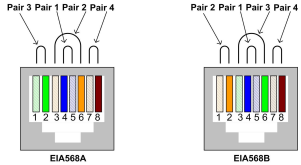# Specifications

Environment	KVM, DVI 1.0 (Single Channel) & USB 2.0
Devices	Plasma, projectors, monitors, TV, PC, laptops, mouse, keyboard
Transmission	Transparent to the user
Bandwidth	340 MHz
Signals	DVI 1.0 protocol, USB 2.0
USB	One input on TX side and 4 output on RX. Bandwidth available: Up to 250 Mb/s.
Connectors	One (1) DVI-D receptacle. One (1) RJ45 for Cat 5e/6 unshielded or shielded twisted pair. On TX: 1 standard USB connector type B On RX: 4 standard USB connector type A *Note: No cables are included.*
Maximum Distance *Based on a maximum length of 6.6 ft (2 m) of DVI cable per end.*	Cat 5e/6*: 330 ft. (100 m) up to 1920 X 1200 up to 60 Hz 330 ft. (100 m) for 4K; 3840 X 2160/24,25,30 Hz *Note*: A minimum CAT of 12ft.(4m) is required. When installed in an electrically noisy environment, an STP cable must be used.*
RJ45 Pin Configuration *Reverse Polarity Sensitive. Use EIA/TIA 568A or 586B straight-through wiring.*	**RJ45 Link** Pin 1 (R) Pin 2 (T) Pin 3 (R) Pin 6 (T) Pin 4 (R) Pin 5 (T) Pin 7 (R) Pin 8 (T) Pair 3 Pair 1 Pair 2 Pair 4 Pair 2 Pair 1 Pair 3 Pair 4 EIA568A EIA568B
Cable	One (1) Cat 5e/6 or better twisted pair cables required
Power Supply	Two (2) 110-240V/5VDC power supplies with interchangeable blades
Power Consumption	Transmitter: 3 Watts Receiver: 7 Watts + USB power
Temperature	Operating: 0° to 40°C Storage: -20° to 85°C Humidity: Up to 95% non-condensing
Enclosure	Aluminum
Dimensions	4.50" x 3.00" x 1.25" (11.4 x 7.6 x 3.2 cm)
Weight	2.6 lb. (1.2 kg)
Compliance	Regulatory: FCC, CE, RoHS Flammability: 94V0
Warranty	2 years
Order Information	500391 DVI/USB 2 Extender Kit

DVI/USB 2 Extender Kit

500391

Quick Installation Guide

Overview

The DVI/USB 2 Extender Kit (500391) allows one DVI channel and one USB 2.0 channel to be transmitted to 330 ft. (100 m) at all resolutions up to 3840x2160 @ 30 Hz (including 1920x1200) via one (1) Cat 5e/6 cable in a point-to-point configuration. The receive side include a 1x4 USB hub.

Applications

Applications include KMV commercial and residential AV systems, classroom projector systems, digital signage, boardroom systems, collaborative PC systems, and medical information systems.
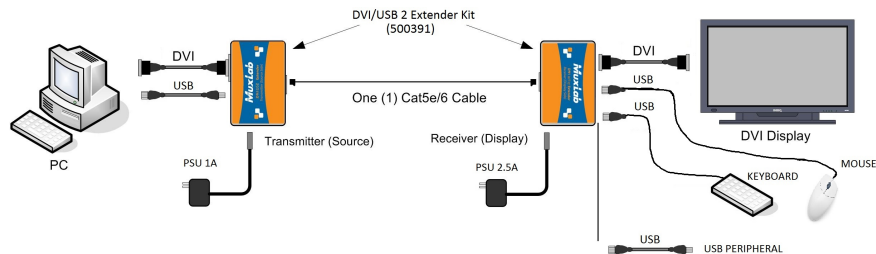
Installation

1. Identify the connectors on the Transmitter and Receiver as indicated on the product labels.

2. Verify that the distance between the DVI/USB 2 Transmitter and Receiver is within MuxLab specifications.

3. To install the Transmitter:

   3a. Connect the Transmitter to the DVI video source with a DVI compliant cable.

   3b. Connect the Transmitter to USB with a standard cable.

   3c. Connect one (1) lengths of Cat 5e/6 (or higher) grade UTP cables to RJ45 LINK connectors on the Transmitter.

4. To install the Receiver:

   4a. Connect the Receiver to the DVI display equipment with a DVI compliant cable.

   4b. Connect the Receiver up to four USB peripheral with a standard cable. Do not use more expansion hub on receive side. Only four ports are available. Power is limited to 1A for the four ports.

   4c. Connect the one (1) Cat 5e/6 cables to RJ45 LINK connectors on the Receiver.

5. Connect the 5 VDC 2.5A power supply to the Receiver and then plug the power supply into an AC power outlet. Connect the second 5 VDC power supply to the Transmitter and then plug the power supply into an AC power outlet. If power is present, the green power LED of the Transmitter and the Receiver will be ON.

6. Power the DVI equipment and verify the image quality.

7. The following diagram shows the final configuration.

© MuxLab Inc. 2015

Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions in respect to the installation of the DVI/USB 2 Extender Kit:

Symptom	Tx LEDs			Rx LEDs			Probable Cause	Possible Solutions
	Power	DVI	RJ45	Power	DVI	RJ45		
No Image	OFF	OFF	OFF	OFF	OFF	OFF	No power or wrong power supply	Check power connections
No Image	ON	OFF	OFF	ON	OFF	OFF	UTP Cable	Check the UTP cables.
No Image	ON	OFF	ON	ON	OFF	ON	DVI Cable	Check the DVI Cable.
No Image	ON	ON	ON	ON	ON	ON	Synchronization	Check cable length.
Flickering Image	ON	ON	ON	ON	ON	ON	Synchronization	Check cable length Check the DVI Cable Quality.
Choppy sound	ON	ON	ON	ON	ON	ON	Synchronization	Check cable length
Green or pink hue	ON	ON	ON	ON	ON	ON	DDC communication	Cycle power of the DVI/Audio Extender. Check UTP cables and replace.
Image flickers when powering up nearby equipment	ON	ON	ON	ON	ON	ON	Interference	Use STP cables
USB not working but video OK							USB cable	Check USB cable
Hub USB not able to expand Port above 7							Limitation of the extender	None
USB port limited to less than 7 ports							Some peripherals use more than 1 port Too much power required.	Try with a different USB peripheral

If you still cannot diagnose the problem, please call MuxLab Customer Technical Support at 877-689-5228 (toll-free in North America) or (+1) 514-905-0588 (International).