8 GPON Ports

Support 1024 ONTs

V1.1.5

| ITU-T G.984x GPON OLT | 2.5Gbps Downstream | Enhanced Layer 2-7 Switching | Dual power supply | IPv6 |

SGT8000B 8 Port GPON OLT:

SGT8000B is a small capacity and enhancement mode cassette GPON OLT, meeting the requirements of ITU-T G.984/G.988, possessing super GPON access capacity, carrier-class reliability and the complete security function. It can satisfy long-distance optical fiber access requirement on account of its excellent management, maintenance and monitoring capability, abundant service features and flexible network mode. SGT8000B can be used with NGBNVIEW network management system so as to provide users with the perfect solution.

SGT8000B provides 8* downlink GPON port, 8 *GE combo port or 2* 10G SFP+ port. The height is only 1U for easy installation and space saving. SGT8000B is suitable for Broadcast three in one, video surveillance network, enterprise LAN, Internet of Things, etc.

Main Characters

- ITU-T G.984.x standard, interoperable with Chima and most popular GPON ONTs
- Offers 8*GPON SC Ports, support 1024 subscriber ONTs at 1:128 Splitting Ratio
- Offers 8*Gigabit SFP and 8*Gigabit Tx combo uplink ports, Optionally 2*10GE SFP + uplink ports.
- Dual AC or Dual DC or 1AC+1DC Redundant Power supply
- Comprehensive GPON DBA capabilities, dynamic assignment of bandwidth
- IPv4 and IPv6 ready, suitable for applying in both IPv4 and IPv6 based Networks
- IEEE802.1Q VLAN, QinQ, VLAN translation, highly applicable in HFC networks
- Enhanced L2-7 Switching features, support STP, QOS, ACL, etc.
- Standard OMCI management function
- ONU batch software upgrade, fixed time upgrade, real time upgrade
- PON port optical power detection

Technical Parameters

GPON Parameters

ITU-T G.984.x GPON standard, 1310nm upstream & 1490nm downstream

Support G.984.1, G.984.2, G.984.3, G.984.4, G.988 GPON & OMCI protocols

TR-101 compliant solution for GPON OLT applications

1:128 Splitting Ratio, support max 1024 subscriber GPON ONTs

Max transmission distance: 60Km

SN or SN+Password methods for ONT identifier and authentication

T-cont bandwidth, static bandwidth and dynamic bandwidth allocation

4096 port-IDs per GPON MAC in upstream and downstream directions.

1024 allocated IDs per Gpon MAC in upstream direction

Fiber Transmission cable: G.652 Single mode optical fiber cable

Enhanced GPON debug and diagnostic functions.

Support SR Dynamic Bandwidth Allocation (DBA), 1Kbit/s

Support Forward Error Correction (FEC)

128bit triple churning encryption for both upstream and downstream

Verification of legal subscriber ONT, illegal subscriber ONT report

ONT Firmware upgrade: massive upgrade, timed upgrade, realtime upgrade

Transmission and Receiving optic power detection at PON port

Support Dying Gasp

Hardware Parameters

Model NO. SGT8000B

Offers 8* GPON downstream ports

Offers 8*GE SFP/Tx combo upstream ports

Optionally offers 2*10G SFP+ upstream ports

Redundant dual AC, dual DC or 1AC+1DC power supplies:

AC: Input 90 ~ 264V, 47 ~ 63Hz;

DC: Input -36V ~ -72V;

Switching Capacity: 140Gbps

IPv4 & IPv6 Switching Througput: 104Mpps

Power consumption: ≤110W

Product Measurement: 440mm×44mm×340mm

Product Weight: ≤3kgs

Live Leds for all interfaces

Physical Characters

Item		SGT8000B
PON Features		ITU-TG.984.x standard Maximum 60 Km PON transmission distance access 128 terminals for single fiber PON Uplink and downlink triple churning encrypted function with 128Bits ONU terminal legitimacy certification, report illegal ONU registration DBA algorithm, the particle is 250kbps Standard OMCI management function ONU batch software upgrade, fixed time upgrade, real time upgrade PON port optical power detection
L2 Features	MAC	Port MAC Limit 32K MAC (packet exchange chip cache 2MB, external cache 720 MB)

L2 Features	VLAN	4K VLAN entries
		Port-based/MAC-based/protocol/IP subnet-based
		QinQ and flexible QinQ (StackedVLAN)
		VLAN translate & add SVLAN
	Spanning Tree	STP
		Remote loop detecting
	Port	Bi-directional bandwidth control
		Static link aggregation and LACP(Link Aggregation Control Protocol)
		Port mirroring
Security Features	User's Security	Port Isolation
		MAC address binding to the port and MAC address filtering
	Device Security	System rate-limited
		SNMP management
		Security IP login through Telnet
		Hierarchical management and password protection of users
Service Features	Network Security	User-based MAC traffic examination
		IP+VLAN+MAC+Port binding
		L2 to L7 ACL flow filtration mechanism on the 80 bytes of the head of user-defined packet
		Cryptograph authentication
Service Features	ACL	Standard and extended ACL
		Flow classification and flow definition based on source/destination MAC address, VLAN, 802.1p, ToS, DiffServ, source/destination IP(IPv4/IPv6) address, TCP/UDP port number, protocol type, etc
		packet filtration of L2～L7 deep to 80 bytes of IP packet head
	QoS	Rate-limit to packet sending/receiving speed of port
		CAR(Committed Access Rate), Traffic Shaping and flow statistics
		Packet mirror and redirection of interface and self-defined flow
		Super queue scheduler based on port or self-defined flow. Each port/
		flow supports 8 priority queues and scheduler of SP, WRR and
		SP+WRR.
	IPv4	DHCP Relay
		Static Routing
	IPv6	DHCPv6
		ACLv6

	Multicast	IGMPv1/v2/v3
		IGMPv1/v2/v3 Snooping
		MVR and cross VLAN multicast copy
		IGMP Fast leave
		IGMP Proxy
		MLDv2/MLDv2 Snooping
Reliability	Loop Protection	Loopback-detection
Reliability	Link Protection	LACP (recover-time <10ms)
	Device Protection	1+1 power hot backup
Maintenance	Network Maintenance	Port real-time, utilization and transmit/receive statistic based on Telnet
		RFC3176 sFlow analysis
		GPON OMCI
		RFC 3164 BSD syslog Protocol
		Ping and Trace route
	Device Management	CLI, Console port, Telnet and WEB
		SNMPv1/v2
		NTP
		NGBN View network management

Order Information

Model No.	Product Description
SGT8000B	SGT8000B GPON OLT, with 8*GPON Ports, 2 *10GE or 8 *GE uplink ports
SFP-GPON-T20	GPON SFP Transceiver, 1310Tx/1490Rx, SC/UPC, 20Km, Class B+
SGTU-10G-2-SFP+	SGT8000B Uplink Switching Board, 2*10G SFP+ slots