

# 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.

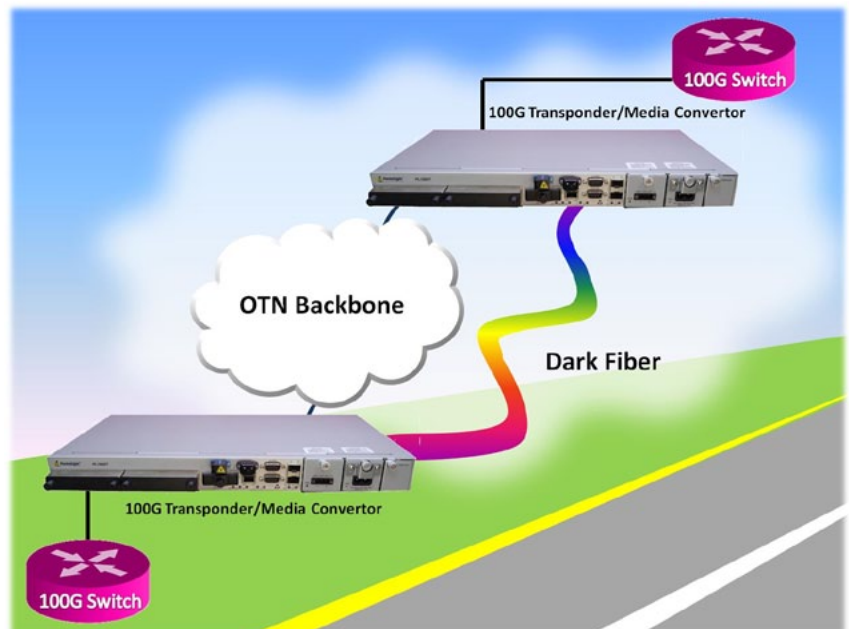
It is highly integrated platform for providing a unified 100G optical transport layer- supporting various 100G client services including LR4/ER4/LR10 and SR10 and seamlessly interface with any third party equipment..

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

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

### Uplink Characteristics

<b>Bite Rate</b>	112Gb/s
<b>Optical Interface</b>	CFP LR-4 WDM 4 x 28Gb/s OTU4
<b>Tune-ability range</b>	DWDM ITU-T G.694.1 Channels 15-60, with 50GHz spacing
<b>OTN Support</b>	Standard ITU-T G.709 GFEC or enhanced HG-FEC
<b>Optical Reach</b>	25Km 500ps/nm
<b>Optical Output Power</b>	0dBm-2dBm per lane
<b>Sensitivity</b>	-10dBm, 19dB OSNR
<b>Optical Monitoring</b>	Tx and Rx Power per lane

### Client Interfaces Characteristics

<b>Optical Interface</b>	CFP: LR-4(1310nm), LR-10 (WDM), SR-10 (850nm), ER-4 (1310nm) CFP2: LR-4 (1310nm)
--------------------------	---

### Amplifier

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

### Mux/DeMux

<b>Channels</b>	4 DWDM channels
<b>Spacing</b>	100GHz
<b>Insertion loss</b>	<4dB end to end

### Approvals & Standards

CE, FCC, RoHS 5/6  
NEBS Compliant  
ISO 9001

### Network Management

<b>Management Ports</b>	<ul style="list-style-type: none"> <li>• 1RJ-45 LAN port 10/100Mbase-T</li> <li>• 2x SFP MNG ports 100/1000MBase-X</li> <li>• RS-232 Serial port</li> <li>• DB9 External Alarm port</li> <li>• OTN GCC Inband channel</li> </ul>
<b>Protocols</b>	SNMP, HTTP, HTTPS, Telnet, SSH, Syslog, RADIUS, SNTP, TFTP and FTP
<b>Management</b>	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
<b>OAM</b>	Facility Loopback (Client and Line Interfaces), PRBS, Event Logger, Alarms, ALS
<b>Performance Monitoring</b>	Layer 1 PM for all Services OTN PM for Uplink Optical Power RX levels for all optical ports
<b>Visual Indicators</b>	LED status indicators for: client and line ports, Management and LAN ports, amplifier/s, System Critical/Major/Minor and Power Supply
<b>Software Upgrade</b>	Traffic Hitless – dual image

### DCM

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

### Power Supply

<b>AC/DC</b>	~100 to ~240 VAC, -36 to -72 VDC, 160W max
<b>PSU Redundancy</b>	Single/Dual feeding, Hot Swappable
<b>Cooling Unit</b>	Hot Swappable Fan Unit

### Environmental

<b>Operating Temperature</b>	-5° C to 50° C (+23° F to +122° F) Operational
<b>Humidity</b>	5% to 85% RHI

### Physical Dimensions

<b>Size</b>	1.77" (1 RU) (H) x 17.32"(W) x 9.05"(D) 45 mm (H) x 440mm (W) x 230 mm (D)
<b>Weight</b>	7.5Kg / 17.64 lb (Max)
<b>Mounting</b>	19", ETSI and 23"

