



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	4096x2160 @ 24/25/30/50/60 Hz 3840x2160 @ 24/25/30/50/60 Hz 2048x1080p 1920x1080p @ 23.98/24/25/ 29.97/30/50/59.94/60 Hz 1920x1080i @ 50/59.94/60 Hz	720p@50/59.94/60Hz 720x576p 720x576i 720x480p 720x480i
VESA All resolutions are 60 Hz	2560x2048 2560x1600 2048x1536 1920x1200 1680x1050 1600x1200 1600x900 1440x900 1400x1050	1366x768 1360x768 1280x1024 1280x800 1280x768 1152x768 1024x768 800x600 640x480
Color Space	YUV, RGB	
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0	
Color Depth	8-bit, 10-bit, 12-bit	
HDR	4K HDR10 @ 60 Hz and Dolby® Vision™ @ 30 Hz	

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
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
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-899	Yes

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