Velocitykvm

Powered by
MRTS Technology

**KVM Extension System -2 4**
**Two Single-Link DVI Displays**

Extension Options Include:
- USB 1.1
- USB 1.1 with Ethernet Network Extension
- USB 1.1 and USB 2.0
- USB 1.0 HID (ONLY)

Fiber Options Include:
- Single Mode
- Multi-Mode

**Velocitykvm System - 24, Transmitter and Receiver, Multi-Mode Fiber**

## The Logical Solution - KVM Extension

The Velocitykvm System - 24 series is comprised of four different models, all of which are designed to support **two Single-Link DVI displays**, PS2, full duplex stereo audio, and serial (RS-232). Depending on your requirements model options feature either USB 1.0 HID (only), USB 1.1, USB 1.1 with Ethernet 10/100 Base-T network extension, or USB 1.1 and USB 2.0 (up to 480 Mbps) device ports. Using multi-mode or single-mode fiber, the system allows users to locate a DVI monitor and peripherals via fiber from just a few meters up to 10 kilometers away from the controlling computer securely without the loss of resolution.

Powered by Thinklogical's cutting edge, patent-pending MRTS (Multi Rate Transmission System) technology, this extension system transports every frame of a DVI video stream seamlessly, with no compression, or dropped frames. In addition, all high speed peripherals function with no latency making it ideally suited for a wide range of applications in the broadcast and post-production field, as well as command and control centers, universities, large scale digital signage, and any other commercial KVM applications.

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## The System

The Velocitykvm System - 24 has a simple transmitter/receiver design which allows for ease of installation and straight forward deployment. Depending on the user's infrastructure, the transmitter and the receiver can be connected by multi-mode or single-mode fiber optic cable. The transmitter unit connects to the CPU with the supplied peripheral cables. In addition, local video, keyboard, and mouse ports are on the transmitter. The receiver unit provides connections to the user interface devices.

Leveraging standard SFP+ transceivers, the system allows for the usage of either multi-mode or single-mode fiber optic cable. The Velocitykvm Extender - 24 requires three fibers for a multi-mode configuration. Two fibers are dedicated to the video and USB while the third fiber is the back channel for the USB and DDC. The DDC (Display Data Channel) or EDID (Extended Display Identification Data) information is provided to the CPU by either a generic table stored inside the transmitter, or from a display connected to the transmitters local port. Also, the added capability of active DDC allows the remote monitor to send its display capabilities to the CPU. Multi-mode and single-mode models are available with SC, ST, or LC type fiber connectors. Standard fiber count is three however models with fewer fibers are available.

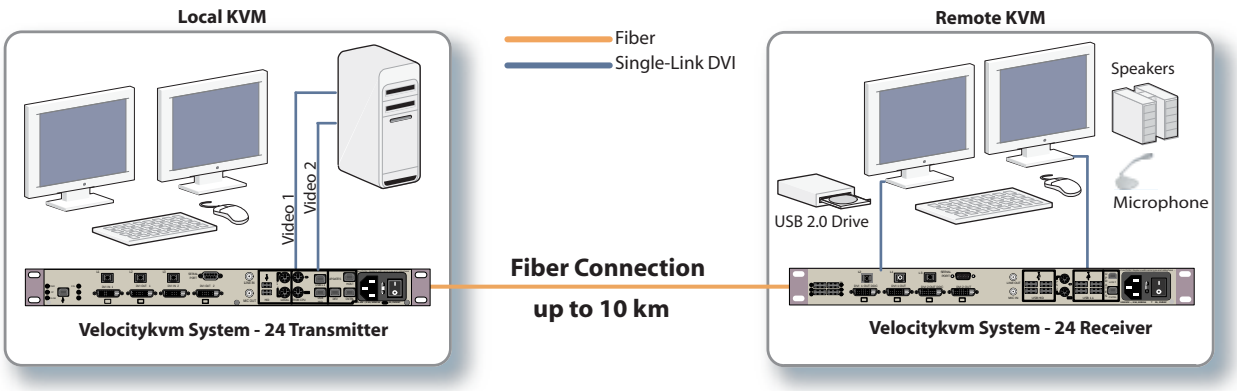
The VelocityKVM System 24 extension system offers best-in-class fiber optic performance with advanced peripheral and interface capability. The entire line of VelocityKVM products offer the following four model options:

- USB 1.1, PS2, Serial (RS-232), and Analog Stereo Audio (bi-directional)
  For general purpose use, supports any full speed USB (1.1) peripheral, including thumb drives and tablets.

- USB 1.1 *with Ethernet 10/100 Base-T Network Extension*, PS2, Serial (RS-232), and Analog Stereo Audio (bi-directional)
  Extend Ethernet network (10/100 Base-T) through the VelocityKVM Transmitters via single mode or multi-mode fiber optics to the VelocityKVM Receivers. This expanded network connectivity will provide for greater peripheral capability with no increase in fiber or port counts.

- USB 1.1, USB 2.0, PS2, Serial (RS-232), and Analog Stereo Audio (bi-directional)
  Full support for USB high speed (2.0) devices (along with USB 1.1 support), ideal use for DVD drives, CDROM, Memory Stick, and other high speed storage and desktop peripherals. Supports full 480Mb/second transfer rates.

- USB 1.0 (HID ONLY), PS2, Serial (RS-232), and Analog Stereo Audio (bi-directional)
  Designed for security conscious customers. No physical support for USB thumb drives or other full speed devices. Supports human interface devices only, such as keyboard, mouse, and tablets.




**Typical application extending DVI video and peripheral devices using the Velocitykvm System - 24**

## Key Features

- Supports all Single-Link DVI video resolutions and two DVI displays
- MRTS technology 6.25Gbps allows for full frame rate transmission of uncompressed DVI
- Requires up to four fiber optic cables depending on application
- Flawless image quality with no frame dropping
- Extends signals up to:
  - 750 meters using SX+ multi-mode fiber
  - 1000 meters using eSX+ multi-mode fiber
  - 10 kilometers using single-mode fiber
- Local KVM connections on the transmitter
- Two video outputs for each video channel on the receiver
- USB HID, USB 1.1 and USB 2.0 compliant - High Speed 480 Mbps., 4-port hub
- Full keyboard and mouse emulation through the transmitter, full duplex stereo audio, serial RS-232
- DDC2B/EDID compliant
- Simple plug and play
- Fully compatible with Thinklogical's KVM VXRouter line of products

Velocitykvm Extender - 24 Transmitter, Multi-Mode

Velocitykvm Extender - 24 Receiver, Multi-Mode

Velocitykvm Extenders - 24 Transmitter and Receiver Back Views

## Specifications

| | |
|---|---|
| **Video Resolution** | DVI-D All Single-Link DVI resolutions |
| **Operating Temp.** | 0°-50°C; (32°-122°F) |
| **Humidity** | 5-95% RH, non-condensing |
| **Dimensions** | Rack Size: EIA 19"<br>Height: 1U-1.72" (4.40 cm)<br>Depth: 14.22" (36.1 cm)<br>Width: 17.49" (44.5 cm)<br>(Tolerance: ± .039"; .100cm) |
| **Weights** | Weight: 11 lbs (4.99 kg) per unit<br>Shipping Weight: 27 lbs (12.25 kg) pair |
| **Power Consumption** | 40 watts per unit |
| **Supply Voltage** | 100-240 VAC, 47-63 Hz, Universal AC Power Supply |
| **Optical Cable** | Single-Mode and Multi-Mode over Three Fibers (for fewer fiber counts contact Thinklogical)<br>Fiber is Available, Not Supplied |
| **Optical Distance** | Up to 50 meters using 62.5/125um, type OM1; Up to 350 meters using 50/125um, type OM2<br>Up to 750 meters using 50/125um, type OM3; Up to 1000 meters using 50/125um, type OM3 enhanced;<br>Up to 10 kilometers using 9/125um, type OS2 (Single-Mode)<br>(Please contact Thinklogical for distances over 10 kilometers) |
| **Compliance** | Approvals for US, Canada, and European Union |
| **Warranty** | 12 months from date of shipment - Extended warranties available |

## Connectors

**Transmitter**

| | |
|---|---|
| Video | DVI-D (4) |
| Audio MIC | 3.5mm Jack |
| Audio LINE | 3.5mm Jack |
| Serial Port | DB9 Female |
| USB 1.0 (HID) | USB B |
| USB 1.1 | USB B |
| USB 2.0 | USB B |
| USB Local Keyboard | USB A |
| USB Local Mouse | USB A |
| PS2 Keyboard | MiniDIN 6 Female |
| PS2 Mouse | MiniDIN 6 Female |
| PS2 Local Keyboard | MiniDIN 6 Female |
| PS2 Local Mouse | MiniDIN 6 Female |
| Software Updates | USB B (3) |
| Fiber Connectors | SC/APC for Single-Mode<br>LC, SC or ST for Multi-Mode |

**Cables Included:** DVI-D Single-Link male to male, 2 meter (2)
USB A to USB B cable, 6 feet

**Receiver**

| | |
|---|---|
| Video | DVI-D (4) |
| Audio MIC | 3.5mm Jack |
| Audio LINE | 3.5mm Jack |
| Serial Port | DB9 Male |
| USB 1.0 (HID) | USB A (4) |
| USB 1.1 | USB A (4) |
| USB 2.0 | USB A (4) |
| PS2 Keyboard | MiniDIN 6 Female |
| PS2 Mouse | MiniDIN 6 Female |
| Software Updates | USB B (2) |
| Fiber Connectors | SC/APC for Single-Mode<br>LC, SC or ST for Multi-Mode |

**Cables Included:** USB A to USB B cable, 6 feet

# Velocitykvm System - 24 Ordering Information

VELOCITY 24: SINGLE-MODE
Part Number and Description

**VELOCITY 24 with HUMAN INTERFACE DEVICE**

VEL-H00S24-LCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, HID, KMAS, Single Mode, LC/UPC
VEL-H00S24-LCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, HID, KMAS, Single Mode, LC/UPC
VEL-H00S24-SCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, HID, KMAS, Single Mode, SC/UPC
VEL-H00S24-SCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, HID, KMAS, Single Mode, SC/UPC
VEL-H00S24-STRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, HID, KMAS, Single Mode, ST/UPC
VEL-H00S24-STTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, HID, KMAS, Single Mode, ST/UPC

**VELOCITY 24 with USB 1.1**

VEL-000S24-LCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, KMAS, Single Mode, LC/UPC
VEL-000S24-LCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, KMAS, Single Mode, LC/UPC
VEL-000S24-SCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, KMAS, Single Mode, SC/UPC
VEL-000S24-SCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, KMAS, Single Mode, SC/UPC
VEL-000S24-STRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, KMAS, Single Mode, ST/UPC
VEL-000S24-STTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, KMAS, Single Mode, ST/UPC

**VELOCITY 24 with USB 1.1 and NETWORK**

VEL-N00S24-LCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Single Mode, LC/UPC
VEL-N00S24-LCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Single Mode, LC/UPC
VEL-N00S24-SCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Single Mode, SC/UPC
VEL-N00S24-SCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Single Mode, SC/UPC
VEL-N00S24-STRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Single Mode, ST/UPC
VEL-N00S24-STTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Single Mode, ST/UPC

**VELOCITY 24 with USB 1.1 and USB 2.0**

VEL-U00S24-LCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Single Mode, LC/UPC
VEL-U00S24-LCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Single Mode, LC/UPC
VEL-U00S24-SCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Single Mode, SC/UPC
VEL-U00S24-SCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Single Mode, SC/UPC
VEL-U00S24-STRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Single Mode, ST/UPC
VEL-U00S24-STTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Single Mode, ST/UPC

**VELOCITY EXTENDER OPTICS OPTION for SINGLE-MODE**

VOP-S12 Velocity 24 Optics Option for Transmitter or Receiver, Single Mode, Three Fibers, 10KM, LC/UPC
VOP-S08 Velocity 24 Optics Option for Transmitter or Receiver, Single Mode, Three Fibers, 10KM, SC/UPC or ST/UPC

# Velocitykvm System - 24 Ordering Information

VELOCITY 24: MULTI-MODE
Part Number and Description

**VELOCITY 24 with HUMAN INTERFACE DEVICE**

VEL-H00M24-LCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, HID, KMAS, Multi-Mode, LC
VEL-H00M24-LCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, HID, KMAS, Multi-Mode, LC
VEL-H00M24-SCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, HID, KMAS, Multi-Mode, SC
VEL-H00M24-SCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, HID, KMAS, Multi-Mode, SC
VEL-H00M24-STRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, HID, KMAS, Multi-Mode, ST
VEL-H00M24-STTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, HID, KMAS, Multi-Mode, ST

**VELOCITY 24 with USB 1.1**

VEL-000M24-LCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, KMAS, Multi-Mode, LC
VEL-000M24-LCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, KMAS, Multi-Mode, LC
VEL-000M24-SCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, KMAS, Multi-Mode, SC
VEL-000M24-SCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, KMAS, Multi-Mode, SC
VEL-000M24-STRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, KMAS, Multi-Mode, ST
VEL-000M24-STTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, KMAS, Multi-Mode, ST

**VELOCITY 24 with USB 1.1 and NETWORK**

VEL-N00M24-LCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Multi-Mode, LC
VEL-N00M24-LCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Multi-Mode, LC
VEL-N00M24-SCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Multi-Mode, SC
VEL-N00M24-SCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Multi-Mode, SC
VEL-N00M24-STRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Multi-Mode, ST
VEL-N00M24-STTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, Network, KMAS, Multi-Mode, ST

**VELOCITY 24 with USB 1.1 and USB 2.0**

VEL-U00M24-LCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Multi-Mode, LC
VEL-U00M24-LCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Multi-Mode, LC
VEL-U00M24-SCRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Multi-Mode, SC
VEL-U00M24-SCTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Multi-Mode, SC
VEL-U00M24-STRX Velocity KVM Extender Receiver, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Multi-Mode, ST
VEL-U00M24-STTX Velocity KVM Extender Transmitter, Dual Head Single Link DVI, USB 1.1, USB 2.0, KMAS, Multi-Mode, ST

**VELOCITY EXTENDER OPTICS OPTION for MULTI-MODE**

VOP-M05 Velocity 24 Optics Option for Transmitter or Receiver, Multi-Mode, 3 Fibers, 1000M, LC
VOP-M02 Velocity 24 Optics Option for Transmitter or Receiver, Multi-Mode, 3 Fibers, 1000M, SC or ST

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