

Tellabs® EXP1530P Optical Network Terminal

Direct fiber access satisfying the most common and compact enterprise local area network requirements

Overview

The Tellabs® Express Series is the economical fiber based access solution serving the data needs of guests at hotels or resorts, tenants at senior living, student housing, apartments, condos and all forms of multi-dwelling units. Tellabs Express is a compact passive optical networking solution aimed at small, efficient and lower cost local area networks. The number one expectation for residents of contemporary living units is ubiquitous always-on connectivity. Their lives are built around immediate access to voice, video and data across both wired and wireless; via smart phone, tablet, laptop and computer. Tellabs Express is the platform that can deliver on these expectations.

Tellabs EXP1530P Optical Network Terminal (ONT) is small form-factor indoor ONT that supports standards-based Gigabit Passive Optical Network (G-PON) and Ethernet connectivity. Equipped with an ITU-T G.984-compliant 2.5 Gbps downstream and 1.25 Gbps upstream G-PON interfaces, the Tellabs EXP1530P ONT supports the full range of advanced business services including voice, video and data. Power over Ethernet (PoE) is provided on all four ports energizes up to 80 watts of total power for VoIP phones, security cameras, access points and other networked devices.

Services Delivery Options

Data

The Tellabs EXP1530P ONT provides four (4) 10/100/1000 Gigabit Ethernet interfaces with Power over Ethernet Plus (PoE+) on each port. Advanced VLANs extend across the local area network, which segregates and secures data flows to each service, user and/or device.

Voice

The Gigabit Ethernet interfaces can be used for enterprise VoIP connectivity supporting the latest unified communications systems delivered over this fiber-based architecture. Proper traffic classification per IEEE 802.1p, IEEE 802.1q and DSCP ensures the highest voice quality.

Video

This sleek ONT is an excellent choice for all forms of IP-based enterprise video (by multicast or unicast) such as entertainment, security, video conferencing, high-end telepresence conferencing, telepresence robotics and surveillance. IGMP snooping and filtering with 256 multicast groups is supported.

Quality of Service

The Tellabs EXP1530P ONT supports extensive QoS features, including 802.3x flow control, DSCP to 802.1p mapping, upstream congestion control, and downstream traffic scheduling for premium or time-sensitive content. Intelligent and robust buffer and queue management for Ethernet traffic, with individually prioritizable queues, ensures that tiered service offerings are protected.



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Multiple Powering and Mounting Options

Powering Options

Tellabs EXP1530P ONT is designed with local power and remote powering options. Remote powering is supported using a centrally located bulk power plant, emergency power and/or bulk battery backup. Existing copper wiring, such as CATx cabling, can be repurposed for remote power or new composite single mode fiber can be used.

Power over Ethernet (PoE)

The Tellabs EXP1530P ONT supports both IEEE 802.3af PoE and high-power PoE+ IEEE 802.3at, including Class-4 negotiations can be selected on per port basis. The maximum PoE power across all four ports is 80 watts.

Mounting Options

The Tellabs EXP1530P ONT is designed and tested for a wide variety of mounting scenarios for the modern office and extended campus environments. It can be mounted in a zone box, in-wall NEMA enclosure, secured to a wall, mounted underneath a desk or be free-standing.

Management Options

Tellabs Express Manager

Compliant with ITU standard ONT Management Control Interface (OMCI) definitions, the Tellabs EXP1530P ONT is controlled from the Tellabs® Express Manager. The Tellabs Express Manager provides configuration, profile-based provisioning, event and fault management and performance monitoring for the Tellabs EXP1530P ONT.

Visit www.tellabs.com for more information

Specifications

Dimensions

- 1.57" (H) x 8.22" (W) x 5.11" (D)

Power Supply

- Input at ONT (volts): 36–54 Vdc
- Consumption w/o PoE Max (watts): 18 W
- Max PoE Power via remote power: 80 W
- Max Draw (amps): 1.5 A @ 54 VDC
- Dying Gasp support

Operating Environment

- Temperature: 32° F to +122° F
- Relative humidity: 5% to 95%, noncondensing

Compliance Testing

- CE, EMC/EMI and UL certified

Installation

- Indoor, desk or wall, in-cubicle, furniture, free-standing, vertical/horizontal.

Network Interface

- Compliant to ITU-T G.984 standards
- SFF-type laser SC/UPC connector
- Wavelengths: Downstream 1490 nm, Upstream 1310 nm
- 1.244 Gbps burst mode upstream
- 2.488 Gbps downstream receiver
- ITU-T G.984.2 Amd1 Class B+
- APD receiver and DFB transmitter
- 0.5~+5 dBm launch power, -27 dBm sensitivity and -8 dBm overload

Gigabit Passive Optical Network

- ITU-T G.984 compliant framing
- TC Layer AES (128-bit key), US and DS FEC RS(255,239)
- DBA DBRu mode 0 and mode 1SR
- GEM port-ID up to 256, Flexible mapping between T-Cont & GEM port, Multicast GEM
- T-CONT Type 1-5, up to 32, 8 queues per T-CONT

Ethernet Interfaces

- Four 10/100/1000Base-T Gigabit Ethernet RJ-45 connectors
- Standards IEEE 802.3, 802.3u, 801.3ab and 802.3az
- Link 10/100/1000Base-T with rate and full/half-duplex auto-negotiation and MDI/MDIX auto-sensing
- MTU max 2,000 Byte per IEEE 803.3as
- Flow control per IEEE 802.3x
- Bridging IEEE 802.1d STP transparent bridging, 256 MAC table, MAC aging timer, UNI port MAC limit and MAC SA/DA Filters
- VLAN model TR-156 1:1 & N:1 and Transparent LAN Service (TLS)
- VLAN Untagged, 802.1q Single tagged, 802.1ad (Q-in-Q) double tagged and VLAN ID translation
- Multicast IGMPv2/v3 and MLDv2 snooping
- QoS via IEEE 802.1p, 802.1d, 802.1q based QoS and ingress/egress 802.1p based QoS on each port
- Scheduling per SP and WRR
- Congestion pause frame
- OAM stats, PMs, GEM and UNI port loopback
- WAN gateway features PPPoE client, IPoE with DHCP client or static IP, NAT/NAPT, port forwarding and port triggering
- LAN gateway features DHCP server and relay agent, DHCP option 60 and DNS relay
- IPv6 support with mode dual stack lite and 6rd

LED Indicators

- Power, LOS, G-PON, LOS, LAN1, LAN2, LAN3, LAN4)

Management

- Local via web-based GUI (HTTPS)
- Remote G.984.4/988 OMCI, G.984 PLOAM, Telnet and TR-069
- Image upgrade with firmware upgrade via remote server
- Holds a working image and alternative image permitting image rollback
- Authorization through Secure ONT registration, ONT serial number and PLOAM password

Ordering Information

Tellabs EXP1530P ONT

- 81.EXP-ONT1530P

For more information, please contact your local Tellabs sales representative or local Tellabs sales office at the phone numbers listed below, or visit www.tellabs.com.

The development, release, and timing of features or functionality described for Tellabs' products remains at Tellabs' sole discretion. The information that is provided within this data sheet is not a commitment nor legal obligation to deliver any material, code or functionality.

Take the next step. Contact Tellabs today.

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