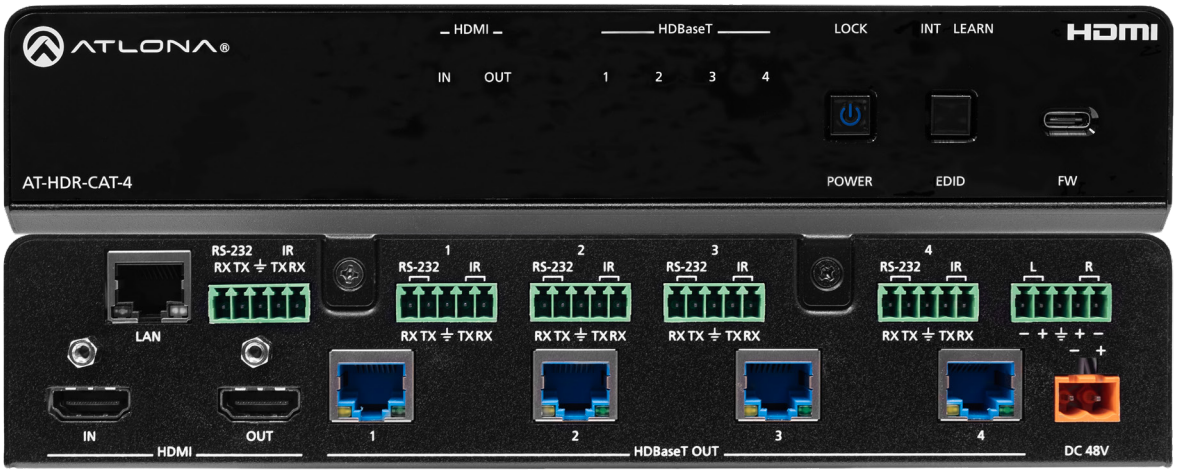

Introduction

The Atlona **AT-HDR-CAT-4** is a high dynamic range (HDR) distribution amplifier with one HDMI® input and four 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 ft. (40 m) or 1080p up to 230 ft. (70 m) over Category 6/6A cable. The HDR-CAT-4 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 1U, half-rack width enclosure with external universal power supply. The HDR-CAT-4 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 four 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.
- Front panel includes LEDs for power, HDBaseT link, and HDMI signal status information as well as buttons for power and EDID control.
- Compatible with HDR-EX-70C-RX receivers for 4K/60 4:4:4 HDR as well as AT-UHD-EX receivers for resolutions up to 4K60 4:2:0.
- 1U, half rack width enclosure with surface and rack mounting hardware included.

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	5 x 5-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	5 x 5-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; 4 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 - 4), LOCK, INT, LEARN	9 x LED, blue

Connectors	
HDMI IN	1 x Type A, 19-pin female
HDMI OUT	1 x Type A, 19-pin female
HDBaseT OUT	4 x RJ45
LAN	1 x RJ45
AUDIO OUT	1 x 5-pin captive screw
RS-232 / IR	5 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/ 4 PoE)	70.6 W
Idle Consumption (no PoE)	10.6 W
BTU/h	36.2
External Power Supply	100 - 240 V AC, 50/60 Hz Output: 48 V / 2.08 A DC

Dimensions (H x W x D)	Inches	Millimeters
Unit	1.73 x 8.64 x 10	44 x 219.5 x 254
Power Supply (AT-PS-48208-C)	1.3 x 2.24 x 5.35	33 x 57 x 136

Weight	Pounds	Kilograms
Device	3.75	1.7

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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