

# Atlona HDBaseT Receiver over Single CAT5e/6/7 w/IR, RS-232, and Ethernet

*AT-HDRX-RSNET*



## User Manual

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## Introduction

Go the distance of up to 328ft (100m) at 4Kx2K with the Atlona HDBaseT Receiver. With pass through support of up to 4Kx2K, 1920x1200, IR, RS-232, bi-directional Ethernet, as well as Lossy and Lossless audio signals over a single CAT cable, the HDRX-RSNET provides an affordable high quality solution for your audio/video needs.

## Package Contents

- 1 x AT-HDRX-RSNET
- 2 x Female Captive Screw Connector (3 pin: RS-232 and 5 pin: IR)
- 1 x Pair of Wall/Rack mount ears
- 1 x User Manual

## Features

- Extends IR, RS-232, Ethernet, and audio/visual content up to 328ft over a single CAT5e/6/7 cable
- Supports resolutions up to 4Kx2K (four times 1080p) or 1920x1200 on pass through
- Field serviceable through USB
- Captive Screw connectors for RS-232 and IR for better connections and wire management.
- IR ports for emitting and receiving IR control signals for use of IR remote controls and 3rd party IR controller boxes
- Bi-directional Ethernet pass through
- PoE (Power over Ethernet) from compatible transmitters (Ex. AT-HDTX-RSNET)
- Lossy, and lossless multi-channel audio formats pass through (including Dolby TrueHD and DTS-HD Master Audio)
- Full 3D pass through
- HDCP compliant

## Specifications

Bandwidth frequency	10.2Gbps
Input Ports	1 x RJ45 (HDBaseT) 1 x Captive Screw (IR IN) 1 x Captive Screw (RS-232) 1 x Mini USB 1 x Ethernet
Output Ports	1 x HDMI (female) 1 x Captive Screw (IR OUT)
Resolution outputs	Video: up to 4Kx2K Vesa: up to 1920x1200
Dimensions (HxWxD)	1.46 x 5.08 x 3.94 (inch) or 3.7 x 12.9 x 10 (mm)
Weight	0.437lbs or 0.198kg
Temperature	Operating: 32°F to 104°F or 0°C to 40°C Storage: -4°F to 140°F or -20°C to 60°C
Power consumption	11.3W

## Panel Description

### Front Panel



1. Ethernet Port: Bi-directional Ethernet pass through, send signal from a router to a source or to a display.
2. CAT5e/6/7 OUT Port: Connect CAT5e/6/7 cable from here to a compatible transmitter.  
**Ex.** AT-HDTX-RSNET (recommended), AT-HDCAT-8ED, etc.

### Back Panel



1. HDMI Out Port: Connect HDMI or DVI (with adapter - Ex. AT14040) display here.
2. IR IN Port: Connect included IR receiver to this port.
3. IR OUT Port: Use the included IR Emitter for this port.
4. RS-232 Port: Receive signal from a control system or PC.
5. Firmware Update Port: Use Mini USB to USB cable to connect to a Windows computer to update.
6. Yellow Link LED: Signal Indicator for the CAT5e/6/7 OUT port. LED will remain solid, unless there is an issue with the cable or signal, then it will blink.
7. Green Power LED: Power indicator. If plugged in, light will remain solid. If LED starts blinking power is intermittent or there is a problem with the cable. If LED is off, no power is passing to the receiver (check the outlet on the transmitter or check the CAT cable).

## Captive Screw

Captive screw connectors are an added feature on the HD Extenders. The Captive screw connectors allow you to cut cables down to a suitable length, reducing cable clutter while providing a more reliable connection.

### Connecting

When connecting the cables to the female captive screw connector it is important that the wires be terminated correctly. The female captive screw connector (see picture A) has a contact plate at the top and must have the wires touching it for signal to pass. When wired correctly (see picture B) the signal will pass, incorrectly (see picture C) no signal will pass.

The captive screw connectors have a contact bar that is adjusted to compress the wire against the top contact plate. Use the screws at the top of the connector to compress the wire against the contact plate.



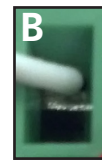
Clockwise

Turn the screws clockwise to raise the contact bar to the upper contact plate and hold the wires in place.

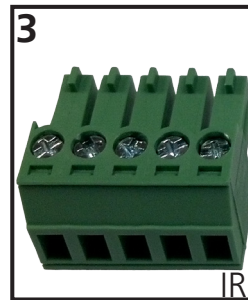
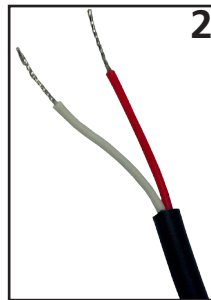


Counter Clockwise

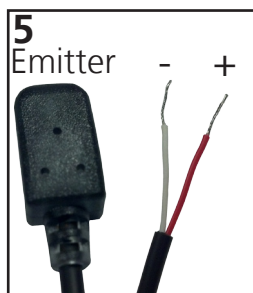
Turn the screws counter clockwise to lower the contact bar to release the wires.



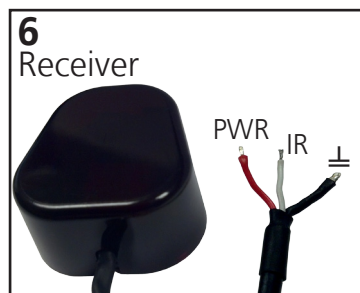
For your convenience the cables do not come pre-terminated. Each item, whether it's an IR receiver (picture 1), or IR emitter (picture 2), will have exposed wires. Each wire is encased in a different colored cover. Female captive screw connectors are included: IR (see picture 3) and RS-232 (see picture 4).



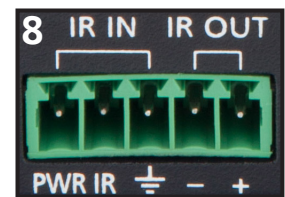
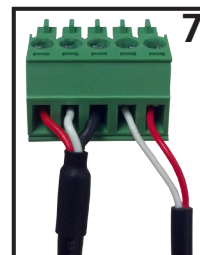
IR pin outs have been included for the included IR emitter and IR receiver (see picture 5 & 6). The wires are colored for each pin (see picture 7 and 8).



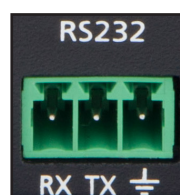
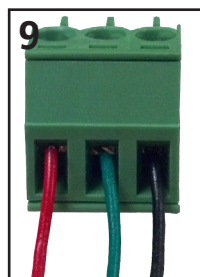
White: - Red: +



Red: PWR White: IR Black:  $\perp$



RS-232 pin out will be determined by the RS-232 cable and will connect as Rx (receiver), Tx (transmitter), and  $\perp$  (ground). (See picture 9)



Pin out color will differ per RS-232 cable.

## Connection and Installation



A few of the transmitter options that are compatible with the AT-HDRX-RSNET



AT-HDTX-RSNET



AT-HDCAT-8ED



## Safety Information

### Safeguards



To reduce the risk of electric shock, do not expose this product to rain or moisture



Do not modify the wall plug. Doing so will void the warranty and safety features.



If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.



This equipment should be installed near the socket outlet and the device should be easily accessible in the case it requires disconnection.

### Precautions

FCC regulations state that any unauthorized changes or modifications to this equipment, not expressly approved by the manufacturer, could void the user's authority to operate this equipment.

Operate this product using only the included external power supply. Use of other power supplies could impair performance, damage the product, or cause fires.

In the event of an electrostatic discharge this device may automatically turn off. If this occurs, unplug the device and plug it back in.

Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful of plug-ins or cord exit points from this product.

Avoid excessive humidity, sudden temperature changes or temperature extremes.

Keep this product away from wet locations such as bathtubs, sinks, laundries, wet basements, fish tanks, and swimming pools.

Use only accessories recommended by Atlona to avoid fire, shock, or other hazards.

Unplug the product before cleaning. Use a damp cloth for cleaning and not cleaning fluid or aerosols. Such products could enter the unit and cause damage, fire, or electric shock. Some substances may also mar the finish of the product.

Never open, remove unit panels, or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause damage to your AT-HDRX-RSNET. Opening the product will void the warranty.

Do not attempt to service the unit. Disconnect the product and contact your authorized Atlona reseller or contact Atlona directly.

## Warranty

### Limited Warranty

Atlona Technologies warrants that (a) its products (AT-HDRX-RSNET) will perform substantially in accordance with the accompanying written materials for a period of 3 years from the date of receipt and (b) that the product will be free from defects in materials and workmanship under normal use and service for a period of 3 years. In the event applicable law imposes any implied warranties, the implied warranty period is limited to 3 years from the date of receipt. Some jurisdictions do not allow such limitations on duration of an implied warranty, so the above limitation may not apply to customers that fall within those areas.

### Customer Remedies

Atlona Technologies' and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' decision, either return of the price paid for the product, repair, or replacement of the product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of the Customer's receipt. This Limited Warranty is void if failure of the product has resulted from accident, abuse, misapplication, or natural occurrence. In example but not limited to: power surges (electrical storms, local power outage), dropping the product (or items on the product), contact with fluids, and physical misconduct (i.e. kicking or punching). Any replacement product will be warranted for the remainder of the original warranty period.

### No other warranties

To the maximum extent permitted by applicable law, Atlona Technologies and its suppliers disclaim all other warranties, either expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, with regard to the product and any related written materials. This Limited Warranty gives customer specific legal rights. Customers may have other rights depending on the jurisdiction.

### No liability for damages

To the maximum extent permitted by applicable law, in no event shall Atlona Technologies or its suppliers be liable for any damages arising out of the use of or inability to use this product, even if Atlona Technologies has been advised of the possibility of such damages. Such damages include but are not limited to: special, incidental, consequential, or indirect damages for personal injury, loss of business profits, business interruption, loss of business information, or any other pecuniary loss. Atlona Technologies' and its suppliers' entire liability under any provision of this agreement shall be limited to the amount actually paid by you for the product. Some Jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damage. The above limitations may not apply to you in such jurisdictional cases.



## Atlona Product Registration

Thank you for purchasing this Atlona product. - We hope you enjoy it and will take an extra few moments to register your new purchase.

Registration creates an ownership record if your product is lost or stolen and helps ensure you'll receive notification of performance issues and firmware updates.

At Atlona we respect and protect your privacy, assuring you that your registration information is completely secure. Atlona product registration is completely voluntary and failure to register will not diminish your limited warranty rights.

To register go to: <http://www.atlona.com/registration>