Carrier-Class Multiservice Edge Multiplexer

The TraverseEdge™ 100 (TE-100) is a cost-effective and efficient edge multiplexer that delivers differentiated new Ethernet and IP services as well as legacy voice and TDM services. The flexible and compact (2RU) shelf aggregates a combination of Fast Ethernet, Gigabit Ethernet, DS1/E1 and DS3/E3 services onto dual OC-3/12/48 or STM-1/4/16 trunk interfaces. Targeted for wireless, wireline and private network applications, the TE-100 is ideally suited for metro access rings, MTUs (offering both AC or DC), outside plant cabinets, cell sites, and other locations.

Ethernet Switching & Transport

Force10’s TE-100 platform integrates layer 2 Ethernet switching and statistical multiplexing functions to enable delivery of point-to-point and multipoint Ethernet services. Advanced features such as such as 802.1Q/p VLAN prioritization and intelligent flow control mechanisms support differentiated classes of service and carrier-grade SLAs. In addition, the TE-100 platform implements standards-based GFP, LCAS, and VCAT technologies to maximize Ethernet over SONET/SDH (EoS) bandwidth efficiency and lower the cost of service delivery. The evolutionary TE-100 design enables new Ethernet services to co-exist with legacy voice and TDM private line services with maximum efficiency.

Carrier-Class, Multiservice Flexibility

The TE-100 delivers carrier-class reliability with optional 1:1 equipment protection, as well as support for UPSR/SNCP ring and linear 1+1 APS/MSP facility protection on the optical trunk interfaces. Hot-swappable SFP (Small Form-Factor Pluggable) transceivers also provide optical media and interface rate flexibility. The TE-100 complements Force10’s flagship Traverse® Multiservice Transport Switch, as well as the Traverse PacketEdge™, and other TraverseEdge products. As is the case with the Traverse platform, the TE-100 is a global solution that supports ANSI and ETSI/ITU-T network environments.

Key Features

- Carrier-class design provides full protection for all ports/services and common components
- SFP transceivers provide flexible connectivity for high-speed optical and GigE interfaces
- Ideally suited for metro access as well as OSP and cell site deployments
- Global solution supports ANSI and ETSI/ITU-T network environment
- Complements Force10’s Traverse Multiservice Transport Switch
## Specifications: TE-100 Multiservice Edge Multiplexer

<table>
<thead>
<tr>
<th><strong>Ordering Information</strong></th>
<th><strong>Description</strong></th>
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<tbody>
<tr>
<td>TE100-CHASSIS-KIT</td>
<td>Shelf (includes fan module)</td>
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<tr>
<td>TE100-SYSTEM-OC48</td>
<td>2.5Gbps System Card</td>
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<tr>
<td>TE100-SYSTEM-OC3-12</td>
<td>622Mbps System Card</td>
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<tr>
<td>TE100-INTF-28R-3M-2S-6R</td>
<td>ANSI Interface Card (28P DS1, 3P DS3, 6P FE, 2P GE)</td>
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### Chassis
- **Dimensions:** 3.5” (H) x 17.25” (W) x 11.8” (D)  
  90 mm (H) x 438 mm (W) x 300 mm (D)
- **Weight:** 9.65 lbs. (3.38 kg) - fully configured
- **Mounting Options:** Rack- or wall-mountable

### Power
- **Voltage:** 48VDC (Min. -40V to Max. -70V)
- **Dual redundant DC power inputs, -40 V to -60 V operating range (-48 V nominal)**
- **Optional AC power supply**
- **Power Consumption:** 100 watts maximum

### Environmental
- **Operational:** -40°C to 65°C, 85% max. relative humidity
- **Storage:** -40°C to 85°C, 95% max. relative humidity
- **Altitude:** 13,123 ft. (4000 m) above sea level
- **Airborne Contaminants:** NEBS Section 4.5, GR-1274-C0

### Protection Options
- 1+1 APS/MSP, LSPR/SNCP on network interfaces
- 1:1 equipment protection on tributary interfaces
- 1:1 equipment protection on system card/electronics

### Interfaces
#### Network Interfaces (on system card)
- (2) OC-3/OC-12 or OC-48 ports  
  - LC SMF connectors, IR or LR optics using SFP transceivers
- (2) STM-1/4 or STM-16 ports  
  - LC SMF connectors, IR or LR optics using SFP transceivers

#### Tributary Interfaces (fixed configuration)
- (2) Gigabit Ethernet  
  - LC connectors, SX or LX optics using SFP transceivers
- (6) Fast Ethernet  
  - RJ45 connectors
- (8) DS3 or E3  
  - Mini-BNC connectors
- (28) DS1 or (21) E1  
  - RJ45 connectors

### Functional
- **SONET Multiplexing:** STS-1, STS-3c, VT1.5*
- **SDH Multiplexing:** VC-3, VC-4, VC-12*

#### Synchronization
- Line and backup Stratum 3 timing, G.957, G.691
- Ethernet over SONET/SDH:
  - LO and HO Virtual Concatenation (VCAT)
  - Up to 8 Virtual Concatenation Groups (VCGs)
  - Link Capacity Adjustment Scheme (LCAS)
  - Generic Framing Procedure (GFP)
- Ethernet:
  - Layer 2 switching 802.1Q VLANs, rate limiting in 1 Mbps increments Port or VLAN-based CoS Point-to-point and multipoint services

### Management
- **Local:** RS-232 craft interface
- **Node Management:** SNMP over Ethernet DCC
- **Management Transport:** TCP/IP direct connection (100BaseTX RJ45) or DCC

### Regulatory Standards
- **ANSI** T1.105.02, T1.319-2002
- **ETSI** ETS 300 019-1-3, 019-1-3 (Environmental)
- **IEEE** 802.3, 802.3a, 802.3z, 802.1Q, 802.1p
- **ITU-T** Rec. G.707, G.783 (VCAT), G.7042 (LCAS), G.7041 (GFP)
- **Telcordia** GR-253
- **NEBs** Level 2 Certified, Zone 4 Earthquake, GR-63-CORE, GR-1099-CORE, TR-819-009-005 IBN
- **Safety** CSA C2.2 No. 60950; UL/IEC/EN60950
- **Eye Safety** Class 1
- **EMI** FCC Part 15, Class A; EN 300; EN 55022, Class A; EN 61000

* VT1.5/VC-12 Multiplexing is included with the 622Mbps System Card.