



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

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STANDARDIZATION SECTOR
OF ITU

X.56

PUBLIC DATA NETWORKS

TRANSMISSION, SIGNALLING AND SWITCHING

INTERFACE BETWEEN SYNCHRONOUS DATA NETWORKS USING AN 8 + 2 ENVELOPE STRUCTURE AND SINGLE CHANNEL PER CARRIER (SCPC) SATELLITE CHANNELS

ITU-T Recommendation X.56

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation X.56 was published in Fascicle VIII.3 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

2 In this Recommendation, the expression “Administration” is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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Recommendation X.56

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(Malaga-Torremolinos, 1984)

The CCITT,

considering

- (a) that the bearer rate recognized by the CCITT is 64 kbit/s;
- (b) that 64 kbit/s satellite channels on TDMA systems are not yet operational;
- (c) that 64 kbit/s channels on SCPC systems are under investigation;
- (d) that for an interim period, only 48, 50 or 56 kbit/s channels via a satellite will be available in many cases;
- (e) that there is a requirement of a multiplexing scheme for the interworking between two networks where both use 10-bit envelope structure but transmission is at a gross bit rate of 56 kbit/s, typically via an SCPC satellite system with forward error correction.

recommends

that the fundamental parameters for a multiplexing scheme using a 10-bit envelope structure for transmission via a 56-kbit/s SCPC satellite channel should be as described in this Recommendation.

1 Gross bit rate

For transmission on the international digital satellite link, the multiplexed bit stream shall have a gross bit rate of 56 kbit/s. The fundamental multiplex structure shall have a gross bit rate of 54 kbit/s and shall utilize padding techniques for transmission on the 56 kbit/s bearer channel. On the tributary channel interface, each transmitted and received tributary channel data stream has the 10-bit envelope structure as recommended in Recommendation X.51. The adaptation to the SCPC 56-kbit/s channel is achieved by suppressing the A bit of each envelope within the multiplex system.

2 Fundamental multiplex

For the fundamental multiplexing of information bearer channels, the following applies:

2.1 The signal elements of each individual channel shall be assembled in 9-bit envelopes, in which bit 1 is a status bit (S bit) (see Note), and bits 2-9 are information bits, as in Figure 1/X.56.

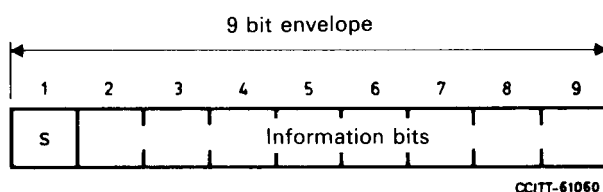


FIGURE 1/X.56