

## FD511G-G-Z310 Data Type ONU



### Overview

FD511G-G-Z310 GPON ONU is one of the GPON optical network unit design to meet the requirement of the broadband access network. It apply in FTTH/FTTO to provide the data and video service based on the GPON network.

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 networks 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.

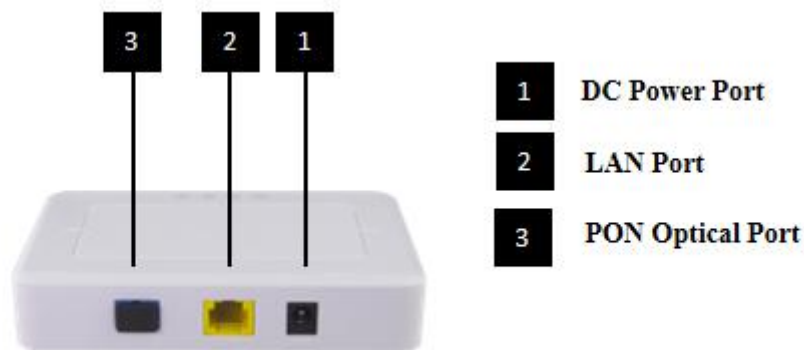
The FD511G-G-Z310 provides one 10/100/1000Mbps auto-adapting Ethernet port. The FD511G-G-Z310 features high-performance forwarding capabilities to ensure excellent experience with Internet and HD video services. Therefore, the FD511G-G-Z310 provides a perfect terminal solution and future-oriented service supporting capabilities for FTTH deployment. It has good third-party compatibility to work with the third party OLT, such as Huawei/ZTE/Fiberhome/Alcatel-Lucent.

### Features

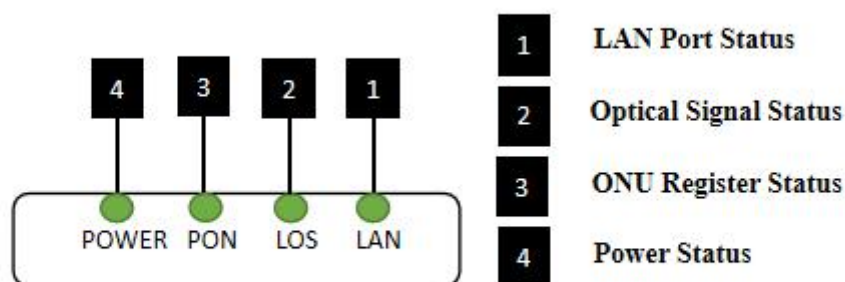
- In compliant with ITU - T G.984 Standard, adapting GPON upstream
- Support ONU auto-discovery/Link detection/remote upgrade of software

- Support SN and LOID+Password multiple registration methods
- Support port VLAN configuration
- Support mac-address learning
- Support port-based rate limitation and bandwidth control
- Support port flow-control
- Support broadcasting storm resistance function
- Support igmp transparent/snooping/proxy mode
- Support remote management configuration
- Support Dynamic Bandwidth Allocation (DBA)
- Support AES encryption and decryption
- Support three layer routing function
- EMS network management based on SNMP ,convenient for maintenance
- Support power-off alarm function ,easy for link problem detection

## Product Interface and LED Definitions



- 1** DC Power Port
- 2** LAN Port
- 3** PON Optical Port



- 1** LAN Port Status
- 2** Optical Signal Status
- 3** ONU Register Status
- 4** Power Status

Indicator			Description
1	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;
2	LOS	GPON optical signals	On: Optical power lower than receiver sensitivity ; Off: Optical in normal
3	PON	ONU Register	On: Success to register to OLT; Blinking: In process of registering to OLT; Off: In process of registering to OLT;
4	PWR	Power status	On: The ONU is power on; Off: The ONU is Power off;



## Specification

Item	Parameters	Specification
Interface	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
	Ethernet Interface	1*10/100/1000M auto-negotiation Full Duplex / Half-Duplex RJ45 Connector Auto MDI/MDI-X Transmission Distance 100 Meter
	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; Upstream 1.244Gbit/s Ethernet: 1000Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms
Management	Management Mode	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
Environmental Specifications	Shell	White plastic casing
	Power	External 12V/0.5A DC power supply adapter Power consumption: <3W

	Dimensions	Item Dimension: 125mm(L) x80mm(W) x28mm (H) Item weight: 0.1kg
	Environment	Operating Temperature: 0~50℃ Storage Temperature: -40~85℃ Operating Humidity: 10%~90%(Non-condensing) Storage Humidity: 10%~90%(Non-condensing)

## Application

- ◇ Solution: FTTH
- ◇ Business: Broadband Internet

## Network Construction

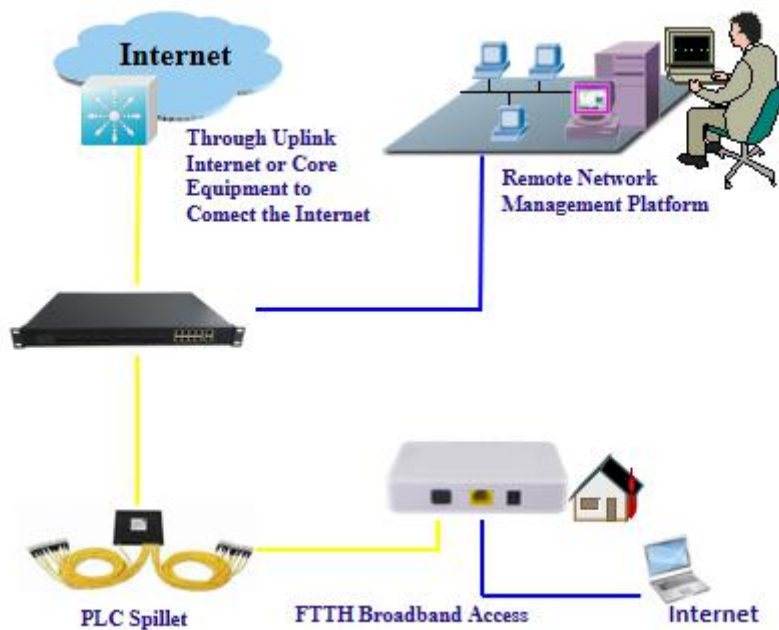


Figure: FD511G-G-Z310 ONU Application Diagram

## Ordering Information

Product Name	Product Model	Descriptions
Data type ONU	FD511G-G-Z310	1*10/100/1000M Ethernet interface, 1 GPON interface, plastic casing, external power supply adapter