International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.959.1
(07/2018)

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

Digital sections and digital line system – Digital line systems

Optical transport network physical layer interfaces

Recommendation ITU-T G.959.1

ITU-T

International Telecommunication Union

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.959.1

Optical transport network physical layer interfaces

Summary

Recommendation ITU-T G.959.1 provides physical layer inter-domain interface (IrDI) specifications for optical networks which may employ wavelength division multiplexing (WDM). The IrDIs within the optical transport network (OTN) are provided by unidirectional, point-to-point, single and multichannel line systems. Their primary purpose is to enable transversely compatible interfaces to span the boundary between two administrative domains. The IrDI specifications include intra-office, short-haul and long-haul applications, without line amplifiers.

This version of this Recommendation includes multichannel interfaces suitable for FOIC2.4 (200G striped across four physical lanes) and FOIC4.8 (400G striped across eight physical lanes).

History

Edition	Recommendation	Approval	Study Group	Unique ID[*]
1.0	ITU-T G.959.1	2001-02-09	15	11.1002/1000/5362
2.0	ITU-T G.959.1	2003-12-14	15	11.1002/1000/7067
3.0	ITU-T G.959.1	2006-03-29	15	11.1002/1000/8758
4.0	ITU-T G.959.1	2008-03-29	15	11.1002/1000/9377
5.0	ITU-T G.959.1	2009-11-13	15	11.1002/1000/10403
5.1	ITU-T G.959.1 (2009) Amd. 1	2011-04-13	15	11.1002/1000/11122
6.0	ITU-T G.959.1	2012-02-13	15	11.1002/1000/11494
7.0	ITU-T G.959.1	2016-04-13	15	11.1002/1000/12793
8.0	ITU-T G.959.1	2018-07-22	15	11.1002/1000/13526

Keywords

Application codes, intra-office, IrDI, long-haul, multichannel, non-OTN, optical, OTN, physical layer, short-haul, single channel, transversely compatible, WDM.

---

[*] 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.