

SY2200
1GE+1FE+WIFI
xPON ONT

User Guide



1 Overview

SY2200 xPON ONT is a two-in-one FTTH gateway for small and medium-sized businesses, SOHO office and home users, integrating xPON, WIFI functions. This series of products complies with the G.988 international standard and has good interoperability and operability, enabling interoperability with mainstream manufacturers' OLT devices.

2 Main Specifications

ITEM		UNIT	SPEC
OPTICAL	Working wavelength	nm	PON: TX1310, RX1490;
	TX POWER	dBm	1-4
	RX Sensitivity	dBm	≥ -27
	optic connector	/	SC/UPC
RF	Broadband/unevenness	MHz/dB	45~1000/ $\leq \pm 1$
	TX POWER	dBuv	AGC, TX POWER 76 \pm 2
	Return Loss	dB	≥ 14 (75 Ω)
	MER	dB	31 -15dBm 34 -12dBm
	CTB/CSO/HUM	dB	$\geq 62/\geq 62/\geq 45$
OTHER	WIFI	/	802.11 b/g/n 2.4GHz 300Mbps
	TYPE	/	HGU
	POWER	V/A	AV110~255V \rightarrow DC12V 1A
	Operating temperature	$^{\circ}\text{C}$	-5~40

3 Instructions for Use

1) Power Connection

This machine is supported by the power adapter. Firstly, connect the DC 12V output cable of the power adapter to the DC 12V port of the machine, and then plug the external regulated power supply into the 220V of the mains. The power indicator on the panel is on, indicating that the power supply is working normally.

2) INTERFACES

INTERFACES	Introduction
ON/OFF	Power switch button
Power	Power input interface, DC 12V/1A
Optical	xPON fiber interfaces, using SC/UPC fiber access
GE,FE	LAN service interface, GE is a gigabit port, and FE is a 100 Mbps port.
Reset	Reset button
WLAN	WIFI switch

3) Indicators Description

Indicator	Status	Description
Power	ON	The device is powered on normally.
	OFF	The device is not powered on.
PON	Twinkling	Received light, device not registered
	ON	The ONU is connected to the OLT and registered successfully.
	OFF	No optical received, device not registered
LOS	Twinkling	Fiber break or optical power exceeds limit
	OFF	ONU accepts normal optical power
GE,FE	ON	The network port is connected but no data is transmitted.
	Twinkling	Network port has data transmission
	OFF	The device is not powered on or the network port is not connected to the terminal device.
WIFI	ON	WIFI works fine
	Twinkling	WIFI has data transmission
	OFF	WIFI work abnormally
Internet	ON	Successfully connected to the Internet
	OFF	Not connected to the Internet

4 WEB Login

This machine supports WEB management. You can log in to 192.168.0.1 (default IP address) from any PC to get relevant information. The steps are as follows:

- 1) Change the network segment of the PC to 192.168.0.X and connect it to any network port of the machine with a network cable;
- 2) Enter http://192.168.0.1 in Chrome, press Enter to pop up the login page, enter the username and password (user/user), and then enter the system management page.

5 Matters Needing Attention

- 1) This device is an indoor structure, it can not be used in places that are easily invaded by rainwater; it should have proper space in the indoor box to facilitate heat dissipation;
- 2) The fiber input and the cable output must be reserved for a certain length to avoid accidents caused by too short; the optical interface in the ONU is the SC/UPC head. Do not misplace or the end faces are inconsistent.

6 Accessories

- 1). External power supply * 1: AC220V/DC12V/1A
- 2). User Guide * 1
- 3). The certificate of conformity has been affixed to this manual.

Certification 合格证	
Inspector 检验员:	QC
Date 日期:	2021-06-01
PASS	



FD712GD-R460

2GE+CATV+2WIFI XPON ONU



High Speed CPU



Low Power Consumption



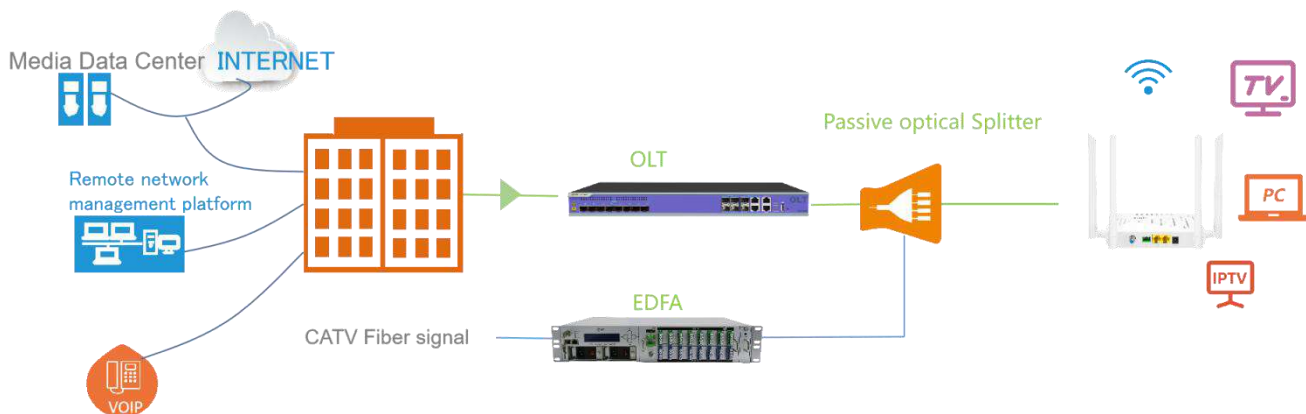
Software Customization



Optional Shell Supply

Brief Views

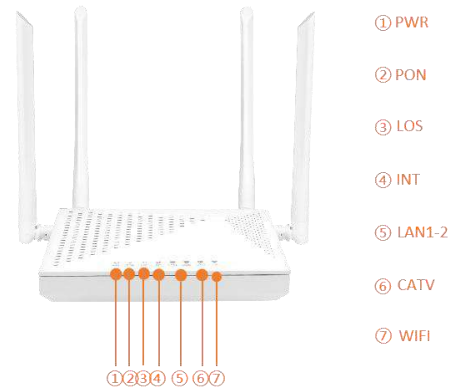
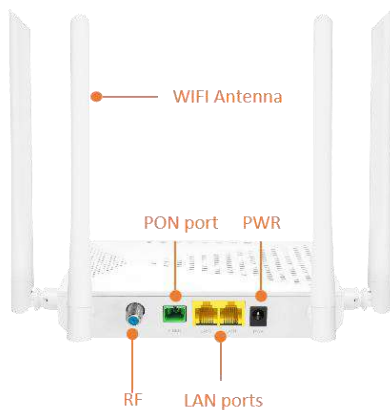
FD712GD-R460 is an indoor fiber broadband access terminal. The device provides one GPON / EPON adaptive optical port and supports XPON mode. It can be used in connection with our company FD16/17 series GPON OLT or FD12 / 13 series EPON OLT. It can also interconnect with the mainstream manufacture (Huawei / ZTE / Fiberhome) GPON or EPON OLT to provide users with Internet, WIFI and CATV services based on GPON and EPON technology.



Functional Feature

- In compliant with IEEE802.3ah and ITU - T G.984 standard
- Support ONU auto-discovery/Link detection/remote upgrade of software
- Support SN and LOID+Password multiple registration methods
- Support port VLAN configuration
- Support port-based rate limitation and bandwidth control
- Support MAC address learning
- Support MAC address learning account limit
- Support VLAN transparent/tag/translate/trunk
- Support broadcasting storm resistance function
- Support igmp transparent/snooping/proxy mode
- Support Dynamic Bandwidth Allocation (DBA)
- Support AES encryption and decryption
- EMS network management based on SNMP ,convenient for maintenance
- Support power-off alarm function ,easy for link problem detection
- Support Firewall
- Support MAC address/URL filter
- Support remote WEB/Telnet access control
- Support remote CATV port management

Product Interface and LED



LED Definitions

Indicator		Description
PWR	Power status	On: The ONT is power on; Off: The ONT is Power off;
PON	ONT Register	On: Success to register to OLT; Blinking: In process of registering to OLT; Off:Failed to register to OLT or no normal optical signal input;
LOS	PON optical signals	On: Optical power lower than receiver sensitivity; Off: Optical in normal;
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;
INT	Internet status indicator	On: The routed WAN Internet access service is normal. Off: The routed WAN Internet access service is abnormal.
WIFI	WIFI	Blinking :Data is being transmitted On:WIFI function Opens
CATV	CATV status	On: CATV optical normal Off:The CATV signals are not received

Product Specification

Mechanics

Dimensions	214*139.5*32mm
Weight	About 300g

Hardware

User Port (LAN)	RJ-45 connector		
	2 *10/100/1000Mbps adaptive Ethernet port		
	Full/half duplex		
	Auto MDI/MDI-X		
Indicators	PWR / PON / LOS / LAN / INT / CATV / WIFI		
PON Port	PON Mode	EPON: 1000BASE-PX20+ symmetric GPON: FSAN G.984.2 standard,Class B+	
	PON Rate	EPON: 1.25Gbps downstream/upstream GPON: 2.488Gbps/1.244Gbps downstream/upstream	
	Wavelength	Transmit: 1310nm	Receiver: 1490nm
	Receiving sensitivity	EPON: -27dBm	GPON: -28dBm
	Saturated power	EPON: -3dBm	GPON: -8dBm
	Transmitting power	EPON:0~4dBm	GPON: 0.5~5dBm

CATV (Input /Output port)	
Wavelength:	1550nm
Input optical power:	-18dBm ~ 0dBm(with AGC)
RF frequency:	47MHz~1000MHz
RF output level:	78dBuV (@-12~-2dBm@85MHz) (with AGC)
RF output return loss:	>12dB(with AGC)
RF impedance:	75 Ω

WIFI performance parameter	
IEEE802.11b/g/n(2.4G)	
IEEE802.11a/n/ac(5G)	
Max rate: 300M(2.4G)	
Max rate: 867Mbps(5G)	
MAX TX power 2.4G:	17dBm
MAX TX power 5G:	17dBm

Environment	
Working temperature	0 to 40° C
Operating humidity	10% ~ 90% (Non-condensing)

Power	
External 12VDC/1A power supply adapter	
Power consumption	10.3W

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FD512XW-R550

1GE+1FE+WIFI XPON ONU



High Speed CPU



Low Power Consumption



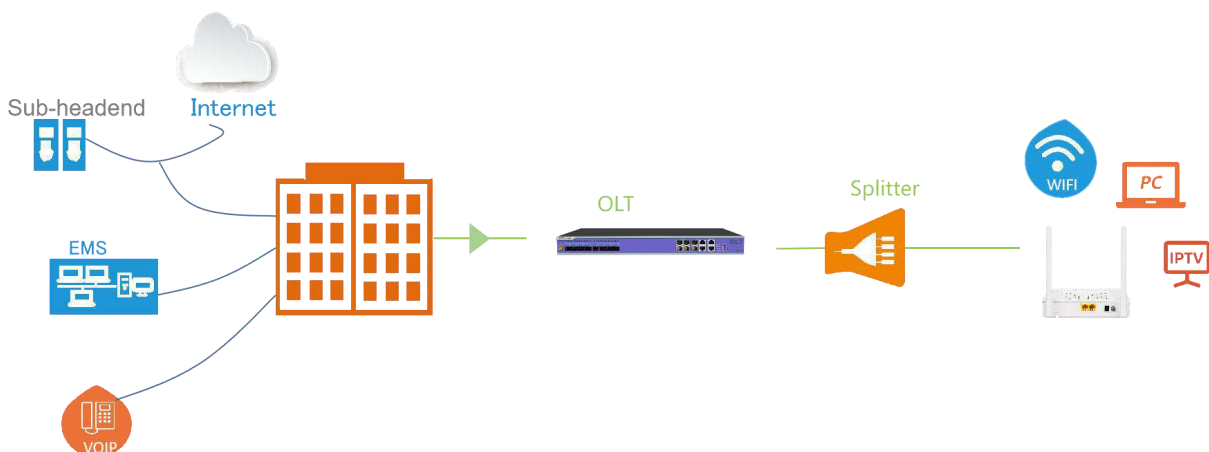
Software Customization



Optional Shell Supply

Brief Views

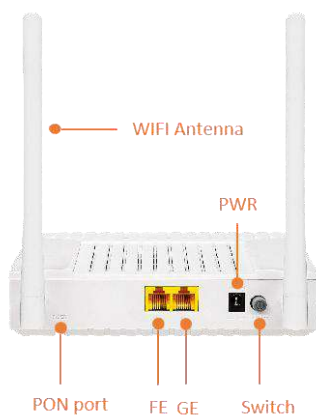
FD512XW-R550 is an indoor fiber broadband access terminal. The device provides one GPON / EPON adaptive optical port and supports XPON mode. It can be used in connection with our company FD16/17 series GPON OLT or FD12 / 13 series EPON OLT. It can also interconnect with the mainstream manufacture (Huawei / ZTE / Fiberhome) GPON or EPON OLT to provide users with Internet and WIFI services based on GPON and EPON technology.



Functional Feature

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- Support VLAN transparent/tag/translate/trunk
- Support broadcasting storm resistance function
- Support igmp transparent/snooping/proxy mode
- Support Dynamic Bandwidth Allocation (DBA)
- Support AES encryption and decryption
- EMS network management based on SNMP ,convenient for maintenance
- Support power-off alarm function ,easy for link problem detection
- Support Firewall
- Support MAC address/URL filter
- Support remote WEB/Telnet access control
- Single-fiber access, provides internet, WIFI multiple service.

Product Interface and LED



- ① PWR
- ② PON
- ③ LOS
- ④ INT
- ⑤ GE
- ⑥ FE
- ⑦ WIFI

LED Definitions

Indicator		Description
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INT	Internet status indicator	On: The routed WAN Internet access service is normal. Off: The routed WAN Internet access service is abnormal.
WIFI	WIFI	Blinking :Data is being transmitted On:WIFI function Opens

Product Specification

Mechanics

Dimensions	170*120*41mm
Weight	About 0.20kg

Hardware

User Port (LAN)	RJ-45 connector		
	1*10/100 and1 *10/100/1000Mbps adaptive Ethernet port		
	Full/half duplex		
	Auto MDI/MDI-X		
Indicators	PWR / PON / LOS / GE / FE / INT / WIFI		
PON Port	PON Mode	EPON: 1000BASE-PX20+ symmetric GPON: FSAN G.984.2 standard,Class B+	
	PON Rate	EPON: 1.25Gbps downstream/upstream GPON: 2.488Gbps/1.244Gbps downstream/upstream	
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	Saturated power	EPON: -3dBm	GPON: -8dBm
	Transmitting power	EPON:0~4dBm	GPON: 0.5~5dBm

WiFi performance parameter

IEEE802.11b/g/n(2.4G)

Max rate: 300M(2.4G)

MAX TX power 2.4G:17dBm

Environment

Working temperature	0 to 40° C
Operating humidity	10% ~ 90% (Non-condensing)

Power

External 12VDC/0.5A power supply adapter

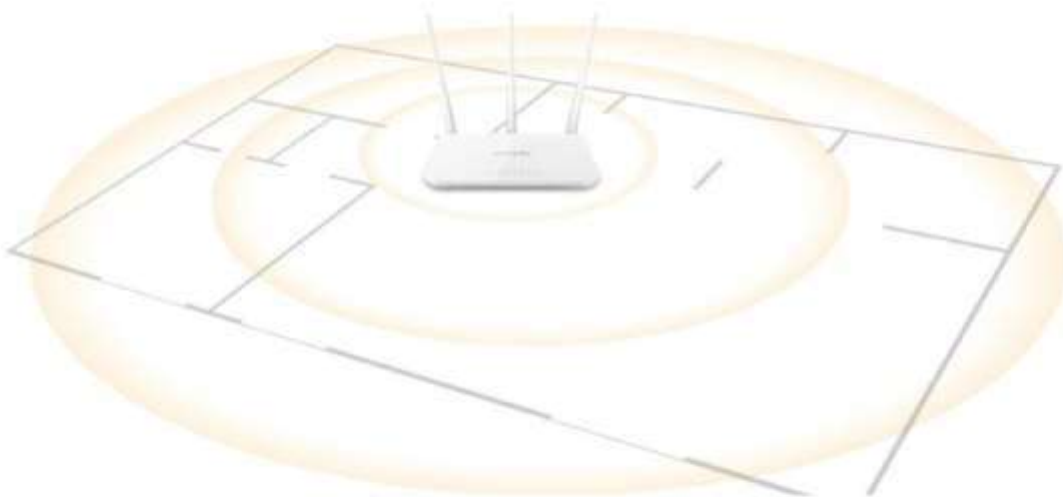
Power consumption	$\leq 4.2W$
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F3 300Mbps Wireless Router

As a 300Mbps wireless router, F3 is specially designed for your smart home networking life. 3*5dBi high gain omnidirectional antennas boost WiFi coverage up to 200m². Chip to router what is heart to human. Its superior Chip ensures stable and fast wireless performance, making it ideal for streaming music, uploading photos, video chatting, HD video streaming and other bandwidth-intensive tasks. Easy setup interface makes you can enjoy fluid WiFi experience effortlessly. No matter you are a tech-savvy enthusiast or a first-time user, F3 is super easy and intuitive to setup without time-consuming operations. F3 makes you enjoy easy and freewheeling E-life.



WiFi Anywhere Throughout Your House

WiFi Coverage up to 200m²

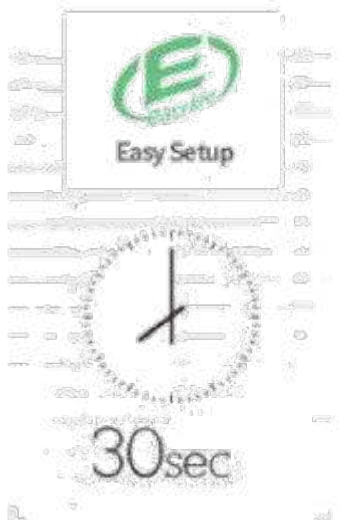
Three external antennas boost WiFi throughout your house to enjoy ultimate surfing fun. F3 helps you keep mobile devices, media players and computers connected to WiFi with a reliable connection and expanded coverage in each corner of your house. No longer need to worry about the WiFi deadzones.



All Families Enjoy Surfing Fun

Bandwidth-Control

IP-based broadband control allows you to distribute bandwidth to specific PCs. You can allot bandwidth to different tasks for ensuring everyone's surfing need. When multiple devices are connected, streaming WiFi is available. It can ensure the best use of bandwidth by controlling congestion and preventing bandwidth abuse. This way, users of a small network receive committed and specific bandwidth, preventing non-critical applications from weakening network performance. Just enjoy the ultimate surfing fun anytime anywhere.



Set up in 30 Seconds

Simple To Use

Super simple setup interface helps you access to the Internet effortlessly in 30 seconds. No matter you are a tech-savvy enthusiast or a first-time user, F3 is super easy and intuitive to setup without time-consuming operations.

Specifications

Hardware Features	
Speed	300Mbps over 2.4GHz band
Standard	IEEE802.11/b/g/n
Interface	1*10/100M auto-negotiation WAN port 3*10/100M auto -negotiation LAN ports
Frequency	2.400 – 2.4835 GHz
Power Supply	DC 9V 600mA
Power Consumption	1.9W(no load)~3.3W(full-load)
LED Indicator	SYS, WiFi, LAN(1-3), WAN, T, WPS
Button	1*WPS/RESET
Wireless Features	
Antenna	3x5dBi external undetachable antennas
Safety	WPA Algorithm: AES, TKIP, TKIP&AES
	Wireless Access Control: MAC Address Filtering
System Tools	Network Time, Sys Upgrade, Backup/Restore, Factory Default, Login Password, Sys Logs, Restart.
Software Features	
Sensitivity	802.11b: -89 dBm @ 11 Mbit/s/802.11g: -74 dBm @ 54 Mbit/s/ 802.11n: -72 dBm @ MCS7
DHCP Server	Support
Others	
Dimension	127.4mm*90.5mm*26mm
Operating Temperature	0℃ ~ 40℃
Operating Humidity	10% ~ 90% RH Non-condensing
Storage Temperature	-40℃~70℃
Storage Humidity	5% ~ 90% RH Non-condensing
Certification	CE ROHS EAC NOM IC
EIRP Power (Max.)	2.400 – 2.4835 GHz: 19.84dBm (EIRP)

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