

## GPON ONT for Residential Deployment

- ✓ *Standard ITU G.984 GPON*
- ✓ *Indoor deployment*
- ✓ *Triple-Play QoS*
- ✓ *Multicast video*
- ✓ *VoIP with CLASS 5 Features*
- ✓ *802.11b/g/n WiFi*



Zhone's indoor residential 2400 Series GPON ONT is standards based CPE designed for advanced triple-play deployments in Fiber-to-the-Home/Premise application. The indoor models in Zhone's zNID product line of ONT's provide a lower cost alternative to outdoor ONT solutions. The small package contains many features including QoS, VoIP, and multicast video support. The series include up to four 10/100/1000Mbps LAN Ports, two POTS Voice FXS ports and one RF video in a compact enclosure for indoor use.

Supporting industry standard SIP and MGCP voice signaling provides reliable voice services. Zhone's experience with packet voice ensures interoperability and support with a large number of soft switches. The four Ethernet ports can be separated into different services allowing the configuration of dedicated ports for IP video and data.

Compliant with standard OMCI definition, the GPON 2400 Series ONTs are manageable at remote sites and supports the full range of FCAPS functions including supervision, monitoring and maintenance.

The GPON 2400 Series ONTs can be either wall mounted inside the home or placed freestanding on a desktop, and can be equipped with a battery backup for lifeline services.

Zhone provides the complete PON solution: ONT, OLT, splitter, EDFA, RF Transmitters, and cabinet solutions are available from Zhone allowing our customers to buy a complete and fully tested solution from one trusted source.

## Technical Specifications

### Dimensions

- Complete Enclosure
- 1.5 in. H x 10 in. W x 6 in. D
- 3.8 cm H x 25.4 cm W x 15.2 cm D

### Weight

- 1.0 - 1.2LB (0.45 - 0.54 kg)

### Power

- 12 VDC (DC Models)
- 100-240 VAC 50/60 Hz (AC Models)
- Max Power: 15W

### Interfaces

- GPON
  - SC/APC connector
  - full ITU-T G.984 compliance
- GPON Tx
  - upstream data rate 1.25 Gbps
  - 1310nm optic
  - Launch Power: 0.5 to +5 dBm
- GPON Rx
  - Downstream data rate: 2.5 Gbps
  - 1490nm optics
  - Receiver Sensitivity: -27 dBm
  - Input power overload: -8 dBm
- Ethernet
  - RJ-45 Jack
  - 4x10/100/1000 Base-T
  - Meets IEEE 802.3 specifications
  - Auto-MDI/MDIX and auto speed supported
- POTS
  - 2xRJ-11 connector
- WiFi
  - dual antenna
  - 802.11b/g/n
- RF Video Overlay
  - 1xF-type connector
  - RF Output Level 18dBmV/ch
  - Total RF output power 36dBmV
  - RF Passband: 46 MHz-870 MHz

### Wireless Support

- 2x2 MIMO
- SSID support: 4
- max number of subscribers: 64
- Maximum Tx power: 300 mW (-NA model); 100 mW (all other models including -EU and -UK models)
- Antenna: 5dBi
- WEP, WPA-PSK, WPA2-PSK (AES, TKIP)
- 802.1x
- 64 bit and 128 bit WEP support
- MAC address filtering
- DDNS

### Standards Support

- GPON
  - ITU-T G.984 compliant

### Voice Support

- SIP (RFC 3261)
- SIP PLAR
- MGCP
- Codec: G.711 (u-law and A-law), G.729B, G726
- DTMF dialing
- 5 REN per line
- Echo cancellation
- Voice Activity Detection and Comfort Noise Insertion
- Caller ID, Call Waiting, Call Forwarding, Call Transfer, Three Way Calling, Distinctive Ringing
- G.711 fallback for FAX
- T.30 and T.38 FAX
- DHCP client or static IP configuration

### Protocol Support

- GPON
  - Fully ITU-T G.984 compliant framing
  - 32 T-CONTs per device
  - 32 GEM Ports per device
  - Activation with automatic discovered SN and password in conformance with ITU-T G.984.3
  - AES-128 Decryption with key generation and switching
  - FEC (Forward Error Correction)
  - 802.1p mapper service profile on U/S
  - Support for Multicast GEM Port
- QoS
  - Ethernet bridging/switching per IEEE 802.1D/802.1Q
  - Traffic management (priority queuing and traffic shaping)
  - QoS with support for IEEE 802.1p + DSCP
- VLANs
  - Per port IEEE 802.1Q VLAN ID processing
  - All VLAN IDs supported in Open Trunk Mode
  - Maximum of 12 VLANs per LAN port in Filtered Trunk Mode
  - VLAN tagging/untagging
  - VLAN Stacking (QinQ)
  - VLAN Switching
  - SSID to VLAN Mapping
- IPTV
  - IGMP v2/v3 Snooping
  - VLAN support
- Layer 2
  - 802.3n flow control
  - Automatic MAC learning and aging
  - Unlimited # of MAC addresses for OMCI-configured flows
  - Support for up to 4,096 MAC addresses for RG traffic flows
  - Broadcast storm control
- IP Routing and Firewall
  - PPPoE
  - NAT/NAPT
  - port forwarding
  - DHCP Server
  - DNS Server

### Management

- OMCI
- Web UI
- CLI
- SNMP

### Bandwidth/Distance

- Compliant with ITU-T G.984.5, Class B+
- APD receiver and DFB transmitter
- 0.5~+5dBm launch power, -27 dBm sensitivity, and -8dBm overload

### Regulatory Compliance

- CE
- UL
- FCC part B

### Operating Requirements

- Temperature: 0°C - +40°C
- Humidity: 5 ~ 90% relative humidity

## Ordering Information

ZNID-GPON-2402-xx	Indoor GPON ONT, 2xGE xx = NA, UK, EU power supply
ZNID-GPON-2403-xx	Indoor GPON ONT, 2xGE, 1xRF Video xx=NA, UK, EU power supply
ZNID-GPON-2424-xx	Indoor GPON ONT, 4xGE, 2xPOTS xx = NA, UK, EU power supply
ZNID-GPON-2425-xx	Indoor GPON ONT, 4xGE, 2xPOTS, 1xRF Video xx = NA, UK, EU power supply
ZNID-GPON-2426-xx	Indoor GPON ONT, 4xGE, 2xPOTS, WiFi, xx = NA, UK, EU power supply
ZNID-GPON-2427-xx	Indoor GPON ONT, 4xGE, 2xPOTS, WiFi, RF Video, xx = NA, UK, EU power supply



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**For more information about Zhone and its products, please visit the Zhone Web site at [www.zhone.com](http://www.zhone.com) or e-mail [info@zhone.com](mailto:info@zhone.com)**

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