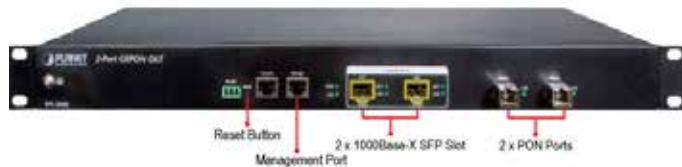# 2-PON Interface, 2 x GbE SFP, 1 x MGT Port

Perfectly Designed for FTTx Applications

PLANET EPL-2000 is a GEPON **Optical Line Terminal (OLT)** designed especially for Point to Multipoint (PtMP) FTTx applications. The EPL-2000 is equipped with **two GEPON ports, two Gigabit SFP uplink Interfaces** and one management port in the 1U height case. With friendly centralized GUI management, it is easy for installation and maintenance of GEPON deployment. When functioning with PLANET GEPON **Optical Network Units (ONU)** EPN series, the EPL-2000 provides highly effective GEPON solutions for Broadband network.

1.25Gbps High Speed and 20km Long-Distance Coverage for Triple Play Services

The EPL-2000 is in PLANET Gigabit Ethernet Passive Optical Network (GEPON) solution family that provides up to 1.25Gbps high bandwidth for both upstream and downstream, and up to 20km long-distance coverage between equipment nodes for network deployment. It can fulfill the demand of increasing home multimedia and entertainment needs. The EPL-2000 makes many multimedia services come true on FTTx network such as:

- ■ IPTV, Smart TV and HDTV
- ■ VOD (Video on Demand)
- ■ Voice over IP
- ■ Video Conference / Video Phone

- ■ On-line Game
- ■ Internet Radio / On-line Music
- ■ Long-distance Education

The EPL-2000 offers an excellent bandwidth of the reliable and scalable network to satisfy the triple play devices for home entertainment and communication.

GEPON Port

- • 2 x SC type GEPON OLT Port
- • Up to 1.25Gbps data rate in both upstream and downstream directions
- • Maximum distance of Up to 20km
- • Each OLT port supports up to 64 ONUs
- • Fully compliant with IEEE 802.3ah
- • Point-to-multipoint network topology
- • LED indicators for link status

Uplink and Management Port

- • 2 x 1000Base-SX/LX SFP Interface
- • Maximum distance of Up to 120Km
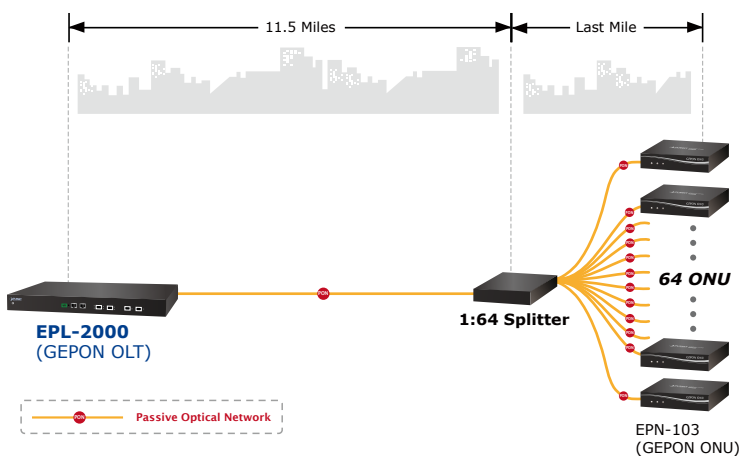- • 1 x 10/100Base-TX RJ-45 management port

Layer 2 Features

- • Dynamic bandwidth allocation (DBA) support
- • Supports VLAN
  - − IEEE 802.1Q Tagged VLAN
  - − Up to 255 VLAN groups, out of 4094 VLAN ID
- • Supports up to 8K MAC Address Table
- • Enhanced IGMP features
- • Supports Link Aggregation on two uplink ports

High Split Ratio / Cost-effective Network Connection Solution

With high split ratio at **1:64** and two PON ports equipped, the EPL-2000 supports the deployment of up to 128 PLANET ONUs which can minimize the investment cost for carriers. GEPON is a point to multipoint communications protocol based on Gigabit Ethernet. It allows a Gigabit Ethernet communications fiber to be shared by multiple end users using a passive optical splitter. Each PON port of the EPL-2000 is available for a maximum of 1:64 WDM to transmit data based on forming fiber web by fiber and 64 GEPON long-distance ONU equipment. Therefore, the EPL-2000 offers the network users the benefits of great capacity, excellent secrecy, web-grouping flexibility and saving the line resources as well as the quantity of end equipment.

Point to Multi-Point Application

EPL-2000
(GEPON OLT)

1:64 Splitter

64 ONU

EPN-103
(GEPON ONU)

11.5 Miles | Last Mile

Passive Optical Network

OLT Management

- User-friendly GUI Management
- Up to 32 OLTs management through single GUI
- SNMP v1 / v2c monitoring
- Three user levels control
- 2 control interfaces
  - Out-Band IP via the Management RJ port
  - In-Band IP via the two uplink ports
- Supports ONU authentication, averting illegal ONUs access to network
- Event message logging to system log
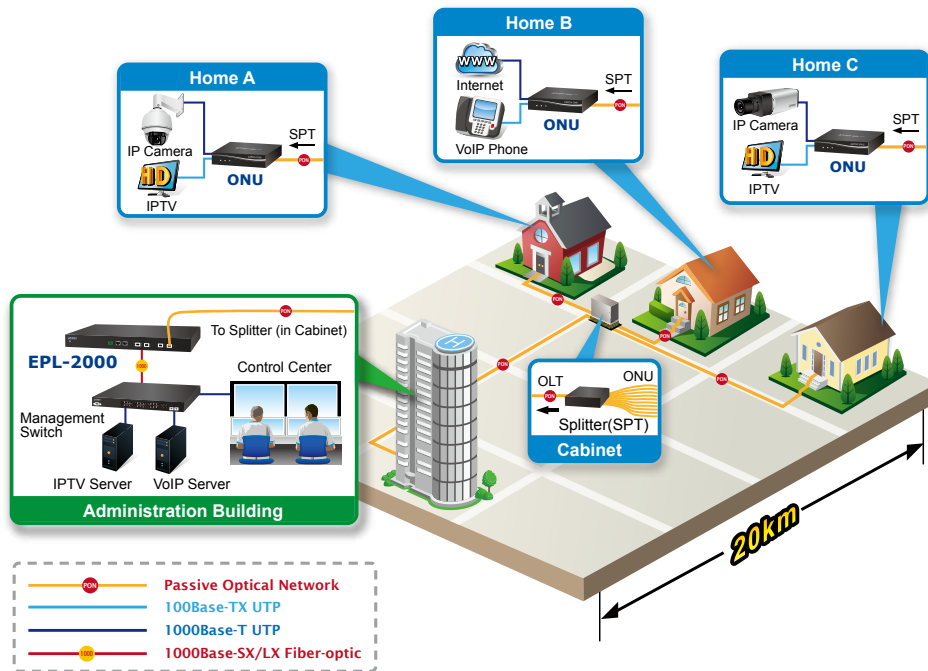- SNMP trap for alarm notification

ONU Management

- IEEE 802.1w Rapid Spanning Tree
- ONU Port Control
- ONU Loopback Test
- ONU IGMP Snooping
- ONU Layer 3 Access Control List (ACL)

Excellent Traffic Control

By integrating the advanced technology in the telecommunication industry, the EPL-2000 provides strong functionalities for Ethernet features such as VLAN, Multicast, DBA (Dynamic Bandwidth Allocation), and Access Control List. The EPL-2000 is an ideal solution for FTTx applications.

High Scalability and Flexible OLT Maintenance

For efficient management, the EPL-2000 supports remote management functions. Via its user-friendly GUI utility, the administrators can manage and configure the OLT and ONU equipment on the central side. The GUI utility supports up to 32 EPL-2000 OLTs to be centrally managed through one control screen. The built-in **Element Management System (EMS)** offers an easy-to-use management and configuration facility to add to or remove PLANET OLTs and ONUs from the network architecture easily and economically. Its great flexibility is perfect for deployment among different network architectures. The EPL-2000 also supports standard **Simple Network Management Protocol (SNMP)** and can be managed via any standard-based management software.
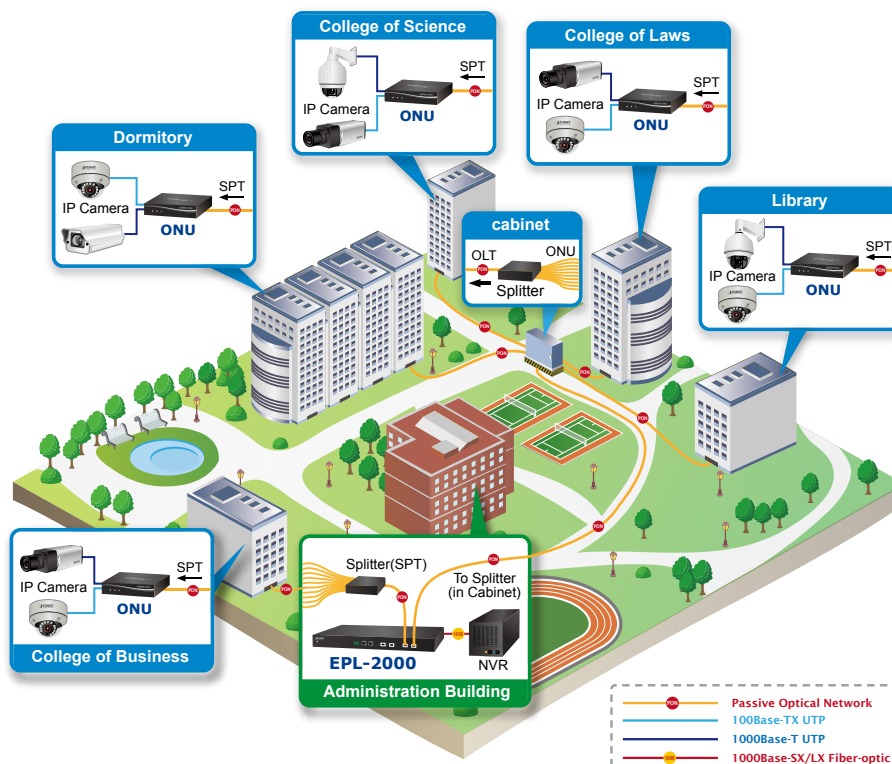
Applications

Cost-effective, Long-distance and High-bandwidth Triple Play or Surveillance Applications

PLANET EPL-2000 delivers high-speed voice, data and video services to residential and business subscribers. Through the PON technology, the EPL-2000 offers competitive advantages including a long-term life expectancy of the fiber infrastructure, lower operating costs from the reduction of "active" components, support of up to 20km distance between equipment nodes, easy Installation and maintenance, and most importantly, offer of much greater bandwidth. The EPL-2000 is the perfect solution for Triple Play or Surveillance applications by offering benefits of cost-effectiveness, scalability and flexibility to network deployment.

Fiber To The Home (FTTH) Application

IP Surveillance System Application in University

Specifications

Product	2-PON Port GEPON OLT with Uplink 2-Port 1000Base-X SFP Slot	
Model	EPL-2000	
Hardware Specifications		
Transmission speed	Downstream: 1.25 Gbps Upstream: 1.25 Gbps	
Optical split ratio	Up to 1:64	
Port	Uplink Port	2 x 1000Base-X SFP slot
	PON Port	2 x 1.25Gbps PON Port
	MGMT Port	1 x RJ-45 (10/100Base-TX)
LED Indicators	1 x Power LED 1 x System LED 4 x Uplink Port LED (ACT and Link) 2 x PON LED (Link)	
EMS Utility Specification		
System Feature	− MAC address learning and binding − MAC Filtering − Supports IGMP Proxy − Supports the VLAN division on the basis of port − Up to 4096 VLAN support − 8K MAC Addresses support − ONU Service Level Agreement (SLA) support − ONU Remote Loopback test − ONU IGMP Snooping − ONU Port Management	
Management	− User-friendly GUI Utility − Firmware and Configuration upgradeable via Utility − Remote ONU Management	
Environment Specifications		
Dimensions (W x D x H)	441 x 206 x 44 mm	
Weight	2.31kg	
Power	100 – 250V AC	
Temperature	Operating temperature: 0 ~ 50 degrees C Storage temperature: -30 ~ 60 degrees C	
Humidity	Operating humidity: 10 ~ 90% non-condensing Storage humidity: 5 ~ 95% non-condensing	
Standards Conformance		
Standards Compliance	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX IEEE 802.3z Gigabit SX/LX IEEE 802.3x Flow Control and Back pressure IEEE 802.1w Rapid spanning tree protocol IEEE 802.1Q VLAN Tagging	
Safety	FCC Part 15 Class A, CE	

Ordering Information

EPL-2000	2-PON-Port GEPON OLT with Uplink 2 1000Base-X SFP Slots

Related Products

EPN-102	GEPON ONU (1-PON Interface, 1-Port FE + 1-Port GE Interface / Plastic)
EPN-103	GEPON ONU (1-PON Interface, 1-Port FE + 1-Port GE Interface / Metal)
EPL-SPT-8	GEPON Splitter (1 x 8 PLC Splitter, Wavelength 1260 ~ 1650 nm)
EPL-SPT-32	GEPON Splitter (1 x 32 PLC Splitter, Wavelength 1260 ~ 1650 nm)
EPL-SPT-64	GEPON Splitter (1 x 64 PLC Splitter, Wavelength 1260 ~ 1650 nm)

C-EPL-2000