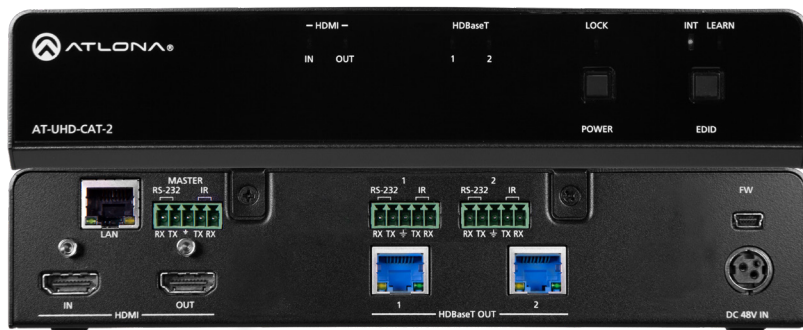


## 4K/UHD

## Two-Output HDMI to HDBaseT™ Distribution Amplifier

AT-UHD-CAT-2



The Atlona **AT-UHD-CAT-2** is a 4K/UHD HDMI to HDBaseT distribution amplifier featuring pass-through HDMI input connections, two HDBaseT outputs, and display control capability. Each output transmits AV and control signals up to 230 ft. (70 m) @ 1080p and 130 ft. (40 m) @ 4K/UHD. Features include 4K/UHD @ 60 Hz with 4:2:0 color subsampling, HDCP 2.2 compliance, EDID management, and PoE for powering remote receivers. A wide variety of consumer displays may be controlled by the UHD-CAT-2 using CEC. Designed for commercial distribution applications, the UHD-CAT-2 is control system-friendly and integrates with any TCP/IP, RS-232, or IR control system and features a 1U, half-rack width enclosure with external, international power supply. The UHD-CAT-2 is ideal for use with the AT-UHD-EX-70C-RX HDBaseT receiver, AT-HDVS-200-RX HDBaseT receiver and HD scaler, or AT-HDVS-SC-RX HDBaseT receiver and 4K/UHD scaler.

### Package Contents

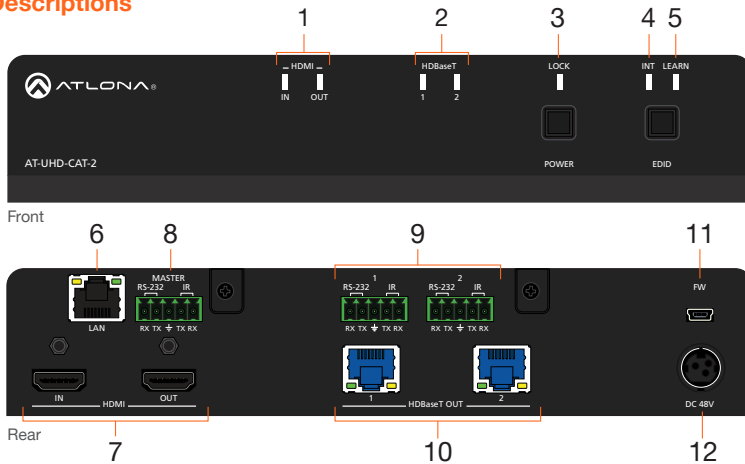
- 1 x AT-UHD-CAT-2
- 3 x Captive screw connector, 5-pin
- 1 x Rack ear (short)
- 1 x Rack ear (long)
- 2 x Mounting plates
- 4 x Mounting screws
- 1 x 48 V DC power supply
- 1 x Installation Guide



**IMPORTANT:** Visit <http://www.atlona.com/product/AT-UHD-CAT-2> for the latest firmware updates and User Manual.



## Panel Descriptions



### 1 HDMI Indicators

Displays the status of the **HDMI IN** and **HDMI OUT** ports. When connected to a source or display (sink) device, respectively, the LED indicator will be blue.

### 2 HDBaseT Indicators

Displays the status of the HDBaseT OUT ports. When connected to an HDBaseT receiver, the LED indicator will be blue.

### 3 Lock

This LED will be blue when the unit is locked.

### 4 INT

This LED indicator will be blue when the unit is using an internal EDID.

### 5 LEARN

This LED indicator will flash when a downstream EDID is being read into memory. Refer to the User Manual for more information.

### 6 LAN

Connect an Ethernet cable from this port to the network.

### 7 HDMI

Connect an HDMI cable from the source to the **IN** port. Connect an HDMI cable from the display (sink) device to the **OUT** port.

### 8 RS-232 / IR (MASTER)

Connect a control system or other DTE device to this port to control the AT-UHD-CAT-2.

### 9 RS-232/IR 1 / 2

Connect a control system or other DTE device to these ports for pass-through zone control. Each of these ports uses the associated HDBaseT OUT port. This allows RS-232 command data to be sent to a display (sink) device connected to a PoE-compatible receiver.

### 10 HDBaseT OUT

Connect Ethernet cables from these ports to PoE-compatible receivers.

### 11 FW

Connect a mini USB-to-USB cable from this port, to a computer, to update the firmware of the AT-UHD-CAT-2.

### 12 DC 48V

Connect the included power supply to this power receptacle.

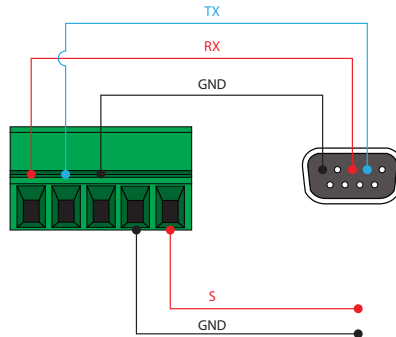
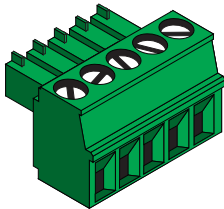
## RS-232

The AT-UHD-CAT-2 provides three **RS-232** ports. The **RS-232/IR MASTER** port is used to control the AT-UHD-CAT-2 using a control system or other DTE equipment. **RS-232/IR 1** and **RS-232/IR 2** ports are used in conjunction with the **HDBaseT OUT 1** and **HDBaseT OUT 2** ports. RS-232 data is passed through over the the respective **HDBaseT OUT** port (zone) to a sink device connected to a PoE-compatible the receiver. This step is optional.

1. Use wire strippers to remove a portion of the cable jacket.
2. Remove at least 3/16" (5 mm) from the insulation of the RX, TX, and GND wires.
3. Insert the TX, RX, and GND wires into correct terminal using one of the included 5-pin captive screw connectors.
4. Tighten the captive screws to secure the wires in place. Do not over-tighten or use high-torque devices to prevent damage to the connector block.



**NOTE:** Typical DB9 connectors use pin 2 for TX, pin 3 for RX, and pin 5 for ground. On some devices functions of pins 2 and 3 are reversed.





## Installation

1. Connect an HDMI cable from a UHD/HD source to the **HDMI IN** port.
2. Connect an HDMI cable from the **HDMI OUT** port to a display (sink) device.
3. Connect up to two Ethernet cables from the **HDBaseT OUT** ports to compatible PoE-capable receivers.
4. Connect an Ethernet cable from the **LAN** port to the Local Area Network (LAN). This step will be required in order to access the built-in web server.
5. Connect the included power supply to the **DC 48V** connector and connect the power cord to an available electrical outlet.

## Optional

6. Connect an RS-232 or IR cable from the control system or other DTE device to the RS-232/IR ports:
  - **MASTER RS-232/IR**  
Connecting to this port will provide direct control of the AT-UHD-CAT-2. Control can be performed using either RS-232 or electrical IR.
  - **RS-232/IR 1 or RS-232/IR 2**  
Each of these ports is associated to the respective **HDBaseT OUT** port. This allows RS-232 pass-through zone control of a display (sink) device that is connected to a PoE-compatible receiver. Control can be performed using RS-232 or electrical IR.

## IP Configuration

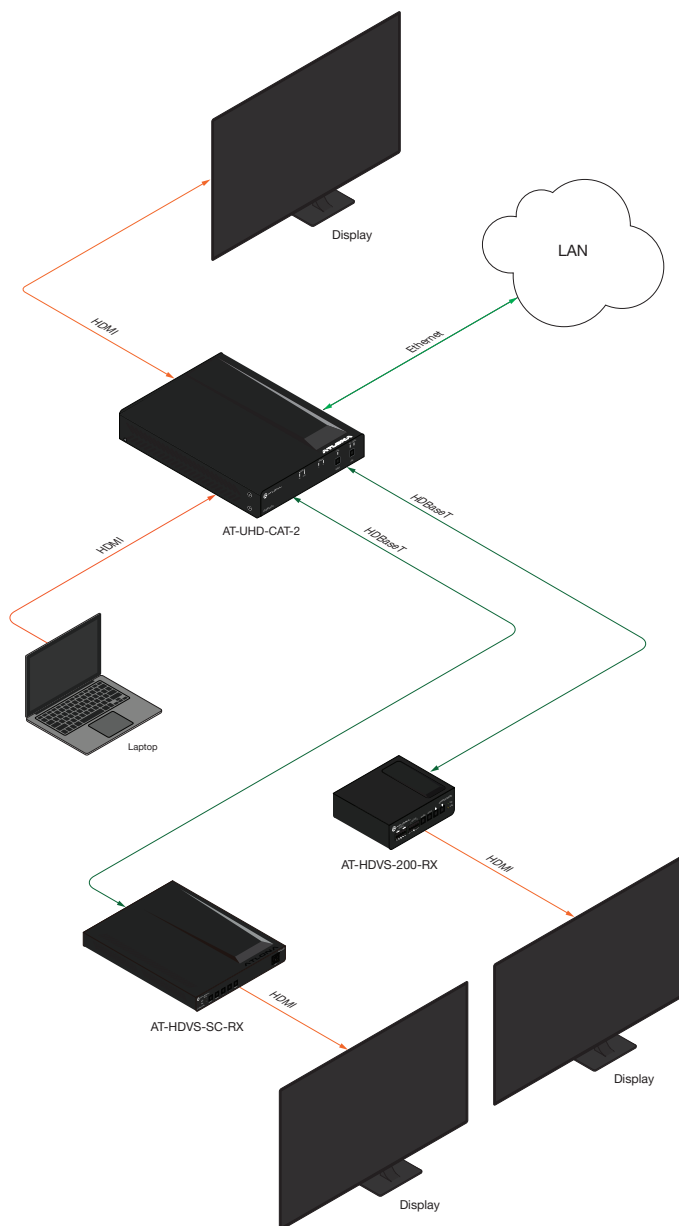
By default, the AT-UHD-CAT-2 is set to DHCP mode, allowing a DHCP server (if present) to assign the unit an IP address. If a DHCP server is not found within 15 seconds, then the unit will be placed in Auto IP mode and use a self-assigned IP address within the range of 169.254.xxx.xxx. If DHCP or Auto IP mode are not desired, the unit can be placed into static IP mode by using the **POWER** button on the front panel.

## Switching the IP mode

Press and hold the **POWER** button for approximately 15 seconds. Once the **LOCK** LED indicator begins to flash, release the **POWER** button. The number of flashes will indicate the currently selected IP mode:

LED flashes	Description	
Two	DHCP mode	
Four	Static IP mode	IP address: 192.168.1.254 Netmask: 255.255.255.0 Gateway: 192.168.1.1

## Connection Diagram





## Accessing the web GUI

The AT-UHD-CAT-2 includes a built-in web GUI, which allows easy management and control of all features. Follow the instructions below to access the web GUI.

1. Make sure that an Ethernet cable is connected between the **LAN** port on the AT-UHD-CAT-2 and the network.
2. Launch a web browser and enter the IP address of the unit. If the default static IP address is being used, enter 192.168.1.254.
3. The AT-UHD-CAT-2 **Login** page will be displayed.
4. Enter the following information on the **Login** page.  
Login: root  
Password: Atlona
5. Click the **Login** button.
6. Refer to User Manual for detailed operation of the web GUI.

## 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:

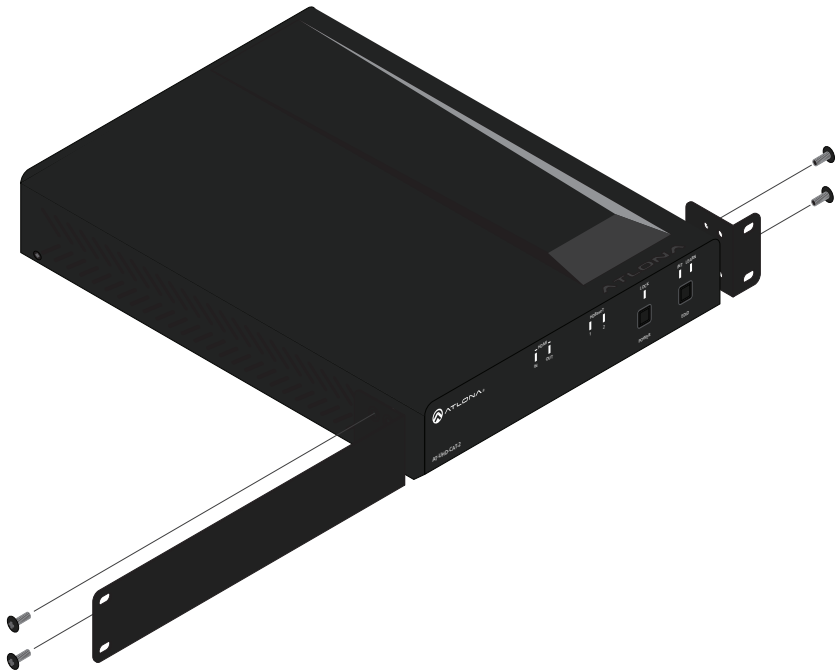
1. Open a browser on the same network as AMS 2.0 and go to the IP of AMS 2.0. View the AMS 2.0 installation instructions on how to find the IP of the software, if necessary.
2. Enter the login information on the AMS 2.0 web page, then click the **Login** button.
3. View the AT-UHD-CAT-2 manual for routing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

## Mounting Instructions

The AT-UHD-CAT-2 can be mounted in different ways, based on the number of units that are being installed. The AT-UHD-CAT-2 can be mounted in a rack or on/under any flat surface.

### Single-unit rack installation

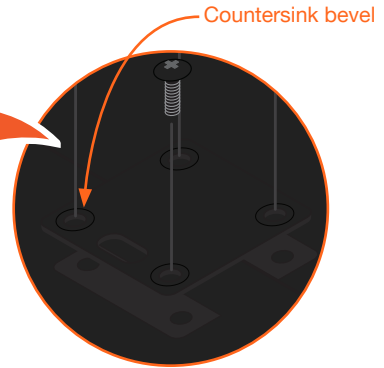
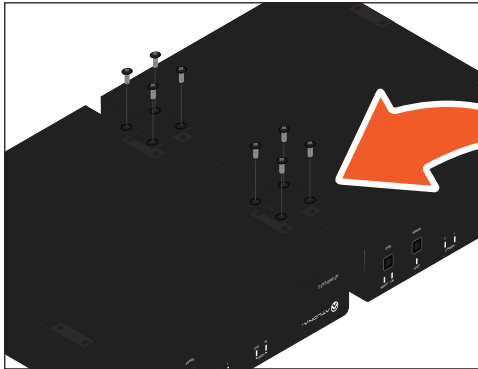
1. Attach the included small rack ear to one side of the AT-UHD-CAT-2, using the included screws.
2. Attach the included longer rack ear to the opposite side of the AT-UHD-CAT-2 using the included screws.



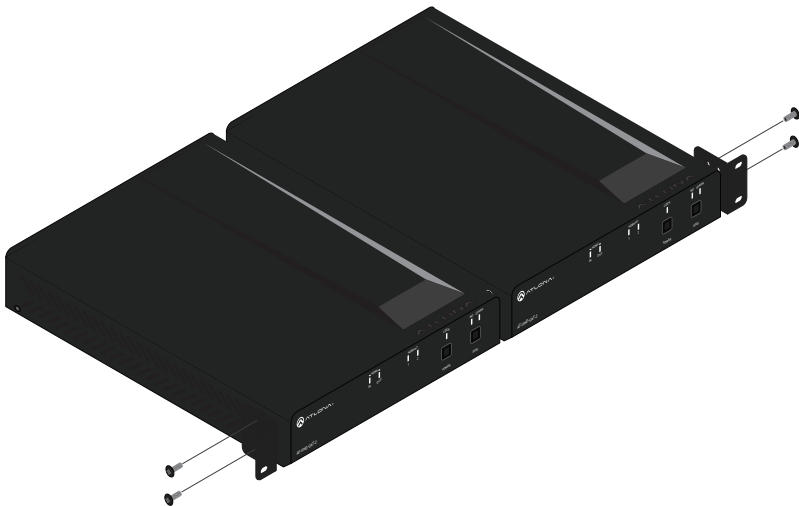


## Dual-unit rack installation

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



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

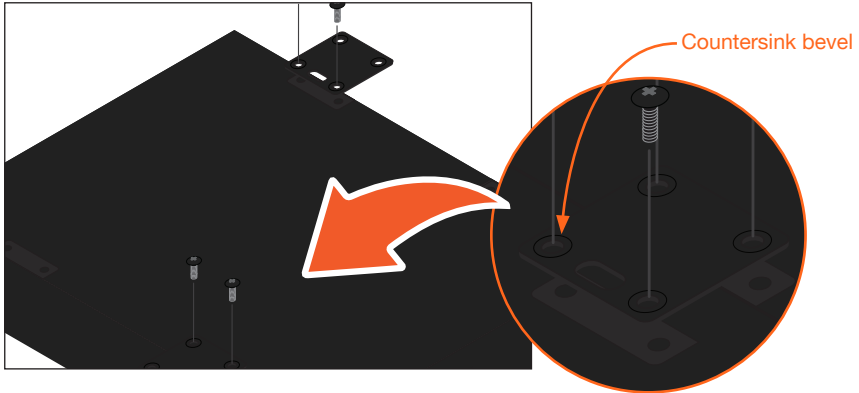




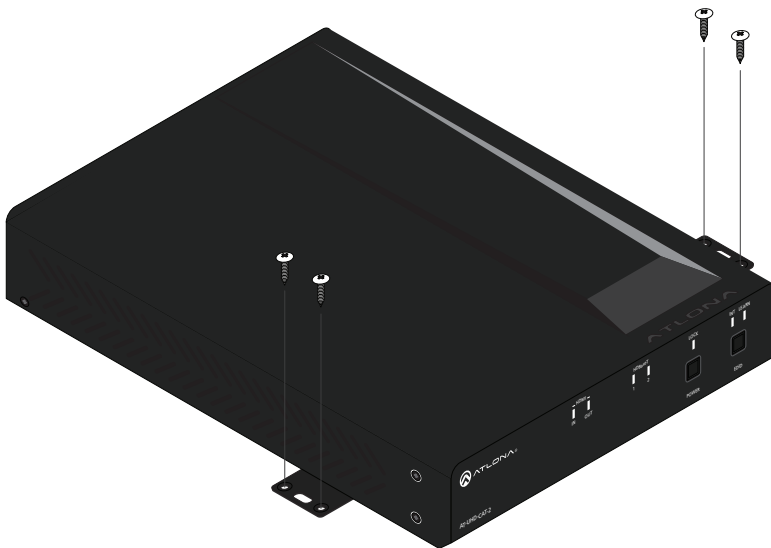


### Flat surface

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. 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.



## Troubleshooting

Problem	Solution
What is the default static IP address of the AT-UHD-CAT-2?	<ul style="list-style-type: none"><li>192.168.1.254. However, by default the AT-UHD-CAT-2 comes with DHCP enabled. To use the static IP address, see the instructions on page 6.</li></ul>
How do I determine the IP address of the unit?	<ul style="list-style-type: none"><li>Connect an RS-232 cable from a computer to the RS-232 port and execute the IPCFG command.</li></ul>
What does the EDID button do?	<ul style="list-style-type: none"><li>This button is used to switch between internal and external EDID modes. Refer to the User Manual for more information.</li></ul>
What is the current version of firmware on the AT-UHD-CAT-2?	<ul style="list-style-type: none"><li>To check the firmware version in the web GUI, login and go to the Info page.</li><li>To check the firmware version using RS-232 or Telnet, execute the Version command.</li></ul>
What is the firmware upgrade procedure?	<ul style="list-style-type: none"><li>Refer to the User Manual for instructions on upgrading the firmware.</li></ul>
The front-panel buttons are not working.	<ul style="list-style-type: none"><li>Check to make sure that the AT-UHD-CAT-2 is not locked. If the LOCK LED indicator is blue, then the unit is locked.</li><li>To unlock the unit using the web GUI, login and click the Lock toggle button to the UNLOCK position.</li><li>To unlock the unit using RS-232 or Telnet, execute the Unlock command.</li></ul>



## Notes

