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

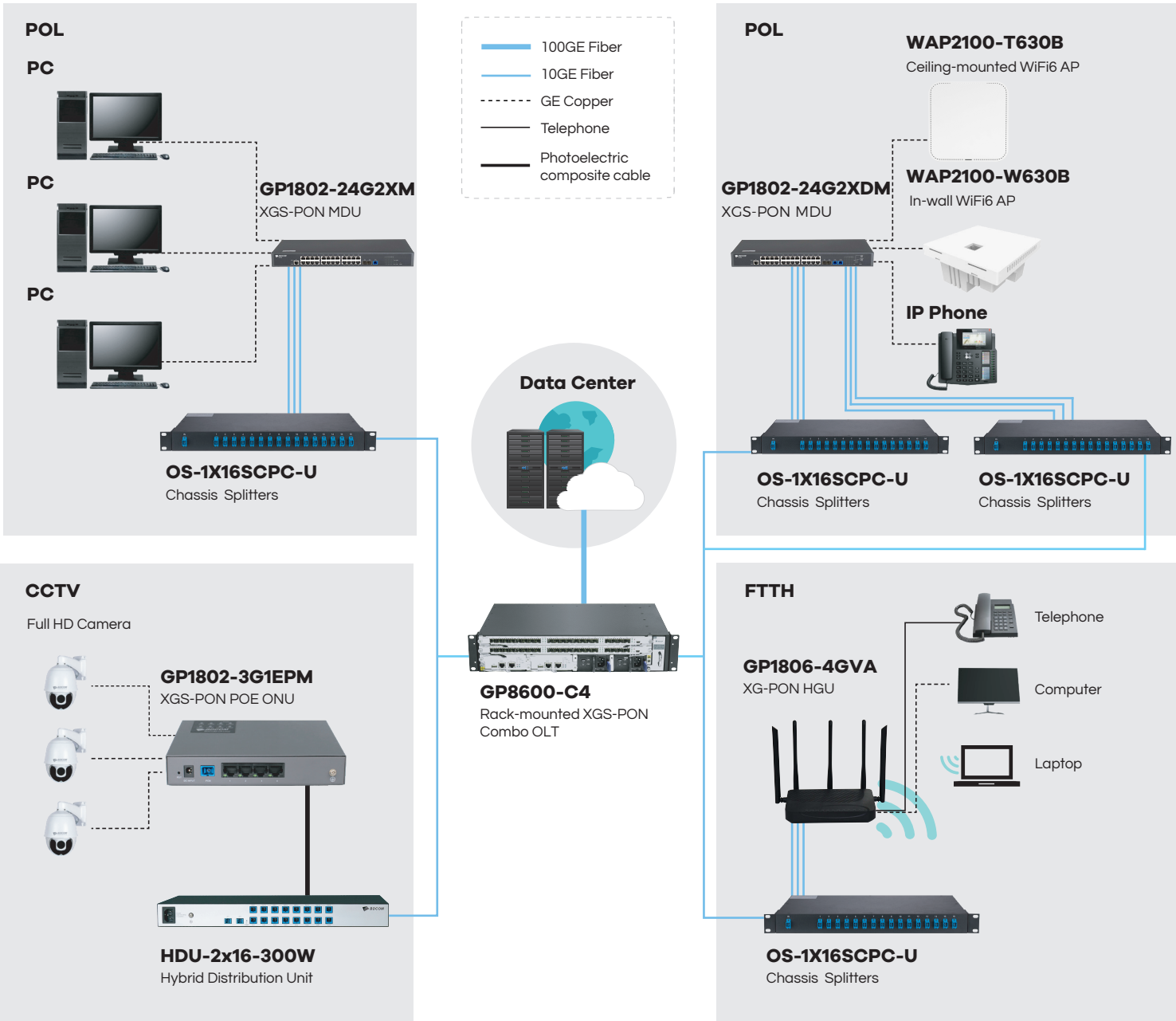
- 2 Main control slots
- 2 Line card slots
- 1 Fan tray
- 2 Power slots
- 2U Chassis

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)

Copyright ©Shanghai Baud Data Communication Co., LTD. 2024. All Rights Reserved.

This document is BDCOM Public Information. BDCOM reserves the right to alter, update and otherwise change the information contained in the document from time to time without notice.