



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 3840x2160@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	2560x1600 1920x1200 1680x1050 1600x1200 1440x900 1400x1050 1280x1024	1280x800 1366x768 1360x768 1152x864 1024x768 800x600 640x480
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	17.6 W
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

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 Atлона 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

Copyright, Trademark, and Registration

© 2023 Atlona Inc. All rights reserved. "Atlona" and the Atlona logo are registered trademarks of Atlona Inc. Pricing, specifications and availability subject to change without notice. Actual products, product images, and online product images may vary from images shown here.



The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI licensing Administrator, Inc.



Dolby, Dolby Atmos, and the double-D symbol are registered trademarks of Dolby Laboratories Licensing Corporation.



For DTS patents, see <http://patents.dts.com>. Manufactured under license from DTS, Inc. DTS, the Symbol, DTS and the Symbol together, and Digital Surround are registered trademarks and/or trademarks of DTS, Inc. in the United States and/or other countries. © DTS, Inc. All Rights Reserved.

All other trademark(s), copyright(s), and registered technologies mentioned in this document are the properties of their respective owner(s).