



## BDCOM P8510 Series

Large-capacity Chassis EPON OLT

# BDCOM P8510 Series

## Product Overview

BDCOM P8510 Series is a high-end OLT designed for the next-generation convergent networks. It enables functions including high-density EPON access and strong routing switch.

Based on the self-developed BDROS operating system, BDCOM P8510 Series integrates multiple technologies such as IPv6, network security and EPON, continuous forwarding, graceful restarting and ring protection and supports services such as data, voice and video, which improve the work efficiency and ensure the maximum running time.

Both the main control engine and the power supply of P8510 Series adopt "1+1" redundancy back up. P8510 Series supports 2 dedicated 10G uplink service slots and 6 PON service slots in maximum. Its 10G uplink board supports 4 TE interfaces. Its PON board supports 16 EPON interfaces. P8510 Series supports 96 PON ports and 8 TE interfaces at its highest.

P8510 Series can be widely applied on large and medium FTTX networks including networks of the operator, broadcast and TV and power industry.



BDCOM P8510 Series

## Product Characteristics

- BDCOM P8510 Series abides by IEEE802.3ah standard and meets relevant requirements of GEAPON OLT regulated in Technical Requirements of "YD/T 1475-2006 and China Telecom EPON Technical Requirements.
- BDCOM P8510 Series is chassis modularized device with high density and large capacity, so they are easy for expansion and upgrade.

- BDCOM P8510 Series has L2/L3/L4 functions and supports 1.4Tbps backplane bandwidth, static routes, RIP, OSPF. BDCOM P8510 Series supports advanced functions such as QoS, bandwidth control and multicast, adding extra values to the whole network.
- BDCOM P8510 Series has high reliability. The key modules of the system like the control unit and the power supply can be backed up through the “1+1” mode. Meanwhile, the Hitless Protection System (HPS) secures the high reliability of P8510 Series. After the redundancy control module is configured, the highest reliability can be reached.
- A single EPON card of BDCOM P8510 Series supports 16 EPON ports. BDCOM P8510 Series, therefore, supports up to 96 EPON ports, a maximum optical coupling ratio of 1:64, up to 6K ONUs and a 20km transmission distance.
- BDCOM P8510 Series supports various interface types including GE, TE and EPON.
- BDCOM P8510 Series supports CTC standard, automatic discovery and works harmoniously with ONUs made by different manufacturers.
- BDCOM P8510 Series supports the RFC 1213 SNMP protocol. The internal network management mode adopts the Telnet-based configuration management (in the form of CLI command line) or the SNMP-based configuration management (in the form of graphics), realizing uniform network management based on the Broad Director network management platform.

### Technical Parameters

Items	Description	
System Capacity	Maximum coupling ratio, 1:64 1.4T backplane bandwidth 2 slots for console panels, 2 GE service slots and 6 gigabit service slots	
Interface	Max number of 10GE ports	8
	Max number of GE ports	96



	Maximum number of PON ports	96
PON Interface	Uplink and downlink symmetric transmission rate: 1.25Gbps Supporting standard EPON modules, such as PX20, PX20+, PX20++; Security: ONU authentication mechanism	
Standard	IEEE802.3ah YD-T 1475-2006 access network requires EPON basis YD-T 1771-2008 access network requires EPON intercommunication China Telecom EPON standard CTC2.1/3.0 IEEE 802.1D, Spanning Tree IEEE 802.1Q, VLAN IEEE 802.1w, RSTP IEEE 802.3ad LACP Ethernet – II	
QoS	Backpressure flow control (half duplex) IEEE 802.3x flow control (full duplex) IEEE 802.1p, CoS WR, SP and FIFO Limiting the uplink/downlink rate based on each ONU Supporting DBA and SLA	
VLAN	Port-based VLAN QinQ, support flexible QinQ	
Layer 3 function	Supporting static routing, RIPv1/v2, OSPF, etc.	
Multicast	IGMP Snooping Controllable multicast	
Reliability	Unidirectional Link Detection (UDLD) Hot swap of the service board and power supply module Optical path protection of EPON	

	Abnormal luminescence overhaul of ONU, such as long luminescence detection
Network Security	Limiting the maximum number of users on each port Port isolation Packet storm control Flow-based ACL access control function Transmission data encryption on the PON interface
Configuration Management	Multiple management modes such as CLI, Web, SNMP and TELNET Conducting software upgrade through TFTP Command prompt in English or in Chinese Debug output
Physical Characteristics	Dimensions mm (WxDxH) : 533.1 x482.6 x 548 Installation: standard 19-inch rack-mounted
Environment Requirements	Working condition: 0°C-45°C; 10%-85% non-condensing Storage condition: -40°C-80°C; 5%-95% non-condensing
Power Supply	Input voltage: AC90-264V, DC 36~72V Dual power supply, DC/AC power supply and power module hot swap Overcurrent voltage protection

## Ordering Information

BDCOM P8510 OLT	
P8510	Large-capacity Chassis of P8510 Series (10 expanded slots, 2 fixed for MSU, 2 for 10GE uplink board service slots, 6 for gigabit service slots, 2 for the power supply)
LP85-MSU	MSU of P8510
LP85-PWR-AC	AC power module(Input voltage AC90-240V, ≤1200W)
LP85-PWR-DC	DC power module(Input voltage 36-72V, ≤1200W)
Standard Service Boards	

LP85-16PON-SFP	16-port OLT EPON interface service board (excluding OLT SFP module)
LP85-16GE-SFP/TX	16-port gigabit combo SFP/TX service board
LP85-4TE-SFP+	4-port 10GE Ethernet interface module (SFP+)
<b>EPON Optical Modules</b>	
OLT-GSFP-20	OLT SFP module (PX20+, uplink and downlink 1.25G, TX wavelength 1490nm, RX wavelength 1310nm, SC interface)

### For More Information

For more information about the BDCOM OLT P8510 Series, please contact your local BDCOM account representative.

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