OPNET
TECHNOLOGIES

EPON

GePT-2008

EPON OLT

Description

Broadband services such as high-definition TV (HDTV), media-on-demand (MOD), and online games demand high bandwidth. EPON, standardized in IEEE 802.3ah, is the most promising FTTH technology to provide 1 Gbps bandwidth for both upstream and downstream that really addresses future bandwidth needs. An EPON Network consists of the central office Optical Line Terminal (OLT), the customer side Optical Network Unit (ONU), and the passive Optical Distribution Network (ODN).

OPNET's EPON solutions include the GePT-2008 OLT system, the GePR-1101、GePR-1104、GePR-3104 ONU systems, and the GePMS-2000 Network Management System. The GePT-2008 is a 2U chassis-based system. It can plug in 8 EPON ports in the system to support totally 256 subscribers. Together with OPNET's different type ONU, GePT-2008 completes the end-to-end FTTx with up to 1 Gbps of bandwidth to residential and business customers. It is the ideal carrier class optical access platform for FTTx (FTTC, FTTB, FTTH).

Key Features

- Compliant to IEEE 802.3ah standard
- Flexible QoS management for triple play service
- Flexible VLAN Management to meet operator's service model
- Support IGMP proxy and IGMP snooping for efficient Multicast
- Support full suite of security and administrative functions
- Support completed OAM&P functions
- Support 256 subscribers
- Enable/Disable ONU VoIP and CATV Service

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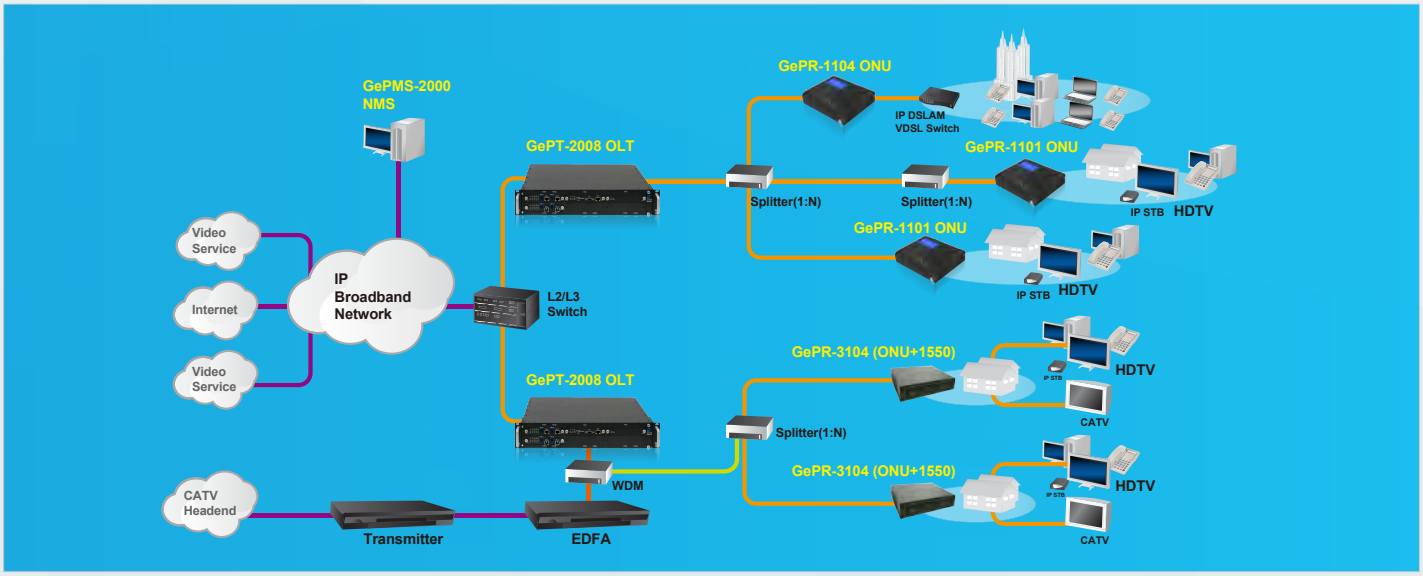
Application



Technical Specifications

1. Hardware Architecture
- 19”rack chassis
- 4 pluggable PON module
- 1 pluggable SCU module
- 2 pluggable FAN module
- 1 pluggable Air Filter

2. PON Module
- ODN Interface
  - 2 PON/module, 8 PON/chassis
  - SC type connector
  - 32 ONUs per PON
  - 1000BASE-PX20E-D for 20 Km
  - Wavelength: 1310nm(upstream), 1490nm(downstream)
- Service Network Interface
  - 2 SNI/module, 8 SNI/chassis
  - Connector type: RJ-45 or SFP
  - 1000Base-T Interface (RJ-45) or 1000Base-LX(SFP) or 1000Base-SX (SFP)

3. VLAN
- Support CLI commands
- Support SNTP client
- Support RFC845 Telnet
- Support RFC1350 FTP
- RFC 1157 SNMP v1
- RFC 1907 SNMP v2c
- RFC 1213 MIBII
- RFC 2863 IF MIB
- RFC 1643 Ethernet MIB
- RFC 4878 IEEE 802.3h OAM Functions
- OPNET EPON proprietary MIB

4. VLAN
- Support VLAN tag add/delete/transparent mode
- Support 256 configurable VLANs per ODN
- Support ONU-based. port-based or service-based dedicated VLAN capability

5. Quality of Service
- 8 IEEE 802.1p priority level
- Static and dynamic bandwidth allocation (DBA) for upstream traffic
- Service Level Agreement: Min. bandwidth, Max. Bandwid

6. SCU Module
- 1 RS232 Console Port
- 1 10/100 Ethernet Port
- ACO-LED Test

7. Security and Authentication
- Support upstream and downstream
- AES-128 encryption
- Support 8,192 MAC address per ODN
- Limit the number of ONU user MAC address from 1 to 64
- ONU authentication by MAC address or 802.1x

8. Multicast
- Support IGMP v2
- Support IGMP proxy
- Support 256 multicast groups

9. Remote ONU Management
- IEEE 802.3ah OAM channel
- Support Remote Loop back
- ONU configuration/provisioning
- Configuration parameters save/reload
- Performance management
- ONU Firmware upgrade
- Status/Alarm report
- Enable/Disable ONU VoIP/RF Service

10. Hardware Physical Specification
- Dimensions(mm): 485(W) x 360(D) x 88(H)
- Weight: 7.7 Kg
- Power input: DC -48V or AC 110/220V 60/50 Hz
- Power consumption: 70W typical

11. Operating Environment
- Ambient operating temperature: 0°C to 45°C
- Relative Humidity: 20%~85% (non-condensing)

12. Certification
- CE, FCC

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