PL-1000RO WSS ROADM

Highly flexible wavelength routing

Features Overview

- Flexible add/drop of wavelengths
- Up to 8-degree ROADM
- Flex-grid ready
- Supports 10G/100G/200G and 400G wavelengths
- Up to 96 C-band add/drop wavelengths (configurable)
- WDM spacing - 50Ghz or 100GHz
- Supports automatic channel restoration
- Power monitoring on all channels
- Optical power equalization between all channels
- A-to-Z provisioning of wavelengths and protection through NMS system
- Supports up to 96 C-band channels
- Supports optional embedded EDFA booster/pre-amp
- Dual AC or DC pluggable power supply and pluggable fan unit

Colorless, Directionless ROADM for 50GHz and 100GHz Grid

The PL-1000RO offers ROADM functionality based on advanced next generation wavelength-selective switch (WSS) technology.

The solution offers highly flexible wavelength routing capabilities suitable for mesh, ring, linear add/drop, core and edge DWDM network topologies. The PL-1000RO supports colorless, directionless, flex-grid, 50GHz grid and 100GHz grid (configurable).

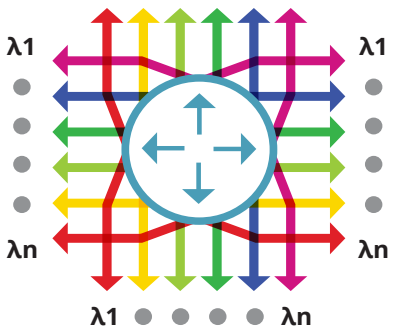
Main Benefits

- **Power monitoring for all channels and automatic power balancing**
- **Supports optional embedded EDFA booster/preamp**
- **Optional DCM and band splitters**
- **Embedded optical supervisory channel (OSC) for remote management**
- **User-friendly NMS to deploy new services, control and monitor the optical network**

Full Fiber Diagnostic Device

The user configures the PL-1000RO dynamically to add/drop selected wavelengths at any node in the network and can seamlessly change the network node capacity as needed. The device automatically equalizes and balances the power of the added and bypassed wavelengths.

The PL-1000RO simplifies network management and reduces operation costs (OPEX) by allowing fast deployment of new wavelengths remotely. The ROADM fully integrates with PacketLight's WDM product line.



PL-1000RO Integrated ROADM Platform

Recommended applications:

- **Configuration and management of mesh and ring-based DWDM network architecture**
- **Wavelength routing for mesh, ring, linear add/drop, core and edge DWDM network topologies**
- **Wavelength power balancer in amplified links**
- **Network management by remotely deploying new wavelengths**

Low power consumption | 1U rack mount | Multi operation modes

Technical Specifications

	4 degree		8 degree		Unit	Notes
	Min	Max	Min	Max		
Insertion Loss	13	14	8	10	dB	All ports
Loss Uniformity		1.5		1	dB	All ports
Channel Range	191.3	196.0	191.3	196.0	THz	Full C-band, 1529.55 to 1567.13nm
Channel Count		48/96		48/96	Channels	50/100 GHz spacing ITU grid (CH13-CH60)
PMD	-0.2	0.2		1.2	ps/nm	In passband
Switch Speed		800	1000	3000	ms	
VOA Range	0	15	0	15	dB	

Full C-band Amplifier

Output Power: 14dBm to 23dBm

Input Power: -36dBm up to +16dBm

Gain: 8dB to 38dB

Operating Modes

- Automatic gain control (AGC)
- Automatic power control (APC)

Eye Safety: Automatic laser power reduction upon fiber cut or disconnection

Physical Dimensions

1U:

- 1.77" (H) x 17.32" (W) x 9.05" (D)
- 45mm (H) x 440mm (W) x 230mm (D)

Weight: 8kg / 17.64lb (max)

Mounting: 19", ETSI and 23"

Network Management

Management Ports

- 2xRJ-45 LAN port 10/100MBase-T
- 2xSFP MNG ports 100/1000MBase-X
- 8xSFP MNG ports 100MBase-X
- RS-232 serial port
- DB9 external alarm port

Management Protocols:
SNMP, HTTP, HTTPS, CLI over RS-232 or CLI over Telnet/SSH, Syslog, RADIUS, TACACS+, SNTP, TFTP and FTP

NMS:

- PacketLight LightWatch™ NMS/EMS, or third party EMS/NMS over SNMP

Performance Monitoring:

- Layer-1 PM for all wavelengths
- OCM for input and output directions

Visual Indicators:
LED status indicators for: Management and LAN ports, amplifier/s, system Critical/Major/Minor and Power Supply

Software Upgrade: Hitless traffic – dual image

Power Supply

AC/DC: 90 to 246 VAC, 50/60 Hz, -36 to -60 VDC, 60W max

PSU Redundancy: Single/dual feeding, hot swappable

Cooling Unit: Hot swappable fan unit

Environmental

Operating Temperature: -5°C to 50°C (+23°F to +122°F) operational

Humidity: 5% to 85% RH

Approvals & Standards

- CE, FCC, RoHS, REACH
- NEBS ready

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