

# PL-1000RO

## WSS ROADM



### Highly flexible wavelength routing

#### Features Overview

- Flexible add/drop of wavelengths
- Up to 8-degree ROADM
- FlexGrid ready
- Supports 10G/100G and 200G 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 8 channel internal DWDM mux/demux
- Supports optional embedded EDFA booster/pre-amp
- Ready for 40G and 200G transmission format
- 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 and both 50GHz and 100GHz grids.

#### Main Benefits

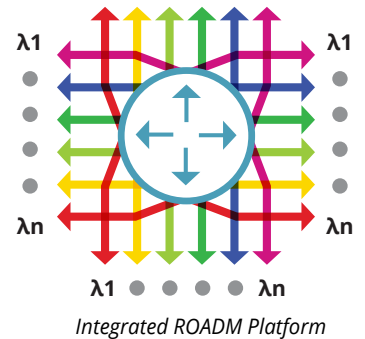
- Power monitoring for all channels and automatic power balancing
- Supports optional embedded EDFA booster/preamp
- Optional internal 4/8 mux/demux, DCM and band splitters
- Embedded optical supervisory channel (OSC) for remote management
- User-friendly NMS to deploy new services, control and monitor the optical network

#### Flexibility in Services over the Same Fiber

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.

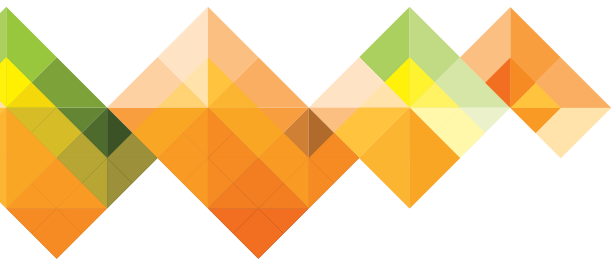
The PL-1000RO simplifies network management and reduces operation costs (OPEX) by allowing fast deployment of new wavelengths remotely.

The ROADM fully integrates with PacketLight's WDM product line.



#### Recommended for the following 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

	2 degree		4 degree		Unit	Notes
	Min	Max	Min	Max		
<b>Insertion Loss</b>	10	11	13	14	dB	All ports
<b>Loss Uniformity</b>		1.5		1.5	dB	All ports
<b>Channel Range</b>	191.3	196.0	191.3	196.0	THz	Full C-band, 1529.55 to 1567.13nm
<b>Channel Count</b>		48/96		48/96	Channels	50/100 GHz spacing ITU grid (CH13-CH60)
<b>PMD</b>	-0.2	0.2	-0.2	0.2	ps/nm	In passband
<b>Switch Speed</b>	0.001	100	0.001	100	ms	
<b>VOA Range</b>	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, Telnet, SSH, Syslog, RADIUS, SNTP, TFTP and FTP

#### Management

- Web browser over HTTP/HTTPS
- PacketLight LightWatch™ NMS/EMS
- Third party EMS NMS over SNMP
- CLI over RS-232 or CLI over Telnet/SSH

#### 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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