

Specifications

Environment	HDMI 1.3a
Devices	DVD, plasma, projectors, monitors, TV, PC, laptops, servers supporting HDMI.
Transmission	Transparent to the user
Bandwidth	225 MHz
Signals	HDMI 1.3a protocol
Connectors	One (1) HDMI receptacle. Two (2) RJ45S for Cat 5e/6 unshielded or shielded twisted pair. One (1) 3.5 mm stereo jack for IR Sensor <i>Note: HDMI cables not included.</i>
Maximum Distance	480i/p: Cat 5e: 300 ft (91 m) Cat 6: 300 ft (91 m) 720p, 1080i: Cat 5e: 300 ft (91 m) Cat 6: 300 ft (91 m) 1080p: Cat 5e: 150 ft (46 m) Cat 6: 200 ft (61 m) 1080p Deep Color: Cat 5e: 90 ft (27 m) Cat 6: 150 ft (46 m) <i>Note: When installed in an electrically noisy environment, an STP cable must be used. Also, cross-connection reduces the effective distance depending on the grade of twisted cable used.</i>
RJ45 Pin Configuration	<p>RJ45 A (HDMI A) Pin 1 (R) Pin 2 (T) Pin 3 (R) Pin 6 (T) Pin 4 (R) Pin 5 (T) Pin 7 (R) Pin 8 (T)</p> <p>RJ45 B (HDMI B) Pin 1 (R) Pin 2 (T) Pin 3 (R) Pin 6 (T) Pin 4 (R) Pin 5 (T) Pin 7 (R) Pin 8 (T)</p>
Cable	Two (2) Cat 5e/6 or better twisted pair cables required
IR Remote for matrix and source control	Pushbutton, built-in IR sensor External IR sensor included Wireless handheld remote included
Power Supply	One (1) 110-240V/12VDC power supplies with interchangeable blades
Power Consumption	3.6 Watt
Temperature	Operating: 0° to 40°C Storage: -20° to 85°C Humidity: Up to 95% non-condensing
Enclosure	Fire retardant plastic
Dimensions	4.50" x 3.00" x 1.25" (11.4 x 7.6 x 3.2 cm)
Weight	1.0 lb (0.45 kg)
Compliance	Regulatory: FCC, CE, RoHS Flammability: 94V0
Warranty	2 years
Order Information	500417 HDMI IR/Receiver with Source Control



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HDMI IR/Extender with Source Control 500417 Quick Installation Guide

Overview

The HDMI IR/Extender with Source Control (500417) allows HDMI equipment to be connected up to 150 ft (46 m) @ 1080p Deep Color via two (2) Cat 6 unshielded twisted pair cables in a point-to-point configuration. The HDMI IR/Extender with Source Control is used with the HDMI 4X4 Matrix Switch (500415).

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 Receiver as indicated on the product labels.

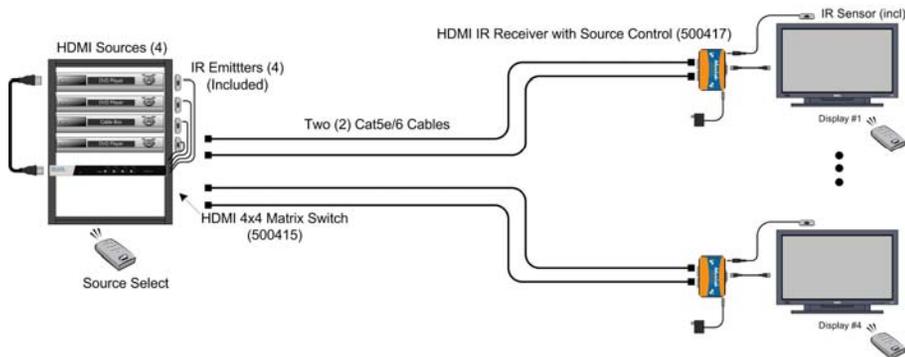


2. Verify that the distance between the HDMI Receiver and the HDMI Matrix is within MuxLab specifications (see Specifications table).
3. To install the Receiver:
 - 3a. Connect the Receiver to the HDMI display equipment with an HDMI compliant cable.
 - 3b. Connect the two (2) Cat 5e/6 cables to HDMI LINK A and HDMI LINK B connectors on the Receiver.

Note: Verify that the cables are connected straight-through (i.e., HDMI LINK A to HDMI LINK A and HDMI LINK B to HDMI LINK B) and not inverted.
4. Connect the 12 VDC power supply to the Receiver first, and then plug the power supply into an AC power outlet. If power is present, the green power LED of the Receiver will be ON.

Note: Power the HDMI IR/Extender Balun only after all connections are made.
5. Power the HDMI equipment and verify the image quality.
6. If infrared remote sensor is needed, connect the IR Sensor to the 3.5mm Stereo Jack of the receiver.

Note: The external sensor will disable the internal sensor of the product when connected.
7. 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.
8. The push button may also be used to manually select one of the four sources; one of the four LEDs will light up to indicate which source has been selected.
9. The user can control the HDMI Matrix and the source using the internal or external IR Sensor of the receiver.
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 IR/Extender with Source Control:

Symptom	Tx LED		Rx LED		Probable Cause	Possible Solutions
	Power	Sync	Power	Sync		
No Image	OFF	OFF	OFF	OFF	No power	• Check power connections
No Image	OFF	OFF	ON	OFF	Source not power on	• Power on source and check the HDMI cable of the source.
No Image	ON	OFF	ON	OFF	Cable	• Check the UTP cables pin-out. • Verify that the UTP cables are not crossed.
No Image	ON	ON	ON	OFF	Synchronization	• Check cable length. • Check source resolution versus distance.
Flickering Image	ON	ON	ON	ON	Synchronization	• Check cable length
Choppy sound	ON	ON	ON	ON	Synchronization	• Check cable length
Green or pink hue	ON	ON	ON	ON	DDC communication	• Cycle power of the HDMI Extender. • Check UTP cables and replace.
Image flickers when powering up nearby equipment	ON	ON	ON	ON	Interference	• Use STP cables
IR not functioning	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	Interference from sunlight, Fluorescent, Neon or Halogen lights	• Place the IR equipment away for the interfering light
IR not functioning	ON	ON	ON	ON	Interference from RF radiation from the TV	• Place the IR equipment away for 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).