

PL-2000M Access

Short Haul 200G ADM Encryption Solution



The PL-2000M Access is an advanced 200G ADM in just 1RU targeted for Short Reach Muxponder and Encryption Applications

FEATURE OVERVIEW

- Next generation versatile 200G capacity platform with low power consumption and compact 1U dimensions
- Supports multiple user configurable operation modes: Muxponder, Transponder and ADM
- Supported clients:
10G LAN, 8G/16G/32G Fibre Channel, STM64/OC192, OTU2, OTU2e, 40G LAN, 100G LAN, OTU4
- Standards based ITU-T G.709
- Forward Error Correction (FEC) GFEC for short haul applications
- Dual pluggable QSFP28 interfaces for uplink and client
- Layer-1 GCM-AES-256 based Encryption
- Comprehensive Line and Service performance Monitoring
- Remote management with In-band or out-of-band Optical Supervisory Channel (OSC)
- Dual AC or DC pluggable Power Supply and pluggable FAN Unit
- Supports standard MSA pluggable SFP+ (8G/10G/16G/32G client), QSFP+ (40G client), QSFP28 (100G client) and QSFP28 (100G uplink)

200G MULTI PROTOCOL MULTI RATE ADM/MUXPONDER/TRANSPONDER/ FOR SHORT REACH OPTICAL TRANSPORT SOLUTIONS AND LAYER-1 ENCRYPTION

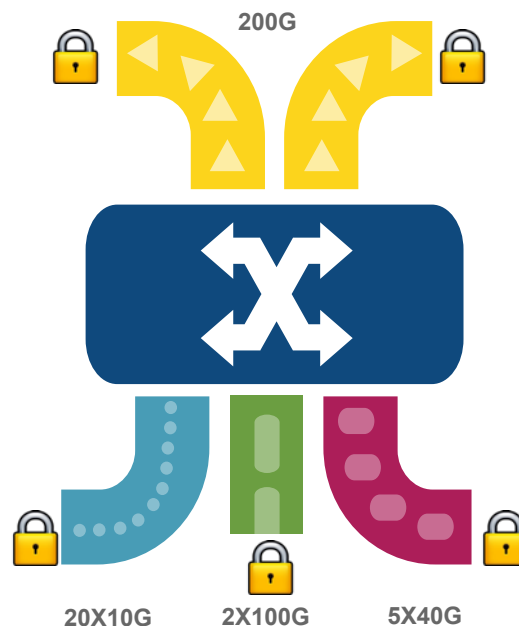
PL-2000M Access is the PacketLight's 200G multi-protocol multi-rate short reach ADM/Muxponder/Transponder solution for building cost effective optical transport networks. Its flexible architecture enables the same device be used in multiple applications.

The PL-2000M Access product provides high transport capacity of up to 200G in a modular and cost-effective way for aggregating 10G/40G services into dual 100G uplinks. It fully meets the market demands for low power consumption, rack space savings and reduction in the overall solution CAPEX and OPEX by increasing the capacity of enterprise, for short reach networks.

The PL-2000M Access supports flexible mix of 10G/40G/100G client interfaces, protocols and aggregating them into dual 100G OTU4 uplinks. The platform supports various client services, thus allows an easy migration from current to future service requirements (protocols and rates) without replacing the unit. The PL-2000M Access seamlessly integrates with PacketLight's PL-2000 and PL-1000TN to deliver carrier-grade high-end 100G solutions for Carriers, Enterprise and Data Center capable of serving multiple applications for effective transport of Data, Storage, TDM, ATM and Video protocols.

Ideal for short reach 100G connectivity and Layer-1 Encryption applications such as:

- Last mile access/aggregation CPE for 10G/40G/100G managed service
- High capacity, short-reach enterprise and campus networks
- Dynamic add/drop of services in ring, linear add/drop topologies
- High bandwidth connectivity for data center and cloud computing
- Feeder solution to 3rd party OTU4 Transponder card
- Up to 200G Layer-1 encryption solution for 10G/40G and 100G service



TECHNICAL SPECIFICATIONS

Product Configurations

Dual 10x10G Muxponder	Up to 20 multi-service 10G clients aggregated to 2x OTU4 uplinks
Dual 40G and 12x10G Muxponder	2x 40G LAN and up to 12 multi-service 10G clients aggregated to 2x OTU4 Uplinks
Dual 100G Transponder	2x 100GbE LAN mapped to 2x OTU4 uplinks
100G Transponder and 10X10 Muxponder	100GbE LAN mapped to one OTU4 uplink and up to 10 multi-service 10G clients aggregated to second OTU4 uplink

Uplink Characteristics

Bit Rate	112Gbps (OTU4)
Optical Interface	2 x QSFP28
FEC Support	Standard ITU-T G.709 GFEC
Optical Reach	Up to 40Km with ER4
Optical Monitoring	Tx and Rx Power

Client Interfaces Characteristics

Service type	10GbE LAN/WAN, 40GbE LAN, 100GbE, 8G/16G/32G FC, STM-64/OC-192 OTU2, OTU2e, OTU4
Optical Interface	SFP+: LR(1310nm), SR (850nm), ER (1550nm) , ZR (1550nm) and C/DWDM QSFP+:LR-4 (1310nm), SR-4 (850nm) QSFP28: LR-4 (1310nm),SR-4 (850nm)

Encryption

Functionality	Full speed transparent Layer 1 encryption for selected clients or for the OTU4 uplinks
Compliance	FIPS 140-2 Level 2 Commercial National Security Algorithm (CNSA) Suite (replaced NSA Suite B)
Algorithms	Encryption/Decryption: GCM-AES-256 Key Exchange: ECC CDH with curve P-384 Message Digest: SHA-256
Authentication	Role based User/Password authentication

Network Management

Management Ports	<ul style="list-style-type: none"> • 2x RJ-45 LAN port 10/100Mbase-T • 2x SFP MNG ports 100/1000MBase-X • RJ-45 Serial port • RJ-45 External Alarm port • OTN GCC Inband channel
Protocols	SNMP V1/V2/V3, HTTP, HTTPS, Telnet, SSH, Syslog, RADIUS, SNTP, TFTP and FTP
Management	Web browser over HTTP/HTTPS, LightWatch PacketLight NMS/EMS, or 3rd party NMS over SNMP, CLI over RS-232 or CLI over Telnet/SSH
OAM	Facility Loopback and PRBS (Client and Line Interfaces), Event Log, External Alarms Input and Output, Automatic Laser Shut-Down (ALS)
Performance Monitoring	Layer 1 PM for all Services Layer 2 PM for Ethernet OTN PM for Uplinks Optical Power RX levels for all optical ports Egress PM for all services
Visual Indicators	LED status indicators for: client and line ports, Management and LAN ports, amplifier/s, System Critical/Major/Minor and Power Supply
Software Upgrade	Traffic Hitless – dual image

Power Supply

AC/DC	~100 to ~240 VAC, -36 to -72 VDC, 250W 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

Physical Dimensions

Size	1.77" (1 RU) (H) x 17.32"(W) x 11.22"(D) 45 mm (H) x 440mm (W) x 285 mm (D)
Weight	8.5Kg / 18.75 lb (Max)
Mounting	19", ETSI and 23"

Approvals & Standards

CE, FCC, RoHS, REACH
ISO 9000, NEBS Compliant

