



GPON-OLT



Product Overview

GPON-OLT series is a box OLT switching device designed by Transtel , provides minimum 4-16 downlink GPON ports ,4-16 uplink GE optical ports, 8*10/100/1000M electrical ports with an expansion slot,can access 2*10G SFP+ ports. only 1U height,easy to install ,save space.

GPON-OLT adopts advanced technology in the industry,splitting ratio up to 1:128, supports different types of ONU hybrid networking which minimizes network operator' s investment. It has powerful ethernet service and QoS guarantee, supports SLA and DBA.

Product Advantage

1. GPON: GPON-OLT series complies with ITU.T G.984.x and [YD/T 1475-2006 standard](#).
2. System capacity:Single PON port can support the access of 128 terminals,the overall unit can support 2048 ONU terminals.
- 3.Uplink port: support many different types of metropolitan area network interface combination,according to network situation ,select 1000M or 10000M port.

4.Device size: 1U,occupies little space in the computer room,less power consumption,reduces business operating cost.

5.High reliability guarantee,support dual power supply.

Product Feature

1.Provide a high density PON port,overall unit can support 2048 ONU terminals,capacity is larger than regular cassette OLT,every PON port supports splitting ratio 1:128,PON optical transceiver is hot plug design,can select 4 10G ports,support 65km transmission distance.

2.Support PON optical fiber redundancy protection,automatic link road protection switching in the case of optical fiber failure.

3.PON business capabilities support dynamic bandwidth allocation DBA algorithm, dynamic bandwidth allocation scheme (DBA) enables all users to share 2.5Gbps bandwidth more reasonably,achieving reliable quality of service.

4.Support ethernet function, provide effective isolation guarantee mechanism,VLAN isolation, port protection,MAC address binding,IP address binding,port speed limit, queuing technique ,flow control technology etc provide technical guarantee for the development of multi service integration .

5.Perfect security protection mechanism,use hardware packet forwarding can detect and filter the characteristic packets effectively,MAC address that supports ARP attacks, automatic protection and automatic user blocking capabilities,prevent protocol messages from attacking.Support all kinds of anti DDoS, CPU over-current protection,VRRP and other equipment protection function,prevent illegal or abnormal traffic from entering the network,against multiple viruses attack.Ensure the safety of equipment management.

6.Completely support 2 layer business function,achieve flexible QinQ and QoS function.ACL supports L2 to L7 ,deep into the IP message header and 80 bytes message of packet filtering.Provide high quality QoS service quality guarantee for multi service operation

7.Highly centralized operation management and maintenance,for business,provide a unified network transmission and interconnection protocol, address management, domain name management, security management, user access management.OAM function includes configuration, alarm, performance monitoring, fault isolation and security management etc.

Product specification

Model	Description
exchange capacity	512Gbps
Service port	4-16*PON ports, 4-16*1.25G SFP optical ports,8 GE electrical ports,2*10G SFP+ ports
Redundancy design	Dual power supply,support dual AC input,dual DC input and AC+DC input
Power supply	AC: input 100~240V 47/63Hz, DC: input-36V~-75V,
Full load power consumption	≤85W
Dimension	440mm×44mm×380mm
Full weight	≤3kg
Environmental parameter	Operating temperature:0°C~40°C Storage temperature:-40°C~70°C relative humidity: 10%~90%.non-condensing

Service characteristic

Model	Description	
Passive optical access characteristic	<p>Meet ITU.T G.984.x GPON standard</p> <p>Meet China Telecom / China Unicom GEPON interoperability standards.</p> <p>Support single fiber 20km transfer distance.</p> <p>Support single fiber passive optical access to 128 terminals</p> <p>Support 128Bits uplink and downlink three stir encryption function</p> <p>Support ONU terminal legitimacy certification, illegal ONU registration events reported.</p> <p>Support standard OAM and extended OAM management functions</p> <p>Support ONU software batch upgrade, regular upgrade, real-time upgrade</p> <p>Support PON port optical power,accept optical power tested.</p>	
2 layer characteristics	MAC	<p>Support MAC Black Hole.</p> <p>Support port MAC Limit.</p> <p>Support 32k MAC address.</p>
	VLAN	Support 4k VLAN table entry.

		<p>Support for VLAN based on ports, MAC, protocols, and IP subnets</p> <p>Support port QinQ and flexible QinQ(StackVLAN)</p> <p>Support VLAN Swap and VLAN Remark</p> <p>Support PVLAN ,achieve port isolate and save public VLAN resource</p> <p>Support GVRP</p>
	spanning tree	<p>Support STP/RSTP/MSTP</p> <p>Support remote loop detection</p>
	port	<p>Support bidirectional bandwidth control</p> <p>Support static and LACP dynamic converged port aggregation</p> <p>Support port mirroring image</p>
Safety characteristics	User security	<p>Support Anti-ARP-spoofing.</p> <p>Support Anti-ARP-flooding</p> <p>Support IP Source Guard to automatically create the IP+MAC+ port +VLAN binding table.</p> <p>Support Port Isolation</p> <p>Supports MAC address binding to port, port MAC address filtering.</p> <p>Support IEEE 802.1x and AAA/Radius user identity authentication.</p>
	Device security	<p>Support the control layer to prevent all kinds of DOS and virus attack the CPU .</p> <p>Support SSHv2 Secure ShGLI.</p> <p>Support SNMP v3 encryption management.</p> <p>Support TGLnet login and password mechanism for Security IP.</p> <p>Support for maintenance user classification protection,prevent unauthorized user access by forcible entry.</p>
	Network security	<p>Support every user MAC address ARP traffic detection.</p> <p>Supports ARP message suppression or user blocking for ARP traffic detection.</p> <p>Dynamic ARP tables support one key binding .</p> <p>Support IP address,VLAN ID,MAC address port and other parameter bundling by hand.</p> <p>Support L2-L7 ACL stream filtering of user-defined message header 80 bytes depth.</p> <p>Support port broadcast / multicast message suppression and automatic shutdown of dangerous ports.</p> <p>Support URPF unicast reverse path check to prevent IP address spoofing and attack.</p> <p>Support DHCP, Option82 and PPPoE+ upload user physical location information.</p> <p>Support MD5 ciphertext authentication and the plaintext of OSPF,RIPv2 and BGPv4 message.</p>

Service characteristic	ACL	<p>Support standards and extend ACL..</p> <p>Support time range ACL statement.</p> <p>Provide the flow classification and flow definition of IP message header information,includes source / destination MAC address,VLAN,802.1p,ToS,</p> <p>DiffServ ,IP(IPv4/IPv6) address of source and destination,TCP/UDP port number,protocol type etc.</p> <p>L2~L7 deep into IP message header,support 80 bytes of packet filtering.</p>
	QoS	<p>Limits the speed of the port,the receive and send messages from custom streams,provides regular traffic monitoring for custom streams.</p> <p>Support CAR(Committed Access Rate),Traffic Shapping and Traffic statistics.</p> <p>Supports message mirroring and message redirection for ports or custom streams.</p> <p>Supports priority tags for ports or custom flows,provide the priority remark of 802.1P、 DSCP.</p> <p>Support high grade queue scheduling of port and custom stream.</p> <p>Support congestion to prevent mechanism,includes Tail-Drop,WRED etc.</p>
	IPv6	<p>Support SA/DA Classification .</p> <p>Support MLD Snooping.</p>
	multicast	<p>Support IGMPv1/v2/v3 .</p> <p>Support IGMPv1/v2/v3 Snooping.</p> <p>Support IGMP Filter.</p> <p>Support MVR multicast,VLAN register and cross VLAN multicast replication.</p> <p>Support IGMP Fast leave.</p> <p>Support IGMP Proxy.</p> <p>Support PIM-SM/PIM-DM/PIM-SSM.</p> <p>Support PIM-SMv6、 PIM-DMv6、 PIM-SSMv6.</p> <p>Support MLDv2/MLDv2 Snooping</p>
Reliability	Loop protection	<p>Support EAPS and GERP ,enhanced ethernet ring network protocol(Link healing time <50ms).</p> <p>Support Loopback-detection,port loopback test.</p>
	Linkprotection	<p>Support FlexLink backup,(Link healing time <50ms)</p> <p>Support RSTP/MSTP link healing hardware accekerating ability(Link healing time <1s).</p> <p>Support LACP Dynamic link aggregation (Link healing time <10ms).</p> <p>Support BFD link surveillance.</p>
	Device protection	<p>Support VRRP mainframe backup .</p> <p>Support 1+1 power supply hot backup.</p>

Maintenance characteristics	Network management	<p>Support TGLnet port real time flow,utilization,receive and send data packet statistics.</p> <p>Support RFC3176 flow analysis,can achieve flow monitoring and statistics of protocol or address.</p> <p>Support LLDP neighbor device discovery protocol.</p> <p>Support 802.3ah Ethernet OAM.</p> <p>Support data logs and 3164 BSD syslog Protocol.</p> <p>Support Ping and Traceroute.</p>
	Device management	<p>Support CLI,Console port,TGLnet and WEB configuration management.</p> <p>Support SNMPv1/v2/v3.</p> <p>Support RMON (Remote Monitoring)1,2,3,9 ground MIB.</p> <p>Support Support NTP network time protocol.</p> <p>Support GN.Link II Server Support GN.Link II Server .</p> <p>Support NGBNView Network Management System.</p>