USB to IP Adapter for Peripheral Devices
AT-OMNI-324

The Atlona OmniStream™ 324 (AT-OMNI-324) works in tandem with the OmniStream 311 (AT-OMNI-311) for extending USB from peripheral devices to a PC over Gigabit Ethernet. The OmniStream 324 features a four-port USB hub for peripherals, while the OmniStream 311 interfaces with a PC or other host device. The OmniStream USB over IP system is compatible with USB 2.0 data rates of up to 480 Mbps. It can be used with high-bandwidth devices including cameras, speakerphones, microphones, and DSPs, plus standard USB HID class devices such as a keyboard, mouse, or touch display. Up to seven OmniStream 324 units can be simultaneously paired to an OmniStream 311. Additionally, USB routing over the network can be managed using Atlona Management System (AMS) 2.0.

OmniStream USB products can be used in a wide variety of system design scenarios for soft codec conferencing and remote keyboard / mouse control. They are ideal for integrating USB audio and video devices as part of a fully IP-based meeting room system, in conjunction with OmniStream AV over IP devices and the Velocity Control System.

Package Contents

1 x AT-OMNI-324
1 x 24 V DC power supply
2 x Mounting brackets
1 x Installation Guide

Panel Descriptions

1 **USB Device Ports**
   Connect up to four USB devices using these ports.

2 **PWR**
   This LED indicator glows solid green when the unit is powered. This unit is powered by the included 24V DC power supply. Refer to **LED Indicators (page 6)** for more information.

3 **HOST**
   This LED indicator glows green when a USB host device is connected to the AT-OMNI-311 (not included). Refer to **LED Indicators (page 6)** for more information.

4 **LINK**
   This LED indicator is solid green when a solid connection between this unit and the transmitter has been established. Refer to **LED Indicators (page 6)** for more information.

5 **SIGNAL**
   This LED indicator monitors data transmission between this unit and the receiver. The LED will blink intermittently whether or not a USB device is connected. Refer to **LED Indicators (page 6)** for more information.

6 **DC 24V**
   Connect the included power supply to this power receptacle.

7 **UTILITY**
   This port is for factory programming.

8 **PAIRING**
   Press this button to begin the pairing process.

9 **LAN**
   Connect an Ethernet cable from this port to the Local Area Network (LAN).
Mounting Instructions

The AT-OMNI-324 includes two mounting brackets, which can be used to attach the units to any flat surface.

1. Remove the two enclosure screws, on both sides of the unit, using a small Phillips-head screwdriver.

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. Attach the mounting brackets using the enclosure screws from Step 1.

4. Mount the unit using the oval-shaped holes, on each mounting bracket. If using a drywall surface, a #6 drywall screw is recommended.

NOTE: The unit can also be mounted under a table or other flat surface.
Installation

1. Place the AT-OMNI-324 near the location of the USB devices to be connected. Connect up to four USB devices to the USB ports on the AT-OMNI-324.
   
The AT-OMNI-324 can be connect to a AT-OMNI-311 (not included) in one of two ways:

   Over Network
   
   a. Connect an Ethernet cable, up to 330 feet (100 meters), from the LAN port on the AT-OMNI-324 to the network switch. Note that multiple AT-OMNI-324 units can be connected to the network.

   b. Connect an Ethernet cable, up to 330 feet (100 meters), from the transmitter (AT-OMNI-311; not included) to a switch on the same network.

   NOTE: When connecting a transmitter and receiver, over a network, the cable distance between hops must not exceed 330 feet (100 meters) for copper connections (fiber extenders can be used to create longer runs). For example, connecting up to five network switches, using copper cabling, can be used to extend USB up to 1980 feet (600 meters).

   Direct Connection
   
   a. Connect an Ethernet cable, up to 330 feet (100 meters), from the LAN port of the AT-OMNI-324 directly to the AT-OMNI-311 (not included).

2. Connect the included power supply to the DC 24V power receptacle.

3. Connect the power supply to an available electrical outlet.


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-OMNI-324 manual for additional configuration information.
**LED Indicators**

The **PWR**, **LINK**, **HOST**, and **SIGNAL** LED indicators on the transmitter provide basic information on the current status of the AT-OMNI-324. The information in the table below applies to both the transmitter and receiver unit.

### PWR

<table>
<thead>
<tr>
<th>Description</th>
<th>Solid green</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit is powered.</td>
<td>Solid green</td>
<td>Unit is not powered.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>• Verify that the included power supply is connected to the AT-OMNI-324 and that the power supply is connected to a live electrical outlet.</td>
</tr>
</tbody>
</table>

### LINK

<table>
<thead>
<tr>
<th>Description</th>
<th>Solid green</th>
<th>Blinking green (slow)</th>
<th>Blinking green (fast)</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>The link integrity between the receiver and the transmitter is good.</td>
<td>Solid green</td>
<td>Blinking green (slow)</td>
<td>Blinking green (fast)</td>
<td>Off</td>
</tr>
<tr>
<td>The receiver is attempting to establish a link with the transmitter.</td>
<td>Blinking green (slow)</td>
<td>Blinking green (fast)</td>
<td>Blinking green (fast)</td>
<td>Off</td>
</tr>
<tr>
<td>The transmitter is in Pairing Mode.</td>
<td>Blinking green (fast)</td>
<td>Blinking green (fast)</td>
<td>Blinking green (fast)</td>
<td>Off</td>
</tr>
<tr>
<td>There is no link between the transmitter and the receiver.</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>• <strong>Direct Mode:</strong> Verify that an Ethernet cable is connected between the <strong>LAN</strong> port on the receiver and the transmitter.</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>• <strong>Network Mode:</strong> Verify that an Ethernet cable is connected between the <strong>LAN</strong> port on the receiver and the network switch.</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>• Check that the Ethernet cable is not physically damaged.</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>• Make sure that the Ethernet cable does not exceed 330 feet (100 meters).</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
</tr>
</tbody>
</table>

### HOST

<table>
<thead>
<tr>
<th>Description</th>
<th>Solid green</th>
<th>Blinking green</th>
</tr>
</thead>
<tbody>
<tr>
<td>The transmitter is properly enumerated on the host computer.</td>
<td>Solid green</td>
<td>Blinking green</td>
</tr>
<tr>
<td>The transmitter is a suspended state.</td>
<td>Blinking green</td>
<td>Blinking green</td>
</tr>
</tbody>
</table>

### SIGNAL

<table>
<thead>
<tr>
<th>Description</th>
<th>Blinking green</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>This LED indicator will blink intermittently when data is being transmitted between the receiver and the transmitter.</td>
<td>Blinking green</td>
<td>Off</td>
</tr>
<tr>
<td>The receiver is in Suspend Mode.</td>
<td>Off</td>
<td>Off</td>
</tr>
</tbody>
</table>