

Product Overview

The DigitalLinx DL-HD70 HDBaseT extender set transmits HDMI (1080p, 4K and 3D) including HDCP 2.2, bidirectional IR, and RS232 up to 70 meters away using a single Category 6 twisted pair cable.

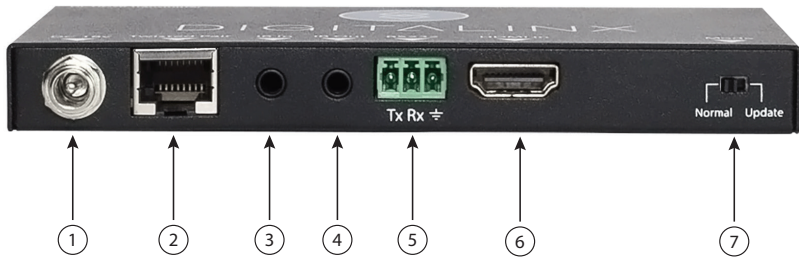
Built-in surge protection and diagnostic LEDs ensure hassle-free and robust installations. Flexible power design allows the units to be powered at either the TX or RX end, and only one power supply is required. The 18 volt power supply is secured with a screw-on connector to prevent the power from being accidentally disconnected.

The DL-HD70 is sold only as a set. The individual transmitter and receiver are not compatible with other HDBaseT devices due to proprietary PoE circuitry.

Package Contents

- DL-HD70 Transmitter and Receiver Set
- (1) Quick Install Guide
- (2) IR Receivers (Eye)
- (2) IR Transmitters (Emitter)
- (1) IR-AC IR Coupler Cable
- (2) 3 pole Terminal Block (attached to extenders)
- (1) DC18v Power Supply with 4 Power Plug Adapters for US, EU, AU, UK
- (4) Mounting Brackets with screws

Transmitter View



1. DC 18V
 - Locking power port, connect DC18V power adapter (either power port can power entire set)
2. Twisted Pair
 - RJ45 HDBaseT connection. Connect Cat6 cable to transmitter
3. IR In
 - 3.5mm IR input port for connection to IR receiver or IR system
4. IR Out
 - 3.5mm IR output port for connection to IR emitter
5. RS232
 - 3 pin Phoenix connector port for connecting / passing RS232 control
6. HDMI In
 - HDMI input port for connections to video sources
7. Mode- *Normal*- for normal operation. *Update*- for firmware update process
 - The mode switch is used when updating firmware in the extender. A separate document will provide usage instructions once a new firmware update is available.

Front Panel Diagnostic LEDs: Status Link HDCP

The DL-HD70 provides four blue LEDs to indicate the current operating status and to assist troubleshooting an installation.

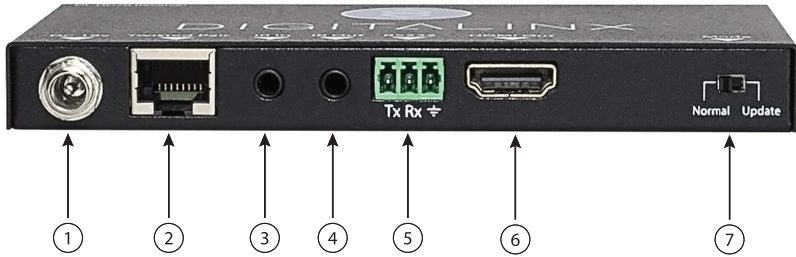
Power: *Solid*, the DL-HD70 extender is receiving power from the power supply or from the remote extender via Category 6 cabling.

Status: *Flashes once per second*, the HDBaseT processor is running.

Link: *Solid*, the two DL-HD70 extenders are communicating via Category 6 cabling.

HDCP: *Solid*, HDCP signal is present in the HDMI stream. *Flashes quickly*, no HDCP signal is present in the HDMI stream.

Receiver View



1. DC 18V
 - Locking power port, connect DC18V power adapter (either power port can power entire set)
2. Twisted Pair
 - RJ45 HDBaseT connection. Connect Cat6 cable to transmitter
3. IR In
 - 3.5mm IR input port for connection to IR receiver or IR system
4. IR Out
 - 3.5mm IR output port for connection to IR emitter
5. RS232
 - 3 pin Phoenix connector port for connecting / passing RS232 control
6. HDMI Out
 - HDMI output port for connections to display technology
7. Mode- Normal- for normal operation. Update- for firmware update process
 - The mode switch is used when updating firmware in the extender. A separate document will provide usage instructions once a new firmware update is available.

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Connectivity Instructions

1. Verify all components included with the extender set are present before installation.
2. If the extenders are going to be permanently mounted to a surface, attach the included mounting brackets with the supplied screws.
3. Turn off power and disconnect the audio/video equipment by following the manufacturer's instructions.
4. Connect Category 6 or greater twisted pair cable with RJ45 connectors between the transmitter (DL-HD70-TX) and the receiver (DL-HD70-RX). TIA/EIA-568B straight-through wiring connections must be used with all HDBaseT extenders.
5. Connect an HDMI cable and any desired control accessories between the display and the receiver (DL-HD70-RX).
6. Connect an HDMI cable and any desired control accessories between the source and the transmitter (DL-HD70-TX).
7. Connect the included power supply to the transmitter or receiver and lock the power supply to the power connector by twisting the locking collar clockwise.
8. Power on attached audio/video devices.

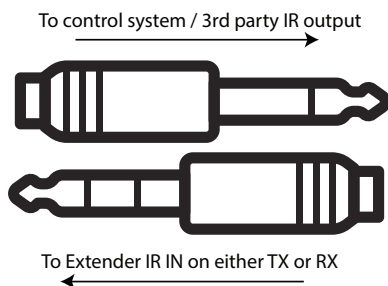
Passing IR Signals:

The DL-HD70 is capable of passing IR signals between 33 and 55 KHz. To prevent damage to any of the electronics, the extenders should be powered off while inserting or removing any IR components. Inserting an IR transmitter into the IR IN port may damage the IR circuit for that extender.

IR OUT: The IR transmitter (IR emitter) must be plugged into the IR OUT port.

IR IN: The IR receiver (IR eye) must be plugged into the IR IN port.

To pass 3rd party IR system signals through the DL-HD70, such as a control system, connect the TS connector of the IR-AC coupling cable (provided) to the IR output port of the control system and connect the TRS connector of the IR-AC cable to the IR IN to either transmitter or receiver of the DL-HD70.



Cabling Requirements

HDBaseT Cabling

To ensure proper performance of the DL-HD70, it is recommended that you use solid core, shielded Category 6 F/UTP cabling at a minimum. Category 5e F/UTP may perform well but may not support power over HDBaseT reliably.



When using shielded category cabling **ALWAYS...**

....use shielded connectors

....properly ground the category cable

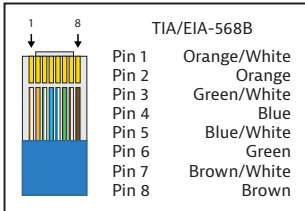
For optimized HDBaseT performance use the following Liberty Wire and Cable branded cabling;

Category 6 plenum; **24-4P-P-L6SH**

Category 6A plenum; **24-4P-P-L6ASH**

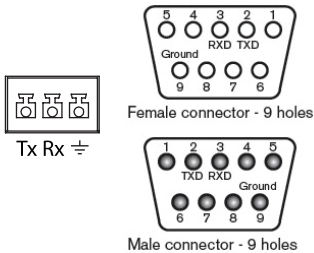
Category 6 NON-plenum; **24-4P-L6SH**

Category 6A NON-plenum; **24-4P-L6ASH**



Twisted Pair Wiring

Use TIA/EIA-568B wiring for Category 6 connection between send and receive units.



RS232 Wiring

Connect the controller or device RX signal to TX on the DL-HD70 extender. Connect the controller or device TX signal to Rx on the DL-HD70 extender.



Tx Rx \equiv

Technical Specifications

Supported Audio and Video	
Maximum Video Compatibility	70 m: Deep Color 36/30/24 Bit at 1080p
	40 m: Deep Color 48 Bit at 1080p, 3D, and 4k x 2k (UHD)
Video Compliance	HDMI 2.0, HDCP 2.2, and CEC (Consumer Electronics Control)
Embedded Audio	Up to PCM 8 channel, Dolby Digital TrueHD, and DTS-HD Master Audio
IR Carrier Frequency Range	33-55kHz at 5 volts
RS232 Baud Rate	Up to 115200 baud
HDBaseT Signal Characteristics	
Maximum Distance	70 m
Cable Requirements	Solid core shielded Category 6 or greater with TIA/EIA-568B crimp pattern
Bandwidth	10.2 Gbps
Chassis and Environmental	
Dimensions	135mm x 74mm x 15mm (5.31 in. x 2.91 in. x 0.59 in.)
Operating Temperature (Environment)	0° to +40° C (+32° to +104° F)
Operating Temperature (Chassis)	31° C (88° F) (S); 38° C (100° F) (R)
Operating Humidity (Environment)	20% to 90%, Non-condensing
Power	
Maximum Power Consumption	3 watts (S), 6 watts (R)
Power Supply Input Voltage	100-240V AC at 50-60 Hz
Power Supply Output Voltage	18V DC
Regulatory	CE, RoHS
Other	
Standard Warranty	5 Years
Included Items	Quick Install Guide, Power Supply with 4 power plug adapters for US, EU, AU, and UK, IR Transmitters (2 ea), IR Receivers (2 ea), (1) IR-AC IR coupler cable, Mounting Brackets (4 ea), Mounting Screws (4 ea)

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