



PL-1000T

100G Transponder Solution

**PL-1000T is an advanced, 100G 1U, Demarcation Transponder solution
Providing affordable 100G connectivity over Dark Fiber or OTN**

FEATURE OVERVIEW

Compact 1U demarcation platform with low power consumption ideal for CPE (Customer Premises Equipment) and Data Center Environment

100G Transponder mode supporting 100GBase-SR10/LR10/LR4/ER4 Client Interface

Standards based ITU-T G.709 100G Forward Error Correction (FEC) GFEC

Supports Full C-Band Tunable DWDM Line sides

Comprehensive Line and Service performance Monitoring

Integrated EDFAs, Mux/Demux, DCM

Remote management with In-band or Out-band Optical Supervisory Channel

Dual AC or DC pluggable Power Supply and pluggable FAN Unit

Supports standard MSA pluggable optics-
Uplink -CFP
Client - CFP & CFP2

Operates on both dual or single fiber

Support for 1+1 facility protection

1U, 100G TRANSPONDER PLATFORM FOR METRO AND DATA CENTER HIGH CAPACITY SOLUTIONS

The PL-1000T is PacketLight's 100G Transponder for high capacity optical transport solutions.

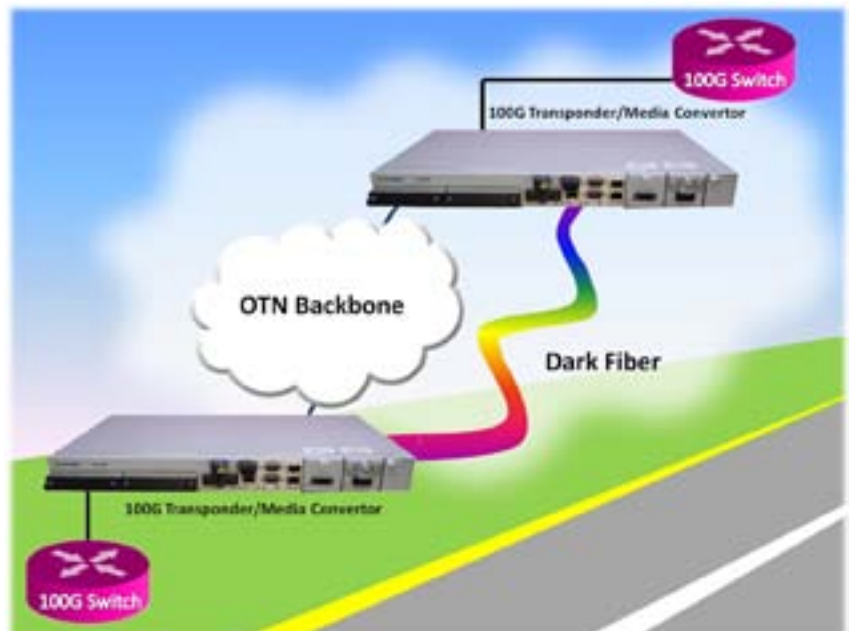
It is highly integrated platform for providing a unified 100G optical transport layer- supporting various 100G client services including LR4/ER4/LR10 and SR10 and seamlessly interface with any third party equipment..

The PL-1000T provides 100G transport solution in modular and cost effective way for rolling out 100G services. It uses standards based, pluggable optical modules on all optical interfaces on both client and line side. It is designed for meeting the market demands for low power consumption and rack space savings thus reducing the overall solution CAPEX and OPEX and increasing the capacity of enterprise and metro networks.

The PL-1000T 1U device supports up to two integrated optical amplifiers, Mux/Demux and DCM providing the smallest, most integrated transport solution of its kind reaching up to 120Km/34dB without intermediate sites.

PL-1000T is ideal for the following applications:

- High capacity enterprise and campus networks ranging up to 200km
- Acting as a media convertor between the different 100G optical interfaces
- High bandwidth connectivity for data center and cloud computing
- CPE for 100G managed services
- Providing 100G links over existing infrastructure



TECHNICAL SPECIFICATIONS

Product Configurations	
100G Transponder	100GbE LAN to 100G OTU4 uplink
100G Media convertor	Converting 100GE LAN optical modules
Optical Amplifiers	Optional up to two EDFA modules
DCM	Optional tunable or fixed DCM
Mux/DeMux	Optional 4ch Mux/DeMux module

Uplink Characteristics	
Bite Rate	112Gb/s
Optical Interface	CFP LR-4 WDM 4 x 28Gb/s OTU4
Tune-ability range	DWDM ITU-T G.694.1 Channels 15-60, with 50GHz spacing
OTN Support	Standard ITU-T G.709 GFEC or enhanced HG-FEC
Optical Reach	25Km
Optical Output Power	0dBm-2dBm per lane
Sensitivity	-10dBm, 19dB OSNR
Optical Monitoring	Tx and Rx Power per lane

Client Interfaces Characteristics	
Optical Interface	CFP: LR-4(1310nm), LR-10 (WDM), SR-10 (850nm), ER-4 (1310nm) CFP2: LR-4 (1310nm)

Amplifier	
Applications	Booster, Pre-Amp
Output Power	Booster: +4 to +14 dBm Preamp: +5 dBm
Input Power	Booster: 0 to +10 dBm Pre-Amp: -25 to -9 dBm
Gain	Booster: +10 to +22 dB Preamp: +18 dB
Operating Modes	AGC (Automatic Gain Control), APC (Automatic Power Control)

Mux/DeMux	
Channels	4 DWDM channels
Spacing	100GHz
Insertion loss	<4dB end to end

Approvals & Standards	
	CE, FCC, RoHS, REACH NEBS Compliant ISO 9001

Network Management	
Management Ports	<ul style="list-style-type: none"> • 1RJ-45 LAN port 10/100Mbase-T • 2x SFP MNG ports 100/1000MBase-X • RS-232 Serial port • DB9 External Alarm port • OTN GCC Inband channel
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 Telnet/SSH TL1 over RS-232 or Telnet/SSH
OAM	Facility Loopback (Client and Line Interfaces), PRBS, Event Logger, Alarms, ALS
Performance Monitoring	Layer 1 PM for all Services OTN PM for Uplink Optical Power RX levels for all optical ports
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

DCM	
DCM Type	Tunable DCM or Fixed DCM
Fiber Type	G.652
Fiber Span	20-100Km
Max insertion loss	<5dB
Standard	ITU G.671

Power Supply	
AC/DC	~100 to ~240 VAC, -36 to -72 VDC, 160W 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% RHI

Physical Dimensions	
Size	1.77”(1RU) (H)x17.32”(W)x9.05”(D) 45 mm(H)x440mm(W)x230 mm(D)
Weight	7.5Kg / 17.64 lb (Max)
Mounting	19”, ETSI and 23”

