Specifications

Environment	HDMI 1.4 (3D)
Devices	DVD, TVs, projectors, monitors, PC, laptops supporting HDMI
Transmission	Transparent to the user.
Frequency	165MHz.
Signals	HDMI 1.4 protocol.
Resolution	480i to 1080p @ 50/60 FPS VGA to UXGA
Connectors	2 HDMI Type A and 2 (two) 3.5mm jacks for the Transmitter 1 HDMI Type A and 2 (two) 3.5mm jacks for the Receiver 1 S/PDIF Female for the RX
LEDs	Power: Blue Link: Blue
Maximum Distance *Based on a maximum length of 6.6 ft (2 m) of HDMI cable per end.*	Cat 5e/6: 164ft (50m) up to 1080p60 *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.*
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)
Audio	Dolby Digital Plus, Dolby TrueHD and DTS-HD Master Audio
HDCP	HDCP Compliant
Power Supply	Two (2) 5V / 1A DC power supplies
Power Consumption	Transmitter: 3.2W Receiver: 2.2W
Temperature	Operating: 0° to 40°C Storage: -20° to 60°C Humidity: Up to 90% non-condensing
Enclosure	Metal
Dimensions	65mm x 118mm x 26mm
Weight	410g (TX+RX)
Compliance	Regulatory: FCC, CE, RoHS Flammability: 94V0
Warranty	1 year
Order Information	100504 HDMI Extender Pair, 50M, HD

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HDMI Extender Pair, 50m, HD-Quick Installation Guide

100504

Overview
The HDMI Extender Pair, 50m, HD (100504) allows an HDMI video signal to be transported up to 164ft (50m) over Cat 5e/6 UTP cable. This extender pair supports video resolutions up to 1920 X 1080p60 and VGA-UXGA. It is HDCP compliant and supports an HDMI Loop-out on the Transmitter and Digital Audio extract on the Receiver. The product includes one Transmitter and Receiver, two Power Supplies, two Emitters, and two Sensors.

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

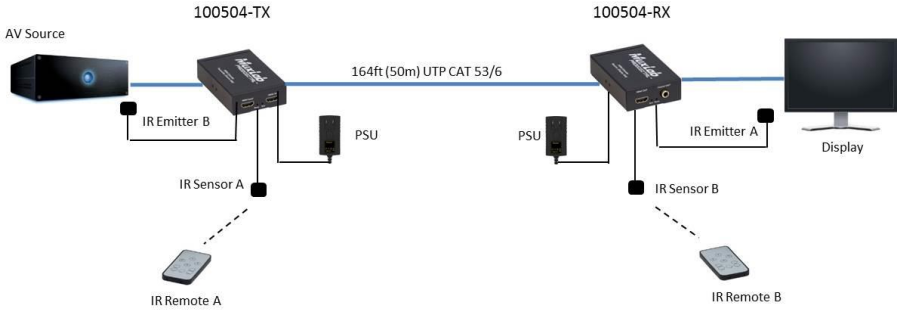
Installation

1. Identify the connectors on the Transmitter and Receiver as indicated on the product end panels.
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 Cat 5e/6 (or higher) grade UTP cable to the RJ45 LINK 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 one (1) Cat 5e/6 cable to the RJ45 LINK connector on the Receiver.
5. Connect the 5V/1A DC power supplies to both the Transmitter and Receiver first. If power is present, the blue power LED of the Transmitter and the Receiver will be ON.

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

6. Power-up the HDMI equipment and verify the image quality.
7. This product support bi-directional IR control. If infrared remote control is needed to control the Source equipment from the Display, 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: The IR Sensor has a black color while the IR Emitter has a clear color.
8. Position the IR Sensor so that it is aimed toward the hand-held remote control. For clear IR signal reception, aim the hand-held remote control toward 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, Blu-ray, or media player). For a clear IR signal reception, the IR Emitter may be affixed to 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 (with 2-way IR shown).



DIP Switch Description

The following tables describe the DIP Switch position for the EDID

Position	Functions
0	1080P 2 CH audio
1	1080P Dolby/DTS 5.1 audio
2	1080p HD audio
3	1080i 2 CH audio
4	1080i Dolby/DTS 5.1 audio
5	1080i HD audio
6	3D 1080p 2 CH audio
7	3D 1080p Dolby/DTS 5.1 audio
8	3D 1080p HD audio
9	Copy EDID from the transmitter HDMI loop output
A	Copy EDID from the receiver HDMI output
B	1080p 2 CH audio
C	1080p 2 CH audio
D	1080p 2 CH audio
E	1080p 2 CH audio
F	1080p 2 CH audio

Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions in regard to the installation of the HDMI Extender Pair, 50M, HD:

Symptom	Tx LEDs		Rx LEDs		Probable Cause	Possible Solutions
	Power	Link	Power	Link		
No Image	OFF	OFF	OFF	OFF	No power	• Check power connections.
No Image	ON	OFF	ON	OFF	UTP Cable	• Check the UTP cables.
No Image	ON	ON	ON	ON	HDMI Cable	• Check the HDMI Cable.
No Image	ON	ON	ON	ON	Synchronisation	• Check cable length.
Flickering Image	ON	ON	ON	ON	Synchronisation	• Check cable length. • Check the HDMI Cable Quality.
Choppy sound	ON	ON	ON	ON	Synchronisation	• Check cable length. • Check the HDMI Cable Quality.
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 from the interfering light.
IR not functioning	ON	ON	ON	ON	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).