M13 Multiplexer

MX2810 M13 Multiplexer

Product Features

- Affordable DS3 bandwidth consolidation
- Built-in 1:1 redundancy
- Hot-swappable controller cards and power supplies
- SNMP and Telnet management
- T1 alarming and provisioning support
- Backhaul multiple service types (T1/E1)
- Smallest M13 form factor available
- Dual redundant load sharing DC power supplies
- M13 and C-Bit signaling support
- Industry-standard CSU and NIU loopback codes
- NEBS Level 3 compliant
- Industry-leading, 10-year warranty

Backhaul consolidation of T1 remains an important function in network operations. With central office space at a premium, carriers need an M13 device that provides cost efficiency, compact size, and built-in intelligent redundancy. ADTRAN® has applied its industry-leading expertise in developing carrier class products to the MX2810® M13 multiplexer. The MX2810 offers bandwidth consolidation at a low price and in the smallest footprint available in the industry. Measuring only 1U high in 19-inch or 23-inch rackmount configurations, this compact device gives ILECs a powerful tool for consolidating 28 T1 signals or 21 E1 signals into a T3 circuit.

The MX2810 houses two hot-swappable controller cards 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 built-in BERT (Bit Error Rate Testing) capabilities. When a T1 failure is

detected, the MX2810 will not swap to the secondary board until it determines that the failure is hardware-oriented and not a line failure. This intelligent redundancy feature minimizes unnecessary hits to the line that other M13 units may allow.

Like all ADTRAN products, the MX2810 offers comprehensive management options, including full management and GUI support from ADTRAN's Total Access® EMS. It features a VT100 terminal interface for local configuration. To support SNMP and Telnet management, the MX2810 has an integrated 10Base-T Ethernet port. It has an RS-232 port for network management, as well as an RS-485 port for daisy chaining multiple units. T1 alarming and provisioning are also supported.

The MX2810 meets the most stringent NEBS Level 3 requirements. In addition, the product is backed by an industry-leading 10-year warranty.

ADTRAN®

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Product Specifications

Mechanical
- **Dimensions:** 1.7 in. H x 17 in. W x 7.86 in. D (4.32 cm H x 43.18 cm W x 19.96 cm D)
- **Weight** 5.5 lb (2.495 kg) (fully redundant)

Interfaces
DS3 Network Interface
- Channelized DS3
- **Line build out:** Short (0 to 50 feet), and Normal (90 to 450 feet)
- **Framing format:** M13 and C-bit parity
- **Line rate:** 44.736 Mbps
- **Line interface:** 75 ohm BNC coax female connectors

DSX-1 Interface
- **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

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

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

DSX Ports
- BP
- LDS
- AIS (loop and carrier)

Electrical
- **Power:** 48 VDC, 30 W

Regulatory Standards
- NEBS Level 3
- FCC Part 15, Class A
- NRTL Safety Listed

Management
VT100 Craft Interface
- DB-9 physical connector
- EIA-232, PC serial port

SNMP/Telnet
- Integrated 10Base-T Ethernet

TL1 Alarming/Editing
- RS-232 X.25 port
- Ethernet

RS-485 Port
- Allows the daisy-chaining of units

Alarms
- External alarm contacts for Critical, Major, and Minor alarms
- Normally open pinout
- Alarm cutoff switch

Environmental
- **Operating temperature:** -40°C to 65°C
- **Storage temperature:** -20°C to 70°C
- **Relative humidity:** Up to 95 percent, noncondensing

Ordering Information

Equipment	Part #
MX2810 Multiplexer Chassis	1185001L1
MX2810 DS3 Controller Card	1185002L2
MX2810 DC Power Supply Unit	1185003L1
MX2810 Test Access Module	1185005L1
MX2810 Redundant System	4185001L5
MX2810 Nonredundant System	4185001L8