

## xPON ONT FD511G-X



### Overview

xPON ONT FD511G-X dual-mode ONT is one of the GPON/EPON 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/EPON network.

xPON ONT FD511G-X provide one GE auto-adapting Ethernet ports, with supporting GPON and EPON two modes adaptive, can quickly and effectively distinguish between GPON and EPON systems, so normal operation under the current system.

The xPON ONT FD511G-X features high-performance forwarding capabilities to ensure excellent experience with Internet and HD video services. Therefore, the xPON ONT FD511G-X 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

#### **Adaptive GPON mode:**

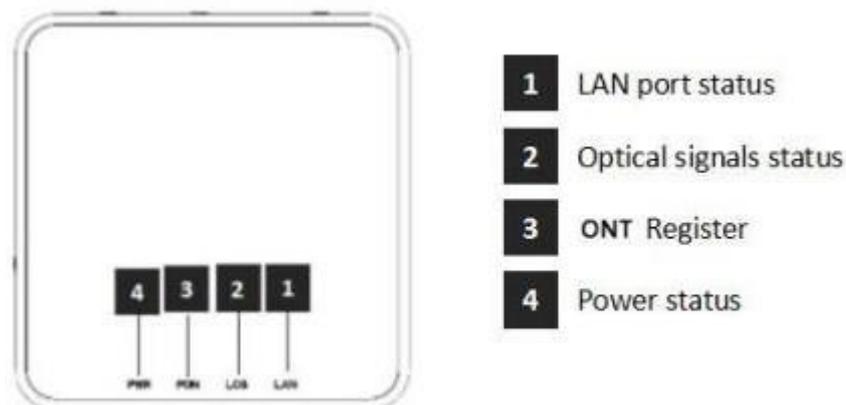
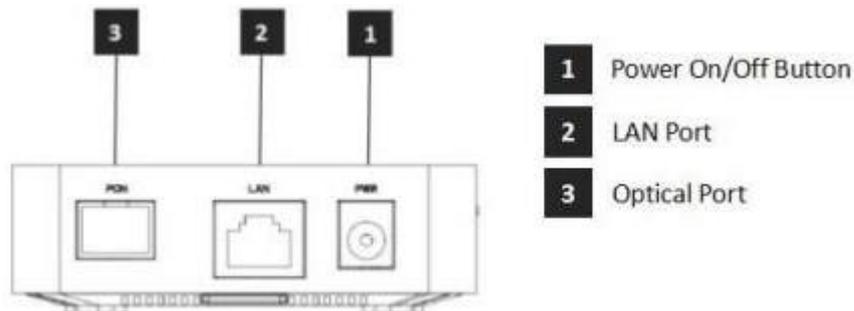
- Support downlink rate 2.448Gbit/s, uplink rate is 1.244Gbit/s
- Support 32 TCONT, 128 GEMPORT
- Support Ethernet port rate and working mode configuration
- Support loop-detection function
- Support multicast
- Support AES128 encryption and decryption functions with G.984 standard
- Support DBA bandwidth allocation
- Support three layer routing functions
- 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 Q standard, support QinQ

### Adaptive EPON mode:

- Support downlink rate 1.25Gbit/s, uplink rate is 1.25Gbit/s
- Support Ethernet port rate and working mode configuration
- Support multicast
- Support broadcasting storm resistance function
- Support loop-detection function
- Support data encryption, group broadcasting, etc.
- Support port-based vlan division
- Support port-based performance statistics
- Support three layer routing functions
- Support ACL to configure data packet filter flexibly
- Support single LLID configuration mode, providing different QOS service levels
- Support software online upgrading
- EMS network management based on SNMP ,convenient for maintenance
- Specialized design for system breakdown prevention to maintain stable system

### Product interface and LED definitions



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	PON 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;

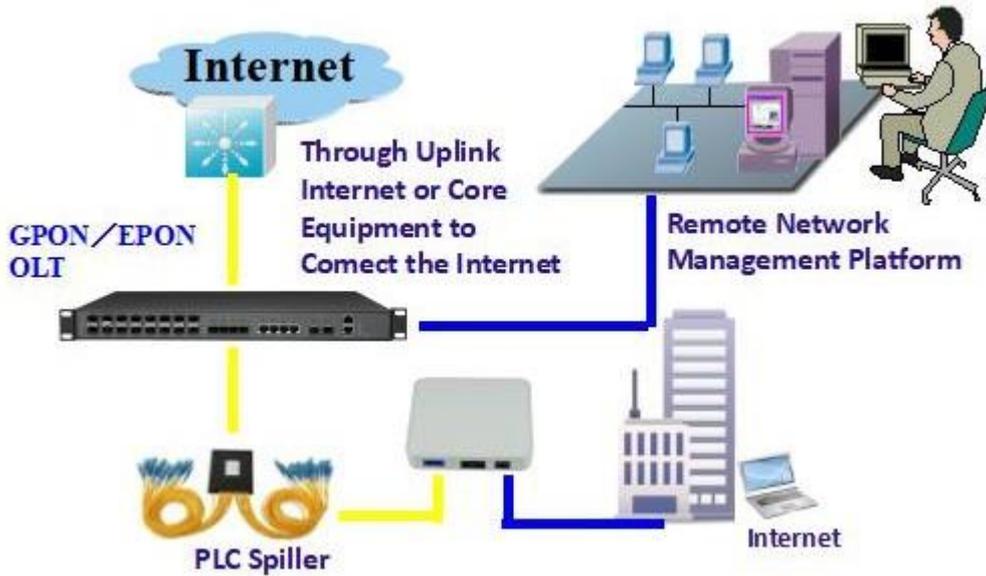
## Specification

Item	Parameters	Specification
Interface	PON Port	GPON/EPON mode adaptive 1*GPON port, FSAN G.984.2 standard, support for backward compatibility with EPON SC/UPC single mode fiber Wavelength: Tx 1310nm, Rx1490nm Tx Optical Power: 0.5~5dBm Rx Sensitivity: -28dBm Saturation Optical Power: -8dBm
	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	When adaptive to GPON mode, support standard compliant OMCI interface as defined by ITU-T G.984.4 and WEB and Telnet local management When adaptive to EPON mode, Support IEEE802.3 QAM, ONU can be remotely managed by OLT, WEB management, and Telnet local management
	Management Function	Status monitor, Configuration management, Alarm management, Log management
Environmental Specifications	Shell	Plastic casing
	Power	External 12V 0.5A DC power supply adapter Power consumption: <3W
	Dimensions	78mm(L) x78mm(W) x25mm (H) 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



**Figure: xPON ONT FD511G-X Application Diagram**