



UNCOMPRESSED 4K

Matrix Switch & Extension Systems

Introducing Thinklogical's newest family of switching and extension solutions, for **uncompressed, high resolution video and KVM systems over fewer cables.**

Hybrid switching solutions (fiber and CATx) start at 12 ports and scale up to 640 ports.

Offering a higher bandwidth solution, the TLX product line provides **10Gbps bandwidth per port**, to preserve signal integrity and provide uncompressed, high resolution video with no artifacts, latency or lost frames.

The TLX product family offers several features to enhance ease of integration.

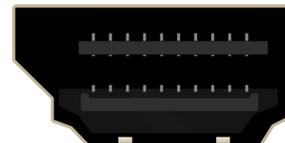
- Offers a higher bandwidth solution to **address new video resolutions and prepare for future, unknown protocols.**
- Enabled through higher bandwidth, the TLX **reduces system cabling by half.**

Extend and switch:

- **a single display up to 4096x2160 @ 30Hz with full 4:4:4 color depth, over a single fiber or CATx cable**
- **a single display up to 4096x2160 @ 60Hz with full 4:4:4 color depth, over two fibers or CATx cables**
(or dual displays up to 4096x2160 @ 30Hz with full 4:4:4 color depth)
- **dual displays up to 4096x2160 @ 60Hz with full 4:4:4 color depth, over four fibers or CATx cables**
- Dual connector, offering support for both HDMI and DisplayPort, **reduces the number of extenders and converter cables required and enables users to future-proof system designs.**

DisplayPort Connector →

HDMI Connector →



Connector installed on every Video and KVM extender module.

- Interoperability with Thinklogical's Velocity family of switch and extension solutions, **to ensure an easy upgrade path and a smooth transition** to Thinklogical's next generation solution.

Contact the Thinklogical Design Center (TLDC) for a complimentary system evaluation and design.

Email info@thinklogical.com · Phone +1(203)647-8700



Hybrid 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 or single mode fiber optic cable or CATx cable**. TLX switches are *protocol agnostic*, supporting numerous video, audio and peripheral signals, allowing users to consolidate all of their system switching requirements in a single chassis. TLX Matrix

Switches are ideal for small to large system applications, with switch sizes ranging from **12 ports to 640 ports**. Each port supports **10Gbps** bandwidth, 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.

(Fiber configurations shown · CATx and Hybrid solutions also available)

The System

Security

Creating physical separation between potential threats (users) and the target (secure data) is essential to a secure system design. Thinklogical's 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

To **protect data between multiple networks**, partitioning allows the switch 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 switch's firmware, and therefore, a threat would have to physically access the switch to tamper with the settings.

Accreditations

Thinklogical's VX 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) Green Status, having met stringent criteria that support information assurance directives for military-intelligence secure facilities worldwide. *The TLX switches have been designed to meet these specifications and are expected to achieve these, as well as additional, accreditations.* Learn more at www.thinklogical.com/accreditations.

Resiliency

TLX switches are designed to maximize system uptime. The modular approach of the TLX allows user to **hot-swap all critical system components**, including power supplies, fan trays, control cards, input/output cards and pluggable optics. Furthermore, the system can be easily reconfigured, such as adding additional input/output cards for expansion, without ever powering down the switch or interrupting active signals. **Redundant and current-sharing power supplies** ensure continuous, uninterrupted power to the switch. Matrix switches are also configurable to include **redundant control cards with automatic failover**. Enhanced diagnostics and alarms provide extensive real-time monitoring and diagnostics of critical functions of the switch.