

# 2804P2



## 2804P2 FiberLAN GPON ONT

Low-profile FiberLAN PoE ONT optimized for wall-plate mount installations using DZS leading-edge GPON technology.

### Features & Benefits

- + Supports 2.5Gbps/1.25Gbps (Downstream/Upstream) with integrated GPON WAN interface
- + Four gigabit multi-rate 10/100/1000M Ethernet interfaces
- + 802.3af, at, and bt PoE++ compliant
- + Up to 120W of PoE power per system
- + Enterprise LAN features (802.1x, LLDP)
- + Wall-plate style compatible with single-gang boxes and Modul45 systems
- + No exposed fiber or power

The 2804P2 wall-plate ONT provides the ultimate efficient installation experience for Enterprise and Hospitality deployments requiring secure, zero-footprint wideband access. The 2804P2 ONT is compatible with single-gang electrical boxes, as well as with Modul 45 systems offering full RG functionality in a low-profile package that keeps power and fiber connections safely hidden within the wall or duct, preventing loss of service due to accidental disconnection, tampering or theft. Rental housing (apartments, condos) and campus (dorms, temporary housing) deployments will similarly benefit from this robust and low maintenance ONT.

The DZS 2804P2 includes one SC/APC GPON interface, four 10/100/1000Base-T ports, all with PoE++ capability, allowing for convenient connections to IP phones, PTZ cameras, wireless access points, and remote switches. Configurable per-port PoE limits help direct PoE power where it is needed up to 60W on any port and 120W per system. The 2804P2 is powered by a nominal 48-56VDC source from a centralized power distribution system that may also provide battery backup.

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## Service Scenario

The FiberLAN GPON network consists of an Optical Line Termination (OLT) located in a central location, and a set of Enterprise grade Optical Network Terminals (ONTs). All Ethernet LAN ports can be separated into different services allowing the configuration of dedicated ports for IP video and data for one or more business work groups or departments. Unique VLANs may be configured per user to ensure full isolation of each department's data traffic.

With LLDP-MED support for voice VLAN advertisement, 802.1x authentication, and DZS' Dynamic VLAN Mapping capability for handling complex sets of packet classification rules, operators can expertly manage traffic on each ONT LAN port to provide optimum customer experiences.

## Key Service Attributes

- + FSAN ITU-T G.984 GPON Class B+ compliant
- + Four 10/100/1000MBase-T Ethernet ports, RJ45 supporting 1Gbps symmetrical services
- + All ports 802.3af, at, and bt PoE++ compliant
- + Support of Radius 802.1x, LLDP
- + 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.
- + OMCI and TR-069/TR-98 management
- + DZS Universal Service Provisioning (USP), ONT SNMP Client
- + Local Web UI, DZS CPE Manager feature set
- + +48 VDC power source, option for battery backup

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## Product Specifications

### Hardware

- + Dimensions
  - Width: 10.3" (260mm)
  - Depth: 6.1" (155mm)
  - Height: 1.4" (35mm)
- + Weight 0.77 LB (0.35 kg)
- + 128MByte Flash Memory
- + 256MByte SDRAM (DDR3)
- + GPON WAN Interface
- + Capacity: 2.5Gbps Down/1.25Gbps Up

### Interfaces

- + WAN: 1 SC/APC port, GPON
- + LAN: 4 ports 10/100/1000MBase-T Ethernet (RJ45)
- + Power: 1 2x4 8-pin battery connector
- + LED Indicators
- + Recessed RESET button

### GPON

- + Class B+ optics, 20km (12.4 miles), reach, max split 64
- + Maximum ODN Attenuation, +28.5 dB link budget
- + GPON Type B redundancy support
- + G.985 xPON co-existence filter
- + Transmitter, 1310nm, +0.5 to +5 dBm, DBF
- + Receiver, 1490nm, -28 dBm, APD/TIA
- + Forward Error Correction (FEC) per G.989.3
- + Dying Gasp

### Ethernet LAN ports

- + Auto-MDI-X crossover control
- + Auto-Speed or manual selection
- + IEEE 802.3af, at, and bt PoE support on all ports
- + Max 61.6W PoE load on any port up to 123.2W total
- + IEEE 802.3ab 1000Base-T
- + IEEE 802.3u 100Base-T
- + IEEE 802.3az EEE
- + IEEE 802.1x Authentication

### 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 be 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 2048 MAC learning addresses
- + Multiple T-CONTs/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

### IP Routing and Firewall

- + DHCP, Static-IP and PPPoE
- + NAT/NAPT
- + DNS Proxy
- + DHCP Server
- + UPnP, plug and play

### IPv6

- + IPv4 and IPv6 Dual-Stack-Lite
- + Bridged Mode (transparent pass thru of IPv6 frames)
- + IPv6 support of BRouted and PPPoE Bridged VLANs
- + DHCPv6 client and server
- + Router Advertisement on LAN-side interfaces
- + SLAAC for automatic acquisition of WAN-side IPv6 addresses and GW
- + CLI, HTTP and TR-069 management via IPv6

### Environmental

- + Operating Temperature 5~140°F (-15~+60°C) Ex Temperature
- + Storage temperature -40~121°F (-40~85°C)
- + Operating humidity 5 to 95% (non-condensing)
- + Altitude: -200 to 10,000 feet (-61 to 3,048 m) above sea level

### Powering

- + DC power, 44-56VDC
- + Input power, 130W maximum (6W ONT, 124W PoE)
- + Power consumption, ~12W 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
- + DZS Universal Service Provisioning
- + 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	
2804P2	1x SC/APC port, GPON (Class B+) 4x 1G RJ45 ports, 802.3af, at, and bt PoE++ compliant 1x 8-pin barrel, 48VDC power input -20 to +60°C
ZNID-GPON-2804P2-WDC	Indoor Wall-plate GPON ONT, Global



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