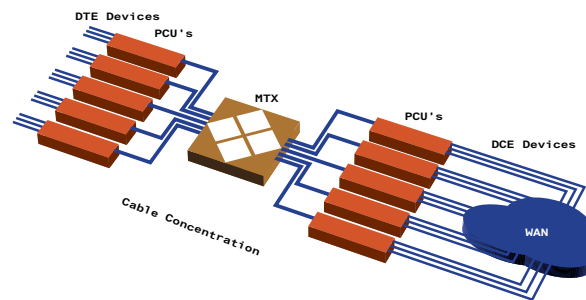


MTX Series

High Capacity Matrix Switches Model MTXL



ENVIRONMENTS
ATM • SONET • VIDEO •
Frame Relay

APPLICATIONS
Cable Extension
Resource Sharing
Disaster Recovery
Cable Management
Remote Test/Monitor Access

Key Features

- WAN and Analog Line Switching in One Chassis
- Support of High Speed Interfaces
- Integral SNMP proxy agent that operates under HP OpenView™ (UNIX or Windows), Netview™ 6000 or Sun NetManager™.
- Hardware Setup and Control fully managed through CorScan®.
- Intelligent port card design. One Card many Interfaces and Functions.
- Intermix interfaces, DCE/DTE types, and speeds in the same chassis.
- Complete Hardware Redundancy. Fault tolerant architecture with automatically switched redundant logic, power supplies, and dual power feeds.
- Extensive background diagnostics proactively monitor and verify the integrity of all data paths through the switch engine.
- Built-in Non-Volatile RAM retains connection table in the event of a power failure.
- Small footprint, high density design.
- Modular design and expansion to 1024 ports

General Overview

The MTX Series of Matrix Switches brings the latest developments in switching technology to the Corneet Technology line of switching products.

Based on a single-stage, non-blocked, crosspoint architecture the MTXL provides the reliability, availability, and fault tolerance required in today's fast paced workplace. The MTXL's matrix design enables it to switch virtually all of the available interfaces required for today's environment. These interfaces range from low speed VF to high speed digital and video applications.

Advanced 4th Generation Design

The MTXL provides unparalleled versatility and flexibility. This 4th generation crosspoint switch addresses switching needs for Wide Area and cable management, within a single chassis. It is designed to switch T1/E1, SCSI, ISDN S0, and most standard user interfaces,

Its modularity allows the MTXL to intermix multiple interface types without the use of external port banks. The MTXL supports both distributed PCU and direct termination. High speed data interfaces are connected directly on the rear of the matrix chassis (on the switch I/O card), greatly reducing the footprint of the matrix installation.

The Ultimate in System Availability

System availability assurance is one of the MTXL's many design strengths. With the MTXL there is no single point of failure. Redundancy is built into the switch's control, switch card, and power supply to ensure system reliability and fault tolerance. The MTXL's "no-hands" recovery approach automatically restores all system connections when power is returned to the switch. Redundancy extends even to the MTXL's system management system CorScan.

To keep system operators "up-to-date" on system health, the MTXL provides automatic testing and alarm reporting. The switch's automatic fault recovery capability maintains system uptime in the event of a system crosspoint failure.

Control

Corneet Technology's SNMP-based system management software, CorScan, offers the ultimate in system control. An intuitive, yet powerful, 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. The software runs on Windows 95/98/2000/XP and NT 4.0 platforms.

A Compact Design

The MTXL Series of matrix switches is designed to allow maximum interface flexibility in a minimum amount of space. The matrix consists of two basic components, the switching cards and the interface cards. Each of these components is designed to maximize network uptime and reliability.

Depending on the interface type, each switch I/O card handles from two to 32 I/O ports. A single chassis holds up to 16 cards. Additionally, a 1024 configuration is supportable by stacking two chassis.

A Superior Matrix Engine

Fully configured with 16 switch cards, the feature-packed, MTXL engine supports up to 512 port connections. Two engines may be stacked to provide 1024 port capacity.

A unique feature of the engine is its single crosspoint design. The MTXL offers full switch card redundancy. Should a switch card fail, a standby switch card automatically assumes its duties. With the MTXL, technicians have the ability to physically remove a switch card *without* losing a single connection. In short, the MTXL provides both path *and* switch card redundancy.

Another feature of the MTXL engine is built-in crosspoint testing that runs background checks on all matrix crosspoints. This feature enables an operator to precheck a connection before making the connection.

The MTXL engine is managed by redundant controllers. In the event of a power failure, these controllers maintain a system connection table in the NV RAM. This connections table is used to automatically reconfigure the matrix when power is reasserted.

Direct Chassis Interfaces

All available high speed interfaces for the MTXL connect directly to the matrix switch I/O card. Switch I/O cards are available for T1/E1 interfaces. Changing interfaces is as simple as changing the switch I/O card. Interface cards can be mixed in the same matrix chassis.

Integrated Service Tools

A full suite of service tools (Modem Eliminator, Breakout Box, BERT testing, and Interface Conversion) are included with the MTXL. All integrated tools are accessible and manageable through CorScan by any operator with access privileges. Thus providing a convenient and predictable service platform regardless of operator location.

SPECIFICATIONS

PC Matrix Controller

Input/Output Port:	Dual serial DCE async
Interface Pins Utilized:	2,3,7,20
Port Connectors:	DB-9 Female
Data Rates:	9.6 K bps or 19.2 K bps, selectable
Parity:	Even, Odd, or Don't Care
Bits:	7 or 8
Message Format:	ASCII Commands
Control PC:	Any moder PC with Microsoft Windows NT 4.0 with Service Pack 3 or Windows 95/98/2000/XP
Control Card LEDs:	TD, RD, CAC test, Backplane disabled, Card Enabled, Power, Companion Failure

Matrix General

Max. Number of Ports:	512 per engine Maximum 1024 ports with two (2) engines.
Number of Crosspoints per Chassis:	524,288
Matrix Type	Single Crosspoint, Electronic
Blocking Factor:	None
Broadcast Capability:	1 to All
Single Connection Time:	70 msec
Max. Engine path Data Rate:	75 Mbps

Internal Testing: CAC on all active paths, DAC on inactive paths, 200ms/crosspoint

Matrix Interface:

Circuits passed per Switch Interface: 32 data path outputs (TTL level switching)
Connector Types: High Density 78 Pin PCU to Matrix
Matrix Speed: 20 Mbps per port

Latency Figures:

Engine: 50 Nsec per Crosspoint
RS-422 I/O: 200 nsec per driver or receiver
IRIG-B I/O: 3 msec for D/A
700 nsec for A/D
RS-232: 8 usec per Driver and Receiver
EIA-530: 100 nsec per Driver or Receiver

Engine Interface Cards DS3/DS0, T1/E1, Video, Fiber, ECL, X.21, RS-422, R-232, Analog

PCU Interface Cards T1/E1, ISDN U & S/T, EIA-530, Ternary, V.35, X.21, RS-232, analog 2, 4, 6 wire, MIL-STD

Mechanical connector

type: According to Interface type.

Ports per engine interface

card: Based on Card Type, typically 32 per I/O card.

Ports per PCU: Usually 16. May be up to 32

Ports per matrix chassis: *T1/E1* 512 input, 512 output
DS3/E3 160 input, 160 output
Video 32 input, 32 output
WAN 512 input, 512 output

BTU Ratings

Matrix Engine 400 BTU/hr

Environment Conditions:

Temperature: Operating: -30 0 C to +52 0 C
Non-Operating: -57 0 C to +160 0 C
Humidity: 98% RH @ +65 0 C
Altitude: Up to 3050m above sea level

Power Requirements:

Matrix Input Power : 100-230 VAC, 50-60 Hz
Max 710 Watts

Physical Dimensions:

Engine Chassis: 19"W x 15.75" H x 16"D
Engine Power Supply: 9"W x 5.25"H x 17.5"D
Weight:
Matrix Engine: 45 lbs



6800 Versar Center, # 216
Springfield, VA 22151-4147
703.658.3400
703.658.3440 (FAX)
www.cornet.com

Distributor

Cornet Switching Systems Ltd
De Salis House
De Salis Drive
Hampton Lovett Industrial Estate
Droitwich, Worcestershire
United Kingdom, WR9 0QE
44 (0) 1905 825950 Telephone
44 (0) 1905 825951 Fax
www.cornet.co.uk

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