GPON OLT Series
Datasheet V1.2

✓ **Open to any brand of ONT**

✓ **Power backup**

✓ **Easy to manage and friendly interface**

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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.

Product	User interface	Unlink interface
V1600G0	4PON Port	4*GE+2*GE(SFP)/10GE(SFP+)
V1600G1	8PON Port	8*GE+6*GE(SFP)+2*10GE(SFP+)
V1600G2	16PON Port	8*GE+4*GE(SFP)/10GE(SFP+)

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functional characteristics

Satisfactory standard

◆ **Meet ITU-T G984/G.988 standards**

◆ **Meet China's relevant GPON standards**

Easy to manage

◆ **Friendly EMS/Web/Telnet/CLI management**

◆ **CLI command style similar to mainstream manufacturers**
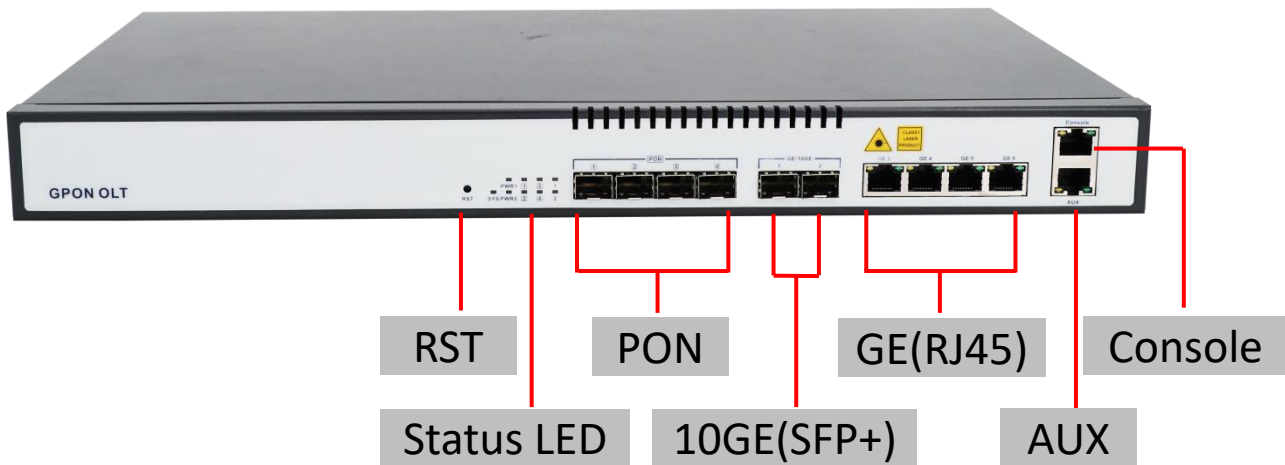
Fully open platform

◆ **Open to any brand of ONT**

High performance cost

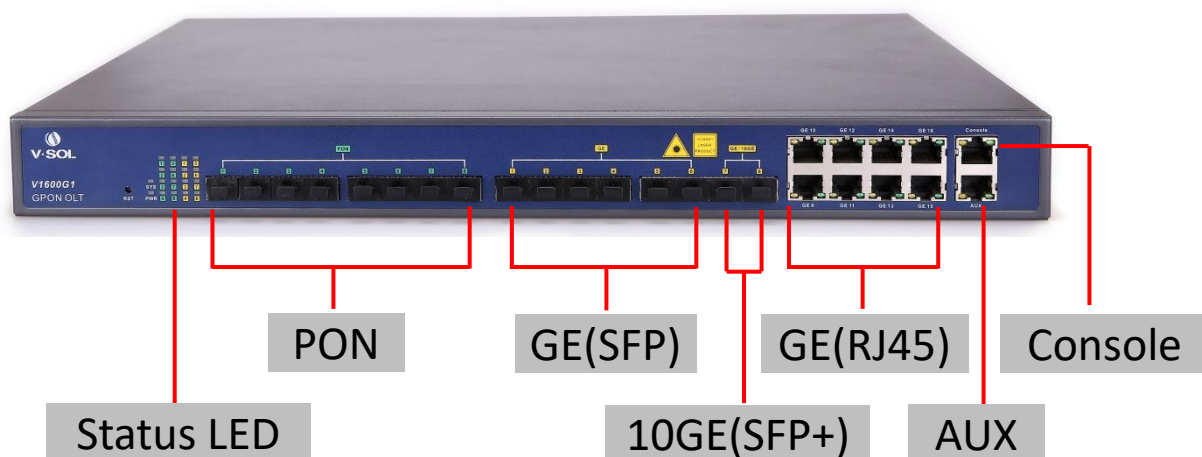◆ **1U height compact design**

◆ **Adopt mainstream chip scheme**

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functional characteristics

Product appearance features V1600G0

RST   PON   GE(RJ45)   Console

Status LED   10GE(SFP+)   AUX

GPON OLT

Earth   High-speed fan   Dual power backup

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functional characteristics

Product appearance features V1600G1

PON   GE(SFP)   GE(RJ45)   Console

Status LED   10GE(SFP+)   AUX

Lock screw   Dual power backup   Earth   High-speed fan

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functional characteristics

Product appearance features V1600G2

PON

Status LED

GE(RJ45)

1GE(SFP)/
10GE(SFP+)

AUX

Console

Lock screw

Dual power backup

Earth

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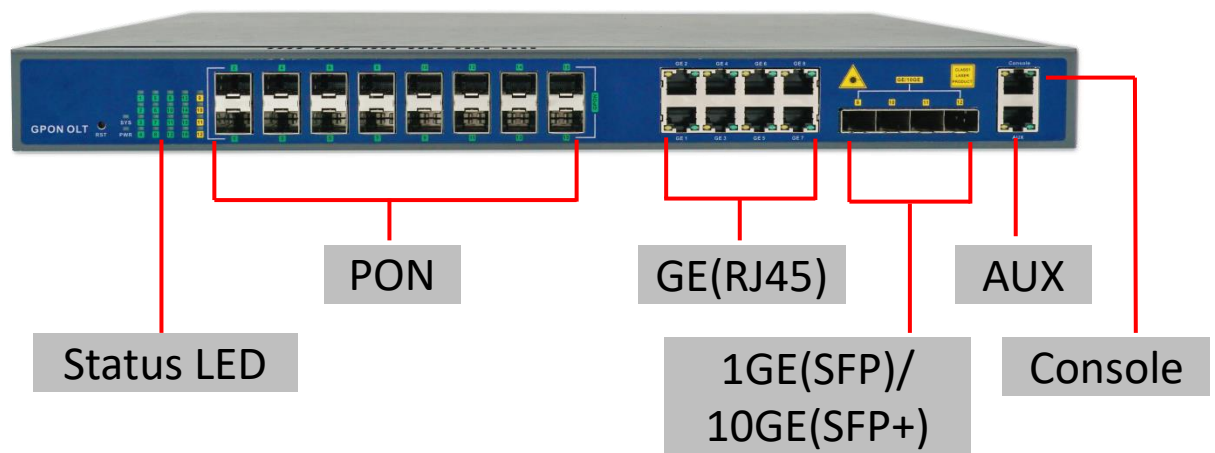
technical indicator

Item		V1600G0	V1600G1	V1600G2
Chassis	Rack	1U 19 inch standard box		
1G/10G Uplink Port	QTY	6	16	12
	Copper 10/100/1000M auto-negotiation	4	8	
	SFP 1GE	2	6	4
	SFP+ 10GE		2	
GPON Port	QTY	4	8	16
	Physical Interface	SFP Slot		
	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 1.244G Downstream 2.488G		
	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)		442*220*43.6	442*200*43.6	442*320*43.6
Weight		2.8kg	3.1kg	4.5kg
AC Power Supply		AC:100~240V, 47/63Hz		
DC Power Supply(DC:-48V)		√	√	√
Double Power Module Hot Backup		√	√	√
Power Consumption		35W	45W	85W
Operating Environment	Working Temperature	0~+50℃		
	Storage Temperature	-40~+85℃		
	Relative Humidity	5~90%(non-conditioning)		

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technical indicator

V1600G0/G1/G2: 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～PON16	ONT is registered to the PON system	ONT is registering to the PON system	ONT is not registered to the PON system or ONT 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

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Software function

Management Mode

- **SNMP、Telnet、CLI、WEB;**

Management Function

- Fan Group Control;
- Port Status monitoring and configuration management;
- Online ONT configuration and management;
- User management;
- Alarm management;

Layer2 Switch

- 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;
- QoS based on port, VID, TOS and MAC address;
- Access control list;
- IEEE802.x flow control;
- Port stability statistic and monitoring;

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Software function

Multicast

- IGMP snooping;
- 256 IP Multicast Groups;

DHCP

- DHCP server;
- DHCP relay;
- DHCP 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;

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Software function

Layer 3 Route

- ARP proxy
- Static route
- 1024 hardware Host Routes;
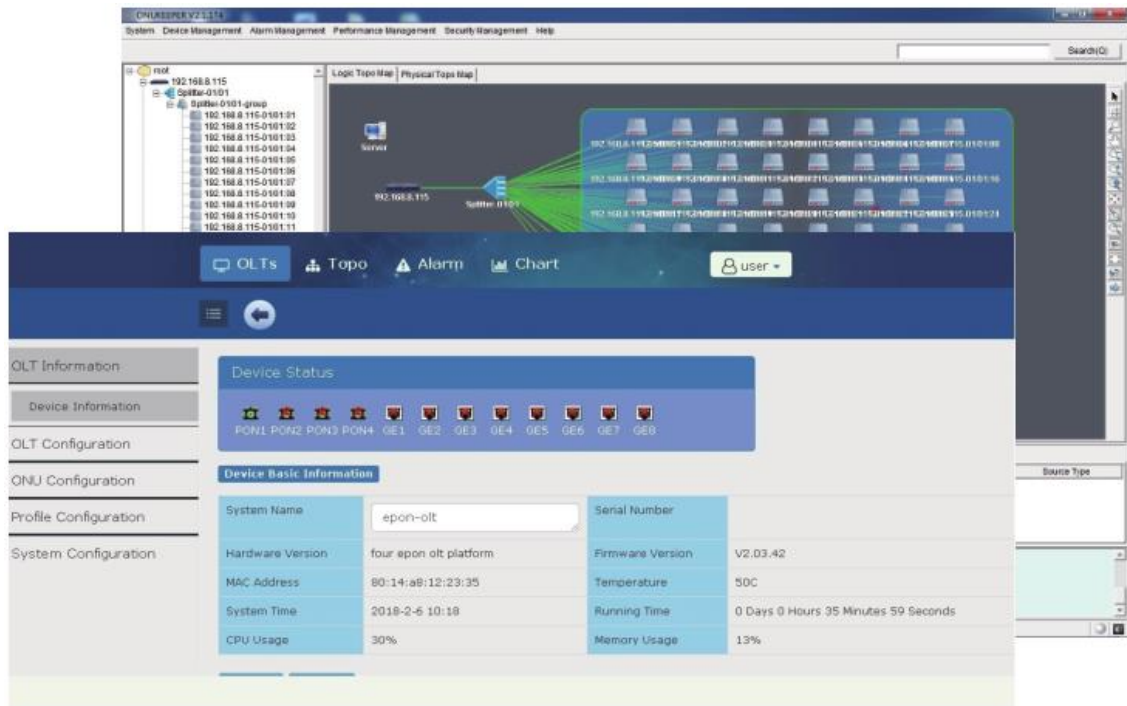- 512 hardware Subnet Routes;

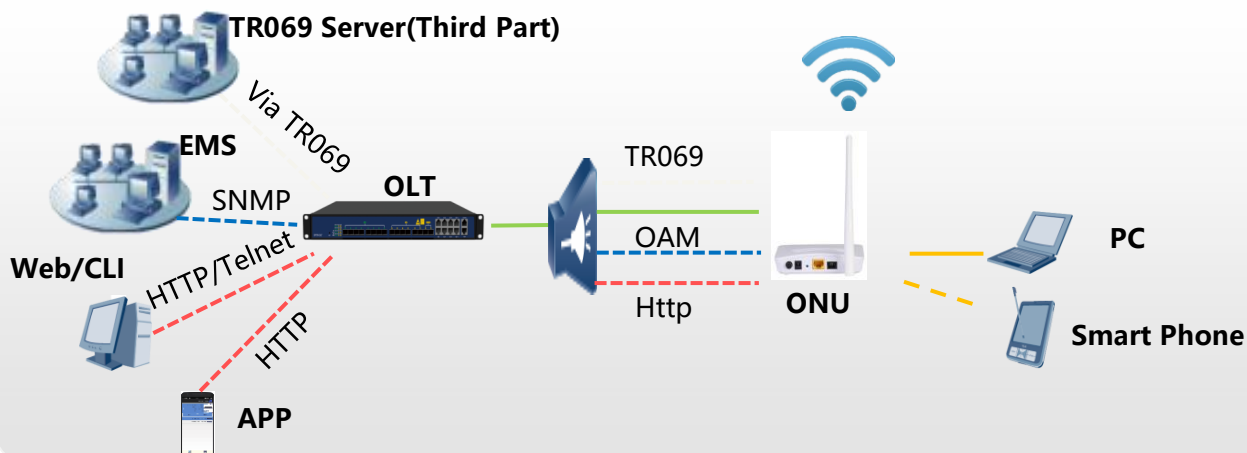| License Management	ONT limit	Limit the number of ONT registration, 64-1024, step 64. When the number of ONT reach the max number permit, add new ONT to system will be refused.
	Time limit	Limit system used time, 31days. Equipment trial license, after 31days of running time, all ONTs be set offline.
PON mac table		A MAC table of PON, including MAC address, VLAN id, PON id, ONT id, gemport id for easier services checking, troubleshooting.
ONU 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.

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EMS

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**
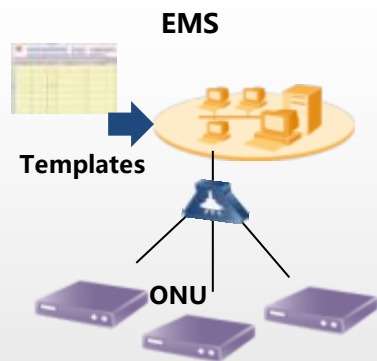- ✓ **Add ONT position information**

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EMS

Support EMS/Web/Telnet(CLI)/TR069 Configuration

TR069 Server(Third Part)

Via TR069

EMS

SNMP

OLT

Web/CLI

HTTP/Telnet

HTTP

APP

TR069

OAM

Http

ONU

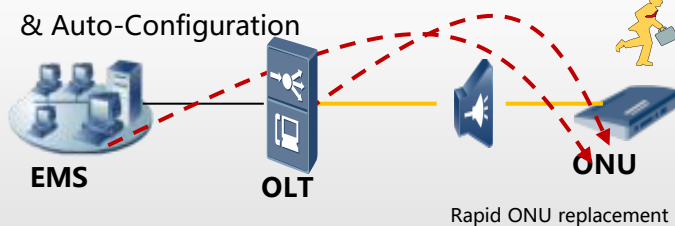**PC**

Smart Phone

Support ONUs Plug&Play

EMS

Templates

ONU

Device Template for Auto-Configuration

Rapid operation and maintenance

Auto-upgrade firmware
& Auto-Configuration

EMS

OLT

ONU

Rapid ONU replacement

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Typical application diagram

Guangzhou V-Solution Telecommunication Technology Co., Ltd

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