![Zhone logo]

6201GN
Gigabit GPON ONT

The next-generation G-Series ONT enables subscribers to enjoy bandwidth-intensive multimedia services with Zhone leading-edge GPON technology.

Features & Benefits

+ Supports 2.5Gbps/1.25Gbps (Downstream/Upstream) with integrated GPON WAN interface
+ One gigabit multi-rate 10/100/1000M Ethernet interface

The Zhone 6201GN is a next-generation GPON compliant Optical Network Terminal (ONT) able to support service provider requirements for high-speed data, video, and voice service in a cost-effective design. The ONT is fully compliant with ITU-T G.984 GPON standard with integrated, Class B+ on-board optics. The 6201GN offers data rates of 2.5Gbps downstream and 1.25Gbps upstream able residential and business use cases required. With unique Zhone's management features, subscribers can enjoy hyper-connected multimedia services easier, faster, and more reliably than ever before.

The 6201GN includes one SC/APC GPON interface, one 10/100/1000Base-T port. The ONT supports wire-speed L2 bridging and L3 gateway features, with carrier grade voice services.

Service Scenario

The GPON network consists of an Optical Line Termination (OLT) located at the Central Office, and a set of residential Single-Family Unit (SFU) and Multi Dwelling Unit (MDU) locations with Optical Network Terminals (ONTs). Between them is the optical distribution network (ODN) comprised of fibers, passive optical splitters, and couplers.

The 6201GN ONT supports 2.5G capable downlinks using the GPON standard. Services include High- Speed Internet (HSI), carrier-grade business service, packet Voice, IPTV, OTT video, and cloud-enabled services to multi-media devices.

Key Service Attributes

+ FSAN ITU-T G.984 GPON Class B+ compliant
+ One gigabit multi-rate 10/100/1000M Ethernet interface
+ IPTV multicast, IGMPv2 and IGMPv3 services
+ Any-port, Any-service data model

+ Traffic management including Q-in-Q tagging, 802.1Q VLANs, multiple subscriber VLANs, per-port rate limiting
+ 802.1p priority bits, DiffServ and priority queues based on service types
+ 12 VDC power adapter

6201GN Gigabit GPON ONT
Product Specifications

Hardware
- Dimensions 92*92*24 mm
  Width: 3.62" (92mm)
  Depth: 3.62" (92mm)
  Height: 0.94" (24mm)
- 128MByte Flash Memory
- 256MByte SDRAM (DDR3)
- GPON WAN Interface
- Capacity: 2.5Gbps Down/1.25Gbps Up

Interfaces
- WAN: 1 SC/APC port, GPON
- LAN: 1 port 10/100/1000MBase-T Ethernet (RJ45)
- Power: 1 2-pin barrel connector
- Power ON/OFF button
- Recessed RESET button

GPON
- Class B+ optics, 20km (12.4 miles) reach, max split 64
- Maximum ODN Attenuation, +28.5 dB link budget
- GPON Type B redundancy support
- xPON co-existence filter
- Transmitter, 1310nm, +0.5 to +5 dBm, DFB
- Receiver, 1490nm, -28 dBm, APD/TIA
- Forward Error Correction (FEC) per G.989.3

Ethernet LAN ports
- Auto-MDI-X crossover control
- Auto-Speed or manual selection
- IEEE 802.3ab 1000Base-T
- IEEE 802.3u 100Base-T
- IEEE 802.3az EEE
- IEEE 802.1x Authentication

Quality of Service
- HW-based internal IEEE 802.1p (CoS)
- Strict Priority (SP)
- 802.1Q(VLAN tag) QoS mapping ToS/CoS
- 8 queues per port
- Classified traffic can be tagged with VLAN ID and Ethernet Priority bit, and can be assigned to priority queues
- Classify packets into different IEEE 802.1p priority queues according to DSCP values (RFC 2475)
- The range of traffic shaping or rate-limit shall be between 64 Kbps to the maximum port rate with 64kbps granularity. The accuracy error shall be less than ±10%
- DSCP IP CoS (RFC 2475)

Software Features
- IEEE802.1D and IEEE802.1Q
- Address learning with auto aging-L2/BPDU Filter
- Support 2048 MAC learning addresses
- Multiple T-CONTs/GEM ports per device
- Flexible mapping between GEM port and T-CONT
- Priority queues and scheduling for upstream
- Activation with automatic discovered serial Number and password
- Dying Gasp

6201GN Gigabit GPON ONT
Product Specifications

IP Routing and Firewall
- DHCP, Static-IP and PPPoE
- NAT/NAPT
- DNS Proxy
- DHCP Server
- UPnP, plug and play

IPv6
- IPv4 and IPv6 Dual-Stack
- Bridged Mode (transparent pass thru of IPv6 frames)
- IPv6 support of BRouted and PPPoE Bridged VLANs
- DHCPv6 client and server
- Router Advertisement on LAN-side interfaces
- SLAAC for automatic acquisition of WAN-side IPv6 addresses and GW
- CLI, HTTP and TR-069 management via IPv6

Environmental
- Operating Temperature 32~104°F (0~+40°C)
- Storage temperature -4~149°F (-20~70°C)
- Operating humidity 5 to 95% (non-condensing)
- Altitude: –200 to 10,000 feet (–61 to 3,048 m)

Powering
- DC power, +12 VDC nominal, 0.5A
- Input power, 90-240VAC, 50/60Hz
- Power consumption, ~4W

Management
- ITU-T 984.1/G988 compliant OMCI interface
- CPE Manager Web UI
- CLI over telnet
- TR-069, TR-104, TR-98
- LED indications for status

Compliance
- FCC Part 15 Class B
- ICES-003 Class B
- CE Mark
- Safety ETL/Intertek
- IEC 62368-1, UL 62368-1, EN 62368-1
- FDA IEC 60825-1
- RoHS 2015/863/EU

Ordering Information

Model	Description
6201GN	1x SC/APC port, GPON (Class B+)
	1x 1GE RJ45 port
	1x 2-pin barrel, 12VDC power input
HX-6201GN-NA **HX-6201GN-UK** **HX-6201GN-EU** **HX-6201GN-00**	North America United Kingdom Europe No Power Supply

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