Omega™ 4K/UHD

HDMI Over HDBaseT™ Receiver

with USB, Control, and PoE

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

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.

USB 2.0 hub and extension over HDBaseT

- Two USB type-A ports for peripheral devices such as a camera or display.
- 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.

Local or remote PoE (Power over Ethernet) powering

- Supplies industry standard IEEE 802.3af PoE over HDBaseT to an OME-EX-TX or other Omega Series transmitter.
- Also can be remotely powered by an Omega Series switching with an HDBaseT output.

Low-profile, 1 inch (25 millimeter) high quarter rack-width enclosure

- Easy installation into racks and confined spaces.
- Keeps devices out-of-sight when placed in public spaces.

Award-winning 10 year limited product warranty

- Ensures long-term product reliability and performance in residential and commercial systems.
- Specify, purchase, and install with confidence.

Specifications

Video	
HDMI Specification	HDMI 1.4, HDCP 2.2
TMDS Clock	300 MHz
UHD/HD	4096×2160(DCI)@60[(2)]/30/24 Hz, 3840×2160(UHD)@60[(2)]/50/24/25/30 Hz, 1080p@23.98/24/25/29.97/30 /50/59.94/60 Hz, 1080i@25/29.97/30 Hz, 720p@30/50/59.94/60 Hz
VESA	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	
Pass-through	PCM 2Ch, LPCM 5.1, LPCM 7.1, Dolby® Digital, DTS 5.1, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos®, DTS®, DTS-HD Master Audio™, DTS:X
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Bit Depth	Up to 24-bit

USB	
Signal	2.0
Maximum Data Rate	120 Mbps

Control	
CEC	Pass-through
RS-232	Pass-through from control system to sink device; supports baud rates from 2400 to 115200
IR	Pass-through from control system to sink device
IP	Pass-through from control system to sink device up to 100 Mbps over HDBaseT

Connectors	
HDMI OUT	1 - Type A, 19-pin female
FW	1 - mini-USB
HDBaseT OUT	1 - RJ45
DEVICE	2 - USB Type-A
LAN	1 - RJ45, 10/100 Mbps
RS-232 / IR	1 - captive screw, 4-pin
DC 48V	1 - 3-pin DIN

Indicators and Controls	
PWR LED indicator	1 - LED, green
LINK LED indicator	1 - LED, yellow

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

Power	
Consumption	18.67 W
USB Power	2.5 W per USB device interface
External Power Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 48 V, 0.83 A DC
Safety	CE, FCC, cULus

Environmental	
Operating Temperature	0° to 122° F 0° - 50° C
Storage Temperature	-4° to +140° F -20° to +60° C
Operating Humidity (RH)	+20 to +90%, non-condensing

Chassis	
Dimensions (H x W x D)	1.02 in x 8.62 in x 5.98 in 26 mm x 219 mm x 152 mm
Weight	0.89 lb, 406 g
Safety	CE, RoHS, FCC

(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) Only supports 4:2:0.

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