

MTX Series

Multiple Access Cross Connect Exchange

MACX Card

Key Features

- N x 64K data input to T1/E1 Grooming
- Full T1/E1 Diagnostics (loop-backs and testing)
- T1/E1 Alarming to CorScan
- Advanced Technology
- SNMP Manageable
- Fault-tolerant architecture
- Integral T1/E1 CSU/DSU
- Card Option for MTXL and MTX Series of matrix switches
- 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

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 option card 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 frame switching as well as providing enhanced channel bank capabilities and you have the MTX with our MACX (Multiple Access Cross Connect Exchange) card.

With this innovative card, 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 formatting, and passes the T1 on to

the user network. The MACX card combines data from up to 23/30 separate user inputs into any single T1/E1 output and handles data rates from 64 Kbps to a full T1 in Nx64K increments. Data returning on the same T1/E1 channel is routed back to the proper user I/O automatically.

A MACX option card is available for our high speed 1024 port MTX engine which is designed hold up to 16 T1 ports per card and the 512 port MTXL engine with its ability to hold up to eight T1 ports per card.

MACXmum Functionality

The MACX card performs three basic functions:

- ✓ Builds T1/E1 output signals from individual (Nx64K) channels.
- ✓ Removes (Nx64K) input channels from T1/E1 frame input signals.
- ✓ Permits input T1/E1 channels to the PCU side of the matrix to have individual (Nx64K) channels removed and reinserted into other T1/E1 channels on the MACX card.

SPECIFICATIONS

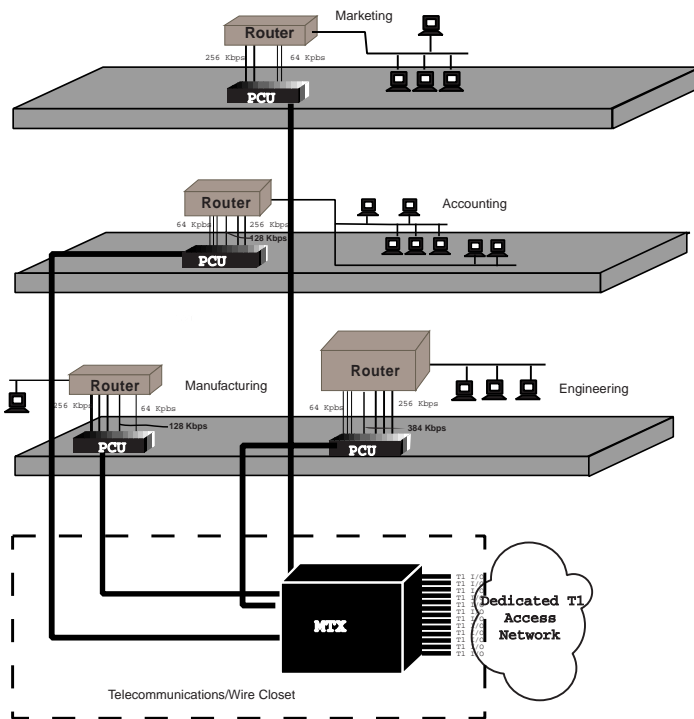


Figure 1

A 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 throughout a network, providing responsive access to switch resources, regardless of location.

Additionally CorScan provides diagnostics that control loop-backs, 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.

MACX Functions

MACX I/O Cards

MTX-256 16 ports T1/E1
MTX-128 8 ports T1/E1

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

CAP Panels: DB-15 or RJ-45

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

WAN Input Rate: 64 Kbps synchronous

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 using local and remote loops.
Results displayed on CorScan.

T1/E1 Specifications: Meets the latest T1/E1 specifications
including ANSI T1.403-1995, ANSI
T1.231-1993, AT&T TR 62411 (12-
90), AT&T TR54-16, and ITU G.703,
G.704, G.823, I.431, ETSI 300 011 and
300 233.



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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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