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Introduction

The Atlona AT-OME-SR21 is an HDBaseT receiver and 4K/UHD scaler with a local HDMI input. Part of the Omega™ Series of integration products for modern AV communications and collaboration, the OME-SR21 receives HDBaseT for video up to 4K/60 4:2:0, plus embedded audio, control, Ethernet, and USB over distances up to 330 feet (100 meters). The HDMI input supports video up to UHD/60 4:4:4. The OME-SR21 is HDCP 2.2 compliant and features 4K/60 upscaling and downscaling with frame rate conversion. Additionally, it receives USB over HDBaseT and includes a USB 2.0 hub for integration with PCs, cameras, microphones, speakers, DSPs, and touch or interactive displays. The OME-SR21 is ideal for 4K presentation applications with Omega, HDVS-200, or UHD-EX Series transmitters, as well as Atlona AV presentation switchers with HDBaseT outputs, local HDMI sources, and the Gain™ Series amplifiers.

The OME-SR21 combines the benefits of 4K/UHD scaling, auto-switching for HDBaseT and HDMI inputs, integrated display control, USB extension[1], and more. It incorporates many popular integration convenience features, while delivering excellent performance and value for 4K presentation and video conferencing applications. The OME-SR21 can remotely power an Atlona HDBaseT transmitter through Power over Ethernet (PoE). For additional integration convenience, the OME-SR21 features audio de-embedding, integrated two-port Ethernet switch, contact closure ports for controlling a motorized screen or display lift, internal video test patterns for setup and troubleshooting, and remote management with AMS (Atlona Management System).

Applications

- **Complete system integration for video conferencing**
  The OME-SR21 and an Omega Series switcher/transmitter provide a compact, yet comprehensive and cost-effective integration solution. USB extension makes this combination ideal for soft codec and web-based conferencing applications, with the ability to integrate with PCs, cameras, speakerphones, and microphones.

- **Larger system applications**
  The OME-SR21 is ideal for extending AV and control, from a switcher in an equipment rack to a remote display. Built-in 4K scaling optimizes content for 4K and HD displays.

Key Features

HDBaseT receiver with local HDMI input

- HDBaseT input receives AV, power, control, USB, and Ethernet up to 330 feet (100 meters) @ 1080p with CAT5e/6 or 4K/UHD using CAT6a/7 cable.

- HDMI input is ideal for a wireless gateway, PC, video conferencing codec, or media player installed near a display.

4K/UHD downscaling and upscaling

- Preserves color and spatial detail when down-converting 4K content to 1080p or vice versa.

- Ideal for presentation applications where content is to be viewed on a variety of 4K and HD displays.

- Also ideal for down-scaling to 1080p for hardware video conferencing codecs.

USB 2.0 hub and extension over HDBaseT[1]

- USB type B interface for connection to a host PC, plus two USB type A ports for peripheral devices such as cameras, soundbars, or touch displays.

- Provides an ideal USB integration solution for software video conferencing and other applications.

Audio de-embedding

- De-embeds two channel PCM audio from any video source to a balanced, analog audio output.

- Independent volume and mute controls for embedded and de-embedded two-channel PCM audio, plus five-band EQ for the analog audio output.

Dual Ethernet ports and integrated network switch

- Allows a single connection to an AV LAN for IP control of a display and the OME-SR21 (plus transmitter or switcher over HDBaseT).

- Simplify system design and integration with just one network drop for AV system control.

Contact closure for screen or display lift control

- Dry contact closure triggers electronic screen or lift operation based on active or standby mode of the switcher/scaler.

- Automates screen or lift activation at system power-up; eliminates need for a separate AV control system.

Specifications

Video		
Signal	Input - HDMI Output - HDBaseT	
Copy Protection	HDCP 2.2	
Pixel Clock	300 MHz	
UHD/HD/SD	4096x2160@60[2]/50[2]/30/25/24Hz 3840×2160@60[2]/50[2]/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 All resolutions are 60Hz	2560×1600 1920×1200 1680×1050 1600×1200 1440×900 1400×1050 1280×1024	1280×800 1366×768 1360×768 1152×864 1024×768 800×600 640×480
Scaler Up/Down	4096x2160p60 4096x2160p50 4096x2160p30 4096x2160p25 4096x2160p24 3840x2160p60 3840x2160p50 3840x2160p30 3840x2160p25 3840x2160p24 2048x1080p60 1920x1200p60	1920x1080p60 1920x1080p50 1920x1080p25 1920x1080p24 1600x1200p60 1360x768p60 1280x800p60 1280x768p60 1280x720p60 1280x720p50 1024x768p60
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 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 Rate	24 Mbits/s max		
Analog Audio			
Format	Stereo 2-Channel		
Balanced Output	+4 dBu nominal gain, +20 dB headroom		
Frequency Response	20 Hz to 20 kHz, ± 0.5 dB		
Impedance	150 Ω		
Stereo channel separation	> 90 dB		
THD+N	< 0.03% at 20 Hz to 20 kHz		
SNR	> 90 dB at 1 kHz, zero clipping @ 0 dBFS, unweighted		
EQ	5 band, 63Hz, 85Hz, 250Hz, 1kHz, 4kHz		
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz		

USB				
Port	2 x Type A USB 1 x Type B USB			
Signal	2.0			
Maximum Data Rate	120 Mbps			
Internal Hubs	1 USB hub			

Ethernet				
Port	2 x RJ45			
Standards and Protocols	HTTPS, Telnet, mDNS, SSL, IEEE 802.1x			
Speeds	10/100/1000 Mbps			
Addressing	DHCP, Static – selectable through rear panel, IP & RS-232 commands, and built-in web server			

RS-232				
Port	2 x 3-pin captive screw			
Default Parameters	Port 1 (display control) - 9600, 8-bit, None, 1 Port 2 (unit control) - 115200, 8-bit, None, 1			
Use	1-way connected display control 2-way device control and monitoring			
Baud Rates	2400, 4800, 9600, 19200, 38400, 57600, 115200			
Data flow	Bi-directional			

Relay				
Port	1 x 3-pin captive screw			
State	Normally open (NO)			
Mode	Adjustable between Toggle and Pulse			
Electrical rating	48V@1A			

CEC				
Port	1 x HDMI, Type A, 19-pin female			
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	295	90	330	100
CAT6/6a/7	330	100	330	100

Buttons and Indicators	
Control Buttons: DEVICE IP, INPUT, PATTERN IP MODE, RESET	3 - momentary, tact-type 2 - momentary, recessed
Function Indicators: IP MODE, RESET, PWR LINK	3 - LED, green 1 - LED, Yellow

Connectors	
HDMI IN	1 - Type A, 19-pin female
HDBaseT IN	1 - RJ45, female
HDMI OUT	1 - Type A, 19-pin female
USB HUB	2 - Type A, 4-pin female
USB HOST	1 - Type B, female
AUDIO OUT	1 - 5-pin captive screw, balanced / unbalanced 2-channel
RELAY	1 - 3-pin captive screw
RS-232	2 - 3-pin captive screw (bidirectional)
LAN	2 - RJ45, 100Base-T
DC 24V	1 - 4-pin, mini-DIN locking connector

Temperature	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	22.6 W	
BTU/h	77.1	
Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 24 V / 2.7A DC	

Dimensions	Inches	Millimeters
H x W x D	1.02 x 8.62 x 5.98	26 x 219 x 152

Weight	Pounds	Kilograms
Device	1.96	0.89

Certification		
Device	CE, FCC, UL	

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

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) This receiver is not compatible with the Atlona HDVS-300 system for USB extension.
2) 4K/UHD @ 60Hz is limited to 4:2:0 over HDBaseT, 4K/UHD@60Hz 4:4:4 is available via local HDMI

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