

## GL-GE8004U-HZF (4FE+WIFI+2POTS+USB)

GL-GE8004U-HZF type ONU products fully comply with IEEE 802.3-2005 and the China Telecom XPON device technical specification (V2.1). It is operative, manageable and maintainable at telecommunication level, and can provide high speed data service for customers. It has a PON uplink port that connects to office end apparatus through optical fiber.

### Product Interface:

Interface: optical port, voice port 2, network port 1- network port 4(10M/100M), power socket, power switching.  
Indicator Light: WPS, wireless, USB 2, Telephone, network port 1-4, Optical signal, PON registration, power supply.



**Product Features:**

- >Conform to IEEE802.3ah standard
- >Support Ethernet service layer 2 switching and wire-speed forwarding of uplink and downlink services
- >Support frame filtering and suppression
- >Support standard 802.1Q Vlan function, support VLAN conversion
- >Support 4094 VLANs (802.1Q)
- >Support Dynamic Bandwidth Allocation (DBA) function
- >Support QoS, including traffic flow classification, priority marking, queue and dispatch, traffic shaping and traffic control
- >Single ONU supports up to 1 LLID.
- >Support IGMP Snooping
- >Support Ethernet port rate limit loop detection
- >Support power failure alarm
- >Support lightning protection for power supply and lightning protection for service port

**• Port Features:**

- >1 PON ports (1.25G)
- >4 10/100M port
- >2 voice port

**• Physical Features:**

- >Power supply: 12VDC
- >Power consumption: 7W
- >Working temperature: 0~55°C
- >Storage temperature: -30~60°C
- >Relative humidity: 10~90% (non-condensing)

**• Product Feature:**

1. HGU ONU product form, supporting bridge and NAT mode;
2. BOB product process;
3. 802.11B /g/n wireless access;
4. 2\*3dBi external dual antenna is used wirelessly.
5. USB interface supports configuration saving and recovery;
6. Provide a VOIP interface to connect the ordinary telephone;
7. 12V /1.0A External power supply.

**• Product Light Construction Features:****➤ EPON**

- > Meets IEEE 802.3 EPON MAC standard;
- > Supports a downlink rate of 1.25gbit /s and an uplink rate of 1.25gbit /s.
- > Supports DS/US FEC;
- > Supports the downstream encryption and decryption function;
- > Supports bandwidth allocation;
- > Supports synchronous Ethernet;
- > Supports RFC4837;

**➤ 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 bridge mode and routing mode, wan three-tier routing NAT forwarding;
- > Supports Tag/Untag Ethernet frames of 802.3 and 802.1q;
- > Supports firewall, IP address filtering, MAC address filtering, wireless MAC address filtering, accurate control;
- > Supports port priority queues;
- > Supports ipv4 default routing, static routing, routing table view, ipv6 static routing, port or VLAN binding;
- > Supports DMZ function, port mapping function, port triggering configuration;
- > Supports multicast, DN configuration, DDNS, UPNP function, DSCP mapping.
- > Supports OAM and EEELDP;
- > Ethernet supports 802.1Qav and 802.1AS/1588v2 timed synchronization;
- > Supports DOS attack prevention;
- > Supports IEEE 802.3az energy-saving Ethernet capability, and supports 1000base-t, 100base-tx full duplex and 10base-full/half duplex modes.
- > Supports flow control based on entry. For businesses exceeding the flow, you can choose to drop packet or Pause frame backpressure.
- > Support QoS function;

➤ **VIOP character :**

- > Single channel option, 105V most battery design
- > Available in either PCM/SPI or ZSI
- > Compact structure, 84-pin 7\*7mm QFN components
- > VOIP processor and SOCS adopt the 5th generation line interface
- > The voice path SDK and vp-api-ii software can implement FXS functions
- > Energy saving switch control structure: up to 65vrms open circuit, up to 5REN load
- > Two-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
Ringing 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
<b>Power consumption(Buck-Boost)</b>	<b>symbol</b>	<b>Test condition</b>	<b>TYP</b>		<b>Unit</b>	
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.

### ➤ 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;

>Security Safe: 64/128-bits WEP; WPA/WPA2 wait;

>The Antenna Number: 2\*3dBi Internal Antenna;

### Application: FTTH FTTX

