OmniStream 111 Single-Channel Networked AV Encoder

AT-OMNI-111

The Atlona **OmniStream™ 111 (AT-OMNI-111)** is a networked AV encoder for one HDMI source up to 4K/UHD, plus embedded audio and RS-232 control. OmniStream is designed for distributing AV over Gigabit Ethernet in enterprises and other large-scale installations. The OmniStream 111 features SMPTE VC-2 visually lossless compression for critical-quality video applications, with extremely low, sub-frame latency from encode to decode. It also includes selectable AES-128 encryption, and SMPTE 2022-5 forward error correction for robust AV distribution spanning multiple networks. This encoder is housed in a half-rack width enclosure. The OmniStream 111 can conveniently be powered over the network through Power over Ethernet (PoE), as well as from local AC power.

Package Contents

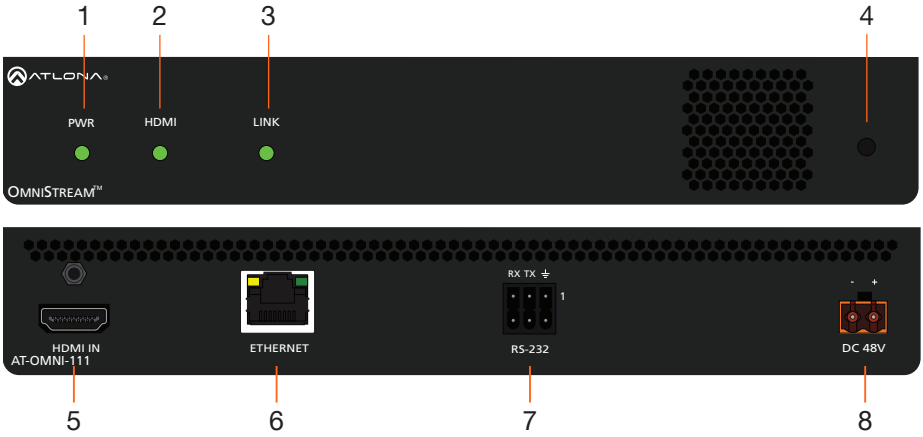
1 x AT-OMNI-111
1 x Push spring connector, 6-pin
1 x Wall/table mounting brackets
4 x Rubber feet
1 x Installation Guide

Operating Notes

- OmniStream requires the Atlona Management System (AMS) which provides discovery, management, and configuration assistance. AMS is a free application that can be downloaded from the Atlona web site at http://atlona.com/product/at-sw-ams/
- OmniStream uses mDNS as the discovery mechanism. In order for mDNS to function properly, there must not be restrictions applied to the network. VPN can be used to connect to a computer that is running AMS, on the same network. However, VPN cannot be used when AMS is running on the local machine.

IMPORTANT: Visit http://www.atlona.com/product/AT-OMNI-111 for the latest firmware updates and User Manual.

Panel Descriptions



1 PWR
This LED indicator glows bright green when the unit is powered.

2 HDMI
This LED indicator shows the input status.

3 LINK
This LED indicator shows the link status of the encoder.

4 REBOOT
Use a small, pointed object to press this recessed button and reboot the unit.

5 HDMI IN
Connect an HDMI cable from this port to an HD source.

6 ETHERNET
Connect an Ethernet cable from this port to the Local Area Network (LAN).

7 RS-232
Use the included captive screw connector to connect an RS-232 controller or automation system. Refer to **RS-232** on page 3 for more information.

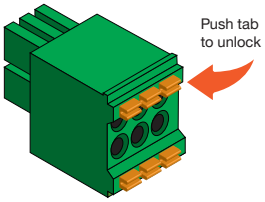
8 DC 48V
Connect the included 48V DC power supply to this receptacle.

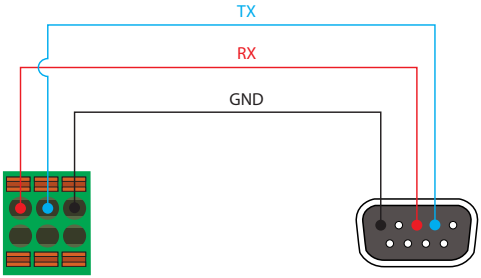
RS-232

The AT-OMNI-111 provides RS-232 over IP which allows communication between an automation system and an RS-232 device. 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 on the included push spring connector, following the wiring diagram below. If using non-tinned stranded wire, press the orange tab, above the terminal, while inserting the exposed wire.

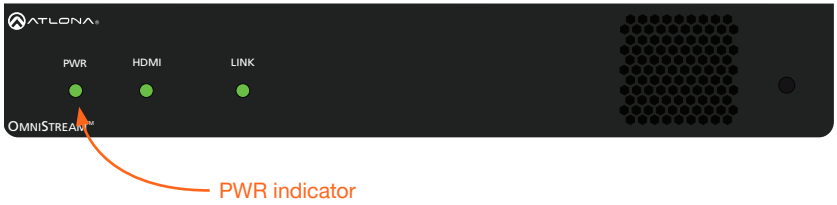
NOTE: Typical DB9 connectors use pin 2 for TX, pin 3 for RX, and pin 5 for ground. On some devices, the function of pins 2 and 3 are reversed.





Installation

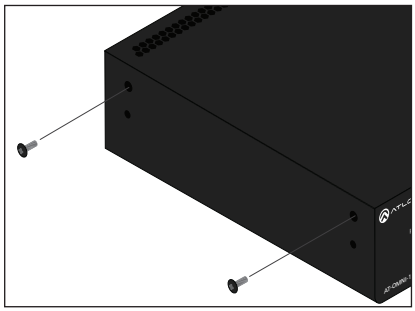
1. Connect an Ethernet cable from the **ETHERNET** port on the encoder to a PoE-capable switch on the Local Area Network (LAN). Note that if a PoE-capable switch is not available, the 48V DC power supply (sold separately) must be connected to the encoder.
2. Connect an HDMI cable from an HD/Ultra HD source to the **HDMI** port on the encoder.
3. If using RS-232, connect the 6-pin captive screw connector to the **RS-232** port on the encoder.
4. The **PWR** indicator, on the front panel, display the power status of the encoder. When the encoder is powered, using either PoE or the optional 48V DC power supply (not included), the LED initially turns red. After a few moments it will turn amber, and finally green.



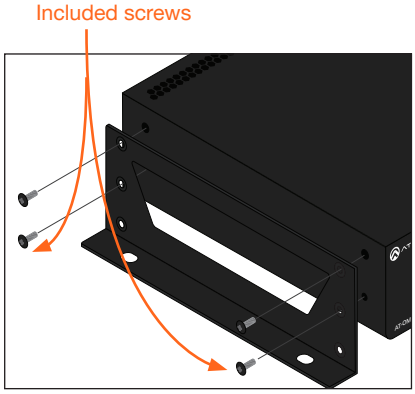
Mounting Instructions

The AT-OMNI-111 encoder includes two mounting brackets and four mounting screws, which can be used to attach the unit to any flat surface.

1. Using a small Phillips screwdriver, remove the two screws from the left side of the enclosure.



2. Position one of the mounting brackets, as shown below, aligning the holes on the side of the enclosure with one set of holes on the mounting bracket.
3. Use the enclosure screws to secure the mounting bracket to the enclosure.



4. To provide added stability to the mounting bracket, use two of the included screws and attach them to the two holes, directly below the enclosure screws, as shown above.
5. Repeat steps 1 through 4 to attach the second mounting bracket to the opposite side of the unit.
6. Mount the unit using the oval-shaped holes, on each mounting bracket. If using a drywall surface, a #6 drywall screw is recommended.

NOTE: Mounting brackets can also be inverted to mount the unit under a table or other flat surface.

Configuration

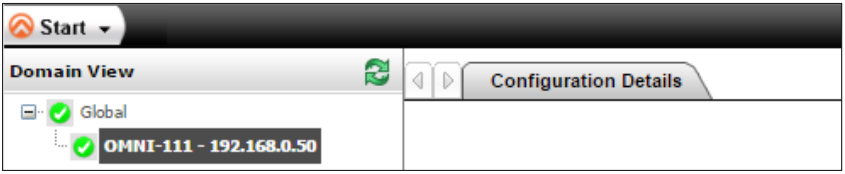
By default, the AT-OMNI-111 is set to DHCP mode. In this mode, each encoder that is connected to the Local Area Network (LAN) will automatically be assigned an IP address by the DHCP server, allowing communication with AMS. AMS will only be able to discover the encoders if they are on the same VLAN. Refer to the User Manual for details on configuring encoders to static IP mode.

To determine the IP address of the encoder, use the Atlona Management System (AMS) app. AMS is available only for the Windows® Operating Sytem. If necessary, mDNS/Bonjour can also be used to discover the IP address of the encoder.

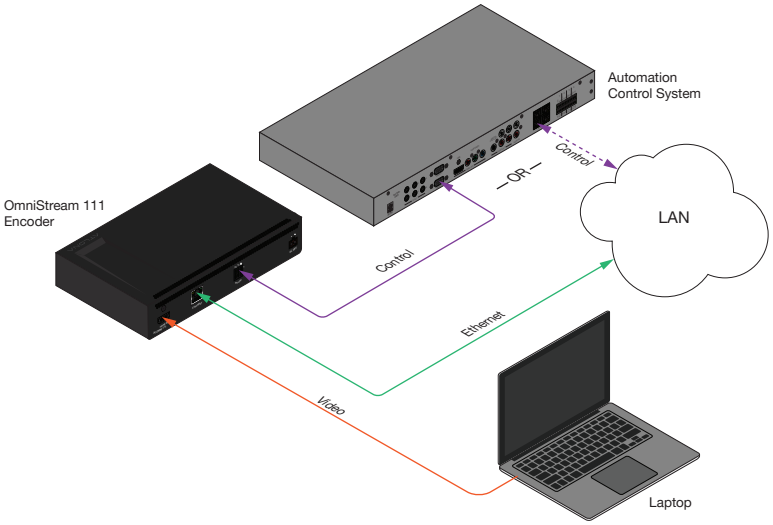
1. Launch the Atlona Management System app.
2. Launch a web browser and enter **localhost:8080** in the address field.
3. Enter the login information on the AMS web page, then click the **Login** button.

   Login: admin
   Password: admin123

4. Under the **Domain View** panel, locate the IP address for the encoder. Single-channel OmniStream encoders will be labeled as **OMNI-111**.



Connection Diagram



Troubleshooting

Problem	Solution
PWR indicator is off.	• If using a PoE (Power-over-Ethernet) switch, make sure that the port on the switch that is connected to the encoder, has PoE enabled. When the encoder is powered using PoE, the **PWR** indicator will be green. • Check the Ethernet cable for possible damage or loose connections. • Connect the optional 48V DC power supply (available from atlona.com) to the encoder. When using an external power supply, the **PWR** indicator will be red.
LINK indicator is red.	• Connect an Ethernet cable to the **ETHERNET** port. • Check the Ethernet cable for possible damage or loose connections.
OmniStream encoders are not displayed in AMS.	• Verify that AMS and the encoder are on the same network. • If a DHCP server is not found within 60 seconds, the encoder will be placed in Auto IP mode and assigned an IP address within the range of 169.254.xxx.xxx. If so, then connect a laptop directly to the encoder and configure a static IP address for the encoder. • Check the Ethernet cable for possible damage or loose connections.

Notes

Version 1

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