

EdgeLink® STS/T1

STS-1 SONET Access Solution



Today, many service providers are turning to SONET fiber networks to satisfy their customers' demand for greater speed, superior quality of service (QoS) and lower transport costs. To realize the advantages of SONET, however, you need access solutions at the network edge that enable easy, cost-effective, reliable delivery of T1 tariffed services.

Telco Systems helps you meet this critical need with our EdgeLink SONET access solution: the EdgeLink STS/T1. The EdgeLink STS/T1 reduces the cost and complexity of delivering T1 services off SONET backbone networks. It uses SONET drops to avoid expenses associated with tariffed TDM interfaces on add/drop SONET multiplexers and switches. This translates into a competitive edge for you.

The EdgeLink STS/T1 SONET access solution features the industry's smallest footprint, making it ideal for cramped CPE, co-location and inter-office facilities. It's easy to install and maintain, with true plug-and-play architecture and remote management.

Cutting the Cost of T1 Service Delivery

The EdgeLink STS/T1 unit provides a cost-effective solution for delivering T1 services off high-capacity SONET fiber rings and SONET compatible switches. The cost of delivering T1 services from high-capacity SONET networks is dramatically reduced when add/drop multiplexers are populated with STS-1 modules and each STS-1 is broken down to T1s by this STS/T1 device.

By providing a direct STS-1 interface for T1 delivery, the EdgeLink STS/T1 further reduces costs by eliminating additional equipment and tariff additions. The ability to convert T1s to VT1.5s offers the flexibility to map them throughout your SONET backbone, eliminating stranded bandwidth, while enabling you

to monitor T1 performance throughout the entire network.

Compact and Cost-effective

The EdgeLink STS/T1 platform is a compact low-cost 1:1 protected STS-1 multiplexer. It occupies just one rack unit (1RU), and its dense stacking capability allows you to install 30 units in a single rack. The result is the maximum capacity, in the minimum space.

Easy Installation and Maintenance

True plug-and-play architecture reduces the time, cost, and complexity of installing and configuring an EdgeLink STS/T1 unit. It's designed for simpler maintenance and sparing, with just two card types. Cards can be replaced in minutes, without interrupting service.

True 1:1 Hardware Protection

The EdgeLink STS/T1 features 1:1 card redundancy, that ensures maximum service availability under all conditions, and provides this 1:1 protection on both the high-speed and low-speed interfaces. These STS/T1 modules are hot-swappable without service interruption or the need for additional equipment.

Extended Performance Management

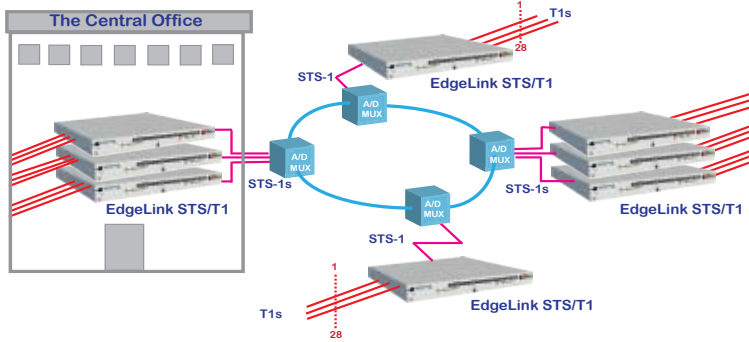
Remote, detailed performance monitoring enables easy, cost-effective monitoring of each T1 interface. The EdgeLink STS/T1 also provides additional options for management which include: SNMP, TL1 alarming and performance, menu driven craft, PPP, and Telnet.

In today's evolving network landscape, the EdgeLink STS/T1 SONET access product is the ideal solution for bridging legacy TDM networks with an expanding SONET fiber infrastructure.

- **Smallest footprint in its class — just 1 RU**
- **1:1 redundancy option for maximum protection**
- **Modules are hot-swappable without service interruption or the need for additional equipment**
- **Four clocking options (two external BITS, line, and internal)**
- **Advanced performance monitoring — path, section and line**
- **Plug-and-play architecture for fast, easy installation and scaling**
- **NEBS Level 3 certified**
- **Custom rack-and-stack configurations available**

EdgeLink STS/T1

Compact, cost-effective service delivery from high-speed SONET networks



EdgeLink solutions provide easy, economical and reliable delivery of T1 services off high-capacity SONET rings

Key Applications

- Low-cost T1 delivery from SONET core
- Advanced management options, including SNMP and TL1 alarming and performance
- Universal chassis configurable for STS-1 or T3 applications

Specifications

Interface

T1 Interface

- No. of Lines Up to 28 per shelf
- Line Rate 1.544 Mbps \pm 32ppm
- Line Code Selectable AMI/B8ZS (per channel)
- AIS Line Rate 1.544 Mbps \pm 32ppm
- Redundancy 1:1
- Line Impedance 100 ohm, nominal balanced
- Pulse Amplitude 2.4V to 3.6V
- Cable ABAM or equivalent
- Span 655 ft. to cross-connect

DS3 Interface

- No. Duplex Lines 1 per shelf
- Line Rate 51.84 Mbps
- Line Code B3ZS (Bipolar three zero substitution)
- Redundancy 1:1
- Line Impedance 75 ohm, unbalanced
- Pulse Amplitude .45V to .90V
- Cable 728A, RG-6/U, 734U, 735U
- Span 450 ft. to cross-connect
- Framing STS-1
- Performance Thresholds User definable

- Power Level -2.7dBm to +4.7dBm

Interface

- STS-1 BNC, male
- T1 64 pin Amp, female
- Craft/Modem/PPP 8 pin modular, female
- Ethernet/Telnet 10Base-T
- Alarm Contact Wirewrap
- Power Dual feed terminals

System Management

System Management

- Embedded SNMP Management
- TELNET
- PPP
- TL1 Alarming and Provisioning over TCP/IP
- IPM- Intermediate Performance Management (optional)
- Local Craft VT-100/ANSI Terminal (menu-driven)
- Office Alarms (Major, Minor, Critical, Far End)
- Status LEDs

Power Requirements

- Voltage -41.5 to -56.3 Vdc
- Power Consumption 45 watts typical
- Recommended Max Fuse 2-3 Amps
- Current Draw 0.75 Amps typical

Clock Source

- Local
- Loop
- External BITS Dual external timing references Auto-switching and reverting

Environmental

- Operating Temperature -32°F to 104°F (0°C to 40°C)
- Relative Humidity Up to 90%, non-condensing
- Altitude Up to 10,000 ft above sea level

Compliance

- FCC Part Class A
- UL 1950
- CSA 22.2
- GR-499-CORE
- GR-253-CORE
- GR-1089 & GR-63 (NEBS Level 3)

Dimensions

- Height 1.75" -1 rack unit
- Width 17.15"
- Depth 12"
- Weight 8 lbs fully loaded

Ordering Information

Part Number	Description
AXX224G4	Edgelinek STS/T1 AC Bundle: Chassis, 1:1, RJ48 panel, AC/DC Cnvrtr, cables
AXX224G5	Edgelinek STS/T1 AC Bundle w/ IPM-BITS: Chassis, 1:1, RJ48 panel, AC/DC cnvrtr, cables
AXX224G6	Edgelinek STS/T1 DC Bundle: Chassis, 1:1, RJ48 panel and cables
AXX224G7	Edgelinek STS/T1 DC Bundle w/ IPM-BITS: Chassis, 1:1, RJ48 panel, cables
AXX224G8	Edgelinek STS/T1 C.O. Bundle: Chassis, 1:1, RJ48 panel with monitor jacks and cables
AXX224G9	Edgelinek STS/T1 C.O. Bundle w/ IPM-BITS: Chassis, 1:1, RJ48 panel with monitor jacks and cables
AXX225G2	Software ELSTS Upgrade Kit
AXX257G1	ELSTS Unprotected
AXX257G2	ELSTS Unprotected with External Timing and IPM
AXX258G1	ELSTS Protected
AXX258G2	ELSTS Protected with External Timing and IPM
CCA473G10	EC-1 Module
CCA473G15	EC-1 Module with IPM and BITS Daughter Card
FA1214-2 STS	Face Plate

X= H for H.323 protocol; M for MGCP protocol; S for SIP protocol



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