The Leading 1U Metro CWDM and DWDM platform, for transport of storage, data, voice and video applications, over dark fiber and WDM networks

FEATURE OVERVIEW

Supports up to 8 channels of CWDM or DWDM over dark fiber

Supports 1G/2G/4G FC & FICON, ESCON, Fast Ethernet, GbE, STM-1/OC-3, STM-4, OC-12, STM-16/OC-48, OTU1 (OTN), DVB-ASI, SD-SDI, HD-SDI, 3G HD-SDI in any mix

Increase fiber utilization using two sets of 4xGbE Muxponders

Low latency connectivity, ideal for trading floor applications

Performs bidirectional 3R ensuring error free operation over distance

Cost-effective, compact 1U platform with low power consumption ideal for CLE (Customer Located Equipment)

Remote management with both optical supervisory channels and in-band management

Pluggable SFP interface for both service and WDM channels, allowing maximum flexibility as well as ease of maintenance and operation

Redundant pluggable PSUs & Fan Unit

Pay-as-you-grow architecture

Supports single and dual fiber connections

Support for 1+1 facility protection

Performance Monitoring for GbE, FC and SONET/SDH services

PRODUCT DESCRIPTION

PL-400 is designed primarily as an efficient C/DWDM transport device, and is typically deployed as a CLE (Customer Located Equipment) in enterprise campus environments and in central offices.

The PL-400 supports up to 8 high-speed services (2Mbps–4.25Gbps). Each service is configured independently using PacketLight's user-friendly on board Web-based management tool. The PL-400 can be managed by any 3rd party SNMP system or with PacketLight's EMS.

The PL-400 is designed to support point-to-point, Linear ADM, and ring topologies with facility protection.
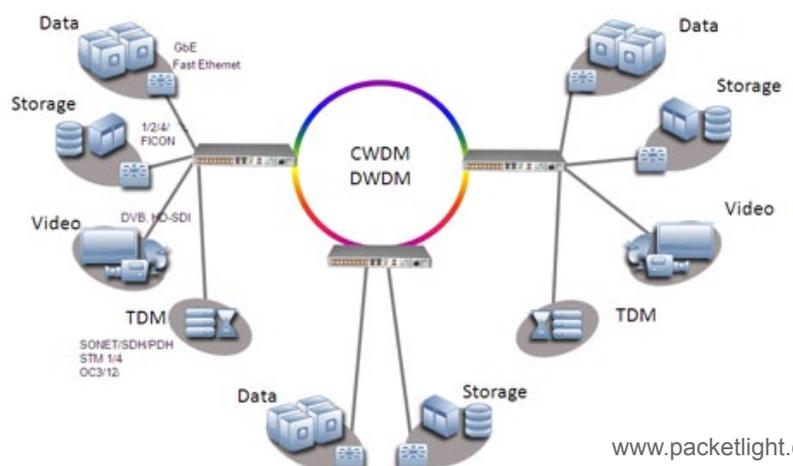
The PL-400 is a highly integrated device, incorporating Mux/DeMux and EDFA for both transponder, muxponder and regenerator modes.

The PL-400 seamlessly integrates with PacketLight's WDM product family thus enabling mixture of low and high bit services over the same fiber and supporting stackable solution operation of up to 40 DWDM, 16 CWDM wavelengths.

All optical transceivers, both on the service side and on the WDM-uplink side, are pluggable and replaceable allowing pay-as-you-grow budget planning and simplified maintenance and full optical performance monitoring of the optical layer.

The PL-400 is highly suitable for applications such as:

- Interconnection of SAN and LAN islands over remote data centers
- High bandwidth managed service over dark fiber
- Low Latency connectivity for trading applications
- Fiber relief for high-capacity multi-tenant buildings and campuses.
- Aggregation of DSLAM and Ethernet switch traffic on a single fiber from access to core
- Video transport over C/DWDM and Dark Fiber

TECHNICAL SPECIFICATIONS

System

Topology	Point-to-point, Ring, Linear ADM Dual or Single Fiber
Muxponder	2x 4GbE 850/1310nm
Transport Network Medium	Metro CWDM/DWDM / Dark Fiber
Software Upgrade	Traffic Hitless – dual image
Protection	1+1 Facility

Product Options

Transponder	850/1310nm to C/DWDM, 3R, 4/8 wavelengths Mux & Demux
Transponder + Booster Amp	850/1310nm to DWDM, 3R, 4/8 wavelengths Mux Demux, 1/2 EDFA (Booster, Pre-Amp)
Regenerator	C/DWDM to C/DWDM 3R 8 wavelengths 2X Mux & 2X Demux & 2X EDFA

CWDM Link

Wavelength	ITU-T G.694.2 1270-1610nm 20nm spacing
Optical Supervisory Channel	1310nm, 1290nm
Optical Reach	120Km for 1.25Gbps, 80Km up to 4.25Gbps
Optical Power Output	0dBm (min) to +5dBm (max)
Sensitivity	-28dBm APD, -18dBm PIN
Optical Monitoring	Tx & Rx power
Link Attenuation	<4dB (Mux + DeMux)

DWDM Link

Wavelength	ITU-T G.694.1 Channels 15-60, 100GHz spacing
Optical Supervisory Channel	1490nm, 1510nm
Optical Reach	400Km for 1.25Gbps, 200Km for 2.66Gbps, 80Km for 4.25Gbps
Optical Power Output	0dBm (min) to +4dBm (max)
Sensitivity	-28 dBm APD
Optical Monitoring	Tx & Rx power
Link Attenuation	<4dB (Mux + DeMux)

Service Side

Interface Rates	2Mbps up to 4.25Gbps
Optical Interface	850nm/1310nm C/DWDM
Optical Services	1G/2G/4G FC, FICON, ESCON, GbE (LX, SX), STM-1/OC-3, STM-4/OC-12, STM-16/OC-48, 2.66G OTN, 100FX, DVB-ASI, SD-SDI, HD-SDI, 3G HD-SDI in any mix.
Copper Services	10/100/1000MBase-T, E3/DS3, E1/T1

Amplifier

Applications	Booster, Pre-Amp
Output Power	14dBm, 17dBm, 20dBm, 23dBm
Input Power	-36dBm up to 16dBm
Gain	10dB to 22dB
Operating Modes	AGC (Automatic Gain Control), APC (Automatic Power Control
Eye Safety	Automatic laser power reduction upon fiber cut or disconnection

Network Management

Management Ports	10/100MBase-T, RJ-45, RS-232, DB9
Protocols	SNMP, HTTP, HTTPS, Telnet, SSH, Syslog, RADIUS
Management	Web browser over HTTP/HTTPS, Packet-Light EMS or 3rd party EMS over SNMP, CLI over RS-232 or CLI over Telnet/SSH
OAM	Loopbacks PRBS Event Logger Alarms PM for GbE, FC (based on 8b/10b CV) and SONET/SDH (based on B1 CV)
Management Ch.	2x Optical Supervisory Channel (OSC) 2x In-Band Channels
Visual Indicators	LED status indicators for client ports, line interfaces, power and system
Software Upgrade	Traffic Hitless-dual image

Power Supply

AC/DC	90 to 246VAC, -36 to -72VDC, 68W max
PSU Redundancy	Single/Dual feeding, Hot Swappable
Cooling Unit	Hot Swappable Fan Unit

Physical Dimensions

Size	1.77" (1 RU) (H) x 17.32"(W) x 9.05"(D) 45 mm (H) x 440mm (W) x 230 mm (D)
Weight	5.5Kg /12.1lb (Max)
Mounting	19", ETSI and 23"

Environmental

Operating Temperature	-5° C to 50° C (+23° F to+122° F) Operational
Humidity	5% to 85% RHI