4-Port GEPON 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 GEPON SFU ONU devices designed with one GEPON 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 GEPON users and high broadband service by connecting to a gateway or PC. Well satisfying the high speed access demand, GEPON 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)
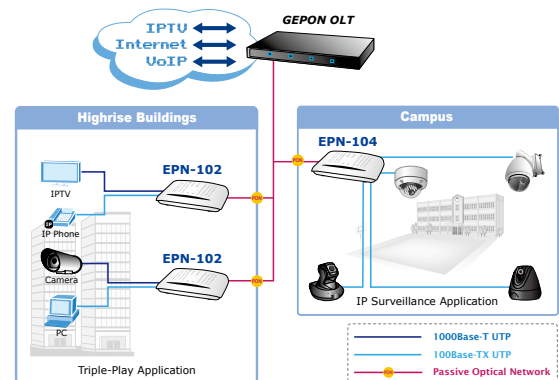
ADVANCED INTERNET FUNCTIONS

- 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 GEPON 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	GEPON 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 WAN	4 (10Base-T/100Base-TX, Auto-Negotiation, Auto MDI/MDI-X) 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
Protocol / Feature	IEEE 802.3 compliant 10Base-T / 100Base-TX 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
Other Features	up to 8 Logical Link IDs (LLID) 64 MAC Addresses 40 Queues (20 upstream / 20 downstream) 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	GEPON SFU ONU (1-PON Interface, 4-Port FE Interface)

RELATED PRODUCTS

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

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