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Connect with Confidence

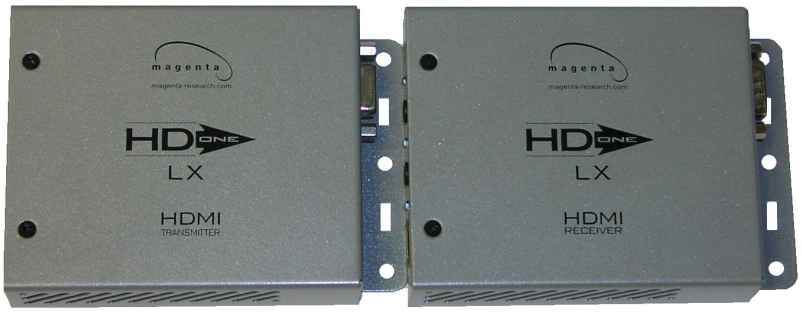
HD1-LX

HDMI & IR Extender

Quick Reference

&

Setup Guide



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1. Specifications

Required Cable:	Cat5, CAT5e, Cat6, CAT6e, Cat7, UTP / STP or FTP (Cat 6 or better recommended)
Video Support:	HDMI 1.3, HDCP Compliant DVI Video modes
Maximum Resolution and Refresh Rate:	1080p (1920x1080) @ 60 Hz
Bandwidth:	3.4 Gbps
Serial Baud rate:	Up to 115200 bps; Full Duplex
Connectors:	Tx: (1) HDMI type A, (1) RJ-45, (1) DC power (1) DB9F, (2) 3.5mm-jack Rx: (1) HDMI type A, (1) RJ-45, (1) DC power (1) DB9M, (2) 3.5mm-jack
IR Support:	38khz; Bi-directional
Temperature Tolerance:	Operating: 32 to 131°F (0 to 55°C); Storage: -4 to +185°F (-20 to 85°C)
Humidity Tolerance:	Up to 95% noncondensing
Enclosure:	Metal
Power:	+5 VDC @ 2 A max each unit Consumption: Tx: 600mA Rx: 1200mA
Size:	5.1” x 3.5” x 1.2” (130mm x 88 mm x 30mm)
Weight:	0.6 lbs. (280 g)
Compliance:	RoHS, CE; FCC Class A
Recommended Transmission Distance:	Up to 100 meters (328 feet)

2. Introduction

2.1 Overview

Magenta's HD1-LX series of video extenders extends HDMI or DVI video, serial, and IR signals over Category 5e/5/6e/6/7 UTP / STP or FTP cable.

WARNING

This equipment is not intended for, nor does it support, distribution through an Ethernet network. Do not connect these devices to any sort of networking or telecommunications equipment!

2.2 Equipment You May Also Need

- HDMI cables
- HDMI to DVI adapter cables
- Category 5e/5/6e/6/7 cable
- IR Emitter and IR Receiver cables
- DB9 Serial Cables

2.3 Compatible Cabling

Magenta Research products are compatible with CAT 5e/5/6e/6/7 data cabling.

Category cabling for the Magenta HD1-LX Series must be pinned to the TIA-EIA T568B wiring specification (see appendix A) We also highly recommend that all Category cables be pre-terminated and tested. Cables terminated on-site or in an existing infrastructure should be tested before use to ensure compliance with the TIA-EIA T568B specification. Using incorrectly terminated Category cables can damage the Magenta HD1-LX Series.

3. Setup and Installation

3.1 Cabling Considerations

• We recommend mounting and connecting all cabling to the HD1-LX Series components before applying power.
• Make sure that the Category cable you intend to use has been tested to comply with the T568B wiring specification (See **Appendix A**).

3.2 Making the Connections

3.2.1 Connections and Setup in General

This section contains figures showing connections with the specific HD1-LX Series models. In general, however, the connection and setup procedure at both transmitter and receiver ends is as follows:

NOTE:

All HD1-LX units should be cabled and powered on prior to turning on the video source device and display. It is recommended to connect the cable/power on the HD1-LX units, then the display, and lastly the video source.

At the transmitter end:

1. Connect the source video to the HD1-LX transmitter HDMI INPUT port using and HDMI type A cable (If using DVI video an HDMI to DVI adapter is required).

2. Connect the Category cable to the transmitter.

3. Connect the IR cables to the appropriate connector(s) if necessary.

4. Apply power to the transmitter. See Figure 3-3 for LED status modes.

At the receiver end:

1. Connect the display to the HDMI OUTPUT connector of the receiver (If a DVI connector is on the display, an HDMI to DVI adapter is required).

2. Connect the Category cable to the receiver.

3. Connect the IR cables to the appropriate connector(s) if necessary.

4. Apply power to the receiver. See Figure 3-3 for LED status modes.

3.2.2 CONNECTIONS ON THE HD1-LX

Figure 3-1 shows the HD1-LX transmitter connections, and Figure 3-2 shows the HD1-LX receiver connections.

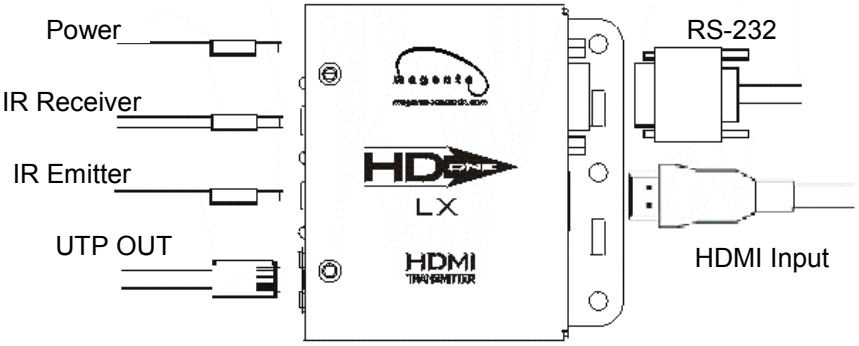


Figure 3-1. Connections on the Transmitter

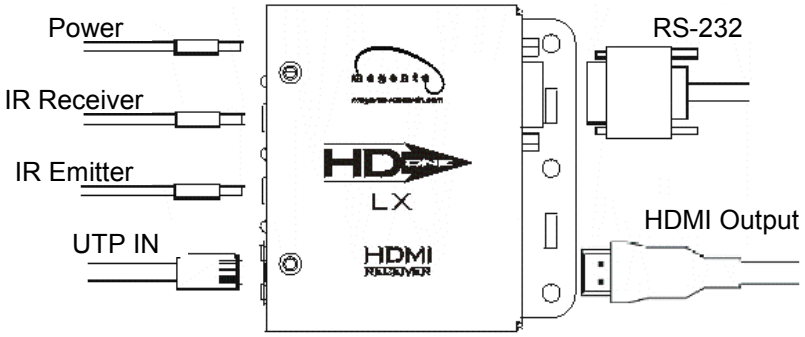


Figure 3-2. Connections on the Receiver

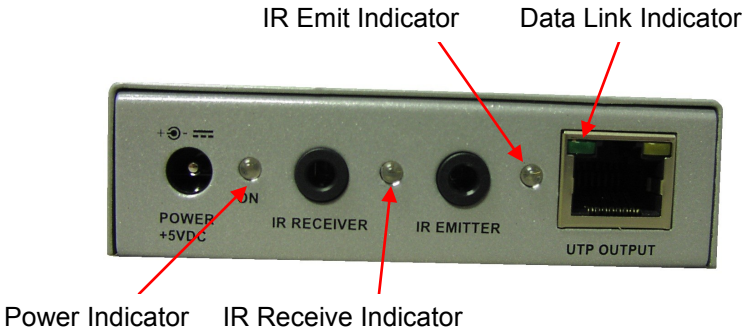


Figure 3-3. LED Status Indicators

4. Troubleshooting

4.1 Common Problems

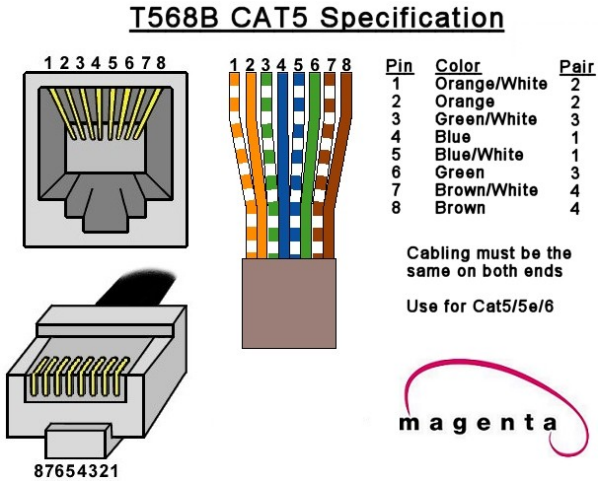
THERE ARE NO USER CONFIGURABLE SETTINGS FOR HD1-LX UNITS

In most cases, nearly every issue with the HD1-LX Series can be resolved by checking the Category cable termination and making sure that it's pinned to the T568B wiring specification. However, there may be other problems that cause the system to not perform as it's designed. Below are solutions to the most common installation errors.

Problem: No video or poor video quality.

Solution:
- Check that both units are powered.
- Power units in the sequence noted in section 3.2.1.
- Make sure the Category cable is terminated correctly per the T568B wiring specification.
- Is the display device powered on and functioning?
- Some HDMI sources can take up to 5 minutes to initialize and will not output video signals during this time.
- Cell phones may cause interference at close range (3 ft) and cause the video signal to be interrupted or lost. All devices may need to be power cycled if video is lost.

Appendix A. Cabling Pinouts



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