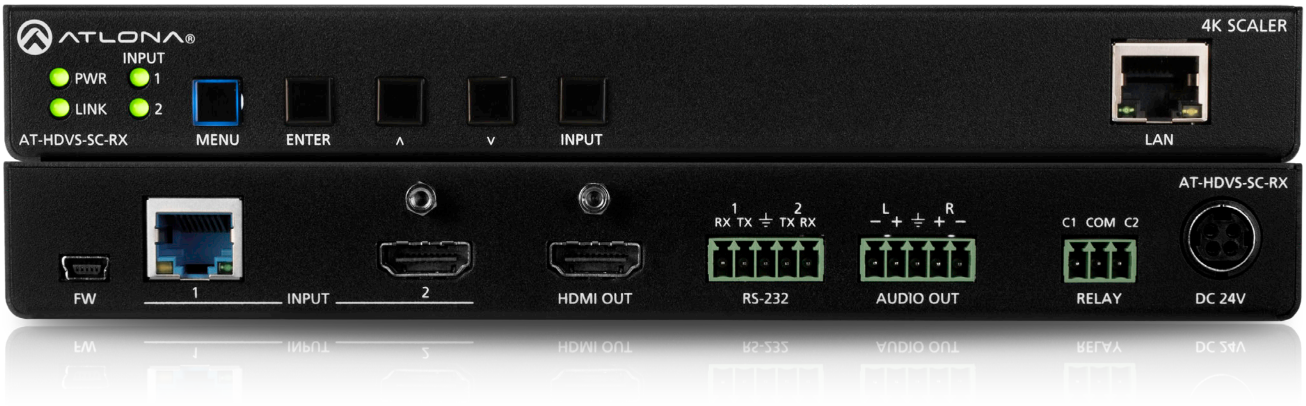
4K/UHD Scaler
for HDBaseT™ and HDMI



Introduction

The Atlona **AT-HDVS-SC-RX** is an HDBaseT receiver and 4K/UHD scaler with a local HDMI input. It receives HDBaseT for video output up to 4K/30 4:4:4, plus embedded audio, control, and Ethernet over distances up to 330 feet (100 meters). The HDVS-SC-RX features Atlona CrystalScale technology with high-quality downscaling and upscaling, as well as advanced image optimization capabilities plus internal test patterns for setup and troubleshooting. The HDVS-SC-RX is ideal for 4K presentation applications with HDVS-200 and Omega™ Series switching transmitters, EX Series transmitters, Atlona AV switchers with HDBaseT outputs, and local HDMI sources, plus the Gain™ 60 amplifier. The HDVS-SC-RX and HDVS-200 or Omega Series transmitter together serve as a compact, fully automated AV system with the convenience of automatic input selection, display control, remote transmitter powering through Power over Ethernet (PoE), and 4K/UHD scaling.

Applications

- **Complete integration for meeting rooms**
  The HDVS-SC-RX and an HDVS-200 or Omega Series transmitter together provide a compact yet integrated solution with automatic input selection, HDBaseT extension, display control capabilities, room control, audio de-embedding and volume control.
- **Larger presentation applications**
  The HDVS-SC-RX is ideal for extending AV connectivity from an Atlona HDBaseT-equipped switcher to a remote display or projector. Content can be upscaled, downscaled, or delivered with scaling bypassed, while providing unparalleled, pristine image quality.

Key Features

HDBaseT™ receiver with local HDMI® input

- Two-input switcher with HDBaseT and HDMI inputs.
- HDMI input is ideal for a wireless gateway, PC, videoconferencing codec, or media player installed near a display.

Advanced 4K/UHD scaling featuring Atlona CrystalScale™ technology

- Dedicated video processing features for system setup and fine-tuning.
- Ensure best quality image presentations with optimization settings and internal test patterns.
- Selectable pass-through mode (scaler bypass mode) for 1:1 image output.

Pristine-quality downscaling and upscaling

- Preserves critical color and spatial detail when down-converting 4K content to 1080p or vice versa.
- Ideal for presentation applications where 4K content is to be viewed on a variety of 4K and HD displays.

Aspect ratio control

- The aspect ratio of the video can be adjusted to a desired presentation viewing format.
- Aspect ratio options include Fill (content fills the display), and Follow (keep original aspect ratio).

Image optimization for flat-panel and LED tiled displays

- Gamma correction available to optimize or enhance the content for the display.
- Uniformity correction compensates for color uniformity issues viewed on-screen.

Advanced motion-adaptive deinterlacing for 1080i input signals

- Optimizes presentation of 1080i source content such as television broadcasting.
- Frame conversion for 1080 interlacing and de-interlacing.

Internal video test patterns for setup, calibration, and troubleshooting

- Includes color bars, crosshatch, grayscale, and moving bar.
- Test patterns facilitate setting up displays, validating system performance, and diagnosing image display or signal connectivity issues.

Automatic input selection and automatic display control using IP, RS-232, or CEC

- Automatically changes display power state, and switches between inputs based on device connection or disconnection.
- Includes an adjustable lamp cool-down mode to avoid prematurely powering up a projector after shutdown.
- Enables effortless, automated system operation without the need for an external control system.

Contact closure for screen or display lift control

- Dry contact closure triggers electronic screen or lift operation based on active or standby mode of scaler.
- Automates screen or lift activation at system power-up; eliminates need for a separate AV control system.

Audio de-embedding

- De-embeds two channel PCM audio from any video source to a balanced, analog audio output.
- Independent mute controls for embedded and de-embedded two-channel PCM audio, plus three-band EQ for the analog audio output.

Specifications

Video				
HDMI Specification		HDMI 2.0[1], HDCP 1.4 / 2.2		
HDMI In	UHD/HD/SD	4096x2160 (DCI) @ 24/25/30 Hz 3840x2160 (UHD) @ 24/25/30 Hz 1920x1080p @ 23.97/24/25/29.97/30/50/59.94/60 Hz 1920x1080i @ 50/59.94/60 Hz 1280x720p @ 30/50/60 Hz		720x576p @ 50 Hz 720x576i @ 50 Hz 720x480p @ 59.94/60 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 1152×870 @ 75 Hz 1024×768 @ 60 Hz 848x480 @ 60 Hz 800×600 @ 60 Hz 640×480 @ 60 Hz
HDBaseT In	UHD/HD/SD	4096×2160 (DCI) @ 24/30 Hz 3840×2160 (UHD) @ 24/25/30 Hz 1920x1080p @ 23.98/24/25/29.97/30/50/59.94/60 Hz 1920x1080i @ 50/59.94/60 Hz 1280x720p @ 30/50/60 Hz		720x576p @ 50 Hz 720x480p @ 59.94/60 Hz 640x480p @ 60Hz
	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 1152×870 @ 75 Hz 1024×768 @ 60 Hz 848x480 @ 60 Hz 800×600 @ 60 Hz 640×480 @ 60 Hz
HDMI Out		4096x2160p (DCI) @ 24/25/30 Hz 3840x2160 (UHD) @ 24/25/30 Hz 1920x1200 @ 60 Hz 1920x1080p @ 24/25/30/50/60 Hz 1680x1050 @ 60 Hz 1600x1200 @ 60 Hz 1440x900 @ 60 Hz		1360x760 @ 60 Hz 1280x1024 @ 60 Hz 1280x800 @ 60 Hz 1280x768 @ 60 Hz 1024x768 @ 60 Hz 800x600 @ 60 Hz 640x480 @ 60 Hz
Color Space		RGB		
Chroma Subsampling		4:4:4, 4:2:2, 4:2:0		
Color Depth		8-bit, 10-bit, 12-bit		
HDR		HDR10, Hybrid-Log Gamma (HLG), and Dolby® Vision™ @ 60 Hz[2]		

Audio	
HDMI IN & HDBaseT OUT	LPCM 2.0, LPCM 5.1, LPCM 7.1, Dolby® Digital, DTS® 5.1, Dolby Digital Plus, Dolby TrueHD, DTS-HD Master Audio™, Dolby Atmos®, 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	
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
RELAY	Device triggering
CEC	Device control and configuration

Connectors	
HDMI IN	1 - Type A, 19-pin female
HDBaseT IN	1 - RJ45
HDMI OUT	1 - Type A, 19-pin female
LAN[3]	2 - RJ45, 10/100/1000 Mbps
RS-232	1 - 6-pin captive screw (2 x RS-232 ports, bidirectional)
AUDIO OUT	1 - 5-pin captive screw, unbalanced/balanced 2-channel
RELAY	1 - 3-pin captive screw
FW	1 - Type mini-B, 5-pin female
DC 24V	1 - 4-pin DIN connector, locking

Controls and Indicators	
Control buttons: MENU, ENTER, UP, DN, INPUT IP MODE, RESET	 4 - momentary, tact-type 2 - momentary, tact-type
Indicators: PWR, LINK, INPUT 1, INPUT 2	 1 - LED, green

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	24.75 W
External power	Input: 100 - 220 V AC, 50/60 Hz, Output: 24 V / 2.7 A DC

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 90%, non-condensing

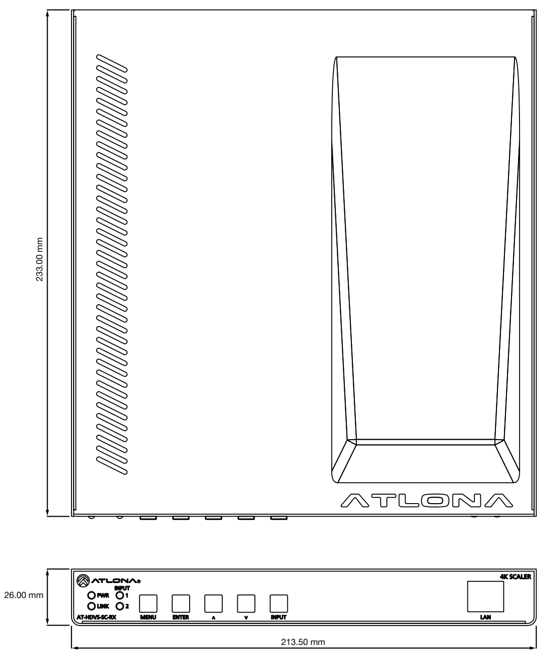
Chassis	
Dimensions (H x W x D) (without feet) (with feet)	1.02 in x 8.40 in x 9.17 in 26 mm x 213.5 mm x 233 mm 1.22 in x 8.40 in x 9.37 in 31 mm x 213.5 mm x 233 mm
Weight	2.97 lbs 1.35 kg

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

Accessories

Description	SKU
LinkConnect HDMI to HDMI Cable	AT-LC-H2H-1M / 2M / 3M
LinkConnect Mini DisplayPort to HDMI Cable	AT-LC-MDP2H-1M / 2M / 3M

Drawings



(1) UHDp60 only supports 4:2:0.
(2) Dolby® Vision™ @ 60 Hz is over HDMI in/out only.
(3) Maximum distance per hop 330 ft (100 m), depending upon network configuration.

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