

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



Brief Views

FD702XW-AX-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-AX-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-AX-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:

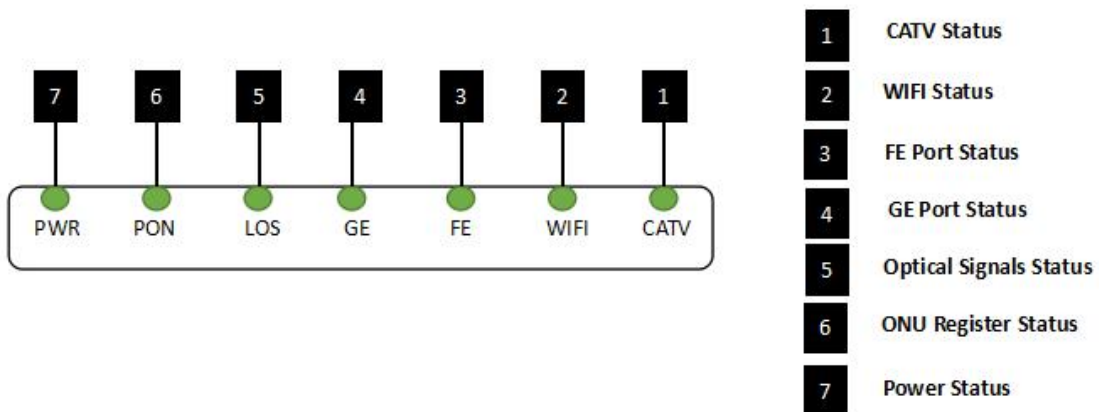
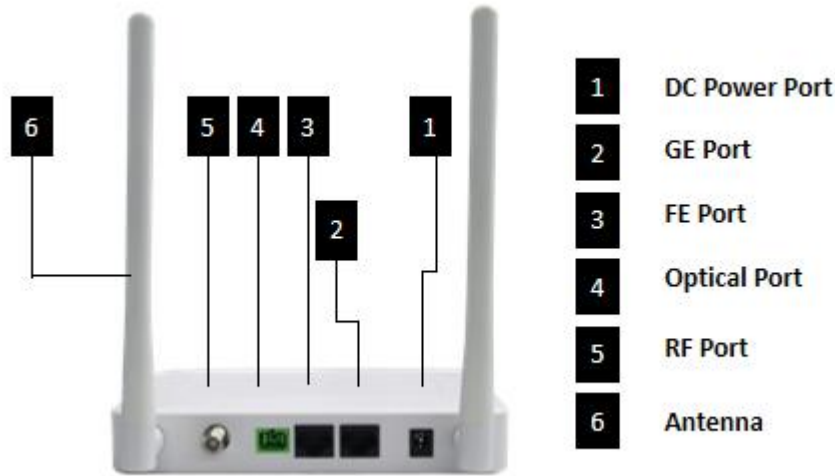
- Single-fiber access, provides internet, CATV, WIFI multiple service
- In compliant with ITU - T G. 984 Standard
- Support ONU auto-discovery/Link detection/remote upgrade of software
- Wi-Fi series meet 802.11 n/b/g technical standards

- 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)
- 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
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Product interface and LED definitions



| 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 |


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 50°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 | 78dBuV (@-12~-2dBm@85MHz) |
| CNR | >41dB (@-10dBm@DS22 Channel) |
| CSO | >60dBc (@-10dBm@DS22 Channel) |
| CTB | >60dBc (@-10dBm@DS22 Channel) |
| RF output return loss | >12dB |
| RF impedance | 75 Ω |
| AGC function | Support |


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

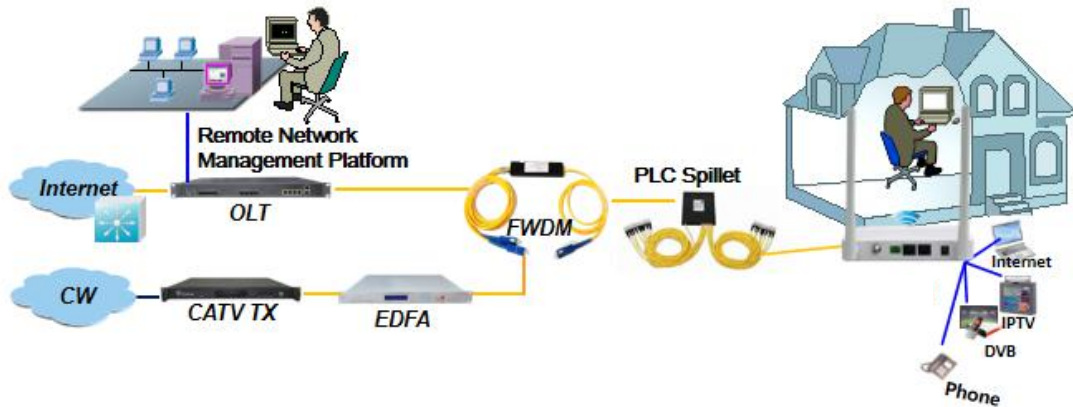


Figure: FD702XW-AX-R410 ONU Application Diagram

Ordering Information

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