

Outdoor MDU GPON ONT

- ✓ *Triple Play Services - IP Video, VoIP, High Speed Internet Access*
- ✓ *GPON Uplink*
- ✓ *Eight Voice Ports*
- ✓ *Eight Gigabit Ethernet Ports with PoE*
- ✓ *One Gigabit Ethernet Accessory Port with PoE*
- ✓ *1 Gbps Throughput Bridging or Routing*
- ✓ *VoIP with CLASS Features*



The zNID-GPON-9108 ONT was designed to serve multiple customers.

This product is ideal for multiple dwelling units (MDU) with up to eight (8) tenants. It provides eight Voice ports and eight 10/100/1000bT LAN ports, plus a ninth 10/100/1000bT LAN port for connecting an auxiliary device such as a Wi-Fi access point or video camera.

Each Voice port and LAN port is individually controlled, and can be assigned to specific customers. A customer can have as many POTS and LAN ports as desired, with unique VLANs configured per customer to ensure full isolation of each customer's data traffic.

All 9000 series MDU ONTs provide the same voice features found on the 4200 series of Single Family Unit (SFU) ONTs. SIP-PLAR signaling is supported for connection via Zhone's Voice Gateway to traditional Class 5 TDM switches, while both MGCP and SIP are supported for direct connection to a VoIP Softswitch. This flexibility allows Zhone's 4200 and 9000 Series ONTs to work in nearly all Telco networks, with interoperability support for a broad array of Softswitches.

All LAN ports are capable of supplying Power over Ethernet (IEEE 802.3at compliant) making this also an ideal product for applications such as video surveillance.

Enclosure

All 9000 series ONTs are designed for outdoor use. The weather proof enclosure can be installed in two stages for carriers that want to terminate the fiber before installing the active components.

The standard Cable Entrance Box provides a single 1.5" diameter conduit opening, so that the power, voice, and LAN, cables can be routed from the zNID-9000 series product into the building in a secure fashion. An optional Large Cable Entrance Box is available that provides 4 separate conduit openings and extra room for cable slack storage for installations that require secure routing of the power, voice, LAN and T1/E1 cables in separate conduits.

The 9108 zNID shares a common SW architecture with the 4200 series of zNIDs. It has the same intuitive Web interface and command line interface that is found on the 4200 series of zNIDs. The zNID is also managed by the Zhone Network Management System (ZMS), using SNMP. Software upgrades and configuration backups can be handled automatically by the ZMS using the CPE Manager feature.

Although the zNID-9108 is ideal for MDU applications, it can be used in many other applications.

The unit's Power over Ethernet ports could be used to power up to nine IP cameras, providing an excellent solution for video surveillance. With the GPON fiber uplink, there is plenty of bandwidth available for the video data.

The Network Timing Reference that is recovered from the fiber uplink is delivered over the eight LAN ports to the attached devices. This enables Pseudo-wire devices such as Zhone's ETHX-3142 to operate in synchronous timing mode, deriving the T1 or E1 Service Clock directly from the 9108's Ethernet clock.

Technical Specifications

Dimensions

- Fiber Tray:
- 11.8 in. H x 11.4 in. W x 2.7 in. D
- (30 cm H x 29 cm W x 6.9 cm D)
- Complete Enclosure:
- 15.3 in. H x 12.8 in. W x 6.4 in. D
- (38.9 cm H x 32.5 cm W x 16.3 cm D)

Weight

- 10.5 lbs. (4.8 kg)

Power

- 48 Vdc
- Max Power: 35 W
- Power options include:
 - Indoor Battery Backup
 - Outdoor Battery Backup
 - Separate Power in for PoE
 - Up to 15 W PoE on Gigabit Ethernet ports

Interfaces

- Uplink Options:
 - SC/APC connector for GPON
 - OptiTap support
- Common Interfaces:
 - 8x FXS
 - 9x RJ45 10/100/1000Base-T
 - USB Host Port

Standards Support

- RFC 2236 (IGMPv2)
- RFC 1631 (NAT)
- RFC 2516 (PPPoE)
- ITU G.984.1, G.984.2, G.984.3
- IEEE 802.3 Ethernet
- IEEE 802.1Q/p VLANs
- IEEE 802.3u Fast Ethernet
- IEEE 802.3ab 1000Base-T
- IEEE 802.3at (PoE)
- IEEE 802.3z (Gigabit Ethernet)
- IEEE 802.3x (Flow control)

Voice Support

- MGCP
- SIP
- SIP-PLAR
- Codec Support: G.711, G.726, G.729
- Major CLASS features supported
- Three way calling, distinctive ringing
- 5 REN per port

Protocol Support

- DHCP Server, DHCP Client
- FTP, TFTP
- Telnet
- HTTP
- SSH
- SNMP
- PPPoE
- NAT
- QoS
 - CoS 802.1P/Q prioritization
 - ToS IP Precedence

Management

- Web GUI
- ZMS (Zhone Management System) CPE Manager
- CLI
- SNMP

Bandwidth/Distance

- GPON interface with Class B+ optics (20km)
- 1310 nm
 - Launch Power:
 - Minimum 0.5 dBm
 - Average 2 dBm
 - Maximum +5dBm
- 1490 nm
 - Sensitivity -28 dBm

Regulatory Compliance

- EMC: FCC Part 15 Class A, ICES-003 Class A,
- Safety: UL60950-1, CSA C22.2 No. 60950-1

Operating Requirements

- Temperature: -40°C to +55°C
- MTBF: greater than 100,000 hours

Ordering Information

ZNID-GPON-9108	Outdoor MDU ONT, 8 x Voice, 9 GE.
ZNID-GPON-9108-OPTITAP	Outdoor MDU ONT, 8 x Voice, 9 GE, with OptiTap connector.
ZNID-GPON-9108-EL	Outdoor MDU ONT, 8 x Voice, 9 GE, Electronics only. (Fiber enclosure sold separately).
ZNID-ENCL-9000	Fiber termination enclosure used to terminate and store fiber.
ZNID-ENCL-9000-OPTITAP	Fiber termination enclosure used to terminate and store fiber with the OptiTap connector.
ZNID-BATT-IN-48VDC-NA	Indoor 48VDC, 50W, Battery Backup Unit
ZNID-BATT-OUT-48VDC-NA	Outdoor 48VDC, 150W, Battery Backup Unit
ZNID-BATT-CABLE-10METER	7 Wire Power Cable used with indoor Battery Backup Unit, 10 m
ZNID-BATT-CABLE-7COND-1000FT	1000 foot spool of 7 conductor cable for use with Battery Backup Unit