

RH841GWVC-DG GPON ONT RH841GWVC-DG



1. Product Overview

RH841GWVC-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. GPON 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-2 frequency 5.25GHz~5.35GHz
	Band-3 frequency 5.500GHz ~ 5.700GHz
	Band-4 frequency 5.725GHz ~ 5.825GHz
Transmission speed	2.4GHz Frequency
	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
	IEEE 802.11ac : Highest transmission speed up to 867Mbps
Channel number	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	176mmx112mmx31mm (LxWxH)
Net weight	0.35kg
Typical power consumption	< 12W
Noise	None
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 MU-MIMO
- Support Easy-Mesh (Optional)
- 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

5. CATV Specifications

Item		Unit	Parameter
Optical parameter	Receiving optical wavelength	nm	1200 ~ 1650
	Receiving optical power	dBm	-18 ~ +0
	Reflection loss	dB	≥50
	Connector	-	SCI / APC
	Fiber type	-	Single mode
	Isolation (WDM)	Forward channel	dB
Reflection channel		dB	≥22
RF parameter	Frequency	MHz	47 ~ 1000
	In-band flatness	dB	±1
	Output reflection loss	dB	≥14
	Nominal output level	dBuV	=75±1 (AGC range: -15 ~ -2dBm)
	Attenuation range	dB	-18~0
	C/N	dB	≥46
	C/CTB	dB	≥65
	C/CSO	dB	≥65
Output impedance	Ω	75	
Others	Power supply (DC)	V	5
	Power consumption	W	≤1.5
	Working temperature	C	0 ~ +45
	Storage temperature	C	-40 ~ +75
	Relative humidity	%	Maximum 95% non-condensing



6. Interface of device

Port Type	Function
FXS port	Connect the telephone with FXS port by telephone wire
CATV port	Connect PON port with internet by SC/APC, Built-in WDM, it can transmit optical signals of 1550nm, 1310nm and 1490nm wavelengths.
RF port	Connect the set-top box via coaxial cable.
LAN 1~4 port	RJ45 Port connects to local internet, 4 GE port

7. Network Mode

