Overview

The Tellabs® 7325 Ethernet Edge Switch is a carrier-class Layer 2 switch delivering business Ethernet, broadband data and Internet access services in an efficient, cost-effective platform. With 24 triple-speed (10/100/1000 Mbps) Ethernet interfaces, the Tellabs 7325 Ethernet switch supports the rapidly increasing bandwidth requirements of today's networks. The Tellabs 7325 Ethernet switch provides metro Ethernet networking with the latest Ethernet Operations, Administration and Maintenance (OAM) capabilities and comprehensive traffic management features.

The Tellabs 7325 Ethernet switch is part of the Tellabs® 7300 Metro Ethernet Switching Series and an integral component of Tellabs® Carrier Ethernet Solutions. By combining the Tellabs 7325 Ethernet switch with the Tellabs® 7100 Optical Transport System (OTS) and the Tellabs® 8600/8800 Smart Router Series, operators can design, scale and deliver cost-effective and reliable networks that meet users' varying service needs. The 7325 Ethernet switch can be managed by the Tellabs 8000 INM as part of a larger Tellabs solution. This provides end-to-end provisioning and support.

Features

- Small footprint providing 24 Gbps (24G) throughput in one Rack Unit (RU)
- Interface support for 10 Mbps through 1 Gigabit Ethernet
- Flexible deployment configurations with SFP-based interfaces
- Multiple service profiles supporting a range of service offerings
- Full Ethernet OAM capabilities for service monitoring and verification
- Temperature-hardened
- Redundant power supplies
- Synchronous Ethernet
- IGMP Snooping
- G.8032 Ethernet Ring Protection Switching
- G.8031 Ethernet Linear Protection Switching
- RFC 2544 Service Activation Test head
- Carrier Ethernet 2.0 Certified by the MEF 1/29/2013 (E-LAN, E-Line and E-Access)
- Flexible Management options with command-line interface, Tellabs 7191 Craft Station, and Tellabs 8000 Integrated Network Manager (INM)

The Tellabs 7325 Ethernet switch is a 24G Ethernet switch in a small 1RU shelf that supports the latest carrier class requirements for Ethernet networking. This product is an optimal solution for aggregation offices in which you want to significantly increase the bandwidth in your network at competitive price points, while also leveraging the carrier class design for operational efficiency and network reliability.

Extensive traffic management and Quality of Service (QoS) features support sophisticated services. Classification of traffic is supported with a range of Layer 2 and Layer 3 options including port, Media Access Control (MAC) address, Virtual Local Area Network (VLAN) ID and Differentiated Services Code Point (DSCP). Dual rate policing with tri-color marking enforces conformance to a service contract, as well as a means to manage traffic allocation in the network. Class-based queuing with strict priority and deficit-weighted round robin scheduling options also help enable you to provide the appropriate fairness algorithms for provided services.

Carrier class OAM capabilities comply with the latest industry OAM standards. The Tellabs 7325 Ethernet switch supports 802.3ah link layer OAM, 802.1ag Ethernet connectivity fault management and ITU-T Y.1731 end-to-end OAM. These capabilities provide rapid notification of network faults while offering a reporting mechanism to help ensure that Service Level Agreements (SLA) are being met. Network resiliency is supported via Multiple Spanning Tree Protocol (MSTP) and Rapid Spanning Tree Protocol (RSTP); link resiliency is supported with link aggregation (LAG), and VLAN protection is compliant to ITU-T G.8031.

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1. Supported by upcoming software release already under development.
2. Feature supported on 82.7325A-R5 only.
3. 802.1ag and 802.1ad are 802.1Q amendments prior 2011 and were included in 802.1Q-2011.
4. 802.3ad and 802.3ah are 802.3 amendments prior 2008, 802.3ah was included in 802.3-2008, 802.3ad for LAG became 802.1AX.
The Tellabs 7325 Ethernet switch supports network scalability. With its large switch fabric, the high-density nature of the Tellabs 7325 Ethernet switch will support present and future bandwidth demands in network aggregation and distribution layers. Sophisticated traffic management and QoS capabilities support a multitude of services — mobile backhaul, xDigital Subscriber Line (xDSL), Voice over Internet Protocol (VoIP), Internet Protocol Television (IPTV), etc. — that exist in service providers’ networks and help ensure that each service is given the required priority for a high-quality, reliable end-user experience.

Specifications

**Ethernet**
- 24 SFP-based 10/100/1000 Mbps ports
- SFP tranceivers for standard wavelengths
- 802.1D — MAC Bridging
  - STP/RSTP
- 802.1Q — VLAN Bridging
  - MSTP
- 802.1ad — Provider Bridging
  - VLAN switching/stacking
  - Q-in-Q support
- G.8031 — Ethernet Linear Protection Switching
- G.8032 — Ethernet Ring Protection Switching
- Multiplexed EVP-Line, EVP-LAN, and EVP-Access Ethernet services
- 802.3ad — Link Aggregation Control Protocol (LACP)
- 802.3ah — Link OAM
- 802.1ag — Ethernet Connectivity OAM
- Y.1731 — Service Layer OAM
- Jumbo frames
- 32K MAC addresses
- 4K VLANs
- Port mirroring
- VLAN mirroring
- Resilient VLAN Tunneling (RVT)

**Multicast Support**
- 1K Multicast groups
- IGMP Snooping

**Synchronization**
- G.8261-2006, G.8262 — Synchronous Ethernet on all ports
- G.8264 — Sync Status Messaging (SSM)
- Stratum-3 timing holdover
- E1/T1 BITS timing reference input and output

**Traffic Management**
- Layer 2 and Layer 3 traffic classification
- Eight Class of Service (CoS) queues per port
- Traffic prioritization based on:
  - 802.1p QoS
  - Type of Service (ToS)
  - DSCP
  - Layer 2 Control Protocol (L2CP)
- QoS metering per Port, VLAN, or CoS flow
- Flexible scheduling — strict priority and deficit-weighted round robin
- Ingress policing and egress rate shaping
- IGMP Snooping
- Single Rate Three Color Marking (srTCM) — RFC 2697
- Two Rate Three Color Marking (trTCM) — RFC 2698
- MEF policing, color aware and unaware, with coupling flag

**Performance Test & Monitoring**
- Y.1731 Performance Monitoring
  - Frame delay
  - Frame delay variation (jitter)
  - Frame loss
- RFC 2544 Network Performance tests

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Node Management & Security
- Local console port
- In-band management VLAN
- Flexible management tools:
  - Command Line Interface (CLI)
  - Craft station GUI (Tellabs 7191 Craft Interface)
  - Tellabs 8000® Integrated Network Manager
- IPv4
- Secure Shell (SSH)
- Simple Network Management Protocol (SNMP)
- Simple Network Management Protocol Version 2 (SNMPv2)
- Simple Network Management Protocol Version 3 (SNMPv3)
- Remote Monitoring (RMON) —RFC 2819
- Network Time Protocol (NTP)—RFC 1305
- System logging
- Security
  - Access control lists
  - Control protocol filtering
  - User login access rights
- Central Office alarm contact inputs and outputs
- Remote Authentication Dial In User Server (RADIUS)

Physical and Environmental
Dimensions
- 45mm x 445mm x 217mm / 1.75” x 17.5” x 8.5” (H x W x D)
- ETSI Cabinet Compliant
- 19-inch NEBS Rack Compliant
- Weight 7.1 lbs (3.2 kg)

Operating Temperature and Humidity
- -40°C to +65°C (-40°F to +149°F)
- 5% - 95% Relative Humidity (non-condensing)
- ETSI EN 300 019-1-3

Storage Temperature
- -40°C to +70°C (-40°F to 158°F)
- ETSI EN 300 019-1-1

Power and Cooling
- -38V to -60V DC
- 100V to 240V AC with external AC adapter
- 85 Watts (max) with 24 SFPs
- Replaceable fan tray and filter

Regulatory & Standards Compliance
- FCC Part 15, Class A
- UL 60950 1st Edition
- IEC 60950
- CSA C22.2 60950
- NEBS Level 3 Compliant
- GR-63-CORE
- GR-1089-Core
- RoHS
- DOT-QM-333
- WEEE
- IEC 60825-1 and 60825-2 Laser Safety
- Ethernet UNI Type 1 (MEF 13)
- Ethernet Services Definition (MEF 6 and MEF 10.1)
- MEF 9 and MEF 14 certified compliant
- Carrier Ethernet 2.0 Certified by the MEF 1/29/2013 (E-LAN, E-Line and E-Access)

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