TLX MATRIX SWITCHES

SECURE SWITCHING SOLUTION

Thinklogical's TLX Matrix Switches are high performance, modular, non-blocking switches for complete, end-to-end switching over multi-mode or single mode fiber-optic cable.

TLX features real-time switching of DisplayPort and HDMI video, audio and peripheral signals. TLX Matrix Switches offer scalability, flexibility, security and resiliency for any size audio-visual application.

Information Assurance Certifications

Thinklogical's TLX line of switches has achieved IA certification to The Common Criteria EAL4, TEMPEST SDIP 27 Level B, NATO NIAPC Evaluation Scheme: GREEN status, and the U.S. DoD DISA JITC UCR APL 2013, distinguishing Thinklogical as a leader in mid-to-large scale fiber optic KVM and video matrix switches globally.

Thinklogical has met stringent information assurance directives for use in secure defense, intelligence, and infrastructure facilities worldwide. The TLX architecture enables the switching and distribution of multiple classification information through a single chassis, while maintaining network isolation. The innovative design reduces the need to air-gap systems to meet security requirements.

HIGH PERFORMANCE WITH SEAMLESS INTEGRATION

TLX Matrix Switches support uncompressed 10 Gbps bandwidth per port, preserving signal integrity to provide high resolution video with no artifacts, added latency, or lost frames. Thinklogical's patented reclocking technology ensures that every video and data stream is delivered in perfect synchronization.

TLX Switches are protocol agnostic, supporting all common video, audio, and peripheral signal interfaces and formats, ensuring seamless integration into any infrastructure. With TLX, users can consolidate signal switching requirements into a single chassis for enhanced productivity and reduced equipment maintenance and operational costs.

Switching systems may be configured with multi-mode or single mode fiber optics for increased flexibility in hybrid environments. Designed with completely non-blocking architectures, Thinklogical Matrix Switches offer the ability to configure each port on the switch as an input or an output and switch between all ports, maximizing system efficiency.

EXCEPTIONAL RELIABILITY, REDUNDANCY AND RESILIENCY

TLX Switches are designed to maximize system uptime for mission-critical applications. In addition to a mean time between failure (MTBF) of over 100,000 hours, the modular architecture of TLX Switches allow users to hot swap all critical system components. Power supplies, fan trays, control cards, input/output cards and pluggable optics are hot-swappable, to minimize system downtime in the unlikely event a component should fail.

Scalable from 12 to 1280 ports, TLX Matrix Switches are ideal for environments ranging from small conference rooms to large, complex command and control centers.

TLX48 RRU
MATRIX SWITCH

thinklogical®
A **BELDEN** BRAND

The **TLX48 2RU** is a compact high-performance, modular, non-blocking matrix switch for complete, end-to-end routing of video, audio, and peripheral signals. The TLX48 may be configured from a 24 × 24 to a 48 × 48 Switch and is ideal for smaller system applications. All TLX Switches support uncompressed 10 Gbps bandwidth per port for low-latency signal management.

TLX48 SWITCH · FRONT PANEL

TLX48 SWITCH · BACK PANEL

PRODUCT FEATURES

- Configurable up to 48 x 48 switching
- Modular data cards
- 10 Gbps bandwidth per port
- Reclocking technology maintains signal integrity
- Protocol agnostic
- Supports multi-mode & single mode fiber
- Completely non-blocking architecture
- Switch video and data up to 80 km
- MTBF over 100,000 hours
- Hot-swappable control cards, data input/output cards, power supplies, fan trays, optical modules
- Optional redundant control cards with automatic failover
- Redundant, current-sharing power supplies
- Compatible with System Management Portfolio (SMP) for complete switch control and management
- SNMP control protocol
- Integrated web-based Administrative Interface (ADM)
- Certifications to support secure installations

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
MATRIX SWITCH CHASSIS	
TLX-MSC-020048	TLX48 Matrix Switch Chassis configurable up to 48 Multi-Mode or Single Mode Fiber Ports, Redundant Modular Power Supplies
DATA INPUT/OUTPUT CARDS	
TLX-MSD-M00024	TLX48 Matrix Switch Data Input/Output Card, 24 Multi-Mode Fiber Ports
TLX-MSD-S00024	TLX48 Matrix Switch Data Input/Output Card, 24 Single Mode (10 km) Fiber Ports
SPARE MODULES	
TLX-MSM-C20048	TLX48 Control Card
TLX-MSM-F20048	TLX48 Fan Tray
TLX-MSM-P20048	TLX48 Power Supply

PRODUCT SPECIFICATIONS

OPTICAL DISTANCE	• Multi-Mode: 400 m · 33 m (OM1); 82 m (OM2); 300 m (OM3); 400 m (OM4) · Single Mode: 80 km (OS2, 9/125)
OPTICAL DATA RATE	• 50 Mbps to 10 Gbps Per Port; Switching Capacity: 480 Gbps
ENVIRONMENTAL	• Operating Temperature: 0 °C – 50 °C, Humidity: 5–95% RH, non-condensing
COMPLIANCE	• Approvals for United States of America, Canada, and European Union
WARRANTY	• One Year From Date of Shipment. Extended Warranties Available.
MOUNTING BRACKETS	• 19" Rack Mounting Brackets Included
POWER CONSUMPTION	• 150 W, 512 BTU/hr
SUPPLY VOLTAGE	• Universal AC Power Supply, 100-240 VAC, 47-63 Hz
WEIGHT	• 22 lbs (10 kg) Fully Populated
DIMENSIONS **RACK SIZE (WIDTH)** **HEIGHT x DEPTH**	TOLERANCE ± 0.039" (1.00 MM) • EIA 19" (482.90 mm) • 2 RU 3.5" (88.9 mm) x 12.50" (317.5 mm)
CONSOLE PORT	• DB9 Serial Interface, Linux command line
RS-232 API PORT	• DB9 Serial Interface, ASCII Interface
PGM UPDATE PORT	• Mini USB Connector (1)
1GbE NETWORK	• RJ45 Connector (1)
ALARM	• Closed contact alarm, 10-position terminal block
CABLES INCLUDED	• (2) AC Power Cable, (1) CAT5, 4.5 m (CBL000001-015FR), (1) USB 2.0 Type-A to Mini-B, 2 m (CBL000105-002MR)