EPON L3 OLT Series
Datasheet v1.4

CE

FSB
certification

- ✓ **Open to any brand of ONU**
- ✓ **Optional Support RIPv1/v2, OSPFv2**
- ✓ **Support IPv6**
- ✓ **Power backup**
- ✓ **Easy to manage and friendly interface**

1. Product Overview

V1600D series EPON 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.
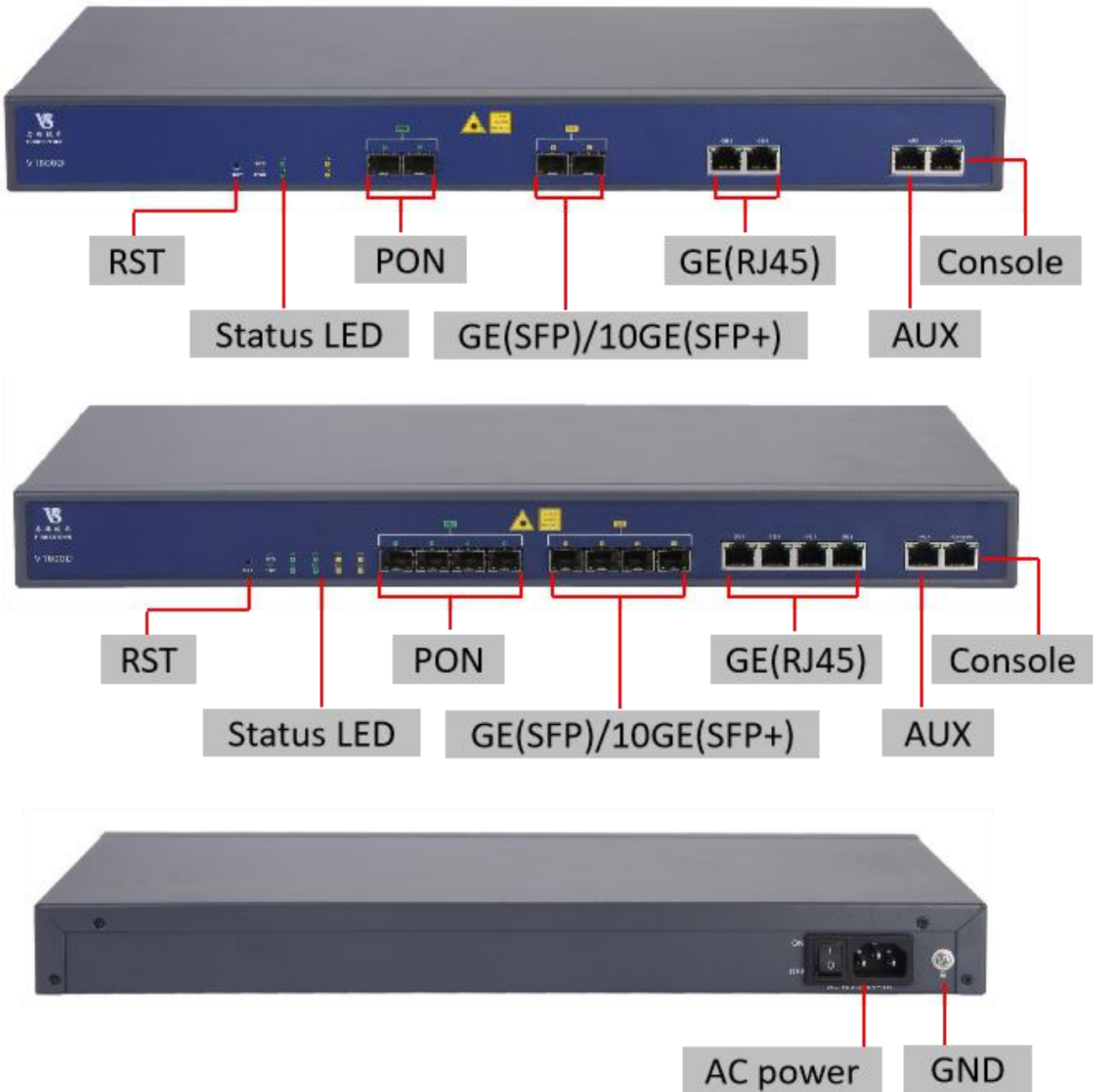
Product	User interface	Unlink interface	Dual power
V1600D2	2 PON Port	2*GE+2*GE(SFP)/10GE(SFP+)	×
V1600D4	4 PON Port	4*GE+4*GE(SFP)/10GE(SFP+)	×
V1600D4-DP	4 PON Port	4*GE+4*GE(SFP)/10GE(SFP+)	√
V1600D4-BT	4 PON Port	4*GE+4*GE(SFP)/10GE(SFP+)	AC+BBU
V1600D8	8 PON Port	8*GE+4*GE(SFP)+4*10GE(SFP+)	√
V1600D16	16 PON Port	4*GE+4*GE(SFP)+4*10GE(SFP+)	√

2. Functional characteristics
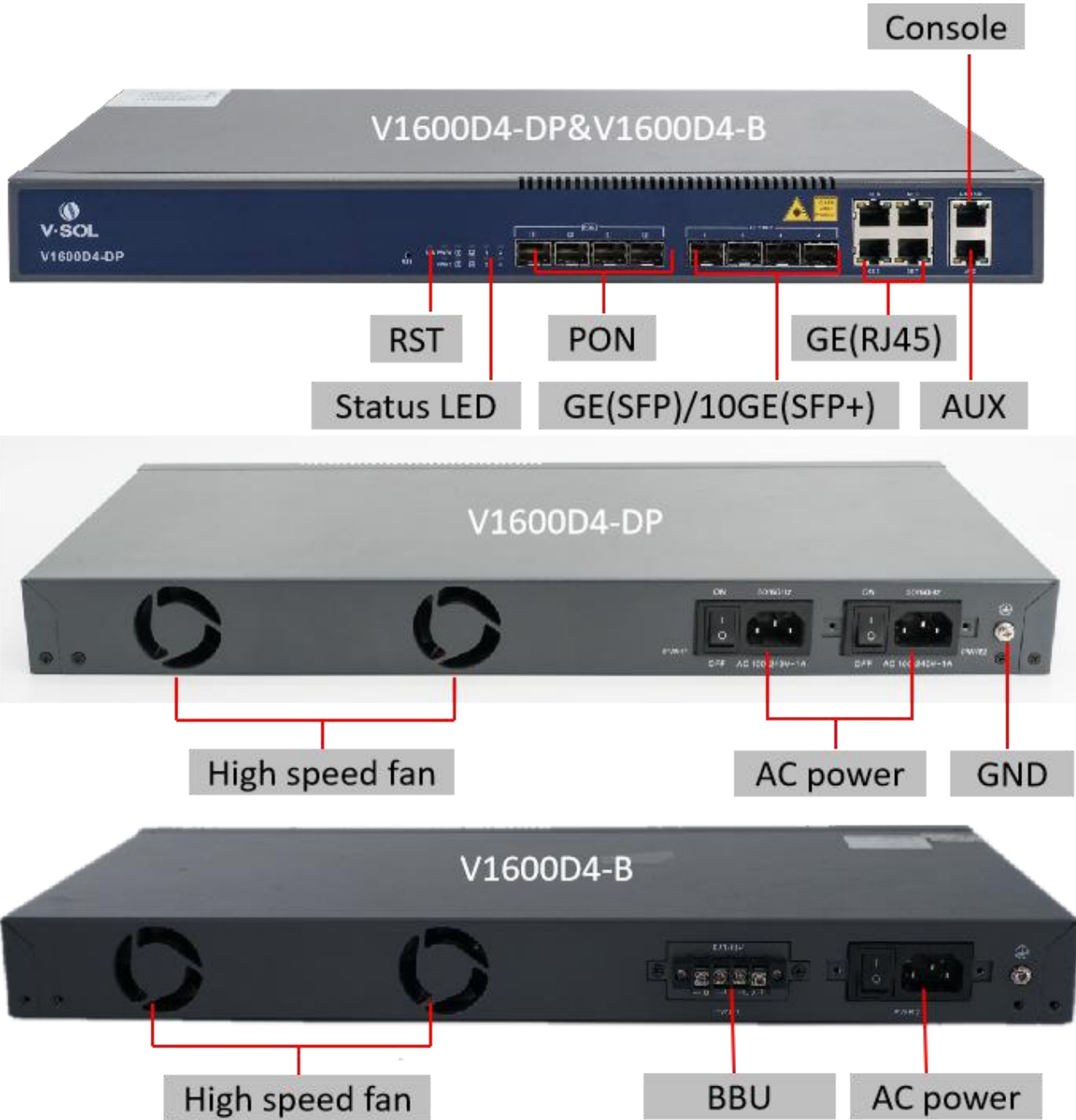
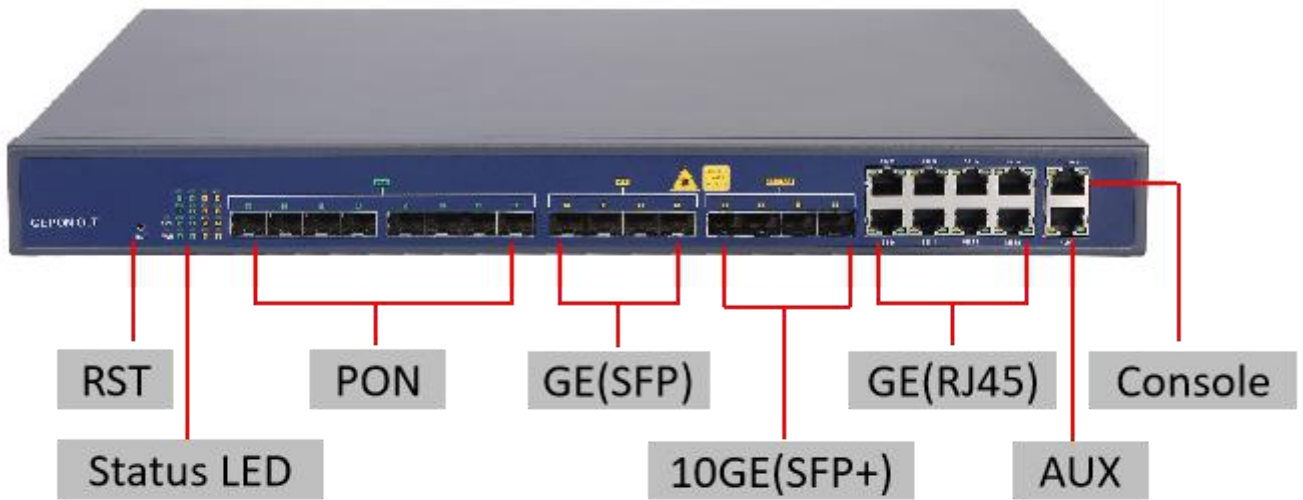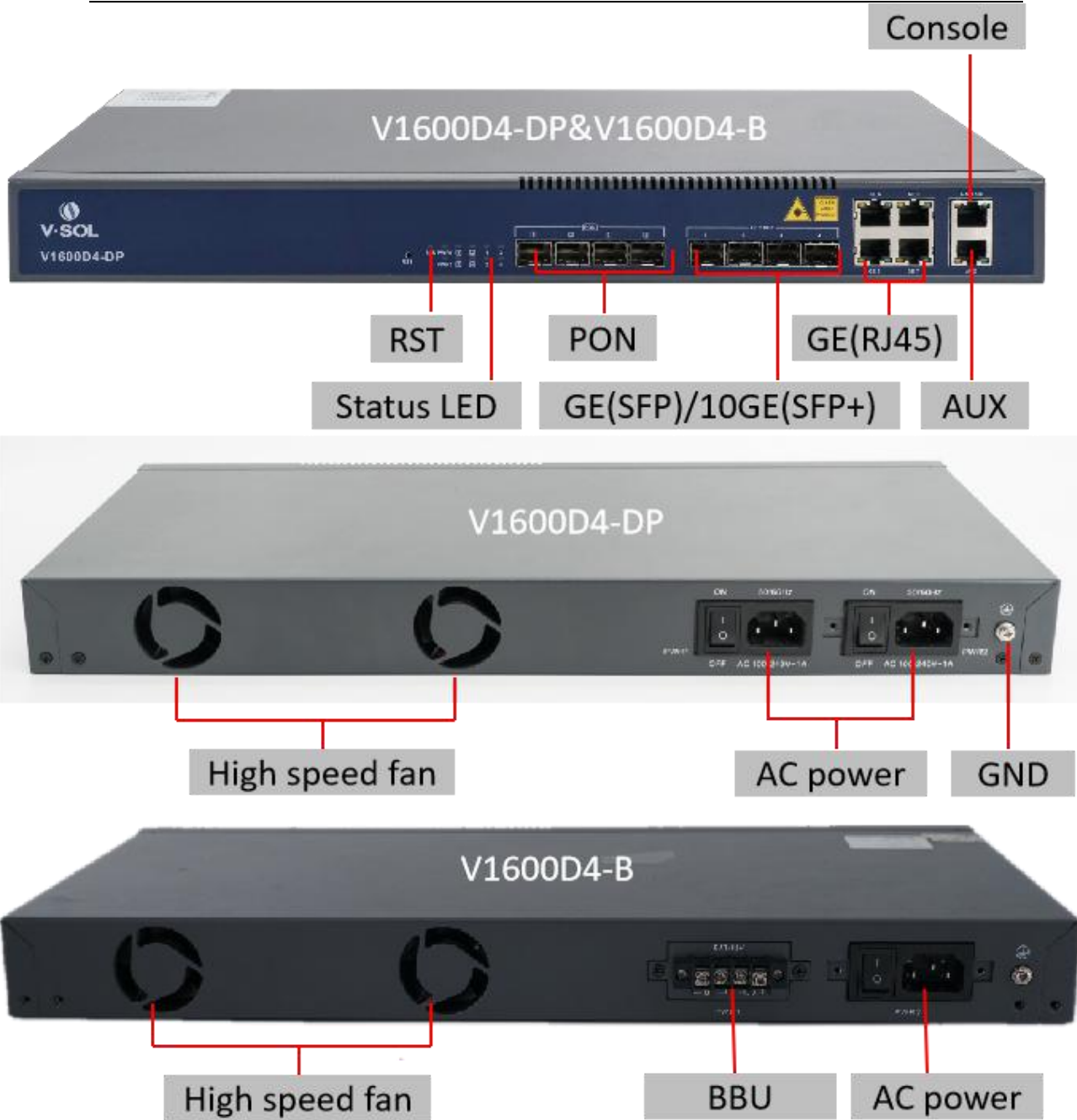| Item	V1600D EPON OLT Series
Satisfactory standard	➤ Meet IEEE802.3ah standards and China's CTC3.0 standards ➤ Meet China's relevant EPON standards
Easy to Manage	➤ Friendly EMS/Web/Telnet/CLI/SSH management ➤ CLI command style similar to mainstream manufacturers ➤ Support APP management
Fully open platform	➤ Open to any brand of ONU
High performance cost	➤ 1U height compact design ➤ Adopt mainstream chip scheme

3. Product Appearance

3.1. V1600D2/D4 Appearance

3.2. V1600D4-DP&D4-B Appearance

3.3. V1600D8 Appearance

RST

PON

GE(SFP)

GE(RJ45)

Console

Status LED

10GE(SFP+)

AUX

Lock screw

Dual power backup

GND

High-speed fan

Console

V1600D4-DP&V1600D4-B

V·SOL

V1600D4-DP

RST

PON

GE(RJ45)

Status LED

GE(SFP)/10GE(SFP+)

AUX

V1600D4-DP

High speed fan

AC power

GND

V1600D4-B

High speed fan

BBU

AC power

3.4. V1600D16 Appearance
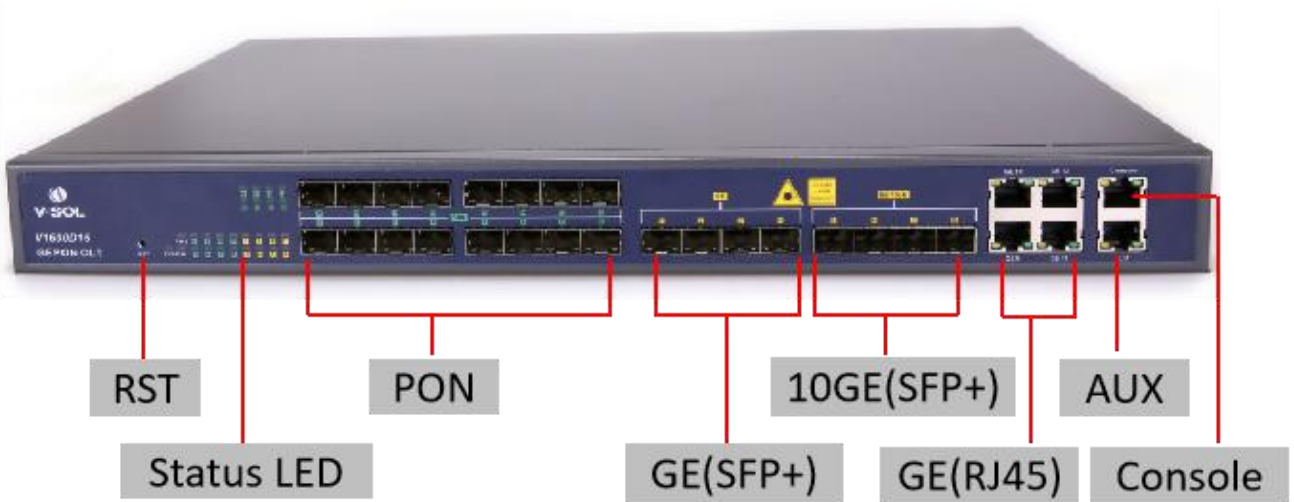
4. Product Feature

Item		V1600D2	V1600D4		V1600D8	V1600D16
			-DP	-BT		
Chassis	Rack	1U 19 Inch Standard Box				
GE/10GE Uplink Port	QTY	4	8		16	12
	Copper GE	2	4		8	4
	SFP(GE)	2	4		4	4
	SFP+(10GE)				4	4
EPON Port	QTY	2	4		8	16
	Physical Interface	SFP Slots				
	Connector Type	1000BASE-PX20++				
	Max splitting ratio	1:64				
Management Ports		1*10/100BASE-T out-band port, 1*CONSOLE port				
PON Port Specification (PX20++ Module)	Transmission Distance	20KM				
	EPON port speed	Symmetrical 1.25Gbps				
	Wavelength	TX 1490nm, RX 1310nm				
	Connector	SC/UPC				
	Fiber Type	9/125μm SMF				
	TX Power	+4.5~+9dBm				
	Rx Sensitivity	-32dBm				
	Saturation Optical Power	-8dBm				
Dimension(L*W*H)(mm*mm*mm)		442*200*43	442*200*43		442*320*43	442*320*43
Weight(kg)		3.1	3.2		4.5	6.5
Power Supply	220VAC	AC:100～240V, 47/63Hz				
DC Power Supply(DC:-48V)		×	√	×	√	√
Double Power Module Hot Backup		×	√	√	√	√
*BBU(Battery Backup Unit)		×	×	√	×	×
Max Power Consumption(W)		25	35		55	95
Operating Environment	Working Temperature	-10~+55℃				
	Storage Temperature	-40~+85℃				
	Relative Humidity	5~90%(non-conditioning)				

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5. 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	ONU is registered to the PON system	—	ONU 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)	—	Ethernet (green--ACT)	—
Ethernet (yellow-Link)	The device is connected to the port	—	The device is not connected to the port

6. Software Feature

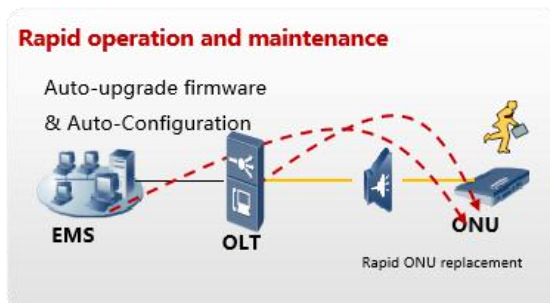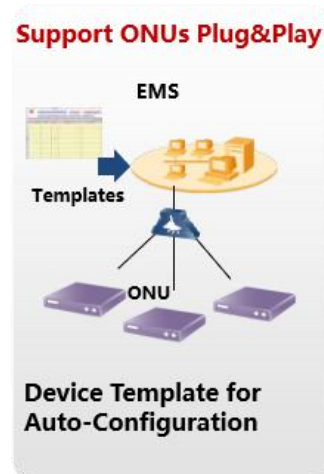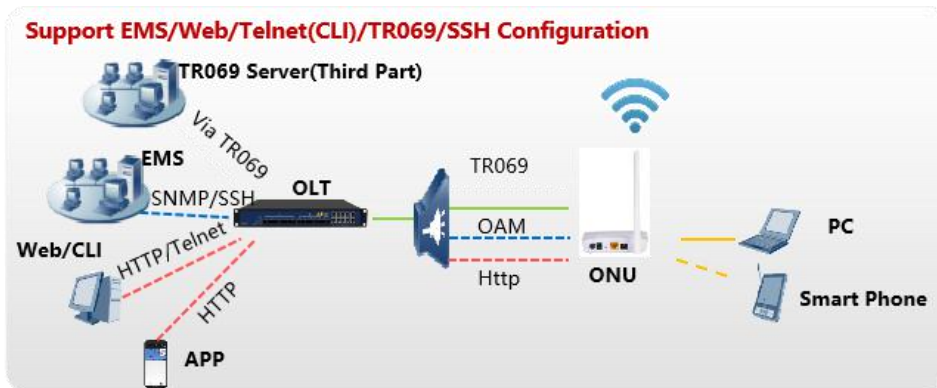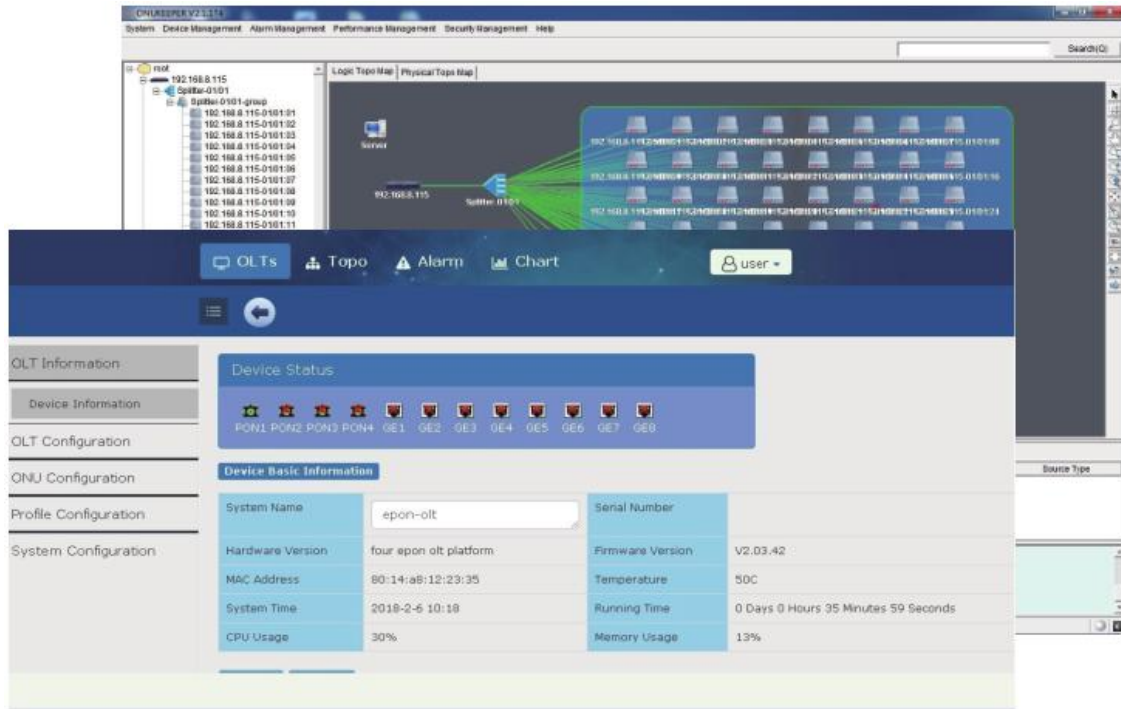| Item	V1600D EPON OLT Series
Management Mode	➢ SNMP,Telnet,CLI,WEB,SSH v1/v2;
Management	➢ Fan Group Control; ➢ Port Status monitoring and configuration management; ➢ Online ONU configuration and management; ➢ User management, Alarm management;
Layer 2	➢ 16K Mac address; ➢ Support port VLAN and protocol VLAN; ➢ Support 4096 VLANs; ➢ Support VLAN tag/Un-tag, VLAN transparent transmission, QinQ; ➢ Support IEEE802.3d trunk; ➢ Support RSTP; ➢ QoS based on port, VID, TOS and MAC address; ➢ IEEE802.x flow control; ➢ Port stability statistic and monitoring; ➢ Support P2P Function;
Multicast	➢ IGMP snooping; ➢ 256-2048 IP Multicast Groups
Route Protocol	➢ Support static route,dynamic route RIP v1/v2 and OSPF
EPON Function	➢ Support port-based rate limitation and bandwidth control; ➢ In compliant with IEEE802.3ah standard; ➢ Up to 20KM transmission Distance; ➢ Support data encryption, multi-cast, port VLAN, separation, RSTP, etc; ➢ Support Dynamic Bandwidth Allocation (DBA); ➢ Support ONU auto-discovery/link detection/remote upgrade of software;

> ➢ Support VLAN division and user separation to avoid broadcast storm;
> ➢ Support various LLID configuration and single LLID configuration;
> ➢ Different user and different service could provide different QoS by means of different LLID channels;
> ➢ 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 dynamic distance calculation on EMS online;

License Management	ONT limit	Limit the number of ONU registration, 64-1024. When the number of ONU reach the max number permit, add new ONU to system will be refused.
	Time limit	Limit system used time, 31days. Equipment trial license, after 31days of running time, all ONUs be set offline.
PON Mac Table		A mac table of PON, including mac address, VLAN id, PON id and ONU id for easier services checking, troubleshooting.
ONU Management	Profile	Including ONU DBA, Service, VoIP, Alarm Profiles.
	Auto learn	ONU automatically discovery, register, online.
	Auto configure	All features can be automatically configured by profiles when ONU auto online—plug and play.
	Auto upgrade	The ONU firmware can be auto upgraded. Download ONU firmware to OLT from web/tftp.
	Remote config	The powerful private OAM protocol provides remote HGU configuration including WAN, WiFi, POTS, etc.

7. EMS Feature

7.1. Key Features

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

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

Support ONUs Plug&Play

Device Template for Auto-Configuration

Rapid operation and maintenance

8. Typical application diagram