

# USER MANUAL

## DL-HDE100-H3 Owners Manual



Digitalinx Series HDMI 2.0 Uncompressed 100m Extension Set

18G HDBaseT 3.0 Extender set extends uncompressed resolutions up to 4K60 4:4:4, IR,RS232,Power, and Gigabit ethernet up to 100m

**Liberty**

www.libav.com 800.530.8998

# PRODUCT OVERVIEW

The Digitalinx DL-HD100-H3 HDBaseT 3.0 extender set transmits video, audio, IR, Gigabit ethernet and RS232 over single category 6a F/UTP or better twisted pair cable. The DL-HD100-H3 can transmit 4K resolutions up to 4K@60Hz, 4:4:4 up to 100m. The Digitalinx DL-HD1000-H3 supports HDMI 2.0 and is HDCP 2.2/2.3 compliant and supports CEC pass-through. The Digitalinx DL-HD100-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-HD100-H3 supports any HDR format, including Dolby Vision and HDR10+.

The DL-HD100-H3 has an EDID Dipswitch to allow manual or auto EDID selection.

The DL-HD100-H3 is sold only as a set with a single power supply which can be used on either side

## PACKAGE CONTENTS

- DL-HD100-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

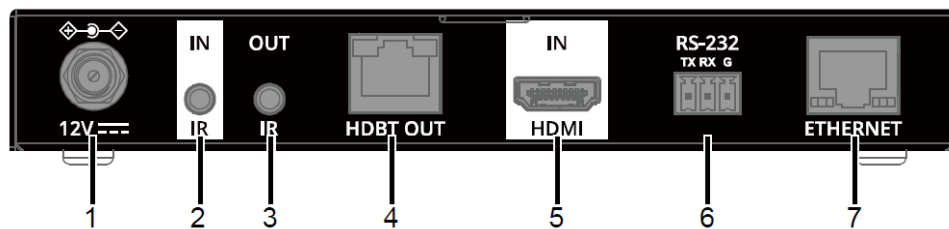
# TRANSMITTER PRODUCT BREAKDOWN

## 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 : 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.
7. Ethernet : Connects to local network or PC . For ethernet pass through. Supports up to 1Gbps

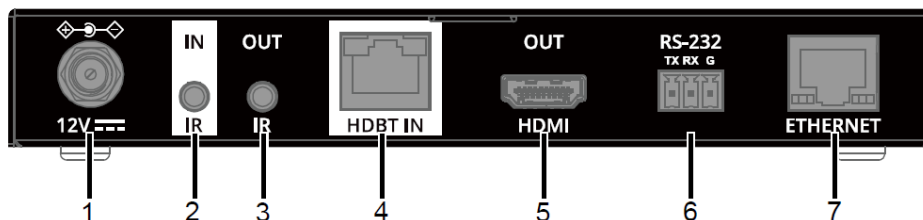
# RECEIVER PRODUCT BREAKDOWN

## 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



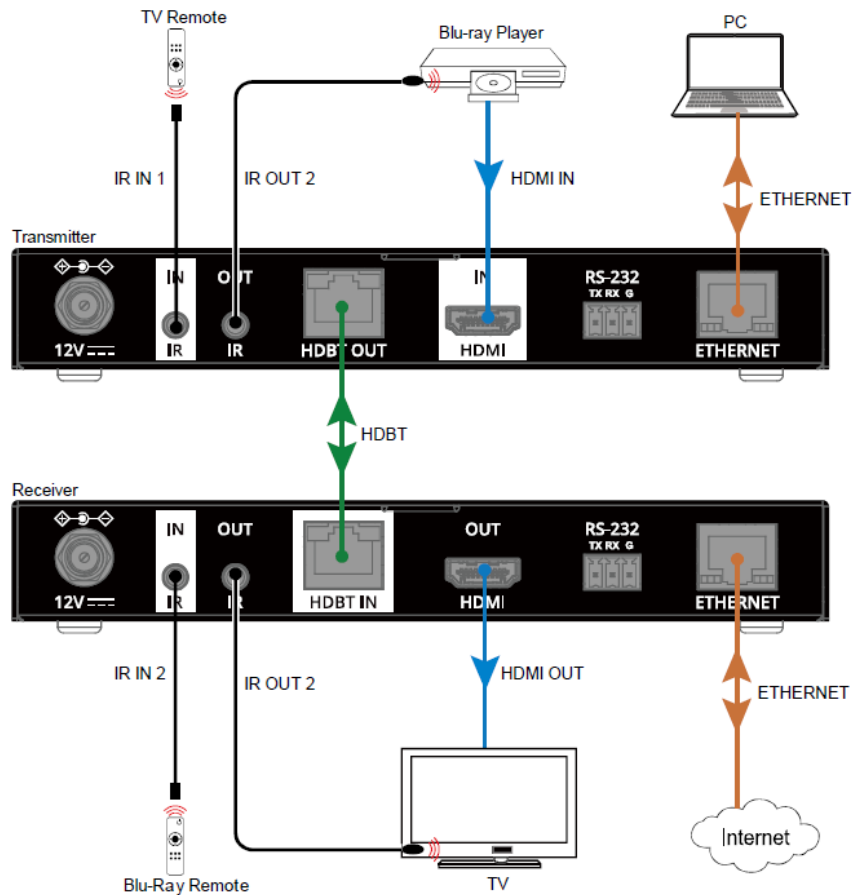
1. Power In : Connects to power adapter. Either transmitter or receiver needs to be plugged into power.
2. IR in : Connects to the provided IR receiver.
3. IR out: Connects to the provided IR emitter.
4. HDBT in : Connects CAT cable to connect to the transmitter.
5. HDMI out: Connects to an HDMI display or projector.
6. RS-232 : Connects to a RS232 device, Pass-through to transmitter RS-232 port.
7. Ethernet : Connects to local network or PC . For ethernet pass through. Supports up to 1Gbps

# 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-HDE100-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 only over reduced distances



When using shielded category cabling *ALWAYS*...

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

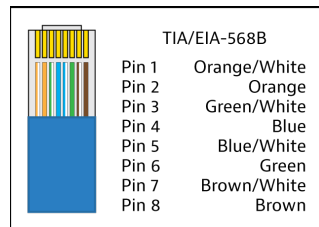
For optimized HDBaseT performance use the following Liberty Wire and Cable branded cabling;

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

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

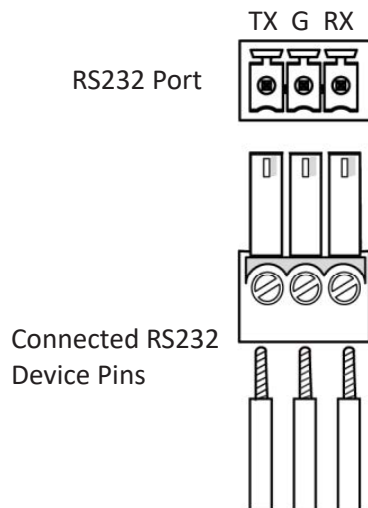
Category 6 NON-plenum; **24-4P-L6SH**

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



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

# TECHNICAL SPECIFICATIONS

<b>Model</b>	DL-HDE100-H3	
<b>Physical Parameter</b>		
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	
<b>HDMI Specifications</b>		
HDMI	2.0b	
HDCP	2.3/2.2/1.4	
Video Bandwidth	18 Gbps	
Video Resolutions	4096x2160@24/25/30/50/60Hz, 3840x2160@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	
<b>Connectivity</b>		
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	
<b>Transmission</b>		
Max Distance (4K60 4:4:4)	40m over CAT6 / 5e F/UTP	
Max Distance (4K60 4:4:4)	100m over CAT6a/7 F/UTP	

**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](mailto:supportlibav@libav.com)

**Liberty**  
[www.libav.com](http://www.libav.com) 800-530-8998