TLX 1280 MATRIX SWITCH

thinklogical
A **BELDEN** BRAND

SWITCHING SOLUTION FOR UNCOMPRESSED, HIGH RESOLUTION VIDEO & KVM SYSTEMS

Thinklogical's TLX Matrix Switches are high performance, modular, non-blocking switches for complete, end-to-end switching of video, audio and peripheral signals over multi-mode and single mode fiber optic cable. The bi-directional configuration capability adds simplicity and control over sophisticated video and KVM visual computing environments. TLX Matrix Switches offer scalability, flexibility, security and resiliency for any size switching application.

HIGHEST PERFORMANCE WITH EASIEST INTEGRATION

TLX Matrix Switches support up to 10Gbps per port, preserving signal integrity to provide uncompressed, high resolution video with no artifacts, latency or lost frames. Thinklogical's re-clocking technology ensures that every video and data stream is delivered in perfect synchronization. TLX Switches are protocol agnostic, supporting numerous video, audio and peripheral signals, allowing users to consolidate all of their system switching requirements into a single chassis. Switching systems may be configured with multi-mode or single mode fiber for increased flexibility. Designed with completely non-blocking architectures, Thinklogical Switches offer the ability to switch between all ports, maximizing system efficiency. Additionally, each port on the switch may be configured as an input or an ouptut. Scalable from 12 ports to 1280 ports, TLX Switches are ideal for small to large system applications.

CERTIFIED SECURITY

Fiber-Based System

Fiber-based systems are inherently more secure than copper-based systems. Copper cabling presents security risks through electromagnetic interference, such as content sniffing and eavesdropping. Secure data transmitted over fiber optics cannot be compromised. Additionally, fiber extends content significantly greater distances than copper. Creating physical separation between potential threats (users) and the target (secure data) is essential to a secure system design. Thinklogical's fiber-based system permits users to access sources up to 80 kilometers away, with no performance degradation. System administrators can safeguard sources in a centralized location, while users maintain remote access to the sources without the ability to accidentally or intentionally breach the system (such as downloading sensitive information onto a USB drive).

Partitioned and Restricted Switching

Thinklogical protects user's critical data, and maintains information assurance between multiple networks, through partitioned and restricted switching. Partitioning allows the router resources to be divided to support more than one network, and does not allow for switching between networks. Restricted switching allows the administrator to manage access on a port-by-port basis. Partitioned and restricted switching are enabled through the router's firmware, and therefore, a threat would have to physically access the router to tamper with the settings.

Accreditations

Thinklogical's line of switches are the only fiber optic KVM and Video Switches in the world that have achieved accreditation to The Common Criteria EAL4, TEMPEST Level B, and NATO NIAPC Evaluation Scheme: GREEN status, having met stringent criteria that support information assurance directives for secure government, defense and intelligence facilities worldwide (TLX1280 certification pending). Learn more at www.thinklogical.com/accreditations.

EXCEPTIONAL RESILIENCY

TLX Switches are designed to maximize system uptime. In addition to a Mean Time between Failure (MTBF) of over 100,000 hours, the modular approach of the 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. Furthermore, the system can be easily reconfigured, such as adding additional input/output cards for expansion, without ever powering down the router or interrupting active signals. Dual, redundant power supplies ensure continuous, uninterrupted power to the router. Switches are also configurable to include redundant control cards. In the event the primary control card were to fail, the system will automatically failover to the redundant control card, with no delay or data loss. Enhanced diagnostics and alarms provide extensive real-time monitoring and diagnostics of the internal product operating temperature, power supply voltages, input and output fiber links, fans, and other critical functions of the router. Redundant control cards exhibit LED indicators to provide active and fault monitoring, while the system alarms can be configured to trigger an external control system, generate SNMP traps or generate email notifications.

FEATURES

- Configurable up to a 1280x1280 switch
- Modular, 32 port data cards
- 10Gbps and or 6.25Gbps bandwidth per port
- Re-clocking technology maintains signal integrity
- Protocol agnostic
- Multi-mode fiber and single mode fiber
- Completely non-blocking architecture
- Route video and data up to 80 kilometers
- 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
- System Management Portfolio for complete switch control and management

TLX1280 MATRIX SWITCH SPECIFICATIONS

The TLX1280 is a high performance, non-blocking matrix switch for complete, end-to-end routing of video and peripheral signals. The TLX1280 is scalable in increments of 32 ports, up to 1280 ports, for a unidirectional 1280x1280 or a bidirectional 640x640 switch.

**TLX
MATRIX SWITCH
1280**

TECHNICAL SPECIFICATIONS

CHASSIS	**Rack Size:** EIA 19" (482.6 mm)	**Tolerance:** ± .039"; (.991 mm)
	Height: 42 RU-73.5" (1866.9 mm)	**Fully Loaded Chassis Weight:** 348 lbs. (158 kg)
	Depth: 29.00" (737 mm), including handles/cable management: 135.125" (892.18 mm)	**Input/Output Cards:** x1 = 4.91 lbs. (2.23 kg), x40 = 196.4 lbs. (89.1 kg)
	Width: 17.49" (444.2 mm)	**Total Shipping Weight, Full Chassis (3 pallets):** 950 lbs. (430.9 kg)
PORTS	32 x 32 minimum / 1280 x 1280 maximum	
ALARM RELAY CONTRACTS	**Maximum DC:** 1A at 30VDC	
	Maximum AC: 0.3A at 125VAC	
	Contact Resistance Maximum: 100 mΩ	
OPERATING TEMP AND HUMIDITY	0° to 50°C (32° to 122 °F), 5% to 95% RH, non-condensing	
POWER REQUIREMENTS	**AC Input:** 200-240VAC, 50-60 Hz,16A max. for each Power Supply inlet	
	Universal AC Power Supply	
POWER CONSUMPTION	~3500 Watts, fully loaded	
COMPLIANCE	Approvals for US, Canada, and European Union	
WARRANTY	1 Year from date of shipment. Extended warranties available.	

ORDERING INFORMATION

TLX-MSC-001280	TLX 1280 Matrix Switch Chassis, Configurable with up to Forty (40) Data Input/Output Cards
TLX 1280 MATRIX SWITCH DATA INPUT/OUTPUT MODULES	
TLX-MSD-M00032	TLX 1280 Matrix Switch Data Input/Output Card, 20 Multi-Mode Fiber Ports
TLX-MSD-S00032	TLX 1280 Matrix Switch Data Input/Output Card, 20 Single-Mode Fiber Ports, 10km
TLX-MSD-MV00032	TLX 1280 Data Input/Output Card, 20 Multi-Mode Fiber Ports for use with Velocity (6G) Extension Systems in TLX1280 Matrix Switch
TLX-MSD-SV00032	TLX 1280 Data Input/Output Card, 20 Single Mode Fiber Ports for use with Velocity (6G) Extension Systems in TLX1280 Matrix Switch
TLX-MSD-000032	TLX 1280 Matrix Switch Data Input/Output Card, Unpopulated for use with up to 32 Multi-Mode or Single Mode SFP+
TLX 1280 MATRIX SWITCH SPARE MODULES	
TLX-MSM-C01280	TLX 1280 Matrix Switch Controller Card
TLX-MSM-F01280	TLX 1280 Matrix Switch Fan
TLX-MSM-P01280	TLX 1280 Matrix Switch Power Supply