Distributed Multi-service Chassis OLT Platform

GP8600 Series

Product Overview

BDCOM GP8600 series OLT is a multi-service unified bearing platform, offering GPON, XG-PON, XGS-PON , 10G and 100G access. It supports various networking construction modes like FTTH/FTTO/FTTD and POL, enabling comprehensive service integration access for both home and enterprise users. This approach realizes full-service coverage over a single fiber network, simplifying network architecture and reducing OPEX.

BDCOM GP8600 series includes two models to meet different application scenario needs.

Product Characteristics

Standards: Complies with ITU-T G.984/G.987/G.9807/G.988, PRC Community Industry Standard "Technical requirements for access network - Gigabit-capable passive optical network (GPON)", and China Telecom's GPON Technical Requirement CTC2.0.

Good Interoperability: Capable of automatically discovering and being compatible with ONT devices from different manufacturers. Hardware

Redundancy: Dual main control and dual power supply redundancy to ensure stable operation of the device.

Hot Swappable: Modular device, each service board supports hot-swappable;

System Capacity: Supports up to 112 GPON or XG(S)-PON ports;

Green and Environmentally Friendly: Low power consumption reduces operational costs.

Trunk Fiber Protection: Supports automatic link protection switching in case of fiber faults.

Power Features: Supports dual AC, dual DC, and AC/DC hybrid multiple power supplies. The power supply uses a modular design and is hot-swappable. Meets EMC level 3 standards and has a strong environmental adaptability.

Supports 100Gbps uplink and downlink bandwidth

Efficient bandwidth usage and Ethernet services

Distributed Architecture

Model

GP8600-C4

Distributed Multi-service Chassis OLT Platform

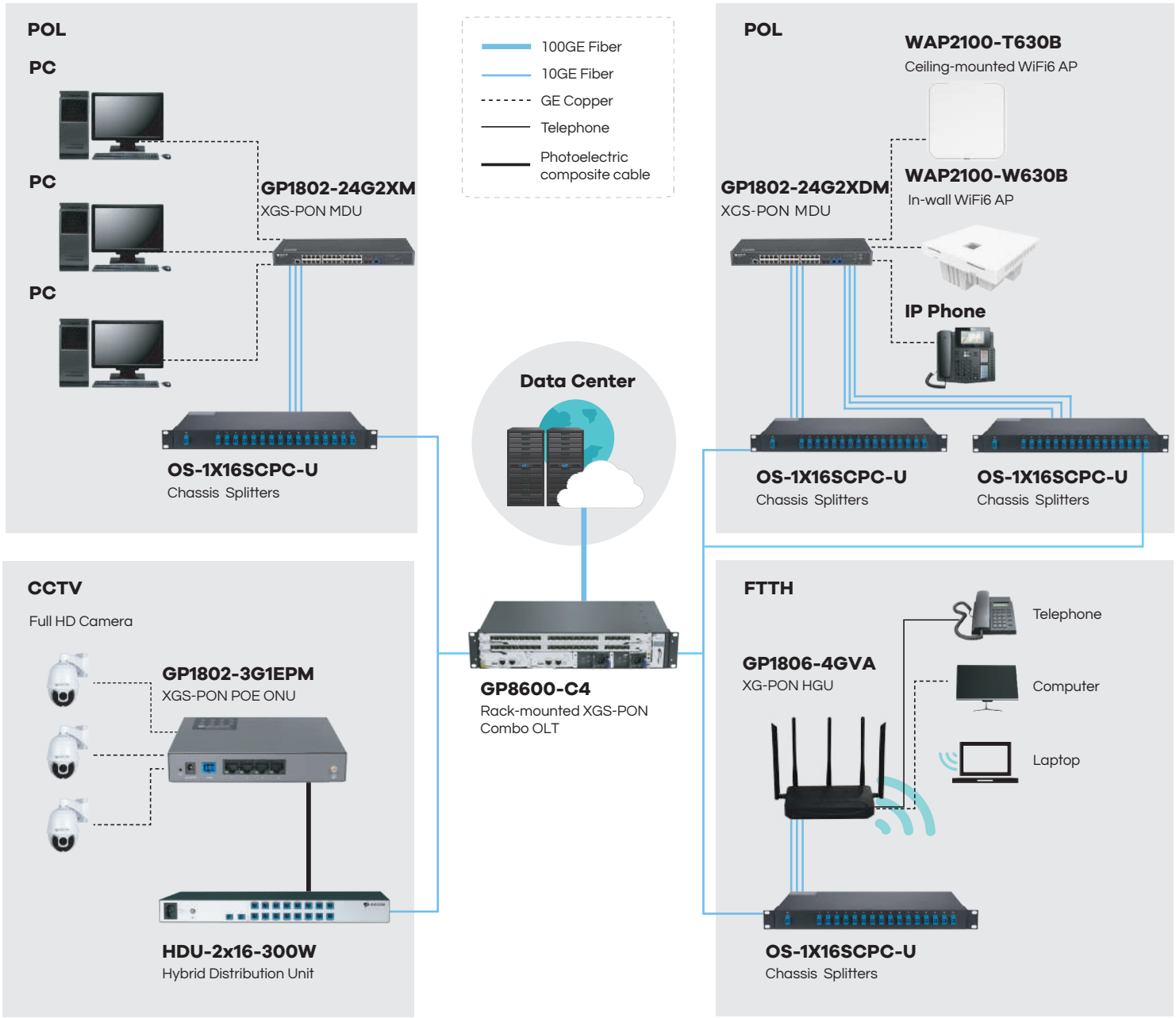
- 2 Main control slots
- 2 Line card slots
- 1 Fan tray
- 2 Power slots
- 2U Chassis

GP8600-C9

Distributed Multi-service Chassis OLT Platform

- 2 Main control slots
- 7 Line card slots
- 1 Fan tray
- 3 Power slots
- 6U Chassis

Application Diagram



Technical Parameters

Item		GP8600-C4	GP8600-C9
System Capacity		Splitter ratio up to 1:256 Backplane bandwidth: 1.8T	Splitter ratio up to 1:256 Backplane bandwidth: 7.6T
Port	GPON	Downlink 2.5Gbps/uplink 1.25Gbps transmission rate Supports Class B+, Class C+, Class C++ PON modules Security: ONU authentication mechanism	
	XG(S)-PON	Downlink 10Gbps/Uplink 2.5Gbps transmission rate (asymmetric mode) Downlink 10Gbps/Uplink 10Gbps transmission rate (symmetric mode) Supports N1/N2/E1 XGS-PON modules Security: ONU authentication mechanism	
Slots		2 main control slots + 2 line card slots	2 main control slots + 7 line card slots
Max. 10GE ports		8	28
Max. 100GE ports		4	14
Max. GPON ports		32	112
Max. XG(S)-PON ports		32	112
RJ45 console		1 per MCU	
Mini-USB console		1 per line card	
Out-of-Band		1 per MCU	
DRAM	MCU	4GB	
	Line card	2GB	
Flash	MCU	8GB	
	Line card	4GB	
Backplane		1.8Tbps	7.6Tbps
MAC table		128K	
Buffer size		9MB	
Jumbo frame	XG(S)-PON	9KB	
	GPON	2KB	
Routing table	IPv4	16K	
	IPv6	8K	
Active VLAN		4094	
SVI		1288	
Forwarding mode		Store-forward	
Power slots		2	3
Power consumption		≤300W	≤850W
Power supply		AC: 100~240V, 50/60Hz DC: 36~72V	

Technical Specifications

Standards

- ITU-T G.984/G.987/G.9807/ G.988
- 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 802.1D, Spanning Tree
- IEEE 802.1Q, VLAN
- IEEE 802.1w, RSTP
- IEEE 802.3ad Physical Link Static/Dynamic Aggregation (LACP)
- Ethernet-II

Reliability

- Unidirectional Link Detection protocol to prevent Spanning Tree Loop
- Hot-swappable PON transceivers
- PON optical path protection
- Type B/C single/dual homing protection
- Supports rogue ONU detection

QoS

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

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

VLAN

- 802.1Q VLAN, 4K active VLANs
- QinQ and flex-QinQ

Multicast

- IGMP v1/2/3
- IGMP Snooping
- MLD Snooping

Management

- Multiple management methods including Web GUI(HTTP/HTTPS), CLI (Command Line Interface), SNMP v1/v2c/v3, Telnet, SSH
- Software upgrades via TFTP/FTP
- SPAN and RSPAN
- Syslog

AAA

- Local and remote AAA service
- 802.1X
- Radius and TACACS+

Power

- Input voltage: AC100~240V, DC 36~72V
- Multiple power inputs, AC and DC mix hot-swappable power supply

Environment

- Operating environment: 0°C~45°C; 10%~85% non-condensing
- Storage environment: -40°C~80°C; 5%~95% non-condensing

Dimensions (LxWxH)mm

GP8600-C4:

- Without Rack Ears: 442x280x88.1mm
- Rack Ears: 482.6x280x88.1mm

GP8600-C9:

- Without Rack Ears: 442×280×263.9mm
- Rack Ears: 482.6×280×263.9mm

Ordering Information

Item	Description
GP8600-C4	GP8600-C4 OLT Chassis (one fan slot with fan module, 2 power slots without power supply, 2 main control slots, 2 line card slots)
GP8600-C9	GP8600-C9 chassis (one fan slot with fan module, 3 power slots without power supply, 2 main control slots, 7 line card slots)
LP8604-MCU	Main Control Unit, 1 CLI port, 1 USB, 1 MGMT port, only available for GP8600-C4
LP8609-MSU	Main Control Unit, 1 CLI port, 1 USB, 1 MGMT port, only available for GP8600-C9
LP86-16GP4T	GPON Line Card, supports 16 GPON ports (SFP ports), 4 10GE SFP+ ports (excluding optical modules)
LP86-16XGS2C	XG(S)-PON Line Card, supports 16 XG(S)-PON ports (compatible with GPON; can be converted to GPON ports through GPON modules), 2 100G QSFP28 port (optical modules not included)
PWR-450-AC	AC Power Supply (input voltage AC 100~240V, maximum power 450W), only available for GP8600-C4
PWR-450-DC	DC Power Supply (input voltage DC 36~72V, maximum power 450W), only available for GP8600-C4
PWR-1300-AC	AC Power Supply (input voltage AC 100~240V, maximum power 1300W), only available for GP8600-C9
PWR-1300-DC	DC Power Supply (input voltage DC 36~72V, maximum power 1300W), only available for GP8600-C9
OLT-GSFP-B+	GPON Module (Class B+ standard, downlink 2.5G/uplink 1.25G, TX wavelength 1490nm, RX wavelength 1310nm, SC/UPC interface)
OLT-GSFP-C+	GPON Module (Class C+ standard, downlink 2.5G/uplink 1.25G, TX wavelength 1490nm, RX wavelength 1310nm, SC/UPC interface)
OLT-GSFP-C++	GPON Module (Class C++ standard, downlink 2.5G/uplink 1.25G, TX wavelength 1490nm, RX wavelength 1310nm, SC/UPC interface)
OLT-XGS-N1	XGS-PON Module, N1 standard, downlink 10G, uplink 10G/2.5G, TX wavelength 1577nm, RX wavelength 1270nm, SC/UPC interface)
OLT-XGS-N2	XGS-PON Module, N2 standard, downlink 10G, uplink 10G/2.5G, TX wavelength 1577nm, RX wavelength 1270nm, SC/UPC interface)