

## RH804GCW GPON ONT RH804GCW



### 1. Product Overview

RH804GCW 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 Layer 2 Ethernet switch, 11N WiFi, CATV, WDM and high quality VoIP as well. It is 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<br>2.4GHz Frequency  |
| Transmission speed                   | IEEE 802.11b : 11/5.5/2/1M(Auto)<br>IEEE 802.11g: 54/48/36/24/18/12/9/6(Auto)<br>IEEE 802.11n: 270/243/216/162/108/81/54/27Mbps, up to 300Mbps    |
| Channel number                       | 2.4GHz : 13   |
| 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<br>108M:-68dBm@ 10% PER;54M:-68dBm@ 10% PER<br>11M:-85dBm@ 8%PER;6M:-88dBm@ 10%PER<br>1M: -90dBm@ 8%PER |
| Transmission Distance                | Indoor Maximum 120 meter, Outdoor Maximum 360 meters<br>(The distance depends on the environment)   |
| RF power (2.4GHz)<br>Antenna         | 20dBm EIRP<br>5dBi Antennas   |

## 4. Specification and working environment

| Parameter                 | Nominal   |
|---------------------------|---|
| Dimension                 | 180mmx121mmx30mm (LxWxH)                                |
| Net weight                | 0.26kg  |
| 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 IPV6
- PPPoE
- DHCP and Static IP configuration for WANInterface
- Support IP
- MAC filtering, Firewall Functionality in routed mode
- Support for XPON
- Adaptive EPON or GPON OLT on the network

## 5. Interface of device

| Port Type   | Function   |
|-------------|--|
| RF          | CATV RF output port, connect a TV or set-top box via this interface.   |
| CATV        | CATV optical interface, support SC / APC optical pigtail connector for CATV access networks PON + CATV three wavelength signals. |
| LAN1-1 port | RJ45Port connects to local internet, 1 GE port and 3 FE port   |

## 6. Network Mode

| 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     |



## 7. Network Mode

