



**DIGITALINX**  
VALUE-ENGINEERED DIGITAL SOLUTIONS

# DL-HD2-RX Owners Manual

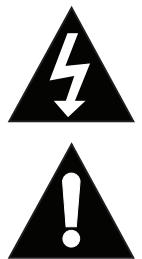




## Important Safety Instructions

- » Please completely read and verify you understand all instructions in this manual before operating this equipment.
- » Keep these instructions in a safe, accessible place for future reference.
- » Heed all warnings.
- » Follow all instructions.
- » Do not use this apparatus near water.
- » Clean only with a dry cloth.
- » Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- » Use only accessories specified or recommended by Intelix.
- » Explanation of graphical symbols:

- ◊ Lightning bolt/flash symbol: the lightning bolt/flash and arrowhead within an equilateral triangle symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product enclosure which may be of sufficient magnitude to constitute a risk of shock to a person or persons.
- ◊ Exclamation point symbol: the exclamation point within an equilateral triangle symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



- » **WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS.**
- » Use the mains plug to disconnect the apparatus from the mains.
- » **THE MAINS PLUG OF THE POWER CORD MUST REMAIN READILY ACCESSIBLE.**
- » Do not defeat the safety purpose polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of your obsolete outlet. **Caution! To reduce the risk of electrical shock, grounding of the center pin of this plug must be maintained.**
- » Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and the point where they exit from the apparatus.
- » Do not block the air ventilation openings. Only mount the equipment per Intelix’s instructions.
- » Use only with the cart, stand, table, or rack specified by Intelix or sold with the equipment. When/if a cart is used, use caution when moving the cart/equipment combination to avoid injury from tip-over.
- » Unplug this apparatus during lightning storms or when unused for long periods of time.
- » **Caution! Shock Hazard. Do not open the unit.**
- » Refer to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



# Table of Contents

|  |    |
|--|----|
| <b>Product Overview</b> .....            | 5  |
| <b>Package Contents</b> .....            | 5  |
| <b>Front and Rear Panel</b> .....        | 6  |
| Receiver View.....                       | 6  |
| <b>Installation Instructions</b> .....   | 7  |
| Quick Start .....                        | 7  |
| Connect HDBaseT Link .....               | 7  |
| HDBaseT Connection.....                  | 7  |
| Connecting A/V Sources.....              | 8  |
| HDMI Input (Transmitter only) .....      | 8  |
| VGA Video Input (Transmitter only) ..... | 8  |
| Connecting USB Peripherals.....          | 8  |
| USB Host (Transmitter only) .....        | 8  |
| USB Client.....                          | 8  |
| Connecting a Display.....                | 8  |
| HDMI Output.....                         | 8  |
| Connecting Audio.....                    | 9  |
| Audio Input (Transmitter only) .....     | 9  |
| Audio Output.....                        | 9  |
| Connecting Control .....                 | 9  |
| RS232 Control Wiring .....               | 9  |
| Apply Power.....                         | 9  |
| <b>Application Diagram</b> .....         | 10 |
| <b>RS232 Control</b> .....               | 11 |
| <b>Technical Specifications</b> .....    | 12 |

## Product Overview

The DigitaLinx DL-HD2-RX is an HDBaseT 2.0 receiver designed to work with the DL-1H1V1U-WP-W wall plater transmitter (sold separately). The DL-HD2-RX will reliably extend HDMI or VGA video, multichannel audio, USB 2.0 High Speed and RS232 up to 100m / 330'. The receiver is also 4K compatible with a max resolution of 4K@60Hz / 4:2:0 8bit deep color. With an integrated PSE module built in, the DL-HD2-RX can power the DL-1H1V1U-WP-W via HDBaseT transmission.

The DL-HD2-RX is ideal for situations where USB must be extended alongside HDMI or VGA for display interactivity for items such as interactive whiteboards or projectors.

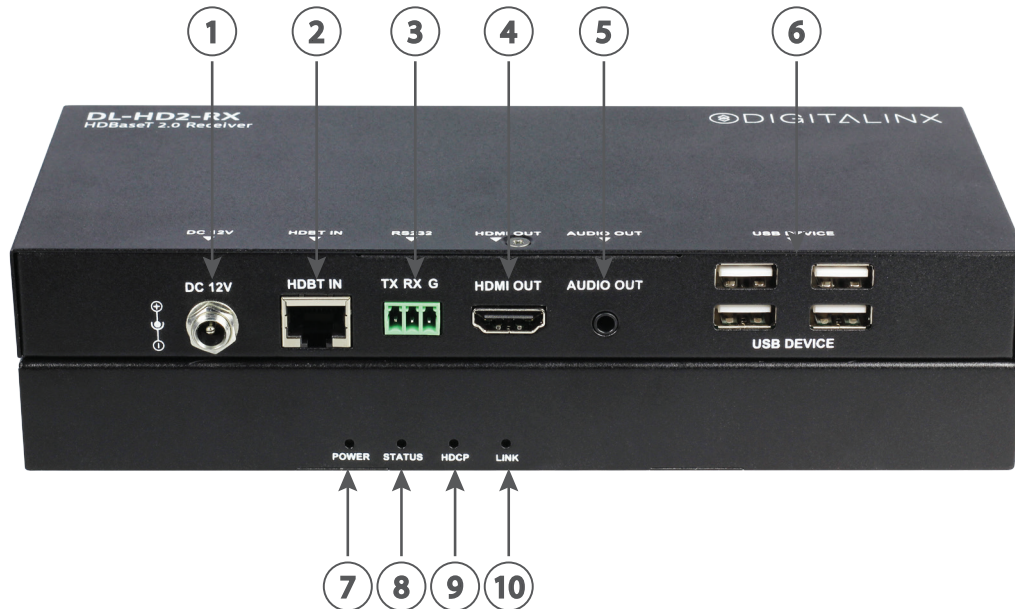
**NOTE:** The DL-HD2-RX HDBaseT receiver can be used with the DL-1H1V1U-WP-W, DL-3H1U-WP-W and the DL-2H1V1U-WP-W HDBaseT 2.0 transmitter (sold separately) to complete the circuit.

## Package Contents

- DL-HD2-RX HDBaseT Receiver
- (1) Quick Install Guide
- (1) 3 pin Phoenix Male Connector
- (1) DC12V Power Supply with US, UK, EU and AU adapter plugs
- (2) Mounting Brackets

## Front and Rear Panel

### Receiver View



1. DC12V Power Input
2. HDBaseT Input
3. RS232 Pass Through
4. HDMI Output
5. 3.5mm Analog Audio Output
  - Only passes audio from the DL-1H1V1U-WP-W pass through audio input port
6. USB Device Hub
7. Power LED
  - When ON; The receiver is powered on
  - When OFF; The receiver is powered off
8. Status LED
  - When BLINKING SLOWLY; The receiver is working properly
  - When OFF; The receiver is not working properly
9. HDCP LED
  - When ON; HDCP protected content is being transmitted
  - When BLINKING; Non-HDCP protected content is being transmitted
  - When OFF; No content is being transmitted
10. Link LED
  - When ON; HDBaseT link is working properly
  - When BLINKING or OFF; HDBaseT transmission is abnormal or no link

# Installation Instructions

## Quick Start

1. Connect HDBaseT Link
2. Connect A/V sources
3. Connect USB peripherals
4. Connect display
5. Connect audio (optional)
6. Connect and configure control (optional)
7. Apply power

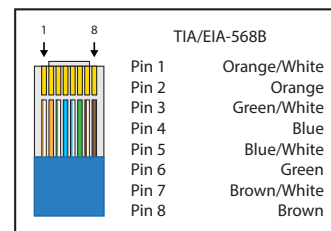
## Connect HDBaseT Link

### HDBaseT Connection

Connect a category cable from a compatible HDBaseT 2.0 transmitter HDBaseT output to the DL-HD2-RX receivers HDBaseT input.

#### Twisted Pair Wiring

Use TIA/EIA-568B wiring for Category 6 connection between the transmitter and receiver



To ensure proper performance of the DL-HD2-RX 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 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**

## ***Connecting A/V Sources***

### *HDMI Input (Transmitter only)*

Connect an HDMI source device to the HDMI input using HDMI cables that are less than or equal to 5 meters in length. For source devices that are further away, an extension device will be required to complete the connection.

### *VGA Video Input (Transmitter only)*

Connect a VGA source device to the VGA input using a VGA cables that are less than or equal to 5 meters in length. For source devices that are further away, a VGA extension device will be required to complete the connection.

## ***Connecting USB Peripherals***

### *USB Host (Transmitter only)*

Connect a USB host device to the USB A input using a USB A to A cable that is less than or equal to 5 meters in length.

### *USB Client*

Connect a USB client device to any USB A port on the DL-HD2-RX receiver using a USB A to A cable that is less than or equal to 5 meters in length.

## ***Connecting a Display***

### *HDMI Output*

Connect the display devices to HDMI output on the receiver using an HDMI cable that is less than or equal to 5 meters in length. For display devices that are further away, it is highly recommended to utilize the HDBaseT output.



## Connecting Audio

### Audio Input (Transmitter only)

Connect an audio source to the transmitters audio input using a 3.5mm audio cable. The DL-1H1V1U-WP-W supports a 3.5mm stereo unbalanced input

### Audio Output

Connect an audio amplifier to the receivers audio output using a 3.5mm audio cable. The DL-HD2-RX supports a 3.5mm stereo unbalanced output

**Note:** The DL-HD2-RX audio output only passes audio fed from the dedicated AUDIO IN port on the DL-1H1V1U-WP-W transmitter wall plate, it does not pass embedded HDMI audio

## Connecting Control

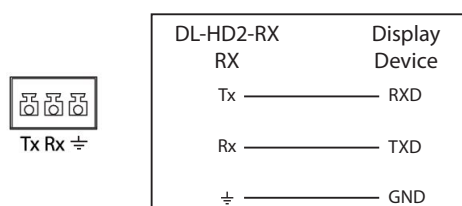
Connect the DL-HD2-RX receivers RS232 port to a displays serial connection for serial control.

**Note:** The DL-HD2-RX RS232 port can be configured to send stored serial commands from the DL-1H1V1U-WP-W

For directions on RS232 configuration see complete list of control commands on pg13 *RS232 / CEC Control Configuration*

### RS232 Control Wiring

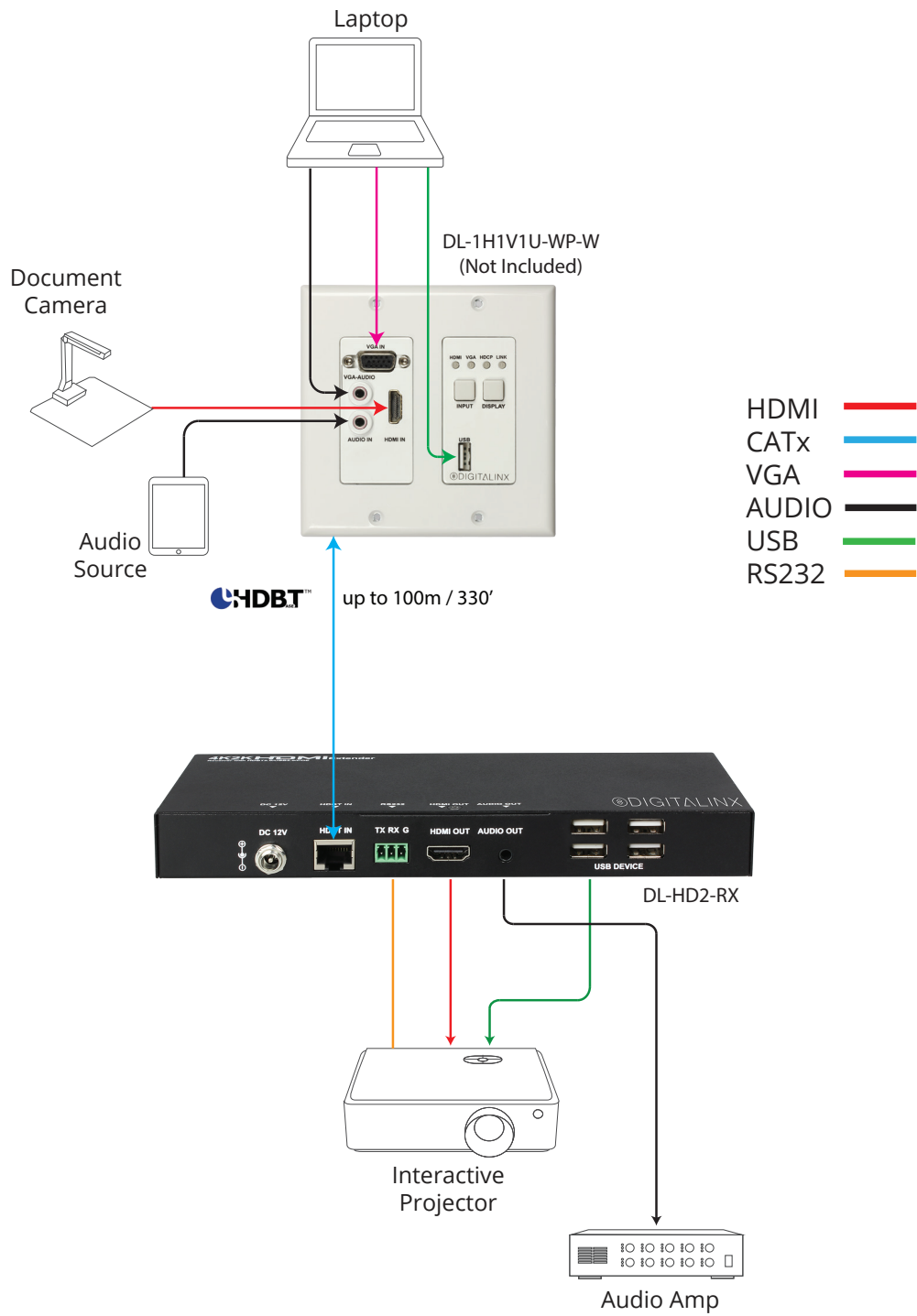
Connect the display devices RX RS232 signal to TX port of the DL-HD2-RX receiver. Then connect the displays TX RS232 signal to the RX port on the DL-HD2-RX receiver.



## Apply Power

Plug the power supply into the power input port on the rear of DL-HD2-RX receiver. The receiver will power the transmitter via HDBaseT. Twist the locking ring clockwise to prevent accidental disconnection of power.

# Application Diagram



## RS232 Control

RS232 commands can be generated to pass through the DL-HD2-RX with a compatible transmitter such as the DL-1H1V1U-WP-W. RS232 port settings can be adjusted using the API for the transmitter. For instructions see DL-1H1V1U-WP-W Owners Manual under *RS232 Control and Configuration*

**Default RS232 Port Settings: 11520 baud, 8 Data bits, 1 Stop bit, Parity = None**

# Technical Specifications

| <b>Video</b>                         |   |
|--------------------------------------|---|
| Video Inputs                         | (1) HDBaseT   |
| Video Input Connector                | (1) RJ45  |
| Output Video Signal                  | HDMI  |
| Input / Output Resolutions Supported | <p><b>VESA:</b> 1920 x 1200@60; 1680 x 1050@60; 1600 x 1200@60; 1600 x 900@60; 1440 x 990@60; 1366 x 768@60; 1360 x 768; 1280 x 1024@60; 1280 x 960@60; 1024 x 768@60; 800 x 600@60</p> <p><b>SMPTE:</b> 4096 x 2160@24/25/30/50/60; 3840 x 2160@24/25/30/50/60; 1920x1080@30/60; 1280 x720@50/60; 720 x 576@50; 720 x 480@60</p> |
| Standards                            | Compliant with HDMI 2.0 & HDCP2.2   |
| <b>USB</b>                           |   |
| Supported USB Standard               | Up to USB 2.0 High Speed up to 190Mbps  |
| USB Port Type                        | (4) USB A   |
| <b>Audio</b>                         |   |
| Supported input formats              | <p><b>HDMI:</b> PCM 2.0, LPCM 5.1, LPCM 7.1, Dolby TrueHD, DTS-HD Master Audio</p> <p><b>Unbalanced 3.5.mm:</b> Stereo</p>  |
| Audio Input                          | Unbalanced stereo 3.5mm   |
| <b>Control</b>                       |   |
| RS232                                | Up to 115200 baud rate  |
| RS232 Port Type                      | (3 pin phoenix  |
| <b>General</b>                       |   |
| System Bandwidth                     | 10.2Gbps  |
| Transmission Distance                | 180p @ 100m or less when using Cat6A F/UTP, 4K @ 70m or less when using Cat6 F/UTP  |
| Operating Temperature                | 0 ~ +45 C (32 F to +113 F)  |
| Storage Temperature                  | -20 - +70 C (-4 - +158 F)   |
| Humidity                             | 10% ~ 90%   |
| Power Supply                         | DC12V   |
| Power Consumption                    | 8 watts (maximum)   |
| Dimension (W*H*D)                    | 210mm*25mm*90mm / 8.2"*1"*3.5"  |
| Weight                               | 0.46kg, 1lbs  |
| Warranty                             | 2 years   |
| Certification                        | CE, FCC, RoHS   |

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