



GP5800 Series

Pizza Box GPON OLT

Product Overview

The GP5800 is highly integrated, medium-capacity GPON OLT for operators, ISPs, enterprises and park applications. The GP5800 follows the ITU-T G.984/G.988 technical standard, and has good openness, strong compatibility, high reliability, and complete software functions. It can be widely used in operators' FTTH access, government and enterprise park access, campus network access, ETC.

GP5800 is only 1U in height, easy to install and maintain, and save space. Supports mixed networking of different types or brands of ONU, which can save a lot of costs for operators.

Product Highlight

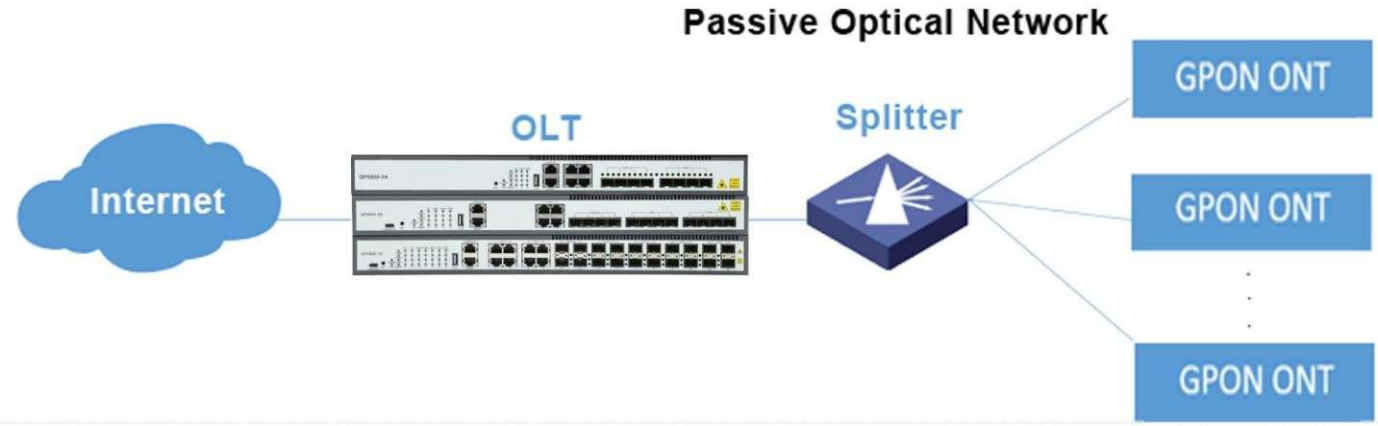
- Rich Layer 2/3 switching features and Flexible management methods
- Support multiple link redundancy protocols such as FlexLink/STP/RSTP/MSTP/ERPS/LACP
- Support RIP、OSPF、BGP、ISIS and IPv6
- Safe DDOS and virus attack protection
- Support Power redundancy backup, Modular power supply
- Support power failure alarm
- Type C management interface（8/16 PON）

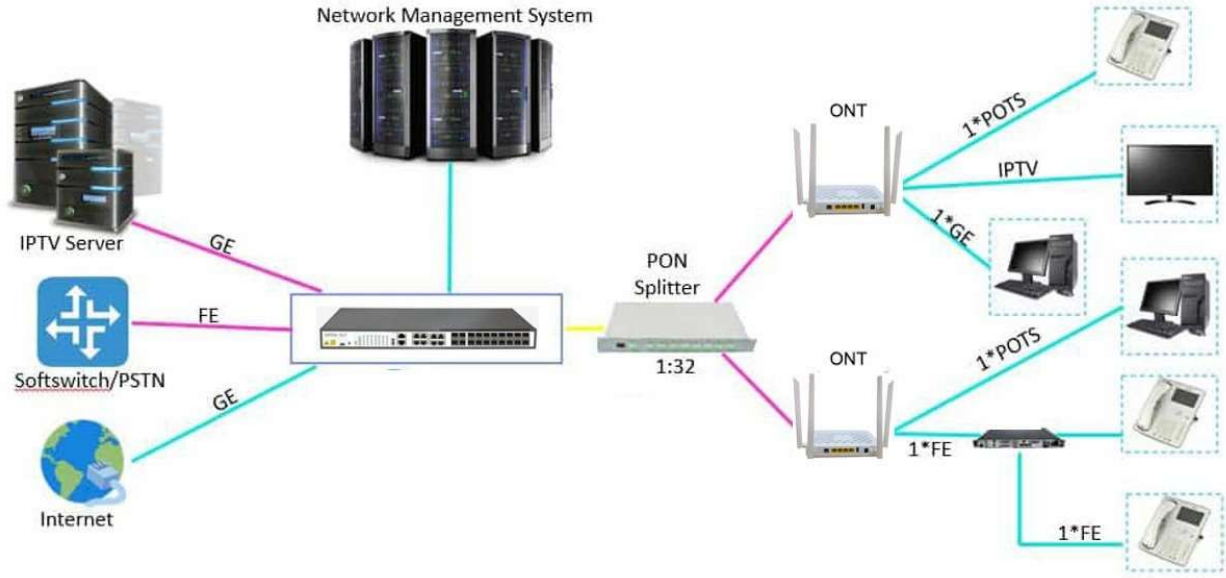
Device Brief Information

	**GP5800-04** · 4*GPON Port · 4*10/100/1000M Base-T · 4*1000M Base-X SFP/4*10GE SFP+ · 19” Rack-mount (440*200*44mm)
	**GP5800-08** · 8*GPON Port · 4*10/100/1000M Base-T · 4*1000M Base-X SFP/4*10GE SFP+ · 19” Rack-mount (440*250*44mm)
	**GP5800-16** · 16*GPON Port · 8*10/100/1000M Base-T · 4*1000M Base-X SFP/4*10GE SFP+ · 19” Rack-mount (440*320*44mm)

Solution Display

The GPON system usually consists of the OLT at the office side, the ONU and the ODN at the user side, and adopts a point-to-multipoint network structure. The ODN consists of single-mode optical fibers and passive optical devices such as optical splitters and optical connectors. It provides the optical transmission medium for the physical connection between the OLT and ONU.Implement FTTX service deployment application.





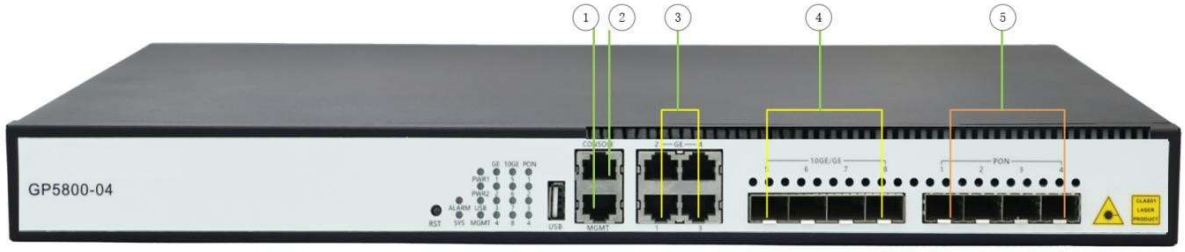
Hardware Specification

Attributes	GP5800-04	GP5800-08	GP5800-16
Interface	4*GPON Port, 4*10/100/1000M Base-T, 4*1000M Base-X SFP/4*10GE SFP+	8*GPON Port, 4*10/100/1000M Base-T, 4*1000M Base-X SFP/4*10GE SFP+	16*GPON Port, 8*10/100/1000M Base-T, 4*1000M Base-X SFP/4*10GE SFP+
Exchange Capacity	103Gbps	118Gbps	156Gbps
Forwarding Rate	76.632Mpps	87.792Mpps	116.064MppS
Management Port	Console	Console, Type C	
PON	20KM transmission distance; 1:128 Max splitting ratio		
MAC	32K		
Route	8K		

ARP	8K		
Weight	3KG	5KG	6.5KG
Fan	3* fixed fans		4* fixed fans
Power	AC: 100～240V, 47/63Hz; DC: -36V～-75V;		
Power Consumption	≤55W	≤65W	≤65W
Dimensions (W *D *H)	440*200*44mm	440*250*44mm	440*320*44mm
Environment Temperature	Working Temperature：-10℃～55℃ Storage Temperature：-40℃～70℃		
Environment Humidity	Relative Humidity: 5%~95%, non-condensing		
Environment Friendly	China RoHS, EEE		

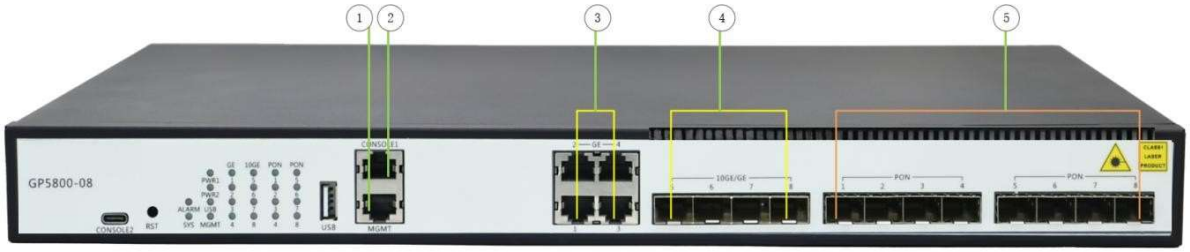
Panel view

1) GP5800-04



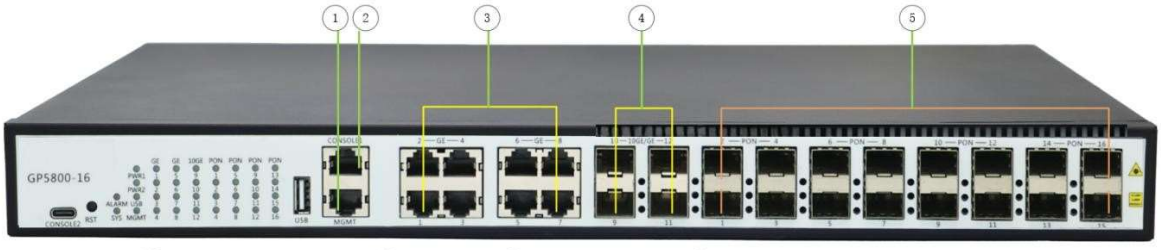
1 Out-of-band management port 2 Console Port 3 10/100/1000M Base-T 4 1G/10G Base-X SFP/SFP+
5 GPON Port

2) GP5800-08



1 Out-of-band management port 2 Console Port 3 10/100/1000M Base-T 4 1G/10G Base-X SFP/SFP+
5 GPON Port

3) GP5800-16



1 Out-of-band management port 2 Console Port 3 10/100/1000M Base-T 4 1G/10G Base-X SFP/SFP+
5 GPON Port

LEDs Operating Status

The operation status of GP5800 can be determined by using the front LED. The panel LED indicator will display the status of each interface. The meaning of LED is shown in the following table.

LEDs/Buttons	Color	Function	Description	
SYS	Green	System running status	Green OFF	The device is not running or power off.
			Green Flash	The device is running normally.
ALARM	Red	Critical alarms	ON	Critical alarms are reported for the card.
			OFF	No critical alarm is reported for the card.
MGMT	Green	Port status	ON	The link is properly connected (link up) and in action
			OFF	The link is interrupted (link down).
USB	Green	Port status	ON	The USB flash drive peripheral is inserted.
			OFF	None USB flash drive external insert.
PWR 1-2	Green	Power status	ON	The AC/DC power module is normal.
			OFF	The AC/DC power module faulty or unavailable.
GE	Green	Port status	ON	The link is properly connected (link up) and in action
			OFF	The link is interrupted (link down).
1G/10G SFP	Green	Port status	ON	The link is properly connected (link up) and action
			OFF	The link is interrupted (link down).
PON 1~8	Green	PON port status	ON	At least one ONU has been successfully registered.
			OFF	No ONU has been successfully registered.
RST	N/A	Reset button	Long press on the RST button for to restart the equipment.	

Plug-In Units

GP5800-04 Built-in power module, GP5800-08/16 supports a pluggable power module, and supports two power ports. The power module provides the appropriate power supply voltage for the OLT substrate. Two power modules (DC or AC power modules) can be installed in the rear of the chassis. Therefore, select an appropriate power supply unit based on the installation environment.

The power connector (AC and DC type) for main power supply is located on the rear panel of the PSU. For redundant power feeding, the second PSU has to be used.

The below shows the electrical characteristics of the OLT:

Power Supply Structure

	**GP5800-04** DC: 36V ~ 75V, Rated Power: 48W AC: 100～240V, 47/63Hz, Rated Power: 50W
	**GP5800-08** DC: 36V ~ 75V ， Rated Power ： 72W AC: 100～240V, 47/63Hz, Rated Power: 75W
	**GP5800-16** DC: 36V ~ 75V ， Rated Power: 72W AC: 100～240V, 47/63Hz, Rated Power: 75W

FAN Unit

The device has built-in fan units. The number of fan units varies according to the chassis structure.

Characteristic	FAN
GP5800-04	3*FAN
GP5800-08	3*FAN
GP5800-16	4*FAN

Software Specification

Attributes	GP5800 Series
PON	Support ITU-T G.984/G.988 standards Supports a physical differential distance of 20KM and a logical distance of 60KM Supports maximum 1:128 spectral ratio Support standard OMCI management functionality Support private OMCI management function (requires ONT from our company) Supports compatibility with ONT of any brand Support batch upgrade of ONT
VLAN	Support 4K VLAN Support VLAN based on port, MAC and protocol Support dual Tag VLAN, port-based static Q-in-Q and flexible Q-in-Q
MAC	32K Mac address Support static MAC address setting Support black hole MAC address filtering Support port MAC address limit
Ring Network Protocol	Support STP/RSTP/MSTP Support ERPS Ethernet ring network protection protocol Support Loopback-detection port loopback detection
Port Control	Support two-way bandwidth control Support port storm suppression Support 9K Jumbo ultra-long frame forwarding
Port Aggregation	Support static link aggregation Support dynamic LACP Each aggregation group supports a maximum of 8 ports
Mirroring	Support port mirroring Support stream mirroring
ACL	Support standard and extended ACL Support ACL policy based on time period Provide flow classification and flow definition based on IP header information such as source/destination MAC address, VLAN, 802.1p, ToS, DSCP, source/destination IP address, L4 port number, protocol type, etc.

Attributes	GP5800 Series
QoS	Support flow rate limiting function based on custom business flow Supports mirroring and redirection functions based on custom business flows Support priority marking based on custom service flow, support 802.1P, DSCP priority Remark capability Support port-based priority scheduling function, support queue scheduling algorithms such as SP/WRR/SP+WRR
VLAN	Support 4K VLAN Support VLAN based on port, MAC and protocol Support dual Tag VLAN, port-based static Q-in-Q and flexible Q-in-Q
Safety	Support user hierarchical management and password protection Support Radius&TACACS+ authentication Support MAC address learning limit, support black hole MAC function Support port isolation Support broadcast message rate suppression Support IP Source Guard Support ARP flood suppression and ARP spoofing protection
Layer3 Routing	Support ARP learning and aging Support static route Support dynamic route RIP/OSPF/BGP/ISIS
System management	CLI、Telnet、WEB、SNMP V1/V2/V3、SSH2.0 Support FTP, TFTP file upload and download Support SNTP Support LLDP neighbor device discovery protocol Support Ping and Traceroute

Connector Specifications

The OLT provides standardized interfaces, thus facilitating rapid and trouble-free integration into the existing network infrastructures.

PON Interfaces

The OLT contains 4/8/16 GPON interface ports for GPON SFP modules and below table is available.
GPON module list.

1	GPON OLT SFP - Wavelength: 1490nm/1310nm - Distance: 20km - Mode: Single mode - Connector: SC/UPC - Data rate: 2.488Gbit/s (Up), 1.25Gbit/s (Down) - Core type: Single Core - Operating Temperature: 0 °C ~ 70 °C

Network Interfaces

The OLT optical interface ports for SFP/SFP+ modules and below table is available SFP/SFP+ module list.

M

Purchase Info

Model Number	Description
GP5800-04	4*GPON port, 4*1GE SFP/10GE SFP+, 4*GE RJ45, with AC/DC optional dual power
GP5800-08	8*GPON port, 4*1GE SFP/10GE SFP+, 4*GE RJ45, with AC/DC optional dual power
GP5800-16	16*GPON port, 4*1GE SFP/10GE SFP+, 8*GE RJ45, with AC/DC optional dual power