# DL-1H1A1U-B Install Guide

# Product Overview

The Digitalinx DL-1H1A1U-B HDBaseT 2.0 extender set transmits HDMI, audio , USB High Speed (up to 190Mbps) and RS232 over single category 6 twisted pair cable. The DL-1H1A1U-B can transmit 4K resolutions up to 4K@60Hz, 4:2:0 up to 40m / 120' and 1080P up to 70m / 230'. The 3.5mm audio input/output circuit is completely separate and is not dependent on the HDMI or USB input source to be activated. The Digitalinx DL-1H1A1U-B is HDMI 1.4b and HDCP 2.2 compliant and supports CEC pass through.

The DL-1H1A1U-B HDBaseT receiver or transmitter can power the entire HDBaseT extender set so there is no need for an external power supply to be used on both transmitter and receiver.
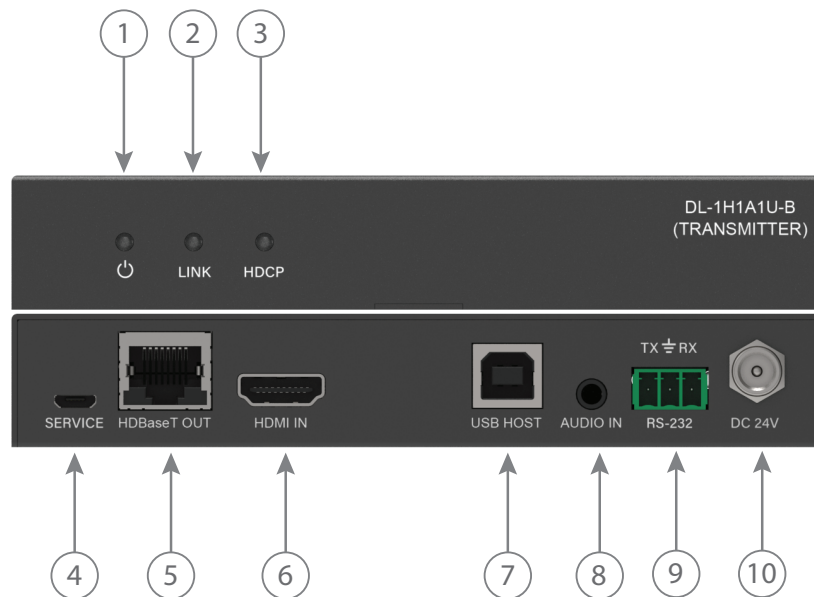
The DL-1H1A1U-B is sold only as a set. The individual transmitter and receiver are not compatible with other HDBaseT devices due to proprietary PoE circuitry.
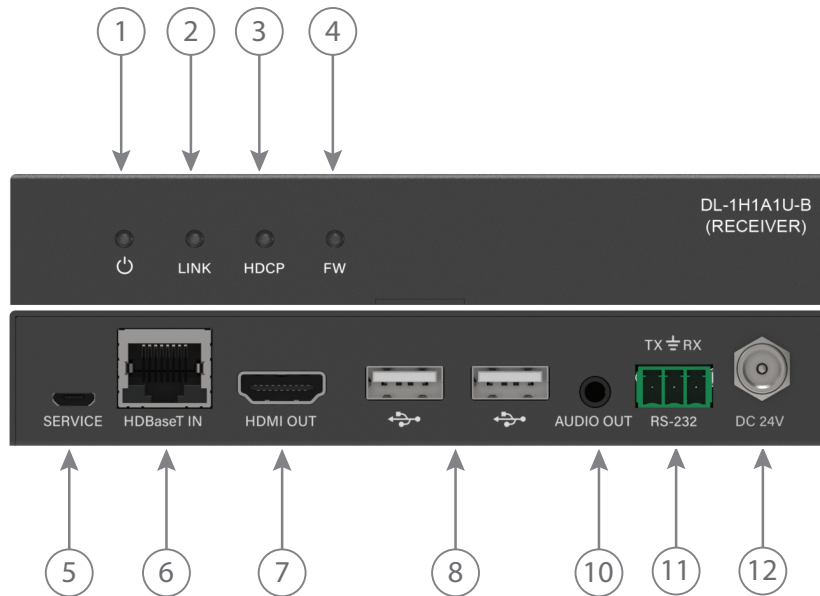
# Package Contents

- DL-1H1A1U-B extender set
- Quick Install Guide
- (2)  3 Pin phoenix connector
- (1) DC24V 1A power supply with US, UK, EU and AU power adapter plugs
- (2) Mounting ears with mounting screws

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# Transmitter / Receiver View

*Transmitter Front / Back View*



1. POWER LED

    • *When LED is ON, transmitter is powered on*
    • *When LED is OFF, transmitter is powered off*

2. LINK LED

    • *When LED is ON, transmitter and receiver is properly connected with Category cable*
    • *When LED is OFF, transmitter and receiver is not properly connected*

3. HDCP LED

    • *When LED is ON, transmitted AV content is encrypted*
    • *When LED is OFF, transmitted AV content is not encrypted*

4. SERVICE- USB Micro port for firmware updates

5. HDBaseT OUT- HDBaseT output

6. HDMI IN - Video source input

7. USB - USB host port

8. AUDIO IN- 3.5 mm analog audio source input

9. RS232 - Serial port for transmitting / receiving RS232 signals

10. DC24V - Phoenix connector for connecting external power supply

*Receiver Front / Back View*



1. POWER LED
   - *When LED is ON, receiver is powered on*
   - *When LED is OFF, receiver is powered off*

2. LINK LED
   - *When LED is ON, transmitter and receiver is properly connected with Category cable*
   - *When LED is OFF, transmitter and receiver is not properly connected*

3. HDCP LED
   - *When LED is ON, transmitted AV content is encrypted*
   - *When LED is OFF, transmitted AV content is not encrypted*

4. FW  LED
   - *When LED is ON, unit is ON and receiving power*

5. SERVICE- USB Micro port for firmware updates

6. HDBaseT IN- HDBaseT input

7. HDMI OUT - HDMI AV output

8. USB - USB A client side ports

9. AUDIO OUT- 3.5 mm analog audio source output

10. RS232 - Serial port for transmitting / receiving RS232 signals

11. DC24V - Phoenix connector for connecting external power supply

# 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-1H1A1U-B) and the receiver (DL-H1A1U-B). 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-H1A1U-B).

6.  Connect an HDMI cable and any desired control accessories between the source and the transmitter (DL-1H1A1U-B).

7.  Connect a computer USB port to the transmitter (DL-1H1A1U-B) USB host port.

8.  Connected USB peripherals such as white-boards and USB cameras the to USB client ports of the receiver (DL-1H1A1U-B) USB ports.

9.  Connect the included power supply to the DL-1H1A1U-B receiver or transmitter and lock the power supply to the power connector by twisting the locking collar clockwise.

10. Power on attached audio/video devices.

# Cabling Requirements

*HDBaseT Cabling*

To ensure proper performance of the DL-1H1A1U-B, 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
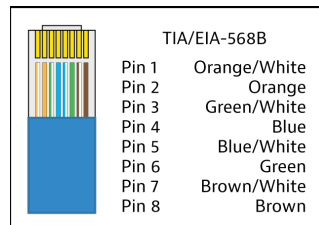....properly ground the category cable

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

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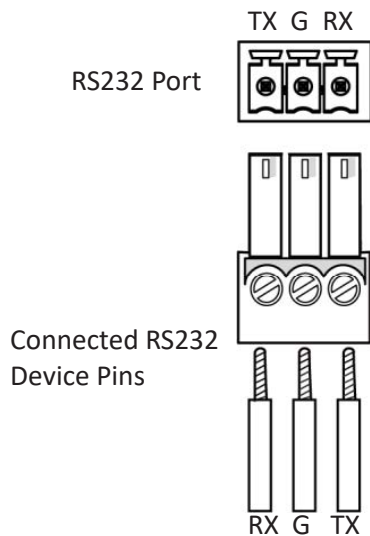Category 6A plenum; **24-4P-P-L6ASH**

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

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 6 connection between send and receive units.

TX  G  RX

RS232 Port

*RS232 Wiring*
Connect the controller or device RX signal to TX on the DL-1H1A1U-B extender. Connect the controller or device TX signal to Rx on the DL-1H1A1U-B extender.

Connected RS232 Device Pins

RX  G  TX

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# Technical Specifications

| VIDEO | |
|---|---|
| Video Inputs (TX) | (1) HDMI |
| Video Input Connector (TX) | (1) HDMI type A |
| Input Video Signal | HDMI |
| Video Output (RX) | (1) HDMI |
| Video Output Connector (RX) | (1) HDMI type A |
| Output Video Signal | HDMI |
| Input  Resolutions Supported | Up to 3840 x 2160 @ 60Hz, 4:2:0, 8bit color depth |
| Standards | Compliant with HDMI 1.4b & HDCP2.2 |
| **USB** | |
| Supported USB Standard | USB 2.0 High Speed |
| USB Data Transfer Bandwidth | 190Mbps |
| USB Port Type | (1) USB Type B (TX)<br>(2) USB Type A (RX) |
| **AUDIO** | |
| Supported output formats (HDMI) | LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX,DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD |
| Supported output formats (Analog) | PCM 2.0 |
| Audio Input / Output | Stereo analog |
| Audio Input / Output Connector | (1) 3.5mm TRS audio jack |
| Audio Output Impedance | 70 Ohms |
| Frequency Response | 20Hz~20K Hz |
| **CONTROL** | |
| Control Port / Connector | (1) RS232 (TX) /  3 phoenix connector<br>(1) RS232 (RX) / 3 phoenix connector |
| **OTHER** | |
| System Bandwidth | 10.2Gbps |
| Operating Temperature | 0C ~ +40C |
| Storage Temperature | -20C ~ +60C |
| Humidity | 20% ~ 90% |
| Power Supply | Input:100V~240V AC; Output: 24V DC 1A |
| Power Consumption | 9 watts |
| Dimension (W*H*D) | TX:140mm * 23mm * 75mm / 5.5" * .9" * 2.9""<br>RX:140mm * 23mm * 75mm / 5.5" * .9" * 2.9" |
| Weight | TX:200g / .44 lbs<br>RX:200g / .44 lbs |
| Warranty | 5 years |
| Certification | CE, FCC, RoHS |

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Thank you for your purchase.


For Technical Support please call our toll free
number at 800-530-8998 or email us at supportli-
bav@libav.com


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11675 Ridgeline Drive
Colorado Springs, Colorado
80921 USA
Phone: 719-260-0061
Fax: 719-260-0075
Toll-Free: 800-530-8998