

One-port GPON ONT for FiberLAN Applications

- ✓ *Unique form-factor, able to be installed inside a 4"x4" outlet box.*
- ✓ *Standard ITU G.984 GPON*
- ✓ *Temperature-hardened for Industrial environments*
- ✓ *Plenum Rated*
- ✓ *36 - 60V DC Input Voltage Range*
- ✓ *One GE Port with PoE of 30W @ 54VDC*



Zhone's 2101P one-port Industrial GPON ONT is ideally suited for Optical LAN deployments in facilities that require a large number of geographically dispersed PoE-capable Ethernet ports. Typical sites include commercial buildings, sports stadiums, schools, universities, hospitals, airports, shopping malls and more.

The types of devices that may be connected to the 2101P ONTs include Wi-Fi Access Points, video surveillance cameras, badge access readers, door controller switches, IP TVs, VoIP phones, IP wall clocks, building control systems, kiosks, PoS devices, Vending Machines, PCs, Printers, and many others.

The 2101P's unique design allows it to be installed in plenum spaces or in an enclosure as small as the standard 4"x4" electrical outlet box, dramatically simplifying the network design and installation. During the building design phase, the network planner simply identifies every location where an Ethernet port is required, and where the OLT will be located. The architect then places a electrical box in every location and routes conduit from each box to the OLT location. The construction crew builds out the conduit runs and installs the boxes and ONTs as if they were individual electrical circuits -- however, rather than pulling solid-core AC wiring through the conduit to every box, hybrid copper/fiber cable is installed instead. The ONTs installed in weatherproof enclosures further extend the applications.

Optional accessories for the 2101P include the Extended Ethernet Kit that extends the Ethernet port from 2101P to the outside of the outlet box; and the Extended Temperature Kit (external heat sink) required when the 2101P installed inside an non-metal enclosure or in a metal enclosure with PoE load exceeding 15W.

Technical Specifications

Dimensions

- Custom Aluminum L-shaped Enclosure
- 1.2 in. H x 2.85 in. W x 3.5 in. D
- 3.1 cm H x 7.25 cm W x 8.9 cm D

Weight

- 0.5LB (0.23 kg)

Power

- 36-60 VDC Input
- 54VDC Output (for attached PoE device)
- Max Power (ONT only): 4.5W
- Max PoE Power for attached devices: 30W (also see details in Operating Requirements section)

Interfaces

- GPON
 - SC/APC connector
 - ITU-T G.984 compliance (at levels down to -28 dBm)
- GPON Tx Specs
 - 1310nm optics
 - DBM (Differential Burst Mode)
 - Upstream Data Rate: 1.25 Gbps
 - Launch Power: +0.5dBm to +5.0dBm
- GPON Rx Specs
 - 1490nm optics
 - APD/TIA CW mode
 - Downstream Data Rate: 2.50 Gbps
 - Receiver Sensitivity: -28dBm
 - Input Power Overload: -8dBm
 - Input Damage Level: +5dBm
- Data
 - RJ-45 connector
 - 1 x 10/100/1000 Base-T port with PoE output
 - Meets IEEE 802.3 specifications
 - Auto-MDI/MDIX and auto speed supported

Standards Support

- GPON
 - ITU-T G.984 compliant
- PoE
 - 802.3at compliant (30W max)

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
 - VLAN tagging/untagging
 - VLAN Stacking (QinQ)
 - VLAN Switching
- IPTV
 - IGMP v2 Snooping
 - VLAN support
- Layer 2
 - 802.3n flow control
 - Automatic MAC learning and aging
 - 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 Proxy

Management

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

Regulatory Compliance

- UL
- FCC Part 15, Class B

Operating Requirements

- Temperature: -30°C to +60°C
- Humidity: 5% to 90% RH, non-condensing
- Heatsink is needed when installed in:
 - A non-metal enclosure or;
 - A metal enclosure with PoE load > 15W at max 50°C ambient

Ordering Information

ZNID-GPON-2101P-DC	Industrial one-port GPON ONT, 1xGE(PoE);
ZNID-GPON-2101P-DC-10PK	Carton of quantity 10 ZNID-GPON-2101P-DC units;
ZNID-ACC-2100P-ETH	Optional Ethernet Coupler with integrated status LEDs;
ZNID-ACC-2100P-ETH-10PK	Carton of quantity 10 ZNID-ACC-2100P-ETH units;
ZNID-ACC-2100P-HEATSINK	Optional Aluminum Heat Sink Kit for mounting 2101P ONT inside a sealed enclosure;
ZNID-ACC-2100P-HEATSINK-10PK	Carton of quantity 10 ZNID-ACC-2100P-HEATSINK units, plus one allen wrench;



Z H O N E

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