Tabular Combined Notation (TTCN) and follows the rules of ISO/IEC 9646-3 [9]. The ATS exists in machine processable form (DIP4913.MP) and is the property of ETSI.

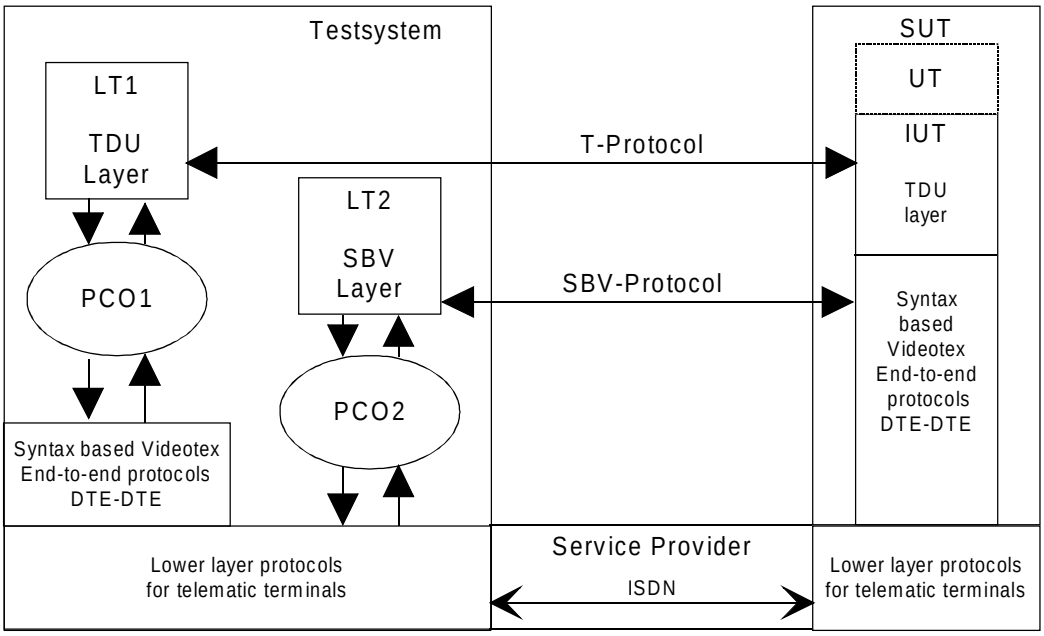
Additional selected Test Cases of other conformance test specifications are described in annex F.

5 Abstract test method

This clause describes the Abstract Test Method (ATM) and the Points of Control and Observation (PCO) used to test the simple file transfer over the ISDN.

The remote multi layer test method shall be used.

The following figure shows the ATM:



LT — A Lower Tester (LT) is located in the test system. It controls and observes the behaviours of the Implementation Under Test (IUT).

PCO1 — PCO1 is defined as being between the T-Service user and T-Service provider (see ETS 300 075 [1], page 18, "Case of Syntax Based Videotex:"). PCO1 is the main PCO in the ATS.

PCO2 — PCO2 is defined as being below the Syntax-Based Videotex layer. It serves only for specific Test Cases to observe the behaviour of the SBV used (see ETS 300 075 [1], subclause 6.5). PCO2 serves only for specific Test Cases and does not serve to observe all Test Cases. The reason for PCO2, if the IUT sends T_Abort or T_Release, is that it is impossible to observe the reaction on PCO1.

Service Provider — The Service Provider consists partly of SBV end-to-end protocols DTE-DTE (ETS 300 079 [10]) and lower layer protocols for telematic terminals (ETS 300 080 [7]).

IUT — ETS 300 075 [1] restricted to EUROFILE profile is the IUT. It belongs to the System Under Test (SUT).

UT — No explicit Upper Tester (UT) exists in the test system. However, the SUT needs to carry out some IUT actions at the user interface to achieve some effects on test co-ordination procedures. The control of the IUT is implied or informally expressed in the ATS, but no assumption shall be made regarding their feasibility or realisation.

Figure 1: Abstract Test Method

6 Test requirements

6.1 General requirements

For this conformance test specification all the requirements to carry out the tests shall be given.

To realize this conformance test specification it is necessary that all the layers below function correctly. For this reason, lower layers shall be checked before testing against this specification by relevant conformance test specifications (see annex F).

This test specification does not deal with the details of the human interface. Only PDUs and Parameters are observed and controlled at the PCOs.

6.2 Lower layer requirements

Clause 10 in ETS 300 383 [2] shall apply without any additional rule.

Additional requirements or references to referenced documents are given in following subclauses.

6.2.1 Layer 1 protocols

For terminals using the basic access to an ISDN, ETS 300 012 [3] shall be applicable without any additional application rules.

For terminals using the primary rate access to an ISDN, ETS 300 011 [4] shall be applicable without any additional application rules.

6.2.2 Layer 2 protocols, D-channel layer

ETS 300 125 [5] shall be applicable without any additional rules.

6.2.3 Layer 3 protocols, D-channel layer

Additional requirements and amendments are given in following subclauses.

6.2.3.1 Terminal selection and compatibility checking

Subclause 10.2.2 of ETS 300 383 [2] describes the use of the High Layer Compatibility (HLC) codepoint "Eurofile". This codepoint is not available and is thus not relevant for testing.

6.2.3.2 Service specific use of supplementary services

No supplementary service tests are contained in this specification.

6.2.4 Information transfer attributes

The information transfer attributes of this teleservice are specified in table 1.

Table 1: Values of information transfer attributes

Attribute	Possible values
Information transfer mode	Circuit
Information transfer rate	64 kbit/s
Information transfer capability	Unrestricted digital information
Structure	8 kHz integrity
Establishment of communication	On demand
Symmetry	Bi-directional symmetric
Communication configuration	Point-to-point

6.2.5 Access attributes

The access attributes of this teleservice are specified in table 2.

Table 2: Access attribute values

Attribute	Possible values
Access channel and rate	User information: - B-channel Signalling: - D-channel
Signalling access protocol	ETS 300 125 [5] and 300 102-1 [6]
Information access protocol	ETS 300 080 [7]

6.3 End-to-end protocol

Clause 9 in ETS 300 383 [2] shall apply without any additional rules.

6.4 IUT test suite specific requirements

Before the test specification is started the tester shall configure the IUT (SUT). The tester shall prepare the test files, the access control list and the corresponding phonebook.

6.4.1 Test file

This ATS gives a fixed order of directories and files. The tester shall activate transactions for certain Test Cases at the IUT user interface. For this reason, the tester shall realize the following designations of files in the IUT in the directory "eurotest" as follows:

- File type group A (default):

  a) tstde_2, tstlo_1, tstre_n1, tstre_o1, tstre_o2, tstre_3, tstsa_2.

The content of files is described in annex A, in the TTCN description.

6.4.2 Access control list

In performing the tests, the tester shall prepare the access control list as follows:

- services: Restrictions to services shall not be allowed;
- identifier: User: TESTEURO and Password: testrun shall be granted;
- working area: EUROTEST.

6.4.3 Corresponding phone book

In performing the tests, the tester shall prepare the corresponding phone book as follows:

- Services: Restrictions to services shall not be allowed;
- Called address: TSPX_CALLED_ADDRESS, see annex B, subclause B.2.2.2;
- Local working filestore: EUROTEST.

7 Abstract Test Suite convention

The ATS conventions are intended to give a better understanding of the ATS but they also describe the conventions made for the development of the ATS.

The ATS convention contains two clauses, the naming conventions and the implementation conventions. The naming conventions describe the structure of the naming of all ATS elements. The implementation conventions describe the functional structure of the ATS elements.

7.1 Naming conventions

7.1.1 Overview part

I-ETS 300 491-2 [8] shall apply without any additional rules. No additional naming conventions shall be met.

7.1.2 Declaration part

The Id names of the following definitions are written in lowercase:

- ASP type definitions;
- PDU type definitions.

The Id names of the following definitions are written in uppercase:

- simple type definitions;
- test suite parameter declarations;
- test case selection expression definitions;
- test suite constant declaration;
- test suite variable declarations;
- test case variable declarations.

Structured Type Id names begin with ST_:
- e.g.: ST_Address

Test Suite Parameter Id names begin with TSP:

- Protocol Implementation Conformance Statements (PICS) are identified by adding the letter "C" ==> TSPC_ (e.g.: TSPC_MASTER);
- Protocol Implementation eXtra Information for Testing (PIXIT) are identified by adding the letter "X" ==> TSPX_ (e.g.: TSPX_EUROFILE).

Test Case Selection expression Id names begin with TCS_:
- e.g.: TSC_IUT.

Test Suite Operations begin with TSO_:
- e.g.: TSO_BLOCKLEN.

Test Suite Constant Id names begin with TSC_:
- e.g.: TSC_T_ASSOCIATE.

Test Suite Variable Id names begin with TSV_:
- e.g.: TSV_LENGTH_1.

7.1.3 Constraint part

Constraint names commence with a capital letter. The remaining part of the Id name is written in lowercase.

The text written in italics is only for information and the normal written text is used in the test specification.

The structure of a Constraint Id name is as follows:

- <Declaration Id Name>[_s*end* or _r*eceive*][_base or _*further details*];
- e.g.:

  a) Declaration part: t_associate_req;
  b) Constraint part: T_associate_req_s_base.

Structured constraint Id name begin with SC_:

The structure of a Structured constraint Id name is as follows:

- <Declaration Id Name>[_*detail*][_s*end* or _r*eceive*][_base or _*further details*];
- e.g.:

  a) Declaration part: ST_Address;
  b) Constraint part: SC_Address_called_r_base.

If formal parameter lists are used, the variable names shall be written in uppercase.

7.1.4 Dynamic part

7.1.4.1 Test Cases

The identifier of the Test Cases (TCs) is the same as in I-ETS 300 491-2 [8].

7.1.4.2 Test steps

In TCs, test steps as well as local trees are used. To easily distinguish them, the following naming convention applies:

- Local tree: lo_[local_tree_name];
- Preamble test step: pr_[test_step_name];
- Postamble test step: po_[test_step_name];
- Check test step: ch_[test_step_name].

7.1.5 ATS abbreviations

These abbreviations are used to shorten identifier names. Capital letters may be used.

_addr	address
_appl	application
_asp	primitive (abstract service primitive)
_cnf	confirmation
_comm	common
_ind	indication
_r	receive
_rej	reject
_req	request
_rsp	response
_s	send

7.2 Implementation conventions

7.2.1 General conventions

The tester shall guarantee the correct implementation for the lower layers in the SUT.

Furthermore, the tester shall establish a connection between the test system and the IUT that shall be described in the PIXIT. The tester shall realize the functionalities of the SBV primitives SBV_TPD_Begin, SBV_TPD_End and SBV_TC_Error.

7.2.2 Declaration part

The comment line of single element TTCN tables is used to give a reference where the format and content of the element is described in the relevant protocol specification. Any specific item of the element format or content shall be described in the comment line.

The comment line in the header of the multi element TTCN tables is used to reference the protocol specification. The detailed comments are used to describe any particularity of the table.

In the Abstract Service Primitive (ASP) and PDU declarations the comments column is further used to give information about the element value.

7.2.3 Constraint part

All PDUs are defined in such a way that relevant elements are parameterized. This improves the transparency of the constraints in the dynamic part, as all values which are relevant for the test shall always be present.

The comment line of a constraint shall always contain the reference to the specification used. The detailed comments sector is used to describe any particularity of the table.

7.2.4 Dynamic part

All events which are defined as conformance requirements by the Test Purpose, cause a preliminary PASS verdict if the requirement is met.

In order to better relate conformance log's verdicts with events, alias names (OTHERWISE or TIMEOUT) and test step names should be written to the conformance log with the corresponding receive event. This allows identification of where the test failed.

Implicit send events are used within the ATS. The specific description is described in the constraint part. The tester may realize implicit send events manually or automatically.

8 Untestable Test Purposes

The following Test Purposes are not implemented in the ATS due to the unknown reaction of the IUT after testing them. Due to PIXIT question TSPX_EUROFILE, the Test Purposes shown in table 3 cannot be carried out:

Table 3: Untestable Test Purposes

Test Group	Test Purpose	Additional note
M/CA/FT	TCM2_801	Explicit confirmation shall be requested in EUROFILE profile. It is for further study.
M/BV/PI/FT	TCM3I801	Explicit confirmation shall be requested in EUROFILE profile. It is for further study.
M/BV/PI/FT	TCM3I806	READ RESTART shall not be used in EUROFILE profile. It is for further study.
M/BV/PV/FT	TCM3V803	Explicit confirmation shall be requested in EUROFILE profile. It is for further study.
M/BI/PV/FT	TCM5V804	READ RESTART shall not be used in EUROFILE profile. It is for further study.
S/CA/FT	TCS2_801	Explicit confirmation shall be requested in EUROFILE profile. It is for further study.
S/BV/PI/FT	TCS3I801	Explicit confirmation shall be requested in EUROFILE profile. It is for further study.
S/BV/PI/FT	TCS3I806	READ RESTART shall not be used in EUROFILE profile. It is for further study.
S/BV/PV/FT	TCS3V803	Explicit confirmation shall be requested in EUROFILE profile. It is for further study.
S/BI/PV/FT	TCS5V805	READ RESTART shall not be used in EUROFILE profile. It is for further study.
S/BV/PC/DI	TCS3C301	It is impossible to deselect the DIRECTORY service, T_Directory is mandatory in EUROFILE profile.
S/BV/PC/SA	TCS3C401	It is impossible to deselect the SAVE service, T_Save is mandatory in EUROFILE profile.
S/BV/PC/LO	TCS3C501	It is impossible to deselect the LOAD service, T_Load is mandatory in EUROFILE profile.

Annex A (normative): Abstract Test Suite

This Abstract Test Suite (ATS) has been produced using the Tree and Tabular Combined Notation (TTCN) according to ISO/IEC 9646-3 [9].

The ATS was developed on a separate TTCN software tool and therefore the TTCN tables are not completely referenced in the contents table. The ATS itself contains a Test Suite Overview part which provides additional information and references.

A.1 The TTCN Graphical form (TTCN.GR)

The TTCN.GR representation of this ATS is contained in a Postscript file (DI104913.PS) which accompanies this ETS.

NOTE: This file is located in an archive file named 4913_I1.LZH. Other file formats are available on request.

A.2 The TTCN Machine Processable form (TTCN.MP)

The TTCN.MP representation corresponding to this ATS is contained in an ASCII file (DI104913.MP) which accompanies this ETS.

NOTE 1: This file is located in an archive file named 4913_I1.LZH. Other file formats are available on request.

NOTE 2: According to ISO/IEC 9646-3 [7], in case of a conflict in interpretation of the operational semantics of TTCN.GR and TTCN.MP, the operational semantics of the TTCN.GR representation takes precedence.

Annex B (normative): PIXIT proforma

Notwithstanding the provisions of the copyright clause related to the text of this I-ETS, ETSI grants that users of this I-ETS may freely reproduce the PIXIT proforma in this annex so that it can be used for its intended purposes and may further publish the completed PIXIT.

B.1 Identification summary

B.1.1 Protocol IXIT

IXIT Number	
Test Laboratory Name	
Date of Issue	
Issued to	

B.1.2 Abstract Test Suite summary

Protocol Specification	ETS 300 075 [1][1)]
Abstract Test Specification	I-ETS 300 491-3
Abstract Test Method	Remote Single Layer Test Method

1) Restricted to ETS 300 383 [2].

B.1.3 Test laboratory

Identification	
Address	
Postal code/city	
Country	
Telephone	
Telefax	
Telex	
Teletex	
E-Mail	
Accreditation status of the test service	
Accreditation reference	
Test Laboratory Manager	
Test Laboratory Contract	
Means of Testing (MOT)	
Instructions for Completion	

B.1.4 Client

Identification	
Address	
Postal code/city	
Country	
Telephone	
Telefax	
Telex	
Teletex	
E-Mail	
Client Test Manager	
Test facilities required: *(Reference to annex can be made)*	

B.1.5 SUT

Name	
Version	
SCS reference	
Machine Configuration	
Operation System Identification	
Upper Tester Identification	
Upper Tester Validation Date	
IUT Identification	
ICS	
Limitations of the IUT *(Reference to annex can be made)*	
Environmental conditions *(Reference to annex can be made)*	

B.1.6 Ancillary Protocols

Protocol Name	Version Number	PICS Ref.	PIXIT Ref.	PCTR Ref.
ETS 300 080 [7]	1.0	ETS 300 080 [7]	ETS 300 080 [7]	
ETS 300 079 [10]	October 1991	I-ETS 300 236 [11]	I-ETS 300 236 [11]	

B.2 Protocol information for ETS 300 075 restricted to ETS 300 383

B.2.1 Protocol information

Specification reference	
Protocol version	
PICS reference	

B.2.2 IUT information

B.2.2.1 Addresses

SAP address	Description
By the Lower Tester 1 to access the IUT (PCO1)	
By the Lower Tester 2 to access the IUT (PCO2)	

B.2.2.2 Parameter values

Table B.1: Parameter values

Parameter Name	Parameter Type	Question	Parameter Range	Parameter Value
TSPX_EUROFILE	Boolean	Is the IUT an Eurofile application?	-	
TSPX_ASSOCIATE	Boolean	Does the tester always use the terminated call state? [2]		
TSPX_CALLED_ADDRESS	IA5String	Called address		
TSPX_CALLING_ADDRESS	IA5String	Calling address		
TSPX_IDENTIFICATION	Boolean	Is the username set to "TESTEURO" and is the password set to "testrun" in the IUT?		
TSPX_APPL_RSP_TIMEOUT	Boolean	Is the parameter application response timeout greater than zero?	1 s - 255 s	[3]

B.2.2.3 Test files

The tester shall insert all information referred to the test files in the following table.

Table B.2: Test files

Timer Name	Test Suite Constant name	Realized [Y/N]	File type	Size
tstde_2	TSC_DEL_2		Group A default	
tstlo_1	TSC_LOA_1		Group A default	
tstre_n1	TSC_NEW_2		Group A default	
tstre_o1	TSC_OLD_1		Group A default	
tstre_o2	TSC_OLD_2		Group A default	
tstre_3	TSC_NEW_1		Group A default	
tstsa_2	TSC_SAV_2		Group A default	

B.2.2.4 Procedural information

As required.

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[2] Note this question in context with test steps pr_init and pr_init_iut.
[3] Please insert the value for later checking, althrough not relevant.

Annex C (normative): Protocol Conformance Test Report proforma

C.1 Identification summary

C.1.1 Profile Conformance Test Report (PCTR)

Table C.1

PCTR Number	
PCTR Date	
Test Laboratory	
Accreditation Status	
Accreditation Reference	
Technical Authority	
Job Title	
Signature	
Test Laboratory Manager	
Signature	

C.1.2 IUT

Table C.2

Name	
Version	
Protocol Specification	ETS 300 075 [1] restricted to ETS 300 383 [2]
ICS	*I-ETS 300 491-1 [12]*

C.1.3 Testing environment

Table C.3

IXIT	I-ETS 300 491-3
Abstract Test Suite	I-ETS 300 491-3
ATM	Remote Single Layer Test Method
MOT	
Period of testing	
Conformance Log reference	
Retention Date of Log reference	
Realising of preamble test step pr_init	Details in annex:
Realising of preamble test step pr_init_iut	Details in annex:
Realising of postamble test step po_disconnect	Details in annex:

C.1.4 Limits and reservations

The order of Test Cases listed in clause C.6 of this annex corresponds to the ordering of Test Cases defined in the ATS referenced in subclause C.1.3. This does not indicate that the Test Cases were executed in this order.

The test results presented in this test report apply only to the particular IUT declared in subclause C.1.2 of this annex, as presented for test in the period declared in subclause C.1.3, and configured as declared in the relevant IXIT attached to this PCTR. This report shall not be reproduced except in full together with its attached ICS and IXIT.

Additional information relevant to the technical contents or further use of the test report, or to the rights and obligations of the test laboratory and the client, may be given here. Such information may include restrictions on the publication of the report.

C.1.5 Comments

Additional comments may be given by either the client or test laboratory on any of the contents of the PCTR, for example, to note disagreement between the two parties.

Table C.4

Additional comments reference in annex:	

C.2 IUT conformance status

This IUT **has/has not** been shown by conformance assessment to be non-conforming to the referenced base specification.

Further details see ISO/IEC 9646-5 [13], annex B, clause B.2.

C.3 Static conformance summary

The ICS for this IUT **is/is not** consistent with the static conformance requirements in the referenced base specification.

Further details see ISO/IEC 9646-5 [13], annex B, clause B.3.

C.4 Dynamic conformance summary

The test campaign **did/did not** reveal errors in the IUT.

Further details see ISO/IEC 9646-5 [13], annex B, clause B.4.

C.5 Static conformance review report

If clause C.3 indicates non-conformance, this clause itemises the mismatches between the ICS and the static conformance requirements of the referenced base specification.

Table C.5

Non-conformance indication:	Yes/No
Reference to the description:	

C.6 Test campaign report

The shaded lines in the following table correspond to untestable Test Cases.

For further details see ISO/IEC 9646-5 [13], annex B, clause B.6.

Table C.6

TC Name	Selected [Yes/No]	Run [Yes/No]	Verdict [P/F/I]	Observations [4)]
TCM2_101				
TCM2_102				
TCM2_201				
TCM2_202				
TCM2_301				
TCM2_401				
TCM2_501				
TCM2_601				
TCM2_701				
TCM2_801				
TCM2_802				
TCM2_803				
TCM2_901				
TCM3I101				
TCM3I102				
TCM3I201				
TCM3I202				
TCM3I301				
TCM3I401				
TCM3I402				
TCM3I501				
TCM3I502				
TCM3I601				
TCM3I701				
TCM3I801				
TCM3I802				
TCM3I803				
TCM3I804				
TCM3I805				
TCM3I806				
TCM3I807				
TCM3I808				
TCM3I809				
TCM3I810				
TCM3I811				
TCM3I901				
TCM3V801				
TCM3V802				
TCM3V803				
TCM3C801				
TCM3E101				
TCM3E102				
TCM3E201				
TCM3E202				
TCM3E401				
TCM3E402				
TCM3E501				
TCM3E502				
TCM3E901				
TCM3E902				
TCM3T201				
TCM3T301				

(continued)

4) Enter an observation or a reference to any relevant observations made in clause C.7 of this report.

Table C.6 (continued)

TC Name	Selected [Yes/No]	Run [Yes/No]	Verdict [P/F/I]	Observations [4]
TCM3T801				
TCM5V101				
TCM5V102				
TCM5V104				
TCM5V105				
TCM5V201				
TCM5V202				
TCM5V203				
TCM5V204				
TCM5V301				
TCM5V401				
TCM5V501				
TCM5V601				
TCM5V701				
TCM5V801				
TCM5V802				
TCM5V803				
TCM5V804				
TCM5V805				
TCM5V806				
TCM5V807				
TCM5V901				
TCM5C801				
TCM5C802				
TCM4E101				
TCM4E102				
TCM4E103				
TCM4E104				
TCM4E105				
TCM4E201				
TCM4E202				
TCM4E203				
TCM4E204				
TCM4E205				
TCM4E206				
TCM4E301				
TCM4E401				
TCM4E402				
TCM4E501				
TCM4E502				
TCM4E503				
TCM4E601				
TCM4E701				
TCM4E801				
TCM4E802				
TCS2_101				
TCS2_102				
TCS2_201				
TCS2_202				
TCS2_301				
TCS2_401				

(continued)

4) Enter an observation or a reference to any relevant observations made in clause C.7 of this report.

Table C.6 (continued)

TC Name	Selected [Yes/No]	Run [Yes/No]	Verdict [P/F/I]	Observations [4)]
TCS2_501				
TCS2_601				
TCS2_701				
TCS2_801				
TCS2_802				
TCS2_803				
TCS2_901				
TCS3I101				
TCS3I801				
TCS3I802				
TCS3I803				
TCS3I804				
TCS3I805				
TCS3I806				
TCS3I807				
TCS3I808				
TCS3I809				
TCS3I810				
TCS3I901				
TCS3V201				
TCS3V202				
TCS3V203				
TCS3V301				
TCS3V401				
TCS3V501				
TCS3V601				
TCS3V602				
TCS3V701				
TCS3V801				
TCS3V802				
TCS3V803				
TCS3V804				
TCS3C101				
TCS3C301				
TCS3C401				
TCS3C501				
TCS3C601				
TCS3C602				
TCS3C701				
TCS3C801				
TCS3E101				
TCS3E201				
TCS3E401				
TCS3E501				
TCS5V101				
TCS5V102				
TCS5V103				
TCS5V104				
TCS5V105				
TCS5V201				
TCS5V202				

(continued)

4) Enter an observation or a reference to any relevant observations made in clause C.7 of this report.

Table C.6 (concluded)

TC Name	Selected [Yes/No]	Run [Yes/No]	Verdict [P/F/I]	Observations [4)]
TCS5V203				
TCS5V204				
TCS5V301				
TCS5V401				
TCS5V501				
TCS5V601				
TCS5V701				
TCS5V801				
TCS5V802				
TCS5V803				
TCS5V804				
TCS5V805				
TCS5V806				
TCS5V807				
TCS5V808				
TCS5V809				
TCS5V810				
TCS5V811				
TCS5V901				
TCS5C801				
TCS5C802				
TCS4E101				
TCS4E102				
TCS4E103				
TCS4E201				
TCS4E202				
TCS4E203				
TCS4E401				
TCS4E402				
TCS4E501				
TCS4E801				
TCS4E802				

C.7 Observations

Additional information relevant to the technical content of the PCTR may be given here.

4) Enter an observation or a reference to any relevant observations made in clause C.7 of this report.

Annex D (normative): System Conformance Test Report proforma (SCTR)

D.1 Identification summary

D.1.1 System Conformance Test Report (SCTR)

Table D.1

SCTR Number	
SCTR Date	
Test Laboratory Manager	
Signature	

D.1.2 Test laboratory

Table D.2

Identification	
Address	
Postal code/city	
Country	
Telephone	
Telefax	
Additional Identifications	

D.1.3 Client

Table D.3

Identification	
Address	
Postal code/city	
Country	
Telephone	
Telefax	
Additional Identifications	

D.1.4 SUT

Table D.4

Name	
Version	
Supplier	
Dates of testing	
Date of receipt of SUT	
Location of SUT for Testing	
SCS Identifier	

D.1.5 Protocol

Table D.5

Protocol Identification	ETS 300 075 [1] **5)**
Protocol Version	1994
PICS	
PIXIT	
ATS	

D.1.6 Nature of conformance testing

The purpose of conformance testing is to increase the probability that different implementations can interwork. However, the complexity of OSI protocols makes exhaustive testing impractical on both technical and economic grounds. Furthermore, there is no guarantee that an SUT which has passed all the relevant Test Cases conforms to a specification. Neither is there any guarantee that such an SUT will interwork with other real open systems. Rather, the passing of the Test Cases gives confidence that the SUT has the stated capabilities and that its behaviour conforms consistently in representative instances of communication.

D.1.7 Limits and reservations

The test results presented in this test report apply only to the particular SUT and component IUTs declared in subclauses 1.4 and 1.8 of this annex, for the functionality described in the referenced SCS and in the ICS referenced in each PCTR, as presented for test in the period declared in subclause D.1.4 and configured as declared in the relevant IXIT referenced in each PCTR. This SCTR may not be reproduced except in full together with its SCS.

Additional information relevant to the technical contents or further use of the test report, or to the rights and obligations of the test laboratory and the client, may be given here. Such information may include restrictions on the publication of the report.

D.1.8 Record of agreement

A definition of what parts of the SUT were considered to be the IUT during testing, and of the abstract test method and abstract test suite that were used:

---

5) Restricted to ETS 300 383 [2].

Table D.6

IUT Definition Reference	Protocol	ATM	ATS
2.1	ETS 300 075 [1]	RS	I-ETS 300 491-3
2.2	ETS 300 079 [10]	RS	I-ETS 300 236 [11]
2.3	ETS 300 080 [7]	-	

D.1.9 Comments

Additional comments may be given by either the client or test laboratory on any of the contents of the SCTR, for example, to note disagreement between the two parties.

Additional comments in annex: <Reference to additional comments>

D.2 System report summary

D.2.1 Protocol layer testing summary for ETS 300 075 restricted to ETS 300 383

Table D.7

Accreditation status	
Accreditation reference	
Implementation identifier	
IUT definition reference	
Protocol specification	ETS 300 075 [1]
ICS	I-ETS 300 491-1 [12]
IXIT	I-ETS 300 491-3
PCTR Number	
PCTR Date	
ATS specification	I-ETS 300 491-3
ATM	Remote Multi Layer Test Method
Means of Testing identifier	
Conformance Status	
Conformance Status Static conformance errors Dynamic conformance errors	 Yes/No Yes/No
Test Cases all Selected Run Passed Inconclusive Failed	
Observations	

If the SUT is not statically and dynamically conforming for this protocol, an additional summary may be given on aspect of non conformance. Any difficulties encountered may be reported here.

D.2.2 Protocol layer testing summary for ETS 300 079

Table D.8

Accreditation status	
Accreditation reference	
Implementation identifier	
IUT definition reference	
Protocol specification	ETS 300 079 [10]
ICS	I-ETS 300 236 [11]
IXIT	I-ETS 300 236 [11]
PCTR Number	
PCTR Date	
ATS specification	I-ETS 300 236 [11]
ATM	Remote Single Layer Test Method
Means of Testing identifier	
Conformance Status	
Conformance Status Static conformance errors Dynamic conformance errors	 Yes/No Yes/No
Test Cases all Selected Run Passed Inconclusive Failed	
Observations	

If the SUT is not statically and dynamically conforming for this protocol, an additional summary may be given on aspect of non conformance. Any difficulties encountered may be reported here.

D.2.3 Protocol layer testing summary for ETS 300 080

Table D.9

Accreditation status	
Accreditation reference	
Implementation identifier	
IUT definition reference	
Protocol specification	ETS 300 080 [7]
ICS	ETS 300 080 [7]
IXIT	
PCTR Number	
PCTR Date	
PSTS	
ATM	-
Means of Testing identifier	
Conformance Status	
Conformance Status Static conformance errors Dynamic conformance errors	 Yes/No Yes/No
Test Cases all Selected Run Passed Inconclusive Failed	
Observations	

If the SUT is not statically and dynamically conforming for this protocol, an additional summary may be given on aspect of non conformance. Any difficulties encountered may be reported here.

Annex E (normative): System Conformance Statement proforma

E.1 Identification summary

E.1.1 System Conformance Statement (SCS) proforma Identification

Table E.1

SCS Serial Number	
SCS Date	

E.1.2 IUT Identification

Table E.2

Trade Name	
Type	
Version	
Serial Number	

E.1.3 Client Identification

Table E.3

Company	
Street Number	
Postal Code/City	
Country	
Contact Person Name	
Telephone	
Telefax	
Additional Identifications	

E.1.4 Supplier Identification

Table E.4

Company	
Street Number	
Postal Code/City	
Country	
Contact Person Name	
Telephone	
Telefax	
Additional Identifications	

E.1.5 Manufacturer Identification *(if different from client)*

Table E.5

Company	
Street Number	
Postal Code/City	
Country	
Contact Person Name	
Telephone	
Telefax	
Additional Identifications	

E.1.6 Protocols Identification

This table should be completed.

Table E.6

Protocol Name	Specification Reference	PICS Reference	PCTR Reference	PCTR Reference from previous campaign
Syntax based Videotex	ETS 300 079 [10]	I-ETS 300 236 [11]		
File transfer	ETS 300 075 [1]	I-ETS 300 491-1 [12]	I-ETS 300 491-3	

E.1.7 Profile Identification

This table should be completed.

Table E.7

Profile Identifier	Specification Reference	Profile ICS Specific Reference	SCTR Reference	SCTR reference from previous campaign
ISDN lower layer protocols for telematic terminals	ETS 300 080 [7]			

E.2 Miscellaneous system information

E.2.1 Configuration

Table E.8

Environment	Which one?
CPU Type	
Bus-System	
Operating System Name	
Additional	

E.2.2 Realising of preamble pr_init and pr_init_iut

E.2.3 Other Information

Annex F (informative): Additional selected Test Cases of other conformance test specifications for lower layers

Before carrying out the tests, the correct implementation of the lower layers needs to be checked.

This part of the I-ETS describes a protocol test specification, i.e. it describes only the protocol and not the necessary underlying test. This annex gives an overview of additional test specifications. Relevant test specifications are shown in figure A.1 below:

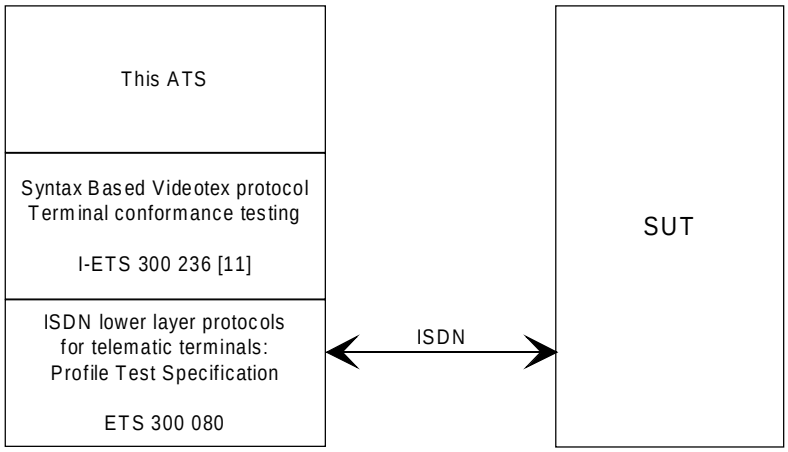

Figure F.1: Test specifications

F.1 Relevant Syntax-based Videotex end-to-end protocol DTE-DTE Test Cases

This test specification, based on Syntax Based Videotex end-to-end protocol (DTE-DTE EUROFILE), uses the transparent mode (with no transport layer) and complies with ETS 300 079 [10].

ETS 300 079 [10] TDUs to implement the transparent mode are:

- SBV_TPD_Begin;
- SBV_TPD_End;
- SBV_TC_Error.

For further details see ETS 300 383 [2], clause 9.

I-ETS 300 236 [11] includes tests for additional Test Cases, see table F.1 below. The referenced tables in column Test Case name are references to I-ETS 300 236 [11].

Table F.1: Selected Test Cases

Test Case name	Purpose
SBV/TF/BV/SE/TPD/1 (table 357)	Check that the IUT is able to send a valid SBV_TPD_Begin request PDU.
SBV/TF/BV/SE/TPD/2 (table 358)	Check that after having sent a SBV_TPD_Begin request PDU, the IUT is able to accept a valid SBV_TPD_Begin response PDU, ending in state (12) TF_TPD_data _transfer_ready.
SBV/TF/BV/SE/TPD/3 (table 359)	Check that after having sent a SBV_TPD_Begin request PDU, the IUT is able to accept a valid SBV_TC_Error PDU with Error_code parameter meaning "TC not supported", ending in state (4) TF_data_transfer_ready (The SBV_TC_Error PDU acts as a negative response).
SBV/TF/BV/SE/TPD/5 (table 361)	Check that, on receipt of a valid SBV_TPD_Begin request PDU, the IUT is able to send a valid positive SBV_TPD_Begin response PDU, ending in state (12) TF_TPD_data_transfer_ready.
SBV/TF/BV/SE/TPD/6 (table 362)	Check that the IUT is able to accept a valid SBV_TPD_End request PDU, ending in state (4) TF_data_transfer_ready.
SBV/TF/BV/SE/TPD/7 (table 363)	Check that the IUT is able to send a valid SBV_TPD_End request PDU, ending in state (4) TF_data_transfer_ready.
SBV/TF/BV/PV/TPD/1 (table 425)	Check that the IUT is able to receive a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "Successful".
SBV/TF/BV/PV/TPD/2 (table 426)	Check that the IUT is able to receive a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "TPD Not supported".
SBV/TF/BV/PV/TPD/3 (table 427)	Check that the IUT is able to receive a valid SBV_TPD_Begin response PDU with DDU_Fall-Back_Mode parameter present.
SBV/TF/BV/PV/TPD/4 (table 428)	Check that the IUT is able to send a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "Successful".
SBV/TF/BV/PV/TPD/5 (table 429)	Check that the IUT is able to send a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "TPD Not supported".
SBV/TF/BV/PV/TPD/6 (table 430)	Check that the IUT is able to send a valid SBV_TPD_Begin response PDU with DDU_Fall-Back_Mode parameter present.
SBV/TF/BV/PC/TPD/1 (table 455)	Check that the IUT is able to receive a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "Successful" and DDU_Fall-Back_Mode parameter present.
SBV/TF/BV/PC/TPD/2 (table 456)	Check that the IUT is able to receive a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "TPD Not supported" and DDU_Fall-Back_Mode parameter present.
SBV/TF/BV/PC/TPD/3 (table 457)	Check that DDU_Fall-Back_Mode parameter is absent from a SBV_TPD_Begin response PDU with Result parameter present and having the value "Successful".
SBV/TF/BI/TE/US/3 (table 463)	Check that on receipt of an SBV_TPD_Begin request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_code set to "TC Not Supported", and the following octet meaning SBV_TPD_Begin.

(continued)

Table F.1 (concluded): Selected Test Cases

Test Case name	Purpose
SBV/TF/BI/TE/US/4 (table 464)	Check that on receipt of an SBV_TPD_End request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_code set to "TC Not Supported", and the following octet meaning SBV_TPD_End.
SBV/TF/BI/TE/OIE/2 (table 468)	Check that on receipt of a SBV_TPD_Begin response corresponding to no previous request, the IUT sends a valid SBV_TC_Error PDU with Error_Code set to "TC_Erroneous".
SBV/TF/BI/TI/2 (table 470)	Check that after having sent a SBV_TPD_Begin request PDU and not received any response PDU for a certain time, the IUT releases the communication.
SBV/TF/BI/PC/TC/1 (table 481)	Check that on receipt of a SBV_TPD_Begin response PDU, with Result parameter set to "Successful" and DDU_Fall_Back mode parameter present, the IUT issues a SBV_TC_Error PDU.
SBV/TF/BO/PB/TC/7 (table 488)	Check that on receipt of a SBV_TPD_Begin response PDU with no Result parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

F.2 Relevant ISDN lower layer protocol telematic service Test Cases

No specific Test Cases are described in this I-ETS. Lower layer protocols for telematic service should be correctly implemented. The lower layer requirements described in subclause 6.2 should be checked.

Annex G (informative): Conformance Test Cases count

The first question people ask is: "How many Test Cases are described?" In order to save time this annex gives an answer to this question.

Table G.1: Count of Conformance Test Cases

Test group	Number
All Test Cases	195
All ATS Test Cases	174
ATS Test Cases of Master (TCM...)	97
Capability tests (TCM2...)	13
Valid behaviour tests (TCM3...)	40
Inopportune behaviour tests (TCM4...)	21
Invalid behaviour tests (TCM5...)	23
ATS Test Cases of Slave (TCS...)	89
Capability tests (TCS2...)	13
Valid behaviour tests (TCS3...)	37
Inopportune behaviour tests (TCS4...)	11
Invalid behaviour tests (TCS5...)	28
Untestable Test Cases (TCS...) see clause 8	-12
Additional recommended Test Cases of I-ETS 300 236 [11]	21
Valid behaviour tests	15
Invalid behaviour tests	5
Inopportune behaviour tests	1

Annex H (informative): Bibliography

For the purposes of this part of the I-ETS, the following documents have been referenced for information:

- ETS 300 406 (1995): "Methods for Testing and Specification (MTS);Protocol and profile conformance testing specifications; Standardization methodology".

- ISO/IEC 9646: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework".

History

Document history			
August 1995	Public Enquiry	PE 89:	1995-08-07 to 1995-12-01
May 1996	Vote	V 103:	1996-05-20 to 1996-08-23
September 1996	First Edition		

ISBN 2-7437-0978-2 - Edition complète
ISBN 2-7437-0984-7 - Partie 3
Dépôt légal : Septembre 1996