

MTX Series

MACX PCU

Multiple Access Cross Connect Exchange



Key Features

- ✓ N x 56/64K data input to T1/E1
- ✓ Grooming
- ✓ Full T1/E1 Diagnostics (loopbacks and testing)
- ✓ T1/E1 Alarming to CorScan
- ✓ Interface Conversion
- ✓ SNMP Manageable
- ✓ Fault-tolerant architecture
- ✓ Integral T1/E1 CSU/DSU
- ✓ Current Support for up to 1024 T1/E1 Ports
- ✓ Standards-based Network Management

Benefits

- ✓ Redeploy CSU Hardware to the Field
- ✓ Reduce CSU Hardware Costs
- ✓ Decrease Rack Space
- ✓ Reduce Recurring Telecommunication Costs
- ✓ Easily Extend Connectivity to Any Device in the Center.
- ✓ Single Console WAN and Network Test and Monitoring
- ✓ DACS Extension Capability
- ✓ Reduce Fault Isolation Time

Cornet Technology MTX matrix switches have always provided the widest range of physical layer switch capabilities supported by the most advanced standards-based switching technology. They support voice, video, and digital data at speeds up to OC12. This tradition continues with the MACX PCU without compromising any of the service and availability features of the MTX.

The MACX in Switching

Imagine a matrix switch with non blocked grooming capability that performs mux and DACS cross connect switching as well as providing enhanced channel bank capabilities and you have the MTX with our MACX (Multiple Access Cross Connect Exchange) PCU.

With this innovative PCU, convert any type of WAN interface to a DS0/DS1 channel, incorporate the channel into a standard T1 frame, and pass it on to a T1 network. Our intelligent CorScan control software determines which input port(s) is sent to which T1 output. The MTX matrix switch routes the data to the appropriate output card, channelizes the data, frames the data, configures the AMI/B8ZS line encoding, and passes the T1 on to the network. The MACX PCU combines data from up to 23/30 separate user inputs into any single T1/E1 output and handles data rates from 56/64 Kbps to a full T1 in Nx56/64K increments. Data returning on the same T1/E1 channel is routed back to the proper user I/O automatically.

The MACX PCU is available for our high speed 512 or 1024 port MTX engines. The MACX chassis supports up to 16 T1/E1 output ports and features dual-redundant power supplies.

MACXmum Functionality

The MACX performs three basic functions:

- ✓ Builds T1/E1 output signals from individual (Nx56/64K) channels.
- ✓ Removes (Nx56/64K) input channels from T1/E1 frame input signals and converts the individual DS0 into the appropriate interface.
- ✓ Permits input T1/E1 channels to the PCU side of the matrix to have individual (Nx56/64K) channels removed and reinserted into other T1/E1 channels on the MACX.

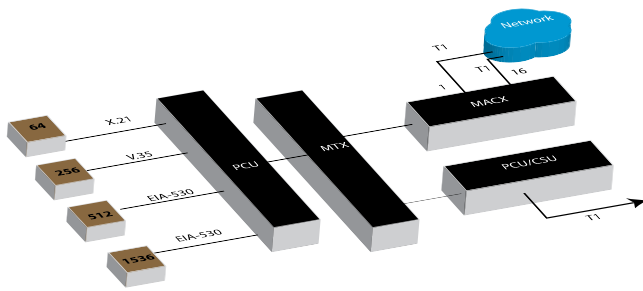


Figure 1
Typical MACX application

CorScan® the Ultimate in Control

As with all Cornet Technology matrix products, the ultimate in system control is provided by our SNMP-based system management software CorScan. Intuitive, yet powerful, the CorScan operator interface makes control a quick and precise process. CorScan allows distribution of clients through out a network, providing responsive access to switch recourses, regardless of location.

Additionally, CorScan provides diagnostics that control loopbacks monitors and tests both host-side and T1/E1 output to the network from a single console, and permits the use of Group- or EXEC-based switching for automation of backups or disaster recovery.

Specification

MACX PCU I/O Cards

Card: 4/8 ports T1/E1 per card (max 2 cards per chassis)

Interface: T1 balanced; E1 balanced Card Connectors: two 50-pin telco connecting to a CAP panel or punch down block

Time Slots: T1: 24; E1: 32 64 Kbps and Nx64 Kbps assignments (adjacent slots)

WAN Input Rate: 56 (64 x N) Kbps synchronous
WAN Inputs: 32 per card for a total of 64 per chassis

DACS Function: Routes time slots from one T1/E1 to one or more out bound T1/E1 frames

CSU Functions

Transceiver

Functions: T1: DS1/ISDN Primary Rate
E1: CEPT PCM-30/ISDN Primary Rate

Framing: T1: D4 and ESF
E1: FAS, CAS, and CRC-4

Trunk Type: T1: long (DS1) and short (DSX) haul.
Automatic buildouts with jitter attenuator
E1: Automatic adjustment of 22 AWG (0.6) twisted pair cables from 0-1.5Km

Alarms: Detects and generates yellow (RAI) and blue (AIS) alarms

Loopbacks: Local loop (back towards MACX card), remote loop (distant CSU in loop towards MACX card)

Tests: BERT testing of WAN or T1.
Results displayed on CorScan.

T1/E1

Specifications: Meets the latest T1/E1 specifications including :

ANSI : T1.403-1995, T1.231-1993, T1.408

AT&T: TR54016, TR62411

ITU: G.932, I.431, O.151, O.161

ETSI: ETS 300 011, ETS 300 166, ETS 300 233, CTR4, CTR12

Japanese: JTG.703, JTI.431, JJ-20.11 (CMI coding only)

DISTRIBUTOR

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In the interest of continuous improvement, Cornet Technology, Inc. reserves the right to change specifications without prior notice.

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