

## GL-G8007U-SRWF (4GE+1POTS+WIFI+CATV)

### product overview :

G8007U-SRWF is the device terminal for ONT in the GPON system, cooperating with OLT. ONT can provide various broadband services to the connected users, such as Internet, VoIP, IPTV, Video Conference and other businesses. It provides a PON interface, four 10/100/1000m adaptive Ethernet ports, and a USB interface based on mature, stable, cost-effective GPON technology. Single fiber WDM technology (down 1490nm, up 1310nm) is adopted to connect only one fiber to OLT, and the maximum transmission distance is up to 20km. It supports the power down and report function and supports the local WEB management function.

### Product interface:

Interface: hardware interface, facing the interface direction from left to right, in order of interface: CATV interface, pon interface, VOIP port, net port 4-net port 1, wireless switch, reset key, USB interface, dc 12-volt interface, power switch. Indicator light: LED definition from left to right: power supply, fiber G, optical signal, phone, broadband, port 1-4, USB.



### product feature:

1. HGU ONU product configuration, support bridge and NAT mode;
2. BOB product process;
3. 802.11 b/g/n wireless access;
4. Wireless use of 2\*3dBi external dual antenna;
5. USB interface supports configuration saving and recovery;
6. 12v / 1.5a external power supply.
7. Provide a voip port for ordinary telephone
8. one CATV interface.

**Product key features:**

- Handling characteristics:
  - > 600MHz CPU processor, I-Cache: 64KB, D-Cache: 32KB;
  - > Realtek VoIP processor 500MHz, I-Cache: 32KB, D-Cache: 16KB;

**Key product features:****➤ GPON**

- > Compliant with ITU G.984.x
- > Bandwidth US: 1.24416G/DS: 2.48832G
- > Supports 32 TCONT, 128 GEM
- > Supports AES, key switching
- > Supports upstream and downstream FEC
- > Supports DBRu
- > HW dying gasp

**➤ Business performance**

- > Supports GPON 128 GEM Port within 32 TCONT
- > Supports Spanning Tree
- > Two-layer bidirectional line-speed forwarding of data services, support 2K MAC address tables in bridge mode;
- > 3/4 layer hardware NAT/NAPT;
- > Support 802.3, 802.1q Tag/Untag Ethernet frames;
- > MAC support ACL rules, IP, TCP/UDP, ICMP and IGMP, IPV6 format;
- > Each port has eight priority queues, supporting 32 Shared tables with a granularity of 8kpbs;
- > MIB counter support, mib-ii RFC 1213, ethernet-like MIB RFC 3635, interface group MIB RFC 2863, RMON RFC 2819, bridge MIB RFC 1493, bridge MIB extension RFC26741、ITU G.984.4 OMCI ME MIBs;
- > Supports 8 enhanced filter database stack vlans and port isolation for use;
- > Port mirroring with multicast monitoring source ports is supported to monitor target ports;
- > Support port IEEE802.3ad link aggregation, up to 4G bandwidth;
- > support OAM and EEELDP;
- > Support loop detection, IGMP/MLD detective trap function;
- > Ethernet supports 802.1Qav and 802.1AS/1588v2 timing synchronization;
- > Support DOS attack prevention;
- > Support IEEE 802.3az energy-saving Ethernet capability, support 1000base-t, 1000base-tx full duplex and 10base-full/half duplex modes;
- > Support inport-based flow control, for exceeding the flow, you can choose to drop the packet or Pause frame back pressure, Support QoS function;

➤ **WIFI feature**

- >technical norms: IEEE802.11b, IEEE802.11g, IEEE802.11n;
- >debug mode: 802.11b: DSSS/BPSK/QPSK/CCK
- >802.11g: OFDM/DSSS/BPSK/QPSK/CCK;
- >802.11n: OFDM/DSSS/BPSK/QPSK/CCK;
- >speed: 802.11b: compatibility 11,5.5,2,1 Mbps;
- >802.11g: compatibility 54,48,36,24,18,12,9,6 Mbps;
- >802.11n: compatibility 130,117,104,78,65,58,52,39,26,19.5,13,6.5Mbps;
- >channel: 1~11 (USA, Canada) ; 1~13 (Europe) ; 1~14 (Japan);
- >frequency domain : 2.4GHz-2.4835GHz;
- >transmission power: 11b: 17dBm +/- 1.5dBm;
- >11g: 14dBm +/- 1.5dBm;
- >11n: 11dBm +/- 1.5dBm;
- >receive sensitivity : 11b: 83dBm;
- >11g: 70dBm;
- >11n: 64dBm;
- >coverage area : reach100m ;
- >security safe: 64/128-bits WEP; WPA/WPA2;
- >The antenna number: 2\*3dBi Internal Antenna;

➤ **CATV feature:**

- > The wavelength of light received by is nm 1210 ~ 1610
- > The optical power received by is dbm-2 ~ -18
- > optical connector -5 ~ -15 FC/APC or SC/APC
- > rf connector F - head inch or metric system
- > The frequency range of is 47 ~ 1000 MHz
- > frequency response flatness dB  $\pm 0.75$  (-10dbm received light power),  $\pm 1.5$  (-15dbm received light power)
- > output reflection loss dB  $\geq 16$
- > Output rf impedance  $\Omega$  75 >
- > nominal output level dBuV  $76 \pm 2$  (-15dbm received optical power)
- > C/N  $\geq 43$  db ~ C/CSO  $\geq 62$  db ~ C/CTB  $\geq 62$  db (-9dbm received optical power, 59 channel pal-d analog signal +16 channel digital channel)
- > MER value dB  $\geq 32$ -10dbm received optical power,80 digital signals
- > MER value dB  $\geq 30$ -15dbm received optical power,80 digital signals
- > operating temperature: -25 ~ +55
- > power consumption W 1.5

➤ **VOIP feature:**

- > single channel selection, 105V most battery design
- > options include PCM/SPI or ZSI
- > compact structure, 84-pin 7\*7mm QFN components
- > VOIP processor and SOCS use the fifth generation line interface
- > The voice path SDK and vp-api-ii software enable FXS functionality
- > energy-saving switch control structure: up to 65vrms open circuit, up to 5REN load
- > 2 layer PCB design, complete bandwidth BOESCHT function
- > analog telephone adapter (ATAs)

> specification:

description	symbol	test condition	Min	typ	max	unit
Ambient temperature, offset	Ta		-40		+85	°C
Digital and analog power supply voltages	DVDD,AVDD		3.135	3.3	3.465	VDC
Ultimate condition: battery voltage (active state)			-105VDC TO -12VDC			VDC
Line current	ILA		18	25	45	mA
Ringling voltage	Vring	5REN		50	65	Vrms
Second-line return loss	RL	200to3400HZ		30		dB
Longitudinal balance		1KHZ		58		dB
Device power consumption (continuous)	Pd(max)	85 度		1.5		W
Connect to ambient thermal resistance				29		°C/W

Power consumption(Buck-Boost)	symbol	Test condition	TYP	Unit
Shutdown	PD	Switcher off	8	mW
disconnect			37	
Low power Idle mode		On-hook	52	
Idle		On-hook	98	
active		Off-hook,300Ω,ILA=25mA	324	
ringing		50Vrms,1REN	462	

➤ **Support protocols and standards:**

- >ITU-T G.984.1/2/3/4、IEEE802.3、IEEE802.3u、IEEE802.3x、IEEE802.3z、IEEE802.1d、IEEE802.1p、IEEE802.1q、IEEE802.1x、RFC1155、RFC1157、RFC1112、RFC1113 wait.

应用方案：FTTX

