FD701G-AE-Z310 1GE+CATV EPON ONT

Brief Views

FD701G-AE-Z310 is fiber to the home multiple service access EPON ONU. It's based on the mature, stable, high cost performance EPON technology and has gigabit Ethernet switching, WDM and HFC technology. FD701G-AE-Z310 has a higher bandwidth, higher reliability, easy management and good quality of service (QoS) guarantee with technical performance of equipment meet the IEEE802.3ah requirements and have good compatibility with third party manufacturers OLT.

EPON technology is an emerging technology which takes advantage of PON technology and Ethernet technology. It's also point to multi-point network technology, and combined with single-fiber bidirectional technology. OLT device interconnected with multiple ONU through the passive optical network . EPON network system can use fewer fiber cable to meet the multi-user access needs of operators.

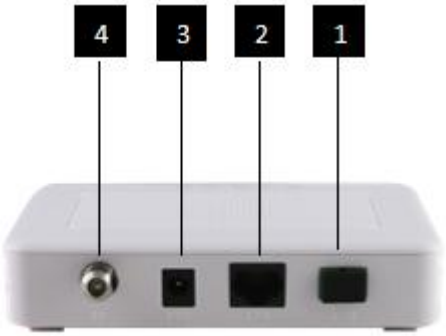
It adopts single fiber WDM technology with downlink wavelength 1550nm and 1490nm, uplink wavelength 1310nm . It only needs one-core fiber to transmit data and CATV service.

Functional Feature

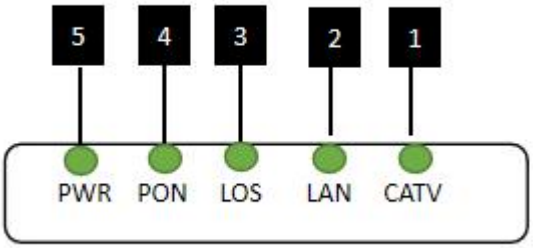
- In compliant with IEEE802.3ah Standard
- Support ONU auto-discovery/Link detection/remote upgrade of software
- Support SN and LOID+Password multiple registration methods
- Support port VLAN configuration
- Support mac-address learning
- Support port-based rate limitation and bandwidth control
- Support 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

Product Interface and LED Definitions



1 PON Optical Port
2 LAN Port
3 DC Power Port
4 RF 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	Parameter
PON Interface	1 EPON optical interface Meet 1000BASE-PX20+ standard Symmetric 1.25Gbps upstream/downstream SC/APC single-mode fiber split ratio: 1:64 Transmission distance 20KM
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: 0～4dBm Rx Sensitivity: -27dBm Saturation Optical Power: -3dBm
Data Transmission Parameter	PON Throughput: Downstream 980Mbps; Upstream 950Mbps Ethernet: 1000Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms
Business Capability	Layer 2 wire speed switching Support VLAN TAG/UNTAG，VLAN translation Support Port-based speed limitation Support Priority classification Support storm control of broadcast Support loop detection
Network Management	QAM, WEB, Telnet
Management Function	Status monitor, Configuration management, Alarm management, Log management
Power	<4.5W, 12V/0.5A power supply adapter
Physical Specifications	Item Dimension：125mm(L)*80mm(W)*28mm(H) Item Net Weight：about 130g
Environmental Specifications	Operating temperature: 0 to 40ºC Operating humidity: 10% to 90%(Non-condensing)

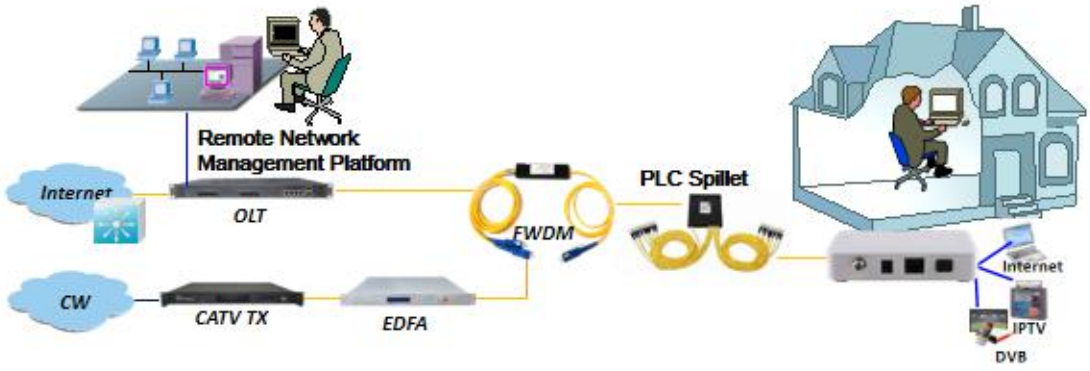
CATV

Item	Parameter
Wavelength	1550nm
Optical return loss	>45dB
Input optical power	-18dBm～0dBm
RF frequency	47MHz~1000MHz
RF output lever	≥82dBuV (@-12~-2dBm@85MHz)
AGC control accuracy	<±1db
Flatness	<±1.5db
CNR	>41dB (@-10dBm@DS22 Channel)
CSO	>58dBc (@-10dBm@DS22 Channel)
CTB	>58dBc (@-10dBm@DS22 Channel)
RF output return loss	>12dB
RF impedance	75Ω
AGC function	Support

Network Application

Typical Solution： FTTH

Typical Business： INTERNET, CATV



Ordering Information

Product Name	Product Model	Descriptions
1GE+CATV Single Fiber	FD701G-AE-Z310	1*10/100/1000M Ethernet interface, 1 RF interface, 1 EPON interface, built-in FWDM, Input optical power -18dBm ～ 0dBm, support AGC function, plastic casing, external power supply adapter

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