INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.992.1
Corrigendum 2
(07/2002)

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

Digital sections and digital line system – Access networks

Asymmetric digital subscriber line (ADSL) transceivers
Corrigendum 2

ITU-T Recommendation G.992.1 (1999) – Corrigendum 2

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
DIGITAL SECTIONS AND DIGITAL LINE SYSTEM	G.900–G.999
General	G.900–G.909
Parameters for optical fibre cable systems	G.910–G.919
Digital sections at hierarchical bit rates based on a bit rate of 2048 kbit/s	G.920–G.929
Digital line transmission systems on cable at non-hierarchical bit rates	G.930–G.939
Digital line systems provided by FDM transmission bearers	G.940–G.949
Digital line systems	G.950–G.959
Digital section and digital transmission systems for customer access to ISDN	G.960–G.969
Optical fibre submarine cable systems	G.970–G.979
Optical line systems for local and access networks	G.980–G.989
Access networks	**G.990–G.999**
QUALITY OF SERVICE AND PERFORMANCE	G.1000–G.1999
TRANSMISSION MEDIA CHARACTERISTICS	G.6000–G.6999
DIGITAL TERMINAL EQUIPMENTS	G.7000–G.7999
DIGITAL NETWORKS	G.8000–G.8999

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

ITU-T Recommendation G.992.1

Asymmetric digital subscriber line (ADSL) transceivers

Corrigendum 2

Summary

This corrigendum addresses interoperability issues identified with the operation of ADSL in the TCM-ISDN environment as defined in Annex C. The corrigendum clarifies two things to improve interoperability:

– the definition of the dummy bit insertion for the fast data using single latency path

– the PRD sequence generator in single bitmap operation.

The corrigendum also corrects an editorial mistake on Figure C.20, which should be replaced with Figure C.17 of ITU-T Rec. G.992.2.

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 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.

ITU-T Recommendation G.992.1

Asymmetric digital subscriber line (ADSL) transceivers

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The following changes should be made to Annex C:

1)   Clause C.4.4.2

Replace the last paragraph (and mathematical expression) as follows:

If the fast data buffer uses single latency only, ~~the~~ **additional** dummy bits are inserted at the tail of each FEXT symbol in the 4 Bitmap-F_R constructed subframe. The number of the **additional** dummy bits **inserted at the tail of each FEXT symbol** shall be as follows:

$$\text{dummy}_{SRf} = f_{Rf3} - f_{Rf4}$$

The receiver shall determine Bitmap-F_R and Bitmap-N_R so that *dummy$_{Ri}$* is less than 126, ***dummy$_{Rf4}$*** **is less than 4 and *dummy$_{Rf3}$* is less than 3** in the initialization sequence. At the receiver, the inserted dummy bits shall be removed.

2)   Clause C.5.2.2

Replace the last paragraph (and mathematical expression) as follows:

If the fast data buffer uses single latency only, **additional** dummy bits are inserted at the tail of each FEXT symbol in the 4 Bitmap-F_C constructed subframe. The number of the **additional** dummy bits **inserted at the tail of each FEXT symbol** shall be as follows:

$$\cancel{dummy_{Ci} = \left(f_{Ci4} \times 96 + f_{Ci3} \times 30 \right) - t_{Ci} \times 340}$$

$$\underline{\text{dummy}_{SCf} = f_{Cf3} - f_{Cf4}}$$

The receiver shall determine Bitmap-F_C and Bitmap-N_C so that *dummy$_{Ci}$* is less than 126, ***dummy$_{Cf4}$*** **is less than 4 and *dummy$_{Cf3}$* is less than 3** in the initialization sequence. At the receiver, the inserted dummy bits shall be removed.

3)   Clause C.7.6.2

Add the following Note:

NOTE – At the transmitter, the PRD sequence generator is either always updated or always stopped during NEXT$_R$ symbol when Bitmap-N$_R$ is disabled (FEXT Bitmap mode). The receiver should be able to support both modes of transmitter operation.

4)   Clause C.7.8.3

Add the following Note:

NOTE – At the transmitter, the PRD sequence generator is either always updated or always stopped during NEXT$_R$ symbol when Bitmap-N$_R$ is disabled (FEXT Bitmap mode). The receiver should be able to support both modes of transmitter operation.

5)   Figure C.20

Replace Figure C.20 with Figure C.17 of ITU-T Rec. G.992.2.

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