

# GP8600-16

High-density Pizza-box XG(S)-PON OLT



## Product Overview

BDCOM GP8600-16 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.

## Product Characteristics

**Standards Compliance:** Adheres to ITU-T G.984/G.987/G.9807/G.988, China's communications industry standard "Access Network Technical Requirements—Gigabit Passive Optical Network (GPON)," and China Telecom's 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.



Support 10Gbps uplink and downlink bandwidth



Efficient bandwidth usage and Ethernet services



The Splitting ratio ups to 1:256

## Model Lists

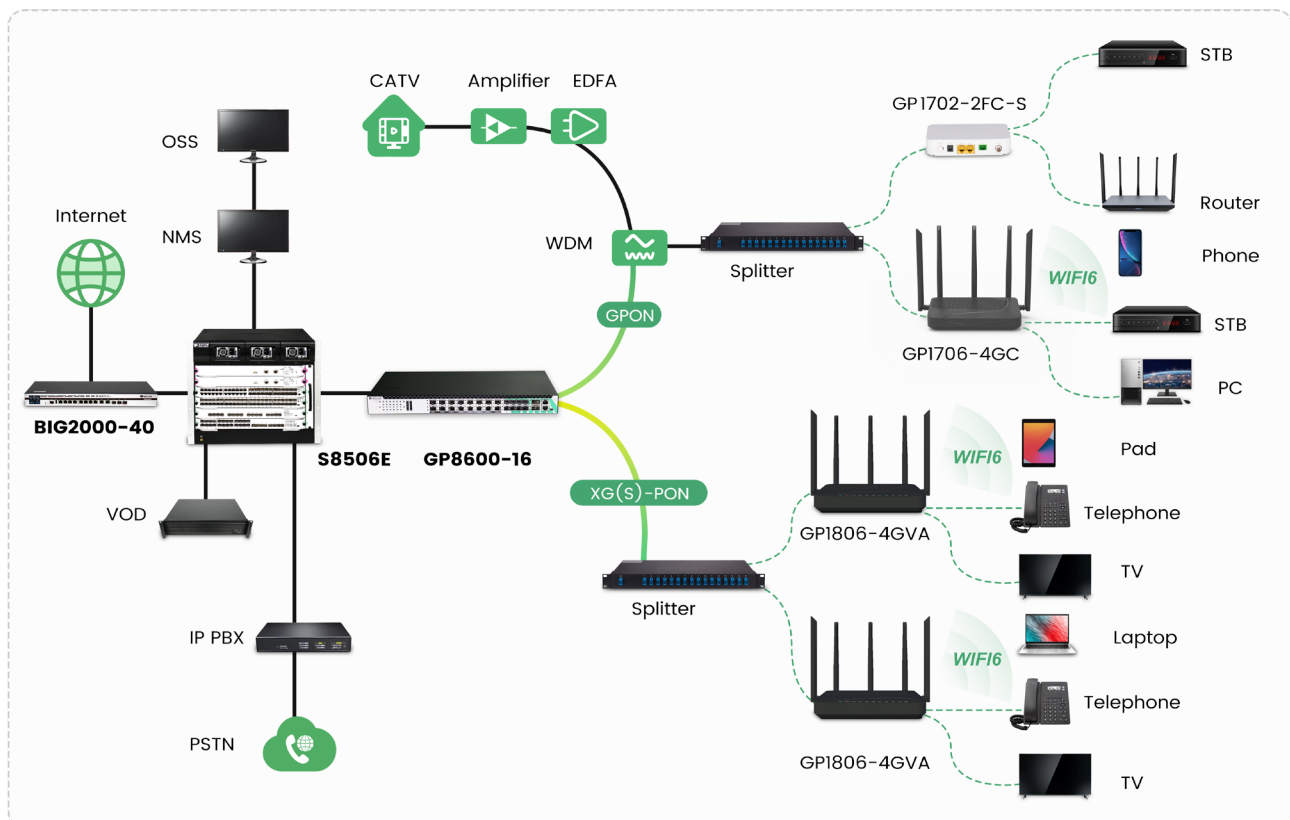
### GP8600-16

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



## System Performance

| Item                        | GP8600-16                                     |
|-----------------------------|-----------------------------------------------|
| <b>Service interface</b>    |                                               |
| xPON ports                  | 16 XG(S)-PON/GPON                             |
| 10G uplink                  | 8 SFP+                                        |
| 100G/40 uplink              | 2 QSFP28                                      |
| Supported xPON transceiver  | N1/N2 XGS-PON<br>Class B+/C+/C++/C+++/D+ GPON |
| <b>Management interface</b> |                                               |
| RJ45 console                | 1                                             |
| Mini-USB console            | 1                                             |
| Out-of-Band                 | 1                                             |
| <b>System capacity</b>      |                                               |
| DRAM (MB)                   | 2048                                          |
| Flash (MB)                  | 4096                                          |
| Backplane (Gbps)            | 880                                           |
| MAC table                   | 128K                                          |

## Technical Specifications

### Standards

- ITU-T G.984/G.987/G.9807/G.988
- IEEE 802.11D, Spanning Tree
- IEEE 802.1Q, VLAN
- IEEE 802.1w, RSTP
- PRC Community Industry Standard "Technical requirements for access network - Gigabit-capable passive optical network (GPON)", and China Telecom's 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

### 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

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

## Physical Characteristics

| Item                                           |                            | GP8600-16                                 |
|------------------------------------------------|----------------------------|-------------------------------------------|
| <b>Power supply</b>                            |                            |                                           |
| AC (V)                                         |                            | 100~240                                   |
| DC (V)                                         |                            | 36~72                                     |
| Power slots                                    |                            | 2                                         |
| Max. consumption (W)                           |                            | 120                                       |
| Total output BTU<br>(note: 1000 BTU/hr = 293W) |                            | 409.56                                    |
| <b>Cooling system</b>                          |                            |                                           |
| Fan number                                     |                            | 4                                         |
| Air-flow                                       |                            | Front-back                                |
| Noise@25°C(dBA)                                |                            | <50                                       |
| <b>Appearance</b>                              |                            |                                           |
| Chassis                                        | Dimensions(WxDxH mm)       | 442.5x280x44                              |
|                                                | Weight (Kg)(empty)         | 4.6                                       |
| Package                                        | Dimensions(WxDxH mm)       | 576 x 448 x 94                            |
|                                                | Weight (Kg)                | 5.6                                       |
| <b>Environmental specifications</b>            |                            |                                           |
| Operating                                      | Temperature                | 0~45°C                                    |
|                                                | Humidity (non-condensing ) | 10%~85%                                   |
| Storage                                        | Temperature                | -40°C~80°C                                |
|                                                | Humidity (non-condensing ) | 5%-95%                                    |
| <b>Accessories</b>                             |                            |                                           |
| Parts                                          |                            | Power cord, rackmount kits, console cable |
| <b>Reliability</b>                             |                            |                                           |
| MTBF (Hr)                                      |                            | 200,000                                   |
| Certification                                  |                            | CE, FCC, ROHS                             |

## Ordering Information

| Model              | Description                                                                                                                                                                                                                                                       |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BDCOM GP8600-16    | 16-port XG(S)-PON pizza-box OLT, 1-Port Console, 1-Port Out-of-band , 16-Port XG(S)-PON/GPON(excluding PON transceivers), 8-Port 10GE SFP+ 2-Port 100G/40G QSFP28; dual power slots with single hot-swap AC-220V power supply, 19-inch rack-mounted installation. |
| BDCOM GP8600-16-DC | 16-port XG(S)-PON pizza-box OLT, 1-Port Console, 1-Port Out-of-band , 16-Port XG(S)-PON/GPON(excluding PON transceivers), 8-Port 10GE SFP+ 2-Port 100G/40G QSFP28; dual power slots with single hot-swap DC-48V power supply, 19-inch rack-mounted installation.  |
| PWR-150-DCB        | 150W DC 36V~72V power supply                                                                                                                                                                                                                                      |
| PWR-150-ACB        | 150W AC 100-240V power supply                                                                                                                                                                                                                                     |
| OLT-XGS-N1         | N1 XGS-PON OLT transceiver, downlink 10G, uplink 10G/2.5G, 1577nm/1270nm, SC interface                                                                                                                                                                            |
| OLT-XGS-N2         | N2 XGS-PON OLT transceiver, downlink 10G, uplink 10G/2.5G, 1577nm/1270nm, SC interface                                                                                                                                                                            |
| OLT-GSFP-B+        | Class B+ GPON OLT transceiver, downlink 2.5G/uplink 1.25G, 1490nm/1310nm, SC interface                                                                                                                                                                            |
| OLT-GSFP-C+        | Class C+ GPON OLT transceiver, downlink 2.5G/uplink 1.25G, 1490nm/1310nm, SC interface                                                                                                                                                                            |
| OLT-GSFP-C++       | Class C++ GPON OLT transceiver, downlink 2.5G/uplink 1.25G, 1490nm/1310nm, SC interface                                                                                                                                                                           |
| OLT-GSFP-C+++      | Class C+++ GPON OLT transceiver, downlink 2.5G/uplink 1.25G, 1490nm/1310nm, SC interface                                                                                                                                                                          |

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