

Maipu PT8000 Series XGSPON OLT Datasheet

Overview

Maipu PT8000 Series offer a leap in fiber optic technology, providing symmetrical 10Gbps bandwidth, crucial for high-demand applications like cloud services and interactive gaming. This technology supports more users and devices with its enhanced capacity, making it suitable for smart cities and densely populated areas. It ensures longer reach without speed loss and is backward compatible with GPON, offering a smooth upgrade path while protecting existing investments.

With Maipu's adoption of XG(S)PON, service providers can deliver ultra-fast internet, catering to a wide range of applications efficiently and securely, positioning themselves at the forefront of the broadband market with minimal investment.

Maipu PT8000 series support smooth upgrades from GPON to XG(S)PON, achieving high bandwidth and high-speed data transmission to meet large-scale deployment requirements. This product has comprehensive management and monitoring functions, simplifies operation and maintenance processes, and provides rich business features and scalability.



PT8000-09



PT8000-04

Highlight

- Compliant with ITU-T G.984, G.987, G.9807 and G.988
- Dual main control board redundancy and Type B dual-homing PON protection
- Flexible service slot configuration for different capacity requirements
- Modular chassis design with hot-swappable service boards.
- Supports smooth upgrade from GPON to XG(S)PON.

Key Features

- **Adopting Advanced XG(S)PON Technology**

The PT8000 series utilize cutting-edge XG(S)PON technology, delivering higher bandwidth and lower latency for next-generation optical access networks. XG(S)PON supports symmetrical and asymmetrical data transmission rates of up to 10Gbps, making it ideal for meeting the demands of future high-bandwidth applications such as ultra-high-definition video streaming, cloud computing, smart homes, and IoT devices. This technology enables PT8000 series to offer a more stable and high-speed network experience while optimizing resource utilization and ensuring excellent compatibility across various deployment scenarios. The flexibility and advanced capabilities of XG(S)PON make the PT8000 series an ideal choice for service providers, helping them maintain a competitive edge with superior technology and service offerings in a dynamic market.

- **Carrier-class security protection, ensure the safe operation of network**

The PT8000 series are offering carrier-class protection features that safeguard network operations. It supports uplink redundancy and is equipped with advanced spanning tree protocols to ensure consistent network uptime and link protection. This level of security infrastructure ensures that the network is robust against potential disruptions, maintaining a secure and reliable service for users.

- **Large coverage for low density areas**

Designed to extend services efficiently over large geographical areas, the PT8000 series are compatible with N2/C+ XG(S)PON optical modules which are known for their high optical power budgets. This capability is instrumental in propagating long-distance Fiber to the Home (FTTH) networks. When utilized in tandem, these solutions expedite network coverage across vast and sparsely populated areas while reducing deployment time by up to 70%, optimizing both costs and network reach.

- **Redundant power supply for high availability**

To guarantee continuous operation and high service availability, the PT8000 series are equipped with a redundant power supply system, featuring dual modular power slots. This ensures that the network infrastructure remains operational even in the event of a power module failure, minimizing downtime and maintaining consistent service delivery.

- **Comprehensive network management**

The PT8000 series offer a suite of network management tools including SNMP, SHELL, TELNET, SSH, providing administrators with flexible and powerful options for overseeing network operations. The user-friendly interface simplifies the management process, enabling efficient configuration, monitoring, and maintenance of network components. These comprehensive management features assure that service providers can effectively control their network resources and respond swiftly to the dynamic demands of the network environment.

Technical Specifications

Hardware Features			
Item		PT8000-09	PT8000-04
Chassis	Rack	6U	2U
Dimension (L*W*H)		442mm*299mm*266.7mm	442mm*299mm*88.9mm
Power Consumption	Typical Consumption	183W	137W
	Peak Consumption	872W	400W
Working Temperature		-20°C~+60°C	-20°C~+60°C
Storage Temperature		-40 ~+70°C	-40 ~+70°C
Relative Humidity		5~95% (non-conditioning)	5~95% (non-conditioning)
Power Supply	AC	External AC-DC power tray	100~240VAC, 50/60Hz
	DC	-48V	-48V
Backplane Bandwidth		3.8Tbps	1.66Tbps
XG(S)PON/GPON Port Specification (N2_C+ module)	Transmission Distance	20KM	20KM
	XG(S)PON Port Speed	GPON: Upstream1.25Gbps, Downstream 2.49Gbps XGPON: Upstream 2.49Gbps, Downstream 9.95Gbps XG(S)PON: Upstream 9.95Gbps, Downstream 9.95Gbps	GPON: Upstream1.25Gbps, Downstream 2.49Gbps XGPON: Upstream 2.49Gbps, Downstream 9.95Gbps XG(S)PON: Upstream 9.95Gbps, Downstream 9.95Gbps
	Wavelength	GPON: Upstream: 1310nm Downstream: 1490nm XG(S)PON: Upstream: 1270nm Downstream: 1577nm	GPON: Upstream: 1310nm Downstream: 1490nm XG(S)PON: Upstream: 1270nm Downstream: 1577nm
	Connector	SC/UPC	SC/UPC
	TX Power	GPON: +3dBm ~ +7dBm, XG(S)PON: +4dBm ~ +7dBm	GPON: +3dBm ~ +7dBm, XG(S)PON: +4dBm ~ +7dBm
	Rx Sensitivity	XG(S)PON: -28dBm, XGPON: -29.5dBm, GPON: -32dBm	XG(S)PON: -28dBm, XGPON: -29.5dBm, GPON: -32dBm
	Saturation Optical Power	XG(S)PON: -7dBm, XGPON: -9dBm, GPON: -12dBm	XG(S)PON: -7dBm, XGPON: -9dBm, GPON: -12dBm
	Fans	Fan Board	Fan Board
Management Mode		SNMP/Telnet/CLI/WEB/SSH v2	SNMP/Telnet/CLI/WEB/SSH v2
Software Features			
Management	SNMP, Telnet, CLI, WEB, SSH v2		
	Fan Group Control		
	Port Status monitoring and configuration management		
	Online ONT configuration and management		
	User management		
	Alarm management		

Layer2 Switch	32K Mac address
	Support 4096 VLANs
	Support port VLAN
	Support VLAN tag/Un-tag, VLAN transparent transmission
	Support VLAN translation and QinQ
	Support storm control based on port
	Support port isolation
	Support port rate limitation
	Support 802.1D and 802.1W
	Support LACP, Dynamic LACP
	QoS based on port, VID, TOS and MAC address
	Access control list
	IEEE802.x flow control
	Port stability statistic and monitoring
L2 Multicast	IGMP snooping
DHCP	DHCP server, DHCP relay, DHCP snooping
	DHCP option82
Layer 3 Protocols	ARP proxy
	32K hardware IPv4 Host Routes
	24K hardware IPv4 Subnet Routes
	16K hardware IPv6 Host Routes
	Support Radius, Tacacs+
	Support IP source guard
	Support static route/RIP/OSPF
IPv6	Support NDP
	Support IPv6 Ping, IPv6 Telnet, IPv6 routing
	Support ACL based on source IPv6 address, Destination IPv6 address, L4 port, Protocol type, etc
	Support MLD v1/v2 snooping
GPON Features	Tcont DBA
	X-Gem traffic
	In compliant with ITU-T G.9807 and ITU-T G.987 standard
	Up to 20KM transmission Distance
	Support data encryption, multi-cast, port VLAN, separation, RSTP, etc
	Support ONT auto-discovery/link detection/remote upgrade of software
	Support VLAN division and user separation to avoid broadcast storm

	Support power-off alarm function, easy for link problem detection
	Support broadcasting storm resistance function
	Support port isolation between different ports
	Support ACL to configure data packet filter flexibly
	Specialized design for system breakdown prevention to maintain stable system
	Support STP, RSTP

Order Information

Model	Description
PT8000 XGSPON OLT Host	
PT8000-09 Host	
PT8000-09	PT8000-09 chassis, two main slots, seven service slots.
PT80-MSU-09	1*100GE QSFP28 interface, 4*10GE SFP+ interface, 1*10/100/1000BASE-T AUX port, 1*CONSOLE port, 1*USB3.0, 1*Type-C USB console, 1*MicroSD port main line card.
PT80-8XGS	8*GPON&XG(S)PON Combo PON port service line card.
PT80-16GP	16*GPON port service line card.
PT80-16XGS	16*GPON&XG(S)PON Combo PON port service line card.
PWR-DC-09	PWR-DC-09, -48V DC power module for PT8000-09.
PWR-2000-AC	PWR-2000-AC, AC power module for PT8000-09.
PT8000-FAN-09	PT8000-FAN-09 Fan module for PT8000-09.
PT8000-04 Host	
PT8000-04	PT8000-04 chassis, two main slots, two service slots.
PT80-MSU-04	1*100GE QSFP28 interface, 3*10GE SFP+ interface, 1*10/100/1000BASE-T AUX port, 1*USB3.0, 1*Type-C USB console, 1*MicroSD port main line card.
PT80-8XGS	8*GPON&XG(S)PON Combo PON port service line card.
PT80-16GP	16*GPON port service line card.
PT80-16XGS	16*GPON&XG(S)PON Combo PON port service line card.
PWR-450-AC	PWR-450-AC, AC power module for PT8000-04.
PT8000-FAN-04	PT8000-FAN-04 Fan module for PT8000-04.
Transceivers	
OLT-XGS-N2	OLT-XGS-N2, XG(S)PON module, N2 class, 10G downstream, 10G/2.5G upstream, TX wavelength 1577nm, RX wavelength 1270nm, SC/UPC connector.
XG(S)PON/GPON Combo SFP+	XG(S)PON/GPON Combo SFP+, XG(S)PON/GPON Combo SFP+ module, compatible with GPON OLT C+ Class and XG(S)PON OLT N2 class.

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