OPTICAL LINE TERMINAL [OLT-G-x-4-8-x]

Fiber Products, Line Terminals



Description

Taikan's Optical Line Terminal (OLT) utilizes Gigabit Ethernet Passive Optical Network (GEPON) technology. The compact design is complemented by L2/L3 Gigabit switching and routing function. Furthermore the OLT is designed for easy plug and play modules. There are 1-4 optical or electrical ports for the Ethernet/IP network core on the uplink. On the downlink there are 1-8 GEPON optical ports. Final transmission per user is approximately 1 Gbps.



Features

- 1RU Height, Allowing for Easy Installation in a Standard 19" Rack
- Adheres to IEEE802.3ah Standard
- 4, 8, or 16 PON Port Options
- Supports 1:64 Splitting Ratio, High Utilization Rate of Optical Fiber
- Transmission Distance of 20 Kilometers
- Integrated L2/L3 Switch Function
- · Supports Access Control List and DBA (Dynamic Bandwidth Allocation)
- QoS Compatible with IEEE802.1p, IP Precedence, DSCP IP
- Automatic ONU Identification
- MAC Address Limitation
- AES-128 Encryption Technology
- IGMP Snooping and OAM
- Supports IEEE802.1x
- · Provides NMS Based on SNMP, GUI Interface, and Supports In-band

Ordering Information

OLT - G - X - 4 - 8 - X *E* for 220 VAC, or C for -48 V 4, 8, or 16 Ports

Model Number

Description

Power

OLT-G-4-4-8-C	GEPON Optical Line Terminal, 4 PON Ports, 4 Uplink Interface Ports, 8 Downlink Interface Ports	-48 V
OLT-G-8-4-8-C	GEPON Optical Line Terminal, 8 PON Ports, 4 Uplink Interface Ports, 8 Downlink Interface Ports	-48 V
OLT-G-16-4-8-C	GEPON Optical Line Terminal, 16 PON Ports, 4 Uplink Interface Ports, 8 Downlink Interface Ports	-48 V
OLT-G-4-4-8-E	GEPON Optical Line Terminal, 4 PON Ports, 4 Uplink Interface Ports, 8 Downlink Interface Ports	220 VAC
OLT-G-8-4-8-E	GEPON Optical Line Terminal, 8 PON Ports, 4 Uplink Interface Ports, 8 Downlink Interface Ports	220 VAC
OLT-G-16-4-8-E	GEPON Optical Line Terminal, 16 PON Ports, 4 Uplink Interface Ports, 8 Downlink Interface Ports	220 VAC

ELM Board

OLT Ports	4
Standard	IEEE802.3ah
Optical Fiber	SMF, Single Mode Fiber
Connector	SC
Number of Supported ONU	Each OLT Port Supports Up to 64 ONUs
Rate	1 Gbps Uplink and Downlink
Light Loss Budget	29 dB
Wavelength	Transmission Wavelength: 1490 nm; Received Wavelength: 1310 nm
ONU Customer Authentication	IEEE802.1x
QoS	IEEE802.1p
DBA	Assign the Maximum Bandwidth or the Assured Bandwidth to Each ONU Customer

L2 Switch Function

Non-blocking Switch	Link-speed Forwarding
Flexible Address Learning	Independent VLAN Learning (IVL)
	Address Learning Based on Hardware
	L2 Forwarding List Based on the Software Configuration
	16K L2 Unicast List
L2 Multicast	512 L2 Multicast Lists
	Support IGMP-Snooping, IGMP-Proxy
VLAN	4094 Tagged (802.1Q) VLANs
	Ingress Filter Mechanism Based on 802.1Q VLAN
Link Aggregation	At Most Aggregates 4 Uplink IEEE 802.3ad Link
Packet Mirror	Mirror Based on the Port: Ingress, Egress, Ingress and Egress
Packet Buffer and Senior Flow Control	HOL Jam Prevention Based on Cos
	Support Back Pressure
	Support Suspended Frame

QoS

Class of Service (CoS)	Each Egress Supports 4 CoS Queue
	Supports 802.1 Q Priority
	Supports Queuing Mechanisms: Strict Method, Time-delay Method and Weighting Method
	Supports Priority Remapping of IPv4 TOS Mechanism
	Supports IP Precedence, DSCP
Rate Shaping for Output Port	From 1 Mbps ~ 1 Gbps Token Bucket Limiting Flow Function
	Radio, Multicast and DLF Rate Control Based on the Port

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Security

Access Control List (ACL)	Source and Destination IP, Source and Destination TCP/UDP Port and ToS
	Combination Supports Five Actions, Such as Permit, Deny, DSCP Remarking, Rate
	Limit or Priority Remarking

L3 Route Protocol

TCP/IP	RFC 0768	User Datagram Protocol
	RFC 0791	Internet Protocol
	RFC 0793	Transmission Control Protocol
ICMP	RFC 0792	Internet Control Message Protocol
ARP	RFC 0826	Ethernet Address Resolution Protocol
Proxy ARP	RFC 1027	Uses ARP to Implement Transparent Subnet Gateways
OSPF	RFC 1587	OSPF NSSA Option
	RFC 1745	BGP-4/IDRP for IP-OSPF Interaction
	RFC 1850	OSPF Version 2 MIB
	RFC 2328	OSPF Version 2
	RFC 1771	A Border Gateway Protocol 4 (BGP-4)
	RFC 1965	Autonomous System Confederations for BGP
	RFC 1966	BGP Route Reflection
	RFC 1997	BGP Communities Attribute
	RFC 1998	An Application of the BGP Community Attribute in Multi-home Routing
PIM-SM	RFC 2362	Protocol Independent Multicast-sparse Mode (PIM-SM)
IGMP	RFC 2236	Internet Group Management Protocol, Version 2

L3 Switch /Route Performance

L3 Host Table	8 K
L3 LPM Table	64 K
L3 Interface Table	4 K
DeFailure Route	DeFailure Route Based on VLAN
L3 Enable	Based on the Port
ECMP Routing	Support
IP Multicast Replication	Support
IPMC Group Table	1 K
IPMC Enable	Based on the Port
Jumbo Frame	Up to 9216 Bytes Packet

Network Management

FTP	RFC 959	File Transfer Protocol
Telnet	RFC 0854	Telnet Protocol Specification
SNMP	V2.0	Simple Network Management Protocol
DHCP	RFC 2131	Dynamic Host Configuration Protocol
AAA RADIUS	RFC 2138	Remote Authentication Dial In User Service (RADIUS)

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General Specifications

Power of Single ELM	Maximum: 30 W
Power of Two ELM	Maximum: 100 W
Power	Two DC power slota: Input voltage -48 V (Allowed Range: -36 V \sim -72 VDC)
	Or One AC power slot, input voltage: 110/220 V (Allowed Range: 85 ~ 264 VAC)
Power Consumption of Power Supply	140 W
Uplink Port	Four GE Ports which Support SFP Transceiver, can Equipped with the Optical
	Module or the Electrical Module
OLT Port	Maximum Offer 8 PON Ports which Support SFP Transceiver, Only can be
	Equipped with the Optical Module. It's Connected with ONU by the Optical Splitter
PON Ports	Option for 4, 8, or 16 PON Ports
MGNT Port	RJ45, Offer 10/100 Base-T Out-band Management Port
CONSOLE Port	RJ45, Offer Console Port for the System Diagnosis
COM Port	RJ45, Offer Connection Alarm Communication
Weight	5.5 kg (12 lb)
Dimensions (LxWxH)	440 x 275 x 43.6 mm (17.3 x 10.8 x 1.7 in.)

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