

FD600-701GA-HZ220 GPON ONT



Brief Views

FD600-701GA-HZ220 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. FD600-701GA-HZ220 has a higher bandwidth, higher reliability, easy management and good quality of service (QoS) guarantee with technical performance of equipment meet the ITU 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.

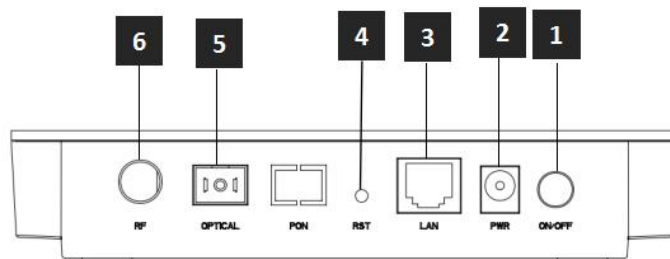
It adopts single fiber WDM technology with downlink wavelength 1550nm and 1490nm, uplink wavelength 1310nm . It only needs one-core fiber to transmit data and CATV service.

Functional Feature

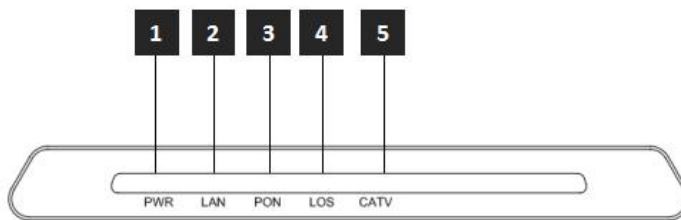
- Support port-based rate limitation and bandwidth control;
- In compliant with ITU - T G. 984 Standard
- Support data encryption, group broadcasting, port Vlan separation ,etc.
- Support Dynamic Bandwidth Allocation (DBA)
- Support ONU auto-discovery/Link detection/remote upgrade of software;
- Support port mode of VLAN configuration

- Support power-off alarm function ,easy for link problem detection
- Support broadcasting storm resistance function
- Support port 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



- 1 Power On/Off Button
- 2 DC Power Port
- 3 LAN Port
- 4 Reset
- 5 PON Optical Port
- 6 RF port



- 1 Power status
- 2 LAN port status
- 3 ONU Register
- 4 Optical signals status
- 5 CATV status

| Indicator | | | Description |
|-----------|------|----------------------|--|
| 1 | PWR | Power status | On: The ONU is power on Off: The ONU is Power off |
| 2 | CATV | CATV status | On : CATV optical normal Off : The CATV signals are not received |
| 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; |


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/PC 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/APC Optical Fiber: 9/125 μ m single-mode fiber |
| Data Transmission Parameter | PON Throughput: Downstream 2.488Gbit/s; Upstream 1.244Gbit/s Ethernet: 1000Mbps Packet Loss Ratio: 1×10^{-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 | 5W, 12V/0.5A power supply adapter |
| Physical Specifications | Item Dimension: 160mm(L)*120mm(W)*32mm(H) Item weight: 0.3kg |
| Environmental | Operating temperature: 0 to 50°C |

| | |
|----------------|--|
| Specifications | Storage temperature: -40 to 85°C Operating humidity: 10% to 90%(Non-condensing) Storage humidity: 10% to 90%(Non-condensing) |
|----------------|--|

CATV

| Item | Parameter |
|-----------------------|-------------------------------|
| Wavelength | 1100-1650nm |
| Optical return loss | >45dB |
| Input optical power | -18dBm~0dBm |
| RF frequency | 47MHz~1000MHz |
| RF output lever | ≥78dBuV (@-12~-2dBm@85MHz) |
| AGC control accuracy | <±1db |
| Flatness | <±1.5db |
| CNR | >41dB (@-10dBm@DS22 Channel) |
| CSO | >60dBc (@-10dBm@DS22 Channel) |
| CTB | >60dBc (@-10dBm@DS22 Channel) |
| RF output return loss | >14dB |
| RF impedance | 75Ohm |
| AGC function | Support |

 **Network application**

Typical Solution: FTTH

Typical Business: INTERNET

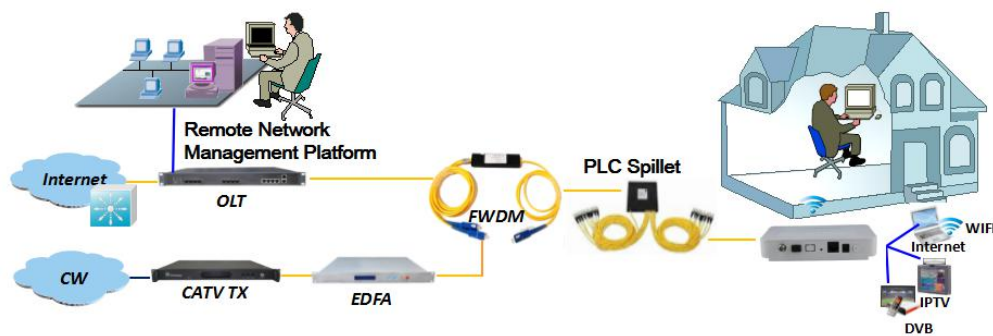


Figure: FD600-701GA-HZ220 Application Diagram

Ordering Information

| Product Name | Product Model | Descriptions |
|--------------------------|-------------------|--|
| 1GE+CATV Single Fiber | FD600-701GA-HZ500 | 1*10/100/1000M Ethernet interface, 1 GPON interface, built-in FWDM, Input optical power -18dBm ~ 0dBm, support AGC function, Plastic casing, external power supply adapter |