



5266XG

Wi-Fi 6 XGS-PON ONT

Intelligent 802.11ax X-Series ONT enables subscribers to enjoy multimedia services over WiFi with Zhone leading-edge XGS-PON technology.

Features & Benefits

- + Supports 10Gbps/10Gbps (Downstream /Upstream) with integrated XGS-PON WAN interface
- + High-capacity multi-rate 1G/2.5G gigabit Ethernet interface
- + Four gigabit multi-rate 10/100/1000M Ethernet interfaces
- + Two POTS interfaces compliant to SIP and MGPC telephony standards
- + Dual-band 2.4GHz 2x2 802.11ax, 5GHz 2x2 802.11ax Carrier-grade WiFi 6 interfaces
- + 160MHz Bandwidth support at 5GHz
- + USB 3.0 with support of 3G and LTE wireless WAN backup
- + Future EasyMesh R1 and R2

The Zhone 5266XG is a high-performance, XGS-PON compliant Optical Network Terminal (ONT) with integrated WiFi 6 802.11ax, able to support service provider requirements for high-speed data and video over wireless interfaces. The ONT is fully compliant with ITU-T G.9807.1 XGS-PON standard with integrated, onboard optics supporting 1270nm and 1577nm wavelengths. The 5266XG offers data rates of 10Gbps downstream and 10Gbps upstream able to deliver access edge services and full range of residential wireless use cases required, including whole-home wireless extensions, and 160MHz Bandwidth channels at 5GHz. With unique Zhone's software management features, subscribers can enjoy hyper-connected multimedia services much easier, faster, and more reliable than ever before.

The 5266XG includes one SC/APC XGS-PON interface, one 1G/2.5GBase-T port, four 10/100/1000Base-T ports, two FXS RJ11 voice ports, dual-band 2.4GHz and 5GHz 802.11ax wireless, and one USB3.0 compliant port. The ONT supports wire-speed L2 bridging and L3 gateway features, with carrier grade voice services, and option for Zhone approved battery backup unit with battery status telemetry.

Service Scenario

The XGS-PON 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 5266XG ONT support 10 Gigabit symmetrical data using the XGS-PON standard. Services include High-Speed Internet (HIS), carrier-grade wireless, packet Voice, IPTV, OTT video, and cloud enabled services to multi-media devices.

Key Service Attributes

- + FSAN ITU-T G.9807.1 XGS-PON compliant
- + One 1G/2.5GBase-T Ethernet port, RJ45 supporting 2.5Gbps symmetrical services
- + Four 1GBase-T Ethernet ports, RJ45 supporting 1Gbps symmetrical services
- + Two voice ports, FXS interfaces compliant to ANSI standards, SIP and MGCP
- + 2.4GHz 2x2 802.11ax, 20MHz and 40MHz channels
- + 5GHz 2x2 802.11ax, 20MHz, 40MHz, 80MHz and 160MHz channels
- + Downstream and Upstream MU-MIMO
- + Future software support of EasyMesh R1 and R2
- + USB 3.0 port, support of 3G and LTE wireless dongles
- + 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, optional uninterruptable service power source with battery backup

5266XG Advanced Wi-Fi 6 XGS-PON ONT

Product Specifications

Hardware

- Dimensions
 - Width: 10.3" (260mm)
 - Depth: 6.1" (155mm)
 - Height: 1.4" (35mm)
- Weight 0.81 LB (0.37 kg)
- 256GByte Flash Memory
- 512GByte SDRAM (DDR3)
- XGS-PON WAN Interface
- Capacity: 10Gbps Down/10Gbps Up

Interfaces

- WAN: 1 SC/APC port, GPON
- LAN: 4 ports 10/100/1000MBase-T Ethernet (RJ45)
- Telephone: 2 ports 2-wire RJ11
- Power: 1 2-pin barrel connector, 1 2x4 8-pin battery connector
- USB 3.0 Type A
- WiFi push button setup (WPS)
- Recessed RESET button

XGS-PON

- N1 Class, 20km (12.4 miles), reach max split 128
- Maximum ODN Attenuation, +29 dB link budget
- Transmitter, 1270nm, +2.0 to +7 dBm
- Receiver, 1577nm, -28 dBm
- Forward Error Correction (FEC) per G.989.3

Wireless

- 2.4GHz 2x2 802.11ax MU-MIMO, 5GHz 2x2 802.11ax MU-MIMO
- SSIDs: 4x2.4GHz, 4x5GHz
- Devices per radio: 120
- Authentication WEP, WPA-PSK, WPA2, WPA2-PSK, 802.1x
- Encryption: WEP (64-bit, 128-bit), AES, TKIP+AES
- WPS modes: Push-button, API PIN, STA PIN
- RADIUS Server support
- MAC filtering
- Wireless bridge mode

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Product Specifications

Ethernet LAN ports

- Auto-MDI-X crossover control
- Auto-Speed or manual selection
- IEEE 802.3bz 2.5GBase-T
- IEEE 802.3ab 1000Base-T
- IEEE 802.3u 100Base-T
- IEEE 802.3az EEE
- IEEE 802.1x Authentication

Telephone

- SIP (RFC 3261)
- MGCP
- RENs per line: 5 maximum
- Drop length: Residential short loop, 152.4 m (500 ft.)
- Output max: 25mA
- Ring voltage: 48Vrms @ 20/25 Hz

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 between 64 Kbps to the maximum port rate with 64kbps granularity. The accuracy error shall be less than $\pm 10\%$.
- 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 on upstream
- Activation with automatic discovered serial Number and password
- Dying Gasp

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-Lite
- 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) Commercial
- Storage temperature -4~149°F (-20~65°C)
- Operating humidity 5 to 90% (non-condensing)
- Altitude: -200 to 10,000 feet (-61 to 3,048 m) above sea level

Powering

- DC power, +12 VDC nominal, 2.0A
- Input power, 90-240VAC, 50/60Hz
- Power consumption, ~15W maximum

Management

- ITU-T 984.1/G988 compliant OMCI interface
- CPE Manager Web UI
- CLI over telnet
- SNMP Client
- 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
5266XG	1x SC/APC port, XGS-PON (Class N1) 2x POTS RJ11 ports, 4x 1G RJ45 ports, 1x USB3.0 2.4GHz 2x2 802.11ax, 5GHz 2x2 802.11ax 1x 2-pin barrel, 12VDC power input 1x 2x4 Molex Battery-Backup (BBU), 8-pin power input 0 to +40°C
HX-5266XG-NA HX-5266XG-UK HX-5266XG-EU HX-5266XG-00	North America EU UK No power supply



Zhone Technologies, Inc