



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 Type | Input - HDMI | |
| | Output - HDBaseT | |
| Copy Protection | HDCP 2.2 | |
| Pixel Clock | 300MHz | |
| 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 | |

| 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 |

| 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

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