

# Tellabs® 7305 Ethernet Demarcation Device

## Compact 1 Gigabit Carrier-Class Ethernet Transport and Service Delivery.

### Overview

The Tellabs® 7305 Ethernet Demarcation Device (EDD) is a flexible and cost-effective Network Interface Device (NID) that can operate as a Transport NID or Service NID to provide service demarcation for in-franchise and out-of-franchise applications. It includes the standards-based performance and Operations, Administration and Maintenance (OAM) features that network operators need to successfully transport and deliver Carrier Ethernet services.

The Tellabs 7305 EDD is part of the Tellabs® 7300 Metro Ethernet Switching Series and an integral component of Tellabs® Carrier Ethernet Solutions. By combining the Tellabs 7305 EDD with the Tellabs® 7100 Optical Transport System (OTS) and the Tellabs® 8800 Multiservice Router (MSR) Series, operators can design, scale and deliver cost-effective and reliable networks that meet users' varying service needs.

### Features

- Functions as a Service NID or Transport NID
- Supports 802.3ah Link OAM and 802.1ag Service OAM for end-to-end fault detection and performance monitoring
- VLAN service tagging (802.1Q)
- E-Line and E-LAN service multiplexing via 802.1ad VLAN stacking (Q-in-Q)
- Granular rate limiting using Committed Information Rate (CIR) and Committed Burst Size (CBS)
- Class of Service based on 802.1p QoS prioritization
- Small Form Factor Pluggable (SFP) Gigabit and Fast Ethernet fiber transceivers for standard and Coarse Wavelength Division Multiplexing (CWDM) applications
- Customer-facing service port available in copper RJ-45 or SFP fiber interfaces
- Temperature-hardened
- Certified MEF 9 and MEF 14 Compliant

When functioning as a Transport NID, the Tellabs 7305 EDD acts as a remotely managed media converter with carrier-grade OAM capabilities. The Tellabs 7305 EDD is service-transparent and passes data without performing traffic management. Traffic management functions are performed by carrier equipment at the edge of the service provider network.

As a Service NID, the Tellabs 7305 EDD provides service mapping and traffic policing and shaping functions. The Tellabs 7305 EDD supports MEF-certified User-to-Network Interface (UNI) functions, including Class of Service (CoS) prioritization, granular rate-limiting and 802.1ad Provider Bridge VLAN stacking (Q-in-Q) for service multiplexing of multiple E-LINE and E-LAN services.



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In both operational modes, the Tellabs 7305 EDD conforms to the latest carrier-class Ethernet OAM standards — 802.3ah Link OAM proactively monitors the network provider's fiber access and customer-facing links for physical failures and deterioration of data quality, and 802.1ag Service OAM provides end-to-end Connectivity Fault Management (CFM) and performance monitoring. These OAM features provide efficient detection and rapid isolation of potential service problems to provide Service Level Agreement (SLA) assurance while reducing Operational Expenditures (OpEx).

Tellabs 7305 EDD fiber ports can support Gigabit (1000 Base-X) or Fast Ethernet (100 Base-FX) fiber access links by utilizing an SFP transceiver with the desired data rate. The triple-speed copper interface operates at 10/100/1000 Mbps rates. The Tellabs 7305 EDD may be used in two-port or three-port configurations. In the three-port configuration, the Tellabs 7305 EDD can be used in geographically diverse uplink redundancy applications and multi-tenant applications (Figure 1).

The standalone Tellabs 7305 EDD is a DC-powered element that is always shipped with an AC/DC power adapter. It may be used as a tabletop or wall-mounted device.

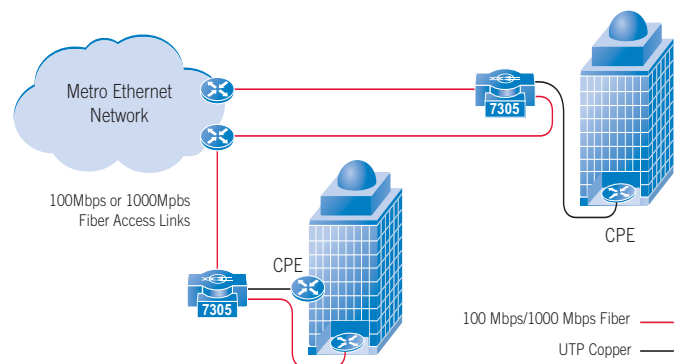


Figure 1: Tellabs 7305 EDD in geo-diverse and multi-tenant applications

## Specifications

### Ethernet

- Interfaces: 10/100/1000 Mbps Ethernet (electrical and optical)
- 802.3ah Link OAM
  - Link loopback
  - Unidirectional link fault detection
  - Threshold-based monitoring and notification
  - Dying gasp
- 802.1ag end-to-end Service OAM and CFM
  - Supports eight levels of maintenance domains and Maintenance End Points (MEP)
  - More than 64 Maintenance Associations
  - Connectivity Check Messages (CCM)
  - Remote Defect Indication (RDI)
  - Link trace
  - Diagnostic loopback (Layer 2 ping)
- Y.1731 Performance Monitoring
  - Frame delay
  - Frame delay variation (jitter)
  - Frame loss
  - Service availability

### Fault Detection

- Supports a variety of link fault detection and fault propagation features
  - Link fault notifications
  - Remote Fault Detection (RFD)
  - Asymmetrical link propagation
- Transport NID Functions
- Transparent transport of customer data
- Ethernet OAM
- Comprehensive fault detection and notification
- Media conversion for connectivity to customer equipment
- Remotely managed and provisioned
- Supports 10,240 byte jumbo frames
- MEF 9 and 14 Certified Compliant

### Service NID Functions

- Supports all Transport NID functions
- Service mapping to enable multiple services per UNI
  - 802.1Q VLAN tagging
  - 802.1ad Provider Bridge VLAN stacking (Q-in-Q)
  - Service Multiplexing up to 64 Ethernet Virtual Connections (EVCs) for E-Line or E-LAN services
  - Layer 2 control protocol policy management
- Traffic policing and shaping
  - Granular rate limiting
  - CIR & CBS
- CoS based on 802.1p QoS prioritization

### Integrated Management

- Remote management
  - In-band VLAN
  - SNMPv1/2c/3
  - Telnet
  - IP-less 802.3ah OAM extensions
- Local management
  - Local management access via serial console port
- Public (non-proprietary) 802.1ag CFM SNMP MIBs
  - Easy third-party SNMP management software integration

### Port Interfaces and Redundancy

- SFP transceivers for standard or CWDM wavelengths
- SFP transceivers models support maximum fiber distances up to 140km
- Supports Gigabit (1000Base-X) and Fast Ethernet (100Base-Fx) fiber access networks
- Customer network service port available in copper RJ-45 or SFP fiber interfaces
- Available with dual SFP fiber ports for geo-diverse uplink redundancy (1+1)

- Supports Rapid Spanning Tree Protocol
- Three-port configuration supports redundant access link or multi-customer applications

### Physical and Environmental

#### Dimensions

- Tabletop
  - Height: 1.0 in. (2.5cm)
  - Width: 3.1 in. (7.9cm)
  - Depth: 4.8 in. (12.2cm)
- Wall-Mount
  - Height: 1.0 in. (2.5cm)
  - Width: 3.8 in. (9.7cm)
  - Depth: 4.8 in (12.2cm)

#### Operating Temperature

- Normal Operating Temperature Range
  - 32°F to 122°F (0°C to 50°C)
  - Part Number: 81.7305A-R5
- Extended Operating Temperature Range
  - -40°F to 167°F (-40°C to 75°C)
  - Part Number: 81.7305B-R5

#### Storage Temperature

- -40°F to 176°F (-40°C to 80°C)

#### Humidity

- 5% to 95% (non-condensing)

### Power Specifications

- 8-32V DC
- 100-240V AC (50 - 60Hz)

### Regulatory/Compliance

- FCC Class A
- UL and cUL
- NEBS Level 1
- RoHS
- CE
- WEEE
- Ethernet Services at UNI (MEF 9)
- Traffic Management Phase 1 (MEF 14)



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