

SPU-G422WD-HZ

GPON ONU



Overview

SPU-G422WD-HZ GPON HGU 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, voice and 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 voice and 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.

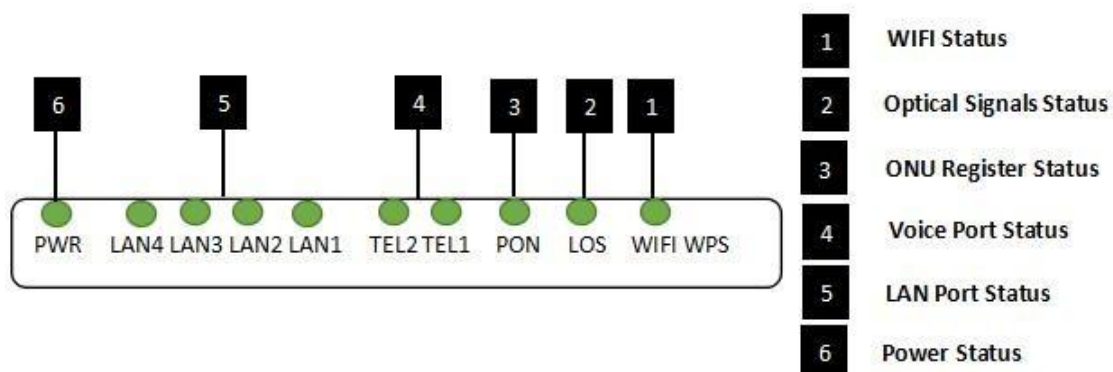
SPU-G422WD-HZ provide two POTS ports, four GE auto-adapting Ethernet ports, one USB ports, and 802.11a/b/g/n/ac Wi-Fi access. The SPU-G422WD-HZ features high-performance forwarding capabilities to ensure excellent experience with VoIP, Internet and HD video services. Therefore, the SPU-G422WD-HZ provides a perfect terminal solution and future-oriented service supporting

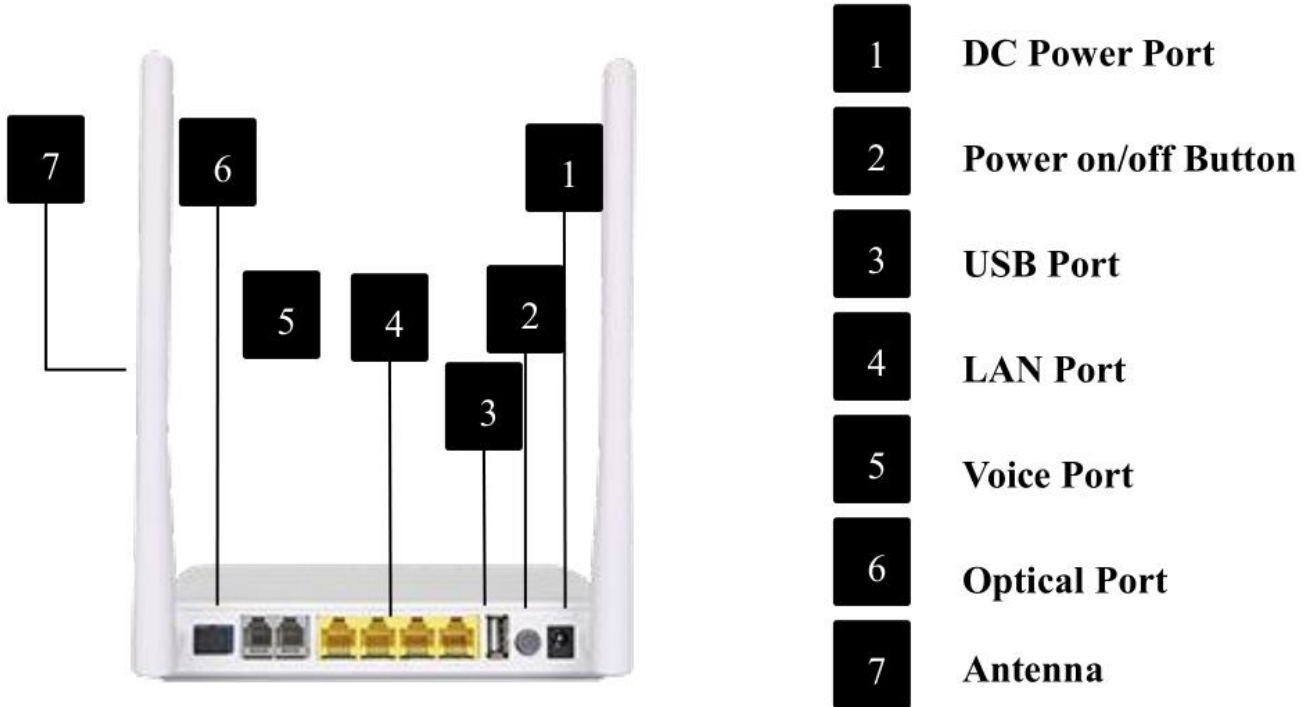
capabilities for FTTH deployment. It has good third-party compatibility to work with the third party OLT, such as Huawei/ZTE/Fiberhome/Alcatel-Lucent.

Features

- Full compatible with ITU-T G.984
- Support two POTS
- Support four GE auto-adapting Ethernet ports
- Support 802.11a/b/g/n/ac Wi-Fi access, while support 2.4GHz and 5GHz
- Support one USB interface
- Support OMCI and TR069 for remote management
- Support Auto-negotiation and MDI/MDIX
- Support the Ethernet interface rate, working mode and flows control configuration
- Support loopback at UNI
- Support packet filtering and illegal message attack protection
- Support performance statistics of Ethernet link
- Support VLAN tagged label processing, traffic classification and packet filtering, STP/RSTP etc.
- Support DHCP Option60 reporting the location information of the Ethernet interface
- Support PPPoE+ for accurate subscribers identification
- Support H.248 and SIP protocol
- Support IGMP Snooping
- Support AES-128
- Support Dynamic Bandwidth Allocation (DBA)

Product interface and LED definitions





Indicator		Description
WIFI	WIFI	Blinking : Data is being transmitted On : Wi-Fi function Opens
LOS	GPON optical signals	On: Optical power lower than receiver sensitivity ; Off: Optical in normal
PON	ONU Register	On: Success to register to OLT; Blinking: In process of registering to OLT; Off: In process of registering to OLT;
TEL1-2	Telephone port status	On : The connection between the TEL port and the voice server has been set up Blinking : The voice service of the TEL port is established; Off : The connection between the TEL port and the voice server is not set up.
LAN1-4	LAN port status	On: Ethernet connection is normal; Blinking: Data is being transmitted through the Ethernet port; Off: Ethernet connection is not set up;
PWR	Power status	On: The ONU is power on; Off: The ONU is Power off;

Specification

Item		Parameter
Interface	Uplink 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
	POTS Port	2*RJ11 with 3REN Max 1km distance Balanced Ring, 50V RMS
	Ethernet Interface	4*10/100/1000M auto-negotiation Full/half duplex mode RJ45 connector Auto MDI/MDI-X 100m distance
	USB interface	1*USB 2.0 interface Transmission Rate: 480Mbps
	Power Interface	12V DC Power supply
Performance Parameters	PON Optical Parameter	Wavelength: Tx 1310nm, Rx1490nm Tx Optical Power: 0.5 ~ 5dBm Rx Sensitivity: -28dBm Saturation Optical Power: -8dBm Connector Type: SC Optical Fiber: 9/125µm single-mode fiber
	Data Transmission Parameter	PON Throughput: Downstream 2.488Gbit/s ; Upstream 1.244Gbit/s Ethernet: 1000Mbps Packet Loss Ratio: 1×10^{-12} latency: <math>< 1.5\text{ms}</math>
	Business Capability	Layer 2 wire speed switching Support VLAN TAG/UNTAG , VLAN translation Support Port-based speed limitation Support Priority classification Support storm control of broadcast Support loop detection
Network Management	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

Physical Features	Shell	Plastic casing
	Power	External 12VDC/1A power supply adapter Power consumption: <7W
	Dimension and Weight	Item Dimension : 170mm(L) x 130mm(W) x 30mm (H) Item weight : 0.3kg
	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)

WIFI Features

- Comply with IEEE 802.11a/b/g/n/ac protocol standard, support 2.4GHz and 5GHz
- Fully compatible with IEEE 802.11n and improved in performance
- Physical layer protocol data rates up to 1Gbps
- Along with 802.11n MIMO (Multiple-Input Multiple-Output) technology, support up to 8 MIMO
- Support wider RF bandwidth, up to 160MHz
- Support higher 256-QAM modulation mode
- Support MIMO-OFDM encoding mode
- Support wireless security of 64/128 bit WEP、802.1x、WPA and WPA2

Application

- Typical Solution: FTTH, FTTO
- Typical Business: INTERNET, IPTV, VOD, IP Camera, WIFI

Network Construction

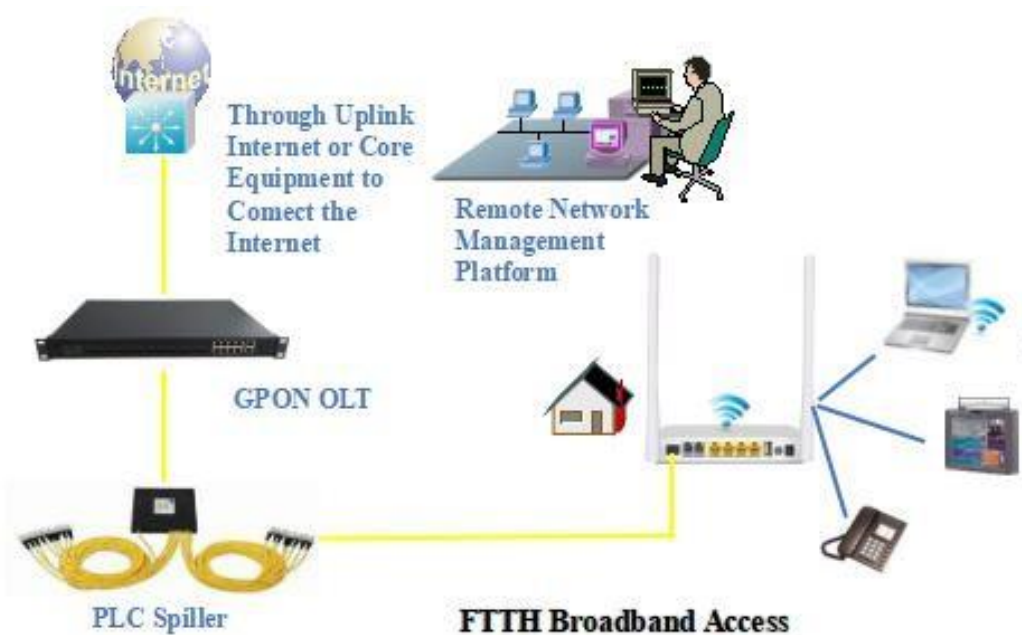


Figure: Application Diagram

Ordering information

Product Name	Product Model	Descriptions
GPON HGU	SPU-G422WD-HZ	4*10/100/1000M Ethernet interface, 1 GPON interface, 2 POTS interface, 1 USB interface, support Double Frequency Wi-Fi function, Plastic casing, external power supply adapter

Note: If you need more customized services, please contact us.

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