

DNS

Support TR069, NAT DMZ, DNS features



Support Multiple SSID



Support Multiple VLAN

CAS

Support CAS, L2oGRE



Support IPV6 , PPPoE, DHCP and Static IP configuration for WAN Interface



Support IP, MAC filtering, - Firewall Functionality in routed mode



Support for XPON, adaptive EPON or GPON OLT on the network



RH821GWV-DG

GPON ONT

1. Product Overview

RH821GWV-DG terminal devices are designed for fulfilling FTTH and triple play service demand of fixed network operators or cable operators. The box is based on the mature Gigabit GPON technology, which have high ratio of performance to price, and the technology of 802.11 n/ac WiFi , Wireless power can reach more than 23dBm, Layer 2/3, high quality VoIP as well. They are highly reliable and easy to maintain, with guaranteed QoS for different service. And It is fully compliant with technical regulations such as ITU-T G.984.x and technical requirement of GPON Equipment.



2. Interface of device

Parameter	Nominal
Connector style	SC/APC OR SC/UPC
PON quantity	1
Fiber style	Single mode
Wavelength	TX: 1310 +/-20nm RX: 1490 +/-10nm
PON interface standard	ITU-T G.984.2/ITU-T G.984.3/ITU-TG.988 Class B+
PON interface receiving rate	2.488Gpbs
PON interface transmitting rate	1.244Gpbs
Output optical power	Min: 0.5dBm Max: +5dBm
Optical receiver sensitivity	Precede -28dBm
The length of the optical link	Max 20km

3 WIFI Specifications

Standard	IEEE 802.11 ac/b/g/n
Frequency	2412-2472MHz
	5GHz:
	Band-1 frequency 5.15GHz ~ 5.25GHz
	Band-4 frequency 5.725GHz ~ 5.825GHz
	2.4GHz Frequency
Transmission speed	IEEE 802.11b : 11/5.5/2/1M(Auto)
	IEEE 802.11g: 54/48/36/24/18/12/9/6(Auto)
	IEEE 802.11n: 270/243/216/162/108/81/54/27Mbps, up to 300Mbps
	5GHz Frequency
	IEEE 802.11n: Highest transmission speed up to 300Mbps
Channel number	IEEE 802.11ac : Highest transmission speed up to 867Mbps
	2.4GHz : 13 5GHz: 4 (It depends on the actual area.)
Spread-spectrum Technique	DSSS(Direct sequence spread spectrum)
Data Modulation	DBPSK、DQPSK、CCK and OFDM(BPSK/QPSK/16-QAM/64-QAM)
Sensitivity @PER (Packet Error Rate)	270M: -68dBm@10% PER; 130M: -68dBm@10% PER
	108M: -68dBm@10% PER; 54M: -68dBm@10% PER
	11M: -85dBm@8% PER; 6M: -88dBm@10% PER
	1M: -90dBm@8% PER
Transmission Distance	Indoor Maximum 120 meter, Outdoor Maximum 360 meters (The distance depends on the environment)
RF power (2.4GHz)	20dBm EIRP
RF power (5 GHz)	Band-1 EIRP 17.45dBm
	Band-2 EIRP 17.82dBm
	Band-3 EIRP 17.92dBm
	Band-4 EIRP 18.92dBm
Antenna	5dBi Antennas

4. Specification and working environment

Parameter	Nominal
Dimension	176mm×113mm×31mm(L×W×H)
Net weight	0.24kg
Typical power consumption	<7W
Noise	None

Parameter	Nominal
Cooling style	Naturally cooling
Power supply	12V, 1.0Amp
Installation style	Support PC, wall mount or put inside of information box
Environment	5~50 °C
Atmospheric pressure	70~106Kpa
MTBF	50,000hours@25 °C
MTTR	30minutes
Parameter	Nominal

a. Special function

- Support TR069,NAT,DMZ,DNS features
- Support Multiple ssid
- Support Multiple VLAN
- Support IPV6 ,PPPoE,DHCP and Static IP configuration for WAN Interface
- Support IP,MAC filtering, Firewall Functionality in routed mode

b. POTS Specifications

- support SIP voice protocol
- support H.248 voice protocol
- SIP protocol: ISP provide the port number of the main SIP proxy server and terminal VOIP
- Value range is 1-65535, system default value is 5060
- H.248 protocol: ISP provide port number of the spare MGC server and VOIP terminal
- Value range is 1~65535, system default value is 2944
- Port ringing current voltage: 50±10VAC, 30±10H

Interface of device

Port Type	Function
PON port	Connect PON port with internet by SC type, single mode optical fiber cable
FXS port	Connect the telephone with FXS port by telephone wire
LAN 1~2 port	RJ45 Port connects to local internet,2 GE port

5. Network Mode

