SKU: 0120-0169
Category:

10 Gigabit Ethernet 226 (GbE226)

Tellabs continues to invest R&D into the Tellabs 1000 Multi-Service Access Platform (MSAP). The Tellabs 10 Gigabit Ethernet 226 (GbE226) helps our long-standing customers maximize the Tellabs 1000 MSAP systems, and service capacity, while minimizing fiber uplink requirements. The 10G GbE226 marks yet another significant R&D deliverable from Tellabs that can eliminate the ever-growing bandwidth bottlenecks in today's access networks. It installs into new and existing systems with no cabinet augmentations required. You can continue to use any Tellabs 1000 MSAP transport interface and it can be managed using Tellabs Panorama Element Management Systems (EMS).

Features

- Two 1G/10G Ethernet ports enhanced small form-factor pluggable (SFP+)
- Four 10/100/1000 Ethernet ports small form-factor pluggable (SFP)
- Up to five (5) ports can be configured for aggregation
- QoS via IEEE 802.1P priority bits
- IPv4 and IPv6 transparency
- Six-Port Ethernet switch with flexible uplink and tributary functionality
- Configurable Layer-2 learning
- Spanning Tree forwarding
- 1526 Byte Maximum Transmission Unit (MTU)
- Standard SNMP based Ethernet statistics
- Hardware support for future Synchronous Ethernet (SyncE) and IEEE 1588 Precision Time Protocol (PTP) timing

Highlights

Expand Existing Systems

The GbE226 10G uplink has a total of six Ethernet ports. There are two ports with small form-factor pluggable plus (SFP+) that can be configured as either 10Gbps or 10/100/1000 Ethernet, and there are four ports with small form-factor pluggable (SFP) that support 10/100/1000 Ethernet. Having a total of six Ethernet ports provides flexible connectivity options to expand the capacity of existing Tellabs 1000 MSAP systems. This allows service providers to maximize bandwidth for premium services connecting residential and business customers by simply adding the GbE226 into Tellabs 1000 MSAPs installed in remote offices, or cabinets, that are already operationalized and managed by Tellabs Panorama EMS.

Aggregate Ethernet Connectivity

A GbE226 10G uplink can be installed in any shelf within a terminal and all of the gigabit Ethernet GbE222s in the terminals shelves can interface with it. The GbE226 10G uplink provides an option to backhaul the traffic over a 10G Ethernet link or 1G Ethernet link. Now you have a choice to backhaul that traffic over either 1Gbps or 10Gbps ports on that GbE226 back to the home office. Up to five (5) ports can be configured for aggregation. This helps aggregate gigabit Ethernet ports before they hit the fiber plant or the aggregation router.

Maximize Services Revenue

This GbE226 card with two (2) 10Gbps or 10/100/100 Ethernet (SFP+), and four (4) more 10/100/100 Ethernet (SFP) ports provides network operators with the potential of increasing revenues using embedded investments of their deployed network and helps conserve expenses by minimizing fiber use and optimizing switch/router ports. This additional Tellabs 1000 MSAP system wide capacity can be used for providing high bitrate, premium services or increasing the service area coverage.

Optimize Fiber Utilization

With the two 10Gbps interfaces on the GbE226, service providers can support high bandwidth applications from their existing access network across fewer fiber cables. Whether from central offices, remote office or remote cabinets, this 10G capacity can help telecommunications providers

grow their network cost effectively by optimizing their outside fiber plant utilization.

Specifications

Physical

- Weight: 0.67 lb (0.30 kg)
- Depth: 10.5 in (26.67 cm)
- Width: 1.25 in (3.18 cm)
- Height: 5.125 in (13.02 cm)

Interfaces

- Two 1G/10G Ethernet ports (SFP+)
- Four 1G Ethernet ports (SFP)

Power Consumption

- Typical power consumption: 18.2 W
- Maximum power consumption: 32 W

Environmentals

- Altitude: Up to 10,000 feet
- Relative Humidity: 5-95% noncondensing
- Temperature: -40° to +167° F (-40° to +75° C)

Compliance

- GR-63-Core
- GR-57-Core
- GR-1089-Core
- Restriction of Hazardous Substances Directive (RoHS)

IP/Ethernet

- IETF RFC 826 Address Resolution Protocol
- IETF RFC 2684 Multiprotocol Encapsulation over ATM
- RFC 2819 Ethernet Traffic Statistic
- IEEE 802.1D Media Access Control (MAC) Bridges
- IEEE 802.1AD Provider bridging
- IEEE 802.1p Priority Queues
- IEEE 802.1Q VLAN
- IEEE 802.3x Flow Control
- IEEE 802.3ah Carrier Sense Multiple Access Collision Detection (CSMA/CD)
- IEEE 802.3ad Link Aggregation (future)
- IEEE 802.3z Gigabit Ethernet
- IEEE 802.3-2015 10 Gigabit Ethernet
- IPv4 and IPv6 transparency
- TR-101 Migration to Ethernet-based DSL Aggregation

LED Indicators

- SFP Speed Off: Not configured, disabled or not in Sync

- •SFP Speed Amber: 1 Gbps
- •SFP Speed Green: 10 Gbps
- •SFP Link/Activity Off: Not in Sync
- •SFP Link/Activity Flashing: Synced and passing data
- •SFP Link/Activity Green: Solid Sync
- •Card Green ACTV Off: Disabled
- •Card Green ACTV Flashing: Booting up. If not booting, card is not assigned
- •Card Green ACTV Solid: Designated as Active and can carry traffic

Management
- •Craft User Interface (CUI)
- •Tellabs Panorama INM Element Management System (EMS) FP11.0

Software Support
- •Minimum base software FP17 and higher

Installations

- **•Supported in Tellabs 1000 CBA and Tellabs 1048 CBA**