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Introduction

The Atlona **AT-HDR-CAT-2** is a high dynamic range (HDR) distribution amplifier with one HDMI® input and two HDBaseT™ outputs Each output transmits 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling plus support for HDR formats, multi-channel audio, control signals, and power up to 130 feet (40 meters) or 1080p up to 230 feet (70 meters) over Category 6/6A cable. The HDR-CAT-2 features sophisticated integration capabilities designed for commercial AV distribution applications including HDMI pass-through, audio de-embedding, EDID management, CEC display control, RS-232 and IR control extension, remote power for receivers, and HDBaseT link testing. It offers compatibility with any TCP/IP or RS-232 control system and is housed in a low-profile enclosure with external universal power supply. The HDR-CAT-2 is ideal for sending HDR and 4K/60 4:4:4 content to AT-HDR-EX-70C-RX receivers.

Applications

- **Hospitality and retail**
  Ideal for hotel lobbies, malls, stores, and restaurants that need long distance signal extension of high-impact marketing content and program information.

- **Commercial**
  Display company information on screens in reception areas or production and safety information on screens in the warehouse and manufacturing floor.

- **Education**
  Complements lecture hall and auditorium AV systems by allowing presentation content to be distributed to repeater displays located throughout the space

Key Features

- 4K HDR distribution amplifier with one HDMI input and two HDBaseT outputs.

- Pass-through HDMI output to support local monitor.

- 4K/UHD capability @ 60 Hz with 4:4:4 chroma sampling.

- Supports HDR10, HLG, and Dolby® Vision™ HDR formats.

- Features visually lossless compression with no latency to enable HDR and 4K/60 4:4:4 video signal extension over HDBaseT.

- HDBaseT outputs extend HDMI, control signals, and power up to 130 feet (40 meters) for 4K HDR or 230 feet (70 meters) for 1080p with Category 6/6A.

- Bidirectional RS-232 and IR control extension for each output.

- Remotely powers compatible receivers over HDBaseT.

- CEC display control sends display power on/off commands over HDBaseT using the power button, IP, or RS-232.

- Audio de-embedding to balanced analog output with volume control for integration with a separate audio system.

- HDBaseT link test verifies cable, termination, and link quality for more reliable installations.

- Multi-channel audio pass-through.

- Cascade up to 8 units to expand system without compromising performance.

- Compliant with HDCP 2.2, the latest specification for passing protected content between devices.

- Manages EDID communications with the source through a display's EDID or internally stored EDID.

- Intuitive GUI-based configuration using integrated web server.

- Flexible control options via TCP/IP, RS-232, and IR with Atlona Velocity™ or third-party control systems.

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

- Front panel includes LEDs for power, HDBaseT link, and HDMI signal status information as well as buttons for power and EDID control.

- Compatible with AT-UHD-EX receivers for resolutions up to 4K60 4:2:0.

- Low-profile enclosure for easy installation under a table or in furniture.

Specifications

Video		
Signal	Input - HDMI Output - HDMI / HDBaseT	
Copy Protection	HDCP 2.2	
Pixel Clock	600 MHz	
UHD/HD/SD	4096x2160 (DCI) @ 24/25/30/50/60 Hz 3840x2160 (UHD) @ 24/25/30/50/60 Hz 1920x1080p @ 23.97/24/25/29.97/30/50/60 Hz 1920x1080i @ 50/60 Hz 1280x720p @ 30/50/60 Hz	720x576p @ 50 Hz 720x576i @ 25/50 Hz 720x480p @ 60 Hz 640x480p @ 60 Hz
VESA	2560×1600 @ 60 Hz (RB) 2048×1536 @ 60 Hz 2048×1200 @ 60 Hz 2048x1080 @ 60 Hz 1920x1200 @ 60 Hz (RB) 1920x1080 @ 60 Hz (RB) 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 1280x720 @ 60 Hz 1024×768 @ 60 Hz 800×600 @ 60 Hz 640×480i @ 29.97/30 Hz
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[1]	

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 bits		
Analog Audio			
Format	Stereo 2-Channel		
Balanced Output	+4 dBu nominal gain, +19 dB headroom		
Frequency Response	20 Hz to 20 kHz, ± 0.5 dB		
THD+N	< 0.006% at 20 Hz to 20 kHz		
SNR	> 105 dB at 1 kHz, zero clipping @ 0 dBFS, unweighted		
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz		

Ethernet	
Port	1 x RJ45
Standards and Protocols	HTTP, Telnet
Speeds	10/100 Mbps
Addressing	DHCP, Static – selectable through front panel, IP & RS-232 commands, and built-in web server

RS-232	
Port	1 x 5-pin captive screw; 1 x 10-pin captive screw
Use	Unit and external device control and configuration
Baud Rates	2400, 4800, 9600, 19200, 38400, 57600, 115200
Data Flow	Bidirectional

IR	
Port	1 x 5-pin captive screw; 1 x 10-pin captive screw
Use	Pass-through from control system to sink device Pass-through from viewing location to source
Frequency Range	30 kHz to 60 kHz

CEC	
Ports	1 x HDMI OUT, Type A, 19-pin female; 2 x RJ45 (HDBaseT OUT)
Triggering	Through IP, RS-232, and built-in web server

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

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

Connectors	
HDMI IN	1 x Type A, 19-pin female
HDMI OUT	1 x Type A, 19-pin female
HDBaseT OUT	2 x RJ45
LAN	1 x RJ45
AUDIO OUT	1 x 5-pin captive screw
RS-232 / IR	3 x 5-pin captive screw
FW	1 x USB-C
DC 48V	1 x 2-pin captive screw

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	
Consumption (w/ 2 PoE)	38.3 W
Idle Consumption (no PoE)	8.3 W
BTU/h	28.3
External Power Supply	100 - 240 V AC, 50/60 Hz Output: 48 V / 1.25 A DC

Dimensions (H x W x D)	Inches	Millimeters
Unit	1.02 x 8.62 x 5.98	26 x 219 x 152
Power Supply (AT-PS-4812-C)	1.34 x 1.85 x 4.41	34 x 47 x 112

Weight	Pounds	Kilograms
Device	1.76	0.8

Certification		
Device	CE, RoHS, FCC	
Power Supply	CE, FCC, UL, CUL, TUV-GS, CB, PSE, CCC	

Compliance	
NDAA-889	Yes
TAA	Yes

Warranty	
Device	To view the product warranty, use the following link: https://atlona.com/warranty

Footnotes

(1) 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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