Omega
4x2 Matrix Switcher with HDMI and HDBaseT Inputs
AT-OME-MS42-HDBT

The Atlona AT-OME-MS42-HDBT is a 4×2 matrix switcher with HDMI, USB-C, and HDBaseT inputs, plus HDMI and HDBaseT outputs. Part of the Omega™ Series of integration products for modern AV communications and collaboration, the OME-MS42-HDBT 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). The local HDMI and USB-C inputs, and HDMI output support 4K HDR and 4K/60 4:4:4 at 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-HDBT features switching for up to four host PCs through USB 2.0 type B and USB-C ports, and remotely over HDBaseT. A built-in USB 2.0 hub provides connectivity for two peripheral devices such as a camera, microphone, speakerphone, or keyboard and mouse.
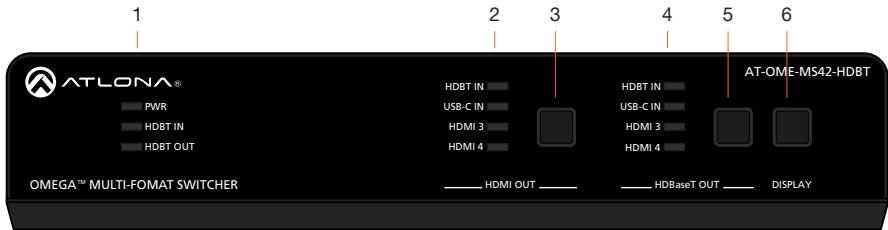
Package Contents

1 x AT-OME-MS42-HDBT
1 x 2 m USB-C cable
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 screws
4 x Feet w/rubber grips
1 x 24V DC power supply
1 x IEC power cord

⚠️ **IMPORTANT**: Visit https://atlona.com/product/at-ome-ms42-hdbt for the latest firmware updates and User Manual.

Front Panel Descriptions

1 PWR
HDBT IN
HDBT OUT
OMEGA™ MULTI-FOMAT SWITCHER

HDBT IN
USB-C IN
HDMI 3
HDMI 4

HDBT IN
USB-C IN
HDMI 3
HDMI 4

AT-OME-MS42-HDBT

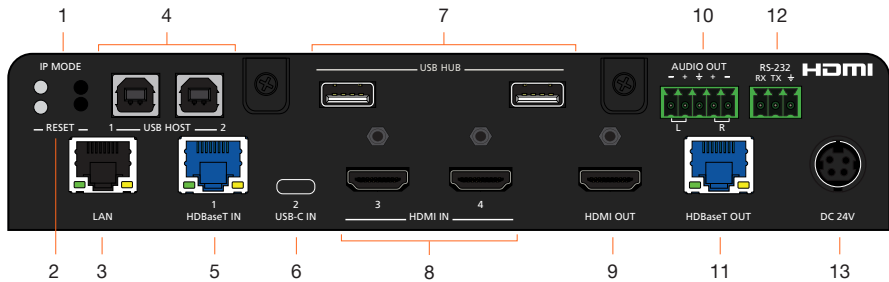HDMI OUT   HDBaseT OUT   DISPLAY

1 PWR
The LED indicator glows solid green when the unit is powered.

HDBT IN
This LED indicator glows solid green when a compatible HDBaseT transmitter is connected to the **HDBaseT IN** port.

HDBT OUT
This LED indicator glows solid green when a compatible HDBaseT receiver is connected to the **HDBaseT OUT** port.

2 HDMI OUT: Input LED Indicators
These LED indicators display which input is routed to the **HDMI OUT** port. A solid green indicator represents the active input being used.

3 HDMI OUT: Input Selection
Press and release this button to change the input.

4 HDBaseT OUT: Input LED Indicators
These LED indicators display which input is routed to the **HDBaseT OUT** port. A solid blue indicator represents the active input being used.

5 HDBaseT OUT: Input Selection
Press and release this button to change the input.

6 DISPLAY
Press this button to toggle the power state of the desired display. Refer to the User Manual for more information.

ATLONA
a PANDUIT company
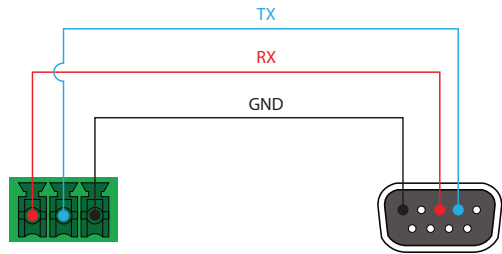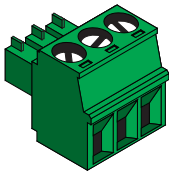
Rear Panel Descriptions

1   IP MODE
Press and release this button to set the IP mode or display the current IP address on the display connected to the **HDMI OUT** port.

2   RESET
Press and release this button to reset the unit to factory-default settings. Refer to the User Manual for more information.

3   LAN
Connect an Ethernet cable from this port to the Local Area Network (LAN). The AT-OME-MS42-HDBT-HDBT includes a built-in web server, which can be used to manage and configure the product.

4   USB HOST
Connect a USB cable from each of these ports to USB host devices.

5   HDBaseT IN
Connect a compatible HDBaseT transmitter to this port.

6   USB-C IN
Connect a USB-C cable between from this port to a USB-C source.

7   USB HUB
Connect USB devices to these USB ports.

8   HDMI IN
Connect an HDMI cable from each of these ports to HDMI sources.

9   HDMI OUT
Connect an HDMI cable from this port to a display or other sink device.

10   AUDIO OUT
Connect an audio output device to this port using the included captive screw block. Refer to the next page for wiring information.

11   HDBaseT OUT
Connect a category cable from this port to a compatible receiver unit. Recommended receiver is the AT-OME-EX-RX.

12   RS-232
Connect the included 3-pin captive screw connector block to this port. Refer to the next page for wiring information.

13   DC 24V
Connect the included 24 V DC power supply from this power receptacle to an available AC electrical outlet.
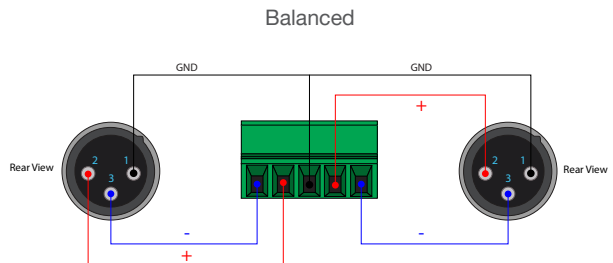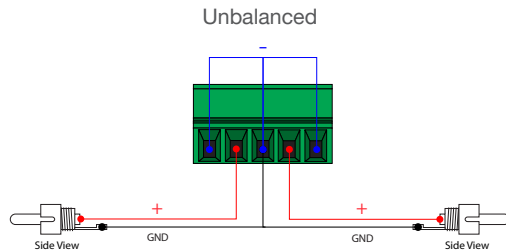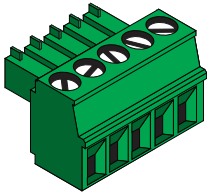
RS-232

The AT-OME-MS42-HDBT provides an **RS-232** port which can be used to control a display connected to the HDMI output. Atlona recommends controlling the AT-OME-MS42-HDBT using IP and reserving the **RS-232** port for local display control.

1   Use wire strippers to remove a portion of the cable jacket.

2   Remove at least 3/16" (5 mm) of insulation from each of the wires.

3   Insert the wires into correct terminal using the included 3-pin captive screw connector.

4   Attach the 3-pin connector block to the **RS-232** port on the AT-OME-MS42-HDBT.

TX

RX

GND

Audio

The AT-OME-MS42-HDBT provides two-channel LPCM audio de-embedding of the source device, using a dedicated **AUDIO** port. Use the included 5-pin captive-screw terminal block. Balanced audio connections use two signal wires and a ground to minimize interference in audio signals.

Unbalanced

−

Side View   GND   GND   Side View

+   +

Balanced

GND   GND

+

Rear View   Rear View

−   −

+

Mounting Instructions

The AT-OME-MS42-HDBT can be mounted under a desk, lectern, or other flat surface.

1   Turn the unit upside down on a flat surface.

2   Position the included mounting plates over the pre-drilled holes on the bottom of the enclosure. Use the included mounting screws to attach the mounting plates. 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. Mounting screws are not included.

Installation

1   Connect a high-quality USB-C cable from a source to the **USB-C** port.

2   Connect an HDMI cable from two HDMI souces to the **HDMI IN** ports.

3   Connect an HDMI cable from the **HDMI OUT** port to a UHD/HD display.

4   Connect a category cable (CAT-5e or better) from the **HDBaseT IN** port to a compatible transmitter.

5   Connect a category cable (CAT-5e or better) from the **HDBaseT OUT** port to a compatible receiver.

6   Connect up to two USB host devices to the **USB HOST** ports.

7   Connect USB devices to the **USB HUB** ports.

8   Connect an Ethernet cable from the **LAN** port to the Local Area Network (LAN).

9   OPTIONAL: Connect the included 5-pin captive screw connector to the **AUDIO OUT** connector.

10   OPTIONAL: Connect the included 3-pin captive screw block to the **RS-232** port.

11   Connect the included power supply to the **DC 24V** connector and connect the power cord to an available electrical outlet.

Cable Recommendation Guidelines

Refer to the tables below for recommended cabling when using Altona products with HDBaseT technology. Higher-quality signals are represented by more bars. Performance may vary, based on environmental factors.

Core	Shielding	CAT5e	CAT6	CAT6a	CAT7
Solid	UTP (unshielded)	■	■■■	■■■■	N/A
	STP (shielded)	■■	■■■■	■■■■■	■■■■■

⚠ **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)

*Atlona recommends TIA/EIA 568-B termination for optimal performance.

IP Mode

DHCP

By default, the AT-OME-MS42-HDBT is set to DHCP mode. In this mode, when the AT-OME-MS42-HDBT 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 AT-OME-MS42-HDBT 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-HDBT 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 built-in Web Server

The AT-OME-MS42-HDBT includes a built-in web server, which allows easy remote management and control of all features. Before the built-in web server can be used, a username and password must be created.

1   Launch a web browser and enter the IP address of the unit.

2   The AT-OME-MS42-HDBT **Register** page will be displayed.

3   Enter the desired username in the **Username** field.

4   Enter the desired password in the **Password** field.

5   Verify the password by entering it in the **Confirm** field.

6   Click the **Submit** button.

7   The **Login** screen will be displayed.

8   Enter the correct username and password in the respective fields.

9   Click the **Submit** button.

Velocity™ Device Manager

For easy configuration of Atlona devices, Velocity Device Manager is available from https://atlona.com/ams for free.

Once Velocity Device Manager has been set up:

1   Open a browser on the same network as Velocity Device Manager and enter its IP address. Refer to the Velocity Device Manager installation instructions on how to find the IP address of the software.

2.   Enter the login information on the Velocity Device Manager web page, then click the **Login** button.

3   View the AT-OME-MS42-HDBT manual for routing and configuration information.

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Warranty

To view the product warranty, use the following link or QR code:

https://atlona.com/warranty/.

English Declaration of Conformity

The English version can be found under the resources tab at:

https://atlona.com/product/ome-ms42-hdbt/.

Chinese Declaration of Conformity 中国RoHS合格声明

由SKU列出於:

https://atlona.com/about-us/china-rohs/.

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

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