



Introduction

The Atlona **AT-OME-EX-RX** is an HDBaseT receiver for video up to 4K/60 4:2:0, plus embedded audio, control, Ethernet, and USB over distances up to 330 feet (100 meters). Part of the Omega™ Series of integration products for modern AV communications and collaboration, the OME-EX-RX is HDCP 2.2 compliant and receives IR, RS-232, and IP control signals. With a matching HDBaseT transmitter, the integrated USB extension addresses the challenge of connecting between USB devices at remote locations, and is ideal for software video conferencing and touch or interactive displays. The OME-EX-RX includes two USB interfaces for devices such as a camera, soundbar, or display. This receiver is ideal for use with Omega Series transmitters as well as switchers with HDBaseT outputs. Also available is the OME-EX-KIT which includes the OME-EX-TX and OME-EX-RX⁽¹⁾.

Applications

- **Complete system integration**
The OME-EX-RX and an Omega Series switcher together provide a comprehensive and cost-effective integration solution for meeting rooms and other AV presentation spaces.
- **Video conferencing and interactive displays**
The OME-EX-RX and a compatible Omega Series transmitter or switcher are ideal for soft codec and web-based conferencing applications, with the ability to integrate with PCs, cameras, speakerphones, and microphones. They can also provide AV and USB extension for a touch-enabled display, allowing remote PC control at a meeting table or other location.

Key Features

Video, audio, power, and data over category cable utilizing HDBaseT technology

- Receives HDMI up to 330 feet (100 meters) @ 1080p with CAT5e/6 or 4K/UHD using CAT6a/7 cable.
- Uses easy-to-integrate category cable for low-cost, reliable system installation.

USB 2.0 interfacing and extension⁽²⁾ up to 330 feet (100 meters)

- Two USB type A ports for peripheral devices such as a camera or display.
- Supports USB 2.0 devices, USB 3.0 devices compatible with USB 2.0, and legacy USB 1.x peripherals.
- Provides an ideal USB integration solution for software video conferencing and other applications.

4K/UHD capability @ 60 Hz with 4:2:0 chroma subsampling

- Compatible with sources up to 4K/60 4:2:0 and 4K/30 4:4:4.
- Supports HDMI data rates up to 10 Gbps from PCs, media players, and Ultra HD Blu-ray players.

HDCP 2.2 compliant

- Adheres to latest specification for High-bandwidth Digital Content Protection.
- Allows protected content stream to pass between authenticated devices.

Remotely powered over HDBaseT, or locally powered

- Industry standard IEEE 802.3af PoE is supplied by an Omega Series switcher over HDBaseT.
- Also can be locally powered, and supply IEEE 802.3af PoE over HDBaseT to an Omega Series transmitter. Includes AC power supply.

HDBaseT receiver for HDMI, Ethernet, power, control, and USB up to 330 feet (100 meters)

- Receives HDMI up to 330 feet (100 meters) @ 1080p with CAT5e/6 or 4K/UHD using CAT6a/7 cable.
- Uses easy-to-integrate category cable for low-cost, reliable system installation.

Multi-channel audio compliant

- Passes through multi-channel audio formats.
- Supports PCM, Dolby® Digital, Dolby Digital Plus™, Dolby TrueHD, Dolby Atmos®, DTS® Digital Surround™, DTS-HD Master Audio™, and DTS:X®.

Field-updatable firmware

- Device can be updated in the field via the USB port

Front panel power and signal status LEDs

- LED indicators provide power and HDBaseT link status information.
- Provides convenient setup and troubleshooting.

Key Features (continued)

Low-profile, 1.02 inch (26 mm) high enclosure

- Easy installation into confined spaces below tables, in furniture, and behind or above displays.

Included accessories

- Installation guide, surface mounting hardware, and external universal power supply.

Product Warranty

- To view the product warranty, use the following link: <https://atlona.com/warranty/>.

Specifications

Video		
Signal	Input - HDBaseT Output - HDMI	
Copy Protection	HDCP 2.2	
Pixel Clock	300 MHz	
UHD/HD/SD	4096×2160 (DCI) @ 60 ⁽³⁾ /30/24 Hz 3840×2160 (UHD) @ 60 ⁽³⁾ /50/24/25/ 30 Hz	1920x1080p @ 23.98/24/25/29.97/ 30/50/59.94/60 Hz 1920x1080i @ 25/29.97/30 Hz, 1280x720p @ 30/50/59.94/60 Hz
VESA All resolutions are 60Hz	2560×2048 2560×1600 2048×1536 1920×1200 1680×1050 1600×1200 1600×900 1440×900 1400×1050	1366×768 1360×768 1280×1024 1280×800 1280×768 1152×768 1024×768 800×600 640×480
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 / HDBaseT 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 bits		
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz		

Resolution / Distance	4K/UHD - Feet / Meters		1080p - Feet / Meters	
HDMI IN/OUT	15	5	30	10
CAT5e	295	90	330	100
CAT6/6a/7	330	100	330	100

USB	
Signal	2.0
Maximum Data Rate	120 Mbps

Control	
RS-232	Pass-through from control system to sink device Supported baud rates: 2400, 4800, 9600, 19200, 38400, 57600, 115200
IP	Pass-through from control system to sink device Supports up to 100 Mbps over HDBaseT
IR	Pass-through from control system to sink device
CEC Support	Yes

Buttons and Indicators		
Indicators:		
PWR	1 x LED, green	
LINK	1 x LED, yellow	
Connectors		
HDMI OUT	1 x Type A, 19-pin female	
HDBaseT IN	N/A	
DEVICE	2 x USB Type A	
LAN	1 x RJ45	
RS-232 / IR	1 x 4-pin captive screw (1 x RS-232, 1 x IR)	
FW	1 x Type mini-B, 5-pin female	
DC 48V	1 x 2-pin captive screw	
Environmental	Fahrenheit	Celsius
Operating Temperature	0 to +122	-18 to +50
Storage Temperature	-4 to +140	-20 to +60
Operating Humidity (RH)	20% to 90%, non-condensing	
Power		
Consumption	18.76 W	
USB Power	2.5 W per USB device interface	
External Power Supply	100 - 240 V AC, 50/60 Hz Output: 48 V / 0.83 A DC	
Dimensions (H x W x D)	Inches	Millimeters
Unit (TX / RX)	1.02 x 4.29 x 5.00	26 x 109 x 127
Power Supply (AT-PS-48083-D3)	1.42 x 1.81 x 4.41	36 x 46 x 112
Weight	Pounds	Kilograms
Device	0.94	0.43
Certification		
Device	CE, RoHS, FCC	
Power Supply	CE, FCC, cULus	
Compliance		
NDA-899	Yes	

Footnotes

- (1) Both the AT-OME-EX-TX and AT-OME-EX-RX are not compatible with the AT-UHD-HDVS-300 system for extending USB.
- (2) HDBaseT transmitter or switcher must also be HDCP 2.2 compliant.
- (3) Only supports 4:2:0.

Copyright, Trademark, and Registration

© 2022 Atlona Inc. All rights reserved. "Atlona" and the Atlona logo are registered trademarks of Atlona Inc. Pricing, specifications and availability subject to change without notice. Actual products, product images, and online product images may vary from images shown here.



The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI licensing Administrator, Inc.



Dolby, Dolby Atmos, and the double-D symbol are registered trademarks of Dolby Laboratories Licensing Corporation.



For DTS patents, see <http://patents.dts.com>. Manufactured under license from DTS, Inc. DTS, the Symbol, DTS and the Symbol together, and Digital Surround are registered trademarks and/or trademarks of DTS, Inc. in the United States and/or other countries. © DTS, Inc. All Rights Reserved.

All other trademark(s), copyright(s), and registered technologies mentioned in this document are the properties of their respective owner(s).