FD702XW-X-R410 CATV Type WIFI Dual-Mode ONU

Brief Views

FD702XW-X-R410 is fiber to the home multi service access XPON ONT. It's based on the mature, stable, high cost performance EPON/GPON technology and has gigabit Ethernet switching, WDM and HFC technology. FD702XW-X-R410 has a higher bandwidth, higher reliability, easy management and good quality of service (QoS) guarantee. It supports GPON and EPON two modes adaptive, can quickly and effectively distinguish between GPON and EPON systems, so normal operation under the current system.

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

FD702XW-X-R410 can integration wireless function with meet 802.11 n/b/g technical standards,   It has external high gain directional antenna, 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.
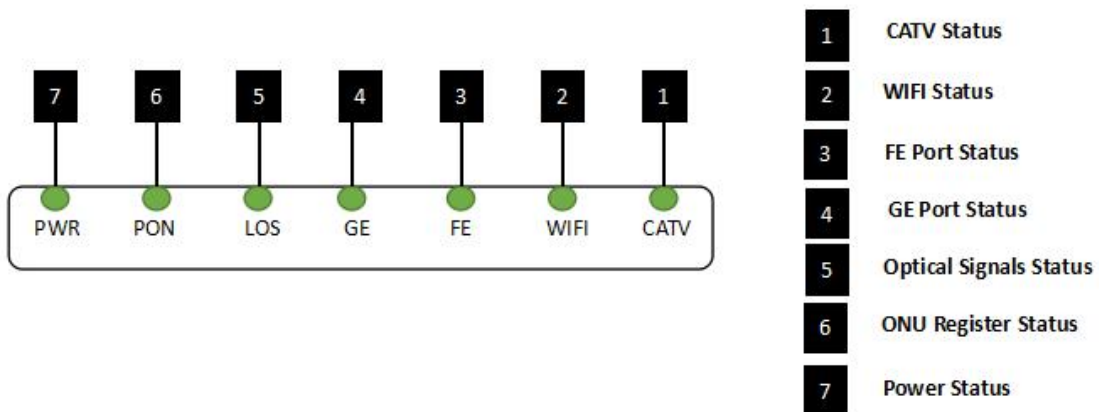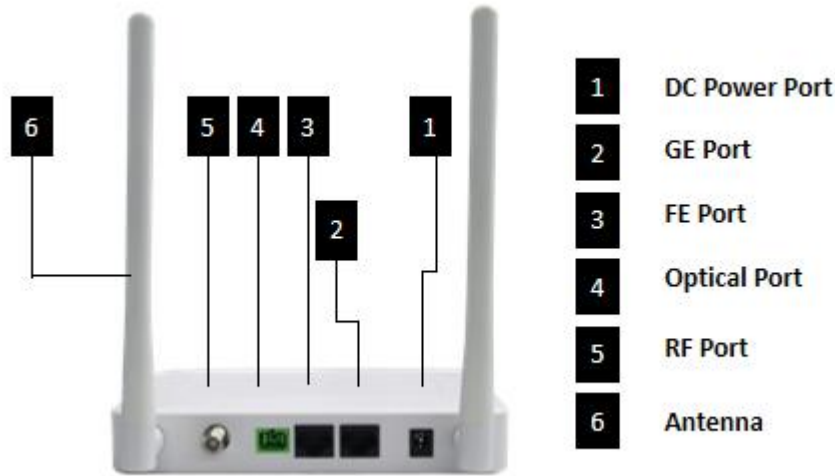
Functional Feature

Adaptive GPON mode:

- 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 n/b/g technical standards

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- 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

Adaptive EPON mode:

- Single-fiber access, provides internet, CATV, WIFI multiple service

- In compliant with IEEE802.3ah Standard

- Support ONU auto-discovery/Link detection/remote upgrade of software

- Wi-Fi series meet 802.11 n/b/g technical standards

- 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)

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Product interface and LED definitions

1	DC Power Port
2	GE Port
3	FE Port
4	Optical Port
5	RF Port
6	Antenna

1	CATV Status
2	WIFI Status
3	FE Port Status
4	GE Port Status
5	Optical Signals Status
6	ONU Register Status
7	Power Status

	Indicator		Description
1	CATV	CATV status	On：CATV optical normal Off：The CATV signals are not received
2	WIFI	WIFI	Blinking：Data is being transmitted On：Wi-Fi function Opens
3	FE	FE port status	On: Ethernet connection is normal Blinking: Data is being transmitted through the Ethernet port Off: Ethernet connection is not set up
4	GE	GE 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	PON optical signals	On: Optical power lower than receiver sensitivity ; Off: Optical in normal
6	PON	ONU Register	On: Success to register to OLT Blinking: In process of registering to OLT Off: Failed to register to OLT;
7	PWR	Power status	On: The ONU is power on Off: The ONU is Power off

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🔲 Specification

Item		Parameter
Interface	PON Interface	GPON/EPON mode adaptive 1*GPON port, FSAN G.984.2 standard, support for backward compatibility with EPON SC/PC single mode fiber
	CATV Interface	1 RF output F-Type Connector
	Ethernet Interface	1*10/100/1000M and 1*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 s; Upstream 1.244Gbit/s Ethernet: 1000Mbps and 100Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms
Network Management	Management Mode	When adaptive to GPON mode, support standard compliant OMCI interface as defined by ITU-T G.984.4, TR069 remote management and WEB management
		When adaptive to EPON mode, Support IEEE802.3 QAM, ONU can be remotely managed by OLT, TR069 remote management and WEB management
	Management Function	Status monitor, Configuration management, Alarm management, Log management
Physical Features	Shell	White plastic casing
	Power	Power supply: DC 12V /0.6A Power consumption: <5W
	Physical Specifications	Item Dimension：160mm(L)*139.5mm(W)*28.5mm(H) Item weight：0.35kg
	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)

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CATV

Item	Parameter
Wavelength	1550nm
Optical return loss	>45dB
CATV optical port input power	-10dBm～0dBm
RF frequency	45MHz~1000MHz
RF output level	≥86dBuV
RF flatness	≤±2.0
CNR	≥42dB
CSO	≤-60dBc
CTB	≤-65dBc
RF output return loss	≥10dB
RF output impedance	75Ω

WIFI Specification

Item		Parameter
Performance parameters	Operating mode	Router or bridge
	Technical standard	IEEE802.11b/g/n
	Frequency	2.412 ~ 2.472 GHz
	Antenna gain	5dBi
	Support rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 24, 36, 48, 54Mbps 802.11n: max rate 300Mbps
	Channel	2.4GHz Channel：1,2,3,4,5,6,7,8,9,10,11,12,13
	Modulation mode	11b：DSSS： DBPSK(1Mbps),DQPSK(2Mbps),CCK(5.5/11Mbps) 11g：OFDM:BPSK(6/9Mbps), QPSK(12/18Mbps),16QAM(24/36Mbps) Q64QAM(48/54Mbps) 11n：MIMO-OFDM:BPSK,QPSK,16QAM,64QAM
	Receive sensitivity	11Mbps:≤-90dBm 54 Mbps:≤-76dBm HT20 MCS7:≤-73dBm HT40 MCS7:≤-70dBm
	Transmit power	802.11n: 17dBm
	Encryption mode	AES, TKIP, WPA, WPA2, WPA-PSK/WPA2-PSK

Network application

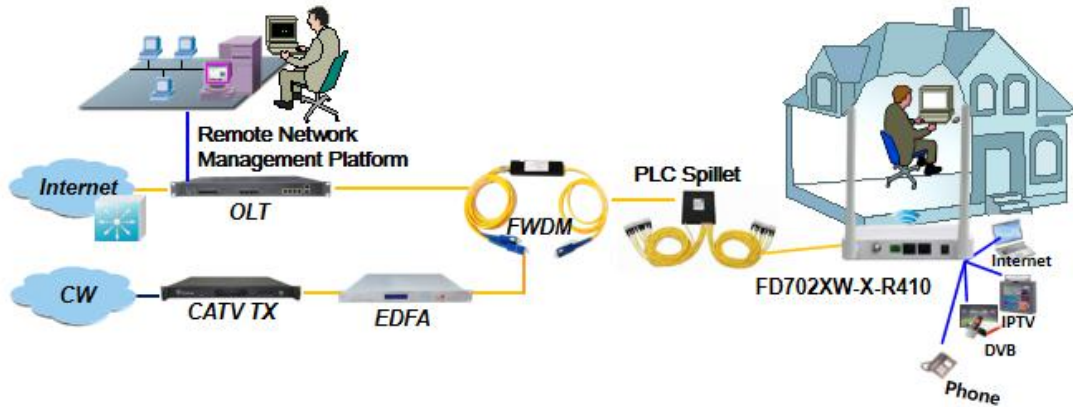Typical Solution：FTTH

Typical Business：INTERNET, WIFI, CATV

Figure: FD702XW-X-R410 ONU Application Diagram

Ordering Information

Product Name	Product Model	Descriptions
CATV Type WIFI Dual-Mode ONU	FD702XW-X-R410	1*10/100/1000M and 1*10/100M Ethernet interface,1 EPON/GPON adaptive interface, built-in FWDM, 1 RF interface, support WiFi function, Plastic casing, external power supply adapter