M13 Multiplexer

MX2800 M13 Multiplexer

Product Features

- Affordable DS3 bandwidth consolidation
- Built-in 1:1 redundancy
- SNMP and Telnet management
- Temperature hardened
- Backhauls multiple service types (T1/E1)
- Smallest M13 form factor available
- Optional integrated V.34 modem and dial-out "cry for help"
- Dual redundant load sharing AC or DC power supplies available
- M13 and C-Bit signaling
- Industry-standard CSU and NIU loopback codes
- Advanced diagnostics including built-in BERT capability
- Software upgradable via modem or TFTP
- Full configuration and management from ADVISION
- NEBS Level 3 compliant
- Optional fan faceplate
- STS-1 version available
- Industry-leading 10-year warranty

ADTRAN™ has applied its industry-leading carrier class expertise to the MX2800™ M13 multiplexer, creating a product that meets the most stringent carrier-class requirements. The MX2800 offers bandwidth consolidation at a low price and in the smallest footprint available in the industry. The equipment meets stringent NEBS Level 3 requirements and is backed by a 10-year warranty. Measuring only one rack unit high in 19-inch or 23-inch rackmount configurations, this compact device gives NSPs and enterprise users a powerful tool for consolidating 28 T1 signals or 21 E1 signals into a T3 circuit. In addition, there is an STS-1 version available.

The MX2800 houses two hot-swappable controller cards that are capable of combining independent T1s, E1s, or T1s and E1s, on the same DS3. The two controller cards also provide built-in 1:1 redundancy for the DS1 and DS3 signals as well as redundant DS3 connections. Advanced diagnostics include CSU loopbacks, NIU loopbacks, C-bit loopbacks and built-in BERT (Bit Error Rate Testing) capabilities. A fully connectorized backplane means no wire wrapping and quick, easy installation. Accessories available for the MX2800 include a DS1 patch panel that breaks out the 28 DS1s into 28 individual RJ-48 interfaces and a battery backup system that provides eight hours of battery backup.

As with all ADTRAN products, the MX2800 offers comprehensive management options, including full management and GUI support from ADVISION. It features a VT100 terminal interface for local configuration. To support SNMP and Telnet management, the MX2800 has an integrated 10BaseT Ethernet port. Also available is an optional integrated V.34 modem operable in VT100 mode or SLIP/PPP mode for SNMP and Telnet access. The modem is capable of performing a dial-out "cry for help" for units that are located in unmanned facilities.

Carriers looking to maximize their copper investment and consolidate their services in the most efficient manner will find that the MX2800 will pay off quickly. For example, a bandwidth reseller who is co-located at an unmanned site and backhauling local and long distance voice service can use the MX2800 to gain T1 access off Hi-Cap SONET rings. The MX2800 is also ideal for Competitive Local Exchange Carriers (CLECs) who are also looking for an efficient means for backhauling local and long distance voice to or from the IXC or LEC. As Internet use continues its rapid expansion, Internet Service Providers are also well served with the MX2800's bandwidth consolidation.

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Product Specifications

Interfaces
DS3 Network Interface
- Channelized DS3
- **Line build out:** Short (0 to 50 feet) and Normal (50 to 450 feet)
- **Framing format:** M13 and C-bit parity
- **Line rate:** 44.736 Mbps
- **Line interface:** Dual 75 ohm BNC coax female connectors

DSX-1 Interface(s)
- **Line build out:** 0 to 655 feet
- **Line rate:** 1.544 Mbps
- **Line code:** AMI or B8ZS
- **Line interface(s):** Dual 64 pin amp connectors

Diagnostics
DS3 Network
- ANSI T1.107 compatible loopbacks
- Line loopbacks

DSX-1 Ports
- Local and network loopbacks
- CSU and NIU loopbacks

Performance Monitoring
Local Network Port Statistics
Current 15 minute, 24 hour (96 15-minute intervals), total for 24 hours and cumulative
- Severely errored framing seconds
- Unavailable seconds
- Line coding violations
- Line errored seconds
- Far end block errors
- F-bit and M-bit errors
- P-bit errored seconds
- P-bit severely errored seconds
- P-bit coding violations
- C-bit coding violations
- C-bit errored seconds
- C-bit severely errored seconds

DSX Ports
- BPV
- LOS
- AIS (loop and carrier)

Mechanical
- **Dimensions:** 1.7 in. H X 7.86 in. D X 17 in. W
- **Weight:** 5.5 lbs (fully redundant)

Clocking
- **Network:** Receive from DS3 network
- **Local:** Internally generated

Alarms
- External alarm contacts for critical and non-critical alarms
- Normally open and normally closed pinout
- Front panel alarm cutoff switch

Electrical
- **Power:** 120 VAC, 24 VDC or 48 VDC, 27 W

Regulatory Standards
- FCC Part 15, Class A
- Industry Canada CS03
- UL and CUL
- NEBS Level 3 compliant
- FCC Part 68

Management
VT100 Terminal Interface
- RJ-48, EIA-232 compatible, female DB-9 adapter provided

Integrated Modem Interface (Optional)
- Dial up access for VT100, SNMP or Telnet
- Dial out "Cry for help"

SNMP/Telnet
- Integrated 10BaseT Ethernet
- MIB II, RFC 1213 and 1407 compliant
- ADTRAN Enterprise MIB for extended monitoring and control/configuration

Environmental
- Operating Temperature: –40°C to 65°C
- Storage Temperature: –20°C to 70°C
- Relative Humidity: Up to 95 percent, noncondensing

Product Includes
- (1) 8-pin to 8-pin modular cable, (1) modular to female DB-9 adapter and user manual, mounting ears for 19-in. and 23-in. racks

Ordering Information

Equipment	Part #
MX2800 – AC with modem	4205290L1
MX2800 – AC Redundant with modem	4205290L2
MX2800 – DC with modem	4205290L3
MX2800 – DC Redundant with modem	4205290L4
MX2800 – AC	4205290L5
MX2800 – AC Redundant	4205290L6
MX2800 – DC	4205290L7
MX2800 – DC Redundant	4205290L8
RJ DSX-1 Patch Panel	1200291L1
STS-1 and Fan versions also available	