

# Specifications

<b>Environment</b>	HDMI 1.3a
<b>Devices</b>	DVD, plasma, projectors, monitors, TV, PC, laptops, servers supporting HDMI.
<b>Transmission</b>	Transparent to the user
<b>Bandwidth</b>	340 MHz
<b>Signals</b>	HDMI 1.3a protocol
<b>Connectors</b>	One (1) HDMI receptacle. One (1) SC Fiber connector. 3.5mm jacks for IR emitter and sensor DB9 Connectors for RS-232 Ports <i>Note: Fiber and serial cables not included.</i>
<b>Maximum Distance</b>	1080P video may be extended up to 1000 feet (305m), depending of the type of fiber used.  100m (300 ft) on 62.5/125 $\mu\text{m}$ (OM1) multi-mode SC fiber 305m (1000 ft) on 50/125 $\mu\text{m}$ (OM3) multi-mode SC fiber.
<i>Based on a maximum length of 6.6 ft (2 m) of HDMI cable per end.</i>	
<b>Cable</b>	One (1) Multimode fiber 50/125 $\mu\text{m}$ or 62.5/125 $\mu\text{m}$ cable required
<b>Power Supply</b>	Two (2) 110-240V/5VDC power supplies with interchangeable blades
<b>Power Consumption</b>	Transmitter: 2.7 Watt      Receiver: 2.3 Watt
<b>Temperature</b>	Operating: 0° to 40°C      Storage: -20° to 85°C Humidity: Up to 95% non-condensing
<b>Enclosure</b>	Steel
<b>Dimensions</b>	4.00" x 3.00" x 0.876" (10.2 x 7.6 x 2.2 cm)
<b>Weight</b>	2.0 lb (0.9 kg)
<b>Compliance</b>	Regulatory: FCC, CE, RoHS      Flammability: 94V0
<b>Warranty</b>	2 years
<b>Order Information</b>	500460      HDMI Fiber Extender Kit



## HDMI Fiber Extender Kit 500460

### Quick Installation Guide

#### Overview

The HDMI Fiber Extender Kit (500460) allows HDMI equipment to be connected up to 1000 ft (305 m) @ 1080p Deep Color via one (1) 50/125  $\mu\text{m}$  Multimode fiber cables in a point-to-point configuration. The kit comes with one (1) Transmitter and one (1) Receiver as well as an IR Emitter (500998) and IR Sensor (500999) for remote control applications.

#### Applications

Applications include 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.

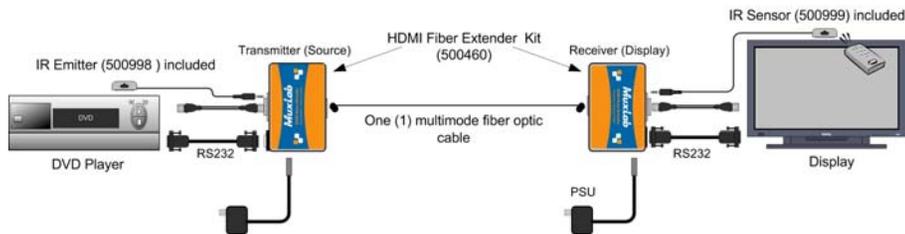


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2. Verify that the distance between the HDMI Transmitter and Receiver is within MuxLab specifications (see Specifications table).
3. To install the Transmitter:
  - 3a. Connect the Transmitter to the HDMI video source with an HDMI compliant cable.
  - 3b. Connect one (1) length of multi-mode fiber cable to the SC Fiber connector on the Transmitter.
4. To install the Receiver:
  - 4a. Connect the Receiver to the HDMI display equipment with an HDMI compliant cable.
  - 4b. Connect the one (1) length of multi-mode fiber cable to the SC Fiber 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. Connect the 5 VDC power supply to the Transmitter first, 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.
 

**Note: Power the HDMI Fiber Extender only after all connections are made.**
6. Power on the HDMI equipment and verify the image quality.
7. If infrared remote control is needed, connect the IR Sensor to the 3.5mm Stereo Jack of the receiver and the IR Emitter to the 3.5mm Mono Jack of the Transmitter.
 

**Note: You can differentiate the IR Sensor and the IR Emitter by looking at the 3.5 mm plug. The IR Sensor is using a Stereo Plug (3 Contacts) and the IR Emitter a mono plug (2 Contacts).**
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 to 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.



## Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions in respect to the installation of the HDMI Fiber Extender Kit:

Symptom	Tx LEDs			Rx LEDs			Probable Cause	Possible Solutions
	Power	HDMI	Fiber	Power	HDMI	Fiber		
No Image	OFF	OFF	OFF	OFF	OFF	OFF	No power	• Check power connections
No Image	ON	OFF	OFF	ON	OFF	OFF	Fiber Cable	• Check the Fiber cables.
No Image	ON	OFF	ON	ON	OFF	ON	HDMI Cable	• Check the HDMI 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 HDMI Cable Quality.
Choppy sound	ON	ON	ON	ON	ON	ON	Synchronization	• Check cable length • Check the HDMI Cable Quality.
Green or pink hue	ON	ON	ON	ON	ON	ON	DDC communication	• Cycle power of the HDMI Extender.
Image flickers when powering up nearby equipment	ON	ON	ON	ON	ON	ON	Interference	• Move HDMI Fiber Extender away from the source of the interference.
IR not functioning	ON	ON	ON	ON	ON	ON	Remote control not directed to the IR Sensor or IR Emitter not directed to the source.	• Make sure the IR Sensor is directed towards the remote and the IR Emitter to the equipment
IR not functioning	ON	ON	ON	ON	ON	ON	Interference from sunlight, Fluorescent, Neon or Halogen lights	• Place the IR equipment away from the interfering light
IR not functioning	ON	OFF	OFF	ON	OFF	OFF	Interference from RF radiation from the TV	• Place the IR equipment away from the RF radiation

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).