

### Product Description

ONT-2GF-RFW is a residential gateway device with routing functions for XPON ONU and LAN Switch for residential and SOHO users, which is in line with ITU-T G.984 and IEEE802.3ah.

The uplink of ONT-2GF-RFW provides one PON interface, while downlink provides two Ethernet and one RF interfaces. It can realize optical access solutions such as FTTH (Fiber To The Home) and FTTB (Fiber To The Building). It fully integrates the reliability, maintainability and security design of carrier-grade equipment, and provides customers with the last kilometer of broadband access to residential and corporate customers.



## Technical parameters

### Hardware Specifications

PON Interface	Interface Type	SC/PC, CLASS B+
	Rate	Uplink: 1.25Gbps; Downlink: 2.5Gbps
User-Side Interface	1*10/100BASE-T;1*10/100/1000BASE-T; 1*RF interface	
Size (Mm)	167(L)×118(W)×30(H)	
Maximum Power Consumption	<8W	
Weight	200g	
Operating Environment	Temperature: -10°C ~ 55°C	
	Humidity: 5% ~ 95% (no condensation)	
Power Supply	External Power Adapter 12V/1A	
Power Adapter Input	100-240V AC, 50/60Hz	
Power Interface Size	metal inner diameter: $\phi 2.1 \pm 0.1$ mm outer diameter : $\phi 5.5 \pm 0.1$ mm; length: 9.0 $\pm 0.1$ mm	
WLAN Module	Internal and external dual antenna, antenna gain 5db, antenna power 16~21dbm	
	Support 2.4GHz, 300M transmission rate	

### LED

	State	Color	Descriptions
PWR	Solid	Green	Normal
	Off		No power
PON	Solid	Green	ONU is authorized
	Flash		ONU is Registering
	Off		ONU is not authorized
LOS	Solid	Red	Abnormal
	Flash		In diagnostic mode
	Off		Normal
LAN 1	Solid	Green	Link UP
	Flash		Active(Tx and/or Rx)
	Off		Link down
LAN 2	Solid	Green	Link UP
	Flash		Active(Tx and/or Rx)
	Off		Link down
WIFI	Flash	Green	Normal
	Off		Error/WLAN disable
OPT	Solid	Green	CATV optical signal reception is normal
	Off		CATV optical signal power is abnormal or faulty
RF	Solid	Green	CATV optical machine output level is normal

	Off	CATV optical machine output level is abnormal or faulty
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### Optical machine index parameters

	project	unit	performance parameters	note
Optical parameters	Wavelength of light	nm	1200~1600	
	Optical connector form		SC/APC	Other customizable
	Receiving light power range	dBm	-18~0	Other customizable
	Optical AGC control accuracy	dBm	-15~0	Other customizable
Radio frequency (rf) parameters	Frequency range	MHz	47~1000	
	Output rf impedance	$\Omega$	75	
	Output flatness	dB	$\pm 1.5$	
	Number of RF ports		1	
	Nominal output level	dBuv	$\geq (75 \pm 1.5)$	Other customizable
	Output reflection loss	dB	>14	
	MER	dB	>31@-15dBm >34@-9dBm	see*note1
Link indicators	C/N	dB	>51	GYT143-2000
	CTB	dBc	>65	
	CSO	dBc	>61	
	Working temperature	$^{\circ}\text{C}$	-10~+60	
	Storage temperature	$^{\circ}\text{C}$	-40~+80	
	Working humidity		20%~90%	
	Store humidity		10%~95%	
	Dustproof requirements		《YD/T1475-2006》	
	MTBF	H	40000H	

\*note1: The test conditions are 59 analog channels and 38 digital channels.

### Software Characteristic(GPON)

Standard Compliance	Comply with ITU-T G.984/G.988 Comply with IEEE802.11b/g/n Comply with China Telecom/China Unicom GPON Interoperability Standard
GPON	Support for the ONT registration mechanism

	Support DBA
	Support FEC
	Support link encryption
	Supports the maximum effective transmission distance of 20 km
	Support long illuminating detection and optical power detection
Multicast	IGMP V2 Proxy/Snooping
WLAN	Support WPA2-PSK/WPA-PSK encryption
	Support client isolation
	Support for 4 * SSID
	Support for 802.11 BGN mode
	Support maximum rate of 300M
Management & Maintenance	Support web management
	Support CLI/Telnet management
	Support port loopback detection
Compatibility	Support the connection with the business competitor's OLT and its proprietary protocols, including Huawei, H3C, ZTE, BDCOM, RAISECOM, and so forth.

#### Software Characteristic(EPON)

Standard Compliance	Comply with IEEE802.3ah EPON Comply with China Telecom/China Unicom EPON Interoperability Standard
EPON	Support for the ONT registration mechanism
	Support DBA
	Support FEC
	Support link encryption
	Supports the maximum effective transmission distance of 20 km
	Support long illuminating detection and optical power detection
Multicast	IGMP V2 Proxy/Snooping
WLAN	Support WPA2-PSK/WPA-PSK encryption
	Support client isolation
	Support for 4 * SSID
	Support for 802.11 BGN mode
	Support maximum rate of 300M
Management & Maintenance	Support web management
	Support CLI/Telnet management
	Support port loopback detection
Compatibility	Support the connection with the business competitor's OLT and its proprietary protocols, including Huawei, H3C, ZTE, BDCOM, RAISECOM, and so forth.

# Network Application

