# **Specifications**

Environment	HDMI 1.3a				
Devices	DVD, plasma, projectors, monitors, TV, PC, laptops, servers				
Devices	supporting HDMI. <i>Not compatible with MuxLab p/n 500400</i> .				
Transmission	Transparent to the user				
Bandwidth	225MHz				
Signals	HDMI 1.3a protocol				
Connectors	HDMI receptacle.				
	Two (2) RJ45S for Cat5 unshielded or shielded twisted pair.				
	•				
	HDMI cables not included.				
Max. Distance*	480i/p: Cat5e: 300 ft (90 m) Cat6: 300 ft (90 m)				
	720p, 1080i: Cat5e: 200 ft (60 m) Cat6: 250 ft (76 m)				
*Based on a maximum	1080p 8-bit: Cat5e: 150 ft (45 m) Cat6: 200 ft (60 m)				
length of 6.6 ft (2m) of	1080p 12-bit Deep Color: not specified Cat6: 90 ft (27 m)				
HDMI cable per end	When installed in an electrically naisy environment CTD sales				
	When installed in an electrically noisy environment, STP cable				
	must be used. Also, cross-connection reduces the effective distance depending on the grade of twisted cable used. Patch				
	panels are not recommended with 1080p Deep Color.				
RJ45 Pin Configuration	RJ45 A (Video)				
Reverse Polarity Sensitive	Dia 4 (D) Dia 2 (T)				
Use EIA/TIA 568 A or B.	Pin 3 (R) Pin 6 (T)  Pair 3 Pair 1 Pair 2 Pair 4  Pair 2 Pair 4 Pair 3 Pair 4 Pair 3 Pair 4				
straight-through wiring.	Pin 4 (R) Pin 5 (T)				
Straight-through wining.	Pin 7 (R) Pin 8 (T)				
	RJ45 B (DDC)				
	Pin 1 (R) Pin 2 (T)				
	Pin 3 (R) Pin 6 (T)				
	Pin 4 (R) Pin 5 (T)				
	Pin 7 (R) Pin 8 (T)				
Cable	Two (2) Category 5e or better twisted pair cables required.				
Power Supply	One (1) 110-240V/12VDC power supply with interchangeable blades				
Power Consumption	3W				
Temperature	Operating: 0° to 55° C. Storage:-20° to 85° C. Humidity: up to 95%				
	non-condensing.				
Enclosure	ABS fire retardant plastic				
Dimensions	2.4" x 2.25" x 1.0" (6.1 x 5.5 x 2.5 cm)				
Weight	1.6 LB/0.7 Kg				
Mounting	Velcro pads included.				
Compliance	Regulatory: FCC, CE, RoHS				
	Flammability: 94V0				
Warranty	2 years				
Order Information	500401 HDMI Extender Kit				

## MuxLab

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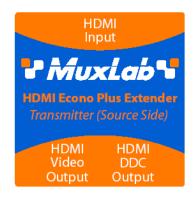
# HDMI Extender Kit (500401) Quick Installation Guide

#### **Overview**

The HDMI Extender Kit (500401) allows HDMI equipment to be connected up to 200 ft (60m) @ 1080i via two (2) Cat5e unshielded twisted pair cables in a point-to-point configuration. The product also supports 1080p Deep Color up to 90 ft (27m) via Cat6 cable. The kit comes with one (1) Transmitter and one (1) Receiver. Applications include; commercial and residential AV systems, classroom projector systems, digital signage, boardroom systems, collaborative PC systems, medical information systems.

#### **Pre-Installation Check**

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





### Installation

Verify that the distance between the HDMI Transmitter and Receiver are within MuxLab specifications (see Specifications table).

In order to install the Transmitter, please follow the steps below:

- Connect the Transmitter to the HDMI video source with an HDMI compliant cable.
- Connect two (2) lengths of Cat5e (or higher) grade UTP cables to the Video and DDC OUT connectors on Transmitter.

In order to install the Receiver, please follow the steps below:

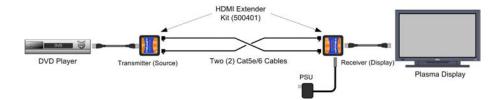
- Connect the Receiver to the HDMI display equipment with an HDMI compliant cable.
- 4. Connect the two (2) Cat5e cables to the Video and DDC IN connectors of the Receiver.

Note: Verify that the cables are connected straight-through (i.e. Video to Video, DDC to DDC) and not inverted.

Connect the 12 VDC power supply first to the Receiver and then plug the power supply into an AC power outlet. If power is present, then the green power LED will be ON.

Note: Power the HDMI Extender Balun only after all connections are made.

- 6. Power on the HDMI equipment and verify the image quality.
- 7. The following diagram shows the final configuration.



# **Troubleshooting**

The following tables describe some of the symptoms, probable causes and possible solutions in respect to the installation of the HDMI Extender Kit. 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).

Picture/ Sound	Power LED	Sync LED	Probable Cause	Possible Solution
No Image	OFF	OFF	No power	Check power connections
No Image	ON	OFF	Wiring	Check continuity Check correct wiring Verify that Video and DDC Cat5 cables are not inverted.
No Image	ON	ON	Synchronization	Power off the source and the display. Cycle power of the HDMI Extender and power on the devices.
Flickering Image	ON	ON	Synchronization	Check cable length
Choppy Sound	ON	ON	Synchronization	Check cable length
Noise in image	ON	ON	Weak signal	Check cable length Verify that the HDMI cables are certified HDMI 1.3a for 1080p Deep Color.
Green or pink hue	ON	ON	DDC cable	Cycle power of the HDMI Extender. Check DDC cable and replace.
Image Flicker when powering up equipment nearby	ON	ON	Interference	Use STP cables.