

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.998.4

Corrigendum 5

(03/2013)

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

Digital sections and digital line system – Access networks

Improved impulse noise protection for DSL
transceivers

Corrigendum 5

Recommendation ITU-T G.998.4 (2010) –
Corrigendum 5

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Recommendation ITU-T G.998.4

Improved impulse noise protection for DSL transceivers

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Summary

Corrigendum 5 to Recommendation ITU-T G.998.4 (2010) covers the following functionality:

1. Use of the block interleaver with SRA (corrigendum).

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T G.998.4	2010-06-11	15
1.1	ITU-T G.998.4 (2010) Cor. 1	2010-11-29	15
1.2	ITU-T G.998.4 (2010) Cor. 2	2011-04-13	15
1.3	ITU-T G.998.4 (2010) Amd. 1	2011-06-22	15
1.4	ITU-T G.998.4 (2010) Cor. 3	2011-12-16	15
1.5	ITU-T G.998.4 (2010) Amd. 2	2012-04-06	15
1.6	ITU-T G.998.4 (2010) Cor. 4	2012-06-13	15
1.7	ITU-T G.998.4 (2010) Cor.5	2013-03-16	15

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.

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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, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <http://www.itu.int/ITU-T/ipr/>.

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Recommendation ITU-T G.998.4

Improved impulse noise protection for DSL transceivers

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1) Use of block interleaver with SRA

Add following paragraph in clause C.3.2:

C.3.2 On-line reconfiguration (OLR) commands and responses

ITU-T G.998.4 defines two new OLR commands for ITU-T G.993.2. These OLR commands shall replace the OLR Request Type 3 (SRA) and OLR Request type 4 (SOS) when retransmission is enabled. They are designated in ITU-T G.993.2 as OLR Request types 5 and 6 respectively and are fully defined below in Table C.11. In addition, two new OLR responses are defined, corresponding to OLR Request types 5 and 6. These messages are defined in Table C.12.

When SRA and retransmission are simultaneously enabled, the modems shall use OLR Request Type 5 to initiate an SRA request and OLR response Type 5 to reject an SRA request. When SOS and retransmission are simultaneously enabled, the modems shall use OLR Request Type 6 to initiate an SOS request and OLR response Type 6 to reject an SOS request.

The first byte of the eoc messages defined in Table C.11 and Table C.12 is the value of the OLR command type, as defined in clause 11.2.3.2 of ITU-T G.993.2. The eoc protocol is identical to the one specified in clause 11.2.3 of ITU-T G.993.2.

In every OLR request of type 5, the new framer settings shall be selected such that all configuration constraints are met as well as the maximum number of bytes reserved for the upstream and downstream transmitter retransmission queue as selected during initialization.

In every OLR request of type 6, the new framer settings shall be selected such that all configuration constraints, except those defined for SOS in ITU-T G.993.2, are met as well as the maximum number of bytes reserved for the upstream and downstream transmitter retransmission queues as selected during initialization.

If the block interleaver (see clause 9.2) is supported in the direction of the OLR of type 5 or 6, the most significant bit of the octet containing the new Q value indicates if the new interleaver depth is equal to 1 or Q . If the msb is set to 0, the new block interleaver depth D shall be equal 1. If the msb is set to 1, the new block interleaver depth D shall be equal to Q .

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