Introduction

1.1 Product Description

GPON 1GE+1FE+WiFi+CATV ONU meets telecom operators FTTO (office), FTTD (Desk) ,FTTH(Home) broadband speed, SOHO broadband access, video surveillance and other requirements to design an GPON Gigabit Ethernet products. It is based on mature and stable, cost-effective GPON technology, high reliability, easy management, configuration flexibility and good quality of service (QoS) guarantees to meet the technical performance of ITU-TG.984.x , China Telecom GPON equipment technical requirements and other specifications.

Figure 1 1GE+1FE+WiFi ONU

Figure 2 1GE+1FE+WiFi+CATV ONU

1.2 Product categories

Product model	Product specification	Chipset	SDRAM Memory
V2802GW	1 GPON+1GE+1FE+WiFi	Realtek	64MB
V2802GWT	1 GPON+1GE+1FE+WiFi +CATV		

Table 1 Product categories

1.3 Application Chart

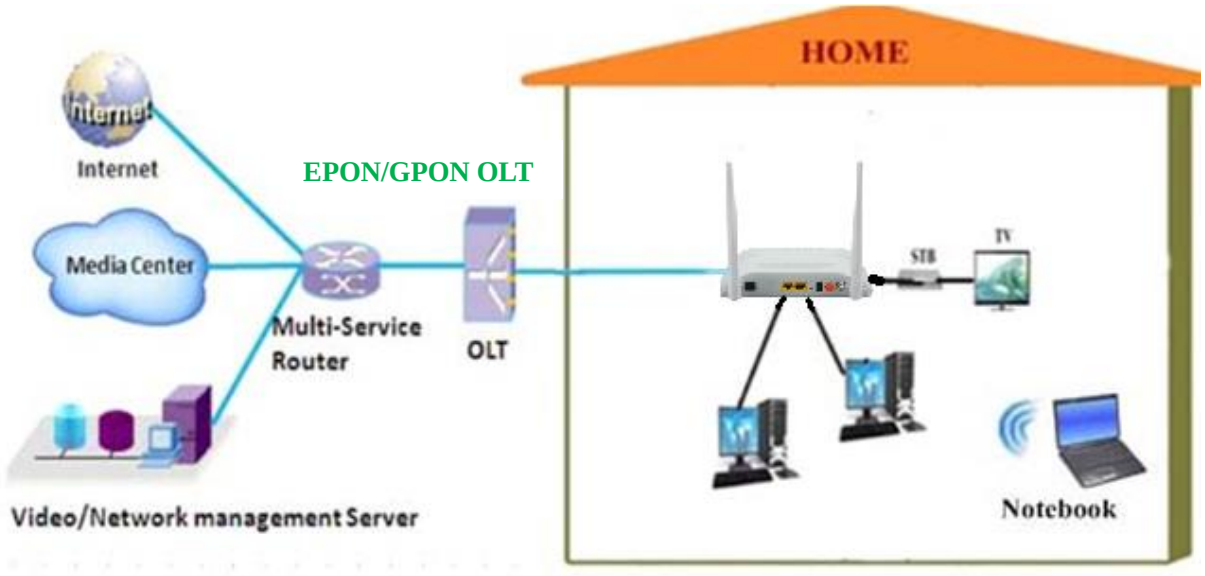


Figure 3 Application Chart

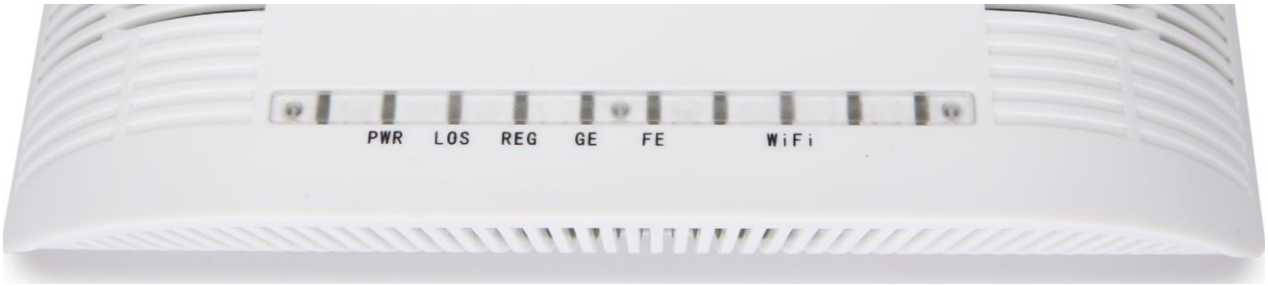
1.4 Technical parameters

Technical item	1GE+1FE+WiFi	1GE+1FE+WiFi+CATV
PON interface	1 GPON port(GPON Class B+) Receiving sensitivity: ≤-28dBm, Saturability: -8dBm Transmitting optical power: 0~+4dBm Transmission distance: 20KM	
Wavelength	Tx1310nm,Rx 1490nm	Tx1310nm,Rx 1490nm and 1550nm
Optical interface	SC/UPC connector	SC/APC connector(signal fiber with WDM)
LAN interface	1 x 10/100/1000Mbps and 1 x 10/100Mbps auto adaptive Ethernet interfaces. Full/Half, RJ45 connector	
WiFi interface	Compliant with IEEE802.11b/g/n Operating frequency: 2.412-2.462GHz support MIMO, rate up to 300Mbps 2T2R,2 external antenna 5dBi Support: multiple SSID Channel:13	
CATV interface	RF, optical power : +2~-18dBm Optical receiving wavelength: 1550±10nm RF frequency range: 47~1000MHz, RF output impedance: 75Ω RF output level: ≥ 78dBuV（-7dBm optical input） AGC range: +2~-7dBm MER: ≥32dB(-14dBm optical input)	
LED	6, For Status of POWER、LOS、PON、GE、FE、WiFi	7, For Status of POWER、LOS、PON、GE、FE、WiFi、CATV
Operating condition	Temperature: 0℃～+50℃ Humidity: 10%～90%（non-condensing）	
Storing	Temperature: -30℃～+70℃	

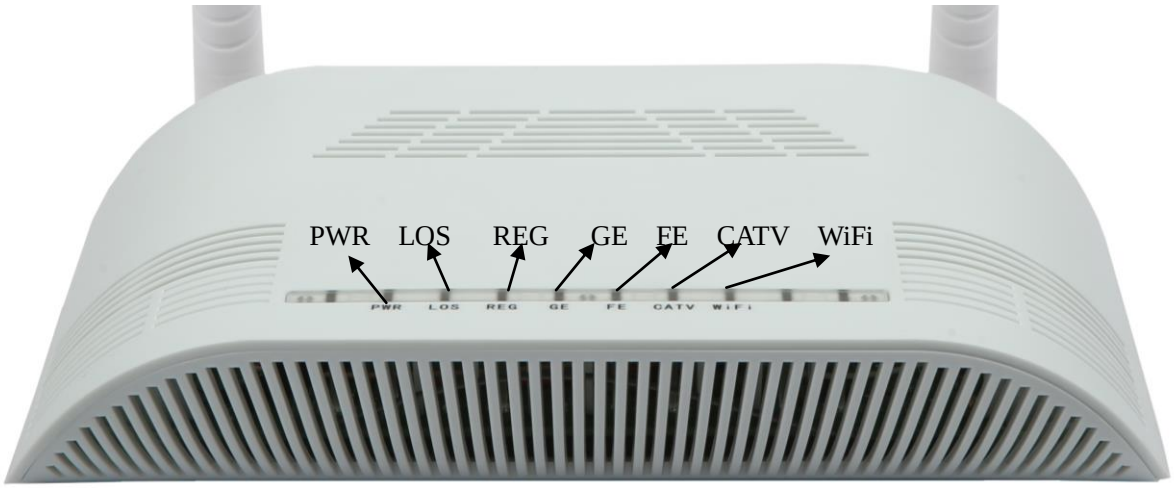
condition	Humidity: 10%～90%（non-condensing）	
Power supply	DC 12V/1A	
Power supply	≤6W	≤7W
Dimension	185mm×120mm×34mm（L×W×H）	
Net weight	0.24Kg	0.29Kg

Table 2 Technical parameters

1.5 Panel lights



V2802GW



V2802GWT

LED	Mark	Status	Description
Power	PWR	On	Device is powered up.
		Off	Device is powered down.
Optical signal loss	LOS	Blink	Device does not receive optical signals.
		Off	Device has received optical signal.
Registration	REG	On	Device is registered to the PON system.
		Off	Device is not registered to the PON system.
		Blink	Device is registering.
Interface	GE、FE	On	Port is connected properly.
		Off	Port connection exception or not connected.
		Blink	Port is sending or/and receiving data.
Wireless	WiFi	On	WiFi turned on.
		Off	Device is power off or WiFi turned off.
		Blink	WiFi data transmission.

CATV(for V2802GWT)	CATV	On	1550nm wavelength power of input is in normal range.
		Off	1550nm wavelength power of input is too low or no input.
		Blink	1550nm wavelength power of input is too high.

Table 3 Panel lights on

1.6 Interface description

Port Type	Function
PON	V2802GW: SC/UPC type, single mode optical fiber cable V2802GWT: SC/APC type, single mode optical fiber cable with WDM
GE、FE	Connect device with ethernet port by RJ-45 cat5 cable.
RST	Press down reset button and keep1-5seconds to make the device restart and recover from the factory default settings.
DC12V	Connect with power adapter.
CATV★	RF connector.
Power On/OFF	Power turn on/off.

Table 4 Interface description

Note:

1. With ★ tags, it is only for V2802GWT.

1.7 Software Parameters

Parameter Name	Software Parameters
Software mode	Routing Mode
LAN	Support Loop Detection Support Storm Control
Multicast	Support IGMPv1/v2 Support IGMP Snooping
QoS	Support SP and WRR Support 802.1P
L3	Support DHCP/PPPOE Support NAT
WiFi	IEEE802.11b/g/n, Up to 300Mbps Support Authentication : WEP/WAP-PSK(TKIP)/WAP2-PSK(AES) Support Wireless channel selection
Management	Support WEB Support Telnet

Table 5 Software Parameters

FCC Statement
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception,which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help
important announcement Important Note:

Radiation Exposure Statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.