International Telecommunication Union

# ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

# G.993.5

**Corrigendum 1**

(11/2016)

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

Digital sections and digital line system – Metallic access networks

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# Self-FEXT cancellation (vectoring) for use with VDSL2 transceivers

## Corrigendum 1

Recommendation ITU-T G.993.5 (2015) – Corrigendum 1

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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 |
| 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 |
| **Metallic access networks** | **G.990–G.999** |
| MULTIMEDIA 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 | G.9000–G.9999 |

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

# Recommendation ITU-T G.993.5

## Self-FEXT cancellation (vectoring) for use with VDSL2 transceivers

## Corrigendum 1


**Summary**

Corrigendum 1 to Recommendation ITU-T G.993.5 (2015) covers the following functionality:

1) Typographical correction in clause 8.2 (corrigendum)

2) Generalization of the segmentation of SOC messages in clause 10.4.2.2 for vectoring of profile 35b (corrigendum).



**History**

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* To access the Recommendation, type the URL http://handle.itu.int/ in the address field of your web browser, followed by the Recommendation's unique ID. For example, http://handle.itu.int/11.1002/1000/11830-en.

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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.

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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.

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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/.

# Recommendation ITU-T G.993.5

## Self-FEXT cancellation (vectoring) for use with VDSL2 transceivers

## Corrigendum 1

### 1) Typographical correction in clause 8.2

*Typographical correction in clause 8.2 as follows:*

### 8.2 Pilot sequence update command and response

• • •

The third octet of the pilot sequence update command defines the time at which the upstream pilot sequence change shall occur:

– If interruption of the current upstream pilot sequence is not allowed (value ~~01160~~$01_{16}$), the upstream pilot sequence change shall be applied starting from the next sync symbol position after the end of the current upstream pilot sequence, i.e., after the sync symbol that modulates the last bit of the old upstream pilot sequence, the next sync symbol shall modulate the first bit of the new upstream pilot sequence.

– If interruption of the current upstream pilot sequence is allowed (value ~~02160~~$02_{16}$), the upstream pilot sequence change may occur at any sync symbol position, i.e., after the sync symbol that modulates bit i of old upstream pilot sequence, the next sync symbol shall modulate bit i+1 of the new upstream pilot sequence.

• • •

### 2) Generalization of the segmentation of SOC messages for vectoring of profile 35b

*Update clause 10.4.2.2 as follows:*

#### 10.4.2.2 R-ERROR-FEEDBACK

• • •

The number of bytes used to report the clipped error samples in a single R-ERROR-FEEDBACK message depends on the backchannel control parameters indicated in the O-TA_UPDATE message. The total number of bytes to be transmitted is equal to the number of bytes in the ERB, *N_ERB*, plus 3 (see Table 10-14).

If the size of the R-ERROR_FEEDBACK message is larger than the maximum allowed segment size~~1024 bytes~~, the message shall be segmented as defined in clause 12.2.6 of [ITU-T G.993.2] for AR mode, with the number of segments not to exceed ~~16~~15. All segments except the last one shall be set to be of the maximum allowed segment size ~~of 1024 bytes~~.

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| | |
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