

## FD214GWHGU Type EPON ONU



### Overview

FD214GWEPON HGU is one of the EPON optical network unit design to meet the requirement of the broadband access network. It apply in FTTH/FTTO to provide the data, voice and video service based on the EPON network.

EPON is the latest generations of access network technology. IEEE802.3ah is the standard protocol of EPON. The EPON standard differs from other PON standards in that it achieves higher bandwidth and higher efficiency using larger, variable-length packets. EPON offers efficient packaging of user traffic, with frame segmentation allowing higher quality of service (QOS) for delay-sensitive voice and video communications traffic. EPON networks provides the reliability and performance expected for business services and provides an attractive way to deliver residential services. EPON enables Fiber To The Home (FTTH) deployments economically resulting to accelerated growth worldwide.

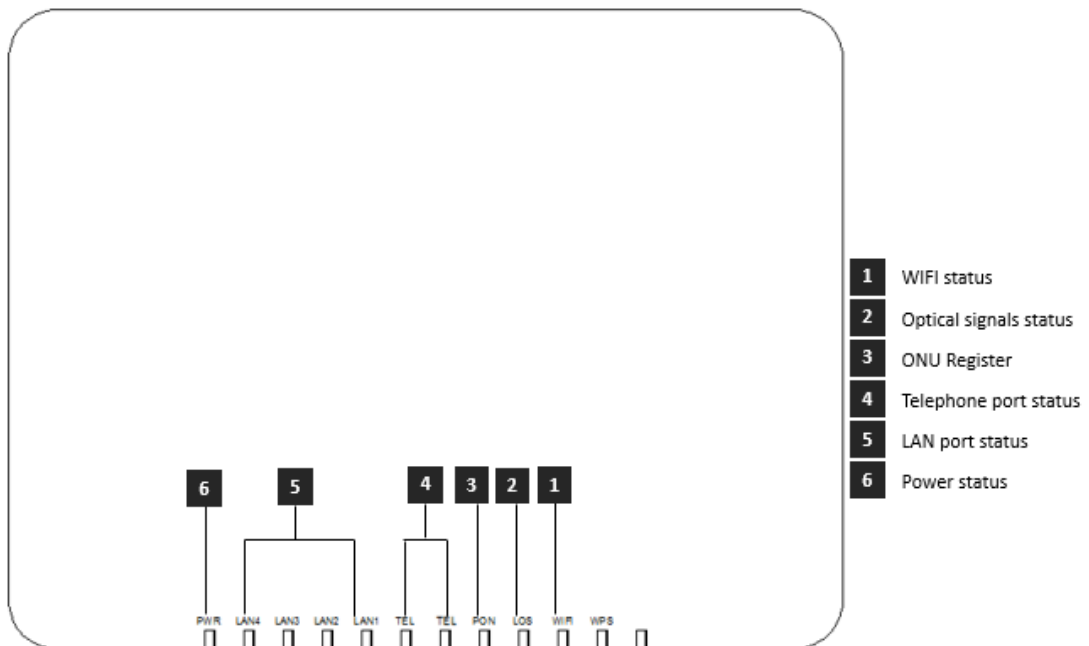
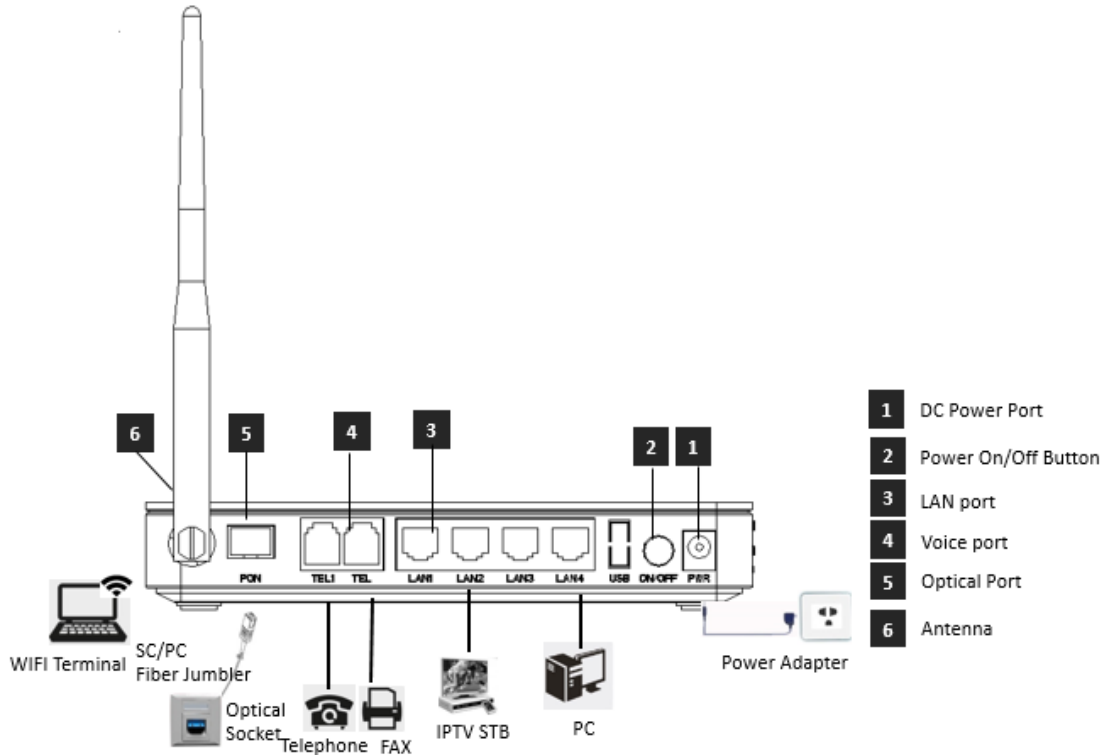
FD214GW provide two POTS ports, four GE auto-adapting Ethernet ports and one 802.11 n/b/g WiFi port. The FD214GW features high-performance forwarding capabilities to ensure excellent experience with VoIP, Internet and HD video services. Therefore, the FD214GW provides a perfect terminal solution and future-oriented service supporting capabilities for FTTH deployment. It has good third-party compatibility to work with the third party OLT, such as Huawei/ZTE/Fiberhome/Alcatel-Lucen.



## Features

- Full compatible with IEEE802.3ah
- Support two POTS
- Support four GE auto-adapting Ethernet ports
- Support one 802.11 n/b/g Wi-Fi port
- Support OAM and TR069 for remote management
- Support Web for local management
- Support Auto-negotiation andMDI/MDIX
- Support the Ethernet interface rate, working mode andflows control
- Support loopback at UNI
- Support packet filtering and anti-illegal message attack protection
- Support performance statistics of Ethernet lines
- Support VLAN tagged label processing, traffic classification and packet filtering, STP/RSTP etc.
- Support DHCP Option60 reporting the location information of the Ethernet interface
- Support PPPoE+ for accurate subscribers identification
- Support H.248、 MGCPandSIP protocol
- Support IGMP Snooping
- Support AES-128

## Product interface and LED definitions



Indicator		Description
1	WIFI	WIFI Blinking : Data is being transmitted On : Wi-Fi function Opens
2	LOS	EPON optical signals On: Optical power lower than receiver sensitivity ; Off: Optical in normal
3	PON	ONU Register On: Success to register to OLT; Blinking: In process of registering to OLT; Off: In process of registering to OLT;

4	TELn	Telephone port status	On : The connection between the TEL port and the voice server has been set up Blinking : The voice service of the TEL port is established; Off : The connection between the TEL port and the voice server is not set up.
5	LANn	LAN port status	On: Ethernet connection is normal; Blinking: Data is being transmitted through the Ethernet port; Off: Ethernet connection is not set up;
6	PWR	Power status	On: The ONU is power on; Off: The ONU is Power off;



## Specification

Item	Parameters	Specification
<b>Interface</b>	PON Port	1 EPON optical interface Meet 1000BASE-PX20+ standard Symmetric 1.25Gbps upstream/downstream SC single-mode fiber split ratio: 1:64 Transmission distance 20KM
	Ethernet Port(LAN)	4*10/100/1000M Auto-negotiation RJ45 ports Full Duplex / Half-Duplex RJ45, Auto-MDI/MDI-X Transmission Distance 100 Meter
	POTS Port	2*RJ11 with 3REN Max 1km distance Balanced Ring, 55V RMS
	Power Supply Port	12V DC input With 12V 1A AC/DC adapter AC input
<b>Management</b>	NetworkManagement	Standard compliant OAMI interface as defined by IEEE802.3ah Support TR-O69 and WEB management
	Management Function	Status monitor, Configuration management, Alarm management, Log management
<b>Environmental Specifications</b>	Shell	Plastic casing
	Power	External 12V 1A AC/DC power supply adapter Power consumption: <7W
	Dimensions	170mm(L)*130mm(W)*30mm(H) 0.3kg
	Environment	Operating Temperature: 0~50℃ StorageTemperature: -40~85℃ Operating Humidity: 10%~90%(Non-condensing)

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## WIFI Features

- IEEE 802.11n compliant, 2.4 GHz
- Full IEEE 802.11b/g legacy compatibility with enhanced performance
- Two-stream spatial multiplexing up to 300 Mbps PHY data rates
- Support multi-SSID (Maximum 4 SSID)
- Support automatic channel selection
- Support hide SSID
- Support wireless security of 64/128 bit WEP、802.1x、WPA and WPA2。

WIFI Specification		
<b>Performance parameters</b>	Standard	IEEE802.11b/g/n
	Frequency	2.400 ~ 2.500 GHz
	Wireless data rate	IEEE 802.11b: 1,2,5.5,11Mbps IEEE 802.11g: 6,9,12,18,24,36,48,54Mbps IEEE 802.11n: up to 200 Mbps
	Modulation schemes	802.11g: 64QAM, 16QAM, QPSK, BPSK, DSSS 802.11b: CCK, DQPSK, DBPSK HT20: 64 QAM, 16QAM, QPSK, BPSK
	Channel	13*Channel, configurable to meet the standard of USA, Canada, Japan and China
	RF receive sensitivity	802.11b: -96dBm @ 1 Mbps; -93dBm @ 2 Mbps; -91dBm @ 5.5 Mbps; -88dBm @ 11 Mbps 802.11g: -90dBm @ 6 Mbps; -89dBm @ 9 Mbps; -89dBm @ 12 Mbps; -867dBm @ 18 Mbps; -83dBm @ 24 Mbps; -79dBm @ 36 Mbps; -75dBm @ 48 Mbps; -75dBm @ 54 Mbps 802.11n: -96dBm @ 1 Mbps;-88dBm @ 11 Mbps; -90dBm@6Mbps; -75dBm@54Mbps; -86dBm@m0/20MHz;-69dBm@m15/20MHz;
	RF TxPower	•TX power out B mode @ 11 Mbps: 18dBm +/- 2 • TX power out G mode @ 54 Mbps: 16dBm +/- 2 • TX power 11n mode @ HT20: 16 dBm +/-2
	Encryption Mode	64-bit, 128-bit WEP, AES, TKIP, WPA, WPA2, 802.1x
	Transmission distance	100m indoors coverage area 300m outdoors coverage area (varying depending on the actual environment)

## Application

- ◇ Solution: FTTH、FTTB、FTTO、PON+EOC
- ◇ Business: Broadband Internet、Voice、IPTV、VOD、IP Camera、WIFI

## Network Construction

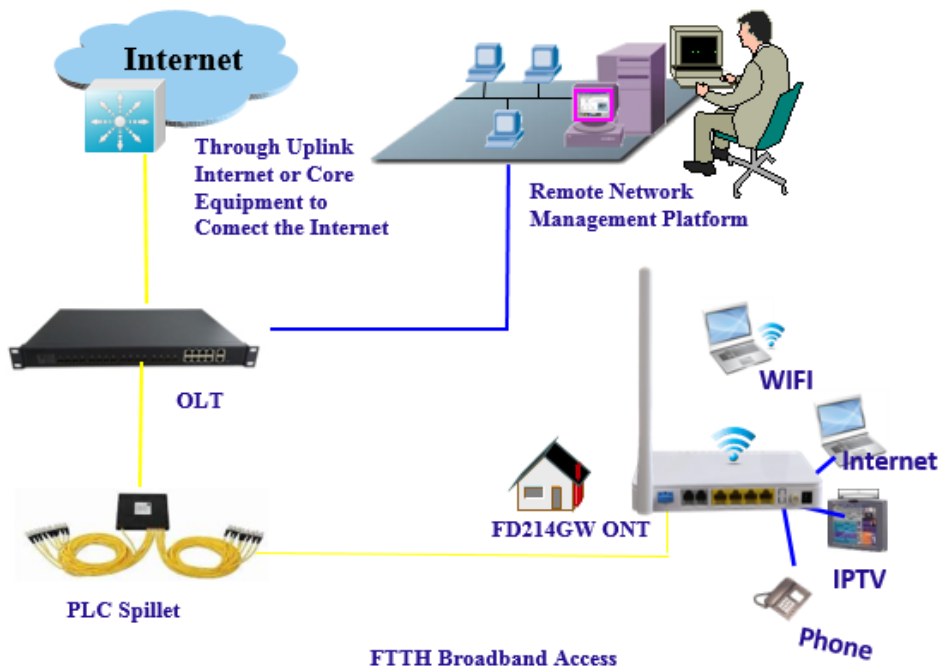


Figure: FD214GW Application Diagram

## Ordering information

Product Name	Product Model	Descriptions
HGU Type with Wi-Fi EPON ONU	FD214GW	4*GE Ethernet interface, 2*POTS interface, 1*EPON interface, support Wi-Fi function, plastic casing, external power supply adapter