

## AT8600 Series GPON/EPON OLT



AT8600 series are designed by AMI for high-density access switching integrated platform which combine multi-service and high-density 10G switching requirement. As the new generation of smart equipments for the telecommunications integrated access network, it could build EPON/GPON/10GE/10GEPON general platform and have the features of small size, huge capacity, high density and powerful performance, which could supply high quality sustainability solution for Broadband Access, Transmission of Mobile Data Base Station, CPN (Customer Premise Network), E-Commerce and so on.

### AT8600-04



- 4U compact design, half-size serve slots
- 1+1 master control redundancy, 1+1 power supply redundancy
- Hot plug fan chassis, intelligent speed and temperature control
- 6slots, 2 main control cards, 4 line cards
- Maximum support 32\*EPON and 24\*GE
- Support EPON/10GE PON mixed insertion for future new cards
- 1.6Tbps widely backplane capacity and smooth upgrade to 40G/100G
- IPv4/IPv6 and MPLS hardware line speed forwarding
- The whole power consumption less than 350W

### AT8600-08



- 7U compact design, half-size serve slots
- 1+1 master control redundancy, 1+1 power supply redundancy
- Hot plug fan chassis, intelligent speed and temperature control
- 10slots, 2 main control cards, 8 line cards
- Maximum support 64\*EPON and 48\*GE
- Support EPON/10GE PON mixed insertion for future new cards
- 3.2Tbps widely backplane capacity and smooth upgrade to 40G/100G
- IPv4/IPv6 and MPLS hardware line speed forwarding
- The whole power consumption less than 680W

### AT8600-16



- 15U compact design, half-size serve slots
- 1+1 master control redundancy,2+2power supply redundancy
- Hot plug fan chassis, intelligent speed and temperature control
- 18slots, 2 main control cards,16 line cards
- Maximum support 128\*EPON and 96\*GE
- Support EPON/10GEPON mixed insertion for future new cards
- 6.4Tbps widely backplane capacity and smooth upgrade to 40G/100G
- IPv4/IPv6 and MPLS hardware line speed forwarding
- The whole power consumption less than1200W

**Product Specification**

Item		AT8600-04	AT8600-08	AT8600-16
Backplane capacity		>1.6Tbps	>3.2Tbps	>6.4Tbps
Switching capacity		960Gbps	1.6Tbps	3.2Tbps
Throughput(IPv4/IP v6)		720Mpps	1440Mpps	2860Mpps
Number of slots		6	10	18
Number of service board slots		4	8	16
Service port	EPON	32*EPON,24*GE	64*EPON,48*GE	128*EPON,96*GE
	GPON	32*GPON,32*GE	64*GPON,64*GE	128*GPON,128*GE
	SWITCH	96*GE,48*10GE	192*GE,96*10GE	384*GE,192*10GE
Redundancy design		1+1 power redundancy 1+1 main control redundancy	1+1 power redundancy 1+1 main control redundancy	2+2 power redundancy 1+1 main control redundancy
Power supply		AC : 90 ~ 260V , 50 ~ 60Hz ; DC : -36V ~ -72V ;		
Power consumption		≤300W	≤680W	≤1200W
Outline dimensions (mm) (W*D*H)		442mm×176mm×420mm	442mm×310mm×420mm	442mm×664mm×420mm
Weight (in maximum configuration)		≤15kg	≤25kg	≤45kg
Environmental parameter		Working temperature : 0°C ~ 40°C Storage temperature : -40°C ~ 70°C Relative humidity : 10% ~ 90% , no condensing		

## Features

Attributes		AT8600 series
PON features	EPON	<p>IEEE 802.3ah EPON</p> <p>China telecom/Unicom GEPON standard</p> <p>20Km for single fiber</p> <p>Access 64 terminals for single fiber PON</p> <p>Uplink and downlink triple churning encrypted function</p> <p>ONU terminal legitimacy certification, report illegal ONU registration</p> <p>DBA algorithm</p> <p>Standard OAM and extended OAM</p> <p>ONU batch software upgrade, fixed time upgrade, real time upgrade</p> <p>PON transmit and inspect receiving optical power</p>
	GPON	<p>Satisfy ITU-T standard</p> <p>TR-101 compliant solution for FTTx OLT applications</p> <p>High splitter rate, each PON port supports 128*ONU ,512*T-CONT</p> <p>Maximum transmission distance of 60KM</p> <p>Support uplink FEC, downlink FEC(Forward Error Correction)</p> <p>Periodically update AES encryption</p> <p>ONU identifier authentication :SN/PASSWD/SN+PASSWD</p> <p>Bandwidth allocation mechanism</p> <p>4 types of T-CONT bandwidth</p> <p>Static Bandwidth Allocation</p> <p>Dynamic Bandwidth Allocation</p> <p>Fiber link inspection</p> <p>4 types of TYPE A/B/C/D line protection mechanism</p> <p>GPON feature parameter</p> <p>4096 port-IDs per GPON MAC (Downstream and Upstream)</p> <p>1024 Alloc-IDs per GPON MAC (Upstream)</p>
L2 features	MAC	<p>MAC Black Hole</p> <p>Port MAC Limit</p> <p>MAC address limitation based on ONU</p>
	VLAN	<p>4K VLAN entries</p> <p>Port-based/MAC-based/IP subnet-based VLAN</p> <p>Port-based QinQ and Selective QinQ (StackVLAN)</p> <p>VLAN Swap and VLAN Remark and VLAN Translate</p> <p>GVRP</p> <p>Based on ONU service flow VLAN add, delete, replace</p>
	Spanning tree protocol	<p>IEEE 802.1D Spanning Tree Protocol (STP)</p> <p>IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)</p> <p>IEEE 802.1s Multiple Spanning Tree Protocol instances (MSTP)</p>

		ONU remote loop detecting alarm
	Port	Bi-directional bandwidth control Static link aggregation and LACP(Link Aggregation Control Protocol) Port mirroring and traffic mirroring
Security features	User security	Anti-ARP-spoofing Anti-ARP-flooding IP Source Guard create IP+VLAN+MAC+Port binding Port Isolation MAC address binds to port and port MAC address filtration IEEE 802.1x and AAA/Radius authentication TACACS+ authentication dhcp anti-attack flood attack automatic suppression ONU isolation control
	Device security	Anti-DOS attack(such as ARP, Synflood, Smurf, ICMP attack), ARP detection, worm and Msblaster worm attack SSHv2 Secure Shell SNMP v3 encrypted management Security IP login through Telnet Hierarchical management and password protection of users
	Network security	User-based MAC and ARP traffic examination Restrict ARP traffic of each user and force-out user with abnormal ARP traffic Dynamic ARP table-based binding Supports IP+VLAN+MAC+Port binding L2 to L7 ACL flow filtration mechanism on the 80 bytes of the head of user-defined packet Port-based broadcast/multicast suppression and auto-shutdown risk port URPF to prevent IP address counterfeit and attack DHCP Option82 and PPPoE+ upload user's physical location Plaintext authentication of OSPF、RIPv2 and BGPv4 packets and MD5 cryptograph authentication
IP routing	IPv4	ARP Proxy DHCP Relay DHCP Server Static route RIPv1/v2 OSPFv2 BGPv4 Strategy route Route policy
	IPv6	ICMPv6 ICMPv6 redirection DHCPv6 ACLv6

		<p>OSPFv3</p> <p>RIPng</p> <p>BGP4+</p> <p>Configured Tunnel</p> <p>ISATAP</p> <p>6to4 tunnel</p> <p>IPv6 and IPv4 Tunnels</p>
Service features	ACL	<p>Standard and extended ACL</p> <p>Time Range ACL</p> <p>Packet filter providing filtering based on source/destination MAC address, source/destination IP address, port, protocol, VLAN, VLAN range, MAC address range, or invalid frame. System supports concurrent identification at most 50 service traffic</p> <p>Support packet filtration of L2~L7 even deep to 80 bytes of IP packet head</p>
	QoS	<p>Rate-limit to packet sending/receiving speed of port or self-defined flow and provide general flow monitor and two-speed tri-color monitor of self-defined flow</p> <p>Priority remark to port or self-defined flow and provide 802.1P, DSCP priority and Remark</p> <p>CAR(Committed Access Rate)、Traffic Shaping and flow statistics</p> <p>Packet mirror and redirection of interface and self-defined flow</p> <p>Super queue scheduler based on port and self-defined flow. Each port/flow supports 8 priority queues and scheduler of SP, WRR and SP+WRR.</p> <p>Congestion avoid mechanism, including Tail-Drop and WRED</p>
	Multicast	<p>IGMPv1/v2/v3</p> <p>IGMPv1/v2/v3 Snooping</p> <p>IGMP Filter</p> <p>MVR and cross VLAN multicast copy</p> <p>IGMP Fast leave</p> <p>IGMP Proxy</p> <p>PIM-SM/PIM-DM/PIM-SSM</p> <p>PIM-SMv6、PIM-DMv6、PIM-SSMv6</p> <p>MLDv2/MLDv2 Snooping</p>
	MPLS	<p>L3 MPLS VPN</p> <p>L2 VPN: VLL (Martini, Kompella)</p> <p>MCE</p> <p>MPLS OAM</p>
Reliability	Loop protection	<p>EAPS and GERP (recover-time &lt;50ms)</p> <p>Loopback-detection</p>
	Link protection	<p>FlexLink (recover-time &lt;50ms)</p> <p>RSTP/MSTP (recover-time &lt;1s)</p> <p>LACP (recover-time &lt;10ms)</p> <p>BFD</p>



	Device protection	VRRP host backup Double fault-tolerant backup of host program and configuration files 1+1 main control panel hot backup 1+1 power hot backup Fan redundancy
Maintenance	Network maintenance	Telnet-based statistics RFC3176 sFlow LLDP 802.3ah Ethernet OAM RFC 3164 BSD syslog Protocol Ping and Traceroute
	Device management	Command-line interface ( CLI ) , Console, Telnet and WEB configuration System configuration with SNMPv1/v2/v3 RMON (Remote Monitoring)1/2/3/9 groups of MIB NTP(Network Time Protocol)