

- ✓ *10G Mux Transponder*
- ✓ *Full Support for GbE, 1G and 2G FC*
- ✓ *Physical Layer PM, Loopback Tests*
- ✓ *100 km Dispersion Limit, Line Side*
- ✓ *SFP Based Client Interfaces*
- ✓ *Compact Design, Bi-Directional Support*
- ✓ *High Quality Trunk Input / Output (ITU-T)*

## 10 Gpbs Fibre Channel and Ethernet Multiplexer

The GMDM10 EPC multiplexer aggregates Gigabit Ethernet, 1G Fibre Channel, and 2G Fibre Channel traffic into an OC-192/STM-64 wavelength. This module supports multimode optical inputs in the 850 nm band and singlemode inputs in the 1310 nm band through SFP based client interfaces. By combining both Ethernet and Fibre Channel traffic on a single wavelength, additional wavelengths are available to transport other high density or high capacity links.

The GMDM10-10G card is a two-slot, 10 client-port module. Each port can be software provisioned to carry Gigabit Ethernet, 1G, and 2G Fibre Channel. One SFP is required for each input. The module supports internal, external and line clock synchronization. It also supports Performance Monitoring of the data streams, including loopback test features. Up to 8 x Gigabit Ethernet, 8 x 1G Fibre Channel, 4 x 2G Fibre Channel and any mix up to 8G of input traffic is supported.

## Technical Specifications

### Power

- 40 watts

### Interfaces

- Lineside type: SC-UPC (standard)
- Clientside type: SFP based interfaces

### Standards Support

- GigaBit Ethernet
- Standard IEEE 802.3z/D5
- Transparent, full-duplex with 1.25 Gbps throughout
- Fibre Channel
- Standard ANSI X3.230 - 1994
- Transparent, line rate of 1G (1062.5 Mb), 2G (2125 Mb)

### Protocol Support

- Physical layer PM parameters: LBC, OPT, OPR, LTEMP
- Facility alarms: LOS
- Historical data: OPT-High / Low, LBC High, OPR-High / Low, LTEMP
- 15-minute
- 24-hour

### Management

- Compatible with Giganest, GigaView, TeraManager, and ZMS

### Bandwidth/Distance

- Signal rates: 10.5 Gbps
- Fiber interface: G.652
- Transmitter at the output point
- Source type: SLM
- Line coding: NRZ
- Spectral characteristics: -20 dB down line-width (max.)
- 0.12, nm
- Side mode suppression ratio (min.): 30 dB
- Nominal central frequency: 192.1 to 196.1 THz
- Max. central frequency deviation +/-:  $\pm 0.04$  GHz
- Channel spacing: 100 GHz
- Mean launched power: max. +5 dBm, min. -1 dBm
- Minimum extinction ratio: 10 dB
- Eye diagram pattern (GR 253): X1. >0.25 UI,
- Y1 <25%
- Optical return loss (min.) (including any connectors):
- 24 dB
- Dispersion tolerance: 1,800 ps / nm
- Receiver at receiving point
- Minimum sensitivity (BER-1.0E-12) dBm -22
- Minimum overload for (BER-1.0E-12) dBm -8
- Reflectance (max.) dB -27
- Minimum OSNR for a 1.0E-12 BER dB 26

### Operating Requirements

- 5° C to 40° C
- Chassis space: 2 slots
- Hot swappable: Yes

## Ordering Information

GMDM10-10G-LR-40Cxx-01

Fixed wavelength 10G mux data transponder (replace xx with ITU channel 20-59)

GMDM10-10G-LR-40CT-01

Tunable wavelength 10G mux data transponder (ITU Ch 20-59)



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