

The logo graphic consists of three overlapping triangles. The leftmost triangle is a medium blue color. The middle triangle is a darker blue and overlaps the left one. The rightmost triangle is a lighter blue and overlaps the middle one. The word "MURIDEO" is written in a bold, black, sans-serif font, with the letters partially overlapping the triangles.

MURIDEO®

MU-STIX-CTL

USER MANUAL

MU-STIX-CTL CONTROLLER PLATFORM

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# Introduction

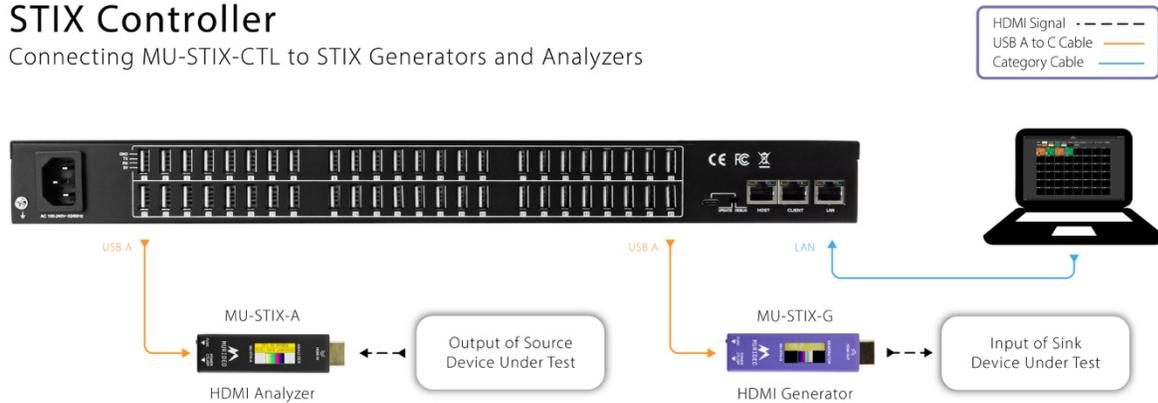
The Murideo MU-STIX-CTL is a high-density, scalable controller platform designed to manage up to 48x MU-STIX HDMI analyzer and generator devices. The MU-STIX-CTL provides centralized signal analysis and generation with a user-friendly web-based interface. Multiple units can be cascaded, enabling control of up to 960x MU-STIX devices simultaneously.

This manual provides installation, configuration, and troubleshooting instructions for the MU-STIX-CTL.

The diagram below shows the MU-STIX-CTL in a typical installation:

## STIX Controller

Connecting MU-STIX-CTL to STIX Generators and Analyzers



## Features

- Supports up to 48x MU-STIX analyzer and generator devices per controller
- Web-based interface for centralized control and monitoring
- Cascade capability for large-scale HDMI testing (up to 20x MU-STIX-CTL units)
- Front-panel LED indicators for connection and device status
- USB Type-A ports for device connectivity and power distribution
- HDMI output and 2x USB Type-A ports for local UI display and control
- Rack-mountable 1RU chassis

## Product Overview

### Box Contents

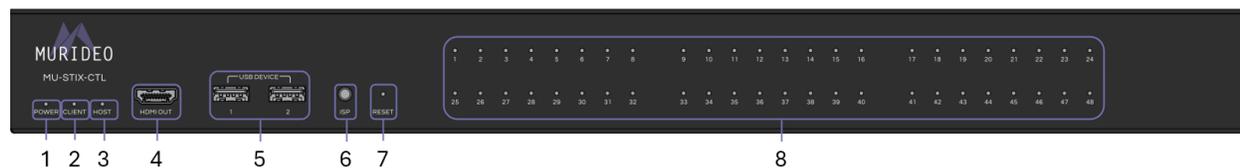
- (1x) Murideo MU-STIX-CTL Unit
- (1x) Power Cable
- (2x) 1U Rack Mounting Brackets
- (6x) Screws for Mounting Brackets
- (4x) Rubber Feet
- (4x) Rubber Feet Screws
- (1x) Ground Wire

## Technical Specifications

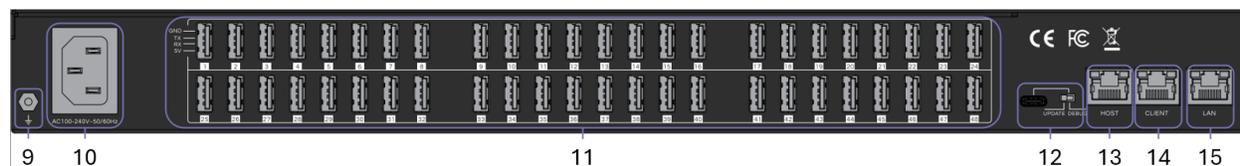
Ports	
USB	48x Type-A (MU-STIX devices) 2x Type-A DEVICE (Mouse, Keyboard) 1x Type-C (ISP)
HDMI Output	HDMI 2.0, Type-A, Female (UI)
RJ45	1x LAN (UI) 1x HOST 1x CLIENT
Power	IEC 320-C14, male
Ground	Grounding terminal
Control	
Web Interface	Yes, LAN
ISP	USB Type-C
Environmental	
Operating Temperature	23 to 125° F (-5 to 51° C)
Storage Temperature	-4 to 140° F (-20 to 60° C)
Humidity Range	5-90% RH (No Condensation)
Power	
Power Consumption (Total)	7 W (no STIX attached) 150 W Maximum (48x STIX attached)
Power Supply	Input: 100-240 VAC ~ 50/60 Hz
Physical / Dimensions	
Mounting	1-RU Rack Mounting Brackets Rubber Feet
Dimensions (Unit Length/Width/Height)	mm: 259 X 439.7502 X 44.45 inches: 10.196 X 17.313 X 1.75
Dimensions (Packaged Length/Width/Height)	mm: 565 x 375 x 125 inches: 22.24 x 14.76 x 4.92
Weight (Unit)	8.25 lbs. (3.74 kg)
Weight (Packaged)	10.42 lbs. (4.73 kg)
Regulatory	CE/FCC/UL
Product Warranty	2 Years
*Specifications subject to change without notice. Mass & dimensions are approximate	

# Front and Rear Panel Overview

## Front Panel



## Rear Panel



1	Power LED	<ul style="list-style-type: none"> <li>Blue LED status indicator light</li> <li>Solid blue indicates power is present on the unit</li> </ul>
2	Client LED	<ul style="list-style-type: none"> <li>Green LED status indicator light</li> <li>Solid green indicates a Client unit is connected</li> <li>See <a href="#">Host and Client Roles</a> section for details</li> </ul>
3	Host LED	<ul style="list-style-type: none"> <li>Green LED status indicator light</li> <li>Solid green indicates a Host unit is connected</li> <li>See <a href="#">Host and Client Roles</a> section for details</li> </ul>
4	HDMI Output	<ul style="list-style-type: none"> <li>19-pin HDMI Type-A female connector port</li> <li>HDMI 2.0 output for local access to user interface</li> </ul>
5	USB Device Ports	<ul style="list-style-type: none"> <li>(2x) USB Type-A connector ports</li> <li>Connect mouse/keyboard for local user interface control</li> </ul>
6	ISP Button	<ul style="list-style-type: none"> <li>Button for servicing by Murideo Technical Support</li> </ul>
7	Reset Button	<ul style="list-style-type: none"> <li>Pin-hole button</li> <li>Push button to reset unit</li> </ul>
8	Status LEDs	<ul style="list-style-type: none"> <li>(48x) Green LED status indicator lights</li> <li>Off: No data connection or link established</li> <li>Flashing: MU-STIX device connected with no signal</li> <li>Solid On: MU-STIX device connected with good signal</li> </ul>
9	Ground	<ul style="list-style-type: none"> <li>Ground screw</li> <li>Connect with the ground wire provided to the conducting parts</li> </ul>
10	Power In	<ul style="list-style-type: none"> <li>IEC 320-C14, male power connector</li> <li>Power input to unit</li> </ul>
11	USB Device Ports	<ul style="list-style-type: none"> <li>(48x) USB Type-A connector ports</li> <li>Connect USB cable to MU-STIX devices</li> </ul>
12	USB Type-C DIP Switch	<ul style="list-style-type: none"> <li>Proprietary service port and DIP switch for Murideo Technical Support</li> </ul>
13	Host	<ul style="list-style-type: none"> <li>8-pin RJ45 female connector</li> <li>See <a href="#">Host and Client Roles</a> section for details</li> </ul>
14	Client	<ul style="list-style-type: none"> <li>8-pin RJ45 female connector</li> <li>See <a href="#">Host and Client Roles</a> section for details</li> </ul>
15	LAN	<ul style="list-style-type: none"> <li>8-pin RJ45 female connector</li> <li>Connect to the LAN or router for remote user interface access</li> </ul>

# Rack Mount / Rubber Feet Installation

## Rack Mounts

The Murideo MU-STIX-CTL can be mounted in a 1RU rack-style enclosure and is compatible with all standard 19-inch rack mounts. The (2x) mounting brackets are included with the purchase of a unit.

1. Align the holes on the mounting brackets with the holes on both sides of the rack.
2. Attach the mounting brackets to the rack with rack screws (not included).

## Mounting Feet Assembly

The (4x) rubber feet can be assembled to the unit with the (4x) provided mounting screws.

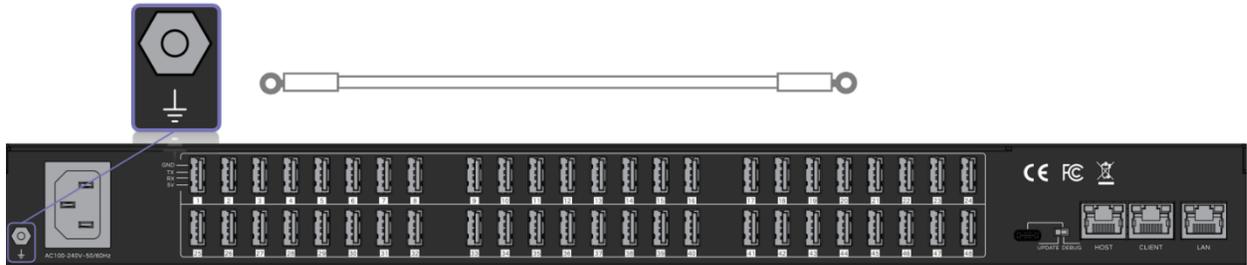
1. Align the holes on the rubber feet with the holes underneath the unit.
2. Attach the rubber feet to the unit with the provided screws.

## Initial Setup

Make physical connections to the inputs and output devices using the following steps below. For the initial setup, it is recommended to connect the MU-STIX-CTL to a display via HDMI and mouse/keyboard via USB Type-A ports on the front of the unit. The user interface will be accessible for initial setup and for remote access configuration.

## Connecting Devices

1. Use a screwdriver to attach the yellow ground cable to the pre-installed screw on the back of the unit, then attach the other end to a suitable grounded object.



2. Connect the HDMI OUT port to a display via HDMI and mouse/keyboard to the USB DEVICE ports on the front of the unit.
3. Connect the LAN port using an RJ45 ethernet cable to the local IP network or directly to a PC.
  - a. To access the user interface remotely refer to the [System -> IP Settings](#) section to configure the IP address.
4. Connect the power cord to the Power In port on the back of the unit and plug the power cord into a power source. The POWER LED should show a solid blue LED, indicating the unit is powered.
5. If the unit is used in Client mode for cascading, please refer to the [Host and Client Roles](#) for additional connection and configuration steps.
6. Use a USB Type-A to USB Type-C cable to connect MU-STIX devices to the USB Type-A ports on the rear of the MU-STIX-CTL. Once connected, refer to the corresponding green LED indicators on the front panel:
  - a. Flashing Green: A MU-STIX device is connected via USB, but no HDMI signal is currently detected (i.e., no HDMI Hot Plug Detect or 5V signal).
  - b. Solid Green: A MU-STIX device is connected and has successfully detected an HDMI signal.

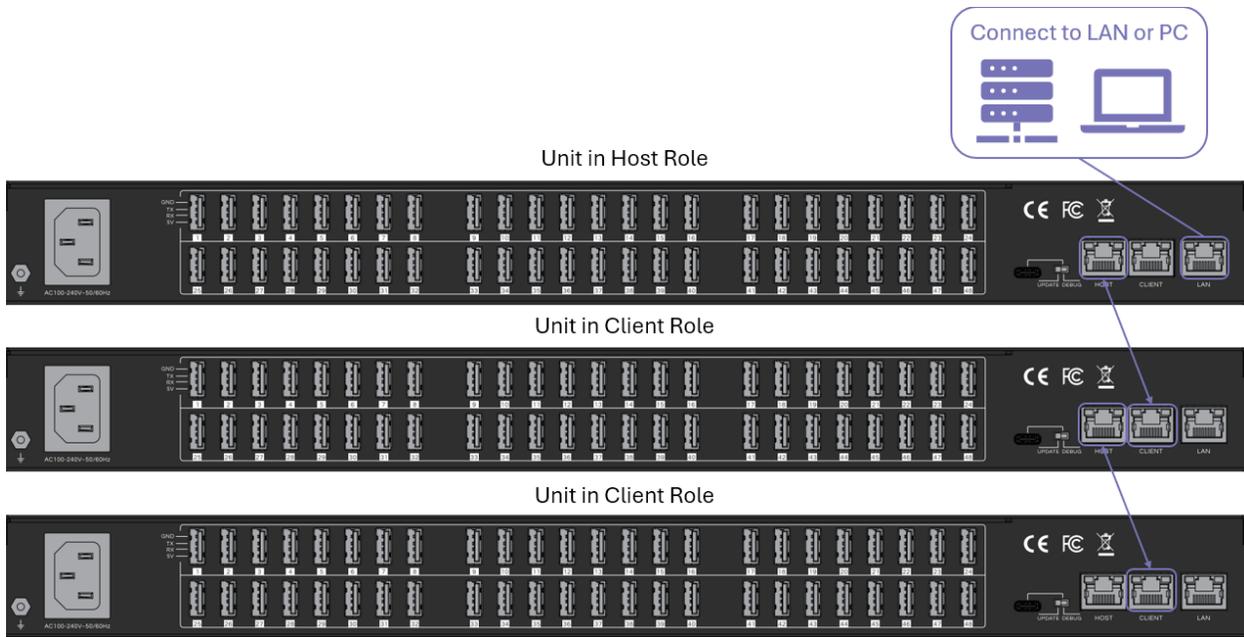
## Cascading - Host and Client Roles

The MU-STIX-CTL provides a scalable solution for managing multiple HDMI test and analysis devices. It features a user-friendly web interface that allows users to view connected devices, monitor video thumbnails, and configure HDMI signal parameters.

Multiple MU-STIX-CTL units can be linked via Category wire, with a designated Host unit acting as the primary controller and additional units functioning as Clients. Up to 20 units can be cascaded controlling up to 960 MU-STIX analyzers and generators from a single user interface.

By default, the MU-STIX is in HOST mode. Before units are connected for cascading the user interface should be accessed to change the default Role setting to Client in the System -> Role Control menu.

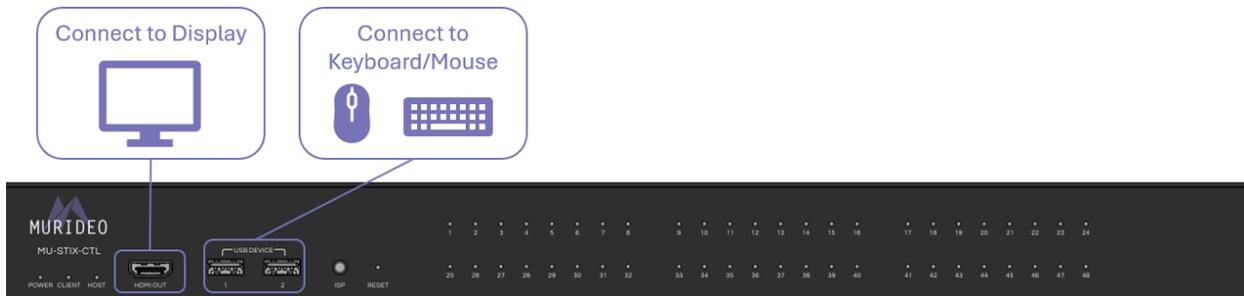
Connect Host and Client ports according to the following diagram to cascade units. –



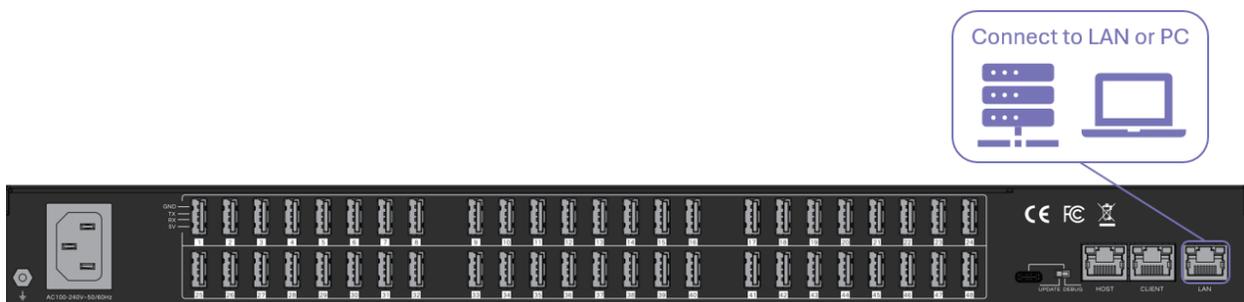
## Accessing the Web Interface

The MU-STIX-CTL web interface can be accessed in two ways:

1. Local Access: Connect a display to the HDMI output on the front of the unit. Then, connect a mouse and keyboard to the USB Type-A device ports to navigate the interface directly.

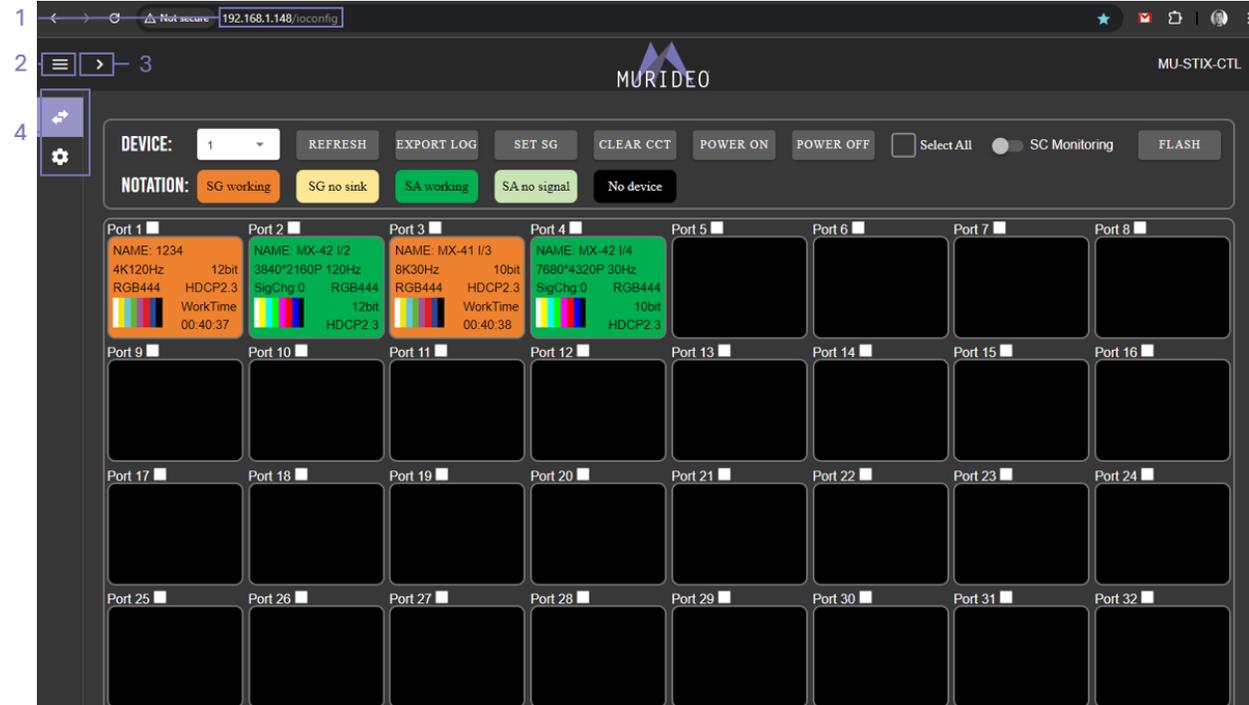


2. Remote Access: Connect the LAN port to a PC, laptop, or network router. Open a web browser and access the interface via the assigned IP address over HTTP.



# Navigating the Web Interface

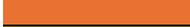
The MU-STIX-CTL features a built-in User Interface (UI) that can be accessed through a web browser for configuration and control. Different tools and settings can be selected from the tab pages - located on the left side of the screen, inside the navigation menu column.



1. Enter the unit's IP address into a web browser, such as Chrome or Edge, to access the Web UI.
2. To hide the navigation menu, select the *hamburger menu icon* .
3. To hide the navigation menu text and show only the menu icons, select the *left arrow icon* .
4. To navigate through the different pages, select the individual *tab pages* from the navigation menu. This will highlight the tab page in green to indicate the currently selected page.

## Config Page (Monitoring)

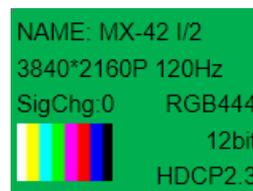
The Config page is the default landing page of the user interface. The page features 48 tiles representing either a MU-STIX analyzer or generator. Each tile is color-coded according to the type of MU-STIX connected and its HDMI connection state.

Color Code	Notation
	Signal generator connected; hot plug detected
	Signal generator connected; no hot plug detected
	Signal analyzer connected; hot plug detected
	Signal analyzer connected; no hot plug detected
	No device detected

Each tile features a name, resolution timing, video sampling, color bit depth and HDCP version as well as a thumbnail of the generated or analyzed video. Note, for generators, mousing over the thumbnail will show Signal Sink Loss count.



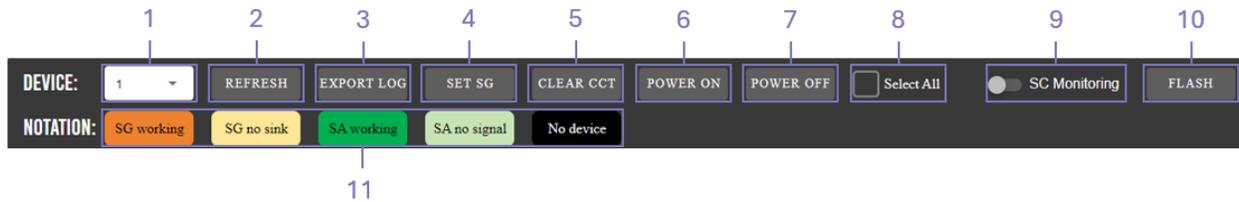
Signal Generator Tile



Signal Analyzer Tile

## Toolbar

The toolbar at the top of the tile menu has buttons to perform functions to the MU-STIX devices. The toolbar also has a legend for the color-coding of the tiles.



1	Device	<ul style="list-style-type: none"> <li>Drop-down menu for selecting cascaded MU-STIX-CTL devices</li> <li>Navigate between pages to access all connected devices when using multiple MU-STIX-CTL units.</li> </ul>
2	Refresh	<ul style="list-style-type: none"> <li>Button to refresh the status tiles of the connected MU-STIX devices</li> </ul>
3	Export Log	<ul style="list-style-type: none"> <li>Export logs of a selected MU-STIX device or devices</li> <li>Log is exported to .log file</li> <li>Bulk export logs by selecting multiple tiles or using the Select All function.</li> </ul>
4	Set SG	<ul style="list-style-type: none"> <li>Dialog box to configure MU-STIX device settings such as Timing, Color Space, Output Pattern, Color Depth and HDCP version.</li> <li>Bulk configure MU-STIX devices by selecting multiple tiles or using the Select All function.</li> </ul>
5	Clear CCT	<ul style="list-style-type: none"> <li>Clear Signal Loss and Signal Change Monitoring Counters on MU-STIX analyzing devices</li> <li>Bulk clear counters by selecting multiple tiles or using the Select All function.</li> </ul>
6	Power On	<ul style="list-style-type: none"> <li>Power On connected MU-STIX devices</li> <li>Bulk power on by selecting multiple tiles or using the Select All function.</li> </ul>
7	Power Off	<ul style="list-style-type: none"> <li>Power Off connected MU-STIX devices</li> <li>Bulk power off by selecting multiple tiles or using the Select All function.</li> </ul>
8	Select All	<ul style="list-style-type: none"> <li>Select all tiles on the main homepage.</li> <li>Useful for bulk configuration, power cycling, or log export from devices.</li> </ul>
9	SC Monitoring	<ul style="list-style-type: none"> <li>Enables Signal Change Monitoring on the selected MU-STIX devices tiles</li> <li>Test frame to frame difference in an HDMI signal. This can be used to diagnose intermittent issues in a system. This test requires a still or stationary image generated by the HDMI source.</li> </ul>
10	Flash	<ul style="list-style-type: none"> <li>Causes the LCD screen on connected MU-STIX devices to flash on and off.</li> <li>This is useful for identifying MU-STIX devices in testing environments.</li> </ul>
11	Notation	<ul style="list-style-type: none"> <li>Legend for color-coding status of tiles.</li> </ul>

# System

## IP Settings

IP Settings

1 Model Name MU-STIX-CTL

2 MAC Address 18:8a:6a:02:d5:7c

3 IP assignment Automatic (...)

4 IP Address 192.168.1.148

5 Subnet Mask 255.255.252.0

6 Gateway 192.168.1.1

7 APPLY

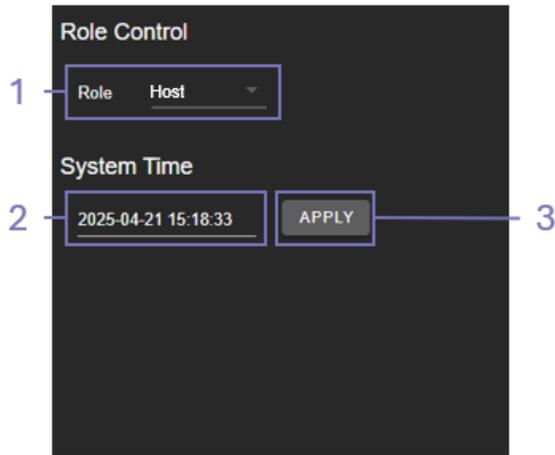
These will be assigned by a DHCP reservation from the router when the *IP Assignment* is set to *Automatic*, or they can be manually entered in when the *IP Assignment* is set to *Manual*.

Select the *Apply* button when manually entering in the *IP Assignment*, *IP Address*, *Subnet Mask*, and *Gateway* for changes to take effect.

1	Model Name	Shows the unit's AVPro Edge model number.
2	MAC Address	Shows the unit's unique MAC address.
3	IP Assignment	Select the dropdown menu to set the unit's IP mode to <i>DHCP</i> (default) or <i>Manual (Static IP)</i> , then select the <i>Apply</i> button.
4	IP Address	Shows the unit's IP address.
5	Subnet Mask	Shows the unit's subnet mask.
6	Gateway	Shows the unit's default gateway.
7	Apply	Clicking the Apply button applies to any changes made to IP assignment, IP Address, Subnet Mark and Gateway.

## Role Control

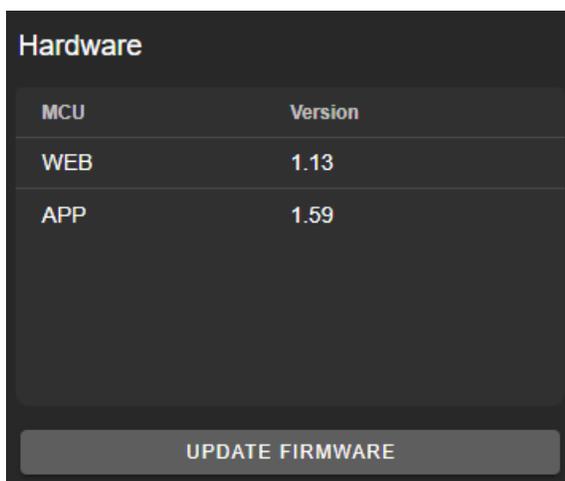
This menu is used to configure the Role of the MU-STIX-CTL device when cascaded. For additional details on cascading units for dense monitoring of HDMI signals, refer to the [Cascading - Host and Client Roles](#) section.



1	Role	Assigns the role of the MU-STIX-CTL when cascaded with other units. The default setting is Host.
2	System Time	Shows the current System Time for the MU-STIX-CTL. The System Time can be configured manually by editing the date/time. This System Time is applied to all connected MU-STIX devices and is used to timestamp logs.
3	Apply	Clicking the Apply button applies to any changes made to Role Control and System Time settings.

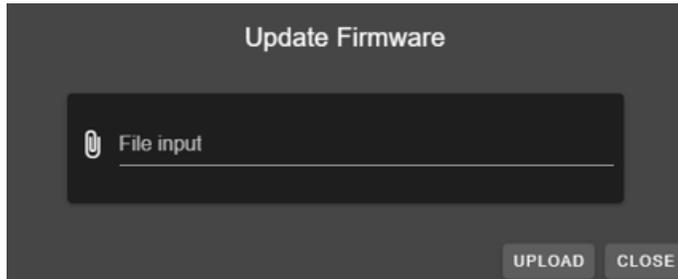
## Hardware

This section shows the MU-STIX-CTL devices current firmware versions and has the option to update the firmware.



## Updating Firmware

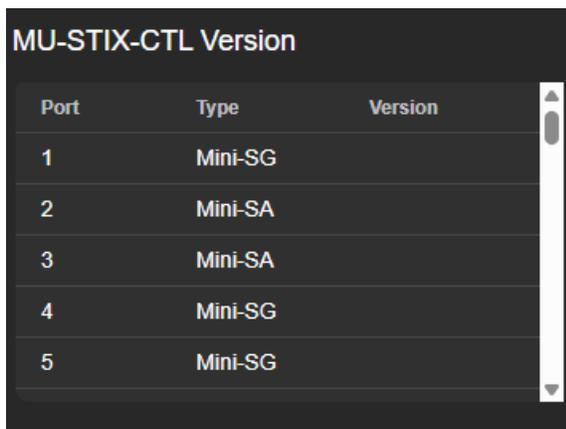
1. Download the latest firmware from Murideo's website.
2. Click the Update Firmware button in the Hardware section in the web interface.
3. Upload the firmware file by clicking the paperclip icon. Once uploaded, initiate the update process by clicking the Upload button. The unit will now begin installing the latest versions of firmware. DO NOT refresh the webpage or power off the unit during the update.



4. Once the progress bar reaches 100%, select the *Close* button. The unit will automatically reboot once the firmware updates are complete. After the unit reboots, refresh the webpage.

## Versions

This section of the interface shows the Port number, the Type of MU-STIX device that is connected to the port and the version of firmware running on the MU-STIX device.



Port	Type	Version
1	Mini-SG	
2	Mini-SA	
3	Mini-SA	
4	Mini-SG	
5	Mini-SG	

# Warranty

AVPro Global Holdings (DBA MURIDEO) offers a 2-year international limited warranty for its Murideo products. Any product first sold to you is guaranteed to be free from defects in both components and workmanship under regular use. The warranty period commences on the date the item ships.

Attention:

Your invoice with the date of purchase, model number, and serial number of the product is proof of the date of purchase. The international Limited Warranty is applicable and shall be honored in every country where MURIDEO or its Authorized Service Providers offer warranty service subject to the terms and conditions provided in this international Limited Warranty Statement. Products included in this warranty:

- Murideo SEVEN Series Generators
- Murideo SIX Series Generators
- Murideo SIX Series Analyzers
- Murideo Fox & Hound Series
- Murideo HDMI Test Monitor Series
- Murideo GAX Series
- Murideo STIX Series

During the warranty period, the defective hardware of Murideo products will be either repaired or replaced with new or like-new products at Murideo's discretion. This International Limited Warranty covers the costs of service parts and labor required to restore your product to fully functional condition. MURIDEO will, at its discretion, repair or replace any defective products or parts covered by this International Limited warranty with refurbished parts of the product that are equivalent to new or like new products in both functionality and performance. A product or part repaired or replaced under this International Limited Warranty shall be covered for the remainder of the original warranty period applying to the product or part or for 90 days, whichever expires last. All exchanged parts and products under this International Limited Warranty will become MURIDEO's property.

## Obtaining Warranty Service

Warranty service or Returned Merchandise Authorization (RMA) under this International Limited Warranty will be honored only if claims are made within the warranty period. The process for notifications to MURIDEO or products outside the warranty period will be the same, but charges may apply. Contact details may be obtained on the MURIDEO website: <https://www.murideo.com/>

Customers are requested to perform the following actions before claiming MURIDEO product is defective:

- Owner must notify MURIDEO, during the warranty period, in writing of the alleged defect and allow MURIDEO a reasonable opportunity to inspect the allegedly defective product;
- No Product may be returned without MURIDEO's consent. The MURIDEO RMA# must accompany all returns, and all returns must be delivered to MURIDEO within the warranty period.
- Owner may, then at its own expense, return the allegedly defective Product, freight pre-paid and in the original packaging, accompanied by a brief statement explaining the alleged defect to MURIDEO;
- If MURIDEO determines that any returned Product is not defective, or if MURIDEO determines that the warranty does not cover the defect, MURIDEO will return the Product to the Owner at the Owner's expense, freight collect, and Owner agrees to pay MURIDEO reasonable cost of handling and testing.
- Upon determining that the returned product is defective, the Owner will need to present the invoice showing the original purchase transaction to receive warranty service. If shipping the product, the Owner will need to package it carefully and send it, transportation prepaid by a traceable, insured method, to the MURIDEO Service Center. Package the product using adequate padding material to prevent damage in transit. The original container is ideal for this purpose. Include the RMA #, your name, return shipping address, email address, and telephone number where you may be reached during business hours inside the shipping package with the unit. Any replacement unit will be warranted under these Terms and Conditions for the remainder of the original warranty period or ninety (90) days, whichever is longer. For important Aps on operating and troubleshooting the product, refer to the user manual, which can be downloaded from our website, <http://www.murideo.com/>.

## Disclaimer of Warranty

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This Limited Warranty gives you specific legal rights. You may also have other rights that vary from state to state or country to country. You are advised to consult applicable state or country laws to fully determine your rights. Some jurisdictions do not allow the exclusion or limitation of special, incidental, or consequential damages or limitations on how long a warranty lasts, so the above exclusion and limitation may not apply to everyone.

## Support

For service and support, contact your local dealer. To find your dealer or to contact MURIDEO support, go to: <https://support.murideo.com> or call +1-605-330-8491 for worldwide technical support.

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- Damage caused by acts of nature, such as fire, flood, wind, earthquake, lightning, etc.
- Damage or incompatibility caused by failure to perform a proper installation or to provide an appropriate operational environment for the product, including but not limited to unstable wired/wireless network connection and phone lines, insufficient grounding, external electromagnetic fields, direct sunlight, high humidity, and vibration.
- Damage caused by impact with other objects, dropping, falls, spilled liquids, or submersion in liquids.
- Damage caused by unauthorized repair or disassembling of the product.
- Damage caused by abuse, misuse, mishandling, or misapplication.
- Damage caused by third-party peripherals (including but not limited to visible damages on the motherboard or other electronic parts of the product, such as burn spots after electric discharge, melting fusing, splitting, etc.)
- Any unauthorized software or modification of built-in software not approved by MURIDEO.
- The product's serial number (or serial number stickers of its parts) has been modified, removed, blurred, or damaged.
- Defects caused by transportation, handling, or customer abuse.

Thank you for choosing MURIDEO!  
Please contact us with any  
questions, we are happily at your  
service!



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an **AV** Pro  brand

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