

Opus 4K HDR HDMI to HDBaseT 4x6 Matrix Switcher

AT-OPUS-46M



The Atlona AT-OPUS-46M is part of the Opus™ Series of HDMI® to HDBaseT™ matrix switchers for high dynamic range (HDR) formats. The 4x6 matrix switcher is HDCP 2.2 compliant and support 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18 Gbps. The Opus Series enables flexible routing to HDBaseT outputs plus two additional HDMI outputs, and is compatible with the Atlona AT-OPUS-RX receiver or AT-JUNO-451-HDBT switcher for transmission of HDMI, Ethernet pass-through, and bidirectional IR and RS-232 control signals up to 330 feet (100 meters) over CAT6a/7 cable. Visually lossless VESA Display Stream Compression (DSC) enables HDR and 4K/60 4:4:4 signal extension over HDBaseT with little to no latency. Opus matrix switchers are equipped with a comprehensive host of audio and control system integration features, making them ideal for a wide range of residential and commercial applications requiring multi-zone AV distribution.

Package Contents

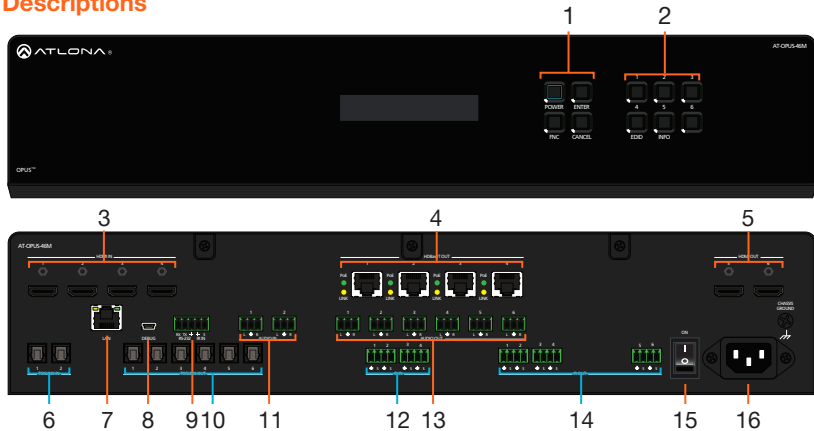
- 1 x AT-OPUS-46M
- 1 x Captive screw connector, 5-pin
- 5 x Captive screw connector, 4-pin
- 8 x Captive screw connector, 3-pin
- 1 x Pair rack mount ears
- 4 x Feet w/screws
- 1 x IEC power cord
- 1 x IR remote control
- 1 x Installation Guide



IMPORTANT: Visit <https://atlona.com/product/AT-OPUS-46M> for the latest firmware updates and User Manual.



Panel Descriptions

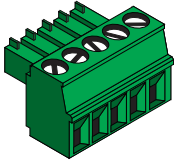


- | | |
|---|---|
| <p>1 Function Buttons
 Power - Sets the unit in and out of standby.
 Enter - Used for making selections.
 FNC - Use to switch number buttons to their secondary function.
 CANCEL - Navigates back one step in the OSD.</p> <p>2 Number Buttons
 Use for selection of inputs and outputs.
 1 - Press FNC + 1 to route selected input to all outputs.
 2 - Press FNC + 2 to turn the front IR receiver on and off.
 3 - Press FNC + 4 to open the EDID menu.
 4 - Press FNC + 5 to display the device firmware. Press 5 again to view more info.</p> <p>3 HDMI IN
 Connect HDMI cables to these ports from HDMI sources.</p> <p>4 HDBaseT OUT
 Connect a CAT5e/6/6a/7 cable from this port to an HDBaseT receiver.</p> <p>5 HDMI OUT
 Connect HDMI cables from these ports to local HDMI displays.</p> <p>6 TOSLINK IN
 Connect digital audio sources to these ports.</p> <p>7 LAN
 Connect an Ethernet cable from this port to a Local Area Network (LAN).</p> | <p>8 DEBUG
 Connect a mini USB cable from this port to a PC to troubleshoot the unit.</p> <p>9 Control Port
 Connect a third party controller or PC to control the matrix through either IR or RS-232</p> <p>10 TOSLINK OUT
 These ports provide digital audio output to audio DSPs, amplifiers, or player devices.</p> <p>11 AUDIO IN
 Connect unbalanced 2CH audio sources to these ports.</p> <p>12 IR IN
 Connect a control system to these ports to route IR signals to the corresponding HDBaseT outputs.</p> <p>13 AUDIO OUT
 This port provides source audio 2CH de-embedding and direct audio loop through for the audio inputs.</p> <p>14 IR OUT
 These ports provide an output for IR signals to each source and the two local HDMI outputs.</p> <p>15 Power Switch
 Toggle this switch to power the unit on or off.</p> <p>16 100-240VAC 50/60Hz Power Port
 Connect the included IEC cord from this port to the wall for power.</p> |
|---|---|

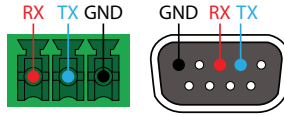


Control

A 5-pin captive screw connector for control has been included. The first three terminals are RS-232 control, the last two terminals are for IR.

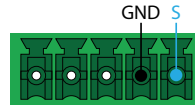


RS-232



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

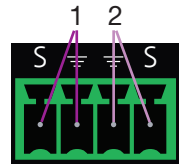
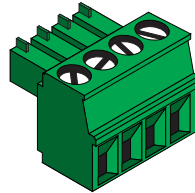
IR



IR IN is connected by a ground and signal wire. Use with 3rd party control systems. For easy termination, Atlona recommends using the 2 meter IR cable AT-LC-CS-IR-2M.

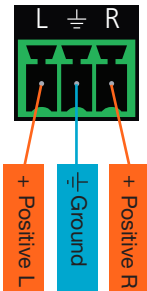
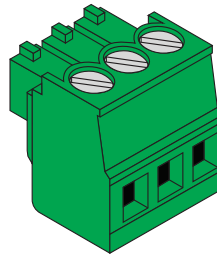
IR

4-pin captive screw connectors have been included for IR routing. Each 4-pin connect will provide connection for 2 IR ports. All IR ports will use a Ground (\perp) and signal (S) wire.



Audio

Connect to an audio DSP, amplifier, or other audio distribution or player devices. Only unbalanced 2CH connections are compatible with the 3-pin captive screw audio ports.



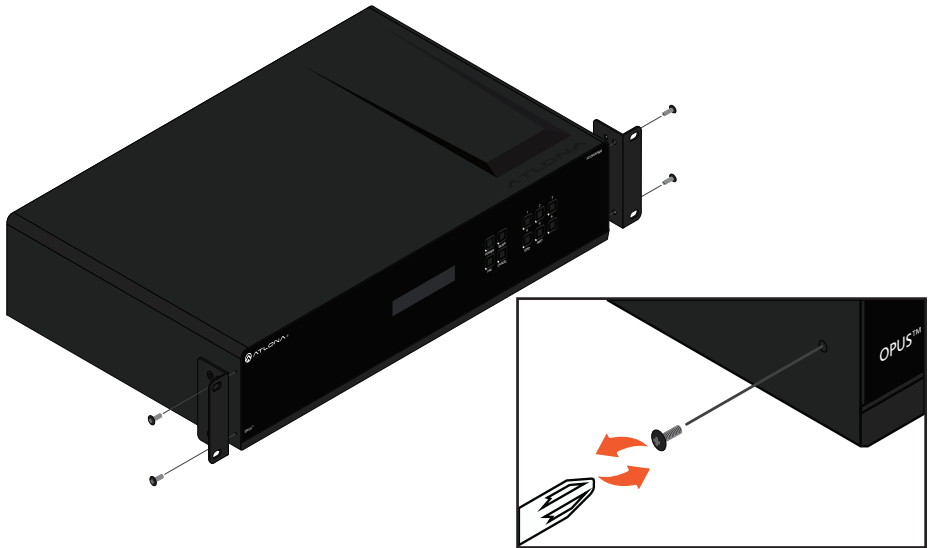
Unbalanced

Mounting Instructions


The AT-OPUS-46M can be mounted in a standard 19-inch rack or placed freestanding on top of a desk or table.


Rack installation

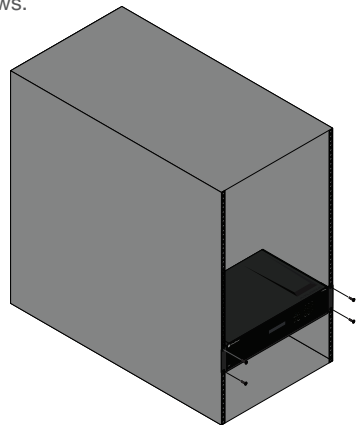
1. Remove the front two case screws from the sides of the case.
2. Attach the included rack ears to each side of the AT-OPUS-46M using the case screws.



3. Install the Opus matrix into a rack, using four rack screws.

 **NOTE:** Increase the air flow as needed to maintain the recommended temperature inside the rack.

 **NOTE:** Do not exceed the maximum weight loads for the rack. Install heavier equipment in the lower part of the rack for stability.



Surface mounting

The AT-OPUS-46M can be placed freestanding on top of a desk, a table, or in a cabinet. To prevent damage to the surfaces or unnecessary movement of the matrix, four feet have been included.

1. Turn the unit upside down.
2. Install each foot using the included feet screws, the rubber grips of the feet should be facing up during installation.
3. Turn the unit right-side up and place it in the desired location.



Installation

1. Connect up to 4 HDMI sources to the HDMI IN ports.
2. Connect up to 4 HDBaseT receivers (AT-OPUS-RX or AT-JUNO-451-HDBT) to the HDBaseT OUT ports.
3. Connect up to 2 local HDMI displays to the HDMI OUT ports.
4. Connect up to 2 digital audio sources to the TOSLINK IN ports.
5. Connect up to 2 unbalanced analog audio inputs to the AUDIO IN ports.
6. Connect the TOSLINK OUT ports to an audio distribution device.
7. Connect the 2CH analog AUDIO OUT ports to a DSP, or audio amplifier.
8. *Optional* For control, connect to the captive screw port for IR and RS-232.
9. *Optional* For IP control and/or Ethernet routing, connect a network switch to the LAN port.
10. *Optional* For IR routing to and from sources and zones, connect a control system, IR receivers, or IR emitters to the IR IN and IR OUT ports.
11. Connect the included IEC power cord to the 100-240VAC 50/60Hz power port.
12. Connect the power cord to an AC outlet.



WebGUI

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

1. View the IP address of the unit using the front panel OSD.
 - Press the FNC button.
 - Press button 5 (INFO). The firmware version will display on the front panel screen.
 - Press button 5 again to bring up the IP address.



NOTE: If the unit is not receiving an IP address from a DHCP server, the unit will default to 192.168.0.150 255.255.255.0. To set the unit to a set static IP, press the FNC button followed by 3. Select the Static IP option and press enter. The default static IP address and netmask is 192.168.1.254 255.255.0.0.

2. Launch a web browser and enter the IP address of the unit.
3. The OPUS **Login** page will be displayed.
4. Enter the following information on the **Login** page.

Login: **admin**
Password: **Atlona**

5. Click the **Login** button.

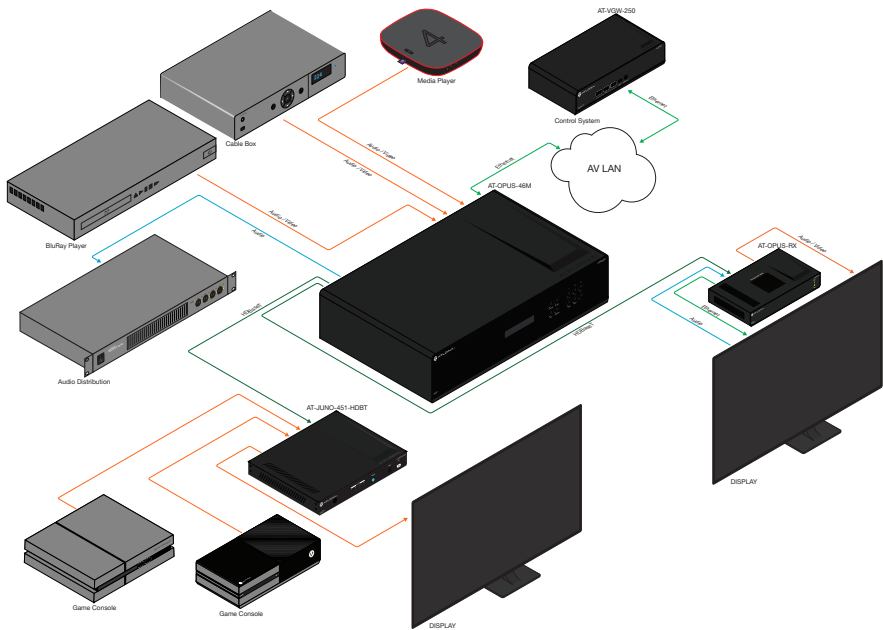
AMS 2.0

For full configuration of the OPUS, 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 of AMS 2.0.
 - a. View the AMS 2.0 installation instructions on how to find the IP of the software.
2. Enter the login information on the AMS 2.0 page, then click the **Login** button.
3. View the OPUS manual for routing and configuration.

Connection Diagram



Troubleshooting

Problem	Solution
I am not receiving multichannel audio or 3D video.	<ul style="list-style-type: none"> By default, multichannel audio and 3D will not pass unless all devices support those features. Set each port's EDID through the front panel, webGUI, or RS-232.
What firmware am I on?	<ul style="list-style-type: none"> To view the device firmware version, press the FNC button, followed by button 5 (INFO). The firmware will appear on the front panel OSD.
What's my baud rate?	<ul style="list-style-type: none"> To view the baud rate of the RS-232 port, press the FNC button, followed by button 5, then press button 2. The baud rate will appear on the front panel OSD.
What's my IP?	<ul style="list-style-type: none"> To view the IP address of the unit, press the FNC button, followed by the 5 button twice. If the unit is connected to a non-DHCP network, press FNC, followed by the 3 button. Select the Static IP option and press Enter. The default static IP address and netmask is 192.168.1.254 255.255.0.0.

