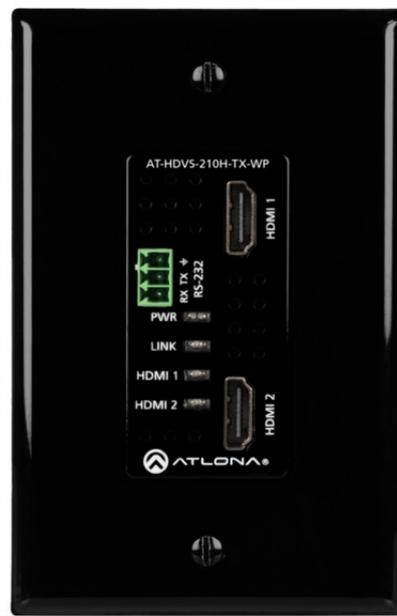# 4K / UHD
Two-Input Wallplate Switcher for HDMI
with Ethernet-Enabled HDBaseT™ Output

Version Information

Version	Release Date	Notes
1	Nov 2017	Initial Release
2	Feb 2018	f/w 1.0.11; added InputStatus and InputBroadcast commands
3	Mar 2018	Commands moved to separate API document
4	Jun 2019	1.0.31 web GUI updates; refer to Introduction to Web GUI (page 17)

Welcome to Atlona!

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

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

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

Sales, Marketing, and Customer Support

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Switzerland

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Sales and Customer Service Hours
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Operating Notes

⚠️ **IMPORTANT:** Visit http://www.atlona.com/product/AT-HDVS-210H-TX-WP for the latest firmware updates and User Manual.

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

Coverage

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

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

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

<div align="center">OR</div>

- 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.

<div align="center">OR</div>

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

Repair, replacement or refund of Atlona products is the purchaser's exclusive remedy and Atlona liability does not extend to any other damages, incidental, consequential or otherwise.

This Limited Product Warranty extends to the original end-user purchaser of Atlona products and is non-transferrable to any subsequent purchaser(s) or owner(s) of these products.

Coverage Periods

Atlona Limited Product Warranty Period begins on the date of purchase by the end-purchaser. The date contained on the end-purchaser 's sales or delivery receipt is the proof purchase date.

Limited Product Warranty Terms – New Products

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

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

- Lifetime Limited Product Warranty for all cable products.

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

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

Remedy

Atlona recommends that end-purchasers contact their authorized Atlona dealer or reseller from whom they purchased their products. Atlona can also be contacted directly. Visit www.atlona.com for Atlona's contact information and hours of operation. Atlona requires that a dated sales or delivery receipt from an authorized dealer, reseller or end-purchaser is provided before Atlona extends its warranty services. Additionally, a return merchandise authorization (RMA) and/or case number, is required to be obtained from Atlona in advance of returns.

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

Exclusions

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

- Damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Atlona to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product.
- Equipment enclosures, cables, power supplies, batteries, LCD displays, and any accessories used in conjunction with the product(s).
- Products purchased from unauthorized distributors, dealers, resellers, auction websites and similar unauthorized channels of distribution.

Disclaimers

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

Limitation on Liability

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

Exclusive Remedy

To the maximum extent permitted by law, this limited product warranty and the remedies set forth above are exclusive and in lieu of all other warranties, remedies and conditions, whether oral or written, express or implied. To the maximum extent permitted by law, Atlona specifically disclaims all implied warranties, including, without limitation, warranties of merchantability and fitness for a particular purpose. If Atlona cannot lawfully disclaim or exclude implied warranties under applicable law, then all implied warranties covering its products including warranties of merchantability and fitness for a particular purpose, shall provide to its products under applicable law. If any product to which this limited warranty applies is a "Consumer Product" under the Magnuson-Moss Warranty Act (15 U.S.C.A. §2301, ET SEQ.) or other applicable law, the foregoing disclaimer of implied warranties shall not apply, and all implied warranties on its products, including warranties of merchantability and fitness for the particular purpose, shall apply as provided under applicable law.

Other Conditions

Atlona's Limited Product Warranty offering gives legal rights, and other rights may apply and vary from country to country or state to state. This limited warranty is void if (i) the label bearing the serial number of products have been removed or defaced, (ii) products are not purchased from an authorized Atlona dealer or reseller. A comprehensive list of Atlona's authorized distributors, dealers and resellers can be found at www.atlona.com.

Important Safety Information

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

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

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

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this product near water.

6. Clean only with a dry cloth.

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

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

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

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

11. Only use attachments/accessories specified by Atlona.

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

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

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

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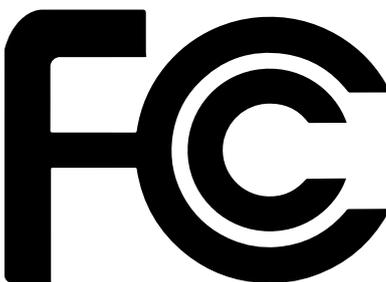
FCC Compliance and Advisory Statement: This hardware device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received including interference that may cause undesired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

Table of Contents

Introduction

The Atlona **AT-HDVS-210H-TX-WP** is a 2×1 switcher and HDBaseT transmitter with two HDMI inputs. It features a US one-gang, Decora-style wallplate form factor, and includes interchangeable black and white wallplates and faceplates. Video signals up to 4K/UHD @ 60 Hz with 4:2:0 chroma subsampling, plus embedded audio and control can be transmitted up to 330 feet (100 meters). The HDVS-210H-TX-WP is HDCP 2.2 compliant. It is designed for use with select HDVS Series receivers and scalers, as well as the AT-UHD-EX-100CE-RX-PSE receiver (available together as a kit), and Atlona switchers and matrix switchers with HDBaseT inputs. This transmitter can serve as an integral component of a fully automated AV system, with the convenience of automatic input selection and display control. It is remotely powered by the UHD-EX-100CE-RX-PSE or other Atlona HDBaseT-equipped devices through Power over Ethernet (PoE).

Features

- US one-gang enclosure for Decora-style wallplate openings – interchangeable as black or white
- 2×1 HDBaseT switcher with two HDMI inputs
- HDBaseT transmitter for AV, power, and control up to 330 feet (100 meters)
- HDCP 2.2 compliant
- 4K/UHD capability @ 60 Hz with 4:2:0 chroma subsampling
- Remotely powered via PoE (Power over Ethernet)
- Automatic display control
- Automatic input selection using hot plug detect and video detection technology
- TCP/IP and RS-232 control of switcher
- EDID management
- HDCP management
- Configured and managed by AMS (Atlona Management System)
- Field-updatable firmware
- Front-panel power and signal status LED indicators
- Award-winning 10 year limited product warranty

Package Contents

1 x AT-HDVS-210H-TX-WP
1 x White faceplate with RS-232 cover
1 x White wallplate
1 x Black faceplate with RS-232 cover
1 x Black wallplate
1 x Installation Guide

Panel Description

Front

Rear
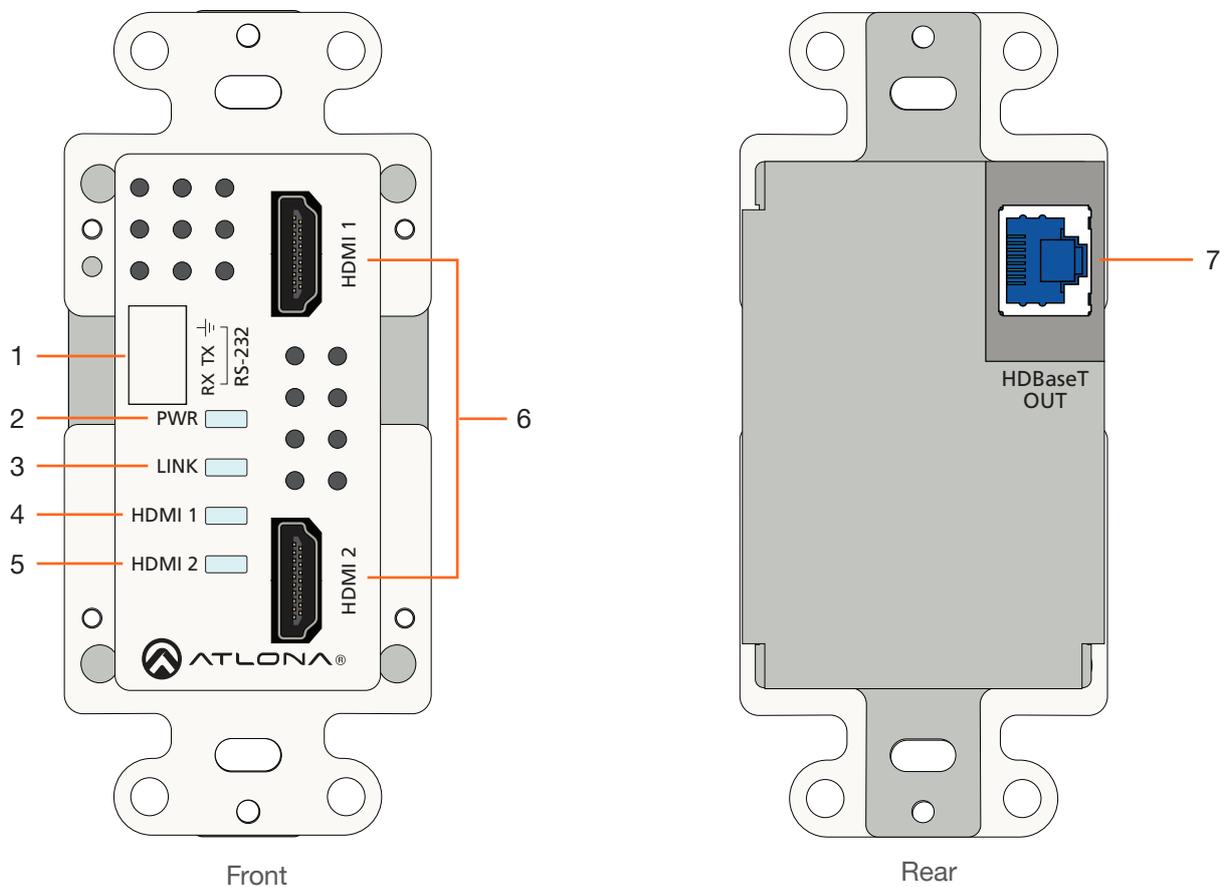
Wallplate with white trim is shown

1 **RS-232**
   Remove this cover to expose the RS-232 port. Connect an RS-232 cable, with a 3-pin captive screw connector, from this port to a control system. Refer to RS-232 Connector (page 10) for more information.

2 **PWR**
   This LED indicator glows solid green when the unit is powered.

3 **LINK**
   This LED indicator glows solid green to indicate the presence of a stable A/V signal.

4 **HDMI 1**
   This LED indicator glows solid green when the **HDMI 1** port is the currently selected port.

5 **HDMI 2**
   This LED indicator glows solid green when the **HDMI 2** port is the currently selected port.

6 **HDMI 1 / HDMI 2**
   Connect an HDMI cable from each of these ports to a UHD/HD source.

7 **HDBaseT OUT**
   Connect an Ethernet cable from this port to a locally-powered HDBaseT receiver such as the AT-HDVS-200-RX or AT-UHD-EX-100CE-RX-PSE.
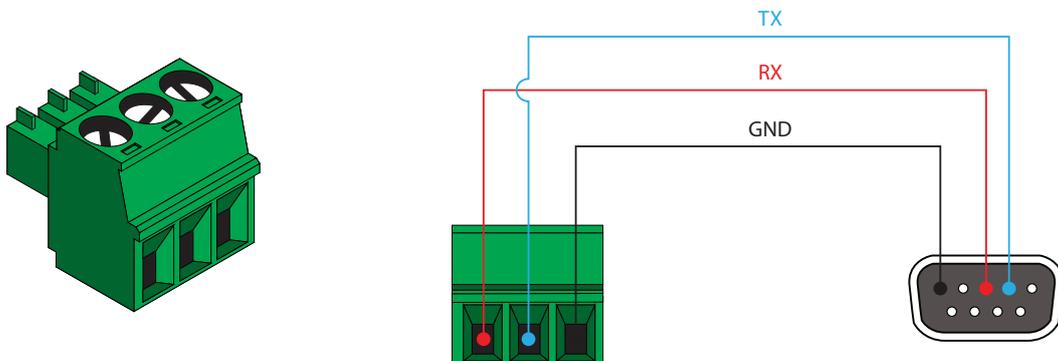
Installation

RS-232 Connector

The AT-HDVS-210H-TX-WP provides RS-232 control between an automation system and an RS-232 device. This step is optional.

1. Remove the small plate covering the **RS-232** port on the faceplate.

small plate
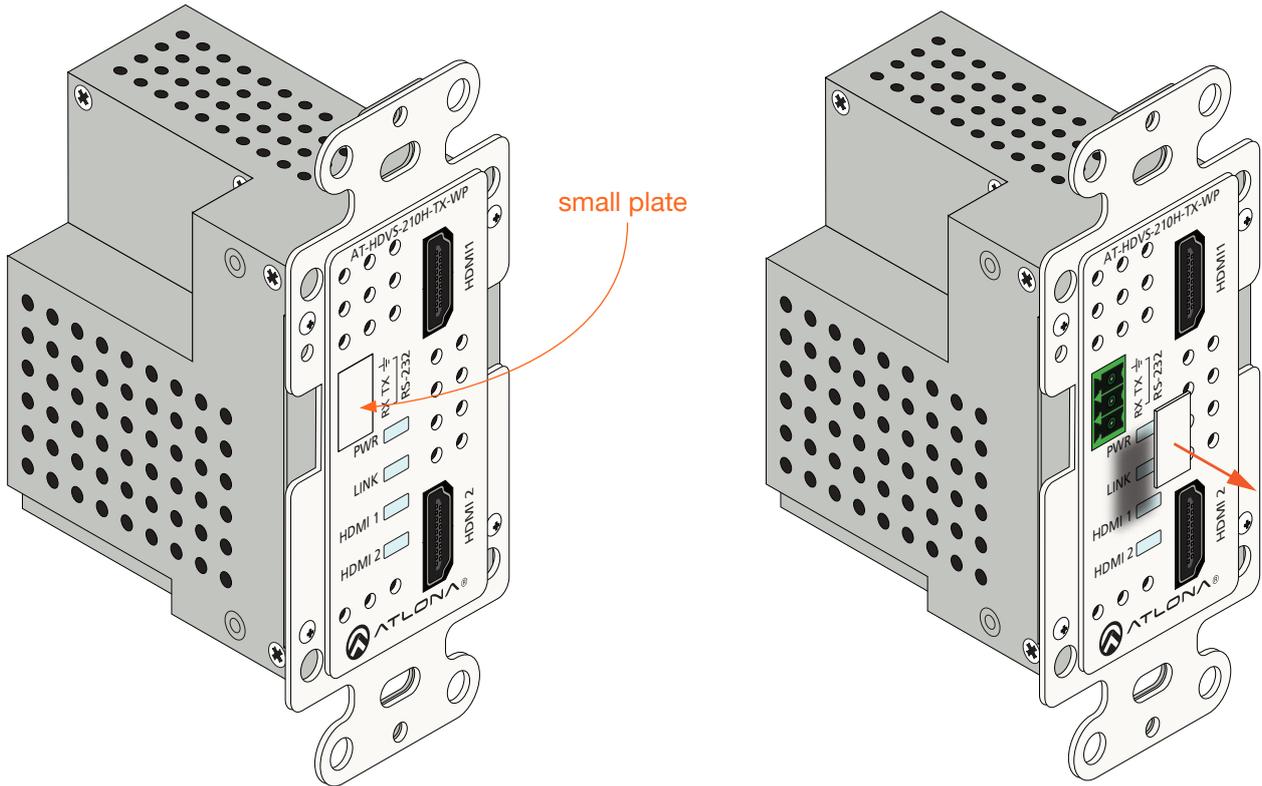
2. Use wire strippers to remove a portion of the cable jacket.

3. Remove at least 3/16" (5 mm) from the insulation of the RX, TX, and GND wires.

4. Insert the TX, RX, and GND wires into correct terminal using the included 3-pin captive screw connector.

TX
RX
GND

Connection Instructions

1. Determine the proper faceplate to be used for installation. If using the black faceplate, then refer to Faceplate Removal and Assembly (page 13) for information on changing the faceplate.

2. Connect an Ethernet cable, from the **HDBaseT OUT** port, on the rear of the unit, to one of the following devices. Ethernet cables should use EIA/TIA-568B termination:

    a. PoE-compatible receiver (not included), such as the AT-HDVS-200-RX. Refer to *Figure 1* on the next page.

    b. Atlona Power Over Ethernet Mid-Span Power Supply (AT-PS-POE). Use this option if the system endpoint is not capable of supplying power to the AT-HDVS-210H-TX. Refer to *Figure 2* on the next page.

    Refer to the tables below for recommended cabling when using Altona products with HDBaseT technology. The green bars indicate the signal quality when using each type of cable. Higher-quality signals are represented by more bars. *These table are for guidance, only. Performance may vary, based on environmental factors.*

Core	Shielding	CAT5e	CAT6	CAT6a	CAT7
Solid	UTP (unshielded)	▮	▮▮▮	▮▮▮▮	N/A
	STP (sheilded)	▮▮	▮▮▮▮	▮▮▮▮▮	▮▮▮▮▮
Performance Rating (MHz)		350	500	600	800

Cable	Max. Distance @ 4K	Max. Distance @ 1080p
CAT5e / CAT6	230 feet (70 meters)	330 feet (100 meters)
CAT6a / CAT7	330 feet (100 meters)	330 feet (100 meters)

⚠ **IMPORTANT:** Stranded or patch cable is not recommended due to performance issues. Sheilded cables are strongly recommended to minimize signal noise and interference.

3. Complete the installation of the AT-HDVS-210H-TX-WP into the electrical box or mudring. Refer to the Connection Diagram (page 12) if necessary.

4. Connect an HDMI cable between each UHD/HD source and the **HDMI 1** and **HDMI 2** ports on the switcher.

5. OPTIONAL: Connect an RS-232 control system to the **RS-232** port on the switcher. This port is used to control functions of the AT-HDVS-210H-TX-WP, such as volume up/down, display on/off, etc.

    No power supply is required for the AT-HDVS-210H-TX-WP. This unit will be powered over the Ethernet cable, from a compatible HDBaseT receiver.
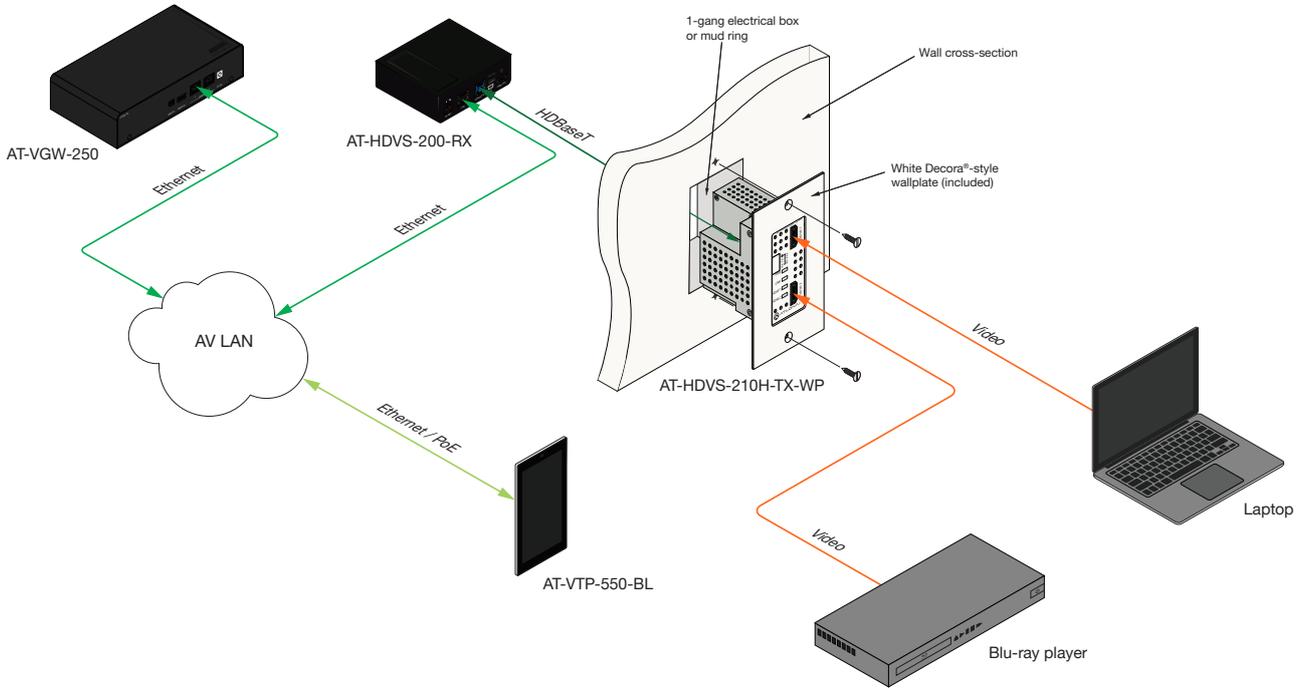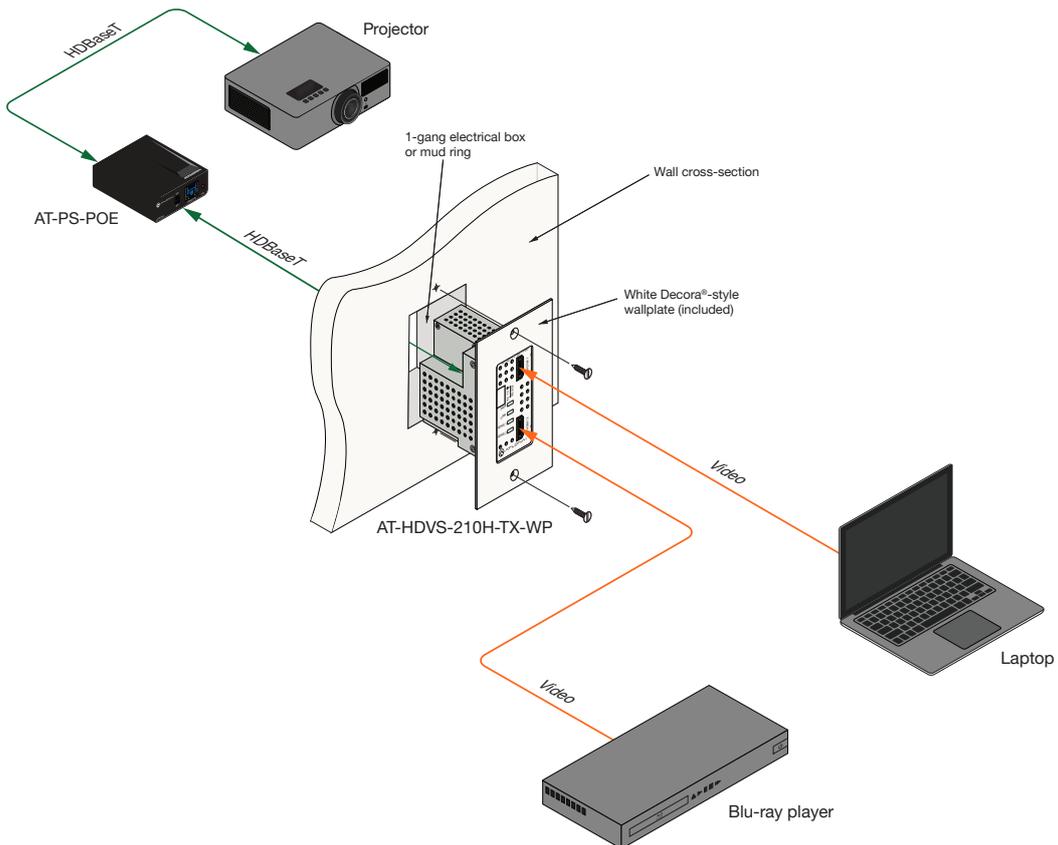
Connection Diagram

Figure 1

AT-VGW-250

AT-HDVS-200-RX

HDBaseT

Ethernet

Ethernet

AV LAN

Ethernet / PoE

AT-VTP-550-BL

1-gang electrical box
or mud ring

Wall cross-section

White Decora®-style
wallplate (included)

AT-HDVS-210H-TX-WP

Video

Laptop

Video

Blu-ray player

Figure 2

HDBaseT

Projector

AT-PS-POE

HDBaseT

1-gang electrical box
or mud ring

Wall cross-section

White Decora®-style
wallplate (included)

AT-HDVS-210H-TX-WP

Video

Laptop

Video

Blu-ray player

Faceplate Removal and Assembly

The AT-HDVS-210H-TX-WP includes an optional black faceplate and wallplate. Removal of the faceplate requires that the AT-HDVS-210H-TX-WP be disassembled from the electrical box or mud ring.

1. Remove the wall plate from the electrical box and slide out the AT-HDVS-210H-TX-WP assembly, as shown.
    It is recommended that the Ethernet cable, connected to the **HDBaseT OUT** port, be disconnected from the unit, to allow for easy installation of the faceplate.

Wall cross-section
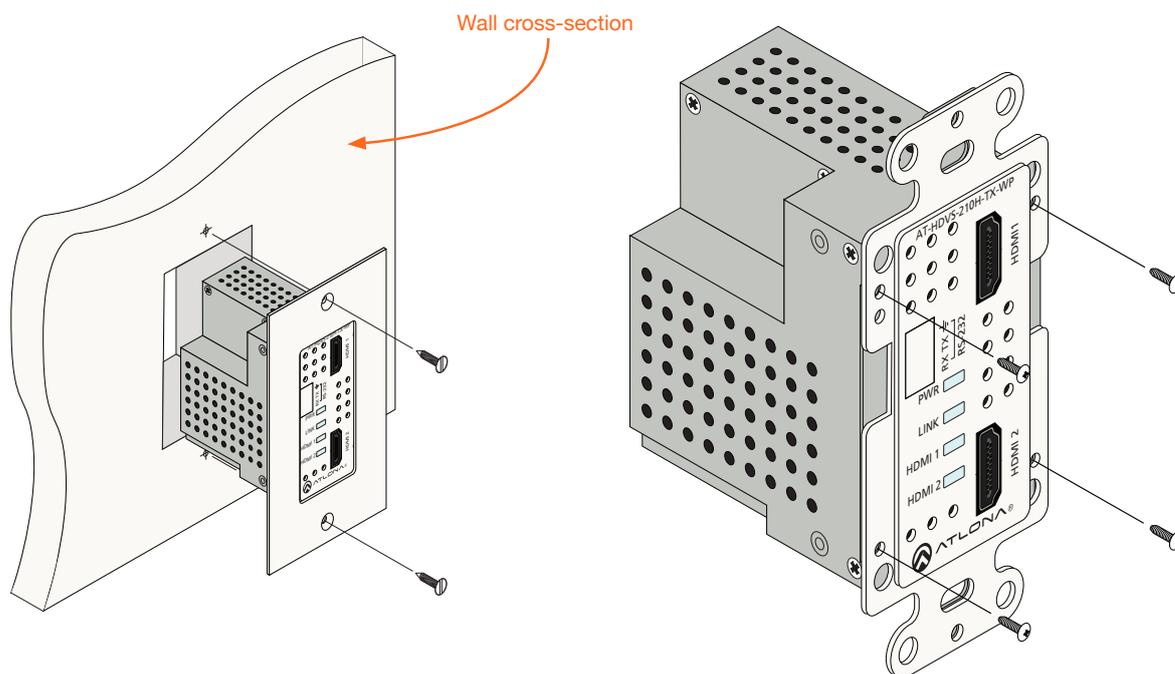
2. Remove the four screws, holding the faceplate to the assembly, using a Phillips screwdriver. Once the screws are removed, gently remove the faceplate by pulling it toward you.

3. Attach the new faceplate and secure it using the four Phillips-head screws.

4. Install the AT-HDVS-210H-TX-WP into the electrical box or mud ring. Make sure to reconnect the Ethernet cable to the **HDBaseT OUT** port, on the back of the assembly, before reinstalling the unit into the electrical box.

5. Reattach the wallplate to secure the entire assembly in place.

IP Configuration

The AT-HDVS-210H-TX-WP 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 back of the unit, to identify both the unit and its IP address on the network. 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-HDVS-210H-TX-WP is 192.168.1.254.

If the AT-HDVS-210H-TX-WP is unable to detect a DHCP server within 15 seconds, then the unit will set all IP settings to zero.

Setting the IP Mode

1. Make sure the AT-HDVS-210H-TX-WP is powered, by connecting an Ethernet cable between a PoE-compatible receiver, such as the AT-HDVS-200-RX, and the **HDBaseT OUT** port on the unit. Power is supplied by the receiver over HDBaseT.

2. Remove the faceplate. Refer to Faceplate Removal and Assembly (page 13) for more information.

PWR LED indicator

Reset button

HDBaseT port

HDBaseT OUT
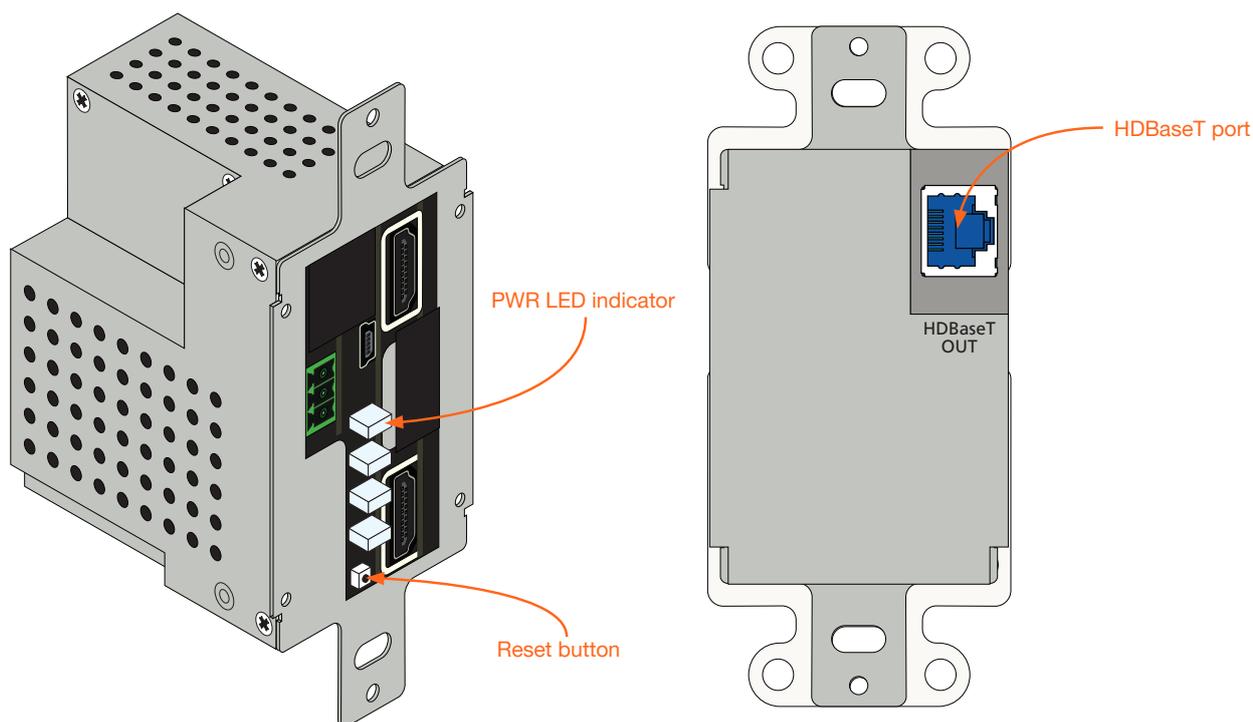
3. Press and hold the **Reset** button for approximately 5 seconds. Release the **Reset** button once the **PWR** LED indicator begins to flash. The number of flashes will indicate the currently selected IP mode.

PWR LED flashes	Description
Two	Static IP mode
Four	DHCP mode

Setting the IP Address Using Commands

Use the IPStatic and IPDHCP commands to switch between DHCP and IP mode through RS-232 or Telnet. Refer to API documentation for more information. All commands and their arguments are case-sensitive.

- **Setting static IP mode**

    1. Connect to the AT-HDVS-210H-TX-WP using RS-232 or Telnet.

    2. At the command line, execute the IPDHCP command using the off argument, as shown.

       IPDHCP off

    3. Execute the IPStatic command. This command requires three arguments: the desired IP address of the AT-HDVS-210H-TX-WP, the subnet mask, and the gateway address. All arguments must be entered in dot-decimal notation. The following is an example:

       IPStatic 192.168.1.112 255.255.255.0 192.168.1.1

              IP address   Subnet mask   Gateway

- **Setting DHCP mode**

    1. Connect to the AT-HDVS-210H-TX-WP using RS-232 or Telnet.

    2. At the command line, execute the IPDHCP command using the on argument, as shown. All characters are case-sensitive.

       IPDHCP on

       Once DHCP is enabled, the unit will be assigned an IP address by the DHCP server (if present).

Setting the IP Address using the Web GUI

The System page (page 30), in the web GUI, allows the AT-HDVS-210H-TX-WP to use either DHCP or static IP mode. In order to access the web GUI, the IP address of the AT-HDVS-210H-TX-WP must be known. Refer to Setting the IP Mode (page 14) for more information.

1. Open the desired web browser and enter the IP address of the AT-HDVS-210H-TX-WP.

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

    Username: root
    Password: Atlona

3. Click the **System** tab.

4. Click the **IP Mode** toggle to switch between the **DHCP** and **STATIC IP** setting. When set to **STATIC IP**, the **IP**, **Netmask**, and **Gateway** fields can be modified.

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

Resetting to Factory-Default Settings

Resetting the AT-HDVS-210H-TX-WP requires that the front faceplate be removed. Refer to Faceplate Removal and Assembly (page 13) for more information.

1. Remove the faceplate from the AT-HDVS-210H-TX-WP.

2. Press and hold the **Reset** button for 15 seconds.

3. Release the **Reset** button.

    During the reboot process, the **PWR** LED indicator will glow red. The unit will be operational when the **PWR** LED indicator glows blue.

4. Reassemble the faceplate to the front of the AT-HDVS-210H-TX-WP and reinstall into the electrical box or mud ring.

PWR LED indicator

Reset button
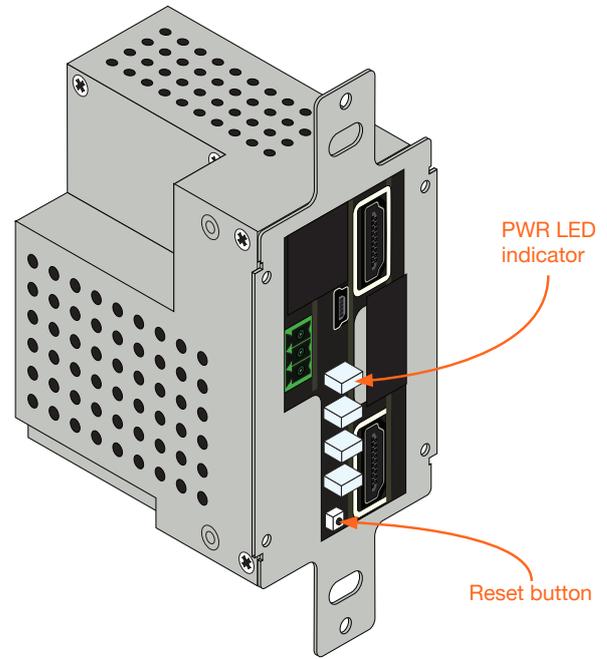
The Web GUI

Introduction to Web GUI

The AT-HDVS-210H-TX-WP includes a built-in web GUI. Atlona recommends that the web GUI be used to set up the AT-HDVS-210H-TX-WP, as it provides intuitive management of all features.

The AT-HDVS-210H-TX-WP is shipped with DHCP enabled. Once connected to a network, the DHCP server will automatically assign an IP address to the unit. Use an IP scanner to determine the IP address of the AT-HDVS-210H-TX-WP. If a static IP address is desired, refer to IP Configuration (page 14). The default static IP address of the AT-HDVS-210H-TX-WP is 192.168.1.254.

> **NOTE:** The web GUI can only be accessed if the AT-HDVS-210H-TX-WP is connected to a compatible PoE receiver unit, such as the AT-HDVS-200-RX, using the **HDBaseT** port. The receiver must be connected to the network.

1. Launch a web browser.

2. Use one of the following methods to access the IP address of the AT-HDVS-210H-TX-WP:

    a. Login to the web GUI of the receiver unit that is connected to the AT-HDVS-210H-TX-WP. Once logged in, click the link for the AT-HDVS-210H-TX-WP, as shown:
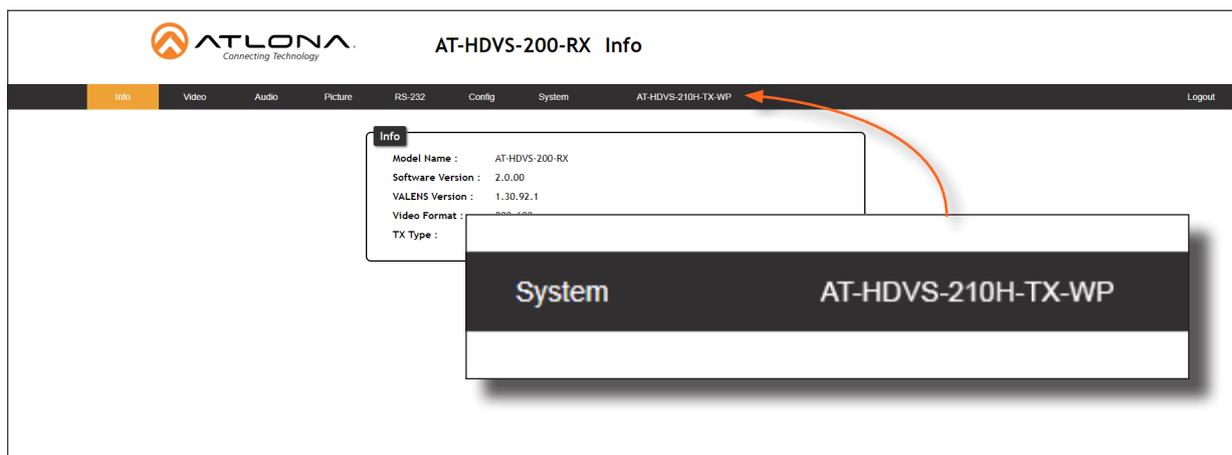

    b. Use an IP scanner to locate the IP address of the AT-HDVS-210H-TX-WP on the network. The MAC address, on the back of the unit, can be used to identify the unit with the IP address.

    The Address Resolution Protocol, executed from the command line, can also be used, as shown in the example below. This command will provide a listing of all devices that are connected to the network, along with their MAC address.

```
C:\Windows\System32>arp -a
Internet Address        Physical Address        Type

192.168.1.1             08-bd-43-af-25-13       dynamic
192.168.1.255           ff-ff-ff-ff-ff-ff       static
224.0.0.22              01-00-5e-00-00-16       static
224.0.0.251             01-00-5e-00-00-fb       static
224.0.0.252             01-00-5e-00-00-fc       static
239.255.255.250         01-00-5e-7f-ff-fa       static
255.255.255.255         ff-ff-ff-ff-ff-ff       static
...
...
```

4. Type root, using lower-case characters, in the **Username** 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. The password can be changed, if desired. Refer to the Config
    page (page 29) for more information.

6. Click the **Submit** button or press the ENTER key on the keyboard.
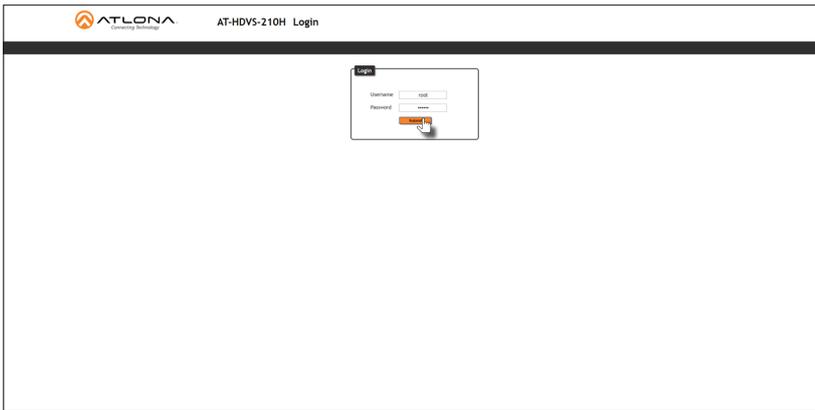
7. The **Info** page will be displayed.
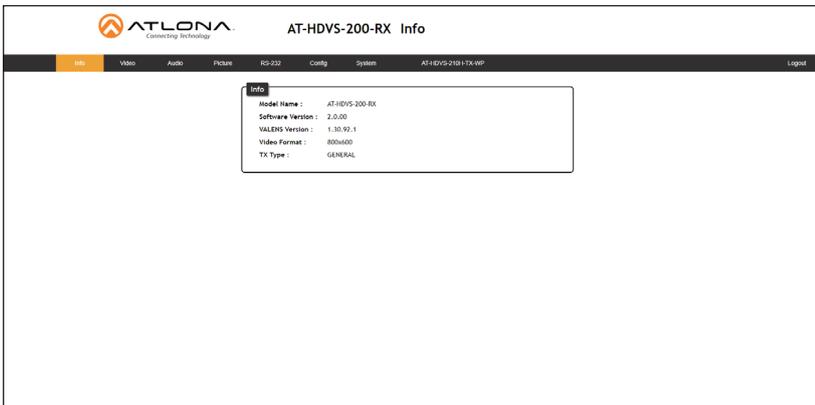
8. Click **Logout**, on the far-right side of the menu bar, to log out of the web GUI and return to the **Login** page.
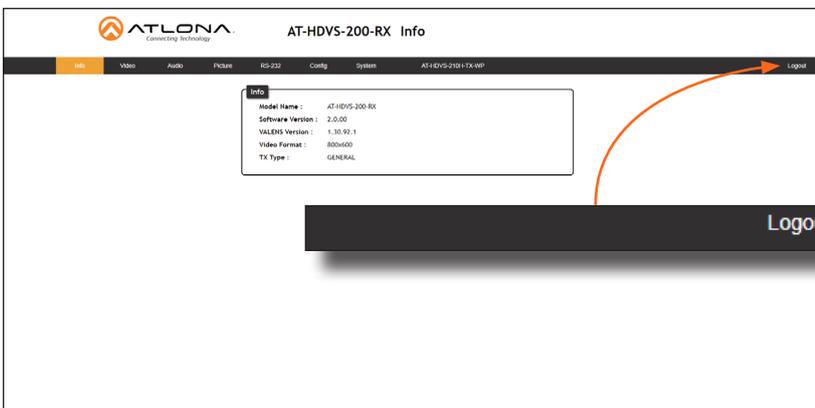
Menu Bar

The dark-colored bar, near the top of the screen, is the menu bar. When the mouse is moved over each menu element, it will be highlighted in light orange. Once the desired menu element is highlighted, click the left mouse button to access the settings within the menu.
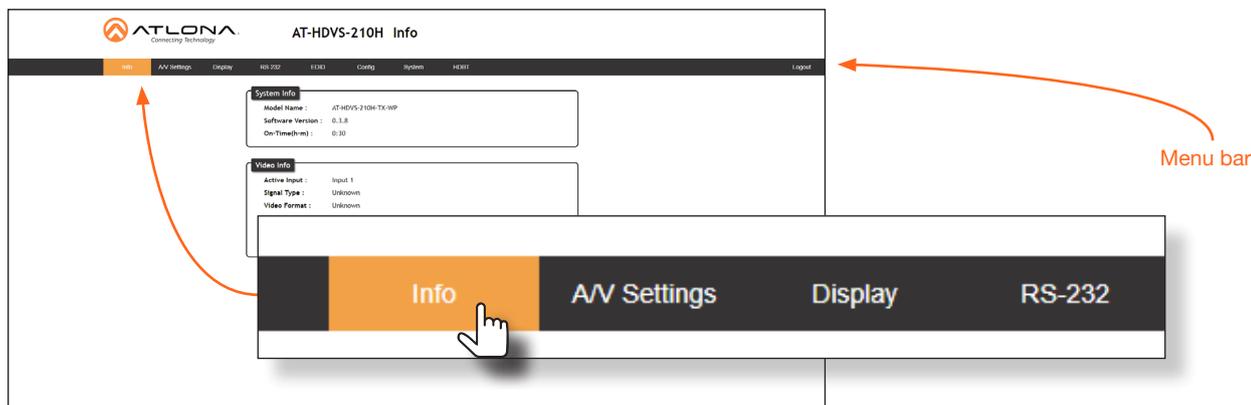
Menu bar

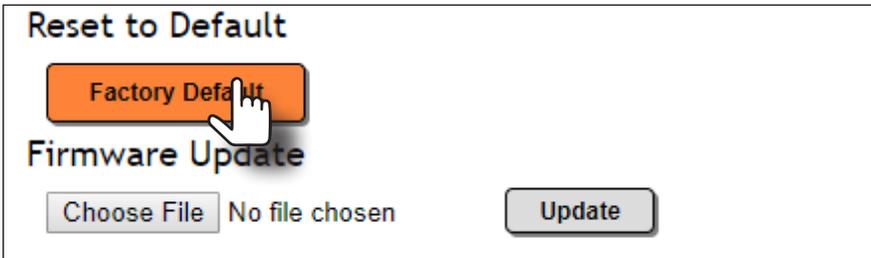In this example, clicking **A/V Settings**, in the menu bar, will display the **A/V Settings** page.
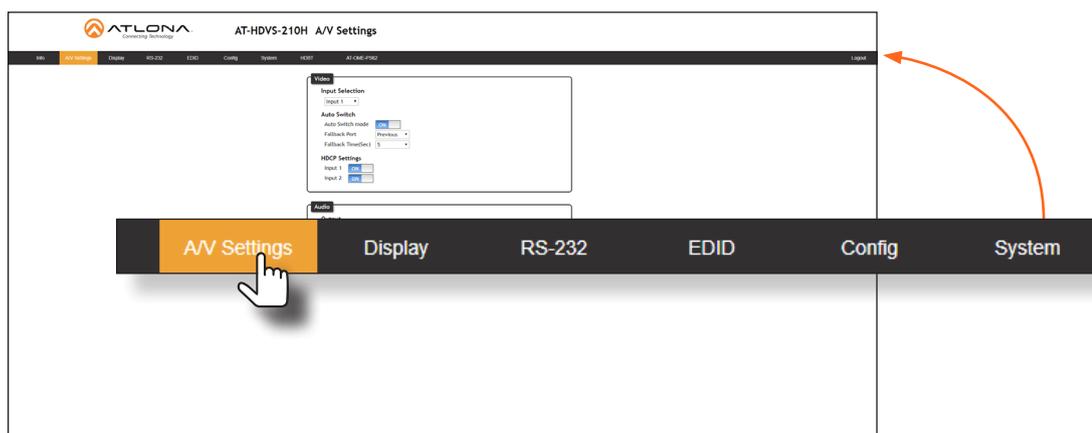
Toggles

Several settings within the Web GUI use *toggles*, which enable, disable, or assign one of two settings. Generally, when the *toggle* is blue, it means that the feature is *enabled* or ON. If a feature is *disabled*, then the *toggle* will appear gray and be labeled as OFF. Toggle buttons may also indicate its current setting and, when enabled or set to a particular state, may also provide access to another set of controls or text fields within the Web GUI, as shown with the **IP Mode** toggle.
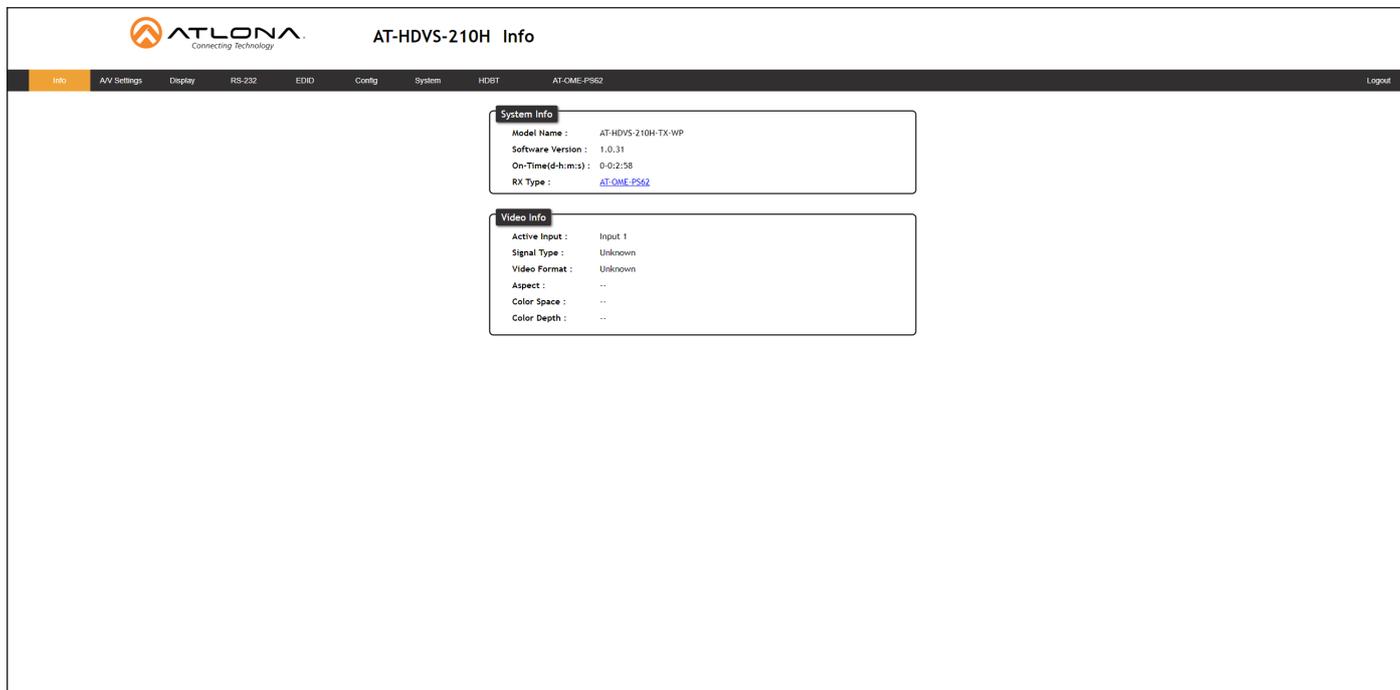
Buttons

Buttons are used to execute an action or setting. Several pages within the Web GUI include a **Save** button. Clicking the **Save** button will apply and save all settings in the current page. Other buttons, such as the **Factory Default** button, under the **System** page, reset the AT-HDVS-210H-TX-WP to factory-default settings

Info page

Model Name
The model SKU of this product.

Software Version
The version of firmware that the AT-HDVS-210H-TX-WP is running. Always make sure to check the AT-HDVS-210H-TX-WP product page, on the Atlona web site, for the latest version of firmware.

On-Time (h-m)
The time elapsed since the unit was last powered-on. Turning the unit "off", using the PWOFF command, will not reset this field.

RX Type
Displays the model of the receiver unit (if connected). If no receiver is connected, then "UNKNOWN" will be displayed.

Active Input
The currently selected input. Refer to the A/V Settings page (page 22) for information on changing the input.

Signal Type
Displays the input resolution of the source device.

Video Format
Displays the video format.

Aspect
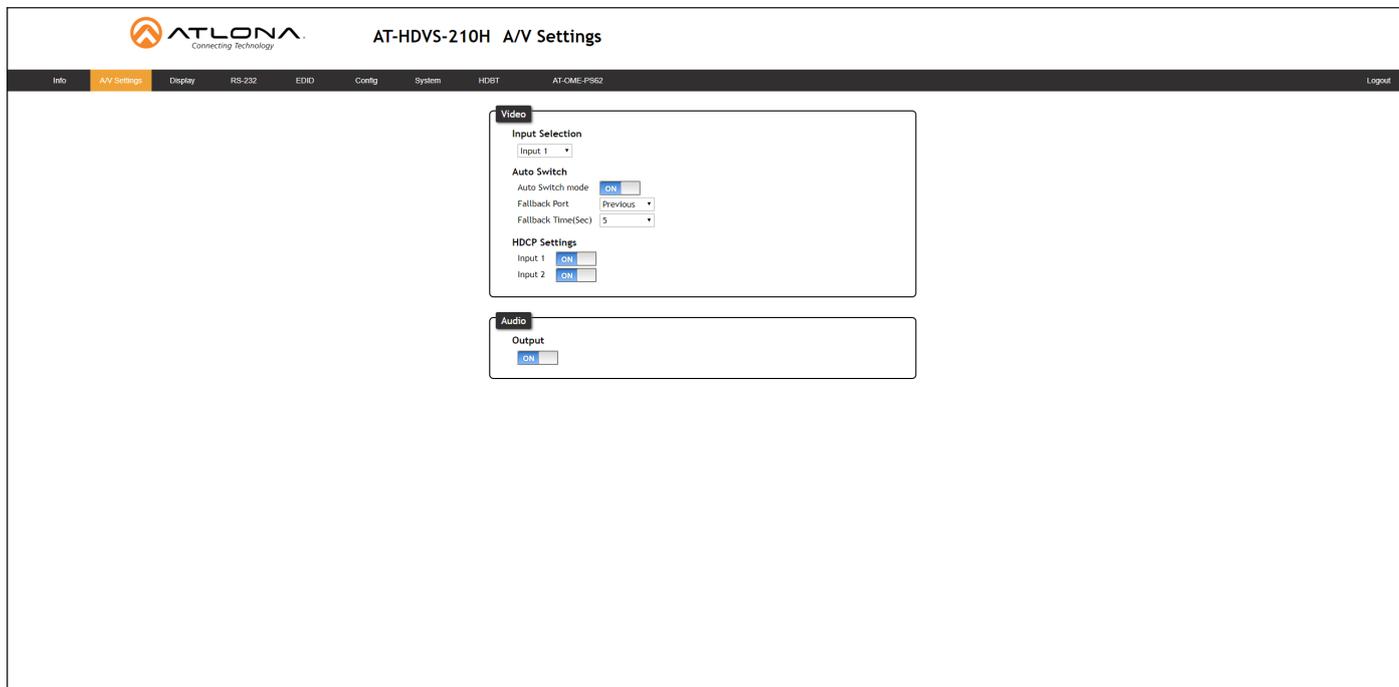Displays the aspect ratio of the input video source.

Color Space
Displays the color space of the input video source.

Color Depth
Displays the color depth of the input video source.

A/V Settings page

Input Selection
Click the drop-down list to select the desired input.

Setting	Description
Input 1	HDMI 1
Input 2	HDMI 2

Auto Switch
Three controls are available under the Auto Switch feature.

- **Auto Switch**
  Click this toggle switch to enable or disable auto-switching. When enabled, the AT-HDVS-210H-TX will automatically switch to the another port, if the signal is disrupted on the currently active input. The port to be switched to, is defined in the **Fallback Input** drop-down list.

- **Fallback Input**
  Click this drop-down list to select the fallback port. If the source is disconnected from the active port, then the switcher can be configured to automatically switch to the desired port. Click the **Auto Switch mode** toggle to enable or disable auto-switching.

Input	Description
Previous	Automatically switches to the input that was connected last.
HDMI1	Switches to **HDMI 1**.
HDMI2	Switches to **HDMI 2**.

HDCP Settings

Sets the HDCP reporting mode of the specified HDMI port. Input 1 = HDMI 1; Input 2 = HDMI 2. Some devices, such as Mac computers will transmit HDCP content if an HDCP-compliant display/sink is detected. Setting this value to OFF, will instruct the source to send non-HDCP content (if possible) to non-HDCP display and/or sink devices. Note that setting this value to OFF will <u>not</u> decrypt HDCP content.

> **NOTE:** Setting this feature to **OFF**, for any source, does *not* provide decryption of HDCP content to non-HDCP compliant sink devices. Sources such as Mac® computers and the Sony PlayStation® will *always* transmit HDCP content.

Setting	Description
ON	HDCP content is always transmitted by the source
OFF	Instructs the source to send non-HDCP content, if possible

Output

Mutes or un-mutes the audio output. Set the **Output** toggle to OFF to disable audio on the output. The default setting is ON.

Display page
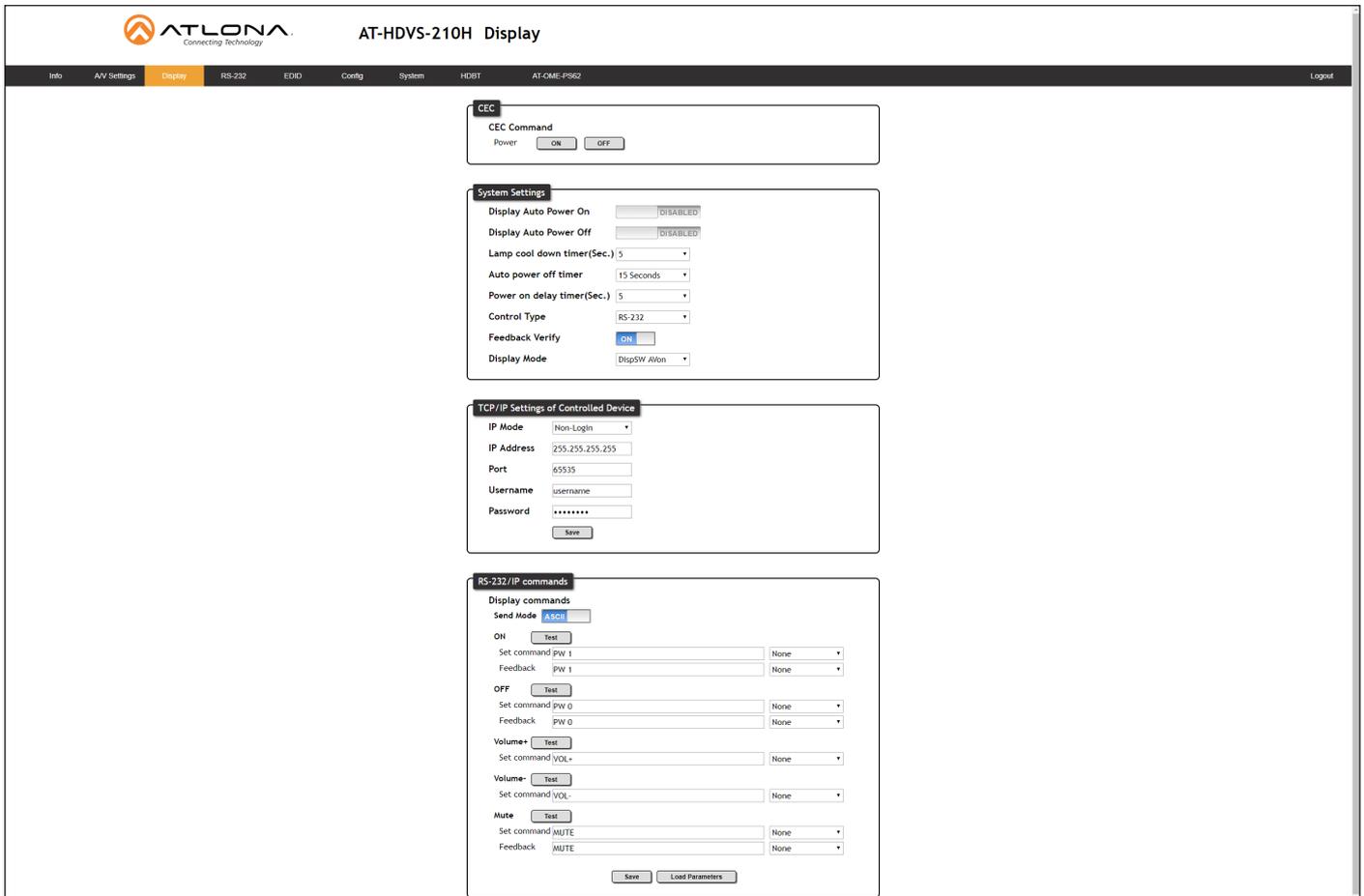
CEC Command
Click the ON or OFF button to turn the display on or off using CEC.

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.

Display Auto Power On
Set this value to ENABLE to send the command to power-on the display when an A/V signal is detected. Otherwise, set to DISABLE to turn this feature off.

Display Auto Power Off
Set this value to ENABLE to send the command to power-off the display when an A/V signal is no longer present. Otherwise, set to DISABLE to turn this feature off.

Lamp cool down timer (Sec.)
Sets the cool-down interval, in seconds, before the projector can be powered-off. During this time interval, the projector will not accept any "power on" or "power off" commands until the last "power off" command has been processed and the projector lamp has completed the cool-down cycle. Range: 0 to 300.

Auto power off timer
Sets the time interval, in seconds, between when the loss of A/V signal is detected and when the "Display Off" command is sent. Range: 5 seconds to 1 hour.

Power on delay timer (Sec.)
Sets the time interval, in seconds, between when the system is powered-on, and when system can re-enter the Auto Power Off state. All display-on commands are triggered immediately after an A/V source is connected. Range: 0 to 300.

Control Type
Sets the control method for sending commands. The following options are available: RS-232, IP, CEC.

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

Feedback Verify
Sets the feedback verification state. Click the toggle to enable or disable this feature. The following options are available.

Setting	Description
On	This is the default setting. The AT-HDVS-210H-TX-WP will make four attempts to send the command, if the feedback string is not acknowledged. After the fourth attempt, the process will fail.
Off	Sends the command and ignores the feedback string.

Display Mode
Click this drop-down list to select the behavior of the display when a source is connected.

Setting	Description
DispSW AVon	Display switches on/off, source audio/video signal is always on.
DispSW AVSW	Display switches on/off, source audio/video signal switches on/off.
AV SW	Display is always on, source audio/video signal switches on/off; **Lamp cool down timer (Sec.)** and **Power on delay timer (Sec.)** are ignored.

IP Mode
Click this drop-down list to select the login mode.

Setting	Description
Non-login	Does not require a username and password when using TCP/IP to control the display.
RS-232	Requires a username and password to control the display through TCP/IP.

IP Address
Enter the IP address of the device in this field.

Port
Enter the listening port of the device in this field.

Username
Enter the username for login. If the **IP Mode** is set to Non-Login, then this information will not be required.

Password
Enter the password for login. If the **IP Mode** is set to Non-Login, then this information will not be required.

Save
Click this button to save all changes in this window group.

Send Mode
Sets the display format for the commands in the web GUI. In **Hex** mode, non-valid characters are not accepted.
Options: **ASCII**, **Hex**.

**On/Off/Volume+/Volume-/Mute**

- **Set command**
  Enter the command in this field.

- **Feedback**
  Enter the feedback string in this field.

- **CR-LF**
  Click this drop-down list to select the desired end-of-line characters to be sent.

- **Test**
  Click this button to test the command line and/or feedback.

Setting	Description
None	No end-of-line characters included
CR	Carriage return
LF	Line feed
CR-LF	Carriage return + Line feed
Space	Space character
STX	Start-of-text character
ETX	End-of-text character
Null	Null character (binary zero)

Save
Click this button to save all changes in this window group.

RS-232 page
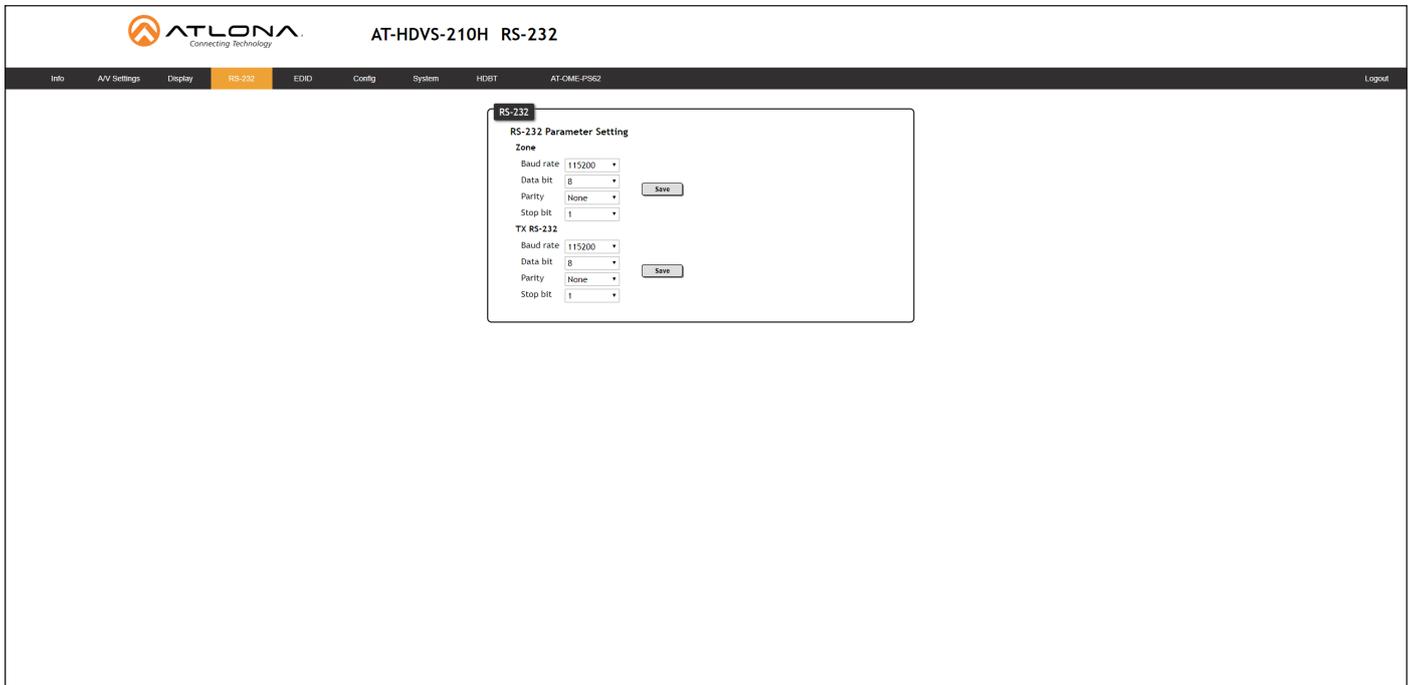
Zone
When the AT-HDVS-210H-TX-WP is connected to the AT-HDVS-200-RX, the drop-down list boxes will be disabled and the HDBaseT baud rate will be locked at 115200.

If the AT-HDVS-210H-TX-WP is connected to another HDBaseT device, such as the AT-UHD-CLSO-824, each of these drop-down list boxes can be set to the baud rate of the HDBaseT RS-232 settings on the corresponding device. Click the **Save** button to accept the settings.

TX RS-232
When the AT-HDVS-210H-TX-WP is connected to the AT-HDVS-200-RX, the drop-down list boxes will be disabled and the HDBaseT baud rate will be locked at 115200.

If the AT-HDVS-210H-TX-WP is connected to another HDBaseT device, such as the AT-UHD-CLSO-824, each of these drop-down list boxes can be set to the baud rate of the HDBaseT RS-232 settings on the corresponding device. Click the **Save** button to accept the settings.

Setting	Description
Baud rate	Sets the baud rate. The following options are available: 2400, 9600, 19200, 38400, 56000, 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.

EDID page
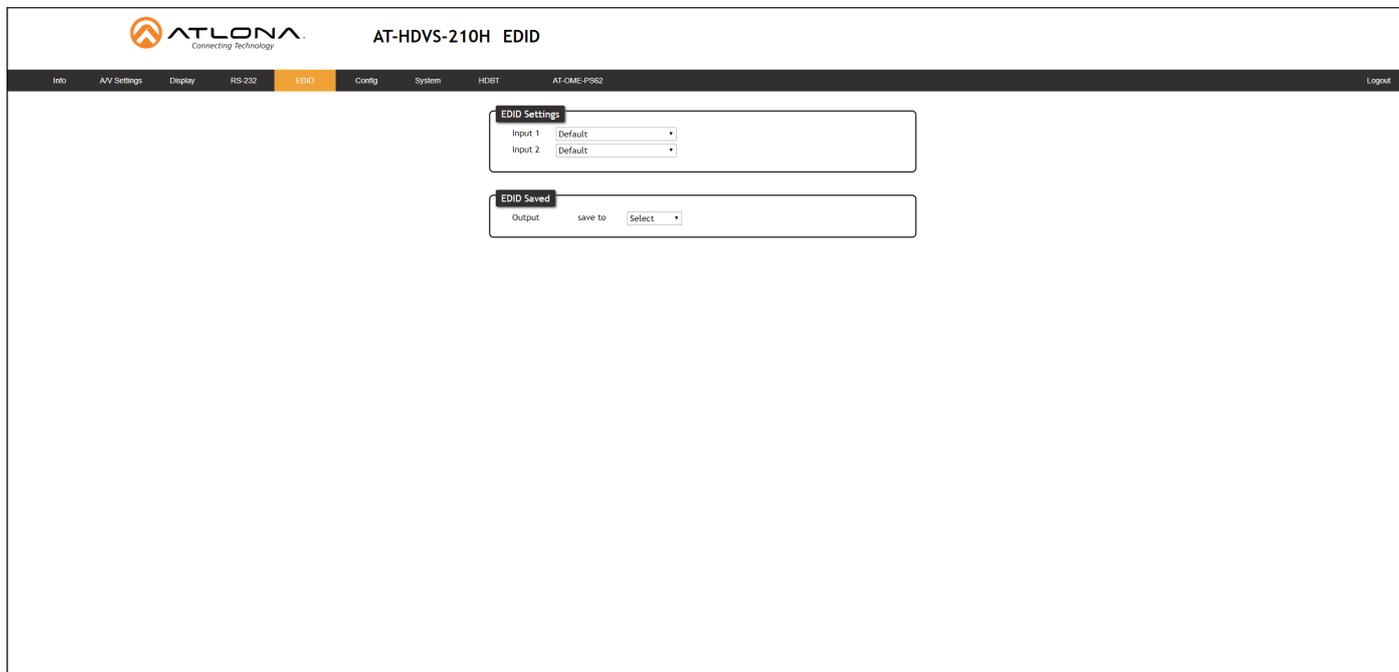
EDID Settings

Click these drop-down lists to select the desired EDID to be used for each input. Input 1 = HDMI 1,
Input 2 = HDMI 2. The source device will use the information in the EDID, before sending A/V data to the sink device.
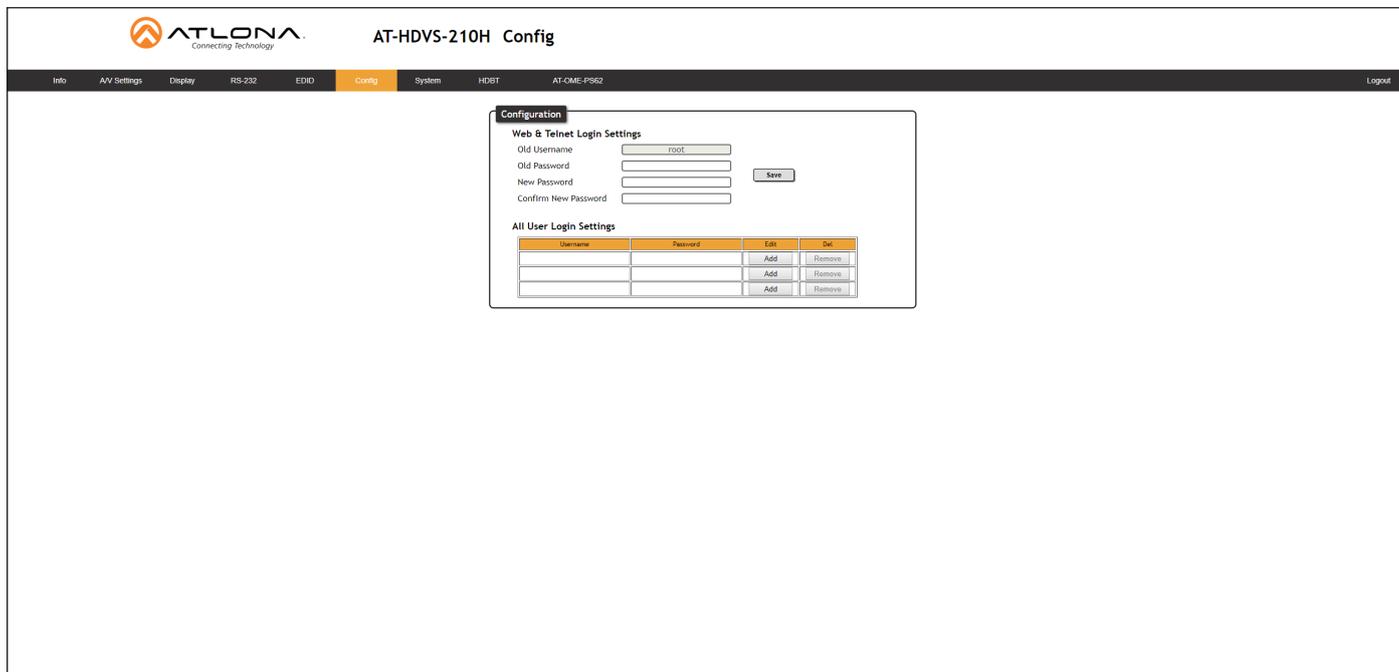
Available EDID Selections			
Default	1080p 3D MCH	1366x768 2CH	3840x2160@60 4:2:0 MCH
1080p 2CH	1080p 3D DD	1080p DVI	3840x2160@30 4:4:4 2CH
1080p MCH	720p 2CH	1280x800 DVI	3840x2160@60 4:4:4 MCH
1080p DD	720p DD	1920x1200 2CH	4096x2160@60 4:2:0 2CH
1080p 3D 2CH	1280x800 2CH	3840x2160@60 4:2:0 2CH	4096x2160@60 4:2:0 MCH

EDID Saved

Click this drop-down list to select the memory location (**MEM_1** - **MEM_8**) to save the downstream EDID. Eight memory locations are available. Once an EDID is saved to a memory location, it can be access from one of the **EDID Settings** drop-down lists.

Config page

Old Username
This field cannot be changed. "root" is the administrator user.

Old Password
Enter the current password for the "root" username in this field. The default password is "Atlona".

New Username
This field cannot be changed.

Save
Click this button to save all changes.

New Password
Enter the new password fro the "root" username in this field.

Confirm New Password
Verify the new password by retyping it in this field.

All User Login Settings

- **Username**
  Displays the username.

- **Password**
  Displays the password for the associated username.

- **Edit**
  Click the Add button, in this column, to edit the username and password in the row.

- **Del**
  Click the Remove button to delete the user in the row. This button will only be available if both a username and password have been created.

System page

IP Mode
Click this toggle to set the IP mode of the AT-HDVS-210H-TX-WP. The default setting is DHCP. Available settings:
STATIC IP, DHCP.

IP
Enter the IP address of the AT-HDVS-210H-TX-WP in this field. This field will only be available if **IP Mode** is set to
STATIC IP. The default IP address is 192.168.1.254.

Netmask
Enter the subnet mask in this field. This field will only be available if **IP Mode** is set to STATIC IP.

Gateway
Enter the gateway (router) address in this field. This field will only be available if **IP Mode** is set to STATIC IP.

Telnet Port
Enter the Telnet listening port in this field.

Telnet Login Mode
Click this toggle to set the login mode to either ON or OFF. If this feature is set to ON, then the AT-HDVS-210H-TX-
WP will prompt for both the username and password at the start of a Telnet session. Use the same credentials as the
web GUI.

Telnet Timeout
Click this drop-down list to select the timeout interval, in seconds, before the Telnet connection is automatically
closed after no activity. Range: 1 to 3600 (seconds).

Broadcast
By default, broadcast mode is set to ON. When set to ON, any system changes will be broadcasted to the web GUI
will also be affected on the control system (if connected), via TCP/IP. To separate control between the web GUI
and Telnet, set this feature to OFF. Command queries such as IPCFG and Type will only return information to the
requester.

Power

Under normal operation conditions, this toggle is set to ON. Click this toggle to OFF, to turn the AT-HDVS-210H-TX-WP "off". When "off", the PWR LED indicator will turn red. The PWOFF and PWON commands can also be used to control the power state.

Reset to Default

Click the **Factory Default** button to set the AT-HDVS-210H-TX-WP to factory-default settings.

Firmware Update

Click the **Choose File** button to select the firmware file, when upgrading the firmware on the AT-HDVS-210H-TX-WP. Once the firmware file is selected, click the Update button. Refer to Updating the Firmware (page 33) for more information.

HDBT page

HDBaseT Zone
The AT-HDVS-210H-TX-WP has only a single HDBaseT output. Therefore, this drop-down list is disabled.

Start
Click the **Start** button to being the HDBaseT testing. During testing, the button text will change to "Stop". Click the **Stop** button to halt the HDBaseT testing process.

TX Version
The version of the Valens chip on the transmitter.

RX Version
The version of the Valens chip on the receiver.

TMDS Clock
Displays the pixel clock speed. If no source is connected, then this field will display as "None".

Cable length (Estimated)
This field indicates the approximate length of the Ethernet cable connected between the HDBaseT ports on the transmitter and the receiver. If the cable length is less than 15 feet, then this value will be displayed as 0 (zero).

Video Quality (Video BER)
The Bit Error Rate (BER). This field displays either PASS or FAIL during a test.

Cable Quality Pair (A, B, C, D)
Each of these fields will display either PASS or FAIL during a test.

Appendix

Updating the Firmware

Updating the firmware can be completed using either the USB interface or the web GUI. Atlona recommends using the web GUI for updating the firmware. However, if a network connection is not available, the AT-HDVS-210H-TX-WP firmware can be updated using a USB-A to USB mini-B cable.

Using the Web GUI

Requirements:

- AT-HDVS-210H-TX-WP
- Firmware file
- Computer

1. Connect an Ethernet cable from the computer, containing the firmware, to the same network where the AT-HDVS-210H-TX-WP is connected.

2. Go to the System page (page 30) in the web GUI.
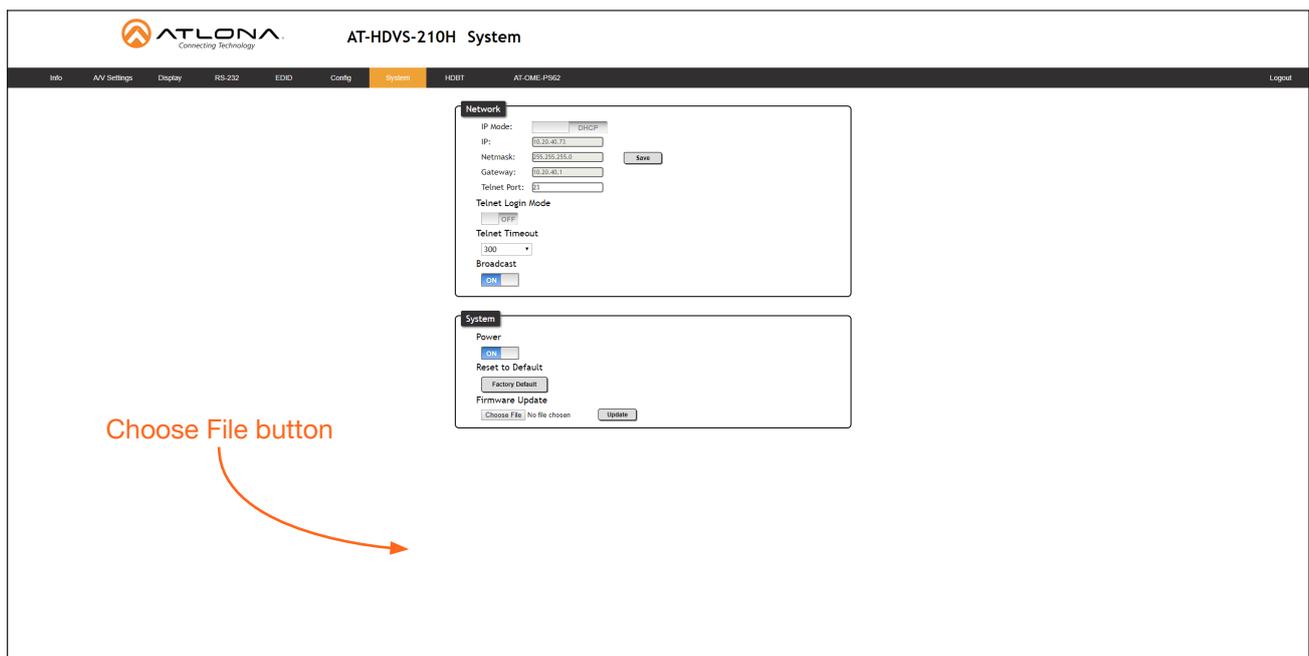
Choose File button

3. Click the **Choose File** button, under the **Firmware Update** section.

4. Browse to the location of the firmware file, select it, and click the **Open** button.

5. Click the **Update** button, under the **Firmware Update** section.

6. The following message box will be displayed.
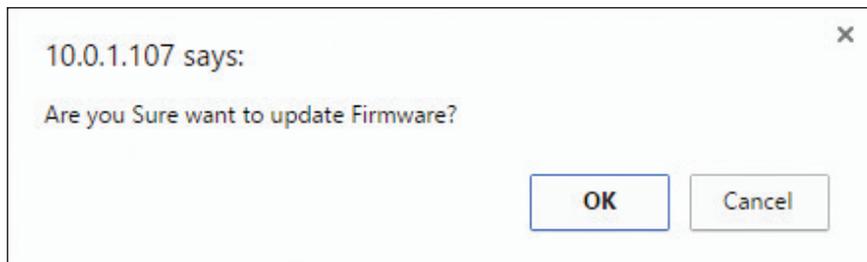
7. Click the **OK** button to begin the firmware update process. Click the **Cancel** button to cancel the process.

8. After the firmware update process is complete, the **Login** screen will be displayed.
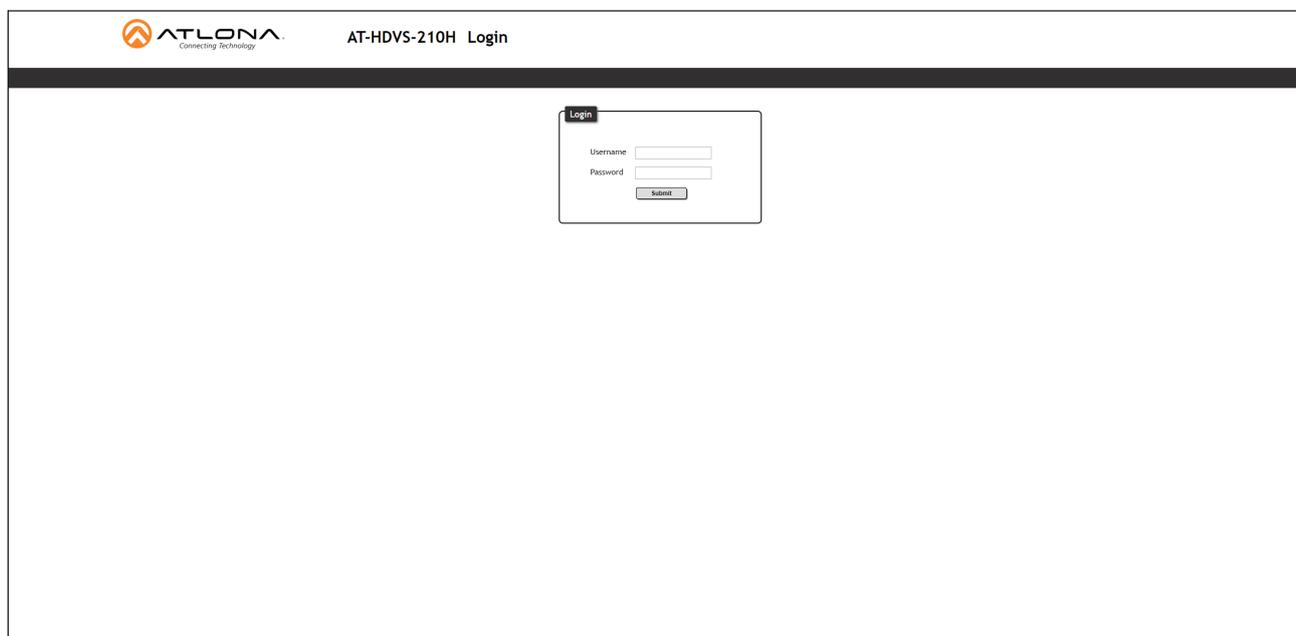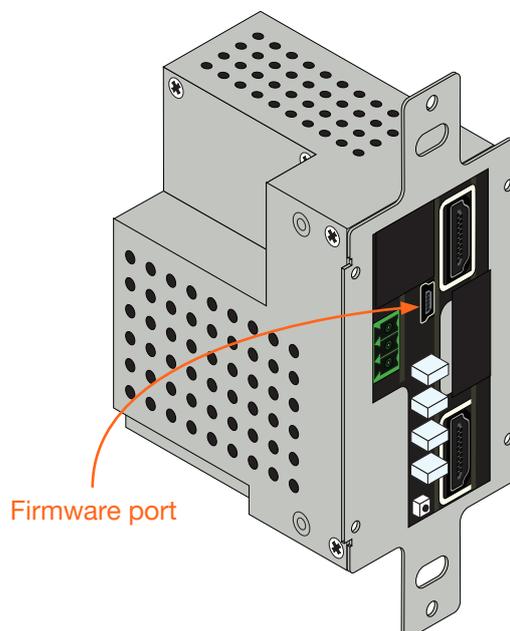

Using USB

Requirements:

- AT-HDVS-210H-TX-WP
- Firmware file
- Computer running Windows
- USB-A to USB mini-B cable

1. Disconnect power from the AT-HDVS-210H-TX-WP, by disconnecting the Ethernet cable from the **HDBaseT OUT** port on the unit.

2. Remove the wall plate from the AT-HDVS-210H-TX-WP. Refer to Faceplate Removal and Assembly (page 13) if necessary.

3. Locate the firmware port.

Firmware port

4. Connect the USB-A to USB mini-B cable between the PC and the firmware port on the AT-HDVS-210H-TX-WP. The unit will be powered by the USB cable.

5. The USB UPDATE folder will be displayed.

   If this folder is not displayed, automatically, select the USB UPDATE drive from Windows Explorer.
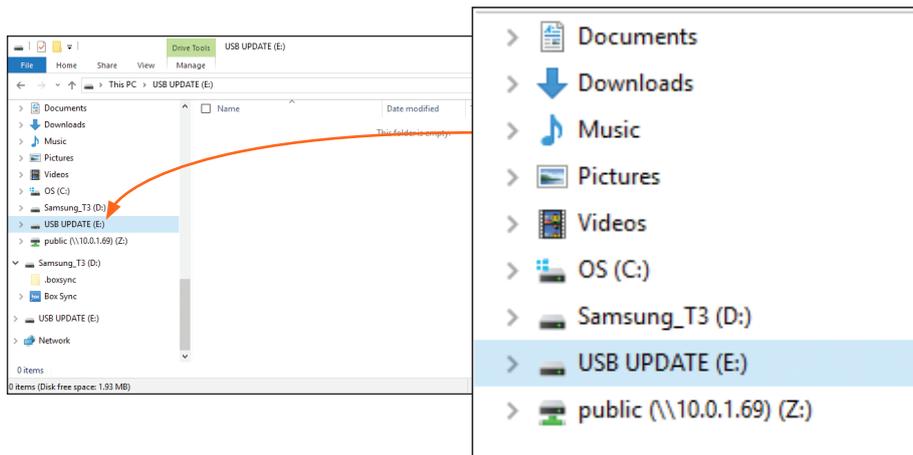
7. Delete all files from the USB UPDATE drive, if any are present.

8. Drag-and-drop the firmware file to the drive.

9. After the file has been copied, disconnect the USB cable from both the computer and the AT-HDVS-210H-TX-WP.

10. The firmware update process is complete.

11. Reconnect the Ethernet cable to the **HDBaseT OUT** port.

Default Settings

The following tables list the factory-default settings for the AT-HDVS-210H-TX-WP.

Feature	Settings	
A/V Settings	Input Selection	Input 1
	Auto Switch Mode	ON
	Fallback Port	Previous
	Fallback Time	5 (seconds)
	HDCP Setting (Input 1)	ON
	HDCP Setting (Input 2)	ON
	Audio Output	ON
System Settings	Display Auto Power On	Disabled
	Display Auto Power Off	Disabled
	Lamp Cool Down Timer	5 (seconds)
	Auto Power Off Timer	15 (seconds)
	Power On Delay Timer	5 (seconds)
	Control Type	RS-232
	Feedback Verify	ON
	Display Mode	DispSW AVon
	IP Mode	Non-Login
	IP Address	255.255.255.255
	Port	65535
RS-232	**Zone**	
	Baud rate	115200
	Data bit	8
	Parity	None
	Stop bit	1
	TX RS-232	
	Baud rate	115200
	Data bit	8
	Parity	None
	Stop bit	1
	RX RS-232 Zone 1	
	Baud rate	9600
	Data bit	8
	Parity	None
	Stop bit	1
EDID	Input 1	Default (1920x1080p @ 60 Hz)
	Input 2	Default (1920x1080p @ 60 Hz)
	Output	---
Config	Username (default)	root
	Password (default)	Atlona
System	IP Mode	DHCP
	Static IP Address (default)	192.168.1.254
	Netmask	255.255.255.0
	Gateway	192.168.1.1
	Telnet Port	23
	Telnet Login Mode	OFF
	Telnet Timeout	300 (seconds)
	Broadcast	ON
	Power	ON

Specifications

Video	
UHD/HD/SD	4096×2160@24/25/30/50*/60Hz*, 3840×2160@24/25/30/50*/60Hz*, 2048x1080p, 1080p@23.98/24/25/29.97/30/50/59.94/60Hz, 1080i@50/59.94/60Hz, 720p@50/59.94/60Hz, 576p, 576i, 480p, 480i
VESA	2560×2048, 2560×1600, 2048×1536, 1920×1200, 1680×1050, 1600×1200, 1600×900, 1440×900, 1400×1050, 1366×768, 1360×768, 1280×1024, 1280×800 1280×768, 1152×768, 1024×768, 800×600, 640×480
Color Space	YUV, RGB
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0
Color Depth	8-bit, 10-bit, 12-bit

Audio	
HDMI IN / HDBaseT Out	PCM 2Ch, LPCM 5.1, LPCM 7.1, Dolby® Digital, DTS® 5.1, Dolby Digital Plus, Dolby TrueHD, DTS-HD Master Audio™
Sample Rate	32kHz, 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz
Bit Rate	24-bit (max.)

Resolution / Distance	4K/UHD - Feet / Meters		1080p - Feet / Meters	
HDMI	15	5	30	10
CAT5e / CAT6a	230	70	330	100
CAT6a / CAT7	330	100	330	100

Signal				
Bandwidth	10.2 Gbps			
CEC	Yes			
HDCP	2.2			

Temperature	Fahrenheit	Celsius
Operating	32 to 104	0 to 40
Storage	-4 to 140	-20 to 60
Humidity (RH)	20% to 90%, non-condensing	

Dimensions	Inches	Millimeters
Wall	1-gang, 2.35 deep	1-gang, 59.5 deep

Weight	Pounds	Kilograms
Device	0.40	0.18

Certification		
Device	CE, FCC	

* 4096×2160@50/60Hz & 3840×2160@50/60Hz supported @ chroma subsampling 4:2:0 8-bit only.

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