



**SKU**: 0110-0269 **Category**:

# **Ethernet Service 10/100 (ES10/100)**

The Ethernet Service 10/100 plug-in card (ES 10/100) can deliver Ethernet services to business premises, Multiple Dwelling Units (MDUs) and cell site base stations. The ES 10/100 is supported in the Tellabs 1000 Multi-service Access Platform (MSAP) and can be located in any of the multi-purpose shelf slots.

# **Features**

- •Supports two independent 10/100 Mbps Ethernet interfaces in a single slot
- •Provides up to 200 Mbps of bi-directional traffic per card
- •Both fiber-based and copper-based SFP options
- •Single-mode and multi-mode fiber
- Upstream rate limiting
- •Dual memory support for upgrades

# **Highlights**

## **End-to-End Ethernet**

Used in conjunction with Gigabit Ethernet Transceiver (GbE222) card in transport and network uplink configurations, the Tellabs

1000 MSAP can deliver end-to-end Ethernet interfaces. Even better, these Ethernet-based interfaces can be deployed without abandoning revenue-generating legacy Time Division Multiplexing (TDM) and Special Services that are delivered simultaneously from within the same Tellabs 1000 MSAP shelf.

# **Ethernet, ATM and TDM Interworking**

Asynchronous Transfer Mode (ATM), TDM and Ethernet interworking is achieved with ATM-to-Ethernet Connection (AEC), Ethernet-to-Ethernet Connection (EEC) and Ethernet-to-ATM Connection (EAC) supported across the Tellabs 1000 MSAP system.

# Standards-Based Ethernet

Standards-based Ethernet is support with VLAN tagging per IEEE 802.1q, prioritization per IEEE 802.1p and Transparent LAN Services (TLS) when used with GbE222 plug-in card. Jumbo Ethernet frames supported up to 2,000 bytes Maximum Transmission Unit (MTU). And, Service Level Agreements (SLA) capable with Committed Information Rate (CIR) and Committed Burst Size (CBS).

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# **Specifications**

## **Physical**

- •Height:5.125 in (13.018 cm)
- •Width: 0.563 in (1.429 cm)
- •Depth:10.5 in (26.67 cm)
- •Weight: 0.5 lb (0.23 kg)

#### Interfaces

•Two (2) 10/100 Mbps Ethernet

- •Short Range 100BASE-FX optics SFP ordered separately
- •Long Range 100BASE-LX10 optics SFP ordered separately
- Copper 100BASE-T SFP ordered separately

#### **Power Consumption**

- •Maximum power consumption:13 W
- •Typical power consumption:9.6 W

#### **Environmentals**

- •Temperature:-40° to +167° F (-40° to +75° C)
- •Relative Humidity:5âœ95% noncondensing
- Altitude: Up to 10,000 feet

#### Compliance

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

#### General

- •IETF RFC 826 Address Resolution Protocol
- •IETF RFC 2684 Multiprotocol Encapsulation over ATM
- •RFC 2819 Ethernet Traffic Statistic
- •RFC 3376 Managing Multicast Forwarding
- •IEEE 802.3x Flow Control
- •IEEE 802.3ah Carrier Sense Multiple Access Collision Detection (CSMA/CD)
- •IEEE 802.3u CSMA/CD 100BASE-T
- •IEEE 802.1D Media Access Control (MAC) Bridges
- •IEEE 802.3z Gigabit Ethernet Physical Layer
- •IEEE 802.1p Priority Queues
- •IEEE 802.1Q VLAN
- •IEEE 802.3ad Link Aggregation
- •TR-101 Migration to Ethernet-based DSL Aggregation

#### **LED Indicators**

- FAIL (red)
- ACTIVE (green)
- •LINK 1 (green)
- •LINK 2 (green)

#### Management

- •Craft User Interface (CUI)
- •Tellabs Panorama Element Management System (EMS)

# Software Support

Minimum base software FP16 and higher

#### Installations

Supported in Tellabs 1000 CBA

### Ordering Information

•FS10-100: 0110-0269

- •Short Range 100BASE-FX optics SFP: 0410-0464
- •Long Range 100BASE-LX10 optics SFP: 0410-0463
- •Copper 100BASE-T SFP: 0410-0465