2101HP FiberLAN Industrial GPON ONT

Plenum-rated FiberLAN PoE ONT optimized for electrical outlet boxes using DZS leading-edge GPON technology.

Features & Benefits

+ Supports 2.5Gbps/1.25Gbps (Downstream/Upstream) with integrated GPON WAN interface

+ One gigabit multi-rate 10/100/1000M Ethernet interface

+ 802.3af, at, and bt PoE++ compliant

+ Up to 60W of PoE power per ONT

+ Enterprise LAN features (802.1x, LLDP)

+ Industrial design with heat-sink can be installed within electrical outlet box

The 2101HP one-port Industrial GPON ONT is ideally suited for Optical LAN deployments in facilities that require 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 2101HP 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 2101HP ONT provides one 10/100/1000 Base-T LAN port supporting 802.3af, at, and bt (4-pair) PoE standards up to 60W. The ONTs 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.

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). By deploying multiple ONTs the individual Ethernet LAN ports can be separated into different services or dedicated ports for different 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

+ One 10/100/1000MBase-T Ethernet port, RJ45 supporting 1Gbps symmetrical services

+ Support of 802.3af, at, and bt PoE++ compliant
+ Support of Radius 802.1x, LLDP

+ IPTV multicast, IGMPv2 and IGMPv3 services

+ Traffic management including Q-in-Q tagging, 802.1Q VLANs, multiple subscriber VLANs, per-port rate limiting

+ 802.1p priority bits, DiffServ and priority ques 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

Product Specifications

Hardware

+ Dimensions
  Width: 3.5" (89mm)
  Depth: 1.2" (31mm)
  Height: 2.9" (73mm)
+ Weight 0.51 LB
(0.23 kg) +
128MByte Flash
Memory
+ 128MByte SDRAM (DDR)
+ GPON WAN Interface
+ Capacity:2.5Gbps
Down/1.25Gbps Up

Interfaces

+ WAN: 1 SC/APC port, GPON
+ LAN:1 port
   10/100/1000MBase-T
   Ethernet (RJ45)
+ Power: 1 2x4 8-pin 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

+ Max 60W PoE load on port
+ 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 ratelimit
   shall between 64 Kbps to the maximum
   port rate with 64kbps granularity. The
   accuracy error shall be less than ±10%.
+ DSCP IP CoS (RFC 2475)

Software Features

+ IEEE802.1D and IEEE802.1Q
+ Address learning with auto
   agingL2/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 -22~140°F
   (30~+60°C) Ex Temperature
+ Storage temperature -40~121°F
   (40~85°C)
+ Operating humidity 5 to 95%
   (noncondensing)
+ Altitude: –200 to 10,000 feet (–61
to
   3,048 m) above sea level

Powering

+ DC power 48-60 VDC, 1.0A
+ Input power 65W maximum
+ Power consumption, ~7W
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
+ EN55022, EN55024
+ IEC 62368-1
+ FDA IEC 60825-1
+ RoHS 2015/863/EU

Ordering Information

Model	
2101HP	1x SC/APC port, GPON (Class B+)
	1x 1G RJ45 ports, 802.3af, at, and bt PoE++ compliant
	1x 8-pin barrel, 48VDC power input
	-30 to +60°C
ZNID-GPON-2101HP-DC ZNID-ACC-2100P-ETH ZNID-ACC-2100P-HEATSINK	Industrial Single-Port GPON ONT, 1xGE with 802.3bt PoE (60W) Optional Ethernet Coupler with integrated status LEDs Optional Aluminum Heat Sink Kit for mounting inside a sealed enclosure