



## 5302 XGS-PON ONT

Cost optimized 10 Gigabit X-Series ONT enables subscribers to enjoy bandwidth intensive multimedia services with 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/5G/10G Ethernet interface
- + One gigabit multi-rate 10/100/1000M Ethernet interface

The Zhone 5302 is a high-performance, XGS-PON compliant Optical Network Terminal (ONT) able to support service provider requirements for high-speed data and voice in a cost-effective design. The ONT is fully compliant with ITU-T G.9807.1 XGS-PON standard with integrated, on-board optics supporting 1270nm and 1577nm wavelengths. The 5302 offers symmetrical data rates of 10Gbps downstream and 10Gbps upstream able to deliver access edge.

The Zhone 5302 ONT is ideal for FTTH or small business deployments in bridging-only applications where high-speed data must be transported reliably. With unique Zhone's software management features, subscribers can enjoy hyper-connected multi-media services faster, easier, faster and more reliably.

The 5302 ONT features a 100M/1G/2.5/5/10Gbps and a 100M/1G/2.5Gbps auto-sensing LAN Ports in a compact enclosure for indoor use. The ONT may be wall-mounted inside the home or placed on a desktop.



## 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 5302 ONT supports 10 Gigabit symmetrical data using the XGS-PON standard. Services include High-Speed Internet (HIS), 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 10GBase-T Ethernet port, RJ45 supporting 10Gbps symmetrical services
- + One 10/100/1G/2.5GBase-T Ethernet ports, RJ45 supporting 1Gbps symmetrical services
- + MTU jumbo frame 9216-byte support
- + 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 services types.
- + 12 VDC power adapter

## 5302 XGS-PON ONT Product Specifications

### Hardware

- Dimensions
  - Width: 5.3" (135mm)
  - Depth: 4.3" (110mm)
  - Height: 1.2" (30mm)
- Weight 0.49 lb (0.22 kg)
- 256MByte Flash Memory
- 256MByte SDRAM (DDR)
- XGS-PON WAN Interface
- Capacity: 10Gbps Down/10Gbps Up

### Interfaces

- WAN: 1x SC/APC port, XGS-PON
- LAN: 1x port 1/2.5/5/10GBase-T Ethernet (RJ45), 1x port 10/100/1G/2.5GBase-T Ethernet (RJ45)
- Power: 1x 2-pin barrel connector
- LED Indicators
- Power switch
- 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
- Dying Gasp

### 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 4096 MAC learning addresses
- Multiple T-CONT/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

# 5302 XGS-PON ONT

## Product Specifications

### Environmental

- Operating Temperature: 32 to 104°F (0 to +40°C)
- Storage temperature: -4 to 149°F (-20 to +65°C)
- Operating humidity: 5 to 90% (non-condensing)
- Altitude: -200 to 10,000 feet (-61 to 3,048 m)

### Powering

- DC power: +12 VDC nominal, 2.5A
- Input power: 90-240VAC, 50/60Hz
- Power consumption: ~16W 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                                                                                                                                    |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 5302       | 1x SC/APC port, XGS-PON (Class N1)<br><br>1x 10G RJ45 port, 1x 2.5G RJ45 ports<br><br>1x 12VDC barrel connector, 2-pin power<br><br>0 to +40°C |
| HX-5302-NA | North America                                                                                                                                  |
| HX-5302-UK | United Kingdom                                                                                                                                 |
| HX-5302-EU | Europe                                                                                                                                         |
| HX-5302-00 | No power supply                                                                                                                                |



Zhone Technologies, Inc