

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.985

Amendment 1
(01/2009)

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

Digital sections and digital line system – Optical line
systems for local and access networks

100 Mbit/s point-to-point Ethernet based optical
access system

**Amendment 1: Silent start function of optical
network terminals**

Recommendation ITU-T G.985 (2003) – Amendment 1

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Recommendation ITU-T G.985

100 Mbit/s point-to-point Ethernet based optical access system

Amendment 1

Silent start function of optical network terminals

Summary

Amendment 1 to Recommendation ITU-T G.985 contains modifications to the text of Recommendation ITU-T G.985 (2003) to add a silent start function for optical network terminals (ONT).

Source

Amendment 1 to Recommendation ITU-T G.985 (2003) was approved on 13 January 2009 by ITU-T Study Group 15 (2009-2012) under Recommendation ITU-T A.8 procedure.

FOREWORD

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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.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

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Recommendation ITU-T G.985

100 Mbit/s point-to-point Ethernet based optical access system

Amendment 1

Silent start function of optical network terminals

1 Update of Reference [5] in clause 2

Update Reference [5] in clause 2 as follows.

- [5] IEEE Standard 802.3-2005, *Information technology – LAN/MAN – Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications.*

2 Clarification of relationship to Reference [5] in clause 5

Add the following text at the end of clause 5.4 (Wavelength allocation).

"These wavelength ranges are compatible with 100BASE-BX10 specified in IEEE Standard 802.3 clause 58 [5]."

3 Clarification of relationship to Reference [5] in clause 6

Change "100 BASE-FX (IEEE Standard 802.3)" into "100BASE-BX10 (IEEE Standard 802.3)" in clause 6.

4 Addition of clauses 8 and 8.1

Add a new clause clause 8 "Other requirements" and a new clause 8.1 "Silent start function of ONT" with the following text:

8 Other requirements

8.1 Silent start function of ONT

The transmitter in the ONT must be initially disabled so as to avoid disturbing other access systems in case of mis-connection. ONT shall enable the transmitter to enter a handshaking process with OLT only after confirming that the frame structure and/or the line coding of the received downstream signal are consistent with those of the relevant standard to which the ONT complies.

When the connection between ONT and OLT is disabled, ONT shall return to the initial state in which the transmitter is disabled after waiting enough time from detecting the disconnection, so that ONT could send an alarm indication signal of the received signal managed entity to OLT.

This is a unique function for the optical-access application that has directionality (i.e., it has different parameter values for upstream and downstream). In this regard, the relevant PMD type to implement this function in [5] is 100BASE-BX10 (clause 58 of [5]).

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