

RLG804WE GPON ONU

Specification

Version	Date	Author	Reviewers	Remark
V1.0	2014/11/25			Shall not disclose to any third party

Contents

1 Overview	4
1.1 Product Positioning	4
1.2 Network mode	4
2 Hardware Features	5
2.1 Interface of device	5
2.2 Indicators of device	5
3 Technical Specifications	6
3.1 Physical structure, environment and electrical parameters.....	6
3.2 GPON specifications	6
3.3 WIFI specification	7

1.OVERVIEW

1.1 Product Positioning

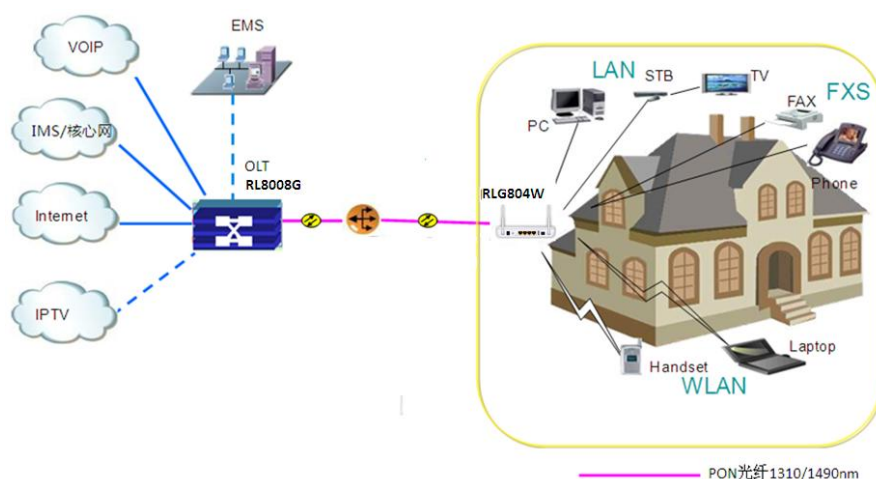
RLG804WE GPON HGU terminal devices are designed for fulfilling FTTH and triple play service demand of fixed network operators or cable operators. They were developed by Richerlink independently. These boxes are based on the mature Gigabit GPON technology, which have high ratio of performance to price, and the technology of 802.11n WiFi(2T2R), 3FE and 1GE lan port, firewall, routing. They are highly reliable and easy to maintain, with guaranteed QoS for different service. And they are fully compliant with technical regulations such as ITU-T G.984 and technical requirement of GPON Equipment from China Telecom.



Picture 1-1 RLG804WE Appearance

1.2 Network mode

Specific application refers to Picture 1-2



Picture 1-2 RLG804WE product network diagram

2.HARDWARE FEATURES

2.1 Interface of device

RLG804WE device interface refers toPicture 2-1::



Picture 2-1 RLG804WEback panel picture

Table 2-1 Description of RLG804WE interface

Interface	Description
POWER	DC power adapter, DC12V.
ON/OFF	Power switch
RST/WPS button	Reset factory button for 5 seconds to reset factory configuration. Reuse WPS function for shorter time pressing.
LAN1~LAN4	LAN1~LAN3: 10/100Mbps adaptive RJ45 Ethernet port LAN4: 10/100/1000Mbps RJ45 Ethernet port
USB	External USB port, can connect to USB storage device.
PON	PON optical interface, support for SC / PC optical pigtail connector for connecting optical signal PON access network;
Antenna	5dBi omni antenna

2.2 Indicators of device



Picture 2-2 RLG804WE LED

Table 2-2 RLG804WE LED statement

Indicators	status	Description
USB	Light on	USB device is connected, but without ongoing data transmission
	Light off	Device is power off or USB device is not connected
	Blink	USB is with ongoing data transmission
PWR	Light on	ONU power supply normally
	Light off	ONU no power supply
PON	Light on	ONU link active
	Blink	ONU manage to link
	Light off	ONU receiving power rate lower than optical receiver sensitivity
LOS	Light on	ONU not received optical signal
	Blink	ONU receiving power rate lower than optical receiver sensitivity
	Light off	ONU receiving power rate normal
WAN	Light on	WAN is effective.
	Light off	WAN is ineffective.
WIFI	Light off	WIFI off.
	Light on	WIFI on
	Blink	Data transmitting
LAN1~LAN4	Light on	network port linked, but no data transmitting
	Blink	network port data pass
	Light off	ONU no power supply or network cable unlink
WPS	Light off	No link
	Blink	Be linking
	Light on	Built-up link

3. TECHNICAL SPECIFICATIONS

3.1 Physical structure, environment and electrical parameter

Table 3-1 RLG804WE specification and working environment

Parameter	Nominal
Dimension	191mm*133mm*34mm (W*L*H)
Net weight	0.5kg

Typical power consumption	<7W
Noise	None
Cooling style	Naturally cooling
Power supply	12V DC (By external AC/DC adapter)
Installation style	Support PC, wall mount or put inside of information box.
Environment	0~45℃
Atmospheric pressure	70~106Kpa
MTBF	50,000 hours
MTTR	30minutes

3.2 GPON Specifications

Table 3-2 RLG804WEGPON interface

Parameter	Nominal
Connector style	SC/PC
PON quantity	1
Fiber style	Single mode
Wavelength	Transmitting end: 1310 +/-20nm Receiving end: 1490 +/-10nm
PON interface standard	IEEE802.3-2005 1000BASE-PX20+
PON interface receiving rate	1.244Gpbs
PON interface transmitting rate	2.488Gpbs
Output optical power	Min: 0dBm Max: +5dBm
Optical receiver sensitivity	Precede -28dBm
The length of the optical link	Max 20km

3.3WIFI specifications

Table 3-3 RLG804WEWIFI specifications

Standards		IEEE 802.11b/g/n
WiFi parameter	Frequency range	2.4~2.4835GHz
	Transmitting rate	11n: 270/243/216/162/108/81/54/27Mbps 135/121.5/108/81/54/40.5/27/13.5Mbps 130/117/104/78/52/39/26/13Mbps 65/58.5/52/39/26/19.5/13/6.5Mbps
		IEEE 802.11g: 54/48/36/24/18/12/9/6(Adaptive)
		IEEE 802.11b : 11/5.5/2/1M(Adaptive)
	Channel	13

	Spread-spectrum Technique	DSSS(Direct sequence spread spectrum)
	Data modulation	DBPSK 、 DQPSK 、 CCK and OFDM(BPSK/QPSK/16-QAM/64-QAM)
	Sensitivity@PER (Package 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; (Typical data)
	Transmission distance	As far as 120 meters indoor; outdoor 360 meters
	RF power	15dBm EIRP
	Antenna	5dBi omni-directional antenna