

SKU: 81.11G-ONT248-T
Category: Optical Network Terminals

FlexSym ONT248

The rack mountable one-rack unit (1RU) Tellabs FlexSym® Optical Network Terminal 248 (ONT248) offers the delivery of 48-ports of Power over Ethernet enabled Ethernet connectivity over an ITU-T G.9807 compliant symmetrical 10 Gbps downstream, and 10 Gbps upstream, XGS-PON transmission. It offers economical one-to-one closet-based switch replacement that reuses the last 100m CATx cables in the horizontal, walls and drops.

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Features

- TAA Compliant
- 10-Gigabit Symmetrical Passive Optical Network (ITU G.9807.1 XGS-PON)
- Economical one-to-one closet-based legacy switch replacement
- Reuse the last 100m CATx cables in the horizontal, walls and drops
- Achieve lower IT support and maintenance costs
- Remove points of known network vulnerabilities
- Reduce fiber cabling building-to-building and floor-to-floor
- Gain extended temperature range inside IT equipment rooms
- Support IoT, smart buildings, Wi-Fi, digital ceiling and LED lighting
- Migrate to deep fiber design or combining with deep fiber

Highlights

Software Defined Technology Today

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 Panorama PON Manager, the Tellabs ONT248 supports auto-discovery mechanisms, can be quickly provisioned using global templates and profiles, and offers smart troubleshooting tools, all of which allow for speedy moves, adds and changes for everyday operations. Tellabs ONT248 is hardware future ready for open-source and standards-based software defined networking.

Collapse and Converge over Fiber

The Tellabs ONT248 is ideal for converging IoT, digital ceiling, smart building, and wireless powered devices over the limitless capacity of a fiber-based infrastructure. This closet-based ONT also results in fewer fiber cabling because multiple bidirectional wavelengths on single fiber reduce cabling. For powered device connectivity using 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 all 48-ports of 4PPoE supporting 802.3af/at/bt and all 48-ports suppling 60 watts per port.

Advanced IP and Ethernet

Tellabs ONT248 offers industry-leading software-defined traffic management, security, provisioning and quality of service mechanisms. It supports enterprise VoIP connectivity with the latest unified communications systems and all enterprise IP-based video traffic (e.g., entertainment, surveillance, conferencing). Tellabs FlexSym Series enterprise focused means that advanced Ethernet IEEE features, such bridging, VLAN, ACL, PoE, LLDP, NAC, 802.1x, IP digital audio (Dante, CobraNet) and other must-have protocols are supported that satisfy true enterprise requirements.

Reduce Network Vulnerability Points

This one-to-one closet-based switch replacement take advantage of OLAN’s more secure design with fewer network points of vulnerability and reduced IP addresses to management. Tellabs FlexSym ONT248 also supports industry leading bi-directional AES-128 encryption with 60 second churning of keys. Centralized intelligence and management means fewer human touches, which directly results in the best possible network access controls.

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Specifications

Physical

- •Weight: 16.9 lb / 7.66 kg
- •Depth: 17.6 in / 447 mm
- •Width: 17.3 in / 439 mm
- •Height: 1.7 in / 43 mm

Interfaces

- •RJ-45 / Gigabit Ethernet w/PoE: 48
- •SC-APC XGS-PON (G.9807) uplink: 1

Power

- •Single or dual AC power inputs
- •Allows hot replacement of power modules
- •Power modules are purchased separately
- •Max Draw with No PoE: 71 Watts
  Max Draw with Full PoE: 1090 Watts

Power over Ethernet (PoE)

- •615W of PoE with one 715W power supply, or equipped with two modules in redundant configuration
- •1000W of PoE with one 1100W power supply, or equipped with two modules in redundant configuration
- •1330W of PoE with two 715W power supplies in non-redundant configuration
- •2100W of PoE with two 1100W power supplies in non-redundant configuration
- •802.3af/at, class 0-4, up to 30W per port on all 48-ports
- •Cisco UPoE Support with up to 60W on all 48-ports

Passive Optical Network

- •9.95328 Gbps burst mode upstream
- •4-9dBm launch power, -28 dBm sensitivity and -9 dBm overload
- •Laser compliant FCC 47 CFR Part 15
- •Class B and FDA 21 CFR 1040.10 and 1040.11, Class
- •Wavelengths: Downstream 1580 nm, Upstream 1280 nm
- •9.95328 Gbps downstream receive
- •ITU-T G.984.2 Amd1 Class B+
- •APD receiver and DFB transmitter
- •Flexible mapping of GEM ports and TCONT with priority queue-based scheduling
- •Activation with automatically discovered Serial Number (SN) and password
- •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

IP/Ethernet

- •1024 MAC addresses
- •Supports Dante and CobraNet digital audio systems over IP

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- •Link Layer Data Protocol (LLDP) for autoprovisioning, inventory and PoE power management.
- •Jumbo frames of up to 9K
- •10/100/1000BT
- •IEEE 802.1x Port-Based Authentication/MAB
- •Network Access Control (NAC)
- •Virtual switch based on 802.1Q VLAN
- •25 VLANs per Ethernet port
- •VLAN tagging/detagging, marking/remarking per Ethernet port
- •VLAN translation, trunking and stacking
- •QoS and security policies based on VLAN-ID, 802.1p, DSCP
- •MAC address limiting to prevent flooding attacks and limiting the number of devices attached to a port
- •IPv6 capable for enterprise services
- •L2-L4 Access Control Lists (ACLs)
- •Upstream ACL rate limiting
- •IGMP v2/v3 snooping
- •VLAN trunking and stacking

Operations, Administration and Maintenance (OAM)

- •Alarming, events and performance monitoring
- •Complete service provisioning, such as Ethernet and VoIP
- •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.988
- •Management Information Base (MIB) manipulation over OMCI by Create, Delete, Set, Get & Get Next commands

Alarm / Monitor / Test

- •ONT LAN-LOS (Ethernet port alarm on LAN side)
- •ONT Dying Gasp (Power Loss)
- •Software Version Mismatch / Download Failure
- •ONT BER Maintenance
- •ONT RDI (RDI Indication from ONT)
- •ONT REI (REI Remote Error Indication from ONT)
- •ONT LOPL-SF
- •ONT LOPL-LOA (Loss of Acknowledge)
- •ONT LOPL-OAML (LOPL-LOAM)

Environmentals

- •Supports redundant and replaceable fans
- •Altitude: Up to 10,000 feet
- •Relative Humidity: 5–95% noncondensing
- •Temperature with 715W power supply: -5°C / +23°F to +50°C / +122°F
- •Temperature with 1100W power supply: -5°C / +23°F to +40°C / +104°F

Compliance

- •FCC
- •CE

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- •UL
- •TAA

LED Indicators

- •PON — Link status
- •Ethernet link/Activity (per port)
- •Ethernet Speed (per port)
- •FAN – status

Management

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

Software Support

- •Minimum base software SR31.3 and higher

Installations

- •Mounting: 19" and 23" rack mounted
- •OLTs supported: OLT1, OLT6, OLT-mini, OLT1150, OLT1150E, OLT1134AC, OLT1131

Ordering Information

- •ONT248 Part Number: 81.11G-ONT248
- •715W POWER SUPPLY Part Number: 81.11P-PW715W
- •POWER CORD C13 TO TYPE B US 3FT Part Number: 81.11W-C13TYPB-3
- •FlexSym 1100W POWER SUPPLY, C15 CORD REQUIRED: 81.11P-PW1100W
- •PWR AC CORD C15 TO TYPE B US 7.5FT: 81.11W_C15TYPB

General

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