

EL7500-16 Cost-Effective EPON OLT

EL7500-16 is the latest EPON OLT launched by GCOM. It uses modularized design concept, combined with advanced industrial design and manufacture technology to provide users with broadband access with moderate density, high reliability, flexible networking, easy installation and maintenance. EL7500-16 offers the IPv4/ IPv6 linear forward capacity, incomparable service performance, operational security attribute. Therefore, it can supply operational BBA network large capacity, high speed and high bandwidth data, voice and video service access for its high reliability, high scalability and super service performance. According to different user scenarios, EL7500-16 can be applied to FTTB, FTTC, FTTH, etc.

EL7500-16



- 8U ultra-compact chassis, semi-slot high-density design
- 1+1 master redundancy, 1+1 power redundancy
- hot plug fan tray, intelligent speed and temperature control
- 16 *slot (14 * line card service slot and 2 *master transmission slot)
- GE/10GE/EPON board
- 220Gbps high-speed backplane
- IPv4/ IPv6 and MPLS hardware wire-speed forwarding capacity
- full-load power consumption≤ 300 W

Product Specification:

Item	EL7500-16
backplane bandwidth	220Gbps
Switching Capacity	176Gbps
Forwarding Capacity(Ipv4/Ipv6)	131Mpps
Qty of total slots	16
Qty of service slots	14
Service port	downlink maximum 48*GE PON Uplink maximum 4* 10GE SFP+ / GE COMBO
Redundancy Design	Double master redundancy Double power supply redundancy
Power Supply	AC: input 90~264V, 47~63Hz DC: input 36V~72V
Power Consumption	≤300W
Dimensions (Width x Depth x Height)	483mm×352mm×364mm
Weight (Full-Loaded)	≤26kg
Environmental Requirements	Working temperature: -10°C~45°C Storage temperature: -40°C~70°C Relative humidity: 10%~90%, non-condensing

Service Features:

Item	EL7500-16	
PON Features	IEEE 802.3ah EPON China Telecom/Unicom GE PON Maximum 20 Km PON transmission distance Each PON port supports the max. 1: 64 splitting ratio Uplink and downlink triple churning encrypted function with 128Bits ONU terminal legitimacy certification, report illegal ONU registration DBA algorithm, the particle is 64Kbit/s Standard OAM and extended OAM ONU batch software upgrade, fixed time upgrade, real time upgrade PON transmit and inspect receiving optical power PON port optical power detection	
L2 Features	MAC	32K MAC address MAC Black Hole Port MAC Limit 16K MAC address
	VLAN	4K VLAN entries

		<p>Port-based/MAC-based/protocol/IP subnet-based QinQ and flexible QinQ (StackedVLAN)</p> <p>VLAN Swap and VLAN Remark</p> <p>PVLAN to realize port isolation and saving public-vlan resources</p> <p>GVRP</p>
	Spanning Tree	<p>STP/RSTP/MSTP</p> <p>Remote loop detecting</p>
	Port	<p>Bi-directional bandwidth control</p> <p>Static link aggregation and LACP(Link Aggregation Control Protocol)</p> <p>Port mirroring</p>
Security Features	User's Security	<p>Anti-ARP-spoofing</p> <p>Anti-ARP-flooding</p> <p>IP Source Guard create IP+VLAN+MAC+Port binding</p> <p>Port Isolation</p> <p>MAC address binding to the port and MAC address filtering</p> <p>IEEE 802.1x and AAA/Radius authentication</p>
	Device Security	<p>Anti-DOS attack(such as ARP, Synflood, Smurf, ICMP attack), ARP detection, worm and Msblaster worm attack</p> <p>SSHv2 Secure Shell</p> <p>SNMP v3 encrypted management</p> <p>Security IP login through Telnet</p> <p>Hierarchical management and password protection of users</p>
	Network Security	<p>User-based MAC and ARP traffic examination</p> <p>Restrict ARP traffic of each user and force-out user with abnormal ARP traffic</p> <p>Dynamic ARP table-based binding</p> <p>IP+VLAN+MAC+Port binding</p> <p>L2 to L7 ACL flow filtration mechanism on the 80 bytes of the head of user-defined packet</p> <p>Port-based broadcast/multicast suppression and auto-shutdown risk port</p> <p>URPF to prevent IP address counterfeit and attack</p> <p>DHCP Option82 and PPPoE+ upload user's physical location</p> <p>Plaintext authentication of OSPF, RIPv2 and BGPv4 packets and MD5</p> <p>cryptograph authentication</p>
IP Routing	IPv4	<p>ARP Proxy</p> <p>DHCP Relay</p> <p>DHCP Server</p> <p>Static Routing</p> <p>RIPv1/v2</p> <p>OSPFv2</p> <p>BGPv4</p> <p>Equivalent Routing</p> <p>Routing Strategy</p>
	IPv6	ICMPv6

		<p>ICMPv6 Redirection</p> <p>DHCPv6</p> <p>ACLv6</p> <p>OSPFv3</p> <p>RIPng</p> <p>BGP4+</p> <p>Configured Tunnels</p> <p>ISATAP</p> <p>6to4 Tunnels</p> <p>Dual stack of IPv6 and IPv4</p>
Service Features	ACL	<p>Standard and extended ACL</p> <p>Time Range ACL</p> <p>Flow classification and flow definition based on source/destination MAC address, VLAN, 802.1p, ToS, DiffServ, source/destination IP(IPv4/IPv6) address, TCP/UDP port number, protocol type, etc</p> <p>packet filtration of L2~L7 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 or 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>
Reliability	Loop Protection	<p>EAPS and GERP (recover-time <50ms)</p> <p>Loopback-detection</p>
	Link Protection	<p>FlexLink (recover-time <50ms)</p> <p>RSTP/MSTP (recover-time <1s)</p> <p>LACP (recover-time <10ms)</p> <p>BFD</p>
	Device Protection	<p>VRRP host backup</p> <p>Double fault-tolerant backup of host program and configuration files</p> <p>1+1 power hot backup</p> <p>Fan/board redundancy</p>

Maintenance	Network Maintenance	Port real-time, utilization and transmit/receive statistic based on Telnet port RFC3176 sFlow analysis LLDP 802.3ah Ethernet OAM RFC 3164 BSD syslog Protocol Ping and Traceroute
	Device Management	CLI, Console port, Telnet and WEB SNMPv1/v2/v3 RMON (Remote Monitoring)1, 2, 3, 9 groups MIB NTP NGBNView network management

Purchase Information:

Product name	Product description
EL7500-16	EL7500-16, Rack
EL75MSUA	EL7500-16, main control panel
EL75EP04A	EL7500-16, EPON service port, 4*EPON SFP(should be used with SFP EPON optical module)
EL75GC02A	EL7500-16, GE card, 2*GE COMBO
EL75XG02A	EL7500-16, 10 GE card,2*10GE SFP+(should be used with 10GE SFP optical module)
NG01PWR450DC	450W DC power supply module, input DC 36V~72V
NG01PWR450AC	450W AC power supply module, input AC 90V~264V,47~63Hz