

# Velocitykvm

Powered by  
MRTS Technology

## KVM Extension System - 5 One DVI or RGB Display

### 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 - 5, Transmitter and Receiver, Multi-Mode Fiber

## The Logical Solution - KVM Extension

The Velocitykvm System - 5 series is comprised of four different models, all of which are designed to support **one Single-Link DVI or RGB display**, 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.

**thinklogical**<sup>™</sup>  
www.thinklogical.com

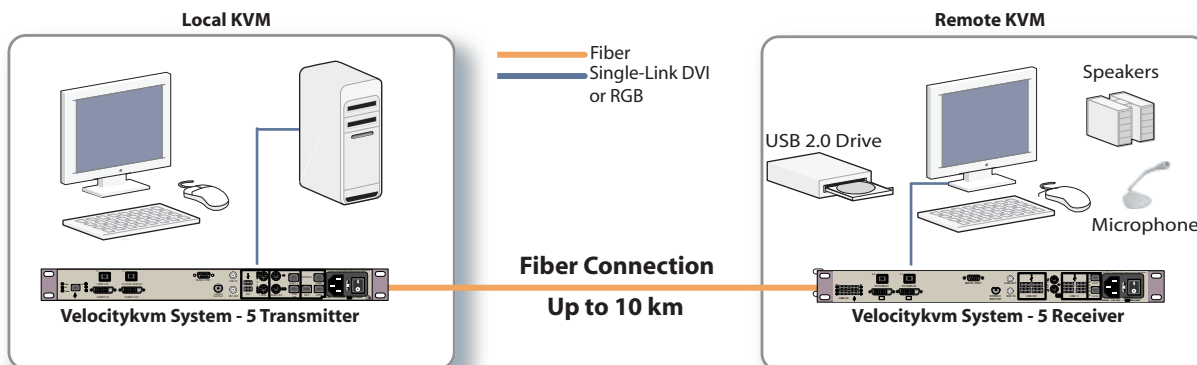
## The System

The Velocitykvm System - 5 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 - 5 requires two fibers for a multi-mode configuration. One fiber is dedicated to the video and USB while the second 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 two, however models with fewer fibers are available.

The VelocityKVM System - 5 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 video and peripheral devices using the Velocitykvm System - 5

## Key Features

- Supports all Single-Link DVI or RGB video resolutions and one DVI display
- MRTS technology 6.25Gbps allows for full frame rate transmission of uncompressed DVI
- Requires one or two fiber optic cables depending on application
- Flawless image quality with no frame dropping
- Single mode or multi-mode fiber options extend 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 connection on the transmitter
- Additional video output on the receiver
- Models support USB HID, USB 1.1 and USB 2.0 compliant - High Speed 480 Mbps., 4-port hub
- Model available with USB 1.1 and Ethernet 10/100 Base-T network extension
- 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 - 5 Transmitter, Multi-Mode



Velocitykvm Extender - 5 Receiver, Multi-Mode

Velocitykvm Extenders - 5 Transmitter and Receiver Back Views

## Specifications

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

## Connectors

### Transmitter

Video	DVI-I (2)
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 LC, SC or ST for Multi-Mode

### Receiver

Video	DVI-I (2)
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 LC, SC or ST for Multi-Mode

**Cables Included:** DVI-I to DVI-I, male to male, 2 meter  
DVI-A to HD15, male to male, 2 meter  
USB A to USB B cable, 6 feet

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

## Velocitykvm System - 5 Ordering Information

### VELOCITY 5: SINGLE-MODE

#### Part Number and Description

#### VELOCITY 5 with USB 1.0 HUMAN INTERFACE DEVICE (only)

VEL-H00S05-LCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, HID, KMAS, Single-Mode, LC  
 VEL-H00S05-LCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, HID, KMAS, Single-Mode, LC  
 VEL-H00S05-SCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, HID, KMAS, Single-Mode, SC  
 VEL-H00S05-SCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, HID, KMAS, Single-Mode, SC  
 VEL-H00S05-STRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, HID, KMAS, Single-Mode, ST  
 VEL-H00S05-STTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, HID, KMAS, Single-Mode, ST

#### VELOCITY 5 with USB 1.1

VEL-000S05-LCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Single-Mode, LC  
 VEL-000S05-LCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Single-Mode, LC  
 VEL-000S05-SCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Single-Mode, SC  
 VEL-000S05-SCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Single-Mode, SC  
 VEL-000S05-STRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Single-Mode, ST  
 VEL-000S05-STTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Single-Mode, ST

#### VELOCITY 5 with USB 1.1 and Ethernet 10/100 Base-T Network Extension

VEL-N00S05-LCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Single-Mode, LC  
 VEL-N00S05-LCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Single-Mode, LC  
 VEL-N00S05-SCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Single-Mode, SC  
 VEL-N00S05-SCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Single-Mode, SC  
 VEL-N00S05-STRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Multi-Mode, ST  
 VEL-N00S05-STTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Single-Mode, ST

#### VELOCITY 5 with USB 1.1 and USB 2.0

VEL-U00S05-LCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Single-Mode, LC  
 VEL-U00S05-LCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Single-Mode, LC  
 VEL-U00S05-SCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Single-Mode, SC  
 VEL-U00S05-SCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Multi-Mode, SC  
 VEL-U00S05-STRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Single-Mode, ST  
 VEL-U00S05-STTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Single-Mode, ST

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

VOP-S11 Velocity 5 Optics Option for Transmitter or Receiver, Single Mode, Dual Fiber, 10KM, LC/UPC  
 VOP-S05 Velocity 5 Optics Option for Transmitter or Receiver, Single Mode, Dual Fiber, 10KM, SC/UPC or ST/UPC  
 VOP-S16 Velocity 5 Optics Option for Transmitter, Single Mode, Single Fiber, 10KM, SC/UPC or ST/UPC  
 VOP-S17 Velocity 5 Optics Option for Receiver, Single Mode, Single Fiber, 10KM, SC/UPC or ST/UPC

## VELOCITY 5: MULTI-MODE

### Part Number and Description

#### VELOCITY 5 with USB 1.0 HUMAN INTERFACE DEVICE (only)

VEL-H00M05-LCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, HID, KMAS, Multi-Mode, LC  
 VEL-H00M05-LCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, HID, KMAS, Multi-Mode, LC  
 VEL-H00M05-SCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, HID, KMAS, Multi-Mode, SC  
 VEL-H00M05-SCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, HID, KMAS, Multi-Mode, SC  
 VEL-H00M05-STRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, HID, KMAS, Multi-Mode, ST  
 VEL-H00M05-STTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, HID, KMAS, Multi-Mode, ST

#### VELOCITY 5 with USB 1.1

VEL-000M05-LCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Multi-Mode, LC  
 VEL-000M05-LCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Multi-Mode, LC  
 VEL-000M05-SCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Multi-Mode, SC  
 VEL-000M05-SCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Multi-Mode, SC  
 VEL-000M05-STRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Multi-Mode, ST  
 VEL-000M05-STTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, KMAS, Multi-Mode, ST

#### VELOCITY 5 with USB 1.1 and Ethernet 10/100 Base-T Network Extension

VEL-N00M05-LCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Multi-Mode, LC  
 VEL-N00M05-LCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Multi-Mode, LC  
 VEL-N00M05-SCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Multi-Mode, SC  
 VEL-N00M05-SCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Multi-Mode, SC  
 VEL-N00M05-STRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Multi-Mode, ST  
 VEL-N00M05-STTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 1.1, Network, KMAS, Multi-Mode, ST

#### VELOCITY 5 with USB 1.1 and USB 2.0

VEL-U00M05-LCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Multi-Mode, LC  
 VEL-U00M05-LCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Multi-Mode, LC  
 VEL-U00M05-SCRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Multi-Mode, SC  
 VEL-U00M05-SCTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Multi-Mode, SC  
 VEL-U00M05-STRX Velocity KVM Extender Receiver, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Multi-Mode, ST  
 VEL-U00M05-STTX Velocity KVM Extender Transmitter, Single Head Single Link DVI, RGB, USB 2.0, KMAS, Multi-Mode, ST

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

VOP-M04 Velocitykvm Optics Option for Transmitter or Receiver, Multi-Mode, Two Fibers, LC  
 VOP-M01 Velocitykvm Optics Option for Transmitter or Receiver, Multi-Mode, Two Fibers, SC or ST

# **thinklogical**<sup>™</sup>

100 Washington Street  
 Milford, CT 06460 USA

Contact a Thinklogical Sales Representative at  
[sales@thinklogical.com](mailto:sales@thinklogical.com) or (203) 647-8700