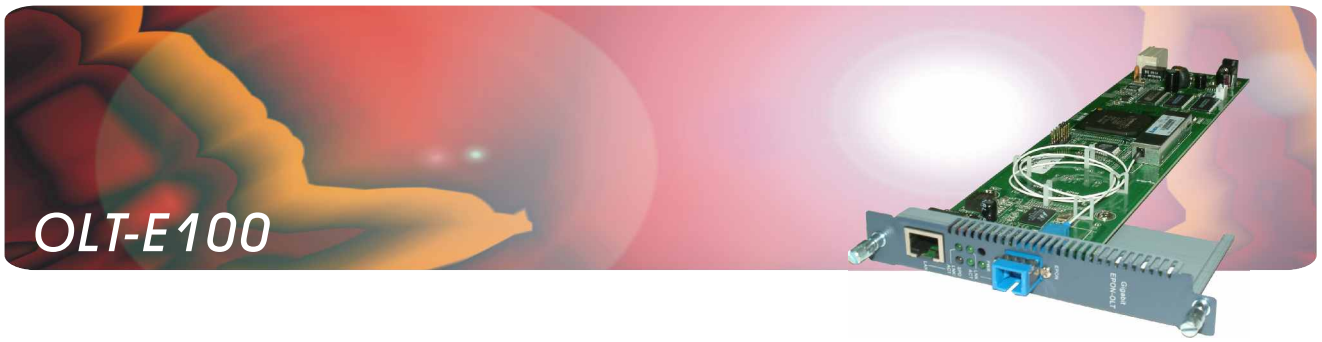

OLT-E100: 10/100/1000Base-T to EPON OLT Managed Converter Module

Key Features

- Supports one 10/100/1000Base-T Gigabit Ethernet UTP port and one Gigabit Ethernet-PON Fiber port
- Supports Gigabit Ethernet-PON IEEE 802.3ah compliance
- Supports IEEE 802.3ah OAM function
- Supports 802.3z Gigabit Ethernet local-side interface
- Supports dynamic bandwidth allocation (DBA)
- Supports 4K MAC address learning and aging on local interface
- Supports 802.1p with 4 priority queues per LLID link
- Supports 802.1Q VLAN mapping to LLID
- Supports per-LLID/customer encryption and decryption for security
- Assurance of security for subscribers
  ---Encryption in the PON layer assures security between subscribers.
- Supports 256 LLIDs in each of downstream and upstream direction
- Supports local and remote loop-back test
- Supports each converter module media configured and monitored ability:
  ---Supports port state enabled/ disabled
  ---Supports auto-negotiation/forced mode
  ---Supports port speed and duplex mode
  ---Supports flow control enabled/ disabled
- Supports wire speed packet forwarding ability as below:
  ---10Base: 14880 pps
  ---100Base: 148800 pps
  ---1000Base: 1413600 pps
  (64Bytes up to 95% utilization)
  (1518Bytes up to 97% utilization)

Technical Specifications

- **LED Description**

16-slot managed EPON converter chassis for modular EPON Media converter with redundant AC Power or redundant 48VDC Power

LED	Color	Function
PWR	Green	Lit when power is coming up
EPON LNK	Green	Blink when EPON or LAN ports are disconnected. Lit when PON and LAN ports are both linked.
EPON ACT	Green	Lit when PON port is transmitting or receiving. LAN LNK/ACTGreenLit when LAN port is linked. Blink when LAN port is transmitting or receiving.
LAN SPD	Green/ Yellow	Green lit when LAN port links on 1000Mbps speed. Yellow lit when LAN port links on 100Mbps speed. Off when LAN port unlinks.

- **Network Interface**

Converter TP Port	100Base-TX: - Auto-Negotiation - Auto-MDIX - flow control for Full-Duplex - backpressure for Half-Duplex 1000Base-T: - Auto-Negotiation Mode only - Auto-MDIX only for Auto-Negotiation - flow control for Full-Duplex only
Converter Fiber Port	OLT 1000Base-PX-U: - Link partner must be ONU 1000Base-PX-U

- **TP Cable Limitations:** Cat. 5 and up to 100m
- **Fiber Cable Limitations:**
  OLT 1000PX Single-Mode Fiber 9/125m
  Single-Mode transceiver Output:1310nm 10 / 20Km
- **Standards:** IEEE802.3u 100Base-TX,
  IEEE802.3z/ab 1000Base-T,
  IEEE802.3ah 1000Base-PX-U (EPON)
- **UTP Cable:** Cat. 5 cable and up to 100m
- **Fiber Cable:**
  1000Base-PX-U: 8.3/125, 8.7/125, 9/125 or 10/125μm Single-Mode
- **LED Indicators:**
  PWR, EPON LNK, ACT, TP LNK/ACT, SPD
- **Data Transfer Rate:**
  Upstream: Max. Up to 950 Mbps
  Downstream: Max. Up to 970 Mbps

Managed EPON Converter Rack Chassis & Module

- Supports EPON module per port basic counters for traffic raw data monitor of fiber and TP port. as below:
  - ---Octets transferred
  - ---Total Frames transferred
  - ---Unicast Frames transferred
  - ---Broadcast Frames transferred
  - ---Multicast Frames transferred
  - ---CRC-32 Errors
  - ---Undersize Frames
  - ---Oversize Frames
  - ---Collisions
  - ---64 Octet Frames
  - ---65-127 Octet Frames
  - ---128-255 Octet Frames
  - ---256-511 Octet Frames
  - ---512-1023 Octet Frames
  - ---1024-1518 Octet Frames
  - ---1519+ Octet Frames
  - ---Frames dropped (queue overflow)
  - ---Pause Frames
- Supports statistics Rising/Falling threshold for alarm
- Supports configurable OLT alarm log function
- Supports RMON counters for port traffic quality monitoring function
- Supports IGMP proxy function
- Supports max packet length: 1536 bytes
- Supports module firmware upgrade
- Supports Module Information (S/N, MAC, Model Name,....)
- Supports module per port basic LEDs for monitoring
- Supports media type, connector, wavelength and distance information
- Supports hot-swap and auto reload configuration ability
- The center unit automatically scans and records ID information from subscriber systems.
- RoHS Compliance

Overview

The Converter is designed to make conversion between 10/100/1000Base -T and EPON Optical Line Terminals (OLT) fiber Ethernet in the CO site conversion chassis. With web-based management and CLI (command line interface), the network administrator can logon the converter to monitor, configure and control the activity of each port. In addition, the EPON converter implements bandwidth rating management capability via the intelligent software. The overall network management is enhanced, and the network efficiency is also improved to accommodate and deliver high bandwidth applications.

- **TP Interface (LAN):**
  100Base-TX:
  ---NWay auto-negotiation
  ---Auto-MDIX
  ---Full/Half-Duplex
  1000Base-T:
  ---NWay auto-negotiation or force
  ---Auto-MDIX(only for Auto mode)
  ---Full-Duplex only
- **Fiber Interface:**
  1000Base-PX-U (EPON):
  ---Connector: SC/BiDi
  ---Max. Cable Length: 20Km for 9/125μ
  ---Upstream (OLT RX) Wavelength: 1310nm
  ---Downstream (OLT TX) Wavelength: 1490nm
- **Power Requirement:** 0.8A up @12VDC
- **Power Consumption:** 8.7 W
- **Ambient Temperature:** 0 to 50°C
- **Humidity:** 5% to 90%
- **Dimensions:** 132.2(H) x 275(D) mm

Ordering Information

Model	Description
OLT-E100BS4.S20	1-Port Gigabit Ethernet to EPON OLT Module, CO SC 20Km, 1490nm

Ruby Tech Corp.
3F, No.1, Lane 50, Nan Kang Road, Sec.3, Taipei, Taiwan
TEL:886-2-2785-3961 FAX:886-2-2786-3012
http://**www.rubytech.com.tw**
E-mail : rubytech@mail.rubytech.com.tw