User Manual

v1.0.3

Contents

Overview

This product is an 8x12 high-performance fast seamless switching matrix, designed for professional audiovisual (AV) environments with versatile video processing capabilities. The matrix supports advanced video wall and multi-view functionality, handling ultra-high resolutions up to 5K ultra wide and super wide formats, with full HDCP 2.3 compliance across all HDMI inputs and outputs.

Equipped with 12 HDMI outputs, each output includes an independent 4K@60Hz and 5K@30Hz scaler, enabling optimal signal adaption to any connected display regardless of input resolution. The built-in scaling engine ensures sharp, synchronized video presentation across varieties of display setups.

The matrix supports flexible video wall configurations, including the ability to run multiple video walls simultaneously - such as three 2x2 video walls or one 2x4 wall plus four independent HDMI outputs or a giant 2x6 video wall, offering excellent flexibility in layout and applications.

In addition to standard video wall modes, HDMI outputs 1–4 and 5–8 support custom multiview functionality. User can create custom multiview layouts either by selecting from 8 preset layouts or by drag-and-drop HDMI inputs. A unique combined multiview layout can create an ultra-wide 8K x 2K LED video wall, presenting up to 16 million pixels and up to 4 layers at the same time. These versatile options make dynamic content presentation more flexible and more immersive.

On the audio side, the matrix integrates a Dante 4x4 interface and a built-in 12x8 audio matrix. It supports remote audio transmission, independent audio switching, and audio-follow-video modes.

A simple KVM switching system is also included, enabling USB 3.0 switching between two USB-B hosts and a 4-port USB 3.0 hub.

Control is streamlined and flexible, with options including front panel LCD and buttons, LAN control via Telnet and web UI, and RS232. Additionally, the matrix is compatible with WyreStorm Sygma cloud platform, allowing remote operations such as rebooting, log retrieval, and firmware upgrades etc.

This matrix is designed for professional environments such as university lecture halls, large meeting spaces, and corporate conference rooms, delivering powerful performance, flexibility, and ease of control.

Features

- Fast seamless switching without seeing black screen between four HDMI inputs and outputs.
- HDCP 2.3 compliant and backward compatible with earlier versions.
- Each HDMI output has a full-range scaler built-in and supports scaling output resolutions up to 4K@60Hz and 5K@30Hz.
- Two independent custom multiview processors built-in. HDMI outputs 1–4 and 5–8 support independent multiview processing, allowing for creation of custom multiview layouts as well as real-time multiview window re-sizing and re-positioning.
- Combined multiview mode for 8K x 2K ultra-wide LED wall applications. It combines the two multiview processors to create an ultra-wide image up to 16 million pixels and 4 layers of images.
- Flexible video wall processing with splicing:
    - Supports M x N standard video wall creation;
    - Supports to create three video walls simultaneously;
    - Output label OSD supported for easy video wall assignments;
    - Video wall panel splicing to create a window-in-wall effect, presenting multiview viewing;
    - Each video wall supports five layout switching.
- Simple USB 3.0 KVM switching built-in.

- Built-in Dante 4x4 audio networking;
- Independent audio switching among HDMI de-embedded audio inputs, Dante audio, and analog outputs;
- CEC display control support;
- Rich control options: front panel LCD + buttons, RS232, LAN (Web UI & Telnet);
- Integrated with WyreStorm Sygma Cloud for remote management.

Package Contents

- 1 x MX-0812-SCL Matrix Switcher
- 1 x AC Power Cord with US Pins
- 1 x AC Power Cord with EU Pins
- 1 x AC Power Cord with AU Pins
- 1 x AC Power Cord with UK Pins
- 1 x Phoenix Male Connector (3.5mm, 3 Pins)
- 4 x Phoenix Male Connector (3.5mm, 5 Pins)
- 2 x Mounting Brackets (2U, with Screws)
- 1 x Quick Start Guide

Specifications

Technical

Input/Output Ports	8 x HDMI IN, 12 x HDMI OUT, 4 x LINE OUT, 2 x USB HOST, 4 x USB DEVICE, 2 x ETHERNET, 1 x RS-232, 1 x Dante (RJ45 port), 1 x AC 100~240V 50/60Hz, 1 x RESET
Input/Output Video Type	4K@60Hz and 5K@30Hz
Input Resolution Supported	VESA: 800x600[8], 1024x768[8], 1280x768[8], 1280x800[8], 1280x960[8], 1280x1024[8],1360x768[8], 1366x768[8], 1440x900[8], 1600x900[8], 1600x1200[8], 1680x1050[8],1920x1200[8], 5120x2160[5], 5120x1440[8] SMPTE: 720x576P[6], 1280x720P[6,7,8], 1920x1080P[2,5,6,7,8], 3840x2160[2,3,5,6,8], 4096x2160[2,3,5,6,8] 2 = at 24 Hz, 3 = at 25 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz
Output Resolution Supported	800x600[8], 1024x768[8], 1080x7680[5, 8], 1280x720[6, 8], 1280x768[8], 1280x800[8], 1280x960[8], 1280x1024[8],1360x768[8], 1366x768[8], 1440x900[8], 1600x900[8], 1600x1200[8], 1680x1050[8], 1920x1080[6, 8], 1920x1200[8], 1920x2160[8], 2048x1200[8], 2048x1536[8], 2560x1080[8], 2560x1440[2, 3, 5, 6, 8], 2560x1536[8], 2560x1600[8], 3440x1440[8], 3840x1080[8], 3840x2160[2, 3, 5, 6, 8], 4096x2160[2, 3, 5, 6, 8], 5120x1440[5, 8], 5120x2160[5], 7680x1080[5, 8] 2 = at 24 Hz, 3 = at 25 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz The matrix supports setting customized resolution, you can input a customized horizontal pixels and vertical pixels in the corresponding box on the web UI

	(Refer to "Web UI Control" section to get detail information). The horizontal values must be between 640~7680, and the vertical pixels values must be between 480~7680.
Audio Format	HDMI IN/OUT: Fully supports multiple channel audio formats, including PCM, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio, DTS:X LINE OUT: PCM 2.0
Maximum Data Rate	HDMI: 18Gbps
Control Method	Front panel buttons, RS232, LAN (Telnet API & Web UI)

General

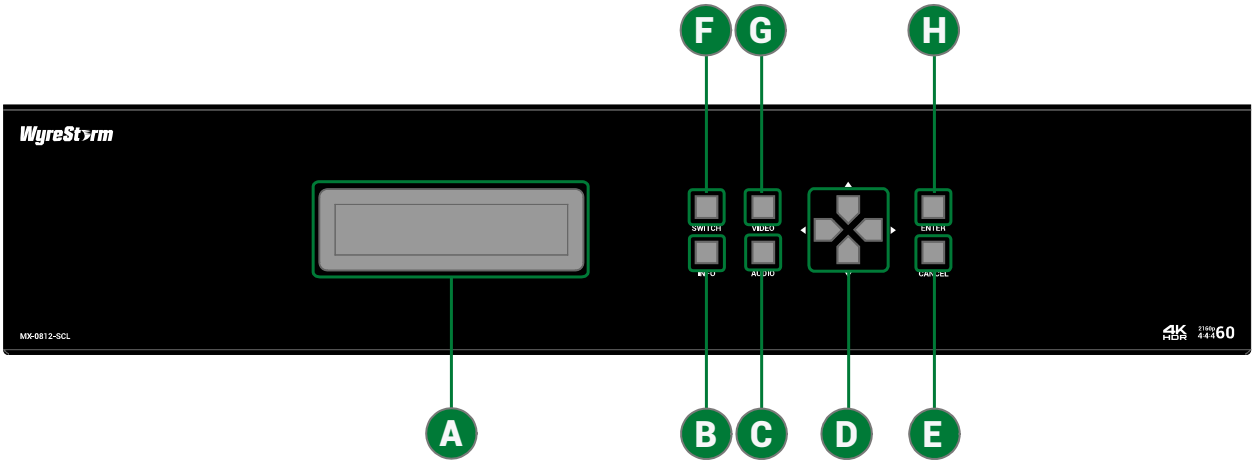
Operating Temperature/RH	0°C ~ 45°C (32°F ~ 113°F)
Storage Temperature/RH	-20°C ~ 70°C (-4°F ~ 158°F)
Humidity	10% ~ 90%, non-condensing
ESD Protection	Human-body model: ±8kV (air-gap discharge)/ ±4kV (contact discharge)
Power Supply	AC 100~240V 50/60Hz
Power Consumption (max)	120W
Dimensions (W x H x D)	440mm x 88mm x 362mm/17.32" x 3.46" x 14.25" (Without mounting brackets)
Weight	6.63kg/14.62lbs
Rack Space Required	2U

Transmission Distance

HDMI	Input/Output: 15m/49ft	1080P@60Hz
	Input/Output: 10m/33ft	4K@30Hz 4:4:4 24bpp
	Input/Output: 5m/16ft	4K@60Hz 4:4:4 24bpp

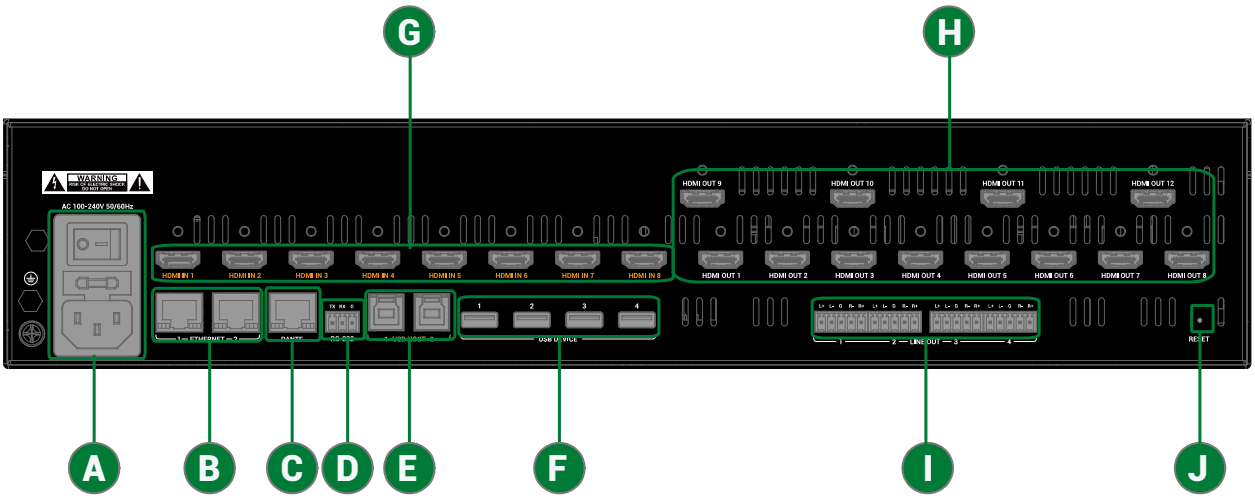
Panel Description

Front Panel



A	**LCD Indicator**	Display the information of the button operation.
B	**INFO Button**	Press the button, the LCD indicator window will display the device's information, including IP address, Fan speed, Mac address, firmware version and temperature.
C	**AUDIO Button**	Press the button, enter the volume adjustment mode.
D	**Selection Buttons**	• INFO: Press the four selection buttons to flip the page to display the information. • AUDIO: Press the left/right button to switch audio output channels. Press the up/down button to increase volume / decrease volume. • SWITCH: Press the left/right button to switch output. Press the up/down button to select input for the selected output. • VIDEO: Press the left/right button to switch input port. Press the up/down button to flip the page to display the video information.
E	**CANCEL Button**	Press the button to cancel the operation or exit the current mode.
F	**SWITCH Button**	Press the button to enter input channel switch mode.
G	**VIDEO Button**	Press the button, the LCD indicator window will display the video information of selected input port, including resolution, color space, and HDCP.
H	**ENTER Button**	Press the button to perform the switching operation.

Rear Panel



A	**AC 100~240V 50/60Hz Port and Power Button**	• AC 100~240V 50/60Hz Port: Connect to the power source via the provided AC power cable. • Power Button: Press the button to power on/off the device.
B	**ETHERNET 1&2**	RJ45 port. Connect to the network, for web UI control, or telnet control.
C	**Dante**	RJ 45 port. Connect to the network for Dante audio connection.
D	**RS-232**	Connect to a RS232 enabled control device for API control.
E	**USB Host (1&2)**	USB 3.0 Type-B port. Connect to USB host devices.
F	**USB DEVICE 1~4**	USB 3.0 Type-A port. Connect to USB devices.
G	**HDMI IN (1~8)**	Connect to HDMI sources.
H	**HDMI OUT (1~12)**	Connect to HDMI displays.
I	**LINE OUT (1~4)**	Connect to audio receivers.
J	**RESET**	Use a needle to press the hole: • Less than 5s: Nothing will happen. • More than 5s but less than 15s: Reset the IP mode of the device to DHCP, and reset the login password of telnet and web UI to defaults. The default login password of telnet is "wyrestorm", and the default login password of web UI is "admin". • More than 15s: Reset the device to factory defaults.

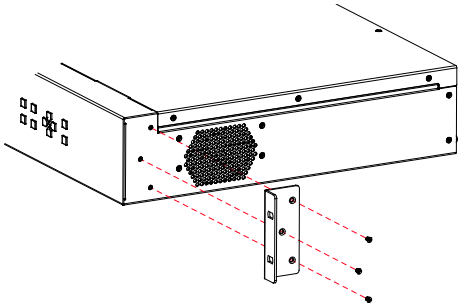
Installation

Note: Before installation, please ensure the matrix is disconnected from the power supply.

The matrix occupies 2U space and can be placed on a solid and stable surface or installed on a standard equipment rack.

To install the matrix on an equipment rack:

1. Position and install the mounting brackets provided to the front panel.

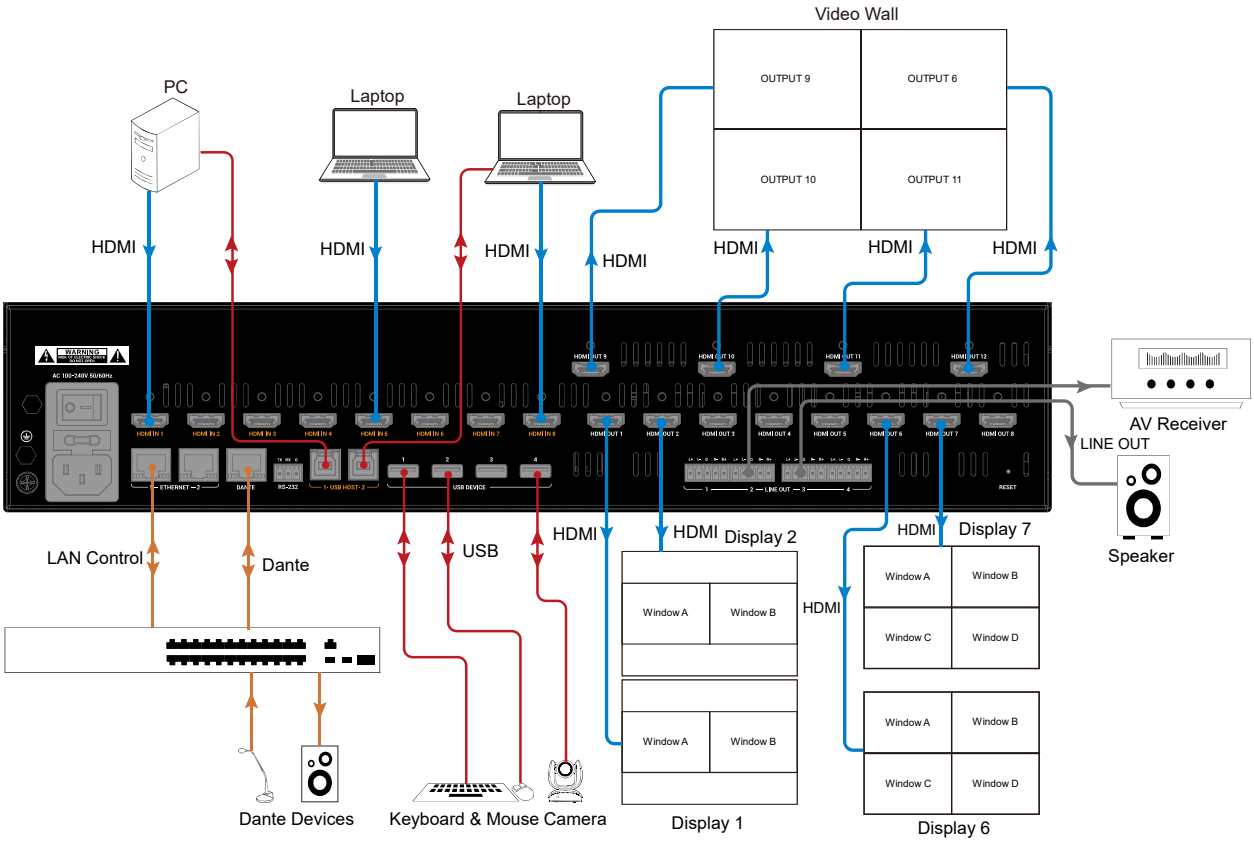


2. Install the matrix in the mounting rack by using the mounting screws to affix the matrix to the rack.

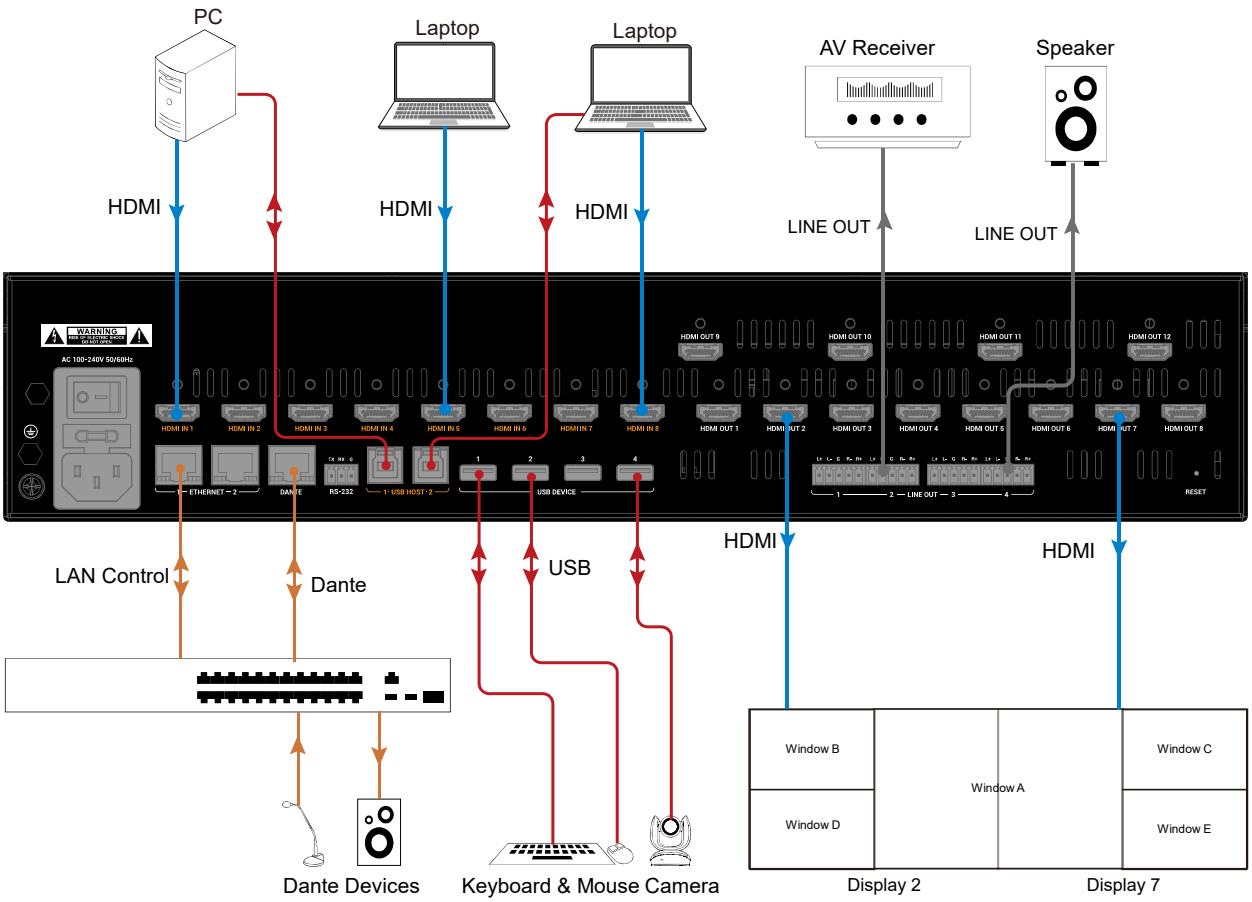
Application

Wiring Diagram

Wiring 1:



Wring 2:



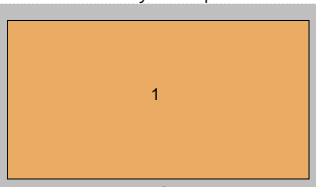
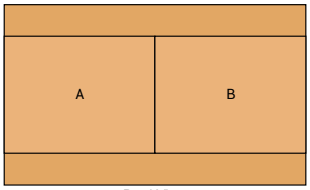
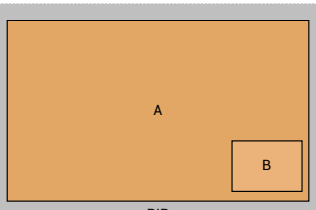
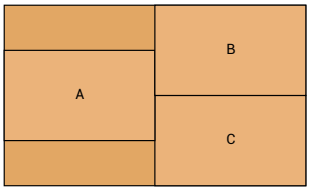
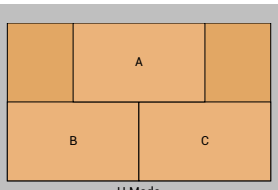
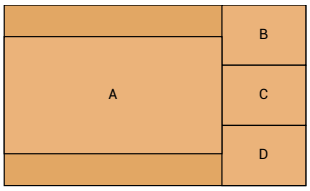
Note:

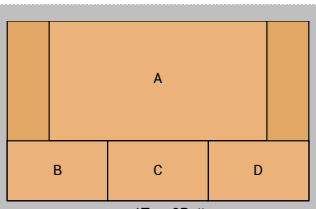
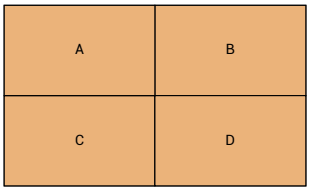
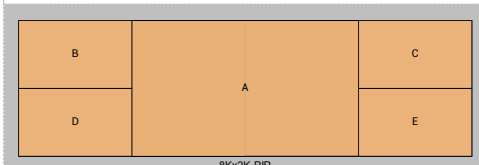
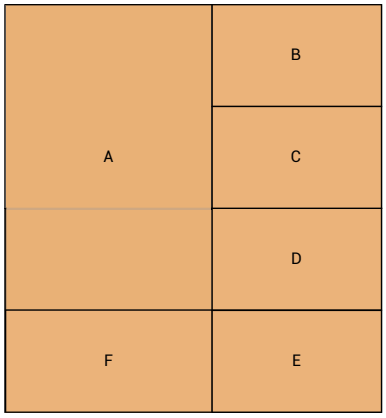
- All outputs support video wall mode configuration. HDMI Outputs 1–4 and HDMI output 5~8 additionally support mirrored multiview mode independently. However, if a video wall includes one or more of HDMI Outputs 1–4 or HDMI outputs 5~8, multiview and video wall modes cannot be used simultaneously. If none of HDMI Outputs 1–4 or HDMI outputs 5~8 are assigned to a video wall, multiview and video wall modes can be enabled at the same time.
- Please configure multiview and video wall settings via the Web UI or API commands. For detailed instructions, refer to the "Web UI Control" section or the standalone API documentation "*API Command Set_MX-0812-SCL*".

Introduction of Multiview

The device supports multiview output mirroring for outputs 1 to 4 / outputs 5 to 8 separately, or combining any one output from 1 to 4 with any one output from 5 to 8 to form a larger screen for multiview output.

Users can customize the multi-view layout or choose from preset layout modes. Below is a brief introduction to the preset multi-view layout options.

 Full Screen	Only one input signal source without image processing is selected to be shown on one display.
 Dual View	Two input signals are selected simultaneously to be shown as two windows with same size.
 PIP	Two input signals are selected simultaneously to be shown as two windows. The smaller window covers on the lower right corner above the larger one by default.
 1Left_2Right	Three input signals are selected simultaneously to be shown as three windows of the same size on one display.
 H Mode	Three input signals are selected simultaneously to be shown as three windows with same size on one display.
 1Left_3Right	The four HDMI input sources are shown as 4 windows simultaneously on one display. The B~D screens are in same size.

 1Top_3Bottom	The four HDMI input sources are shown as 4 windows simultaneously on one display. The B~D screens are in same size.
 Quad	The four HDMI input sources are shown as 4 windows in same size simultaneously on one display.
 8Kx2K-PIP	Any HDMI output from 1 to 4 combined horizontally with any HDMI output from 5 to 8 forms a large 8K x 2K display, featuring one large central window surrounded by four equally sized smaller windows. Users can select any input source for the windows.
 4Kx4K-Window 5	Any HDMI output from 1 to 4 combined horizontally with any HDMI output from 5 to 8 forms a large 4K x 4K display. Window B - F are in same size.

Introduction of Video Wall

The matrix supports creating and configuring M x N standard video wall (M≤6, N≤6, and M x N≤12):

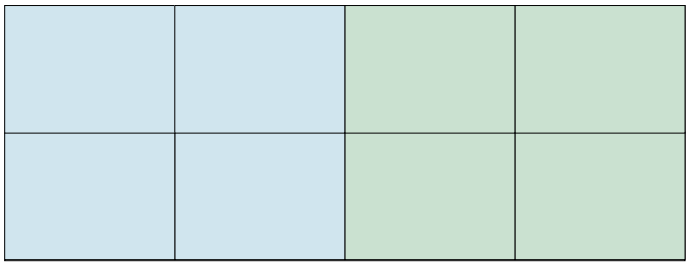
- Supports large video wall creation up to 3x3, 2x5, or two simultaneous 2x2 layouts.
- Supports picture-in-wall effects within video walls, such as embedding a 2×2 window inside a 2×3 video wall.
- Supports intuitive drag-and-drop assignment of matrix outputs to individual video wall panels for easy configuration.
- Supports bezel correction in both horizontal and vertical directions.
- Supports 180° rotation, ideal for setups like 2×2, 2×3, 2×4, or 2×5 video walls using displays with thin top bezels and thicker bottom bezels.
- Enables fast and flexible layout switching, allowing quick reconfiguration of video wall layouts to emphasize different content zones. For example, a 2×4 video wall can be reconfigured to:

- 2+2x2+2 (2x2 PIP in the center);

- 2x3+2 (2x3 PIP on the left);

- Full 2x4 layout;

- Dual 2x2 layouts.



Instruction of Dante

The matrix supports 4x4 Dante audio transmission. Before using Dante function, please enable all devices are connected to the same wired network, as the Dante Controller is only available on wired connections.

Connect the "Dante" port to a local area network, and launch the "Dante Controller" software on the laptop connected in the same network (Refer to https://www.audinate.com/products/software/dante-controller to download the latest Dante Controller). Pair the transmitters and receivers (both the transmitters and receivers are connected with the same network) as required on the Dante Controller with the matrix. The paired transmitters can generate Dante audio and transmit it to the Dante in of the matrix through the network, and the paired receiver can receive Dante audio from Dante out of the matrix through the network. Users can set audio sources and audio outputs through API commands

or web UI. Refer to the separate document "*API Command Set_MX-0812-SCL*" or "Web UI Control" section to get detail information.

Control of the Matrix

The matrix can be controlled through Front Panel, RS232, and LAN (Web UI or Telnet).

Front Panel Control

Basic switch of input sources to output displays, audio volume adjustment, and information obtain can be achieved by using front panel controls.

Power on the matrix, the LCD indicator window will display "Starting", and wait until the window display the matrix's model and IP address, which indicates the matrix is ready to operate.

1. Switch input sources for the output
    1) Press "SWITCH" button to enter switch mode.
    2) Press the Left (◀) or Right (▶) button to select output channel. The ">" icon will move to the output port number users select currently.
    3) Press the Up (▲) or Down (▼) button to select input channel.
    4) Press "ENTER" button to confirm the selection or press "CANCEL" to exit the mode and return to the main page.

    Note: In Multiview mode, switching inputs via the front panel does not change the current output sources for Outputs 1–4. The changes will only take effect after exiting Multiview mode.

2. Adjust volume of audio outputs
    1) Press "AUDIO" to enter volume adjustment mode.
    2) Press the Left (◀) or Right (▶) button to select audio output channel.
    3) Press the Up (▲) or Down (▼) button to adjust volume of the selected channel.
    4) Press "CANCEL" to exit the mode and return the main page.

3. Get device's information or video information
    1) Press "INFO" button to enter device's information display mode or press "VIDEO" button to enter video information display mode.
    2) Press the Left (◀) or Right (▶) button to flip the page to display the video information in video information display mode or flip to display the device's information in device's information display mode.
    3) Press the Up (▲) or Down (▼) button to select input port to get its video information in video information display mode, or flip the page to display the device's information in device's information display mode.
    4) Press "CANCEL" to exit the current mode and return the main page.

RS232 Control

Users can control the matrix through RS232 port by sending API commands. Connect a control PC to the RS-232 port of the device. Before sending API commands to control the device, ensure the serial ports between this device and PC

are configured correctly. A professional RS-232 serial interface software (e.g., Serial Assist) may be needed as well. API commands can be obtained from the separate document "*API Command Set_MX-0812-SCL*".

Baud Rate	9600 bps
Data bits	8 bits
Parity	None
Stop bits	1 bit
Flow control	None

LAN Control

Obtain IP Address

Users can obtain IP address through the following methods:

1. Check LCD window on front panel

   When the matrix is powered on successfully, the LCD window will show the IP address. Or users can press "INFO" button to check information including IP address on LCD window.

2. Sending API Commands

   1) Connect a control PC to the RS-232 port of the device.

   2) Configure RS232 parameters for the PC's serial port correctly through a RS232 serial port tool, such as Serial Assist.

   3) Input the command GET IPADDR<CR><LF> and send. You will get a response with IP address, see following:

      Input:

      GET IPADDR<CR><LF>

      Response:

      IPADDR 192.168.11.243<CR><LF>

Telnet

Connect a control PC to the LAN port of the device. Before you intend to control the device through telnet API, you shall establish connection between this device and your computer.

The form of the command for telnet connection is below:

telnet ip (port)

- *ip*: The device's IP address.
- *port*: The device's port number, this is non-required for some Telnet control tools. Default setting is 23.

For example, if the device's IP address is 192.168.11.143, the command for telnet connection shall be the following:

telnet 192.168.11.143

Web UI Control

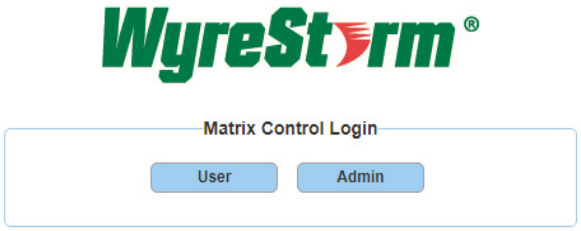
The Web UI designed for the matrix allows basic controls and advanced settings of the matrix and can be accessed

through a browser with latest version, e.g., Chrome, Safari, Firefox, Opera, IE10+, etc.

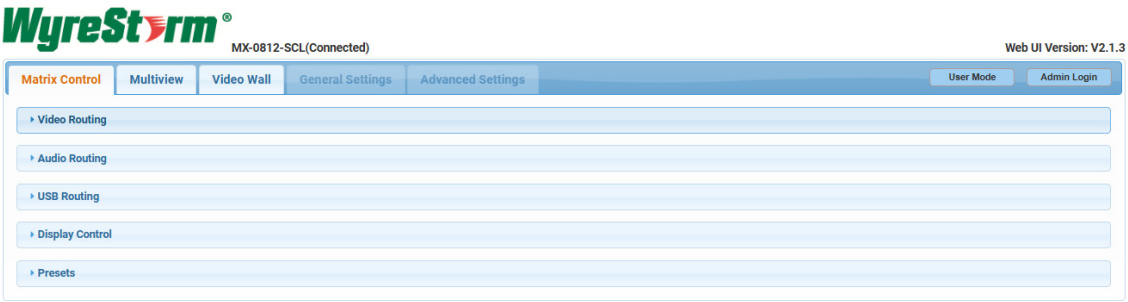
The default IP mode of the matrix is DHCP. If the device is not connected to DHCP server, it will generate a local 169.254.xxx.xxx IP address. Default login password for Web UI is "admin".

To get access to Web UI

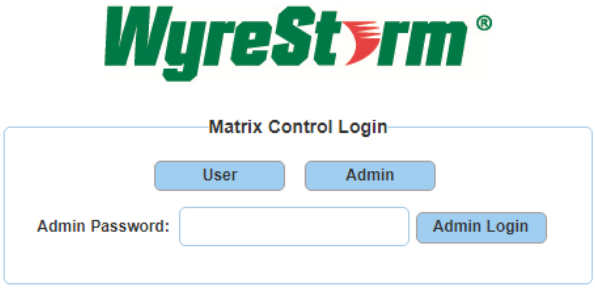
1. Connect the any of the two ETHERNET ports of the matrix to the ethernet switch with DHCP server, and connect the PC to the same ethernet switch. If connect one ETHERNET port to the PC directly, please set the PC to the same segment with the device.
2. Get the IP address through LCD window or sending API commands (see "Obtain IP Address" section to get detail information).
3. Input the IP address obtained in the last step in your browser and press "Enter" key on keyboard. The following page can be access in:



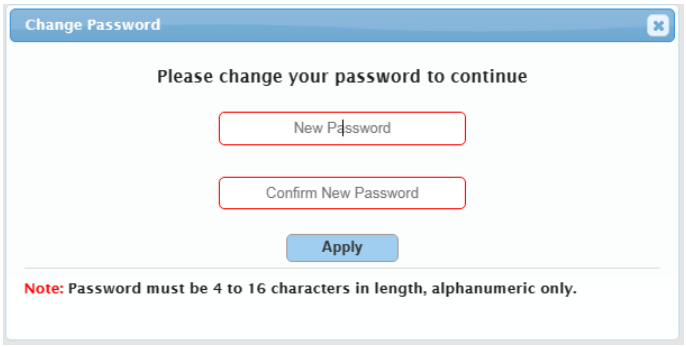
- To implement basic video and audio control of the matrix, click "User" to login as User. When login as User, no password is required. In this mode, only the submenus in Matrix Control tab can be set.



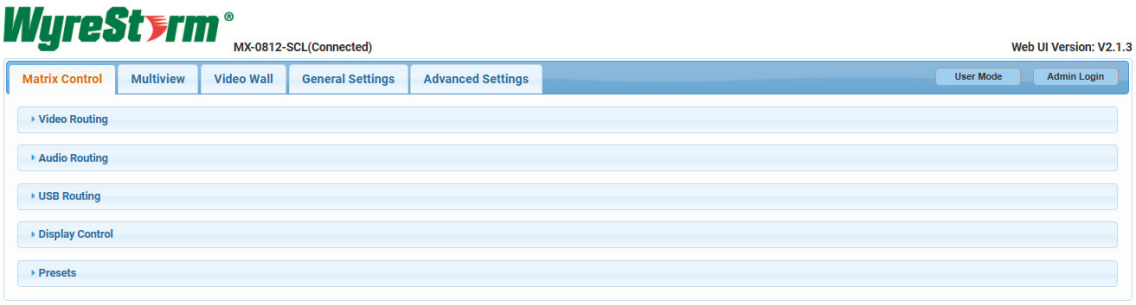
- If advanced setting is required, click "Admin", and enter the password to login as Admin.



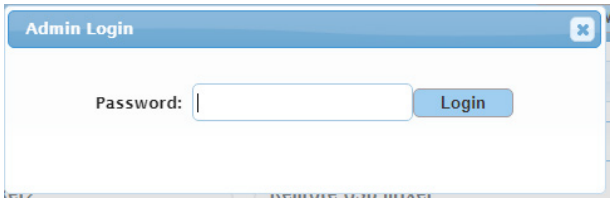
The default password is "admin". When login web UI first time, after clicking "Admin Login", users will enter the following window to change login password. Input new password and click "Apply" to enter the main page.



Note: The new password must be 4 to 16 characters in length, alphanumeric only.



- In User mode, users can also click "Admin Login" on the upper right corner, then input the password enter Matrix Control, General Setting and Advanced Setting pages. The default password is "admin". When login the admin mode first time, users also need to change login password firstly. The operations are same with logging through the home page.



The main page includes three tabs: Matrix Control, General Setting and Advanced Setting.

Reset password and IP mode

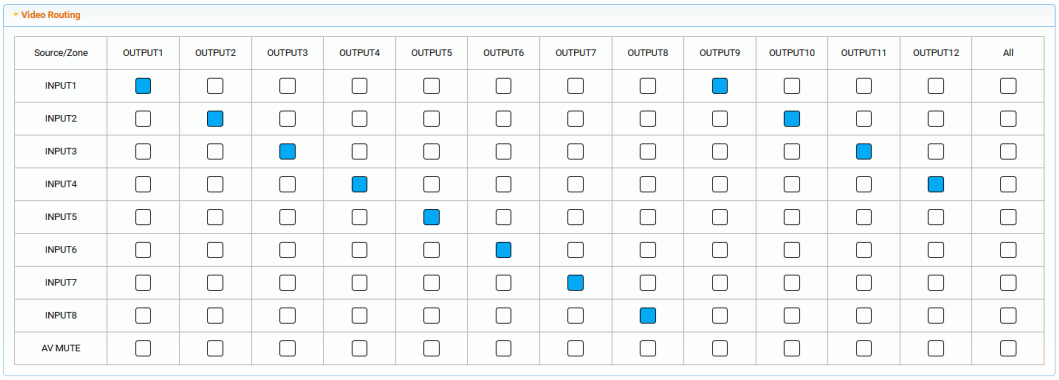
If users forget the login password, the following ways can be used to restore the default password:

- Hold the "RESET" hole on the front panel for more than 5s but less than 15s to reset the IP mode to DHCP and login password to "admin".
- Hold the "RESET" hole on the front panel for about 15s to reset the device to factory defaults, which includes resetting the password.
- Send the API command "RESET<CR><LF>" to reset the device to factory defaults, which includes resetting the password.

Web UI Introduction

Matrix Control

1. Video Routing



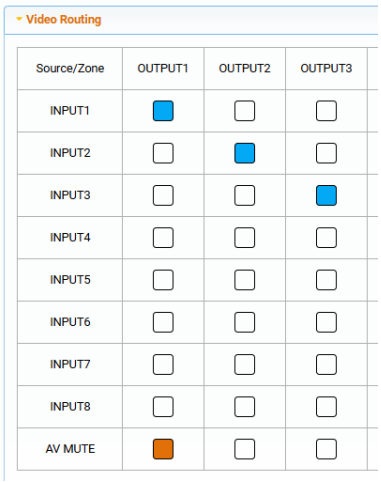
This section manages distribution of input video sources to output displays and shows the connection status of the inputs and outputs.

The green names of inputs and outputs indicate that the corresponding input and output ports are connected to active sources and active displays. The black names of inputs and outputs indicate that the corresponding input and output ports aren't connected with active sources and active displays.

Click the button in the table to select the input for the output display (button turns from white to blue once selection is done).

- AV MUTE: Click to mute the corresponding video output (button turns from white to orange once selection is done). By default, all outputs are unmuted. When one output is set to mute (orange button), click the button to unmute this output (button turns from orange to white when the operation is done).

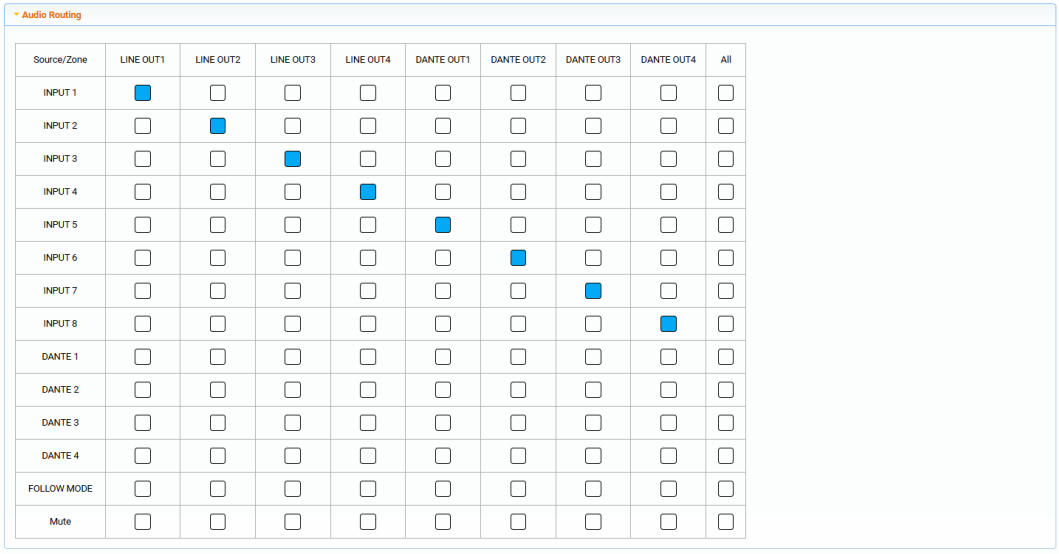
  In the example below, AV Mute is enabled for Output 1, as indicated by the orange square. Outputs 2 and 3 are not muted. Clicking the orange square will turn it white, which means AV Mute has been turned off for that output.



- All: Click to route one input to all outputs or mute all outputs.

By default, Video Input 1 routes to Output 1…Video Input 8 routes to Output 8, Video Input 1 routes to Output 9… Video Input 4 routes to Output 12.

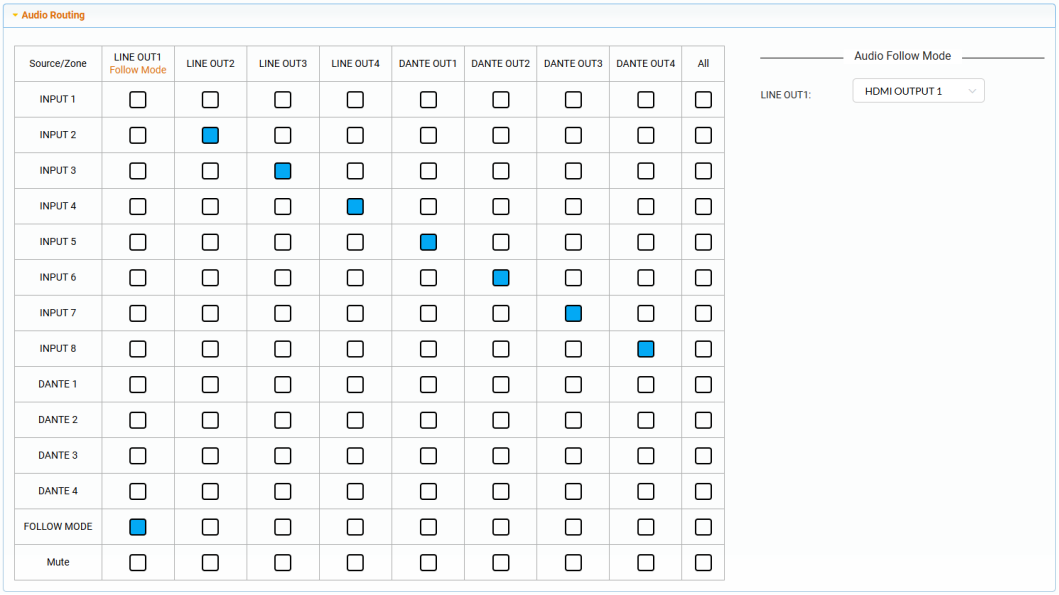
2. Audio Routing



This section allows users to set audio routing, audio mute and audio follow mode.

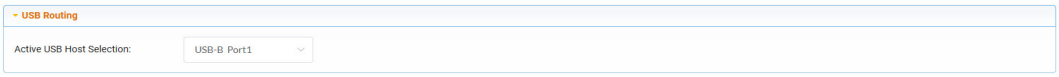
Click the button in the table to select the audio input for the audio output (button turns from white to blue once selection is done). Default setting: De-embedded audio from HDMI IN 1 routes to LINE OUT 1… De-embedded audio from HDMI IN 4 routes LINE OUT 4, De-embedded audio from HDMI IN 5 routes to DANTE 1… De-embedded audio from HDMI IN 8 routes DANTE 4.

- All: Click to route one audio input to all audio outputs.
- Mute: Click to mute the corresponding audio output. Default: Unmute (white). Button turns from white to orange once the corresponding output is set to mute.
- FOLLOW MODE: Click the button to set the corresponding audio outputs to follow mode (the button turns from white to blue when the operation is done). When an audio output is set to Follow Mode, the label "Follow Mode" will appear below the corresponding audio output name. On the right side, the followed output setting will be displayed, as shown in the example below:



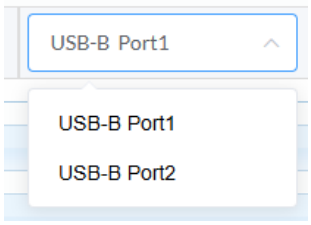
Audio Follow Mode: Click to select an HDMI output from the drop-down menu to follow. For example, if LINE OUT 1 select HDMI OUTPUT 1 to follow, LINE OUT 1 will output the de-embedded audio from HDMI OUTPUT1.

3. USB Routing



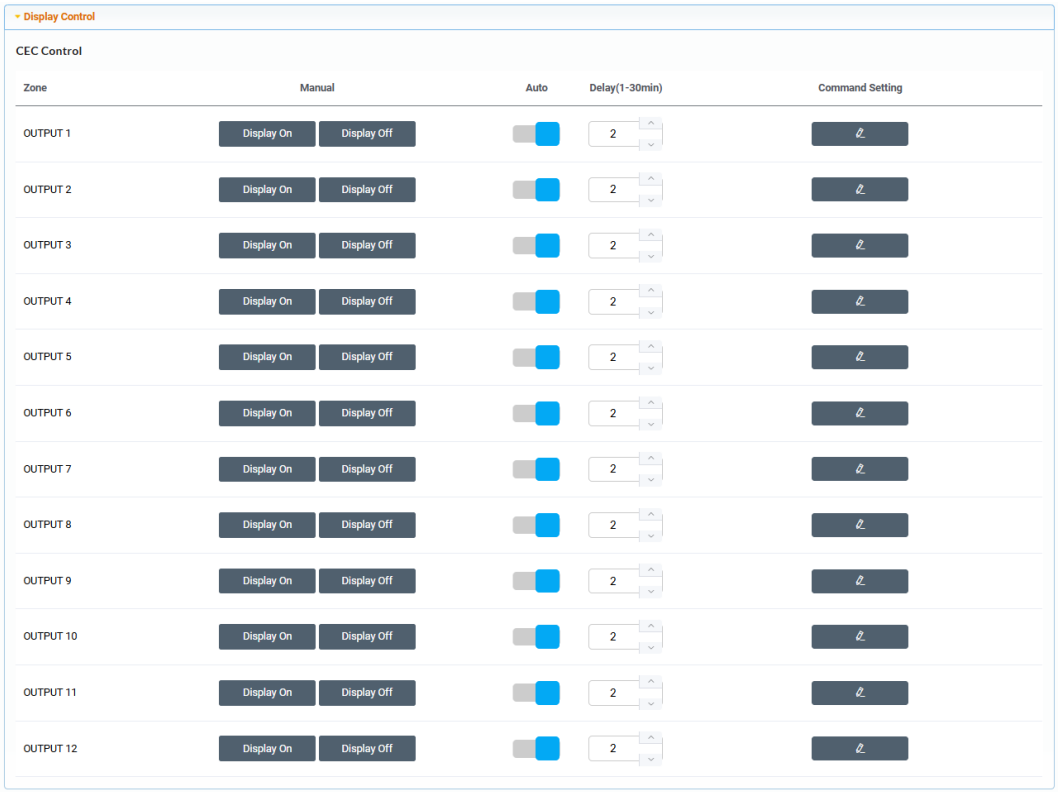
This section allows users to select USB host all the USB devices connected.

Active USB Host Selection: Select the USB Host from the drop-menu. The default setting is USB-B Port1.



For example, when select USB-B Port1, all USB devices the matrix connected are connected to USB-B Port 1.

4. Display Control



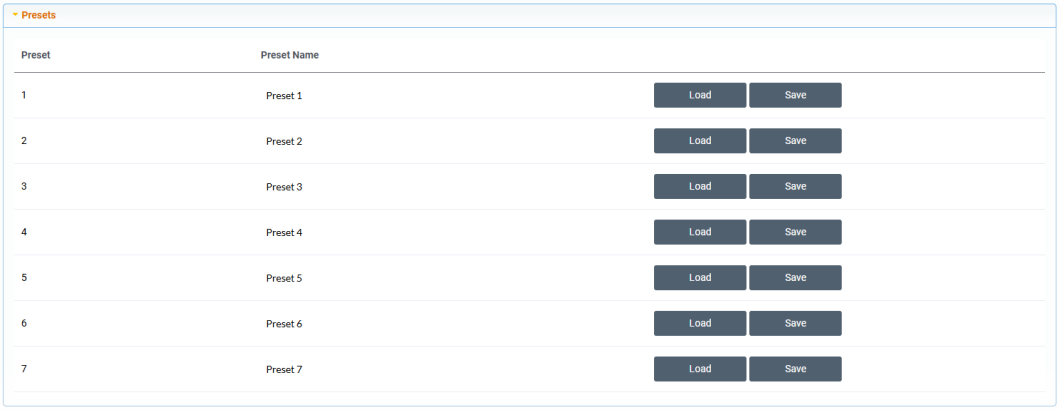
- Display On: Click to send the saved Display On command to the connected CEC-enabled display to power on it immediately.
- Display Off: Click to send the saved Display Off command to the connected CEC-enabled display to power off it immediately.
- Auto On/Off: Click to enable or disable the CEC Auto Control. By default, the auto CEC control is On.
- Delay Time (1~30min): click the up/down arrow to set the time for the display to power off automatically when no signal is present. For example, if Auto control is set as on and the time is set to 2 minutes, the output display will power off automatically when there's no signal at the display for 2 minutes.

- Command Setting: Click "  " to enter the following window to do command testing, set and save commands of Display On/Off.

  - ➢ Command Testing: Input a Display on/off command, and then click "Send" to send it to the selected output to test if it takes effects.
  - ➢ Display On/Off: Input the corresponding CEC command, then click "Save" to save it.

    Note: If users want to change CEC commands, please refer to the CEC specification document.

5. Preset

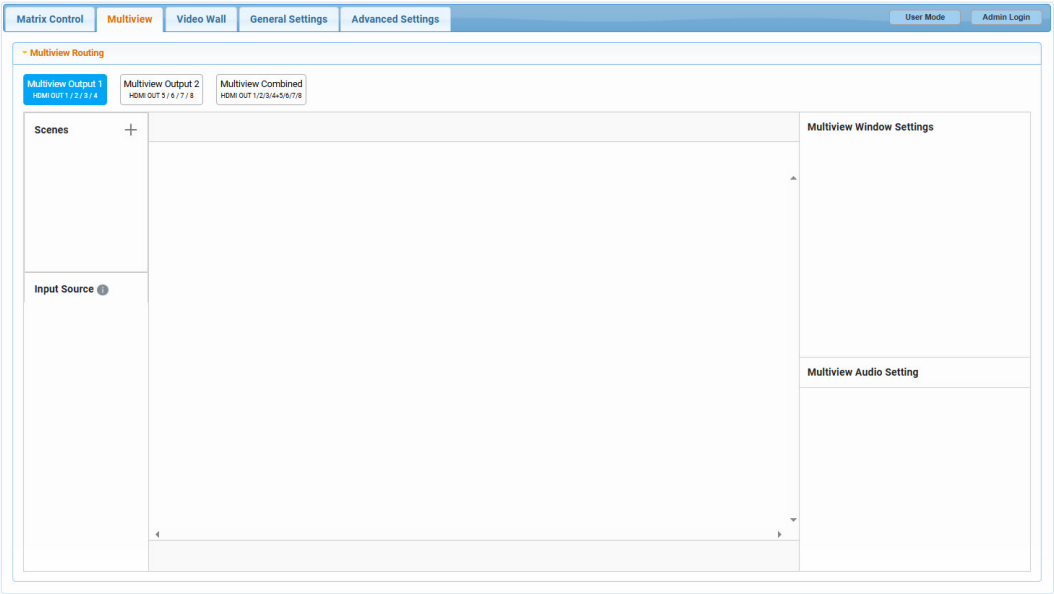


This section saves/loads the matrix control settings to or from the Matrix. It supports up to 24 presets to operate.

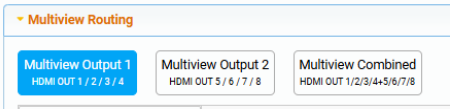
Move the mouse to the current preset name and click it to enter name edit mode, users can input a new preset name for the corresponding preset, and click other blank area to take effect. The input name must include letters, and not exceed 31 characters.

- Save: Save the current settings on the web UI to the matrix.
- Load: Load the saved preset file from the matrix.

Multiview
Multiview Routing



This section allows you to configure mirrored multi-view layouts for outputs 1–4 and 5–8, as well as multi-view layouts formed by combining any one output from 1–4 with any one output from 5–8. Click the button at the top of the interface to create a multiview for the corresponding output group and configure the created multiview.

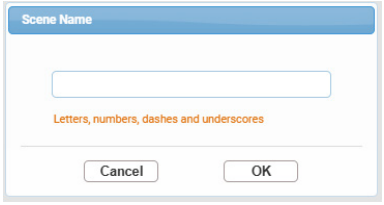


1. Introduction to the settings area of each part of the interface

Scenes Zone	Create multiview layout and display created multiview layout name.
Input Source Zone	Shows input name button to use for dragging to the screen diagram to create multiview window or change input.
Multiview Window Settings Zone	Configure multiview window settings.
Multiview Audio Settings Zone	Configure multiview audio settings.

2. Steps to create a multiview layout (take Multiview Output 1 (HDMI OUT 1 / 2 / 3 / 4) as an example):

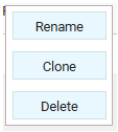
1) Click "+" button in "Scenes" zone to enter the Scene Name dialog box.



2) Input a scene name in this window, and click "OK". Created multiview name will display in "Scenes" zone.

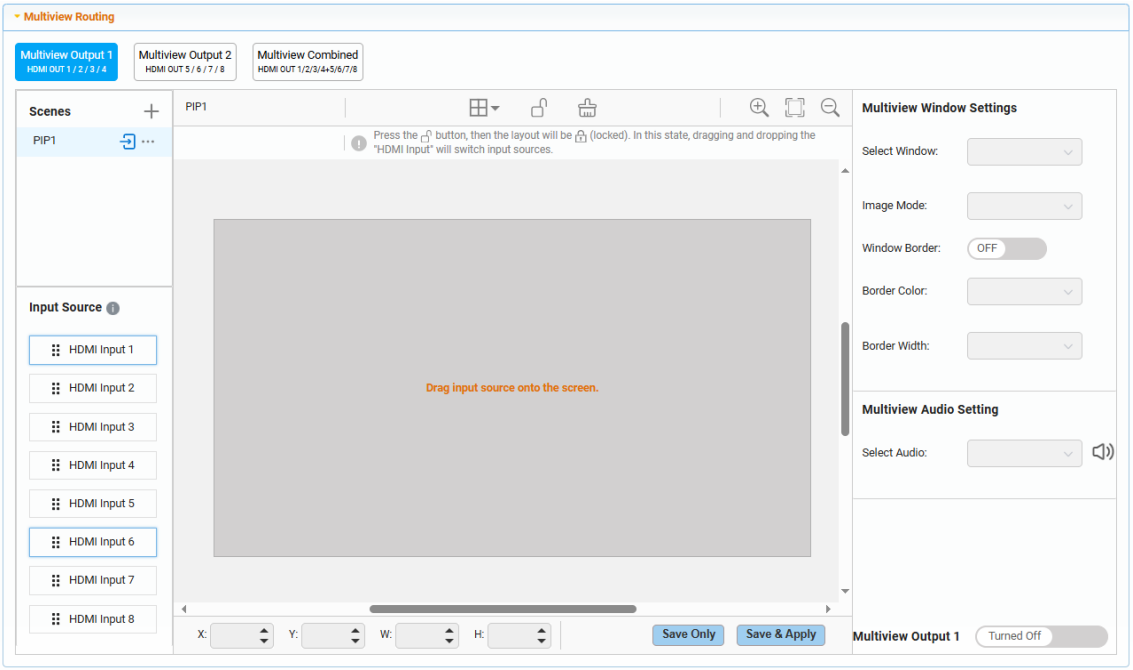
: Click to apply the current multiview layout, the name will disaplay orange if this multiview layout is applied. As the following figure shows:

: Click the button to open the following window:



- Rename: Click to enter "Scene Name" dialog box to change the multiview layout name.
- Clone: Click to clone the current multiview layout.
- Delete: Click to delete the current multiview layout.

Note: The input name supports letters, numbers, dashes and underscores.



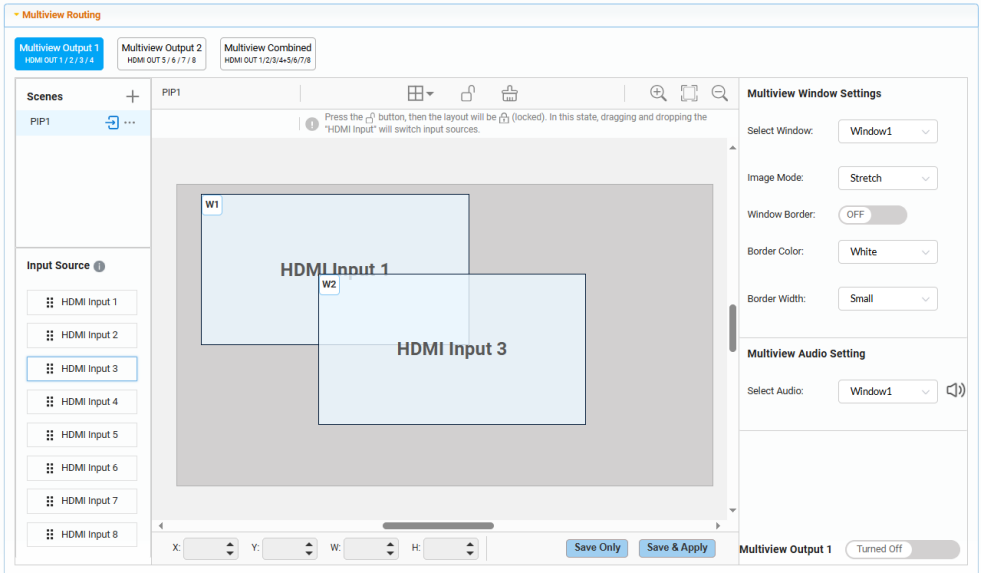
The dark gray area in the center represents a display screen. Settings for the window's size and layout are configured here.

3) There two methods to create windows in the screen.

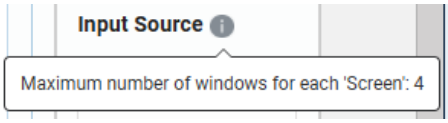
a) Drag input source button from "Input Source" zone to the center screen zone.

Note: Each scene supports up to 4 input window simultaneously.

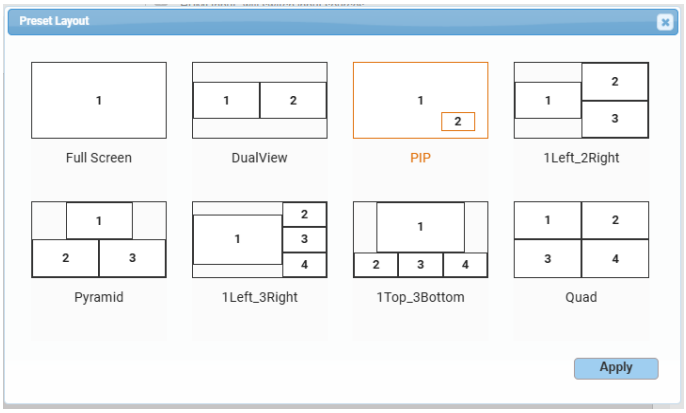
Tips: The input button in "Input Source" Zone has blue frame indicates this input port is connected to active source.

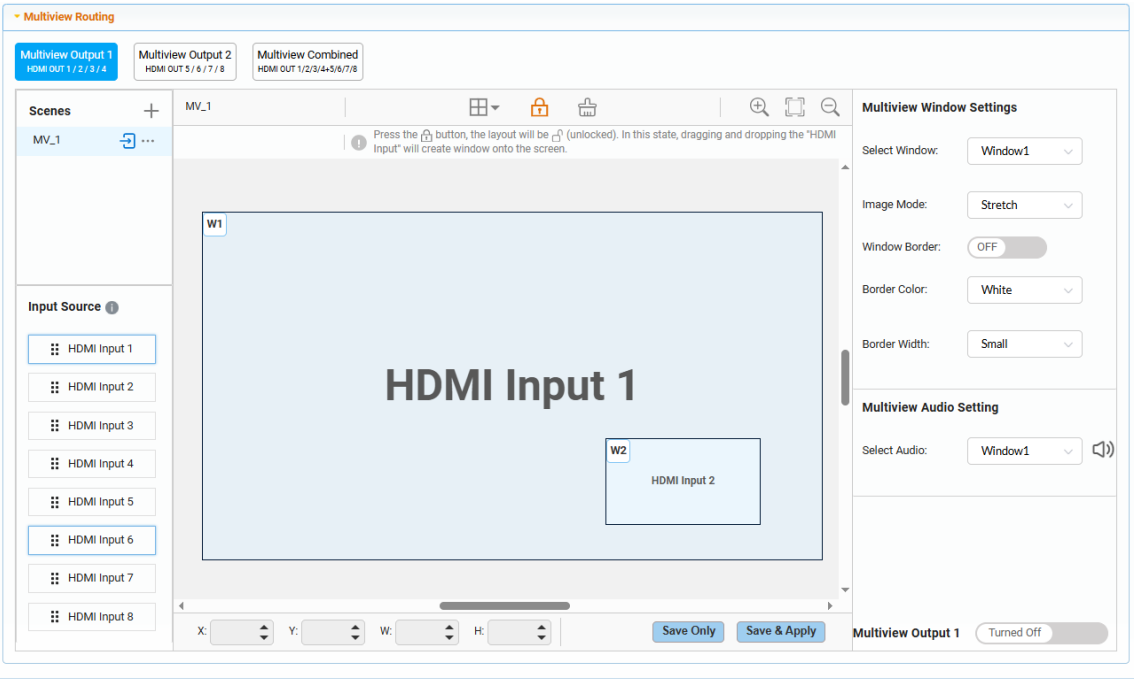


Move the mouse to the icon "ⓘ" after "Input Source" shows the limitation of selected window number.



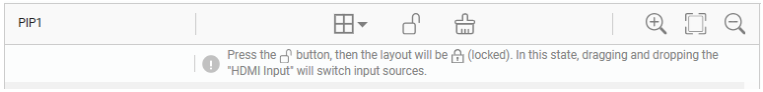
b) Click "⊞" button on the upper tab to select one preset layout, and click "Apply".





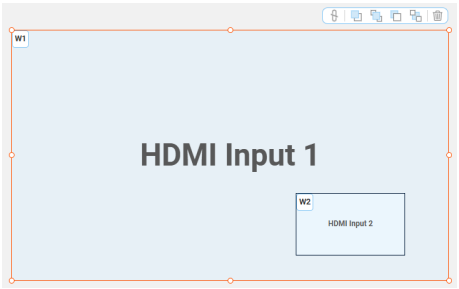
4) Change Layout, Lock or Delete the windows / Zoom in, reset to default view or Zoom out.

The top settings bar provides options for selecting preset layouts, locking windows, clearing all windows, and adjusting the central display view with zoom in, zoom out, and reset functions.

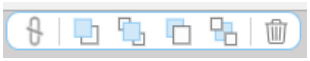


	Click to enter preset layout selection dialog box to select a preset layout for current multiview. See method b) in step 3.
/	: Lock button. The windows in the scene are locked and its position, size and layer arrangement can't be adjusted. Click the button to unlock the windows. In lock mode, dragging and dropping the "HDMI Input" button will switch input source of this window. : Unlock button. The windows in the scene are unlocked. Click the button to lock the windows. In unlock status, users can configure window's position, size, and layer arrangement, while dragging and dropping the "HDMI Input" button can't change the input source of the window.
	Delete All button. Click to delete all windows on the scene.
/ /	: Zoom In button. Click to enlarge the central screen diagram in the web UI. : Zoom to fit selected button. Click to reset the central screen diagram to default size. : Zoom Out button. Click to shrink the central screen diagram in the web UI.

5) Configure the windows on the created multiview scene. In unlock status, click the window in the scene zone, such as W1. If the window has a red frame, it indicates the window can be configure.



A configuration bar appears on the up right corner above the selected window.



/	: The window size can be adjusted freely. Click the button to switch to proportional scaling adjust mode. : The window size can be adjusted proportionally. Click the button to switch to free pull adjust mode.
	Bring forward button. Click this button to bring the window one window forward.
	Bring to front button. Click this button to bring the window to the front of all other windows.
	Bring back button. Click this button to bring the window one layer backward.
	Send to back button. Click this button to send the window to the back of all other windows.
	Window delete button. Click this button to delete the window.

a) Adjust the position and size of the window:

- Adjust the window's position in the screen, you can move the mouse cursor to any position inside the selected window's preview area, press and hold the left mouse button, drag the window to any position on the screen, and then release the mouse button.
- You can click and drag the corner of the red window frame to resize it. When set to proportional scaling, drag the circles at the window corners (the mouse cursor changes to a diagonal arrow) to resize the window proportionally. When set to free scaling, drag the circles at the corners or the middle of the edges (the mouse cursor changes to a diagonal arrow) to freely adjust the window size
- Enter coordinates and size in the menu bar below to adjust the window's position and dimensions.

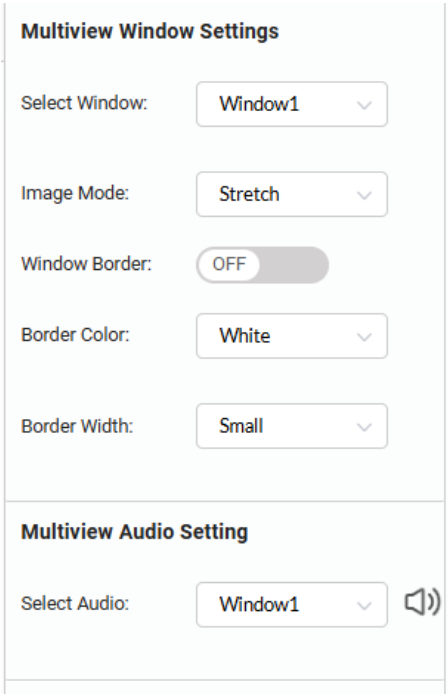
  - X, Y: The window's top-left corner coordinates. The coordinates of the scene is "0, 0".
  - W: The width of the window.

- H: The height of the window.

b) Adjust the layer arrangement of the window or delete the window:

Click the Bring forward/back button/ Send to front/back button on configuration bar to adjust the window's layer arrangement.

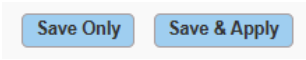
c) Configure window frame and image on "Multiview Window Settings" zone, and set audio on "Multiview Audio Setting" zone.



Select window	Select a window from the drop-down menu to configure.
Image Mode	Select image display mode from the drop-down menu. • Stretch (default): The image is displayed in full screen and will be stretched to fill the entire display area. • Fit: The image maintains its original aspect ratio without stretching. Black borders may appear to fill any unused screen space.
Window Border	Enable or disable window border. Default setting: OFF (no border).
Border Color	When set "Window Border to "ON", select border color from the drop-down menu. Default: White. Supported color: White, Green, Purple, Blue and Red.
Border Width	When set "Window Border to "ON", set border width from the drop-down menu. Default setting: Small. Supported width: Small, Medium and Large.

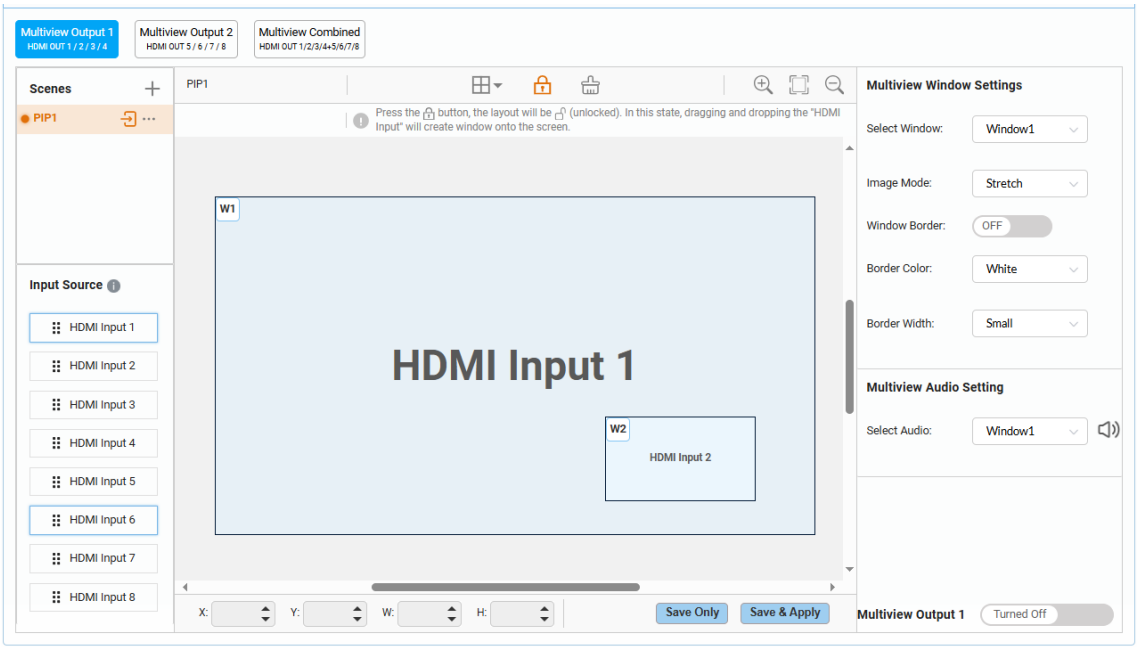
Multiview Audio Setting	• Select Audio: Select audio source from the drop-down menu. Default Setting: window A, the audio is from the source window A selected. • / : Click the button to mute/unmute the selected audio. Default setting: unmute.

6) Click "Save Only" or "Save & Apply" to save the current multiview layout mode in the menu bar below.



The window are locked after the operation. Users can drag input source button from "Input Source" zone to windows zone to change input source for corresponding window in lock mode.

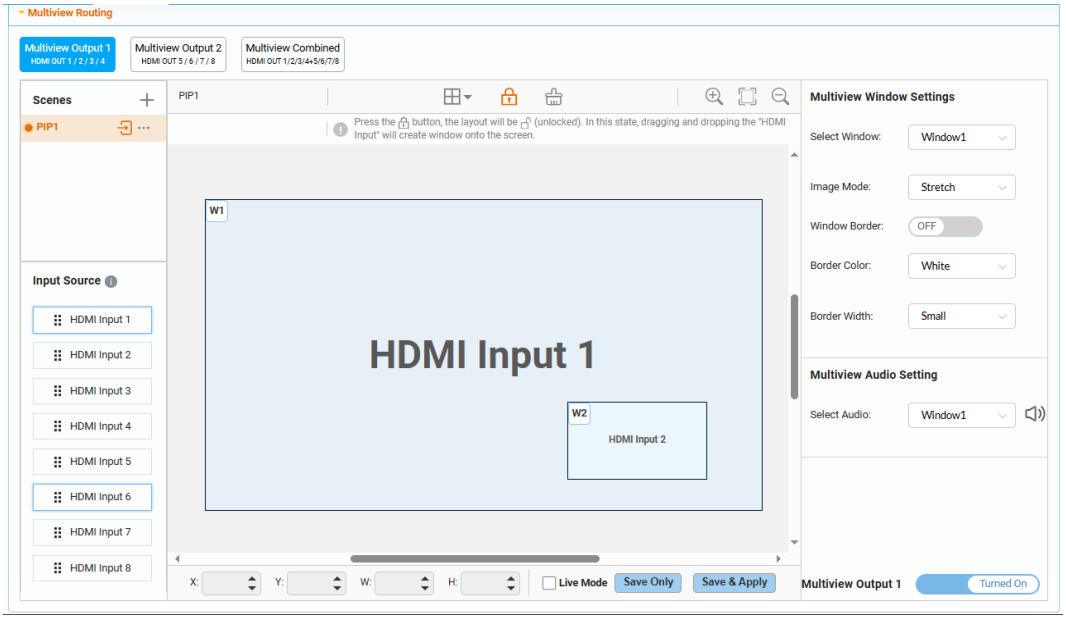
You can still click " " button to unlock the windows and to configure it.



Tips:

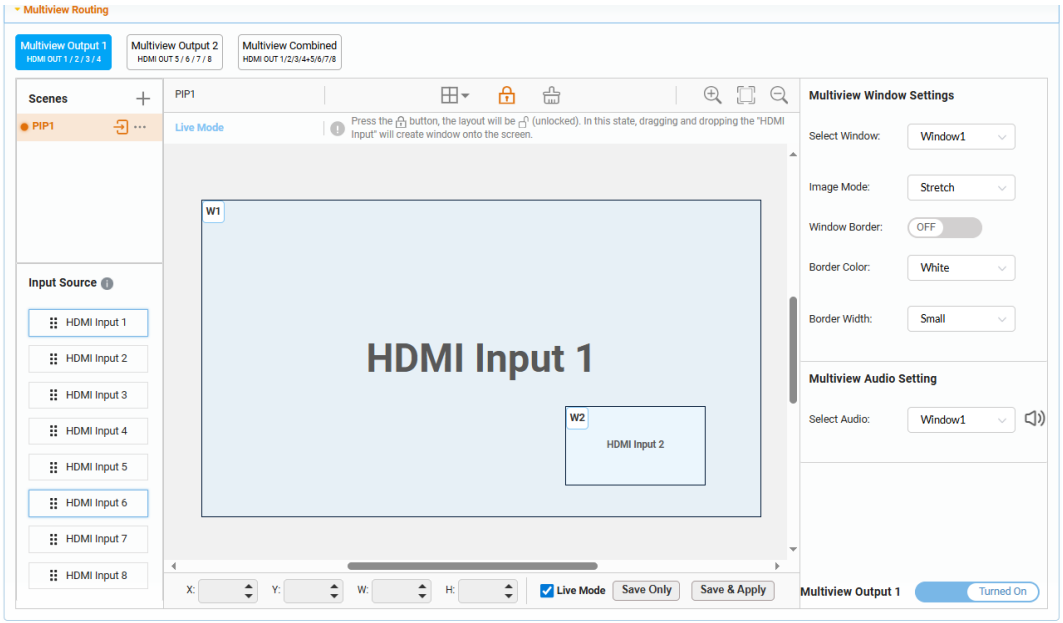
- When only one multiview layout is configured, both "Save" and "Save & Apply" will save all existing settings. However, selecting "Save" will store the settings without applying them immediately, so changes made on the "Multiview Window Settings" and "Select Audio" won't be reflected in real time. Selecting "Save & Apply" saves the settings and immediately applies any changes from the right panel.
- If multiple layout modes are configured, "Save only" saves the current settings. When you turn on the Multiview Output, the layout that was last applied by clicking "Save & Apply" will be used directly.
- The actions of clicking "Save & Apply" and clicking the " " button on "Scenes" Zone button produce the same result.

7) Click to "Turn On" button on the Bottom-right corner to activate the applied multiview mode for output 1~4.

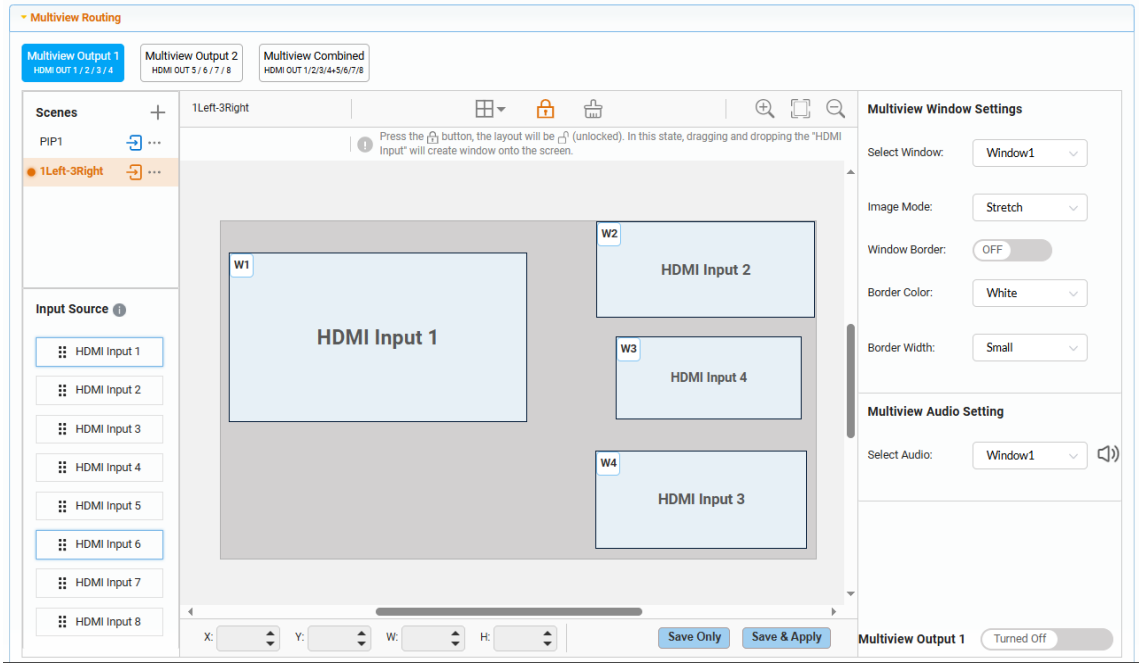


When turn on multiview Output, a "Live Mode" selection will appear on the bottom bar.

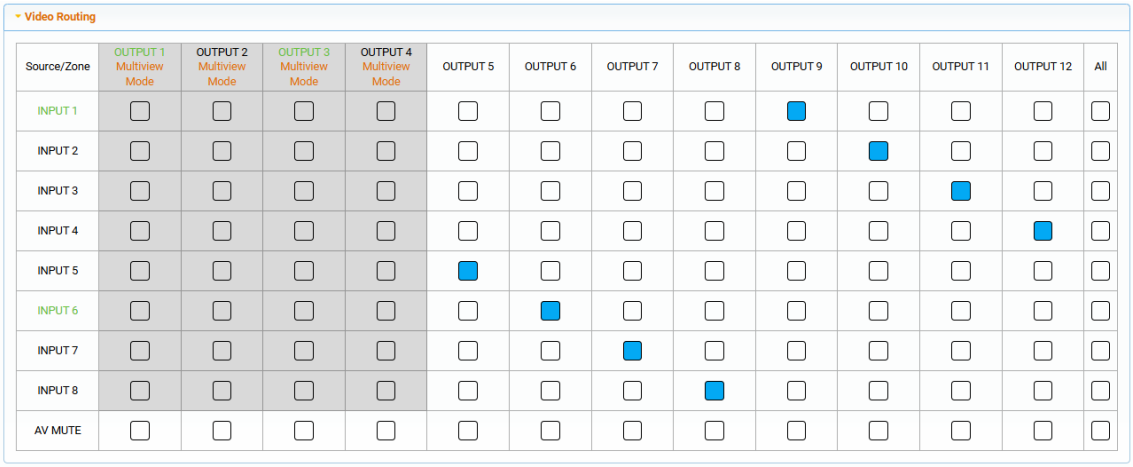
Live Mode: Click the checkbox in front of "Live Mode", the changes will display in real-time on the output screen.



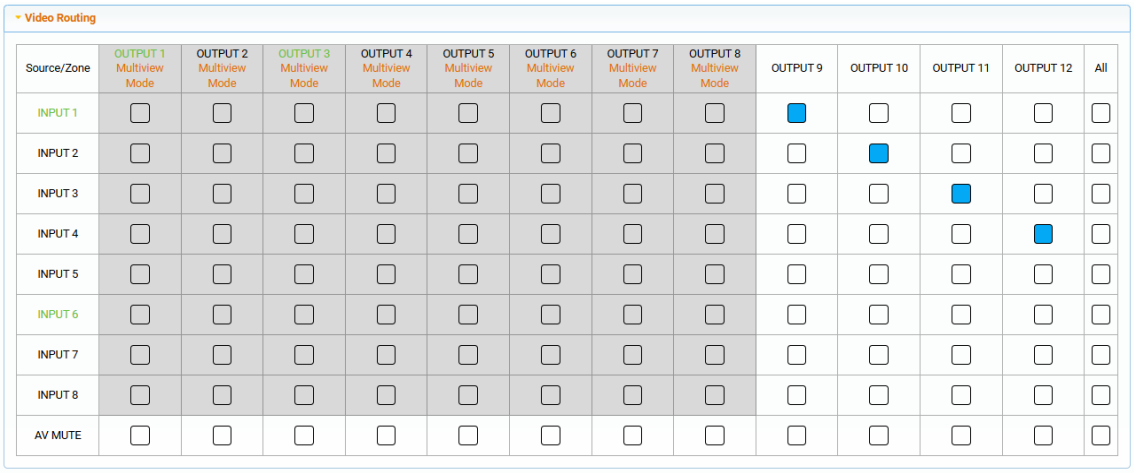
8) Create multiple multiview layouts. When you click 'Save Only' in a specific layout setting interface, the layout will be saved but not applied. To apply the layout, click 'Save & Apply' or the icon "" next to the layout name.



9) The "Video Routing" section in "Matrix Control" page shows as following figure. OUTPUT 1–4 are displayed in multiview mode and cannot be configured in this section. The remaining outputs can be selected and switched as usual.



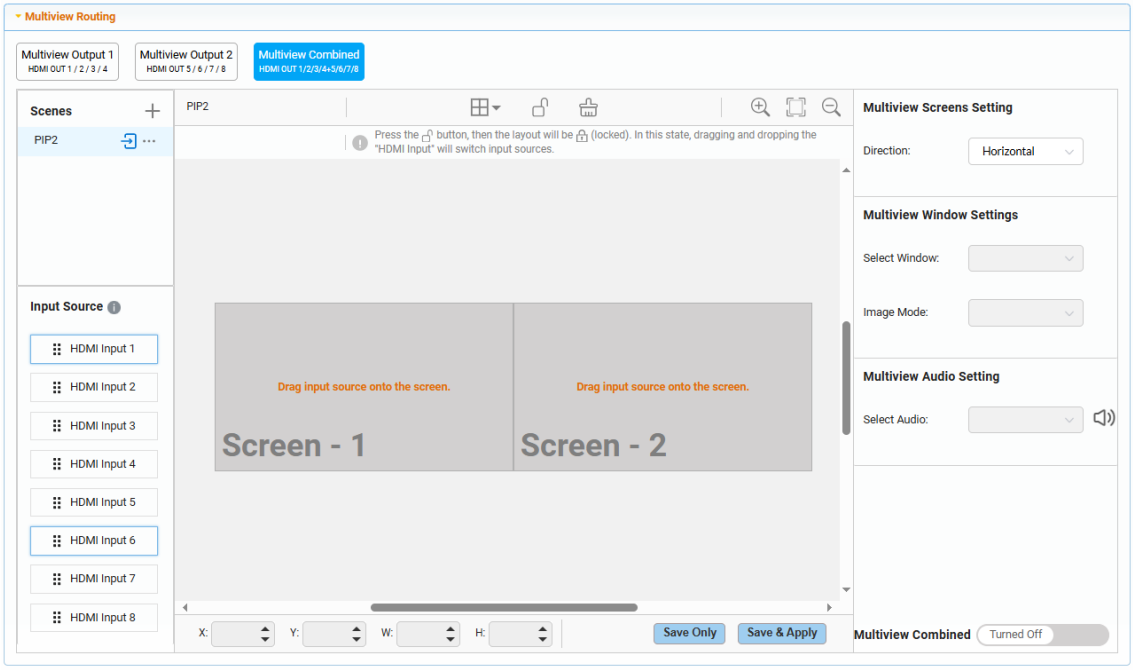
The configurations of Multiview Output 2 (Output 5-8) are same with Multiview Output 1 (Output 1-4).



3. Steps to create a multiview combined layout:

To create a large combined multiview display, select one output connection from Output 1–4 and another from Output 5–8.

1) Create steps are same with Multiview output 1 / 2 (from step 1 to step 2).

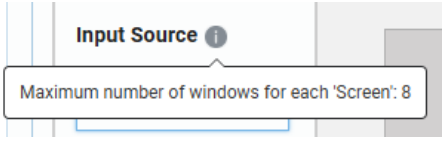


2) Create screen methods are same with Multiview Output 1/2.

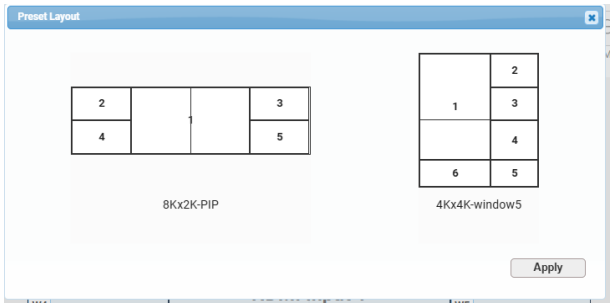
a) Drag input source button from "Input Source" zone to the center screen zone.

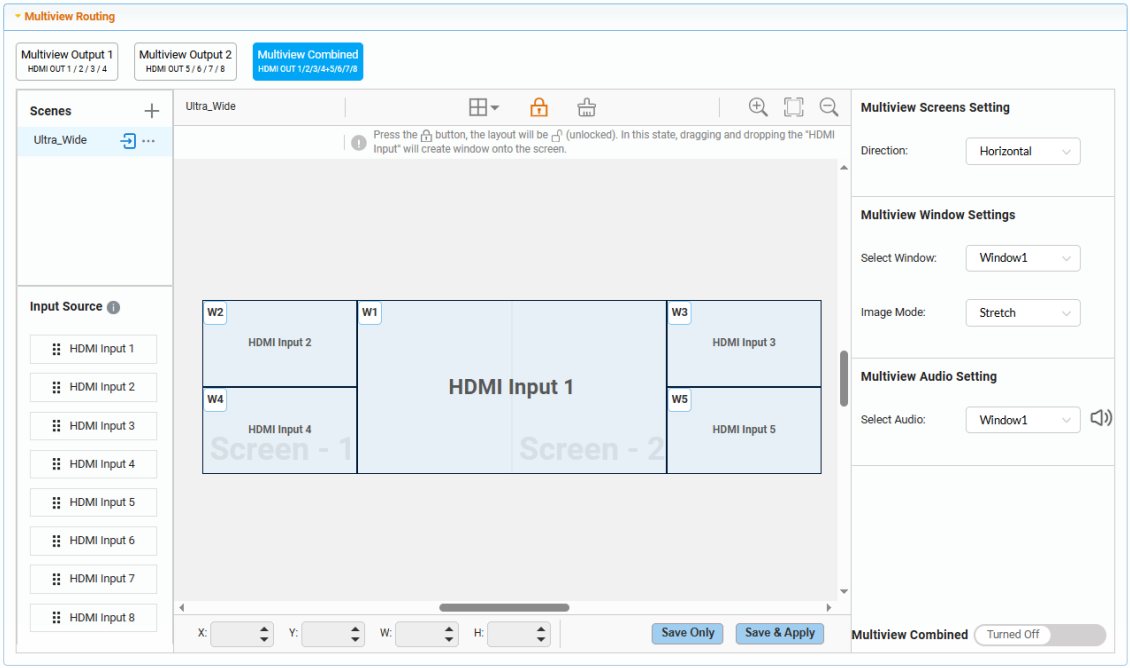
Note: Each scene supports up to 8 input window simultaneously.

Move the mouse to the icon "ⓘ" after "Input Source" shows the limitation of selected window number.

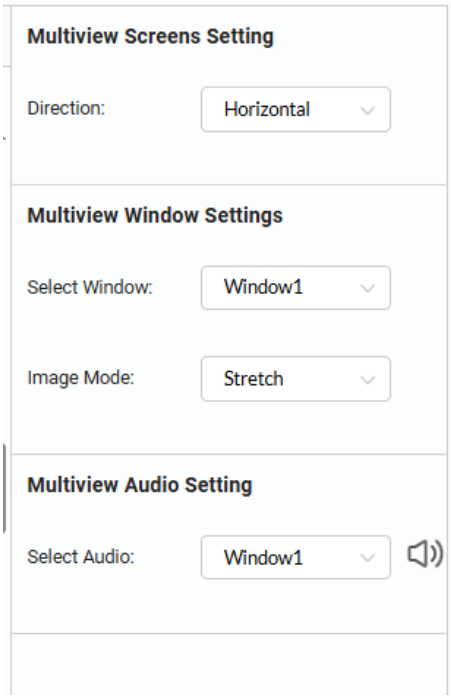


b) Click "⊞▾" button on the upper tab to select one preset layout, and click "Apply". Other settings such as adjust window size, arrangement, Save only and Save & Apply are same with the operation of Multiview Output 1 / 2.



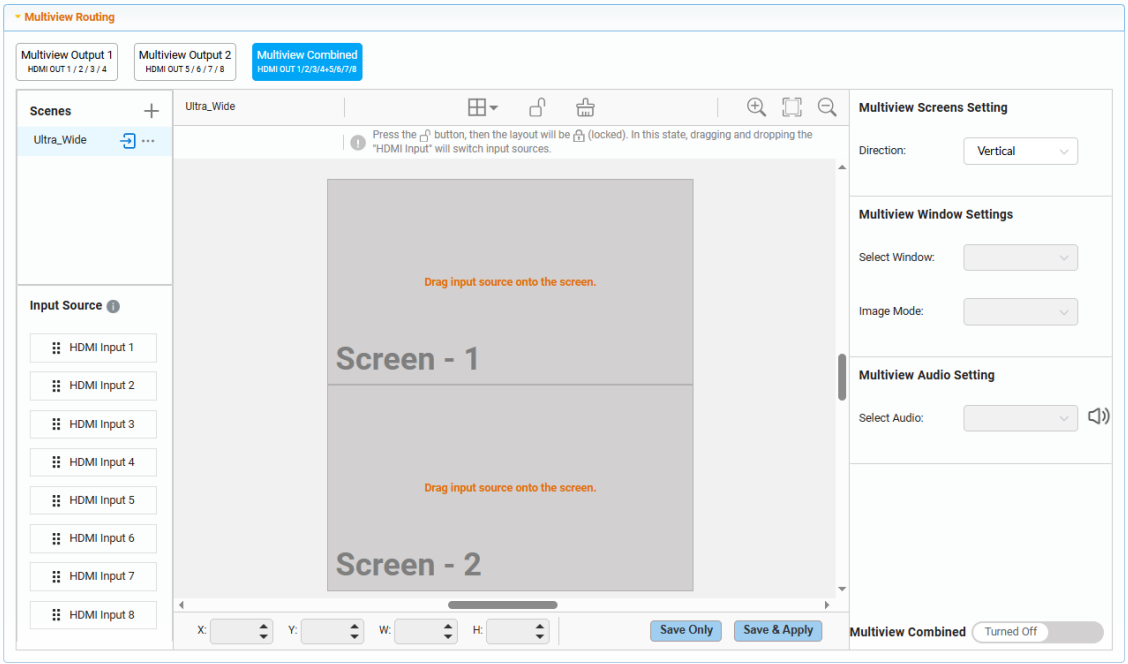


3) Configure window frame and image on "Multiview Window Settings" zone, and set audio on "Multiview Audio Setting" zone.



- Mutiview Screen Settings: Select direction of multiview sceen from the drop-down, horizontal or vertical. Default setting "Horizontal", two screens are arranged side by side horizontally.

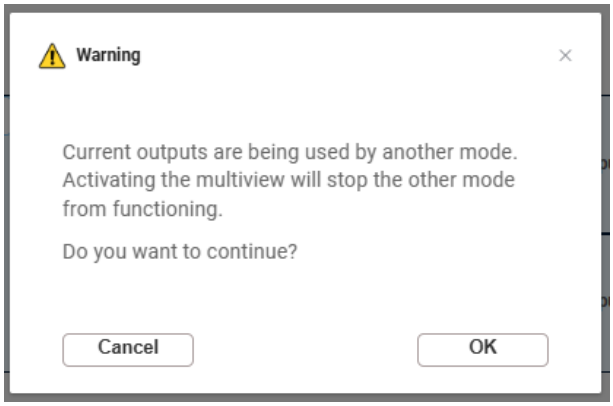
  Vertical: Two screens are stacked vertically.



- Select Window, Image mode and multiview Audio Setting are same with Multiview output 1/2.

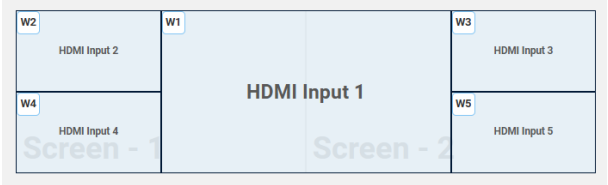
Note:

- If the selected outputs for creating a combined multiview display are already in use, the following prompt will appear. Click 'OK' to proceed with the application.



- When the selected is from the window in one display, only this display has audio output, and another display has no audio output.

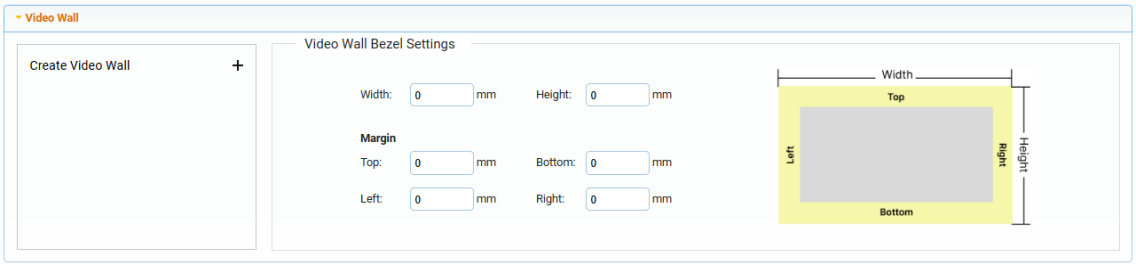
  For example: in the following combined multiview layout, if the audio from Window 2 is selected, only the Screen-1 side will output sound, while Screen-2 will remain silent. Only when Window 1 is selected will both sides output audio simultaneously.



Except for the two outputs selected for the combined multiview, the other outputs in Output 1/2 will still display the same content as the selected outputs.

The "Video Routing" section continues to show "Multiview Mode", consistent with the previously mentioned "Multiview Output 1 / 2"

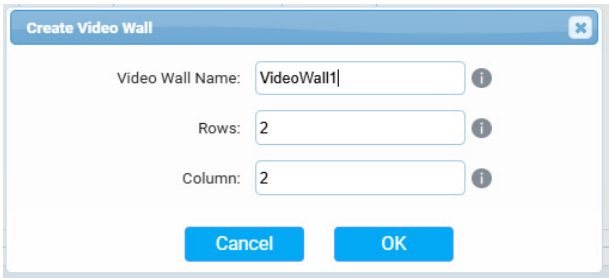
Video Wall
Video Wall



This section allows users to create video wall and configure the created video wall(s).

Steps to create a video wall:

1. Click "Create a new Video Wall" button, enter the following window:

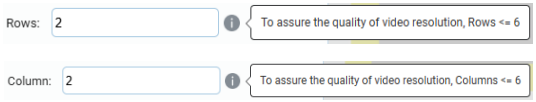


- Video Wall Name: Input a name for the created video wall. For example VideoWall1.

  Note: The video wall name supports special characters expect spaces. Move the mouse to the "ⓘ" icon displays the warning information.

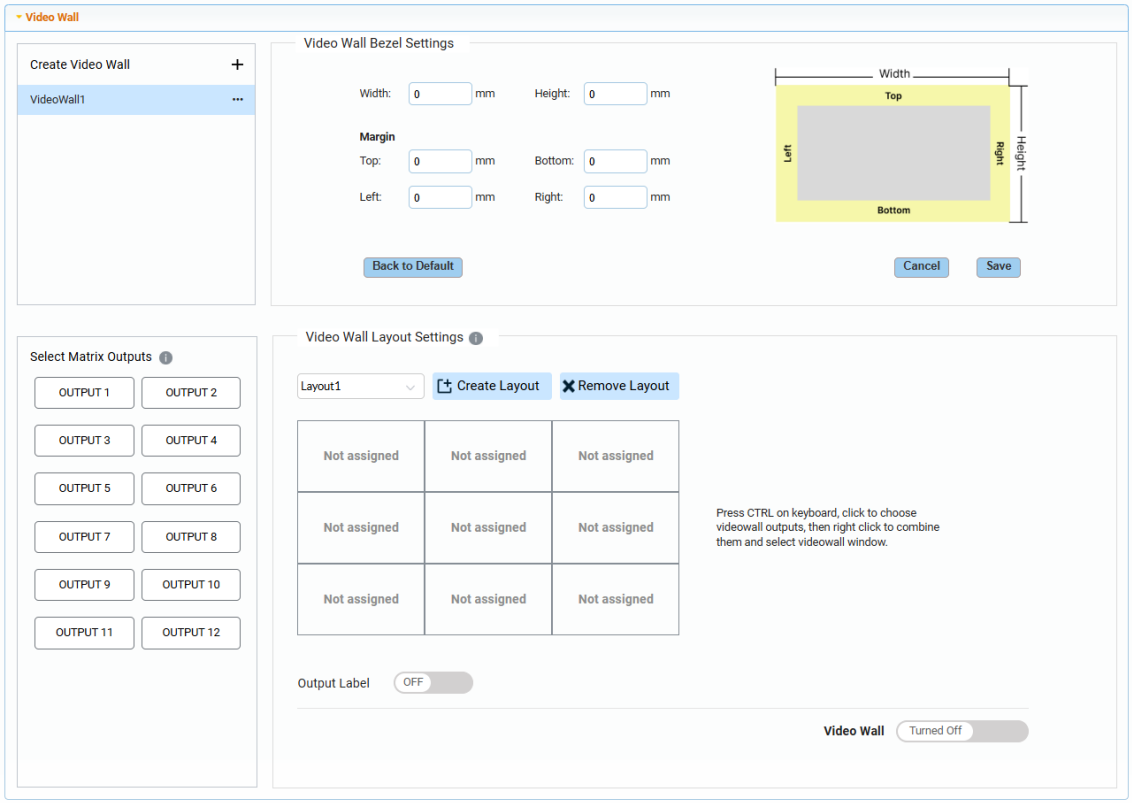
- Rows / Column: Input video wall row and column numbers, such as row 2, and column 2.

  Note: The number of Rows/column must be in the range of 1~6, and row x column should not exceed 12. Move the mouse to the "ⓘ" icon displays the warning information.



- OK / Cancel: Click "OK" to save the configuration or click "Cancel" to cancel the operation.

2. Input 3 in "Rows" box and "Column" box, and click "OK" to create a 3x3 video wall.



- Video Wall Bezel Settings:

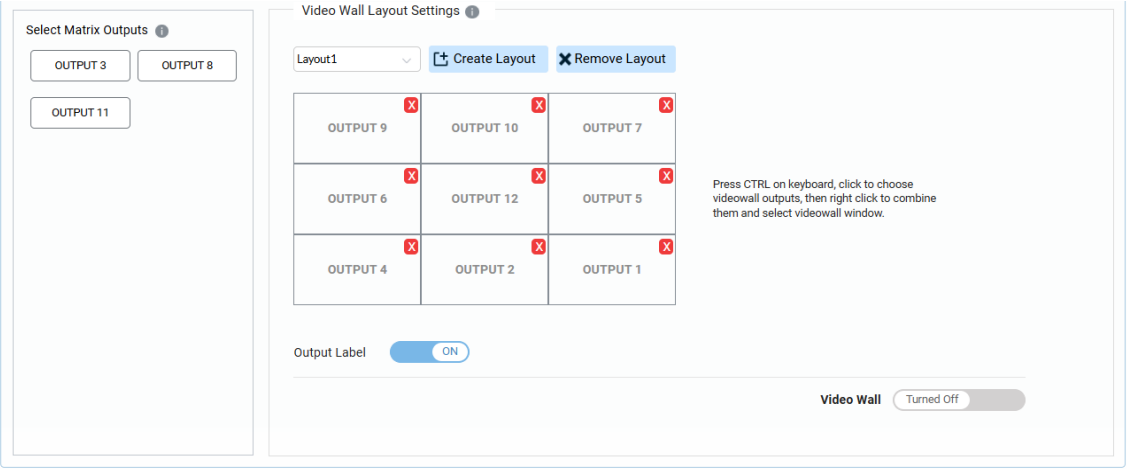
  Default settings: 0; Range: 0-10000

  - Width (mm): This is the outside horizontal length (width) of each video wall display.
  - Height (mm): This is the outside vertical length (height) of each video wall display.

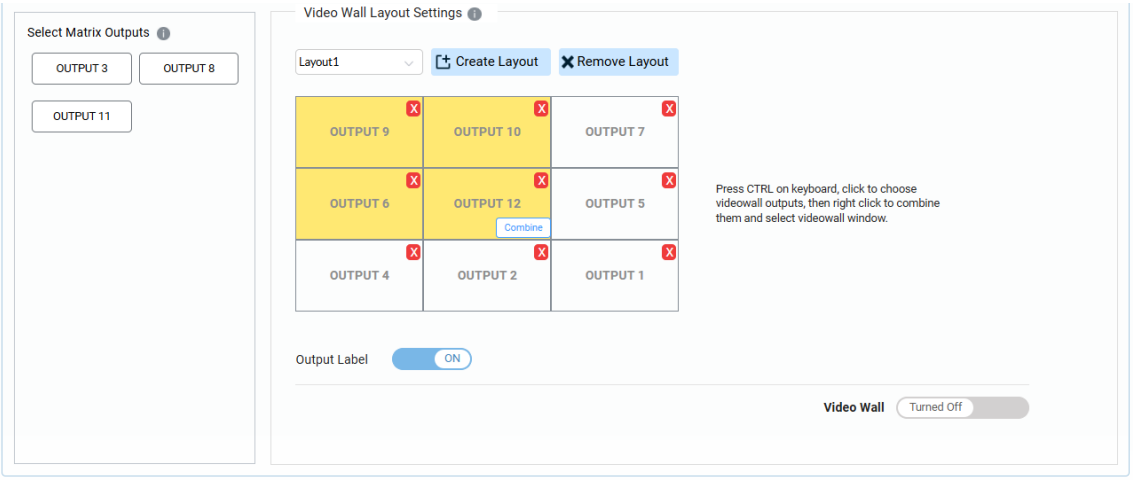
  Margin:

  - Top: This is the top border width of each video wall display.
  - Left: This is the left border width of each video wall display.
  - Bottom: This is the bottom border width of each video wall display.
  - Right: This is the right border width of each video wall display.
  - Save / Cancel: Click to perform / cancel the settings.
  - Back to Default: Click to set the values in Video Bezel Settings to defaults.

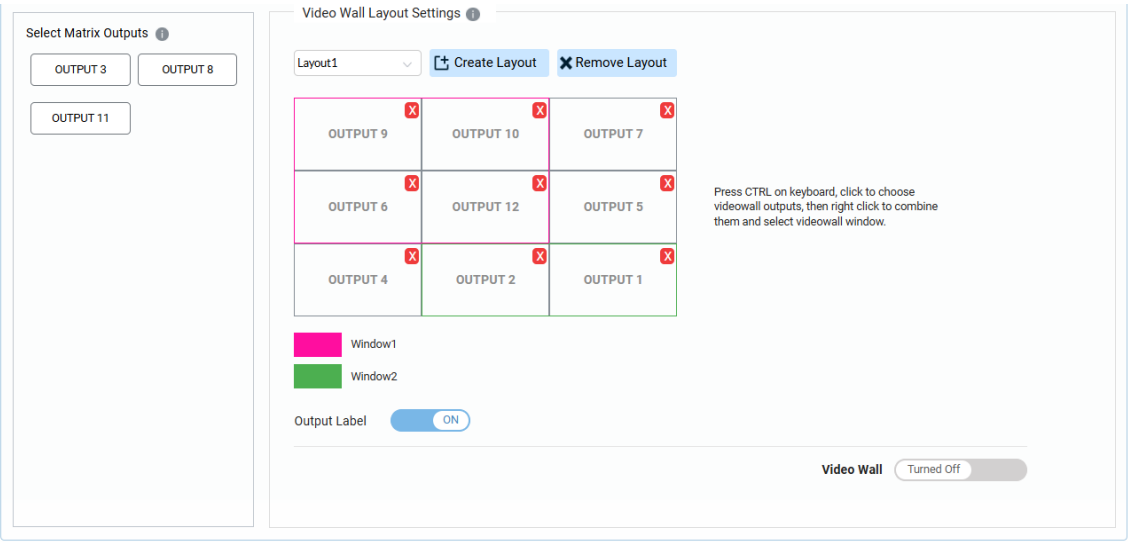
3. Set “Output Label” to ON to enable OSD function, the output port of each display connected will be shown in the lower right corner of its screen. Drag the output name on “Select Matrix Output” field to the corresponding screen in “Video Wall Layout Settings” field according to the output port displayed on each screen.



4. Press "Ctrl" key of the keyboard and use the left button of the mouse to click the adjacent outputs in the diagram to combine them (the selected output will turn orange), then right click the mouse and click "Combine" button to create a "window-in-wall".



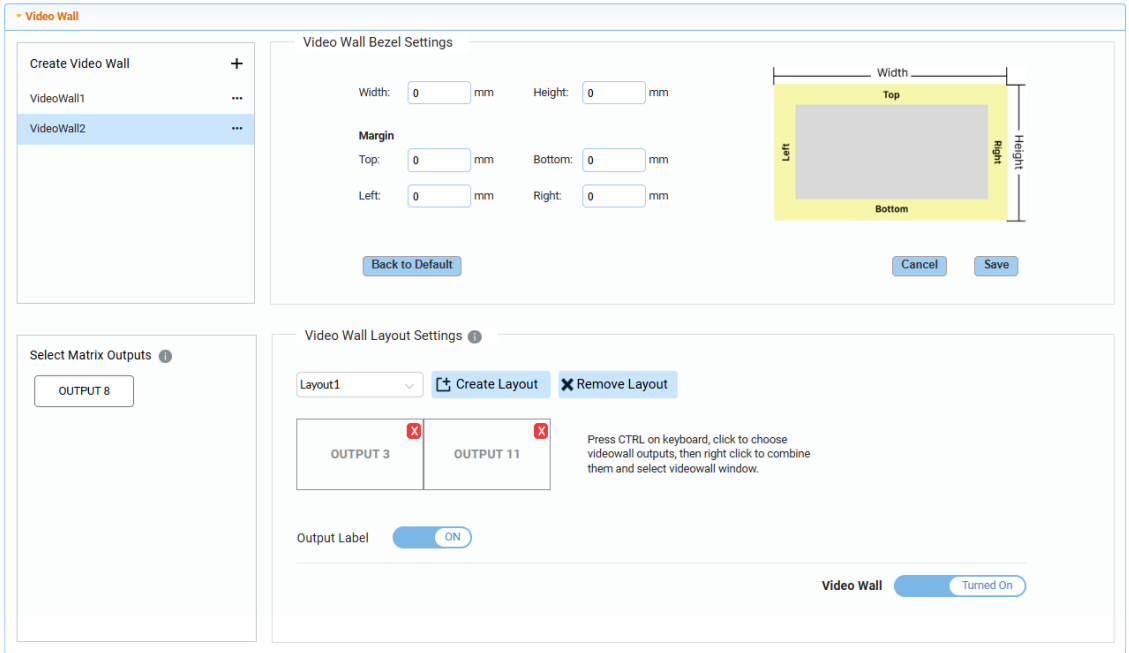
5. The created "window-in-wall" will has a magenta frame in the diagram. Users can create multiple windows in a video wall, and different windows have different frames in the diagram to distinguish.



- Create Layout: Click to save current layout.
- Remove Layout: Click to remove current saved layout.
- Output Label: Click to enable/disable OSD. Default setting: OFF.

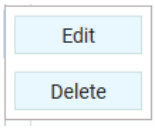
  When set it to ON, the IP address and the output of this display connected will be shown in the lower right corner of its screen.
- Video Wall (Turn On / Turn Off): Click to turn on / off the video wall setting.
- : Click to remove the current selected output of the display. Before remove, click "Deactivate" first.

6. Users can create multiple videos, but the total rows x total columns can't exceed 12.

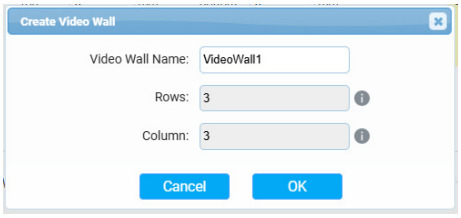


Check the box before the video wall name to enter its corresponding configuration page.

Click "···" button after video wall name to open the following window:

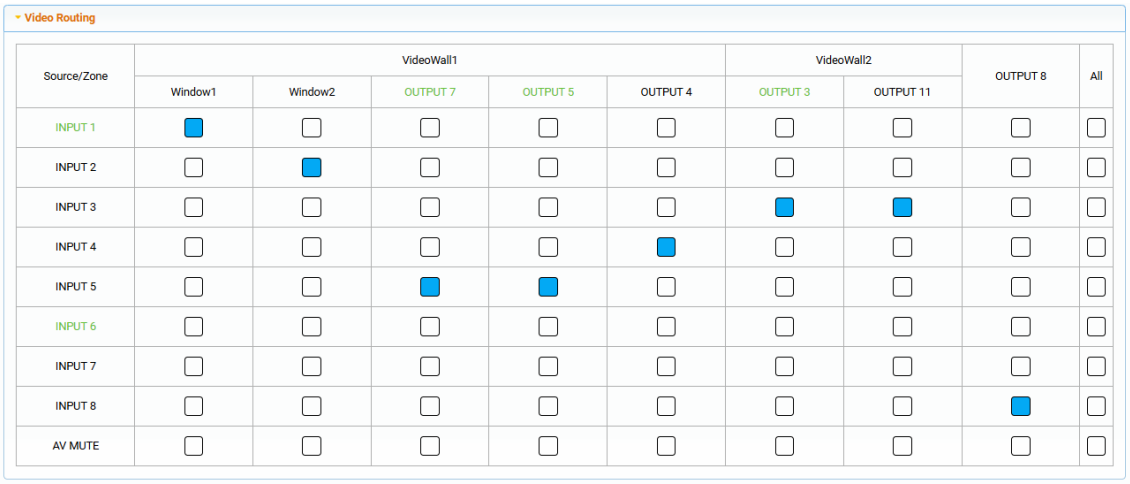


- Edit: Click to enter the following window to change the name of the video wall.



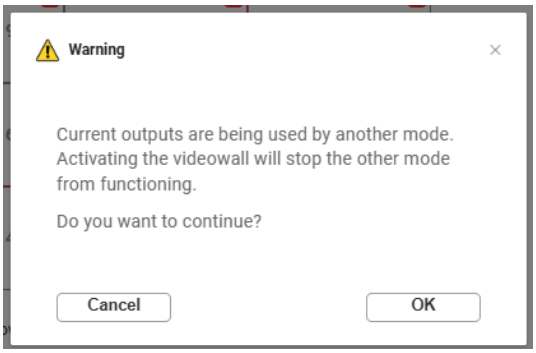
- Delete: Click to delete the video wall.

After clicking "Activate" to successfully create the video wall, users can select input for the windows and outputs in video wall in "Video Routing" field. The outputs in window(s) form a video wall and select one input source, and other outputs aren't be created as window in the video wall can select different sources as other outputs.

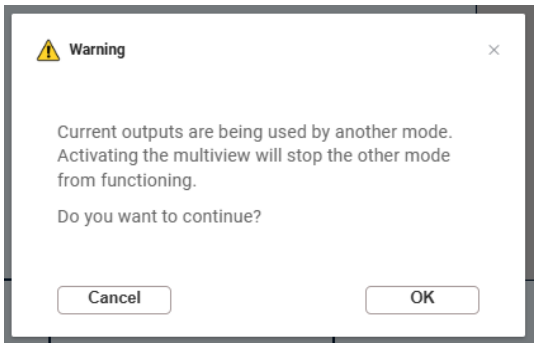


Note:

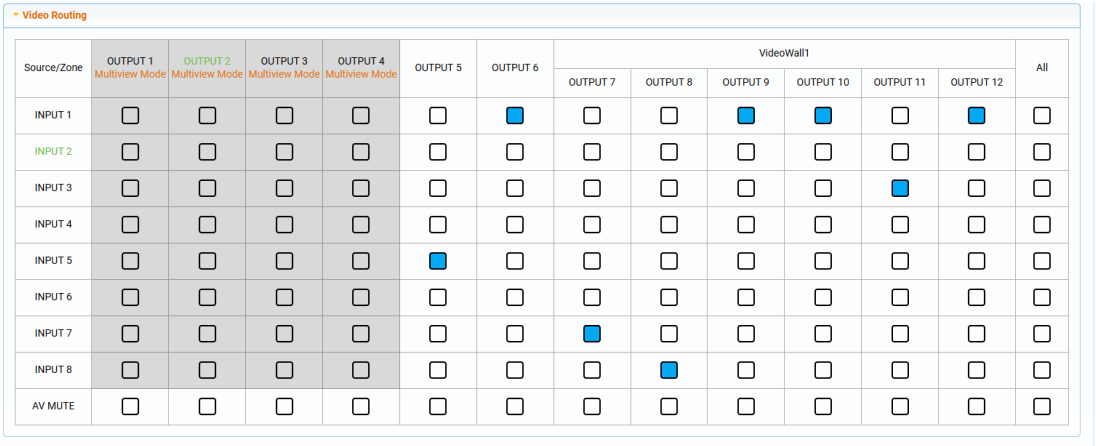
- All outputs support video wall mode configuration. HDMI Outputs 1–4 / HDMI Outputs 5-8 additionally support mirrored multiview mode. When Outputs 1–4 / HDMI Outputs 5-8 are configured in Multiview mode, attempting to assign any of these outputs to the Video Wall will trigger a confirmation prompt. Selecting "CONFIRM" will switch the corresponding output(s) from Multiview mode to Video Wall mode.

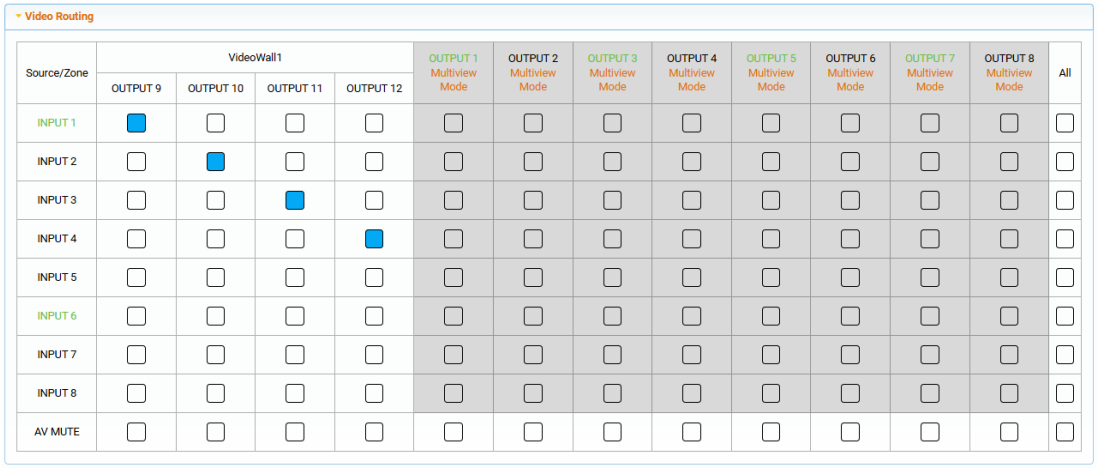


Conversely, if one or more of Outputs 1–4 and Output 5-8 are currently set to Video Wall mode and you attempt to switch them to Multiview mode, the confirmation prompt will appear. Upon confirmation, the selected output(s) will exit Video Wall mode and be set to Multiview mode.

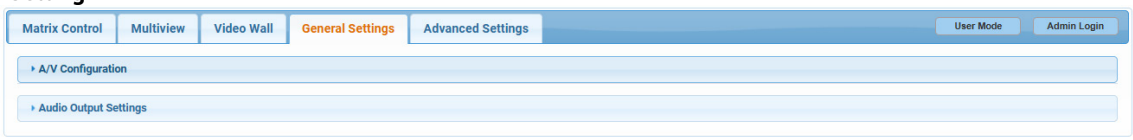


- When the Video Wall does not include any of HDMI Output 1–4 / HDMI Output 5-8 / HDMI Output 1-4 and HDMI Output 5-8, it is possible to use both the Video Wall and Multiview mode at the same time. In this case, HDMI Output 1–4 / HDMI Output 5-8 / HDMI Output 1-4 and HDMI Output 5-8 can remain in Multiview mode, while the Video Wall uses other available outputs. The Video Routing interface in this scenario appears as shown below:

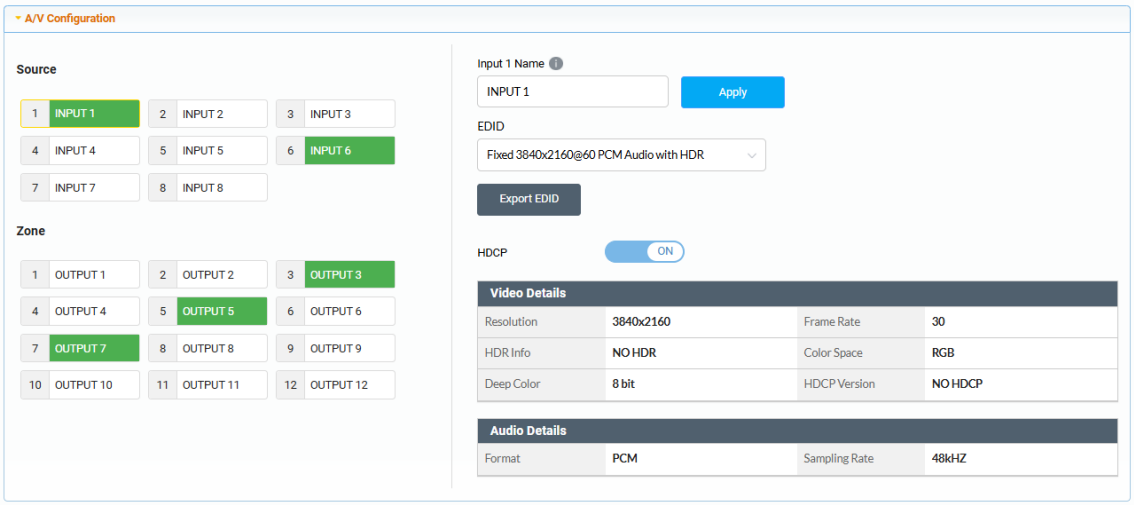


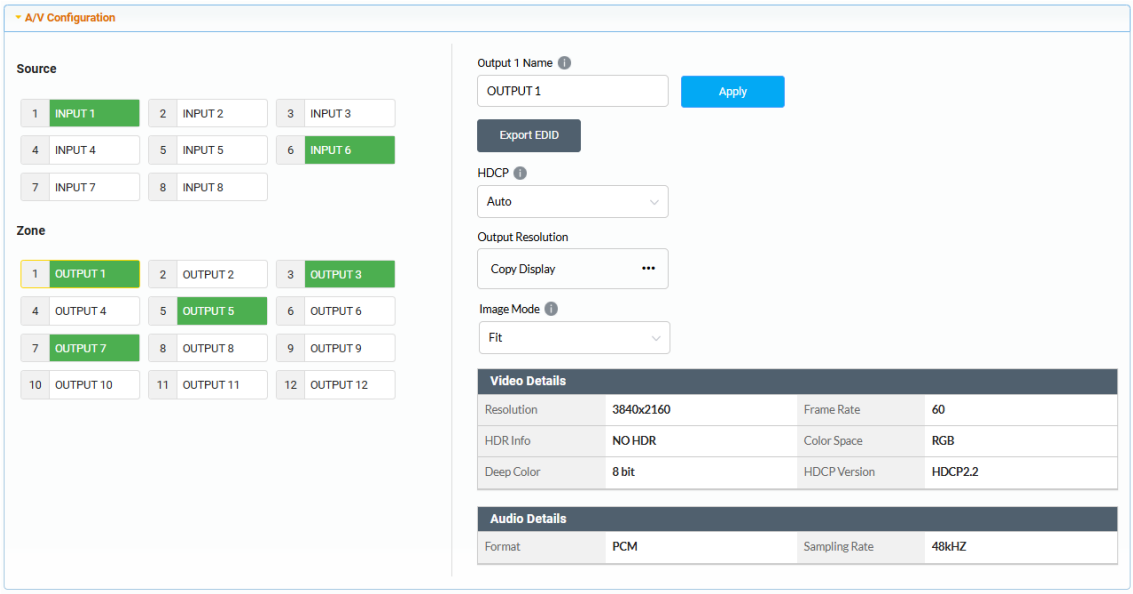


General Setting



1. A/V Configuration





This section allows users to set name, EDID, HDCP and get video and audio information of each input source, and set name, save EDID, select HDCP, output resolution, and get output video and audio information.

- Source/Zone: Select an input/output to set (the button will have an orange frame when select the input/output to set).
  - ➢ Green button: Indicates the corresponding input/output port is connected to active source/display.
  - ➢ White button: Indicates the corresponding input/output port isn't connected with active source/display.
- Input (1~8) / Output (1~12) Name: Input a new name for the selected input/output. The length of the name can't exceed 12 characters.

Move the mouse to the "ⓘ" icon, it will shows the limitation:

- EDID (for input 1-8): Select EDID for the corresponding input port, and click "Apply" to take effect. The default EDID is Fixed 3840x2160@60 PCM Audio with HDR.

  EDID Selection includes:

  Fixed 5K Ultrawide PCM Audio with HDR;

  Fixed 5K Superwide PCM Audio with HDR;

  Fixed 3840x2160@60 PCM Audio with HDR;

  Fixed 3840x2160@60 PCM Audio with SDR;

  Fixed 3840x2160@30 PCM Audio with HDR;

  Fixed 3840x2160@30 PCM Audio with SDR;

  Fixed 1920x1080@60 PCM Audio with HDR;

  Fixed 1920x1080@60 PCM Audio with SDR;

  Special EDID:

  Spec: fixed 8Kx1K, 5Kx1K@60Hz PCM Audio;

  Spec: fixed 3840x1080@60Hz PCM Audio;

  Spec: fixed 3440x1440@60 PCM Audio;

  Spec: fixed 2560x1600@60 PCM Audio;

  Spec: fixed 2560x1536@60 PCM Audio;

  Spec: fixed 2560x1440@60 PCM Audio;

  Spec: fixed 2560x1080@60 PCM Audio;

  Spec: fixed 1920x2160@60 PCM Audio;

  Spec: fixed 1920x1080@60 PCM Audio;

  Spec: fixed 1680x1050@60 PCM Audio;

  Spec: fixed 1600x1200@60 PCM Audio;

  Copy from Output:

  Copy form HDMI Output 1;

  Copy form HDMI Output 2;

  Copy form HDMI Output 3;

  Copy form HDMI Output 4;

  Copy form HDMI Output 5;

  Copy form HDMI Output 6;

  Copy form HDMI Output 7;

  Copy form HDMI Output 8;

  Copy form HDMI Output 9;

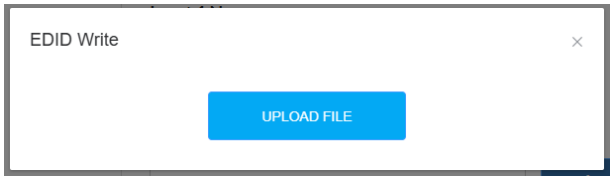
  Copy form HDMI Output 10;

Copy form HDMI Output 11;

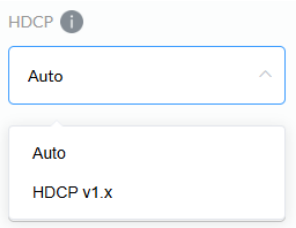
Copy form HDMI Output 12;

EDID Write.

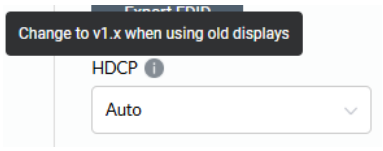
When select EDID Write, users can click "UPLOAD FILE" in the popped window to select an EDID file from the local PC to write to the corresponding port.



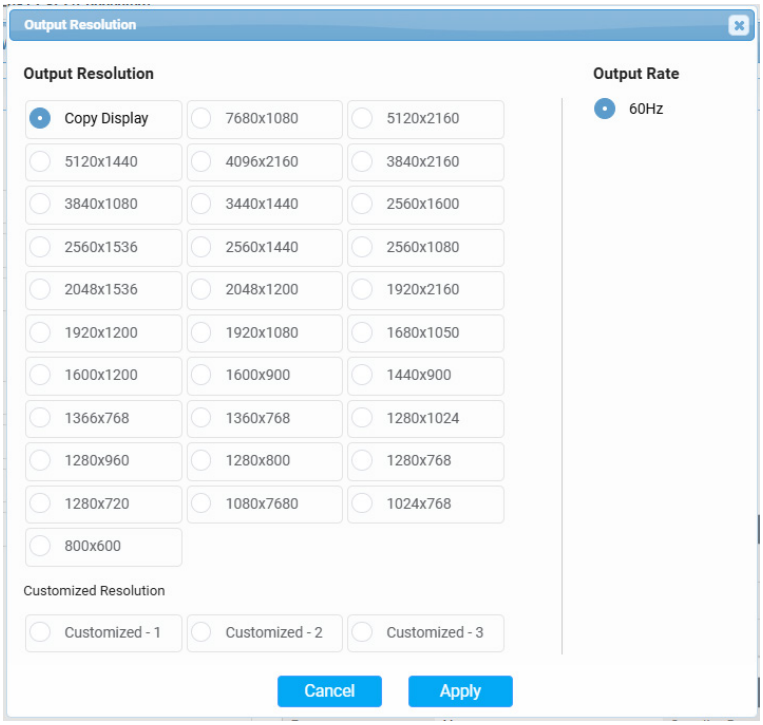
- Export EDID: Click to export the EDID information of the select input/output as a bin file to local PC.
- HDCP (ON/OFF) (for input 1~8): Click to enable/disable HDCP encryption of each input port, the default setting is "ON".
- HDCP (for output 1~12): Select HDCP support for the selected output port from the drop-down menu (Auto, HDCP v1.x). By default, Output HDCP Support is "Auto", follow the input HDCP. For example, input HDCP is HDCP 2.2, output HDCP is also HDCP 2.2. When set it to HDCP v1.x, it means the HDCP of the output is set to HDCP 1.4.



Move the mouse to the "ⓘ" icon, it shows the instruction of HDCP v 1.x.

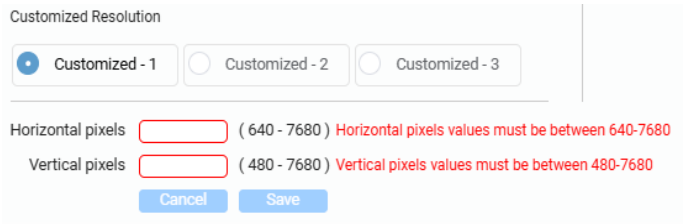


- Output Resolution (for Output 1~12): Click the button "•••" to enter the "Output Resolution" dialog box to select output resolution for the selected output port. The default setting is "Copy Display". Check the box in front of the resolution and click "Apply" to take effect or click "Cancel" to cancel the operation.



Customized Resolution: When check "Customized - 1/2/3", you can input a customized horizontal pixels and vertical pixels in the corresponding box. Then click "Save" to save it or click "Cancel" to cancel the operation.

The horizontal values must be between 640~7680, and the vertical pixels values must be between 480~7680.



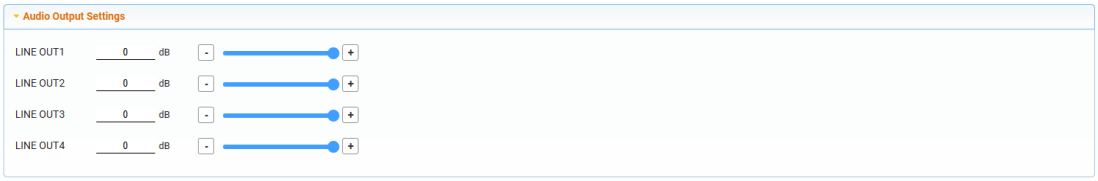
Note: When Output 1- 4 / Output 5 - 8 are set to multiview mode, you can only set the output resolution of Output 1 / 5.

- Image Mode (for output 1~12): Click to select the output image mode from the drop-down menu. Default setting: Fit.
  - ➢ Fit: The image maintains its original aspect ratio without stretching. Black borders may appear to fill any unused screen space.
  - ➢ Stretch: The image is displayed in full screen and will be stretched to fill the entire display area.

  Move the mouse to the "ⓘ" icon, it shows the instructions of the two options:

  Note: When Output 1- 4 / Output 5 - 8 are set to multiview mode, you can only set the image mode of Output 1 / 5.
- Video In/Audio In (for input 1~8): Shows the video and audio information of the selected input.
- Video Out/Audio Out (for output 1~12): Shows the video and audio information of the selected output.

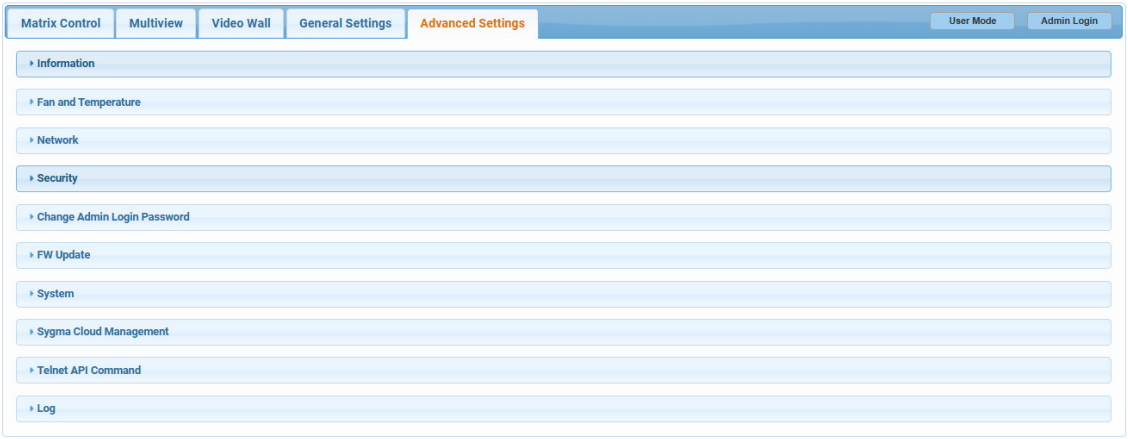
2. Audio Output Settings



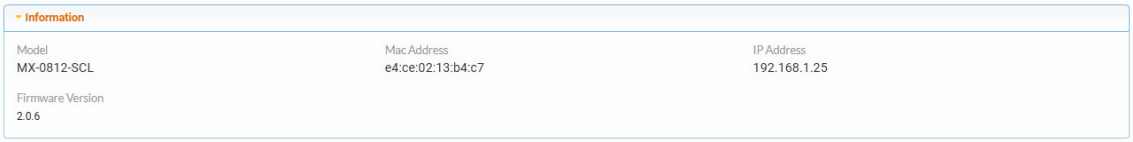
This section allows users to set output volume of LINE OUT.

Input or use the slider to set the volume of LINE OUT 1 to 4. Default setting: 0dB. Range: -100dB~0dB.

Advanced Setting

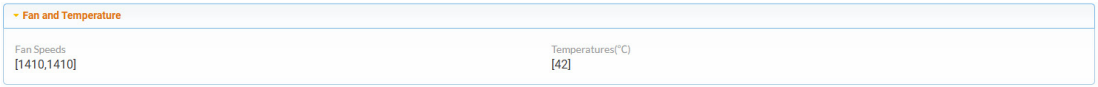


1. Information



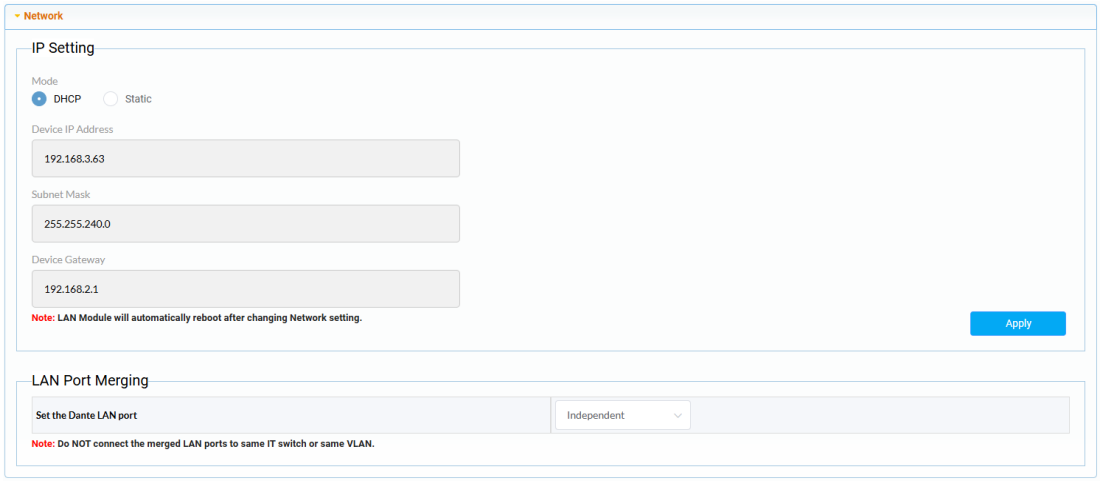
This section shows the device's information, including Model, Mac address, IP address and firmware version.

2. Fan and Temperature



This section shows the device's fan speed and temperature.

3. Network



IP Setting:

IP Setting is used to set between the static and dynamic IP address.

- DHCP (default): When enabled, the IP address of the Matrix is assigned automatically by the DHCP server connected.
- Static: When enabled, set up the IP address manually.
- Apply: Click to enable the network setting.

Note:

- When "Static" is selected, please ensure your PC is in the same network segment as the Matrix, i.e., the IP address of your PC should be set as 192.168.xxx.xxx.
- Please wait for 2-3 minutes for the Matrix's LAN module to reboot and reconnect after the network setting is changed.

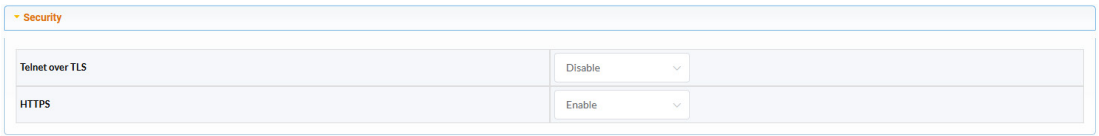
LAN Port Merging:

LAN Port Merging is used to set the Dante LAN port to Independent or Merged. Default setting: Independent.

- Independent: The Dante LAN port is only used for Dante audio transmission.
- Merged: The three LAN ports have same function, including Dante audio transmission and control.

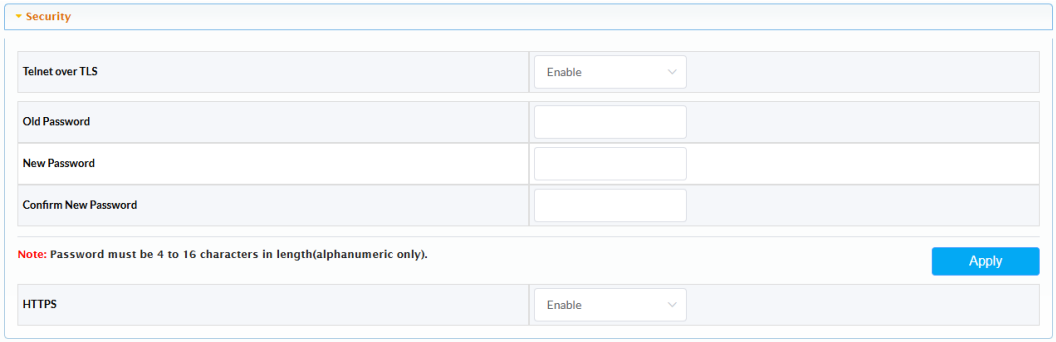
  Note: When set to “Merged”, DO NOT connect the Dante LAN port and two ETHERNET ports to a same IT switch or VLAN.

4. Security



- Telnet over TLS (Disable/Enable): Set TLS (Transport Layer Security) to enable or disable, when it is set to enable, users can change the TelnetS login password. The default setting is “Disable”. The default user name and password for logging in the Telnet is “admin” and “wyrestorm”.

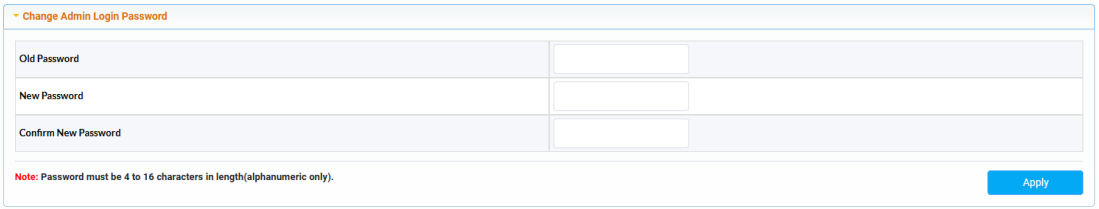
Note: The password must be 4 to 16 characters in length, and alphanumeric only.



- HTTPS (Enable/Disable): Set HTTPS to "Enable" or "Disable". The default setting is "Enable". HTTPS (Enable): Https is mandatory supported. HTTPS is a secure version of the HTTP protocol that builds an SSL encryption layer over HTTP and encrypts the transmitted data.

  HTTP network protocol is the most widely used hypertext transfer protocol, this method allows a third-party to listen in and eavesdrop on the transferred information. To ensure the secure data transmission, the HTTP can be disabled, and the all the information can be transferred via HTTPS. HTTPS protocol encrypts the clear text, so it becomes incomprehensible for a third-party and keeps the data secure.

5. Change Admin Login Password

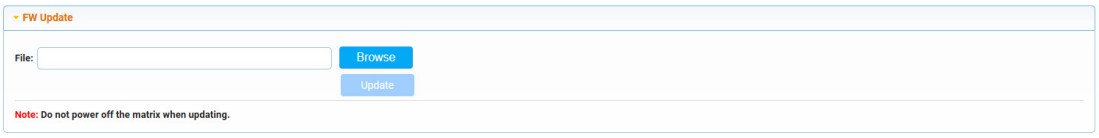


This section allows users to change admin password. The default password is "admin".

- Apply: Click to perform the change.

Note: Password must be 4 to 16 characters in length (alphanumeric only).

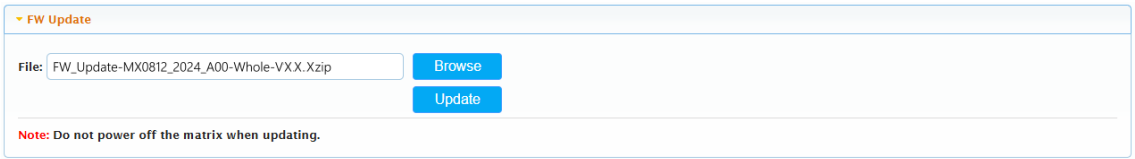
6. FW Update



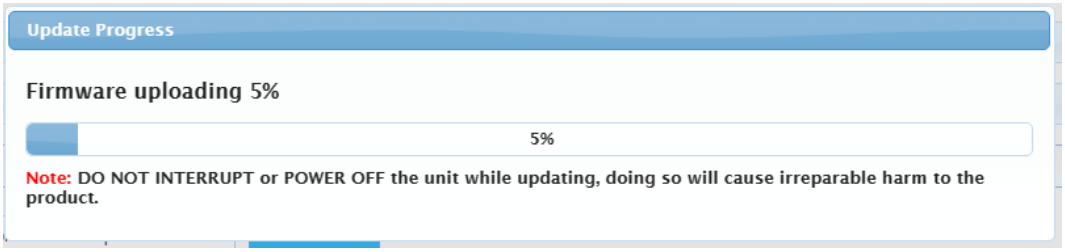
This section allows users to update firmware.

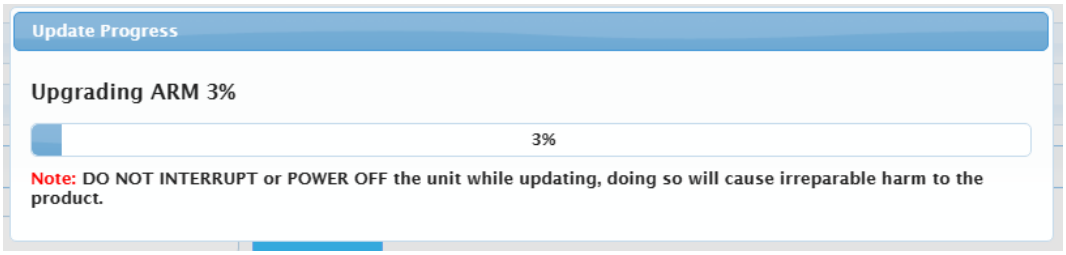
To update Firmware:

1. Click "Browse" for the update file.

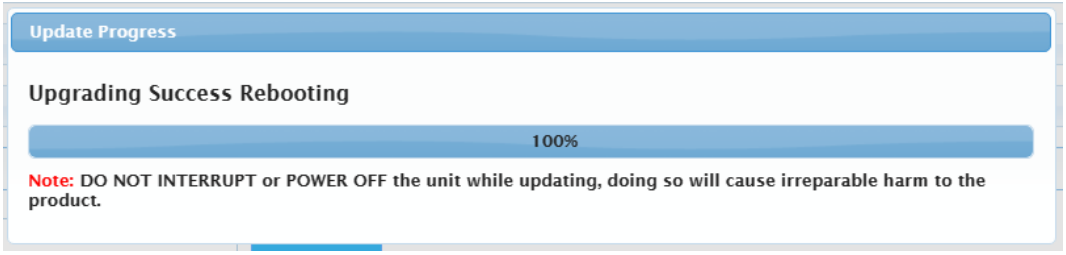


2. Click “Update” to proceed.



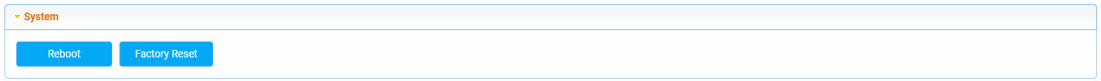


3. The matrix will reboot automatically after upgrading is completed.



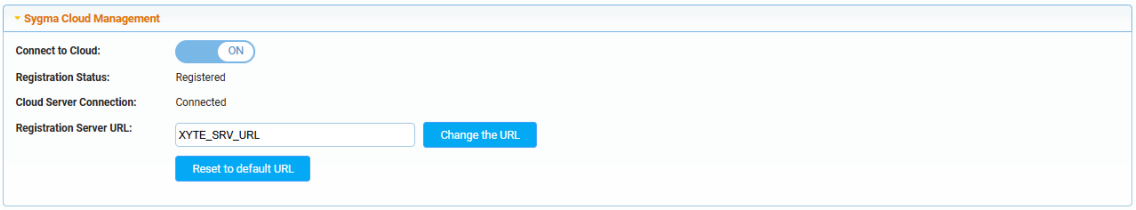
Note: Do not interrupt or power off the matrix during the upgrading.

7. System



- Reboot: Click to reboot the device, and wait 2 minutes to re-access Web UI by refreshing the browser.
- Factory Reset: Click to reset the device to factory defaults, and wait 2 minutes to re-access Web UI by refreshing the browser.

8. Sygma Cloud Management



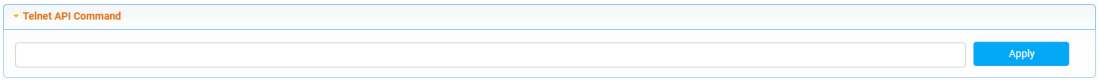
This section allows users to manage sygma cloud.

- Connect to Cloud: Click to enable/disable sygma cloud connection. Default setting: ON.

  Note: If users want to add the device to sygma cloud, please set “Connect to Cloud” to ON.

- Registration Status: Show if the matrix is registered to the sygma cloud or not.
- Cloud Server Connection: Show the sygma cloud server connection status.
- Registration Server URL: Input the server URL.
- Change the URL: Click to save the changed URL.
- Reset to default URL: Click to reset the URL to default setting. Default URL: https://entry.xyte.io.

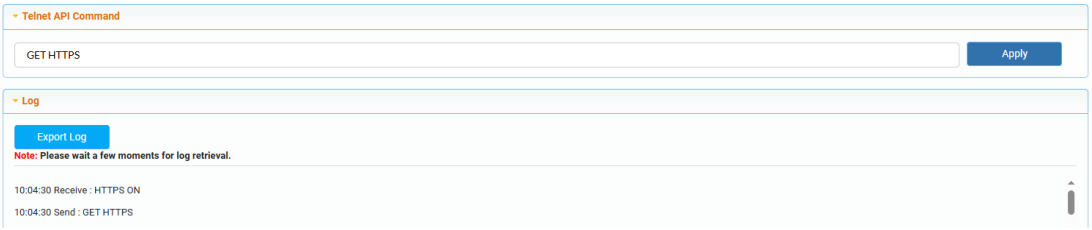
9. Telnet API



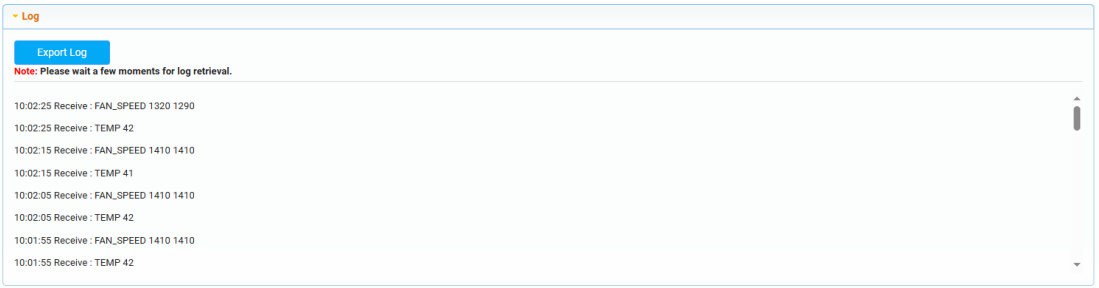
This section allows users to input and send API commands to the matrix. The return value will be display in “Log” part.

Apply: Click "Apply" to send the input command to the matrix.

For example:



10. Log



This section shows the operation log and commands return.

Export Log: Click to export the log file to local PC.