ZHONE
Bandwidth Changes Everything™

zNID - Zhone's Intelligent NID

ZNID-GPON-4220, 4221, 4222, 4223, 4224

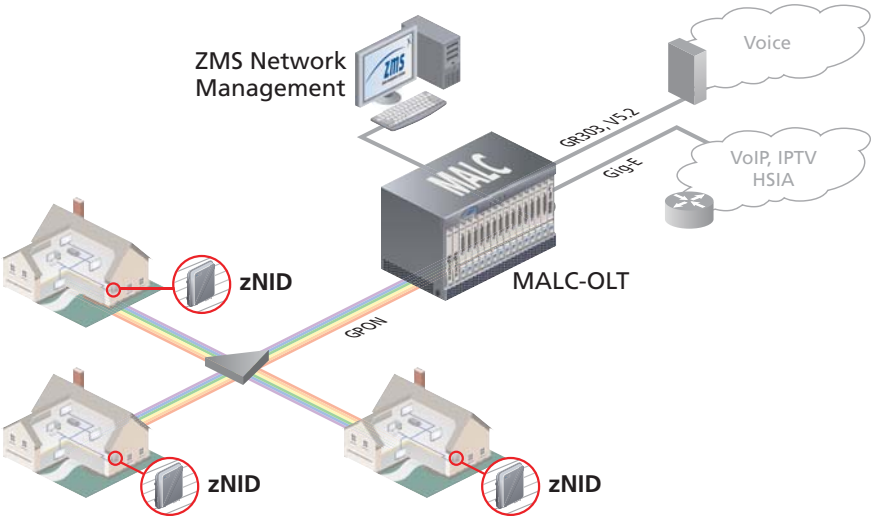
GPON ONT with integrated intelligent gateway functionality.

- ✓ *Triple Play Services - IP Video, VoIP, High Speed Internet Access*
- ✓ *No New Home Wiring - HPNA supported simultaneously on Coax and Phone Line eliminates the need to run new wires.*
- ✓ *Two Step Easy Installation - Install fiber enclosure without the need for electronics. Electronics can be installed after services are ordered.*
- ✓ *Remote Management - Web GUI, SNMP, TR-069, OMCI, and ZMS.*



The zNID is an intelligent NID supporting GPON termination with full-featured gateway functionality providing an ideal solution for FTTH deployments.

Triple Play services - IPTV, POTS or VoIP, and High Speed Internet Access (HSIA) - over existing coax and/or phone line make service offerings and installations flexible and easy.



No New Home Wiring

The zNID product line is the first gateway on the market to support both HPNA over coax and phone line using two HPNA chipsets giving greater flexibility to service providers who want to take advantage of the network already installed in the user's home. The zNID is able to guarantee the best throughput possible over the coax network and the phone line network giving added flexibility when offering triple play services. HPNA over the existing coax and the existing phone line simultaneously virtually eliminates the need to run new cables.

Gateway Features

The zNID is a full-featured gateway supporting services such as DHCP server, ALG's, scheduling, comprehensive logging, and more. The zNID product line implements a very flexible QoS allowing the service provider to guarantee that services are being prioritized correctly and the end-user is getting the Quality of Experience that is expected.

Enclosure

The enclosure can be installed in two stages for carriers wanting to terminate fiber before installing the active components. A small plastic enclosure can be installed first allowing the installer to terminate the fiber. Later, when the customer has ordered service, the active components are snapped into the fiber enclosure, allowing for a quick and easy installation.

Management

The zNID has a very intuitive Web interface. The zNID is also managed by the Zhone Network Management System (ZMS), using SNMP. Software upgrades, or configuration backups are handled automatically by the ZMS. The zNID can also be managed using OMCI, with Zhone's Smart OMCI tool.

DATASHEET

zNID - Zhone's Intelligent NID

Technical Specifications

Dimensions

- 12.7 in. H x 9.9 in. W x 3.8 in. D
- 32.2 cm H x 25.1 cm W x 9.7 cm D

Weight

- 3.5 lbs. (1.6 kg)

Power

- 12 Vdc
- Max Power: 15W
- Power options include:
  - Separate Indoor battery backup
  - Separate Outdoor battery backup
  - Standard 7-pin power and alarm connector.
  - Optional 2-pin power and alarm module.

Interfaces

- Uplink options:
  - SC/APC connector for GPON
  - OptiTap support
- Common interfaces:
  - 2x FXS
  - 2x RJ45 10/100/1000Base-T
  - 1x Coax type F connector for HPNA
- USB Craft Port
- HPNA:
  -First phone line
  -Coax

Standards Support

- IEEE 802.3 Ethernet
- IEEE 802.1Q/p VLANs
- IEEE 802.3u Fast Ethernet
- IEEE 802.3ab 1000 Basee-T

Voice Support

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

Protocol Support

- DHCP Server, DHCP Client
- IP Routing and Bridging
- NAT
- Virtual LAN bridging (VLAN)
- Firewall and Security
- QoS
  - 802.1P/Q prioritization
  - Diffserv (RFC2474, RFC2475) marking and queuing
  - Traffic shaping – bandwidth management and rate limiting
- IPTV:
  - IGMP Multicast
  - IGMP Snooping

Management

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

Bandwidth/Distance

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

Regulatory Compliance

- EMC: FCC Part 15 Class A, ICES-003 Class A,EN55022 Class A, EN55024
- Safety: UL60950-1, CSA C22.2 No. 60950-1, EN60950-1
- Network: FCC Part 68, IC CS-03

Operating Requirements

- Temperature: -40ºC to +60ºC
- MTBF: greater than 100,000 hours

Ordering Information

ZNID-GPON-4220-EL	Outdoor ONT, 2x Voice, 2x GE, Electronics only. (Fiber enclosure sold separately)
ZNID-GPON-4221-EL	Outdoor ONT, 2x Voice, 2x GE, RF Overlay, Electronics only. (Fiber enclosure sold separately)
ZNID-GPON-4222-EL	Outdoor ONT, 2x Voice, 2x GE, HPNA-Coax, Electronics only. (Fiber enclosure sold separately)
ZNID-GPON-4223-EL	Outdoor ONT, 2x Voice, 2x GE, HPNA-Coax, RF Overlay, Electronics only. (Fiber enclosure sold separately)
ZNID-GPON-4224-EL	Outdoor ONT, 2x Voice, 2x GE, HPNA-Coax, HPNA-Phone, Electronics only. (Fiber enclosure sold separately)
ZNID-ENCL-422x	zNID-422x fiber termination enclosure. (GPON electronics sold separately.)
ZNID-ENCL-422x-OPTITAP	zNID-422x OPTITAP fiber termination enclosure. (GPON electronics sold separately.)
ZNID-ENCL-422x-STORAGE	zNID-422x Slack cable storage enclosure.
ZNID-BATT-IN-XX	zNID indoor battery backup. XX = NA, EURO, UK
ZNID-BATT-OUT-XX	zNID outdoor battery backup. XX = NA, EURO, UK

ZHONE

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04 February 2011 14:00:12