INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

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STANDARDIZATION SECTOR
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G.957

Amendment 2
(01/2005)

SERIES G: TRANSMISSION SYSTEMS AND MEDIA, DIGITAL SYSTEMS AND NETWORKS

Digital sections and digital line system – Digital line systems

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Optical interfaces for equipments and systems relating to the synchronous digital hierarchy

Amendment 2

CAUTION !

PREPUBLISHED RECOMMENDATION

This prepublication is an unedited version of a recently approved Recommendation. It will be replaced by the published version after editing. Therefore, there will be differences between this prepublication and the published version.

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Amendment 2 to ITU-T Recommendation G.957

Summary

This amendment contains modifications for ITU-T Rec. G.957 (1999) to remove ambiguity in the text of the definition of receiver sensitivity contained in clause 6.4.1

ITU-T Recommendation G.957

Optical interfaces for equipments and systems relating to the synchronous digital hierarchy Amendment 2

1) Clause 6.4.1

Modify clause 6.4.1 as follows:

6.4.1 Receiver sensitivity

Receiver sensitivity is defined as the minimum ~~acceptable~~ value of average received power at point R to achieve a 1×10^{-10} BER. ~~It takes into account power penalties caused by use of~~ This must be met with a transmitter ~~under standard operating conditions~~ with worst-case values of transmitter eye mask, extinction ratio, ~~pulse rise and fall times,~~ optical return loss at point S, receiver connector degradations and measurement tolerances. The receiver sensitivity does not ~~include power penalties associated with~~ have to be met in the presence of dispersion~~, jitter,~~ or reflections from the optical path; these effects are specified separately in the allocation of maximum optical path penalty.

Note - the receiver sensitivity does not have to be met in the presence of transmitter jitter in excess of the appropriate jitter generation limit (e.g. G.783 for SDH optical tributary signals).

Aging effects are not specified separately since they are typically a matter between a network provider and an equipment manufacturer. Typical margins between a beginning-of-life, nominal temperature receiver and its end-of-life, worst-case counterpart are desired to be in the 2 to 4 dB range. An example of a measurement method for determining aging effects on receiver sensitivity is given in Appendix II. The receiver sensitivities specified in Tables 2 to 4 are worst-case, end-of-life values.