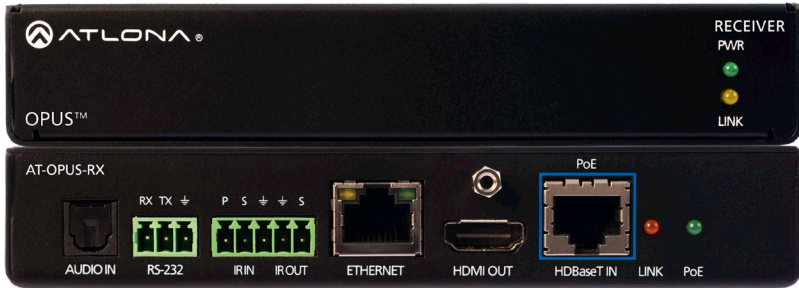


4K HDR HDMI Over 100 M HDBaseT RX for Opus Series Matrix Switchers

AT-OPUS-RX



The Atlona AT-OPUS-RX is an HDBaseT receiver for high dynamic range (HDR) formats, designed for use with the Opus™ Series of HDMI® to HDBaseT™ matrix switchers. The OPUS-RX is HDCP 2.2 compliant and supports 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18 Gbps. It receives HDMI, Ethernet pass-through, and bidirectional IR and RS-232 control signals up to 330 feet (100 meters) over CAT6a/7 cable. Visually lossless VESA Display Stream Compression (DSC) enables HDR and 4K/60 4:4:4 video signal extension over HDBaseT with little to no latency. For additional integration convenience, the receiver is remotely powered by an Opus Series matrix switcher through Power over Ethernet (PoE). The OPUS-RX supports the HDMI Audio Return Channel (ARC), with the ability to transmit digital audio from a television back to an AV receiver through the matrix switcher.

Package Contents

- 1 x AT-OPUS-RX
- 2 x Mounting brackets
- 4 x Mounting screws
- 1 x IR Emitter
- 1 x 3-pin captive screw connector
- 1 x 5-pin captive screw connector
- 1 x Installation Guide



IMPORTANT: Visit <http://www.atlona.com/product/AT-OPUS-RX> for the latest firmware updates and Installation Guide.

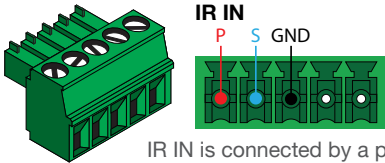
Panel Descriptions



- 1 POWER**
This LED indicator glows solid green when the unit is powered.
- 2 LINK**
This LED indicator glows solid amber when an HDMI output is connected and a solid link is established between the transmitter and receiver.
- 3 AUDIO IN**
Connect a digital audio cable from the TOSLINK™ port on the display to this port. This port serves as the input for the Audio Return Channel (ARC), receiving audio from the display and sending it to the transmitter.
- 4 RS-232**
Connect the included 3-pin captive screw connector to this port for bidirectional RS-232.
- 5 IR**
Connect the included 5-pin captive screw connector to this port for IR pass through.
- 6 Ethernet**
Connect a LAN cable from this port to either a network switch or Ethernet capable display.
- 7 HDMI OUT**
Connect an HDMI cable from this port to a display.
- 8 HDBaseT IN**
Connect to an OPUS series matrix switcher output, using a 568B terminated cable.
- 9 LINK**
This LED indicator glows solid amber when an HDMI output is connected and a solid link is established between the transmitter and receiver.
- 10 POWER**
This LED indicator glows solid green when the unit is receiving power from the transmitter.
- 11 DEBUG**
Connect this port to a PC for troubleshooting.

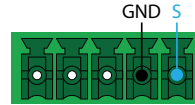
IR

A 5-pin captive screw connector for IR control has been included. The first three terminals are IR inputs to be used with an IR receiver (AT-IR-CS-RX purchased separately through atlona.com), the last two terminals are for IR outputs to be used with the included IR emitter.



IR IN is connected by a power, signal, and ground wire. Use with IR receivers to pass IR signals back to the transmitter.

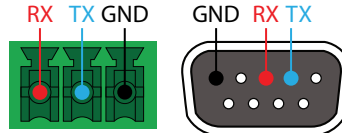
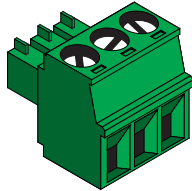
IR OUT



IR OUT is connected by a ground and signal wire. Use with the included IR emitter to pass signals to the display from a control system.

RS-232

A 3-pin captive screw connector has been included for RS-232.



Pin out will be determined by the RS-232 cable and connect as RX (receive), TX (transmit) and \perp (Ground).

Mounting Instructions

The AT-OPUS-RX includes two mounting brackets and four mounting screws, which can be used to attach the units to any flat surface.

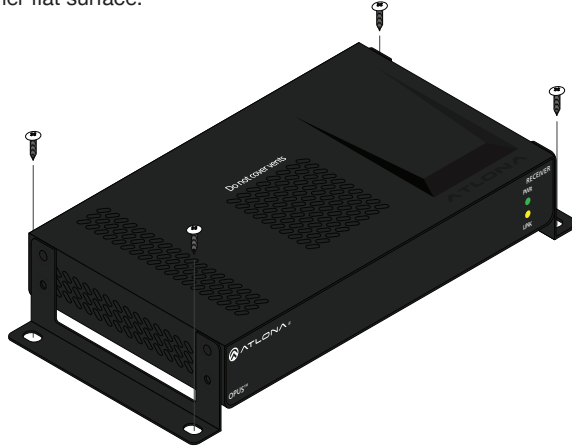
1. Remove the top 2 case screws on the side of the unit.
2. Align the mounting brackets to the side of the units.
3. Use the previously removed case screws to secure the mounting bracket to the enclosure.
4. Repeat the steps for the other side of the unit.



- Mount the unit using the oval-shaped holes, on each mounting bracket. If using a drywall surface, a #6 drywall screw is recommended.



NOTE: Mounting brackets can also be inverted to mount the unit under a table or other flat surface.



Cable Recommendation Guidelines

Refer to the tables below for recommended cabling when using Altona products with HDBaseT. The green bars indicate the signal quality when using each type of cable. Higher-quality signals are represented by more bars.

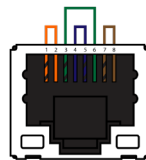
Core	Shielding	CAT5e	CAT6	CAT6a	CAT7
Solid	UTP (unshielded)	■	■■■	■■■■■	N/A
	STP (shielded)	■■■	■■■■■	■■■■■■■	■■■■■■■
Performance Rating (MHz)		350	500	600	800



IMPORTANT: Stranded or patch cables are not recommended due to performance issues.

Cable	Max. Distance @ 4K	Max. Distance @ 1080p
CAT5e	295 feet (90 meters)	330 feet (100 meters)
CAT6 / CAT6a / CAT7	330 feet (100 meters)	330 feet (100 meters)

Use of a TIA/EIA 568B termination is recommended for optimal performance.



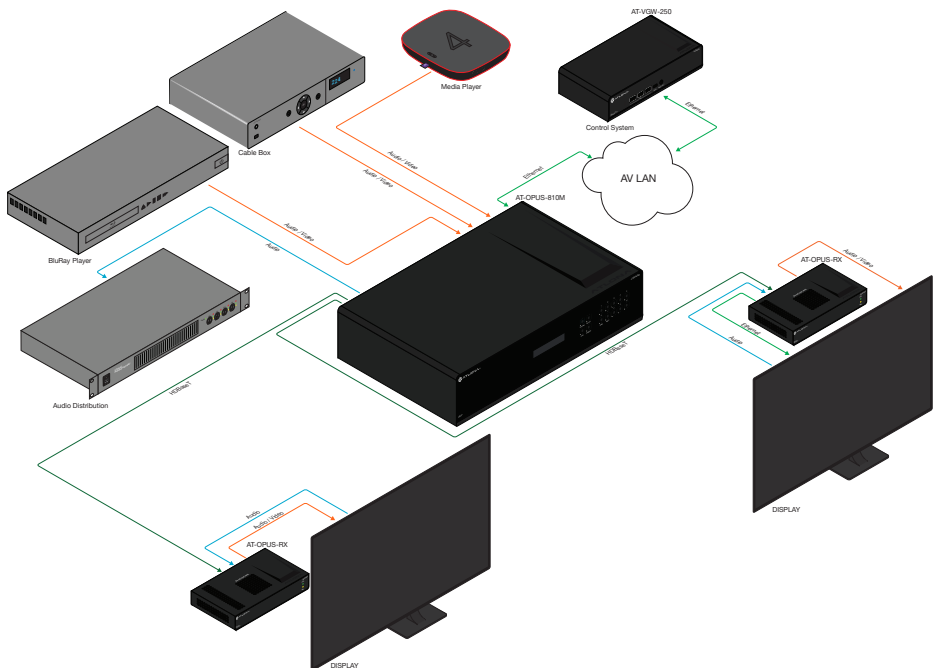
Pair A 
 Pair B 
 Pair C 
 Pair D 

568B RJ45 Pairings

Installation

1. Connect an HDMI display to the **HDMI OUT** port.
2. Connect a 568B Ethernet cable from the OPUS matrix to the **HDBaseT IN** port.
3. Connect an Ethernet cable from the **LAN** port to a network switch or display.
4. *OPTIONAL* Connect a digital audio cable from the TOSLINK™ (digital out) connector on the display device to the **AUDIO IN** port on the receiver.
5. *OPTIONAL* Connect an IR emitter or IR receiver to the IR port to pass IR signals to the display or back to the source device.
6. *OPTIONAL* Connect an RS-232 cable from this port to the display for bidirectional RS-232 control pass through.

Connection Diagram





Notes:



Notes:



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