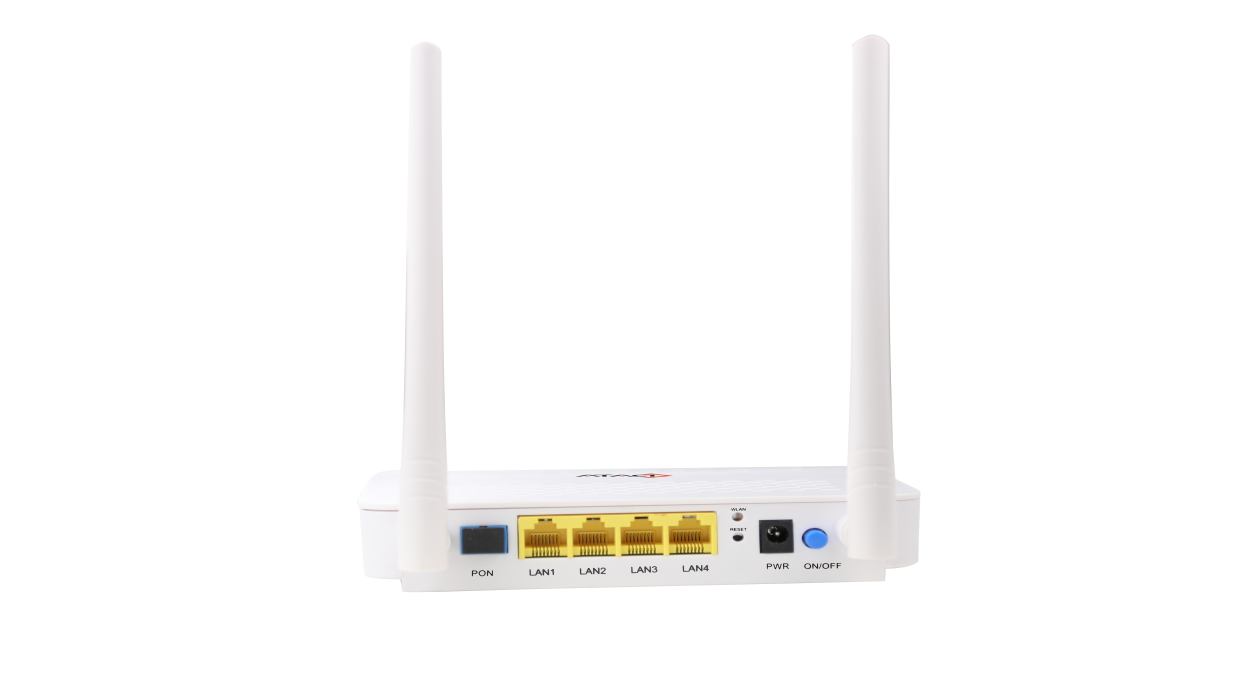
**FD600-104 series EPON ONU(Includes Wi-Fi series)**



## Brief Views

FD600-104 series is Wodaplug’s for broadband access market based on the introduction of EPON technology passive optical network terminal products. It’s with EPON OLT are used together to provide a complete broadband access solution.

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.

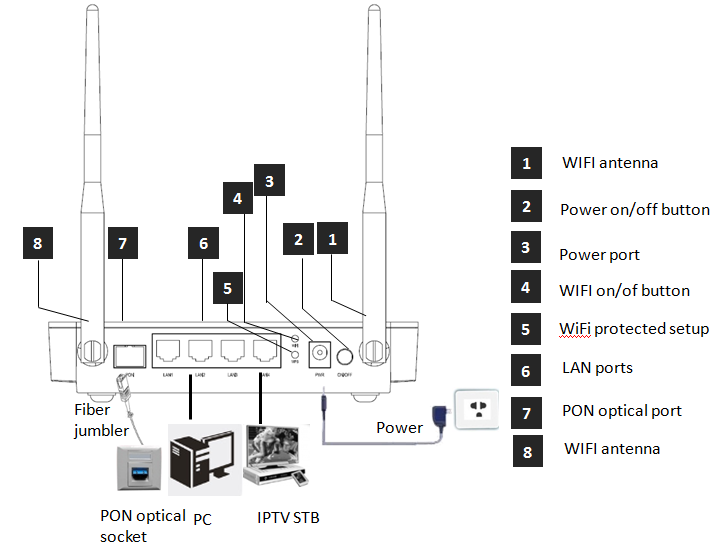
FD600-104 series fully meet IEE802.3ah and CTC3.0 standard protocol. It has good third-party compatibility to work with the third party OLT, It supports 1Gbps transmission rate up and down and provides users with good QOS, flexible bandwidth allocation of Ethernet services and IP integrated service.

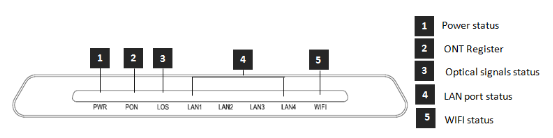
FD600-104 series can integration wireless function with meet 802.11 n/b/g technical standards, It has built-in high gain directional antenna, the wireless transmission rate up to 300Mbps. It has the characteristics of strong penetrating power and wide coverage. It can provide users with more efficient data transmission security.

## Functional Feature

* Support port-based rate limitation and bandwidth control;
* In compliant with IEEE802.3ah Standard
* Wi-Fi series meet 802.11 n/b/g technical standards
* Up to 20KM transmission Distance
* Support data encryption, group broadcasting, port Vlan separation ,etc.
* Support Dynamic Bandwidth Allocation (DBA)
* Support ONU auto-discovery/Link detection/remote upgrade of software;
* Support port mode of VLAN configuration
* Support power-off alarm function ,easy for link problem detection
* Support broadcasting storm resistance function
* Support port isolation between different ports
* Support port flow control
* Support ACL and SNMP to configure data packet filter flexibly
* Specialized design for system breakdown prevention to maintain stable system
* Support software online upgrading
* EMS network management based on SNMP ,convenient for maintenance

## Product interface and LED definitions





|  |  |  |  |
| --- | --- | --- | --- |
| **Indicator** | | | **Description** |
| 1 | PWR | Power status | On: The ONU is power on;  Off: The ONU is Power off; |
| 2 | PON | ONU Register | On: Success to register to OLT  Blinking: In process of registering to OLT;  Off: In process of registering to OLT; |
| 3 | LOS | EPON optical signals | On: Optical power lower than receiver sensitivity ;  Off: Optical in normal |
| 4 | 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; |
| 5 | WIFI | WIFI | Blinking：Data is being transmitted  On：Wi-Fi function Open  Off：Wi-Fi function Close |

## Specification

|  |  |
| --- | --- |
| **Item** | **Parameter** |
| PON Interface | 1 EPON optical interface Meet 1000BASE-PX20+ standard Symmetric 1.25Gbps upstream/downstream  SC/UPC single-mode fiber split ratio: 1:64 Transmission distance 20KM |
| User Ethernet Interface | 4\*10/100/1000M auto-negotiation  Full/half duplex mode RJ45 connector Auto MDI/MDI-X 100m distance |
| Power Interface | An external 12V DC 0.5A power supply adapter |
| 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: 1000 Mbps Packet Loss Ratio: <1\*10E-12 latency: <1.5ms |
| Business Capability | Layer 2 wire speed switching  Support VLAN TAG/UNTAG，VLAN translation  Support Port-based speed limitation  Support Priority classification  Support storm control of broadcast  Support loop detection |
| Network Management | Support IEEE802.3 QAM, ONU can be remotely managed by OLT  Support Remote management through SNMP and Telnet  Local management |
| Management Function | Status monitor, Configuration management, Alarm management,  Log management |
| Shell | Plastic casing |
| Power | 4FE+WIFI: <6.5W, 12V/0.6A power supply adapter  4GE+WIFI: <7.5W, 12V/1A power supply adapter |
| Physical  Specifications | Item Dimension：160mm(L) x 120mm(W) x 32.5mm (H)  Item weight：0.2kg |
| Environmental Specifications | Operating temperature: 0 to 50℃ Storage temperature: -40 to 85℃ Operating humidity: 10% to 90%(Non-condensing) Storage humidity: 10% to 90%(Non-condensing) |

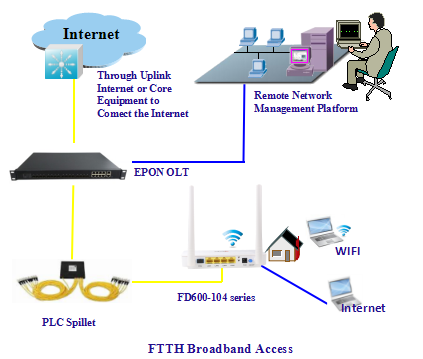
## WIFI Specification (Suitable for the WIFI devices)

|  |  |  |
| --- | --- | --- |
| **Item** | | **Parameter** |
| **Performance parameters** | Operating Mode | Router or bridge |
| Antenna gain | 2\*5dBi |
| 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 |
| RF receive sensitivity | 802.11b:  -83dBm @ 1 Mbps; -80dBm @ 2 Mbps;  -79dBm @ 5.5 Mbps; -76dBm @ 11 Mbps  802.11g:  -85dBm @ 6 Mbps; -84dBm @ 9 Mbps;  -82dBm @ 12 Mbps; -80dBm @ 18 Mbps;  -77dBm @ 24 Mbps; -73dBm @ 36 Mbps;  -69dBm @ 48 Mbps; -68dBm @ 54 Mbps  802.11n 20MHz:  -74dBm @ 65 Mbps;  -70dBm @ 130 Mbps;  802.11n 40MHz:  -70dBm @ 135 Mbps;  -67dBm @ 300 Mbps; |
| RF output lever | 802.11b:  17 ±0.5dBm  @11Mbps  802.11g:  15 ±0.5dBm @ 54 Mbps; 16 ±0.5dBm @ 48 Mbps;  17 ± 1dBm @ 6 ~ 36 Mbps  802.11n 20MHz:  14 ± 0.5dBm @ 130 Mbps; 15 ± 0.5dBm @ 78 Mbps;  18 ± 0.5dBm @ 6.5 Mbps  802.11n 40MHz:  14 ± 0.5dBm @ 300 Mbps; 15 ± 0.5dBm @ 162 Mbps;  18 ± 0.5dBm @ 13.5 Mbps |
| Encryption Mode | 802.11i security: WEP-64/128, TKIP (WPA-PSK) and AES (WPA2-PSK) |

## Network application

Typical Solution：FTTH, FTTO

Typical Business：INTERNET, IPTV, VOD, IP Camera, WIFI



**Figure: FD600-104 (includes wifi) series Application Diagram**

## Ordering Information

|  |  |  |
| --- | --- | --- |
| **Product Name** | **Product Model** | **Descriptions** |
|  |  |  |
| 4GE+WIFI | FD600-104GW-HR220 | 4\*10/100/1000M Ethernet interface, support Wi-Fi function, 1 EPON interface, plastic casing, external power supply adapter |

