



SLOVENSKI STANDARD SIST ETS 300 221 E1:2003

01-december-2003

Terminalska oprema (TE) – Protokoli za nižje plasti skladišnega sistema Videotex, ki uporablja paketni dostop prek javnega komutiranega telefonskega omrežja (PSTN)

Terminal Equipment (TE); Syntax-based videotex protocol; Lower layer protocols using packet mode access over the Public Switched Telephone Network (PSTN)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ETS 300 221 E1:2003](https://standards.iteh.ai/catalog/standards/sist/8ac4293d-ccb9-431c-a842-bd87d1755734/sist-ets-300-221-e1-2003)

Ta slovenski standard je istoveten z: <https://standards.iteh.ai/catalog/standards/sist/8ac4293d-ccb9-431c-a842-bd87d1755734/sist-ets-300-221-e1-2003> **ETSI ETS 300 221 ed.1 (1993-01)**

ICS:

33.040.35	Telefonska omrežja	Telephone networks
33.050.01	Telekomunikacijska terminalna oprema na splošno	Telecommunication terminal equipment in general

SIST ETS 300 221 E1:2003

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 221 E1:2003

<https://standards.iteh.ai/catalog/standards/sist/8ac4293d-ccb9-431c-a842-bd87d1753734/sist-ets-300-221-e1-2003>



EUROPEAN
TELECOMMUNICATION
STANDARD

ETS 300 221

January 1993

Source: ETSI TC-TE

Reference: DE/TE-01014

ICS: 33.020

Key words: Videotex, PSTN

**Terminal Equipment (TE);
Syntax-based Videotex lower layer protocols using packet
mode access over the Public Switched Telephone Network
(PSTN)**

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 92 94 42 00 - Fax: +33 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 1993. All rights reserved.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ETS 300 221 E1:2003](https://standards.iteh.ai/catalog/standards/sist/8ac4293d-ccb9-431c-a842-bd87d1753734/sist-ets-300-221-e1-2003)

<https://standards.iteh.ai/catalog/standards/sist/8ac4293d-ccb9-431c-a842-bd87d1753734/sist-ets-300-221-e1-2003>

Contents

Foreword	5
1 Scope	7
2 Normative references	8
3 Definitions and abbreviations	9
4 Overview	9
5 Configurations	9
6 General model	10
7 Service definition	11
7.1 Introduction	11
7.2 Kernel services	11
7.2.1 SBV_Establish	11
7.2.2 SBV_Release	11
7.3 Optional services	11
7.3.1 SBV_Channel_Open	11
7.3.2 SBV_Channel_Error	12
8 Protocol	12
9 Coding	12
10 Use of CCITT Recommendation X.3 parameters	12
11 Bearer Independent Service (BIS) for syntax-based Videotex over PSTN	12
12 Lower layers	13
12.1 Layer 3 protocols	13
12.1.1 Full-duplex mode	13
12.1.2 Half-duplex mode	13
12.1.3 Default throughput class	13
12.2 Layer 2	13
12.2.1 Full-duplex mode	13
12.2.2 Half-duplex mode	14
12.3 Layer 1 protocol	14
13 Asynchronous interface	14
Annex A (informative): Examples of configurations	15
A.1 Symbols	15
A.2 Connection to a Videotex Host (VH)	15
A.3 Access to a Videotex Service (VS) via a Videotex Access Point (VAP)	15
A.3.1 Service selection after a dialogue with the VAP	16
A.3.2 Service selection using a VS identification	17
A.3.2.1 VS identified by a network address	17
A.3.2.2 VS identified by a name	17
A.3.2.3 Establishment of the second Virtual Call (VC) by the Videotex Terminal (VT)	18

A.4	Host to terminal call establishment.....	18
A.5	Terminal to terminal communication	19
Annex B (informative):	Usage of supplementary services.....	19
Annex C (normative):	Terminal function basic state	19
Annex D (informative):	The SBV_Escape service	19
Annex E (informative):	Extended data forwarding signals.....	19
Annex F (normative):	BIS constraints on ISO 8208 PICS	19
Annex G (normative):	operating sequences for CCITT Recommendation V.29 short turn around	20
G.1	Turn-ON sequence at 9 600/7 200 bits per second.....	20
G.2	Turn-ON sequence at 4 800/2 400 bits per second.....	21
G.3	Turn-OFF sequence	21
G.4	Circuit 109.....	21
G.5	Circuit 106.....	21
History	22

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ETS 300 221 E1:2003](https://standards.iteh.ai/catalog/standards/sist/8ac4293d-ccb9-431c-a842-bd87d1753734/sist-ets-300-221-e1-2003)

<https://standards.iteh.ai/catalog/standards/sist/8ac4293d-ccb9-431c-a842-bd87d1753734/sist-ets-300-221-e1-2003>

Foreword

This European Telecommunication Standard (ETS) has been produced by the Terminal Equipment (TE) Technical Committee of the European Telecommunications Standards Institute (ETSI).

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST ETS 300 221 E1:2003](https://standards.iteh.ai/catalog/standards/sist/8ac4293d-ccb9-431c-a842-bd87d1753734/sist-ets-300-221-e1-2003)

<https://standards.iteh.ai/catalog/standards/sist/8ac4293d-ccb9-431c-a842-bd87d1753734/sist-ets-300-221-e1-2003>

Blank page

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ETS 300 221 E1:2003](https://standards.iteh.ai/catalog/standards/sist/8ac4293d-ccb9-431c-a842-bd87d1753734/sist-ets-300-221-e1-2003)

<https://standards.iteh.ai/catalog/standards/sist/8ac4293d-ccb9-431c-a842-bd87d1753734/sist-ets-300-221-e1-2003>

1 Scope

This ETS aims to meet the requirements of network operators and equipment manufacturers who are designing equipment to operate with an increased speed on Videotex services over the Public Switched Telephone Network (PSTN).

This ETS has a close relationship to the set of ETSs 300 072 [1] to 300 076 [5] describing the Videotex data syntax.

This ETS specifies how to use the end-to-end protocols defined by ETS 300 223 [6] in the case of syntax-based Videotex lower layer protocols using packet mode access over the PSTN. It also specifies how to use the lower layers protocols defined by ETS 300 080 [7].

This ETS:

- identifies the parts of ETS 300 223 [6] which apply;
- defines the applicable protocol pillar;
- distinguishes the differences which apply to some parameters;
- distinguishes the lower layers elements which are applicable.

It is applicable to terminals supporting syntax-based Videotex lower layer protocols using packet mode access over the PSTN to be attached to a modem. In this context, a terminal is either a Videotex Terminal (VT), a Videotex Service Centre (VSC), a Videotex Access Point (VAP) or a Videotex Host (VH) whilst a modem is a device providing an interface according to one of the CCITT V. series of Recommendations contained in the Normative references of this ETS (see Clause 2).

This ETS applies only for modems using in both directions a synchronous interface to the attached terminal.

For Videotex services using modems operating in "asynchronous interface", the protocols to be used are those already defined by the national Videotex services.

In the case of syntax-based Videotex lower layer protocols using packet mode access over the PSTN, the following principles apply when using ETS 300 223 [6]:

- the term "S/T reference point" should read "modem interface";
- the PSTN network should be used instead of the Integrated Services Digital Network (ISDN);
- in the case of syntax-based Videotex lower layer protocols using packet mode access over the PSTN there is neither D-channel nor B-channel; the communication and signalling data are exchanged using the protocols described in Clause 6 of this ETS;
- all parts of ETS 300 223 [6] related to the use of "ISDN supplementary services" do not apply for syntax-based Videotex lower layer protocols using packet mode access over the PSTN";
- a communication channel is equivalent to a Virtual Circuit (VC).

2 Normative references

This 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 ETS only when incorporated in it by amendment of revision. For undated references the latest edition of the publication referred to applies.

- [1] ETS 300 072: "Terminal Equipment (TE); Videotex presentation layer protocol, Videotex presentation layer data syntax".
- [2] ETS 300 073: "Videotex presentation layer data syntax; Geometric Display (CEPT Recommendation T/TE 06-02, Edinburgh 1988)".
- [3] ETS 300 074: "Videotex presentation layer data syntax transparent data (CEPT Recommendation T/TE 06-03, Edinburgh 1988)".
- [4] ETS 300 075: "Terminal Equipment (TE); Videotex processable data".
- [5] ETS 300 076: "Terminal Equipment (TE); Videotex, Terminal Facility Identifier (TFI)".
- [6] ETS 300 223: "Integrated Services Digital Network (ISDN); Syntax-based Videotex; Common end-to-end protocols".
- [7] ETS 300 080: "Integrated Services Digital Network (ISDN); lower layer protocols for telematic terminals".
- [8] ETS 300 177: "Terminal Equipment (TE); Videotex, Photographic syntax".
- [9] ETS 300 149: "Terminal Equipment (TE); Videotex, Audio syntax".
- [10] CCITT Recommendation V.17 (1990): "Recommendation for a 2-wire modem for facsimile applications with rates up to 14 400 bit/s".
- [11] CCITT Recommendation V.22 bis (1988): "2400 bits per second duplex modem using the frequency division technique standardised for use on the general switched telephone network and on point-to-point 2-wire leased telephone-type circuits".
- [12] CCITT Recommendation V.26 bis (1988): "2400/1200 bits per second modem standardised for use in the general switched telephone network".
- [13] CCITT Recommendation V.26 ter (1988): "2400 bits per second duplex modem using the echo cancellation technique standardised for use on the general switched telephone network and on point-to-point 2-wire leased telephone-type circuits".
- [14] CCITT Recommendation V.27 ter (1988): "4800/2400 bits per second modem standardised for use in the general switched telephone network".
- [15] CCITT Recommendation V.29 (1988): "9600 bits per second modem standardised for use on point-to-point 4-wire leased telephone-type circuits".
- [16] CCITT Recommendation V.32 (1988): "A family of 2-wire, duplex modems operating at data signalling rates of up to 9600 bit/s for use on the general switched telephone network and on leased telephone-type circuits".
- [17] CCITT Recommendation V.33 (1988): "14 400 bits per second modem standardised for use on point-to-point 4-wire leased telephone-type circuits".

- [18] CCITT Recommendation V.42 (1988): "Error correcting procedures for DCEs using asynchronous-to-synchronous conversion".
- [19] CCITT Recommendation X.3 (1992): "Packet assembly disassembly facility (PAD) in a public data network".
- [20] CCITT Recommendation X.32 (1988): "Interface between Data Terminal Equipment (DTE) and Data-Circuit-Terminating Equipment (DCE) for terminals operating in the packet mode and accessing a packet switched public data network through a public switched telephone network or an integrated service digital network or a circuit switched public data network".
- [21] CCITT Recommendation X.75 (1988): "Packet-switched signalling system between public networks providing data transmission services".
- [22] ISO 8208 (1990): "Information processing systems - Data communications - X.25 packet level protocol for data terminal equipment".
- [23] CCITT Recommendation T.71 (1988): "Link access protocol balanced (LAPB) extended for half-duplex physical level facility".
- [24] ISO 7776: "Information processing systems - Data communications - Description of the X.25 LAPB - compatible DTE data link procedures".

3 Definitions and abbreviations

The definitions and abbreviations of ETS 300 223 [6] apply. Those related to ISDN are not used in this ETS. In addition, the following definition applies:

Modem: an equipment which supplies the signals conversion in order to allow data transmission on the PSTN.

4 Overview

Clause 4 of ETS 300 223 [6] applies with the exception of subclause 4.5

5 Configurations

Various configurations and topologies may be used, examples of which are given in Annex A (informative). It shall be the responsibility of the Videotex service providers to opt for the appropriate configuration(s) in the definition of the syntax-based Videotex lower layer protocols using packet mode access over the PSTN service.