

Omega Multi-format 4x2 matrix switcher with HDMI, USB-C, and DisplayPort inputs, plus HDMI and HDBaseT outputs

AT-OME-MS42



The Atlona AT-OME-MS42 is a 4x2 matrix switcher with HDMI, USB-C, and DisplayPort inputs, plus HDMI and HDBaseT outputs. 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 ideal for video conferencing and many other 4K presentation applications with the OME-EX-RX receiver and OME-SR21 scaling receiver.

Package Contents

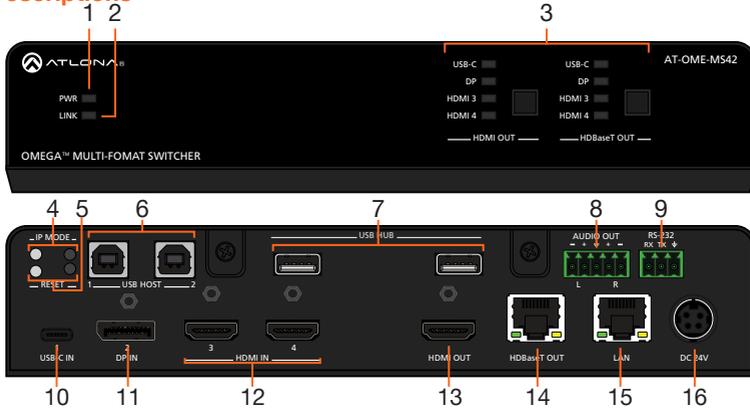
- 1 x AT-OME-MS42
- 1 x Captive screw connector, 5-pin
- 1 x Captive screw connector, 3-pin
- 1 x USB-C cable
- 2 x Mounting plate
- 4 x Mounting screw
- 1 x Long rack ear
- 1 x Short rack ear
- 4 x Feet w/rubber grips
- 1 x 24V DC power supply
- 1 x IEC power cord
- 1 x Installation Guide



IMPORTANT: Visit <https://atlona.com/product/AT-OME-MS42> for the latest firmware updates and User Manual.



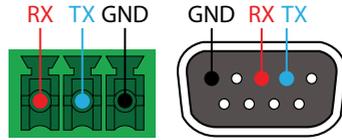
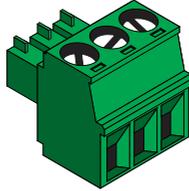
Panel Descriptions



- 1 PWR LED**
Illuminates when the unit is receiving power.
- 2 LINK LED**
Lights up when connected and receiving signal over HDBaseT.
- 3 HDMI OUT/HDBaseT OUT**
Button - Press to manually switch between inputs.
LEDs - Will illuminate for the currently selected input.
- 4 IP MODE LED and button**
Press and hold the button for 5 seconds until the LED blinks to switch the IP mode between DHCP and Static IP modes. The LED will blink 4 times for DHCP and 2 times for static IP.
- 5 RESET LED and button**
Press and hold the button for 5 seconds until the unit resets. The LED will blink 3 times as the unit resets to factory default settings
- 6 HOST USB**
Connect to a computer using a USB B to USB A cable. USB 3.0 signal will only pass when using the local USB hub devices.
- 7 USB HUB**
Connect USB devices to these ports.
e.g. USB camera, mouse, etc.
- 8 AUDIO OUT**
Connect to an audio DSP, amplifier, or other audio distribution devices.
- 9 RS-232**
Use for device or display control.
- 10 USB-C IN**
Connect a USB-C source to this port.
- 11 DP IN**
Connect a DisplayPort source to this port.
- 12 HDMI IN**
Connect HDMI cables to these ports from HDMI sources.
- 13 HDMI Output**
Connect an HDMI cable from here to an HDMI display.
- 14 HDBaseT Output**
Connect a CAT5e/6/6a/7 cable from this port to an HDBaseT receiver.
- 15 LAN**
Connect an Ethernet cable to this port for control of the unit or to pass Ethernet to a local device.
- 16 DC 24V**
Connect the included power supply to this port.

RS-232

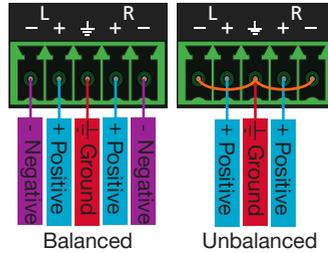
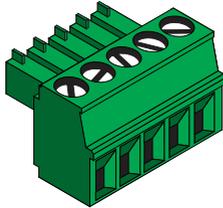
A 3-pin captive screw connector has been included for RS-232.



Pin out will be determined by the RS-232 cable and connect as RX (receive), TX (transmit) and \perp (Ground).

Audio

Connect to an audio DSP, amplifier, or other audio distribution devices.



Use a jumper between the negative and ground pins when using an unbalanced connection.

Mounting Instructions

The AT-OME-MS42 can be mounted in different ways, based on the number of units that are being installed. The AT-OME-MS42 may also be mounted in a rack or on/under any flat surface.

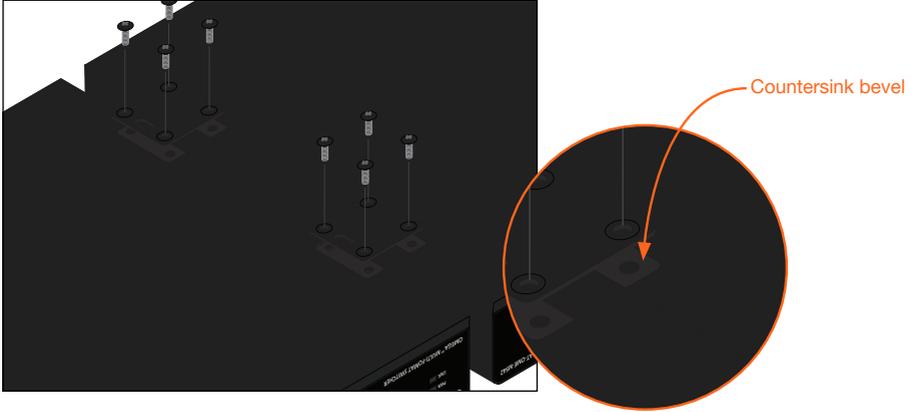
Single-unit rack installation

- 1 Attach the included small rack ear to one side of the AT-OME-MS42, using the included screws.
- 2 Attach the included longer rack ear to the opposite side of the AT-OME-MS42 using the included screws.



Dual-unit rack installation

- 1 Turn both units upside-down on a flat surface, next to each other, as shown.
- 2 Position the included mounting plate over the pre-drilled holes on the bottom of the enclosure. When attaching the mounting plate, the countersink bevels on the mounting plate should face upward.



- 3 Turn the attached units over and install the included rack ears to one side of each enclosure using the included screws.





Flat surface

- 1 Turn the unit upside down a flat surface.
- 2 Position the included mounting plates over the pre-drilled holes on the bottom of the enclosure. When attaching mounting plates, the countersink bevels on the mounting plates should face upward.



- 3 Mount the unit using the circular holes, on each mounting plate. If using a drywall surface, a #6 drywall screw is recommended. Mounting screws are not included.



NOTE: The unit can also be mounted under a flat surface, such as a table, by turning the unit upside down.

Cable Recommendation Guidelines

Refer to the tables below for recommended cabling when using Altona products with HDBaseT. The green bars indicate the signal quality when using each type of cable. Higher-quality signals are represented by more bars.

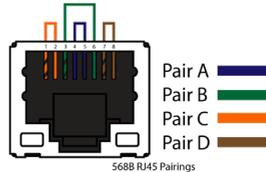
Core	Shielding	CAT5e	CAT6	CAT6a	CAT7
Solid	UTP (unshielded)	■	■■■	■■■■■	N/A
	STP (shielded)	■■	■■■■■	■■■■■■■	■■■■■■■
Performance Rating (MHz)		350	500	600	800



IMPORTANT: Stranded or patch cables are not recommended due to performance issues.

Cable	Max. Distance @ 4K	Max. Distance @ 1080p
CAT5e	295 feet (90 meters)	330 feet (100 meters)
CAT6 / CAT6a / CAT7	330 feet (100 meters)	330 feet (100 meters)

Use of a TIA/EIA 568B termination is recommended for optimal performance.



Installation

- 1 Connect USB-C, DisplayPort, and HDMI sources to the USB-C, DP, and HDMI input ports.
- 2 *Optional* Connect the 2CH analog AUDIO OUT ports to an audio DSP, amplifier, or other audio distribution devices.
- 3 *Optional* Connect USB devices (e.g. USB camera) to the USB hub ports.
- 4 *Optional* Connect the HOST USB port to a computer using a USB B to USB A cable (cable not provided).
- 5 *Optional* For control, connect to the 3-pin captive screw RS-232 port.
- 6 *Optional* Connect a network switch to the LAN port, for IP control or system configuration.
- 7 Connect an HDMI cable from the HDMI output port to a local display.
- 8 Connect a compatible HDBaseT Receiver (e.g. AT-OME-EX-RX or AT-OME-SR21) to the HDBaseT output port.
- 9 Connect the included 24V DC power supply to a compatible power outlet.

IP

DHCP

By default, the AT-OME-MS42 is set to DHCP mode. In this mode, when the AT-OME-MS42 is connected to the Local Area Network (LAN), it will automatically be assigned an IP address by the DHCP server (if available). Press the IP MODE button to show the IP address in the top left corner of the display connected to the HDMI output.

Static

If no DHCP server is available, or a static IP is required, the OME-MS42 can be set to static IP mode using the IP mode button.

- Press and hold the **IP MODE** button for 5 seconds to switch to static IP mode, the LED will blink 2 times when it goes into Static IP mode. In this mode, the AT-OME-MS42 will be set to the following:
IP address: 192.168.1.254
Subnet mask 255.255.0.0
Gateway: 192.168.1.1
- To switch back to DHCP, press and hold the IP mode button for 5 seconds. The LED will blink 4 times when successfully put into DHCP mode.

Accessing the webGUI

The AT-OME-MS42 includes a built-in webGUI, which allows easy remote management and control of all features. Follow the instructions below to access the webGUI.

- 1 Make sure that an Ethernet cable is connected between the **LAN** port on the AT-OME-MS42 and the network.
- 2 Press the **IP MODE** button on the front panel to display the IP address of the unit in the top left corner of the connected HDMI display.
- 3 Launch a web browser and enter the IP address in the address bar.
- 4 The AT-OME-MS42 **Login** page will be displayed.
- 5 Enter the following information on the **Login** page.
Login: admin
Password: Atlona
- 6 Click the **Login** button.
- 7 Refer to the user manual for detailed operation of the webGUI.

AMS 2.0

For easy configuration of Atlona devices, AMS 2.0 is available from <https://atlona.com/ams> for free. Two options can be used for installation: The free Linux based software download or the easy to install server hardware (AT-AMS-HW).

Once AMS has been set up:

- 1 Open a browser on the same network as AMS 2.0 and go to the IP address of AMS 2.0. View the AMS 2.0 installation instructions on how to find the IP address of the software.
- 2 Enter the login information on the AMS 2.0 web page, then click the **Login** button.
- 3 View the AT-OME-MS42 manual for routing and configuration information.



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Installation Guide

AT-OME-MS42

Version 1



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