



# MX2800 STS-1

## STS-1 Access Multiplexer

### Product Features

- Transport of 28 DS1's across an STS-1 tributary
- Support for VT1.5 and VT2 payload mapping
- Built-in 1:1 redundancy
- Hot swappable controller cards and power supplies
- Comprehensive management options, including SNMP, Telnet, TL1 alarming and SYSLOG
- Quick, easy installation with menu driven interface
- Temperature hardened
- Smallest STS-1 Access Multiplexer available
- Responds to industry standard CSU and NIU loopback codes
- Advanced diagnostics including built-in BERT capability
- Available battery backup
- Firmware upgradable locally or via TFTP
- AC or DC powering options
- NEBS Level 3 compliant
- Standard 10-year warranty

ADTRAN has applied its industry-leading carrier class expertise to the MX2800 STS-1 Access Multiplexer, creating a product that meets the most stringent carrier class requirements. The MX2800 STS-1 offers bandwidth consolidation at a low price and in the smallest footprint available in the industry. Measuring only one rack unit high in 19-inch or 23-inch rackmount configurations, this compact device gives Network Service Providers and enterprise users a powerful tool for consolidating 28 T1 signals onto a SONET STS-1 tributary.

The MX2800 houses two hot-swappable controller cards that are capable of multiplexing T1s or E1s onto an STS-1 tributary. The two controller cards also provide built-in 1:1 redundancy for the DS1 and STS-1 signals as well as redundant STS-1 connections. Advance diagnostics include CSU loopbacks, NIU loopbacks and built-in BERT (Bit Error Rate Testing). A fully connectorized backplane means no wire wrapping and quick, easy installation. Accessories avail-

able for the MX2800 STS-1 include a DSX-1 patch panel that breaks out the 28 DSX-1s into 28 individual RJ48 interfaces and a battery backup system that provides 8 hours of battery backup. By utilizing the optional fan module, up to 40 MX2800s can be mounted into a standard 7 foot rack.

As with all ADTRAN products, the MX2800 STS-1 offers comprehensive management options. It features a VT100 terminal interface for local configuration. To support SNMP, Telnet and TL1 alarming management, the MX2800 STS-1 has an integrated 10BaseT Ethernet port.

Carriers looking to maximize their copper investment and consolidate their services in the most efficient manner will find the MX2800 STS-1 will pay off quickly. Class 5 switches that have STS-1 voice interfaces can easily be converted to DSX-1 interfaces using the MX2800. This gives service providers a cost-effective way to better utilize switch resources while offering T1 voice services to customers.





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# MX2800 STS-1

## STS-1 Access Multiplexer

## Product Specifications

### STS-1 Network Interface

- **Line Rate:** 51.84 Mbps
- **Line Code:** B3ZS
- **Line Interface:** Dual 75 ohm BNC female connectors
- **Line Build Out:** 0-255 ft and 255-450 ft
- **Framing:** STS-1
- **Payload Mapping:** VT1.5 and VT2

### DSX-1 Interfaces

- **Line Build Out:** 0 – 655 feet
- **Line Rate:** 1.544 Mbps
- **Line Code:** AMI or B8ZS
- **Line Interface:** Dual 64 pin amp
- Transparent to DS1 framing format

### Clocking

- **Loop:** Receive from STS-1 interface
- **Free Running:** Internally generated
- **External:** BITS clock input
- **Hold-over timing:** upon failure of selected clock sources

### Diagnostics

#### STS-1 Network

- Line Loopbacks
- Network Loopbacks

#### DSX Ports

- Local and network loopbacks
- Responds to CSU Loopback from STS-1
- Responds to NIU Loopbacks from STS-1
- Generation of CSU Loopback toward user
- BERT pattern generation towards customer and network

### Performance Monitoring

Current 15 minute, 24 hour (96 15-minute intervals), total for 24 hours and cumulative

#### Local Network Port Statistics

- Line coding violations
- Unavailable seconds
- Severely errored framing seconds
- Line errored seconds

#### DSX Ports

- BPV
- LOS

### Management

#### VT-100 Terminal Interface

- RJ48 with female DB-9 adapter provided
- EIA-232

#### SNMP/Telnet

- Integrated 10BaseT Ethernet
- MIBII, RFC1213, 1406, and 1595 compliant
- ADTRAN Enterprise MIB for extended monitoring and control

### Alarms

- External alarm contacts for critical and non-critical alarms
- Normally open and normally closed pinouts
- Front panel and software controlled alarm cutoff (ACO)

### Agency Approvals

- **Emissions:** Part 15 Class A
- **Bellcore:** NEBS Level 3
- **Safety:** UL 1950, CUL

### Environment

- **Operating:** -40°C to 65°C
- **Storage:** -20°C to 70°C
- **Relative Humidity:** Up to 95%, noncondensing

### Physical

- **Dimensions:** 1.7 in. H x 17 in. W x 7.86 in. D
- **Weight:** 5.5 lbs
- **Power:** 115 VAC, -48 VDC or 24 VDC, 27 W

### Product Includes

- MX2800 STS-1
- 19-in./23-in. mounting ears
- Users manual
- 8 pin to 8 pin modular cable
- Modular to DB-9 adapter

## Ordering Information

Equipment	Part #
MX2800 STS-1 DC Redundant .....	<b>4204659L8</b>
MX2800 STS-1 DC Redundant with Fan .....	<b>4204659L18</b>
MX2800 STS-1 AC Redundant .....	<b>4204659L6</b>
Optional Battery Backup .....	<b>4175043L2</b>

Specifications subject to change without notice.

