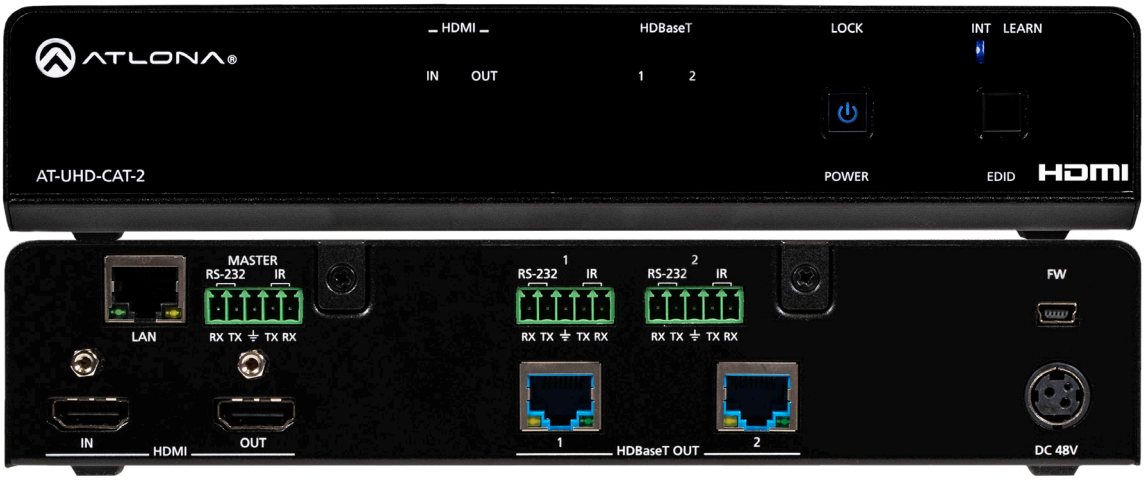
4K/UHD
HDMI to HDBaseT™ Distribution Amplifier



Introduction

The Atlona **AT-UHD-CAT-2** is a 4K/UHD HDMI to HDBaseT distribution amplifier featuring pass-through HDMI input connections, two HDBaseT outputs and display control capability. Each output transmits AV and control signals up to 230 ft. (70 m) @ 1080p and 130 ft. (40 m) @ 4K/UHD. Features include 4K/UHD @ 60 Hz with 4:2:0 color subsampling, HDCP 2.2 compliance, EDID management, and PoE for powering remote receivers. A wide variety of consumer displays may be controlled by the UHD-CAT-2 using CEC. Designed for commercial distribution applications, the UHD-CAT-2 is control system-friendly and integrates with any TCP/IP, RS-232, or IR control system and features a 1U, half-rack width enclosure with external, international power supply. Compatible Atlona receiver: AT-UHD-EX-70C-RX.

Signal distribution applications increasingly require compatibility with HDCP 2.2, 4K/UHD @ 60 Hz support with 4:2:0 color subsampling to ensure images reach displays with compatible copy protection and with the pristine digital image quality of the original signal, without artifacts resulting from inferior image distribution systems. HDBaseT distribution ensures reliable, long-distance transmission of high resolution audio and video signals.
These core features along with added display control provide additional flexibility. Power over Ethernet not only provides compatibility with Atlona Extender products but enables HDBaseT Certification.

Applications

- Retail, restaurant, and entertainment environments that need long distance signal extension of high-impact messages and program information.
- TV showrooms that demand the highest quality signal be delivered to each 4K television to entice customers to make an immediate purchase decision.
- Any single image/multi-screen environment that requires display control.

Key Features

HDMI distribution amplifier with built-in HDBaseT transmission

- Combines signal distribution and long distance transmission into a single enclosure; eliminates several devices and power supplies.
- Reduces overall system costs, speeds installation, and prevents compatibility issues.
- HDMI input with pass-through.

Two HDBaseT outputs for transmission of HDMI, power, and control up to 230 feet (70 meters)

- Long distance, 230 foot (70 m) outputs offer bidirectional extension of both RS-232 and IR control plus remote receiver power.
- Compatible receiver: AT-UHD-EX-70C-RX.
- RS-232 and IR insertion ports for each HDBaseT output.
- Reduces multiple, separate cable runs down to a single category cable per display, shrinking cable bundles and required conduit capacity to reduce cost of installation.

4K/UHD capability with HDCP 2.2 copy protection

- Compatible with ultra-high definition sources and displays; adheres to latest content protection specification.
- Ensures AV distribution systems are ready for 4K/UHD streaming services and playback devices.

Power over Ethernet (PoE) for HDBaseT receivers

- Supplies industry standard IEEE 802.3af PoE over HDBaseT to the UHD-EX-70C-RX or compatible HDBaseT receivers.
- Allows convenient receiver installation at a display or projector without the need for local AC power.

CEC display control

- Sends CEC display power on/off control over HDBaseT.
- Enables control of displays connected to UHD-EX-70C-RX receivers (as supported by the display manufacturer).
- CEC control can be triggered by using either the front-panel button as well as using IP or RS-232 control commands.

EDID management

- Manages EDID communications with the source through a display's EDID or internally stored EDID.
- Ensures desired audio formats and video resolutions are provided to the AV system.

Intuitive GUI-based configuration using integrated web server

- Offers menu-based configuration of network settings, RS-232 settings, EDID, and HDCP management.
- Allows fast configuration of internal product settings and troubleshooting from a mobile device or PC in the field.

TCP/IP, RS-232, and IR control

- Flexible control options for compatibility with the Atlona Velocity™ control system, as well as other third-party control systems.
- Reduces integration time and costs.

Easy to configure and manage with AMS (Atlona Management System)

- Centralized, network-based configuration and management of Atlona IP-controllable products and systems.
- Manage configuration and firmware updates for AV devices spanning a facility, building, enterprise, or residence.
- Available as a cost-effective server appliance, or a free software download.

Specifications

Video	
HDMI Specification	HDMI 1.4, HDCP 2.2
UHD/HD	4096×2160 (DCI)@60/50[1]/30/25/24 Hz, 3840×2160(UHD)@60/50[1]/24/25/30 Hz, 1080p@23.98/24/25/29.97/30/50/59.94/60 Hz, 1080i@25/29.97/30 Hz, 720p@30/50/59.94/60 Hz
VESA	2560×2048, 2560×1600, 2048×1536, 1920×1200, 1680×1050, 1600×1200, 1600×900, 1440×900, 1400×1050, 1366×768, 1360×768, 1280×1024, 1280×800 1280×768, 1152×768, 1024×768, 800×600, 640×480
Color Space	YUV, RGB
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0
Color Depth	8-bit, 10-bit, 12-bit

Audio	
Pass-through	PCM 2Ch, LPCM 5.1, LPCM 7.1, Dolby® Digital, DTS 5.1, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos®, DTS®, 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 Depth	Up to 24-bit

Protocols	
Addressing	DHCP, static
Management	HTTP, Telnet

Control	
CEC	Supported from control systems
RS-232	Device control and configuration; supports baud rates from 2400 to 115200 Bidirectional pass-through from control system to sink device
IR	Pass-through from control system to sink device Pass-through from viewing location to source

Connectors	
HDMI IN	1 - Type A, 19-pin female
HDMI OUT	1 - Type A, 19-pin female
FW	1 - mini-USB
HDBaseT OUT	2 - RJ45
LAN	1 - RJ45, 10/100/1000 Mbps
RS-232 / IR	3 - captive screw, 5-pin; master RS-232 / IR, and pass-through on port 2 and 3
DC 48V	1 - 3-pin DIN

Indicators and Controls	
Control Buttons: POWER, EDID	2 - momentary, tact-type
LED Indicators: HDMI IN/OUT, HDBaseT (1,2), LOCK, INT, LEARN	7 - LED, blue

Resolution / Distance	4K/UHD - Feet / Meters		1080p - Feet / Meters	
HDMI IN/OUT	15	5	30	10
CAT5e/6	115	35	200	60
CAT6a/7	130	40	230	70

Power	
Consumption	52.8 W
Idle Consumption	12.6 W
External Power Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 48 V DC, 2.08 A
Safety	CE, FCC, Level IV, cULus, RoHS, RCM, CCC

Environmental	
Operating Temperature	+32 to +122 °F 0 to +50 °C
Storage Temperature	-4 to +140 °F -20 to +60 °C
Operating Humidity (RH)	20% to 95%, non-condensing

Dimensions (H x W x D)	Inches	Millimeters
Unit	1.73 x 8.75 x 10.28	44 x 222 x 261
Power Supply (AT-PS-48208-D3)	1.3 x 2.24 x 5.35	33 x 57 x136

Weight	Pounds	Kilograms
Device (TX / RX)	3.70	1.66

Certification	
Device	CE, RoHS, FCC

(1) 4096x2160 @ 50/60 Hz and 3840x2160 @ 50/60 Hz only supports 4:2:0 8-bit chroma subsampling.

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