DL-HD70-H3 Owners Manual

Digitalinx Series HDBaseT 3.0 70m Extension Set

18G HDBaseT 3.0 Extender set extends uncompressed resolutions up to 4K60 4:4:4, IR,RS232 & Power up to 40m or 70m

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PRODUCT OVERVIEW

The Digitalinx DL-HD70-H3 HDBaseT 3.0 extender set transmits video, audio, IR, and RS232 over single category 6a F/UTP or better twisted pair cable.The DL-HD70-H3 can transmit 4K resolutions up to 4K@60Hz, 4:4:4 up to 40m / 131' and 4K30 or below up to 70m / 230'. The Digitalinx DL-HD70-H3 supports HDMI 2.0 and is HDCP 2.2/2.3 compliant and supports CEC pass through. The Digitalinx DL-HD70-H3 supports multiple audio formats including PCM 2.0/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio and DTS:X . The Digitalinx DL-HD70-H3 supports any HDR format, including Dolby Vision and HDR10+..

The DL-HD70-H3 has an EDID Dipswitch to allow manual or auto EDID selection.

The DL-HD70-H3 is sold only as a set with a single power supply, and can be powered on either end.
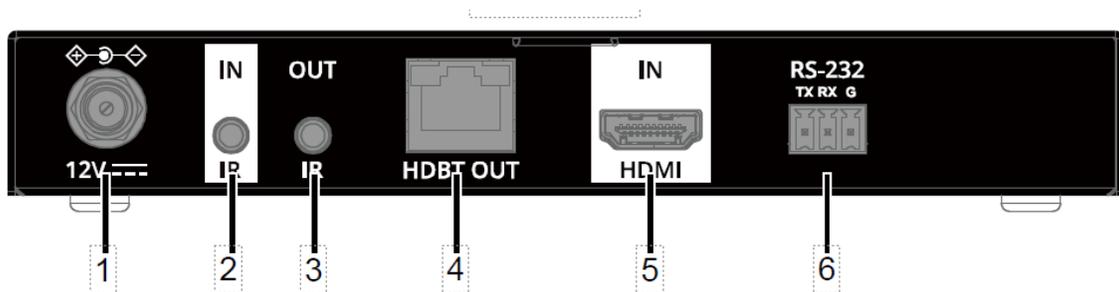
PACKAGE CONTENTS

- DL-HD70-H3 extender set
- (2) 3pin-3.81mm Phoenix Connectors (Male)
- (4) Mounting Ears with Mounting Screws
- 12V 2A Power Adapter with US, UK, AU AND EU Power Adapters
- (1) IR Emitter
- (1) IR Receiver (30kHz - 50kHz)
- (1) IR-AC Coupler Cable

TRANSMITTER PRODUCT BREAKDOWN

1. Power LED (Red) :When the red power LED is on the transmitter has power.

2. Status LED (Green) : When blinking the units are working properly.

3. Link LED (Green) : Link LED is on, the transmitter and receiver have a good connection. When it's off the units are not connected.

4. HDCP LED : Solid light means HDMI signal with HDCP. Flashing light means HDMI signal without HDCP. OFF - No Light means noHDMI signal

5. EDID DIP switch : See EDID section for settings.

1. Power In : Connects to power adapter. Either transmitter or receiver needs to be plugged in to power.

2. IR in : Connects to the provided IR receiver.

3. IR out: Connects to the provided IR emitter.

4. HDBT out : Connects CAT cable to connect to the receiver.

5.HDMI in: Connects to an HDMI source.

6. RS-232 : Connects to a RS232 device Pass-through to receiver RS-232 port.
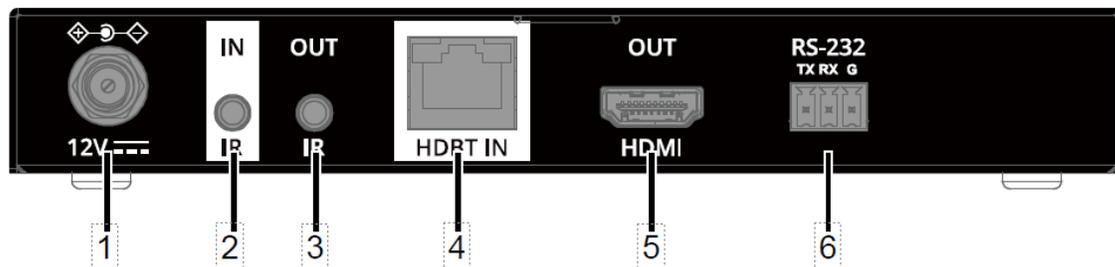
RECEIVER PRODUCT BREAKDOWN

Front Panel

1. Power LED (Red) :When the red power LED is on the transmitter has power.

2. Status LED (Green) : When blinking the units are working properly.

3. Link LED (Green) : Link LED is on, the transmitter and receiver have a good connection. When it's off the units are not connected.

4. HDCP LED : Solid light means HDMI signal with HDCP. Flashing light means HDMI signal without HDCP. OFF - No Light means noHDMI signal

5. EDID DIP switch : See EDID section for settings.
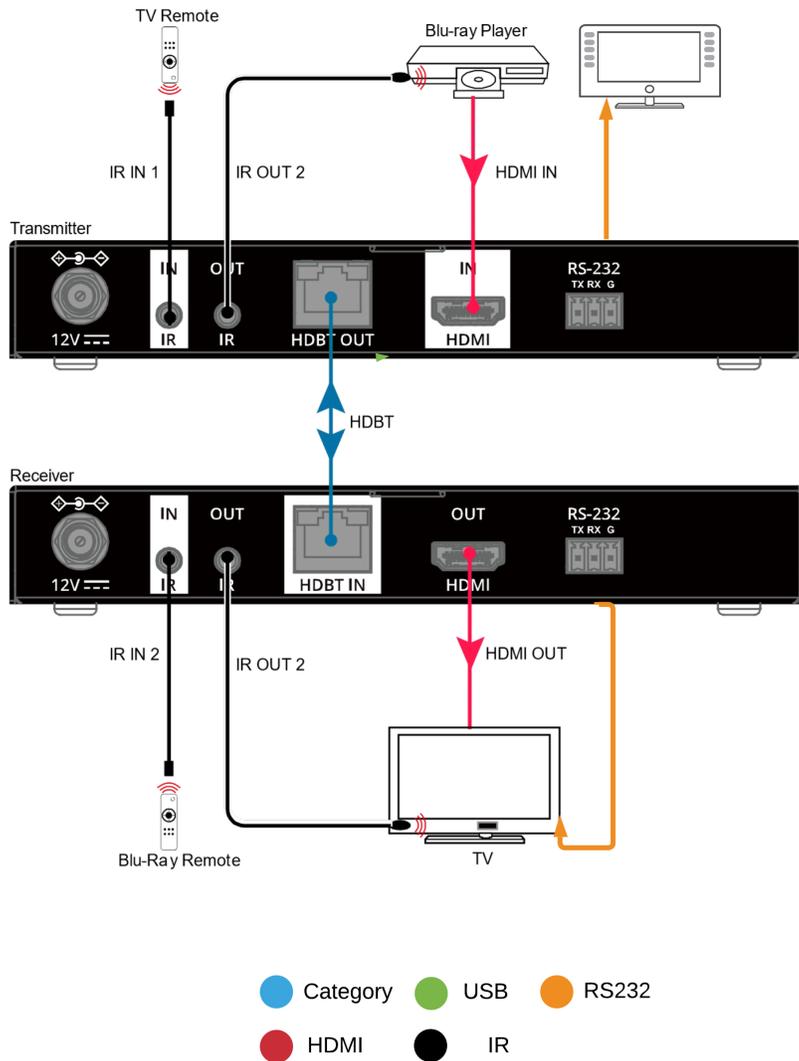
Rear Panel

1. Power In : Connect to power adapter. Either transmitter or receiver needs to be plugged into power.

2. IR in : Connects to the provided IR receiver.

3. IR out: Connects to the provided IR emitter.

4. HDBT in : Connects CAT cable to connect to the transmitter.

5.HDMI out: Connects to an HDMI display or projector.

6. RS-232 : Connects to a RS232 device, Pass-through to transmitter RS-232 port.

CONFIGURATION SETTINGS

DIP SWITCH on Receiver	EDID MODE
1 is up and 2 is up	Copy display's EDID (factory default)
1 is up and 2 is down	4K 30 4:4:4
1 is down and 2 is up	1080p60 4:4:4
1 is down and 2 is down	1200p60 4:4:4

APPLICATION DIAGRAM

Below is an example of an extender set in a typical application.

Cabling Requirements

HDBaseT Cabling

*HDBaseT3.0 Specification is made using high quality Cat6a F/UTP cabling. For maximum full capability performance, ensure Cat6a F/UTP or above is used.*To ensure proper performance of the DL-HD70-H3, it is recommended that you use solid core, shielded Category 6a F/UTP or above cabling. Category 6 or 5e F/UTP may work but may not support power over HDBaseT reliably and may only work over short distances.

When using shielded category cabling *ALWAYS*...

....use shielded connectors
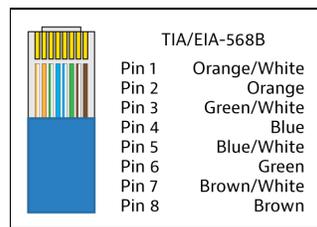....properly ground the category cable

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

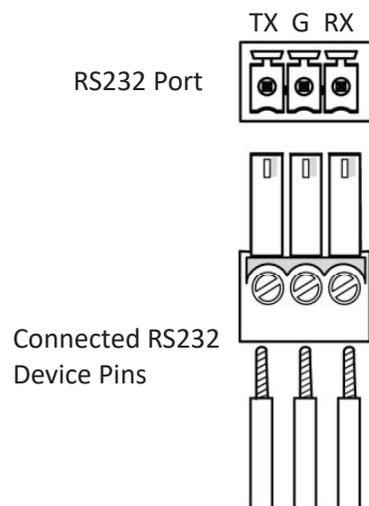Category 6 plenum; **24-4P-P-L6SH**
Category 6A plenum; **24-4P-P-L6ASH**

Category 6 NON-plenum; **24-4P-L6SH**
Category 6A NON-plenum; **24-4P-L6ASH**

TIA/EIA-568B

Pin 1	Orange/White
Pin 2	Orange
Pin 3	Green/White
Pin 4	Blue
Pin 5	Blue/White
Pin 6	Green
Pin 7	Brown/White
Pin 8	Brown

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

TX G RX

RS232 Port

Connected RS232
Device Pins

RS232 Wiring
Connect the controller or device RX signal to TX on the DL-HD70-H3 extender. Connect the controller or device TX signal to Rx on the DL-HD70-H3 extender.

TECHNICAL SPECIFICATIONS

Model	DL-HD70-H3		
Physical Parameter			
Case Material	Receiver: Industrial-grade metal chassis with metal brackets Transmitter: Industrial-grade metal chassis with metal brackets		
Dimensions	Transmitter: 170mm [W] x 105mm [D] x 25mm [H] Receiver: 170mm [W] x 105mm [D] x 25mm [H]		
Weight	Transmitter: 265g Receiver: 265g		
Power Protection	ESD protection with human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)		
Power Output	DC 12V 2A		
Power Input	AC 100-240V 50/69Hz		
Power Consumption	14.28W (Max)		
Operating Temperature	32- 113°F / 0- 45°C		
HDMI Specifications			
HDMI	2.0b		
HDCP	2.3/2.2/1.4		
Video Bandwidth	18 Gbps		
Video Resolutions	4096×2160@24/25/30/50/60Hz,3840×2160@24/25/ 30/50/60Hz, 1920x1080p,1080p@23.98/24/25/29.97/ 30/50/59.94/60Hz,1080i@50/59.94/60Hz, 720p@50/ 59.94/60Hz, 576p, 576i, 480p, 480i		
Color Space	RGB, YCbCr 4:4:4 / 4:2:2. YUV 4:4:4		
Color Depth	8/10/12-bit		
Analog Audio Format	LPCM 2.0		
HDMI Audio Formats	HDMI IN/OUT: Fully supports audio formats in HDMI 2.0 specification, including PCM 2.0/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio and DTS:X		
Connectivity			
Inputs	Inputs: 1x HDMI 1x IR IN 1x DC 12V Rx : 1xHDBT IN [RJ45, Female] 1x IR IN 1x DC 12V		
Outputs	Outputs: 1x HDBT OUT [RJ45, 8-pin female] 1x RS-232 Phoenix jack 3 pin (3.81mm) 1x IR OUT Rx: 1xHDMI Type A-Female 1x IR OUT		
Transmission			
Max Distance (4K30)	230ft / 70m over CAT6a 60m over Cat6		
Max Distance (4K60 4:4:4)	131ft / 40m over CAT6a/7		

Thank you for your purchase.

For technical support please call our
toll-free number at 800-530-8998
or email us at supportlibav@libav.com

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