INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.813

Corrigendum 1

(11/2001)

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

Digital networks – Design objectives for digital networks

Timing characteristics of SDH equipment slave clocks (SEC)

Corrigendum 1

ITU-T Recommendation G.813 (1996) – 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
TESTING EQUIPMENTS	G.500–G.599
TRANSMISSION MEDIA CHARACTERISTICS	G.600–G.699
DIGITAL TERMINAL EQUIPMENTS	G.700–G.799
DIGITAL NETWORKS	G.800–G.899
General aspects	G.800–G.809
Design objectives for digital networks	**G.810–G.819**
Quality and availability targets	G.820–G.829
Network capabilities and functions	G.830–G.839
SDH network characteristics	G.840–G.849
Management of transport network	G.850–G.859
SDH radio and satellite systems integration	G.860–G.869
Optical transport networks	G.870–G.879
DIGITAL SECTIONS AND DIGITAL LINE SYSTEM	G.900–G.999

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

ITU-T Recommendation G.813

Timing characteristics of SDH equipment Slave clocks (SEC)

CORRIGENDUM 1

Summary

This document contains Corrigendum 1 to ITU-T Rec. G.813, *Timing characteristics of SDH equipment slave clocks* (*SEC*).

Source

Corrigendum 1 to ITU-T Recommendation G.813 (1996) was prepared by ITU-T Study Group 15 (2001-2004) and approved under the WTSA Resolution 1 procedure on 29 November 2001.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. 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.

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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, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

CONTENTS

ITU-T Recommendation G.813

Timing characteristics of SDH equipment Slave clocks (SEC)

CORRIGENDUM 1

This corrigendum contains technical corrections, to the first version (08/1996) of ITU-T Rec. G.813.

1) Subclause 8.2 (Jitter Tolerance)

Replace part b) Option 2:

b) *Option 2*

The lower limit of maximum tolerable jitter for STM-N signals carrying synchronization to a SEC is given in Figure 10 and Table 12. For option 2 networks, the normal practice is to select synchronization reference links that operate well within the network limit; therefore, the plateau at A_3 and the frequencies f_1 and f_2 in Figure 10 and Table 12 are inconsistent with the network limit in Recommendation G.825. This results in an option 2 clock having reduced tolerance to jitter than is specified for the network limit defined in Recommendation G.825. An attempt to harmonize these STM-N jitter tolerance levels will be made in the future.

Jitter tolerance for external 1544 kbit/s synchronization references is to be determined.

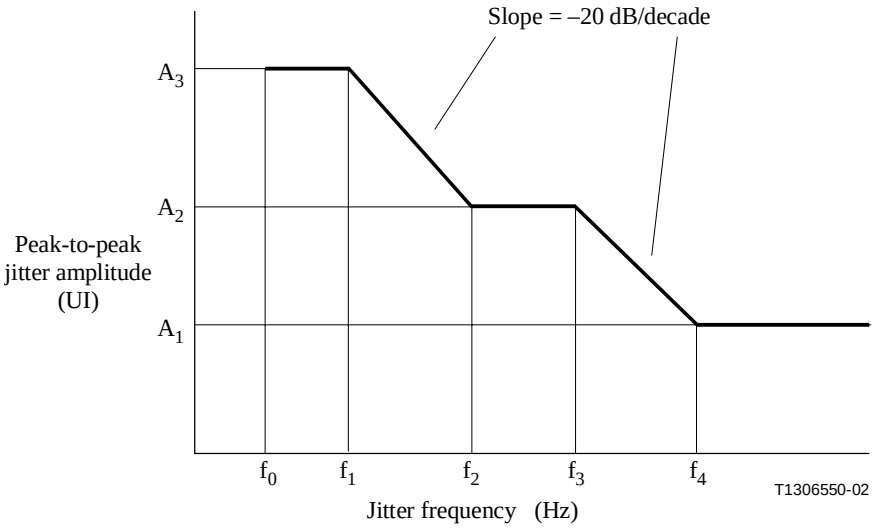

Figure 10/G.813 – G.813 jitter tolerance for option 2

Table 12/G.813 – G.813 jitter tolerance for option 2

STM-N level	f_0 (Hz)	f_1 (Hz)	f_2 (Hz)	f_3 (Hz)	f_4 (Hz)	A_1 (UI_{pp})	A_2 (UI_{pp})	A_3 (UI_{pp})
1	10	30	300	6.5k	65k	0.15	1.5	15
4	10	30	300	25k	250k	0.15	1.5	15
16	10	600	6000	100k	1000k	0.15	1.5	15

With:

b) *Option 2*

The lower limit of maximum tolerable jitter for STM-N signals carrying synchronization to a SEC is given in 6.1.2.1/G.825 for STM-1 and STM-1e (Table 3/G.825 and Figure 1/G.825), Clause 6.1.2.2/G.825 for STM-4 (Table 5/G.825 and Figure 3/G.825), Clause 6.1.2.3/G.825 for STM-16 (Table 6/G.825 and Figure 4/G.825), and 6.1.2.4/G.825 for STM-64 (Table 7/G.825 and Figure 5/G.825).

The lower limit of maximum tolerable jitter for external 1544 kbit/s synchronization references is given in Figure 10/G.813 and Table 12/G.813.

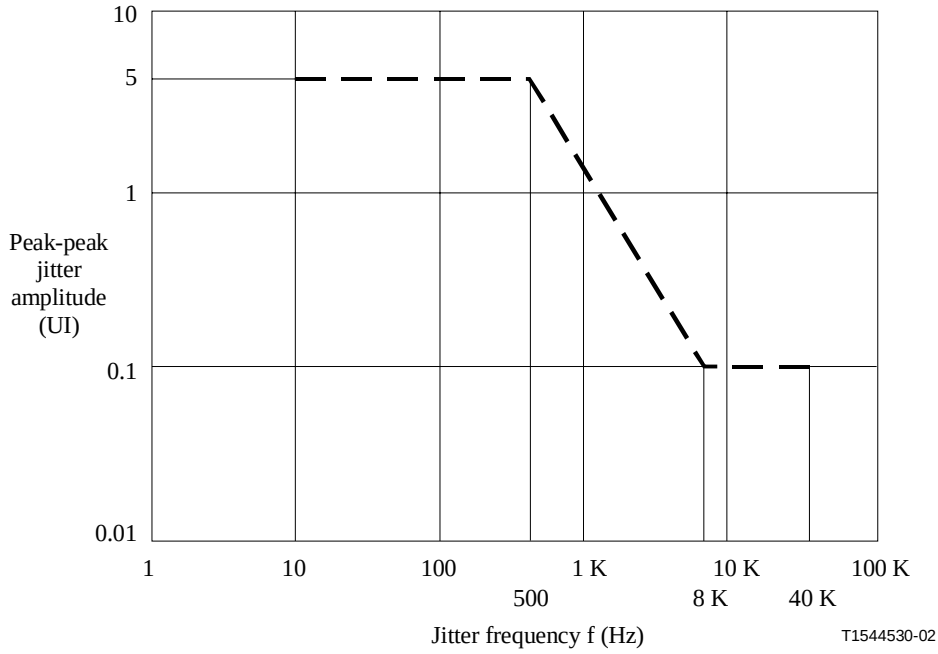

Figure 10/G.813 – Lower limit of maximum tolerable sinusoidal input jitter for Option 2

Table 12/G.813 – Lower limit of maximum tolerable sinusoidal input jitter for Option 2

Peak-peak jitter amplitude (UI)	**Frequency f (Hz)**
5	$10 < f \leq 500$
$5 \times [500/f]^{1.411}$	$500 < f \leq 8000$
0.1	$8000 < f \leq 40\,000$

SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series B	Means of expression: definitions, symbols, classification
Series C	General telecommunication statistics
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	TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits
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 and open system communications
Series Y	Global information infrastructure and Internet protocol aspects
Series Z	Languages and general software aspects for telecommunication systems

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