

Optical 10x10Gx100G Muxponder System

OMS-100-10x10-1U



Applications

- ▶ 100 Gbps Single Channel & DWDM Transport with Multi-protocol 10x10 Gbps Clients (ODU2/10GE/STM64)



Features

- ▶ Forward Error Correction Lowers OSNR Requirements & Increases Optical Transmission Budget
- ▶ Electronic Compensation of Chromatic Dispersion & Polarization-mode Dispersion Extends Transmission Reach
- ▶ Part of IPG's Optical Services Transport

IPG Photonics' 10x10G Muxponder system aggregates, custom format ODU2 (10.7 Gbps) or 10 Gb Ethernet optical signals into a linear DWDM OTU4V signal (127 Gbps) with Polarization Multiplexed- Quadrature Phase Shift Keying (PM-QPSK) modulation format. Full-duplex, bi-directional, client data streams received by one or more (up to 10) aggregating ports are multiplexed into a common data stream for line-side transmission. The Muxponder performs "3R" regeneration of each client signals' pulse amplitude, shape, and phase. In addition, Forward Error Correction (FEC) is added to the signal according to ITU recommendation G.709, which allows detection and correction of bit errors due to signal impairments during transmission and extends the distance the optical signal can travel before requiring regeneration. IPG's Muxponder also implements coherent technology which electronically compensates for the effects of chromatic dispersion and polarization-mode dispersion (PMD). Coherent detection eliminates the need for dispersion compensation modules and extends the transmission reach. The client connections are realized with removable SFP+ transceiver modules. The line interface is realized with IPG's coherent CFP with direct fiber LC-type connectors.

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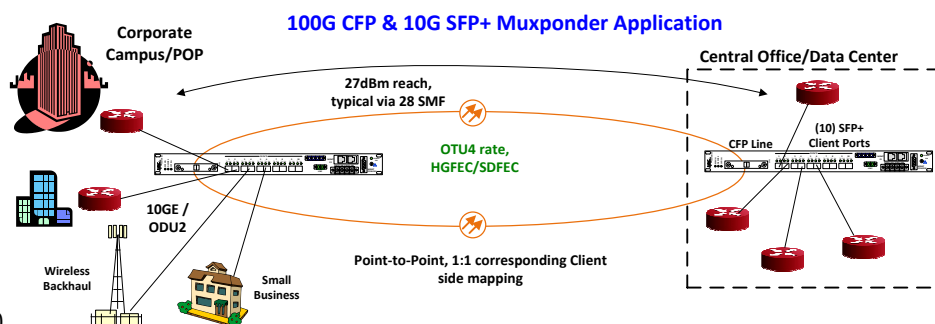
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Optical Characteristics

Operating Mode	10x(ODU2/10GE/STM64) <> OTU4V
OTN Framing	OTU4V
Line Data Rate, Gbps	127.15
Modulation Format	PM-QPSK
Forward Error Correction Modes	HGFEC, SDFEC
Total Optical Budget, (dB)	>25
Tuneable DWDM Wavelength Range, nm	1528.7734 to 1567.6447
PMD Compensation, ps	15
Output Power (adjustable in 0.1dB steps), dBm	-15 to +3
Transmission Center Frequency Deviation, Ghz	-1.8 to +1.8
Minimal OSNR Sensitivity, dB/0.1 nm	12.3

General Characteristics

Power Supply, V	48
Max Total Power Consumption, W	192
Operating Temperature Range, °C	+5 to +40
Weight, kg	7.9
Overall Dimensions, W x H x D, mm	480.53 x 43.62 x 346
Management Ports	(2) RJ45 Ethernet
End-to-end Management Communications	Optical Supervisory Channel



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