The Atlona **AT-OME-MS42** is a 4×2 matrix switcher with HDMI, USB-C, and DisplayPort inputs, plus HDMI and HDBaseT outputs. It is also available as the **AT-OME-MS42-KIT** with the AT-OME-EX-RX receiver. Part of the **Omega™ Series** of integration products for modern AV communications and collaboration, the OME-MS42 is HDCP 2.2 compliant and features HDBaseT extension for video up to 4K/60 4:2:0, plus embedded audio, control, Ethernet, and USB over distances up to 330 feet (100 meters). All inputs and the local HDMI output support 4K HDR and 4K/60 4:4:4 at HDMI data rates up to 18 Gbps. Additionally, 4K downscaling to 1080p @ 60, 30, or 24 Hz is available for the HDMI output when connected to an HD sink. The integrated USB extension addresses the challenge of connecting between USB devices at remote locations, and is ideal for software video conferencing and touch or interactive displays. The OME-MS42 includes USB 2.0 and USB-C interfaces for three host PCs, plus two peripheral devices such as a camera, microphone, speakerphone, or keyboard and mouse. It is available with the OME-EX-RX receiver as the OME-MS42-KIT.

## USB Extension for Video Conferencing with Zoom, Skype for Business, Microsoft Teams, and More

The OME-MS42 features integrated USB extension over HDBaseT up to 330 feet (100 meters). This capability, plus interfacing for host PCs and USB peripherals makes the OME-MS42 ideal for video conferencing and UC (unified communications) platforms such as Zoom, Skype® for Business, Microsoft® Teams®, Cisco® Webex®, BlueJeans, and GoToMeeting®. Available from Atlona is the AT-HDVS-CAM PTZ camera with USB interface.

## Versatile Matrix Switcher, Scaler, and Extender

The OME-MS42 is ideal for video conferencing and many other 4K presentation applications with the OME-EX-RX receiver and OME-SR21 scaling receiver. It combines the benefits of auto-switching, integrated display control, USB extension, and more. The OME-MS42 incorporates many popular integration convenience features, while delivering excellent performance and value for 4K presentation and video conferencing applications. The USB-C input is ideal for AV interfacing with newer laptops and mobile devices, plus data connectivity (to the local USB hub and over HDBaseT). The OME-MS42 is designed to be remotely powered by the OME-EX-RX or OME-SR21 receiver through PoE+ (Power over Ethernet). Alternatively, with the included AT-PS-245-D4 power supply, the OME-MS42 can provide PoE powering to a compatible receiver, and charge laptops and mobile devices through the USB-C port. For additional integration convenience, the OME-MS42 features audio de-embedding and remote management with AMS (Atlona Management System).

## Automatic Display Control

The OME-MS42 can provide control to a display through TCP/IP, RS-232, or CEC*, without the need for a separate control system. This simplifies system design and integration while reducing costs. With automatic display control, the OME-MS42 can trigger a display to power on automatically whenever a laptop or other device is connected to the OME-MS42. At the end of the presentation, when the presenter disconnects the laptop, the OME-MS42 forces the display to power off. Ease of presenter interaction with the system, and the savings incurred by automatic display shutdown provide a significant return on investment. The OME-MS42 display control capability can also be triggered by an external control system.

*Consumer Electronics Control (CEC): Atlona does not guarantee the function of CEC with all televisions. We can confirm proper operation with many current Samsung, Panasonic, Sony, and LG TVs. Many manufacturers do not support the CEC "off" command when sent from a source and older TVs use proprietary commands. Atlona only supports those TVs that follow CEC command structure from HDMI 1.2a and support the "off" command when issued by a source. We encourage any dealer to get evaluation product from Atlona prior to designing a system around this control technology or be prepared to use other methods to control their displays if Atlona CEC is not compatible with the installed displays.*

## Reliable Auto-Switching

When the HDMI and HDBaseT outputs are mirrored, the OME-MS42 can automatically select an input source based on detection of the 5 volt hot plug detect (HPD) signal, as well as active video. This ensures reliable auto-switching operation for all video sources, including DVRs, DisplayPort / Mini DisplayPort adapters, and other devices that always maintain the HPD line at the 5 volt "high" state but may not be delivering active video.

## Applications

- **Video conferencing** – With the OME-EX-RX or OME-SR21 receiver, this switcher provides interfacing for local and remote USB devices for soft codec conferencing, with video and USB switched together between host PCs. As a matrix switcher with downscaling, the OME-MS42 is also ideal for hardware-based video conferencing, with the ability to route and optimize any source content to the codec far-end.
- **Meeting rooms and conference rooms** – The OME-MS42 can serve as an AV integration centerpiece in a credenza, with interfacing into sources in the rack.
- **Auditoriums and lecture halls** – This switcher can be used for presenting 4K video content through the projector, while also optimizing for a 1080p confidence monitor.

## Product Compatibility

The OME-MS42 is not compatible with the Atlona HDVS-300 system for USB extension.

## Technical Features

**4×2 AV matrix switcher with HDMI, DisplayPort, and USB-C inputs**

- Features USB-C, DisplayPort, and two HDMI inputs
- Delivers flexible BYOD capability without the need to provide adapters for USB-C or DisplayPort to HDMI

**EDID management**

- Manages EDID communications with the source through a display's EDID or internally stored EDID
- Ensures desired audio formats and video resolutions are provided to the AV system

**USB-C input for AV, data, and device charging***

- Provides immediate compatibility with laptops and tablets with USB-C ports supporting AV output
- Allows clutter-free, single cable connectivity to a PC for video conferencing and collaboration
- * Device charging available with included AT-PS-245-D4 power supply.

**HDBaseT and HDMI outputs with selectable AV switching modes**

- Selectable switching modes available with mirrored or matrixed outputs
- Enables simple configuration and effortless user operation, tailored to the specific AV application

**Video, audio, power, and data over category cable utilizing HDBaseT technology**

- Transmits up to 330 feet (100 meters) @ 1080p with CAT5e/6 or 4K/UHD using CAT6a/7 cable
- Uses easy-to-integrate category cable for low-cost, reliable system installation

**USB 2.0 interfacing and extension* over HDBaseT**

- Two USB type B interfaces for connection to a host PC, plus two USB type A ports for a peripheral device such as a microphone, speakerphone, or a keyboard and mouse
- USB-C input is also available for data connection to a host PC or USB peripheral
- Provides an ideal USB integration solution for software video conferencing and other applications
- * Maximum 120 Mbps data rate supported over HDBaseT.

**4K/UHD capability @ 60 Hz with 4:4:4 chroma sampling on local ports (HDMI, DisplayPort, and USB-C), plus support for HDR formats**

- HDBaseT output supports 4K/UHD @ 60 Hz with 4:2:0 chroma subsampling
- HDMI, DisplayPort, and USB-C inputs, plus HDMI output are compatible with 4K HDR10 @ 60 Hz and Dolby Vision™ @ 60 Hz, as well as HLG (Hybrid Log-Gamma) for 60p HDR broadcast services

**HDCP 2.2 management**

- Automatically reports HDCP compliance status to the source based on the sink device
- HDCP compliance can also be disengaged through AMS or a control system
- Allows non-protected material from PCs to pass to non-compliant displays, streaming devices, and teleconference systems; protected content is not transmitted
- Displays a green splash screen as visual confirmation that protected content is being blocked from transmission to a non-compliant display

**Integrated HDBaseT link testing and status monitoring**

- Tests integrity of the HDBaseT cable link between each input or output and the corresponding transmitter or receiver
- Web GUI provides real-time link status
- Quick, easy verification or troubleshooting of RJ-45 termination or twisted pair cable quality

**Intuitive GUI-based configuration using integrated web server**

- Offers menu-based configuration of device settings including network access, input switching, I/O routing for video and audio, signal processing, display control, HDCP and EDID management, and more
- Allows fast configuration of internal product settings and troubleshooting from a mobile device or PC in the field

**TCP/IP and RS-232 control**

- Flexible control options for compatibility with the Atlona Velocity™ control system, as well as other third-party control systems
- Reduces integration time and costs

**IP to RS-232 translation**

- Converts TCP/IP commands to RS-232 commands for output to external devices over HDBaseT
- Enables single IP connection to control processor to control both IP and RS-232 connected devices at remote endpoints

**Selectable 4K to 1080p downscaling**

- Integrated video processing available on the HDMI output for down-converting 4K/UHD @ 60 Hz to 1080p
- Downscaling can be bypassed to allow pass-through up to 4K/60 4:4:4 and 4K HDR
- Ideal for applications with 1080p displays, video conferencing codecs, and other HD sink devices

**Remote PoE+ (Power over Ethernet) or local powering**

- Industry standard IEEE 802.3at PoE+ is supplied by an OME-EX-RX receiver and OME-SR21 scaling receiver over HDBaseT
- Also can be locally powered by the included AT-PS-245-D4 power supply – to supply PoE to a receiver and charge a USB-C mobile device

**Automatic display control**

- Automatically changes display power state based on active or standby mode of the switcher. Control signals to display are transmitted via IP, RS-232, or CEC.
- Enables display and volume control. CEC enables control of consumer displays (as supported by the display manufacturer).
- Includes an adjustable lamp cooldown mode to avoid prematurely powering up a projector after shutdown
- Enables effortless, automated system operation without the need for an external control system

**Automatic input selection* using hot plug detect and video detection technology**

- Selects active input when sources are connected or if there is a change in source power status
- Enables simplified, automatic system operation without user intervention
- * Available when the switching mode is set to mirrored HDMI and HDBaseT outputs.

**Audio de-embedding**

- De-embeds two channel PCM audio for the HDBaseT output and delivers to a balanced, analog audio output
- Provides direct interfacing into an external audio system

**Multi-channel audio compliant**

- Passes through multi-channel audio formats from the HDMI or HDBaseT inputs
- Supports PCM, Dolby® Digital, Dolby Digital Plus™, Dolby TrueHD, Dolby Atmos®, DTS® Digital Surround™, DTS-HD Master Audio™, and DTS:X®

**Easy to configure and manage with AMS (Atlona Management System)**

- Centralized, network-based configuration and management of Atlona IP-controllable products and systems
- Manage configuration and firmware updates for AV devices spanning a facility, building, enterprise, or residence
- Available as a cost-effective server appliance, or a free software download

**Field-updatable firmware**

- Device can be updated in the field via AMS or the web GUI

**Front panel button controls and status LEDs**

- Matrix switcher can conveniently be operated from the front panel
- LED indicators provide power, HDBaseT link, and input selection status information

**Rack-mountable 1U, half rack width enclosure**

- Includes surface mounting hardware for easy installation into confined spaces below tables and in furniture
- Installs easily in rack mounted systems with the optional AT-RACK-1RU rack shelf

**Included accessories**

- Installation guide, surface mounting hardware, 2 meter (6.5 foot), USB-C male-to-male cable (USB 3.1 Gen 1), and external universal power supply

**Award-winning 10 year limited product warranty**

- Ensures long-term product reliability and performance in commercial and residential systems
- Specify, purchase, and install with confidence