V1600G1-B1 GPON OLT

DataSheet

Version V2.0

Release Date 2021-04-13

1. Product Overview

V1600G series GPON OLT products are 1U height 19 inch rack mount products. The features of the OLT are small, convenient, flexible, easy to deploy, high performance. It is appropriate to be deployed in compact room environment. The OLTs can be used for “Triple-Play”, VPN, IP Camera, Enterprise LAN and ICT applications.

2.Technical Specifications

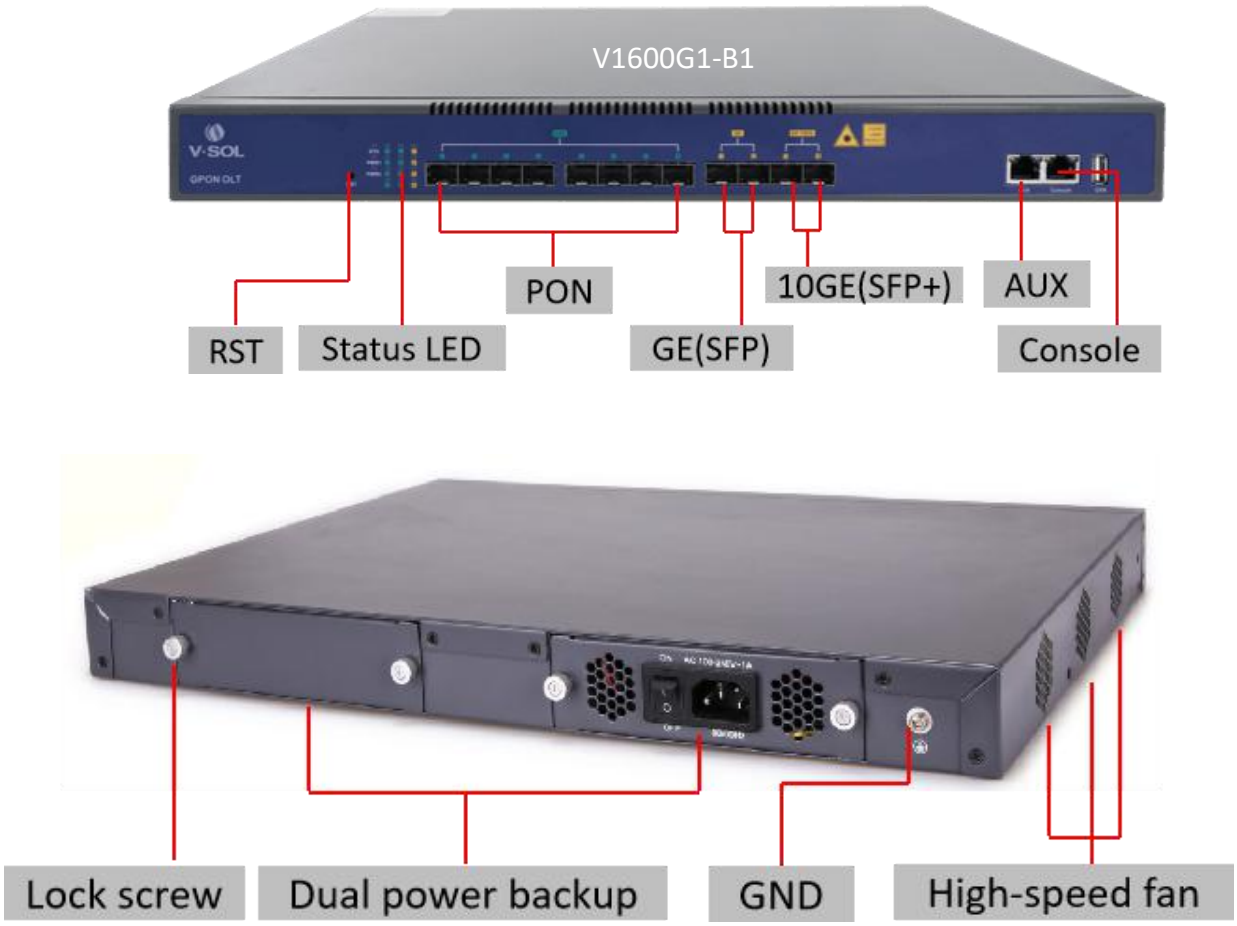
For other technical specifications, see the following table：

Product	PON Interface	Uplink	Chipset
V1600G1-B1	8*GPON Port	2×GE(SFP)+2×10GE(SFP+)	BroadCom

1. Functional characteristics

Item	V1600G1-B1 GPON OLT
Satisfactory standard	➢ Meet ITU-T G984/G.988 standards ➢ Meet China's relevant GPON standards
Easy to Manage	➢ Open to any brand of ONT
Fully open platform	➢ Support static route, ➢ Optional Support Dynamic route RIP v1/v2,OSPF v2
High performance cost	➢ 1U height compact design ➢ Adopt mainstream chip scheme

2. Product Appearance



Product Feature

Item		V1600G1-B1
Chassis	Rack	1U 19 Inch Standard Box
GE/10GE Uplink Port	QTY	4
	SFP(GE)	2
	SFP+(10GE)	2
GPON Port	QTY	8
	Physical Interface	SFP Slots
	Connector Type	Class C+
	Max splitting ratio	1:128
Management Ports		1*10/100BASE-T out-band port, 1*CONSOLE port
PON Port Specification (Class C+ module)	Transmission Distance	20KM
	GPON port speed	Upstream 1.244Gbps, Downstream 2.488Gbps
	Wavelength	TX 1490nm, RX 1310nm
	Connector	SC/UPC
	Fiber Type	9/125μm SMF
	TX Power	+3~+7dBm
	Rx Sensitivity	-30dBm
	Saturation Optical Power	-12dBm
Dimension(L*W*H)(mm*mm*mm)		442*220*43.6
Weight(kg)		3.0
Power Supply	220VAC	AC:100～240V, 47/63Hz
DC Power Supply(DC:-48V)		√
Double Power Module Hot Backup		√
Max Power Consumption(W)		45
Operating Environment	Working Temperature	-0~+55℃
	Storage Temperature	-40~+85℃
	Relative Humidity	5~90%(non-conditioning)

3. LED information

LED	ON	Blink	OFF
PWR	The device is powered up	—	The device is powered down
SYS	Device is starting	Device is running normal	Device is running abnormal
PON1～PON8	ONT is registered to the PON system	ONT is registering to the PON system	ONT is not registered to the PON system or ONU do not connect to OLT
SFP/SFP+	The device is connected to the port	The device is ongoing data transmission	The device is not connected to the port
Ethernet (green-ACT)	—	Port is sending or/and receiving data	—
Ethernet (yellow-Link)	The device is connected to the port	—	The device is not connected to the port
PWR1/PWR2 (G0)	Power module online and work normal.	—	Powr module offline or not work

4. Software Feature

Item	V1600G1-B1 GPON OLT
Management Mode	➢ SNMP,Telnet,CLI,WEB,SSH v1/v2;
Management	➢ Fan Group Control; ➢ Port Status monitoring and configuration management; ➢ Online ONT configuration and management; ➢ User management; ➢ Alarm management;
Layer 2	➢ 16K Mac address; ➢ Support 4096 VLANs; ➢ Support port VLAN and protocol VLAN; ➢ Support VLAN tag/Un-tag ,VLAN transparent transmission; ➢ Support VLAN translation and QinQ; ➢ Support storm control based on port; ➢ Support port isolation; ➢ Support port rate limitation; ➢ Support 802.1D and 802.1W; ➢ Support static LACP,Dynamic LACP; ➢ QoS based on port, VID, TOS and MAC address; ➢ Access control list; ➢ IEEE802.x flow control;

	➢ Port stability statistic and monitoring;
Multicast	➢ IGMP snooping; ➢ 256 IP Multicast Groups
DHCP	➢ DHCP server,DHCP relay,DHCP snooping; ➢ DHCP option82;
Layer 3	➢ ARP proxy,1024 hardware Host Routes,512 hardware Subnet Routes; ➢ Support 802.1X,Radius,Tacacs+; ➢ Support IP source guard; ➢ Support static route; ➢ Optional Support Dynamic route RIP v1/v2,RIPng; ➢ Optional Support OSPF v2/v3;
IPv6	➢ Support NDP; ➢ Support IPv6 Ping,IPv6 Telnet,IPv6 routing; ➢ Support ACL based on source IPv6 address, destination IPv6 address, L4 port, protocol type, etc; ➢ Support MLD v1/v2 snooping(Multicast Listener Discovery snooping);
GPON Function	➢ Tcont DBA; ➢ Gemport traffic; ➢ In compliant with ITUT984.x standard; ➢ Up to 20KM transmission Distance; ➢ Support data encryption, multi-cast, port VLAN, separation, RSTP, etc; ➢ Support ONT auto-discovery/link detection/remote upgrade of software; ➢ Support VLAN division and user separation to avoid broadcast storm; ➢ Support power-off alarm function, easy for link problem detection; ➢ Support broadcasting storm resistance function; ➢ Support port isolation between different ports; ➢ Support ACL and SNMP to configure data packet filter flexibly; ➢ Specialized design for system breakdown prevention to maintain stable system; ➢ Support RSTP,IGMP Proxy;

License Management	ONT limit	Limit the number of ONT registration, 64-1024, step 64. When the number of ONT reach the max number permit, add new ONT to system will be refused.
	Time limit	Limit system used time, 31days. Equipment trial license, after 31days of running time, all ONTs be set offline.
PON Mac Table		A MAC table of PON, including MAC address, VLAN id, PON id, ONT id, gemport id for easier services checking, troubleshooting.
ONT Management	Profile	Including ONT, DBA, TRAFFIC, LINE, SERVICE, ALARM, PRIVATE profiles. All ONT features can be configured by profiles.
	Auto learn	ONT automatically discovery, register, online.

	Auto configure	All features can be automatically configured by profiles when ONT auto online—plug and play.
	Auto upgrade	The ONT firmware can be auto upgraded. Download ONT firmware to OLT from web/tftp/ftp.
	Remote config	The powerful private OMCI protocol provides remote HGU configuration including WAN, WiFi, POTS, etc.

5. EMS Feature

5.1. Key Features

- ✓ Support C/S & B/S architecture
- ✓ Support auto topology or modify manually
- ✓ Add Trap Server to detect ONT automatically
- ✓ EMS can add and configure ONT automatically
- ✓ Add ONT position information
- ✓ Suppot EMS APP