# ITU-T

TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU



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

Digital terminal equipments - General

Physical/electrical characteristics of hierarchical digital interfaces Corrigendum 1

ITU-T Recommendation G.703 (2001) - Corrigendum 1



### ITU-T G-SERIES RECOMMENDATIONS TRANSMISSION SYSTEMS AND MEDIA, DIGITAL SYSTEMS AND NETWORKS

INTERNATIONAL TELEPHONE CONNECTIONS AND CIRCUITS	G.100–G.199
GENERAL CHARACTERISTICS COMMON TO ALL ANALOGUE CARRIER- TRANSMISSION SYSTEMS	G.200–G.299
INDIVIDUAL CHARACTERISTICS OF INTERNATIONAL CARRIER TELEPHONE SYSTEMS ON METALLIC LINES	G.300–G.399
GENERAL CHARACTERISTICS OF INTERNATIONAL CARRIER TELEPHONE SYSTEMS ON RADIO-RELAY OR SATELLITE LINKS AND INTERCONNECTION WITH METALLIC LINES	G.400–G.449
COORDINATION OF RADIOTELEPHONY AND LINE TELEPHONY	G.450-G.499
TRANSMISSION MEDIA AND OPTICAL SYSTEMS CHARACTERISTICS	G.600–G.699
DIGITAL TERMINAL EQUIPMENTS	G.700–G.799
General	G.700-G.709
Coding of analogue signals by pulse code modulation	G.710-G.719
Coding of analogue signals by methods other than PCM	G.720–G.729
Principal characteristics of primary multiplex equipment	G.730–G.739
Principal characteristics of second order multiplex equipment	G.740–G.749
Principal characteristics of higher order multiplex equipment	G.750–G.759
Principal characteristics of transcoder and digital multiplication equipment	G.760–G.769
Operations, administration and maintenance features of transmission equipment	G.770–G.779
Principal characteristics of multiplexing equipment for the synchronous digital hierarchy	G.780–G.789
Other terminal equipment	G.790-G.799
DIGITAL NETWORKS	G.800-G.899
DIGITAL SECTIONS AND DIGITAL LINE SYSTEM	G.900-G.999
QUALITY OF SERVICE AND PERFORMANCE – GENERIC AND USER-RELATED ASPECTS	G.1000–G.1999
TRANSMISSION MEDIA CHARACTERISTICS	G.6000-G.6999
DATA OVER TRANSPORT – GENERIC ASPECTS	G.7000-G.7999
PACKET OVER TRANSPORT ASPECTS	G.8000-G.8999
ACCESS NETWORKS	
ACCESS NET WORKS	G.9000–G.9999

For further details, please refer to the list of ITU-T Recommendations.

# **ITU-T Recommendation G.703**

## Physical/electrical characteristics of hierarchical digital interfaces

## **Corrigendum 1**

#### Summary

This corrigendum contains material to correct ITU-T Recommendation G.703 (2001), *Physical/electrical characteristics of hierarchical digital interfaces.* 

#### Source

Corrigendum 1 to ITU-T Recommendation G.703 (2001) was approved on 29 March 2008 by ITU-T Study Group 15 (2005-2008) under the ITU-T Recommendation A.8 procedure.

#### FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

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.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

#### INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <u>http://www.itu.int/ITU-T/ipr/</u>.

#### © ITU 2008

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without the prior written permission of ITU.

# **ITU-T Recommendation G.703**

# Physical/electrical characteristics of hierarchical digital interfaces

# **Corrigendum 1**

Modify Table 11 as shown:

Pulse shape	The signal must conform with the mask (Figure 20). The value V corresponds to the maximum peak value. The value $V_1$ corresponds to the minimum peak value.	
Type of pair	Coaxial pair (see Note in 13.4)	Symmetrical pair (see Note in 13.4)
Test load impedance	75 ohms resistive	120 ohms resistive
Maximum peak voltage (V <sub>op</sub> )	1.5	1.9
Minimum peak voltage $(V_{op}) (V_1)$	0.75	1.0
Maximum jitter at an output port	Refer to Table 5/G.823 (Note)	
NOTE – This value is valid for network timing synchronization equipments. Other values may be specified for timing output ports of digital links carrying the network timing.		

# Table 11/G.703 – Digital 2048 kHz clock interface

## SERIES OF ITU-T RECOMMENDATIONS

- Series A Organization of the work of ITU-T
- Series D General tariff principles
- Series E Overall network operation, telephone service, service operation and human factors
- Series F Non-telephone telecommunication services
- Series G Transmission systems and media, digital systems and networks
- Series H Audiovisual and multimedia systems
- Series I Integrated services digital network
- Series J Cable networks and transmission of television, sound programme and other multimedia signals
- Series K Protection against interference
- Series L Construction, installation and protection of cables and other elements of outside plant
- Series M Telecommunication management, including TMN and network maintenance
- Series N Maintenance: international sound programme and television transmission circuits
- Series O Specifications of measuring equipment
- Series P Telephone transmission quality, telephone installations, local line networks
- Series Q Switching and signalling
- Series R Telegraph transmission
- Series S Telegraph services terminal equipment
- Series T Terminals for telematic services
- Series U Telegraph switching
- Series V Data communication over the telephone network
- Series X Data networks, open system communications and security
- Series Y Global information infrastructure, Internet protocol aspects and next-generation networks
- Series Z Languages and general software aspects for telecommunication systems