

Omega[™] 4K/UHD HDMI Over HDBaseT TX/RX with USB





Introduction

The Atlona **AT-OME-EX-KIT-LT** is an HDBaseT extender for video up to 4K/60 4:2:0, plus embedded audio, control, and USB over distances up to 130 feet (40 meters) for 4K/UHD, and up to 230 feet (70 meters) for 1080p/60 video. Part of the Omega[™] Series of integration products for modern AV communications and collaboration, the OME-EX-KIT-LT is HDCP 2.2 compliant and extends IR and RS-232 control signals. 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 transmitter includes a USB 2.0 host interface for a PC, plus two peripheral devices such as a speakerphone, microphone, or keyboard and mouse. The receiver provides two USB interfaces for devices such as a camera, soundbar, or display⁽¹⁾.

Applications

• Video conferencing

The OME-EX-KIT-LT is ideal for soft codec and web-based conferencing applications, with the ability to integrate with a PC and speakerphone or microphone at a meeting table, and a camera or soundbar at the wall-mounted display.

• Interactive displays

The OME-EX-KIT-LT 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

- Extends up to 230 feet (70 meters) @ 1080p, or up to 130 feet (40 meters) @ 4K/UHD using CAT6a/7 cable.
- Uses easy-to-integrate category cable for low-cost, reliable system installation.

USB 2.0 interfacing and extension up to 230 feet (70 meters)

- Transmitter features USB type B interface for connection to a host PC, plus two USB type A ports for peripheral devices such as a microphone or speakerphone. Receiver features 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.

Transmitter powered by receiver via PoE (Power over Ethernet)

- Industry standard IEEE 802.3af PoE for transmitter is supplied by receiver over HDBaseT.
- Allows convenient transmitter installation at a table or other remote location, without the need for local AC power.

HDBaseT link status testing

- Free software utility available for testing integrity of the HDBaseT cable link between the transmitter and the receiver. Test button and status LED also available on the transmitter.
- Provides real-time link status, with detailed HDBaseT and HDMI signal information. Quick, easy verification or troubleshooting of RJ-45 termination or twisted pair cable quality.

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							
Signal	Input - HDMI / HD Output - HDMI / H						
Copy Protection	HDCP 2.2						
Pixel Clock	300 MHz						
UHD/HD/SD		4096×2160 (DCI) @ 60 ⁽²⁾ /30/24 Hz 3840×2160 (UHD) @ 60 ⁽²⁾ /50/24/25/		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 60 Hz	2560×2048 2560×1600 2048×1536 1920×1200 1680×1050 1600×1200 1600×900 1440×900 1400×1050	2560×1600 2048×1536 1920×1200 1680×1050 1600×1200 1600×900 1440×900		1366×768 1360×768 1280×1024 1280×800 1280×768 1152×768 1024×768 800×600 640×480			
VESA 21:9	2560x1080 @ 60 H	2560x1080 @ 30 Hz 4:4:4 2560x1080 @ 60 Hz 4:4:4 3440x1440 @ 30 Hz 4:4:4		3440x1440 @ 50 Hz 4:4:4 3840x1600 @ 30 Hz 4:4:4			
Color Space	YUV, RGB						
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0	4:4:4, 4:2:2, 4:2:0					
Color Depth	8-bit, 10-bit, 12-b	it					
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	Up to 24 bits					
Sample Rate	32 kHz, 44.1 kHz,	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz					
Resolution / Distance	4K/UHD - Feet / N	leters		1080p - Feet	/ Meters		
HDMI IN/OUT	15	5		30	1	0	
CAT5e	115	35		200	6		
CAT6/6a/7	130	40		230	7		
CATO/0a/1	150	40		200	1	0	
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					
IR		Pass-through from control system to sink device					
CEC Support	Yes						



Buttons and Indicators					
Buttons:					
TEST	1 x momentary, tact-type				
Indicators:					
PWR	1 x LED, green				
LINK	1 x LED, yellow				
TEST	1 x LED, blue				
Connectors	Transmitter	Receiver			
HDMLIN	1 x Type A, 19-pin female	N/A			
HDMI OUT	N/A	1 x Type A, 19-pin female			
HDBaseT IN	N/A	1 x RJ45			
HDBaseT OUT	1 x RJ45	N/A			
DEVICE	2 x USB Type A	2 x USB Type A			
HOST	1 x USB Type B	N/A			
RS-232 / IR	1 x 4-pin captive screw	1 x 4-pin captive screw			
no-202 / In	$(1 \times \text{RS}-232, 1 \times \text{IR})$	$(1 \times \text{RS}-232, 1 \times \text{IR})$			
FW	1 x Type micro-USB	1 x Type micro-USB			
DC 48V	N/A	1 x 2-pin captive screw			
00 400					
Environmental	Fahrenheit	Celsius			
Environmental Operating Temperature	Fahrenheit 0 to +122	Celsius -18 to +50			
Operating Temperature	0 to +122	-18 to +50			
Operating Temperature Storage Temperature Operating Humidity (RH)	0 to +122 -4 to +140	-18 to +50			
Operating Temperature Storage Temperature Operating Humidity (RH) Power	0 to +122 -4 to +140 20% to 90%, non-condensing	-18 to +50 -20 to +60			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX)	-18 to +50 -20 to +60			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption BTU/h	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX) 104.0 (TX/RX), 46.0 (TX), 57.9 (RX)	-18 to +50 -20 to +60			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption BTU/h USB Power	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX) 104.0 (TX/RX), 46.0 (TX), 57.9 (RX) 2.5 W per USB device interface	-18 to +50 -20 to +60			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption BTU/h	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX) 104.0 (TX/RX), 46.0 (TX), 57.9 (RX) 2.5 W per USB device interface 100 - 240 V AC, 50/60 Hz	-18 to +50 -20 to +60			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption BTU/h USB Power	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX) 104.0 (TX/RX), 46.0 (TX), 57.9 (RX) 2.5 W per USB device interface	-18 to +50 -20 to +60			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption BTU/h USB Power External Power Supply	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX) 104.0 (TX/RX), 46.0 (TX), 57.9 (RX) 2.5 W per USB device interface 100 - 240 V AC, 50/60 Hz Output: 48 V / 0.83 A DC	-18 to +50 -20 to +60			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption BTU/h USB Power External Power Supply Dimensions (H x W x D)	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX) 104.0 (TX/RX), 46.0 (TX), 57.9 (RX) 2.5 W per USB device interface 100 - 240 V AC, 50/60 Hz Output: 48 V / 0.83 A DC Inches	-18 to +50 -20 to +60			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption BTU/h USB Power External Power Supply Dimensions (H x W x D) Unit (TX / RX)	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX) 104.0 (TX/RX), 46.0 (TX), 57.9 (RX) 2.5 W per USB device interface 100 - 240 V AC, 50/60 Hz Output: 48 V / 0.83 A DC Inches 1.02 x 4.29 x 5.00	-18 to +50 -20 to +60			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption BTU/h USB Power External Power Supply Dimensions (H x W x D)	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX) 104.0 (TX/RX), 46.0 (TX), 57.9 (RX) 2.5 W per USB device interface 100 - 240 V AC, 50/60 Hz Output: 48 V / 0.83 A DC Inches	-18 to +50 -20 to +60			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption BTU/h USB Power External Power Supply Dimensions (H x W x D) Unit (TX / RX) Power Supply (AT-PS-48083-D3)	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX) 104.0 (TX/RX), 46.0 (TX), 57.9 (RX) 2.5 W per USB device interface 100 - 240 V AC, 50/60 Hz Output: 48 V / 0.83 A DC Inches 1.02 x 4.29 x 5.00 1.42 x 1.81 x 4.41	-18 to +50 -20 to +60			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption BTU/h USB Power External Power Supply Dimensions (H x W x D) Unit (TX / RX) Power Supply (AT-PS-48083-D3) Weight	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX) 104.0 (TX/RX), 46.0 (TX), 57.9 (RX) 2.5 W per USB device interface 100 - 240 V AC, 50/60 Hz Output: 48 V / 0.83 A DC Inches 1.02 x 4.29 x 5.00 1.42 x 1.81 x 4.41 Pounds	-18 to +50 -20 to +60 Millimeters 26 x 109 x 127 36 x 46 x 112 Kilograms			
Operating Temperature Storage Temperature Operating Humidity (RH) Power Consumption BTU/h USB Power External Power Supply Dimensions (H x W x D) Unit (TX / RX) Power Supply (AT-PS-48083-D3)	0 to +122 -4 to +140 20% to 90%, non-condensing 30.5 W (TX/RX), 13.5 W (TX), 17.0 W (RX) 104.0 (TX/RX), 46.0 (TX), 57.9 (RX) 2.5 W per USB device interface 100 - 240 V AC, 50/60 Hz Output: 48 V / 0.83 A DC Inches 1.02 x 4.29 x 5.00 1.42 x 1.81 x 4.41	-18 to +50 -20 to +60 Millimeters 26 x 109 x 127 36 x 46 x 112			



Certification		
Device	CE, RoHS, FCC	
Power Supply	CE, FCC, cULus	
Compliance		
NDAA-899	Yes	
TAA	Yes	
Warranty		
3 years	To view the product warranty, use the following link: https://atlona.com/warranty	

Footnotes

(1) Both the AT-OME-EX-TX-LT and AT-OME-EX-RX-LT and not compatible with the AT-UHD-HDVS-300 system for extending USB.

(2) Only supports 4:2:0.



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