

AT-OME-EX-RX
Specification Sheet

Omega™ HDBaseT Receiver w/USB

Description

The 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 AT-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 AT-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 AT-OME-EX-KIT, which includes the AT-OME-EX-TX and AT-OME-EX-RX.

Applications

Complete System Integration

- The AT-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

- With a compatible Omega Series transmitter or switcher, ideal for soft codec and web-based conferencing with PCs, cameras, speakerphones, and microphones; also provides 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 using HDBaseT technology

- Receives HDMI up to 330 feet (100 meters) at 1080p with Cat 5e/6 or at 4K/UHD with Cat 6a/7 cable.
- Uses easy-to-integrate category cable for low-cost, reliable system installation.

USB 2.0 interfacing and extension 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 at 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 the latest specification for High-bandwidth Digital Content Protection.
- Allows protected content to pass between authenticated devices. The HDBaseT transmitter or switcher must also be HDCP 2.2 compliant.

Remotely powered over HDBaseT, or locally powered

- IEEE 802.3af PoE can be supplied by an Omega Series switcher over HDBaseT.
- Can also be locally powered and supply IEEE 802.3af PoE over HDBaseT to an Omega Series transmitter. Includes a power supply.

Multi-channel audio

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

Field-updatable firmware

- Firmware can be updated in the field through the USB port.

Front-panel power and signal status LEDs

- LED indicators show power and HDBaseT link status for convenient setup and troubleshooting.

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

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

Specifications

Video	
Signal	Input: HDBaseT Output: HDMI
Copy Protection	HDCP 2.2
Pixel Clock	300 MHz
UHD / HD / SD	4096 × 2160 (DCI) @ 24, 30, 60 Hz (60 Hz: 4:2:0 only) 3840 × 2160 (UHD) @ 24, 25, 30, 50, 60 Hz (60 Hz: 4:2:0 only) 1920 × 1080p @ 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 Hz 1920 × 1080i @ 25, 29.97, 30 Hz 1280 × 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 — all @ 60 Hz
VESA 21:9	2560 × 1080 @ 30 Hz 4:4:4 2560 × 1080 @ 60 Hz 4:4:4 3440 × 1440 @ 30 Hz 4:4:4 3440 × 1440 @ 50 Hz 4:4:4 3840 × 1600 @ 30 Hz 4:4:4
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-bit
Sample Rate	32, 44.1, 48, 88.2, 96, 176.4, 192 kHz

Cable / Resolution	4K/UHD	1080p
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)

USB	
Signal	USB 2.0
Maximum Data Rate	120 Mbps
Internal Hubs	1 USB hub

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

Indicators	
PWR	1× LED, green
LINK	1× LED, yellow

Connectors	
HDMI OUT	1× HDMI Type A, 19-pin female
HDBaseT IN	1× RJ45
DEVICE	2× USB Type-A
LAN	1× RJ45
RS-232 / IR	1× 4-pin captive screw (1× RS-232, 1× IR)
FW	1× USB Mini-B, 5-pin female
DC 48V	1× 2-pin captive screw

Environmental	Fahrenheit	Celsius
Operating Temperature	0 to +122 °F	-18 to +50 °C
Storage Temperature	-4 to +140 °F	-20 to +60 °C
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	Input: 100–240 V AC, 50/60 Hz Output: 48 V DC, 0.83 A

Dimensions (H × W × D)	Inches	Millimeters
Unit	1.02 × 4.29 × 5.00 in	26 × 109 × 127 mm
Power Supply (AT-PS-48083-D3)	1.42 × 1.81 × 4.41 in	36 × 46 × 112 mm

Weight	Pounds	Kilograms
Device	0.94 lb	0.43 kg

Certifications	
Device	FCC, CE, RoHS
Power Supply	FCC, CE, cULus

Compliance	
NDAA-889	Yes
TAA	Yes

Warranty	
Device	To view the product warranty, visit: hallresearch.com/warranty

The AT-OME-EX-TX and AT-OME-EX-RX are not compatible with the AT-UHD-HDVS-300 system for extending USB.

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