

GP7500-16

XGS-GPON OLT



Introduction

CXR GP7500-16 OLT is an XG(S)-PON and GPON multi-service OLT. It supports various networking modes such as FTTH, FTTO, FTTD, and POL, enabling comprehensive access for both residential and enterprise users. This OLT facilitates full-service integration over a single optical fiber network, simplifying the network architecture and reducing OPEX.

Standard Compliance

Adheres to ITU-T G.984/G.987/G.9807/G.988, 10-Gigabit-capable symmetric passive optical network (XGS-PON), communications industry standard "Access Network Technical Requirements—Gigabit Passive Optical Network (GPON)," and GPON equipment technical requirements CTC 2.0.

Interoperability

Excellent interoperability with automatic discovery and compatibility with third-party ONT devices.

Hardware Redundancy

Dual hot-swappable power supplies with redundancy design ensure stable operation.

Green and Eco-Friendly

Low power consumption reduces operational costs.

Trunk Fiber Protection

Supports automatic link protection when fiber faults occur.

Power Characteristics

Supports dual AC, dual DC, and mixed AC/ DC power supply configurations; adopts a modular design, is hot-swappable, and meets EMC level 3 standards; has superior environmental adaptability compared to similar products.

Model

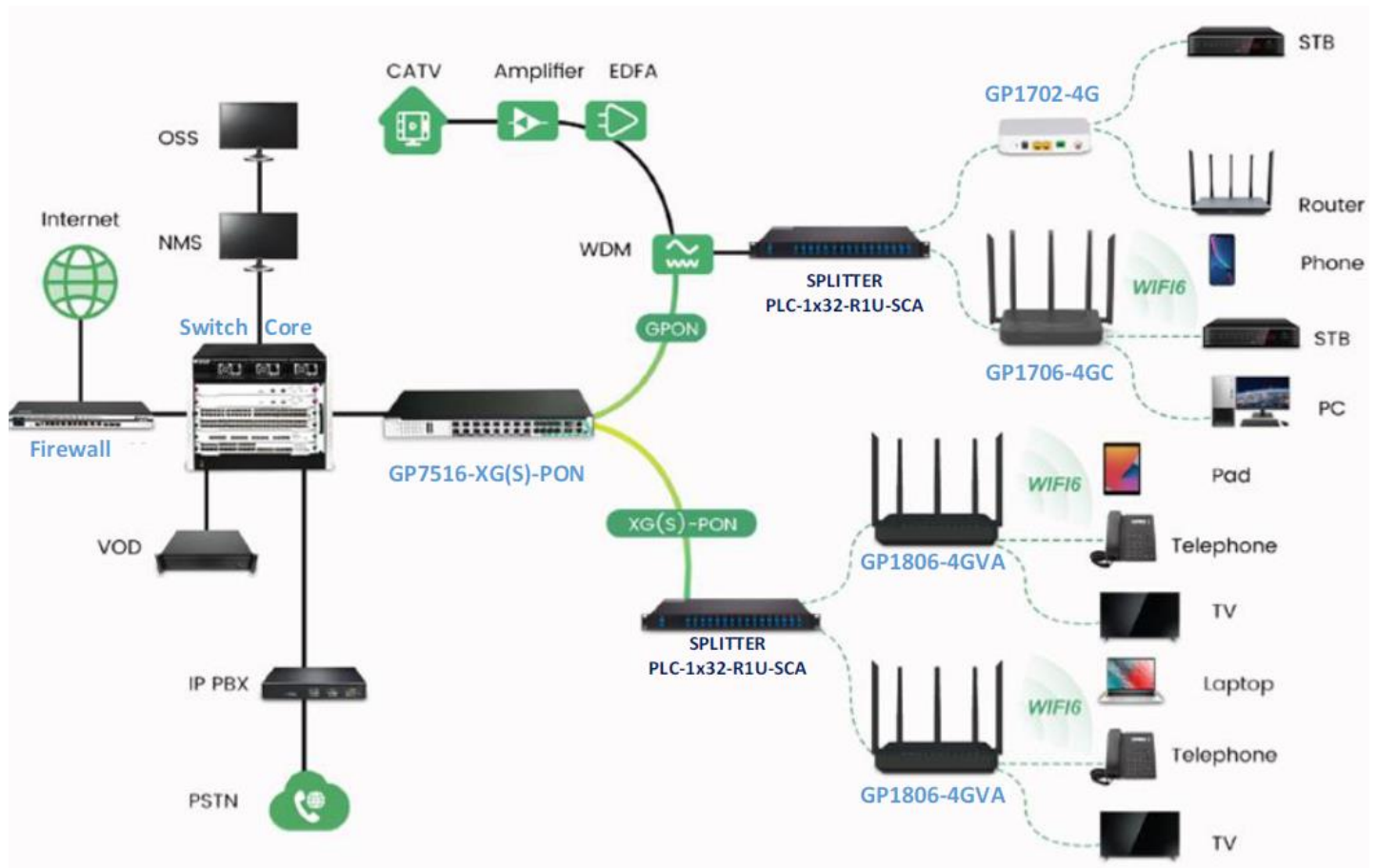
GP7500-16: High-density Pizza-box XG(S)-PON OLT



- 1-Port RJ45 Console
- 1-Port Out-band
- 16-Port XG(S)-PON/GPON
- 8-Port 10G SFP+

2-Port 100G/40G QSFP28

Application Diagram



CXR
 T +33 (0) 237 62 87 90
www.cxr.com

17 Rue de l'Ornette 28410 Abondant France
contact@cxr.com

System Performance

Service interface

- | | |
|------------------------------|--|
| • xPON ports | 16 XG(S)-PON/GPON |
| • 10G uplink | 8 SFP+ |
| • 100G/40 uplink | 2 QSFP28 |
| • Supported xPON transceiver | N1/N2 XGS-PON
Class B+/C+/C++/D+ GPON |

Management interface

- | | |
|--------------------|---|
| • RJ45 console | 1 |
| • Mini-USB console | 1 |
| • Out-of-Band | 1 |

System capacity

- | | |
|--------------------|------|
| • DRAM (MB) | 2048 |
| • FLASH (MB) | 4096 |
| • Backplane (Gbps) | 880 |
| • MAC table | 128K |

Technical specifications

Standard

- ITU-T G.984/G.987/G.9807/G.988
- IEEE 802.11D, Spanning Tree
- IEEE 802.1Q, VLAN
- IEEE 802.1w, RSTP
- Industry Standard "Technical requirements for access network - Gigabit-capable passive optical network (GPON)", and GPON Technical Requirement CTC2.0
- IEEE 802.3ad Physical Link Static/Dynamic Aggregation (LACP)
- Ethernet-II

VLAN

- Port-based VLAN, 4K VLAN table entries
- QinQ, flexible QinQ

Multicast

- L2 multicast
- IGMP snooping
- MLD snooping

QoS

- Backpressure flow control (half duplex)
- IEEE 802.3x flow control (full duplex)
- IEEE 802.1p, CoS
- WRR, SP and FIFO queue schedule
- Uplink and downlink rate limiting functionality for each ONU
- Supports DBA and SLA functions

Reliability

- Unidirectional Link Detection protocol to prevent Spanning Tree Loop
- Hot-swappable PON optical modules
- PON optical path protection
- Type B single/dual homing protection
- Type C hand-in-hand protection
- Supports detection of abnormal emitting ONUs such as long-emission



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Technical specifications (suite)

Network security

- Limit the maximum number of users per port
- Port isolation
- Broadcast storm control
- ACL (Access Control List) based on data flow
- Data transmission encryption over PON ports

Configuration management

- Multiple management methods including CLI (Command Line Interface), SNMP (Simple Network Management Protocol), TELNET, etc.
- Software upgrades via TFTP
- Debug output capability

Environment

- L2 multicast Operating environment: 0 °C~45 °C; 10%~85% non- condensing

Physical Characteristics

Power supply

- | | |
|---------------------------------|---------|
| • AC (V) | 100~240 |
| • DC (V) | 36~72 |
| • Power slots | 2 |
| • Max. consumption (W) | 120 |
| • Total output BTU | 409.56 |
| <i>(note: 1000 BTU/hr=293W)</i> | |

Cooling system

- | | |
|---------------------|------------|
| • Fan number | 4 |
| • Air-flow | Front-back |
| • Noise@25 °C (dBA) | <50 |

Appearance

- | | | |
|-----------|-----------------------|--------------|
| • Chassis | Dimensions (W*D*H mm) | 442.5*280*44 |
| | Weight (Kg) (empty) | 4.6 |
| • Package | Dimensions (W*D*H mm) | 576*448*94 |
| | Weight (Kg) (empty) | 5.6 |

Environment specifications

- | | | |
|-------------|---------------------------|--------------|
| • Operating | Temperature | 0~45 °C |
| | Humidity (non-condensing) | 10%~85% |
| • Storage | Temperature | -40 °C~80 °C |
| | Humidity (non-condensing) | 5%~95% |

Accessories

- Parts Power cord, rackmount kits, console cable

Reliability

- | | |
|-----------------|---------------|
| • MTBF (Hr) | 200.000 |
| • Certification | CE, FCC, RoHS |



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Ordering Information

Ordering Code	Description
GP-7500-16	16-port XG(S)-PON OLT with 16-port XG(S)-PON (excluding PON module, compatible with GPON) + 8-port 10GE SFP+ 2-port 100G QSFP28 (supports one AC100~240V power supply, 2 power slots, 19-inch standard rack-mounted)
GP-7500-16-DC	16-port XG(S)-PON OLT with 16-port XG(S)-PON (excluding PON module, compatible with GPON) + 8-port 10GE SFP+ 2-port 100G QSFP28 (supports one DC36V~72V power supply, 2 power slots, 19-inch standard rack-mounted)
OLT-XGS-N1	XGS-PON module (N1 standard, 10G downlink, 10G/2.5G uplink, TX wavelength 1577nm, RX wavelength 1270nm, SC/UPC interface)
PWR-150-ACB	GP8600-16 OLT AC power supply (input voltage AC 100~240V, maximum power 150W)
PWR-150-DCB	GP8600-16 OLT DC power supply (input voltage DC 36~72V, maximum power 150W)
GP1802-1X	XGS-PON ONU, 1-Port XG-PON (SC/UPC), 1-Port 10G RJ45, plastic casing, DC12/1.0A external power adaptor
GP1802-3G1E	XGS-PON ONU, 1-Port XG-PON (SC/UPC), 3-Port GE RJ45, 1-Port 2.5G RJ45, plastic casing, DC12/1.0A external power adaptor
GP1802-3G1EM	XGS-PON PoE ONU, 1-Port XG-PON (SC/UPC, supports PoF power supply), 3-Port GE RJ45, 1-Port 2.5G RJ45, metal casing, DC12/1.0A external power adaptor
GP1802-3G1EPM	XGS-PON PoE ONU, 1-Port XG-PON (SC/UPC, supports PoF power supply), 3-Port GE RJ45, 1-Port 2.5G RJ45, metal casing, supports 4 Ethernet ports for PoE/PoE+ power supply, PoE budget of 55W, external adapter (standard output DC 54V/1.17A)



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