

ITU-T The leader in DWDM

DWDM means

Recommendations

G.694.1 "Spectral grids for WDM applications: DWDM frequency grid" specifies a frequency grid which supports a variety of DWDM channel spacings ranging from 12.5 GHz to 100 GHz (and wider)

G.696.1 "Longitudinally compatible intra-domain DWDM applications" specifies long-haul DWDM systems primarily intended for backbone applications

G.698.1 "Multichannel DWDM applications with single channel optical interfaces" specifies DWDM systems primarily intended for metro applications with channel bit rates up to 10 Gbit/s

G.698.2 "Amplified multichannel DWDM applications with single channel optical interfaces" specifies DWDM systems primarily intended for core metro/regional applications that include line optical amplifiers with channel bit rates up to 10 Gbit/s

G.959.1 "Optical transport networks physical layer interfaces" specifies DWDM optical systems with 32 channels for different bit rate classes up to 10 Gbit/s

G.973 "Characteristics of repeaterless optical fibre submarine cable systems" deals with submarine DWDM systems without line optical amplifiers

G.977 "Characteristics of optically amplified optical fibre submarine cable systems" deals with submarine DWDM systems with line optical amplifiers

- Cost-effective applications, through the use of a great number of optical channels on a single optical fibre pair
- Granularity in the capacity with the possibility of adding new optical channels, also operating at different bit rates, to the same optical fibre pair, as additional capacity is required
- Modularity in the reach of the systems, with possible link length from a few to more than one thousand kilometres
- Flexibility in link configuration [linear, ring with or without optical add drop multiplexing (OADM)]

For more information on activities related to optical transmission Recommendations, please check the ITU-T Study Group 15 website at:

www.itu.int/ITU-T/com15

For more information on other ITU-T activities:
workshops: www.itu.int/ITU-T/worksem/
e-flash and news: www.itu.int/ITU-T/news/
membership: www.itu.int/ITU-T/membership/
technology watch: www.itu.int/ITU-T/techwatch

DWDM

**DENSE WAVELENGTH
DIVISION MULTIPLEXING**

**Your up-to-date
optical
transmission
system solution**

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ITU-T

Highlights

- 100 GHz, 50 GHz, 25 GHz channel spacing (G.694.1)
- Unidirectional
- Up to forty 10 Gbit/s optical channels 100 GHz spaced per DWDM system, in C-band
- G.652, G.653, G.655 optical fibre-supported

- Multichannel (DWDM) interfaces (G.959.1)
- Multivendor interoperability: Vendor A Mux/Demux can be connected to Vendor B Mux/Demux.

- Single channel (coloured) interfaces (G.698.1, G.698.2)
- Multivendor interoperability: Vendor A transceiver can be connected through Vendor B Mux/Demux to Vendor C transceiver

