



**SKU:** 81.11G-ONT202

**Category:** Optical Network Terminals

# FlexSym Optical Network Terminal 202 (ONT202)

The Tellabs FlexSym® Optical Network Terminal 202 (ONT202) offers two multi-gigabit Ethernet options for 1G, 2.5G, 5G and 10G speed connectivity over a 10-gigabit symmetrical passive optical network (ITU G.9807.1 XGS-PON).

## Features

- 10-Gigabit Symmetrical Passive Optical Network (ITU G.9807.1 XGS-PON)
- Two multi-gigabit Ethernet ports supporting 10G/5G/2.5G/1G and the other supporting 2.5G/1G/100M
- Power over Ethernet (PoE) 802.3af and 802.3at
- Local and remote powering choices are supported with both Phoenix and Molex connectors
- Uses Tellabs' industry-leading software-defined global profiles, traffic management, security, provisioning and traffic management mechanisms
- Industrial temperature and power supply for use in outdoor rated NEMA enclosures
- Plenum rated, integrated fiber management and multiple mounting options

## Highlights

### Connecting Wi-Fi Access Points

The Tellabs FlexSym ONT202 provides flexible choices for connecting modern wireless access points, including IEEE 802.11ax Wi-Fi 6 and future wireless technologies, over a fiber-based enterprise network. In a traditional network design, these bandwidth hungry Wi-Fi devices demand multiple point-to-point gigabit Ethernet connections 100m (300ft) back to the telecommunications rooms. With the Tellabs FlexSym ONT202, the unlimited capacity of fiber cabling can be pushed deep into buildings and across extended campus, with multi-rate Ethernet for 1G, 2.5G, 5G and 10G positioned near the Wi-Fi endpoints provide the optimal bandwidth needed.

### IP Camera Backhaul

Additionally, Tellabs FlexSym ONT202 industrial temperature range and high-power Power over Ethernet (PoE) capacity makes it well suited for outdoor IP surveillance camera support where higher resolutions cameras such as HD and 4K monopolize bandwidth. The ONT202's high power PoE is also important to support the camera heaters and Pan Tilt Zoom (PTZ).

### 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 FlexSym ONT202 supports auto-discovery mechanisms, can be quickly provisioned using global profiles, and offers smart troubleshooting tools, all of which allow for speedy moves, adds and changes for everyday operations.

### Power over Ethernet (PoE)

The ONT202 supports Power over Ethernet (PoE) standards IEEE 802.3af and 802.3at. It can deliver up to 120W (2x60W) of PoE power when powered by the 150W AC wall adapter utilizing the Molex 8 pin connector and up to 60W of PoE power when powered by the 75W AC wall adapter.

### Powering Options

The Tellabs FlexSym ONT202 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.

## Mounting Choices

The ONT202 supports industrial temperature making it an ideal choice for outdoor mounting in NEMA enclosures for connecting outdoor Wi-Fi and IP surveillance cameras. It is also plenum rated and has integrated fiber management. It has pre-existing mounting holes for easy mounting on double gang electrical box, Tellabs ONT140C mounting plate and options for DIN rail rack mounting.

## Specifications

### Physical

- Weight: .77 lbs / 12.34 oz
- Depth: 5.14 in / 130 mm
- Width: 6.92 in / 176 mm
- Height: 1.45 in / 36.8 mm

### Interfaces

- One (1) 10G/5G/2.5G/1G multi-rate port, RJ-45
- One (1) 2.5G/1G/100M multi-rate port, RJ-45
- SC/APC symmetrical ITU-T G.9807.1 PON

### Power

- Input at ONT (volts): 52-57Vdc
- Consumption (watts): 6.8 W
- Remote Power Connector: Phoenix (supports 12-26 AWG wire)
- Max PoE Power via local AC power: 120W
- Max PoE Power via remote power: 90W
- AC Adapter Input: 2.5A Max 100-240VAC, 50-60Hz
- AC Adapter Output: 54V@2.78A (150W)
- Local Power Supply Unit (PSU): not included
- Local PSU: 81.11P-PWIL150W
- Local ONT Power Connector (PSU connector): Molex
- Remote Power Connector: Phoenix (supports 12-26 AWG wire)
- Dying Gasp support

### Passive Optical Network

- ITU-T G.984.2 Amd1 Class B+
- APD receiver and DFB transmitter
- 4-9dBm launch power, -28 dBm sensitivity and -9 dBm overload
- Bi-directional AES-128 encryption with 60 second churning of keys
- Forward Error Correction (FEC)
- IP DSCP to 802.1p mapping
- Support for multicast GEM port

- Compliant with ITU-T G.9807.1 (physical layer), G.987 (.2/.3/.4) and G.988.1 standards
- SFF-type laser SC/APC connector
- Wavelengths: Downstream 1580 nm, Upstream 1280 nm
- 9.95328 Gbps burst mode upstream
- 9.95328 Gbps downstream receive
- Laser compliant FCC 47 CFR Part 15
- Class B and FDA 21 CFR 1040.10 and 1040.11, Class
- Flexible mapping of GEM ports and TCONT with priority queue-based scheduling
- Activation with automatically discovered Serial Number (SN) and password

## IP/Ethernet

- MAC address limiting to prevent flooding attacks and limiting the number of devices attached to a port
- IGMP v2/v3 snooping
- IEEE 802.1x Port-Based Authentication/MAB
- Link Layer Data Protocol (LLDP) for autoprovisioning, inventory and PoE power management.
- L2-L4 Access Control Lists (ACLs)
- Upstream ACL rate limiting
- Supports Dante and CobraNet digital audio systems over IP
- Virtual switch based on 802.1Q VLAN
- 1024 MAC addresses
- 25 VLANs per Ethernet port
- VLAN tagging/detagging, marking/remarking per Ethernet port
- VLAN trunking and stacking
- IPv6 capable for enterprise services
- PoE: 802.3af/at, class 0-4, up to 30W per port on all ports
- Network Access Control (NAC)
- QoS and security policies based on VLAN-ID, 802.1p, DSCP

## Operations, Administration and Maintenance (OAM)

- Complete service provisioning, such as Ethernet and VoIP
- Holds two versions of software with image integrity checking and automatic rollback
- Standards-compliant OMCI as defined in ITU-T G.988
- Alarming, events and performance monitoring
- Management Information Base (MIB) manipulation over OMCI by Create, Delete, Set, Get & Get Next commands
- Remote image download over OMCI as well as activation and rebooting

## Environmentals

- Temperature: -40° C to 60° C
- Relative humidity: 10% to 95%, noncondensing

## Compliance

- CE
- FCC
- UL

- UL2043 plenum fire test
- RoHS

## LED Indicators

- MG1 - Multi-rate port 1, 10G
- MG2 - Multi-rate port 2, 2.5G
- Power
- PON

## Management

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

## Software Support

- Minimum base software SR32.0 and higher [Limited Availability]
- Holds two versions of software with image integrity checking and automatic rollback

## Installations

- ONT mounts on a desktop, under a desk, on a wall, vertical, horizontal or free-standing
- Plenum rated for above ceilings mounting
- Industrial temperature for mounting in outdoor rated NEMA enclosures
- DIN rail mounting option
- OLTs supported: OLT1150, OLT1150E, OLT1134AC, OLT1131, OLT6, OLT1, OLT-mini
- Built-in location indicator for easy installation and labeling identification
- BRACKET ONT202 10 PACK: 81.11K-BKONTBBU-R6

## Ordering Information

- FlexSym ONT202: 81.11G-ONT202
- PWR IN LINE ADPT 54V, 2.8A NO CORD (C13): 81.11P-PWIL150W
- PWR AC CORD C13 TO TYPE B US 3FT: 81.11W-C13TYPB-3
- BRACKET ONT140C, ONT202 10 PACK: 81.11K-BKONTBBU-R6

## General

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