

## Optiv8 1600T Series GePON OLT

### 1. Introduction

O8 1600T series is a miniaturization and modularization GEPON OLT, broadband fiber access system platform. It is fully compliant to IEEE802.3-2005 and Chinese technical requirements of Ethernet Passive Optical Network (EPON). This product supports integrated access service, such as broadband surf-netting, IP voice, IPTV, CATV and etc.



### 2. Special Features

- With Twin-star bus 10Gigabit core switch backplane, support non-blocking wire-speed switch, support 1.25G EPON optical fiber access.
- 2.5U height, adopt full front-wiring, small size, high capacity, maximum EPON optical fiber interfaces reach up to 16.
- Provide single main control module, single uplink module, single power supply module and 4 service interface modules.
- Support AC/DC dual power supply, with backup power charger and alarm device, support connecting external storage battery directly to do backup power charging protection.
- Support flexible controllable multi-cast, IGMP Proxy/Snooping and etc.
- Support strong VLAN extension functions, including VLAN Stacking/Trunk/Translation, etc.
- Support flexible DBA, uplink/downlink service rate-limited, precision up to 0.2% (Standard requirement<5%)
- Adopt multi LLID and IEEE802.1p technologies, provide multi protection QoS service.

### 3. Technical parameters

#### ● Equipment components

Item	Full load Qty.	Description
Equipment frame	1	OLT equipment frame, including 10Gigabit core switch backplane
Main control module (SWA)	1	Hot-swappable module, integrate 1 FE out of band management port, 1 debugging serial port, 10Gigabit class non-blocking switch
EPON interface module (EP4)	4	Hot-swappable 4 EPON interfaces modules, compliant with IEEE802.3-2005 EPON technical standard, support 20km transmission distance (Standard configuration without optical module)
Uplink interface module(HUP)	1	Hot-swappable 4 GE interfaces module, SFP slot, support 4GE+10GE XFP(Standard configuration without optical module)
Fans module(FAN16)	1	Hot-swappable fans module
Power module(PWR)	1	Hot-swappable power supply module supports 220VAC/48VDC (With UPS charger). Builds dual power redundant hot backup with dual power supply

#### ● Hardware features

Equipment parameters	Dimension	486mm(W)*103mm(H)*384mm(D)
	Net weight	5Kg
	Power consumption	≤40W
	Operating condition	Temperature:0 ~ +55℃, humidity:10 ~ 90% (non-condensed)
	Storing condition	Temperature:-25 ~ +70℃, humidity:10 ~ 90% (non-condensed)
Power supply	DC	36 ~ 75 VDC
	AC	176 ~ 264 VAC
Equipment interface	Uplink Ethernet interface	1*10GE(XFP connector), 4*GE interfaces (GE or SFP connectors)
	EPON interface	16*EPON SFP interfaces
	Console debugging interface	1 interface, compliant with RS232 technical standard
	Out-of-band	1 interface, compliant with 100Base-TX technical standard

	management interface	
	Monitor and alarm interface	1 interface, compliant with RS485 technical standard(Support sub-node monitor )

## Advanced features

Switch function	10Gigabit switch backplane(Switch capability reach up to 60Gbps), non-blocking wire-speed switch ability 16K MAC address table, support 2K multicast table, support 4K VLAN(802.1Q) Up to 1*10GE, 4* uplink GE aggregation(IEEE 802.ad), support maximum 5 aggregation groups, support port mirroring based on output interface
VLAN	Support IEEE 802.1Q VLAN, support 4K concurrent VLAN Strong VLAN extension functions, support VLAN Stacking/Trunk/Translation and flexible QinQ, etc
RSTP	Support STP, RSTP
IGMP	Support IGMPv1/v2 protocol, support IGMP Snooping/Proxy, support controllable multicast
QoS and ACL	Support CAR(Committed Access Rate), flow rate limit granularity is 64Kbps, Support priority level remarking based on port ID, MAC address, VLAN, 802.1p, DiffServ and/or IP ToS priority Support flexible queue scheduling algorithm, support port-based and queue-based configuration simultaneously, support three queue dispatch strategies, such as SP(Strict Priority),WRR(Weighted Round Robin) and hybrid mode(SP+WRR) Provide illegal frame filter and packet filter that based on sources MAC(Media Access Control)address, sources IP address, destination IP address, port, etc. Support QoS Profile management, allow user draw up QoS service plan
Storm suppression	Support broadcast, multicast and DLF broadcast storm suppression, suppression based on setting PPS
Flow control	Support IEEE 802.3x flow control in Full duplex mode, support backpressure flow control in half duplex mode
Encryption and security	Support LLID MAC address bundling, control the registration of ONU. Prevent illegal ONU deceive Support ONU inter-separation control within same EPON network Support encrypted start to control configuration
Link test	Support EPON network link diagnosis by Ping and Link test
Configuration recovery	Support ONU off line configuration, auto-configuration when registered
Management	FTP,Telnet,Console Support in/out-of-band management, support SNMPv1/v2, support IEEE802.3ah OAM

Management function	Support equipment configuration management, performance management, fault management, sources management, safety management and etc. Support ONU remote management, remote mass configuration download, software remote auto-update Support ONU offline configuration, auto-configuration when registered Support ONU line diagnosis and distance measuring
Redundant backup	Support AC/DC dual power protection