

FD704XW-AG-Z410 Single-fiber CATV Type WIFI ONU



Brief Views

FD704XW-AG-Z410 is fiber to the home multi service access GPON ONT. It's based on the mature, stable, high cost performance GPON technology and has gigabit Ethernet switching, WDM and HFC technology. FD704XW-AG-Z410 has a higher bandwidth, higher reliability, easy management and good quality of service (QoS) guarantee. its technical performance meets the ITU- T G. 984 requirements and it has good compatibility with third party OLT.

GPON is the latest generations of access network technology. ITU-T G.984 is the standard protocol of GPON. The GPON standard which achieves higher bandwidth and higher efficiency using larger, variable-length packets differs from other PON standards. GPON offers efficient packaging of user traffic, with frame segmentation allowing higher quality of service (QoS) for video communications traffic. GPON network provides the reliability and performance expected for business services and provides an attractive way to deliver residential services. GPON enables fiber to the home (FTTH) deployments economically resulting to accelerated growth worldwide.

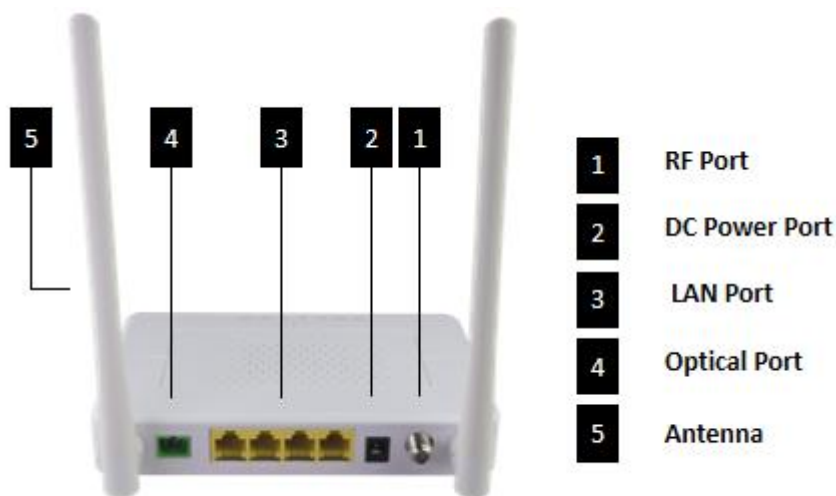
It adopts single fiber WDM technology with downlink wavelength 1550nm and 1490nm, uplink wavelength 1310nm . It only uses one-core fiber to transmit data and CATV service.

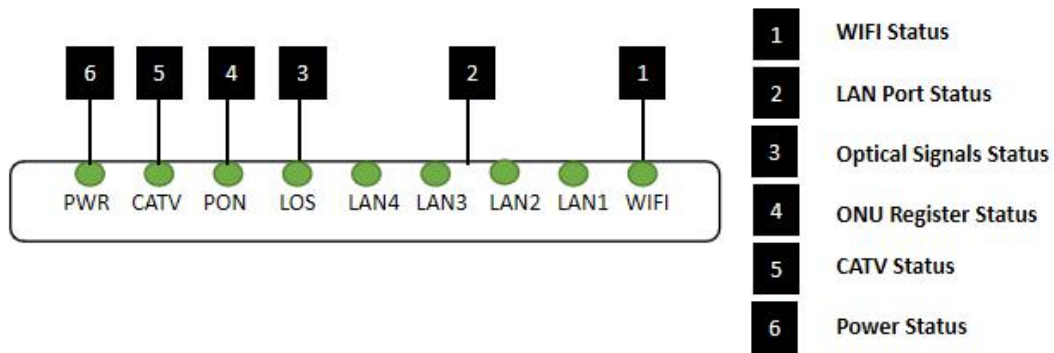
FD704XW-AG-Z410 integrates wireless function which meets 802.11 b/g/n technical standards. It has external high gain directional antenna and the wireless transmission rate up to 300Mbps. It has the characteristics of strong penetrating power and wide coverage. It can provide users with more efficient data transmission security.

Functional Feature

- Single-fiber access, provides internet, CATV, WIFI multiple service
- In compliant with ITU - T G. 984 Standard
- Support ONU auto-discovery/Link detection/remote upgrade of software
- Wi-Fi series meet 802.11 b/g/n technical standards
- Support VLAN transparent, tag configuration
- Support multicast function
- Support DHCP/Static/PPPOE internet mode
- Support port-binding
- Support OMCI+TR069 remote management
- Support data encryption and decryption function
- Support Dynamic Bandwidth Allocation (DBA)
- Support MAC filter and URL access control
- Support remote CATV port management
- 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
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	GPON 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: Failed to register to OLT;
5	CATV	CATV status	On: CATV optical normal Off: The CATV signals are not received
6	PWR	Power status	On: The ONU is power on Off: The ONU is Power off

Specification

Item		Parameter
Interface	PON Interface	1*GPON port, FSAN G.984.2 standard, Class B+ Downstream Data Rate: 2.488Gbps Upstream Data Rate: 1.244Gbps SC/PC single mode fiber 28dB Link loss and 20KM distance with 1:128
	CATV Interface	1 RF output F-Type Connector
	Ethernet Interface	1*10/100/1000M and 3*10/100M 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: 0.5~5dBm Rx Sensitivity: -28dBm Saturation Optical Power: -8dBm
	Data Transmission Parameter	PON Throughput: Downstream 2.488Gbit/s; Upstream 1.244Gbit/s Ethernet: 1000Mbps or 100Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms
Network Management	Management Mode	Standard compliant OMCI interface as defined by ITU-T G.984.4 Support TR069 and WEB management
	Management Function	Status monitor, Configuration management, Alarm management, Log management
Physical Features	Shell	White plastic casing
	Power	Power supply: DC 12V /1A Power consumption: <8.5W
	Physical Specifications	Item Dimension: 160mm(L)*139.5mm(W)*28.5mm(H) Item weight: 0.35kg
	Environmental Specifications	Operating temperature: 0 to 40°C Storage temperature: -40 to 85°C Operating humidity: 10% to 90%(Non-condensing) Storage humidity: 10% to 90%(Non-condensing)


CATV

Item	Parameter
Wavelength	1550nm
Optical return loss	>45dB
Input optical power	-18dBm~0dBm
RF frequency	47MHz~1000MHz
RF output lever	82dBuV (@-12~-2dBm@85MHz)
CNR	>41dB (@-10dBm@DS22 Channel)
CSO	>58dBc (@-10dBm@DS22 Channel)
CTB	>58dBc (@-10dBm@DS22 Channel)
RF output return loss	>12dB
RF impedance	75Ω
AGC function	Support


WIFI Specification

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, CATV

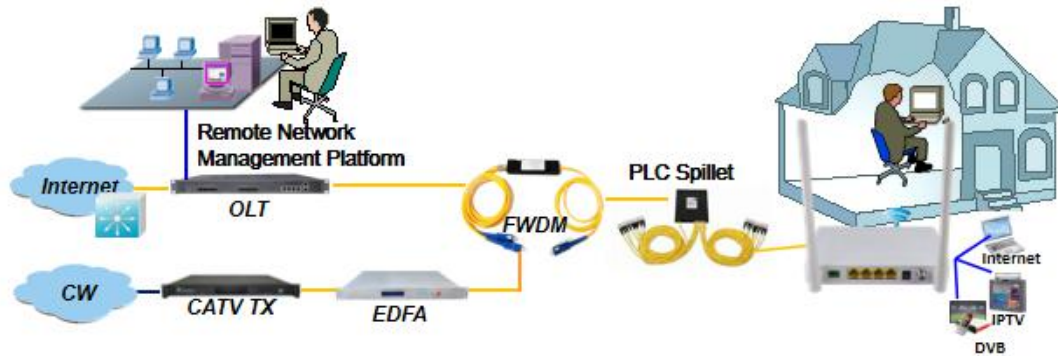


Figure: FD704XW-AG-Z410 GPON ONU Application Diagram

Ordering Information

Product Name	Product Model	Descriptions
1GE+3FE+CATV+WIFI Single fiber	FD704XW-AG-Z410	1*10/100/1000M and 3*10/100M Ethernet interface, 1 GPON interface, built-in FWDM, 1 RF interface, support WiFi function, support AGC, plastic casing, external power supply adapter