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RL801GW GPON ONU
Specifications

Version	Date	Author	Reviewers	Remark
V1.0	2017/2/18			Shall not disclose to any third party

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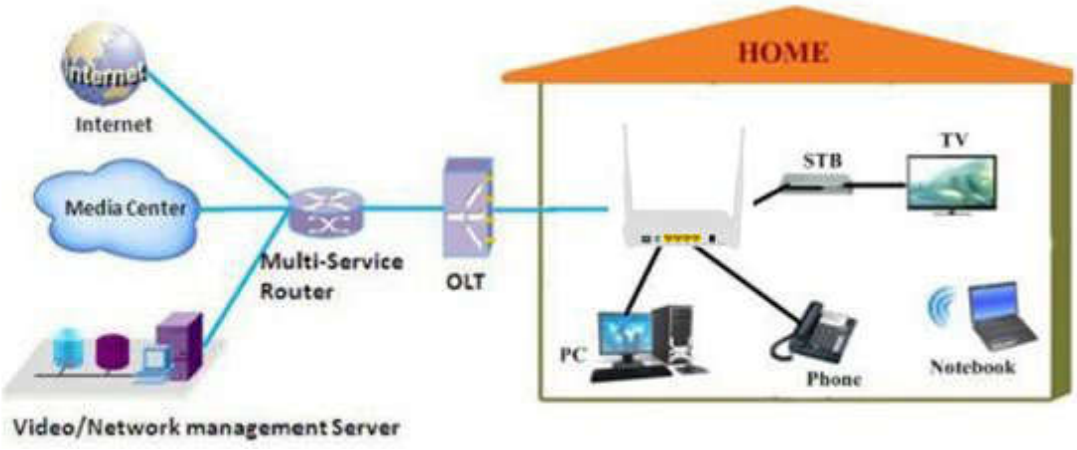
1.OVERVIEW

1.1 Product Positioning

RL801GW 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 WiFi(2T2R) , Layer 2/3.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 (V2.1 and above version) from China Telecom.

1.2 Network Mode

RL801GW is the FTTH mode terminal equipment which designed for indoor applications. Specific application refers to Picture 1-1



Picture 1-1 RL801GW products Network diagram

2.HARDWARE FEATURE

2.1 Interface of device

RL801GW product figure as Picture 2-1

Picture 2-1 RL801GW product figure

Table 2-1 Description RL801GW equipment Interface

Port Type	Function
PON port	Connect PON port with internet by SC type, single mode optical fiber cable
LAN 1 port	RJ45Port connects to local internet, 1 GE port automatically
Reset button (RST)	Press down reset button and keep 1-5 seconds to make the device restart and recover from the factory default Settings.
PWR port (DC12 V)	Connect with power adapter
Power turn on/off	Power turn on/off

2.2 Indicators of device

Table 2-2 RL801GW LED statement

Indicators	status	Description
POWER	Light on	ONU power supply normally
	Light off	ONU no power supply
PON	Light on	ONU link active
	Flash	ONU manage to link
	Light off	ONU receiving power rate lower than optical receiver sensitivity
LOS	Blink	Device does not receive optical signals.
	off	Device has receivedoptical signal.
WIFI	on	WiFi turn on
	off	Device is power off or WiFi turn off
	Blink	WiFi turn on and with ongoing data transmission
INTERNET	on	Internet is effective.
	off	Internet is ineffective.
ETH1	Light on	network port linked, but no data transmitting
	Flash	network port data pass
	Light off	ONU no power supply or internet cable unlink

3.TECHNICAL SPECIFICATIONS

3.1 Physical structure, Environment and Electrical parameter

Table 3-1 RL801GW specification and working environment

Parameter	Nominal
Dimension	180mm×148mm×31mm（L×W×H）
Net weight	0.26kg
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	50,000hours
MTTR	30minutes

Parameter	Nominal

3.2 GPON Interface Specifications

Table 3-2 RL801GW GPON Interface

Parameter	Nominal
Connector style	SC/PC
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	1.244Gpbs
PON interface transmitting rate	2.488Gpbs
Output optical power	Min: 0dBm Max: +5dBm
Opticalreceiver sensitivity	Precede -28dBm
The length of the optical link	Max 20km

3.2 WIFI Specifications

Table 3-3 RL801GW WIFI Specifications

Standard		IEEE 802.11 b/g/n
WiFi parameter	Frequency	2.4~2.4835GHz
	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
	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 (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；
	Transmission distance	Indoor Maximum 120 meters；Outdoor Maximum 360 meters(The distance depends on the environment)
	RF power	20dBm EIRP

	Antenna	5dBi Antennas

3.4 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