PL-1000RO

Next Generation WSS ROADM

Advanced Integrated ROADM platform providing flexible Wavelength Add Drop, Automatic Power Balancing and Amplification for next generation DWDM Network Infrastructure

FEATURE OVERVIEW

Flexible wavelengths Add/Drop

Automatic Optical Power Equalization

Directionless, Colorless architecture

Supports up to 96 C-Band channels

Up to 8-degree ROADM

Supporting Mesh, Ring and Linear add/drop topologies

Flexible channel spacing 50GHz/100GHz

Optical Power Level Monitoring for all channels

Supports 8 channel internal DWDM Mux/Demux

Supports optional embedded EDFA Booster/Preamp

Ready for 40Gbps and 100Gbps transmission format

Embedded Optical Supervisory Channel for remote management

Dual AC or DC pluggable Power Supply and pluggable FAN Unit

A-Z provisioning and service management using PacketLight's LightWatch (TM) NMS

PL-1000RO Reconfigurable Optical Add-Drop Multiplexer (ROADM)

ROADM based network architecture simplifies configuration and management of complex DWDM network infrastructure. It offers highly flexible wavelength routing capabilities suitable for mesh, ring, linear add/drop, core and edge DWDM network topologies.

PacketLight's PL-1000RO offers the ROADM functionality based on the most advance next generation WSS (Wavelength Selective Switch) technology.

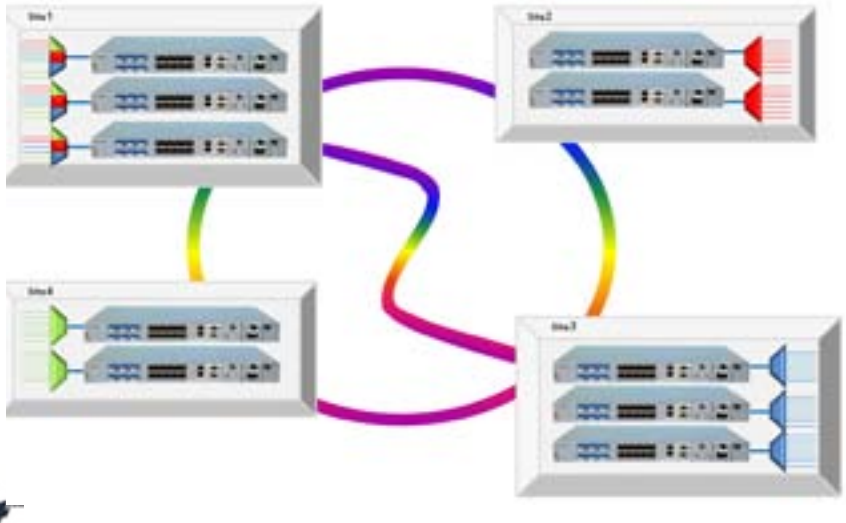
PacketLight colorless, directionless, contentionless and gridless ROADM architecture that provides high flexibility for mesh and ring networks.

The user configures the PL-1000RO dynamically to add/drop selected wavelengths at any node in the network and seamlessly change the network node capacity as needed. In addition, it automatically maintains the equalization and power balance of the added and bypass wavelengths. The PL-1000RO also integrates optional EDFA for amplifying the wavelengths thus delivering effective long distance DWDM solutions.

PacketLight colorless, directionless ROADM provide high flexibility for mesh and ring networks.

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

The PL-1000RO can be managed by any third party NMS system or with PacketLight's EMS.



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TECHNICAL SPECIFICATIONS

2 Degree ROADM Parameter	Min	Max	Units	Notes
Insertion Loss	10	11	dB	All Ports
Loss Uniformity		1.5	dB	All Ports
Channel Range	191.3	196.0	THz	Full C-band, 1529.55 to 1567.13 nm
Channel Count		48/96	Channels	50/100 GHz spacing ITU Grid (Ch13-CH60)
PMD	-0.2	0.2	ps/nm	In passband
Switch Speed	0.001	100	ms	
VOA Range	0	15	dB	

4 Degree ROADM Parameter	Min	Max	Units	Notes
Insertion Loss	13	14	dB	All Ports
Loss Uniformity		1.5	dB	All Ports
Channel Range	191.3	196.0	THz	Full C-band, 1529.55 to 1567.13 nm
Channel Count		48/96	Channels	50/100 GHz spacing ITU Grid (Ch13-CH60)
PMD	-0.2	0.2	ps/nm	In passband
Switch Speed	0.001	100	ms	
VOA Range	0	15	dB	

Full C-Band Amplifier

Output Power	14dBm to 23dBm
Input Power	-36dBm up to +16dBm
Gain	5dB to 38dB
Operating Modes	AGC (Automatic Gain Control), APC (Automatic Power Control)
Eye Safety	Automatic laser power reduction upon fiber cut or disconnection

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	8Kg (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

DCM

DCM Type	Tunable DCM or Fixed DCM
Fiber Span	20-100Km
Max insertion loss	<5dB
Standard	ITU G.671

Network Management

Management Ports	• 2 RJ-45 LAN port 10/100Mbase-T • 2x SFP MNG ports 100/1000MBase-X • 8x SFP 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, LightWatch PacketLight NMS/EMS, or 3rd 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	Traffic Hitless – dual image

Power Supply

AC/DC	90 to 246VAC, -36 to -72VDC, 60W max
PSU Redundancy	Single/Dual feeding, Hot Swappable
Cooling Unit	Hot Swappable Fan Unit

Approvals & Standards

CE, FCC, RoHS, REACH
NEBS Compliant, ISO-9001

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