

## ONT-4GE-RFDW Single-fiber

### CATV Dual-Band ONU



### Brief Views

ONT-4GE-RFDW dual-band CATV type ONU is one of the GPON optical network unit design to meet the requirement of the broadband access network. It apply in FTTH/FTTO to provide the data, video service based on the GPON network.

GPON is the latest generations of access network technology. ITU-T G.984 is the standard protocol of GPON. The GPON standard differs from other PON standards in that it achieves higher bandwidth and higher efficiency using larger, variable-length packets. GPON offers efficient packaging of user traffic, with frame segmentation allowing higher quality of service (QOS) for delay-sensitive video communications traffic. GPON networks provides the reliability and performance expected for business services and provides an attractive way to deliver residential services. GPON enables Fiber To The Home (FTTH) deployments economically resulting to accelerated growth worldwide.

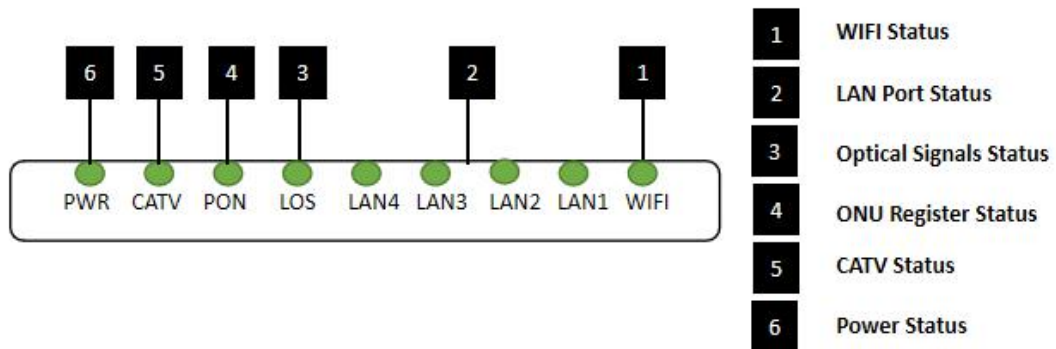
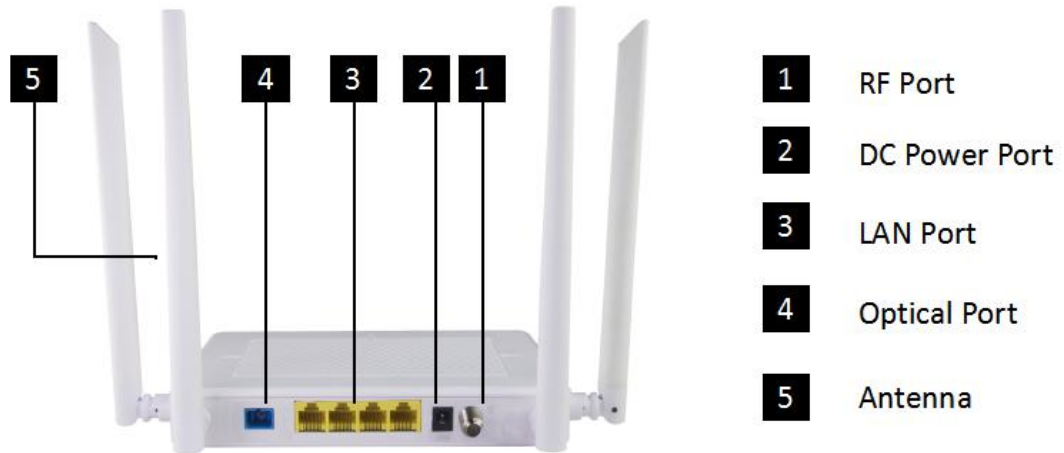
ONT-4GE-RFDW have a high reliability and provide quality of service guarantee, easy management, flexible expansion and networking. It's fully meet the ITU-T technical standards and have good compatibility with third party manufacturers OLT.

ONT-4GE-RFDW can integrate wireless function with meet 802.11 a/b/g/n/ac technical standards. At the same time, it also supports 2.4GHz/5GHz dual-band wireless signal. It has the characteristics of strong penetrating power and wide coverage. It can provide users with more efficient data transmission security.

## Functional Feature

- Single-fiber access, provides internet, CATV, WIFI multiple service
- In compliant with ITU - T G. 984 Standard
- Support ONU auto-discovery/Link detection/remote upgrade of software
- Wi-Fi series meet 802.11 a/b/g/n/ac technical standards
- Support VLAN transparent, tag configuration
- Support multicast function
- Support DHCP/Static/PPPOE internet mode
- Support port-binding
- Support OMCI+TR069 remote management
- Support data encryption and decryption function
- Support Dynamic Bandwidth Allocation (DBA)
- Support MAC filter and URL access control
- Support remote CATV port management
- Support power-off alarm function ,easy for link problem detection
- Specialized design for system breakdown prevention to maintain stable system
- EMS network management based on SNMP ,convenient for maintenance

## Product Interface and LED Definitions



Indicator		Description
1	WIFI	WIFI Blinking: Data is being transmitted On: Wi-Fi function Opens
2	LAN1-4	GE 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	GPON 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	CATV	CATV status On: CATV optical normal Off: The CATV signals are not received
6	PWR	Power status On: The ONU is power on Off: The ONU is Power off

## Specification

Item		Parameter
<b>Interface</b>	PON Interface	1*GPON port, FSAN G.984.2 standard, Class B+ Downstream Data Rate: 2.488Gbps Upstream Data Rate: 1.244Gbps SC/PC single mode fiber 28dB Link loss and 20KM distance with 1:128
	CATV Interface	1 RF output F-Type Connector
	Ethernet Interface	4*10/100/1000M auto-negotiation Full/half duplex mode RJ45 connector Auto MDI/MDI-X 100m distance
	Power Interface	12V DC Power supply
<b>Performance Parameters</b>	PON Optical Parameter	Wavelength: Tx 1310nm, Rx1490nm Tx Optical Power: 0.5~5dBm Rx Sensitivity: -28dBm Saturation Optical Power: -8dBm
	Data Transmission Parameter	PON Throughput: Downstream 2.488Gbit/s; Upstream 1.244Gbit/s Ethernet: 1000Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms
<b>Network Management</b>	Management Mode	Standard compliant OMCI interface as defined by ITU-T G.984.4 Support TR069 and WEB management
	Management Function	Status monitor, Configuration management, Alarm management, Log management
<b>Physical Features</b>	Shell	White plastic casing
	Power	Power supply: DC 12V /1A Power consumption: <8.5W
	Physical Specifications	Item Dimension: 240mm(L) x 210mm(W) x 24mm (H) Item weight: 0.4kg
	Environmental Specifications	Operating temperature: 0 to 50°C Storage temperature: -40 to 85°C Operating humidity: 10% to 90%(Non-condensing) Storage 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	78dBuV (@-12~-2dBm@85MHz)
CNR	>41dB (@-10dBm@DS22 Channel)
CSO	>60dBc (@-10dBm@DS22 Channel)
CTB	>60dBc (@-10dBm@DS22 Channel)
RF output return loss	>12dB
RF impedance	75Ω
AGC function	Support

## WIFI Specification

- Comply with IEEE 802.11a/b/g/n/ac protocol standard, support 2.4GHz and 5GHz
- There are four external antennas
- 5dBi antenna gain
- Maximum ideal rate up to 1.2Gbps
- 2.4GHz supports 2\*2 MIMO (Multiple-Input Multiple-Output) technology
- 5GHz supports 2\*2 MIMO (Multiple-Input Multiple-Output) technology
- Support 8 SSIDs
- Support wider RF bandwidth, up to 80MHz
- Support higher 256-QAM modulation mode
- Support MIMO-OFDM encoding mode
- Support wireless security of 64/128 bit WEP、802.1x、WPA and WPA2

## Network Application

Typical Solution: FTTH

Typical Business: INTERNET, WIFI, CATV

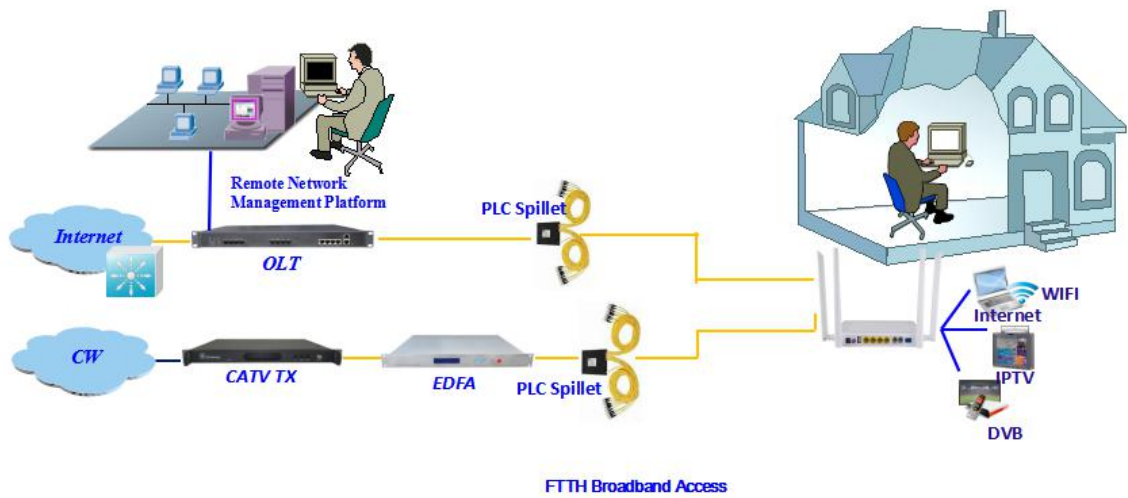


Figure: ONT-4GE-RFDW ONU Application Diagram

## Ordering Information

Product Name	Product Model	Descriptions
Dual-Band CATV Single fiber	ONT-4GE-RFDW	4*10/100/1000M Ethernet interface, 1 GPON interface, built-in FWDM, 1 RF interface, support Double Frequency Wi-Fi function, Plastic casing, external power supply adapter