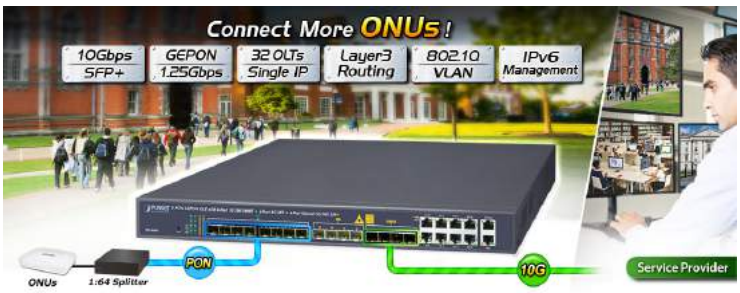
8 PON GEPON OLT with 8-Port 10/100/1000T + 4-Port 1G SFP + 4-Port Shared 1G/10G SFP+

Perfectly Designed for FTTx Applications

PLANET EPL-8000 GEPON **Optical Line Terminal (OLT)** consists of **eight GEPON ports, four GbE SFP ports, four 1G/10G SFP+ ports, eight GbE RJ45 interfaces** and one management port. It is easy to install and maintain a GEPON deployment. With PLANET GEPON **Optical Network Unit (ONU)** EPN series, the EPL-8000 can provide highly-effective GEPON solutions and convenient management for broadband network. PLANET GEPON technology provides a high bandwidth of up to **1.25Gbps** for both upstream and downstream, long-distance coverage of up to 20km between equipment nodes, and flexibility for network deployment. It is a cost-effective access technology with reliable and scalable network for triple-play service applications.



High-speed and Long-distance Coverage for Triple Play Services

With growing network services such as HDTV, IPTV, voice-over-IP (VoIP) and multimedia broadband applications, the demand for broadband use rises quickly. The present broadband environment has not accorded with needs; however, **Passive Optical Network (PON)** would be the most promising NGN (Next Generation Networking) technology to fulfill the demand.

High Split Ratio for a Cost-effective Network Solution

The EPL-8000 is an ideal solution for FTTx applications. It helps to minimize the investment cost for carriers by offering a high split ratio of **1:64** per port and supporting the usage of PLANET ONUs. The EPL-8000 provides strong functionalities for Ethernet features such as VLAN, Multicast, DBA (Dynamic Bandwidth Allocation), and Access Control List. Besides GEPON, the point to multipoint communications protocol is based on Gigabit Ethernet. GEPON protocol allows a Gigabit Ethernet communications fiber to be shared by multiple end users using a passive optical splitter. GEPON communication takes place between an Optical Line Terminal (OLT) and multiple Optical Network Units (ONUs). Using standard terminology, downstream traffic flows from OLT to ONU, and upstream traffic flows from ONU to OLT. A protocol called Multi Point Control Protocol (MPCP) is used to arbitrate the channel between the ONUs so that no collisions will occur on the common fiber.

GEPON Port

- 8 SC-type GEPON OLT ports
- Up to 1.25Gbps upstream and downstream
- Maximum transfer distance of up to 20km
- Each PON 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

- 4 1G/10G shared SFP+ interfaces
- 4 1000BASE-X SFP interfaces
- 8 100/1000BASE-T RJ45 interfaces
- Maximum transfer distance of up to 120km
- 1 10/100BASE-TX RJ45 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 IDs
- Supports up to 16K MAC addresses
- Enhanced IGMP features

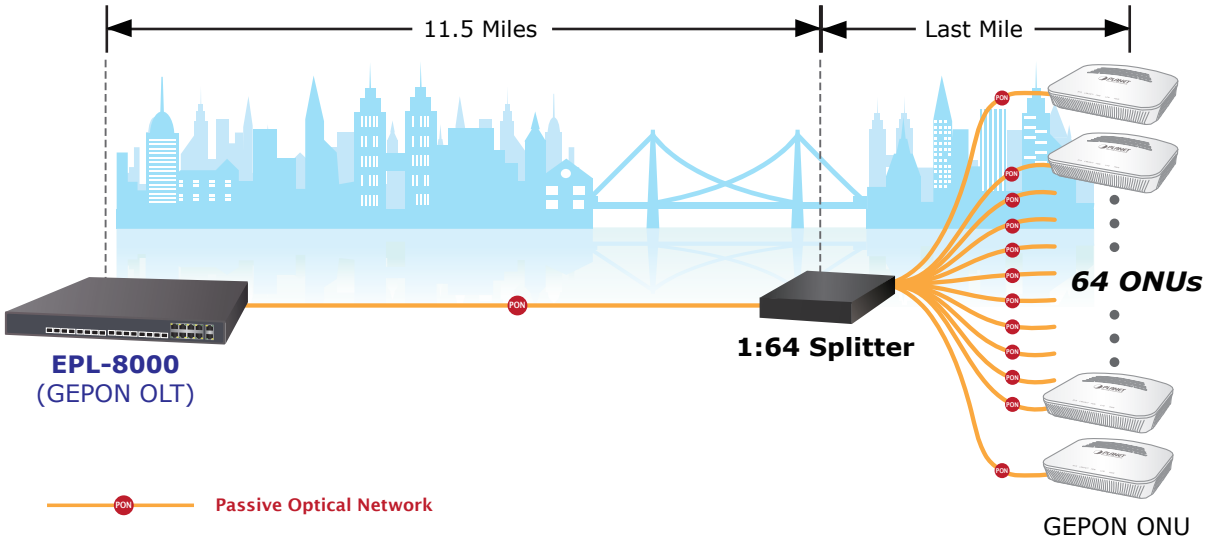
OLT Management

- User-friendly GUI management
- IPTV multicast creation and management
- Up to 32 OLTs managed through single GUI
- Three users levels control
- 2 control interfaces
  - Out-of-Band IP – the management RJ45 port
  - In-Band IP – the eight uplink ports
- Supports ONU authentication; averts illegal ONU access to network
- Event message logging to system log

ONU Management

- ONU port control
- ONU multicast control
- ONU IGMP fastleave
- ONU VLAN mode

Point to Multi-Point Application



High Scalability and Flexible OLT Maintenance

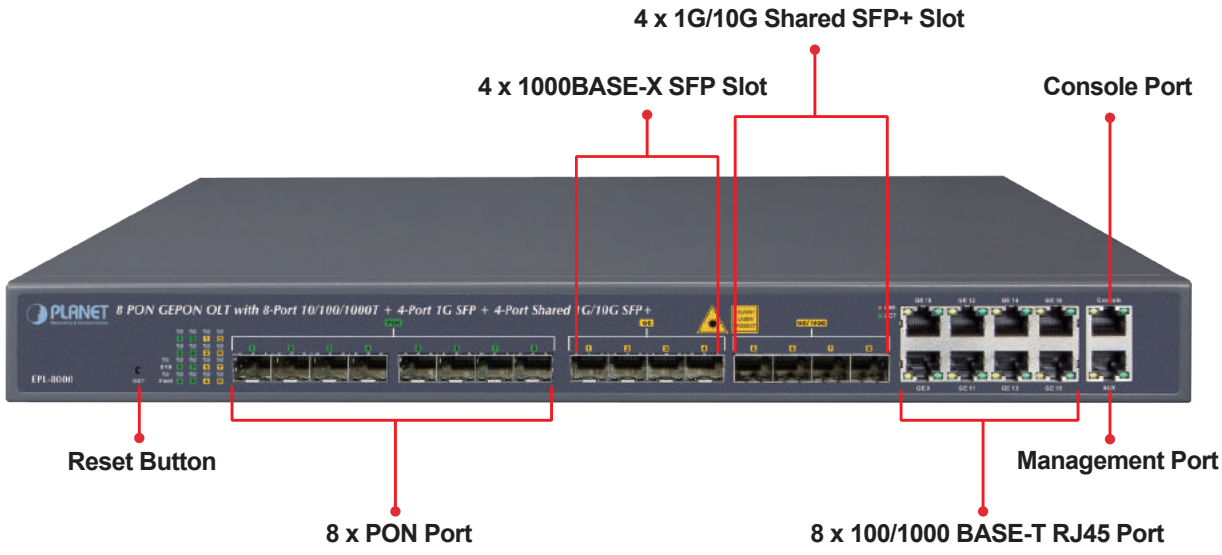
For efficient management, the EPL-8000 supports remote management functions. Via its user-friendly GUI utility, the administrators can manage and configure the OLT and ONU equipment on the central side. The GUI utility supports up to 32 EPL-8000 OLTs to be centrally managed through one control screen. 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.

Robust ONUs Management

The EPL-8000 supports many operating and monitoring functions for efficient ONU management, such as ONU auto-detection, auto-registration, testing link connection, binding MAC address and filtration, bandwidth control, flow control, and multicast stream control.

Flexible and Extendable Solution

The EPL-8000 has 16 uplink ports. Four mini-GBIC slots of the uplink ports of the EPL-8000 are compatible with 10GBASE-SR/LR SFP+, 1000BASE-SX/LX and WDM SFP (small form factor pluggable) fiber-optic modules. The distance can be extended from 550 meters (multi-mode fiber cable) to 10/30/50/70/120 kilometers (single-mode fiber or WDM fiber cable). They are well suited for FTTx applications for distribution data link.

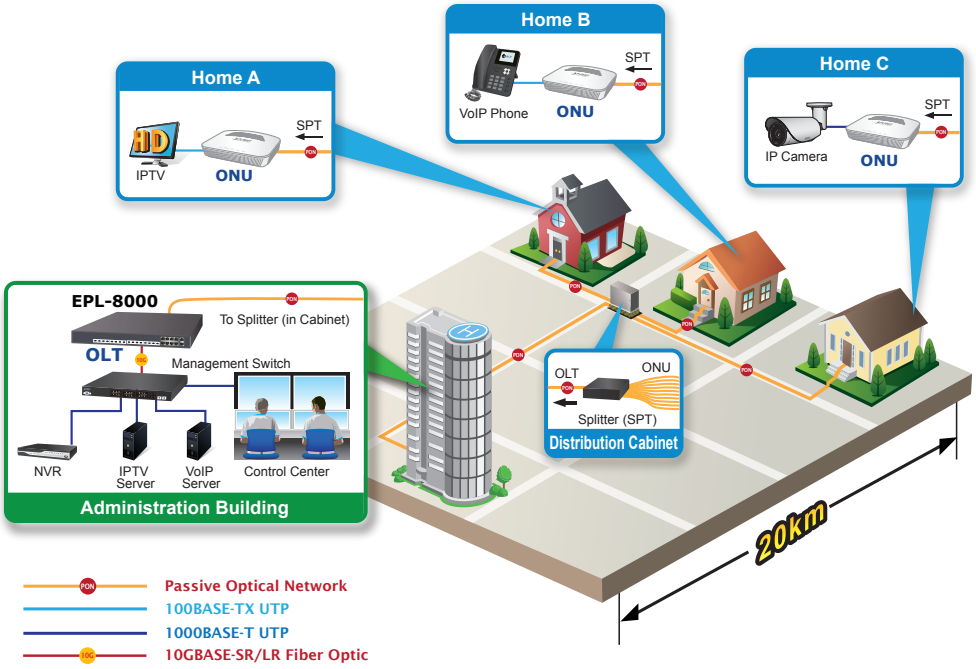


Applications

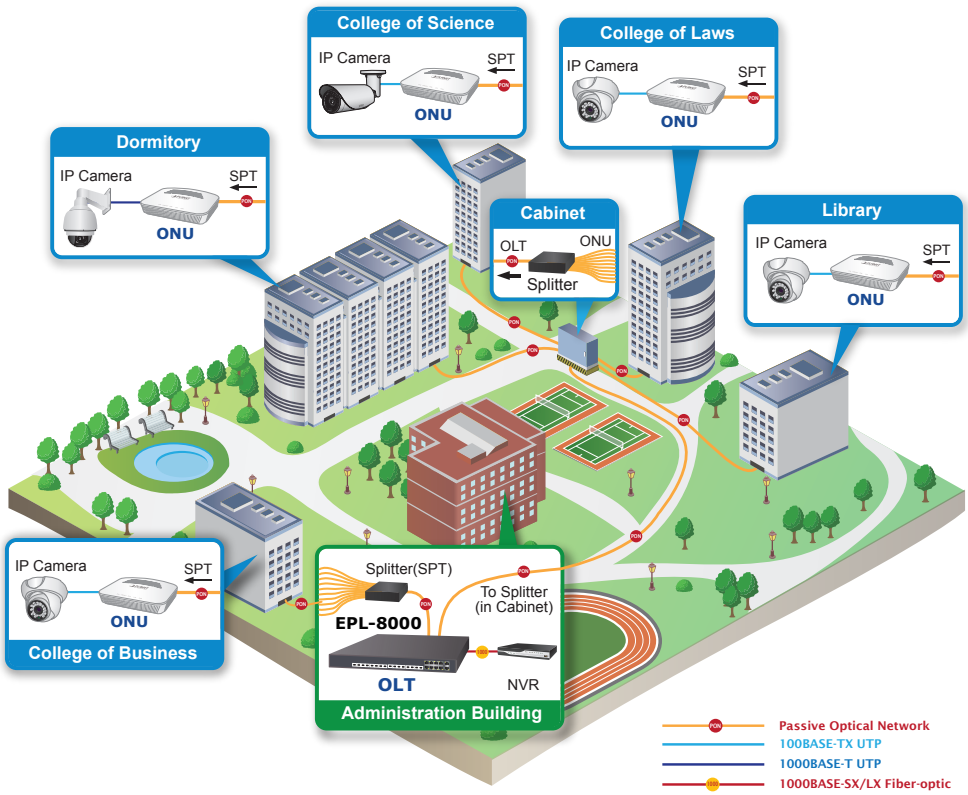
Cost-effective, Long-distance and High-bandwidth Triple Play or Surveillance Applications

PLANET EPL-8000 delivers high-speed voice, data and video services to residential and business subscribers. With the PON technology, the EPL-8000 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, offering of much greater bandwidth. The EPL-8000 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 for Campus



Specifications

Product	EPL-8000
Hardware Specifications	
PON Interfaces	8 GEPON ports Transmission Speed: ■ Downstream: 1.25 Gbps ■ Upstream: 1.25 Gbps Optical Split Ratio: Up to 1:64 Transmission Distance: 20KM Wavelength: TX:1490nm; RX: 1310nm Connector: SC/PC Fiber Type: 9/125um SMF(Singe mode Fiber optic) TX Power: +2~+7dBm RX Sensitivity: -27dBm Saturation Optical Power: -6dBm
LAN Interfaces	4 1/10GBASE-X SFP+ slots 4 1000BASE-X SFP slots 8 100/1000BASE-T RJ45 ports
Management Interfaces	1 RJ45 port (10/100BASE-TX)
MAC Address Table	16K entries
LED Indicators	1 power LED 1 system LED 16 uplink port LEDs (ACT and Link) 8 PON LEDs (Link)
Dimensions (W x D x H)	442 x 320 x 43mm
Weight	4.42kg
Power Requirements	100-240V AC 48V DC (redundant power, optional)
Power Consumption	52 watts
Layer 2 Features	
VLAN	802.1Q tagged-based VLAN 802.1ad Q-in-Q tunneling (VLAN stacking) Up to 256 VLAN groups, out of 4094 VLAN IDs Port VLAN Protocol VLAN Port isolation VLAN transparent transmission
Link Aggregation	Static Port trunk
Spanning Tree Protocol	IEEE 802.1D Spanning Tree Protocol (STP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
IGMP Snooping	Up to 256 multicast groups
Access Control List	IP-based ACL/MAC-based ACL
QoS	Port-based storm control Port-based rate limitation QoS based on: - Port - VID - TOS - MAC address Dynamic Bandwidth Allocation(DBA)
Layer 3 Features	
ARP proxy	IPv4 ARP proxy
Hardware Host Routes	1024
Hardware Subnet Routes	512
Static Route	IPv4 Static Route
EMS Utility Specifications	
Switch Feature	IPTV multicast creation and management MAC address learning and binding MAC filtering Supports IGMP mode Supports the VLAN division on the basis of port Up to 4096 VLAN 16K MAC addresses ONU multicast control ONU IGMP fastleave ONU VLAN mode

Management	User-friendly GUI Utility Firmware and configuration upgradable via utility ONU auto-discovery, link detection and remote upgrade of software Remote ONU management DHCP server DHCP relay DHCP snooping
Standards Conformance	
Safety	CE, LVD
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3z Gigabit SX/LX IEEE 802.3ae 10Gigabit Ethernet IEEE 802.3x flow control and back pressure IEEE 802.1Q tagged VLAN
Environment Specifications	
Temperature	Operating temperature: -10 ~ 55 degrees C Storage temperature: -40 ~ 85 degrees C
Humidity	5 ~ 90% non-condensing

Ordering Information

EPL-8000	8 PON GEPON OLT with 8-Port 10/100/1000T + 4-Port 1G SFP + 4-Port Shared 1G/10G SFP+

Related Products

EPL-2220	GEPON OLT (2-PON Interface, 2 x GbE RJ45, 2 x GbE SFP, 1 x MGT Port)
EPL-4000	4 PON GEPON OLT with 4-Port 10/100/1000T + 4-Port Shared 1G/10G SFP+
EPN-110	GEPON SFU ONU with one GE Port

Accessories

EPL-SPT-8	GEPON Splitter (1 x 8 PLC Splitter, Wavelength 1230 ~ 1650 nm)
EPL-SPT-32	GEPON Splitter (1 x 32 PLC Splitter, Wavelength 1230 ~ 1650 nm)
EPL-SPT-64	GEPON Splitter (1 x 64 PLC Splitter, Wavelength 1230 ~ 1650 nm)
EPL-PWR75-AC	AC power supply for EPL-8000 (100V-240VAC)
EPL-PWR75-DC	DC power supply for EPL-8000 (-48VDC)

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