

## FD704XW-G-Z410 1GE+3FE+CATV+WIFI ONU



### Brief Views

FD704XW-G-Z410 is fiber to the home multiple 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-G-Z410 has a higher bandwidth, higher reliability, easy management and good quality of service (QoS) guarantee with technical performance of equipment meet the ITU- T G. 984 requirements and have good compatibility with third party OLT.

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.

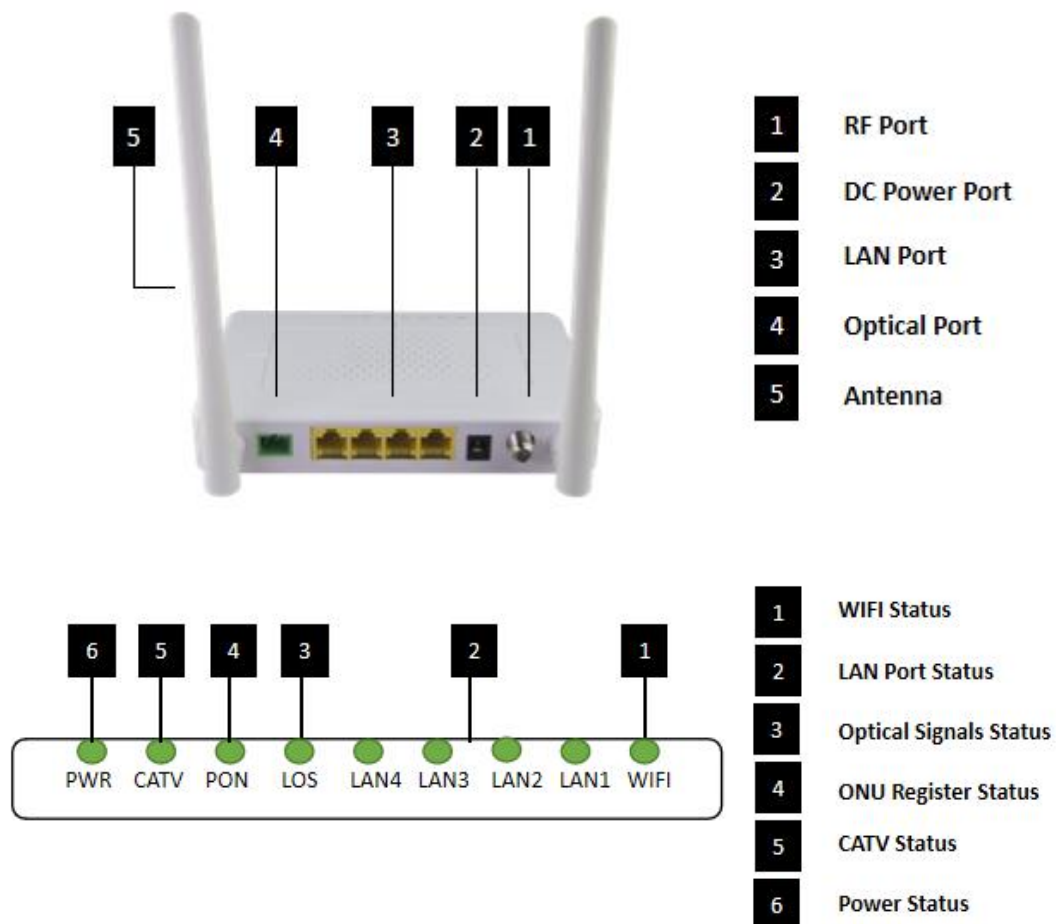
FD704XW-G-Z410 integrates wireless function which meets 802.11n/b/g technical standards. It has two external high gain omnidirectional antennas and the wireless transmission rate up to 300Mbps. It has the characteristics of strong penetrating power and wide coverage. It can provide users with more efficient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

- 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<br>On: WIFI function Opens   |
| 2         | LAN1-4 | Ethernet port status | On: Ethernet connection is normal<br>Blinking: Data is being transmitted through the Ethernet port<br>Off: Ethernet connection is not set up |
| 3         | LOS    | GPON optical signals | On: Optical power lower than receiver sensitivity ;<br>Off: Optical in normal  |
| 4         | PON    | ONU Register         | On: Success to register to OLT<br>Blinking: In process of registering to OLT<br>Off: Failed to register to OLT;                              |
| 5         | CATV   | CATV status          | On: CATV optical normal<br>Off: The CATV signals are not received  |
| 6         | PWR    | Power status         | On: The ONU is power on<br>Off: The ONU is Power off   |



## Specification

| Item                          |                             | Parameter   |
|-------------------------------|-----------------------------|---|
| <b>Interface</b>              | PON Interface               | 1*GPON port, FSAN G.984.2 standard, Class B+<br>Downstream Data Rate: 2.488Gbps<br>Upstream Data Rate: 1.244Gbps<br>SC/APC single mode fiber<br>28dB Link loss and 20KM distance with 1:128 |
|                               | CATV Interface              | 1 RF output<br>F-Type Connector   |
|                               | Ethernet Interface          | 1*10/100/1000M and 3*10/100M auto-negotiation<br>Full/half duplex mode<br>RJ45 connector<br>Auto MDI/MDI-X<br>100m distance   |
|                               | Power Interface             | 12V DC Power supply   |
| <b>Performance Parameters</b> | PON Optical Parameter       | Wavelength: Tx 1310nm, Rx1490nm<br>Tx Optical Power: 0.5~5dBm<br>Rx Sensitivity: -28dBm<br>Saturation Optical Power: -8dBm  |
|                               | Data Transmission Parameter | PON Throughput: Downstream 2.488Gbit/s; Upstream 1.244Gbit/s<br>Ethernet: 1000Mbps<br>Packet Loss Ratio: <1*10E-12<br>latency: <1.5ms   |
| <b>Network Management</b>     | Management Mode             | OMCI, TR069, WEB, Telnet  |
|                               | Management Function         | Status monitor, Configuration management, Alarm management, Log management  |

|                          |                              |  |
|--------------------------|------------------------------|--|
| <b>Physical Features</b> | Power                        | Power supply: DC 12V /1A<br>Power consumption: <8.5W                               |
|                          | Physical Specifications      | Item Dimension: 160mm(L)*139.5mm(W)*28.5mm(H)<br>Item Net Weight: about 231g       |
|                          | Environmental Specifications | Operating temperature: 0 to 40°C<br>Operating humidity: 10% to 90%(Non-condensing) |


**CATV**

| Item                          | Parameter                      |
|-------------------------------|--------------------------------|
| Wavelength                    | 1550nm                         |
| Optical return loss           | >45dB                          |
| CATV optical port input power | -15dBm~+2dBm                   |
| RF frequency                  | 47MHz~1000MHz                  |
| RF output level               | ≥65dBuV (@-12dBm@85MHz)        |
| RF flatness                   | <± 1.5db                       |
| CNR                           | ≥42dB (@-10dBm@DS22 Channel)   |
| CSO                           | ≤-60dBc (@-10dBm@DS22 Channel) |
| CTB                           | ≤-65dBc (@-10dBm@DS22 Channel) |
| RF output return loss         | >10dB                          |
| RF output impedance           | 75 Ω                           |


**WIFI Specification**

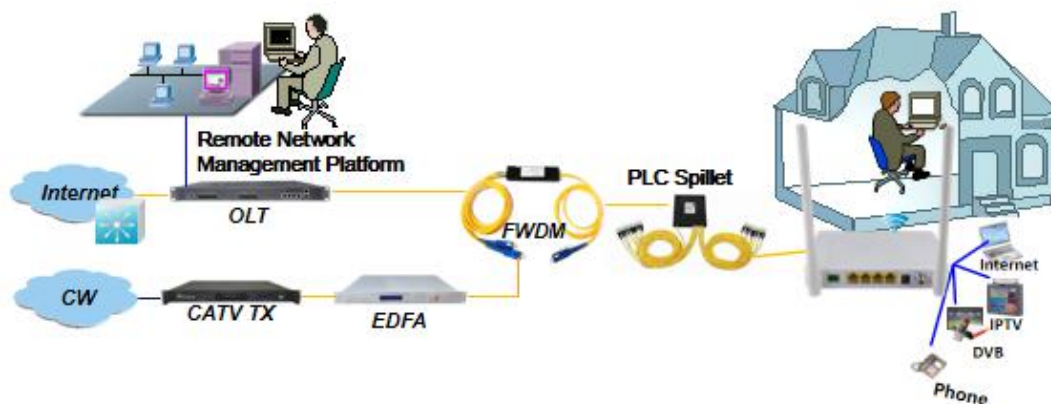
| Item                   | Parameter           |   |
|------------------------|---------------------|---|
| Performance parameters | Operating Mode      | Router or bridge  |
|                        | Antenna gain        | 5dBi  |
|                        | WIFI antenna        | 2 external antennas   |
|                        | Throughput          | IEEE 802.11b: 11Mbps<br>IEEE 802.11g: 54 Mbps<br>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:<br>-83dBm @ 1 Mbps; -79dBm @ 5.5 Mbps;<br>-76dBm @ 11 Mbps<br>802.11g: |

|  |                 |   |
|--|-----------------|---|
|  |                 | <p>-85dBm @ 6 Mbps; -77dBm @ 24 Mbps;<br/>-68dBm @ 54 Mbps;<br/>802.11n HT20:<br/>-85dBm @ MCS0; -73dBm @ MCS4;<br/>-67dBm @ MCS7<br/>802.11n HT40:<br/>-82dBm @ MCS0; -70dBm @ MCS4;<br/>-64dBm @ MCS7</p>   |
|  | Output power    | <p>802.11b:<br/>19 ± 1dBm @ 1 Mbps 19±1dBm @ 5.5 Mbps;<br/>18 ±1dBm @ 11 Mbps;<br/>802.11g:<br/>18 ± 1dBm @ 6 Mbps 17±1dBm @ 24 Mbps;<br/>16 ±1dBm @ 54 Mbps;<br/>802.11n HT20:<br/>17 ± 1dBm @ MCS0; 16 ± 1dBm @ MCS4 ;<br/>15 ± 1dBm @ MCS7<br/>802.11n HT40:<br/>17 ± 1dBm @ MCS0; 16 ± 1dBm @ MCS4 ;<br/>15 ± 1dBm @ MCS7</p> |
|  | 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



## Ordering Information

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