



OP-D4000D 4FE/OP-D0400D 4GE EPON ONU



OPTOSTAR OP-D4000D EPON ONT is one of the 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 EPON network.

EPON is the latest generations of access network technology. IEEE802.3ah is the standard protocol of EPON. The EPON standard differs from other PON standards in that it achieves higher bandwidth and higher efficiency using larger, variable-length packets. EPON offers efficient packaging of user traffic, with frame segmentation allowing higher quality of service (QOS) for delay-sensitive voice and video communications traffic. EPON networks provides the reliability and performance expected for business services and provides an attractive way to deliver residential services. EPON enables Fiber To The Home (FTTH) deployments economically resulting to accelerated growth worldwide.

OP-D4000D is based on ZTE high-performance xPON access chip. The chip supposes three mode:

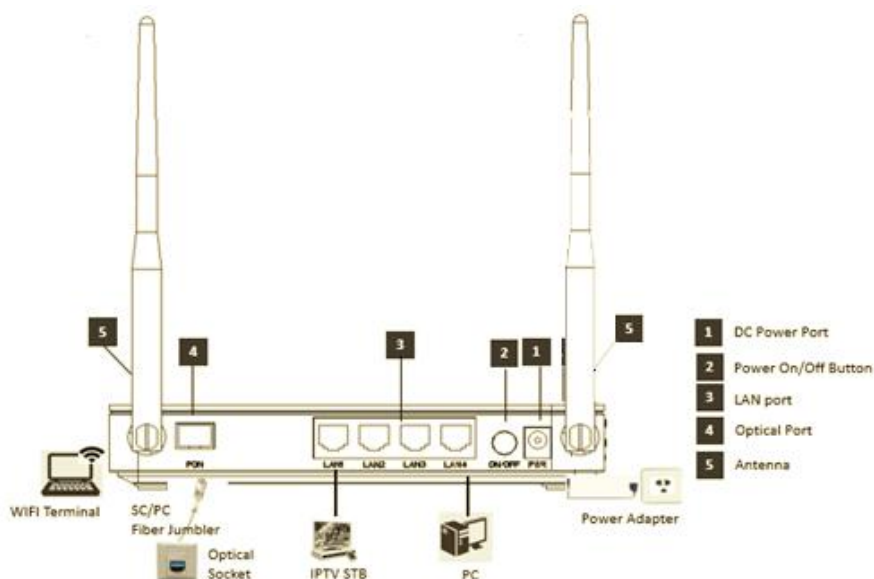
GPON/EPON/P2P, comply with the GPON standard of g.984, g.983, 802.3-2005, CTC EPON equipment technical requirements, have good xPON interoperability compatibility.

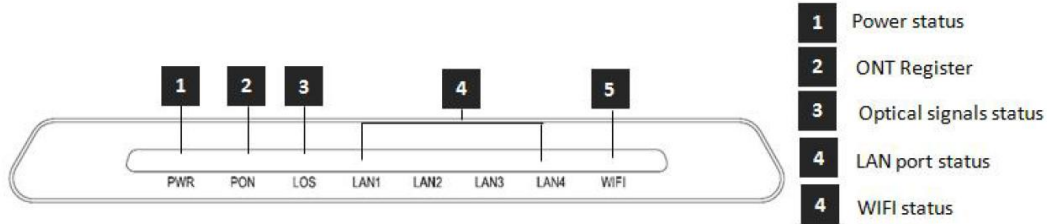
OP-D4000D provide one GE auto-adapting Ethernet ports. The OP-D4000D features high-performance forwarding capabilities to ensure excellent experience with Internet and HD video services. Therefore, the OP-D4000D provides a perfect terminal solution and future-oriented service supporting capabilities for FTTH deployment. It has good third-party compatibility to work with the third party OLT, such as Huawei/ZTE/Fiberhome/Alcatel-Lucen.

Features

- Full compatible with IEEE802.3ah
- Support port-based rate limitation and bandwidth control;
- In compliant with IEEE802.3ah Standard
- Up to 20KM transmission Distance
- Support data encryption, group broadcasting, port Vlan separation , etc.
- Support Dynamic Bandwidth Allocation (DBA)
- Support ONU auto-discovery/Link detection/remote upgrade of software;
- Support VLAN division and user separation to avoid broadcast storm;
- Support power-off alarm function ,easy for link problem detection
- Support broadcasting storm resistance function
- Support port isolation between different ports
- Support ACL and SNMP to configure data packet filter flexibly
- Specialized design for system breakdown prevention to maintain stable system
- Support software online upgrading
- EMS network management based on SNMP ,convenient for maintenance

Interface introduction





- 1** Power status
- 2** ONT Register
- 3** Optical signals status
- 4** LAN port status
- 4** WIFI status

Indicator			Description
1	PWR	Power status	On: The ONT is power on; Off: The ONT is Power off;
2	PON	ONT Register	On: Success to register to OLT; Blinking: In process of registering to OLT; Off: In process of registering to OLT;
3	LOS	GPON optical signals	On: Optical power lower than receiver sensitivity ; Off: Optical in normal
4	LANn	LAN port status	On: Ethernet connection is normal; Blinking: Data is being transmitted through the Ethernet port; Off: Ethernet connection is not set up;
5	WIFI	WIFI	Blinking : Data is being transmitted On : Wi-Fi function Opens

Parameter

Item	Parameters	Specification
Interface	PON Port	1 EPON optical interface Meet 1000BASE-PX20+ standard Symmetric 1.25Gbps upstream/downstream SC single-mode fiber split ratio: 1:64 Transmission distance 20KM
	Ethernet Port(LAN)	4*FE 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	Support IEEE802.3 QAM, ONU can be remotely managed by OLT Support Remote management through SNMP and Telnet Local 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°C
	Operating Humidity: 10%~90%(Non-condensing)
	Storage Humidity: 5%~95%(Non-condensing)

WIFI Features and Parameter

- IEEE 802.11n compliant, 2.4 GHz
- Full IEEE 802.11b/g legacy compatibility with enhanced performance
- Two-stream spatial multiplexing up to 300 Mbps PHY data rates
- Support multi-SSID (Maximum 4 SSID)
- Support automatic channel selection
- Support hide SSID
- Support wireless security of 64/128 bit WEP、802.1x、WPA and WPA2.

WIFI Parameter		
Performance parameters	Standard	IEEE802.11b/g/n
	Frequency	2.400 ~ 2.500 GHz
	Wireless data rate	IEEE 802.11b: 1,2,5.5,11Mbps IEEE 802.11g: 6,9,12,18,24,36,48,54Mbps IEEE 802.11n: up to 200 Mbps
	Modulation schemes	802.11g: 64QAM, 16QAM, QPSK, BPSK, DSSS 802.11b: CCK, DQPSK, DBPSK HT20: 64 QAM, 16QAM, QPSK, BPSK
	Channel	13*Channel, configurable to meet the standard of USA, Canada, Japan and China
	RF receive sensitivity	802.11b: -96dBm @ 1 Mbps; -93dBm @ 2 Mbps; -91dBm @ 5.5 Mbps; -88dBm @ 11 Mbps 802.11g: -90dBm @ 6 Mbps; -89dBm @ 9 Mbps; -89dBm @ 12 Mbps; -867dBm @ 18 Mbps; -83dBm @ 24 Mbps; -79dBm @ 36 Mbps; -75dBm @ 48 Mbps; -75dBm @ 54 Mbps 802.11n: -96dBm @ 1 Mbps; -88dBm @ 11 Mbps; -90dBm@6Mbps; -75dBm@54Mbps; -86dBm@m0/20MHz; -69dBm@m15/20MHz;
	RF TxPower	• TX power out B mode @ 11 Mbps: 18dBm +/- 2 • TX power out G mode @ 54 Mbps: 16dBm +/- 2 • TX power 11n mode @ HT20: 16 dBm +/-2
	Encryption Mode	64-bit, 128-bit WEP, AES, TKIP, WPA, WPA2, 802.1x
	Transmission distance	100m indoors coverage area 300m outdoors coverage area (varying depending on the actual environment)

Application

- ✧ Solution: FTTH
- ✧ Business: Broadband Internet、IPTV、VOD、IP Camera

Network Construction

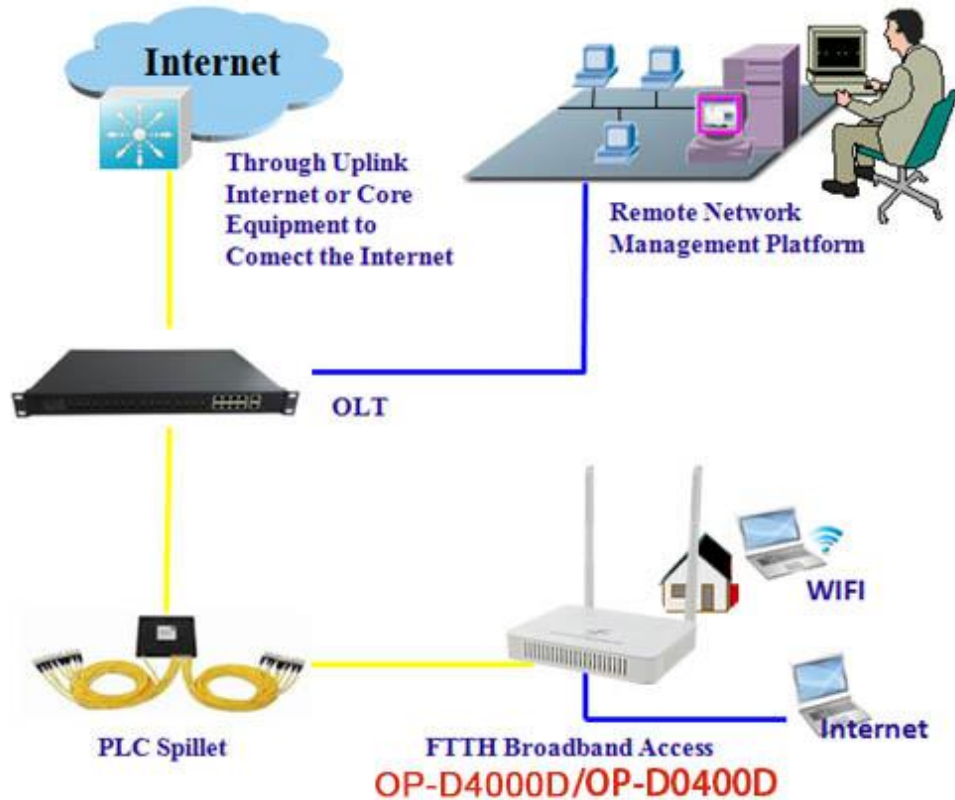


Figure: OP-D4000D/ OP-D0400D Application Diagram

Ordering Information

Product Name	Product Model	Descriptions
SFU Type EPON ONU	OP-D4000D	4x10/100M auto-negotiation Ethernet interface, 1 EPON interface+Double WIFI ,ABS casing,external power supply adapter
SFU Type EPON ONU	OP-D0400D	4x10/100/1000M auto-negotiation Ethernet interface, 1 EPON interface+Double WIFI ,ABS casing,external power supply adapter