

2-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-102 is the GEPON SFU ONU devices designed with one GEPON port, one standard 10Base-T / 100Base-TX and one standard 10Base-T / 100Base-TX / 1000Base-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-102 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 Tripleplay 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 / 1000Base-TX Ethernet interface
- IEEE 802.3ah compliant Forward Error Correction (FEC)

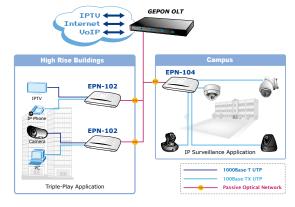
ADVANCED INTERNET FUNCTIONS

- 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-102 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

Model EPN-102 Hardware

Downstream: 1.25 Gbps Transmission speed Upstream: 1.25 Gbps Downstream: 1490nm Wavelength Upstream: 1310nm

Downstream:

Min. receive sensitivity: -26dBm Max. receive saturation power: -3dBm

GEPON SFU ONU

Optical specification Upstream:

> Min. output optical power: -1 dBm Max. output spectrum width (RMS): 3nm

Connection cable G.652 single mode fiber

LAN 1 x 10/100Base-TX, Auto-Negotiation, Auto MDI/MDI-X 1 x 10/100/1000Base-TX, Auto-Negotiation, Auto MDI/MDI-X **Ports** WAN 1 (1.25G EPON interface with SC type connector, 1000Base-PX-20) **LED Indicators**

PWR, Link, PON, FE, GE

Button 1 x reset button, 1 x power button

Software

Compliant with IEEE 802.3ah

802.3ah Forward Error Correction for an improved link budget **EPON Features**

Operation Administration Management (OAM) protocol based on IEEE 802.3ah

Dynamic Bandwidth Allocation (DBA) Support

IEEE 802.3 compliant 10Base-T / 100Base-TX / 1000Base-TX

Protocol / Feature 802.10 VLAN 802.1P QoS

128-bit Advanced Encryption Standard (AES) encryption for both downstream and upstream directions Security

802.1x authentication engine with remote administration for device and user authentication

Supports QoS based upon Port, IEEE802.1p, IPv4 Type of Service (ToS) or Differentiated Services (Diff-Serv), OoS

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)

1.5 MB of integrated buffering Other Features

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 Operating: 0 ~ 50 Degree C

Temperature Storage: -20 ~ 70 Degree C Operating: 10 ~ 90% non-condensing

Humidity Storage: 5 ~ 95% non-condensing

Emission FCC, CE

ORDERING INFORMATION

GEPON SFU ONU (1-PON Interface, 1-Port FE + 1-Port GE Interface) EPN-102

RELATED PRODUCTS

EPN-104 GEPON SFU ONU (1-PON Interface, 4-Port FE Interface) EPL-4000 4-Slot GEPON OLT (3 Open PON Slots, 2 x GbE Combo + 2 x GbE SFP)

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