



## DATA SHEET

### zNID-GPON-2426B1/2428B1



#### Overview

Introducing the newest mix of style and technology with our 2400B1 series of indoor GPON ONTs. Dual-band 802.11ac WiFi capability combined with an upright design to bring next-generation connectivity and best-of-class performance to Fiber-to-the-Home deployments.

Five internal high-gain antennas enable two (2.4 and 5.8GHz) WiFi radios to independently connect multiple users and devices simultaneously, including older 802.11b/g/n devices. The 2400B1 GPON ONT is ideal for providing WiFi coverage in homes, hotel guest and conference rooms facing a variety of laptops and mobile devices.

The 2400B1 GPON ONT provides four 10/100/1000 Mbps LAN ports, two FXS Voice ports, and one USB port. The future-proof GPON optics include a WBF (wavelength-blocking filter) for coexistence with Next-Gen-PON ONTs. The four Ethernet LAN ports can be used to support any-port-any-service model, or separated into different services allowing the configuration of dedicated ports for IP video and data. Unique VLANs may also be configured per user to ensure full isolation of each department's data traffic.

### Indoor GPON ONT with Dual-Band 802.11ac

#### Features

- Standard ITU-T G.984 GPON
- Triple-Play QoS
- VoIP with CLASS 5 Features
- 802.11b/g/n/ac WiFi
- Lightning-fast WiFi speeds

The 2426A1 GPON ONT includes a 2x2 300mW 2.4G radio, while the 2428B1 offers the most comprehensive feature set by adding a 3x3 400mW 5G radio.

The supported industry-standard SIP and MGCP VoIP signaling provides reliable voice services. DZS' experience with packet voice ensures interoperability and support with a large number of soft switches and with the ability to tailor the VoIP solution by selecting from a list of over 30 countries.

Flexible management means the 2400B1 GPON ONT may be provisioned using the same intuitive and easy-to-navigate Web interface and CLI as the 2400, 2600, 2700, 2800 and 4200 Series ONTs, as well as through GPON-standard OMCI, USP (Unified Service Provisioning), the DZS Network Management System (ZMS), or using a TR-069 compliant ACS. Software upgrades and configuration backups can be handled automatically by the ZMS using the CPE Manager feature.

## Specifications

### DIMENSIONS

- 266 x 200 x 37 mm (W x H x D)

### POWER

- 12VDC, 2.0A max
- PSU: 100-240VAC, 50/60Hz, 12VDC, 24W out
- Round barrel-type connector for power input
- 2x4 Molex-type connector for optional BBU power input with alarm reporting

### INTERFACES

#### Network Interface (GPON Uplink)

- SC/APC connector
- Full ITU-T G.984 compliance
- Class B+ optics
- G.985 wavelength blocking filter
- GPON Type B redundancy support
- Downstream data rate: 2.5 Gbps
- 1490 nm APD/TIA receiver
- Receiver sensitivity: -28 dBm
- Input power overload: -8 dBm
- Input power damage: +5 dBm
- Upstream data rate: 1.25Gbps
- 1310 nm DFB transmitter
- Launch power: +0.5 to +5 dBm

#### LAN Ports

- Four 10/100/1000Base-T LAN ports
- RJ-45 connectors
- Auto-MDI-X crossover control
- Auto-Speed or manual selection

#### POTS Ports

- Two FXS ports
- RJ-11 connectors
- 5 REN per line
- Battery voltage: -48VDC
- Max loop current: 40mA
- Ringing voltage: 48Vrms @ 20/25 Hz

### INTERFACES (cont)

#### USB Port

- One USB 2.0 port
- 3G dongle support for uplink fallback

#### WiFi – 802.11b/g/n

- 2.4 GHz band
- 2x2 MIMO
- Two +3 dBi internal antennas
- Channel width: 20 MHz, 40 MHz
- Max WiFi Connect (Phy) Rates: 300 Mbps (n)

#### WiFi – 802.11a/n/ac

- 5 GHz band
- 3x3 MIMO
- Three +4 dBi internal antennas
- Channel width: 20 MHz, 40 MHz, 80 MHz
- Max WiFi Connect (Phy) Rates: 1300 Mbps

### MANAGEMENT

- OMCI
- Web UI
- CLI
- SNMP
- TR-069, TR-104, TR-98
- USP (Unified Service Provisioning)

### VOICE SUPPORT

- SIP (RFC 3261)
- MGCP
- Codec: G.711 (u-law and A-law), G.729B, G726
- DTMF dialing
- 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.38 FAX support
- DHCP client or static IP configuration

## Specifications (cont)

### WIRELESS SUPPORT

- SSID support: 4
- Max number of subscribers: 64
- Authentication Security: 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 address filtering
- Access Point and Wireless Bridge modes

### PROTOCOL SUPPORT

#### GPON:

- Fully ITU-T G.984 compliant framing
- Dying Gasp support
- 32 T-CONTs per device
- 32 GEM Ports per device
- Activation with automatic discovered S/N and password in conformance with 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

#### VLANs:

- Per port IEEE 802.1Q VLAN ID processing
- All VLAN IDs supported in Open Trunk Mode
- Max of 12 VLANs per port in Filtered Trunk Mode
- VLAN tagging/untagging
- VLAN Stacking (QinQ)
- VLAN Switching
- SSID to VLAN Mapping

#### IPTV:

- IGMP v3 Snooping
- VLAN support

#### QOS:

- Ethernet bridging/switching per IEEE 802.1d/802.1q
- Traffic management (priority queuing)
- QoS with support for IEEE 802.1p + DSCP VLANs

#### 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
- LLDP-MED

#### IP Routing and Firewall:

- PPPoE
- NAT/NAPT
- Port forwarding
- DHCP Server
- DNS Server
- UPnP

#### IPv6:

- IPv4 and IPv6 Dual-Stack-lite
- Bridged Mode (transparent pass-thru of IPv6 frames)
- IPv6 Support for BRouted, and PPPoE-Bridged VLANs
- DHCPv6 client and server
- Router Advertisement on LAN- side interfaces of BRouted and PPPoE-Bridged VLANs
- SLAAC for automatic acquisition of WAN-side IPv6 address and Gateway
- CLI and HTTP management via IPv6 address
- TR-069 management via IPv6 address.



## Specifications (cont)

### STANDARDS SUPPORT

- IEEE 802.3 Ethernet
- IEEE 802.1p/q VLANs
- IEEE 802.3u Fast Ethernet
- IEEE 802.3ab 1000Base-T

### REGULATORY COMPLIANCE

- CE
- UL/CSA
- FCC Part B
- 21 CFR 1040.10, 1040.11
- RoHS 2011/65/EU

### OPERATING REQUIREMENTS

- Operating Temperature: 0C to +40C
- Storage Temperature: -20C to +85C
- Relative Humidity: 0 to 95%, non-condensing

## Ordering Information

MODEL	DESCRIPTION
ZNID-GPON-2426B1-xx	Indoor GPON ONT, 4xGE, 2xPOTS, USB, 802.11b/g/n WiFi; xx = 00, EU, NA, UK power supply options
ZNID-GPON-2428B1-xx	Indoor GPON ONT, 4xGE, 2xPOTS, USB, 802.11b/g/n and a/n/ac WiFi; xx = 00, EU, NA, UK power supply options