

4K/UHD

Five-Input Universal Matrix Switcher with Wireless Presentation Link





Version Information

Version	Release Date	Notes
1	12/17	Initial release
2	2/18	Manual updated to reflect latest release of firmware 1.0.1
3	4/18	Manual updated to reflect firmware 1.0.3
4	5/18	Manual updated to reflect firmware 1.1.0



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

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Operating Notes

- Android devices require the Google[™] Home app for casting.
- Miracast P2P reliability is dependent on the capabilities of laptop wireless cards.
- This product does not support URL casting (VP8 / VP9 decoding) from apps such as YouTube®, Netflix®, Hulu®, or Amazon Prime®. However, videos can be played directly from the web browser.
- This product does not support wireless casting of HDCP content.
- This product supports Bluetooth® discovery using an optional Bluetooth adapter (Bluetooth adapter not included). Atlona recommends the use of Plugable or Kinivo™ Bluetooth 4.0 adapters.



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

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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.

OF

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- 10 years from proof of purchase date for hardware/electronics products purchased on or after June 1, 2013.
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- Lifetime Limited Product Warranty for all cable products.
- NOTE: Data cable (USB-C) and Wifi antenna coverd by 1 year warranty.

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Atlona, Inc. ("Atlona") Limited Product Warranty

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 installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by
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 workmanship of this product.
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Important Safety Information



CAUTION: TO REDUCT THE RISK OF DO NOT OPEN ENCLOSURE OR EXPOSE TO RAIN OR MOISTURE NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO



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.

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this product near water.
- Clean only with a dry cloth.
- 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.

- 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.



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Introduction

The Atlona **AT-UHD-SW-510W** is a 5×2, multi-format matrix 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 matrixed or mirrored HDMI and HDBaseT outputs. The HDBaseT output is ideal for use with the Atlona AT-UHD-EX-100CE-RX-PSE HDBaseT receiver, or the AT-HDVS-SC-RX scaling 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 matrix 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 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. (For AV signals exceeding 10 Gbps, 4K/UHD video will be subsampled to 4:2:0, or HDR metadata removed for HDBaseT transmission.)

Features

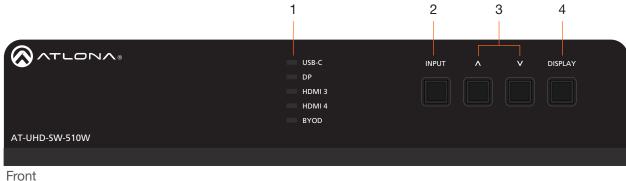
- Two HDMI®, one DisplayPort, and one USB-C input, plus an input for wireless AV.
- Matrixed or mirrored HDBaseTTM and HDMI outputs.
- Wireless AV gateway for iOS®, AndroidTM, Mac®, ChromebookTM, and Windows® devices.
- 4K/UHD capability @ 60 Hz with 4:2:0 chroma subsampling, plus support for 4K/60 4:4:4 and HDR formats on local ports (HDMI, USB-C, and DisplayPort).
- HDCP 2.2 compliant.
- Automatic input selection and automatic display control.
- USB-C port supports device charging for laptops, tablets, and smartphones.

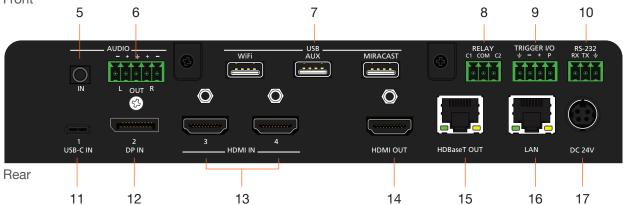
Package Contents

- 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





1 Input Indicators

Displays the currently selected input.

2 INPLIT

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 modules to the **WIFI** and **MIRACAST** ports. Refer to Connection Instructions (page 13) for more information.

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

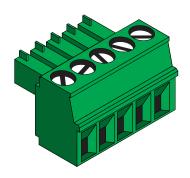
Connect the included 24 V DC power supply to this power receptacle.

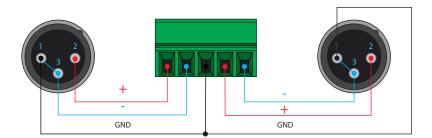


Installation

Audio

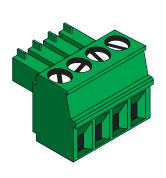
The **AUDIO OUT** connector on the AT-UHD-SW-510W provides a separate output for balanced audio using XLR connectors. Use the included 5-pin Phoenix terminal block. Balanced audio connections use two signal wires and a ground to minimize interference in audio signals. Unbalanced output audio is not supported.





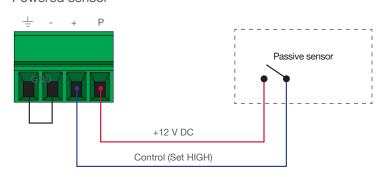
Trigger

The **TRIGGER I/O** port allows voltage-controlled devices, such as an occupancy sensor, to be connected to the AT-UHD-SW-510W. Use the included 4-pin captive screw connector to connect the device. Voltage range is 3 to 30 V DC.





Powered sensor

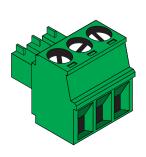


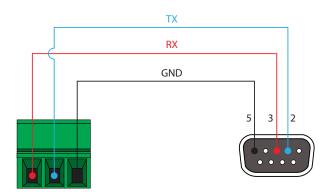


RS-232

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.

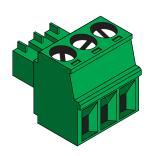


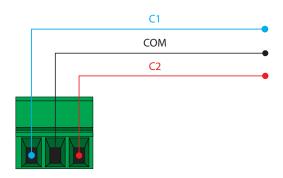


Relay

The AT-UHD-SW-510W provides a **RELAY** port, which allows the control of screens, curtains, and other devices. Use a 48 V DC relay with no more than 1 A current draw.

When the AT-UHD-SW-510W is powered-on or rebooted, C1 and C2 are set to the Normally Open (NO) state.





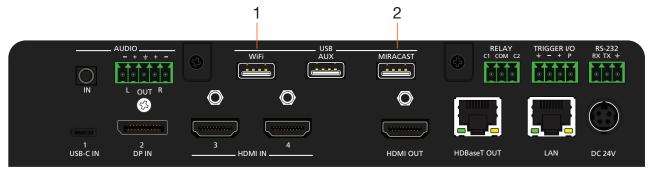


Connection Instructions

- 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 USB ports. Two USB wireless antennas are included. The WiFi port supports Google Cast™ and Apple AirPlay®. The MIRACAST port only supports Miracast™. The AUX port is reserved for obtaining the IP address of the unit. Refer to Getting the IP Address (page 15) for more information.



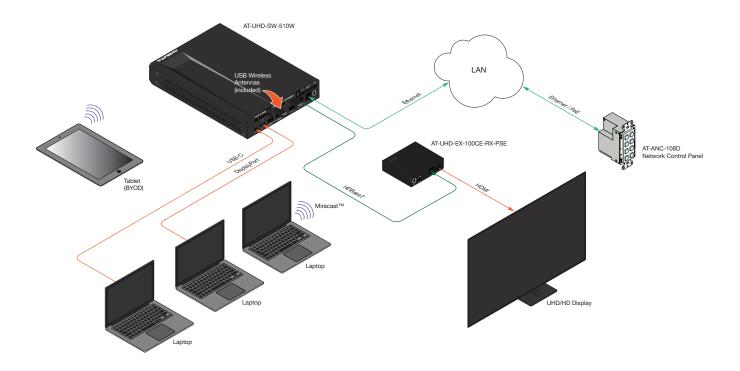
IMPORTANT: Only use Atlona Wi-Fi USB modules. Other Wi-Fi modules may not be supported by this product.



- 6. Connect the relay leads from the control motors of the projection screen, blinds, or curtains, to the relay outputs to the **RELAY** port, using the included 3-pin captive screw connector. Use a 48 V DC relay with no more than 1 A current draw.
- 7. Connect a trigger device, such as an occupancy sensor switch, to the **TRIGGER I/O** port. A 4-pin captive screw connector is required. Voltages from 3 to 30 V are supported.
- 8. 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.
- 9. Connect an Ethernet cable from the LAN port to the Local Area Network (LAN).
- 10. Connect an Ethernet cable from the **HDBaseT** port to an HDBaseT receiver unit, such as the AT-UHD-EX-100CE-RX-PSE.
- 11. Connect the included green 5-pin captive screw connector to the **AUDIO OUT** connector.
- 12. Connect the included power supply to the **DC 24V** connector and connect the power cord to an available electrical outlet.
- 13. Follow the on-screen instructions to complete the set-up 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 Auto IP Mode (page 17).

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.
- 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

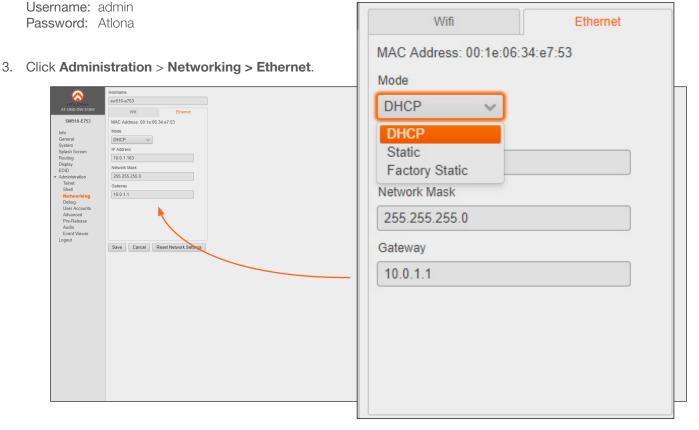
MAC: B8:98:B0:05:7E:72

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 38) 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:



4. Click the **Mode** drop-down list and select **DHCP**, **Static**, or **Factory Static**. Refer to the **Networking page** (page 51) 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 System page (page 38) 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.



- 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



The Splash Screen

The illustration below, identifies each portion of the Splash Screen. The vertical position of the Panel can be adjusted using the **Y Offset** feature. Displaying **Metadata** can be enabled or disabled. The background image for both the **Splash Screen** and the **Standby Screen** can also be changed. Refer to the **Splash Screen** page (page 41) for information



Panel

Displays information on how to connect to the AT-UHD-SW-510W and the name of the unit (subtitle). Each text field is indentified below, and can be changed in the Splash Screen page (page 41) of the Web GUI.







• OSD

This text displays the name and wireless password of the AT-UHD-SW-510W. The Name field represents the SSID of the AT-UHD-SW-510W and is used to identify the unit when used as an **Access Point**. When configured as an **Access Point**, the SSID password will automatically be displayed. The password can be hidden (masked) if desired. Refer to the **Networking page** (page 51) for more information on these topics.

Metadata

Displays the name, model, current date, wired IP address, and current firmware version. The name can be changed under the General page (page 37) of the Web GUI. The date (and time) can be set under the System page (page 38) of the Web GUI. Refer to Networking page (page 51) for information on changing the wired IP address of the AT-UHD-SW-510W.

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**.





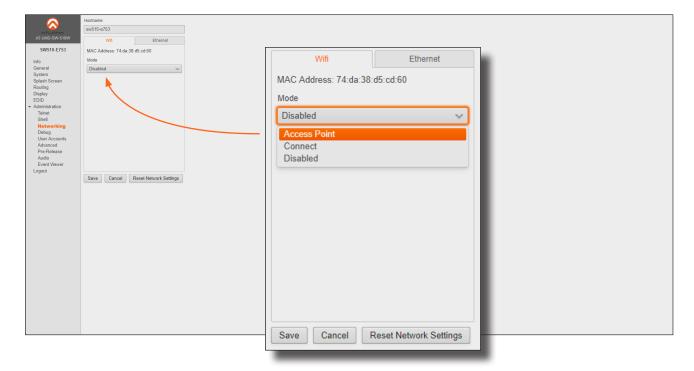
Wireless Configuration

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.

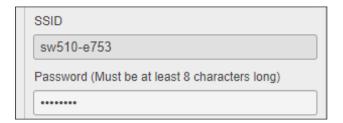
Access Point Mode

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 15) 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 34) 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.

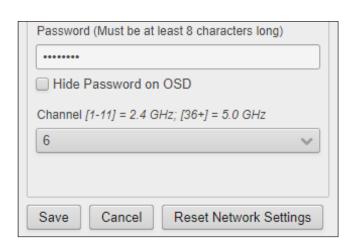


- 6. The name of the wireless network will appear in the **SSID** field. This name is identical to the text in the **Derived** field, under the **General page** (page 37). To change the SSID, go to the **General** page and modify the **Name** field.
- The name of the wireless network will appear in the SSID field. This name is identical to the text in the Derived field, under the General page (page 37).
 To change the SSID, go to the General page and modify the Name field.





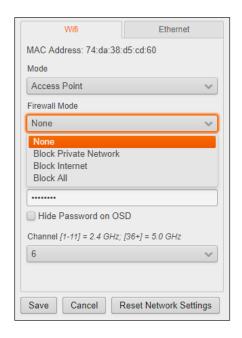
- Enter the password in the **Password** field.
 This password will be required by clients connecting to the AT-UHD-SW-510W.
- 9. Click the **Hide Password** check box to mask the password. When the password is masked, the text in the Password field will appear as asterisks.
- Enter the wireless channel 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.

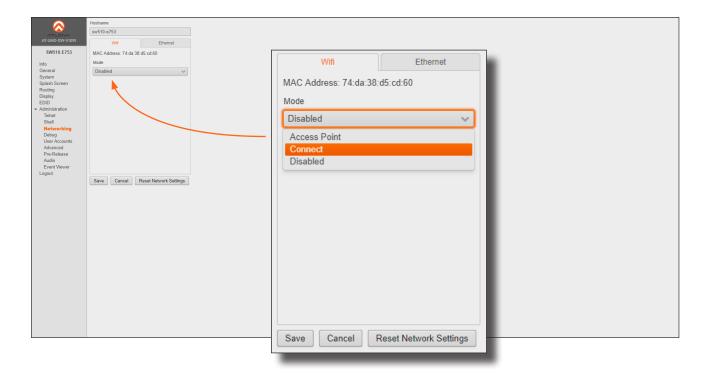
12. Click the **Save** button to accept and save all changes.



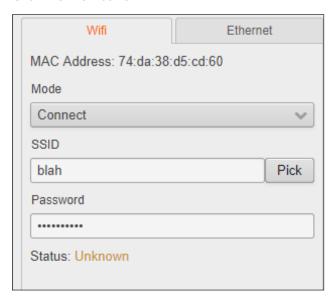
Connect Mode

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 34) 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.

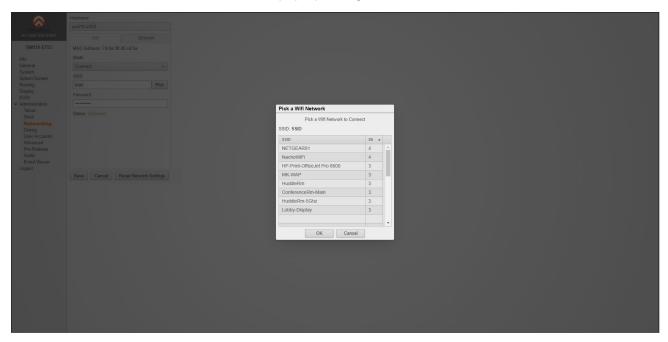


5. Click the Pick button.

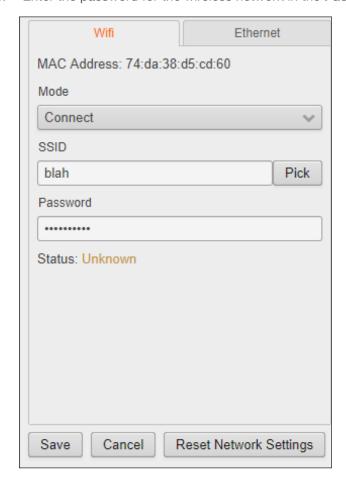




6. Select the desired wireless network from the pop-up dialog box.



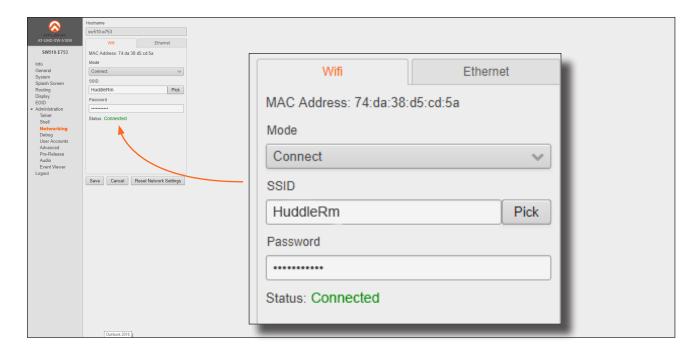
- 7. Click the **OK** button to accept the selection and dismiss the dialog box. Click the **Cancel** button to return to close the dialog and return the Wifi tab.
- 8. Enter the password for the wireless network in the **Password** field.



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.



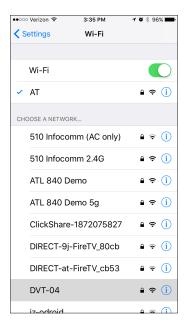
NOTE: The AT-UHD-SW-510W can support a maximum of 254 wireless connections. However, only one wireless device can display an image on the connected display, at a time.

iOS Devices

AirPlay® is only supported on iOS 5 or higher.

- 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 18) for more information on locating the SSID.







- Enter the password for the device.
 The default password is 88888888.
- Once connected, swipe-up on the bottom of the iOS device to display the **Control Center**.
- 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.
- The image of the iOS device will now appear on the connected display.

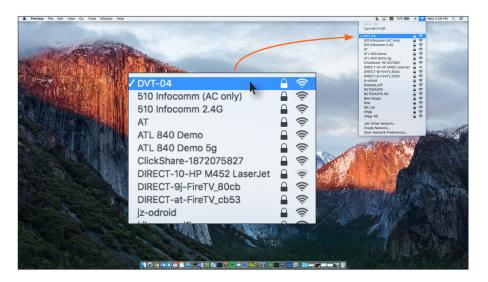
Note that depending upon the application, the image on the screen can be rotated. For example, when using the camera app, if the iOS device is rotated 90 degrees, the image on the screen will also be rotate 90 degrees.



OS X

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.





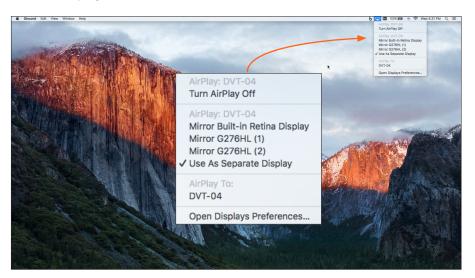
AirPlay can be used to either mirror or extend the Mac display.

Mirroring

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

Extending

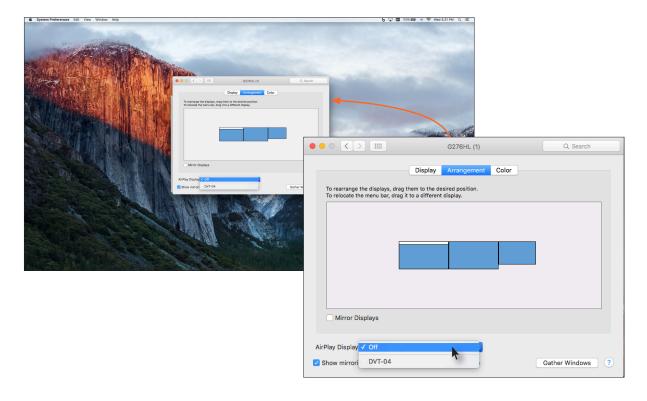
Click the AirPlay icon and select "Use As Separate Display" from the list of displays, to extend the Desktop to another display.



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** dropdown list and select "Off". To re-enable AirPlay, select the device from the drop-down list.





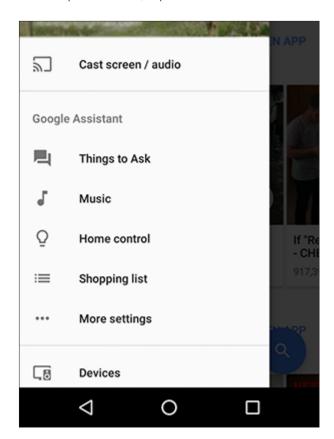
Android

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 18) 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

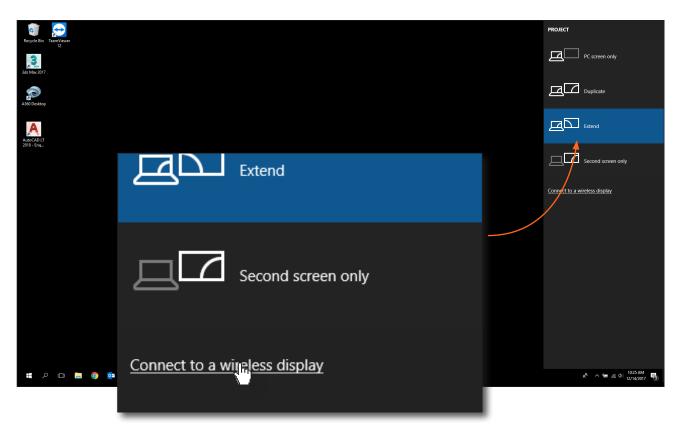
Miracast is a wireless protocol that allows content to be transmitted from laptops and other mobile devices to displays. The latest release of Microsoft Windows® 10 supports Miracast along with UIBC support, which provides wireless connectivity to touch screens, mouse devices, and keyboard.

Displaying Miracast devices can be done in several ways. Two methods are presented below. The first method is recommended, as it is the most direct method.

Method 1

The following is the recommended (and quickest) way to configure Miracast on Microsoft Windows®.

- 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.



Matrix Modes

The AT-UHD-SW-510W features two matrix modes: Standard Mode and VTC Mode. Enabling matrix mode provides the ability to use AT-UHD-SW-510W in video codec / conference applications, using a dual-presentation mode.

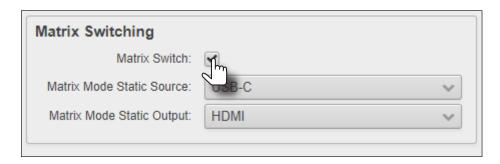
Standard Mode

This mode allows the AT-UHD-SW-510W to independently switch between any input or both outputs. The diagram below, shows an example setup.

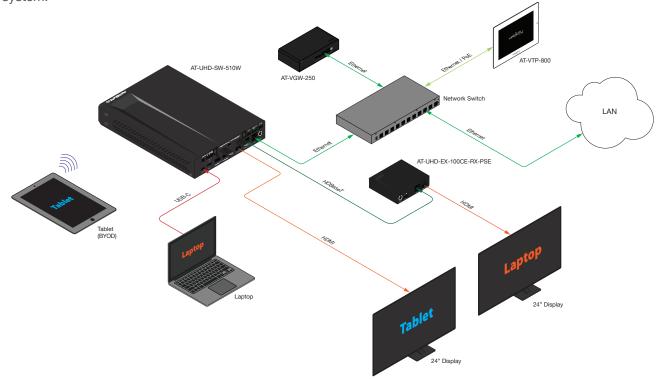
- 1. Login to the web GUI. Refer to Introduction to the Web GUI (page 34) for more information.
- 2. Click **Routing** from the menu bar on the left.
- 3. Scroll down to the bottom of the **Routing** page and click the **Matrix Switch** check box. When a check mark is present in this box, matrix switching will be enabled.



NOTE: When matrix mode is enabled, both auto-switching and display power control will be disabled.



4. Leave the **Matrix Mode Static Source** and **Matrix Mode Static Output** to their current values. Note that the values shown in the illustration above, are arbitrary. Routing will be managed using API commands and a control system.

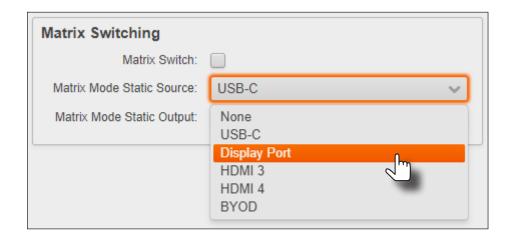


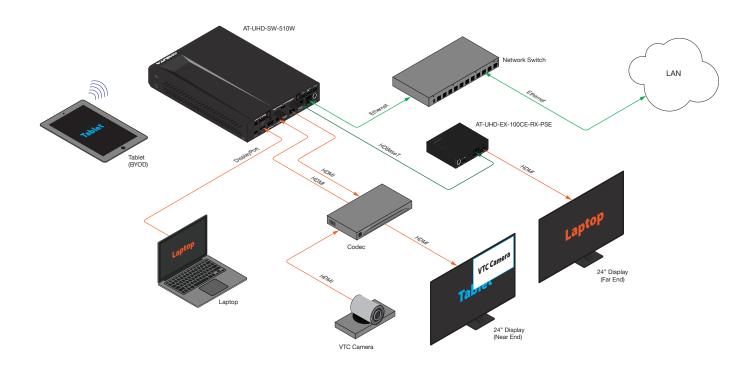


VTC Mode

This mode allows the AT-UHD-SW-510W to be integrated with a video conference system. In VTC Mode, both static input and output routing is specified. Auto switching will be enabled. However, the specified static input will be removed from the auto-switching pool. For example, if the **HDMI IN 3** port is specified as a static input, then auto-switching will "skip" this port when auto-switching. The diagram below, shows an example setup.

- 1. Login to the web GUI. Refer to Introduction to the Web GUI (page 34) for more information.
- 2. Click **Routing** from the menu bar on the left.
- 3. Scroll down to the bottom of the **Routing** page.
- 4. Click the Matrix Mode Static Source drop-down list and select the desired source.
- 5. Click the Matrix Mode Static Output drop-down list and select the desired output.



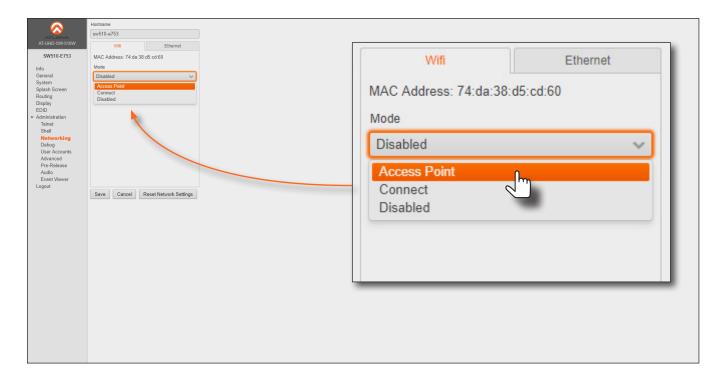




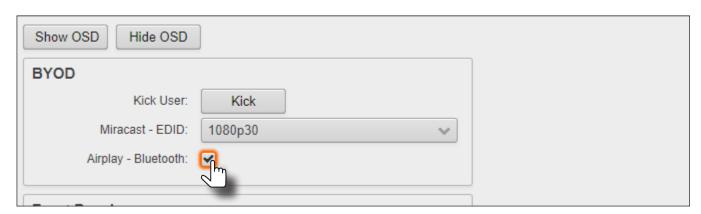
Bluetooth Discovery

The AT-UHD-SW-510W supports Bluetooth®-assisted device discovery. An optional Bluetooth adapter is required, but not included. Atlona recommends Plugable and Kinivo Bluetooth 4.0 adapters.

- 1. Connect the Bluetooth adapter to the AUX port on the AT-UHD-SW-510W.
- 2. Login to the web GUI. Refer to Introduction to the Web GUI (page 34) for more information.
- 3. Click **Administration > Networking** from the menu bar on the left.
- 4. Click the **Mode** drop-down list and select the **Access Point** or **Connect** option.



- 5. Click the **Save** button.
- 6. Click **Administration > Advanced** from the menu bar on the left.
- 7. Click the Airplay Bluetooth check box, under the BYOD section.



8. Go to the AirPlay device. The AT-UHD-SW-510W should now be discoverable.

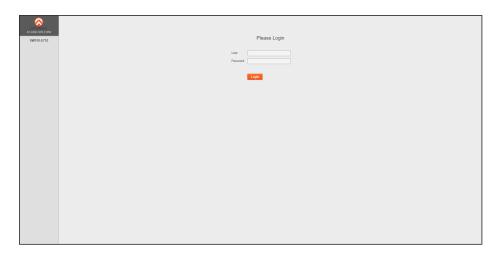


The Web GUI

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.
- 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.
- Click the Login button or press the ENTER key on the keyboard.



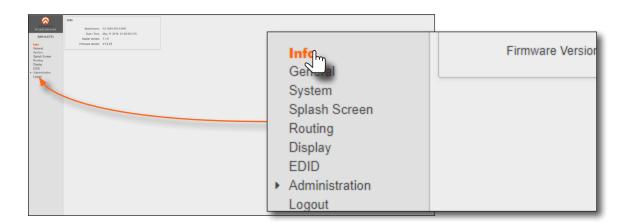


7. The **Info** page will be displayed.

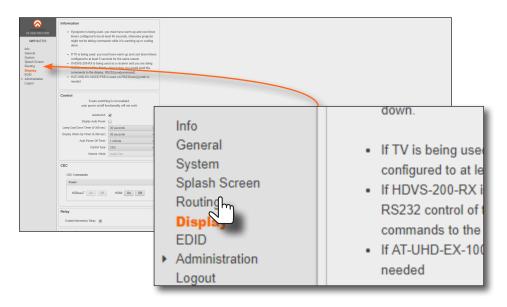


Menu Bar

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

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.

Date / Time

The current time and date, in Universal Coordinated Time (UTC).

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. Include the {id} tag to use the last four digits of the hardware MAC address. The {id} tag is optional and can be placed anywhere within the **Name** field.



NOTE: The hardware MAC address differs from the MAC address of the unit, which is found on an adhesive label applied to the the bottom of the unit.

Display Name

The name based on the information provided in the **Name** field. This name is used by the AT-UHD-SW-510W to identify it within the OSD.

Derived

This field will automatically be populated by the AT-UHD-SW-510W, based on the information provided in the **Name** field. This field provides a "computer-friendly" name used by the SSID. If special characters and/or spaces are included in the **Name** field, then these are removed when populating this field.

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 37) for more information.

Set Date / Time [UTC]

Displays the current time and date, in Universal Coordinated Time (UTC). UTC must be used when setting the date and time. Refer to the next page 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 67) for the list of default settings.

Factory Reset MCU

Click this button to reset the MCU of the AT-UHD-SW-510W. This feature is used as part of Updating the Firmware (page 63).

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.



Firmware Check

Click the **Check** button to check for the latest version of firmware. Each time the unit is rebooted, this feature is performed, automatically. The AT-UHD-SW-510W must be connected to the Internet to use this feature.

Master Firmware

Click the **Upload** button to select the master firmware file, when updating the unit.

MCU Firmware

Click the **Upload** 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.

Documentation

Click each of these links to access the latest version of the User Manual, IT Deployment Guide, or API Documentation.



Setting the System Date and Time

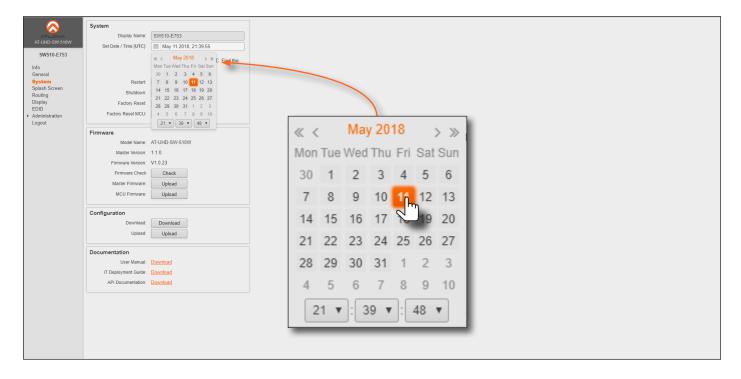
The AT-UHD-SW-510W uses the internal clock to store the current date and time. When setting the time and date, Universal Coordinated Time (UTC) must be used.

Converting local time to UTC

- 1. Convert the local time to 24-hour time.
- 2. Use the tables below, to convert 24-hour time to UTC. For US Daylight Savings Time, subtract one hour from each value, when converting to UTC. UTC for other specific regions can be obtained from https://time.is/UTC.

Region	Eastern Std Time	Central Std Time	Mountain Std Time	Pacific Std Time
United States	+ 5:00	+ 6:00	+ 7:00	+ 8:00

- 3. Click the 🛗 icon to display the calendar fly-out menu.
- 4. Select the desired year by clicking on the << or >> icons. To select the month, use the < or > icons.
- 5. Select the day.
- 6. Set the time by either clicking on the hour, minute, and second drop-down lists or by entering the time, directly into the **Set Date / Time [UTC]** field. Always use Universal Coordinated Time (UTC).



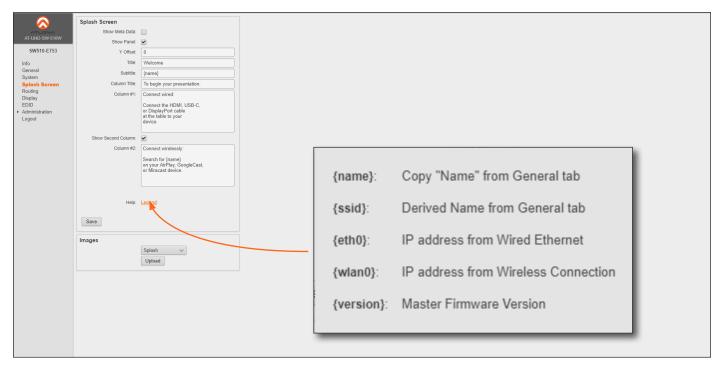
7. Exit the **Set Date / Time [UTC]** field by pressing the TAB key or clicking outside the text field. The time and date information will automatically be saved.



NOTE: When setting a time or date that is ahead of the current settings, the web session will automatically time out. This is normal behavior. Login to continue setting up the unit.



Splash Screen page



Splash Screen

Show Meta Data

Click this check box to display metadata on the splash screen.

Show Panel

Check (enable) this box to display the panel, containing connection instructions and other information.

Y Offset

Sets the up-and-down position of the overlay panel, on the screen. A value of 0 vertically positions the panel in the center of the screen. Positive values move the panel down. Negative values move the panel up.

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 contains 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".

Metadata (shown) -



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".

Legend

Click this link to display a list of available tags that can be used in any of the text fields. Refer to the illustration above.

Save

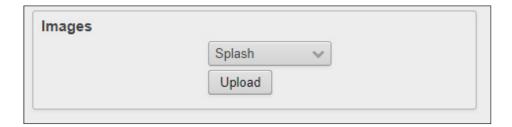
Click this button to commit all changes on this page.



Images

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 1920x1080 or 3840x2160. All common image types, such as JPG, BMP, PNG, TIF, GIF, are supported.



1. Click the drop-down list and select the type of image to upload.



Setting	Description
Loading	Changes background for the boot-up screen.
Splash	Changes the background for the Splash Screen, containing the Panel, OSD, and Metadata (if displayed).

- 2. Click the **Upload** button to select the desired image.
- 3. Click the **Open** button on the **Open** dialog box to upload the image.



Routing page



Input Selection

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, if no signal is present. The default value is 5000 milliseconds (5 seconds).

Matrix Switching

Matrix Switch

Click this check box to enable matrix switching. When this check box is not checked, matrix switch will be disabled. When this feature is enabled, the **Input Selection** section will be disabled. Refer to Matrix Modes (page 31) for more information.

Matrix Mode Static Source

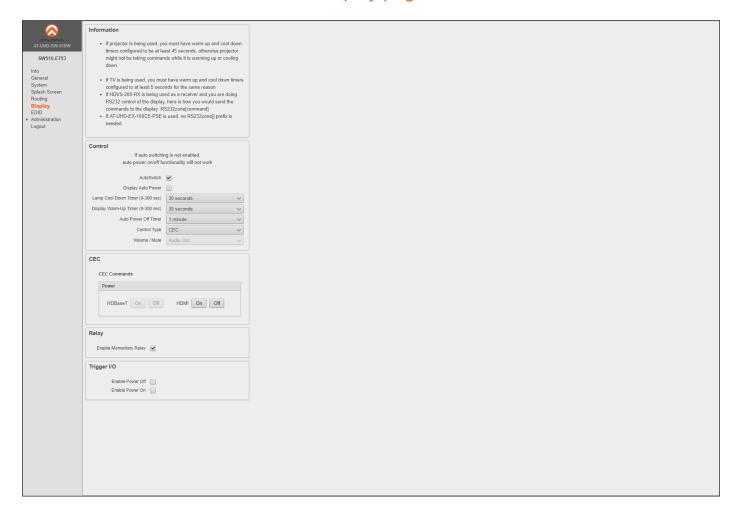
Click this drop-down list to select the static source: None, USB-C, DisplayPort, HDMI 3, HDMI 4, or BYOD.

Matrix Mode Static Output

Click this drop-down list to select the static output: None, HDBaseT, or HDMI.



Display page



Control

AutoSwitch

Click this box to enable or disable auto-switching. When this box is checked, the AT-UHD-SW-510W will automatically switch inputs when the new device is connected. To disable auto-switching, uncheck this box.

Display Auto Power

Click this check box 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.

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 cooldown cycle. Range: 0 to 300. The default value is 30 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 30 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 1 minute.



Control Type

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

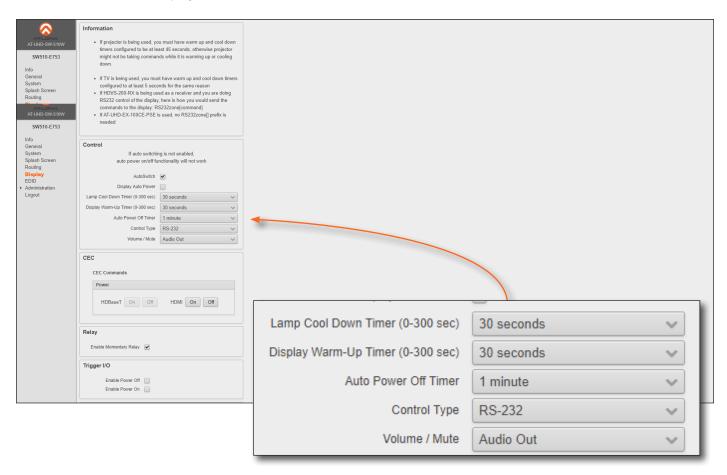
Setting	Description
RS-232	RS-232 is used to send commands.
IP	Commands are sent over IP.
CEC	Uses CEC to send commands.



NOTE: If **Control Type** is set to **CEC**, then the **Volume / Mute** drop-down list will be disabled. Refer to the CEC (page 48) section for more information.

Control Type: RS-232

When **RS-232** is selected from the **Control Type** drop-down, both the **HDBaseT RS-232** and **RS-232/IP Commands** section is displayed.





HDBaseT RS-232

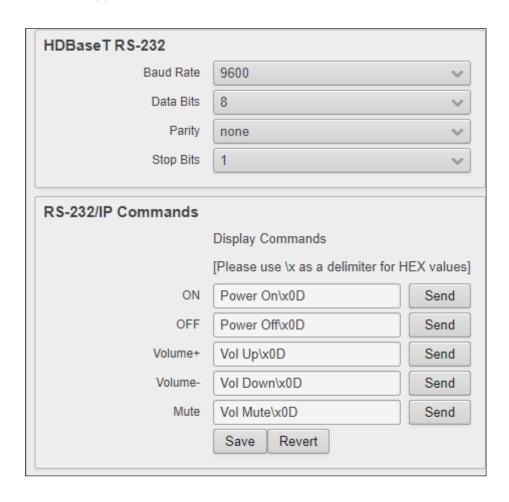
The RS-232 settings over the **HDBaseT** port.

Setting	Description
Baud rate	Sets the baud rate. The following options are available: 9600, 14400, 19200, 38400, 57600, 115200.
Data bit	Sets the number of data bits used to represent each character of data. The following options are available: 7 or 8.
Parity	Sets the parity bit, which can be included with each character to detect errors during the transmission of data. The following options are available: None, Odd, or Even.
Stop bit	Sets the stop bit. Stop bits are sent at the end of each character, allowing the client to detect the end of a character stream. The following options are available: 1 or 2.

RS-232/IP Commands

The RS-232 settings over the **HDBaseT** port.

Enter the appropriate command for the display in each field. Command can be either ASCII or hex. If hex values are being used, then use the /x delimter at the end of the string. ON, OFF, Volume+ (increase), Volume- (decrease), and Mute are supported.





Save

Click this button to commit all changes.

Revert

Click this button to undo all changes.

Control Type: IP

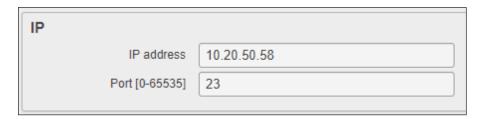
When IP is selected from the Control Type drop-down, both the IP and RS-232/IP Commands section is displayed.

IP Address

Enter the IP address of the remote device.

Port [0 - 65535]

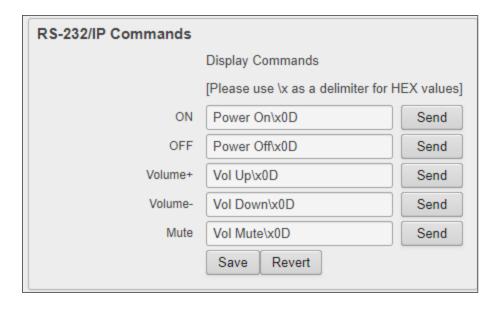
Enter the listening port for the remote device. Values from 0 through 65535 are valid.



RS-232/IP Commands

The IP settings over the **HDBaseT** port.

Enter the appropriate command for the display in each field. Command can be either ASCII or hex. If hex values are being used, then use the /x delimiter at the end of the string. ON, OFF, Volume+ (increase), Volume- (decrease), and Mute are supported.





Save

Click this button to commit all changes.

Revert

Click this button to undo all changes.

Volume / Mute

This feature will be implemented in a future release of firmware.

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

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. These buttons will only be enabled if a device is connected to the AT-UHD-SW-510W, using the correct cable. For example, the HDMI ON / OFF buttons will only be enabled when an HDMI cable is connected from the AT-UHD-SW-510W to a display.

Consumer Electronics Control (CEC): Atlona has confirmed proper CEC functionality with several current models of Samsung, Panasonic, and Sony displays. However, it is not guaranteed that CEC will work with all displays. Many manufacturers do not support the CEC "off" command, and older displays use proprietary commands. Atlona only supports displays that use the CEC command structure defined in HDMI 1.2a. It is recommended that dealers request an evaluation product from Atlona, before designing a system using the CEC protocol. If this is not possible, then other control methods will need to be considered, in order to control displays using Atlona products.

Relay

Enable Momentary Relay

When enabled, the **RELAY** port can be used to control screens, curtains, and other devices. Use a 48 V DC relay with no more than 1 A current draw. This feature is enabled, by default. Refer to Relay (page 12) for wiring information.

Trigger I/O

This section defines how the TRIGGER port will respond to varying voltage levels. Either or both of the following conditions can be enabled or disabled.

Enable Power Off

Check this box to enable a power-off state when the trigger voltage is pulled from low to high. Uncheck this box to disable this function.

• Enable Power On

Check this box to enable a power-on state when the trigger voltage is pulled from low to high. Uncheck this box to disable this function.



EDID page

This feature will be implemented in a future release of firmware.



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. The table below lists the available EDID presets. Each EDID is available for all inputs.

The table below provides a listing of available EDID presets. Refer to Internal EDID Data (page 71) for a summary of each EDID structure.

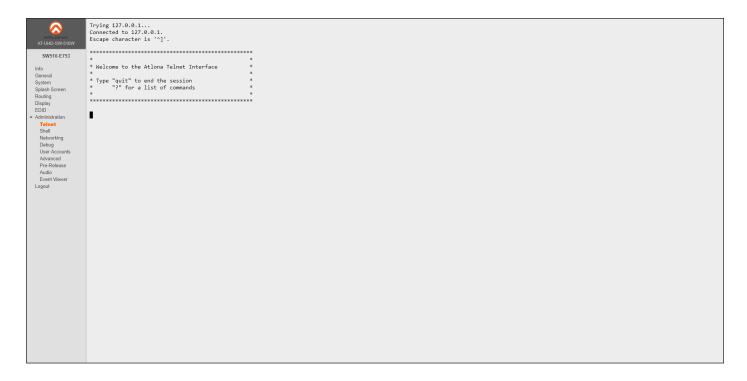
EDID listing	
Default	1600x900p@60 2CH
4K60 2CH	1366x768@60 2CH
4K30 2CH	1280x800p60 2CH
4K30 4:4:4 2CH	1280x720p60 2CH
1920x1200p60 2CH	1024x768p60 2CH
1920x1080P 2CH	800x600p60 2CH



Administration page

Telnet page

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



Shell page

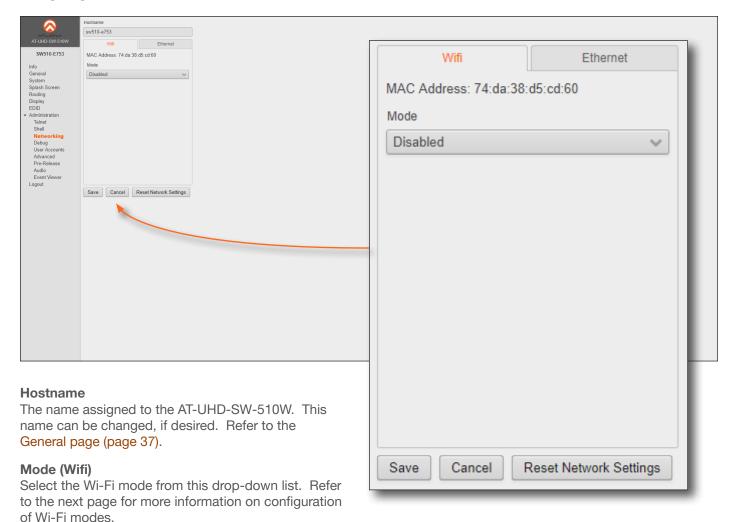
The Shell page is provided for use only by Atlona Technical Support Engineers.





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.



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.

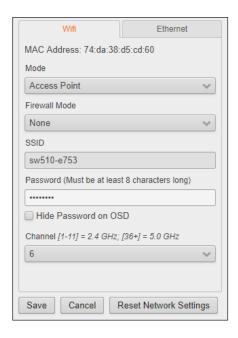
Cance

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

Reset Network Settings

Click this button to reset the network settings to factory-default.





WiFi tab

Mode

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

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 to 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.

Firewall Mode

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

SSID

The SSID assigned to the AT-UHD-SW-510W. The SSID name can be changed under the General page (page 37).

Password

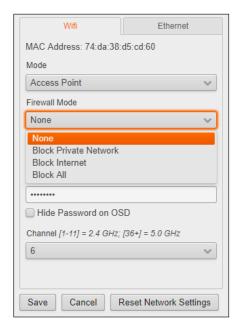
Enter the password, required to connect to the AT-UHD-SW-510W. The default password is 88888888.

Hide Password on OSD

By default, the password will be displayed on the OSD. Check this box to mask the password.

Channel

Click this drop-down list to select the desired wireless channel. Consult with a network administrator for assistance, if required. Channels 1 - 11 are 2.4 GHz. Channels 36 and greater use the 5 GHz band.



Firewall Mode

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.

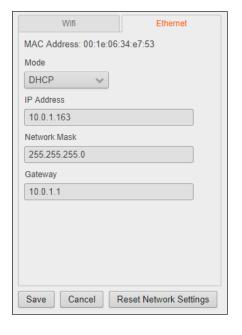
Password

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.



Ethernet tab

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.

When **Mode** is set to DHCP, the **IP Address**, **Network Mask**, and **Gateway** fields will automatically be populated by the AT-UHD-SW-510W, using a DHCP server, and cannot be modified.

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.





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	Select this option to use the factory-default wired network settings. In this mode, none of the fields can be modified and will be set to the following values: IP address = 192.168.1.254 Network mask = 255.255.0.0 Gateway = 192.168.1.1



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.



Connecting to a Wifi Network

- 1. Select **Connect** from the **Mode** drop-down list.
- 2. Click the Pick button to open the Pick a Wifi Network dialog box.

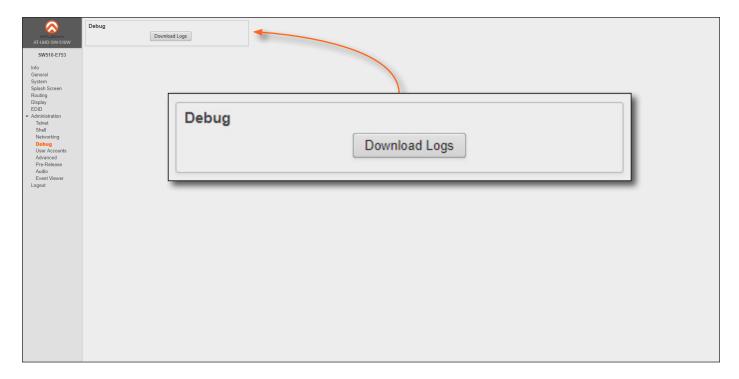


- 3. Click on the desired wireless network from the list.
- 4. Click the **OK** button.



Debug page

Click the **Download Logs** button to download the debug logs. Debug logs are downloaded in a .zip file. Debug logs are used by Atlona Technical Support Engineers to identify functionality issues.

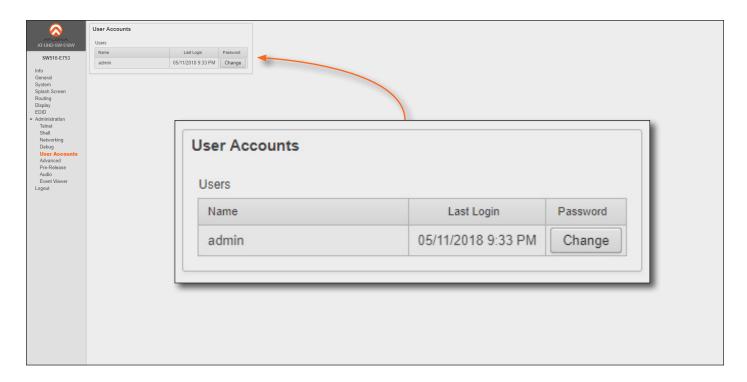


- 1. Click **Debug** on the side menu bar.
- 2. Click the **Downloads Logs** button to display the **Save As** dialog box.
- 3. Browse to the desired folder where the .zip file will be downloaded.
- 4. Click the **Save** button on the **Save As** dialog to save the debug log file.

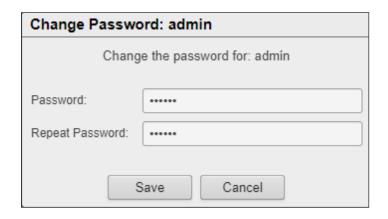


User Accounts page

This page allows the default password to be changed.



1. Click the **Change** button to display the **Change Password** dialog box.



- 2. Enter the new password in the **Password** field.
- 3. Re-enter the same password in the **Repeat Password** field.
- 4. Click the Save button to commit changes or click Cancel to abort the process.



Advanced page



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. Note that the OSD does not include the Panel or the Metadata.



BYOD

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



Airplay - Bluetooth

Click this check box to enable Blutooth discovery.

Arrow Buttons

Click this drop-down list to define the functionality of the front-panel arrow buttons. By default this option is set to Volume.

Setting	Description
Volume	Press the up and down arrow buttons to increase or decrease the output volume, respectively.
OSD	The up-arrow button displays the OSD. The down-arrow button hides the OSD.



Pre-Release page



Moderator Mode

This feature will be available in a future firmware release.



Audio page

Adjusts the output volume.



Audio

Click and drag this slider to adjust the output volume. Output is adjustable from -80 to 0 dB.



Event Viewer page

Displays a dynamic list of events, returned in JSON format. The image below, shows a list of sample events.





Appendix

Updating the Firmware

The following procedure outlines the firmware update procedure for the AT-UHD-SW-510W. This product can only be updated through the web GUI.

Requirements:

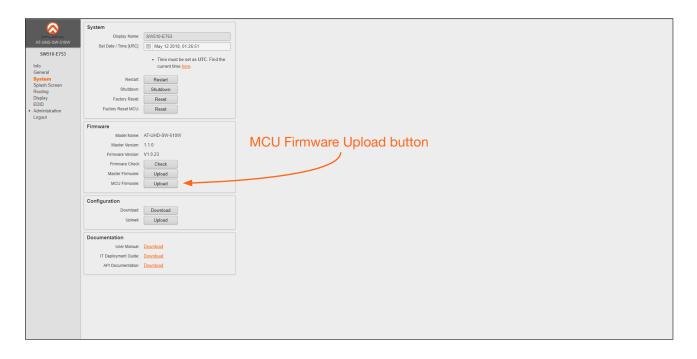
- AT-UHD-SW-510W
- MCU and Master firmware files
- Computer running Microsoft Windows
- 1. Download the firmware files from https://atlona.com/product/at-uhd-sw-510w/.
- 2. Connect the computer, containing the firmware files, to the same network as the AT-UHD-SW-510W.
- 3. Launch a web browser and enter the IP address of the AT-UHD-SW-510W in the address bar.
 - a. If the IP address is unknown, then insert a USB drive into the **AUX** port on the back of the unit. Wait approximately 10 seconds then remove the USB drive. Open the .txt file to obtain the IP address.
- 4. The **Login** screen will be displayed. Enter the login credentials. The default username and password are listed below:

User admin **Password** Atlona

5. Click **System** on the side menu bar.

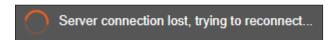


IMPORTANT: The MCU firmware must be updated <u>before</u> the Master firmware. If this order is not followed, system instability may result.





- 6. Click the **Upload** button, next to **MCU Firmware**.
- Select the AT-UHD-SW-510W_MCU_[version].BIN file from the Open dialog box, then click Open to begin the
 update process.
- 8. During the update process, the following message will appear in the upper-right corner of the screen:



Wait approximately four minutes. After the firmware process has completed, the AT-UHD-SW-510W will automatically reboot, twice.

9. The following message will appear at the top of the screen:

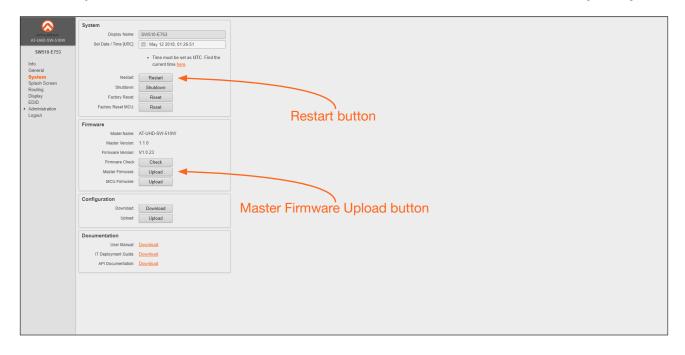
Session Expired Take note of any unsaved data, and click here or press ESC key to continue.

- 10. Click the message to return to the **Login** screen. Enter the login credentials.
- 11. Click System on the side menu bar.
- 12. Click the **Restart** button to reboot the AT-UHD-SW-510W.



IMPORTANT: The AT-UHD-SW-510W must be rebooted after each firmware update, in order to make sure that the unit is properly initialized and prepared to receive the Master firmware file.

- 13. Wait for the reboot process to complete.
- 14. Click the Upload button next to Master Firmware and select the AT-UHD-SW-510W MASTER [version].war file.





15. Repeat steps 8 through 13, making sure to reboot the unit after the Master firmware has been updated. The firmware process will take approximately four minutes.



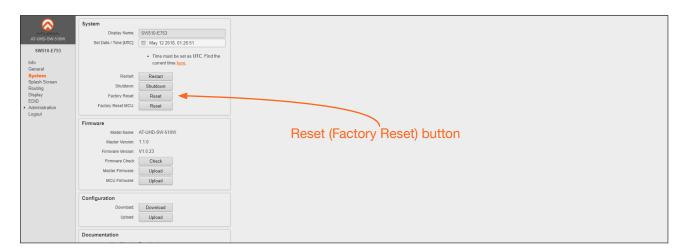
IMPORTANT: The next and final step requires that the AT-UHD-SW-510W be reset to factory-default settings. Before proceeding, make sure to record all settings by taking screen shots, or writing down all pertinent information. Once the factory-reset is complete, it will be necessary to re-enter these settings / values. Refer to the next page for instructions.

16. Click the **Reset** button, next to **Factory Reset**.

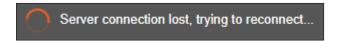


WARNING: Performing a factory reset will erase all settings and configuration information. Make sure that all current settings and values are recorded before proceeding. Performing a factory reset will also set the AT-UHD-SW-510W to DHCP mode. If a static IP is being used, make sure to record these IP settings.

The factory-reset procedure will take approximately four minutes.



17. During the update process, the following message will appear in the upper-right corner of the screen:



18. After a while, the following message will appear at the top of the screen:

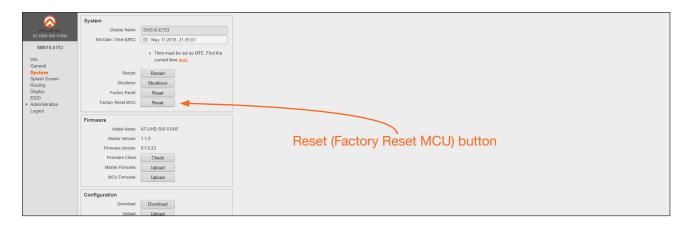
Session Expired Take note of any unsaved data, and click here or press ESC key to continue.

19. Click the message to return to the **Login** screen. Enter the login credentials, using the default username and password:

User admin **Password** Atlona



20. Click **System** on the side menu bar, then click the Factory Reset MCU **Reset** button.



- 21. Power-cycle the AT-UHD-SW-510W by disconnecting and reconnecting the power supply.
- 22. Login to the webGUI using the default username and password.

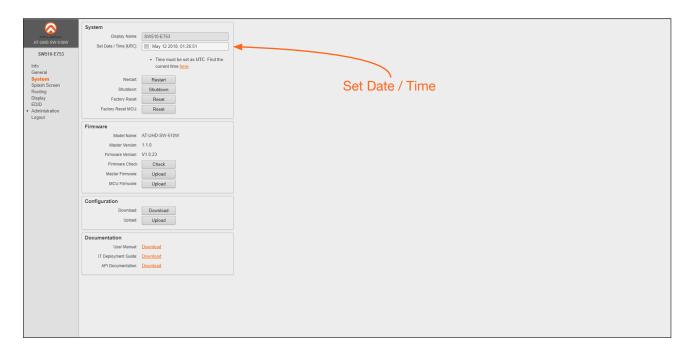
The AT-UHD-SW-510W has been reset to factory-default settings and will use DHCP (if a DHCP server is available) to assign itself an IP address, once connected to a network.

If a static IP was used prior to the firmware update procedure, refer to Step 3a.

23. Set the icon to display the calendar fly out and set the correct UTC time and date. UTC for specific regions can be obtained from https://time.is/UTC.



IMPORTANT: Setting the correct UTC time and date must be performed as a final step. When setting a time or date that is ahead of the default settings, the web session will automatically time out. This is normal behavior.





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	Setting	Default Value
Login	Username Password	admin Atlona
General	Name	SW510-{id}
Splash Screen	Show Metadata Show Panel Y Offset Title Subtitle Column Title Column #1 Show Second Column Column #2	Disabled Enabled 0 Welcome {name} : {version} : [{eth0}] To begin your presentation: Connect wired: Connect the HDMI, USB-C, or DisplayPort cable at the table to your device Enabled Connect wirelessly: Search for SW510-xxxx on your AirPlay, GoogleCast, or Miracast device.
Routing	Fallback Delay Matrix Switch Matrix Mode Static Source Matrix Mode Static Output	5000 (ms) Disabled USB-C HDMI
Display	Autoswitch Display Auto Power Power Lock Button Lamp Cool Down Timer Display Warm Up Timer Auto Power Off Timer Control Type Volume Mute	Enabled Disabled Disabled 15 seconds 15 seconds 30 seconds CEC Audio Out
EDID	USB-C DP HDMI 3 HDMI 4	Default Default Default Default
Administration > Networking	Wifi Firewall (Access Point mode) Channel (Access Point mode) Mode (Ethernet)	Disabled None 6 DHCP
Administration > Advanced	Miracast EDID Arrow Buttons	1080p30 Volume
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.



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

Single-unit Rack Installation

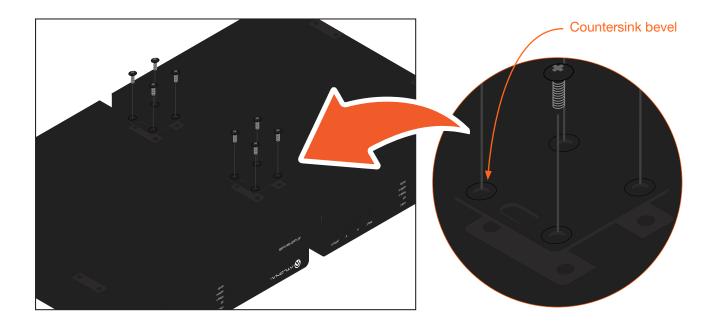
- 1. Attach the included small rack ear (sold separately) to one side of the AT-UHD-SW-510W, using the included screws.
- 2. Attach the included longer rack ear (sold separately) to the opposite side of the AT-UHD-SW-510W using the included screws.





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.



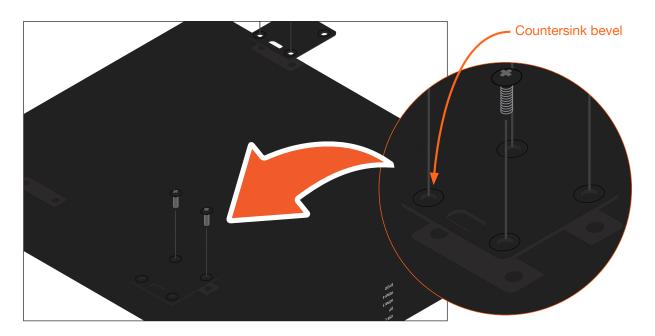
3. Turn the attached units over and install the rack ears (sold separately) to one side of each enclosure using the included screws.





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.



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.



Ø

NOTE: The unit can also be mounted under a flat surface, such as a table, by turning the unit upside down.



Internal EDID Data

The AT-UHD-SW-510W comes with 11 preprogrammed EDID selections. The timing and audio summary (if applicable) for each EDID, is listed below. Raw data is also provided and can be used to view the full EDID structure.

EDID	Description
Default	Pass-through (downstream EDID)

```
EDID
             Description
4K 60 2CH
             Native/preferred timing
             3840x2160p at 60Hz (16:9)
             Standard timings supported
              720 x 400p at 70Hz - IBM VGA
                    480p at 60Hz - IBM VGA
              640 x
                              60Hz - VESA
              800 x 600p at
             1024 x 768p at
                              60Hz - VESA
             1280 x 1024p at
                              60Hz - VESA STD
             1024 x 768p at
                              60Hz - VESA STD
                              60Hz - VESA STD
              800 x 600p at
              640 x 480p at
                              60Hz - VESA STD
             CE video identifiers (VICs) - timing/formats supported
             1920 x 1080p at 60Hz - HDTV (16:9, 1:1)
             1920 x 1080p at
                              50Hz - HDTV (16:9, 1:1)
             1920 x 1080i at
                             60Hz - HDTV (16:9, 1:1)
             1920 x 1080i at
                              50Hz - HDTV (16:9, 1:1)
             1920 x 1080p at
                              24Hz - HDTV (16:9, 1:1)
             1920 x 1080p at 25Hz - HDTV (16:9, 1:1)
                             30Hz - HDTV (16:9, 1:1)
             1920 x 1080p at
             1280 x 720p at 60Hz - HDTV (16:9, 1:1)
                     720p at
                              50Hz - HDTV (16:9, 1:1)
             1280 x
                     480p at
                              60Hz - EDTV (16:9, 32:27)
              720 x
              720 x 576p at 50Hz - EDTV (16:9, 64:45)
              720 x 480i at
                             60Hz - Doublescan (16:9, 32:27)
                    576i at
                              50Hz - Doublescan (16:9, 64:45)
                    576i at
                              50Hz - Doublescan (16:9, 64:45)
              720 x
                             50Hz - Doublescan (16:9, 64:45)
                    576i at
              720 x
                    576i at
                              50Hz - Doublescan (16:9, 64:45)
                     576i at
                              50Hz - Doublescan (16:9, 64:45)
              720 x
                    576i at
                             50Hz - Doublescan (16:9, 64:45)
              720 x 576i at 50Hz - Doublescan (16:9, 64:45)
              720 x
                    576i at 50Hz - Doublescan (16:9, 64:45)
                     576i at 50Hz - Doublescan (16:9, 64:45)
              720 x
                     576i at 50Hz - Doublescan (16:9, 64:45)
              720 x 576i at 50Hz - Doublescan (16:9, 64:45)
             CE audio data (formats supported)
                     2-channel, 16/20/24 bit depths at 32/44/48 kHz
             LPCM
```



EDID	Description				
4K 60 2CH	CE vendor specific data (VSDB)				
	3D structures supported Top-and-bottom, Side-by-side w. horizontal				
	sub-sampling				
	3D formats supported Mandatory formats plus some primary VICs				
	1920 x 1080p at 60Hz - HDTV (16:9, 1:1)				
	1920 x 1080i at 60Hz - HDTV (16:9, 1:1)				
	1920 x 1080p at 24Hz - HDTV (16:9, 1:1)				
	1280 x 720p at 60Hz - HDTV (16:9, 1:1)				
	Raw data				
	00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 14 1A 01 03 80 10 09 78				
	OA EE 91 A3 54 4C 99 26 0F 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01				
	01 01 01 01 01 01 08 E8 00 30 F2 70 5A 80 B0 58 8A 00 BA 88 21 00 00 1E				
	02 3A 80 18 71 38 2D 40 58 2C 45 00 BA 88 21 00 00 1E 00 00 00 FD 00 17				
	3D OF 44 1E 00 OA 20 20 20 20 20 00 00 FC 00 41 54 4C 20 34 4B 34				
	32 30 32 43 48 0A 01 70 02 03 4D F0 57 10 1F 05 14 20 21 22 04 13 03 12				
	07 16 5D 5E 5F 62 63 64 61 60 66 65 23 09 07 07 77 03 0C 00 10 00 B8 3C				
	2F D0 89 01 02 03 04 01 40 00 95 01 78 80 03 E2 67 D8 5D C4 01 78 80 03				
	E3 05 FF 01 E3 06 07 01 E4 0F 00 00 78 02 3A 80 18 71 38 2D 40 58 2C 45				
	00 A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00				
	00 00 00 00 00 00 00 00 00 00 00 00 00				



```
EDID
             Description
4K 30 2CH
             Native/preferred timing
             3840x2160p at 30Hz (16:9)
             Standard timings supported
              720 x 400p at 70Hz - IBM VGA
             640 x 480p at 60Hz - IBM VGA
              800 x 600p at 60Hz - VESA
             1024 x 768p at
                             60Hz - VESA
             1280 x 1024p at
                             60Hz - VESA STD
             1024 x 768p at 60Hz - VESA STD
             800 x 600p at
                             60Hz - VESA STD
              640 x 480p at
                             60Hz - VESA STD
             CE video identifiers (VICs) - timing/formats supported
             1920 x 1080p at 60 \text{Hz} - \text{HDTV} (16:9, 1:1)
             1920 x 1080p at 30Hz - HDTV (16:9, 1:1)
             1920 x 1080p at 24Hz - HDTV (16:9, 1:1)
             1920 x 1080i at
                             60Hz - HDTV (16:9, 1:1)
             1280 x 720p at
                             60Hz - HDTV (16:9, 1:1) [Native]
              720 x 480p at 60Hz - EDTV (16:9, 32:27)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480p at
                             60Hz - EDTV (4:3, 8:9)
              720 x 480p at
                            60Hz - EDTV (4:3, 8:9)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480p at
                             60Hz - EDTV (4:3, 8:9)
             CE audio data (formats supported)
             LPCM
                     2-channel, 16/20/24 bit depths at 32/44/48 kHz
             Raw data
             00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 14 1A 01 03 80 10 09 78
             OA EE 91 A3 54 4C 99 26 OF 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01
             01 01 01 01 01 01 04 74 00 30 F2 70 5A 80 B0 58 8A 00 BA 88 21 00 00 1E
             02 3A 80 18 71 38 2D 40 58 2C 45 00 BA 88 21 00 00 1E 00 00 00 FD 00 17
             3D OF 44 1E 00 0A 20 20 20 20 20 20 00 00 FC 00 41 54 4C 20 34 4B 34
             32 30 32 43 48 0A 01 E8 02 03 32 F1 4B 10 22 20 05 84 03 02 5D 5F 5F 5F
             23 09 07 07 6D 03 0C 00 10 00 B8 3C 2F 00 60 01 03 04 E3 05 03 01 E3 06
             07 01 E7 0E 60 61 65 66 6A 6B 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A
             00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D
             00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 00 00 00 00 00
```



```
EDID
             Description
4K 30 4:4:4
             Native/preferred timing
2CH
             3840x2160p at 30Hz (16:9)
             Standard timings supported
              720 x 400p at 70Hz - IBM VGA
              640 x 480p at 60Hz - IBM VGA
              800 x 600p at 60Hz - VESA
             1024 x 768p at
                              60Hz - VESA
             1024 x 768p at
                              75Hz - VESA
             1280 x 1024p at
                              60Hz - VESA STD
             1024 x 768p at
                              60Hz - VESA STD
              800 x 600p at 60Hz - VESA STD
              640 x 480p at 60Hz - VESA STD
             1280 x 1024p at 60Hz - VESA STD
             1600 \times 1200 p at 60 Hz - VESA STD
             1280 x 1024p at 60Hz - VESA STD
             1600 x 1200p at 60Hz - VESA STD
             CE video identifiers (VICs) - timing/formats supported
             1920 x 1080p at 60Hz - HDTV (16:9, 1:1)
             1920 x 1080p at 30Hz - HDTV (16:9, 1:1)
             1920 x 1080p at 24Hz - HDTV (16:9, 1:1)
             1920 x 1080i at 60Hz - HDTV (16:9, 1:1)
             1280 x 720p at 60Hz - HDTV (16:9, 1:1)
              720 x 480p at 60Hz - EDTV (16:9, 32:27)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480p at 60 \text{Hz} - \text{EDTV} (4:3, 8:9)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 576p at 50Hz - EDTV (16:9, 64:45)
             1280 x 720p at
                              50Hz - HDTV (16:9, 1:1)
                             50Hz - HDTV (16:9, 1:1)
             1920 x 1080i at
             1920 x 1080p at 50Hz - HDTV (16:9, 1:1)
              720 x 480i at 60Hz - Doublescan (16:9, 32:27)
              720 x 480i at 60Hz - Doublescan (16:9, 32:27)
             CE audio data (formats supported)
                    2-channel, 16/20/24 bit depths at 32/44/48/96/192 kHz
             Raw data
             00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 05 1A 01 03 80 10 09 78
             OA EE 91 A3 54 4C 99 26 OF 50 54 A1 OA OO 81 80 61 40 45 40 31 40 81 80
             A9 40 81 80 A9 40 04 74 00 30 F2 70 5A 80 B0 58 8A 00 BA 88 21 00 00 1E
             02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E 00 00 00 FD 00 17
             3F 0F 52 1E 00 0A 20 20 20 20 20 20 00 00 00 FC 00 41 54 4C 34 4B 5F 32
             43 48 34 34 34 0A 01 3D 02 03 47 F1 52 10 22 20 05 04 03 02 5D 5F 5F 5F
             5F 12 13 14 1F 07 5F 29 09 57 07 09 57 07 09 57 07 6C 03 0C 00 10 00 F8
             3C 2O 0O 4O 03 01 67 D8 5D C4 01 78 80 00 E3 05 03 01 E3 06 07 01 E8 0E
             60 61 65 66 6A 6B 02 01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00
             1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E 01 1D 00 72 51
             DO 1E 20 6E 28 55 00 AO 5A 00 00 00 1E 00 00 CC
```



```
EDID
             Description
1920 x 1200
             Native/preferred timing
60 2CH
             1920x1200p at 60Hz
             Standard timings supported
              720 x 400p at 70Hz - IBM VGA
              640 x 480p at 60Hz - IBM VGA
                             67Hz - Apple Mac II
              640 x 480p at
              640 x 480p at
                              72Hz - VESA
              640 x 480p at
                             75Hz - VESA
              800 x 600p at
                             56Hz - VESA
              800 x 600p at
                             60Hz - VESA
                             72Hz - VESA
              800 x 600p at
              800 x 600p at
                              75Hz - VESA
              832 x 624p at
                              75Hz - Apple Mac II
             1024 x 768p at
                              60Hz - VESA
             1024 x 768p at
                              70Hz - VESA
             1024 x 768p at
                              75Hz - VESA
             1280 x 1024p at
                              75Hz - VESA
             1152 x 870p at
                             75Hz - Apple Mac II
             1600 x 1200p at 60Hz - VESA STD
             1440 x 900p at 60Hz - VESA STD
             1400 \times 1050 p at 60 Hz - VESA STD
             1280 \times 1024p at 60Hz - VESA STD
             1280 x 800p at 60Hz - VESA STD
             1280 x 720p at 120Hz - VESA STD
             1024 x 768p at 120Hz - VESA STD
              800 x 600p at 120Hz - VESA STD
             CE speaker allocation data
             FL/FR
             CE video identifiers (VICs) - timing/formats supported
             720 x 480p at 60Hz - EDTV (16:9, 32:27)
             1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native]
             1920 x 1080i at 60Hz - HDTV (16:9, 1:1)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480i at 60 \text{Hz} - Doublescan (4:3, 8:9)
              720 x 480i at 60Hz - Doublescan (16:9, 32:27)
             1440 x 480p at 60Hz - DVD (4:3, 4:9)
             1440 x 480p at
                             60Hz - DVD (16:9, 16:27)
                             50Hz - EDTV (16:9, 64:45)
              720 x 576p at
              720 x 576p at 50Hz - EDTV (4:3, 16:15)
                             50Hz - HDTV (16:9, 1:1)
             1280 x 720p at
                             50Hz - HDTV (16:9, 1:1)
             1920 x 1080i at
              720 x 576i at
                             50Hz - Doublescan (4:3, 16:15)
              720 x 576i at 50Hz - Doublescan (16:9, 64:45)
             1920 x 1080p at 25Hz - HDTV (16:9, 1:1)
             1920 x 1080p at 30Hz - HDTV (16:9, 1:1)
              640 x 480p at 60Hz - Default (4:3, 1:1)
```





EDID	Description				
1920 x 1200p 60 2CH	CE audio data (formats supported) LPCM 2-channel, 16/20/24 bit depths at 32/44/48 kHz				
	Raw data				
	00 FF FF FF FF FF FF 00 06 8C 25 27 01 01 01 01 27 14 01 03 80 00 00 78				
	OA A5 DF A2 59 5C 8F 23 DC 50 5E BF EF 80 A9 40 95 00 90 40 81 80 81 00				
	81 FC 61 7C 45 7C 35 3C 80 A0 70 B0 23 40 30 20 36 00 00 00 00 00 1E				
	00 00 00 FF 00 52 53 34 31 30 33 39 30 36 35 35 37 0A 00 00 00 FD 00 32				
	78 1F 64 11 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 57 55 58				
	47 41 32 43 48 0A 01 EF 02 03 24 C1 83 01 00 00 65 03 0C 00 10 00 51 03				
	84 05 02 06 07 0E 0F 12 11 13 14 15 16 21 22 01 23 09 07 07 8C 0A D0 8A				
	20 E0 2D 10 10 3E 96 00 00 00 00 00 18 01 1D 00 72 51 D0 1E 20 6E 28				
	55 00 00 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 00 00 00				
	00 9E 8C 0A D0 90 20 40 31 20 0C 40 55 00 00 00 00 00 00 18 01 1D 00 BC				
	52 D0 1E 20 B8 28 55 40 00 00 00 00 1E 00 04				



```
EDID
             Description
1920 x 1080p Native/preferred timing
60 2CH
             1920x1080p at 60Hz (16:9)
             Standard timings supported
              720 x 400p at 70Hz - IBM VGA
              640 x 480p at 60Hz - IBM VGA
              800 x 600p at 60Hz - VESA
             1024 x 768p at 60Hz - VESA
             1280 x 1024p at 60Hz - VESA STD
             1024 x 768p at 60Hz - VESA STD
              800 x 600p at 60Hz - VESA STD
              640 x 480p at 60Hz - VESA STD
             CE video identifiers (VICs) - timing/formats supported
             1920 x 1080p at 60 \text{Hz} - \text{HDTV} (16:9, 1:1)
             1920 x 1080p at 30Hz - HDTV (16:9, 1:1)
             1920 x 1080p at 24Hz - HDTV (16:9, 1:1)
             1920 x 1080i at 60Hz - HDTV (16:9, 1:1)
             1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native]
              720 x 480p at 60Hz - EDTV (16:9, 32:27)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
             CE audio data (formats supported)
               LPCM
                       2-channel, 16/20/24 bit depths at 32/44/48 kHz
             Raw data
             00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 00 00 11 15 01 03 80 10 09 78
             OA EE 91 A3 54 4C 99 26 OF 50 54 A1 08 00 81 80 61 40 45 40 31 40 01 01
             01 01 01 01 01 01 02 3A 80 18 71 38 2D 40 58 2C 45 00 A0 5A 00 00 00 1E
             01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 00 00 00 FD 00 39
             3F 1F 52 10 00 0A 20 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 31 30 38
             30 50 20 32 43 48 01 20 02 03 1C F1 47 10 22 20 05 84 03 02 23 09 07 07
             67 03 0C 00 10 00 B8 2D E3 05 03 01 02 3A 80 18 71 38 2D 40 58 2C 45 00
             A0 5A 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 A0 5A 00 00 00 9E
             01 1D 00 72 51 D0 1E 20 6E 28 55 00 A0 5A 00 00 00 1E 8C 0A D0 8A 20 E0
             2D 10 10 3E 96 00 A0 5A 00 00 00 18 26 36 80 A0 70 38 1F 40 30 20 25 00
             AO 5A 00 00 00 1A 00 00 00 00 00 00 00 00 90
```



```
EDID
             Description
1600 x 900p
             Native/preferred timing
60 2CH
             1600x900p at 60Hz (16:9)
             Standard timings supported
              720 x 400p at 70Hz - IBM VGA
              640 x 480p at 60Hz - IBM VGA
              640 \times 480p at 67Hz - Apple Mac II
              640 x 480p at
                              72Hz - VESA
              640 x 480p at
                              75Hz - VESA
              800 x 600p at
                             56Hz - VESA
              800 x 600p at
                              60Hz - VESA
              800 x 600p at
                              72Hz - VESA
              800 x 600p at
                              75Hz - VESA
              832 x 624p at
                              75Hz - Apple Mac II
             1024 x 768p at
                              60Hz - VESA
             1024 x 768p at
                              70Hz - VESA
             1024 x 768p at
                              75Hz - VESA
             1280 x 1024p at
                              75Hz - VESA
             1152 x 870p at
                              75Hz - Apple Mac II
             1600 x 1200p at 60Hz - VESA STD
             1440 x 900p at 60Hz - VESA STD
             1400 \times 1050 p at 60 Hz - VESA STD
             1280 \times 1024p at 60Hz - VESA STD
             1280 x 800p at 60Hz - VESA STD
             1280 x 720p at 120Hz - VESA STD
             1024 x 768p at 120Hz - VESA STD
              800 x 600p at 120Hz - VESA STD
             CE speaker allocation data
             FL/FR
             CE video identifiers (VICs) - timing/formats supported
             720 x 480p at 60Hz - EDTV (16:9, 32:27)
             1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native]
             1920 x 1080i at 60Hz - HDTV (16:9, 1:1)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480i at 60 \text{Hz} - Doublescan (4:3, 8:9)
              720 x 480i at 60Hz - Doublescan (16:9, 32:27)
             1440 x 480p at 60Hz - DVD (4:3, 4:9)
             1440 x 480p at
                             60Hz - DVD (16:9, 16:27)
                             50Hz - EDTV (16:9, 64:45)
              720 x 576p at
              720 x 576p at 50Hz - EDTV (4:3, 16:15)
                              50Hz - HDTV (16:9, 1:1)
             1280 x 720p at
                              50Hz - HDTV (16:9, 1:1)
             1920 x 1080i at
              720 x 576i at
                             50Hz - Doublescan (4:3, 16:15)
              720 x 576i at 50Hz - Doublescan (16:9, 64:45)
             1920 x 1080p at 25Hz - HDTV (16:9, 1:1)
             1920 x 1080p at 30Hz - HDTV (16:9, 1:1)
              640 x 480p at 60Hz - Default (4:3, 1:1)
```





EDID	Description	
1600 x 900p 60 2CH	CE audio data (formats supported) LPCM 2-channel, 16/20/24 bit depths at 32/44/48 kHz	
	Raw data	
	00 FF FF FF FF FF FF 00 06 8C 25 27 01 01 01 01 27 14 01 03 80 00 00 78	
	0A A5 DF A2 59 5C 8F 23 DC 50 5E BF EF 80 A9 40 95 00 90 40 81 80 81 00	
	81 FC 61 7C 45 7C 30 2A 40 C8 60 84 64 30 18 50 13 00 20 C2 31 00 00 18	
	00 00 00 FF 00 52 53 34 31 30 33 39 30 36 35 35 37 0A 00 00 00 FD 00 32	
	78 1F 64 11 00 0A 20 20 20 20 20 20 00 00 FC 00 41 54 4C 20 50 43 58	
	47 41 32 43 0A 20 01 68 02 03 24 C1 83 01 00 00 65 03 0C 00 10 00 51 03	
	84 05 02 06 07 0E 0F 12 11 13 14 15 16 21 22 01 23 09 07 07 8C 0A D0 8A	
	20 E0 2D 10 10 3E 96 00 00 00 00 00 18 01 1D 00 72 51 D0 1E 20 6E 28	
	55 00 00 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 00 00 00	
	00 9E 8C 0A D0 90 20 40 31 20 OC 40 55 00 00 00 00 00 18 01 1D 00 BC	
	52 D0 1E 20 B8 28 55 40 00 00 00 00 1E 00 04	



```
EDID
             Description
1366 x 768p
             Native/preferred timing
60 2CH
             1366x768p at 60Hz
             Standard timings supported
              720 x 400p at 70Hz - IBM VGA
              640 x 480p at 60Hz - IBM VGA
              640 \times 480p at 67Hz - Apple Mac II
              640 x 480p at
                              72Hz - VESA
              640 x 480p at
                              75Hz - VESA
              800 x 600p at
                              56Hz - VESA
              800 x 600p at
                              60Hz - VESA
              800 x 600p at
                              72Hz - VESA
              800 x 600p at
                              75Hz - VESA
              832 x 624p at
                              75Hz - Apple Mac II
             1024 x 768p at
                              60Hz - VESA
             1024 x 768p at
                              70Hz - VESA
             1024 x 768p at
                              75Hz - VESA
             1280 x 1024p at
                              75Hz - VESA
             1152 x 870p at
                              75Hz - Apple Mac II
             1600 x 1200p at 60Hz - VESA STD
             1440 x 900p at 60Hz - VESA STD
             1400 \times 1050 p at 60 Hz - VESA STD
             1280 \times 1024p at 60Hz - VESA STD
             1280 x 800p at 60Hz - VESA STD
             1280 x 720p at 120Hz - VESA STD
             1024 x 768p at 120Hz - VESA STD
              800 x 600p at 120Hz - VESA STD
             CE speaker allocation data
             FL/FR
             CE video identifiers (VICs) - timing/formats supported
              720 x 480p at 60Hz - EDTV (16:9, 32:27)
             1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native]
             1920 x 1080i at 60Hz - HDTV (16:9, 1:1)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480i at 60Hz - Doublescan (4:3, 8:9)
              720 x 480i at 60Hz - Doublescan (16:9, 32:27)
             1440 \times 480p \text{ at } 60Hz - DVD (4:3, 4:9)
             1440 \times 480p \text{ at } 60\text{Hz} - \text{DVD } (16:9, 16:27)
              720 x 576p at 50Hz - EDTV (16:9, 64:45)
              720 x 576p at 50Hz - EDTV (4:3, 16:15)
             1280 x 720p at 50Hz - HDTV (16:9, 1:1)
             1920 x 1080i at 50Hz - HDTV (16:9, 1:1)
              720 x 576i at 50Hz - Doublescan (4:3, 16:15)
              720 x 576i at 50Hz - Doublescan (16:9, 64:45)
             1920 x 1080p at 25Hz - HDTV (16:9, 1:1)
             1920 x 1080p at 30Hz - HDTV (16:9, 1:1)
              640 x 480p at 60Hz - Default (4:3, 1:1)
```





EDID	Description			
1366 x 768p 60 2CH	CE audio data (formats supported) LPCM 2-channel, 16/20/24 bit depths at 32/44/48 kHz			
	Raw data			
	00 FF FF FF FF FF FF 00 06 8C 25 27 01 01 01 01 27 14 01 03 80 00 00 78			
	0A A5 DF A2 59 5C 8F 23 DC 50 5E BF EF 80 A9 40 95 00 90 40 81 80 81 00			
	81 FC 61 7C 45 7C 66 21 56 AA 51 00 1E 30 46 8F 33 00 00 00 00 00 1E			
	00 00 00 FF 00 52 53 34 31 30 33 39 30 36 35 35 37 0A 00 00 00 FD 00 32			
	78 1F 64 11 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 54 56 57			
	58 47 41 32 43 48 01 10 02 03 24 C1 83 01 00 00 65 03 0C 00 10 00 51 03			
	84 05 02 06 07 0E 0F 12 11 13 14 15 16 21 22 01 23 09 07 07 8C 0A D0 8A			
	20 E0 2D 10 10 3E 96 00 00 00 00 00 18 01 1D 00 72 51 D0 1E 20 6E 28			
	55 00 00 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 00 00 00			
	00 9E 8C 0A D0 90 20 40 31 20 0C 40 55 00 00 00 00 00 18 01 1D 00 BC			
	52 D0 1E 20 B8 28 55 40 00 00 00 00 1E 00 04			



```
EDID
             Description
1280 x 800p
             Native/preferred timing
60 2CH
             1280x800p at 60Hz
             Standard timings supported
              720 x 400p at 70Hz - IBM VGA
              640 x 480p at 60Hz - IBM VGA
              640 \times 480p at 67Hz - Apple Mac II
              640 x 480p at
                              72Hz - VESA
              640 x 480p at
                              75Hz - VESA
              800 x 600p at
                              56Hz - VESA
              800 x 600p at
                              60Hz - VESA
              800 x 600p at
                              72Hz - VESA
              800 x 600p at
                              75Hz - VESA
              832 x 624p at
                              75Hz - Apple Mac II
             1024 x 768p at
                              60Hz - VESA
             1024 x 768p at
                              70Hz - VESA
             1024 x 768p at
                              75Hz - VESA
             1280 x 1024p at
                              75Hz - VESA
             1152 x 870p at
                              75Hz - Apple Mac II
             1600 x 1200p at 60Hz - VESA STD
             1440 x 900p at 60Hz - VESA STD
             1400 \times 1050 p at 60 Hz - VESA STD
             1280 \times 1024 p at 60 Hz - VESA STD
             1280 x 800p at 60Hz - VESA STD
             1280 x 720p at 120Hz - VESA STD
             1024 x 768p at 120Hz - VESA STD
              800 x 600p at 120Hz - VESA STD
             CE speaker allocation data
             FL/FR
             CE video identifiers (VICs) - timing/formats supported
              720 x 480p at 60Hz - EDTV (16:9, 32:27)
             1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native]
             1920 x 1080i at 60Hz - HDTV (16:9, 1:1)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480i at 60Hz - Doublescan (4:3, 8:9)
              720 x 480i at 60Hz - Doublescan (16:9, 32:27)
             1440 \times 480p \text{ at } 60Hz - DVD (4:3, 4:9)
             1440 \times 480p \text{ at } 60\text{Hz} - \text{DVD } (16:9, 16:27)
              720 x 576p at 50Hz - EDTV (16:9, 64:45)
              720 x 576p at 50Hz - EDTV (4:3, 16:15)
             1280 x 720p at 50Hz - HDTV (16:9, 1:1)
             1920 x 1080i at 50Hz - HDTV (16:9, 1:1)
              720 x 576i at 50Hz - Doublescan (4:3, 16:15)
              720 x 576i at 50Hz - Doublescan (16:9, 64:45)
             1920 x 1080p at 25Hz - HDTV (16:9, 1:1)
             1920 x 1080p at 30Hz - HDTV (16:9, 1:1)
              640 x 480p at 60Hz - Default (4:3, 1:1)
```





EDID	Description			
1280 x 800p 60 2CH	CE audio data (formats supported) LPCM 2-channel, 16/20/24 bit depths at 32/44/48 kHz			
	Raw data			
	00 FF FF FF FF FF FF 00 06 8C 25 27 01 01 01 01 27 14 01 03 80 00 00 78			
	0A A5 DF A2 59 5C 8F 23 DC 50 5E BF EF 80 A9 40 95 00 90 40 81 80 81 00			
	81 FC 61 7C 45 7C 9E 20 00 90 51 20 1F 30 48 80 36 00 00 00 00 00 00 1E			
	00 00 00 FF 00 52 53 34 31 30 33 39 30 36 35 35 37 0A 00 00 00 FD 00 32			
	78 1F 64 11 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 50 43 57			
	58 47 41 32 43 48 01 49 02 03 24 C1 83 01 00 00 65 03 0C 00 10 00 51 03			
	84 05 02 06 07 0E 0F 12 11 13 14 15 16 21 22 01 23 09 07 07 8C 0A DO 8A			
	20 E0 2D 10 10 3E 96 00 00 00 00 00 18 01 1D 00 72 51 D0 1E 20 6E 28			
	55 00 00 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 00 00 00			
	00 9E 8C 0A D0 90 20 40 31 20 0C 40 55 00 00 00 00 00 18 01 1D 00 BC			
	52 D0 1E 20 B8 28 55 40 00 00 00 00 1E 00 04			



```
EDID
            Description
1024 x 768p
            Native/preferred timing
60 2CH
            1280x720p at 60Hz (16:9)
            CE video identifiers (VICs) - timing/formats supported
            1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native]
            1280 x 720p at 50Hz - HDTV (16:9, 1:1)
            1920 x 1080i at 60Hz - HDTV (16:9, 1:1)
            1920 x 1080i at 50Hz - HDTV (16:9, 1:1)
             720 x 480p at 60Hz - EDTV (16:9, 32:27)
             720 x 480i at 60Hz - Doublescan (16:9, 32:27)
            CE audio data (formats supported)
            LPCM
                   2-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz
            CE speaker allocation data
            FL/FR
            Raw data
            00 FF FF FF FF FF FF 00 06 8C 11 20 00 00 05 01 15 01 03 80 34 21 78
            EE EE 91 A3 54 4C 99 26 OF 50 54 00 00 00 01 01 01 01 01 01 01 01 01 01
            01 01 01 01 01 01 01 10 00 72 51 D0 1E 20 6E 28 55 00 C4 8E 21 00 00 1E
            65 1D 00 BC 52 D0 1E 20 B8 28 55 40 C4 8E 21 00 00 1E 00 00 00 FC 00 41
            54 4C 20 37 32 30 50 32 43 48 0A 20 00 00 00 FD 00 38 4C 1E 53 11 01 0A
            20 20 20 20 20 20 01 FA 02 03 1B 71 46 84 13 05 14 03 07 23 09 7F 07 83
            01 00 00 67 03 0C 00 10 00 00 11 01 1D 00 72 51 D0 1E 20 6E 28 55 00 C4
            8E 21 00 00 1E 01 1D 00 BC 52 DO 1E 20 B8 28 55 40 C4 8E 21 00 00 1E 8C
            0A D0 8A 20 E0 2D 10 10 3E 96 00 C4 8E 21 00 00 18 00 00 00 00 00 00 00
```



```
EDID
             Description
1024 x 768p
             Native/preferred timing
60 2CH
             1024x768p at 60Hz (16:9)
             Standard timings supported
              720 x 400p at 70Hz - IBM VGA
              640 x 480p at 60Hz - IBM VGA
              640 \times 480p at 67Hz - Apple Mac II
              640 x 480p at
                              72Hz - VESA
              640 x 480p at
                              75Hz - VESA
              800 x 600p at
                             56Hz - VESA
              800 x 600p at
                              60Hz - VESA
                              72Hz - VESA
              800 x 600p at
              800 x 600p at
                              75Hz - VESA
              832 x 624p at
                              75Hz - Apple Mac II
             1024 x 768p at
                              60Hz - VESA
             1024 x 768p at
                              70Hz - VESA
             1024 x 768p at
                              75Hz - VESA
             1280 x 1024p at
                              75Hz - VESA
             1152 x 870p at
                              75Hz - Apple Mac II
             1600 x 1200p at 60Hz - VESA STD
             1440 x 900p at 60Hz - VESA STD
             1400 \times 1050 p at 60 Hz - VESA STD
             1280 \times 1024 p at 60 Hz - VESA STD
             1280 x 800p at 60Hz - VESA STD
             1280 x 720p at 120Hz - VESA STD
             1024 x 768p at 120Hz - VESA STD
              800 x 600p at 120Hz - VESA STD
             CE speaker allocation data
             FL/FR
             CE video identifiers (VICs) - timing/formats supported
              720 x 480p at 60Hz - EDTV (16:9, 32:27)
             1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native]
             1920 x 1080i at 60Hz - HDTV (16:9, 1:1)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480i at 60 \text{Hz} - Doublescan (4:3, 8:9)
              720 x 480i at 60Hz - Doublescan (16:9, 32:27)
             1440 x 480p at 60Hz - DVD (4:3, 4:9)
             1440 x 480p at
                             60Hz - DVD (16:9, 16:27)
                              50Hz - EDTV (16:9, 64:45)
              720 x 576p at
              720 x 576p at 50Hz - EDTV (4:3, 16:15)
                              50Hz - HDTV (16:9, 1:1)
             1280 x 720p at
                              50Hz - HDTV (16:9, 1:1)
             1920 x 1080i at
              720 x 576i at
                             50Hz - Doublescan (4:3, 16:15)
              720 x 576i at 50Hz - Doublescan (16:9, 64:45)
             1920 x 1080p at 25Hz - HDTV (16:9, 1:1)
             1920 x 1080p at 30Hz - HDTV (16:9, 1:1)
              640 x 480p at 60Hz - Default (4:3, 1:1)
```





EDID	Description		
1024 x 768p	CE audio data (formats supported)		
60 2CH	LPCM 2-channel, 16/20/24 bit depths at 32/44/48 kHz		
	Raw data		
	00 FF FF FF FF FF FF 00 06 8C 25 27 01 01 01 01 27 14 01 03 80 00 00 78		
	OA A5 DF A2 59 5C 8F 23 DC 50 5E BF EF 80 A9 40 95 00 90 40 81 80 81 00		
	81 FC 61 7C 45 7C 64 19 00 40 41 00 26 30 18 87 36 00 C4 8E 21 00 00 18		
	00 00 00 FF 00 52 53 34 31 30 33 39 30 36 35 35 37 0A 00 00 00 FD 00 32		
	78 1F 64 11 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 50 43 58		
	47 41 32 43 0A 20 01 34 02 03 24 C1 83 01 00 00 65 03 0C 00 10 00 51 03		
	84 05 02 06 07 0E 0F 12 11 13 14 15 16 21 22 01 23 09 07 07 8C 0A D0 8A		
	20 E0 2D 10 10 3E 96 00 00 00 00 00 18 01 1D 00 72 51 D0 1E 20 6E 28		
	55 00 00 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 00 00 00		
	00 9E 8C 0A D0 90 20 40 31 20 0C 40 55 00 00 00 00 00 18 01 1D 00 BC		
	52 D0 1E 20 B8 28 55 40 00 00 00 00 1E 00 04		



```
EDID
             Description
800 x 600p
             Native/preferred timing
60 2CH
             800x600p at 60Hz (4:3)
             Standard timings supported
              720 x 400p at 70Hz - IBM VGA
              640 x 480p at 60Hz - IBM VGA
              640 \times 480p at 67Hz - Apple Mac II
              640 x 480p at
                              72Hz - VESA
              640 x 480p at
                              75Hz - VESA
              800 x 600p at
                             56Hz - VESA
              800 x 600p at
                              60Hz - VESA
              800 x 600p at
                              72Hz - VESA
              800 x 600p at
                              75Hz - VESA
              832 x 624p at
                              75Hz - Apple Mac II
             1024 x 768p at
                              60Hz - VESA
             1024 x 768p at
                              70Hz - VESA
             1024 x 768p at
                              75Hz - VESA
             1280 x 1024p at
                              75Hz - VESA
             1152 x 870p at
                              75Hz - Apple Mac II
             1600 x 1200p at 60Hz - VESA STD
             1440 x 900p at 60Hz - VESA STD
             1400 \times 1050 p at 60 Hz - VESA STD
             1280 \times 1024 p at 60 Hz - VESA STD
             1280 x 800p at 60Hz - VESA STD
             1280 x 720p at 120Hz - VESA STD
             1024 x 768p at 120Hz - VESA STD
              800 x 600p at 120Hz - VESA STD
             CE speaker allocation data
             FL/FR
             CE video identifiers (VICs) - timing/formats supported
              720 x 480p at 60Hz - EDTV (16:9, 32:27)
             1280 x 720p at 60Hz - HDTV (16:9, 1:1) [Native]
             1920 x 1080i at 60Hz - HDTV (16:9, 1:1)
              720 x 480p at 60Hz - EDTV (4:3, 8:9)
              720 x 480i at 60 \text{Hz} - Doublescan (4:3, 8:9)
              720 x 480i at 60Hz - Doublescan (16:9, 32:27)
             1440 x 480p at 60Hz - DVD (4:3, 4:9)
             1440 x 480p at
                             60Hz - DVD (16:9, 16:27)
                             50Hz - EDTV (16:9, 64:45)
              720 x 576p at
              720 x 576p at 50Hz - EDTV (4:3, 16:15)
                              50Hz - HDTV (16:9, 1:1)
             1280 x 720p at
                              50Hz - HDTV (16:9, 1:1)
             1920 x 1080i at
              720 x 576i at
                             50Hz - Doublescan (4:3, 16:15)
              720 x 576i at 50Hz - Doublescan (16:9, 64:45)
             1920 x 1080p at 25Hz - HDTV (16:9, 1:1)
             1920 x 1080p at 30Hz - HDTV (16:9, 1:1)
              640 x 480p at 60Hz - Default (4:3, 1:1)
```





EDID	Description			
1024 x 768p 60 2CH	CE audio data (formats supported) LPCM 2-channel, 16/20/24 bit depths at 32/44/48 kHz			
	Raw data			
	00 FF FF FF FF FF FF 00 06 8C 25 27 01 01 01 01 27 14 01 03 80 00 00 78			
	0A A5 DF A2 59 5C 8F 23 DC 50 5E BF EF 80 A9 40 95 00 90 40 81 80 81 00			
	81 FC 61 7C 45 7C A0 0F 20 00 31 58 1C 20 28 80 14 00 12 8E 21 00 00 1E			
	00 00 00 FF 00 52 53 34 31 30 33 39 30 36 35 35 37 0A 00 00 00 FD 00 32			
	78 1F 64 11 00 0A 20 20 20 20 20 00 00 00 FC 00 41 54 4C 20 50 43 53			
	56 47 41 32 43 0A 01 88 02 03 24 C1 83 01 00 00 65 03 0C 00 10 00 51 03			
	84 05 02 06 07 0E 0F 12 11 13 14 15 16 21 22 01 23 09 07 07 8C 0A DO 8A			
	20 E0 2D 10 10 3E 96 00 00 00 00 00 18 01 1D 00 72 51 D0 1E 20 6E 28			
	55 00 00 00 00 00 1E 01 1D 80 18 71 1C 16 20 58 2C 25 00 00 00 00			
	00 9E 8C 0A D0 90 20 40 31 20 0C 40 55 00 00 00 00 00 18 01 1D 00 BC			
	52 D0 1E 20 B8 28 55 40 00 00 00 00 1E 00 04			



Specifications

Connectors, Controls, and Indicators	
HDMI IN	2 - Type A, 19-pin female
HDMI OUT	1 - Type A, 19-pin female
DP IN	1 - 20-pin female
USB-C IN	1 - 24-pin female, AV input (Alternate Mode)
USB	3 - USB 2.0 Type A for Wi-Fi® antenna modules
RS-232	1 - 3-pin captive screw (bidirectional)
RELAY	1 - 3-pin captive screw, normally open (NO), with adjustable Toggle and Pulse modes Electrical rating: 48 V @ 1 A
TRIGGER	1 - 4-pin captive screw Electrical rating: 30 V @ 1 A (max.)
AUDIO IN	1 - 3.5 mm, unbalanced 2-channel
AUDIO OUT	1 - 5-pin captive screw, balanced / unbalanced 2-channel
HDBaseT OUT	1 - RJ45
LAN	1 - RJ45
DC 24V	1 - 4-pin, locking
Control Buttons: INPUT, CURSOR (UP/DOWN), DISPLAY	4 - momentary, tact-type
Input Indicators: USB-C, DP, HDMI 3, HDMI 4, BYOD	5 - LED, blue

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
Wireless Chroma Subsampling	4:2:0
Color Depth	8-bit, 10-bit, 12-bit
HDR †	HDR10 and Dolby® Vision™ @ 60Hz; HDMI or DisplayPort inputs only

^{*} 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®
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Bit Rate	24 Mbits/s 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	
Maximum TMDS Clock	600 MHz (300 MHz over HDBaseT)
HDMI	HDMI 2.0*
HDBaseT	10 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	
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	
Protocols	DHCP, HTTP, Telnet, SSH, TCP/IP, UDP
Security	HTTPS, SSL,TLS
Ethernet Speed	10/100/1000 Mbps
Addressing	DHCP, static
Wi-Fi	IEEE 802.11n/ac 2.5 GHz / 5 GHz
Wi-Fi Protocols	WPA, WPA2, PSK
Antenna	2 included

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

Power	
Consumption (full load)	121 W
Idle Consumption	35 - 40 W
Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 24 V / 5 A 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	



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