Introduction

The Atlona **AT-UHD-EX-100CE-KIT** is an HDBaseT transmitter/receiver kit for HDMI transmission up to 330 feet (100 meters) over category cable with Ethernet pass through, RS-232 and IR control, plus Power over Ethernet. This extender kit transmits video signals up to 4K/UHD @ 60Hz with embedded multi-channel audio and remote 48V power for the receiver. Additionally, the kit extends Ethernet, RS-232, and 12 volt-based IR control commands. The kit is HDCP 2.2 compliant and supports EDID communication. Both transmitter and receiver feature quarter rack width metal enclosures for easy rack mounting with rear panel I/O ports for uncluttered wire management. Use with an optional AT-IR-CS-RX IR receiver cable to capture IR remote commands for AV system control.

The AT-UHD-EX-100CE-KIT provides integrator-friendly features including: IEEE standards based PoE transmission for safety and compatibility; compliant with HDCP 2.2 to meet the latest copy protection requirements; an integrator-friendly form factor with rear panel HDBaseT, HDMI, control and power connections; a rack- mountable form factor that allows for four transmitters to share a single, 1U rack tray; power chaining to allow multiple sets to be powered from one power supply; and a front mounted USB port for easy firmware updates.

Applications

*   **Residential installations**
    The UHD-EX-100CE-KIT is designed for AV systems with the latest 4K and UHD sources such as Ultra HD Blu-ray players, plus compatible televisions and projectors.
*   **TV showrooms**
    The UHD-EX-100CE-KIT can be used for reliable content transmission to televisions, to properly demonstrate the quality and appeal of 4K programming.
*   **Professional AV applications**
    Atlona 4K products are ideal for full-motion, highly detailed 4K graphics presentations for visualization, 3D renderings, simulations, and more.

Key Features

4K/UHD capability

- Compatible with Ultra High Definition sources and displays.
- Full support of 4K/UHD streaming services and playback devices

HDCP 2.2 compliant

- Adheres to latest specification for High-bandwidth Digital Content Protection.
- Allows protected content stream to pass between authenticated devices.

Supports 4K HDR10 @ 24 Hz

- Extends 4K HDR10 @ 24 Hz (4:2:0 chroma subsampling, 10-bit color).

Remote-powered receiver

- Industry standard IEEE 802.3af PoE for receiver is supplied by transmitter over HDBaseT.
- Saves time and integration costs.

Extended distance HDMI extension

- Transmits HDMI signals up to 330 ft (100m) @ 1080P with CAT5e/6 or 4K/UHD using CAT6a/7 cable.
- Uses easy-to-integrate category cable for low-cost, reliable system installation.

AV, Ethernet, power, and control over HDBaseT

- Delivers 4K/UHD video, audio, 100Base-T Ethernet, power, and control through a single cable.
- Eliminates multiple cable runs between source, control system, router, and display.

Rear panel I/O connectors

- Placement of ports on rear panel simplifies wire management.
- Saves installation time and eliminates clutter.

Multi-channel audio compliant

- Supports PCM, Dolby Digital, Dolby Digital Plus™, Dolby TrueHD, Dolby Atmos®, DTS Digital Surround™, DTS-HD Master Audio™, DTS:X™.
- Allows any multi-channel audio stream to be used within a professional audio system.

Field updatable firmware

- Front panel USB port provides an easy means for kit upgrades.
- Ensures long term system return on investment.

Front panel Power and Link status LEDs

- LED indicators provide power and HDBaseT link status information.
- Provides easy setup and troubleshooting.

Power chaining

- Included power supply provides ample power for up to three Atlona HDBaseT extenders.
- Four Atlona HDBaseT extenders can be powered using the optional AT-PS-483125-C power supply.
- Reduces clutter from multiple power supplies in equipment racks.

Low-profile, 1 inch (2.5 cm) high quarter rack-width enclosure

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

Included accessories

- User guide, desktop power supply for transmitter, detachable power cable, IR emitter P/N AT-IR-CS-TX, mounting brackets.

Specifications

Video		
HDMI Specification	HDMI 2.0[1]	
HDCP	1.4, 2.2	
UHD/HD/SD	4096x2160 (DCI) @ 24/25/30/60[2] Hz 3840x2160 (UHD) @ 24/25/30/60[2] Hz 1920x1080p @ 23.98/24/25/29.97/30/50 /59.94/60 Hz 1920x1080i @ 50/59.94/60 Hz 1280x720p @ 50/59.94/60 Hz	720x576p @ 50 Hz 720x576i @ 50 Hz 720x480p @ 60 Hz 640x480p @ 60 Hz
VESA	2560×2048 @ 60 Hz 2560×1600 @ 60 Hz 2048×1536 @ 60 Hz 1920×1200 @ 60 Hz 1680×1050 @ 60 Hz 1600×1200 @ 60 Hz 1600×900 @ 60 Hz 1440×900 @ 60 Hz 1400×1050 @ 60 Hz	1366×768 @ 60 Hz 1360×768 @ 60 Hz 1280×1024 @ 60 Hz 1280×800 @ 60 Hz 1280×768 @ 60 Hz 1152×768 @ 60 Hz 1024×768 @ 60 Hz 800×600 @ 60 Hz 640×480 @ 60 Hz
Color Space	YCbCr, RGB	
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0	
Color Depth	8-bit, 10-bit, 12-bit	
HDR[3]	4K HDR10 @ 24Hz, 4:2:0 chroma subsampling, 10-bit color	

Audio			
Pass-Through Formats	PCM 2Ch LPCM 5.1 LPCM 7.1	Dolby® Digital Dolby Digital Plus™ Dolby TrueHD Dolby Atmos®	DTS® Digital Surround™ 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 Rate	24 Mbits/s max		

Protocols	
Supported	HTTP, Telnet
Addressing	DHCP, static

Control	
RS-232	Device control and configuration; supports baud rates from 2400 to 115200
IP	Device control and configuration
CEC	Device control and configuration
IR	Device control

Connectors and Indicators	
HDMI IN (TX)	1 - Type A, 19-pin female
HDMI OUT (RX)	1 - Type A, 19-pin female
HDBaseT IN (RX)	1 -RJ45 (8P8C), 568-B termination
HDBaseT OUT (TX)	1 -RJ45 (8P8C), 568-B termination
LAN[3] (TX/RX)	1 - RJ45, 10/100/1000 Mbps
RS-232	1 - 3-pin captive screw
IR IN / IR OUT (TX/RX)	1 - 4-pin captive screw
FW (TX/RX)	1 - Mini USB Type-B, 5-pin female
DC 48V (TX)	1 - 2-pin captive screw
LED (TX/RX)	1 - PWR, green
	1 - LINK, amber

Resolution / Distance	4K/UHD - Feet	4K/UHD - Meters	1080p - Feet	1080p - Meters
CAT5e/6	230	70	330	100
CAT6a/7	330	100	330	100
HDMI IN/OUT	15	5	30	10

Signal				
Maximum TMDS Clock	300 MHz			
HDBaseT	10.2 Gbps			
CEC	2.0			

Power		
Total Power Consumption	12 W	
External Power (optional)	Input: 100 - 220 V AC, 50/60 Hz	
	Output: 48 V / 0.8 A DC	

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

Dimensions (H x W x D)	Inches	Millimeters
Unit	0.98 x 4.29 x 3.5	25 x 109 x 89
Unit w/Ears	1.06 x 4.69 x 3.5	27 x 119 x 89
Power Supply	1.42 x 1.81 x 4.41	36 x 46 x 112

Weight	Pounds	Kilograms
Unit	0.86	0.30

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

Accessories

Description	SKU
48 V / 0.3 A DC Power Supply	AT-PS-483125-C
LinkConnect HDMI to HDMI Cable	AT-LC-H2H-1M / 2M / 3M
LinkConnect Mini DisplayPort to HDMI Cable	AT-LC-MDP2H-1M / 2M / 3M
Architectural Cable Access Enclosure	AT-PKT-3H

Footnotes

(1) UHDp60 only supports 4:2:0.

(2) 4096×2160 @ 50/60 Hz and 3840×2160 @ 50/60 Hz supports 4:2:0 8-bit chroma subsampling only.

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