GPON ONU 3K G504GR 4G+WIFI

Brief Views

G504GR 4G series GPON ONT 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 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.

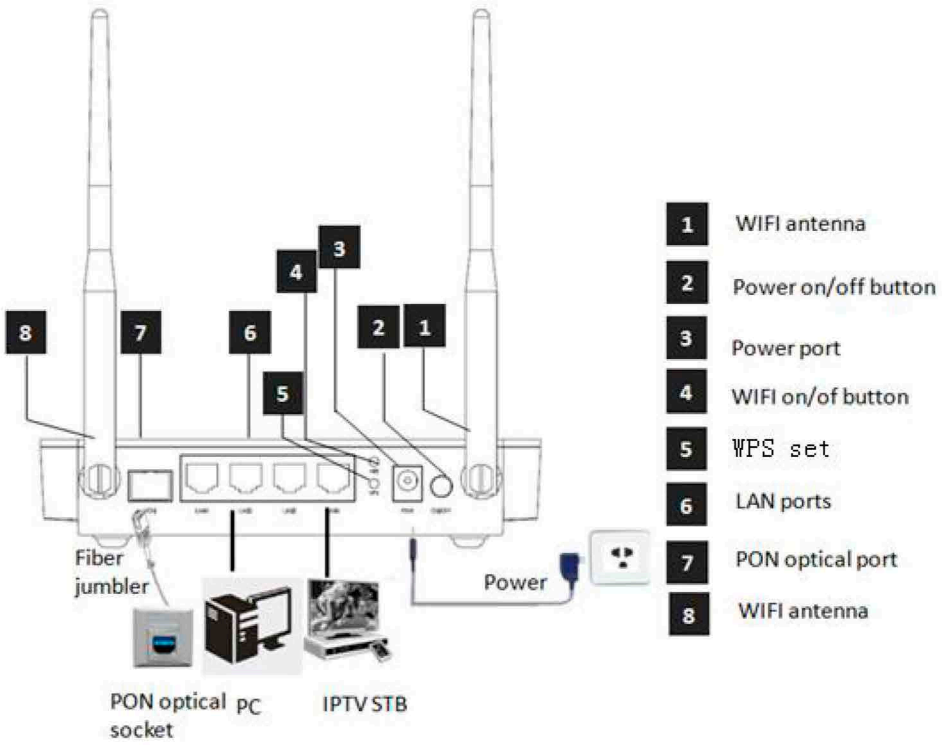
G504GR 4G series have a high reliability and provide quality of service guarantee、 easy management, flexible expansion and networking. It's fully meet the ITU-T technical standards and have good compatibility with third party manufacturers OLT.

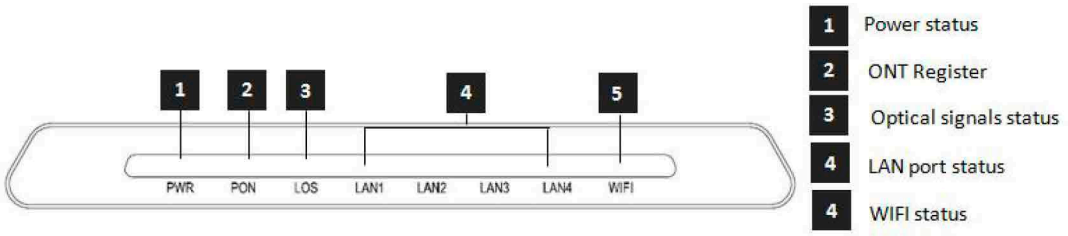
G504GR 4G series can integration wireless function with meet 802.11 n/b/g technical standards, It has built-in high gain directional antenna, the wireless transmission rate up to 300Mbps. It has the characteristics of strong penetrating power and wide coverage. It can provide users with more efficient data transmission security.

Functional Feature

- Support port-based rate limitation and bandwidth control;
- In compliant with ITU - T G.984 Standard
- Wi-Fi series meet 802.11 n/b/g technical standards
- Support data encryption, group broadcasting, port Vlan separation ,etc.
- Support Dynamic Bandwidth Allocation (DBA)
- Support ONU auto-discovery/Link detection/remote upgrade of software;
- Support port mode of VLAN configuration
- Support power-off alarm function ,easy for link problem detection
- Support broadcasting storm resistance function
- Support port isolation between different ports
- Support port flow control
- Support ACL and SNMP to configure data packet filter flexibly
- Specialized design for system breakdown prevention to maintain stable system
- Support software online upgrading
- EMS network management based on SNMP ,convenient for maintenance

Product interface and LED definitions





Indicator			Description
1	PWR	Power status	On: The ONU is power on; Off: The ONU is Power off;
2	PON	ONU Register	On: Success to register to OLT Blinking: In process of registering to OLT; Off: In process of registering to OLT;
3	LOS	GPON optical signals	On: Optical power lower than receiver sensitivity ; Off: Optical in normal
4	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;
5	WIFI	WIFI	Blinking：Data is being transmitted On：Wi-Fi function Opens Off：Wi-Fi function Close

Specification

Item	Parameter
PON Interface	1*GPON port, FSAN G.984.2 standard, Class B+ Downstream Data Rate：2.488Gbps Upstream Data Rate：1.244Gbps SC/UPC single mode fiber 28dB Link loss and 20KM distance with 1:128
User Ethernet Interface	4*10/100M or 4*10/100/1000M auto-negotiation Full/half duplex mode RJ45 connector Auto MDI/MDI-X 100m distance
Power Interface	12V DC Power supply
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 s; Upstream 1.244Gbit/s Ethernet: 100Mbps or 1000Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms

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	Standard compliant OMCI interface as defined by ITU-T G.984.4 Support WEB management
Management Function	Status monitor, Configuration management, Alarm management, Log management
Shell	Plastic casing
Power	4FE+WIFI: <5.2W, 12V/0.5A power supply adapter 4GE+WIFI: <7W, 12V/1A power supply adapter
Physical Specifications	Item Dimension：160mm(L) x 120mm(W) x 32.5mm (H) Item weight：0.2kg
Environmental Specifications	Operating temperature: 0 to 50ºC Storage temperature: -40 to 85ºC Operating humidity: 10% to 90%(Non-condensing) Storage humidity: 10% to 90%(Non-condensing)

WIFI Specification

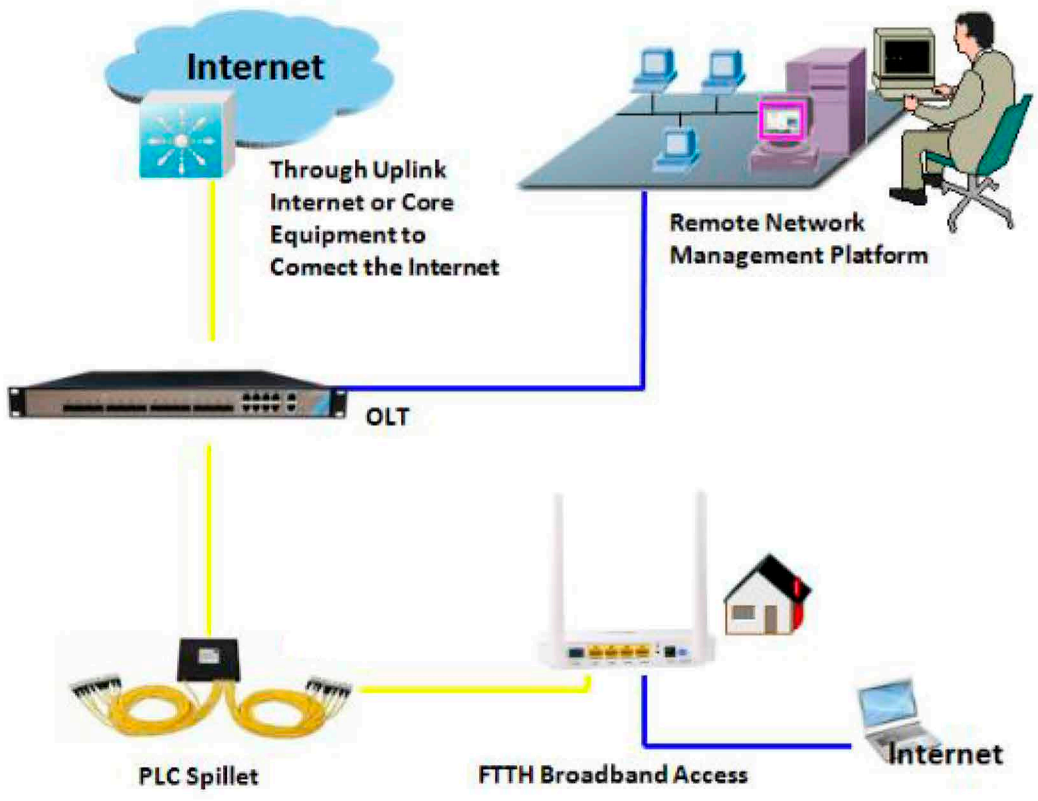
Item		Parameter
Performance parameters	Operating Mode	Router or bridge
	Antenna gain	2*5dBi
	Throughput	IEEE 802.11b: 11Mbps IEEE 802.11g: 54 Mbps IEEE 802.11n: 300Mbps
	Frequency	2.412 ~ 2.472 GHz
	Channel	13*Channel, configurable to meet the standard of USA, Canada, Japan and China
	Modulation	DSSS , CCK and OFDM
	Coding	BPSK, QPSK, 16QAM and 64QAM
	RF receive sensitivity	802.11b: -83dBm @ 1 Mbps; -80dBm @ 2 Mbps; -79dBm @ 5.5 Mbps; -76dBm @ 11 Mbps 802.11g: -85dBm @ 6 Mbps; -84dBm @ 9 Mbps; -82dBm @ 12 Mbps; -80dBm @ 18 Mbps; -77dBm @ 24 Mbps; -73dBm @ 36 Mbps; -69dBm @ 48 Mbps; -68dBm @ 54 Mbps 802.11n 20MHz: -74dBm @ 65 Mbps;

		-70dBm @ 130 Mbps; 802.11n 40MHz: -70dBm @ 135 Mbps; -67dBm @ 300 Mbps;
	RF output lever	802.11b: 17 ±0.5dBm @11Mbps 802.11g: 15 ±0.5dBm @ 54 Mbps; 16 ±0.5dBm @ 48 Mbps; 17 ± 1dBm @ 6 ~ 36 Mbps 802.11n 20MHz: 14 ± 0.5dBm @ 130 Mbps; 15 ± 0.5dBm @ 78 Mbps; 18 ± 0.5dBm @ 6.5 Mbps 802.11n 40MHz: 14 ± 0.5dBm @ 300 Mbps; 15 ± 0.5dBm @ 162 Mbps; 18 ± 0.5dBm @ 13.5 Mbps
	Encryption Mode	802.11i security: WEP-64/128, TKIP (WPA-PSK) and AES (WPA2-PSK)

Network application

Typical Solution： FTTH, FTTO

Typical Business： INTERNET, IPTV, VOD, IP Camera, WIFI



Application Diagram

Ordering Information

Product Name	Product Model	Descriptions
4GE+WIFI	GPON ONU 3K G504GR	4*10/100/1000M Ethernet interface, support Wi-Fi function, 1 GPON interface, plastic casing, external power supply adapter