FD600-701GW-HR220 GPON ONU

Brief Views

FD600-701GW-HR220 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. FD600-701GW-HR220 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 manufacturers OLT.

GPON is the latest generations of access network technology. ITU-T G.984 is the standard protocol of GPON. The GPON standard differs from other PON standards in that it achieves higher bandwidth and higher efficiency using larger, variable-length packets. GPON offers efficient packaging of user traffic, with frame segmentation allowing higher quality of service (QOS) for delay-sensitive voice and 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 needs one-core fiber to transmit

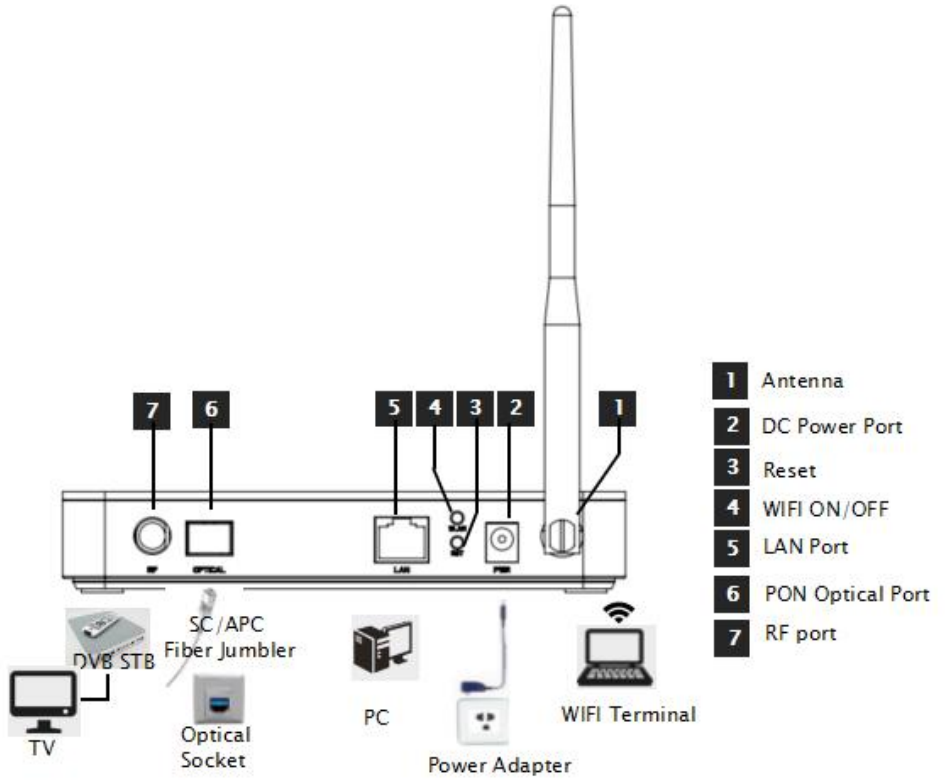
data and CATV service.

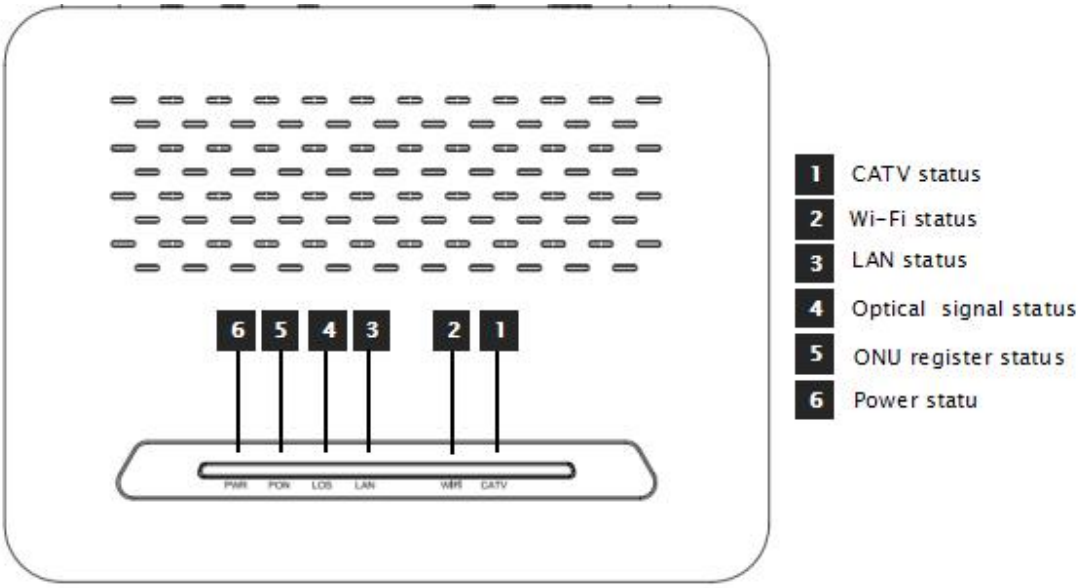
FD600-701GW-HR220 can integration wireless function with meet 802.11 n/b/g technical standards, It has built-in high gain directional antenna, the wireless transmission rate up to 300Mbps. It has the characteristics of strong penetrating power and wide coverage. It can provide users with more efficient data transmission security.

Functional Feature

- Support port-based rate limitation and bandwidth control;
- In compliant with ITU - T G. 984 Standard
- Wi-Fi series meet 802.11 n/b/g technical standards
- 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	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	LAN	LAN port status	On: Ethernet connection is normal

			Blinking: Data is being transmitted through the Ethernet port Off: Ethernet connection is not set up
4	LOS	EPON optical signals	On: Optical power lower than receiver sensitivity ; Off: Optical in normal
5	PON	ONU Register	On: Success to register to OLT Blinking: In process of registering to OLT Off: Failed to register to OLT;
6	PWR	Power status	On: The ONU is power on Off: The ONU is Power off

Specification

Item	Parameter
PON Interface	1*GPON port, FSAN G.984.2 standard, Class B+ Downstream Data Rate：2.488Gbps Upstream Data Rate：1.244Gbps SC/APC single mode fiber 28dB Link loss and 20KM distance with 1:128
User Ethernet Interface	1*10/100/1000M auto-negotiation Full/half duplex mode RJ45 connector Auto MDI/MDI-X 100m distance 1 RF output Female F-Type Connector
Power Interface	12V DC Power supply
PON Optical Parameter	Wavelength: Tx 1310nm, Rx1490nm Tx Optical Power: 0～5dBm Rx Sensitivity: -28dBm Saturation Optical Power: -8dBm Connector Type: SC Optical Fiber: 9/125μm single-mode fiber
Data Transmission Parameter	PON Throughput: Downstream 2.488Gbit/s s; Upstream 1.244Gbit/s Ethernet: 1000Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms
Business Capability	Layer 2 wire speed switching Support VLAN TAG/UNTAG，VLAN conversion 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 Standard compliant OMCI interface as defined by ITU-T G.984.4 Support WEB management
Management Function	Status monitor, Configuration management, Alarm management, Log management
Shell	Plastic casing
Power	Power supply: DC 12V /1A Power consumption: <6.5W
Physical Specifications	Item Dimension：160mm(L)*140mm(W)*29mm(H) Item weight：0.2kg
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	1100-1600nm
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	75Ohm
AGC function	Support

WIFI Specification (Suitable for the WIFI devices)

Item		Parameter
Performance parameters	Operating Mode	Router or bridge
	WIFI antenna	1 external antennas, 1 built in 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
	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

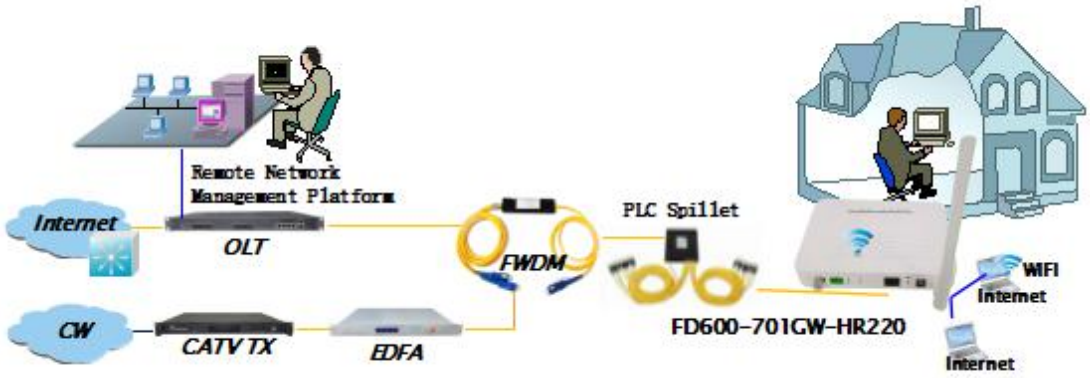


Figure: FD600-701GW-HR220 Application Diagram

Ordering Information

Product Name	Product Model	Descriptions
1GE+CATV+WIFI Single fiber	FD600-701GW-HR220	1*10/100/1000M Ethernet interface, 1 GPON interface, built-in FWDM, Input optical power -18dBm～0dBm,support WiFi function and AGC function, Plastic casing, external power supply adapter