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Recommendation I.431

PRIMARY RATE USER-NETWORK INTERFACE — LAYER 1 SPECIFICATION

(Malaga-Torremolinos, 1984; amended at Melbourne, 1988)

1 Introduction

This Recommendation is concerned with the layer 1 electrical, format and channel usage characteristics of the primary rate user-network interface at the S and T reference points. In this Recommendation, the term ''NT'' is used to indicate network terminating layer 1 aspects of NT1 and NT2 functional groups, and the term ''TE'' is used to indicate terminal terminating layer 1 aspects of TE1, TA and NT2 functional groups, unless otherwise indicated. The terminology used in this Recommendation is very specific and not contained in the relevant terminology Recommendations. Therefore, Annex E to Recommendation I.430 provides terms and definitions used in this Recommendation. Interfaces for the 1544 kbit/s primary rate and for the 2048 kbit/s primary rate are described. It has been an objective that differences between the interface specifications for the two rates be kept to a minimum.

1.1 *Scope and field of application*

This specification is applicable to user-network interfaces at 1544 kbit/s and 2048 kbit/s primary rates for ISDN channel arrangements as defined in Recommendation I.412.

2 Type of configuration

The type of configuration applies only to the layer 1 characteristics of the interface and does not imply any constraints on modes of operation at higher layers.

2.1 *Point-to-point*

The primary rate access will support only the point-to-point configuration.

Point-to-point configuration at layer 1 implies that for each direction only one source (transmitter) and one sink (receiver) are connected to the interface. The maximum reach of the interface in the point-to-point configuration is limited by the specification for the electrical characteristics of transmitted and received pulses and the type of interconnecting cable. Some of these characteristics are defined in Recommendation G.703.

2.2 *Location of interfaces*

The electrical characteristics for both the 1544 kbit/s case (§ 4.1) and the 2048 kbit/s case (§ 5.1) apply at the interfaces I_a and I_b defined in Figure 1/I.431.

Examples of functional groups corresponding to TE and NT as used here are given in Recommendation I.411, § 4.3.

Figure 1/I.431, (N), p.

3 Functional characteristics

3.1 *Summary of functions (Layer 1)* | (see Figure 2/I.431)

H.T. [T1.431]