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**INTERIM  
EUROPEAN  
TELECOMMUNICATION  
STANDARD**

**I-ETS 300 302-1**

November 1996

Second Edition

Source: ETSI TC-TE

Reference: RI/TE-04042

ICS: 33.020

**Key words:** ISDN, telephony, terminal, video

**Integrated Services Digital Network (ISDN);  
Videotelephony teleservice;  
Part 1: Electroacoustic characteristics for  
3,1 kHz bandwidth handset terminals**

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## Foreword

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 a European Telecommunication Standard (ETS), have its life extended for a further 2 years, be replaced by a new version of the I-ETS or, be withdrawn.

This I-ETS is part 1 of a multipart standard covering "Integrated Services Digital Network (ISDN); Audiovisual services in-band signalling testing", as described below:

- Part 1:** "Electroacoustic characteristics for 3,1 kHz bandwidth handset terminals";
- Part 2: "Electroacoustic characteristics for 3.1 kHz bandwidth loudspeaking and handsfree terminals";
- Part 3: "Wideband handset";
- Part 4: "Wideband coding loudspeaking and handsfree function".

Proposed announcement date	
Date of adoption of this I-ETS:	25 October 1996
Date of latest announcement of this I-ETS (doa):	28 February 1997

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## 1 Scope

This part of the Interim European Telecommunication Standard (I-ETS) specifies the electroacoustic characteristics for 3,1 kHz bandwidth handset telephony functions implemented in videotelephony terminals. Those terminals are intended for use in the videotelephony teleservice and connected to the basic access of the coincident S and T reference point of the Integrated Services Digital Network (ISDN) using either Pulse Code Modulation (PCM) encoding according to CCITT Recommendation G.711 [1], A-law and  $\mu$ -law or Low Delay code-Excited Linear Prediction (LD-CELP) coding at 16 kbit/s as specified in CCITT Recommendation G.728 [21].

The videotelephony teleservice in the ISDN is defined in ETS 300 264 (see annex B).

The requirements of this I-ETS specify those characteristics which deviate from those which an ISDN 3,1 kHz telephony terminal needs to meet due to conditions which are special for the videotelephony application (e.g. delay, framing). The corresponding requirements to an ISDN 3,1 kHz telephony terminal can be found in I-ETS 300 245-2 [2] for PCM encoding and in I-ETS 300 245-8 [20] for LD-CLP encoding.

The requirements of clauses 4 and 5 are applicable to all videotelephonic terminals and clause 6 is applicable when the optional LD-CELP encoding is implemented.

The relevant test methods are described in I-ETS 300 245-2 [2], and in I-ETS 300 245-8 [20].

NOTE: Type approval requirements for the 3,1 kHz telephony (CCITT Recommendation G.711 [1], A-law) function of a videotelephony terminal can be found in TBR 8 (see annex B).

## 2 Normative references

This I-ETS incorporates by dated or undated reference, provision 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 I-ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referenced to applies.

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- [1] CCITT Recommendation G.711 (1988): "Pulse code modulation (PCM) of voice frequencies".
  - [2] I-ETS 300 245-2: "Integrated Services Digital Network (ISDN); Technical characteristics of telephony terminals - Part 2: Pulse Code Modulation (PCM) A-law, handset telephony".
  - [3] CCITT Recommendation G.122 (1988): "Influence of national systems on stability talker echo in international connections".
  - [4] ETS 300 111 (1992): "Integrated Services Digital Network (ISDN); Telephony 3,1 kHz teleservice - Service description".
  - [5] ETS 300 145: "Integrated Services Digital Network (ISDN); Audiovisual teleservices - Videotelephony systems and terminal equipment operating on one or two 64 kbit/s channels".
  - [6] ETS 300 144: "Integrated Services Digital Network (ISDN); Audiovisual services - Frame structure for a 64 kbit/s to 1 920 kbit/s channel and associated syntax for inband signalling".
  - [7] ITU-T Recommendation P.64 (1993): "Determination of sensitivity/frequency characteristics of local telephone systems".
  - [8] CCITT Recommendation G.701 (1988): "Vocabulary of digital transmission and multiplexing, and pulse code modulation (PCM) terms".
  - [9] CCITT Recommendation I.112 (1988): "Vocabulary of terms for ISDNs".