High-Performance Cabinet OLT

----- 16 PON PORT EPON OLT

E8616T-ATG is designed for chassis OLT device which provides 16 downlink 1000M PON ports, 4 uplink GE Combo ports ,4 GE SFP PORTS，2 uplink 10GE ports by GL-COM. The height is only 1U for easy installation and space saving. Each PON supports up to 64 terminals, the whole device supports up to 1024 ONUs under full configuration. E8616T-ATG adopts advanced technology to support SLA and DBA to keep strong function on the Ethernet and QoS features. E8616T-ATG is applied for commercial and grid network digital management to provide perfect, smart, strong, advanced, professional solutions for "automatic distribution" and "electricity information collection" in the implemented project for the national grid.

16 PON PORT EPON OLT

Product Features：

Carrier-class stability and network resiliency

- Adopt large-scale NGBN operation system with intellectual property rights in the global carrier network
- Support PON fiber redundancy protection and device redundancy protection protocol
- Support rich security features to protect the users, devices and network.
- Dual power supply input and power redundancy
- All PON GE and 10GE ports provide L2/L3 full-line speed without losing packets

Full PON service

- Each PON support 1:64 splitting ratio (The maximum quantity of 64 ONU)
- Hot plug PON fibber module design, the farthest 20Km transmission distance
- Support 128bits triple churning function to ensure the confidential for the data transmission
- Support dynamic bandwidth distribution DBA algorithm

Powerful OAM

- Use packet forwarding based on hardware to be effective for feature detection and packet filtering
- Support auto protection and user blocking for ARP attack based on MAC address
- Support all kinds of protecting DDoS, CPU over-current and VRRP etc
- Support BFD, FlexLink, auto linkage aggregation and Ethernet Ring protection

Product Specification:

Item	E8616T-ATG
Switching capacity	128Gbps
Throughput(IPv4/IPv6)	95.23Mpps
Service port	16*PON，4*GE SFP，4*GE Combo，2*10GE
Redundancy design	Dual power supply, support AC input、dual DC input and AC+DC input
Power supply	AC：90～240V，47～63Hz ； DC：-36V～-72V；
Power consumption	≤85W
Outline dimensions (mm) (W*D*H)	442mm×44mm×315mm
Weight (in maximum configuration)	≤3kg
Environmental parameter	Working temperature：0℃～50℃ Storage temperature：-20℃～70℃ Relative humidity：10%～90%，no condensing

Item		E8616T-ATG
PON features		IEEE 802.3ah EPON China telecom/Unicom　GEPON standard 20Km for single fibber Access 64 terminals for single fibber PON Uplink and downlink triple churning encrypted function ONU terminal legitimacy certification, report illegal ONU registration DBA algorithm Standard OAM and extended OAM ONU batch software upgrade, fixed time upgrade, real time upgrade PON transmit and inspect receiving optical power
L2 features	MAC	MAC Black Hole Port MAC Limit 16K MAC address
	VLAN	4K VLAN entries Port-based/MAC-based/IP subnet-based VLAN

		Port-based QinQ and Selective QinQ (StackVLAN)
		VLAN Swap and VLAN Remark and VLAN Translate
		GVRP
		Based on ONU service flow VLAN add, delete, replace
	Spanning tree protocol	IEEE 802.1D Spanning Tree Protocol (STP)
		IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
		IEEE 802.1s Multiple Spanning Tree Protocol instances (MSTP)
		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
	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
Service features	ACL	Standard and extended ACL
		Time Range ACL
		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
		Support packet filtration of L2～L7 even deep to 80 bytes of IP packet head
	QoS	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
		Priority remark to port or self-defined flow and provide 802.1P, DSCP priority and Remark

		CAR(Committed Access Rate)、Traffic Shaping and flow statistics
		Packet mirror and redirection of interface and self-defined flow
		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.
		Congestion avoid mechanism，including Tail-Drop and WRED
	IPv6	SA/DA Classification MLD Snooping
	Multicast	IGMPv1/v2/v3
		IGMPv1/v2/v3 Snooping
		IGMP Filter
		MVR and cross VLAN multicast copy
		IGMP Fast leave
		IGMP Proxy
		PIM-SM/PIM-DM/PIM-SSM
		PIM-SMv6、PIM-DMv6、PIM-SSMv6
		MLDv2/MLDv2 Snooping
Reliability	Loop protection	EAPS and GERP (recover-time <50ms)
		Loopback-detection
	Link protection	FlexLink (recover-time <50ms)
		RSTP/MSTP (recover-time <1s)
		LACP (recover-time <10ms)
		BFD
	Device protection	VRRP host backup
		Double fault-tolerant backup of host program and configuration files
		PON card/fan hot-swappable
		1+1 power hot backup
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)

Business Features:

Purchase Information:

Product name	Product description
E8616T-ATG	Cassette OLT (16 downlink 1000M PON ports, 4 uplink GE SFP ports,4 GE Combo ports,2 uplink 10GE ports)