

OMEGA™

HDBaseT Transmitter

with USB-C and HDMI Inputs plus USB Hub



Version Information

Version	Release Date	Notes
1	May 2025	Factory release

PRELIMINARY

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Operating Notes



IMPORTANT: Visit <https://atlona.com/product/at-ome-sw21-tx> for the latest firmware updates and User Manual.

Warranty



To view the product warranty, use the following link or QR code:

<https://atlona.com/warranty/>.

Important Safety Information



CAUTION: TO REDUCE 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 Compliance

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

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Introduction

The Atlona AT-OME-SW21-TX is a compact, versatile switcher and HDBaseT™ transmitter with USB-C® and HDMI® inputs. It sends video up to 4K/60 4:2:0, plus embedded audio, control, and USB 2.0 over distances up to 330 feet (100 meters). Part of the Omega™ Series of integration products for modern AV communications and collaboration, the OME-SW21-TX features mirrored HDMI and HDBaseT outputs and is HDCP 2.3 compliant. With a matching HDBaseT receiver, the integrated USB extension addresses the challenge of connecting between USB devices at remote locations, and is ideal for software video conferencing and interactive touch displays. The OME-SW21-TX includes a USB hub which supports USB 3.2 Gen 1 up to 5 Gbps, and USB 2.0 up to 480 Mbps for local devices and 120 Mbps over HDBaseT. Host switching is provided with USB type B and USB-C interfaces, plus two USB type A interfaces for peripherals as well as integrating with USB 3.2 Gen 1 extenders. Both inputs and the local HDMI output support 4K HDR and 4K/60 4:4:4 at HDMI data rates up to 18 Gbps. Additionally, 4K downscaling to 1080p is available for the HDMI output when connected to an HD sink. The OME-SW21-TX is ideal for use with Omega Series receivers, switchers with HDBaseT inputs, or even as a standalone AV system unit.

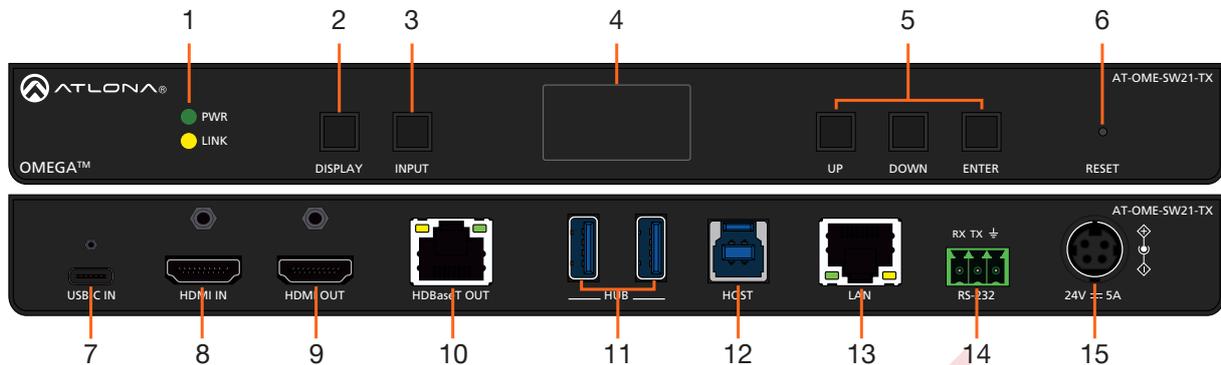
Features

- Two-input switcher and HDBaseT transmitter with USB-C and HDMI inputs
- USB-C input for AV, USB data, and device charging
- Mirrored HDBaseT and HDMI outputs
- Video, audio, power, USB 2.0 data, control, and Ethernet over category cable utilizing HDBaseT technology
- Integrated USB 3.2 Gen 1 hub
- Switch between USB host sources
- 4K/UHD @ 60 Hz capability
- HDCP 2.3 compliant
- Selectable 4K to 1080p downscaling for HDMI output
- Remote powering over HDBaseT or local powering
- Automatic display control over HDBaseT
- Automatic input selection using hot plug detect and video detection technology
- Front-panel LCD display

Package Contents

- 1 x AT-OME-SW21-TX
- 1 x Captive screw connector, 3-pin
- 1 x 2m USB-C to USB-C cable
- 4 x Mounting screws
- 1 x Wall/table mounting brackets

Panel Description

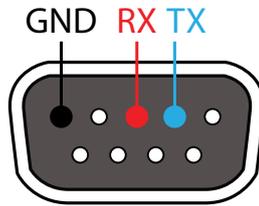
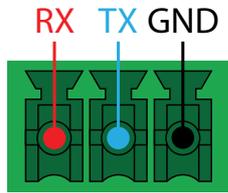
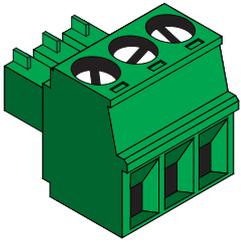


- 1 PWR and LINK LEDs**
 Illuminates green when receiving power and amber when receiving signal.
- 2 DISPLAY button**
 Press to activate the display on/off control command. Each press will toggle between on and off, based off the display status. (e.g. If the display is on, it will send an off command.)
- 3 INPUT button**
 Use to switch between the USB-C and HDMI inputs.
- 4 Front Panel Display**
 Displays current information and menu when selected.
- 5 Navigation buttons**
 Use the navigation buttons to turn on the front panel display and to navigate through the menu for FW, IP, RS-232, and input information/set up.
- 6 Reset button**
 Press and hold for 5 seconds to reset the IP settings and username & password to the first one set. Press for 15 seconds to factory reset the unit.
- 7 USB-C IN**
 Connect a USB-C cable from a USB-C source to this port. This supports AV, data, and power (when optional power supply is used).
- 8 HDMI IN**
 Connect an HDMI cable from an HDMI source to this port.
- 9 HDMI OUT**
 Connect an HDMI cable from here to an HDMI display. This port is mirrored with the HDBaseT OUT port.
- 10 HDBaseT OUT**
 Connect a compatible HDBaseT receiver to this port. This port is mirrored with the HDMI OUT port. This port can also be used to power the TX when connected to a compatible receiver. (e.g. AT-OME-SR21)
- 11 USB HUB**
 Connect USB devices to these ports. (e.g. usb camera, mouse, etc.)
- 12 HOST USB**
 Connect to a computer using a USB B to USB A cable.
- 13 LAN**
 Connect an Ethernet cable to this port for control of the unit and/or to pass Ethernet to a local device.
- 14 RS-232**
 Connect a control system to this port for device control.
- 15 DC 24V 5A *Optional***
 Connect the DC 24V power supply (AT-PS-245-D4 purchased separately) to this port.

Installation

RS-232 Connection

A 3-pin captive screw connector has been included for RS-232.

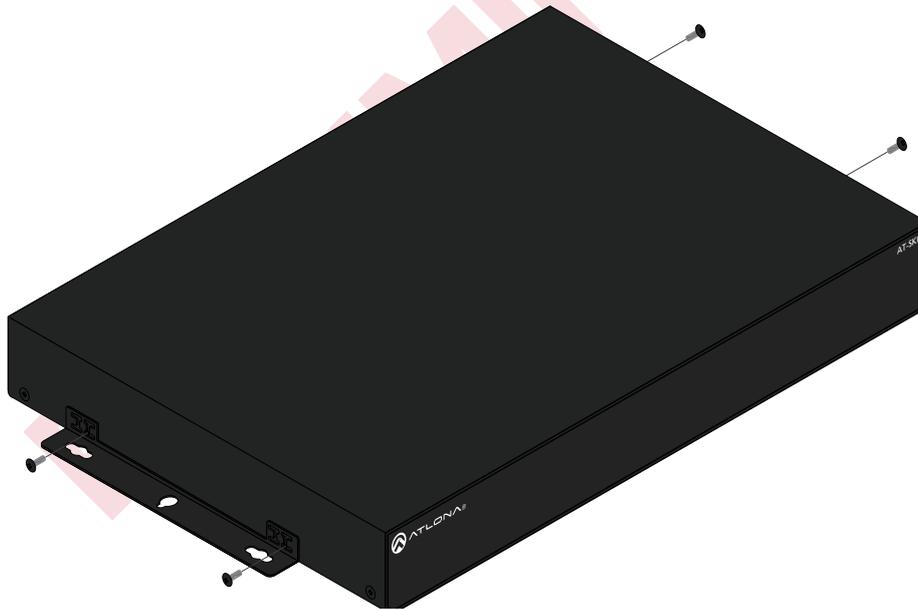


Pin out will be determined by the RS-232 cable and connect as RX (receive), TX (transmit) and \oplus (ground).

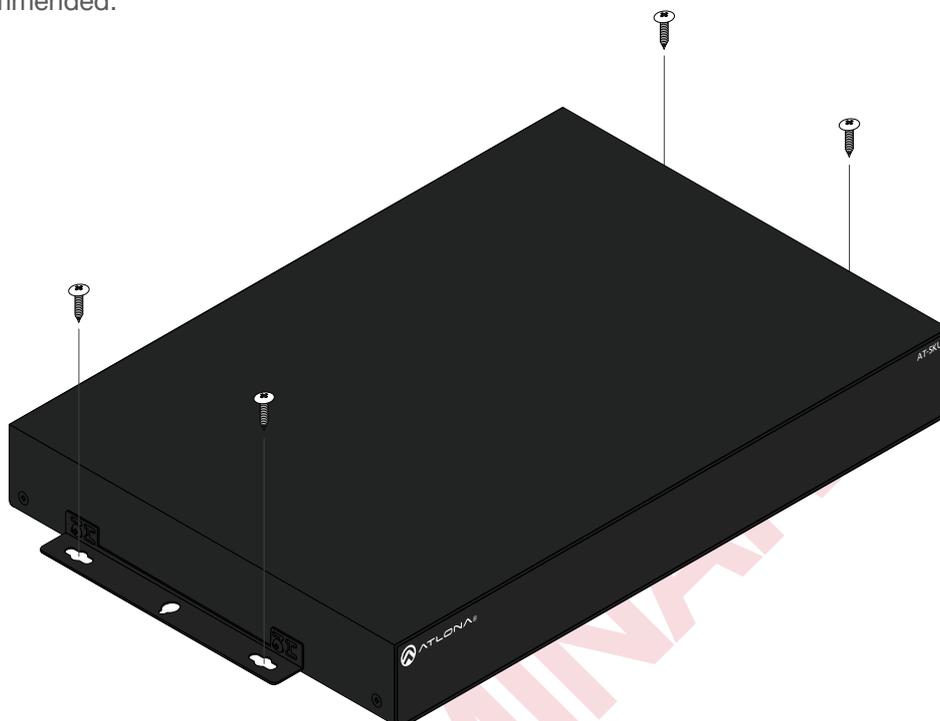
Mounting Instructions

The .OME-SW21-TX includes two mounting brackets and four mounting screws, which can be used to attach the unit to any flat surface.

1. Align the mounting bracket to the sides of the unit.
2. Use the included mounting screws to secure the mounting bracket to the enclosure.
3. Repeat the steps for the other side of the unit.



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



Cable Guidelines

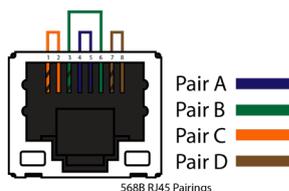
Refer to the tables below for recommended cabling when using Altona products with HDBaseT. The green bars indicate the signal quality when using each type of cable. Higher-quality signals are represented by more bars.

Core	Shielding	CAT5e	CAT6	CAT6a	CAT7
Solid	UTP (unshielded)	■	■■■	■■■■	N/A
	STP (sheilded)	■■	■■■■	■■■■■	■■■■■

IMPORTANT: Stranded or patch cables are not recommended due to performance issues. Shielded cables are strongly recommended to minimize signal noise and interference.

Cable	Max. Distance @ 4K	Max. Distance @ 1080p
CAT5e	295 feet (90 meters)	330 feet (100 meters)
CAT6 / 6a / CAT7	330 feet (100 meters)	330 feet (100 meters)

Use of a TIA/EIA 568B termination is recommended for optimal performance.



Connection Instructions

1. Connect an HDMI source to the HDMI IN port.
2. Connect a USB-C source to the USB-C IN port, using the included cable.
3. Connect an HDMI cable from the output port to an HDMI display.
4. Connect a compatible HDBaseT receiver to the HDBaseT OUT port.
5. *Optional* Connect USB devices (e.g. USB camera) to the USB hub ports.

 **NOTE:** With the current limitations of HDBaseT, USB signals can only cascade through 5 hub tiers (6 total hubs allowed).

6. *Optional* Connect the HOST USB port to a computer using a USB B to USB A cable (cable not provided).
7. *Optional* Connect to the 3-pin captive screw RS-232 port to control the display or the unit.
8. *Optional* Connect a network switch to the LAN ports, for IP control, RS-232 control, system configuration, or Ethernet routing.
9. *Optional* If not being powered by the receiver, connect the DC 24V power supply (AT-PS-245-D4 purchased through atlona.com) to the power port. When using the optional power supply, the OME-SW21-TX will provide power to compatible receivers (e.g. AT-OME-EX-RX) and 60W power to compatible USB-C devices.

 **NOTE:** It is recommended to connect the power supply to the OME-SW21-TX or the compatible receiver, but not both.

PRELIMINARY

IP Modes

DHCP

By default, the AT-OME-SW21-TX is set to DHCP mode. In this mode, when the AT-OME-SW21-TX is connected to the Local Area Network (LAN), it will automatically be assigned an IP address by the DHCP server (if available). The IP address can be seen on the front panel OSD.

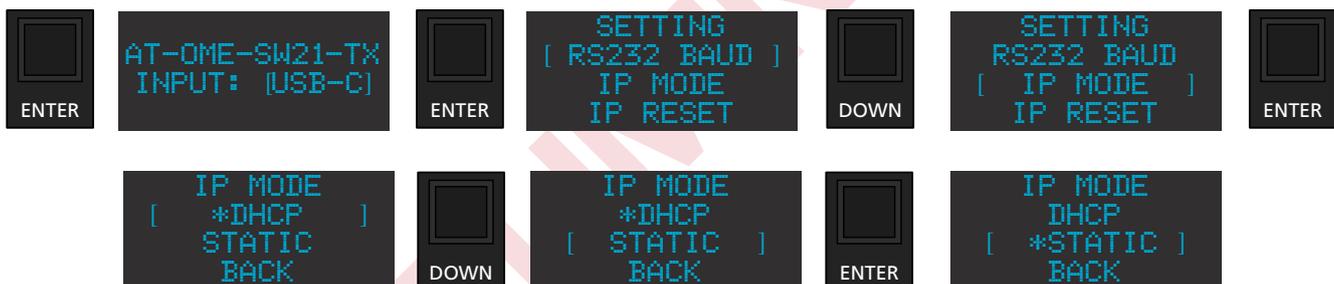
- If no DHCP network is found, it will auto-assign an IP:
 IP address: 169.254.8.50
 Subnet mask: 255.0.0.0

Static

If no DHCP server is available, or a static IP is required, the OME-SW21-TX can be set to static IP mode using the front panel OSD menu.

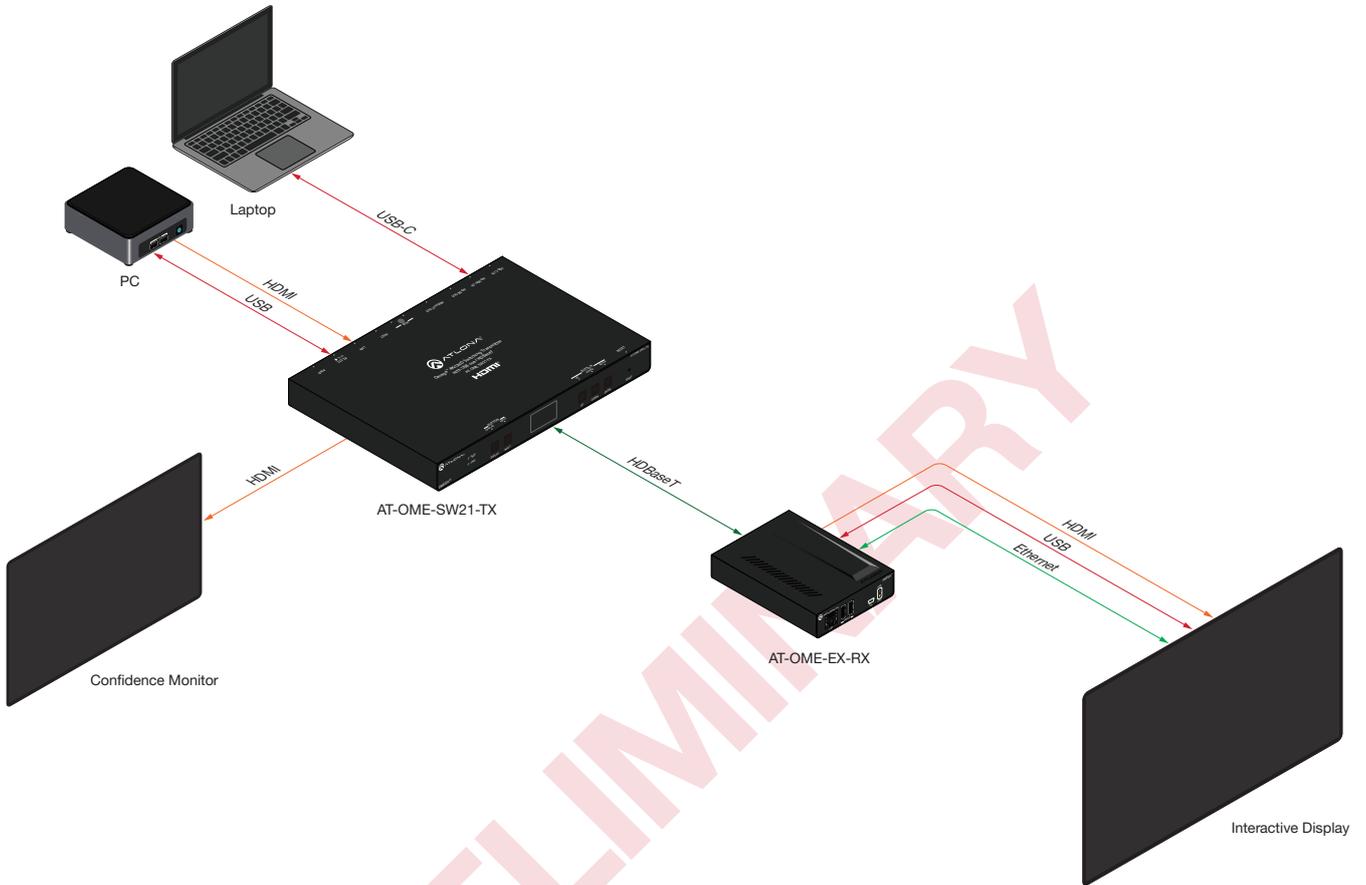
- If no DHCP network is found, it will auto-assign an IP, but using the front panel buttons, it can be set to a static IP. The unit will auto-assign to:
 IP address: 169.254.8.50
 Subnet mask: 255.0.0.0

- To switch to static IP mode, use the following button presses:



- Static IP will now be set to:
 IP address: 192.168.1.254
 Subnet mask: 255.255.0.0
 Gateway: 192.168.1.1

Connection Diagram



Control

CEC

The product has CEC display control over HDMI. More information can be found in the [CEC Web Server](#) section.

Front Panel

The unit has a front panel display and buttons to view and set up basic settings. See the [Front Panel](#) section for more information.

RS-232

RS-232 control for connected devices and the unit are available through the RS-232 captive screw connection. The commands can be found within the API at https://atlon.com/pdf/AT-OME-SW21-TX_API.pdf.

TCP/IP

TCP/IP control for connected devices and the unit are available through the LAN connection. The commands can be found within the API at https://atlon.com/pdf/AT-OME-SW21-TX_API.pdf.

Web Server

The unit has a built in Web Server that will allow for unit configuration and device control. See the [Web Server](#) section for more information.

PRELIMINARY

Front Panel

The unit has a front panel display and buttons to view and set up basic settings. Any button can awaken the front panel, but to avoid triggering secondary functions, it is recommended to use the **ENTER** button. At any time during use, the **BACK** button can be used to navigate to previous menu options.

Settings

The front panel display will provide input, firmware (FW), MAC address, IP, and all input statuses. Use the following button presses to view them:



Input Selection

To view and change the Input, use the following buttons:



RS-232 Settings

The current baud rate can be viewed and changed using the following button presses:



IP Settings

The IP can be switched between DHCP and Static mode using the following button sequence:



To reset the IP of the unit, use the following steps:



Front Panel Display Timer

To conserve the front panel display, the unit has a default timer of 30 seconds before it is turned off. To set the display to a different timer, use the below button sequence:



Web Server

The OME-SW21-TX includes a built-in webGUI, which allows easy remote management and control of all features. Follow the instructions below to access the webGUI.

1. Make sure that an Ethernet cable is connected between the **LAN** port on the OME-SW21-TX and the network.
2. Find the IP address of the unit from the front panel or by scanning the network.
3. Launch a web browser and enter the IP address in the address bar.
4. The AT-OME-SW21-TX **Register** page will be displayed.
5. Create a Username and Password, then press the Submit button.

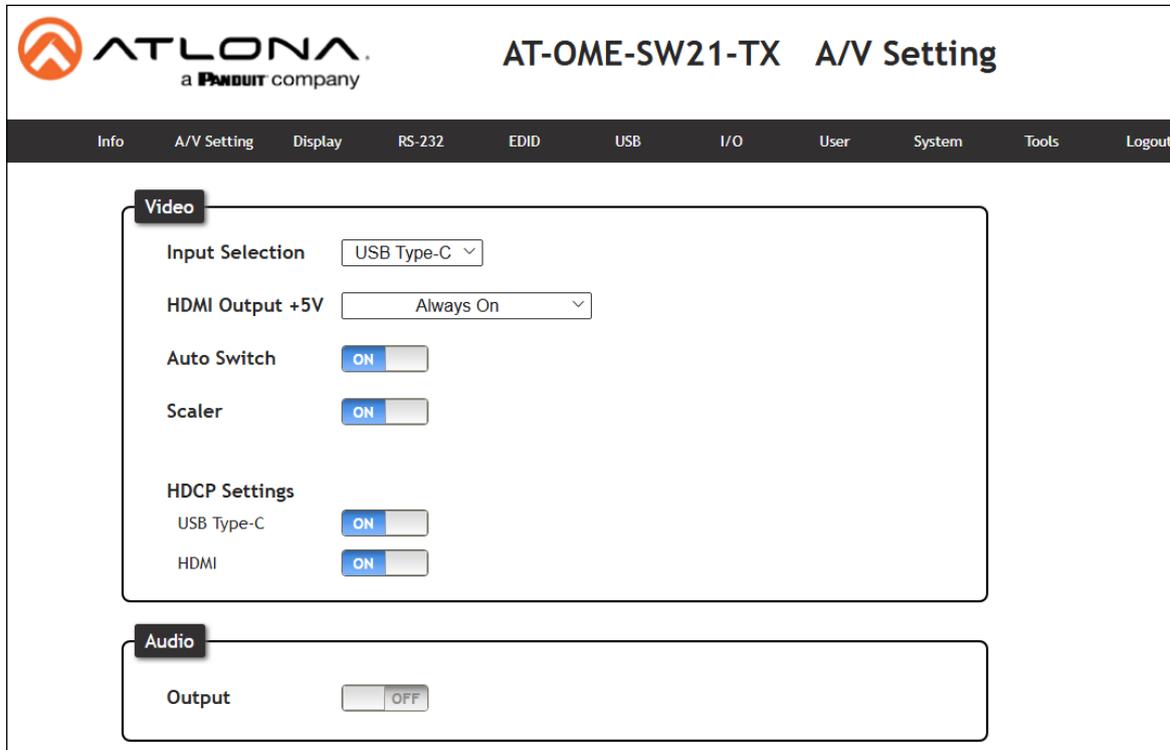


6. Once the username and password are created, log into the webGUI. The info page will open, providing the general information of the AT-OME-SW21-TX.



AV Settings

Select A/V Settings from the top navigation to adjust routing and video settings.



Video

Input Selection - Use the drop-down menu to switch USB Type-C or HDMI inputs.

HDMI Output +5V - When set to Always On, it will keep the 5V pin on the HDMI output port live. When set to On When Signal Present, it will only send the 5V hot plug when receiving an input signal.

Auto Switch - Set switching to on, to have the source change when a new signal is detected or the current source is no longer sending signal.

Scaler - When enabled, the OME-SW21-TX will downscale the signal output to 1080p.

HDCP Settings

On - Sets the HDCP of the port to ON, allowing HDCP to switch between compliant and non-compliant according to the source and display HDCP handshake status.

Off - Sets the port to HDCP non-compliant. No HDCP compliant source signals will pass in this mode.



NOTE: Some sources flag all content as protected, by selecting HDCP off the source device may send only user created content. In some cases, the source must be configured to send content to non-HDCP devices (e.g. HDCP must be turned off to pass macOS or Windows content to a non-HDCP display).

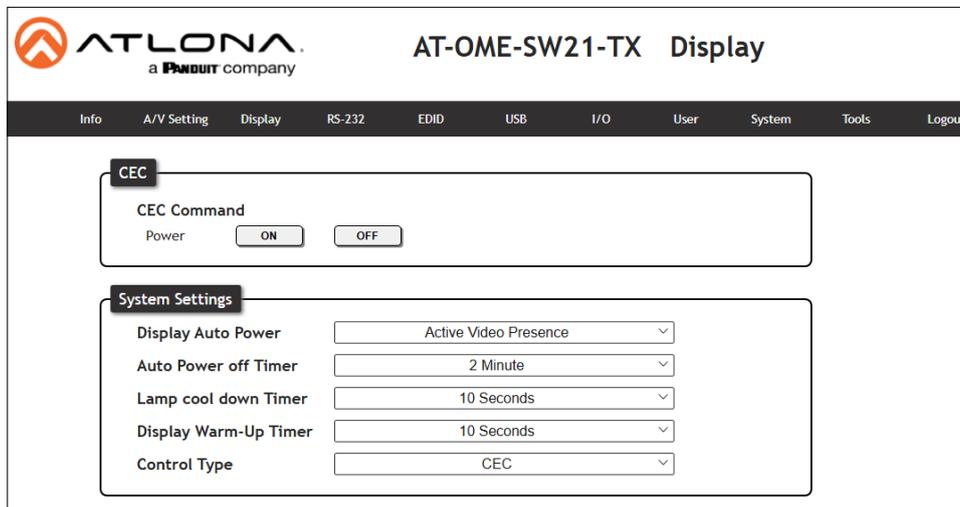
NOTE: Setting HDCP to OFF will not remove HDCP, it will simply tell the source to send non-HDCP content.

Audio

Output - When set to on, the audio will be muted. When set to off (default), the audio will be unmuted.

Display

Select Display from the top navigation to adjust display control settings.



CEC

Power - Press to send the CEC power on or off command out through the HDMI port of the connected receiver.



NOTE: When connected to a compatible receiver (e.g. AT-OME-MS42-HDBT) with display control, all the system settings will be controlled through the receiver and not display on the OME-SW21-TX.

System Settings

Display Auto Power - Enable to set the display to power off when the power settings are met. The display will automatically turn on as soon as a signal is received and all timers have expired.



NOTE: Defaults are set to turn the display off after 15 seconds of signal loss and to wait 10 seconds before any more commands are sent to the display.

Auto Power off timer - Sets the time between when the last signal was received and the display power off command is sent. Time range is from 15 seconds up to 15 minutes.

Lamp cool down timer - Sets the time between when the display is turned off and when the next command can be sent. Time range is from 10 seconds up to 300 seconds.

Display Warm-Up Timer - Sets the amount of time between when the display is turned on to when the unit sends any commands. Time range is from 10 seconds up to 300 seconds.

Control Type - Selects which command type is used to send commands and what type of control signal is sent when the command is triggered. Options are CEC, TCP/IP or RS-232.

Modes	Description
Active Video Presence	Device will send the power off command to the display if no active source is detected on the input, and power on command when an active source is detected. Power timers will be followed.
Active Video Presence w/Occupancy Sensor*	When the occupancy sensor (AT-OCS-900N) is triggered and source signal is active or inactive, it will send the on or off command based on physical and signal presence.
Occupancy Sensor only	Power on and off commands will be sent based on the OCS-900N sensor status. The sensor must be connected to the same network as the OME-SW21-TX and connected on the I/O page.
Disabled	No display control

TCP/IP Settings of Controlled Device

IP Mode:

IP Address:

Port:

Username:

Password:

TCP/IP Settings of Controlled Device (only available when IP is selected)

IP Mode - Toggle login mode between Non-Login and Login. If set to Login, a username and password will be required to control the controlled device via TCP/IP.

IP Address - Sets to the IP of the controlled device/display.

TCP/IP Port - Set the TCP/IP port of the controlled device for control.

Username & Password - Sets the username and password that is required when login mode is enabled.

RS-232/IP commands

Manufacturer:

Products:

Model:

Display Commands

[Please use \x as a delimiter for HEX values]

[Using a comma(\x2C) will cause the transmission to pause for 5 seconds between commands. Multiple commas are acceptable to increase the amount of time.]

Repeat Command

Status:

Times:

ON

OFF

Volume+

Volume-

Mute

Mute on

Mute off

RS232/IP commands

Manufacturer:

Products:

Model:

Repeat Command

Status:

Times:

ON

OFF

Volume+

Volume-

Mute

Mute On

Mute Off

RS232/IP commands

Manufacturer:

Products:

Model:

[Please use \x as a delimiter for HEX values]

RS-232 / IP Commands

Manufacturer, Products, Models - Select the make and model of the display for control. Commands have been programmed into the unit for a wide range of products. If the current display is not found within the database, use Generic and manually adjust the command fields.

Repeat Command - Enable Status to repeat the commands. Default repeat number is 2 and can be adjusted from 2 to 4 times.

Commands: On/Off/Volume/Mute - These fields will automatically be filled with the correct command when selecting a manufacturer and product from the drop-down menus. If manually entering the commands, type them into the fields next to the command name.

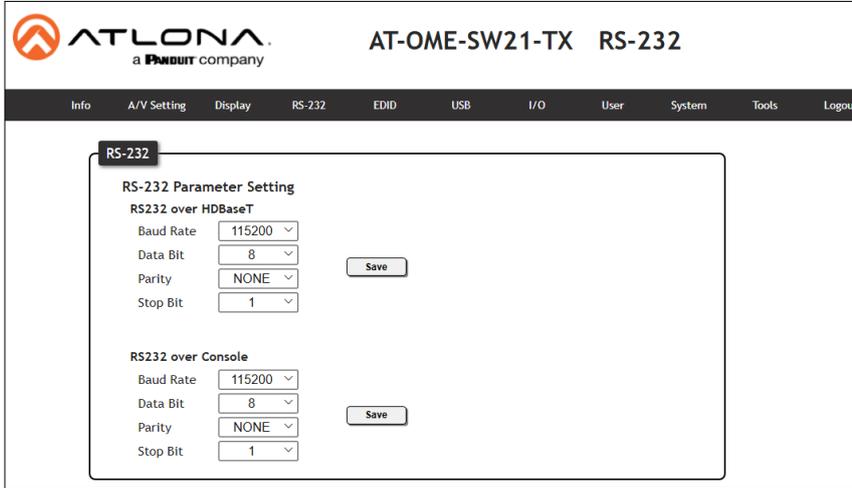
Send - Use this button to send the command to the display. This can be used while manually typing the commands to ensure the commands are correct.

Save - Save the commands to the webGUI. Manufacturer, Products, and Model will revert to Generic but the commands will be saved from the previously selected and saved Manufacturer, Products, and Model selection.

Revert - Sets the commands back to the previously saved settings.

RS-232

Select RS-232 from the top navigation to adjust the zone control parameters for the RS-232 port.



The screenshot shows the web interface for the AT-OME-SW21-TX device, specifically the RS-232 parameter setting page. The page has a header with the ATLONA logo and the device name 'AT-OME-SW21-TX RS-232'. Below the header is a navigation menu with options: Info, A/V Setting, Display, RS-232, EDID, USB, I/O, User, System, Tools, and Logout. The main content area is titled 'RS-232' and contains two sections: 'RS232 over HDBaseT' and 'RS232 over Console'. Each section has four dropdown menus for Baud Rate, Data Bit, Parity, and Stop Bit, and a 'Save' button. The default values for both sections are Baud Rate: 115200, Data Bit: 8, Parity: NONE, and Stop Bit: 1.

RS-232 Parameter Setting

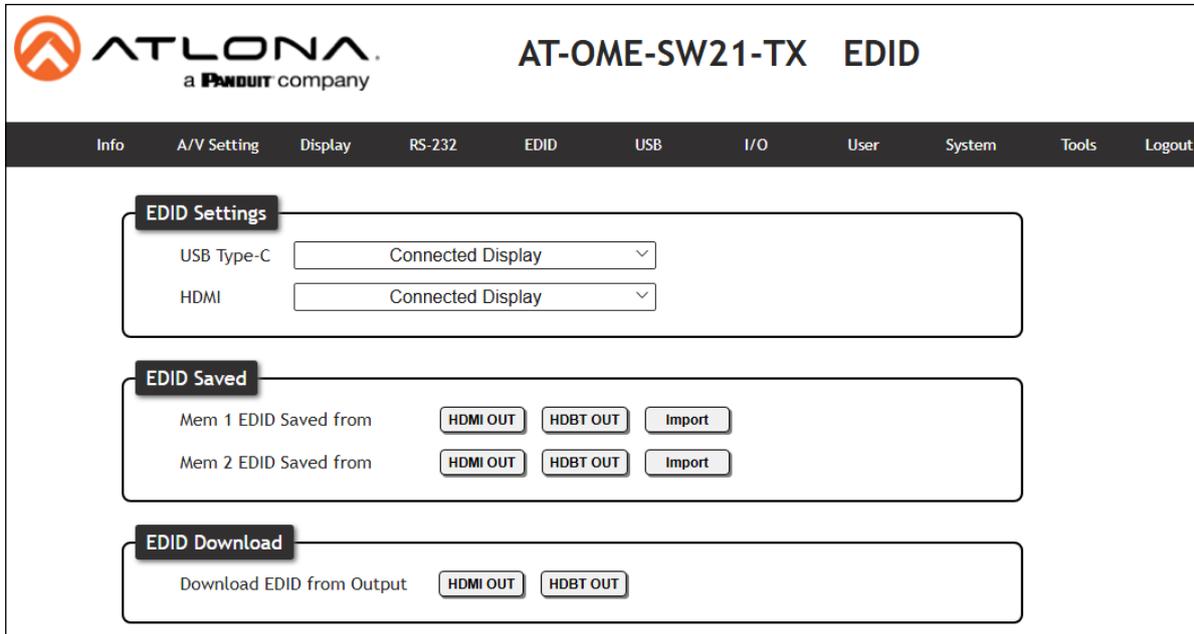
RS232 over HDBaseT - Select the baud rate, data bit, parity, and stop bit to match the receiver's parameters. Defaults are 115200, 8, None, and 1.

RS232 over console - Select the baud rate, data bit, parity, and stop bit to match the OME-SW21-TX's parameters. Defaults are 115200, 8, None, and 1.

PRELIMINARY

EDID

Select EDID from the top navigation to save/load EDIDs.



The screenshot shows the AT-OME-SW21-TX EDID web interface. At the top, there is a navigation bar with the following items: Info, A/V Setting, Display, RS-232, EDID, USB, I/O, User, System, Tools, and Logout. The main content area is divided into three sections:

- EDID Settings:** Contains two dropdown menus. The first is labeled "USB Type-C" and the second is labeled "HDMI". Both are currently set to "Connected Display".
- EDID Saved:** Contains two rows. The first row is labeled "Mem 1 EDID Saved from" and has three buttons: "HDMI OUT", "HDBT OUT", and "Import". The second row is labeled "Mem 2 EDID Saved from" and also has three buttons: "HDMI OUT", "HDBT OUT", and "Import".
- EDID Download:** Contains a label "Download EDID from Output" and two buttons: "HDMI OUT" and "HDBT OUT".

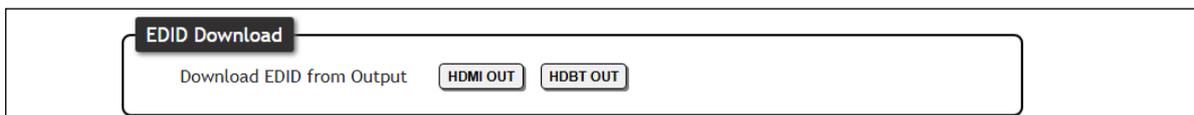
EDID

EDID Settings - Use the drop down menu to select from default (highest common resolution between source and display), 9 internal EDIDs, and 2 previously saved EDIDs.

EDID Saved - Select the HDMI OUT or HDBT OUT to save to EDID memory slot. An external EDID can also be imported using the Import button and a locally saved file. Once saved or imported, it can be selected from the EDID Settings drop down menus.

EDID Selections

Connected Display	Chooses the highest common resolution between source and display	
Internal	3840x2160@60 2CH HDR PCM 3840x2160@30 2CH SDR PCM 3440x1440@50 2CH SDR PCM 2560x1080@60 2CH SDR PCM 1920x1200 2CH SDR PCM	1920x1080P@60 2CH SDR PCM 1920x1080P@30 2CH SDR PCM 1280x720P@60 2CH SDR PCM 1280x800 2CH SDR PCM
Saved	2 Memory slots	

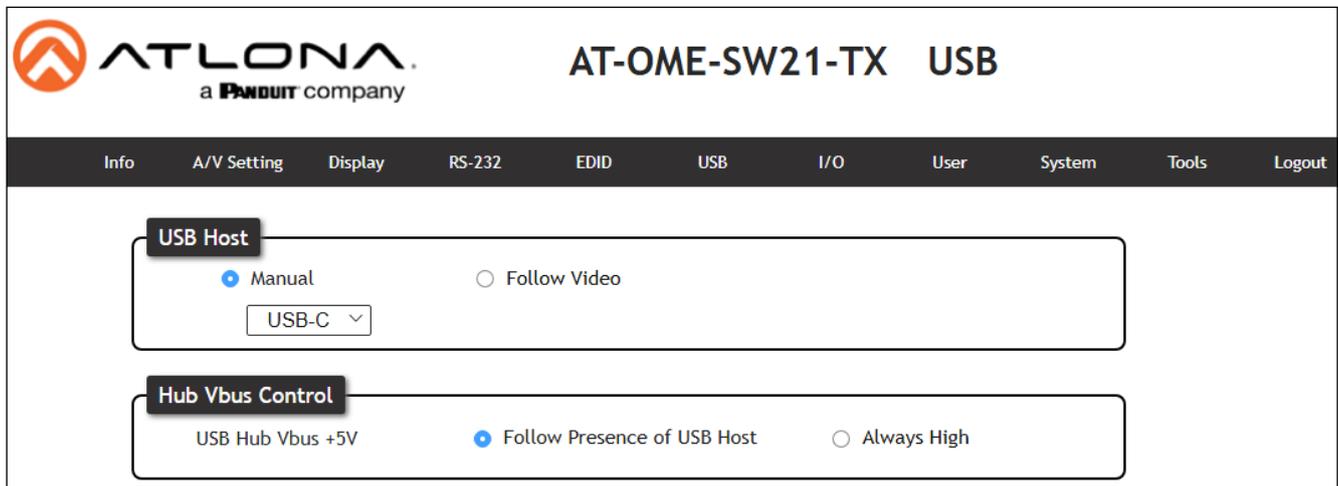


The screenshot shows the "EDID Download" section of the web interface. It contains a label "Download EDID from Output" and two buttons: "HDMI OUT" and "HDBT OUT".

EDID Download - Select the Output and the EDID will be downloaded to the local computer.

USB

Select USB from the top navigation for USB routing.



USB Host

Manual - Select which host will be used. Select between USB-C, the local USB Host (USB 1), or the connected receiver's USB Host (remote).

Follow Video (default) - Sets the USB hosts to follow the video input selection. If a video input on the transmitter is selected, the USB will switch to the transmitter's host ports. If the USB-C source is selected, it will use the USB-C as host. If a source on the receiver is selected, it will switch to the receiver's host port.

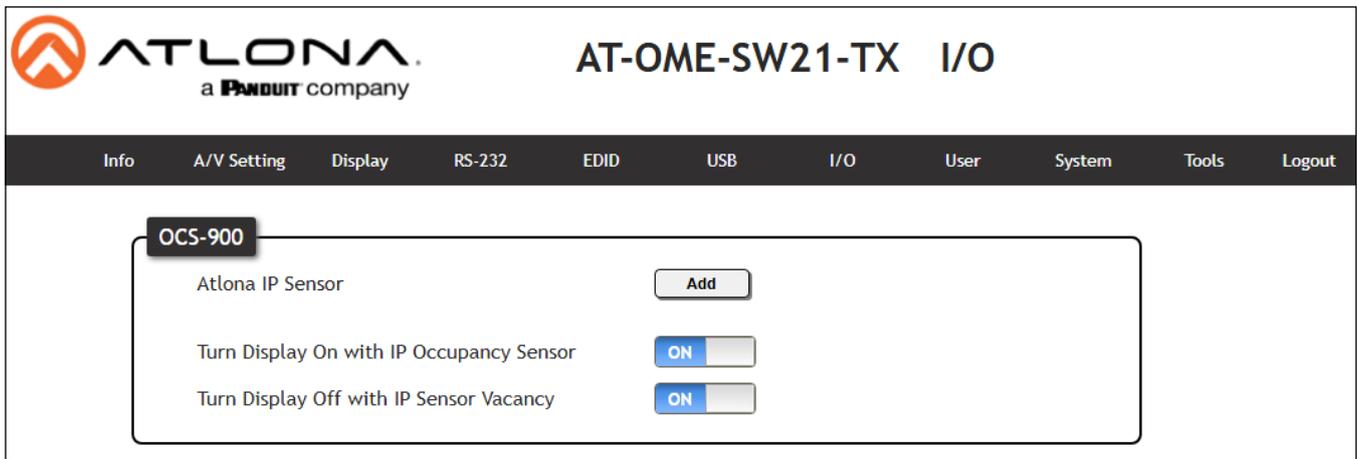
NOTE: Whenever the USB Host mode is changed, the HDBaseT link will reset. The reset can take up to 20 seconds before full operation resumes.

Hub Vbus Control (USB Hub Vbus +5V)

Follow Presence of USB Host (default)- When selected, the USB hubs will toggle on and off based off the activity of the USB host.

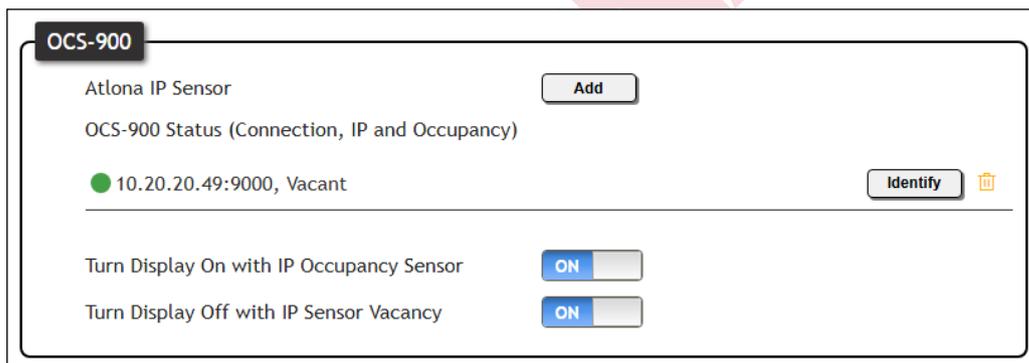
Always High - When chosen, keeps the 5V pin of USB ports on, even when no host is connected. This will allow devices (e.g. USB MIC) to keep charging when no host is present.

I/O



OCS-900

Atlona IP Sensor - Select the Add button. A pop up will appear. Fill in the IP address of the OCS-900N sensor and press Add. The Sensor will be added to the page. Multiple OCS-900Ns can be added to the room using the same steps.

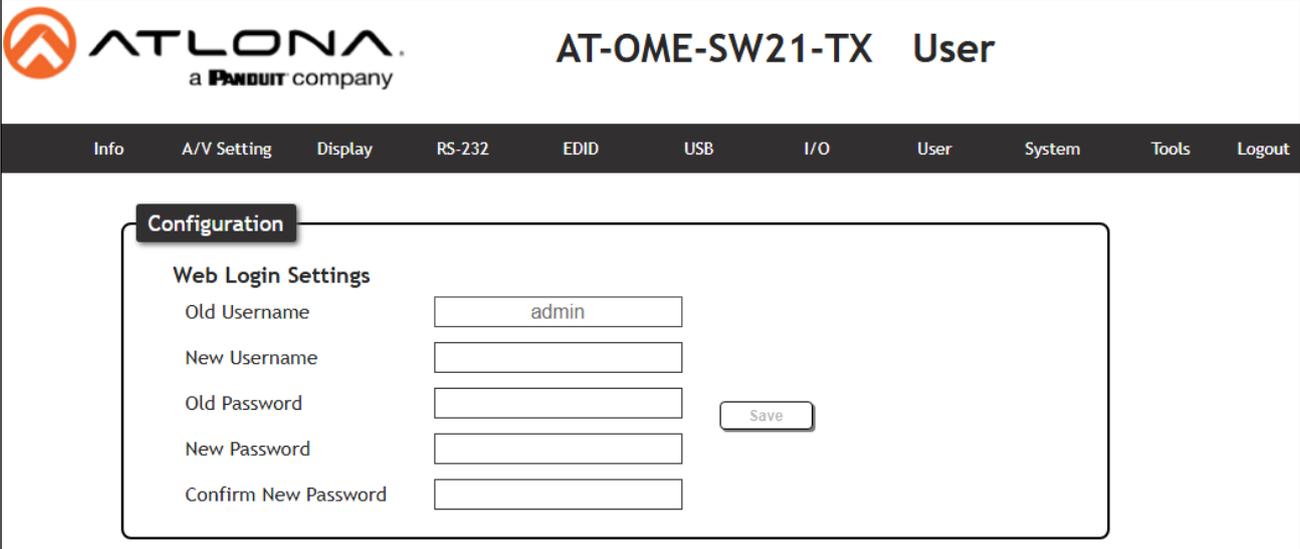


Turn Display On with IP Occupancy Sensor - When enabled, the display will turn on when the OCS-900N senses an occupant.

Turn Display Off with IP Occupancy Sensor - When enabled, the display will turn off when the OCS-900N signals the room has been vacated.

User

Select Config from the top navigation to update the admin password.



The screenshot shows the ATLONA web interface for device AT-OME-SW21-TX. The 'User' configuration page is active, displaying a 'Configuration' dialog box. Inside this dialog, the 'Web Login Settings' section contains five input fields: 'Old Username' (with 'admin' entered), 'New Username', 'Old Password', 'New Password', and 'Confirm New Password'. A 'Save' button is positioned to the right of the password fields. The top navigation bar includes links for Info, A/V Setting, Display, RS-232, EDID, USB, I/O, User, System, Tools, and Logout.

User

Old Username - Type in the current username of the OME-SW21-TX.

New Username - Update the username for the unit.

Old Password - Type in the current password of the device.

New Password - Enter a new password.

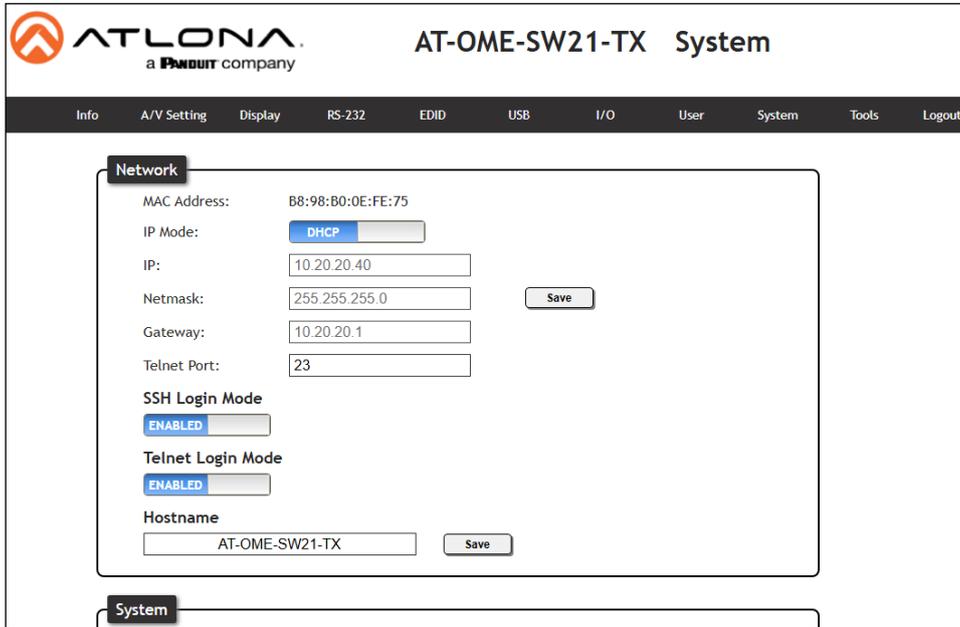
Confirm New Password - Reenter the new password for verification.

i NOTE: The passwords cannot contain any special characters. e.g. !@#\$%^&*?+-;,'".

Once the new username and password have been entered, press the **Save** button to make it live. The user will be logged out and must log back in with the new username and password.

System

Select System from the top navigation to adjust relay, network, or system options.



The screenshot shows the web interface for the AT-OME-SW21-TX System. The top navigation bar includes: Info, A/V Setting, Display, RS-232, EDID, USB, I/O, User, System, Tools, and Logout. The main content area is titled "Network" and contains the following fields:

- MAC Address: B8:98:B0:0E:FE:75
- IP Mode: DHCP Static
- IP:
- Netmask:
- Gateway:
- Telnet Port:
- SSH Login Mode: ENABLED DISABLED
- Telnet Login Mode: ENABLED DISABLED
- Hostname:

Below the Network section, a "System" section is partially visible.

Network

MAC Address - Displays the MAC address of the unit.

IP Mode - Switch between static and DHCP IP modes.

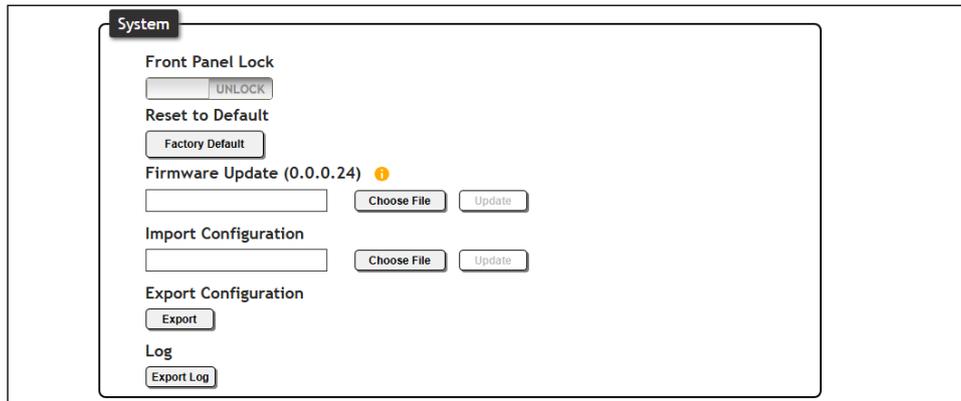
IP, Netmask, Gateway - This will display the unit's current DHCP IP settings. When set to static, fill in the IP address, netmask, and gateway.

Telnet Port - Set the telnet port if needed for control. Default port is 23.

SSH Login Mode - Enable or disable SSH Login Mode functionality by toggling this switch.

Telnet Login Mode - Enable or disable Telnet functionality by toggling this switch.

Hostname - Set the name of the unit. This will display in network discovery.



System

Front Panel Lock - Lock or unlock the front panel buttons.

Reset to Default- Press the Factory Default button to set the unit back to all factory settings, including IP mode.

Firmware Update - Use the choose file button to search the local PC for the firmware file. Once selected, press the Update button to start the firmware update.

Import Configuration - Select the Choose File button to select the configuration file off the local computer. Once selected, press the Upload button to push the new configuration to the unit.

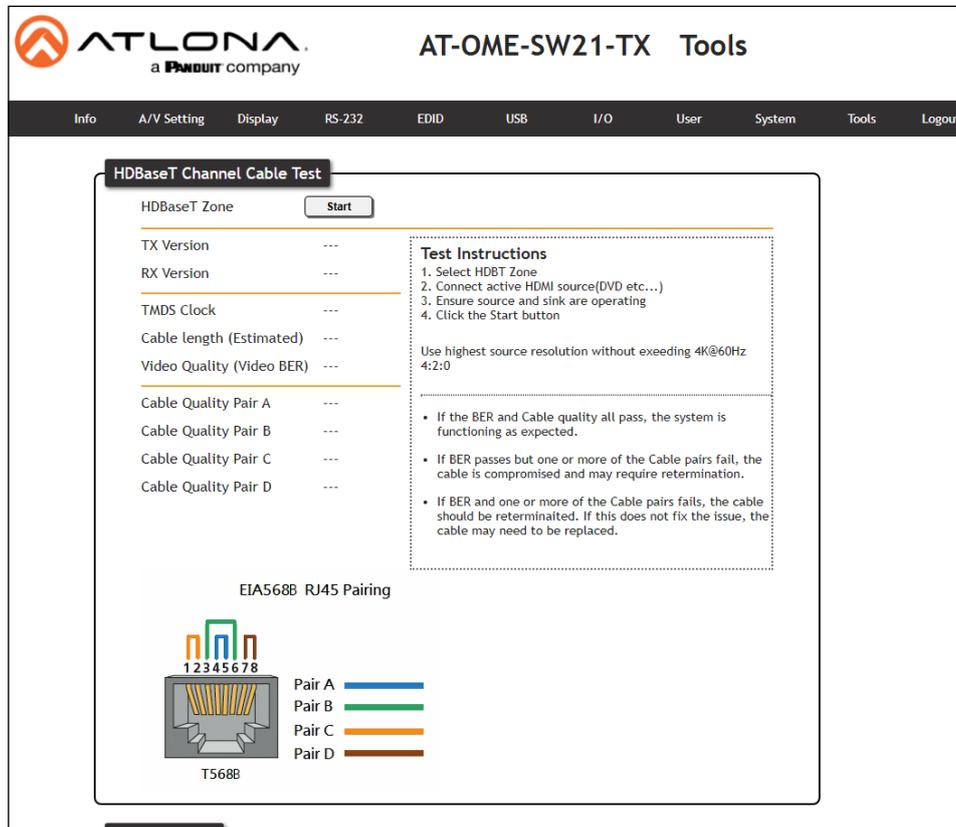
Export Configuration - Press the Download button to save the unit's configuration to the local computer.

Log - Use the Export Log button to download the OME-SW21-TX's log to a local PC.

i **NOTE:** Firmware updates and release notes can be found at <https://atlona.com/product/at-ome-sw21-tx/> .

Tools

Select Tools to open the HDBaseT cable test and API command field page. The HDBaseT test will check extender versions, cable status and length, and Video Quality.



HDBaseT Channel Cable Test

HDBaseT Zone - Use the start/stop button to run or cancel the HDBaseT signal testing. The webGUI will remain active until the testing stops.

TX / RX Version - When the test starts, the chipset version will display. e.g. AT-OME-SR21 (RX) will be VS2310.

TMDS Clock - After the test has been initiated, it will display the TMDS clock frequency in Mhz.

Cable Length - An approximate HDBaseT cable length will be displayed here after the test has been started.

Video Quality (Video BER) - Will display Pass or Fail depending on if the cable video signal quality.

Cable Quality - Each pair will be tested and return a Pass or Fail status.

Failure:

One or more Pairs - **Reterminate** the cable.

Of BER and any pairs - **Replace** the cable.

Of one or more pairs after retermination - **Replace** the cable.

API Command

API Command

Live Log

Time	Verbosity	Message
14:08:30	Receive	["id":"OnTimeGetResults", "jsonrpc":"2.0", "result":{"OnTime":"33-21:19:5"}]
14:08:10	Receive	["id":"OnTimeGetResults", "jsonrpc":"2.0", "result":{"OnTime":"33-21:18:45"}]

API Command

API Command - Commands can be entered here to be sent to the unit.

Send - Press this button to transmit the command to the unit.

Log - This will display a command log of any and all commands sent.

PRELIMINARY

Appendix

Specifications

Video		
Signal Type	Input - DisplayPort Alternate Mode (USB-C), HDMI Output - HDBaseT, HDMI	
Copy Protection	HDCP 1.4/2.2/2.3	
Pixel Clock	600MHz (300MHz over HDBaseT)	
UHD/HD/SD	4096x2160(DCI)@60/50/30/25/24Hz 3840x2160(UHD)@60/50/30/25/24Hz 2560x1440@30Hz 1920x1080p@60/59.94/50/30/29.97/25/24/23.98Hz	1920x1080i@30/29.97/25Hz 1280x720p@60/59.94/50/30Hz 720x576i/p@50Hz 720x480i/p@60Hz
VESA All resolutions are 60Hz	2560x1600 2048x1536 1920x1200 1680x1050 1600x1200 1440x900 1400x1050 1280x1024	1280x800 1366x768 1360x768 1152x864 1024x768 800x600 640x480
VESA 21:9	2560x1080@30Hz 4:4:4 2560x1080@60Hz 4:4:4 3440x1440@30Hz 4:4:4	3440x1440@50Hz 4:4:4 3840x1600@30Hz 4:4:4
Scaler ⁽¹⁾	IN	OUT
	4K@24Hz 4K@30Hz 4K@60Hz	1080p@24Hz 1080p@30Hz 1080p@60Hz
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0	
Color Depth	8-bit, 10-bit, 12-bit	
HDR ⁽²⁾	Up to 4K HDR10@60Hz, 4K Hybrid-Log Gamma (HLG)@60Hz, and 4K Dolby® Vision™@60Hz	

Audio			
Pass-through	PCM 2.0 LPCM 5.1 LPCM 7.1	Dolby® Digital Dolby Digital Plus™ Dolby TrueHD Dolby Atmos®	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X®
Bit Rate	24 Mbits/s max		
Sample Rate	32kHz, 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz		

USB	
Signal	3.2 Gen 1 & 2.0
Maximum Data Rate	3.2 - 5 Gbps 2.0 - 480 Mbps
Hosts	1 USB 3.0 Type-C and 1 USB 3.0 Type-B host
Hub	1 - Internal

Connectors	
USB-C	1 - USB Type-C, 24-pin female
HDMI	2 - Type A, 19-pin female
HDBaseT OUT ⁽³⁾	1 - RJ45
HOST	1 - USB Type-B, female, 3.0
HUB	2 - USB Type-A, female, 3.0

Indicators, Buttons, and Controls	
PWR indicator	1 - LED, green
LINK indicator	1 - LED, yellow
Buttons DISPLAY, INPUT, UP, DOWN, ENTER	5 - momentary, tact-type
Reset	1 - recessed, momentary

Resolution / Distance	4K/UHD - Feet / Meters		1080p - Feet / Meters	
USB-C	6.6	2	6.6	2
HDMI IN/OUT	15	5	30	10
CAT5e	295	90	330	100
CAT6/6a/7	330	100	330	100

Power	
Consumption	Idle: 5.2W Max: 108W
Supply	PoE via connected receiver or *optional* 24V 5A power supply
BTU/h	Idle: 18 Max: 27.28

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 (H x W x D)	Inches	Millimeters
Unit	0.98 x 5.91 x 9.84	25 x 150.2 x 250

Weight	Pounds	Kilograms
Device	1.65	0.75

Certification	
Device	CE, FCC

Compliance	
NDA-899	Yes

Warranty	
Device	To view the product warranty, use the following link: https://atlon.com/warranty

Footnotes

- (1) Scaler does not support frame rate conversion.
- (2) HDR is supported on USB-C and HDMI ports only.
- (3) Maximum limit of 6 USB hubs when traversing an HDBaseT link.

PRELIMINARY