Introduction

The Atlona **AT-HDR-EX-100CEA-KIT** is an HDBaseT transmitter/receiver kit for high dynamic range (HDR) formats. The kit is HDCP 2.2 compliant and supports 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18 Gbps. The HDR-EX-100CEA-KIT provides transmission of HDMI, Ethernet pass-through, and bidirectional IR and RS-232 control signals up to 330 feet (100 meters) over CAT6a/7 cable. This extender kit features visually lossless compression with no latency to enable HDR and 4K/60 4:4:4 video signal extension over HDBaseT. For additional integration convenience, the transmitter remotely powers the receiver through Power over Ethernet (PoE). The HDR-EX-100CEA-KIT can transmit digital audio from a television back to an AV receiver, via a dedicated audio pathway.

The HDR-EX-100CEA-KIT is ideal for residential and commercial applications with the latest as well as emerging 4K/UHD and HDR sources and displays. It is compatible with all video resolutions, audio formats, and color space formats supported in the HDMI 2.0b specification, plus the ability to pass metadata for HDR content. The HDR-EX-100CEA-KIT includes Atlona's award-winning 10 year limited product warranty and customer support services, so that integrators can specify, purchase, and install with confidence.

Applications

- **Residential installations**
  The HDR-EX-100CEA-KIT is designed for AV systems with the latest UHD and HDR sources such as Ultra HD Blu-ray players, plus compatible televisions and projectors.

- **TV showrooms**
  The HDR-EX-100CEA-KIT can be used for reliable content transmission to televisions, to properly demonstrate the quality and appeal of 4K and HDR programming.

- **Professional AV applications**
  Atlona 4K HDR products are ideal for full-motion, highly detailed 4K graphics presentations for visualization, 3D renderings, simulations, and more.

Key Features

4K/UHD capability @ 60 Hz with 4:4:4 chroma sampling, plus support for HDR formats

• Compatibility with new and emerging 4K/UHD and HDR-capable sources and displays.

• Compatible with 4K HDR10 @ 60 Hz and Dolby® Vision™ @ 30 Hz.

• Fully supports video resolutions, audio formats, and color space formats in the HDMI 2.0b specification.

HDCP 2.2 compliant

• Adheres to latest specification for High-bandwidth Digital Content Protection.

• Allows protected content stream to pass between authenticated devices.

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

• Extends HDMI up to 330 feet (100 meters) @ 4K HDR using CAT6a/7 cable.

• Uses easy-to-integrate category cable for low-cost, reliable system installation.

Receiver powered by transmitter via PoE (Power over Ethernet)

• Power for receiver is supplied by transmitter over HDBaseT.

• Allows convenient receiver installation at a display or projector without the need for local AC power.

Extends RS-232, IR, Ethernet, and CEC control signals over HDBaseT

• Bidirectional extension of RS-232, IR, and Ethernet control signals.

• Eliminates multiple cable runs between source, control system, and display.

Visually lossless compression

• Enables HDBaseT transmission of HDMI up to 18 Gbps using extremely light video compression with no latency.

• Innovative signal extension solution delivers very high, pristine image quality.

Delivers return audio from a TV via dedicated audio pathway

• Provides a return audio pathway from a television to an AV receiver, with TOSLINK digital audio interfaces at the receiver and transmitter.

• Easy and convenient integration of television audio for over-the-air broadcasts, OTT (over-the-top) media services, and more.

HDBaseT link status testing

• Free software utility available for testing integrity of the HDBaseT cable link between the transmitter and the receiver.

• Provides real-time link status, plus detailed HDBaseT and HDMI signal information.

• Quick, easy verification or troubleshooting of RJ-45 termination or twisted pair cable quality.

• Test button and LED also available on the transmitter for checking HDBaseT link integrity.

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 / HDBaseT Output - HDMI / HDBaseT
Copy Protection	HDCP 2.2
Pixel Clock	600 MHz
HD/SD	4096×2160 @ 24/25/30/50/60 Hz 720p@50/59.94/60Hz 3840×2160 @ 24/25/30/50/60 Hz 720x576p 2048x1080p 720x576i 1920x1080p @ 23.98/24/25/ 720x480p 29.97/30/50/59.94/60 Hz 720x480i 1920x1080i @ 50/59.94/60 Hz
VESA All resolutions are 60 Hz	2560×2048 1366×768 2560×1600 1360×768 2048×1536 1280×1024 1920×1200 1280×800 1680×1050 1280×768 1600×1200 1152×768 1600×900 1024×768 1440×900 800×600 1400×1050 640×480
VESA 21:9[1]	2560x1080 @ 30 Hz 4:4:4 3440x1440 @ 50 Hz 4:4:4 2560x1080 @ 60 Hz 4:4:4 3840x1600 @ 30 Hz 4:4:4 3440x1440 @ 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
HDR	Up to 4K HDR10 @ 60 Hz, 4K Hybrid-Log Gamma (HLG) @ 60 Hz, and 4K Dolby® Vision™ @ 60 Hz[2]

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 bits		
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz		

Control				
RS-232	Device control and configuration Supported baud rates: 2400, 4800, 9600, 19200, 38400, 57600, 115200			
CEC Support	Yes			

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

Buttons and Indicators	Transmitter	Receiver
Buttons: TEST	1 x momentary, tact-type	N/A
Indicators: TEST POWER, LINK	 1 x LED, blue 2 x LED, green	 N/A 2 x LED, green

Connectors	Transmitter	Receiver
HDMI IN	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
OPTICAL IN	N/A	1 x TOSLINK™
OPTICAL OUT	1 x TOSLINK™	N/A
RS-232 / IR	1 x 5-pin captive screw	1 x 6-pin captive screw
UTILITY	1 x Mini-USB	1 x Mini-USB
LAN	1 x RJ45	1 x RJ45
DC 48V	1 - 2-pin captive screw	N/A

Environmental	Fahrenheit		Celsius	
Operating Temperature	+32 to +122		0 to +50	
Storage Temperature	-4 to +140		-20 to +60	
Operating Humidity (RH)	20% to 90%, non-condensing			

Power	Transmitter	Receiver
Consumption	5.25 W	7.55 W
BTU/h	17.9	25.7
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
Transmitter	1.02 x 5.74 x 3.74	26 x 146 x 95
Receiver	1.02 x 5.74 x 3.81	26 x 146 x 97
Power Supply (AT-PS-48083-C)	1.42 x 1.81 x 4.41	36 x 46 x 112

Weight	Pounds	Kilograms
Transmitter	0.886	0.402
Receiver	0.873	0.396

Certification		
Device	CE, FCC	
Power Supply	CE, FCC, cULus, RoHS, CCC, RCM	

Compliance	
NDAA-889	Yes
TAA	Yes

Warranty	
3 years	View the full warranty information here: https://atlona.com/warranty

Footnotes

(1) The following UltraWide Quad HD resolutions are NOT supported:
   3440x1440P@50 10 bit 4:4:4
   3440x1440P@60 10 bit 4:4:4
   3840x1600P@60 8 bit 4:4:4.

(2) 4K Dolby® Vision™ @ 60 Hz is supported on systems capable of Low Latency Dolby Vision (LLDV) mode.
   All other 4K modes limited to 30 Hz.

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