

## FD604XW-IE-Z410 1GE+3FE+1POTS+WIFI ONU



### Overview

FD604XW-IE-Z410 EPON 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.

FD604XW-IE-Z410 features high-performance forwarding capabilities to ensure excellent experience with VoIP, Internet and HD video services. It has good compatibility to work with the third party OLT, such as Huawei/ZTE/Fiberhome/Alcatel-Lucent. It provides a perfect terminal solution and future-oriented service supporting capabilities for FTTH deployment.

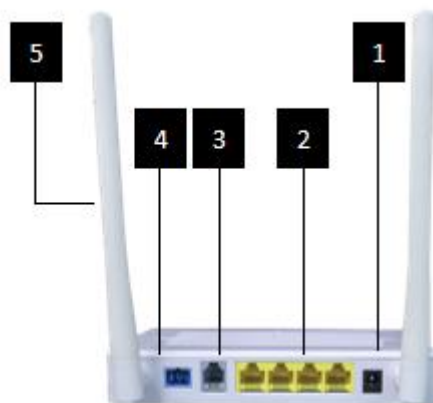
FD604XW-IE-Z410 integrates wireless function which meets 802.11 b/g/n technical standards. It has two external high gain omnidirectional antennas, the wireless transmission rate up to 300Mbps. It has the characteristics of strong penetrating power and wide coverage. It can provide users with more efficient data transmission security.

### Features

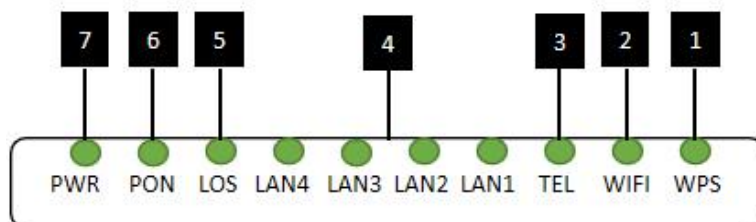
- Full compatible with IEEE802.3ah
- Meet 802.11 b/g/n WIFI technical standard
- Support ONU auto-discovery/Link detection/remote upgrade of software
- Support Ethernet line performance statistics function
- Support OAM+TR069 management mode

- Support VLAN tag/untag
- Support multicast Snooping/Proxy
- Support DHCP/PPPOE/Static IP internet mode
- Support port binding
- Support loop-detection function
- Support device-based speed limitation
- Support MAC-address filter and URL access control
- Support H.248 and SIP protocol
- Support Triple Churning encryption and decryption
- Support Dynamic Bandwidth Allocation (DBA)
- Support ACL configure data packet filter flexibly
- EMS network management based on SNMP ,convenient for maintenance

## Product Interface and LED Definitions



- 1** DC Power Port
- 2** LAN Port
- 3** Voice Port
- 4** Optical Port
- 5** Antenna



- 1** WPS Status
- 2** WIFI Status
- 3** Voice Port Status
- 4** LAN Port Status
- 5** Optical Signals Status
- 6** ONU Register Status
- 7** Power Status

Indicator			Description
1	WPS	WPS	Blinking: In the connected state, waiting for the device to access; Off: In the not onnected state;
2	WIFI	WIFI	Blinking: Data is being transmitted On: WIFI function Opens
3	TEL	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.
4	LAN	LAN port status	On: Ethernet connection is normal; Blinking: Data is being transmitted through the Ethernet port; Off: Ethernet connection is not set up;
5	LOS	EPON optical signals	On: Optical power lower than receiver sensitivity ; Off: Optical in normal
6	PON	ONT Register	On: Success to register to OLT; Blinking: In process of registering to OLT; Off: In process of registering to OLT;
7	PWR	Power status	On: The ONT is power on; Off: The ONT is Power off;



## Specification

Item	Parameters	Specification
Interface	PON Interface	1 EPON optical interface Meet 1000BASE-PX20+ standard Symmetric 1.25Gbps upstream/downstream SC/UPC single-mode fiber split ratio: 1:64 Transmission distance 20KM
	Ethernet Interface	1*10/100/1000M and 3*10/100M ports Full Duplex / Half-Duplex RJ45, Auto-MDI/MDI-X Transmission Distance 100 Meter
	POTS Interface	1*RJ11 Max 1km distance Balanced Ring, 50V RMS
	Power Interface	12V DC input
Performance Parameters	PON Optical Parameter	Wavelength: Tx 1310nm, Rx1490nm Tx Optical Power: 0~4dBm Rx Sensitivity: -27dBm Saturation Optical Power: -3dBm
	Data Transmission	PON Throughput: Downstream 980Mbps; Upstream

	Parameter	950Mbps Ethernet: 1000Mbps or 100Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms
<b>Management</b>	Network Management	OAM, TR069, WEB, Telnet
	Management Function	Status monitor, Configuration management, Alarm management, Log management
Environmental Specifications	Power	External 12V/0.6A DC power supply adapter Power consumption: <6.5W
	Dimension and Weight	Item Dimension: 160mm(L)*139.5mm(W)*28.5mm(H) Item Net Weight: about 300g
	Environment	Operating Temperature: 0~40℃ Operating Humidity: 10%~90%(Non-condensing)



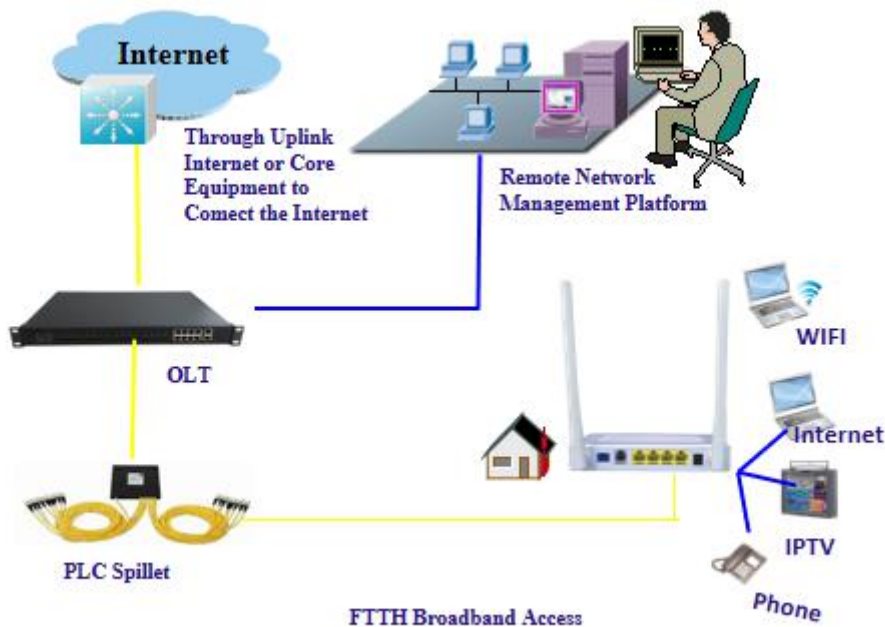
## WIFI Features

Item	Parameter	
Performance parameters	Operating Mode	Router or bridge
	Antenna gain	5dBi
	WIFI antenna	2 external antennas
	Throughput	IEEE 802.11b: 11Mbps IEEE 802.11g: 54 Mbps IEEE 802.11n: 300Mbps
	Frequency	2.412 ~ 2.472 GHz
	Channel	13*Channel, configurable to meet the standard of USA, Canada, Japan and China
	Modulation	DSSS, CCK and OFDM
	Coding	BPSK, QPSK, 16QAM and 64QAM
	Receive sensitivity	802.11b: -83dBm @ 1 Mbps; -79dBm @ 5.5 Mbps; -76dBm @ 11 Mbps 802.11g: -85dBm @ 6 Mbps; -77dBm @ 24 Mbps; -68dBm @ 54 Mbps; 802.11n HT20: -85dBm @ MCS0; -73dBm @ MCS4; -67dBm @ MCS7 802.11n HT40: -82dBm @ MCS0; -70dBm @ MCS4; -64dBm @ MCS7

	TX power	<p>802.11b:  <math>19 \pm 1\text{dBm}</math> @ 1 Mbps    <math>19 \pm 1\text{dBm}</math> @ 5.5 Mbps;  <math>18 \pm 1\text{dBm}</math> @ 11 Mbps;</p> <p>802.11g:  <math>18 \pm 1\text{dBm}</math> @ 6 Mbps    <math>17 \pm 1\text{dBm}</math> @ 24 Mbps;  <math>16 \pm 1\text{dBm}</math> @ 54 Mbps;</p> <p>802.11n HT20:  <math>17 \pm 1\text{dBm}</math> @ MCS0;    <math>16 \pm 1\text{dBm}</math> @ MCS4 ;  <math>15 \pm 1\text{dBm}</math> @ MCS7</p> <p>802.11n HT40:  <math>17 \pm 1\text{dBm}</math> @ MCS0;    <math>16 \pm 1\text{dBm}</math> @ MCS4 ;  <math>15 \pm 1\text{dBm}</math> @ MCS7</p>
	Encryption Mode	802.11i security: WEP-64/128, TKIP (WPA-PSK) and AES (WPA2-PSK)

## Network Application

- ◇ Solution: FTTH, FTTO
- ◇ Business: Broadband Internet, Voice, IPTV, WIFI



## Ordering Information

Product Name	Product Model	Descriptions
1GE+3FE+1POTS+WIFI	FD604XW-IE-Z410	1*10/100/1000M and 1*10/100M Ethernet interface, 1*POTS interface, 1*EPON interface, support WIFI function, plastic casing, external power supply adapter