2GE+1POTS+1USB+WiFi(Mesh)

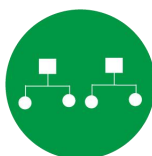# HGU ONT-2GE-V-DW-MESH

Datasheet

Dual Mode

HGU Management

USB3.0
SUPER SPEED

**2.4G/5G Dual Band
WIFi 5 EasyMesh**

1. Product OverView

2GE+1POTS+WiFi GPON/EPON HGU WiFi Mesh terminal devices are designed for fulfilling FTTH and triple play service demand of fixed network operators. These boxes are based on the mature Chipset (Realtek) technology, which have high ratio of performance to price, and the technology of IEEE802.11b/g/n/ac WiFi, Layer 2/3, Wi-Fi CERTIFIED™ EasyMesh,and high quality VoIP as well. Support full management of HGU devices through OLT. They are highly reliable and easy to maintain, with guaranteed QoS for different service. And they are fully compliant with technical regulations such as IEEE802.3ah 、 ITU-T G.984.x and technical requirement of GPON Equipment from China Telecom. ONT-2GE-V-DW-MESH Support Wi-Fi CERTIFIED EasyMesh™ that brings a standards-based approach to Wi-Fi networks that utilize multiple access points (APs), combining the benefits of easy to use, self-adapting Wi-Fi with greater flexibility in device choice that comes with interoperable Wi-Fi CERTIFIED™ devices.
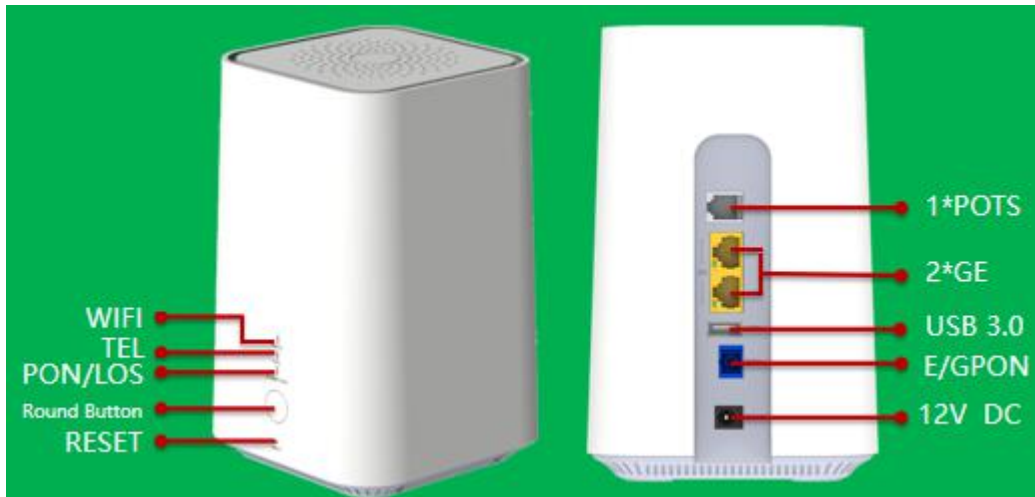
2. Product appearance features

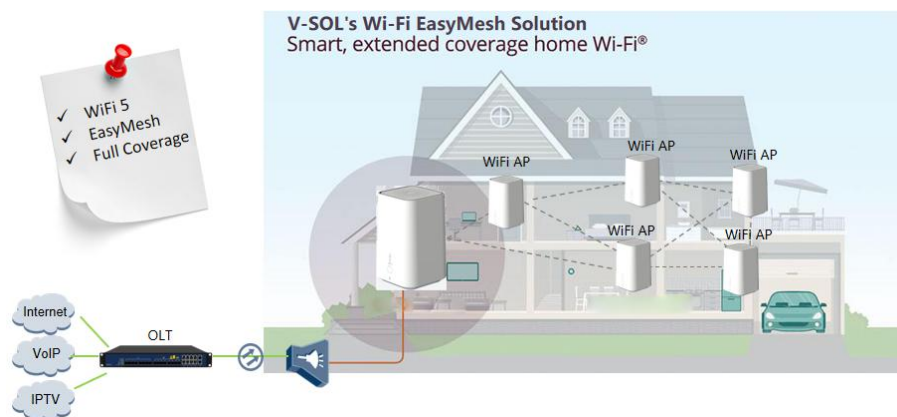Figure 1   2GE+1POTS+1USB+WiFi4/5 HGU

3 Application Chart

Figure 2   Application Chart

4 Technical parameters

Technical item	2*GE+1*POTS+WiFi
PON interface	1 G/EPON port(EPON PX20+ and GPON Class B+) Receiving sensitivity: ≤-28dBm Transmitting optical power: 0～+4dBm Transmission distance: 20KM
Wavelength	Tx1310nm,Rx 1490nm
Optical interface	SC/UPC connector
LAN interface	2*10/100/1000Mbps auto adaptive Ethernet interfaces, Full/Half, RJ45 connector
USB interface	USB 3.0, Transmission Rate: 4.8Gbps
POTS interface	1 x RJ11 connectors G.711A/G.711U/G.723/G.729 Codec,T.30/T.38/G.711 Fax mode, DTMF Relay
WiFi interface	Compliant with IEEE802.11b/g/n/ac 2.4GHz Operating frequency: 2.400-2.483GHz (WiFi 4) 5.0GHz Operating frequency: 5.150-5.825GHz (WiFi 5 wave 2) WiFi:4*4 MIMO,,5dBi antenna, rate up to 1.167Gbps,Multiple SSID TX power: 11n--22dBm/11ac--24dBm
LED	5, For Status of PON/LOS, WiFi,TEL,LAN1,LAN2
Operating Enviroment	Temperature: 0℃～+50℃ Humidity: 10%～90%（non-condensing）
Storing Enviroment	Temperature: -30℃～+60℃ Humidity: 10%～90%（non-condensing）
Power Supply	DC 12V/1.5A,12W
Dimension	115mm×115mm×180m(L×W×H)
Net weight	625g

Table 2 Technical parameters

● Panel lights

PON/LOS bi-colour led	1.Blinking red LED On:PON initialization completed, but no light in Fiber. 2.Green LED On:ONT-2GE-V-DW-MESH has been registered to the OLT. 3.Orange LED On:Power On. 4.No LED:Power Off.		
LED	**ON**	**Blink**	**OFF**
TEL	Device has registered to Soft-switch,No Data transmission	Phone hooks off or the port is with ongoing data transmission	Device is power off or not registered to the Soft-Switch
WiFi	WiFi Turn On	WiFi Turn On with ongoing data transmission	Devide is Power Off or WiFi Turn Off

LAN1,LAN2	Port is connected properly	Port is Sending/Receiving Data	Port connection exception or not connected NA User is accessing User is logged in User has no access

Table 3 Panel lights on

● **Interface description**

Port Type	Function
PON	Connect PON port with internet by SC/APC type, single mode optical fiber cable.
LAN 1/2	Connect device with ethernet port by RJ-45 cat5 cable.
RST	Press down reset button and keep about 5seconds to make the device restart and recover from the factory default
DC12V	Connect with power adapter.
Round Button	Press button quickly to form a network with other mesh devices.

Table 4 Interface description

5 Software function

Fuction	Description
Management Mode	OAM/OMCI、Telnet、WEB、TR069 Support full management of HGU functions by VSOL OLT
Data Service Functions	Full speed non-blocking switching 2K MAC address table 64 full range VLAN ID Support QinQ VLAN, 1:1 VLAN, VLAN reusing, VLAN trunk, etc Integrated port monitoring, port mirroring, port rate limiting, port SLA, etc Support auto polarity detection of Ethernet ports (AUTO MDIX) Integrated IEEE802.1p QoS with four level priority queues Support IGMP v1/v2/v3 snooping/proxy and MLD v1/v2 snooping/proxy Support bridge, router and bridge/router mixed mode IP address assignment: dynamic PPPoE/DHCP Client and static IP
WiFi Service Functions	Integrated 802.11b/g/n/ac Support max 128 users Support Wi-Fi CERTIFIED EasyMesh Authentication : WEP/WAP-PSK(TKIP)/WAP2-PSK(AES) Modulation type: DSSS、CCK and OFDM Encoding scheme: BPSK、QPSK、16QAM and 64QAM
POTS Service	Call protocol: SIP(IMS compatible) seamless compatible with all popular call

Function	agent
	Integrate heartbeat function and support active/standby call agent
	Voice coding: ITU-T G.711/G.722/G.729, auto-negotiate with call agent
	Echo cancellation exceeding ITU-T G.165/G.168-2002, up to 128ms tail length
	Support high/low speed fax, bypass fax, and T.38 fax
	Support high speed MODEM(56Kbps) dial access
	Support RFC2833 and redundant RFC2833, difference rings, MD5 authentication, call forward, call waiting, hot-line call, alarm clock, and all kinds of value-added voice service
	Multi-party conferencing
	Call loss less than 0.01%