



SKU: 5000-0096

Category:

## FlexSym Optical Line Terminal Mini (OLT-mini)

The Tellabs FlexSym® Optical Line Terminal Mini (OLT-mini) provides a small form-factor OLT supporting either GPON or symmetrical 10 gigabit XGS-PON in a sealed enclosure. The Tellabs FlexSym OLT-mini weathertight case, passive cooling and extended temperature range means that it is ideal for both indoor and outdoor connectivity. All of these features optimize the OLT-mini for transportation (e.g. air, rail, road, warehousing), manufacturing (e.g. food & beverage, heavy industry), utilities (electric, gas, water) and natural resource industries as it solves their difficult connectivity challenges of sprawling distances, harsh environments and extended temperature ranges.

## Features

- Ideal for outdoor and extended reach connectivity
- Equip with 10G symmetrical XGS-PON or G-PON service
- 40 Gbps uplink capacity in either linear or ring network design
- Hardened and housed in outdoor weathertight enclosure
- Extended temperature range for indoor or outdoor mounting
- Powering can be with either 110/240 VAC or 48-56V DC input

## Highlights

### 10G XGS-PON or G-PON Service

The FlexSym OLT-mini has two (2) PON ports can be equipped with matching 10 gigabit symmetrical XGS-PON XFPs or matching G-PON XFPs – the two ports must be the same PON mode. With the choice of either PON speeds, the OLT-mini can connect all of Tellabs' true enterprise Optical Network Terminals (ONTs) for both closet-based and deep fiber, including indoor and outdoor ONTs.

### 1G or 10G Ethernet Uplinks

The FlexSym OLT-mini supports four (4) SFP+ interfaces which can be used to create LAGs. These uplinks can be configured for a variety of speeds and distances by populating with SFP+ modules that are sold separately. The ports can be equipped with any of the 1G or 10G Tellabs SFP+ modules. The four SFP+ ports can be used as uplinks, or an east and west daisy chain to enable either a linear or ring architecture. This is particularly useful for running down roadways or train tracks and delivering service.

### AC or DC Powered

The FlexSym OLT-mini offers AC power including dual internal redundant rectifiers for high availability applications. The OLT-mini can be wired to plug into any power receptacle and work (120/240VAC). The OLT-mini is equipped for direct DC (48VDC) input supporting either a single dual DC input. This OLT-mini can be powered using remote digital power/electricity for enabling even greater power pair distances with enhanced touch safe power.

### Indoor or Outdoor Mounting

The FlexSym OLT-mini is housed in a sealed weathertight case and is passively cooled. The OLT-mini supports the full industrial temperature range from -40 to +55. It can be easily mounted to a pole, wall or backboard via the included mounting plate. The OLT-mini can also be padlocked to prevent unauthorized access.

## Specifications

### Physical

- Weight: 32.3 lb / 14.6 kg
- Depth: 6.2 in / 15.8 cm
- Height: 14 in / 35.5 cm
- Width: 13.5 in / 34.3 cm

### Interfaces

- PON: Two (2) either G-PON or 10G XGS-PON (XFPs sold separately)
- Ethernet: Four (4) SFP+ (sold separately)

### Power

- Max draw 1.2 A @ 54 VDC
- Available single 100/240 VAC with redundant internal rectifiers
- Available dual 48VDC input
- Max AC input power 72 W

### Environmentals

- Temperature: -40°F/-40°C to +131°F/+55°C
- Relative humidity: 5% to 95%, noncondensing
- Passively cooled

### IP/Ethernet Network

- Total MACs: 256,000
- Multicast Flows: 1,024
- Priority Queuing: RFC 1048
- IGMPv2/v3 Snooping and Proxy
- Flow Control: IEEE 802.3x
- Port Authentication Entity: IEEE 802.1X
- Port-based Network Access Control: IEEE 802.1X
- Virtual LANs: IEEE 802.1Q
- Traffic Classification: IEEE 802.1p
- Multiple Spanning Tree Protocol (MSTP): IEEE 802.1s
- Rapid Spanning Tree Protocol (RSTP): IEEE 802.1D
- Reporting: RFC 3378 and RFC 2238
- Access Control Lists (ACL)
- Total VLANs: 4,096

- Dynamic ARP Inspection (DAI)
- Private VLAN support
- Link Aggregation Protocol: IEEE 802.3ax
- LLDP/LLDP-MED: IEEE 802.1AB
- Change of Authorization including ForeScout CounterACT, Juniper Unified Access Control (UAC), Cisco Identity Services Engine (ISE), HP/Aruba ClearPass Policy Management and Microsoft Network Policy Server (NPS)
- MAC Authentication Bypass (MAB)
- SNMP Agent
- IPv4 and IPv6
- Syslog: RFC 5426
- Ethernet: IEEE 802.3
- Gigabit Ethernet: IEEE 802.3z
- 10Gigabit Ethernet: IEEE 802.3ae

## Passive Optical Network

- Forward Error Correction (FEC)
- AES-128 bi-directional encryption with 60 second churning of keys
- IP DSCP to 802.1p mapping
- Support for multicast GEM port
- Two (2) PON ports
- Touchless activation with ONT discovery and template-based configuration
- Up to 64-way optical split
- 512 UNIs per PON port
- Flexible mapping of GEM ports and T-CONT with priority queue-based scheduling

## ITU-T G.989 10G PON

- 9.95328 Gbps burst mode upstream
- 9.95328 Gbps downstream receive
- Maximum split ratio 1:64 (reach 6.2 miles/10 km)
- Maximum reach: 27.9 miles/45 km (split ratio 1:2)
- Optical budget: 28 dB (Class B+)
- XGS-PON multiwavelength option available
- Compliant to ITU-T, G.9807.1 and ITU-T G.989 standards
- Connectors: SC XFP module
- Wavelength downstream: 1577 nm
- Wavelength upstream: 1270 nm

## ITU-T G.984 2.5G PON

- ITU-T G.984 compliant
- Wavelength downstream: 1490 nm  $\pm$  10 nm
- Maximum split ratio 1:64 (reach 6.2 miles/10 km)
- Maximum reach: 27.9 miles/45 km (split ratio 1:2)
- Optical budget: 28 dB (Class B+)
- Connectors: SC XFP module

- Wavelength upstream: 1310 nm 3 50 nm

## Operations, Administration and Maintenance (OAM)

- ITU-T G.984, G.989 and G.988
- Complete service provisioning, such as Ethernet and VoIP
- Alarming, events and performance monitoring
- Remote image download over OMCI as well as activation and rebooting

## LED Indicators

- Dual STAT 1-2 PON
- SFP+ 1-4 Link and Low Power LEDs
- STAT OLT Management
- STAT PON CPU
- LED indicators visible with door open

## Compliance

- UL 62368-1/CSA C22.2 No. 62368-1, Second Edition: 2014
- IP65 Weatherproof Rating
- FCC Part 15 Subpart B /Canada ICES-003 Issue 7
- Laser Compliant with IEC 60825 Class 1
- RoHS

## Management

- Tellabs Panorama PON Manager
- MicroUSB connector with built in USB to serial access to CLI

## Software Support

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

## Installation

- The enclosure can be padlocked for additional security
- Alarming: Four (4) contacts MISC1 Open Door, Primary AC Power Fail, Secondary AC Power Fail and one User Input
- Mounting: pole, wall or backboard via included mounting plate

## Ordering Information

- Tellabs FlexSym OLT-mini, 2 PON, 4 Uplink, 120V AC powered, optional DC power: 81.11S-OLTm-AC
- OLAN Software Release OLT-Mini Base SR32.0: 81.SR320BASEOLTm
- Advanced Availability OLT-Mini SR32.0: 81.SR320AAOLTm
- Advanced Operations OLT-Mini SR32.0: 81.SR320AOOLTm
- Advanced Security OLT-Mini SR32.0: 81.SR320ASOLTm
- Advanced NAC OLT-Mini SR32.0: 81.SR320ANOLTm
- SFPs and XFPs are ordered separately
- XFP G-PON module: 81.11T-XFPGPON-IT ordered separately
- XFP XGS-PON OLT module: 81.11T-XFPXGSPON ordered separately

- 1000Base-SX with LC/MM connector (850nm with up to 550-meter reach): SFP 128211
- SFP 1000 Base-SX and LC/SM connector (1310nm and 10-kilometer reach): C.11T-S1GBELX1131Sx
- ONT OUTDOOR ENCLOSURE POLE MOUNT BRACKET: 81.11G-OLANODENC-BKT

## General

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