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# 180C Optical Network Terminal (ONT180C)

The Tellabs 180C Optical Network Terminal (ONT) provides high-density gigabit Ethernet connectivity that is a scalable and smart choice for the new enterprise LAN. This evolutionary ONT, which supports the modern office and extended campus environments, can be integrated inside office furniture, secured to a wall, mounted underneath a desk or just be free-standing at a desktop. All 3rd millennium IP-based enterprise services and applications can be delivered, including voice, video, high-speed data, wireless, security, access controls and building automation.

#### **Features & Benefits**

- Network Access Control (NAC) enables individual user service profiles to automatically follow a user to any port on the Tellabs Optical LAN system, including service profile and security settings
- Eight (8)10/100/1000 Gigabit Ethernet interfaces with Power over Ethernet support for 8-ports of 4PPoE supporting 802.3af/at/bt
- Fast and efficient IP endpoint provisioning, including power management, monitoring and configurations with Link Layer Discovery Protocol (LLDP) Media Endpoint Discovery (MED)
- Data, VoIP, unified communications and IP video in many forms (e.g., entertainment, surveillance, conferencing)
- Operates seamlessly with Tellabs' complete line of OLTs and along side all ONTs
- Wireless access points, surveillance, security, automation, access control and other corporate services
- Uses Tellabs' industry-leading software-defined traffic management, security, provisioning and quality of service mechanisms
- Best practice for network design calls for a total number of sixteen (16) ONT180C on the QOIU7 (128 UNIs) and 64 on the OIU8 (512 UNIs)
- Supports Dante and CobraNet digital audio systems over IP

## **Gallery**





# **Included Highlights**

#### **Powering Options**

Tellabs 180C ONT powering options include both local AC and remote DC. For local AC power, power adaptors are used to transform 120 AC power from the wall plug to 48 DC power delivered to the ONT. For the remote DC power option, a centrally located bulk rectifier can be used, and 48 VDC power is delivered over CATx cables or new hybrid fiber/copper cables. Remote powering option uses a centrally located bulk power plant, emergency power and bulk battery back-up. For local powering option, the Tellabs PSU BBU unit with monitoring can be used as a local battery back-up. The ONT180C has both Phoenix and Molex connectors for power.

#### **Centralized Management**

All features and functionality can be defined in software and dynamically allocated, based on real-time needs. Being controlled by the Tellabs Panorama PON Manager helps speed installations and daily operations. Centrally controlled by the Tellabs Panorama PON Manager, the Tellabs 180C ONT supports auto-discovery mechanisms, can be quickly provisioned using global templates and wizards, and offers smart troubleshooting tools, all of which allow for speedy moves, adds and changes for everyday operations.

#### **Mounting Choices**

Tellabs 180C ONT is designed and tested for a wide variety of mounting scenarios. The 180C ONT can be integrated inside office furniture, secured to a wall or underneath a desk or just be free-standing on a desk top. There is an optional plenum bracket available if mounting in the above ceiling space.

#### Power over Ethernet (PoE)

For Power over Ethernet (PoE), IEEE 802.3af PoE, PoE+ IEEE 802.3at (Class-4 negotiations) and IEEE 802.3bt (4PPOE) can be selected. The ONT can support 8-ports of 4PPoE supporting 802.3af/at/bt. The maximum PoE power when local powered is 140 watts and the maximum PoE power when remote powered is 100 watts. Prestandard 802.3 PoE is not supported (legacy Cisco inline power).

# **Specifications**

#### IP/Ethernet

1024 MAC addresses

- 25 VLANs per Ethernet port
- VLAN tagging/detagging, marking/ remarking per Ethernet port (use ports 1-4 for priority tagged services)
- VLAN trunking and stacking
- Virtual switch based on 802.1Q VLAN
- QoS and security policies based on VLAN-ID, 802.1p, DSCP (ports 1-4)
- L2-L4 Access Control Lists (ACLs)
- Dante and CobraNet digital audio systems over IP
- 8-ports of 4PPoE supporting 802.3af/at/bt
- IEEE 802.1x Port-Based Authentication
- MAC address limiting to prevent flooding attacks and limiting the number of devices attached to a port
- IPv6 capable for enterprise services
- Upstream ACL rate limiting
- Link Layer Data Protocol (LLDP) for autoprovisioning, inventory and PoE power management.
- Network Access Control (NAC)
- IGMP v2/v3 snooping

#### Physical

Weight: 1.1 lbsDepth: 5.84 inWidth: 10.07 inHeight: 1.86 in

#### Interfaces

- Eight 10/100/1000Base-T Gigabit Ethernet RJ-45 connectors
- Autosensing MDI/MDIX

#### Power

- Phoenix and Molex connectors for power
- Max PoE Power via DC power: 100W
- Max Draw (amps): 2.8 A @ 54VDC, 100-240VAC 2.0A
- Optional (local) battery back-up
- Dying Gasp support
- Input at ONT (volts): 48–56 VDC
- Consumption Idle (watts): 10 W
- Consumption w/o PoE Max (watts): 16W
- Consumption w/PoE Max (watts): 156W
- Max PoE Power via AC adapter: 140W

# Gigabit Passive Optical Network

- ITU-T G.984 compliant framing
- Flexible mapping of GEM ports and T-CONT with priority queue-based scheduling
- Activation with automatically discovered Serial Number (SN) and password
- AES-128 decryption with churning keys
- Forward Error Correction (FEC)
- IP DSCP to 802.1p mapping (ports 1-4)
- Support for multicast GEM port
- 0.5~+5 dBm launch power, -27 dBm sensitivity and -8 dBm overload
- Compliant to ITU-T G.984 standards
- SFF-type laser SC/APC connector

- 2.488 Gbps downstream receiver
- ITU-T G.984.2 Amd1 Class B+
- APD receiver and DFB transmitter
- Wavelengths: Downstream 1490 nm, Upstream 1310 nm
- 1.244 Gbps burst mode upstream
- Laser compliant to FCC 47 CFR Part 15
- Class B and FDA 21 CFR 1040.10 and 1040.11, Class I

#### Operations, Administration and Maintenance (OAM)

- · Complete service provisioning, such as Ethernet and VoIP
- · Alarming, events and performance monitoring
- · Remote image download over OMCI as well as activation and rebooting
- Holds two versions of software with image integrity checking and automatic rollback
- Standards-compliant OMCI as defined in ITU-T G.984.4 and G.988

#### **Environmentals**

- Relative humidity: 5% to 85%, noncondensing
- Temperature: -5° C to 50° C

# Compliance

. CE, FCC and UL certified

#### **LED Indicators**

- PON Link status
- Ethernet link (per port)
- Ethernet Tx/Rx (per port)

#### Management

- ONT has no local management access
- Tellabs Panorama PON Manager

# Software Support

- Tellabs Panorama PON Manager
- · Minimum base software SR30.2 and higher

#### Installations

- Mounting options: zone, wall, desktop, in-wall, enclosure and/or plenum bracket (sold separately)
- OLTs supported: OLT1150, OLT1150E, OLT1134AC, OLT1131

#### General

 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.