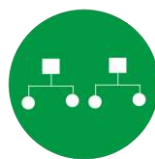# 2GE+1POTS+WiFi
Product Datasheet V1.1

Dual mode   **HGU management**   **Route**

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Product overview

2GE+1POTS+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 (Realtek) 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 NETLINK 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.

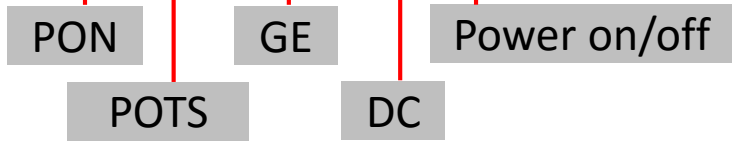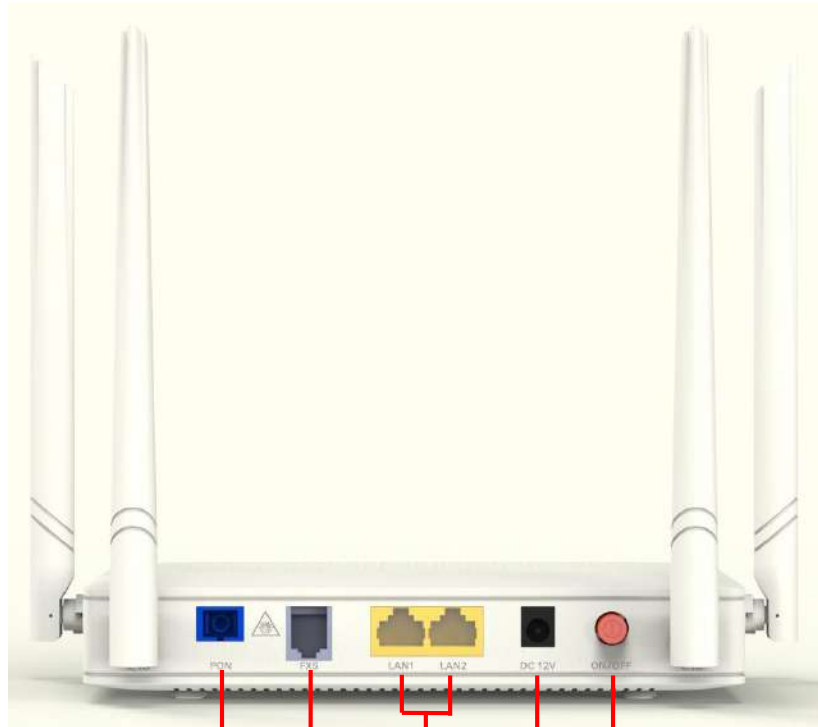| Product	Uplink interface	User interface
HG323DAC	1*EPON/GPON	2*GE+1*POTS+WiFi

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Special Features

- ➢ **Support full management of HGU functions by NETLINK OLT**
- ➢ **Plug and play, features auto-detecting, auto-configuration, and auto firmware upgrade , etc**
- ➢ **Integrated OAM/OMCI remote configuration and maintenance function**
- ➢ **Support rich QinQ VLAN functions and IGMP Snooping multicast features**
- ➢ **Fully compatibility with OLT based on Broadcom/PMC/Cortina chipset**
- ➢ **Support 802.11n/ac WiFi(4T4R) function**
- ➢ **Support NAT, Firewall function**
- ➢ **Support IPv4 and IPv6 dual stack**
- ➢ **Support SIP protocol**

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functional characteristics

Product appearance features

PON   GE   Power on/off

POTS   DC

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technical indicator

Technical item	2GE+1POTS+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 x 10/100/1000Mbps auto adaptive Ethernet interfaces, Full/Half, RJ45 connector
POTS interface	1 x RJ11 connectors Support: G.711A/G.711U/G.723/G.729 codec Support: 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 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
LED	9, For Status of POWER、LOS、PON、WAN、 LAN1、LAN2、2.4G、5G、PHONE
Operating condition	Temperature: 0℃～+50℃ Humidity: 10%～90%（non-condensing）
Storing condition	Temperature: -30℃～+60℃ Humidity: 10%～90%（non-condensing）
Power adapter	DC 12V/1.5A or DC12V/1.0A
Power supply	≤10W
Dimension	178mm×120mm×30m(L×W×H)
Net weight	0.32Kg

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technical indicator

LED information

LED	ON	Blink	OFF
PWR	The device is powered up	__	The device is powered down
PON	Green is registered to the PON system	Green is registering to the PON system	Green is not registered to the PON system
LOS	Device does not receive optical signals	__	Device have received optical signals
WAN	Route WAN connect to internet.	__	Router WAN do not connect to internet.
WiFi(2.4/ 5.0G)	WiFi turned on	WiFi turn on and with ongoing data transmission	Device is power off or WiFi turned off
PHONE	Device has registered to the soft-switch, but without ongoing data transmission	Phone hooks off or the port is with ongoing data transmission	Device is power off or not registered to the soft-switch
LAN1~ LAN2	Port is connected properly	Port is sending or/and receiving data	Port connection exception or not connected NA User is accessing User is logged in Userhas no access

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Software function

Management Mode

- **OAM/OMCI、Telnet、WEB、TR069**
- **Support full management of HGU functions by NETLINK 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

WiFi Service Functions

- Integrated 802.11b/g/n/ac
- Support max 128 users
- Authentication : WEP/WAP-PSK(TKIP)/WAP2-PSK(AES)
- Modulation type: DSSS、CCK and OFDM
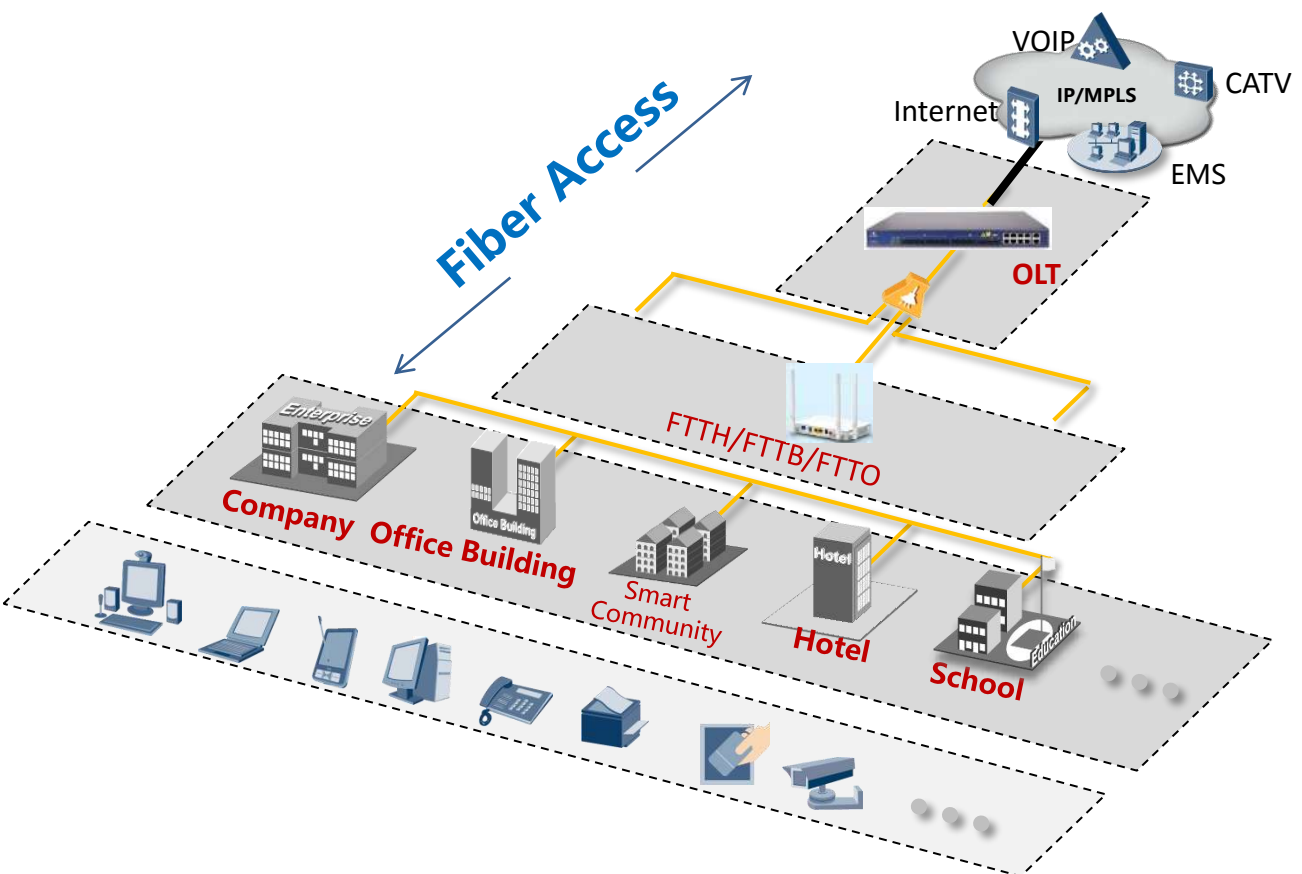- Encoding scheme: BPSK、QPSK、16QAM and 64QAM

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Software function

POTS Service Function

- Call protocol: SIP(IMS compatible) seamless compatible with all popular call 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 T38 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
- IP address assignment: dynamic PPPoE/DHCP Client and static IP
- Support WEB、CLI、IVR、TR069
- Call loss less than 0.01%

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Typical application diagram

Fiber Access

VOIP
CATV
Internet
IP/MPLS
EMS
OLT

FTTH/FTTB/FTTO

Company Office Building
Smart Community
Hotel
School

NETLINK ICT (P). LTD.

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