

4-Port GEAPON ONU



With growing network services such as HDTV, IPTV, voice-over-IP (VoIP) and Multimedia broadband applications, the demand of broadband rises quickly. The present Broadband environment has not already accorded with needing; however, Passive Optical Network (PON) would be the most promising NGN (Next Generation Networking) technology to fulfill the demand. Compared to other broadband access technologies such as xDSL and cable modem, PON technology offers competitive advantages including a long-term life expectancy of the fiber infrastructure, lower operating costs through the reduction of “active” components, supporting up to 20km distance between equipment nodes, and most importantly, providing much greater bandwidth.

PLANET EPN-104 is the GEAPON SFU ONU devices designed with one GEAPON port, four standard 10Base-T / 100Base-TX Ethernet ports for subscriber access. As residential device or access device of users, it offers economical connection system of GEAPON users and high broadband service by connecting to a gateway or PC. Well satisfying the high speed access demand, GEAPON has a more prosperous perspective.

PLANET EPN-104 provides the core functionality of an 802.3ah Ethernet Passive Optical Network (EPON) Optical Network Unit (ONU) solution. In addition, the device also offers advanced functions such as QoS for Triple-play service, VLAN, Authentication and Encryption for Security. Users can choose different devices that fit the applications for residence, SOHO or SMB environment.

KEY FEATURES

INTERNET ACCESS FEATURES

- PON interface complies with IEEE 802.3ah
- IEEE 802.3 compliant 10Base-T / 100Base-TX Ethernet interface
- IEEE 802.3ah compliant Forward Error Correction (FEC)

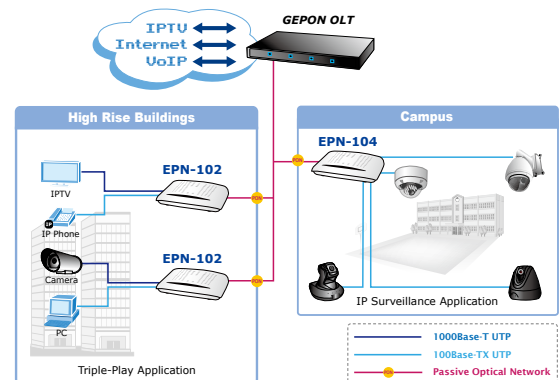
ADVANCED INTERNET FUNCTIONS

- 128-bit Advanced Encryption Standard (AES) encryption for both downstream and upstream directions
- Supports buffer threshold reporting for compatibility with dynamic threshold control Dynamic Bandwidth Allocation (DBA) algorithms
- 802.1x authentication engine with remote administration for device and user authentication
- Supports 64 MAC Addresses
- Supports 802.1Q VLAN
- Supports 802.1P
- 1.5 MB of integrated buffering
- Supports up to 256 layer-2/3/4 classification rules
- Supports full-duplex flow control
- Full management through an Operation Administration Management (OAM) protocol based on IEEE 802.3ah
- Internal Management Information Base (MIB) counters for network statistics
- Conforms to the requirements of the European Union Restriction on the use of Hazardous Substances (RoHS) Directive

APPLICATIONS

Internet Connection with IPTV, Internet, and VoIP

The PLANET EPN-104 provides ultra-high speed Internet connection with PLANET OLT (EPL-4000) via new GEAPON technology. The transmission speed and distance are up to 1.25Gbps and 20km. Customers can enjoy watching IPTV, surfing Internet, and making VoIP phone call by great cost saving point-to-multipoint FTTx technology.



SPECIFICATION

Product	GEAPON SFU ONU	
Model	EPN-104	
Hardware		
Transmission speed	Downstream: 1.25 Gbps Upstream: 1.25 Gbps	
Wavelength	Downstream: 1490nm Upstream: 1310nm	
Optical specification	Downstream: Min. receive sensitivity: -26dBm Max. receive saturation power: -3dBm Upstream: Min. output optical power: -1 dBm Max. output spectrum width (RMS): 3nm	
Connection cable	G.652 single mode fiber	
Ports	LAN	4 (10Base-T/100Base-TX, Auto-Negotiation, Auto MDI/MDI-X)
	WAN	1 (1.25G EPON interface with SC type connector, 1000Base-PX-20)
LED Indicators	PWR, Link, Alarm PON / System, LAN 1-4	
Button	1 x reset button, 1 x power button	
Software		
EPON Features	Compliant with IEEE 802.3ah 802.3ah Forward Error Correction for an improved link budget Operation Administration Management (OAM) protocol based on IEEE 802.3ah Dynamic Bandwidth Allocation (DBA) Support IEEE 802.3 compliant 10Base-T / 100Base-TX	
Protocol / Feature	802.1Q VLAN 802.1P QoS	
Security	128-bit Advanced Encryption Standard (AES) encryption for both downstream and upstream directions 802.1x authentication engine with remote administration for device and user authentication	
QoS	Supports QoS based upon Port, IEEE802.1p, IPv4 Type of Service (ToS) or Differentiated Services (Diff-Serv), IPv6 Traffic Class, 802.1Q VLAN ID, Destination MAC address or Source MAC address	
Management	Cooperated with centre OLT, implement management configuration and software upgrade to ONU up to 8 Logical Link IDs (LLID) 64 MAC Addresses 40 Queues (20 upstream / 20 downstream)	
Other Features	1.5 MB of integrated buffering up to 256 layer-2/3/4 classification rules full-duplex 802.3x flow control and backpressure Internal Management Information Base (MIB) counters for network statistics	
Environment Specification		
Dimension (W x D x H)	176 x 124 x 35 mm	
Power	12V DC, 1.0A	
Temperature	Operating: 0 ~ 50 Degree C Storage: -20 ~ 70 Degree C	
Humidity	Operating: 10 ~ 90% non-condensing Storage: 5 ~ 95% non-condensing	
Emission	FCC, CE	

ORDERING INFORMATION

EPN-104	GEAPON SFU ONU (1-PON Interface, 4-Port FE Interface)
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RELATED PRODUCTS

EPN-102	GEAPON SFU ONU (1-PON Interface, 1-Port FE + 1-Port GE Interface)
EPL-4000	4-Slot GEAPON OLT (3 Open PON Slots, 2 x GbE Combo + 2 x GbE SFP)