

OLT-1200 10PON OLT

1. Introduction

OLT-1200 is a miniaturization and modularization GEAPON OLT, broadband fiber access system platform, developed by V-Solution. It is fully compliant to IEEE802.3-2005 and Chinese technical requirement 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

- Highest integration level in industry, 1U height, small size, high capacity, 2 built-in PONs in main board, supports 8 PONs by 4 hot-swappable slots, full load equipment supports up to 10 PONs.
- Strong data switch ability, up to 68G full wire-speed non-blocking data switch.
- Rich uplink interfaces, including 4*1000M uplink Ethernet ports, 4*1000M uplink SFP optical module slots, and 1*10G uplink Ethernet port.
- 220Vac and -48Vdc dual power redundant hot backup, load balance operating, auto-seamless switch whichever power broke down, no service interruption.
- Hot-swappable components, all PON/Ethernet interfaces, module/card in front and back panel are hot-swappable.
- Support flexible controllable multi-cast, Proxy, Snooping and etc.
- Support strong VLAN extension functions, including VLAN Stacking/Trunk, etc.
- Support flexible DBA, uplink/downlink service rate-limited, minimum broadband assigned precision is 1Kbps.
- Adopt multi LLID and IEEE802.1p technologies, provide multi protection QoS services.

3. Technical parameters

● Equipment components

No	Item	Full load Qty	Description
1	Main board	1	2 EPON interfaces, 4 Gigabit Ethernet ports, 4 Gigabit SFP slots, 1 10G HDMI interface, 1 debugging port, 1 management Ethernet port, -48Vdc power supply input
2	PON line card	4	Hot-swappable 2 EPON interfaces, compliant with IEEE802.3-2005 EPON technical standard, support 20km transmission distance (Standard configuration without optical module)
3	Fans module	1	Hot-swappable fans module
4	Power module	1	Hot-swappable power supply module supports 220Vac power in, builds dual power redundant hot backup with -48Vdc on main board.

● Hardware features

Equipment parameters	Dimension	440mm (W) * 385mm (D) * 43.6mm (H)
	Net weight	4Kg (Full load)
	Power consumption	≤80W
	Operating condition	Temperature:0 ~ +55℃, humidity:10 ~ 90% (non-condensed)
	Storing condition	Temperature:-25 ~ +70℃, humidity:10 ~ 90% (non-condensed)
Power supply	DC	48 ± 3 VDC
	AC	176 ~ 264 VAC
Equipment interface	Uplink Ethernet interface	1*10GE(HDMI connector), 4*GE ports (Ethernet port and SFP connector)
	EPON interface	10*EPON SFP interfaces
	Console debugging interface	1 interface, compliant with RS232 technical standard
	Out-of-band management interface	1 interface, compliant with 100Base-TX technical standard

● Advanced features

Switch function	10Gigabit switch backplane (Switch capability reach up to 68Gbps), non-blocking wire-speed switch ability 8K MAC address table, support 256 multicast table, support 4K VLAN (802.1Q) Up to 1*10GE, 4* uplink GE aggregation (IEEE 802.ad), support maximum 14 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 and flexible QinQ, etc.
RSTP	Support STP, RSTP
IGMP	Support IGMPv1/v2 protocol, support IGMP Snooping/Proxy, support controllable multicast
QoS and ACL	Support flow classification, mark, queue and dispatch Support flow filter and suppression of L2, L3, L4 Support ONU, ONU port and SNI port uplink/downlink rate limited, rate limited precision better than $\pm 5\%$ OLT uplink/downlink service based on IEEE 802.1D User Priority marking and mirroring to different priority queue and dispatching OLT SNI ports support 8 priority queues, ONU UNI supports 4 priority queues
Broadcast 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 legitimacy authentication based on ONU MAC address Support AES-128 bi-direction for each LLID and support triple churning in downlink direction
Management	SNMP, 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