

SKU: 81.16G-729GP0PB-R6
Category: Optical Network Terminals

729GP Optical Network Terminal (ONT729GP)

The one-rack unit (1 RU) Tellabs 729GP ONT features 24 ports of Gigabit Ethernet with Power over Ethernet (PoE) for powerful enterprise business data service delivery. IEEE 802.3af PoE and 802.3at PoE+ compliance provides up to 30 watts on each Ethernet port. PoE provides remote power to VoIP desktop phones, Wi-Fi access points, IP security cameras and other environmental and access control systems. The Tellabs 729GP also features 24 ports for analog voice business service delivery. Equipped with standard RJ-45 CAT-rated cabling for Ethernet data and voice service delivery, the Tellabs 729GP ONTs feature an ITU-T G.984-compliant 2.5 Gbps downstream and 1.25 Gbps upstream G-PON interface supporting the full range of advanced services, including voice, video, data, Wi-Fi, smart buildings apps, security, surveillance, environmental and automation.

Features

- Telecommunications room rack mounting to match traditional LAN footprint and reuse final 100m 300ft copper-cable access drops
- Enterprise grade G-PON ITU-T G.984 implementation plus advanced IP and Ethernet functions
- Both IEEE 802.3af Power over Ethernet (PoE) and high-power PoE+ IEEE 802.3at
- Uses Tellabs industry-leading software-defined global profiles, traffic management, security, provisioning and traffic management mechanisms
- Supports IP-based voice, all forms of enterprise IP-based data traffic and all forms of enterprise IP-based video traffic
- No need for HVAC with ONT temperature range -5°C / +23°F to +55°C / +131°F
- Supports Dante and CobraNet digital audio systems over IP
- Cost effective migration to a deeper fiber design in future

Highlights

Advanced IP and Ethernet

Uses industry-leading software-defined traffic management, security, provisioning and quality of service mechanisms. All network resources are managed through global profiles that improve operational efficiencies by automating procedures in a error-free, more secure, means.

Voice

The Tellabs 729GP features 24 ports for analog voice business service delivery via RJ-21 50-pin POTS connector supporting full class service support.

Video

Tellabs 729GP ONT supports flexible video content delivery in the form of Ethernet/IP data, either as unicast or multicast streams controlled by the Internet Group Management Protocol (IGMP). Multicast Quality of Service (QoS) is supported with a combination of 802.1p bits and advanced bandwidth management mechanisms. Using VLANs and advanced IGMP processing ensures security, service delivery and efficiency for each user. The Tellabs 729GP ONTs are an excellent choice for all forms of enterprise video, such as entertainment, security, videoconferencing, high-end telepresence conferencing, telepresence robotics and surveillance.

Powering

Tellabs 729GP ONT supports local AC power. The input power takes 120/240 AC from a 3-pin AC power connector with an on-board switch and fuse accessible from the back of the ONT. For backup power options, existing building backup power generation systems can be utilized.

Power over Ethernet (PoE)

Both IEEE 802.3af PoE and high-power PoE+ IEEE 802.3at, including Class-4 negotiations can be selected on per port basis. The maximum PoE power is 450 watts, spread across all twenty-four

© 2024 Tellabs Access LLC

Ethernet ports.

Mounting

Tellabs 729GP ONT are 1 RU in height and can be mounted on a standard 19" telecom rack or 23" rack with appropriate mounting brackets. No need for HVAC with ONT temperature range -5°C / +23°F to +55°C / +131°F.

Specifications

Physical

- Weight: 20 lb/9.07 kg
- Depth: 17.5 in / 444 mm
- Width: 17.3 in / 439 mm
- Height: 1.7 in / 43 mm

Interfaces

- RJ-21 / 50-pin connector 24 POTS: 1
- RJ-45 / Gigabit Ethernet w/PoE: 24
- SC-APC / G-PON (G.984) uplink: 1

Power

- Max Draw at ONT (Amps): 8.0A
- Consumption w/PoE Max (Watts): 589W
- Consumption w/o PoE Max (Watts): 140W
- Consumption Idle (Watts): 63W

Local Power Options

- Input at ONT (Volts): 100-240VAC
- ONT Power Cabling: included (IEC C15)
- ONT Power Connector: 3-Pin AC
- Power Supply Unit (PSU): integrated

Power over Ethernet (PoE)

- Max Power Delivered (Watts): 450W
- IEEE 802.3at, including Class-4 negotiations
- IEEE 802.3af
- Both PoE and PoE+ enabled on all twenty-four (24) ports
- Link Layer Data Protocol (LLDP) for autoprovisioning, inventory and PoE power management

© 2024 Tellabs Access LLC

Alarm / Monitor / Test

- Dying Gasp
- OMCI

Environmentals

- Temperature: -5° C to +55° C
- Relative humidity: 5% to 85%, noncondensing

Compliance

- UL
- FCC
- ETL
- ETSI

IP/Ethernet

- Twenty-Four (24) 10/100/1000 Base-T Gigabit Ethernet RJ-45 connectors
- Total MACs: 1,024
- VLAN Groups: 110
- Total VLANs: 110
- VLAN translation and trunking
- VLAN tagging/detagging
- VLAN marking/ remarking per Ethernet port
- Virtual switch based on 802.1Q VLAN
- Autosensing MDI/MDIX or manual configuration
- IPv6 capable for enterprise services
- MAC address limiting to prevent flooding attacks and number of devices attached to a port, QoS and security policies based on VLAN-ID
- IEEE 802.1p
- DSCP
- Dynamic ARP Inspection (DAI)
- MAC Authentication Bypass (MAB)
- Private VLAN support
- IGMP v2/v3 snooping
- Link Layer Data Protocol (LLDP) for autoprovisioning, inventory and PoE power management
- IEEE 802.1x Port-Based Authentication
- Upstream ACL rate limiting
- L2-L4 Access Control Lists (ACLs)
- Network Access Control (NAC)
- Change of Authorization (Cisco ISE and ForeScout)
- Dante and CobraNet audio over IP

© 2024 Tellabs Access LLC

Passive Optical Network

- Compliant to ITU-T G.984 standards
- 2.488 Gbps downstream receiver
- 1.244 Gbps burst mode upstream
- Wavelenghts Downstream 1490 nm and Upstream 1310 nm
- ITU-T G.984.2 Amd1 Class B+
- Class B and FDA 21 CFR 1040.10 and 1040.11
- Class I, Laser compliant to FCC 47 CFR Part 15
- 0.5~+5 dBm launch power
- APD receiver and DFB transmitter
- Support for multicast GEM port
- IP DSCP to 802.1p mapping
- Forward Error Correction (FEC)
- AES-128 decryption with churning keys
- Activation with automatically discovered Serial Number (SN) and password
- Flexible mapping of GEM ports and T-CONT with priority queue-based scheduling
- OMCI per ITU-T G.988 standard
- Remote image download over OMCI as well as activation and rebooting
- OMCI alarming, events & performance monitoring
- Complete service provisioning, such as Ethernet and VoIP through OMCI
- Management Information Base (MIB) manipulation over OMCI by Create, Delete, Set, Get & Get Next commands

POTS (Analog Voice)

- RJ-21 / 50-pin connector for twenty-four (24) POTS
- Full class service support
- RTP (RFC3550/3551)
- SDP (RFC-2327)
- SIP (RFC-3261)
- Various CLASS services (FSK)
- Echo cancelling, VAD and CNG
- DTMF dialing
- Balanced ring at 55 V RMS
- Five (5) REN load
- T.38/T.30 fax
- G.711 for fax, modem connection and TTY devices

LED Indicators

- PON
- POTS (per port)

© 2024 Tellabs Access LLC

- Ethernet (per port)

Management

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

Software Support

- Minimum base software SR27 and higher
- Holds two versions of software with image integrity checking and automatic rollback
- Tellabs Panorama PON Manager

Installation

- Mounting: 19″ and 23″ rack mounted
- OLTs supported: OLT6, OLT1150, OLT1150E, OLT1134AC, OLT1131

Ordering Information

- Tellabs 729GP ONT: 81.16G-729GP0PB-R6

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.

© 2024 Tellabs Access LLC