

4K HDR HDBaseT Matrix Switcher

AT-HDR-MX1616



The Atlona AT-HDR-MX1616 is a 16x16 HDMI® to HDBaseT™ matrix switcher for high dynamic range (HDR) formats. It is HDCP 2.2 compliant, supports 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling, and data rates up to 18 Gbps.

Package Contents

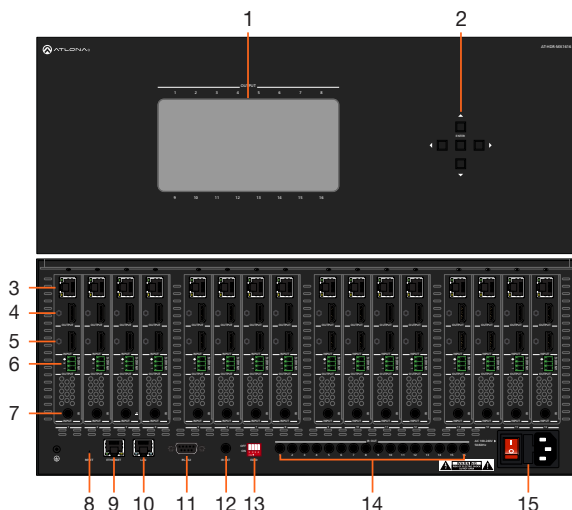
- 1 x AT-HDR-MX1616
- 16 x Captive screw connector, 3-pin
- 1 x IEC Cable
- 1 x Pair of mounting ears w/screws
- 4 x Feet w/screw
- 1 x Installation Guide



IMPORTANT: Visit <https://atlona.com/product/at-hdr-mx1616> for the latest firmware updates and Installation Guide.



Panel Descriptions



1 Front Panel Display

Front panel display will show the on-screen menu for routing.

2 Selection Buttons

Use to route inputs and outputs via the OSD.

3 HDBaseT OUT

Connect PoE compatible receivers to this port.

4 HDMI OUT

Connect an HDMI display to this port. This port is mirrored and will display the same content as the HDBaseT OUT port.

5 INPUT

Connect an HDMI source to this port.

6 AUDIO OUT

Connect the included 3-pin captive screw connector between this port and an amplifier.

7 IR

Connect an IR receiver or control system to this port for remote device control.

8 Reset

Press and hold for 5 seconds to reset the IP mode to DHCP or press and hold for 15 seconds to reset the unit to factory settings.

9 ETHERNET

Connect an RJ45 cable to this port to a network switch or source for Ethernet pass through. When connected to a network switch, Ethernet will pass to compatible remote HDBaseT receivers.

10 LAN

Connect an RJ45 cable to this port for TCP/IP and Web Server control of the matrix.

11 RS-232

Connect to an RS-232 device or control system.

12 IR EXT

Connect to an IR Receiver for use with an IR remote.

13 EDID

Use to manually set the EDID mode for the unit.

14 IR OUT

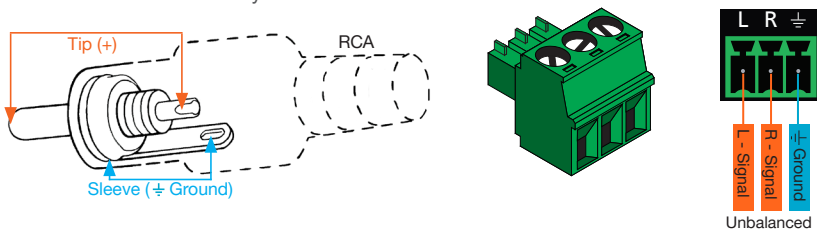
Connect IR transmitters to these ports for local device control.

15 AC 100-240V 50/60Hz

Connect the included IEC cable from this port to a wall to power the unit.

Audio

Connect to an audio DSP, amplifier, or other audio distribution or player devices. Only unbalanced connections may be used.



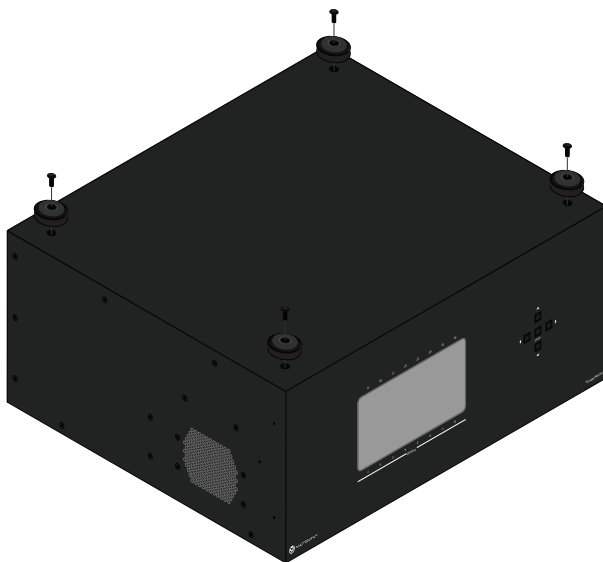
Mounting Instructions

The AT-HDR-MX1616 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.

Surface mounting

The AT-HDR-MX1616 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.

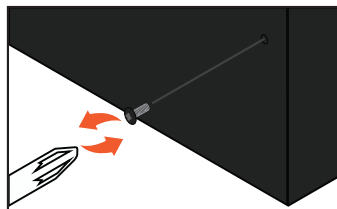
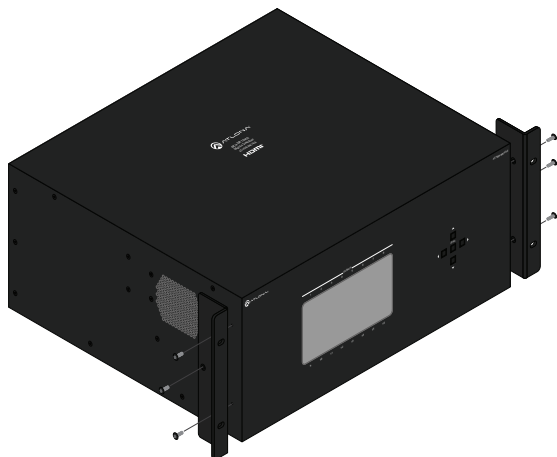
1. Turn the unit upside down.
2. Install each foot using the included feet screws, the rubber grips of the feet should be facing up during installation.
3. Turn the unit right-side up and place it in the desired location.





Rack installation

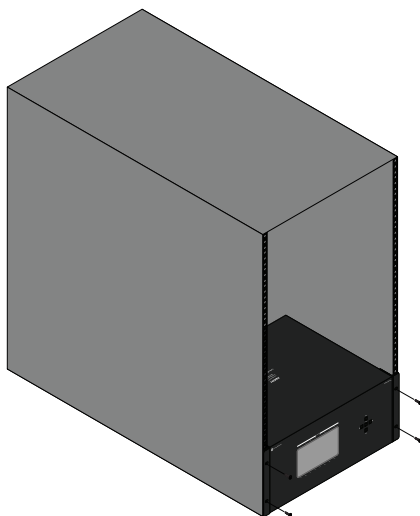
1. *Optional* If the unit still has the feet on it, remove them before installing.
2. Attach the included rack ears to each side of the AT-HDR-MX1616 using the included mounting screws.
3. Install the HDR-MX1616 into a rack, using four rack screws.



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.





Cable Recommendation Guidelines

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

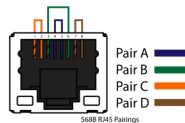
Core	Shielding	CAT5e	CAT6	CAT6a	CAT7
Solid	UTP (unshielded)	■	■■■	■■■■■	N/A
	STP (shielded)	■■■	■■■■■	■■■■■■■	■■■■■■■
Performance Rating (MHz)		350	500	600	800



IMPORTANT: Stranded or patch cables are not recommended due to performance issues. Shielded cables are strongly recommended to minimize signal noise and interference.

Resolution/Distance	Distance	Resolution
CAT 5e/6	100m/330ft	1080p@60Hz 4:4:4 10-bit
	70m/230ft	1080p@60Hz 4:4:4 12-bit
		4K@60Hz 4:4:4 8-bit
CAT 6a/7	100m/330ft	1080p@60Hz 4:4:4 12-bit 4K@60Hz 4:4:4 8-bit

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



Connection Instructions

1. Connect up to 16 HDMI sources to the HDMI input ports.
2. Connect up to 16 HDMI displays to the HDMI output ports.
3. Connect an RJ45 cable from a network switch to the LAN port for unit control and Web Server access.
4. Connect an RJ45 cable to the ETHERNET port for Ethernet data pass through to remote compatible HDBaseT receivers.
5. Connect up to 16 3-pin captive screw connectors from the analog audio out ports to a DSP, amplifier, or other audio distribution or player devices.
6. Connect up to 16 compatible HDBaseT receivers (e.g. AT-HDR-EX-100CEA-RX) to the HDBaseT output ports.
7. For control, connect IR receivers to the IR IN or IR Ext ports of the unit and IR transmitters to the IR OUT ports.



NOTE: IR IN 1 through 16 are bound with HDBaseT OUT 1 through 16.

NOTE: IR OUT 1 through 16 are bound with HDMI IN 1 through 16.

8. Connect a female DB9 RS-232 cable to this port for unit control.
9. Connect the included IEC cable from the AC 100-240V 50/60Hz port to an AC outlet.



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Installation Guide

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Notes



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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/at-hdr-mx1616>.



Chinese Declaration of Conformity 中国RoHS合格声明

由SKU列出於:

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

