



High-Density M13 Multiplexer

MX2820 High-Density M13 Multiplexer

Product Features

- Affordable DS3 bandwidth consolidation
- Up to 9 redundant M13s in 2U of space
- Built-in 1:1 DS3 and DS1 redundancy
- System Controller Unit for centralized management
- Single IP address per shelf
- Backhaul multiple service types (T1/E1)
- TL1, SNMP, and Telnet management
- Local and network timing
- Locally powered –48 VDC
- Up to 81 M13s (using active cooling) or up to 72 M13s (using passive cooling) can be mounted in a 7-foot bay
- 48.26 cm (19-inch) or 58.42 cm (23-inch) versions available

M13 deployment, the technology that enables multiple E1/T1 delivery from a single DS3, is an important factor for telecommunications carriers. Demand for E1/T1s is effected by existing Remote Terminals (RTs) that are space constrained. Supplying a carrier-class multiplexer that can significantly increase E1/T1 output while minimizing space has been the challenge for telecommunications equipment providers.

In areas where multiple M13s are needed, the ADTRAN MX2820 High-Density M13 Multiplexer frees up valuable rack space with a high-density chassis. The MX2820 houses up to 18 multiplexer cards to provide 7 redundant M13 multiplexers in a 48.26 cm (19-inch) chassis and 2 rack units of space. Up to 9 redundant M13 multiplexers can be based in a 58.42 cm (23-inch) chassis. In addition, the MX2820 can provide up to 81 M13s in a 2.13 m (7-foot) bay. Carriers facing costs for IP addressing save money because M13 capability can be added yet each MX2820 uses only a single IP address.

The MX2820 MUX cards are capable of combining independent T1s, E1s, or T1s and E1s on the same DS3. Each pair of MUX cards provides built-in 1:1 redundancy on the DS1 and DS3 signals. Advanced diagnostics include CSU loopbacks, NIU loopbacks, C-bit loopbacks, and built-in BERT (Bit Error Rate Testing) capabilities.

As with all ADTRAN products, the MX2820 offers comprehensive management options. It features a VT100 terminal interface for local configuration. To support SNMP and Telnet management, the MX2820 has an integrated 10/100Base-T Ethernet port. TL1 alarming and editing can be accessed via the 10/100Base-T Ethernet port, or the X.25 connection.



ADTRAN, Inc.

Attention:
International Department
901 Explorer Boulevard
Huntsville, Alabama 35806
USA

www.adtran.com

U.S. Headquarters

+1 256 963 8000 voice
+1 256 963 6300 fax
international@adtran.com

International Customer Service

+1 256 963 8716 voice

Asia Pacific— Beijing, China

+86 10 8857 6415 voice
+86 10 8857 6417 fax
sales.china@adtran.com

Asia Pacific (Other than China and Australia)— Hong Kong, China

+852 2824 8283 voice
+852 2824 8928 fax
sales.asia@adtran.com

Asia Pacific— Guangzhou, China

+86 20 8384 6015 voice
+86 20 8384 7127 fax
sales.china@adtran.com

Asia Pacific— Melbourne, Australia

+61 3 9658 0500 voice
+61 3 9658 0599 fax
sales.australia@adtran.com

Europe/Middle East/Africa— Bad Homburg, Germany

+49 6172 483 2304 voice
+49 6172 483 2305 fax
sales.europe@adtran.com

Europe/Middle East/Africa— Dublin, Ireland

+353 1 669 4790 voice
+353 1 669 4791 fax
sales.europe@adtran.com

Latin America/Caribbean

+1 954 474 4424 voice
+1 954 474 1298 fax
sales.latin@adtran.com

Mexico

+1 954 474 4424 voice
+1 954 474 1298 fax
sales.mexico@adtran.com



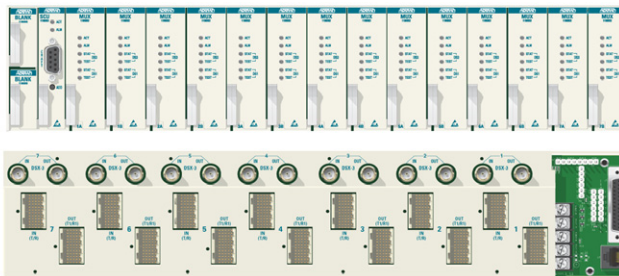
ADTRAN is an
ISO 9001:2000 registered company.



ADTRAN is a
TL 9000 registered company.

High-Density M13 Multiplexer

MX2820 High-Density M13 Multiplexer



Product Specifications

Front Panel Features

SCU

- **ACT:** Active
- **ALM:** Alarm
- **ACO Button:** Alarm cutoff

MUX

- **ACT:** Active or standby
- **ALM:** Alarm
- **DS3:** DS3 status indicator and DS3 test indicator
- **DS1:** DS1 status indicator and DS1 test indicator

Mechanical

- **Dimensions 19-in chassis:**
8.89 cm H x 43.18 cm W x 30.48 cm D
(3.5 in. H X 17 in. W X 12 in. D)
- **Dimensions 23-in chassis:**
8.89 cm H x 53.34 W x 30.48 cm D
(3.5 in. H X 21 in. W X 12 in. D)
- **Weight:** 2.268 Kg (5 lbs.) without modules

Interfaces

- DS3 Level signals with standard 75 ohm BNC connectors
- DSX-1/E1 Level signals with standard 60-pin Future Bus connectors

Clocking

- Network
- Local

Alarms

- External alarm inputs for Critical, Major, and Minor alarms
- Normally open and normally closed pinout
- Front panel alarm cutoff switch (ACO)

Regulatory Standards

- NEBS Level 3
- CE Mark
- IEC 60950
- EN 60950
- EN 300 386-2

Electrical

- **Power requirements:** –48 VDC, 15.5 W per redundant M13, 3.4 W SCU

Management

- **VT100 terminal interface:** DB-9 interface
- **SNMP/Telnet:** Integrated 10/100Base-T Ethernet
- **TL1:** Alarming via Ethernet or X.25 connection

Environmental

- **Operating:** –40°C to +50°C
- **Storage:** –40°C to +85°C
- **Relative humidity:** Per GR-63-CORE

Ordering Information

Equipment	Part #
MX2820 19-in. Chassis	1186001L1
MX2820 23-in. Chassis	1186001L2
MX2820 MUX Card	1186002L1
MX2820 SCU	1186003L1
MX2820 Clock Card	1186004L1
MX2820 STS-1 MUX Card	1186005L1
MX2820 MUX Blank Card	1186010L1
MX2820 Clock Blank Card	1186011L1
DS1 Connector to AMP Adapter Cable (3 ft.)	1186020L1*
DS1 Connector to AMP Adapter Cable (6 ft.)	1186021L1*
DS1 Connector to AMP Adapter Cable (15 ft.)	1186022L1*
DS1 Connector to Stub Cable (25 ft.)	1186025L1*
DS1 Connector to Stub Cable (50 ft.)	1186050L1*
DS1 Connector to Stub Cable (100 ft.)	1186100L1*
Total Access 3000 23-in. Heat Baffle/Fan/Filter	1181003L1
Total Access 3000 23-in. Front Filter Housing	1181971L1
23-in. Rackmount Fan Module	1181006L1
Total Access 1500 Heat Baffle (1U-High)	1180002L1

* Order L2 for overmolded, screwdown connector.