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

Digital networks – Quality and availability targets

Error performance events for SDH multiplex and regenerator sections

ITU-T Recommendation G.829

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ITU-T Recommendation G.829

Error performance events for SDH multiplex and regenerator sections

Summary

ITU-T Rec. G.828 [6] specifies error performance parameters and objectives of international, constant bit rate synchronous digital paths. Error performance objectives of ITU-T Rec. G.828 refer to the hypothetical reference path (HRP) of a length of 27 500 km. ITU-T Rec. G.828 does not contain information on path elements.

NOTE – Performance objectives for SDH paths using equipment designed prior to the adoption of ITU-T Rec. G.828 in March 2000 are given in ITU-T Rec. G.826 [5].

This Recommendation defines error performance events and block structures for SDH multiplex and regenerator sections (see ITU-T Recs G.707/Y.1322 [1] and G.708 [2] for reference). SDH equipment functional blocks and SDH management are defined in ITU-T Recs G.783 [3] and G.784 [4]. Observing the definitions given in this Recommendation shall ensure that error performance assessment on SDH multiplex and regenerator sections yields compatible results. Definition of events in this Recommendation is based on the same basic concept as in ITU-T Rec. G.828 [6].

The events defined for regenerator sections apply to microwave radio and satellite systems only.

Performance monitoring of SDH sections is not mandatory. If implemented, the specifications of this Recommendation apply.

Source

ITU-T Recommendation G.829 was revised by ITU-T Study Group 13 (2001-2004) and approved under the WTSA Resolution 1 procedure on 14 December 2002.

Keywords

Background Block Error, Block-based measurement concept, Error Detection Code (EDC), Error performance events, Errored Second (ES), In-Service Monitoring (ISM), SDH multiplex section, SDH regenerator section, SES threshold, Severely Errored Second (SES), Synchronous Digital Hierarchy (SDH).

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

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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