optostar

16PON 1U GPON OLT

OP-GTB16

OP-GTB16 1U GPON OLT provides 16 downstream GPON ports, 4 uplink GE Combo ports,8 uplink GE SFP slots, 2 10GE SFP+ ports,The 1U height can be easy installed and maintained to save space. The OP-GTB16 adopts the industrial advanced technology, with powerful Ethernet services and QoS feature, supporting SLA and DBA. The splitting ratio up to 1:128, supporting different types of ONU in different networks, minimizing operators' investments.

Parameter

Attributes	OP-GTB16
Switching capacity	102Gbps
Throughput (IPv4/IPv6)	152.52MPPS
Ports	16*PON port, 4*GE Combo ports,2*10GE SFP+,8 uplink GE SFP slots
Power redundancy	Dual power supply. Can be double AC, double DC or AC+DC
Power supply	AC：Input 90～240V，47～63Hz； DC：Input -36V～-72V；
Power consumption	≤150W
Outline dimensions (mm) (W*D*H)	437mm×44mm×377mm
Weight (in maximum configuration)	≤3kg
Environmental requirements	Working temperature：-15℃～55℃ Storage temperature：-40℃～70℃ Relative humidity：10%～90%，no condensing

Features

Attributes		OP-GTB16 series
PON features	GPON	Satisfy ITU -T standard TR-101 compliant solution for FTTx OLT applications High splitter rate，each PON port supports 128*ONU ,384*T-CONT Maximum transmission distance of 20KM Support uplink FEC, downlink FEC(Forward Error Correction) ONU identifier authentication :SN /SN+PASSWD Bandwidth allocation mechanism 5 types of T-CONT bandwidth Static Bandwidth Allocation Dynamic Bandwidth Allocation GPON feature parameter 4096 port-IDs per GPON MAC (Downstream and Upstream) 1024 Alloc -IDs per GPON MAC (Upstream)
L2 features	MAC	MAC Black Hole Port MAC Limit

	VLAN	4K VLAN entries Port-based/MAC-based/IP subnet-based VLAN Port-based QinQ and Selective QinQ (StackVLAN) VLAN Swap and VLAN Remark and VLAN Translate GVRP Based on ONU service flow VLAN add, delete, replace
	Spanning tree protocol	IEEE 802.1D Spanning Tree Protocol (STP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) IEEE 802.1s Multiple Spanning Tree Protocol instances (MSTP)
	Port	Bi-directional bandwidth control Static link aggregation and LACP(Link Aggregation Control Protocol) Port mirroring and traffic mirroring
Security features	User security	Anti-ARP-spoofing Anti-ARP-flooding IP Source Guard create IP+VLAN+MAC+Port binding Port Isolation MAC address binds to port and port MAC address filtration IEEE 802.1x and AAA/Radius authentication TACACS+ authentification dhcp anti-attack flood attack automatic suppression ONU isolation control
	Device security	Anti-DOS attack(such as ARP，Synflood, Smurf, ICMP attack), ARP detection, worm and Msblaster worm attack SSHv2 Secure Shell SNMP v3 encrypted management Security IP login through Telnet Hierarchical management and password protection of users
	Network security	User-based MAC and ARP traffic examination Restrict ARP traffic of each user and force-out user with abnormal ARP traffic Dynamic ARP table-based binding Supports IP+VLAN+MAC+Port binding L2 to L7 ACL flow filtration mechanism on the 80 bytes of the head of user-defined packet Port-based broadcast/multicast suppression and auto-shutdown risk port URPF to prevent IP address counterfeit and attack DHCP Option82 and PPPoE+ upload user's physical location Plaintext authentication of OSPF、RIPv2 and MD5 cryptograph authentication
IP routing	IPv4	ARP Proxy DHCP Relay DHCP Server Static route

	IPv6	ICMPv6 ICMPv6 redirection DHCPv6 ACLv6 Configured Tunnel 6to4 tunnel IPv6 and IPv4 Tunnels
Service features	ACL	Standard and extended ACL Time Range ACL Packet filter providing filtering based on source/destination MAC address, source/destination IP address, port, protocol, VLAN, VLAN range, MAC address range, or invalid frame. System supports concurrent identification at most 50 service traffic Support packet filtration of L2～L7 even deep to 80 bytes of IP packet head
	QoS	Rate-limit to packet sending/receiving speed of port or self-defined flow and provide general flow monitor and two-speed tri-color monitor of self-defined flow Priority remark to port or self-defined flow and provide 802.1P, DSCP priority and Remark 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 and self-defined flow. Each port/ flow supports 8 priority queues and scheduler of SP, WRR and SP+WRR. Congestion avoid mechanism，including Tail-Drop and WRED Support the rate limitation on the basis of each ONU uplink and downlink. Support the flow classification of DBA and SLA Support flow-based tag priority and message redirection
	Multicast	IGMPv1/v2/v3 IGMPv1/v2/v3 Snooping IGMP Filter MVR and cross VLAN multicast copy IGMP Fast leave IGMP Proxy PIM-SM/PIM-DM/PIM-SSM PIM-SMv6、PIM-DMv6、PIM-SSMv6 MLDv2/MLDv2 Snooping
	MPLS	NPLS LDP
Reliability	Loop protection	EAPS and GERP (recover-time <50ms) Loopback-detection
	Link protection	FlexLink (recover-time <50ms) RSTP/MSTP (recover-time <1s) LACP (recover-time <10ms) BFD

	Device protection	VRRP host backup Double fault-tolerant backup of host program and configuration files 1+1 power hot backup
Maintenance	Network maintenance	Telnet-based statistics RFC3176 sFlow LLDP 802.3ah Ethernet OAM RFC 3164 BSD syslog Protocol Ping and Traceroute
	Device management	Command-line interface（CLI）, Console, Telnet and WEB configuration System configuration with SNMPv1/v2/v3 RMON (Remote Monitoring)1/2/3/9 groups of MIB NTP(Network Time Protocol)

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