



Tellabs® Quad Optical Interface Unit (QOIU7)

Gigabit Passive Optical Network service delivery for scalable modern IT infrastructure

Overview

The Tellabs Optical LAN solution is built on a variety of Tellabs Optical Line Terminals (OLTs) for right-size density, least energy consumption and optimized rack space usage [Table 1]. Those OLTs can be equipped with Tellabs Quad Optical Interface Unit (QOIU7) for Gigabit Passive Optical Network (GPON) service delivery to a wide range of Tellabs Optical Network Terminals (ONTs).

	Tellabs 1150 OLT	Tellabs 1150E OLT	Tellabs 1134 OLT	Tellabs 1134AC OLT
Height	15.75"/9 RU	15.75"/9 RU	6"/4 RU	6"/4 RU
Width	23"	19"	19"	19"
Depth	12"	12"	12"	16"
Fan (2 per 1150 and 1150E)	3.50"/2 RU	3.50"/2 RU	Integrated	Integrated
Power Source	External rectifier	External rectifier	External rectifier	Integrated rectifier
QOIU7 supported	16	14	4	4
Total GPON ports	64	56	16	16

Table 1: 1150, 1150E, 1134 and 1134AC quick reference (see data sheet for more information about the small form-factor 1 RU Tellabs 1131 OLT)

Tellabs 1100 OLTs, equipped with QOIU7 GPON service module, inter-connect voice, video, data, wireless access, access control, security, surveillance, building environmental and building automation in high-performance enterprise LAN and extended campus deployments. The QOIU7 GPON service module is a more stable choice with its Type-B PON redundancy providing fiber route diversity and geographically dispersed OLTs. Industry-leading security is enabled at the physical layer, data layer and user layer, including 128-byte Advanced Encryption Standard (AES) with constantly churning keys. Scalability is provided as it supports point-to-multipoint fiber-based connectivity where LAN resources are defined in software and dynamically allocated based on real-time needs.

Benefits

Key benefits of the Tellabs 1100 OLTs equipped with the QOIU7 GPON service module include:

- Compliant with ITU-T G.984 standard, based on the recommendations of the Full Service Access Network (FSAN) committee
- Delivers both IP video (all types of enterprise video) and RF overlay video
- Efficient delivery of both IP voice and Analog POTS voice
- Data transport, including wireless access, access control, security, surveillance, building environmental and building automation
- Supports Transparent LAN Services (TLS) to the ONT
- Ethernet-centric GPON Encapsulation Mode (GEM)
- Multiple T-CONTs and GEM ports per device
- Supports single T-CONT and multiple T-CONTs modes
- Flexible mapping between GEM ports and T-CONT with priority queue-based scheduling
- Activation with automatic discovered Serial Number (SN) and password
- AES-128 Decryption with key generation and switching
- Support for multicast GEM port
- Highly reliable Forward Error Correction (FEC)
- Secures transmission with Advanced Encryption Standard (AES)
- Dynamic Bandwidth Allocation (DBA)
- Extended optical reach as far as 18.5 miles (30 km)
- Fiber route diversity and geographically dispersed OLTs with Type-B PON redundancy
- Nonblocking bandwidth connections with the system switch fabric
- Environmentally hardened for remote deployments in areas with no air conditioning or heating
- Full support of all of Tellabs GPON ONTs, including desktop, in-wall, in-cubicle and telecom closet-based ONTs

Specifications

Supports

- Ethernet Bridging
- MAC forced forwarding
- IEEE 802.1q
- IEEE 802.1p
- VLAN trunking
- IGMPv2 — RFC 2236
- IGMPv3 — RFC 3376
- DHCP Option 82
- PPPoE Intermediate Agent
- Traffic segmentation/classification
- Rate limiting (shaping)
- Queue management (buffering)
- Scheduling (policing)
- MAC security filtering
- IP security filtering
- Network Access Control (NAC)
- IEEE 802.1x
- Type-B PON redundancy

GPON Bandwidth

- Downstream: 2.488 Gbps
- Upstream: 1.244 Gbps

GPON Optical

- Optical budget: 28 dB (G.984 Class B+)
- Maximum reach: 18.5 miles/30 km (split ratio 1:16)
- Maximum split ratio 1:32 (reach 12.5 miles/20 km)
- Wavelength downstream: 1490 nm ± 10 nm
- Wavelength upstream: 1310 nm ± 50 nm
- Connectors: SC/UPC (SFP)

Physical

- Height: 10.8 in/27.4 cm
- Width: .87 in/2.2 cm
- Depth: 9.2 in/23.4 cm

Environmental

- Operating Temperature: -40° F to 158° F/
-40° C to +70° C
- Storage Temperature: -40° F to 185° F/
-40° C to +85° C
- Relative humidity: 5.0% to 95%,
noncondensing
- Altitude: -200 ft to 10,000 ft/
-61 m to 3,048 m

Industry Compliance

- ITU G.984
- FCC Part 15 Class A
- UL 60950
- NEC 2002
- Verizon VZ.NEBS.TE.NPI.2004.015
Sept. 2004
- SBC TP 76200
- Telcordia GR-57, GR-63, GR-78, GR-295,
GR-418, GR-487, GR-909, GR-1089,
GR-1244, GR-1089
- IEEE Std 802.3-2000
- NEBS Level 3 compliant

Ordering Information

Quad Optical Interface Unit (QOIU7)

- Order part number 4125004 (4 SFPs with SC/UPC connectors included)

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

Take the next step. Contact Tellabs today.



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