FD511HZ GPON ONT

🞣 Overview

FD511HZ GPON ONT 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.
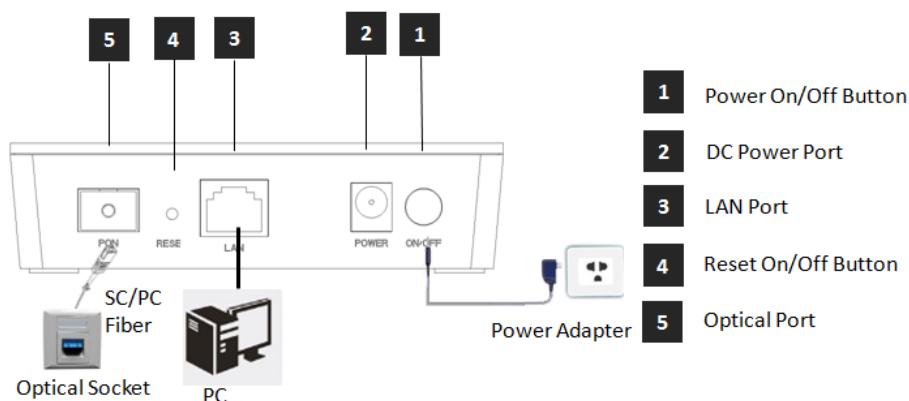
FD511HZ is based on ZTE high-performance xPON access chip. The chip supposes three mode：GPON/EPON/P2P, comply with the GPON standard of g.984, g.983, 802.3-2005, CTC EPON equipment technical requirements, have good xPON interoperability compatibility.

FD511HZ provide one GE auto-adapting Ethernet ports. The FD511HZ features high-performance forwarding capabilities to ensure excellent experience with Internet and HD video services. Therefore, the FD511HZ 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-Lucen.

Features

- Fully compatible with ITU-T G.984.1/2/3/4
- Support downlink rate 2.448Gbit/s, uplink rate is 1.244Gbit/s
- Support 32 TCONT, 256 GEMPORT
- Support bidirectional FEC, supports the RS (255, 239) FEC decoding
- Support AES128 encryption and decryption functions with G.984 standard
- Support SBA and DBA bandwidth allocation
- Support PLOAM, embedded OMCI management with G.984 standard
- Support Dying-Gas detection and reporting
- Support rogue ONU detection
- Support GPON energy saving of G987.3 protocol
- Support Tag/Untag Ethernet frame of 802.1 and Q 802.3 standard, support QinQ
- Support CTC2.1, TR156 requirements of flexible tag processing
- Support for flexible flow classification, maximum 520 flow classification rules
- Support link error monitoring and loop monitoring
- Support a variety of multicast forwarding mode, support multicast replication
- Auto-negotiation and manual settings of Ethernet supporting rate, duplex mode
- UNI interface supports STP/RSTP protocol
- Provide QoS guarantees for different priority business through SLA restraining, Policing, queue management scheduling / congestion avoidance, discarding management mode
- Support flow control based on entrance , choose Pause frame reaction pressure to Packet loss for the business beyond
- Support HQoS function

Product interface and LED definitions

1	Power On/Off Button
2	DC Power Port
3	LAN Port
4	Reset On/Off Button
5	Optical Port

	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	ONT 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 ONT is power on; Off: The ONT is Power off;

Specification

Item	Parameters	Specification
Interface	PON Port	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 30KM distance with 1:128
	Ethernet Port(LAN)	1*GE Auto-negotiation RJ45 ports Full Duplex / Half-Duplex RJ45, Auto-MDI/MDI-X Transmission Distance 100 Meter
	Power Supply Port	12V DC input
Management	Network Management	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	Plastic casing
	Power	External 12V 0.5A AC/DC power supply adapter Power consumption: <3W
	Dimensions	110mm(L) x70mm(W) x30mm (H)

		0.1kg
	Environment	Operating Temperature：0～50℃
		Storage Temperature：-40～85℃
		Operating Humidity：10%～90%(Non-condensing)
		Storage Humidity：5%～95%(Non-condensing)

Application

◇ Solution：FTTH

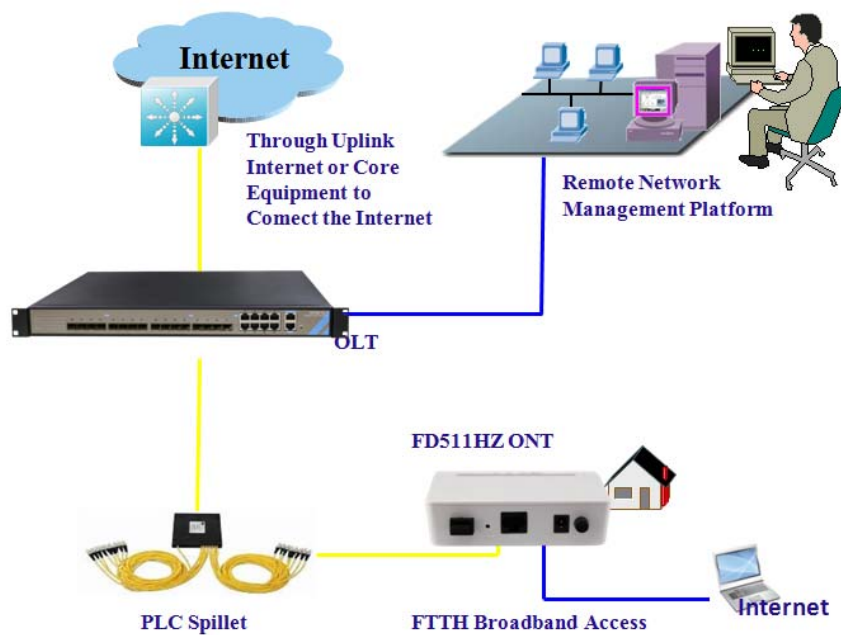◇ Business：Broadband Internet、IPTV、VOD、IP Camera

Network Construction

Figure: FD511HZ Application Diagram

Ordering information

Product Name	Product Model	Descriptions
SFU Type GPON ONT	FD511HZ	1*GE Ethernet interface, 1 GPON interface, plastic casing, external power supply adapter