INTERNATIONAL TELECOMMUNICATION UNION

ITU-T G.226

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

INTERNATIONAL ANALOGUE CARRIER SYSTEMS

GENERAL CHARACTERISTICS COMMON TO ALL ANALOGUE CARRIER-TRANSMISSION SYSTEMS

NOISE ON A REAL LINK

ITU-T Recommendation G.226

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation G.226 was published in Fascicle III.2 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 G.226

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1 Cable systems

It should be appreciated that designers are usually concerned, not with particular circuits or links, but with plant that will be used for the establishment of many links. It is not practicable for the CCITT to specify the performance of every real link that may be established, or for the designer to contemplate changing his design to suit the various lengths or other conditions on different real links. The CCITT has therefore defined hypothetical reference circuits, so that designers can be sure that, if their particular design of plant is used throughout a real circuit made up in the same way as a hypothetical reference circuit, the performance specified by the CCITT for the hypothetical reference circuit will be realized on that real circuit.

A real international link usually has a different make-up from that of the hypothetical reference circuit, and often includes equipments of different design. For each of these two reasons the performance to be expected from real links cannot be deduced uniquely from the Recommendations relative to hypothetical reference circuits.

However, on a real homogeneous section it must be expected that the noise power measured at the time of commissioning, and with a conventional load as defined in § 2 of Recommendation G.223, will be about the same as that calculated taking into account the particular composition of the real homogeneous section and the real parameters as well as the implications of Recommendation G.222, § 2.6. There should be no cause for anxiety unless the measured noise power exceeds the calculated power by an appreciable amount, which might indicate a fault somewhere in the equipment. In such a case, every effort should be made to reduce the measured noise power to a value of the same order as that calculated.

2 Radio links

See CCIR Recommendation 395 [1].

Reference

[1] CCIR Recommendation *Noise in the radio portion of circuits to be established over real radio-relay links for FDM telephony,* Vol. IX, Rec. 395, Dubrovnik, 1986.