4K/UHD
Five-Input Universal Switcher
with Wireless Presentation Link

AT-UHD-SW-510W | Atlona Manuals
Switchers

Version Information

Version	Release Date	Notes
1	12/17	Initial release
2	01/18	Full API now found under the Resources tab at https://atlona.com/product/at-uhd-sw-510w/

Welcome to Atlona!

Thank you for purchasing this Atlona product. We hope you enjoy it and will take a extra few moments to register your new purchase.

Registration only takes a few minutes and protects this product against theft or loss. In addition, you will receive notifications of product updates and firmware. Atlona product registration is voluntary and failure to register will not affect the product warranty.

To register your product, go to http://www.atlona.com/registration

Sales, Marketing, and Customer Support

Main Office

Atlona Incorporated
70 Daggett Drive
San Jose, CA 95134
United States

Office: +1.877.536.3976 (US Toll-free)
Office: +1.408.962.0515 (US/International)

Sales and Customer Service Hours
Monday - Friday: 6:00 a.m. - 4:30 p.m. (PST)

http://www.atlona.com/

International Headquarters

Atlona International AG
Ringstrasse 15a
8600 Dübendorf
Switzerland

Office: +41 43 508 4321

Sales and Customer Service Hours
Monday - Friday: 09:00 - 17:00 (UTC +1)

Operating Notes

⚠️ **IMPORTANT:** Visit http://www.atlona.com/product/AT-UHD-SW-510W for the latest firmware updates and User Manual.

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Coverage

Atlona warrants its products will substantially perform to their published specifications and will be free from defects in materials and workmanship under normal use, conditions and service.

Under its Limited Product Warranty, Atlona, at its sole discretion, will either:

• repair or facilitate the repair of defective products within a reasonable period of time, restore products to their proper operating condition and return defective products free of any charge for necessary parts, labor and shipping.

OR

• replace and return, free of charge, any defective products with direct replacement or with similar products deemed by Atlona to perform substantially the same function as the original products.

OR

• refund the pro-rated value based on the remaining term of the warranty period, not to exceed MSRP, in cases where products are beyond repair and/or no direct or substantially similar replacement products exist.

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• 10 years from proof of purchase date for hardware/electronics products purchased on or after June 1, 2013.

• 3 years from proof of purchase date for hardware/electronics products purchased before June 1, 2013.

• Lifetime Limited Product Warranty for all cable products.

• NOTE: Data cable (USB-C) and Wifi antenna coverd by 1 year warranty.

Limited Product Warranty Terms – Refurbished (B-Stock) Products

• 3 years from proof of purchase date for all Refurbished (B-Stock) hardware and electronic products purchased on or after June 1, 2013.

Remedy

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Atlona requires that products returned are properly packed, preferably in the original carton, for shipping. Cartons not bearing a return authorization or case number will be refused. Atlona, at its sole discretion, reserves the right to reject any products received without advanced authorization. Authorizations can be requested by calling 1-877-536-3976 (US toll free) or 1-408- 962-0515 (US/international) or via Atlona's website at www.atlona.com.

Exclusions

This Limited Product Warranty excludes:

• Damage, deterioration or malfunction caused by any alteration, modification, improper use, neglect, improper packaging or shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature.

- Damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Atlona to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product.

- Equipment enclosures, cables, power supplies, batteries, LCD displays, and any accessories used in conjunction with the product(s).

- Products purchased from unauthorized distributors, dealers, resellers, auction websites and similar unauthorized channels of distribution.

Disclaimers

This Limited Product Warranty does not imply that the electronic components contained within Atlona's products will not become obsolete nor does it imply Atlona products or their electronic components will remain compatible with any other current product, technology or any future products or technologies in which Atlona's products may be used in conjunction with. Atlona, at its sole discretion, reserves the right not to extend its warranty offering in instances arising outside its normal course of business including, but not limited to, damage inflicted to its products from acts of god.

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The maximum liability of Atlona under this limited product warranty shall not exceed the original Atlona MSRP for its products. To the maximum extent permitted by law, Atlona is not responsible for the direct, special, incidental or consequential damages resulting from any breach of warranty or condition, or under any other legal theory. Some countries, districts or states do not allow the exclusion or limitation of relief, special, incidental, consequential or indirect damages, or the limitation of liability to specified amounts, so the above limitations or exclusions may not apply to you.

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Important Safety Information

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCT THE RISK OF
ELECTRIC SHOCK
DO NOT OPEN ENCLOSURE OR EXPOSE
TO RAIN OR MOISTURE.
NO USER-SERVICEABLE PARTS
INSIDE REFER SERVICING TO
QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the product.

The information bubble is intended to alert the user to helpful or optional operational instructions in the literature accompanying the product.

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this product near water.

6. Clean only with a dry cloth.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install or place this product near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of a polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.

11. Only use attachments/accessories specified by Atlona.

12. To reduce the risk of electric shock and/or damage to this product, never handle or touch this unit or power cord if your hands are wet or damp. Do not expose this product to rain or moisture.

13. Unplug this product during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.

FCC Statement

FCC Compliance and Advisory Statement: This hardware device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed or used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) reorient or relocate the receiving antenna; 2) increase the separation between the equipment and the receiver; 3) connect the equipment to an outlet on a circuit different from that to which the receiver is connected; 4) consult the dealer or an experienced radio/TV technician for help. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.

Table of Contents

Introduction

The Atlona **AT-UHD-SW-510W** is a 5x1 multi-format switcher with wireless presentation capability. It provides universal BYOD (bring your own device) compatibility with HDMI, DisplayPort, and USB-C inputs, plus wireless connectivity for mobile devices. The SW-510W is HDCP 2.2 compliant, and features an HDMI output and a mirrored HDBaseT™ output that can be used with the Atlona AT-UHD-EX-100CE-RX-PSE HDBaseT receiver. It also includes automatic input switching and automatic display control capability, both applicable to wired and wireless source connections. This unique multi-format switcher and wireless gateway provides a universal connectivity solution for presentation devices in a wide range of professional AV applications.

The USB-C port on the SW-510W is ideal for newer Mac®, Chromebook™, and Windows® PCs. All inputs and the local HDMI output are compatible with video signals up to 4K/UHD @ 60 Hz with 4:4:4 chroma sampling, as well as data rates up to 18 Gbps. For integration convenience and flexibility, simultaneous 18 Gbps HDMI and 10.2 Gbps HDBaseT outputs make the SW-510W ideal for various presentation scenarios such as primary and confidence displays in a corporate auditorium or lecture hall. The HDBaseT output extends video, audio, control, and Ethernet up to 100 meters.

Features

- 5x1 universal AV switcher

- Wireless AV gateway

- Native platform-based, wireless interfacing

- Secure wireless access and content sharing

- Automatic input selection and automatic display control

- USB-C charging for laptops, tablets, and smartphones

- 4K/UHD capability @ 60 Hz with 4:2:0 chroma subsampling, plus support for 4K/60 4:4:4 and HDR formats on local ports (HDMI, USB-C, and DisplayPort)

- Mirrored HDMI and HDBaseT outputs

- HDCP 2.2 compliant

Package Contents

1 x AT-UHD-SW-510W
1 x Captive screw connector, 5-pin
1 x Captive screw connector, 4-pin
2 x Captive screw connector, 3-pin
2 x Wi-Fi antenna modules
1 x USB-C cable, 2 meters
1 x 24V DC power supply
2 x Mounting plates
4 x Mounting screws
1 x Installation Guide

Panel Description

Front

Rear
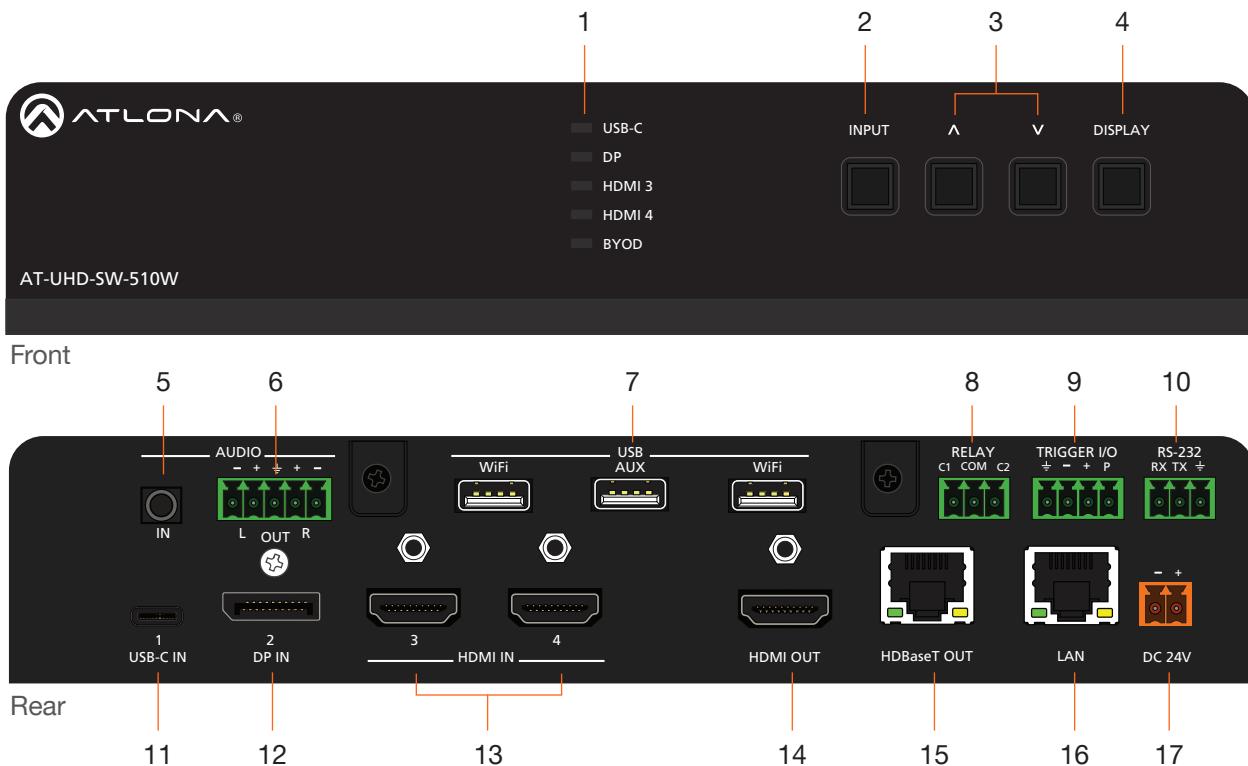
1 **Input Indicators**
Displays the currently selected input.

2 **INPUT**
Press this button to cycle through each input.

3 **Cursor Buttons**
Adjust the volume on the display.

4 **DISPLAY**
Press this button to toggle the power state of the desired display.

5 **AUDIO IN**
Connect a 3.5 mm mini-stereo cable from an analog audio source to this connector.

6 **AUDIO OUT**
Use the included captive screw connector to connect a balanced audio device.

7 **USB**
Connect the included Wi-Fi antenna to either **WiFi** ports. The **AUX** port is reserved.

8 **RELAY**
Connect one of the included 3-pin captive screw connectors to this port to control screens, drapes, lights, or other devices.

9 **TRIGGER I/O**
Connect voltage-controlled device to this port. A 4-pin captive screw connector is required.

10 **RS-232**
Use the included captive screw connector to connect an RS-232 controller or automation system.

11 **USB-C**
Connect a USB-C cable from this port to a USB-C source.

12 **DP IN**
Connect a DisplayPort device to this port.

13 **HDMI IN**
Connect an HDMI cable from each of these ports to a UHD/HD source.

14 **HDMI OUT**
Connect an HDMI cable from this port to an HD/UHD display.

15 **HDBaseT OUT**
Connect to a locally powered HDBaseT receiver such as the AT-UHD-EX-100CE-RX-PSE.

16 **LAN**
Connect an Ethernet cable from this port to the network.

17 **DC 24V**
Connect the included power supply to this port using the included 2-pin captive screw connector.

Installation

RS-232

The AT-UHD-SW-510W provides RS-232 control 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 Phoenix block. If using non-tinned stranded wire, presss the orange tab, above the terminal, while inserting the exposed wire.   Repeat this step for the TX, RX, and GND connections.
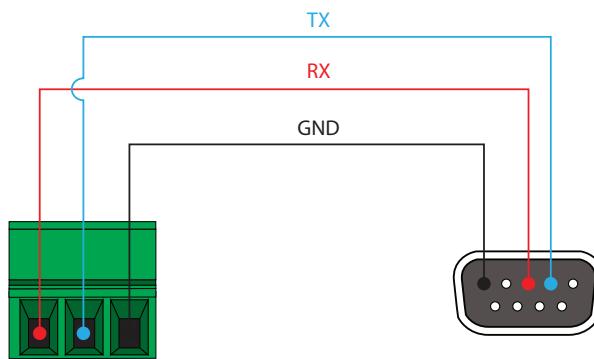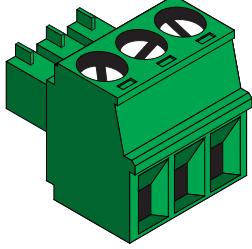
Audio

The **AUDIO OUT** connector on the AT-UHD-SW-510W provides a separate output for balanced audio using XLR connectors. Use the included 5-pin Phoenix terminal block. Balanced audio connections use two signal wires and a ground to minimize interference in audio signals. Unbalanced output audio is not supported.
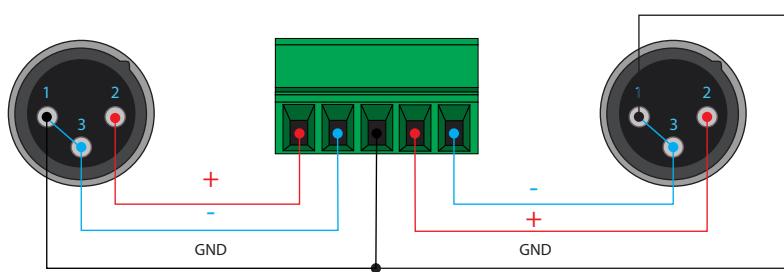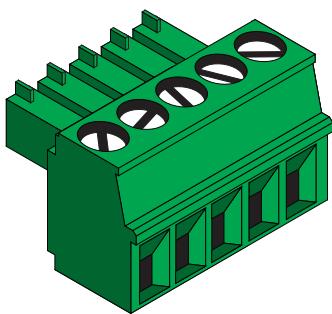
Power

Locate the included orange Phoenix terminal block and wire the included power supply to the block, as shown below. Do not use high-torque devices, when securing the wires to the Phoenix terminal block, as this may damage the screws and/or block.

1. Insert the wires into the correct terminal on the included Phoenix block, as shown below.

2. Tighten the screws to secure the wires. Do not use high-torque devices as this may damage the screws and/or connector block.

Black (negative)

24 V

White (positive)
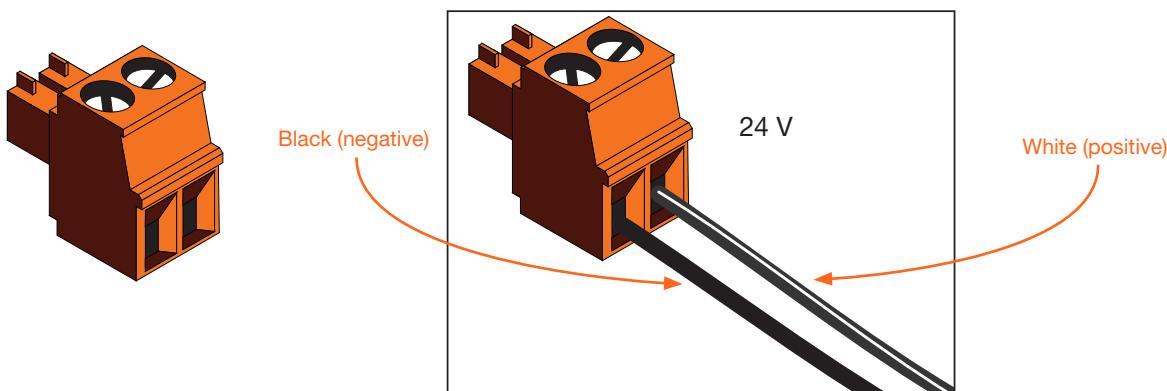
Connection Instructions

1. Connect a USB-C cable from a source to the **USB-C (1)** port.

2. Connect a DisplayPort cable from a source to the **DP IN (2)** port.

3. Connect up to two UHD/HD sources, using HDMI cables, to the **HDMI IN (3)** and **HDMI IN (4)** ports.

4. Connect an HDMI cable from the **HDMI OUT** port to a UHD/HD display.

5. Connect up to two USB wireless antenna modules to the identified **USB (WiFi)** ports, below.
    Two USB wireless antennas are included. **WiFi** (1) supports Google Cast™ and Apple AirPlay®. **WiFi** (2) supports Miracast™, only. The **AUX** port is reserved for obtaining the IP address of the unit. Refer to 10 for more information.

> ⚠ **IMPORTANT:** Only use Atlona Wi-Fi USB modules. Other Wi-Fi modules may not be supported by this product.

1   2

AUDIO | USB | RELAY | TRIGGER I/O | RS-232
WiFi | AUX | WiFi | C1 COM C2 | ⏚ − + P | RX TX ⏚

IN | OUT | 1 USB-C IN | 2 DP IN | 3 | 4 HDMI IN | HDMI OUT | HDBaseT OUT | LAN | DC 24V
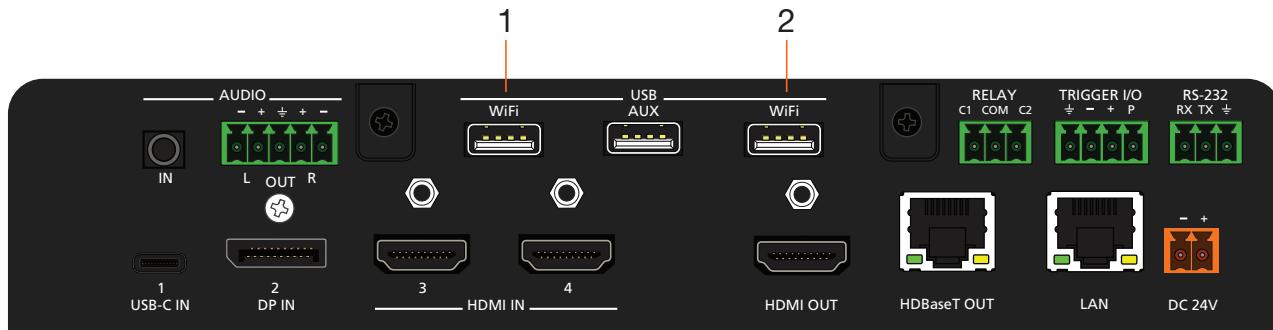
6. Connect a 3.5 mm analog audio cable from an analog source to the **AUDIO IN** port. This audio source can be used to embed analog audio on any of the input sources.

7. Connect an Ethernet cable from the **LAN** port to the Local Area Network (LAN).

8. Connect an Ethernet cable from the **HDBaseT** port to an HDBaseT receiver unit, such as the AT-UHD-EX-100CE-RX-PSE.

9. Connect the included green 5-pin captive screw connector to the **AUDIO OUT** connector.

10. Connect the included orange captive screw connector block to the **DC 24V** connector.

11. Connect the included power supply to an available AC outlet.

12. Follow the on-screen instructions to complete the installation procedure.

Connection Diagram
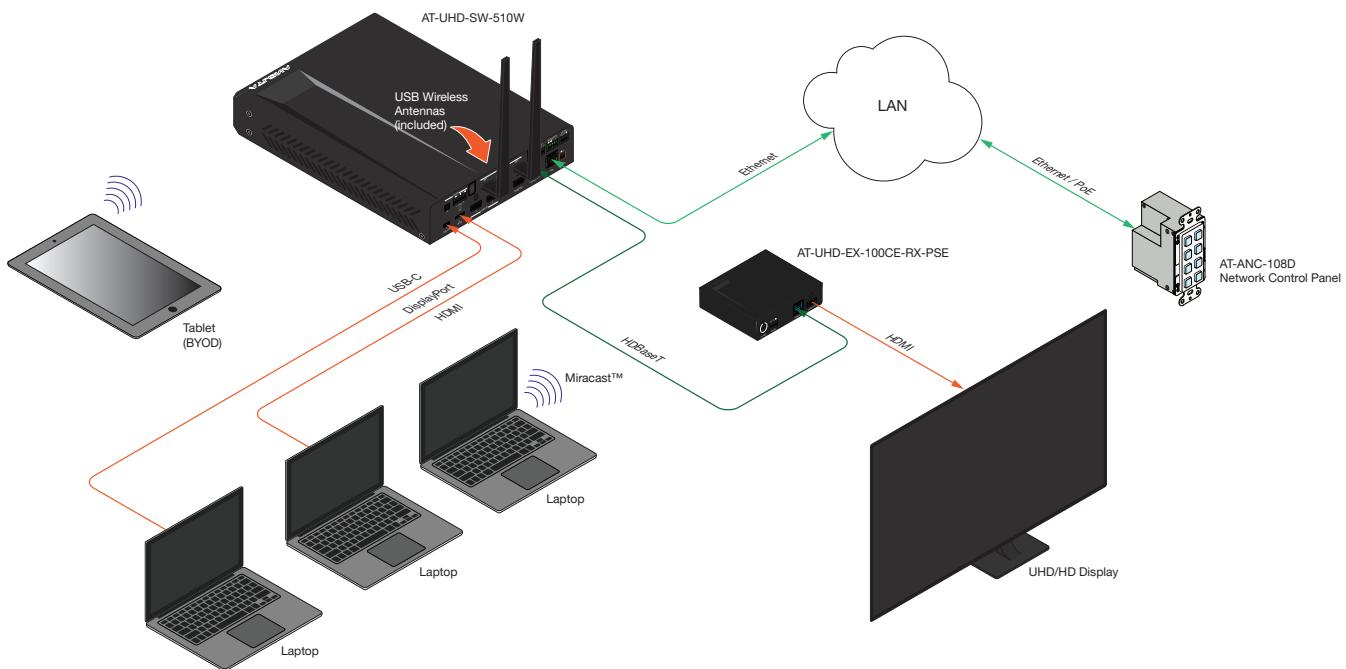
IP Configuration

The AT-UHD-SW-510W is shipped with DHCP enabled. Once connected to a network, the DHCP server (if available), will automatically assign an IP address to the unit. Use an IP scanner, along with the MAC address on the bottom of the unit, to identify both the unit and its IP address on the network.

If the AT-UHD-SW-510W is unable to detect a DHCP server within 15 seconds, then the unit will use a self-assigned IP address within the range of 169.254.xxx.xxx. If this occurs, refer to .

If a static IP address is desired, the unit can be switched to static IP mode. Use one of the following procedures to switch between DHCP and static IP mode. The default static IP address of the AT-UHD-SW-510W is 192.168.1.254.

Switching the IP Mode Using the Front Panel

1. Make sure the AT-UHD-SW-510W is powered.

2. Press and hold the **INPUT** button for approximately 15 seconds.
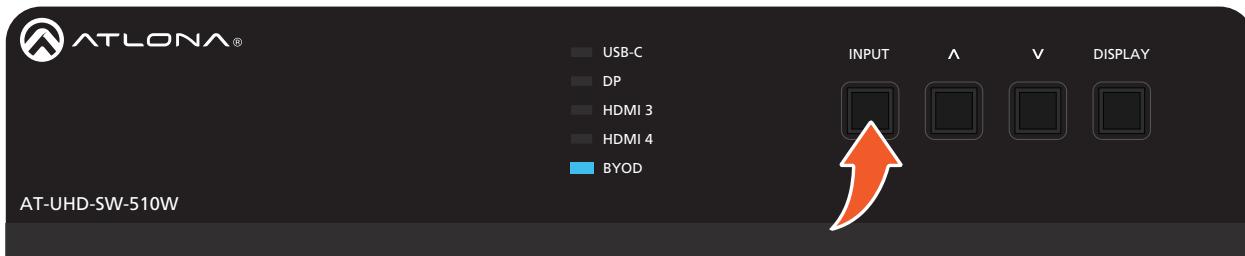
3. Release the **INPUT** button. All the front-panel LED indicators will begin to flash, then the unit will reboot. The number of flashes will indicate the currently selected IP mode:

PW LED flashes	Description
Two	DHCP mode
Four	Factory Static IP mode (IP address set to 192.168.1.254)

Getting the IP Address

1. Make sure the unit is powered.

2. Insert a USB drive into the **AUX** port.

3. Wait approximately 10 seconds.

4. Remove the USB drive from the **AUX** port insert the drive into an available USB port on a computer.

5. Two files will be present on the USB drive. One file is formatted for Windows and the other is formatted for Linux.

    Windows: AtlonaReport-Win-GWB-20170821200241.txt
    Linux: AtlonaReport-Unix-GWB-20170821200241.txt

6. Double-click the desired file to open it. Information, similar to the following, will be displayed:

    Ethernet #1
        IP : 192.168.41.68
        MAC : B8:98:B0:05:7E:73

    Ethernet #2
        IP : 169.254.7.58
        MAC : B8:98:B0:05:7E:72

7. The IP address of the AT-UHD-SW-510W is listed under Ethernet #1.

Setting the IP Address using the Web GUI

The System page (page 32) in the web GUI, allows the AT-UHD-SW-510W to use either DHCP or static IP mode. In order to access the web GUI, the IP address of the AT-UHD-SW-510W must be known.

1. Open the desired web browser and enter the IP address of the AT-UHD-SW-510W.

2. Log in, using the required credentials. The factory-default username and password are listed below:

    Username: admin
    Password: Atlona

3. Click **Administration** > **Networking > Ethernet**.
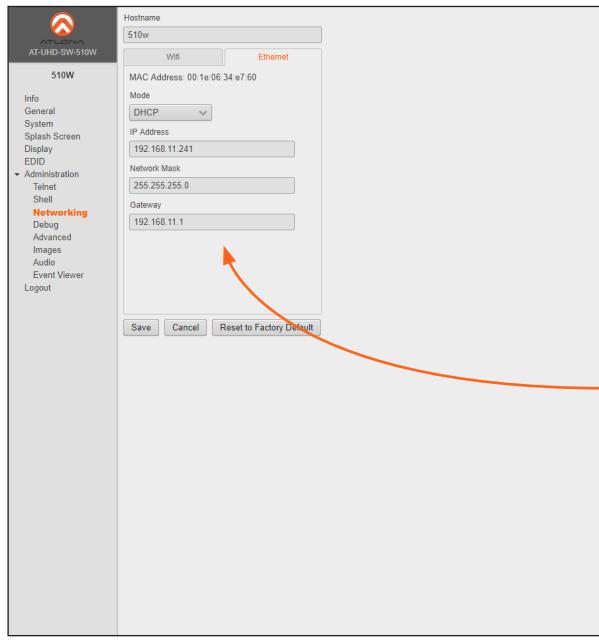
4. Click the **Mode** drop-down list and select **DHCP**, **Static**, or **Factory Static**. Refer to the Networking page (page 38) for more information.

    When set to **Static**, the **IP**, **Network Mask**, and **Gateway** fields can be modified.

5. Click the **Save** button to save the changes.

Auto IP Mode

If the AT-UHD-SW-510W is unable to detect a DHCP server within 15 seconds, then the unit will use a self-assigned IP address within the range of 169.254.xxx.xxx. If this occurs, connect the AT-UHD-SW-510W to a computer running Microsoft Windows® and follow the procedure below.

1. Click **Start** > **Settings** > **Control Panel** > **Network and Sharing Center**.

2. Click **Change adapter settings**.

3. Right-click on the adapter that is used to establish a wired connection to the network, and select **Properties** from the context menu.

4. Under the **Ethernet Properties** dialog box, select **Internet Protocol Version 4** and then click the **Properties** button.

5. Click the **Use the following IP address** radio button.

> ⚠️ **IMPORTANT:** Before continuing, write down the current IP settings in order to restore them, later. If **Obtain an IP address automatically** and **Obtain DNS server automatically** are selected, then this step is not required.

6. Enter the desired static IP address or the IP address provided by the network administrator. If the PC does not require Internet access or if a statically-assigned IP address is being used, then an IP address of 169.254.xxx.xxx can be entered.

7. Set the subnet mask to 255.255.0.0.

8. Click the **OK** button then close all **Control Panel** windows.

Resetting to Factory-Default Settings

If necessary, the AT-UHD-SW-510W can be reset to factory-defaults from the front panel. Press and hold the **DISPLAY** button for 15 seconds to reset the AT-UHD-SW-510W to factory-default settings. Note that the AT-UHD-SW-510W will be placed in DHCP mode, as part of the reset procedure. The AT-UHD-SW-510W can also be reset through the web GUI. Refer to for more information.

Basic Operation

Boot Sequence

1. After the power supply has been connected to the AT-UHD-SW-510W, the input indicators on the front panel will begin to flash, in an up-and-down pattern, as shown by the arrows.
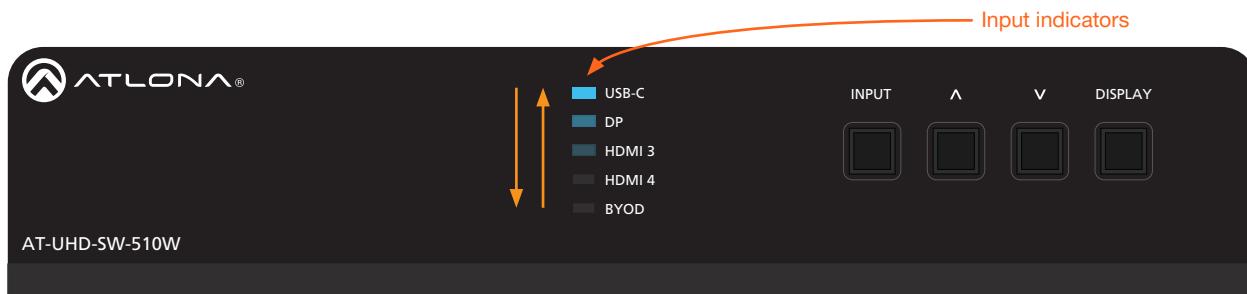
Input indicators

2. After about 45 seconds, the standby screen will be displayed.

3. Once the boot sequence is complete, the splash screen will be displayed and the **BYOD** input indicator will be illuminated.

Standby screen

Splash screen

The splash screen will show the OSD (On-Screen Display). The splash screen will display instructions on connecting devices wirelessly or by connecting directly to the AT-UHD-SW-510W, using cables. The SSID or the AT-UHD-SW-510W will be displayed at the bottom of the screen.

4. The unit is now ready for use. The entire boot process takes approximately two minutes to complete.
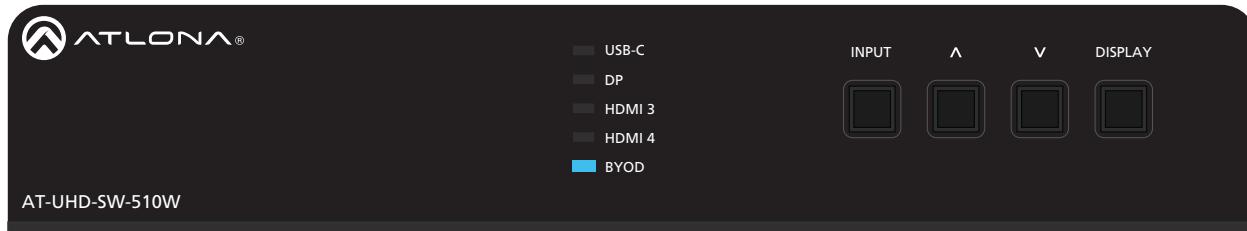
Ready state

Selecting the Input

Press the **INPUT** button to cycle through each of the available inputs on the unit. If the unit is powered-off, then powered-on, the AT-UHD-SW-510W will set the default input to **BYOD**.
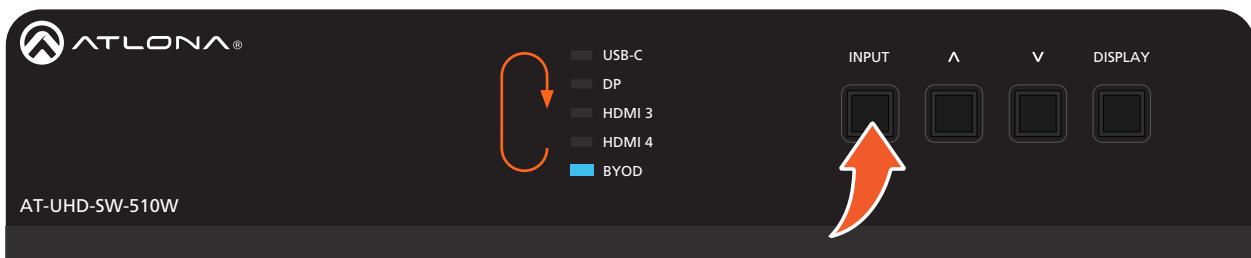
Wireless Configuration

The AT-UHD-SW-510W features a wireless gateway, providing convenient Wi-Fi® connectivity for an iOS, Android, Mac, Chromebook, or Windows-based device, and a built-in web GUI. In addition, the AT-UHD-SW-510W can be configured as a wireless access point (AP). The addition of a built-in firewall provides control of incoming and outgoing network traffic.

Access Point Mode

When configured as an Access Point (AP), users will be able to connect wireless devices to the AT-UHD-SW-510W.

1. Make sure the AT-UHD-SW-510W is configured properly for use on a wired network. Refer to IP Configuration (page 13) for more information.

2. Launch a web browser and enter the IP address of the AT-UHD-SW-510W in the address bar.

3. Login to the web GUI. Refer to Introduction to the Web GUI (page 28) for more information.

4. Click **Administration** > **Networking** from the menu bar on the left.

5. Under the **Wifi** tab, select Access Point from the **Mode** drop-down list.
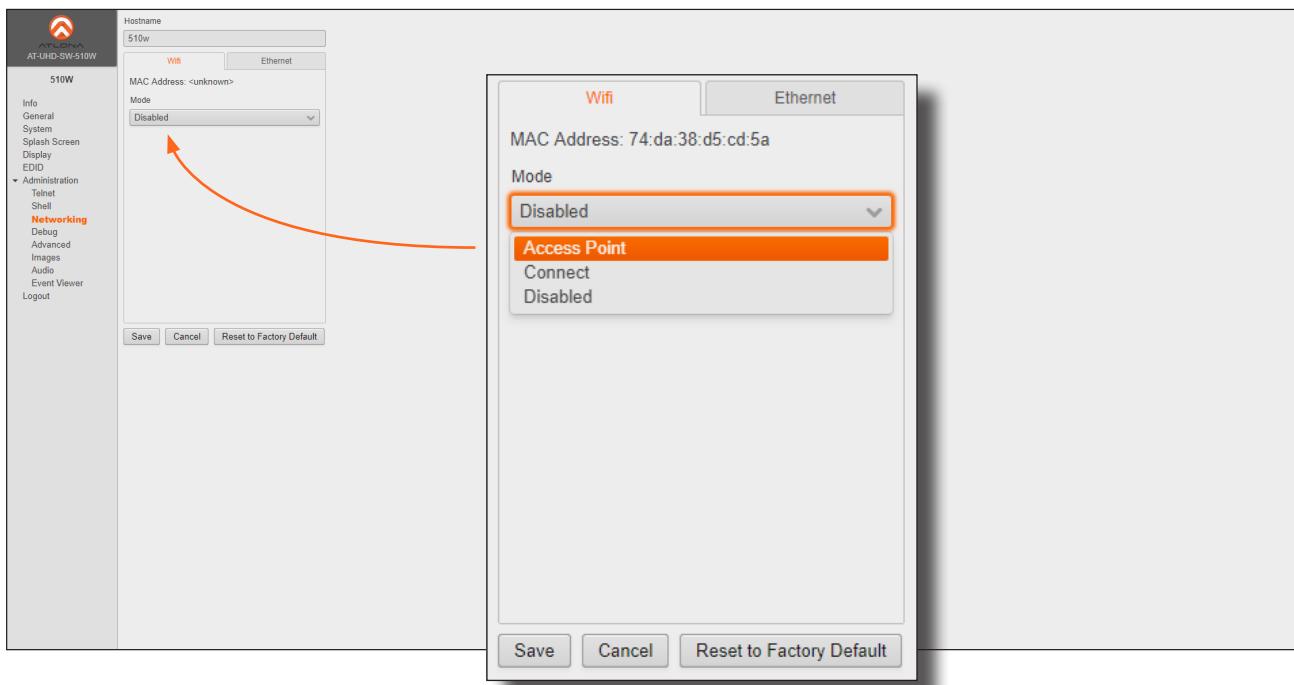
6. The name of the wireless network will appear in the **SSID** field. This name is identical to the text in the **Derived** field, under the General page (page 31). To change the SSID, go to the **General** page and modify the **Name** field.
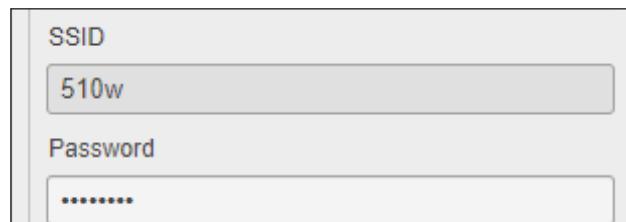
7. The name of the wireless network will appear in the **SSID** field. This name is identical to the text in the **Derived** field, under the General page (page 31). To change the SSID, go to the **General** page and modify the **Name** field.

8. Enter the password in the **Password** field.
    This password will be required by clients connecting to the AT-UHD-SW-510W.

9. Click the **Hide Password** check box to mask the password. When the password is masked, the text in the Password field will appear as asterisks.

10. Enter the wireless channel number in the **Channel** field. Contact the network administrator if necessary.

Firewall Mode (optional)

This feature allows control of incoming and outgoing network traffic. The AT-UHD-SW-510W provides the following firewall modes: Block Private Network, Block Internet, Block All, and None. If this feature is not desired, then skip to Step 12. The firewall can be configured or disabled at any time. The default setting is None.

11. Click **Firewall Mode** drop-down list and select the desired option.

Setting	Description
None (default)	Select this option to disable the firewall on the AT-UHD-SW-510W and allow all incoming and outgoing network traffic.
Block Private Network	Select this option to prevent unauthorized clients from accessing the AT-UHD-SW-510W.
Block Internet	Allows wireless access to the AT-UHD-SW-510W but prevents Internet access (Google, YouTube, etc).
Block All	All outbound network traffic is blocked.

12. Click the **Save** button to accept and save all changes.

Connect Mode

To connect the AT-UHD-SW-510W to another wireless network, select the **Connect** Mode.

1. Launch a web browser and enter the IP address of the AT-UHD-SW-510W in the address bar.

2. Login to the web GUI. Refer to Introduction to the Web GUI (page 28) for more information.

3. Click **Administration** > **Networking** from the menu bar on the left.

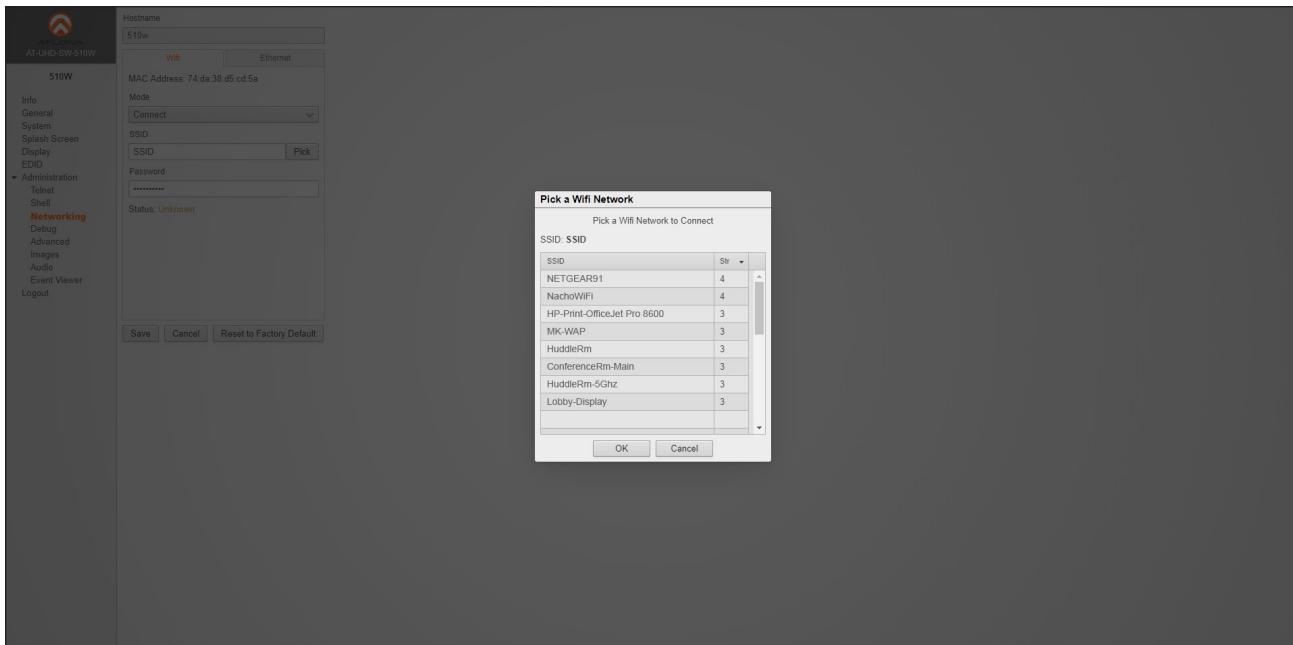4. Under the **Wifi** tab, select Connect from the **Mode** drop-down list.
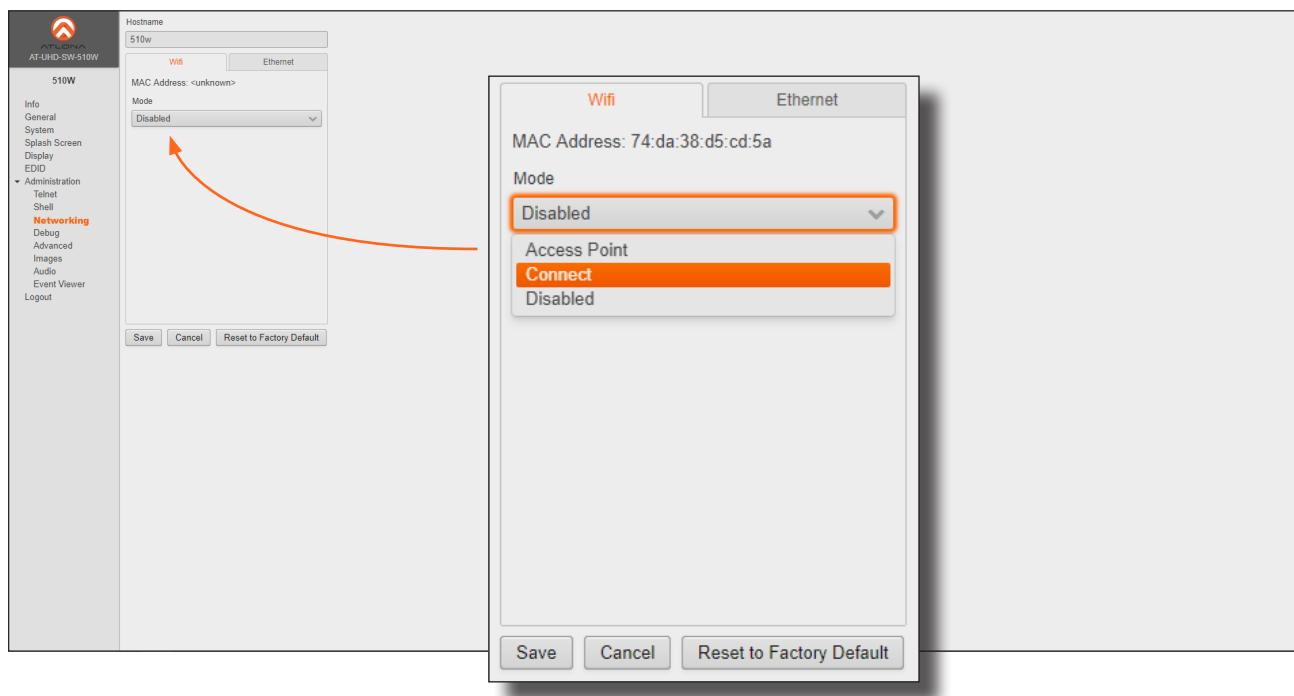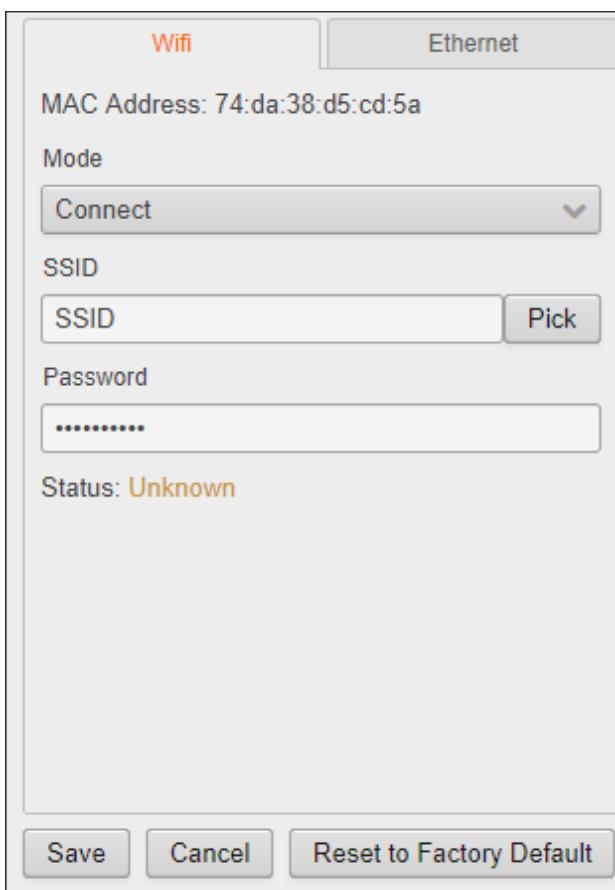

5. Click the **Pick** button.
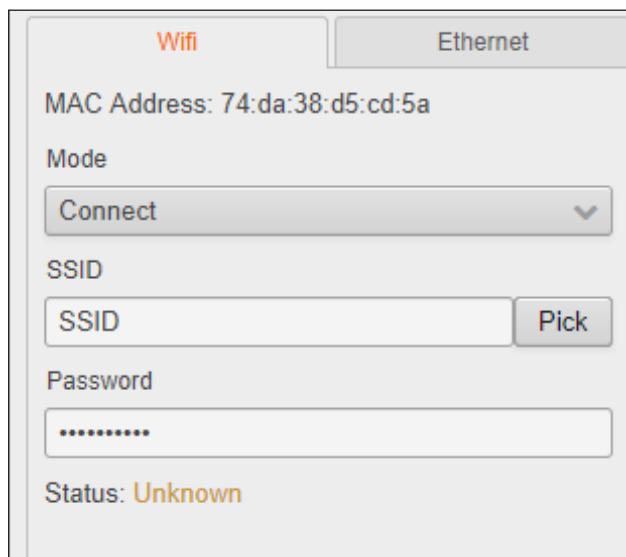
6. Select the desired wireless network from the pop-up dialog box.

7. Click the **OK** button to accept the selection and dismiss the dialog box. Click the **Cancel** button to return to close the dialog and return the Wifi tab.

8. Enter the password for the wireless network in the **Password** field.

9. Click the **Save** button to attempt to connect to the wireless network.

Once a successful connection has been established, the **Status** field will display Connected, as shown below.
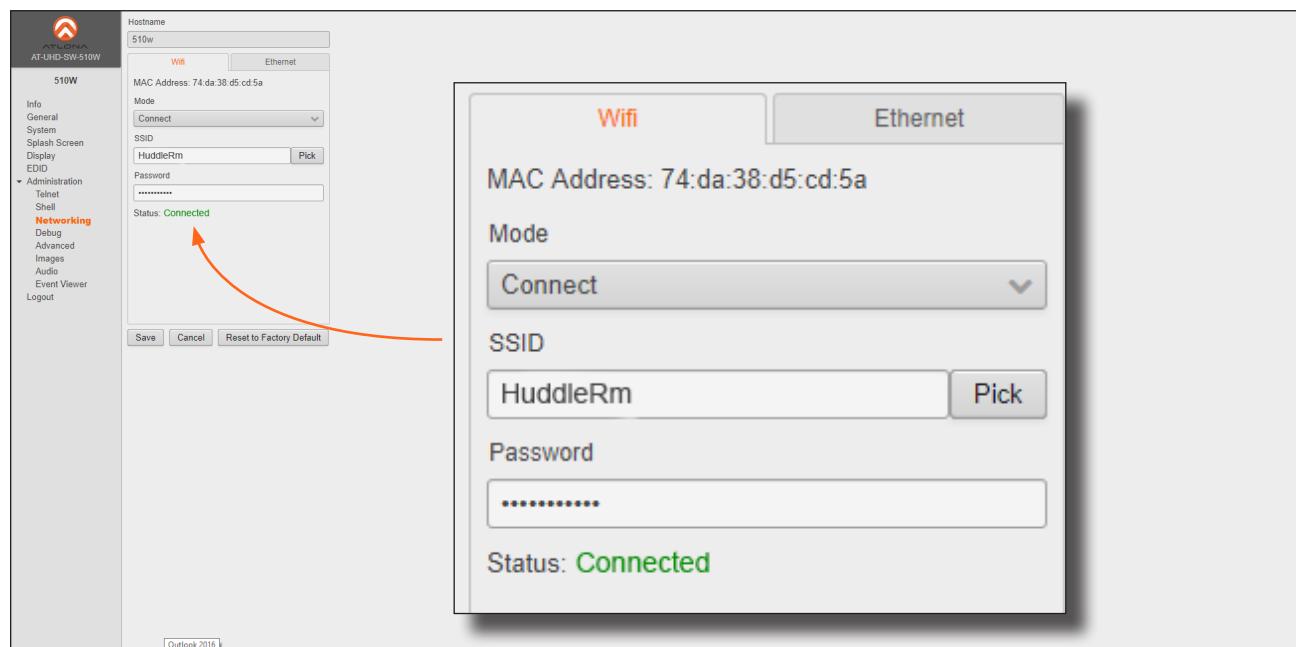
The following table provides a list of possible status messages.

State	Description
Connected	The AT-UHD-SW-510W is connected to the wireless network.
Not Connected	Unsuccessful connection. Check to make sure the password was entered correctly. This state will also occur if the wireless network, to which the AT-UHD-SW-510W is connected, is taken offline.
Unknown	The network state is unknown. This message is displayed if the AT-UHD-SW-510W has not been configured to connect with a wireless network.

Casting

The AT-UHD-SW-510W interface provides the ability to transmit ("cast") the screen of any iOS®, Android™, macOS®, Chromebook, or Windows device over Wi-Fi, without having to install a separate application or driver. The AT-UHD-SW-510W can serve as an integrated, dual-band access point, or be networked into an existing Wi-Fi installation.

NOTE: The AT-UHD-SW-510W can support a maximum of 254 wireless connections. However, only one wireless device can display an image on the connected display, at a time.

iOS Devices

AirPlay® is only supported on iOS 5 or higher.

1. Select the **BYOD** input on the AT-UHD-SW-510W.

2. On the iOS device, go to **Settings** > **Wi-Fi**.

3. Under **Wi-Fi**, select the SSID of the AT-UHD-SW-510W in the list of available devices. The SSID is displayed on the splash screen. See Boot Sequence (page 16) for more information on locating the SSID.
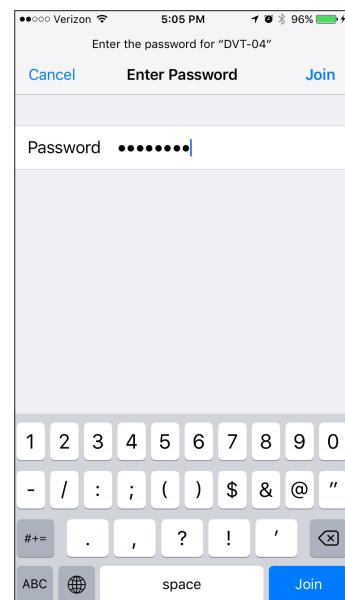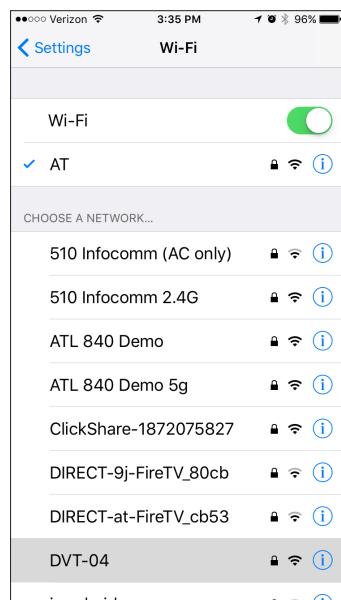
4. Enter the password for the device. The default password is 88888888.

5. Once connected, swipe-up on the bottom of the iOS device to display the **Control Center**.

6. Tap the **AirPlay Mirroring** option to display a list of available AirPlay® devices.

    Note that if the iOS device is running 11.0.3 or later, the **AirPlay** option has been changed to **Screen Mirroring**.

iOS 10

iOS 11.0.3 or later

7. Tap the SSID from the list of devices.

8. Close the **Control Center** by either swiping down or pressing the **Home** button.

9. The image of the iOS device will now appear on the connected display.

   Note that depending upon the application, the image on the screen can be rotated. For example, when using the camera app, if the iOS device is rotated 90 degrees, the camera's orientation will be reflected on the display.
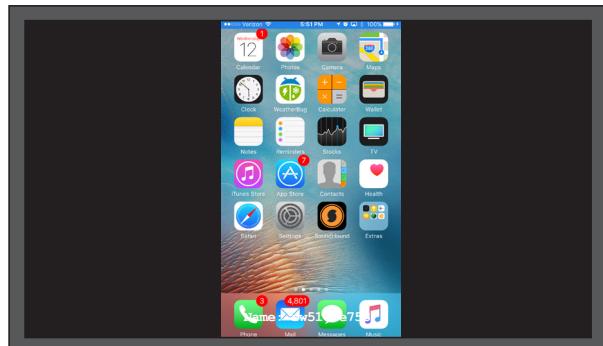
macOS

AirPlay is only supported on Mountain Lion 10.8 or later. To determine if AirPlay is supported, click **System Preferences** > **Displays**. If the "Show mirroring options in the menu bar when available" check box is not displayed, then AirPlay is not supported.

1. Click the **Wi-Fi** icon in the menu bar and select the SSID of the AT-UHD-SW-510W. If the **Wi-Fi** icon is not displayed, then refer to the Macintosh documentation for information on setting up a Wi-Fi connection.

2. Enter the password for the Wi-Fi network, then click the **Join** button. The default password is 88888888.
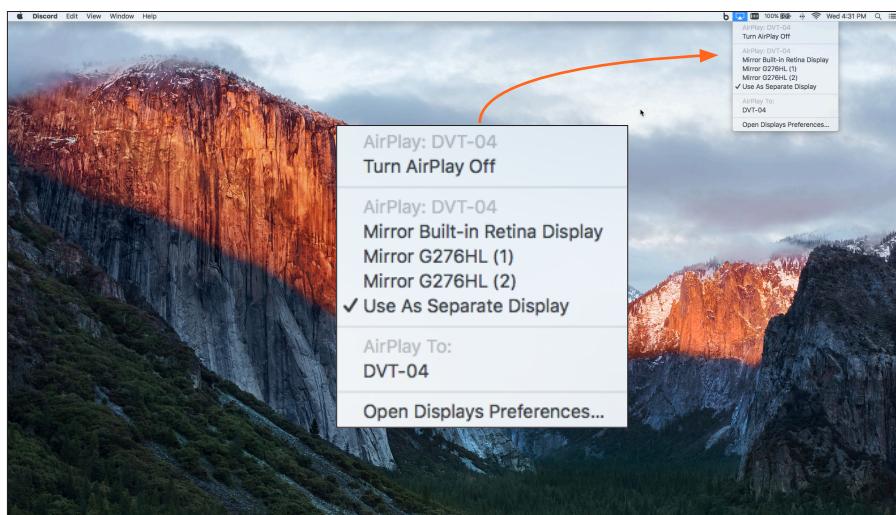
AirPlay can be used to either mirror or extend the Mac display.

- **Mirroring**
  Click the AirPlay icon in the menu bar and select the desired display to be mirrored.

- **Extending**
  Click the AirPlay icon and select "Use As Separate Display" from the list of displays, to extend the Desktop to another display.

- **Turning Off AirPlay**
  Click the AirPlay icon and select "Turn AirPlay Off".

  AirPlay can also be turned off by clicking **System Preferences** > **Displays**. Click the **AirPlay Display** drop-down list and select "Off". To re-enable AirPlay, select the device from the drop-down list.
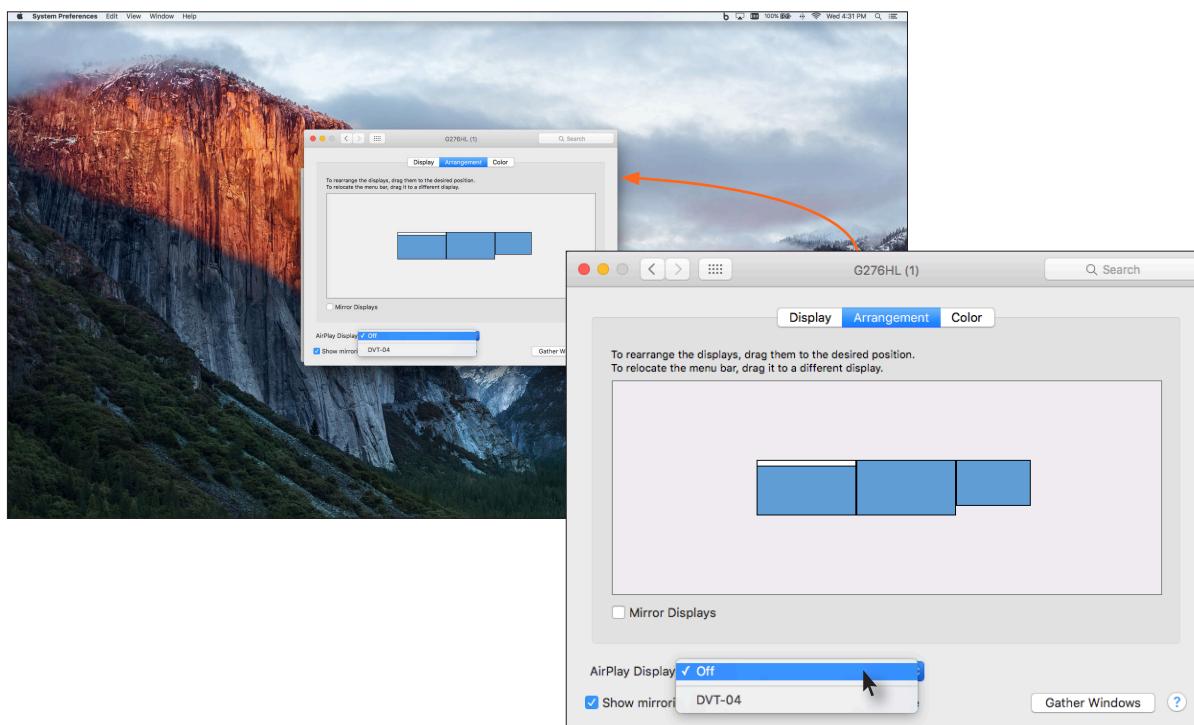
Android

Casting on Android devices is only available on Android 4.4.2 or higher.

> **NOTE:** Although there are different ways to cast from an Android device, the easiest method is through the Google Home App.

1. Select the **BYOD** input on the AT-UHD-SW-510W.

2. Connect the Android device to the SSID of the AT-UHD-SW-510W. See Boot Sequence (page 16) for more information on locating the SSID of the AT-UHD-SW-510W..

3. Download and open the **Google Home** app.

4. In the top-left corner, tap **Menu** ≡ > **Cast Screen / audio**.
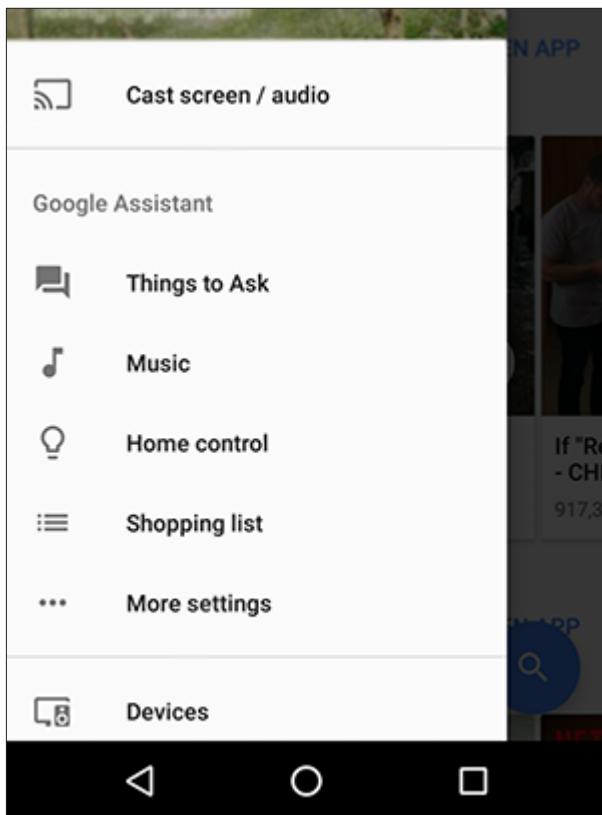
- Select **Cast Screen** to mirror both screen and audio to the device.

- Select **Cast Audio** to mirror the audio, only.

Microsoft Miracast

Miracast is a wireless protocol that allows content to be transmitted from laptops and other mobile devices to displays. The latest release of Microsoft Windows® 10 supports Miracast along with UIBC support, which provides wireless connectivity to touch screens, mouse devices, and keyboard.

Displaying Miracast devices can be done in several ways. Two methods are presented below.

Method 1 (most direct method)

1. Press the [⊞] and [P] keys, simultaneously.

2. Click the **Connect to a display device**, on the **PROJECT** menu.
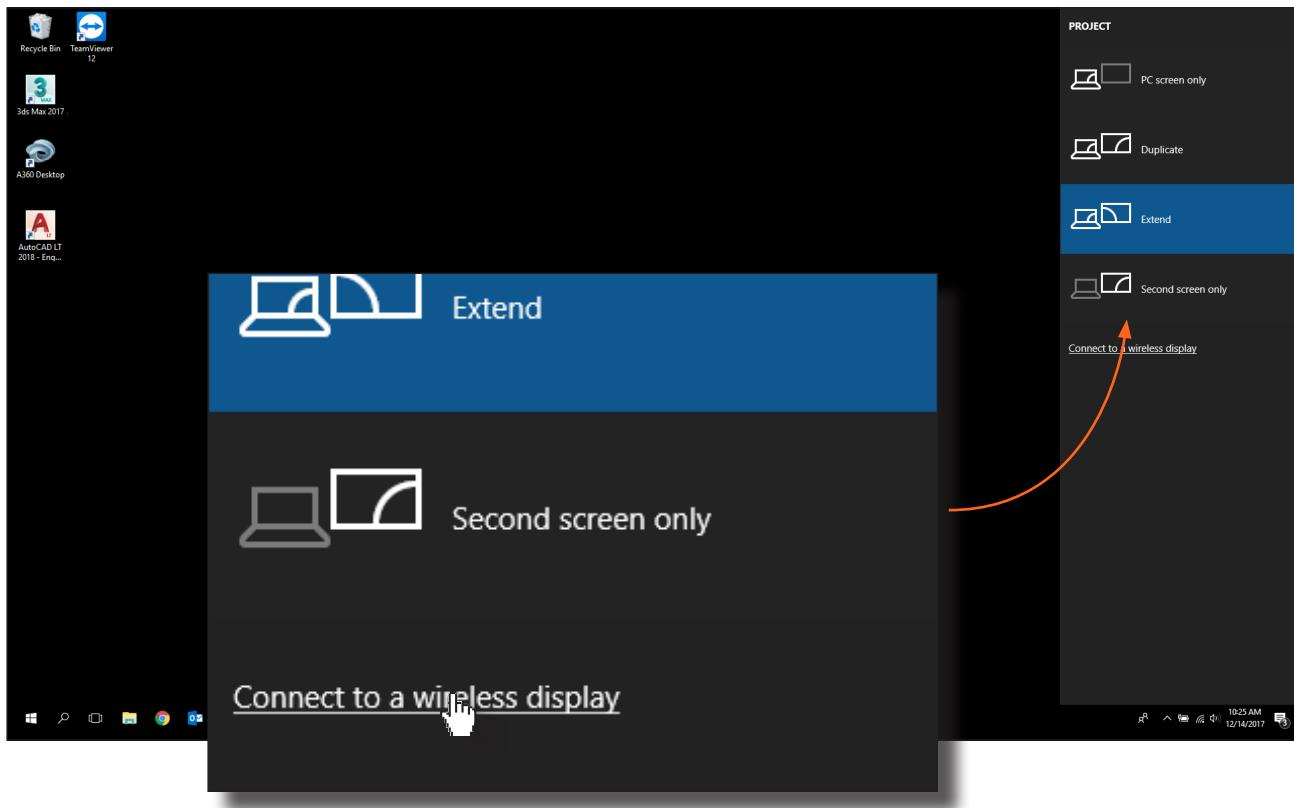
3. The **Connect** menu will be displayed, providing a list of Miracast-capable devices.

4. Select the AT-UHD-SW-510W from the list.

Method 2

1. Right -click on the Windows Desktop and select **Display Settings** from the pop-up menu.

2. In the right-hand column, scroll down, then click **Connect to a wireless display**.

Introduction to the Web GUI

The AT-UHD-SW-510W includes a built-in web GUI. Atlona recommends that the web GUI be used to set up the AT-UHD-SW-510W, as it provides intuitive management of all features. Follow the instructions below to access the webGUI.

1. Make sure that an Ethernet cable is connected between the LAN port on the AT-UHD-SW-510W 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-SW-510W **Login** page will be displayed.
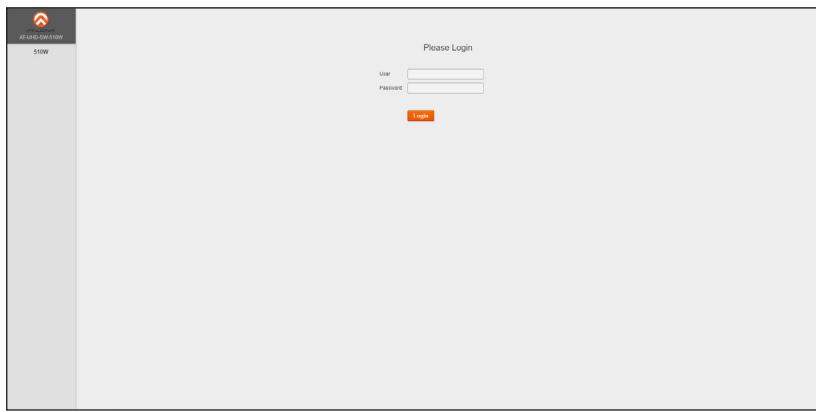
4. Type admin, using lower-case characters, in the **User** field.

5. Type Atlona in the **Password** field. This is the default password. The password field is case-sensitive. When the password is entered, it will be masked.

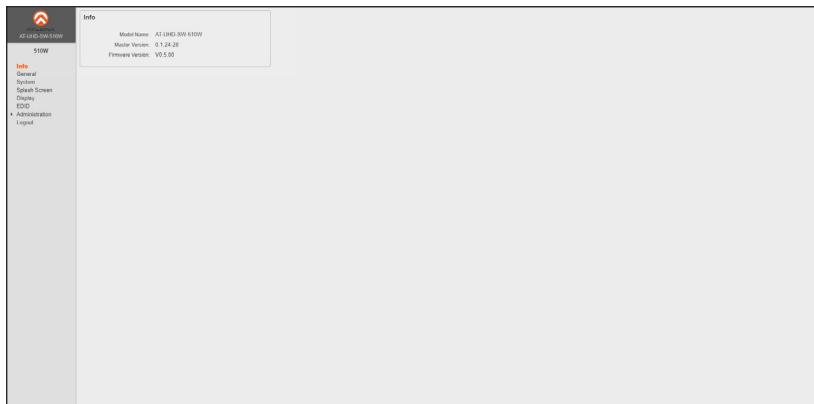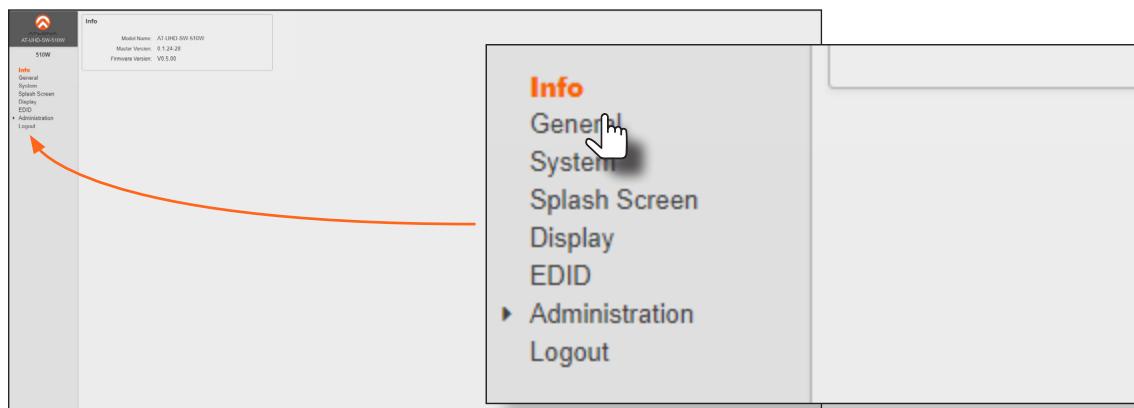6. Click the **Login** button or press the ENTER key on the keyboard.
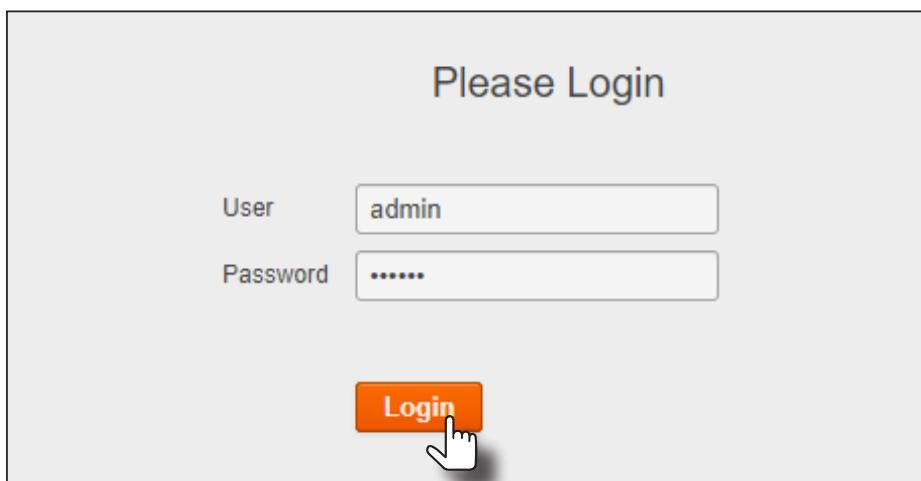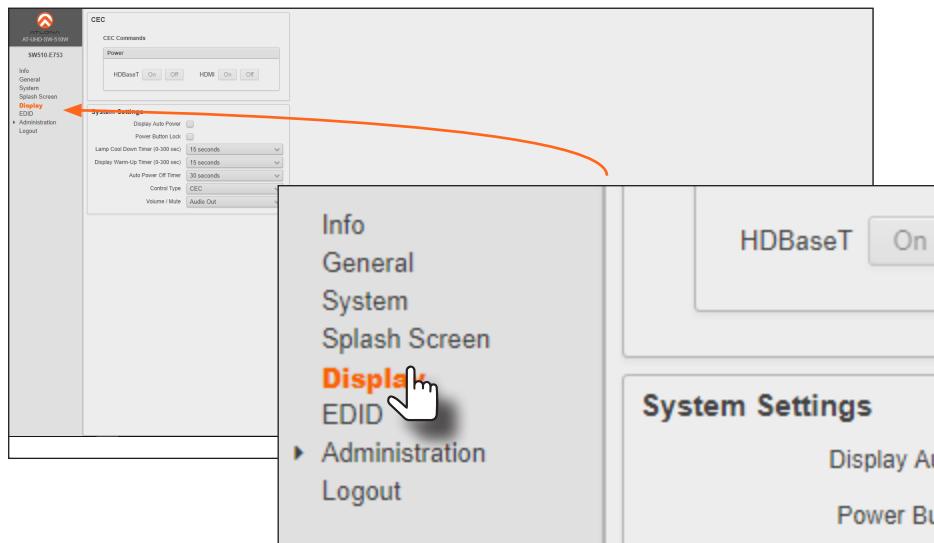
7. The **Info** page will be displayed.

Menu Bar

The window on the left side of the screen is the is the menu bar and lists all available menus. Click on the desired menu item to open that page.
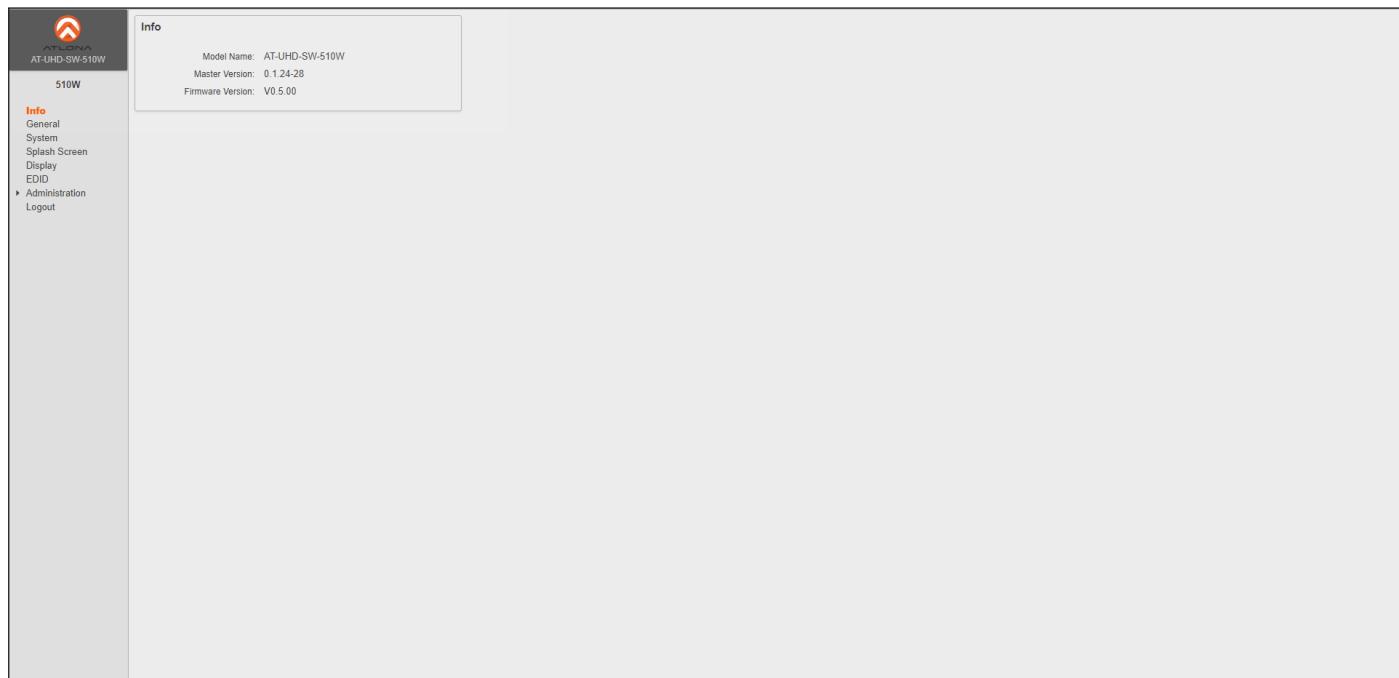

In this example, clicking **Display**, in the menu bar, will display the **Display** page.

Info page

After logging in, the Info page will be displayed. The **Info** page provides basic information about the receiver, including the model name, software version, input video timing, and the device being using as the transmitter.
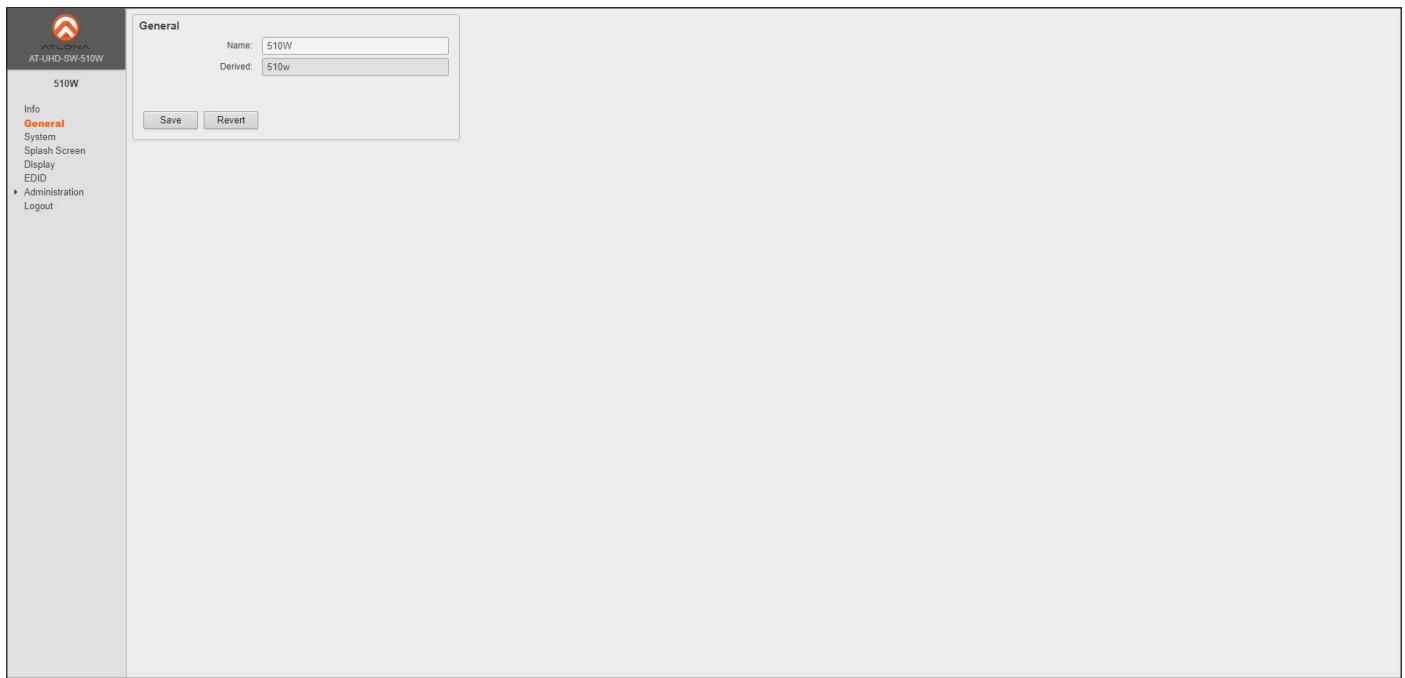

Model Name
The model SKU of this product.

Master Version
The version of firmware.

Firmware Version
The version of firmware that the AT-UHD-SW-510W is running. Always make sure to check the AT-UHD-SW-510W product page, on the Atlona web site, for the latest version of firmware.

General page

Name
Enter the desired name of the AT-UHD-SW-510W in this text field.

Derived
This field will automatically be filled-in by the AT-UHD-SW-510W. The system takes the text in the **Name** field and produced a unique system ID.
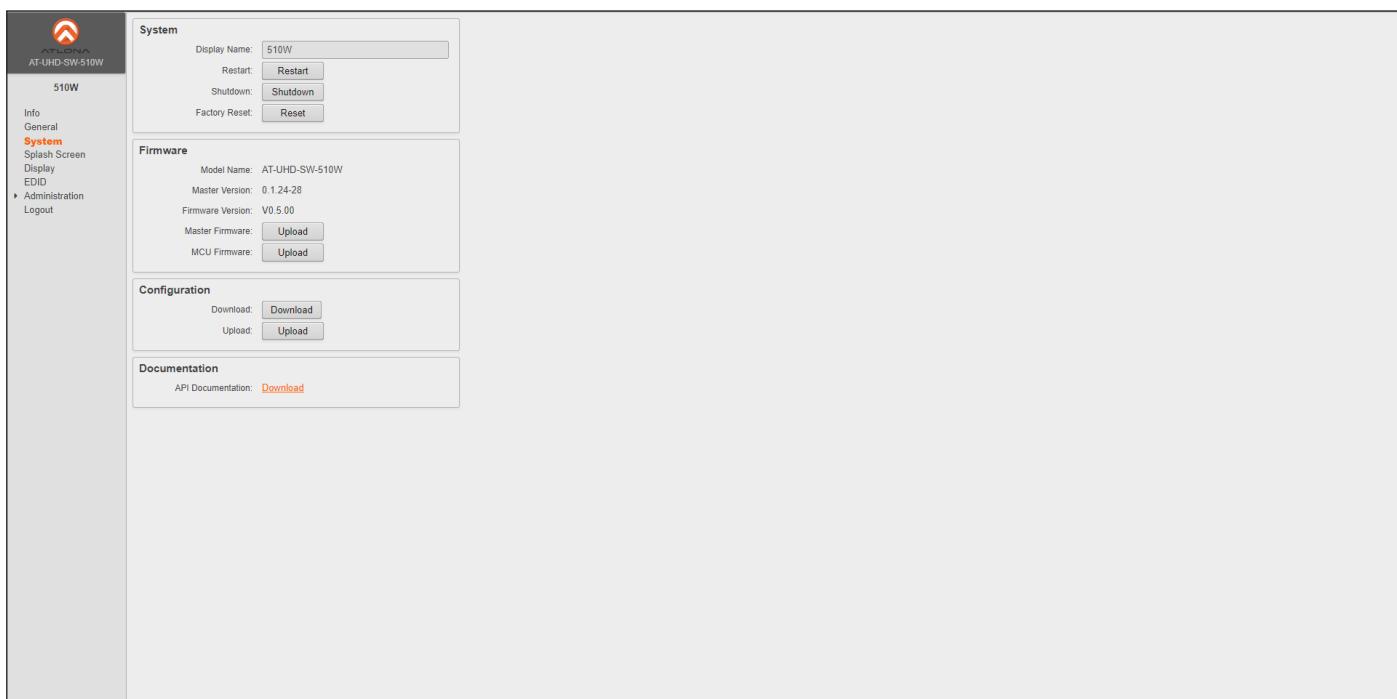
Save
Click this button to accept all changes.

Revert
Click this button to abort changes and reset the previous text in the **Name** field.

System page

Display name
The name of the display, provided in the **Name** field of the **General** tab. Refer to General page (page 31) for more information.

Restart
Click this button to restart the AT-UHD-SW-510W.

Shutdown
Click this button to shut down the AT-UHD-SW-510W. This should always be performed before disconnecting power from the unit.

Factory Reset
Click this button to reset the AT-UHD-SW-510W to factory-default settings. Resetting to factory-default setting may take up to five minutes to complete. Refer to Default Settings (page 47) for the list of default settings.

Model Name
The SKU of the product: AT-UHD-SW-510W.

Master Version
The master version of firmware. Always make sure to check the AT-UHD-SW-510W product page, on the Atlona web site, for the latest version of firmware.

Firmware Version
The version of (MCU) firmware that the AT-UHD-SW-510W is running. Always make sure to check the AT-UHD-SW-510W product page, on the Atlona web site, for the latest version of firmware.

MCU Firmware
Click this button to select the MCU firmware file, when updating the unit.

Download
Click this button to save the current configuration to a file on the connected computer.

Upload
Click this button to upload a configuration file to the AT-UHD-SW-510W. Uploading a new configuration file will overwrite the current configuration settings.

API Documentation
Click this button to open a web browser to tab for the API documentation.

Splash Screen page
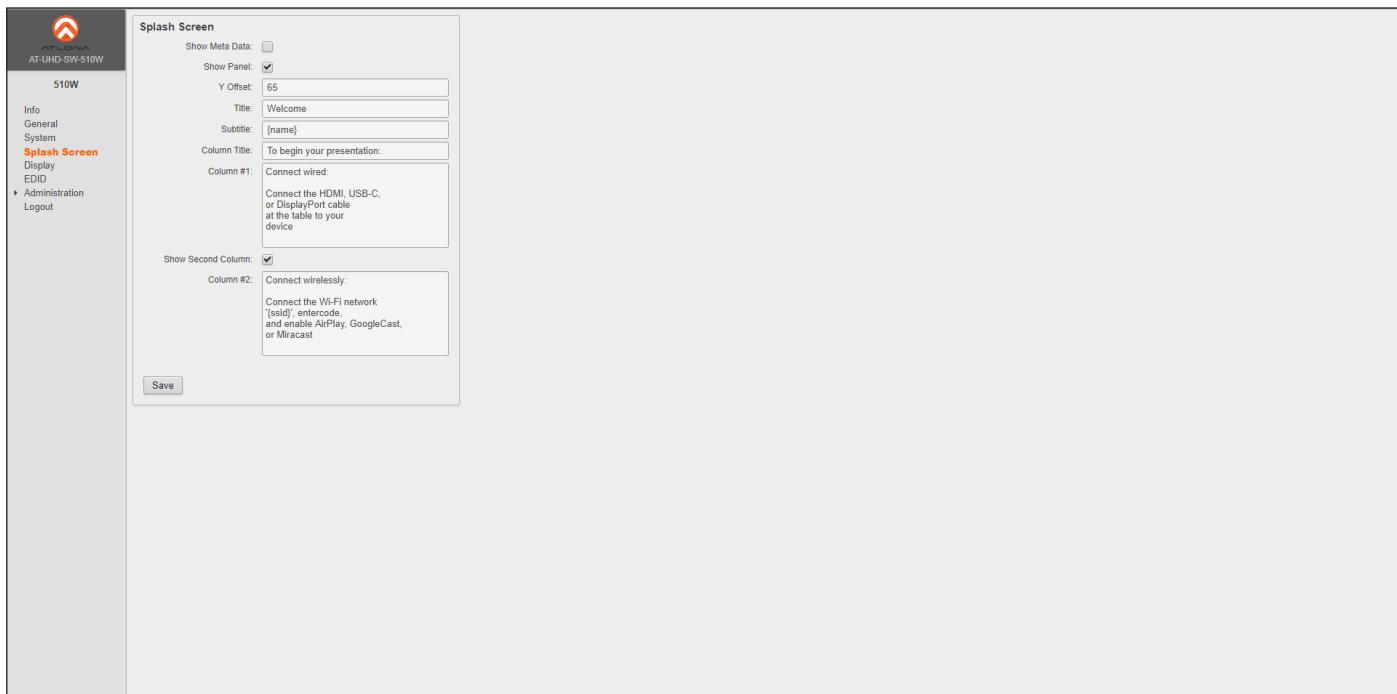
Show Meta Data
Click this checkbox to display metadata on the splash screen.

Show Panel
Check this box to display the overlay panel, containing connection instructions. Uncheck this box to hide the panel.

Y Offset
Sets the up-and-down position of the overlay panel, on the screen. A value of 0 places the overlay panel at the top of the screen.

Title
The title of the overlay panel. The default value is "Welcome".

Subtitle
The text directly under the text in the **Title** field. The default text is the name of the unit.

Column Title
The title text for the centered text, above both instruction columns. The default text is "To begin your presentation".

Column #1
The text positioned in the left column. The default text is "Connect wired: Connect the HDMI, USB-C, or DisplayPort cable at the table to your device".

Show Second Column
Check this box to display the second (right-hand) column. Uncheck this box to hide the text in this column.

Column #2
The text positioned in the right-hand column. The default text is "Connect wirelessly: Connect the Wi-Fi network", entercode, and enable AirPlay, GoogleCast, or Miracast".

Save
Click this button to accept all changes on this page.

Display page

CEC

Power

When a display is connected to the AT-UHD-SW-510W, power-on and power-off control of the display using the CEC protocol. The power-on and power-off command can also be sent over HDBaseT or HDMI.

System Settings

Display Auto Power

Click this checkbox to allow the AT-UHD-SW-510W to send the power-on command to the display when an A/V signal is detected. When the AV signal is no longer present, then the AT-UHD-SW-510W will send the power-off command to the display. If this feature is not desired, then uncheck this box. This feature is disabled by default.

Power Button Lock

Click this check box to allow the **DISPLAY** button, on the front panel, to be locked, preventing accidental operation when the product is in use. If this feature is not desired, then uncheck this box. This feature is disabled, by default.

Lamp Cool Down Timer (0 - 300 sec)

Click this drop-down list to select the lamp cool down timer interval. This value is the cool-down interval, in seconds, before the projector can be powered-off. During this time, the projector will not accept any "power on" or "power off" commands until the last "power off" command has been processed and the projector lamp has completed the cool-down cycle. Range: 0 to 300. The default value is 15 seconds.

Display Warm-Up Timer (0 - 300 sec)

Click this drop-down list to select the display warm-up time interval. Range: 0 to 300. The default value is 15 seconds.

Auto Power Off Timer

Click this drop-down list to set the time interval, in seconds, between when the loss of A/V signal is detected and when the "Display Off" command is sent to the display. Range: 0 to 300. The default value is 15 seconds.

Control Type
Click this drop-down list to select the control method for sending commands.

Setting	Description
RS-232	RS-232 is used to send commands.
IP	Commands are sent over IP.
CEC	Uses CEC to send commands.

Volume / Mute
This feature not yet implemented.

Setting	Description
Audio Out	This feature not yet implemented.
RS-232	This feature not yet implemented.
IP	This feature not yet implemented.

EDID page
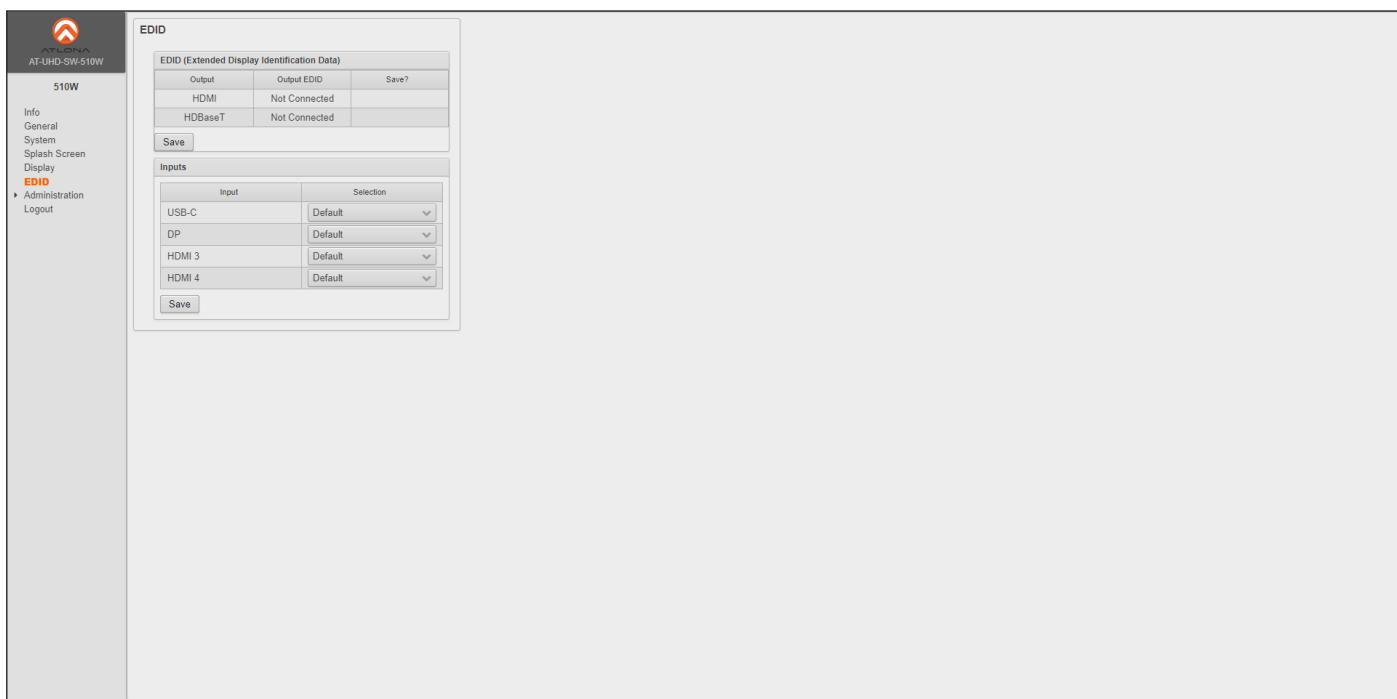
EDID (Extended Display Identification Data)
Displays the EDID assigned that is being used by each output. Press the **Save** button to save the EDID to a file.

Inputs
The **Input** column displays each of the inputs on the AT-UHD-SW-510W. Click the drop-down list, under the **Selection** column, to select the desired EDID to be used. When selecting an EDID, make sure that the display/sink device is capable of supporting the resolution/timing. If the sink device is not able to support a feature, then the source will not be displayed. Selecting the Default EDID will send the EDID from the display/sink to the source. Click the **Save** button to accept the changes.
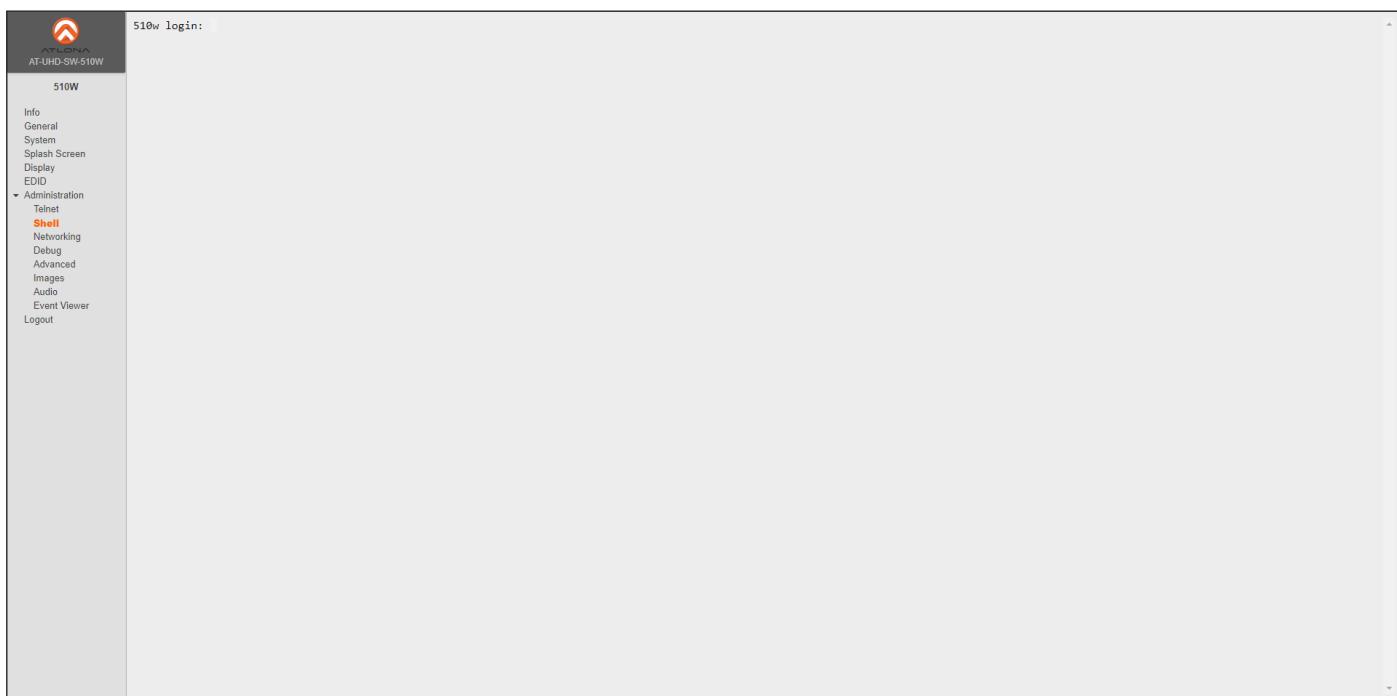
Administration

Telnet page

The **Telnet** page provides an emulated terminal for entering commands.
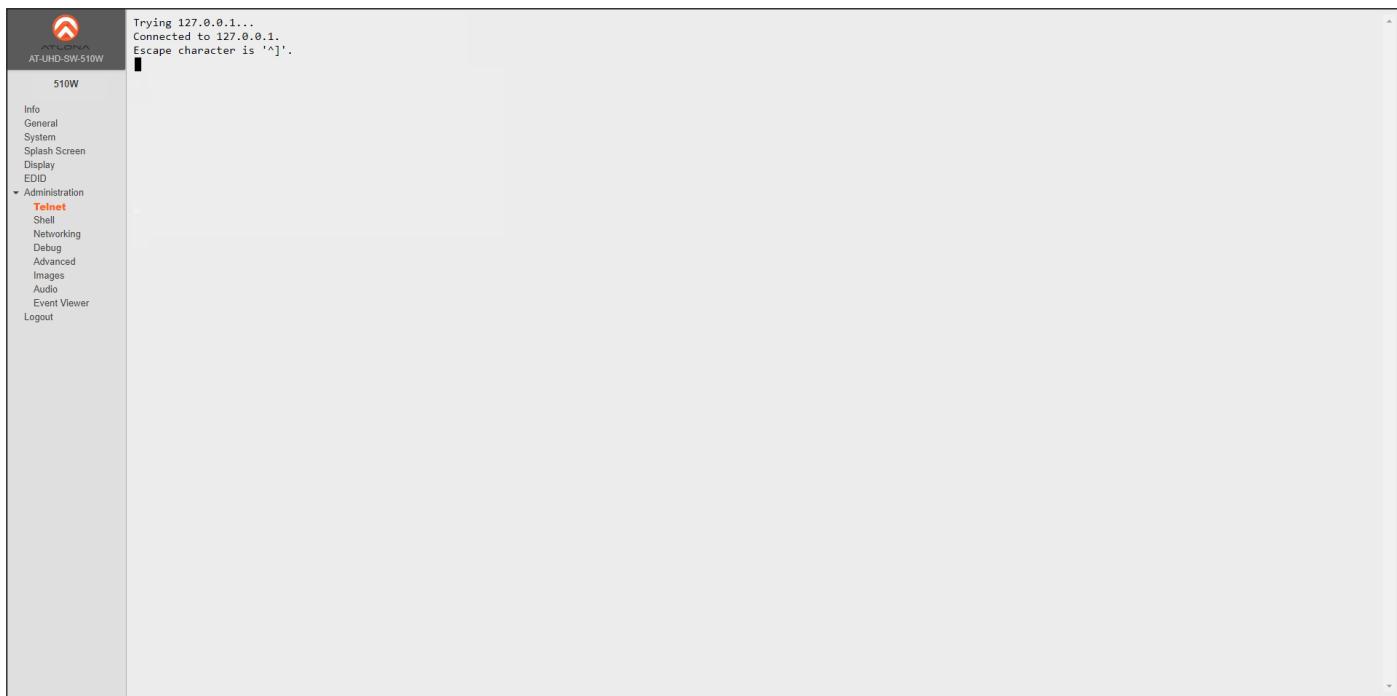
Shell page

The **Shell** page is provided for use only by Atlona Technical Support Engineers.

Networking page

This page contains a **Wifi** and **Ethernet** tab. Use the settings, under these tabs, to connect the AT-UHD-SW-510W to a network or Wireless Access Point (WAP). Refer to the IT Network Deployment Guide for detailed information on configuring the AT-UHD-SW-510W in various network environments.
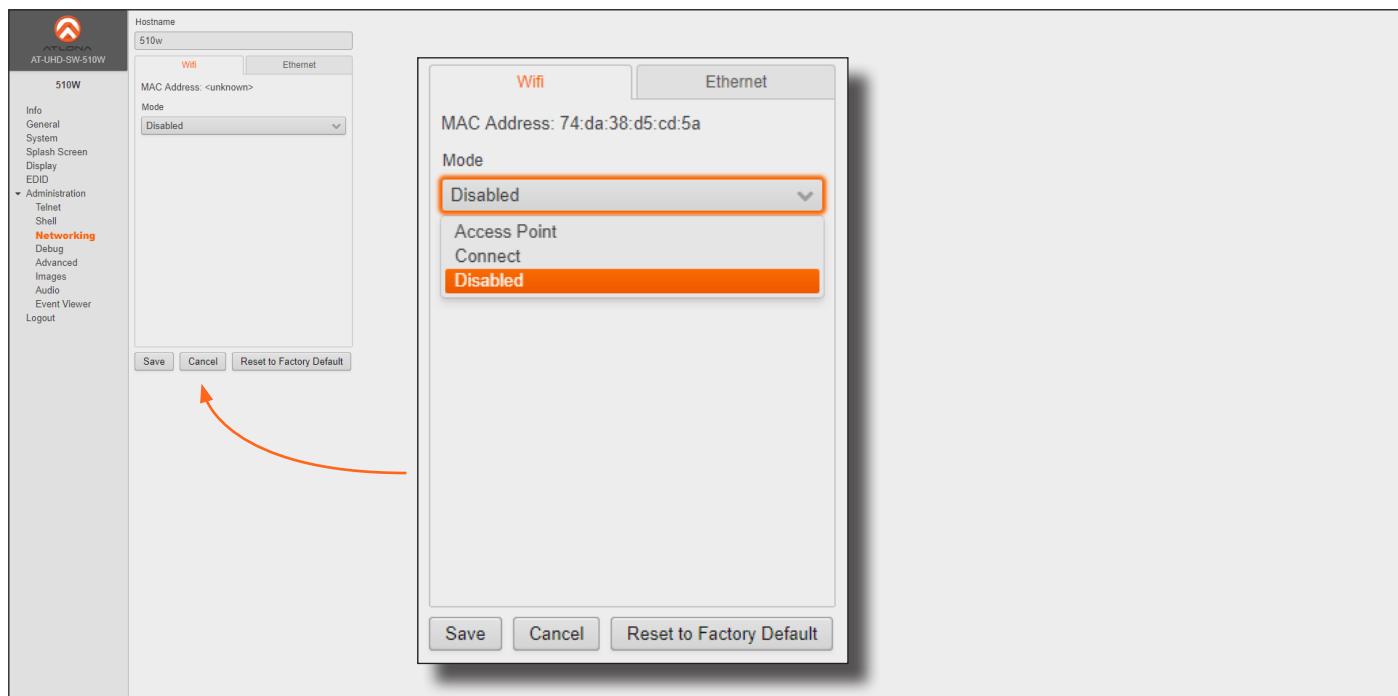
Hostname

The name assigned to the AT-UHD-SW-510W. This name can be changed, if desired. Refer to the General page (page 31).

Mode (Wifi)

Select the Wi-Fi mode from this drop-down list. Refer to the next page for more information on configuration of Wi-Fi modes.

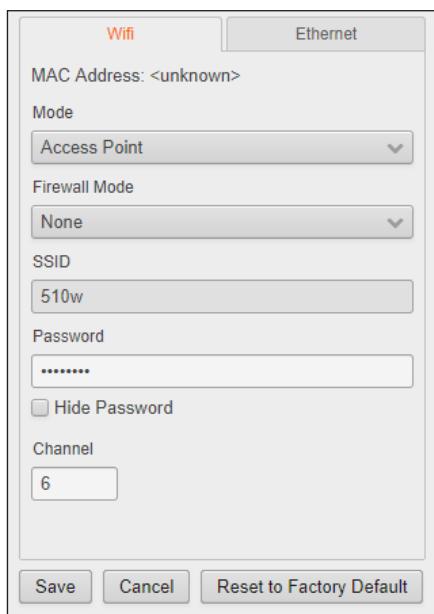| Setting	Description
Access Point	Select this option to configure the AT-UHD-SW-510W as a Wireless Access Point, allowing other wireless devices to connect to the same wired network as the AT-UHD-SW-510W.
Connect	Select this mode of connect the AT-UHD-SW-510W to the specified SSID of a wireless host.
Disabled	Select this mode to disable Wi-Fi on the AT-UHD-SW-510W.

Save

Click this button to accept all changes to the **Wifi** tab. When Connect mode is selected, click this button to connect the AT-UHD-SW-510W to the wireless network.

Cancel

Resets the Wifi and Ethernet settings to factory-default settings, then displays the Wifi tab.

Reset to Factory Default

Click this button to reset network setting to factory-default.

Access Point Mode

Select this mode to use the AT-UHD-SW-510W as an Wireless Access Point (WAP).

Firewall Mode

This option is unique to Access Point Mode. Refer to the Firewall Mode option, below, for more information on each setting.

SSID

The SSID assigned to the AT-UHD-SW-510W. The SSID name can be changed under the General page (page 31).

Password

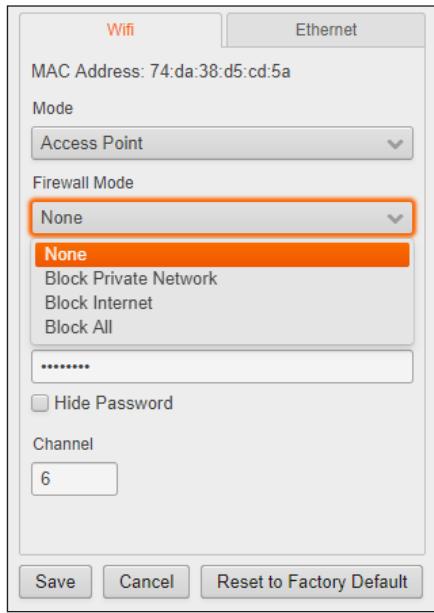Enter the password, required to connect to the AT-UHD-SW-510W.

Hide Password

Check this box to mask the password in the **Password** field.

Channel

Enter the desired wireless channel in this field. Consult with a network administrator for assistance, if required.

Firewall Settings

This feature is only available when the Wifi mode is set to Access Point. Click the **Firewall Mode** drop-down list to select the desired mode. This feature allows control of incoming and outgoing network traffic. The AT-UHD-SW-510W provides the following firewall modes: Block Private Network, Block Internet, Block All, and None.

Setting	Description
None	Select this option to disable the firewall on the AT-UHD-SW-510W and allow all incoming and outgoing network traffic.
Block Private Network	Select this option to prevent unauthorized clients from accessing the AT-UHD-SW-510W.
Block Internet	Allows wireless access to the AT-UHD-SW-510W but prevent Internet access (Google, YouTube, etc).
Block All	All outbound network traffic is blocked.
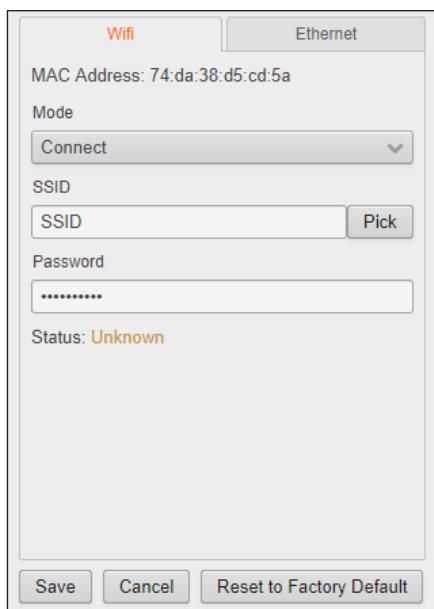
Connect Mode
Select this option to allow the AT-UHD-SW-510W to connect to an available wireless network.

SSID
The name of the wireless network to which the AT-UHD-SW-510W is connected. Click the **Pick** button to select the desired wireless network.

Password
Enter the password, required to connect to the AT-UHD-SW-510W.

Status
Displays the connection status.

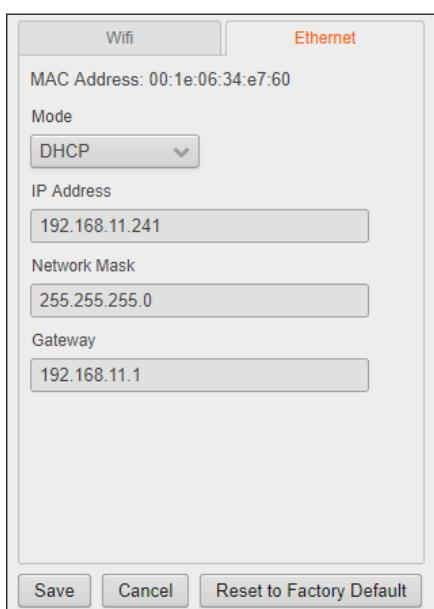| State	Description
Connected	The AT-UHD-SW-510W is connected to the wireless network.
Not Connected	Unsuccessful connection. Check to make sure the password was entered correctly. This state will also occur if the wireless network, to which the AT-UHD-SW-510W is connected, is taken offline.
Unknown	The network state is unknown. This message is displayed if the AT-UHD-SW-510W has not been configured to connect with a wireless network.

Save
Click this button to connect to the specified wireless network (SSID).

Cancel
Resets the Wifi and Ethernet settings to factory-default settings, then displays the Wifi tab.

Reset to Factory Default
Resets the networking subsystem to factory-default settings.

Ethernet (DHCP)
Click this tab to configure wired network settings on the AT-UHD-SW-510W. By default, the AT-UHD-SW-510W 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.
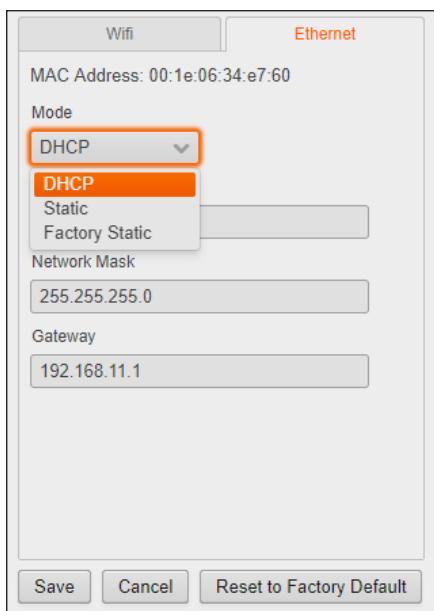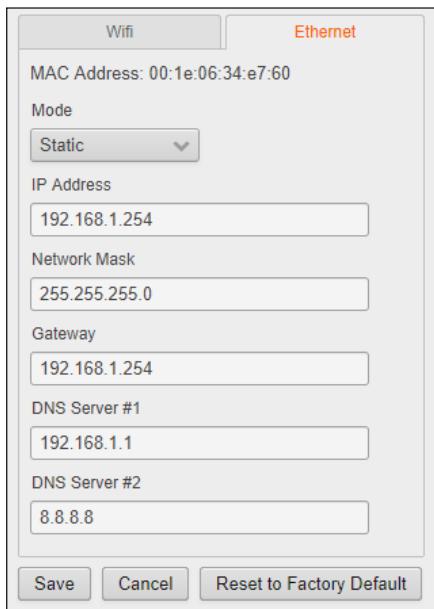
Mode

Click this drop-down to select the desired network mode: DHCP, Static, or Factory Static.

Setting	Description
DHCP	Select this option to have a DHCP server (if available) assign an IP address to the AT-UHD-SW-510W.
Static	Select this option to enter a specific IP address. When set to Static mode, the subnet mask, gateway, and DNS servers can be specified.
Factory Static	Sets the AT-UHD-SW-510W to factory-default static IP mode; the following values are set and cannot be modified: • IP address = 192.168.1.254 • Network mask = 255.255.0.0 • Gateway = 192.168.1.1

Ethernet (Static Mode)

Select this option to enter a specific IP address. When set to Static mode, the subnet mask, gateway, and DNS servers can be specified.

IP Address

Enter the desired IP address for the AT-UHD-SW-510W in this field.

Network Mask

Enter the subnet mask in this field.

Gateway

Enter the gateway (router) address in this field.

DNS Server

Enter the DNS server addresses in the DNS Server #1 and DNS Server #2 fields. If the AT-UHD-SW-510W will be used within an internal LAN, this information is not required.

Save

Click this button to accept all changes to the **Ethernet** tab.

Cancel

Resets the Wifi and Ethernet settings to factory-default settings, then displays the Wifi tab.

Reset to Factory Default

Click this button to set the wired network settings of the AT-UHD-SW-510W to factory-default.

Ethernet (Factory Static)
Select this option to use the factory-default wired network settings. In this mode, none of the fields can be modified.
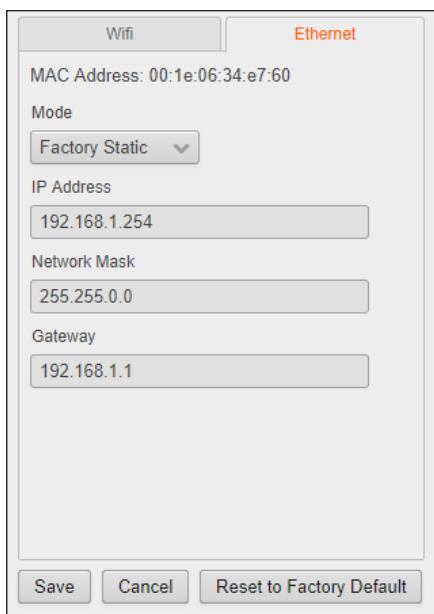
Save
Click this button to accept all changes to the **Ethernet** tab.

Cancel
Resets the Wifi and Ethernet settings to factory-default settings, then displays the Wifi tab.

Reset to Factory Default
Click this button to set the wired network settings of the AT-UHD-SW-510W to factory-default.

Debug page

Debug
Click the Download link to view the latest debug log. This log is used by Atlona Technical Support Engineers to identify functionality issues.
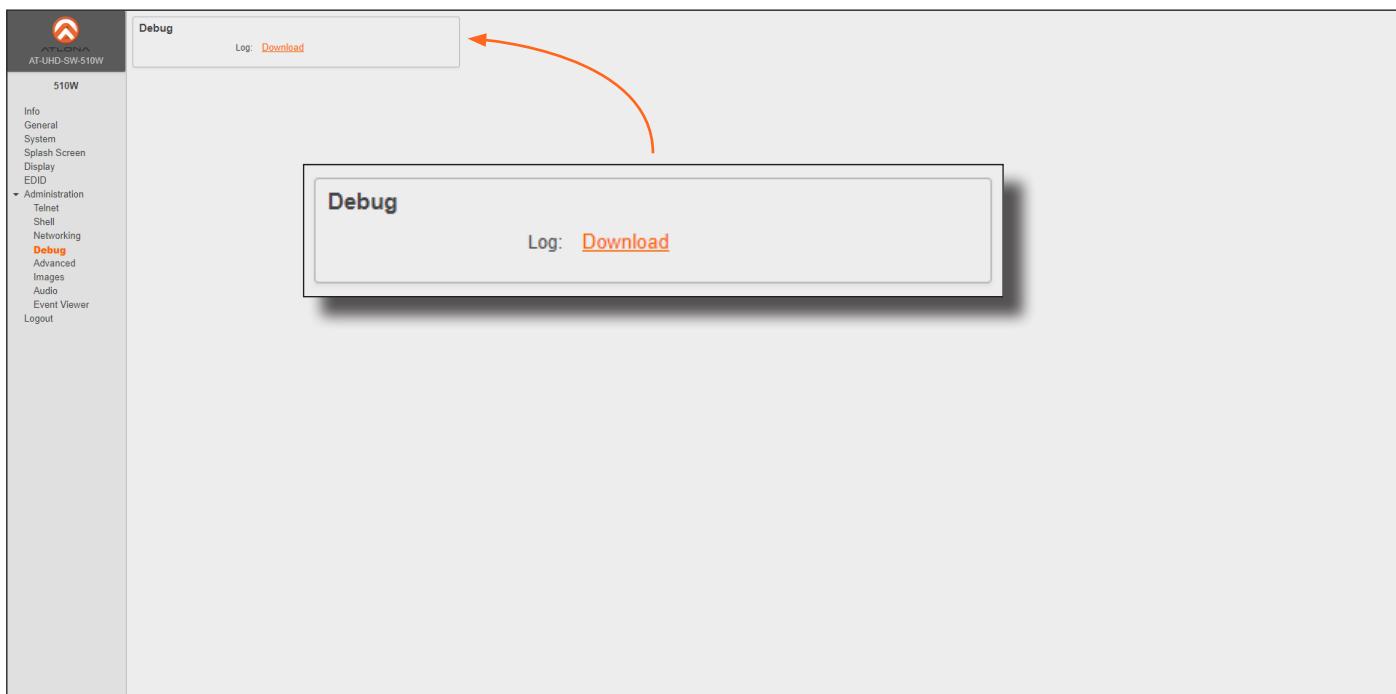
Advanced page
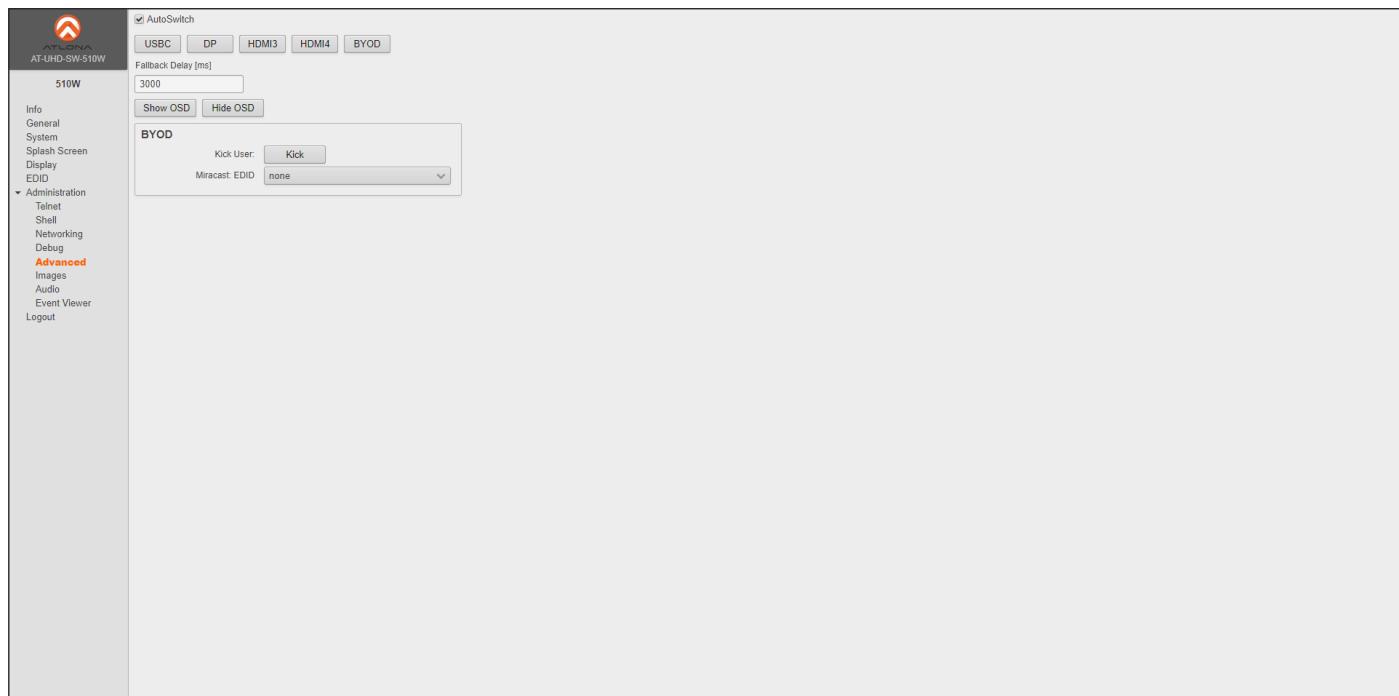
AutoSwitch
Click this box to enable or disable auto-switching. When this box is checked, the AT-UHD-SW-510W will auto-switch, to the desired input. To disable auto-switching, uncheck this box.

Input buttons (USBC, DP, HDMI3, HDMI1, BYOD)
Click the desired button to set the auto-switch input.

Fallback Delay (ms)
Set the time interval, in seconds, before the AT-UHD-SW-510W auto-switches to the selected input.

Show OSD / Hide OSD
Click the **Show OSD** button to show the On-Screen Display (OSD). Click the **Hide OSD** button to hide the OSD.

Kick User
Click this button to disconnect ("kick") the current BYOD device from the AT-UHD-SW-510W.

Miracast EDID
Click this drop-down list to select the EDID used by Miracast.

Setting	Description
none	Uses the downstream EDID
1080p60	1920x1080p @ 60 Hz
1080p30	1920x1080p @ 30 Hz

Images page

The default loading and splash screen can be replaced with a custom image. Click the drop-down list and select the target image. Once the file is selected, it will automatically be pushed to the AT-UHD-SW-510W.

Preferred image size is either 1920 x 1080 or 3840 x 2160. All common image types, such as JPG, BMP, PNG, TIF, GIF, are supported.
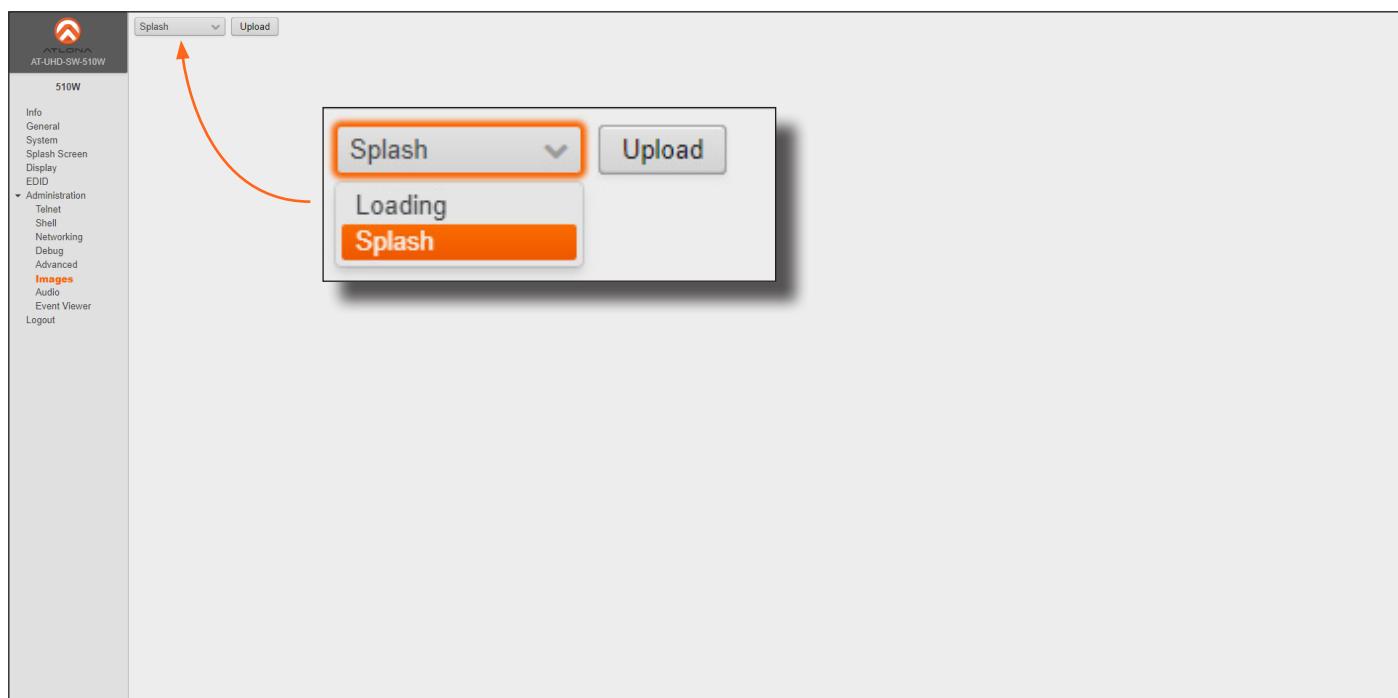
Upload
Click this button to select the desired image to upload.

Audio page
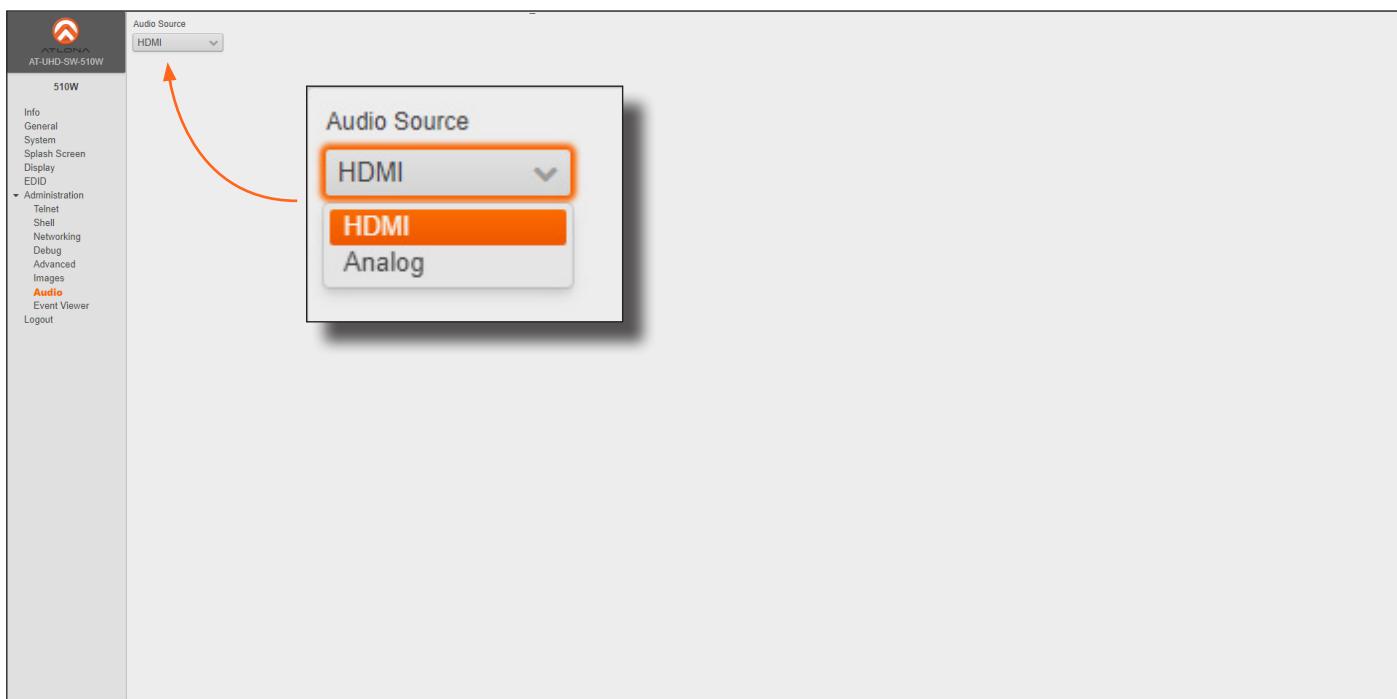
Audio Source
Click this drop-down list to select the desired audio source.

Setting	Description
HDMI	HDMI audio source
Analog	Analog audio will be used, from the 3.5mm mini-stereo port.

Event Viewer page

This feature not yet implemented.
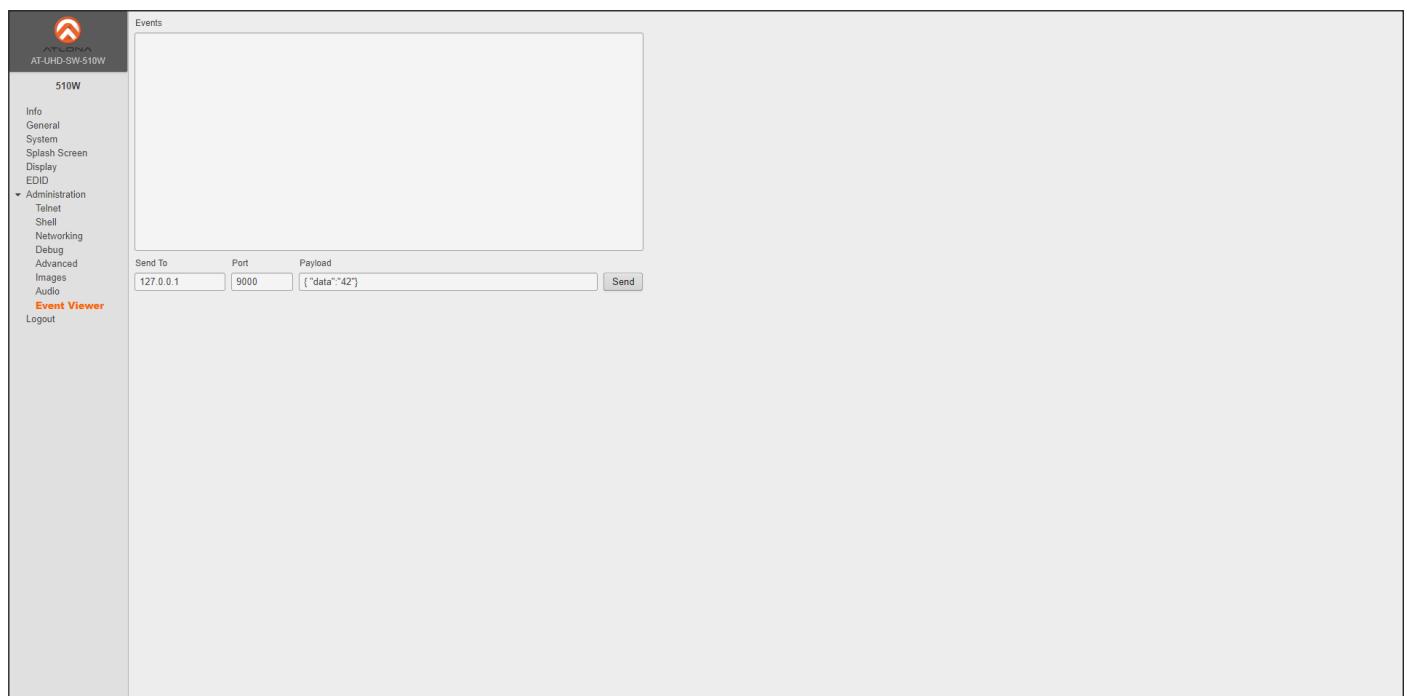
Appendix

Default Settings

The following tables list the factory-default settings, as defined in the web GUI, for the AT-UHD-SW-510W.

Web GUI Page	Settings	
Login	Username Password	admin Atlona
General	Name Derived	SW510-E753 sw510-e753
Splash Screen	Show Metadata Show Panel Y Offset Title Subtitle Column Title Column #1 Show Second Column Column #2	Disabled Enabled 65 "Welcome" "{name}" "To begin your presentation:" "Connect wired: Connect the HDMI, USB-C, or DisplayPort cable at the table to your device" Enabled "Connect wirelessly: Connect the Wi-Fi network '{ssid}', entercode, and enable AirPlay, GoogleCast, or Miracast"
Display System Settings	Display Auto Power Power Lock Button Lamp Cool Down Timer Display Warm Up Timer Auto Power Off Timer Control Type Volume Mute	Disabled Disabled 15 seconds 15 seconds 30 seconds CEC Audio Out
EDID	USB-C DP HDMI 3 HDMI 4	Default Default Default Default
Networking	Wifi Firewall (Access Point mode) Channel (Access Point mode) Mode (Ethernet)	Disabled None 6 DHCP
Advanced	Autoswitch Fallback Delay Miracast EDID	Enabled 5000 (ms) 1080p30
Audio	Audio Source	HDMI

Mounting Instructions

The AT-UHD-SW-510W can be mounted in different ways, based on the number of units that are being installed. The AT-UHD-SW-510W can be mounted in a rack or on/under any flat surface.

> **i**   **NOTE:** AT-UHD-510W-RM rack ears are sold separately. Contact Atlona for more information.

Single-unit Rack Installation

1. Attach the included small rack ear (sold separately) to one side of the AT-UHD-SW-510W, using the included screws.

2. Attach the included longer rack ear (sold separately) to the opposite side of the AT-UHD-SW-510W 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.


Countersink bevel
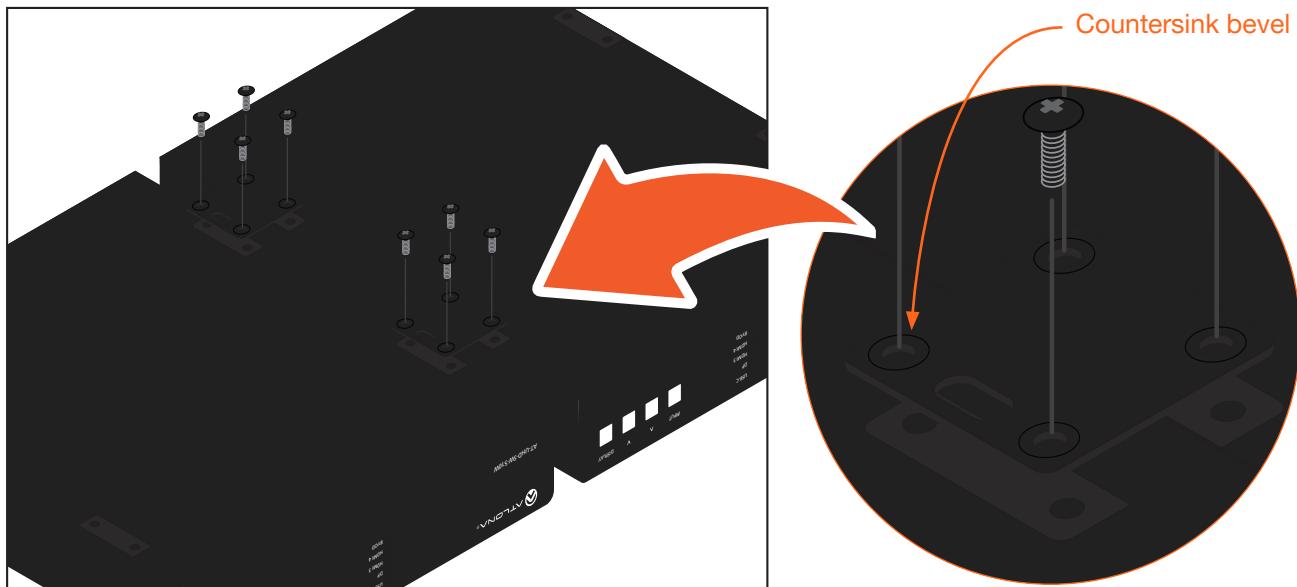
3. Turn the attached units over and install the rack ears (sold separately) to one side of each enclosure using the included screws.

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.

Countersink bevel
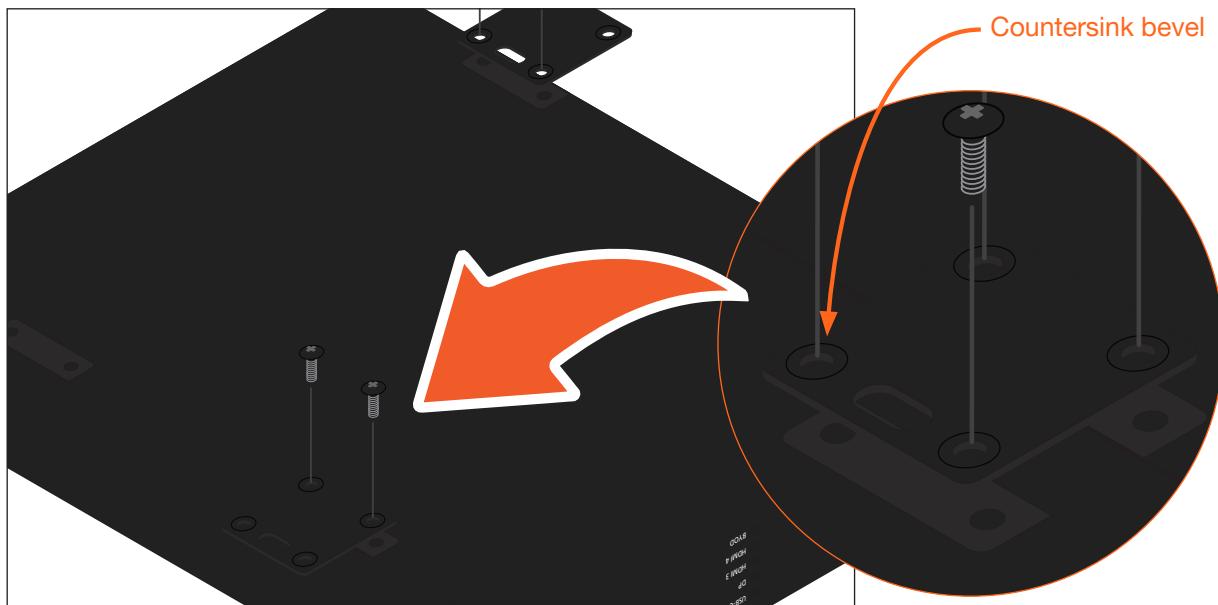
3. Mount the unit using the circular holes, on each mounting plate. If using a drywall surface, a #6 drywall screw is recommended. Mounting screws are not included.
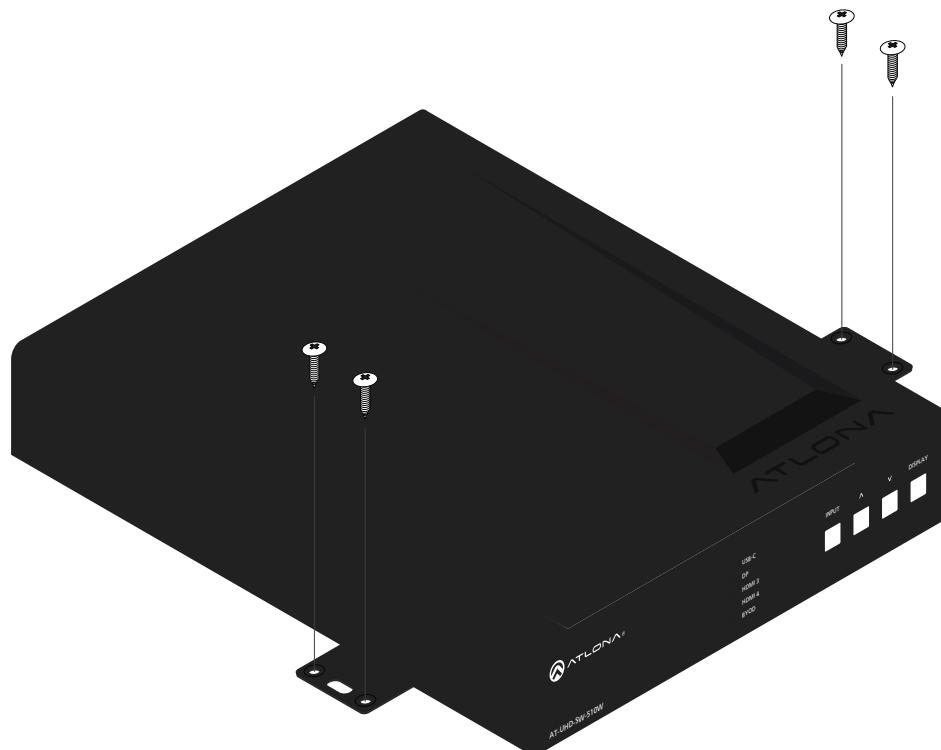
NOTE: The unit can also be mounted under a flat surface, such as a table, by turning the unit upside down.

Specifications

Video	
UHD/HD/SD	4096x2160@60/30/25/24Hz*, 3840×2160@60/30/25/24Hz*, 1080p@60/59.9/50/30/29.97/25/24/23.98Hz, 1080i@60/59.94/50Hz, 720p@60/59.94/50Hz, 576p@50Hz, 576i@50Hz, 480p@60/59.96Hz, 480i@60Hz
VESA	2560×1600, 2048×1536, 1920×1200, 1680×1050, 1600×1200, 1440×900, 1400×1050, 1280×1024, 1280×800, 1366×768, 1360×768, 1152×864, 1024×768, 800×600, 640×480
USB-C	Up to 4K/UHD @ 60Hz for devices supporting USB-C Alternate Mode video output
Wireless	Up to 1080p @ 30Hz 4:2:0 (up to 1080p @ 60Hz with Miracast™); dependent on wireless signal quality
Color Space	YUV, RGB
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0
Color Depth	8-bit, 10-bit, 12-bit
HDR †	HDR10 and Dolby® Vision™ @ 60Hz

* HDMI output supports 4K/UHD @ 50 or 60Hz with 4:4:4 chroma sampling. HDBaseT output supports 4K/UHD @ 50 or 60Hz with 4:2:0 chroma subsampling.

† HDR not supported for HDBaseT output.

Audio	
Pass-Through Formats	PCM, Dolby® Digital, Dolby Digital Plus™, Dolby TrueHD, Dolby Atmos®, DTS® Digital Surround™, DTS-HD Master Audio™, and DTS:X®
Analog Input	Unbalanced 2-channel, 3.5 mm
Analog Output	Balanced / unbalanced 2-channel, 5-pin captive screw
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Bit Rate	24-bit (max.)

Resolution / Distance	4K/UHD - Feet / Meters		1080p - Feet / Meters	
HDMI IN/OUT	15	5	30	10
CAT5e/6	230	70	330	100
CAT6a/7	330	100	330	100

Signal				
Bandwidth	18 Gbps*			
CEC Support	Yes			
HDCP	2.2 (wired device connections, only)			

* 18 Gbps supported for HDMI 2.0 output. HDBaseT output limited to 10 Gbps.

USB	
Port	USB Type C: USB-C for AV input (Alternate Mode), USB 2.0 Type A for Wi-Fi® antenna modules (3 ports)
USB-C Power	Up to 60 W / 3 A at 20 V
USB-C Device Charging Capability	Up to 20 V, 3 A Output: 60 W @ 20 V, 36 W @ 12 V, 15 W @ 5 V

IP	
Ethernet Ports	RJ-45
Protocols	DHCP, HTTP, HTTPS, SFTP, SMTP, SNMP, Telnet, SSH, TCP/IP, UDP
Ethernet Speed	10/100/1000 Mbps
Addressing	DHCP, static
Wi-Fi	IEEE 802.11n/ac 2.5 GHz / 5 GHz
Wi-Fi Protocols	WEP, WPA, PSK, WPA2 PSK, WPA Enterprise, WPA2 Enterprise
Antenna	2 included

Control Ports	
RS-232	Bidirectional, 3-pin captive screw
Relay	3-pin captive screw, normally open (NO), with adjustable Toggle and Pulse modes Electrical rating: 48 V @ 1 A
Trigger	4-pin captive screw Electrical rating: 30 V @ 1 A (max.)

Temperature	Fahrenheit	Celsius
Operating	32 to 122	0 to 50
Storage	-4 to 140	-20 to 60
Humidity (RH)	20% to 90%, non-condensing	

Power	
Consumption (full load)	121 W
Idle Consumption	35 - 40 W
Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 5 V DC

Dimensions	Inches	Millimeters
H x W x D (w/ feet)	1.77 x 8.46 x 10.19	48 x 215 x 259
H x W x D (w/o feet)	1.73 x 8.46 x 10.00	44 x 215 x 254

Weight	Pounds	Kilograms
Device	3.70	1.68

Certification	
Device	CE, FCC, UL

atlona.com • 408.962.0515 • 877.536.3976