

## EL5610-04F EPON OLT

### Product Overview:

EL5610-04F is a field-OLT switching equipment, providing 4\* EPON OLT interface, 4\* 10000Base-SR / LR / ER interface, 1\* GE inband. EL5610-04F OLT adopts industry-leading technology and it supports SLA and DBA. Up to 1:64 split ratio, EL5610-04F supports different types of ONU hybrid network, minimize the operator's investment.

For its cost-effective, EL5610-04F can be able to apply to operator's network FTTH access, video surveillance network, enterprise LAN, web of things and other network applications.



### Product Specification:

| Item                                | EL5610-04F                                                                             |
|-------------------------------------|----------------------------------------------------------------------------------------|
| Switching Capacity                  | 108Gbps                                                                                |
| Forwarding Capacity(lpv4/lpv6)      | 80Mpps                                                                                 |
| Service Port                        | 4*PON port, 4*10000Base-SR/LR/ER interface, 1*1000GE interface                         |
| Redundancy Design                   | single power supply, dual power supply, dual AC input, dual DC input and AC + DC input |
| Power Supply                        | AC: input 100~264V 47/63Hz;<br>DC: input -36V~-72V;                                    |
| Power Consumption                   | ≤78W                                                                                   |
| Dimensions (Width x Depth x Height) | 385X307X180                                                                            |
| Weight (Full-Loaded)                | ≤10kg                                                                                  |

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| Environmental Requirements | <p>Working temperature: -20°C~70°C</p> <p>Storage temperature: -40°C~85°C</p> <p>Relative humidity: 10%~90%, no condensation</p> |
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### Service Features:

| Item              |                  | EL5610-04F                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| PON Features      |                  | <p>IEEE 802.3ah EPON</p> <p>China Telecom/Unicom EPON</p> <p>Maximum 20 Km PON transmission distance</p> <p>Each PON port supports the max. 1:64 splitting ratio</p> <p>Uplink and downlink triple churning encrypted function with 128Bits</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> <p>PON port optical power detection</p> |
| L2 Features       | MAC              | <p>MAC Black Hole</p> <p>Port MAC Limit</p> <p>16K MAC address</p>                                                                                                                                                                                                                                                                                                                                                                                            |
|                   | VLAN             | <p>4K VLAN entries</p> <p>Port-based/MAC-based/protocol/IP subnet-based</p> <p>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</p>                                                                                                                                                                                                                                                                                                                               |

|                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                  |                   | <p>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 Plaintext authentication of OSPF, RIPv2 and BGPv4 packets and MD5 cryptograph authentication</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> |
|                  | IPv6              | <p>SA/DA Classification</p> <p>MLD Snooping</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 &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 | <p>VRRP host backup</p> <p>1+1 power hot backup</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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