



Introduction

The Atлона AT-AVA-EX100CE-BP-KIT is an Avance™ Series HDBaseT transmitter and receiver set that supports Ethernet, control pass-through, and bidirectional remote power capabilities. The kit transmits 4K/UHD 60Hz 4:2:0 video up to 330 feet (100 meters). In addition to video with embedded multi-channel audio, 100Base-T Ethernet data, RS-232 and IR control signals, and remote powering by either the transmitter or the receiver are supported on the single CAT6A/7 cable. EDID filtering and clock stretching ensure video transmission integrity and stable connections. Integrated HDBaseT link test allows quick verification of cable, termination, and link quality. Audio Return Channel (ARC) is available on the HDMI connections to minimize cabling in audio return applications. The AT-AVA-EX100CE-BP-KIT includes both transmitter and receiver endpoints. Compact enclosures and included brackets allow the devices to be surface mounted in furniture or behind a display. The AT-AVA-EX100CE-BP-KIT delivers a cost-effective solution for extension of video, audio, Ethernet, control, and bidirectional power at resolutions up to 4K/UHD.

Applications

- **Conference room** - Transmit 4K/UHD content from a laptop or room PC to the flat panel display at the front of the room.
- **Classroom** - Transmit 4K/UHD content from an instructor computer to a projector or flat panel display.
- **Residential** - Advanced integration features ensure transmission of content to a remote TV at resolutions up to 4K/UHD

Key Features

Extended distance HDMI extension

- Transmitting 4K/UHD video up to 330 feet (100 meters).
- Reliably send HDMI signals further using cost effective CAT-type twisted pair cable.

4K/UHD capable

- Transmits high resolution video up to and including 4K/UHD @ 30Hz 4:4:4 8 bit, 4K/UHD @ 60Hz 4:2:0 8 bit, and 4K/UHD @ 30Hz 4:2:2 10bit.
- Ensures compatibility with common high resolutions source and display devices.

Extends data and control signals over HDBaseT

- Includes bidirectional Ethernet, RS-232, and IR on the single cable connection between transmitter and receiver.
- Eliminates multiple cable runs between source, control system, and display.

Integrated HDBaseT Link Testing

- Verifies cable, termination, and link quality.
- Quickly diagnose cable related issues and ensure reliable performance for all installations.

Bidirectional Remote Power

- Transmitter powers receiver or receiver powers transmitter.
- Increases installation flexibility by allowing power supply to be located either by the source or by the display.

HDMI Audio Return Channel

- ARC allows audio content generated at the display to be connected to the AV receiver.
- Having ARC on the HDMI connection minimizes cabling because there is no need for a separate audio cable.

HDMI clock stretching

- Prevents loss of video due to source clock impairments.
- Improve interoperability with legacy HDMI sources and low quality HDMI video sources.

EDID filtering

- Prevents transmission of unsupported resolutions with large bandwidths.
- Increases integrity of video transmission.

Multi-channel audio compliant

- Supports PCM, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS 5.1, DTS-HD Master Audio, DTS:X.
- Allows any multi-channel audio stream to be used within a professional audio system.

Compact enclosure

- One inch high, quarter rack-width enclosures can be surface mounted in furniture, on a wall behind a display, or installed in a rack.
- Allows devices to be hidden from view.

Compatible with locking HDMI connectors for secure cable connections

Specifications

Video		
Signal	HDMI w/ARC	
Copy Protection	HDCP 1.4/2.2	
Pixel Clock	300MHz	
UHD/HD/SD	4096x2160@60 ⁽¹⁾ /50 ⁽¹⁾ /30/25/24Hz 3840x2160@60 ⁽¹⁾ /50 ⁽¹⁾ /30/25/24Hz 1080p@60/59.9/50/30/29.97/25/ 24/23.98Hz 1080i@30/29.97/25Hz	720p@60/59.94/50Hz 576p@50Hz 576i@25Hz 480p@60/59.96Hz 480i@30Hz
VESA	2560x1600 2048x1536 1920x1200 1680x1050 1600x1200 1440x900 1400x1050 1280x1024	1280x800 1366x768 1360x768 1152x864 1024x768 800x600 640x480
All resolutions are 60Hz		
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 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz		

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

Control	
RS-232	Pass through, up to 115200 baud
IR	Pass through, 30kHz to 60kHz
IP	Pass through
CEC	Pass through

Buttons and Indicators	
TEST button	1 - momentary, tact-type
Function Indicators:	
Power	1 - LED, green
Link	1 - LED, yellow
Test	1 - LED, multi-colored

Connectors	
HDMI IN (TX)	1 - Type A, 19-pin female
HDBaseT OUT (TX)	1 - RJ45, female
HDMI OUT (RX)	1 - Type A, 19-pin female
HDBaseT IN (RX)	1 - RJ45, female
FW - Firmware (RX and TX)	1 - Micro-A USB
PWR (RX and TX)	1 - 2-pin 48V captive screw connector
Ethernet (RX and TX)	1 - Ethernet port
RS-232 (RX and TX)	1 - 3-pin captive screw connector
IR (RX and TX)	1 - 4-pin captive screw connector (TX) 1 - 5-pin captive screw connector (RX)

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

Power	
Consumption (KIT)	13.55 W
Supply	Input: AC100~240V 50/60Hz Output: DC 48V/0.83A

Dimensions	Inches	Millimeters
H x W x D	1.02 x 4.29 x 5.20	26 x 109 x 132

Weight	Pounds	Kilograms
TX	0.80	0.36
RX	0.80	0.36

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

Accessories

SKU	Description
AT-LC-H2H-1M	LinkConnect HDMI to HDMI 1 Meter Cable
AT-LC-H2H-2M	LinkConnect HDMI to HDMI 2 Meter Cable
AT-LC-H2H-3M	LinkConnect HDMI to HDMI 3 Meter Cable

Footnotes

(1) 4K/UHD @ 50/60Hz only supports 4:2:0 over HDBaseT.