

FD701G-X-Z310 1GE+CATV Dual-Mode ONT



Overview

FD701G-X-Z310 dual-mode ONU supports EPON and GPON two modes access. The ONU automatically switches into the corresponding PON mode by identifying the local OLT mode to complete GPON or EPON adaptive access.

FD701G-X-Z310 is based on the mature, stable, high cost performance gigabit Ethernet switching, WDM and HFC technology. FD701G-X-Z310 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 and IEEE802.3ah requirements and have good compatibility with third party manufacturers OLT.

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.

Features

Adaptive GPON mode:

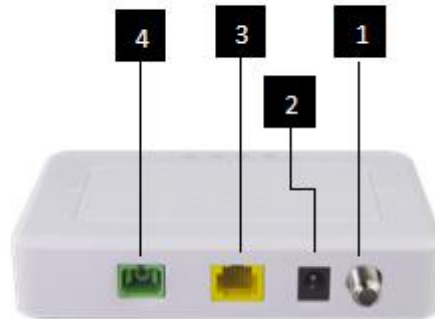
- In compliant with ITU - T G.984 Standard, adapting GPON upstream
- Support ONU auto-discovery/Link detection/remote upgrade of software
- Support SN and LOID+Password multiple registration methods
- Support port VLAN configuration
- Support mac-address learning
- Support port-based rate limitation 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
- Support remote CATV port management
- EMS network management based on SNMP ,convenient for maintenance
- Support power-off alarm function ,easy for link problem detection

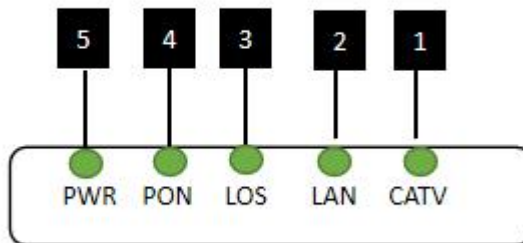
Adaptive EPON mode:

- Full compatible with IEEE802.3ah
- Support ONU auto-discovery/Link detection/remote upgrade of software
- Support MAC 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 Triple Churning algorithm encryption and decryption
- Support three layer routing function
- Support remote CATV port management
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Product Interface and LED Definitions



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



- 1** CATV Status
- 2** LAN Port Status
- 3** Optical Signals Status
- 4** ONU Register
- 5** Power Status

Indicator			Description
1	CATV	CATV status	On: CATV optical normal Off: The CATV signals are not received
2	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
3	LOS	EPON optical signals	On: Optical power lower than receiver sensitivity ; Off: Optical in normal
4	PON	ONU Register	On: Success to register to OLT Blinking: In process of registering to OLT Off: Failed to register to OLT;
5	PWR	Power status	On: The ONU is power on Off: The ONU 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/PC 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
	CATV Interface	1 RF output F-Type Connector
	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: <4.5W
	Dimensions	Item Dimension: 125mm(L) x80mm(W) x25mm (H) Item weight: 0.2kg
	Environment	Operating Temperature: 0~50℃ Storage Temperature: -40~85℃ Operating Humidity: 10%~90%(Non-condensing) Storage Humidity: 10%~90%(Non-condensing)


CATV

Item	Parameter
Wavelength	1550nm
Optical return loss	>45dB

Input optical power	-15dBm~+2dBm
RF frequency	47MHz~1000MHz
RF output lever	≥65dBuV (@-12dBm@85MHz)
Flatness	<±1.5db
CNR	≥42dB (@-10dBm@DS22 Channel)
CSO	≤-60dBc (@-10dBm@DS22 Channel)
CTB	≤-65dBc (@-10dBm@DS22 Channel)
RF output return loss	>10dB
RF impedance	75Ω

Network Application

- ◇ Solution: FTTH
- ◇ Business: Broadband Internet, CATV, IPTV

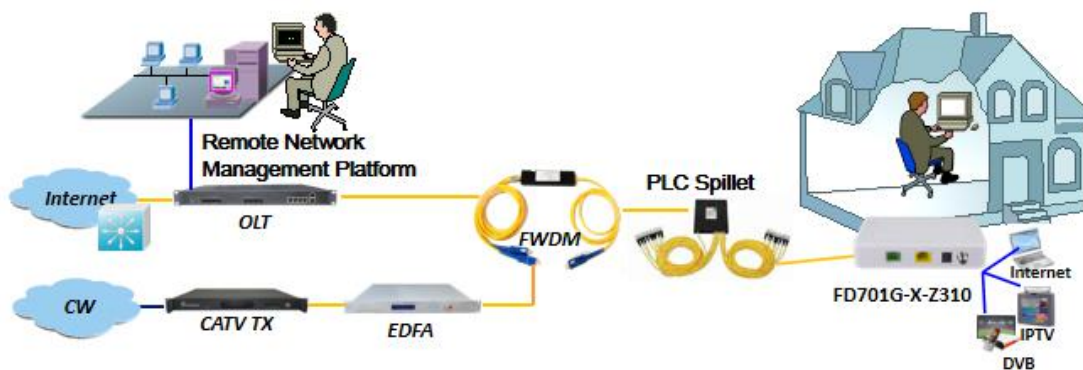


Figure: FD701G-X-Z310 ONU Application Diagram

Ordering Information

Product Name	Product Model	Descriptions
1GE+CATV Dual-Mode ONT	FD701G-X-Z310	1*10/100/1000M Ethernet interface, 1 GPON/EPON adaptive optical interface, 1 RF interface, built-in FWDM, Input optical power -12dBm~2dBm, Plastic casing, external power supply adapter