HG3221D-4G1S2NAC
Datasheet v1.3

1. Product Description

4GE+1POTS+1USB+WiFi GPON/EPON HGU terminal devices are designed for fulfilling FTTH and triple play service demand of fixed network operators. These boxes are based on the mature Chipset technology, which have high ratio of performance to price, and the technology of IEEE802.11b/g/n/ac WiFi, Layer 2/3, and high quality VoIP as well. Support full management of HGU devices through VSOL 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-TG.984.x and technical requirement of GPON Equipment from China Telecom.

Dual Mode

HD voice quality

WiFi wide coverage

Powerful function

Simplicity of operator

Figure 1 G/EPON 4GE+1POTS+WiFi+USB ONU

2. Product categories

Product model	Product specification	Chipset
HG3221D-4G1S2NAC	1XPON+4GE+1POTS+WiFi5+USB3.0	ZTE+MTK

Table 1 Product categories
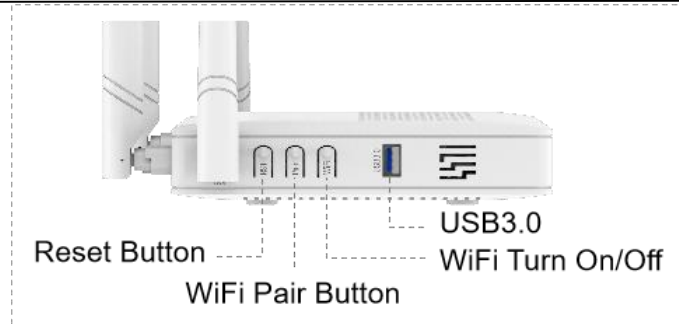
3. Appearance Features
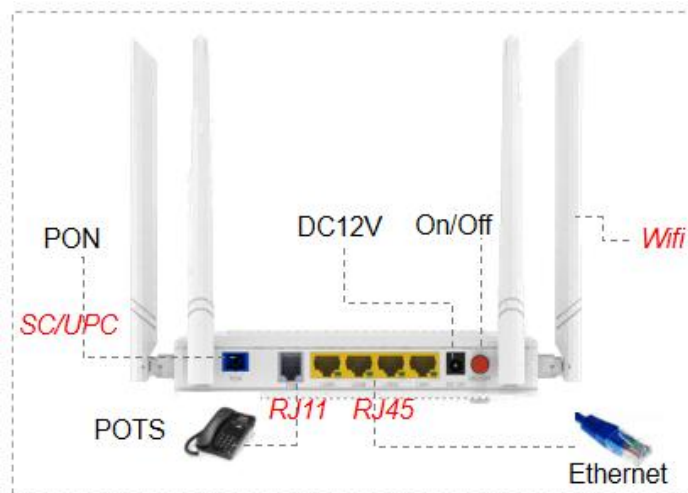
Figure 3 Rear Panel

Figure 4 Side Panel

4. Technical parameters

Technical item	HG3221D-4G1S2NAC
	4GE+1POTS+WIFI5+USB3.0
PON interface	1 G/EPON port(EPON PX20+ and GPON Class B+) Wavelength:Tx1310nm,Rx 1490nm SC/UPC connector Receiving saturation:≥-8dBm Receiving sensitivity: ≤-28dBm Transmitting optical power: 0~+4dBm Transmission distance: 20KM
LAN interface	4×10/100/1000Mbps auto adaptive Ethernet interfaces. Full/Half, RJ45 connector
Wireless	Compliant with IEEE802.11b/g/n/ac 2.4GHz Operating frequency: 2.400-2.483GHz 5.0GHz Operating frequency: 5.150-5.825GHz Support MIMO, 4T4R,5dBi external antenna, rate up to 1.167Gbps Support: multiple SSID TX power: 11n--22dBm/11ac--24dBm
POTS interface	1×FXS, RJ11 connector Support: G.711/G.723/G.726/G.729 codec Support: T.30/T.38/G.711 Fax mode, DTMF Relay Line testing according to GR-909
USB interface	USB3.0
LED	12, For Status of PWR,PON ,LOS,WAN,WiFi,FXS,ETH1~4,WPS,USB.
Operating condition	Temperature: 0℃～+50℃ Humidity: 5%～90%（non-condensing）
Storing condition	Temperature : -30℃～+75℃ Humidity :5%～90%（non-condensing）
Power supply	DC 12V,1/1.5A
Power consumption	≤10W
Dimension	205mm×140mm×37mm（L×W×H）
Net weight	0.34Kg

Table 2 Technical parameters

5. Panel lights

LED	Mark	Status	Description
Power	PWR	On	The device is powered up.
		Off	The device is powered down.
Registration	PON	On	The device is registered to the GPON system.
		Off	Device is not registered to the GPON system.
		Blink	Device is registering.
Optical signal	LOS	Blink	Device does not receive optical signals.
		Off	Device has received optical signals.
WAN	WAN	On	WAN is effective.
		Off	WAN is ineffective.
POTS	FXS	On	Device has registered to the soft-switch, but without ongoing data transmission.
		Off	Device is power off or not registered to the soft-switch.
		Blink	Phone hooks off or the port is with ongoing data transmission.
Ethernet	ETH1~ETH4	On	Port is connected properly.
		Off	Port connection exception or not connected.
		Blink	Port is sending or/and receiving data.
Pair	WPS	On	WPS client is connected. (LED turn off after 5 minutes of successful connection)
		Off	Does not use WPS or WPS client is connected.(LED turn off after 5 minutes of successful connection)
		Blink	WPS client is connecting.
USB	USB	On	USB device is connected, but without ongoing data transmission.
		Off	Device is power off or USB device is not connected.
		Blink	USB is with ongoing data transmission.

Table 3 Panel lights on

6. Interface description

Port Type	Function
PON port	Connect PON port with internet by SC/PC type, single mode optical fiber cable.
FXS port	Connect the telephone with FXS port by telephone wire.
Ethernet port	Connect PC with Ethernet port by RJ-45 Cat5 cable.
WiFi pair button (wireless pair)	Press down WiFi pair button to begin pairing.
WiFi turn on/off (WiFi)	Press down WiFi turn on/off button to enable/disable WiFi function.
Reset button (Reset)	Press down reset button to make the device restart and recover from factory default settings.
USB port	External USB port, connect to USB storage device.
Power port (DC12 V)	Connect with power adapter.
Power turn on/off	Power turn on/off

Table 4 Interface description

7. Software Key Feature

Name	Function
EPON/GPON mode	Dual mode , Can access EPON/GPON OLTs(HUAWEI,ZTE,FiberHome, etc).
Software mode	Routing mode.
WiFi	IEEE802.11b/g/n(TX power:17dBm/16dBm/15dBm) WiFi Authentication : WEP/WAP-PSK(TKIP)/WAP2-PSK(AES)
Firewall	DDOS, Filtering Based on ACL/MAC/URL.
Layer2	802.1D&802.1ad bridge, 802.1p Cos, 802.1Q VLAN.
Layer3	IPv4/IPv6, DHCP Client/Server , PPPoE, NAT , DMZ ,DDNS.
Multicast	IGMP v1/v2/v3 , IGMP snooping.
Security	Flow & Storm control, Loop Detection.
POTS(For HG326x)	VoIP protocol: SIP,IMS-SIP Voice enhancement: ● Local exchange ● Dynamic voice jitter buffering ● Silence detection ● Echo cancel ● Loss compensation
O&M	WEB/TELNET/OAM/OMCI/TR069, Support private OAM/OMCI protocol and Unified network management of VSOL OLT.

Table 5 Software Key Feature

For more information:

Corporate headquarters: Room 1101,Originality Building B3, NO.162 Science Avenue,Science Town,GuangZhou, China

Factory Adress: 2F Bldg. B, Qirui Science &Technology Park, No.1 Nanxiang 2nd Rd.,Science Town, Guangzhou, China

Website: https://www.vsolcn.com

TEL: +86-20-32200215

FAX: +86-20-32211040

E-mail: sales@ftthcpe.com, support@ftthcpe.com