



# 2U 10G XG(S) PON OLT

## LT7310X-32 Series

### Product Overview

LT7310X-32 is a chassis-type XG(S)PON/GPON OLT device independently developed by our company, which can provide highly integrated and large-capacity integrated access for operators, ISPs, enterprises and park applications.

The product follows the technical requirements of ITU-T G.984/G.987/G.988/G.9807, and the software has complete functions, good openness, strong compatibility, and high reliability. Cooperating with GPON/XG-PON/XGS-PON optical network unit (ONU), it can be widely used in the construction of access network networks such as FTTH, VPN, government and enterprise park access, campus network access, etc., which provides users with broadband, voice, video, monitoring and other comprehensive service access.

This OLT adopts a compact frame design, supports GPON/XG-PON/XGS-PON mixed insertion, 2 main control slots and 2 user single board slots. Besides, it also supports a maximum of 32 GPON ports/32 XG(S)PONs, and each PON port can support a maximum of 128 optical network units (ONUs). The main control board of the system can provide 4 GE/10GE SFP+ interfaces and 2 100G QSFP28 ports.

Height is only 2U, easy to install and maintain, and save space for customers to the greatest extent, which adopts the industry's advanced technology. This device has efficient bandwidth utilization, Ethernet service support capabilities, and provides customers with reliable solutions. Support mixed networking of different types of ONUs, saving a lot of costs for operators.



(AC+DC)



(DC+DC)

**LT7310X-32 OLT**

## Key Features

- Fully complies with ITU-T G.984/G.987/G.988 /G.9807 standards, with good interoperability
  - GPON/XG-PON/XGS-PON multi-service unified platform facilitates subsequent network upgrades and technology evolution
  - Dual main controllers, dual power supply redundancy, PON backbone optical fiber protection, to ensure business continuity and stability
  - Modular design of the whole machine, boards, power supplies and fans all support hot swap
  - Abundant Layer 2 and Layer 3 switching features and flexible management methods
  - Powerful QoS function guarantees service quality
  - Unified network management platform
  - Standard OMCI remote deployment and management of user terminals
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## Hardware Specification

| Attribute                        | LT7310X-32 OLT  |
|----------------------------------|---|
| <b>Interface</b>                 | LCP-MSA: main control board, 4*10GE/GE SFP+, 2*100G QSFP28<br>LCP-G16: 16-port GPON line card<br>LCP-X16: 16-port XG/XGS PON line card<br>LCP-C16: 16-port GPON/XG/XGSPON combo line card   |
| <b>Compliance with standards</b> | ITU-T G.984/G.987/G.988/G.9807<br>IEEE 802.1D, Spanning Tree<br>IEEE 802.1Q, VLAN<br>IEEE 802.1w, RSTP<br>IEEE 802.3ad(LACP)  |
| <b>Exchange Capacity</b>         | 1280Gbps  |
| <b>Packet Forwarding Rate</b>    | 952.32Mpps  |
| <b>Memory</b>                    | 4G Bytes (main control board) + 4 GBytes (PON board)  |
| <b>Flash</b>                     | 64 M + 8G Bytes (main control board) + 64 MBytes (PON board)  |
| <b>Management Port</b>           | Console port, Out-of-band management port MGMT  |
| <b>Standard</b>                  | Conform to ITU-TG.984/T G.987/G.988 standard  |
| <b>PON</b>                       | Wavelength: GPON: 1310nm (upstream) 1490 nm (downstream),<br>XGSPON: 1270nm (upstream) 1577nm (downstream);<br>Line Speed: GPON downlink 2.5Gbps, uplink 1.25 Gbps<br>XGPON downlink 10Gbps, uplink 2.5Gbps;<br>XGSPON downlink 10Gbps, uplink 10Gbps;<br>Distance : XGPON supports a maximum distance of 100KM logical distance, 40KM physical distance, and 40KM differential distance.<br>GPON supports a maximum distance of 60KM logical distance, 20KM physical distance, and 20KM differential distance.<br>Splitting ratio: The Combo PON port supports a maximum spectral ratio of 1:256, its GPON 1:128 and XGPON/XGSPON 1:128. |
| <b>Environment temperature</b>   | Operating temperature: -10 °C ~ 50 °C<br>Storage temperature: -40 °C ~ 70 °C  |
| <b>Environment Humidity</b>      | Operating humidity: 10% ~ 95% (non-condensing)<br>Storage humidity: 10% ~ 95% (non-condensing)  |
| <b>Weight</b>                    | 12 KG   |

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|----------------------------------|---|
| <b>Power Supply</b>              | AC: 100 ~ 240V 47/63Hz; DC: 48V;<br>Modular power supply, optional AC+DC, DC+DC |
| <b>Power Consumption</b>         | 280W  |
| <b>Dimensions<br/>(W*D*H )mm</b> | 482.6* 270 *88.9  |

## Software Specification

| Attribute               | LT7310X-32 OLT   |
|-------------------------|--|
| <b>VLAN</b>             | Support 4K VLAN 802.1Q<br>Support VLAN based on port, MAC and protocol<br>Support dual-Tag VLAN function, port-based static QinQ and flexible QinQ functions   |
| <b>MAC</b>              | Support 128K MAC address entries<br>Support static MAC address setting<br>Support black hole MAC address filtering function<br>Support port MAC address limit  |
| <b>PON</b>              | Splitting ratio: GPON 1:128 and XGPON/XGSPON 1:128.<br>Support B+/C+/C++ GPON optical module<br>Support N1/N2/E2 XG-PON or XGS-PON optical module<br>Support N1/B+, N2/C+, E2/D Combo optical modules<br>SN / SN + Password ONU authentication<br>Support FEC<br>ONU optical power monitoring<br>Rogue ONU detection |
| <b>Layer 2 Function</b> | Support STP/RSTP/MSTP<br>Support ERPS Ethernet ring network protection protocol<br>Support Loopback-detection port loopback detection  |
| <b>Port Control</b>     | Support bi-directional bandwidth control<br>Support port storm suppression<br>Support 9K Jumbo super long frame forwarding   |
| <b>Port Aggregation</b> | Support static link aggregation<br>Support dynamic LACP<br>Each aggregation group supports a maximum of 8 ports  |
| <b>Mirroring</b>        | Support mirror image   |
| <b>ACL</b>              | Support standard and extended ACL<br>Support time range (Time Range) ACL policy  |

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|--------------------------|---|
|                          | <p>Provide flow classification and flow definition based on IP packet header information such as source/destination MAC address, VLAN, 802.1p, ToS, DSCP, source/destination IP address, L4 port number, protocol type, etc.</p>  |
| <b>QoS</b>               | <p>Support flow speed limit function based on custom business flow</p> <p>Supports packet mirroring and packet redirection based on custom service flows</p> <p>Support priority marking based on custom service flow, support 802.1P, DSCP priority Remark capability</p> <p>Support port-based priority scheduling function, support queue scheduling algorithms such as SP/WRR/SP+WRR</p>  |
| <b>Safety</b>            | <p>Support user hierarchical management and password protection</p> <p>Support IEEE 802.1X authentication/centralized MAC address authentication</p> <p>Support Radius&amp;TACACS+ authentication</p> <p>Support MAC address learning number limit, support black hole MAC function</p> <p>Support SSH 2.0, providing a secure encrypted channel for user login</p> <p>Support SNMP v3 encrypted management</p> <p>Support port isolation, hardware isolation of packets between ports</p> <p>Support broadcast packet rate suppression</p> <p>Support IP Source Guard to automatically create IP+MAC+port+VLAN binding table, and support manual binding table items</p> <p>Support DHCP Option82 and PPPoE+</p> <p>Support ARP flood attack automatic suppression and ARP spoofing protection</p> |
| <b>Layer 3Function</b>   | <p>Support ARP learning and aging</p> <p>Support for creating VLAN Layer 3 interfaces and configuring static IPv4/IPv6 addresses</p> <p>Support static route configuration</p> <p>Support RIP/OSPF protocol function</p> <p>Support VRRP protocol function</p>  |
| <b>System Management</b> | <p>Support Console/Telnet/SSH2.0 command line configuration</p> <p>Support WEB browser configuration management</p> <p>Support FTP, TFTP file upload and download management</p> <p>Support SNMP V1/V2/V3</p> <p>Support SNTP clock</p> <p>Support LLDP Neighbor Discovery Protocol</p> <p>Support RFC 3164 Syslog function</p> <p>Support Ping and Traceroute</p>  |

## Purchase Information

| Product    | Product Description                                |
|------------|--|
| LT7310X-32 | The whole machine, including chassis and backplane |
| MSA        | Main control board, 4*GE/10GE+2*100G uplink        |
| GP16       | 16-port GPON OLT line card                         |
| XS16       | 16-port XG/XGS PON line card                       |
| CX16       | 16-port GPON/XG/XGSPON COMBO line card             |
| MFAN       | Fan  |
| MAPU       | AC+DC dual power supply                            |
| MDPU       | DC+DC dual power supply                            |



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