

# 1RU Compact EPON OLT Solution



## **AP9200 Series**

- 1.25 Gbps uplink/downlink
- Compliant with IEEE802.3ah
- Supports 8 or 16 EPON ports
- 2 x 10GE uplink ports
- 8 × GE uplink interfaces
- Up to 1:64 coupling ratio
- 1U compact design
- Low power consumption
- Low operating cost
- Supports layer-3 routing function
- Supports dual-AC, dual-DC,
   and AC/DC dual power supply

AP9200 Series GEPON OLT series platform is a compact one RU high performance OLT optical line terminal equipment which provides Network Operators and Services Providers with a flexible and starting point for Gigabit Ethernet Passive Optical Network (GEPON) services in Fiber to The Home/Business (FTTH & FTTB) networks.

AP9200 Series complies with IEEE802.3ah and PRC Community Industry Standard (YD/T 1475- 2006). It fully supports CTC2.1/3.0 standard, automatic detection and works harmoniously with various ONU choices. AP9200 Series has 2 models: AP9208B 8-port OLT and AP9216B 16-port OLT.

AP9200 Series supports the symmetric uplink/downlink 1.25 Gbps PON transmission rate, efficient bandwidth usage and Ethernet services, helping carriers to provide reliable services to their users. Its coupling ratio ups to 1:64, and its support of different hybrid ONU networks minimizes the carrier's investment.

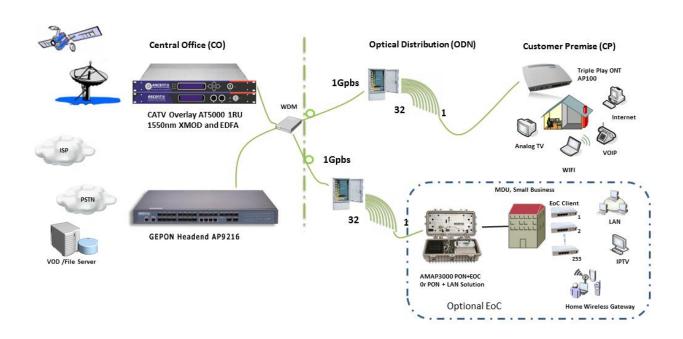
AP9200 Series GEPON platforms seamless cooperate with ACT routing and switching products. Combined with ACT Video Overlay package, the AP9200 can provide perfect end-to-end FTTX solution in offering advanced Video, Voice, and Data services, especially in small and medium networks.



## **Key Features -**

- Supports 1.25 Gbps uplink/downlink bandwidth
- Compliant with IEEE802.3ah
- Supports up to 16 EPON ports
- 8 × GE uplink interfaces and 2 x 10G uplink ports
- Up to 1:64 coupling ratio
- 1U compact design
- Low power consumption
- Low operating cost
- Supports layer-3 routing function
- Supports dual-AC, dual-DC, and AC/DC dual power supply

## **Application Diagram**





## **Specifications** -

#### **System Performance**

| Item                 | AP9208                        | AP9216                        |
|----------------------|-------------------------------|-------------------------------|
| Service Interface    |                               |                               |
| PON Ports            | 8                             | 16                            |
| GE Uplink            | 4 100/1000M SFP + 4 GE TX/SFP | 4 100/1000M SFP + 4 GE TX/SFP |
| 10GE Uplink          | 2 10GE/GE SFP+                | 2 10GE/GE SFP+                |
| Management Interface |                               |                               |
| RJ45 Console         | 1                             | 1                             |
| Mini-USB Console     | 1                             | 1                             |
| Out-of-Band          | 1                             | 1                             |
| System Capacity      |                               |                               |
| DRAM                 | 512 MB                        | 256 MB                        |
| Flash                | 32 MB                         | 32 MB                         |
| Backplane            | 72 Gbps                       | 88 Gbps                       |
| MAC Table            | 32K                           | 32K                           |
| IPv4 Routing Table   | 32K                           | 12K                           |
| IPv6 Routing Table   | 8K                            | 6K                            |
| Buffer Size          | 3                             | 2                             |
| Jumbo Frame          | 2                             | 2                             |
| Active VLAN          | 4,094                         | 4,094                         |
| Total SVI            | 400                           | 400                           |
| Forwarding Mode      | Store-and-forward             | Store-and-forward             |

### **Technical Specifications**

| •                |  |
|------------------|--|
| Standards        | IEEE802.3ah  |
|                  | YD-T 1475-2006 access network requires EPON basis              |
|                  | YD-T 1771-2008 access network requires EPON intercommunication |
|                  | China Telecom EPON standard CTC2.1/3.0                         |
|                  | Ethernet – II  |
| VLAN             | VLAN   |
|                  | Port/IP/Protocol/MAC-based VLAN                                |
|                  | 4K VLAN  |
|                  | QinQ and flexible QinQ   |
| Multicast        | L2 multicast   |
|                  | IGMP snooping  |
|                  | MLD snooping   |
|                  | Fast-leave   |
| Layer 3 Function | Static route   |
|                  | RIPv1/v2   |
|                  | OSPF   |



**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

**Reliability** Unidirectional Link Detection (UDLD)

Hot swap of the EPON optical module

Optical path protection of EPON (type B/C, hand-in-hand)

Abnormal luminescence ONU detection such as long luminescence

IEEE 802.3ad LACP

**DHCP Function** Server/Relay/Client

**DHCP** snooping

DHCP option 66,67,82

DAI

IP source guard

Network Security L2~4 ACL

Flow-based ACL MAC limitation MAC sticky Port isolation

Packet storm control

Transmission data encryption on the PON interface

Anti-attack for DDOS, TCP- SYN-flood, UDP-flood, ARP- flood, etc.

Management CLI, Telnet, SSH, HTTP/ HTTPS and SNMP

ISSU FTP/TFTP SPAN NTP

Network Availability STP/RSTP/MSTP

BPDU guard

**EAPS** 

#### **Physical Characteristics**

| Item                                | AP9208        | AP9216        |
|-------------------------------------|---------------|---------------|
| Power Supply                        |               |               |
| AC                                  | 90 V to 264 V | 90 V to 264 V |
| DC                                  | 36 V to 72 V  | 36 V to 72 V  |
| Power Slots                         | 2             | 2             |
| Hot-Swap                            | Supported     | Supported     |
| Max. Consumption                    | 70 W          | 105 W         |
| Total Output BTU (1 BTU/hr = 293 W) | 256           | 439.3         |



| Cooling | System |
|---------|--------|
|---------|--------|

| Fan Number     | 2          | 2          |
|----------------|------------|------------|
| Air Flow       | Left-right | Left-right |
| Noise @ +25 °C | <45 dBA    | <45 dBA    |

#### **Appearance**

| Chassis Dimensions (W×D×H) | 442.5 mm × 300 mm × 44 mm | 442.5 mm × 300 mm × 44 mm |
|----------------------------|---------------------------|---------------------------|
|----------------------------|---------------------------|---------------------------|

Chassis Weight (Empty) 5 kg 5.7 kg

Package Dimensions (W×D×H) 576 mm × 448 mm × 94 mm 576 mm × 448 mm × 94 mm

Package Weight 5.9 kg 6.6 kg

**Environmental Specifications** 

Operating Temperature  $0 \, ^{\circ}\text{C}$  to +45  $^{\circ}\text{C}$   $0 \, ^{\circ}\text{C}$  to +45  $^{\circ}\text{C}$  Operating Humidity (Non-Condensing)  $10 \, ^{\circ}\text{C}$  to 85  $^{\circ}\text{C}$   $10 \, ^{\circ}\text{C}$  to +80  $^{\circ}\text{C}$  Storage Temperature  $-40 \, ^{\circ}\text{C}$  to +80  $^{\circ}\text{C}$   $-40 \, ^{\circ}\text{C}$  to +80  $^{\circ}\text{C}$   $5 \, ^{\circ}\text{C}$  to 95  $^{\circ}\text{C}$ 

**Accessories** 

Parts Power cord, rackmount kits, Power cord, rackmount kits,

console cable console cable

Reliability

MTBF 95,000 hr 90,000 hr
Certification CE, FCC, RoHS CE, FCC, RoHS

## **Ordering Information**

| Product Name      | Product Description   |
|-------------------|---|
| AP9208-28G-AC     | OLT with 8 EPON ports (1 console port, 1 out-of-band management 10/100M   |
|                   | port, 8 integrated PON ports (excluding the OLT SFP module), 4 GE TX/SFP  |
|                   | combo ports, 4 GE SFP ports; 1 AC90-264V power supply, expansible to dual |
|                   | power supply, 19- inch rack-mounted; 2 10GE SFP+ ports)                   |
| AP9208-28G-DC     | OLT with 8 EPON ports (1 console port, 1 out-of-band management 10/100M   |
|                   | port, 8 integrated PON ports (excluding the OLT SFP module), 4 GE TX/SFP  |
|                   | combo ports, 4 GE SFP ports; 1 36- 72VDC power supply, expansible to dual |
|                   | power supply, 19- inch rack-mounted; 2 10GE SFP+ ports)                   |
| AP9216-28G-AC     | OLT with 16 EPON ports (1 console port, 1 out-of-band management 10/100M  |
|                   | port, 16 integrated PON ports (excluding the OLT SFP module), 4 GE TX/SFP |
|                   | combo ports, 4 GE SFP ports; 1 AC90-264V power supply, expansible to dual |
|                   | power supply, 19-inch rack-mounted; 2 10GE SFP+ ports)                    |
| AP9216-28G-DC     | OLT with 16 EPON ports (1 console port, 1 out-of-band management 10/100M  |
|                   | port, 16 integrated PON ports (excluding the OLT SFP module), 4 GE TX/SFP |
|                   | combo ports, 4 GE SFP ports; 1 36-72VDC power supply, expansible to dual  |
|                   | power supply, 19-inch rack-mounted; 2 10GE SFP+ ports)                    |
| AP9200-PWR-150-DC | OLT DC power supply (input voltage DC36V~72V, 150W max power)             |
| AP9200-PWR-150-AC | OLT AC power supply (input voltage AC90~240v, 150W max power)             |



#### **Contact Information** •





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