AT-OME-RX11

Omega™ 4K/UHD HDBaseT™ Receiver with Ethernet, Control, PoE, and Audio De-Embedding

Instructions for Use

Version 1.0

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Version Information

This section lists document revisions.

Version	Date	Notes
1.0	October 16, 2026	Initial release.

Sales & Customer Support

Main Office (US)	Hall Research, 1234 Lakeshore Dr Suite #150, Coppell, TX 75019
Support Hours	Monday – Friday, 8:00 a.m. – 6:00 p.m. (CST)
Website	https://www.hallresearch.com
Product Page	https://www.hallresearch.com/product/AT-OME-RX11

IMPORTANT: Visit https://www.hallresearch.com/product/AT-OME-RX11 for the latest firmware updates and Instructions for Use.

Warranty

To view the product warranty, use the following link: https://hallresearch.com/warranty

Important Safety Information

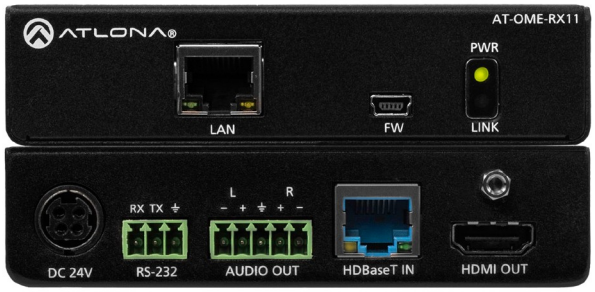
CAUTION: Risk of electric shock. Do not open the enclosure or expose it to rain or moisture. No user-serviceable parts inside. Refer servicing to qualified service personnel.

- Do not expose this apparatus to rain, moisture, dripping, or splashing, and do not place objects filled with liquids, such as vases, on the apparatus.
- Do not install or place this unit in a bookcase, built-in cabinet, or other confined space. Ensure the unit is well ventilated.
- To prevent the risk of electric shock or fire from overheating, do not obstruct the ventilation openings with newspapers, tablecloths, curtains, or similar items.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not place sources of naked flames, such as lighted candles, on the unit.
- Clean this apparatus only with a dry cloth.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Protect the power cord from being walked on or pinched, particularly at plugs.
- Only use attachments and accessories specified by the manufacturer.
- Refer all servicing to qualified service personnel.

FCC Compliance

This hardware device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Introduction



The Atlona AT-OME-RX11 is an HDBaseT receiver for video up to 4K/60 4:2:0, plus embedded audio, control, and Ethernet over distances up to 330 feet (100 meters). Part of the Omega™ Series of integration products for modern AV communications and collaboration, the AT-OME-RX11 is HDCP 2.2 compliant and receives RS-232 and IP control signals. Additionally, this receiver features two-channel audio de-embedding to a balanced analog audio output. The AT-OME-RX11 is locally powered, and can deliver Power over Ethernet (PoE) over HDBaseT to an Atlona Omega Series, HDVS-200 Series, or AT-UHD-EX-100CE-TX-PD transmitter.

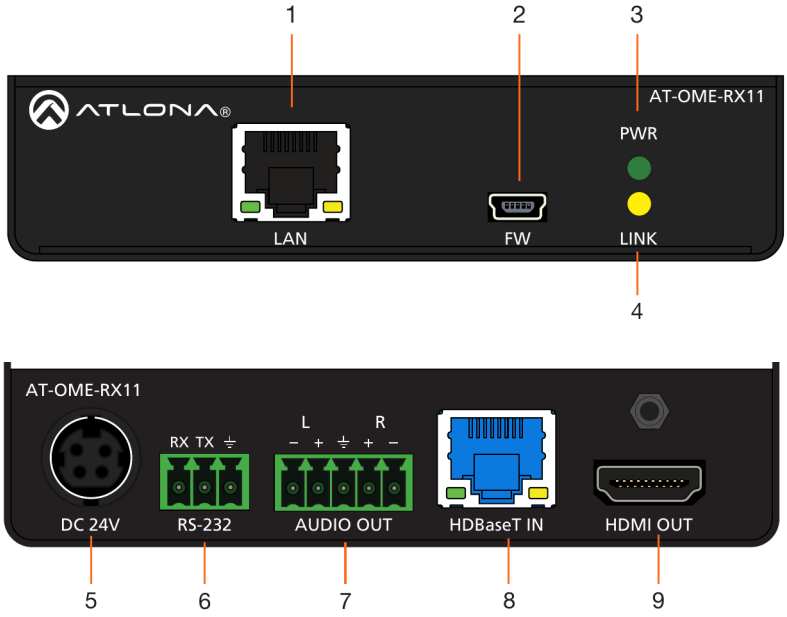
Package Contents

- 1 x AT-OME-RX11
- 1 x Captive screw connector, 5-pin
- 1 x Captive screw connector, 3-pin
- 4 x Mounting screws
- 1 x Pair rack mount ears
- 1 x 24V DC power supply
- 1 x IEC power cord
- 1 x Installation Guide



IMPORTANT: Visit https://www.hallresearch.com/product/AT-OME-RX11 for the latest firmware updates and Instructions for Use.

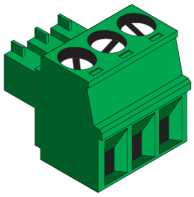
Panel Descriptions

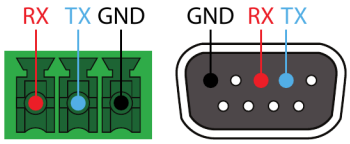


#	Name	Description
1	LAN	Connect an Ethernet cable to this port to pass Ethernet to a local device from a transmitter or from a local network switch to a compatible transmitter.
2	FW	Connect to a computer using a mini USB to USB A cable (not included).
3	PWR LED	Illuminates green when receiving power.
4	LINK LED	Illuminates yellow when receiving signal from the HDBaseT input port.
5	DC 24V	Connect the included DC 24V power supply to this port.
6	RS-232	Bi-directional port for pass through display control from/to a compatible transmitter.
7	AUDIO OUT	Connect to an audio DSP, amplifier, or other audio distribution devices.
8	HDBaseT OUT	Connect a compatible HDBaseT transmitter to this port.
9	HDMI IN	Connect an HDMI cable from here to an HDMI source.

RS-232

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

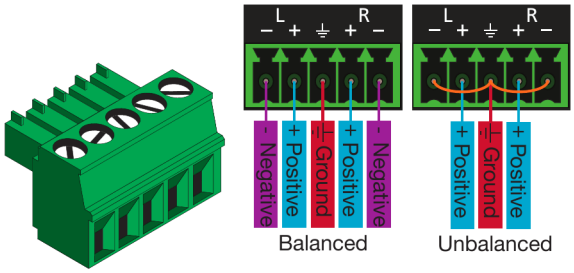




Pin out will be determined by the RS-232 cable and connect as RX (receive), TX (transmit) and (Ground).

Audio

Deembeds audio and sends to a connected audio DSP, amplifier, or other audio distribution devices.



Use a jumper between the negative and ground pins when using an unbalanced connection.

Mounting Instructions

The AT-OME-RX11 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.



5. 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

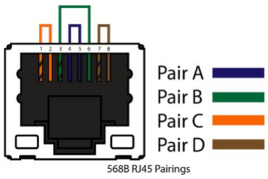
Refer to the tables below for recommended cabling when using Atlona products with HDBaseT. The green bars indicate the signal quality when using each type of cable. Higher-quality signals are represented by more bars.

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.



Installation

1. Connect a compatible HDBaseT transmitter (e.g. AT-OME-ST31 or AT-OME-EX-TX) to the HDBaseT input port using a category cable.
2. Connect an HDMI cable from the output port to an HDMI display.
3. *Optional* Connect the 2CH analog AUDIO OUT port to a DSP, or audio amplifier.
4. *Optional* Connect to the 3-pin captive screw RS-232 port to control the display or send commands back to the compatible transmitter over HDBaseT.
5. *Optional* Connect an Ethernet cable to the LAN port to pass or receive Ethernet. This can be connected to a display if receiving Ethernet from a compatible transmitter or to a network switch if sending Ethernet to a compatible transmitter.
6. Connect the included DC 24V power supply to the power port.
7. Connect the included IEC power cord from the power supply to a compatible power outlet.

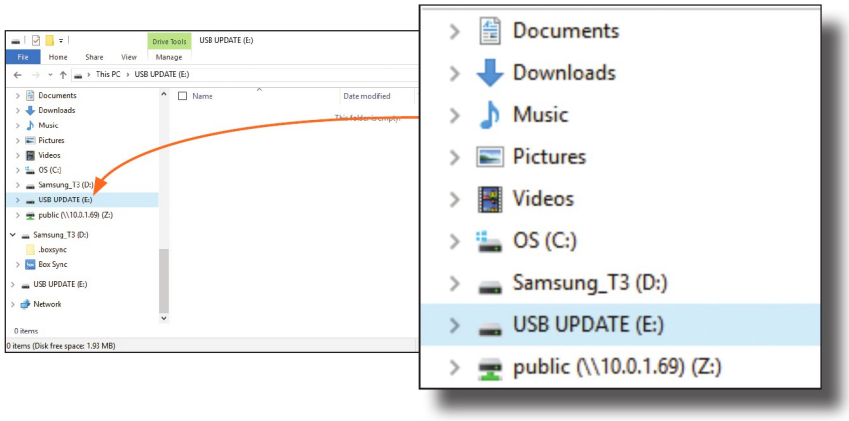
Updating the Firmware

Requirements:

- AT-OME-RX11
- Firmware file
- Computer running Windows
- USB-A to USB mini-B cable

NOTE: The update process can take up to five minutes to complete.

1. Disconnect power from the AT-OME-RX11.
2. Connect a USB-A to USB mini-B cable between the PC and the **FW** port on the AT-OME-RX11.
3. Connect the included power supply to the AT-OME-RX11.
4. The USB UPDATE folder will be displayed. If this folder is not displayed, automatically, select the USB UPDATE drive from Windows Explorer.



5. Delete all files from the USB UPDATE drive, if any are present.
6. Drag-and-drop the firmware file to the drive.
7. The **PWR** LED indicator, on the front panel, will flash green while the AT-OME-RX11 is being updated. Do not disconnect the USB cable during the update process. When the **PWR** LED stops flashing and is solid green, the update process will be complete.
8. Disconnect the USB cable from the AT-OME-RX11.

Specifications

Video	
Signal	Input: HDBaseT Output: HDMI
Copy Protection	HDCP 2.2
Pixel Clock	300 MHz
UHD / HD / SD	4096 × 2160 @ 24, 25, 30, 50, 60 Hz 3840 × 2160 @ 24, 25, 30, 50, 60 Hz 1920 × 1080p @ 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 Hz 1920 × 1080i @ 25, 29.97, 30 Hz 1280 × 720p @ 50, 59.94, 60 Hz 720 × 576p @ 50 Hz; 720 × 576i @ 25 Hz 640 × 480p @ 59.94, 60 Hz; 640 × 480i @ 30 Hz
VESA	1920 × 1200, 1680 × 1050, 1600 × 1200, 1440 × 900, 1400 × 1050, 1366 × 768, 1360 × 768, 1280 × 1024, 1280 × 800, 1152 × 768, 1024 × 768, 800 × 600, 640 × 480 — all @ 60 Hz
Color Space	YUV, RGB
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0
Color Depth	8-bit, 10-bit, 12-bit
Audio	
HDMI Pass-Through Formats	PCM 2.0, LPCM 5.1, LPCM 7.1, Dolby® Digital, Dolby Digital Plus™, Dolby TrueHD, Dolby Atmos®, DTS® Digital Surround™, DTS-HD Master Audio™, DTS:X®
Bit Depth	Up to 24-bit
Sample Rate	32, 44.1, 48, 88.2, 96, 176.4, 192 kHz
Analog Audio Output	
Format	2-channel stereo, balanced or unbalanced
Output Level	L: 5.883 Vrms; R: 5.855 Vrms
Frequency Response	20 Hz to 20 kHz, ±0.5 dB
THD+N	< 0.00009% at 20 Hz to 20 kHz
SNR	> 141.49 dB at 1 kHz
Control	
RS-232	Two-way device control and monitoring Baud rates: 2400, 4800, 9600, 19200, 38400, 57600, 115200
IP	Ethernet pass-through with the transmitter

CEC Support	Yes
Distance	
HDMI IN / OUT	15 ft (5 m) 30 ft (10 m)
Cat 5e	295 ft (90 m) 330 ft (100 m)
Cat 6 / 6a / 7	330 ft (100 m) 330 ft (100 m)
Indicators	
PWR	1× LED, green
LINK	1× LED, yellow
Connectors	
HDBaseT IN	1× RJ45
HDMI OUT	1× HDMI Type A, 19-pin female
LAN	1× RJ45
AUDIO OUT	1× 5-pin captive screw, balanced / unbalanced 2-channel
RS-232	1× 3-pin captive screw
FW	1× USB Mini-B
DC 24V	1× DC power input
Environmental	
Operating Temperature	+32 to +122 °F 0 to +50 °C
Storage Temperature	-4 to +140 °F -20 to +60 °C
Operating Humidity (RH)	20% to 90%, non-condensing
Power	
Consumption	15.12 W
BTU/h	51.6
External Power Supply	Input: 100–240 V AC, 50/60 Hz Output: 24 V DC, 2.7 A
Dimensions (H × W × D)	
Unit	1.02 × 4.29 × 5.24 in 26 × 109 × 133 mm

Power Supply (AT-PS-2427-D4)	1.26 × 1.93 × 4.69 in 32 × 49 × 119 mm
Weight	
Device	0.90 lb 0.41 kg
Certifications	
Device	FCC, CE
Power Supply	FCC, CE, UL
Compliance	
NDAA-889	Yes
TAA	Yes
Warranty	
Device	To view the product warranty, visit: hallresearch.com/warranty

Trademarks

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