⊡MEGA™ 4K / UHD
Two-Input EU/UK Wallplate Switcher
for HDMI and USB-C with HDBaseT™ Output

Version Information

Version	Release Date	Notes
1	08/18	Initial release

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

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Operating Notes

⚠️ **IMPORTANT:** Visit http://www.atlona.com/product/AT-OME-TX21-WP-E 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.

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

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

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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
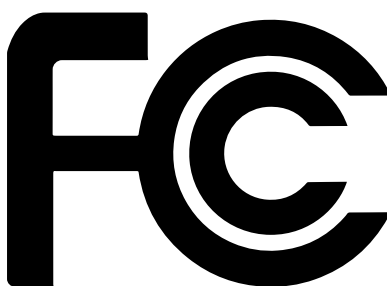
FCC Compliance and Advisory Statement: This hardware device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received including interference that may cause undesired 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-OME-TX21-WP-E** is a 2×1 switcher and HDBaseT transmitter with HDMI and USB-C inputs. It is designed for commercial installations in Europe. The OME-TX21-WP-E includes interchangeable EU and UK faceplates and brackets. The USB-C input is ideal for AV interfacing with newer Mac®, Chromebook™, and Windows®PCs, as well as smartphones and tablets. 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 OME-TX21-WP-E is HDCP 2.2 compliant. It is designed for use with Omega™ Series receivers and switchers, select HDVS Series receivers, the AT-UHD-EX-100CE-RX-PSE receiver, and other Atlona 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 Atlona HDBaseT-equipped devices through Power over Ethernet (PoE).
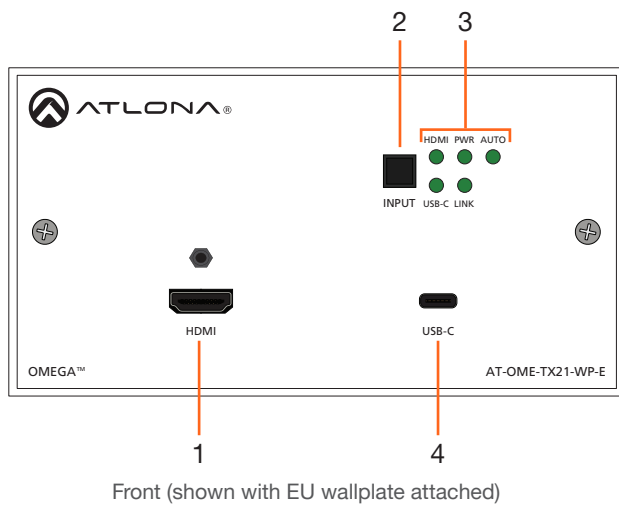
Features

- Compact enclosure for EU and UK wallplate openings – interchangeable EU and UK trim kits
- 2×1 HDBaseT switcher with HDMI and USB-C inputs
- HDBaseT transmitter for AV, power, and control up to 330 feet (100 meters)
- HDCP 2.2 compliant
- Remotely powered via PoE (Power over Ethernet)
- Automatic input selection and automatic display control
- TCP/IP and RS-232 control of switcher

Package Contents

1 x AT-OME-TX21-WP-E w/EU faceplate installed
1 x AT-OME-TX21-WP-UK faceplate
2 x M3.5 x 40mm screws
1 x 3-pin captive screw connector
1 x USB-C cable
1 x Installation Guide

Panel Description

2 3

Front (shown with wallplate removed)

HDMI PWR AUTO

INPUT USB-C LINK

HDMI   USB-C

OMEGA™   AT-OME-TX21-WP-E

1   4

Front (shown with EU wallplate attached)

FW

RESET   5
             6
IP
             7
TEST

8   9

Bottom
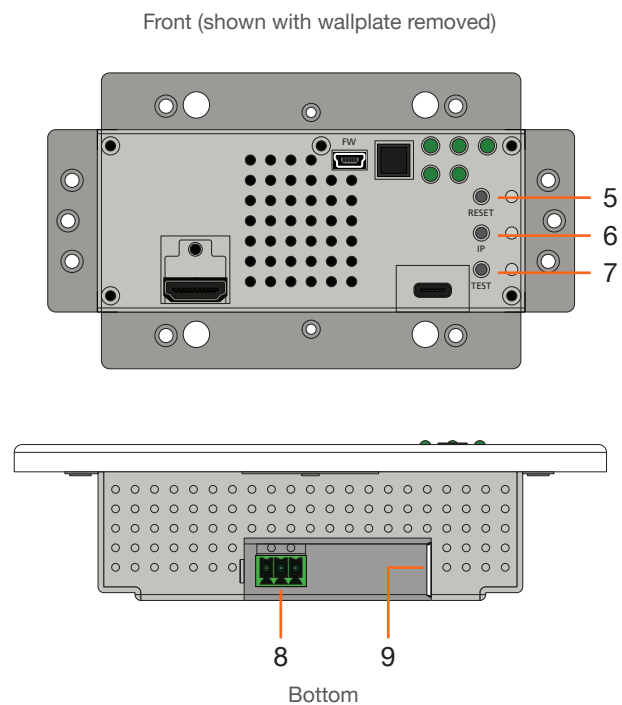
1   HDMI
Connect an HDMI cable from this port to an HD/UHD source.

2   INPUT
Press and release this button to manually switch between **HDMI** and **USB-C** inputs.

3   LED Indicators
Indicators for power, active source, auto-switch mode, and link integrity.

HDMI
This LED indicator glows solid green when a source is connected to the **HDMI** port.

PWR
This LED indicator glows solid green when the unit is powered using a PSE-series receiver.

AUTO
This LED indicator glows solid green when auto-switch is enabled.

USB-C
This LED indicator glows solid green when the USB-C port is the active input.

LINK
This LED indicator glows solid green when the link integrity between the unit and a receiver is good.

4   USB-C
Connect a USB-C cable from a video source to this input. This port does not support data or charging of external devices.

5   RESET
Press and hold this button for 10 seconds to reset the unit to factory-default settings.

6   IP
Press and hold this for approximately 5 seconds to set the IP mode. Refer to IP Configuration (page 15) for more information.

7   TEST
This button is reserved for future expansion.

8   RS-232
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.

9   HDBaseT OUT
Connect an Ethernet cable from this port to a locally-powered HDBaseT receiver such as the AT-HDVS-200-RX, AT-HDVS-150-RX, or AT-UHD-EX-100CE-RX-PSE.

RS-232 Connector

The **RS-232** port allows an automation control system or terminal (e.g. Hercules, PuTTY) to control the AT-OME-TX21-WP-E. This step is optional. RS-232 cables can be purchased at most electronics / computer stores and are available in two styles: DB-9-to-DB-9 or DB-9-to-USB. Once a cable is obtained, it can be easily modified to connect to the captive screw port on the AT-OME-TX21-WP-E. Contact an Atlona Technical Support Engineer if wiring assistance is required.

NOTE: If the AT-OME-TX21-WP-E will be controlled from a computer running a terminal program, a DB-9-to-USB cable should be purchased/obtained.

1. Remove one of the ends of the cable using wire cutters. If the cable is a DB-9-to-USB cable and will be used to connect the AT-OME-TX21-WP-E to a computer, then remove the DB-9 connector from the cable.

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 on the included captive screw block, as shown in the illustration below.

5. Use a small regular screwdriver to secure the wires in place. Do no overtighten or use high-torque devices on the captive screw connector. Doing so may damage the captive screw connector.
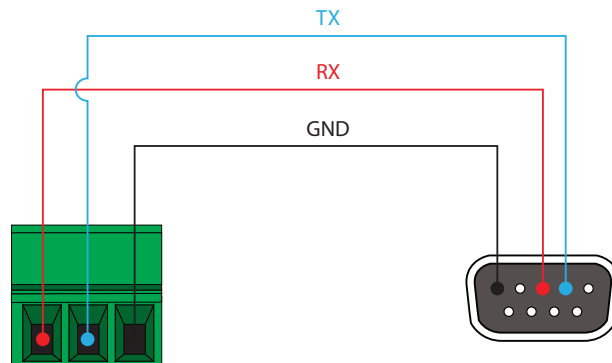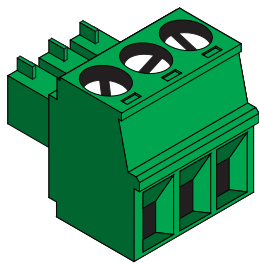
Connection Instructions

1. Determine the proper faceplate to be used for installation. The AT-OME-TX21-WP-E is shipped with the EU white faceplate, attached. If using the black faceplate, then refer to Wallplate 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-OME-TX21-WP-E. 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)	■■	■■■■	■■■■■	■■■■■

Cable	Max. Distance @ 4K	Max. Distance @ 1080p
CAT5e / CAT6	230 feet (70 meters)	330 feet (100 meters)
CAT6a / CAT7	230 feet (70 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-OME-TX21-WP-E into the electrical box or mudring. Refer to the Connection Diagram (page 12) if necessary.

4. Connect an HDMI cable between the UHD/HD source and the **HDMI** port on the switcher.

5. Connect a USB-C cable from a computer to the **USB-C** port on the switcher.

6. 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-OME-TX21-WP-E, such as volume up/down, display on/off, etc.

    No power supply is required for the AT-OME-TX21-WP-E. This unit will be powered over the Ethernet cable, from a compatible HDBaseT receiver.
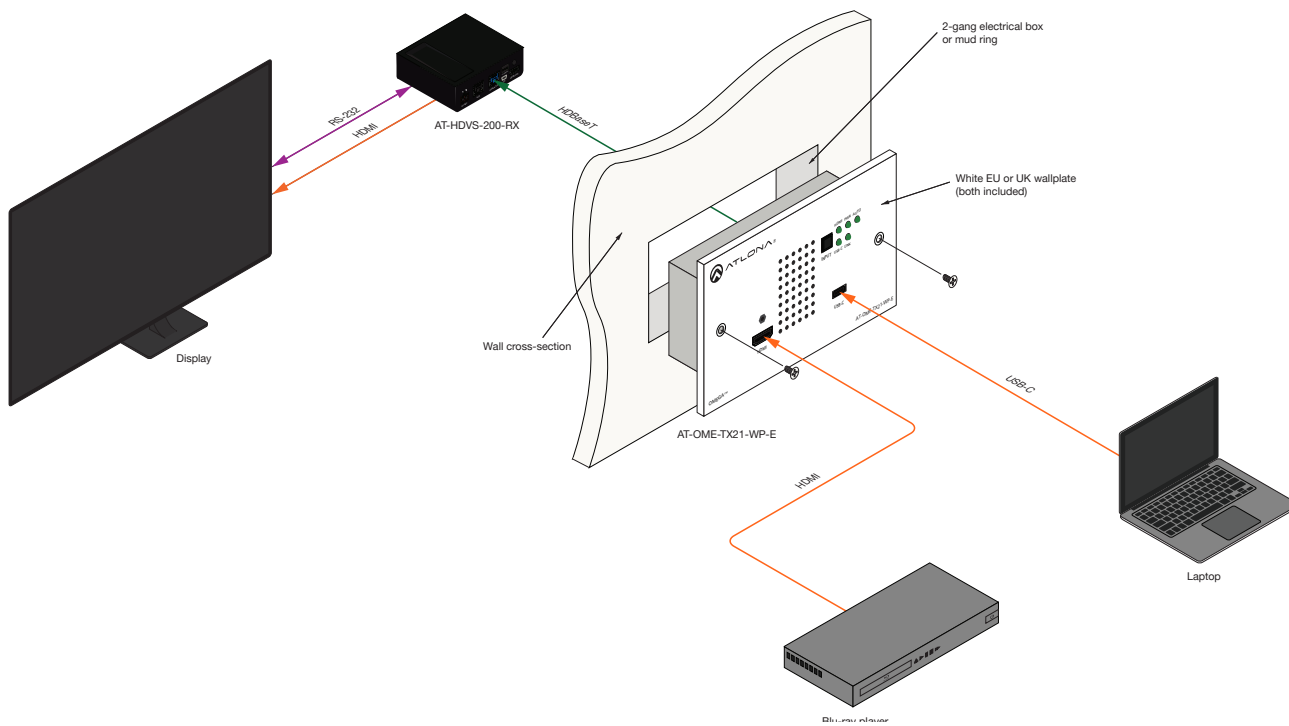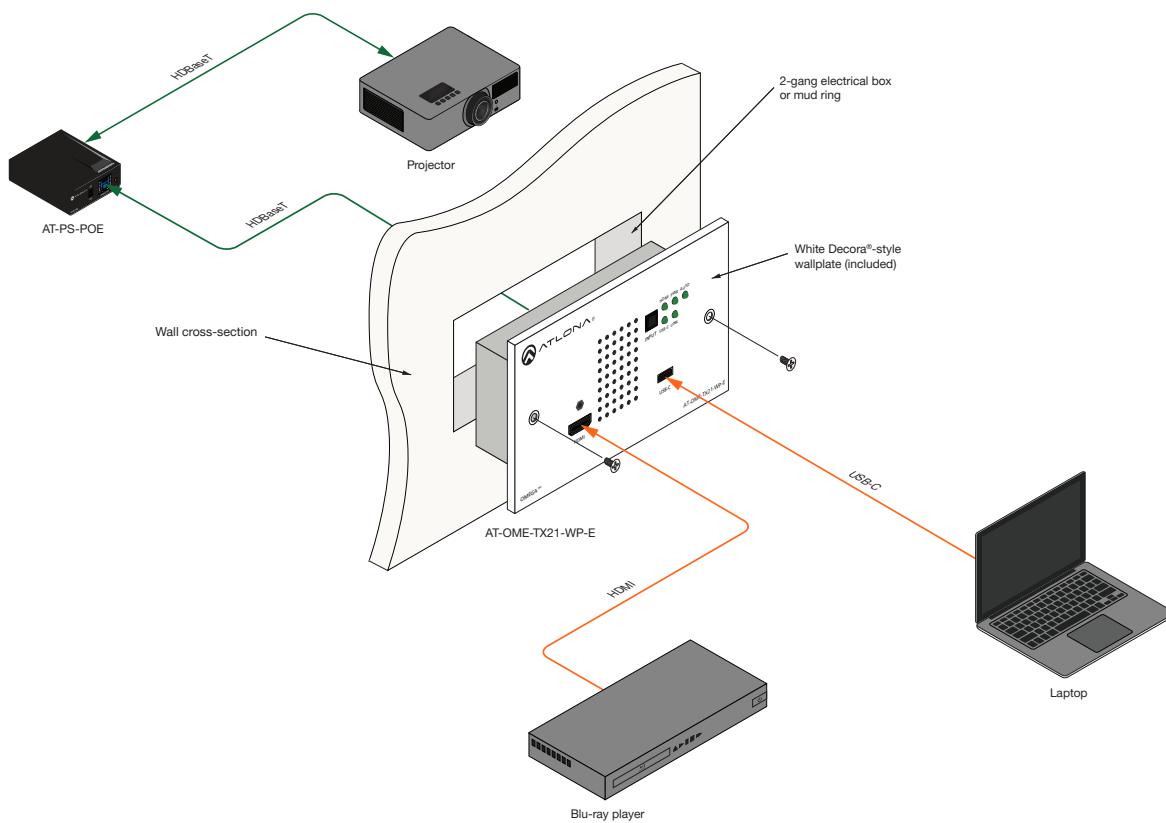
Connection Diagram

Figure 1

2-gang electrical box
or mud ring

White EU or UK wallplate
(both included)

RS-232

HDMI

HDBaseT

AT-HDVS-200-RX

Wall cross-section

Display

AT-OME-TX21-WP-E

USB-C

HDMI

Laptop

Blu-ray player

Figure 2

HDBaseT

Projector

2-gang electrical box
or mud ring

HDBaseT

AT-PS-POE

White Decora®-style
wallplate (included)

Wall cross-section

AT-OME-TX21-WP-E

USB-C

HDMI

Laptop

Blu-ray player

Mounting

The AT-OME-TX21-WP-E was designed to fit in a UK or EU 2 gang backbox or mudring. Follow the instructions below for mounting.

EU Installation (default)

1. Remove the two screws on the front of the faceplate.

2. Remove the locking connector of the HDMI port.

3. Pull the faceplate off the unit.

4. Place the unit into the already installed back box or mudring, making sure the holes line up with the mounting holes.

5. Use the back box screws to secure the wallplate to the back box.

6. Replace the face plate, securing it with the two faceplate screws and the HDMI locking screw.
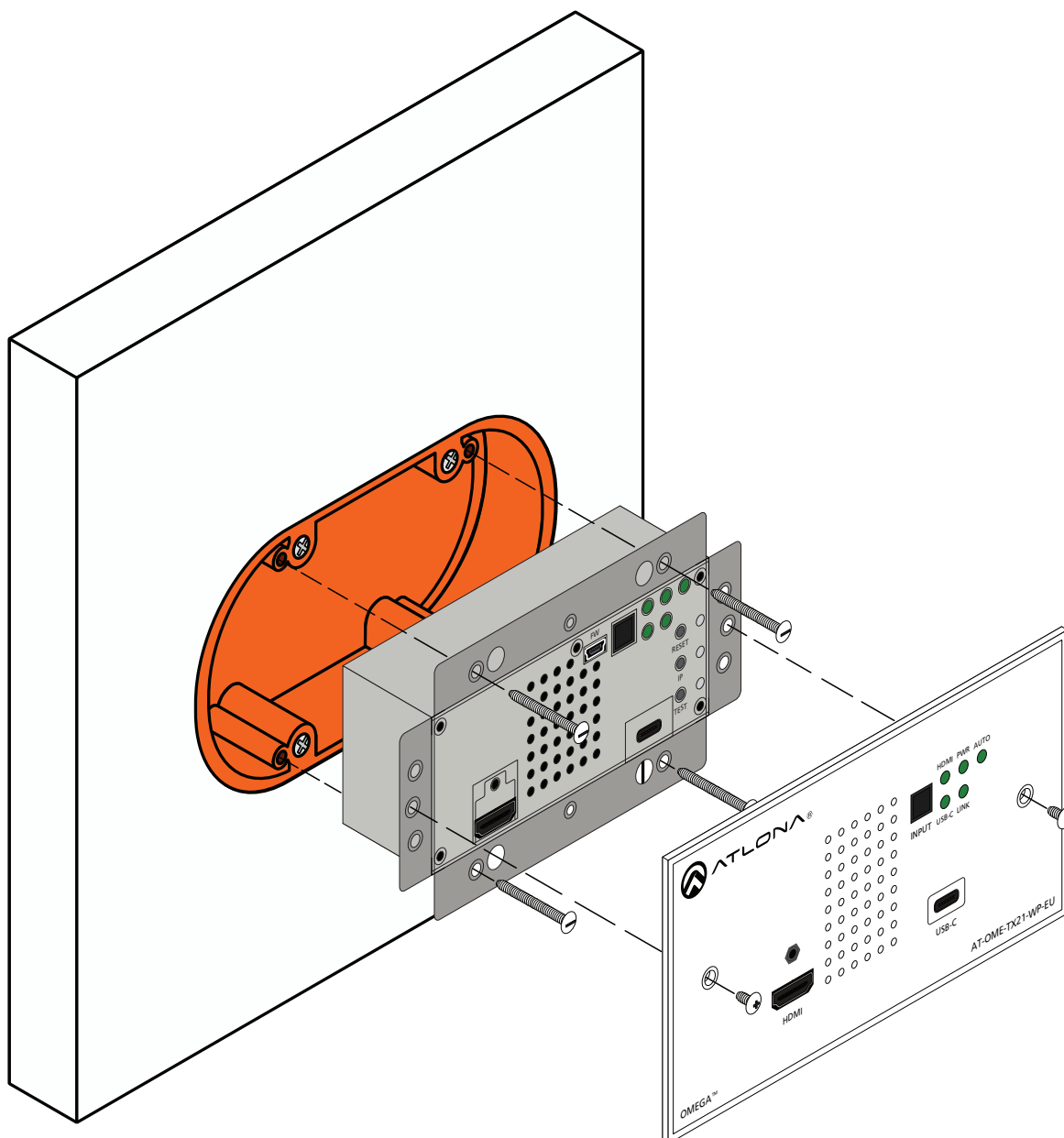
UK Installation

1. Remove the two screws on the front of the faceplate.

2. Remove the locking connector of the HDMI port.

3. Pull the faceplate off the unit.

4. Place the unit into the already installed back box or mudring, making sure the holes line up with the mounting holes.

5. Place the EU faceplate on the front of the unit and use the included two 40mm M3.5 screw to secure the faceplate to the unit and the back box.

6. Replace the HDMI locking screw.
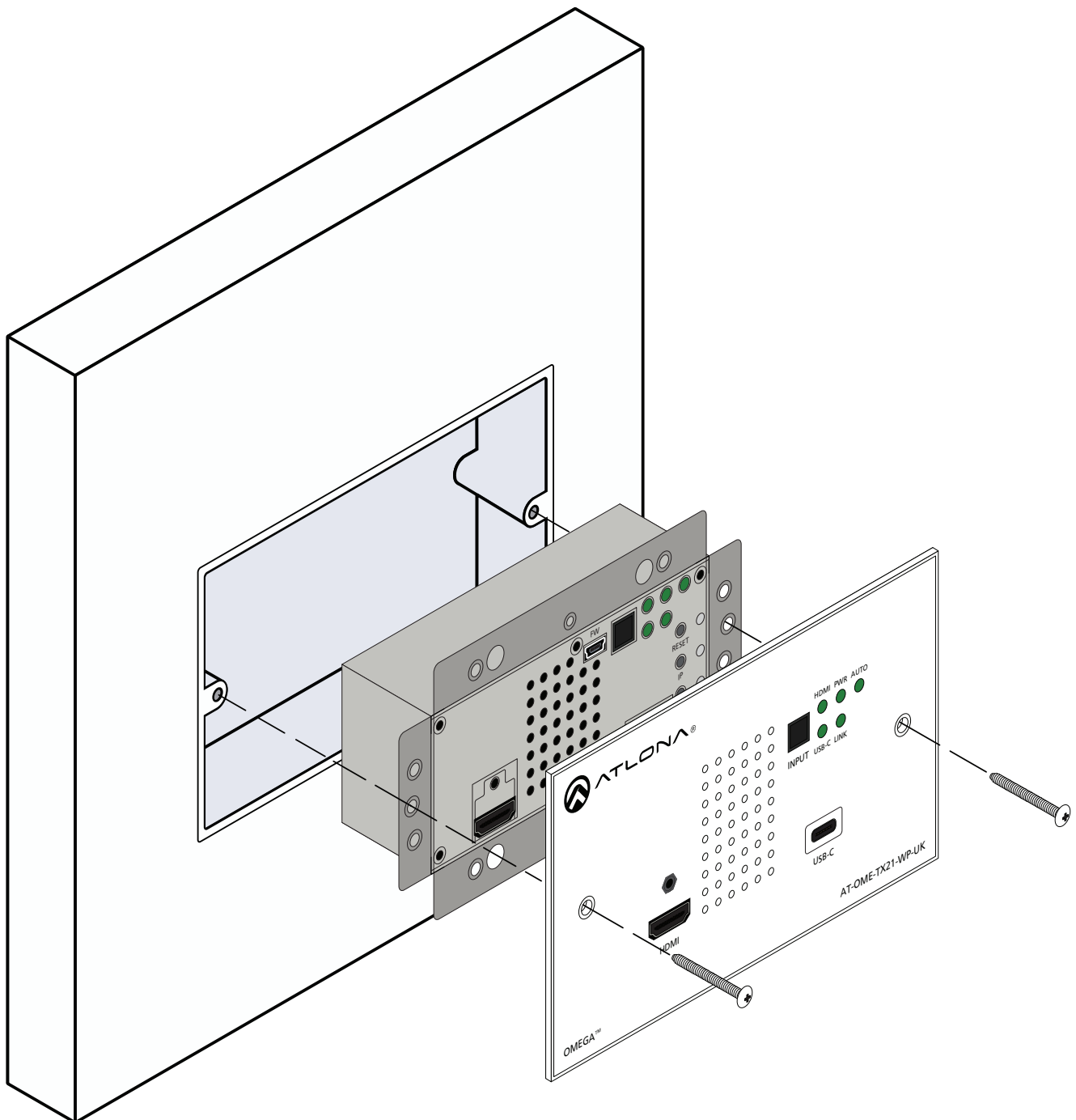
IP Configuration

The AT-OME-TX21-WP-E 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-OME-TX21-WP-E is 192.168.1.254.

If the AT-OME-TX21-WP-E is unable to detect a DHCP server within 15 seconds, then the unit will set all IP settings to zero.

Using the IP button

1. Make sure the AT-OME-TX21-WP-E 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 back of the unit. Power is supplied by the receiver over HDBaseT.

2. Remove the faceplate. Refer to Wallplate Removal and Assembly (page 13) for more information.
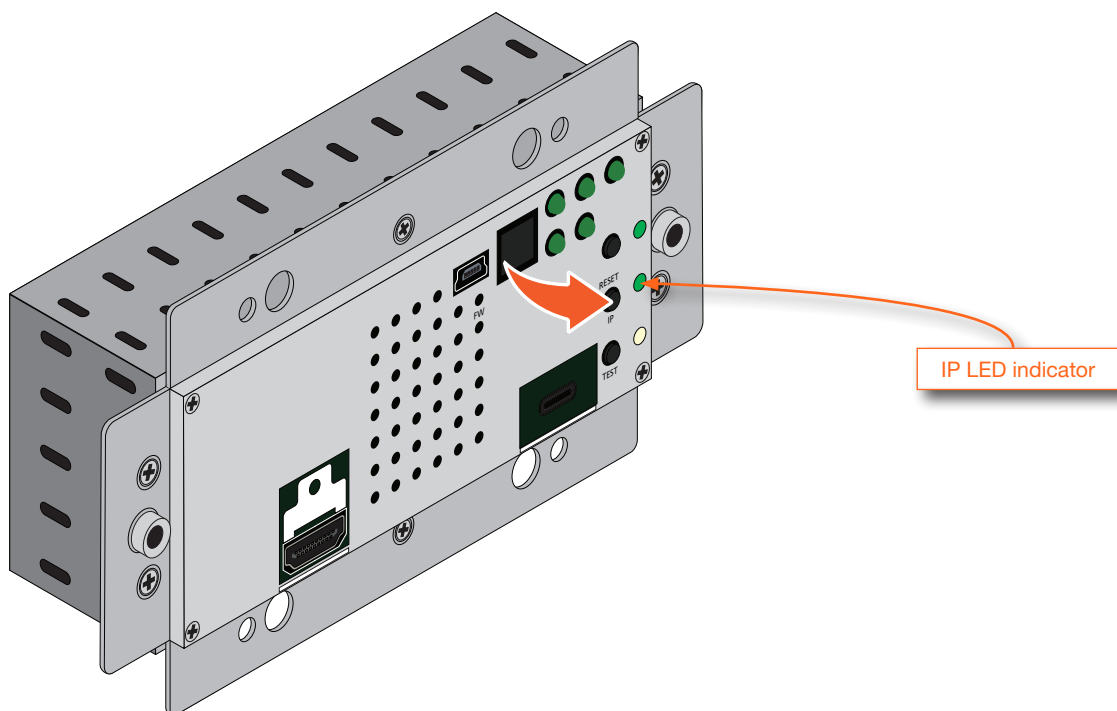
IP LED indicator

3. Press and hold the **IP** button for approximately five seconds. Release the button once the LED indicator, next to the **IP** button, 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

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-OME-TX21-WP-E using RS-232 or Telnet, through a compatible receiver.

    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-OME-TX21-WP-E, 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-OME-TX21-WP-E 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).
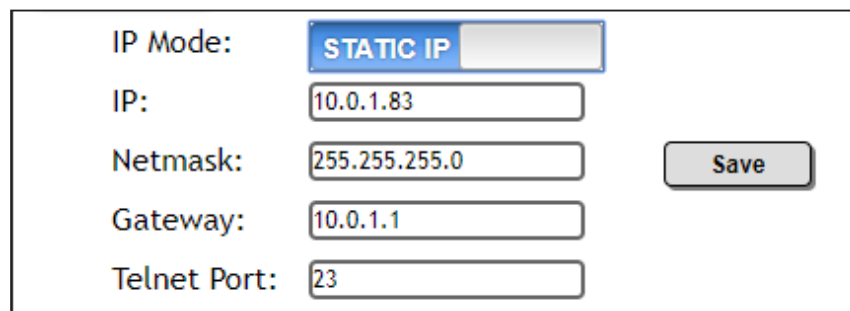
Using the Web GUI

The System page (page 37), in the web GUI, allows the AT-OME-TX21-WP-E to use either DHCP or static IP mode. The web GUI is accessed through the connected receiver. In order to access the web GUI, the IP address of the AT-OME-TX21-WP-E must be known.

1. Open the desired web browser and enter the IP address of the AT-OME-TX21-WP-E.

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

    Username: admin
    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-Defaults

To reset the AT-OME-TX21-WP-E to factory-default settings, either one of the following methods may be used:

*   Remove the wallplate, then press and hold the **RESET** button.

*   Execute the **Mreset** command using RS-232 or Telnet. Refer to the *AT-OME-TX21-WP-E API* for more information.

Using the Front Panel

1. Remove the faceplate from the AT-OME-TX21-WP-E.

2. Press and hold the **RESET** button for approximately 10 seconds. While this button is depressed, the RESET LED indicator will glow solid green.

3. Release the **RESET** button once the RESET LED indicator begins to flash.

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

4. Reattach the faceplate to the front of the AT-OME-TX21-WP-E.

RESET LED indicator
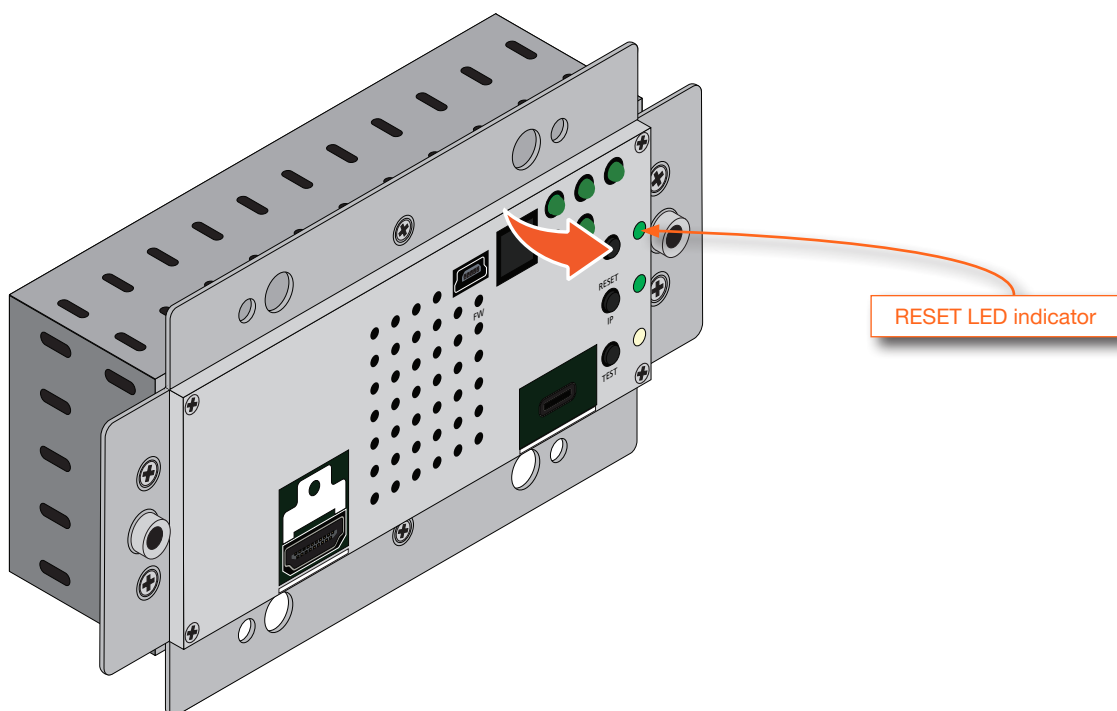
Basic Operation

LED Indicators

The following table provides a listing of front-panel LED indicators and their status:

| LED			Description
PWR	Off	○	• The AT-OME-TX21-WP-E is not powered. • Check the Ethernet cable, between the AT-OME-TX21-WP-E and the receiver, for possible damage or loose connections. • When the AT-OME-TX21-WP-E is powered-down through the API, this LED indicator will be in the "off" state, even through power is being supplied over Ethernet, from the receiver.
	Green	●	• The AT-OME-TX-21-WP-E is powered.
	Flashing	✷	• This LED indicator will flash four times to indicate that the AT-OME-TX-21-WP-E is powering-down. Once powered down, the LED will be in the "off" state. • This LED indicator will flash four times to indicate that the AT-OME-TX-21-WP-E is powering-up, from a power-down state. Once the AT-OME-TX21-WP-E is powered, the LED will glow solid green.
HDMI	Off	○	• HDMI is not the active input.
	Green	●	• HDMI is the active input. Note that this LED indicator does not indicate the presence of an video signal.
USB-C	Off	○	• USB-C is not the active input.
	Green	●	• USB-C is the active input. Note that this LED indicator does not indicate the presence of an video signal.
LINK	Off	○	• No link exists between the AT-OME-TX21-WP-E and the receiver. • Check that an Ethernet cable is connected between the HDBaseT port on the receiver and the AT-OME-TX21-WP-E. • Verify that the Ethernet cable is not damaged and all connections are secure.
	Green	●	• Link integrity is good. ⓘ **NOTE:** Powering-down the AT-OME-TX21-WP-E using either the API or the web GUI will not affect this LED indicator. This indicator only reports the state of the physical connection between the AT-OME-TX21-WP-E and the receiver.
	Flashing	✷	• Indicates that the link between the AT-OME-TX21-WP-E and the receiver is not stable.
AUTO	Off	○	• Auto-switching is disabled.
	Green	●	• Auto-switching is enabled.

Input Switching

Switching between the **HDMI** and **USB-C** ports can be performed either manually or automatically. The following section covers both methods.

Manual Switching

1. Press and release the **INPUT** button on the front panel to toggle between the **HDMI** and **USB-C** inputs. The **HDMI** input is selected as the factory-default setting, as shown below.
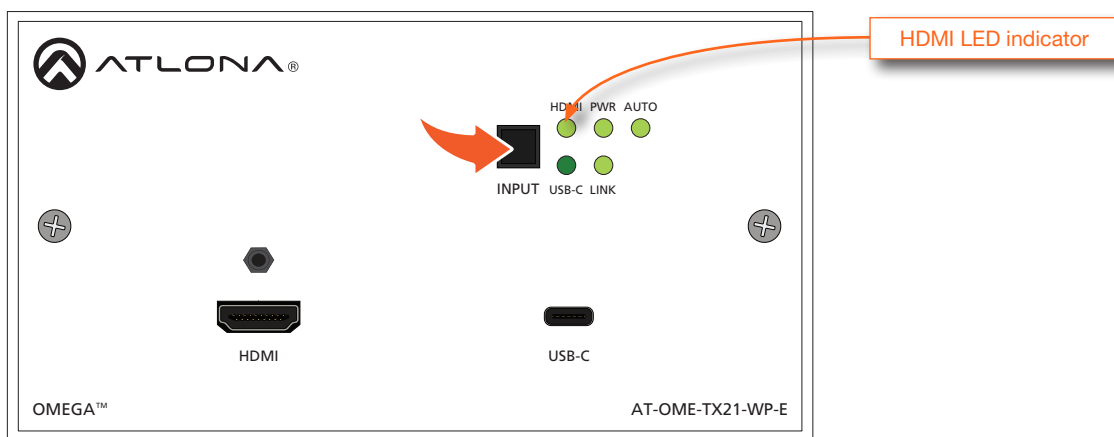
After the **INPUT** button is pressed, the input will be switched to the opposite input. In this example, the **USB-C** port is now the active input and will be indicated by the **USB-C** LED indicator.
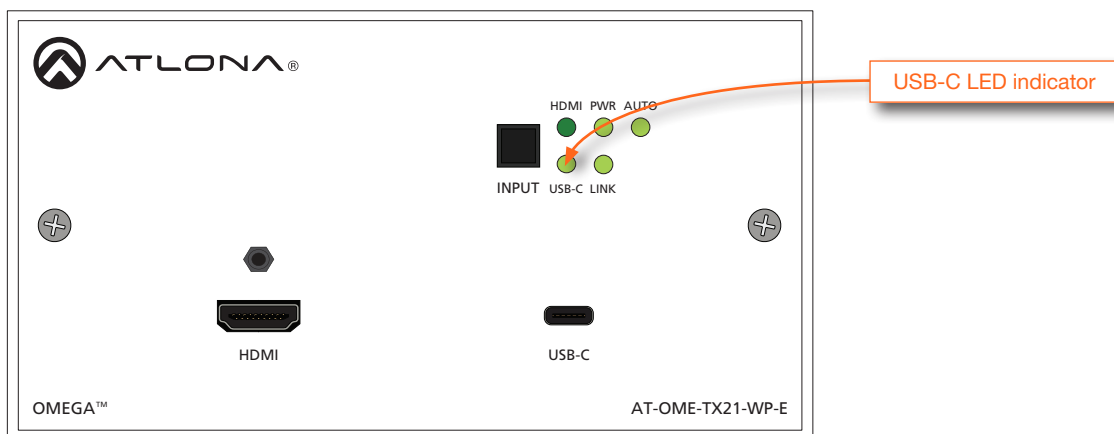
2. Press the **INPUT** button to return to the previous input.

   Manual input switching can also be performed under the A/V Settings page (page 29) of the web GUI, by clicking the **Input Selection** drop-down list and selecting the desired input. In addition, the x1AVx1 command can also be used. Refer to the *Application Programmer's Interface* for more information.

   NOTE: The AT-OME-TX21-WP-E retains the currently selected input, even after the unit is powered-off then powered-on.

Auto Switching

Auto-switching can also be used to automatically select an input. Auto-switching must be enabled for this feature to work. When auto-switching is enabled, the AT-OME-TX21-WP-E will switch inputs, based on the presence of an input signal.

1. Enable auto-switching by using one of the following methods. To check if auto-switching is enabled or disabled, locate the AUTO LED indicator on the front panel. If this LED indicator is solid green, then auto-switching is enabled.

    Using the web GUI

    a. Login to the web GUI and access the A/V Settings page (page 29) page.

    b. Click the **Auto Switch mode** toggle switch to the ON position. This is the default setting.
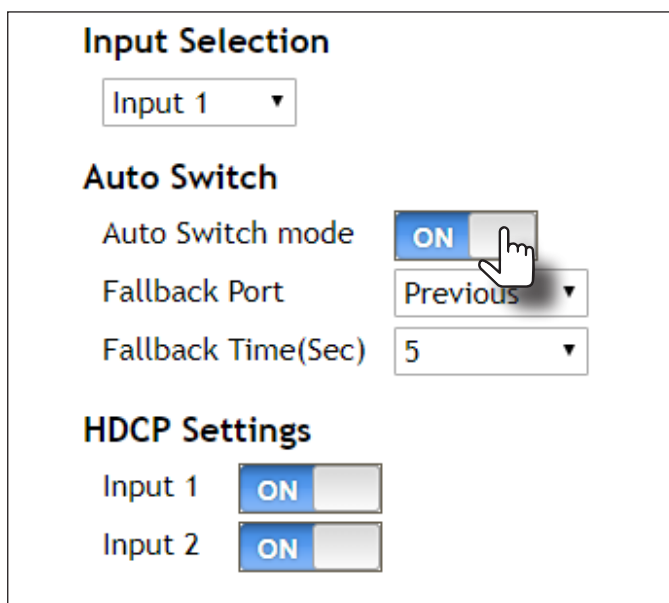
2. Connect a source to either the **HDMI** or **USB-C** port. The AT-OME-TX21-WP-E will automatically switch to the port with the connected source.

    For example, if an HDMI source is connected to the **HDMI** port, the AT-OME-TX21-WP-E will switch to the **HDMI** port. If a **USB-C** source is connected, then the AT-OME-TX21-WP-E will switch to the USB-C port.

    • If a source is disconnected, then the AT-OME-TX21-WP-E will fallback to port with an active source.

    • If all sources are disconnected, then the AT-OME-TX21-WP-E will retain the port of the the last-connected source.

    NOTE: The AT-OME-TX21-WP-E retains the currently selected input, even after the unit is powered-off then powered-on.

HDCP Information

If a source is transmitting HDCP content to a display that is not HDCP-compatible, then the resulting image on the display can be "snow", image flickering, or no picture. Instead, the AT-OME-TX21-WP-E provides source and sink information when an HDCP-compatiblity problem exists.

For example, in the illustration below, a Blu-ray player HDCP 2.2 source is connected to the AT-OME-TX21-WP-E. A non-compliant display is connected to a receiver, which is connected to the AT-OME-TX21-WP-E using HDBaseT.
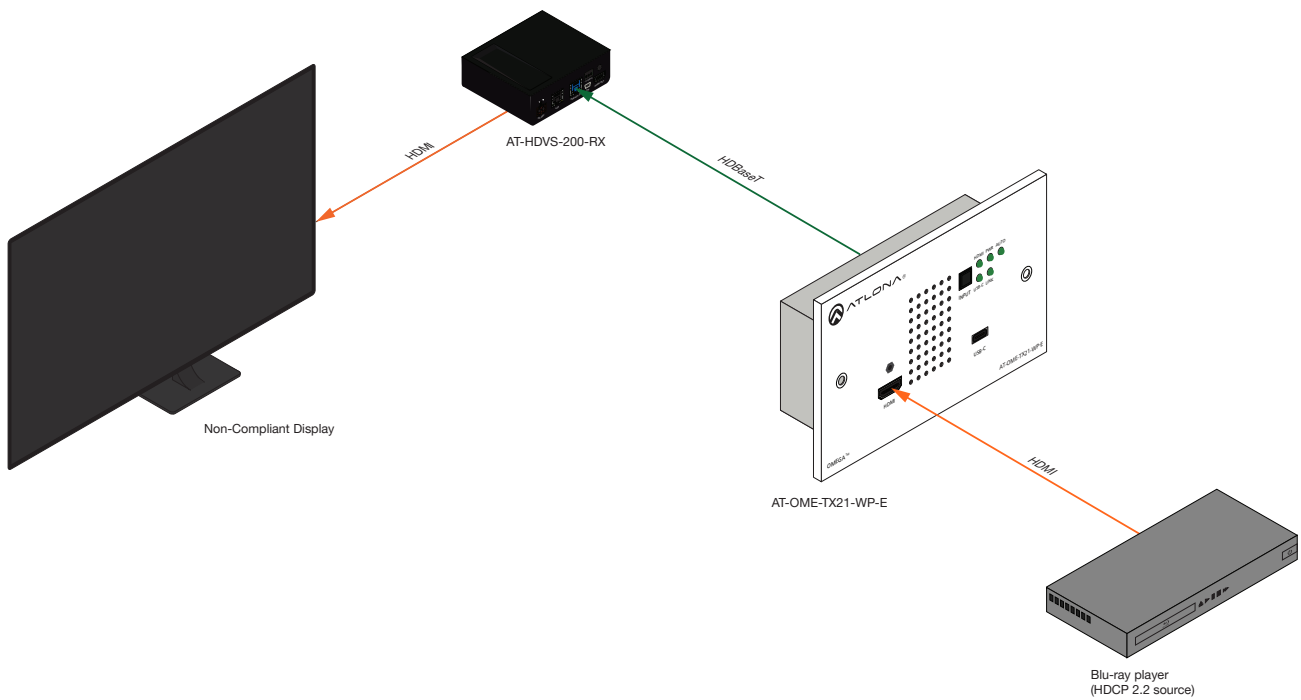
Since the display is unable to receive HDCP content, the following message will be displayed on the screen:
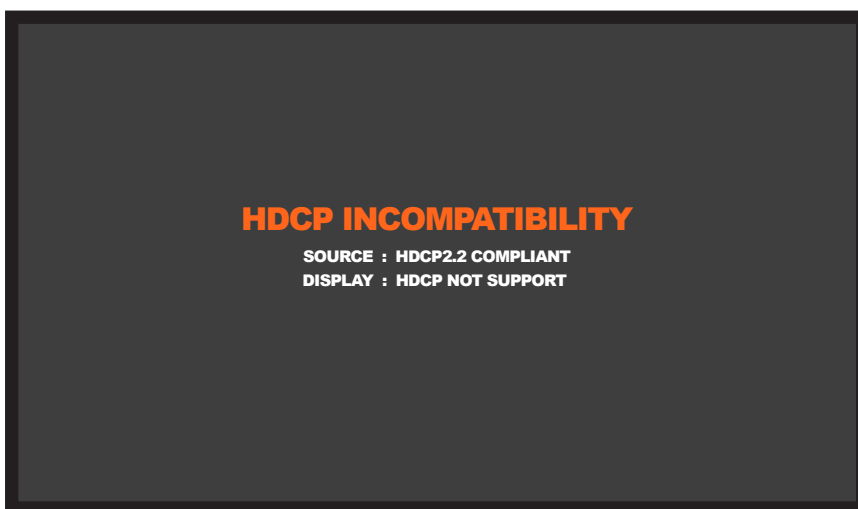
To resolve this issue, replace the display with a HDCP-compliant display. Also note, that if the display device only supported HDCP 1.4, then a similar message would be displayed. The display device must support the same version of HDCP which the source is outputting.

Managing Users

The AT-OME-TX21-WP-E allows the admin user to create, edit, and remove additional TCP/IP users. All users have the same level of access to control the AT-OME-TX21-WP-E. However, only the admin user is allowed to manage other users. Up to three additional users can be created.
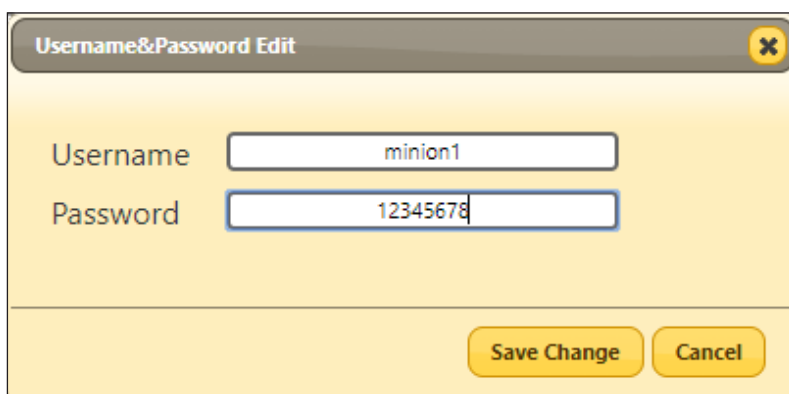
Adding Users

1. Open the desired web browser and enter the IP address of the AT-OME-TX21-WP-E.

2. Log in as the **admin** user with the required credentials. The factory-default username and password for the admin user are listed below:

    Username: admin
    Password: Atlona
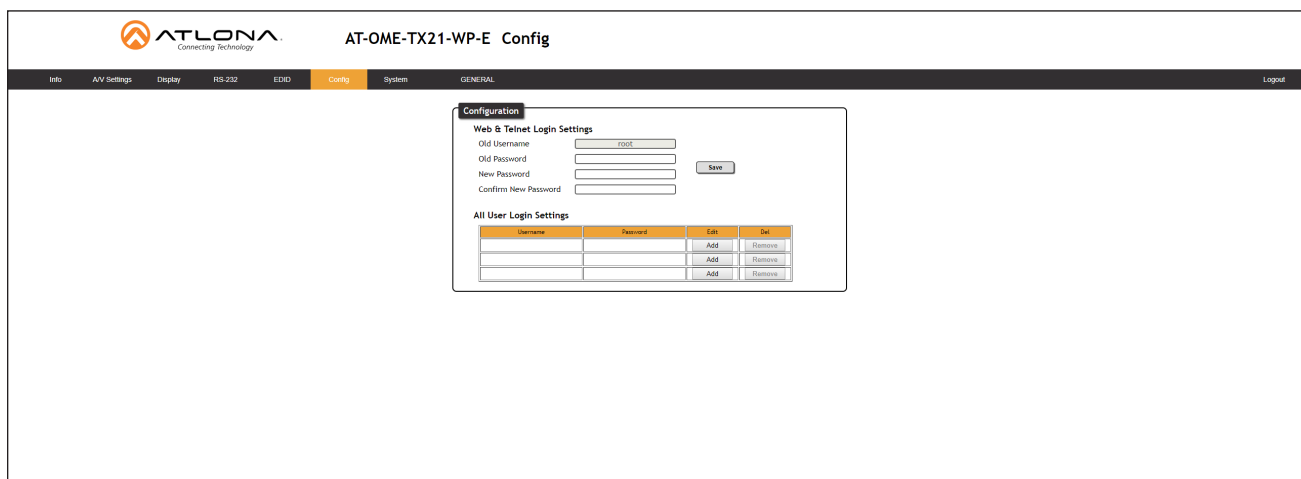
3. Click the **Config** tab.

4. Click the **Add** button, under the **Edit** column.

5. Enter the desired username and password in the **Username&Password Edit** dialog box.

6. Click the **Save Change** button to commit changes or click the **Cancel** button to return to the **Config** page without adding the user.

    Once created, the new user and the associated password will appear under the **All User Login Settings** section. To login with the new username, click **Logout** in the upper-right corner of the screen, then enter the login credentials for the user on the **Login** page.

Editing / Deleting Users

The username and password of a user can be changed using this method.

1. Open the desired web browser and enter the IP address of the AT-OME-TX21-WP-E.

2. Log in as the **admin** user with the required credentials. The factory-default username and password for the admin user are listed below:

    Username: admin
    Password: Atlona
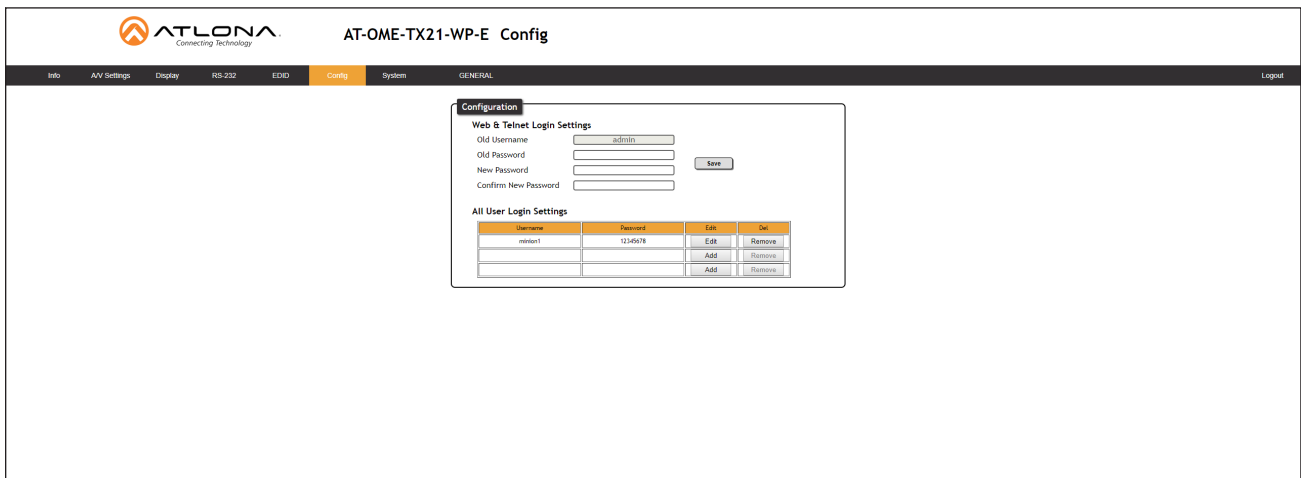
Editing Users

a. Click the **Config** tab.

b. Click the **Edit** button next to the user to be changed.

c. Enter the new information for the user in the **Username&Password Edit** dialog box.

d. Click the **Save Change** button to commit changes or click the **Cancel** button to return to the **Config** page without making changes.
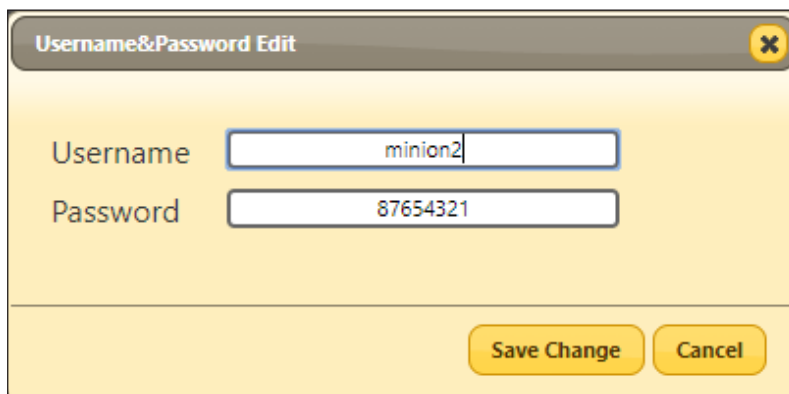
Deleting Users

a. Click the **Remove** button next to the user to be deleted.
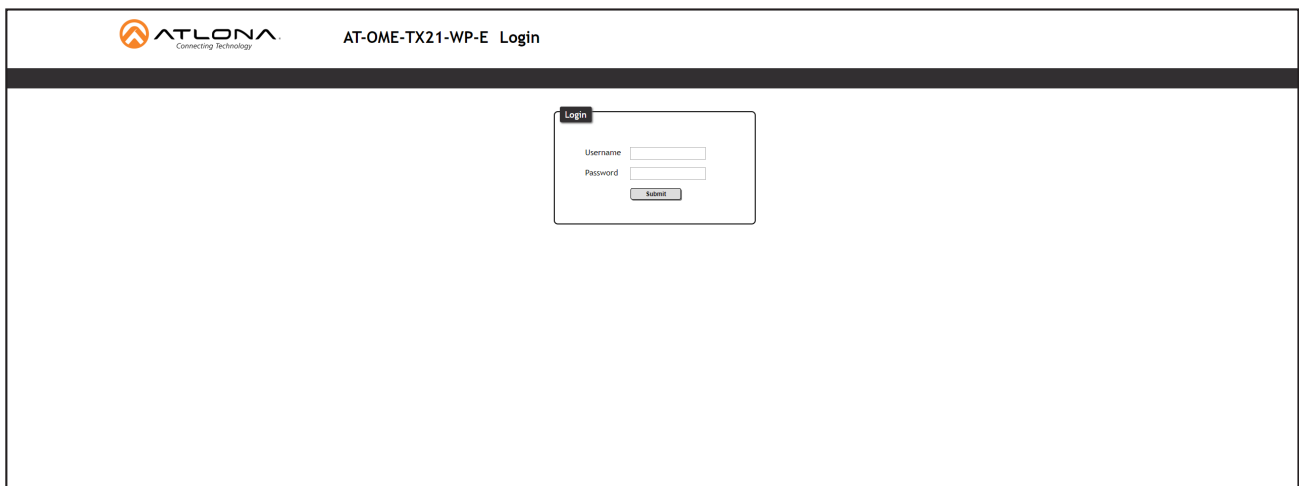
The Web GUI

Accessing the Web GUI

The AT-OME-TX21-WP-E includes a built-in web GUI. Atlona recommends that the web GUI be used to set up the AT-OME-TX21-WP-E, as it provides intuitive management of all features.

The AT-OME-TX21-WP-E 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-OME-TX21-WP-E. If a static IP address is desired, refer to IP Configuration (page 15). The default static IP address of the AT-OME-TX21-WP-E is 192.168.1.254.
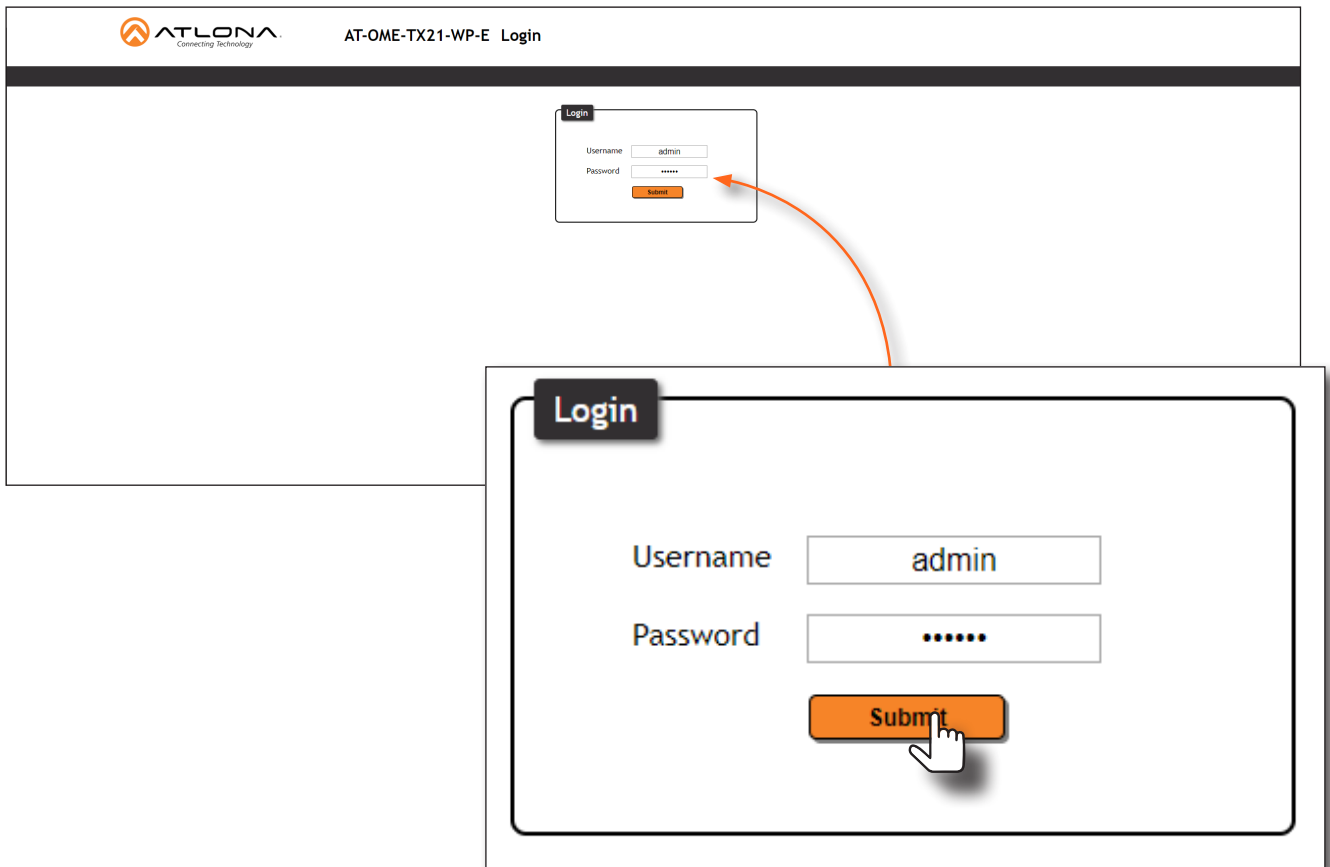
> **NOTE:** The web GUI can only be accessed if the AT-OME-TX21-WP-E is connected to a compatible PoE receiver unit, such as the AT-HDVS-200-RX, using the **HDBaseT** port. The receiver must be connected to the network.

1. Launch a web browser.

2. Use one of the following methods to access the IP address of the AT-OME-TX21-WP-E:

    a. Login to the web GUI of the receiver unit that is connected to the AT-OME-TX21-WP-E. Once logged in, click the link for the AT-OME-TX21-WP-E, in the menu bar.

    b. Use an IP scanner to locate the IP address of the AT-OME-TX21-WP-E on the network. The MAC address, on the back of the unit, can be used to identify the unit with the IP address. Enter the IP address in the address bar of the web browser.

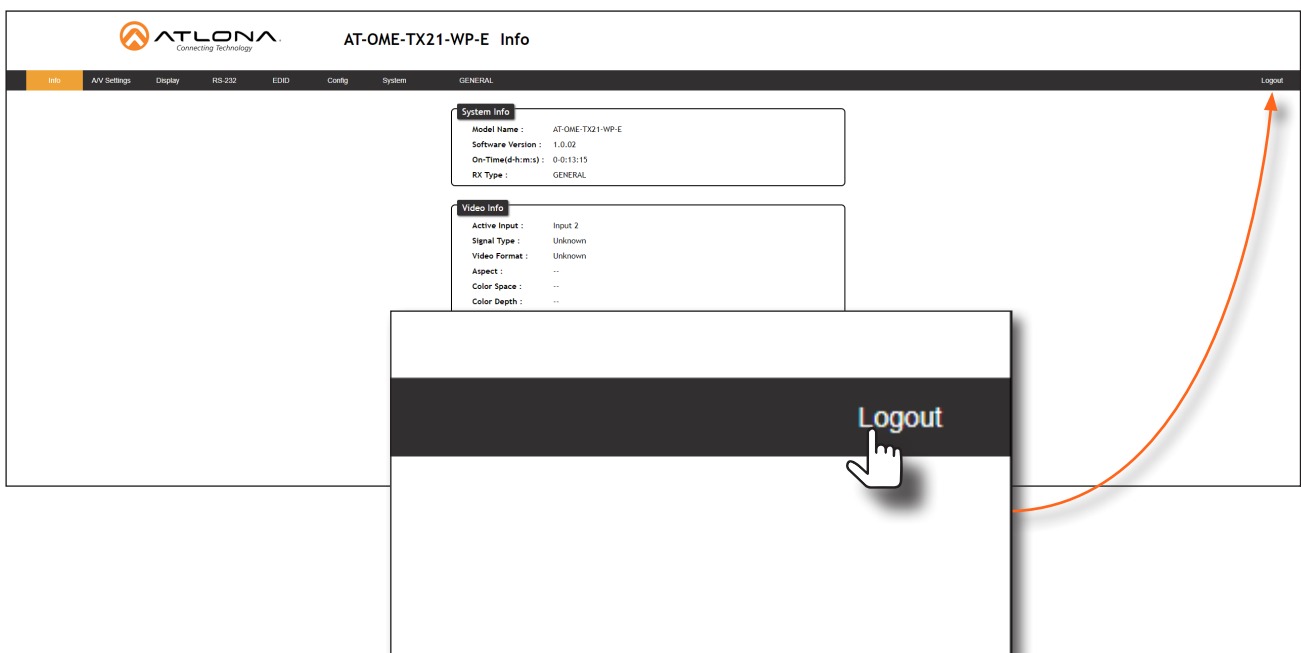3. The **Login** page for the AT-OME-TX21-WP-E will be displayed.

4. Type admin, using lower-case characters, in the **Username** field.

5. Type Atlona in the **Password** field. This is the default password. Note that passwords are case-sensitive and will be masked when it is entered. To change the password, refer to the Config page (page 36).

6. Click the **Submit** button or press the ENTER key on the keyboard.

AT-OME-TX21-WP-E Login

Login

Username   admin
Password   ••••••
             Submit

Login

Username   admin

Password   ••••••

Submit

After the login process is successful, the **Info** page will be displayed, as shown below.

AT-OME-TX21-WP-E Info

Info   A/V Settings   Display   RS-232   EDID   Config   System   GENERAL   Logout

System Info

Model Name :   AT-OME-TX21-WP-E
Software Version :   1.0.02
On-Time(d-h:m:s) :   0-0:13:15
RX Type :   GENERAL

Video Info

Active Input :   Input 2
Signal Type :   Unknown
Video Format :   Unknown
Aspect :   --
Color Space :   --
Color Depth :   --

Logout

7.   Click **Logout**, on the far-right side of the menu bar, at any time, 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.
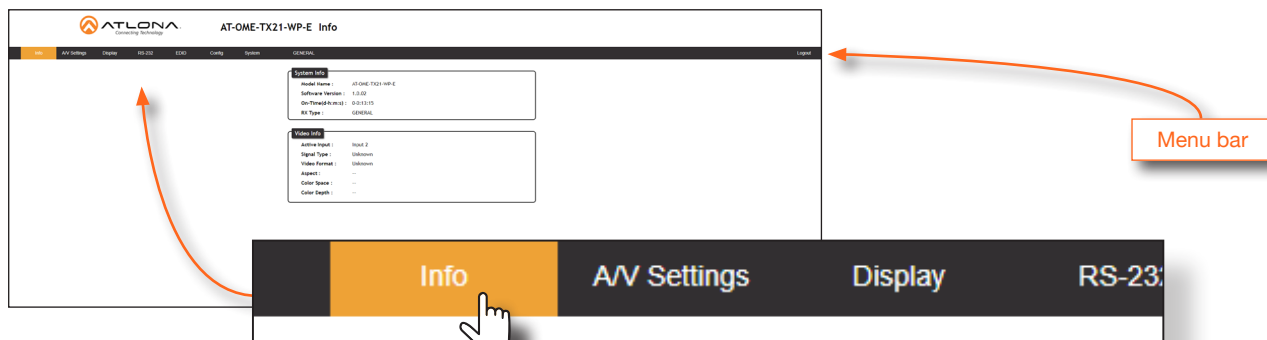

In this example, clicking **A/V Settings**, in the menu bar, will display the **A/V Settings** page.
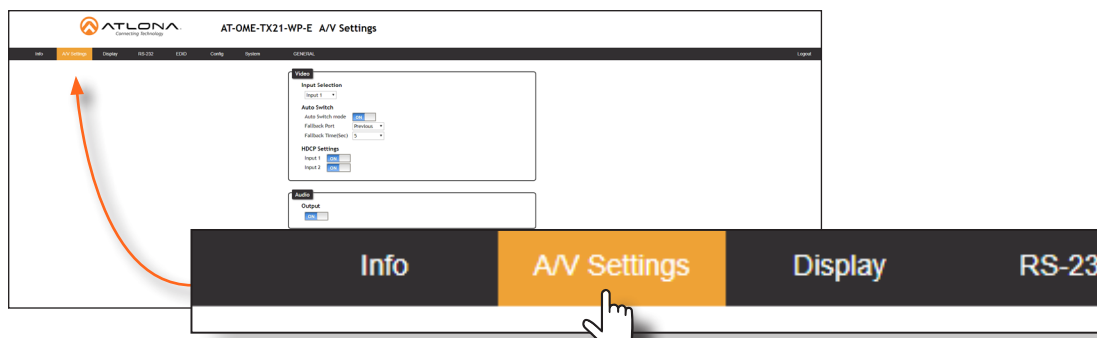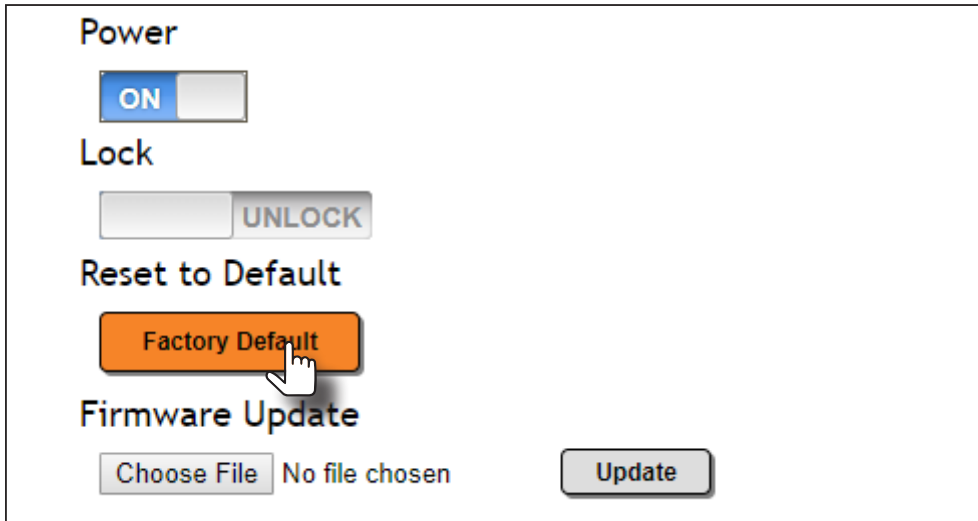

Toggles

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.
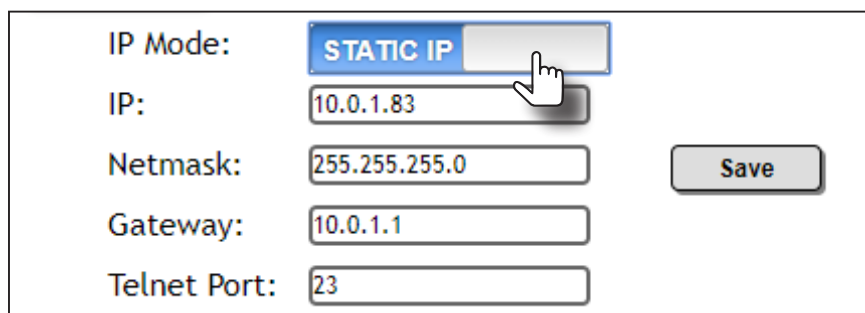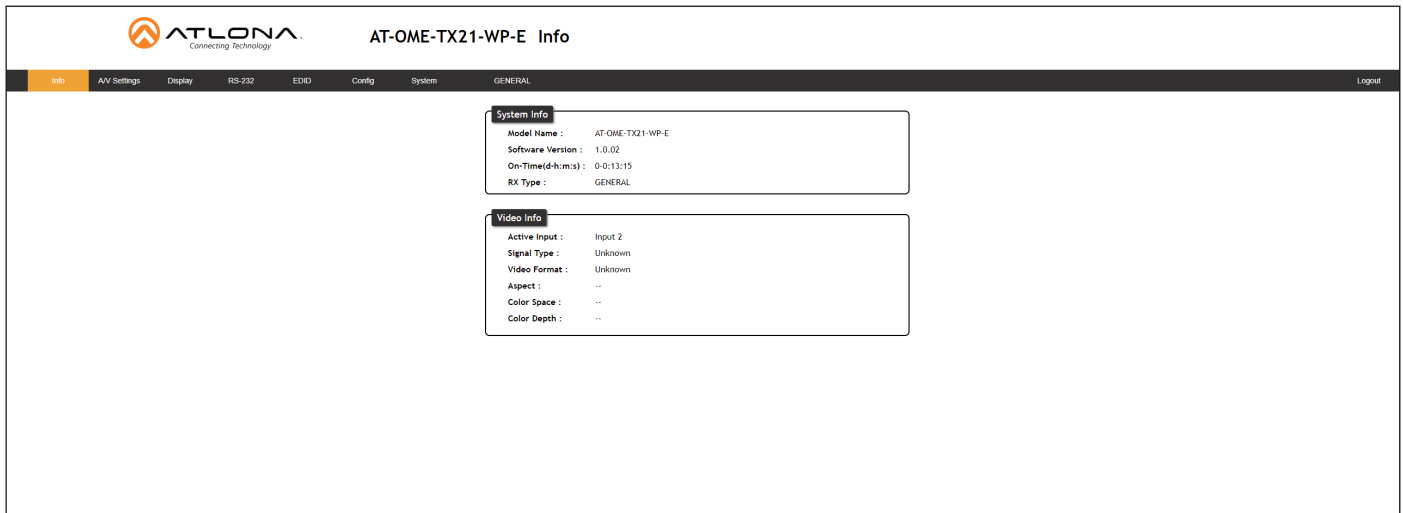
Buttons

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-OME-TX21-WP-E to factory-default settings

Info page

System Info

Model Name
The model SKU of this product.

Software Version
The version of firmware that the AT-OME-TX21-WP-E is running. Always make sure to check the AT-OME-TX21-WP-E 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
Indicates the type of receiver that is connected to the unit.

Active Input
The currently selected input. Refer to the A/V Settings page (page 29) for information on changing the input.

Signal Type
Displays the input resolution of the source device.

Video Format
Displays the video format.

Aspect
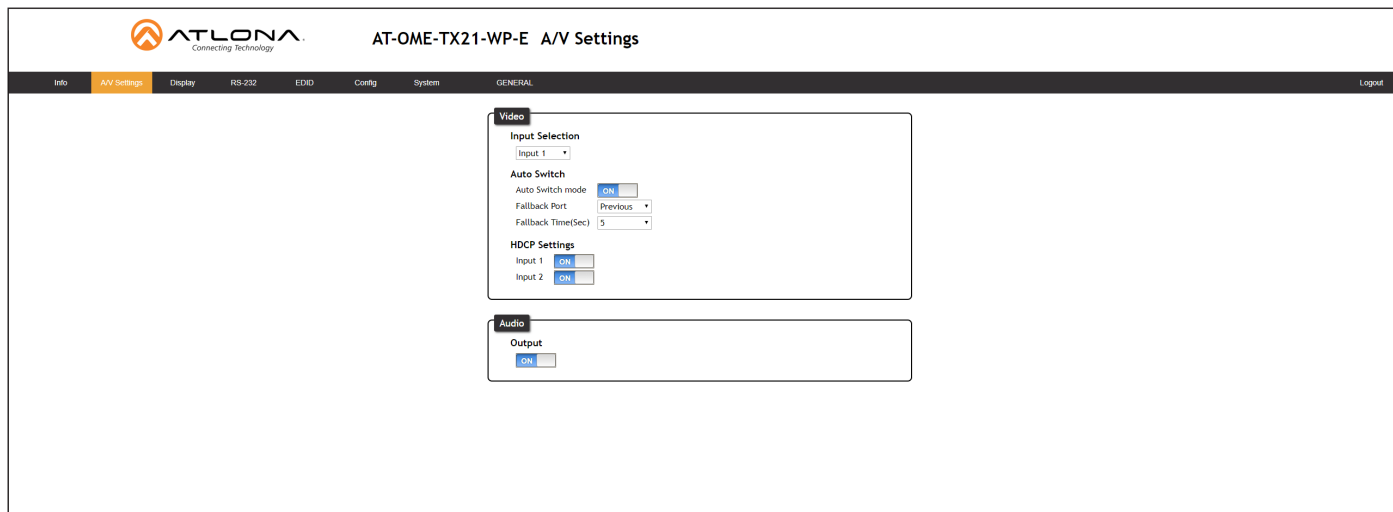Displays the aspect ratio of the input video source.

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

Video

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

Setting	Description
Input 1	HDMI
Input 2	USB-C

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

- Click the **Auto Switch mode** toggle to enable or disable auto-switching.

- Click the **Fallback Port** 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.

Setting	Description
HDMI	Automatically switches to the HDMI port.
USB Type C	Automatically switches to the USB-C port
Previous	The switcher will return to the previous (last connected) input. If no input is found, then it will attempt to switch to a ternary port.

- Click the **Fallback Time (Sec)** drop-down list and select the time interval before the switcher attempts to search for the next port. Range: 3 to 600.

HDCP Settings
Sets the HDCP reporting mode of the specified HDMI port. Input 1 = HDMI 1; Input 2 = USB-C. Some devices will automatically 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 not decrypt HDCP content.

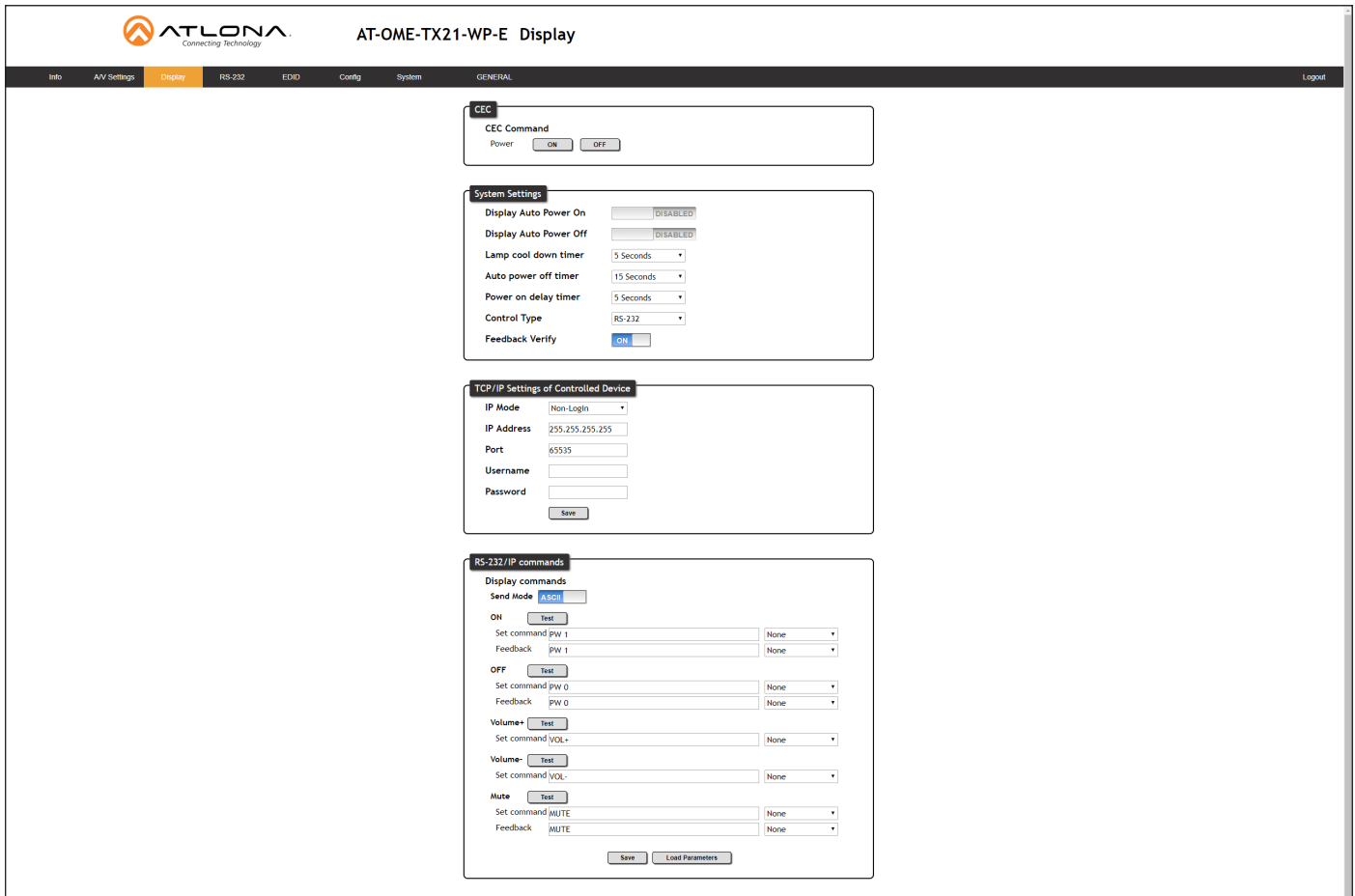| Setting	Description
ON	HDCP content is always transmitted by the source
OFF	Instructs the source to send non-HDCP content, if possible

Audio

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

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

System Settings

Display Auto Power On
Click the toggle switch to the **ENABLE** position 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 toggle switch to the **ENABLE** position 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-OME-TX21-WP-E 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.

TCP/IP Settings of Controlled Devices

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.
Login	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.

RS-232 / IP Commands

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
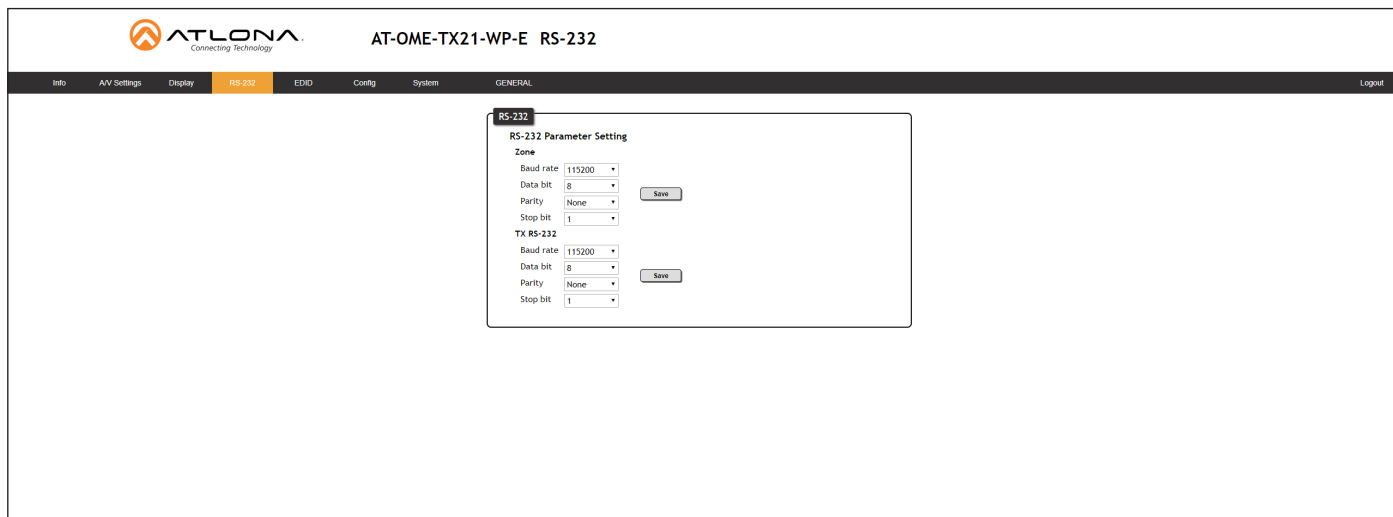
Zone

If the AT-OME-TX21-WP-E is connected to another HDBaseT device, each of these drop-down list boxes are used to set the serial port settings for the HDBaseT port on the corresponding device.

The available settings for each drop-down list can be found in the table, above. Click the **Save** button, next to the **Zone** settings, to commit changes.
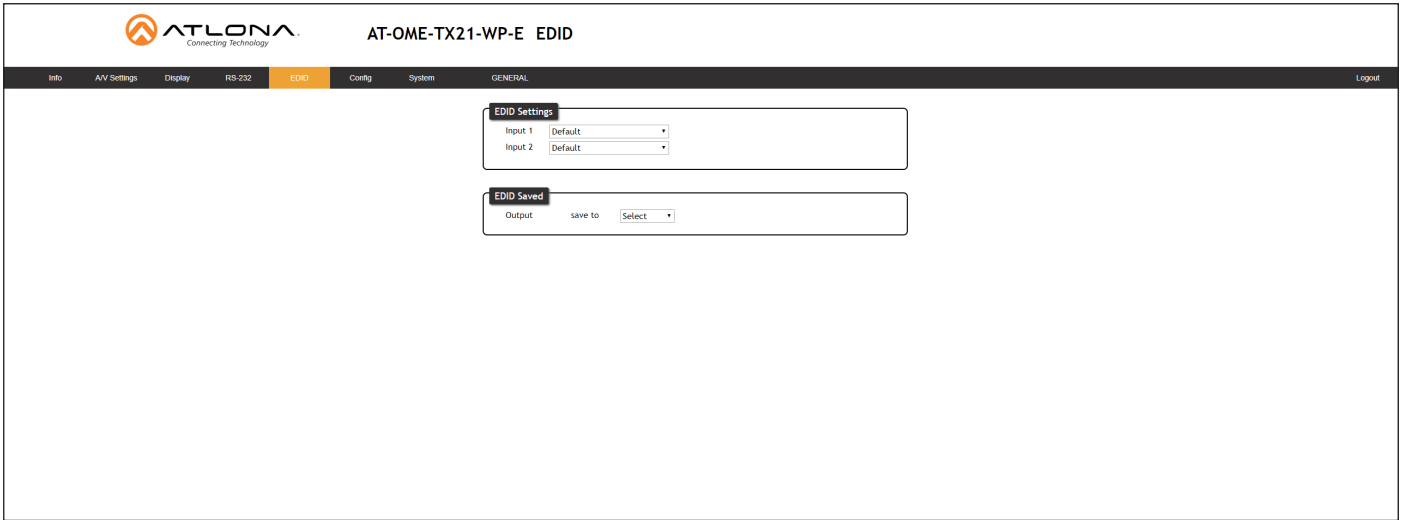
TX RS-232

When the AT-OME-TX21-WP-E 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-OME-TX21-WP-E 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

ATLONA
Connecting Technology

| Info | A/V Settings | Display | RS-232 | EDID | Config | System | GENERAL | | Logout |

EDID Settings

| Input 1 | Default |
| Input 2 | Default |

EDID Saved

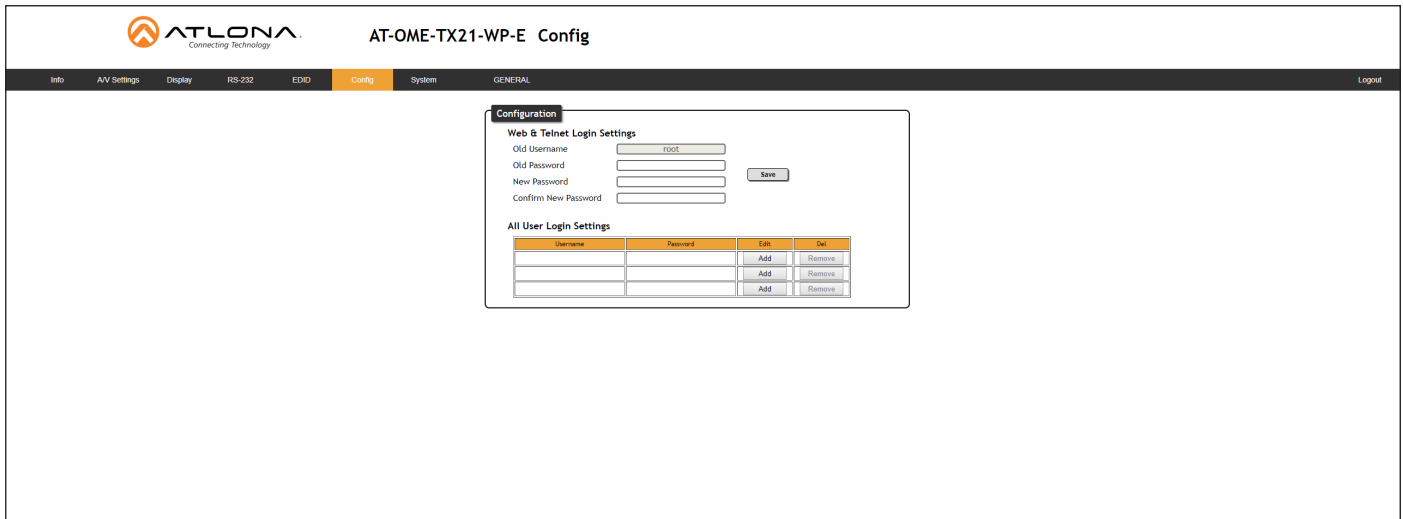| Output | save to | Select |

EDID Settings

Click these drop-down lists to select the desired EDID to be used for each input. Input 1 = HDMI, Input 2 = USB-C. The source device will use the information in the EDID, before sending A/V data to the sink device.

Available EDID Selections			
Default	1080P MCH	3840x2160@60 4:2:0 2CH	4096x2160@60 4:2:0 MCH
720P 2CH	1080P DD	3840x2160@60 4:2:0 MCH	1280x800 2CH
720P DD	1080P 3D 2CH	3840x2160@30 4:4:4 2CH	1280x800 DVI
1080p DVI	1080P 3D MCH	3840x2160@60 4:4:4 MCH	1366x768 2CH
1080P 2CH	1080P 3D DD	4096x2160@60 4:2:0 2CH	1920x1200 2CH

EDID Saved

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

Config page

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

Old Password
Enter the current password for the "admin" 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
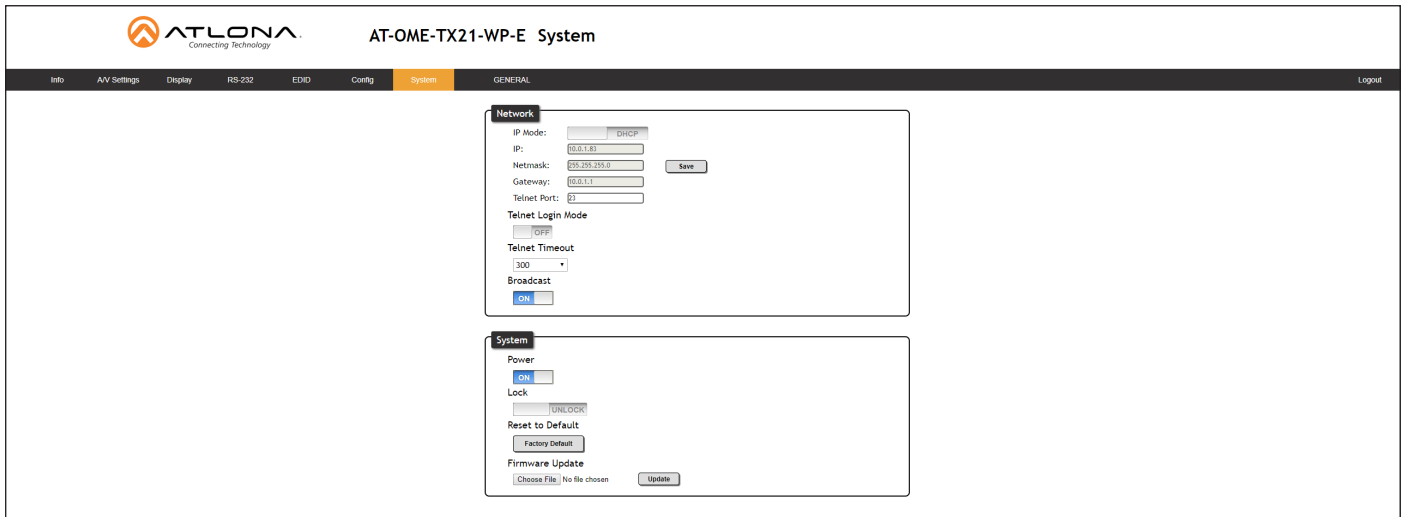Enter the new password from the "admin" username in this field.

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

All User Login Settings
Refer to Managing Users (page 22) for more information on creating, editing, and deleting users.

- **Username**
  Displays the username.

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

- **Edit**
  Click the **Add** button, in this column, to add a user to the AT-OME-TX21-WP-E.

- **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

Network

IP Mode
Click this toggle switch to set the IP mode of the AT-OME-TX21-WP-E. The default setting is **DHCP**.
Available settings: **STATIC IP**, **DHCP**.

IP
Enter the IP address of the AT-OME-TX21-WP-E 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-OME-TX21-WP-E 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**, feedback will be broadcasted to the web GUI and control system (if connected), via TCP/IP. To disable broadcasted feedback, set this feature to **OFF**. Command queries such as IPCFG and Type will only return information to the requester.

System

Power

Under normal operation conditions, this toggle is set to **ON**. Click this toggle to **OFF**, to turn the AT-OME-TX21-WP-E "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-OME-TX21-WP-E to factory-default settings.

Firmware Update

Click the **Choose File** button to select the firmware file, when upgrading the firmware on the AT-OME-TX21-WP-E. Once the firmware file is selected, click the Update button. Refer to for more information.
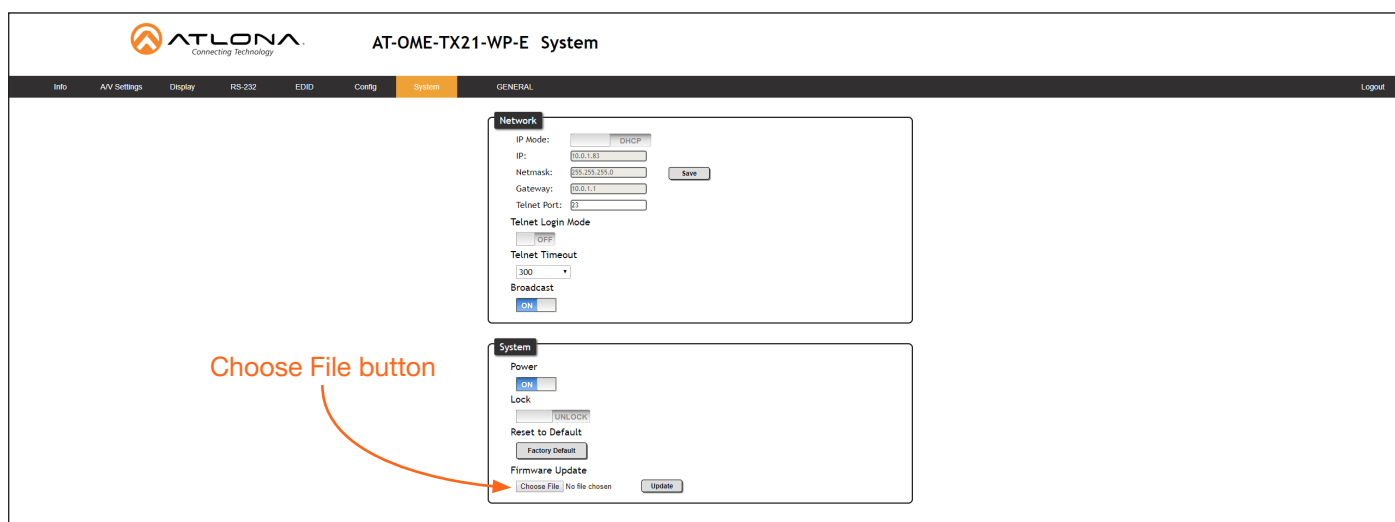
Updating the Firmware

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-OME-TX21-WP-E firmware can be updated using a USB-A to USB mini-B cable.

Using the Web GUI

Requirements:

- AT-OME-TX21-WP-E
- Firmware file
- Computer

1. Connect an Ethernet cable from the computer, containing the firmware, to the same network where the AT-OME-TX21-WP-E is connected.

2. Go to the System page (page 37) 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.
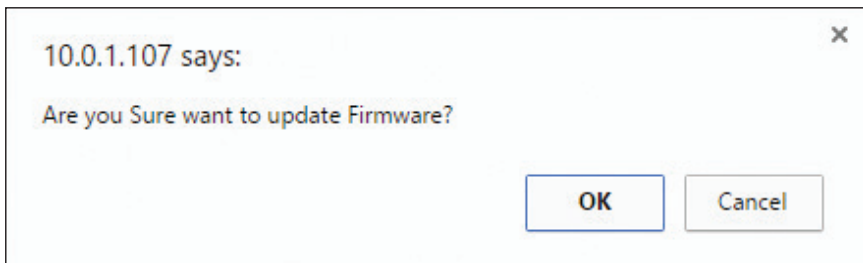
7. Click the **OK** button to begin the firmware update process. Click the **Cancel** button to cancel the process.

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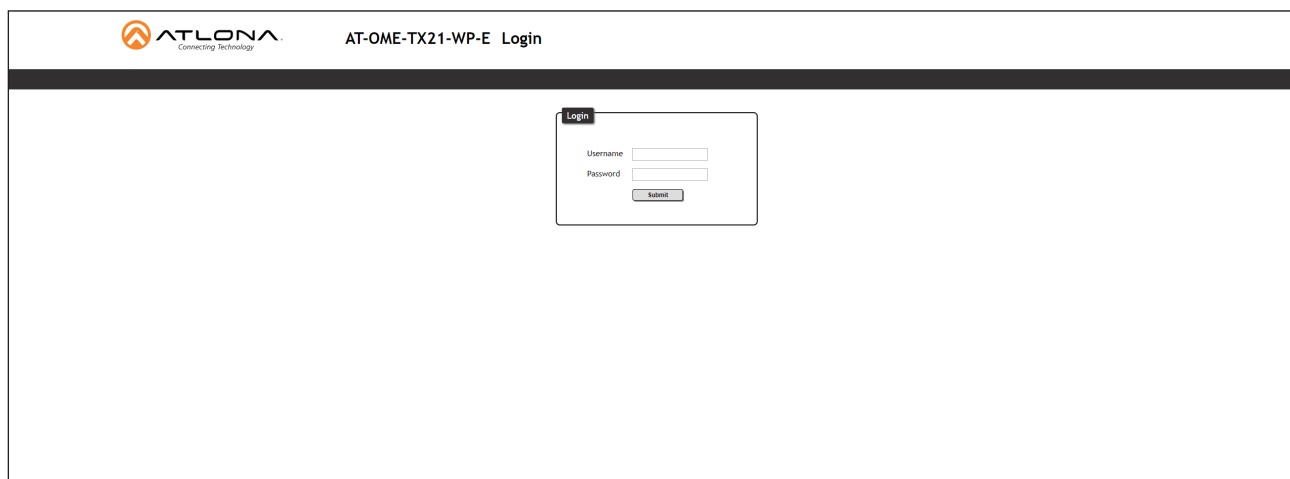

Using USB

Requirements:

- AT-OME-TX21-WP-E
- Firmware file
- Computer running Windows
- USB-A to USB mini-B cable

1. Remove the wall plate from the AT-OME-TX21-WP-E. Refer to Faceplate Removal and Assembly (page 36) if necessary.

2. Locate the firmware port.

3. Connect the USB-A to USB mini-B cable between the PC and the firmware port on the AT-OME-TX21-WP-E. The unit will be powered by the USB cable.

FW port
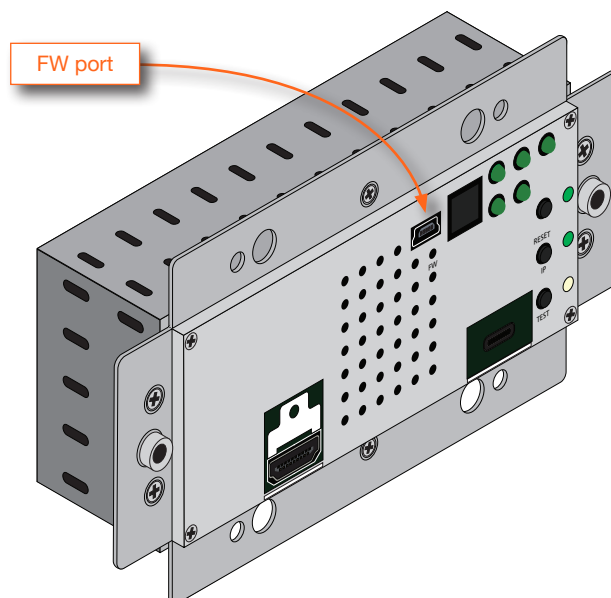
4. The USB UPDATE folder will be displayed.

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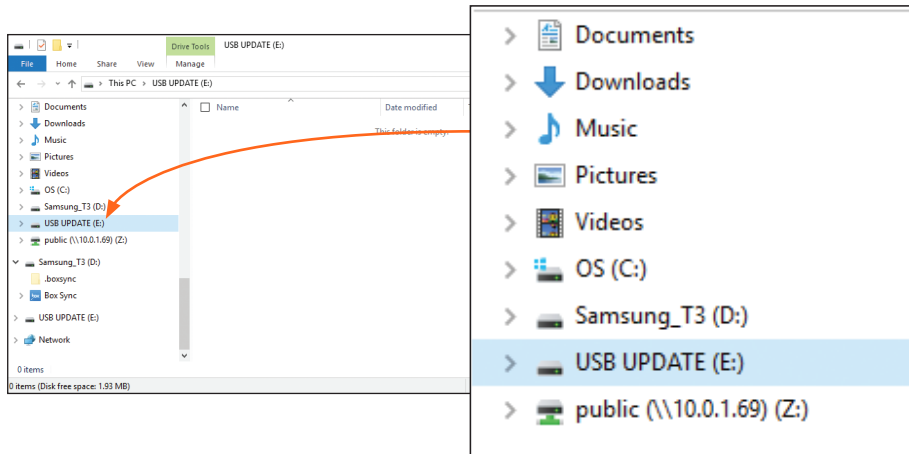
5. Delete all files from the USB UPDATE drive, if any are present.

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

7. After the file has been copied, disconnect the USB cable from both the computer and the AT-OME-TX21-WP-E.

8. The firmware update process is complete.

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

Default Settings

The following tables list the factory-default settings, as defined in the web GUI, for the AT-OME-TX21-WP-E.

Web GUI Page	Setting	Default Value
A/V Settings	Input Selection Auto Switch Mode Fallback Port Fallback Time HDCP Setting (Input 1) HDCP Setting (Input 2) Audio Output	Input 1 ON Previous 5 (seconds) ON ON ON
Display	Display Auto Power On Display Auto Power Off Lamp Cool Down Timer Auto Power Off Timer Power On Delay Timer Control Type Feedback Verify Display Mode **TCP/IP Controlled Device Settings** IP Mode IP Address Port	DISABLED DISABLED 5 (seconds) 15 (seconds) 5 (seconds) RS-232 ON DispSW AVon Non-Login 255.255.255.255 65535
RS-232	**Zone** Baud rate Data bit Parity Stop bit **TX RS-232** Baud rate Data bit Parity Stop bit	 115200 8 None 1 115200 8 None 1
EDID	Input 1 Input 2 Output	Default (1920x1080p @ 60 Hz) Default (1920x1080p @ 60 Hz) ---
Config	Username (default) Password (default)	admin Atlona
System	IP Mode Telnet Port Telnet Login Mode Telnet Timeout Broadcast Lock	DHCP 23 OFF 300 (seconds) ON UNLOCK

Specifications

HDMI	1 - Type A, 19-pin female, locking
USB-C*	1- USB Type-C, 24-pin, female
RS-232	1 - 3-pin captive screw
HDBaseT OUT	1- RJ45
INPUT	1 - Push button, tact-type
RESET	1 - momentary, tact-type
IP	1 - momentary, tact-type
TEST (not defined)	1 - momentary, tact-type
HDMI	1 - LED, green
USB-C	1 - LED, green
PWR	1 - LED, green
LINK	1 - LED, green
AUTO	1 - LED, green

* The USB-C port *does not* support data or charging of external devices.

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	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Bit Rate	24-bit (max.)

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

Signal	
Bandwidth	10.2 Gbps
HDMI	2.0
CEC	Yes
HDCP	2.2

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

Power	
Consumption	10.2 W

Dimensions	
Wall	2-gang

Weight	Pounds	Kilograms
Device	0.50 lbs	0.23 kg

Certification	
Unit	CE, FCC

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