

# router VX640

6.25 Gbps Video and Peripheral Router

The worlds highest bandwidth router  
just got bigger

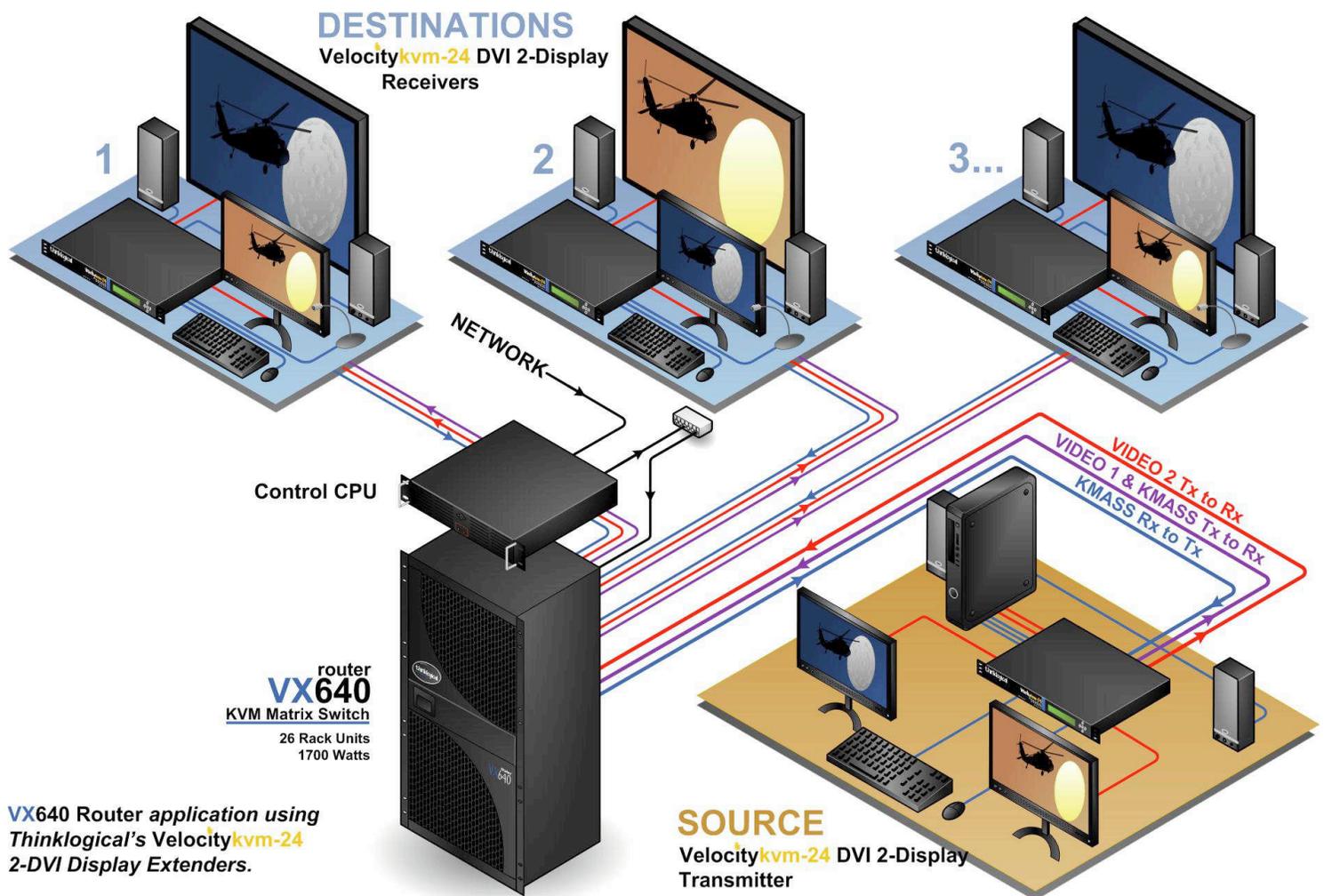
- 640 fiber ports - In and Out for non-blocking matrix switching
- Compatible with Velocity KVM and Video Extenders from Thinklogical
- Compatible with SDI Xtreme 3G+ Extenders from Thinklogical
- Each connection supports 6.25 Gbps with re-clocking input
- Single-mode and multi-mode fiber optic capability
- Redundant, hot-swappable, and current sharing power supplies modules
- 20 ports scalability for input/output cards
- Hot-swappable SFP+ optical port connections
- Hot-swappable fabric switch cards
- Hot-swappable, 20 port I/O cards in a passive midplane chassis
- Protocol agnostic



## The Logical Solution - Routing Video and Peripheral Signals

Thinklogical's exceptionally resilient VX640 router switches virtually any desktop device and supports a variety of different video formats. Unlike traditional routing technology, the VX640 Router is a true non-blocking matrix switch. The VX Router also provides additional flexibility to meet your precise video requirements, being protocol agnostic, the switch supports DVI, SDI, HD-SDI, 3G-SDI Dual-link DVI and Dual-link SDI. The router also supports a variety of peripheral signals such as USB 1.1, USB 2.0, audio, the possibilities are endless.

Massive 6.25 Gbps. of bandwidth provides pristine signal integrity, allowing for uncompressed video, with no frame dropping. Designed with our user's needs in mind the router offers a variety of interface options providing all the functions and features essential in mission critical environments. Thinklogical's advanced fiber optic technology has a proven track record with hundreds of installations worldwide, making the VX Router Series the ideal choice for those who need a scalable, flexible, and secure solution.



## The VX640 is a 6.25 Gbps Router Designed for Mission Critical Applications

Designed to improve operational efficiency and maximize resources, the VX640 offers unrivalled scalability, signal integrity, and control flexibility. The highly robust router design supports advanced, real time applications in environments such as broadcast, post-production, government, medical, military, and corporate. The unmatched 6.25 Gbps signal capability supports high resolution video formats using a single fiber input. In addition, the VX640 is a protocol agnostic solution, therefore it supports all high data rate



## The System – Hot-Swappable and Redundant

The inspired modular approach of the VX640 allows for all critical system components including power supplies, cooling fans, fabric switch cards and pluggable optics (SFP+) to be hot-swappable, thus minimizing business impact in the unlikely event a component should fail. The hot-swappable I/O boards also provide excellent in-service expansion capabilities in convenient steps of 20, thus allowing the VX640 to be reconfigured without interrupting signal processing by powering down the router. In addition, the dual redundant power supplies ensure continuous, uninterrupted power.

The VX640 is controlled via an external Linux or Windows computer. This allows for customization as well as ease of control and administration with access provided via a network connection (browser), or a serial port for 3rd party controller integration (such as Crestron, AMX or home-spun interfaces). Moreover, the VX640 is equipped with industry-standard LC type fiber connectors and offers unprecedented integration with Thinklogical's Velocity Series of fiber optic KVM and video transmitters and receivers as well the SDI Xtreme 3G series.

## True 640 x 640 Non-Blocking Fiber Matrix Architecture

The VX Router series provides users with non-blocking switching capability. The obvious advantage to this is greater switching flexibility in one chassis, allowing for multiple input signals to be available at one or more outputs. The VX640 is also configurable with a mix of multi-mode and single mode versions of I/O cards, which supports both short and long haul applications.

## Enhanced diagnostics and alarms

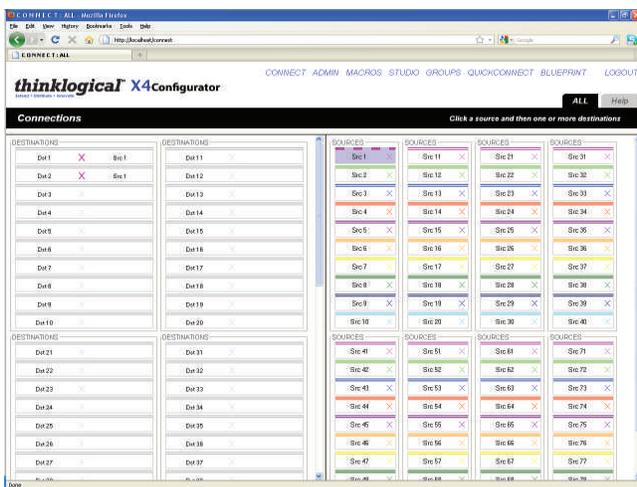
The VX640 provides extensive real-time monitoring and diagnostics of the internal product operating temperature, power supply voltages, I/O fiber links, fans, and other critical functions of the router. Redundant Controllers have LED indicators to provide active and fault monitoring, while the system alarms can be configured to trigger an external control system, generate SNMP traps, or generate email notifications.

## Provides Comprehensive Control Features using Thinklogical's X4 Configurator Control Software

The VX640 is engineered with a range of innovative Thinklogical control features designed to simplify operation in mission critical visualization environments. Thinklogical's X4 Configurator is an advanced GUI which provides convenient user interface to the router from remote locations.

The X4 Configurator allows for easy and intuitive setup and control of the switching between source computer or video entities and user display destinations such as desktops, theaters, conference rooms, editing suites, control consoles, video walls, biomedical imaging arenas, satellite mapping, etc. In addition, single video sources may be multi-cast (one to more than one) or broadcast (one to all) to desired destinations.

Macro presets may be created for saving and recalling commonly used input and output ties. A dedicated preview output option provides a view of all available input signals before switching to a live output. This eliminates the possibility of these signals being inadvertently routed to a live program during a presentation and allows for program outputs to remain available for signal distribution.



Standard X4 Configurator GUI Option



Studio X4 Configurator GUI Option

## Touch Panels

Thinklogical also provides users with control touch panels. With several sizes to choose from (5.7", 8.9", and 17"), they provide tremendous flexibility in external routing control. The touch panel simply connects to your network and provides the X4 Configurator interface, in a variety of locations, right at your fingertips.



Shown: 5.7" and 17"

## Key Features

- 640 x 640 transceiver fiber ports for non-blocking matrix switching
- Compatible with Velocitykvm, Velocitydvi, and SDI Xtreme 3G+ extenders from Thinklogical
- Single-mode, multi-mode and coaxial capability
- Each connection is 6.25 Gbps with re-clocking inputs
- Redundant, current sharing power supply modules, hot swappable
- 20 ports scalability for in and out cards, hot swappable
- Redundant controller card (optional)
- Single fan tray with annunciator port (for alarms) hot swappable
- Controllable via LAN or serial connection
- SNMP control protocol
- Multicasting and macros supported
- Comprehensive system setup and control provided via Thinklogical's X4 Configurator software (included)

## Technical Specifications

Humidity 5-95% RH, non-condensing

Operating Temperature 0-50° C (32-122° F)

### Physical Dimensions - Per Chassis

Rack Size: EIA 19" (482.6 mm)  
 Height: 45.47" (26 RU - 1154.9 mm)  
 Width: 16.07" (408.2 mm)  
 Depth: 20.36" (517.3 mm including fiber management trays)  
 Weight: 132 lbs. (59.87 kg)  
 Shipping Weight: 160 lbs. (72.57 kg)

Ports 20 x 20 minimum configuration  
 – Up to 640 x 640

### Power Requirements - Per Chassis

AC Input: 100-240VAC, 47-63 Hz  
 Universal AC Power Supply

### Power Consumption - Per Chassis

Approximately 2400 Watts  
 Fully Loaded

## Ordering Information - Part Number and Description

### Velocity Matrix Router 640 Chassis

VX640 Chassis VXR-000640

(includes Upper and Lower Cage Backplanes, Upper and Lower Interconnect Boards, 8 Switch Cards, 1 Fan Tray, 1 Controller Card, and 4 Power Modules)

### VX640 Data Card VXM-DI0R20

Velocity Matrix Router 640 Data Input/Output Card, 20 Ports, SFP+, Multi-Mode

### VX640 Spares

Velocity Matrix Router 640 Controller Card VXM-000025

Velocity Matrix Router 640 Switch Card VXM-000026

Velocity Matrix Router 640 Fan Tray Module VXM-000027

Velocity Matrix Router 640 Power Module VXM-000028

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