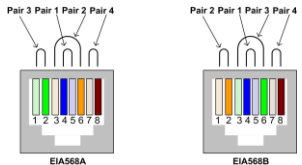


Specifications

| | |
|-------------------------------|---|
| Environment | KVM, HDMI 1.4 & USB 2.0 |
| Devices | KVM, Monitors, TV, PC, laptops, mouse, keyboard. |
| Transmission | Transparent to the user. |
| Bandwidth | 340 MHz |
| Signals | HDMI 1.4 protocol and USB 2.0 |
| USB | One input on TX side and 4 outputs on RX side. Bandwidth available: Up to 250 Mb/s. |
| Connectors | One (1) HDMI receptacle per TX & RX unit. One (1) RJ45 for Cat 5e/6 UTP or STP per TX & RX unit. On TX: 1 standard USB connector, type B. On RX: 4 standard USB connectors, type A. Two (2) 3.5mm jacks for IR sensor & emitter per TX & RX unit. <i>Note: Cables not included.</i> |
| Maximum Distance | Cat 5e/6: 330ft (100m) up to 1920 X 1200 resolution, up to 60Hz 330ft (100m) for 4K (3840 X 2160) up to 30Hz <i>Based on a maximum length of 6.6ft (2m) of HDMI cable per end.</i> <i>Note: A minimum CAT5e/6 cable length of 12ft (4m) is required. When installed in an electrically noisy environment, an STP cable must be used.</i> |
| RJ45 Pin Configuration | 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)  <i>Reverse Polarity Sensitive. Use EIA/TIA 568A or 586B straight-through wiring.</i> |
| Cable | One (1) Cat 5e/6 or better twisted pair cable 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 casting with plastic side panel. |
| 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 |
| Accessories | 500998 IR Emitter and 500994 IR Sensor |
| Ordering Information | 500457 HDMI/USB 2.0 Extender Kit |



HDMI/USB 2.0 Extender Kit 500457 Quick Installation Guide

Overview

The HDMI/USB 2.0 Extender Kit allows one HDMI 1.4 and one USB 2.0 channel to be transmitted up to 330ft (100m) at all resolutions up to 1920x1200 @ 60Hz via one (1) Cat 5e/6 cable in a point-to-point configuration. The receive side includes a 4-port USB 2.0 hub, supporting KVM applications.

Applications

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

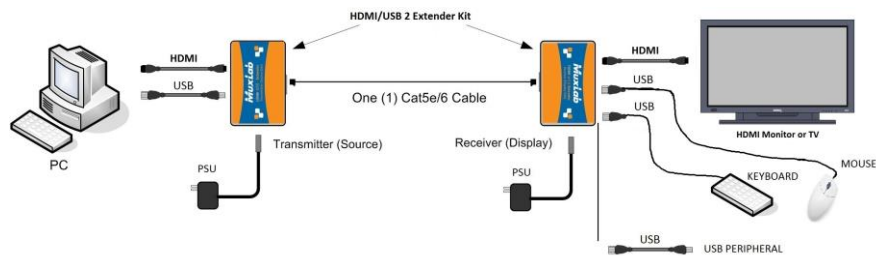
Installation

- Identify the connectors on the Transmitter and Receiver as indicated on the product labels, see the above front and rear product views for further details.
- Verify that the distance between the HDMI/USB 2.0 Transmitter and Receiver is within MuxLab specifications.
- To install the Transmitter:
 - Connect the Transmitter to the HDMI video source with a HDMI compliant cable.
 - Connect the Transmitter to the USB signal with a standard USB 2.0 cable.
 - Connect a Cat 5e/6 (or higher) grade UTP cable of desired length within specifications to the RJ45 LINK connector on the Transmitter.



8495 Dalton Road, Mount Royal, Quebec, Canada. H4T 1V5
Tel: (514) 905-0588 Fax: (514) 905-0589
Toll Free (North America): (877) 689-5228
E-mail: videoease@muxlab.com URL: www.muxlab.com

4. To install the Receiver:
 - 4a. Connect the Receiver to the HDMI display equipment with a HDMI compliant cable.
 - 4b. Connect the Receiver to as many as four (4) USB 2.0 peripherals with standard USB 2.0 cables. Power is limited to 0.7A for the four (4) ports. An externally powered four (4) port USB 2.0 hub may allow for expansion, or to support higher power levels than 0.7A total.
 - 4c. Connect the Cat 5e/6 cable coming from the Transmitter to the RJ45 LINK connector on the Receiver.
5. Connect the 5 VDC power supply to the Receiver first, and then plug the power supply into an AC power outlet. Next connect the 5 VDC power supply to the Transmitter, and then plug the power supply into an AC power outlet. If power is present, the power LED on the Transmitter and Receiver will be ON.
6. Power the HDMI equipment and verify the image quality.
7. This product supports unidirectional IR control. If infrared remote control is needed to control the Source equipment from the Display, connect the IR Sensor and/or IR Emitter to the 3.5mm Jacks of the Transmitter and Receiver.
8. Position the IR Sensor so that it is directed to the hand-held remote control. For a clear IR signal reception, aim the hand-held remote control at the top of the IR Sensor enclosure.
9. Position the IR Emitter as close as possible to the source's IR Sensor (i.e. DVD player). For a clear IR signal reception, the IR Emitter can be glued on the source's IR Sensor. The IR Emitter's signal is transmitted from the side of the enclosure.
10. The following diagram shows the final configuration.



(Note: IR sensor and emitter not shown in above diagram.)

Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions with respect to issues during the installation of the HDMI/USB 2.0 Extender Kit:

Note: The **Act LED** should blink when the unit is working. The **HDMI LED** will blink if the source contains no HDCP.

| Symptom | Tx unit LEDs | | | Rx unit LEDs | | | Probable Cause | Possible Solutions |
|---|--------------|---------------|------|--------------|------|------|---|---|
| | Power | HDMI | RJ45 | Power | HDMI | RJ45 | | |
| No Image | OFF | - | - | OFF | - | - | No power | Check power connections |
| No Image | ON | - | OFF | ON | - | OFF | UTP Cable | Check the UTP cables. |
| No Image | ON | OFF | ON | ON | OFF | ON | HDMI Cable | Check the HDMI cable. |
| No Image | ON | ON (or blink) | ON | ON | ON | ON | Cable length | Check cable length, check with another monitor. |
| Flickering Image or bad sound | ON | ON (or blink) | ON | ON | ON | ON | Cable length | Check cable length Check the HDMI cable. |
| No sound, but image OK | ON | ON (or blink) | ON | ON | ON | ON | Sound at source | Check if source or monitor is PCM or Dolby/DTS. |
| Image flickers when powering up nearby equipment | ON | ON (or blink) | ON | ON | ON | ON | Interference | Use STP cables |
| USB not working, but audio/video OK | | | | | | | USB 2.0 cable, or too much power required for USB peripheral. | Check USB 2.0 cable, or try another USB device. |
| Adding multiple USB peripherals is causing a problem. | | | | | | | Too much power required for USB peripherals. | Try a different USB peripheral. Try using an externally powered USB 2.0 hub. |

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).