FD504GW-E-Z410 4GE+WIFI EPON ONU

Brief Views

FD504GW-E-Z410 data type ONU 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, video service based on the EPON network.

EPON technology is a kind of emerging technology which takes advantage of PON technology and Ethernet technology also is a kind of point to multi-point network technology. OLT through the passive optical network to connect multiple ONU with single fiber bidirectional technical can rarely used fiber resources to meet the operators of the multi-user access requirements.

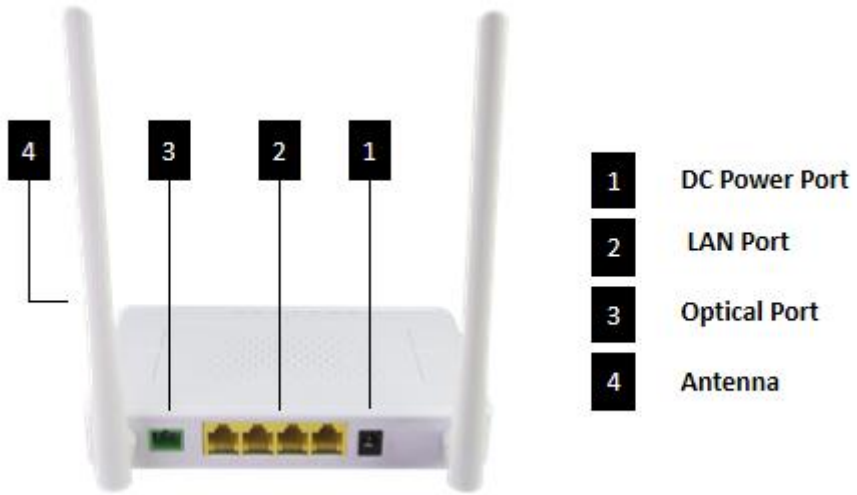
FD504GW-E-Z410 have a high reliability and provide quality of service guarantee, easy management, flexible expansion and networking. It's fully meet the IEEE technical standards and have good compatibility with third party manufacturers OLT.

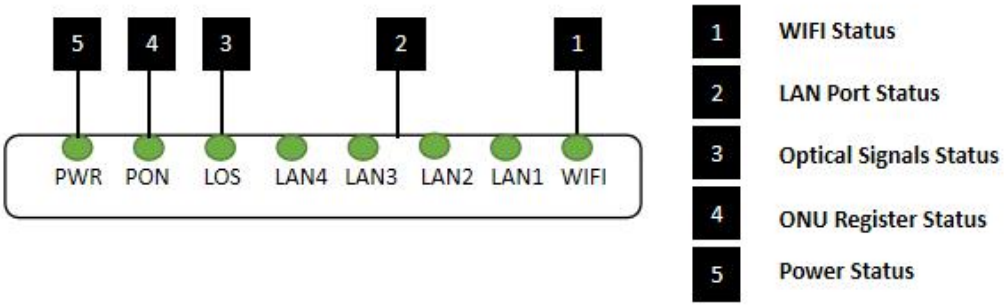
FD504GW-E-Z410 can integrate wireless function with meet 802.11 n/b/g technical standards, It has two external high gain directional antennas, the wireless transmission rate up to 300Mbps. It has the characteristics of strong penetrating power and wide coverage. It can provide users with more efficient data transmission security.

Functional Feature

- In compliant with IEEE802.3ah Standard
- Meet 802.11 b/g/n WIFI technical standard
- Support ONU auto-discovery/Link detection/remote upgrade of software
- Support VLAN transparent, tag configuration
- Support multicast function
- Support DHCP/Static/PPPOE internet mode
- Support port-binding
- Support OAM+TR069 remote management
- Support data encryption and decryption function
- Support Dynamic Bandwidth Allocation (DBA)
- Support MAC filter and URL access control
- Support power-off alarm function ,easy for link problem detection
- Specialized design for system breakdown prevention to maintain stable system
- EMS network management based on SNMP ,convenient for maintenance

Product Interface and LED Definitions





Indicator			Description
1	WIFI	WIFI	Blinking： Data is being transmitted On： Wi-Fi function Opens Off： Wi-Fi function Close
2	LAN1-4	LAN Port status	On: Ethernet connection is normal; Blinking: Data is being transmitted through the Ethernet port; Off: Ethernet connection is not set up;
3	LOS	EPON optical signals	On: Optical power lower than receiver sensitivity ; Off: Optical in normal
4	PON	ONU Register	On: Success to register to OLT Blinking: In process of registering to OLT; Off: In process of registering to OLT;
5	PWR	Power status	On: The ONU is power on; Off: The ONU is Power off;

Specification

Item		Parameter
Interface	PON Interface	1 EPON optical interface Meet 1000BASE-PX20+ standard Symmetric 1.25Gbps upstream/downstream SC/PC single-mode fiber split ratio: 1:64 Transmission distance 20KM
	Ethernet Interface	4*10/100/1000M auto-negotiation Full/half duplex mode RJ45 connector Auto MDI/MDI-X 100m distance
	Power Interface	12V DC Power supply
Performance Parameters	PON Optical Parameter	Wavelength: Tx 1310nm, Rx1490nm Tx Optical Power: 0～4dBm Rx Sensitivity: -27dBm Saturation Optical Power: -3dBm

	Data Transmission Parameter	PON Throughput: Downstream 980Mbps; Upstream 950Mbps Ethernet: 1000Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms
Network Management	Management Mode	Support IEEE802.3 QAM, ONU can be remotely managed by OLT Support TR069 remote management and WEB management
	Management Function	Status monitor, Configuration management, Alarm management, Log management
Physical Features	Shell	White plastic casing
	Power	External 12V DC/1A power supply adapter Power consumption: <7W
	Physical Specifications	Item Dimension：160mm(L)*139.5mm(W)*28.5mm(H) Item weight：0.3kg
	Environmental Specifications	Operating temperature: 0 to 50ºC Storage temperature: -40 to 85ºC Operating humidity: 10% to 90%(Non-condensing) Storage humidity: 10% to 90%(Non-condensing)

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

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
	Output power	802.11b: 19 ± 1dBm @ 1 Mbps 19±1dBm @ 5.5 Mbps; 18 ±1dBm @ 11 Mbps; 802.11g: 18 ± 1dBm @ 6 Mbps 17±1dBm @ 24 Mbps; 16 ±1dBm @ 54 Mbps; 802.11n HT20: 17 ± 1dBm @ MCS0; 16 ± 1dBm @ MCS4 ; 15 ± 1dBm @ MCS7 802.11n HT40: 17 ± 1dBm @ MCS0; 16 ± 1dBm @ MCS4 ; 15 ± 1dBm @ MCS7
	Encryption Mode	802.11i security: WEP-64/128, TKIP (WPA-PSK) and AES (WPA2-PSK)

Network Application

Typical Solution： FTTH

Typical Business： INTERNET, WIFI

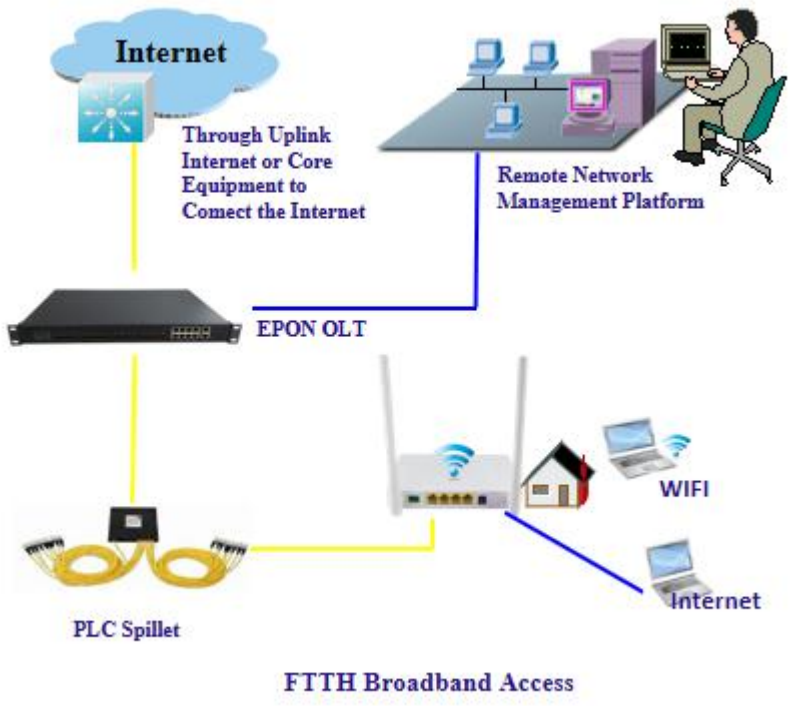


Figure: FD504GW-E-Z410 EPON ONU Application Diagram

Ordering Information

Product Name	Product Model	Descriptions
Data type ONU	FD504GW-E-Z410	4*10/100/1000M Ethernet interface, support Wi-Fi function, 1 EPON interface, plastic casing, external power supply adapter