# 8 or 16 Port High-density Rack-mounted GPON OLT

## AP8600B Series

- **Maximum 1:128 coupling ratio**
- **Supports 8 or 16 GPON ports**
- **4 × gigabit SFP ports**
- **4 × gigabit combo ports**
- **4 × 10G SFP+ ports**
- **205G backplane bandwidth**
- **Compact**
- **Low power consumption**
- **Low operating cost**
- **ITU-T G.984/G.988 compliant**

AP8608B and 8616B GPON series Platform are scalable multi-services 1RU high performance OLT (optical line terminal) platform with high density 10G switching functionality, which provides Network Operators and Services Providers with a flexible and central management point for GPON services in Fiber to The Home/Business (FTTH & FTTB) networks.
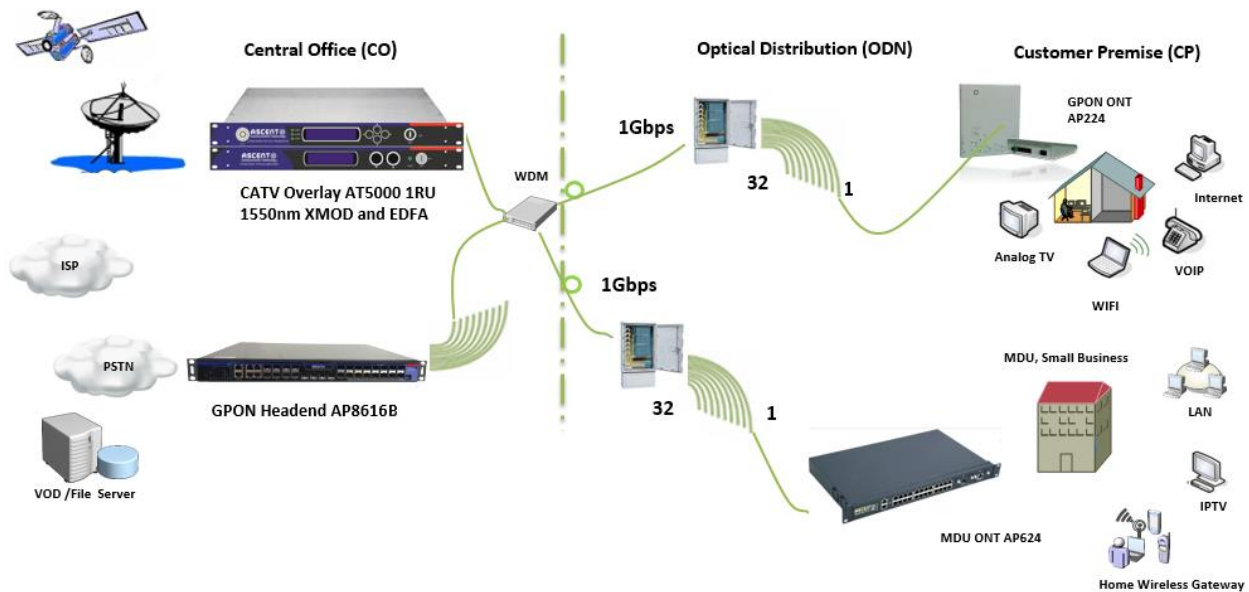
The AP8608B and 8616B model support a symmetric uplink 1.25 Gbps / downlink 2.5 Gbps PON transmission rate, efficient bandwidth usage, and Ethernet services to help carriers provide reliable services to their users. It features a coupling ratio up to 1:128, and supports many different hybrid ONU networks.

AP8600B series GPON platforms seamless cooperate with ACT routing and switching products. Combined with ACT Video Overlay package, the AP8600 can provide perfect end-to-end FTTX solution in offering advanced Video, Voice, and Data services, small and large networks.

## Key Features

- Meets ITU-T G.984/G.988 standards
- Meets GPON OLT requirements regulated in *Network Access Technical Requirements* and China Telecom GPON Technical Requirements-CTC2.0
- Supports 8 or 16 GPON ports
- 4 × gigabit SFP ports, 4 × gigabit combo ports, and 4 × 10G SFP+ ports
- Compact 1U standard size
- Low power consumption and low operating cost
- Links can automatically be switched when an abnormality occurs in the optical fiber
- Supports dual-AC, dual-DC, and AC/CD power supply. The power supply features a modular design and is hot-swappable and meets the EMC-3 standard

## Application Diagram

# AP8616B 1RU GPON OLT Platform

## Specifications

| Item | AP8608B or AP8616B |
|---|---|
| **System Capacity** | |
| Maximum Coupling Ratio | 1:128 |
| Backplane Bandwidth: | 205G |
| MAC Table Capacity | 64K |
| **Interface** | |
| PON | 8 or 16 GPON ports |
| Uplink Interface | 8 GE interfaces (4 gigabit SFP ports, 4 gigabit combo ports) |
| | 4 10G ports |
| **Attributes of the PON Interface** | The transmission rate with downlink 2.5Gbps/uplink 1.25Gbps |
| | Class B+ and Class C+ GPON module |
| | Security: ONU authentication mechanism |
| **Standards** | ITU-T G.984/G.988 |
| | IEEE 802.1D, Spanning Tree |
| | IEEE 802.1Q, VLAN |
| | IEEE 802.1w, RSTP |
| | IEEE 802.3ad physical link static/dynamic aggregation (LACP) |
| | Ethernet – II |
| **QoS** | Backpressure flow control (half duplex) |
| | IEEE 802.3x flow control (full duplex) |
| | IEEE 802.1p, CoS |
| | WRR, SP and FIFO queue schedule |
| | Limiting the uplink/downlink rate based on each ONU |
| | DBA and SLA |
| **VLAN** | Port-based VLAN |
| | QinQ and flexible QinQ |
| **Multicast** | L2 multicast |
| | IGMP Snooping |
| | MLD Snooping |
| **Layer-3 Routing Functions** | Static routing, RIP and OSFP, OSFP/OSPFv3 |
| **Reliability** | Unidirectional Link Detection (UDLD) |
| | Hot swap of the GPON optical module on the expanded slot |
| | Optical path protection of GPON (b/c, hand-in-hand) |
| | Abnormal luminescence ONU detection such as long luminescence |
| **Network Security** | Limiting the maximum number of users on each port |
| | Port isolation |
| | Packet storm control |
| | Flow-based ACL access control function |
| | Transmission data encryption on the PON interface |
| **Configuration Management** | Various management modes such as CLI, SNMP and TELNET |

Conducting software upgrade through TFTP

Debug output

**Physical Characteristics**

| | |
|---|---|
| Dimensions (W×D×H): | 442.5 mm × 304 mm × 44 mm |
| Installation | Standard 19-inch rack-mount |
| Weight | 5.25 kg |

**Environment**

| | |
|---|---|
| Operating Temperature | 0 °C to 45 °C |
| Operating Humidity | 10 % to 85 % (non-condensing) |
| Storage Temperature | -40 °C to 80 °C |
| Storage Humidity | 5 % to 95 % (non-condensing) |
| **Power Supply** | Input voltage: 90 V AC to 240 V AC, 36 V DC to 72 V DC |
| | dual-power input, DC/AC power supply, and hot-swap |

## Ordering Information

| Product name | Product description |
|---|---|
| **AP8608B-48G-AC** | AP8608 GPON 1RU Switch chassis, 8 fixed PON ports (exclude the OLT SFP module), 4 10G SFP+ ports, 4 gigabit SFP ports, 4 gigabit Combo ports, one power supply included |
| **AP8616B-48G-AC** | AP8616 GPON 1RU Switch chassis, 16 fixed PON ports (exclude the OLT SFP module), 4 10G SFP+ ports, 4 gigabit SFP ports, 4 gigabit Combo ports, one power supply included |
| **AP8616B-PWR-AC** | 220V AC power supply for AP8608B and AP8616B |

## Contact Information

**Ascent Communication Technology Ltd**

**AUSTRALIA**
140 William Street, Melbourne
Victoria 3000, AUSTRALIA
Phone: +61-3-8691 2902

**CHINA**
Unit 1933, 600 Luban Road
200023, Shanghai CHINA
Phone: +86-21-60232616

**EUROPE**
Pfarrer-Bensheimer-Strasse 7a
55129 Mainz, GERMANY
Phone: +49 (0) 6136 926 3246

**HONG KONG SAR**
Unit 9, 12th Floor, Wing Tuck Commercial Centre
177 Wing Lok Street, Sheung Wan, HONG KONG
Phone: +852-2851 4722

**USA**
2710 Thomes Ave
Cheyenne, WY 82001, USA
Phone:  +1-203 816 5188

**VIETNAM**
15 /F TTC Building, Duy Tan Street
Cau Giay Dist., Hanoi, VIETNAM
Phone: +84 243 795 5917

**WEB:** www.ascentcomtec.com

**EMAIL:** sales@ascentcomtec.com