WyreStⓇrm

User Manual

v1.0

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MX-0804-EDC User Manual | 231213

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Technical Support: 844.280.WYRE (9973)
Support@WyreStorm.com

Contents

Overview

Introducing the MX-0804-EDC, a dynamic addition to your AV setup that brings cutting-edge technology to the forefront. This 1RU fixed 8x4 fast switching matrix redefines versatility with USB-C and HDMI inputs, ensuring seamless transitions between video sources.

Immerse yourself in a world of vibrant visuals with the built-in 4K60 scaler on all video outputs, eliminating disruptions during transitions. The USB-C input is a powerhouse, supporting 4K60, USB 3.1 gen1, 1G network, and PD 3.0 USB host charging up to 60 watts—a single connection for all your needs.

Dive into a symphony of audio possibilities with analog microphone inputs, Dante 4x4 digital inputs and outputs, USB audio, and line audio outputs. Experience unprecedented control with audio mixing and ducking on each line output, tailoring your audio experience to perfection.

Navigating the MX-0804-EDC is a breeze, offering flexible control options such as front panel buttons, RS-232, and LAN control (Telnet & Web UI). Elevate your experience further with seamless integration into the WyreStorm Sygma cloud, providing control for reboots, firmware upgrades, and other features.

Crafted for professional markets like high education classrooms and corporate meeting rooms, the MX-0804-EDC is more than just a matrix—it's a personalized journey into the future of AV technology.

Features

- Inputs and outputs support resolutions up to 4K@60Hz 4:4:4 8bit.

- Supports HDCP 2.3 and backward compatibility.

- HDMI outputs support free scaler from 480p to 2160p, and provides seamless transition without seeing black screen switching.

- Full-featured USB-C input, supports 4K@60Hz, USB 3.1 gen1, 1G network, and PD 3.0 charging up to 60 watts of PD.

- Supports USB host switching and USB device extension.

  - Switching USB hosts include 1x USB3.0 type-C port and 2x local USB3.0 type-B ports.

  - USB devices include 4x local USB3.0 type-A ports.

- Versatile audio connection and DSP:

  - 2x Mic inputs, and 1x LINE input.

  - 1x USB audio input and 1x USB audio output, with 48KHz sampling frequency.

  - Dante 4x4 with various sampling rates.

  - HDMI audio de-embedding with sampling frequency up to 192KHz.

  - Supports 2x Balanced audio outputs, and each has an independent mixer, and supports ducking.

- Multiple control options, including front panel buttons, RS-232 and LAN (Web UI &Telnet).

- Sygma Cloud built in.

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Package Contents

- 1 x Matrix
- 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 USB-C Cable (L = 2m)
- 3 x Phoenix Male Connector (3.5mm, 3 Pins)
- 4 x Phoenix Male Connector (3.5mm, 5 Pins)
- 1 x Phoenix Male Connector (3.5mm, 6 Pins)
- 2 x Mounting Brackets (1U, with Screws)
- 1 x Quick Start Guide

Specifications

Technical

Input/Output Ports	1 x USB-C IN, 7 x HDMI IN, 4 x HDMI OUT, 2 x MIC IN, 1 x LINE IN, 2 x LINE OUT, 2 x USB HOST, 4 x USB DEVICE, 2 x ETHERNET, 1 x RS-232, 2 x RELAY, 1 x GPIO, 1 x Dante (RJ45 port), 1 x AC 100~240V 50/60Hz, 1 x RESET
Input/Output Video Type	4K@60Hz 4:4:4 8bit, HDCP 2.3
Input Resolutions Supported	VESA: $800x600^8$, $1024x768^8$, $1280x768^8$, $1280x800^8$, $1280x960^8$, $1280x1024^8$, $1360x768^8$, $1366x768^8$, $1440x900^8$, $1600x900^8$, $1600x1200^8$, $1680x1050^8$, $1920x1200^8$ 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 Resolutions Supported	$3840x2160^8$, $3840x2160^6$, $3840x2160^5$, $3840x2160^3$, $3840x2160^2$, $1920x1200^8$, $1920x1080^8$, $1920x1080^6$, $1680x1050^8$, $1600x1200^8$, $1600x900^8$, $1440x900^8$, $1366x768^8$, $1360x768^8$, $1280x1024^8$, $1280x960^8$, $1280x800^8$, $1280x768^8$, $1280x720^8$, $1280x720^6$, $1024x768^8$, $800x600^8$ 2 = at 24 Hz, 3 = at 25 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz
Audio Format	USB-C/HDMI/MIC IN/LINE IN/LINE OUT: PCM 2.0
Maximum Data Rate	HDMI: 18Gbps USB-C: 5Gbps (per lane)
Control Method	Front panel buttons, RS-232, LAN (Telnet API & Web UI)

General

Operating Temperature/RH	0℃ ~ 45℃ (32℉ ~113℉)

Storage Temperature/RH	-20℃ ~ 70℃ (-4℉ ~158℉)
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	TBD
Dimensions (W x H x D)	440mm x 43.5mm x 330mm/17.2" x 1.71" x 12.99" (Mounting brackets not included)
Weight	3.8kg/8.38lbs
Rack Space Required	1 RU

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
USB Type-C	2m/7ft	4K@60Hz 4:4:4 24bpp

Panel Description

Front Panel

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A	**LCD Indicator**	Information display
B	**SWITCH Button**	Press to enter input channel switch mode.
C	**VIDEO Button**	The LCD indicator window will display the video information of selected input port, including resolution, color space, and HDCP.
D	**INFO Button**	Press this button will display the device's information, including IP address, fan speed, MAC address, firmware version and temperature.
E	**AUDIO Button**	Enter volume adjustment mode.
F	**Selection Buttons**	For- • INFO: The four selection buttons will scroll through the pages to display it's corresponding information. • AUDIO: The left/right buttons will switch audio output ports. Up/down buttons increase /decrease volume. • SWITCH: The left/right buttons will select the output. Up/down button will select input on the selected output. • VIDEO: The left/right buttons will switch the input port. Up/down button will scrolll the page to display the video information.
G	**ENTER Button**	Will perform the switching operation.
H	**CANCEL Button**	Will cancel the operation or exit the current mode.

Note: Detail operation information about the buttons, please refer to the "Front Panel Control" section.

Rear Panel
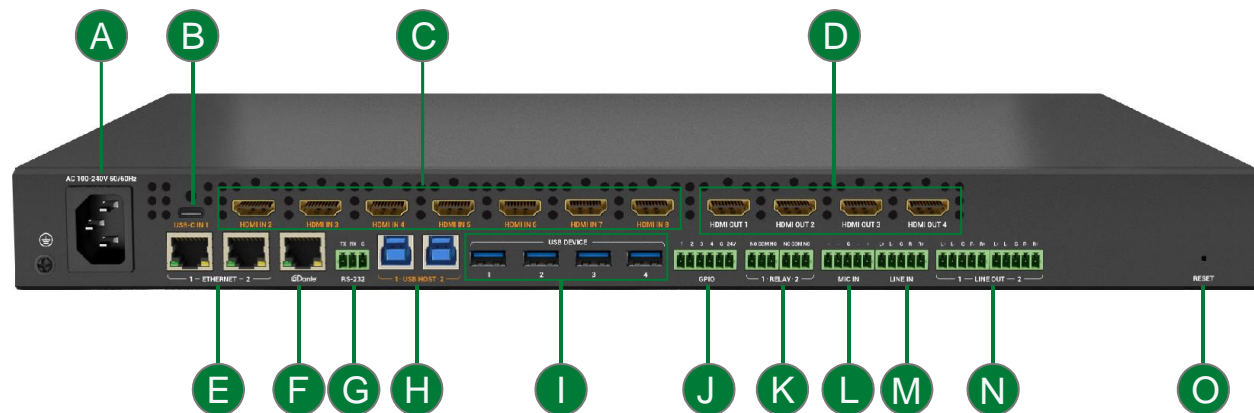
A	**AC 100~240V 50/60Hz**	Connect to the power source via the provided AC power cable.

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B	**USB-C IN 1**	USB 3.0 Type-C port. Connect to a laptop with USB type-C port. It supports three functions: • The port supports audio, video, and USB 3.0/2.0 signals transmission, maximum 5Gbps data rate. • The port supports PD 3.0 and can supply up to 60W power for the connected device. • The port supports 1G network connection, the laptop connected with the port can access the ethernet the matrix connected. The following cable are recommended to use: USB Type-C to Type-C cable (USB 3.0 or above)
C	**HDMI IN 2~8**	Connect to HDMI sources.
D	**HDMI OUT 1~4**	Connect to HDMI displays.
E	**ETHERNET 1&2**	Connect to the network, for web UI control, or telnet control.
F	**Dante**	RJ 45 port. Connect to the network for Dante audio connection.
G	**RS-232**	Connect to a RS-232 enabled control device for API control or RS-232 routing.
H	**USB Host 1&2**	USB 3.0 Type-B port. Connect to USB host devices.
I	**USB DEVICE 1~4**	USB 3.0 Type-A port. Connect to USB devices.
J	**GPIO**	Connect to GPIO devices. Support connecting up to four GPIO devices.
K	**RELAY 1&2**	Connect to relay devices for relay control.
L	**MIC IN 1&2**	Connect to microphones.
M	**LINE IN**	Connect to line out device.
N	**LINE OUT 1&2**	Connect to audio receivers.
O	**RESET**	Use a needle to press and hold the recessed reset button: • 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 passwords 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.

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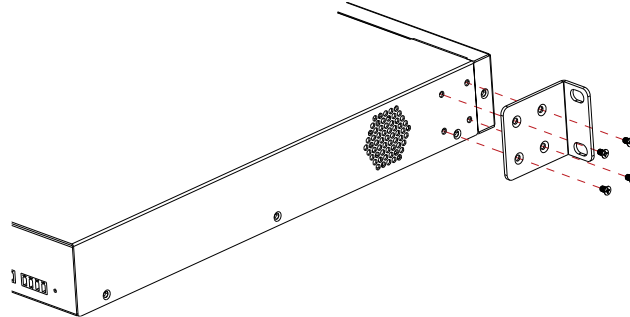Support@WyreStorm.com

Installation

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

The matrix occupies 1U space and can be placed on a solid and stable surface or installed on a standard equipment rack.
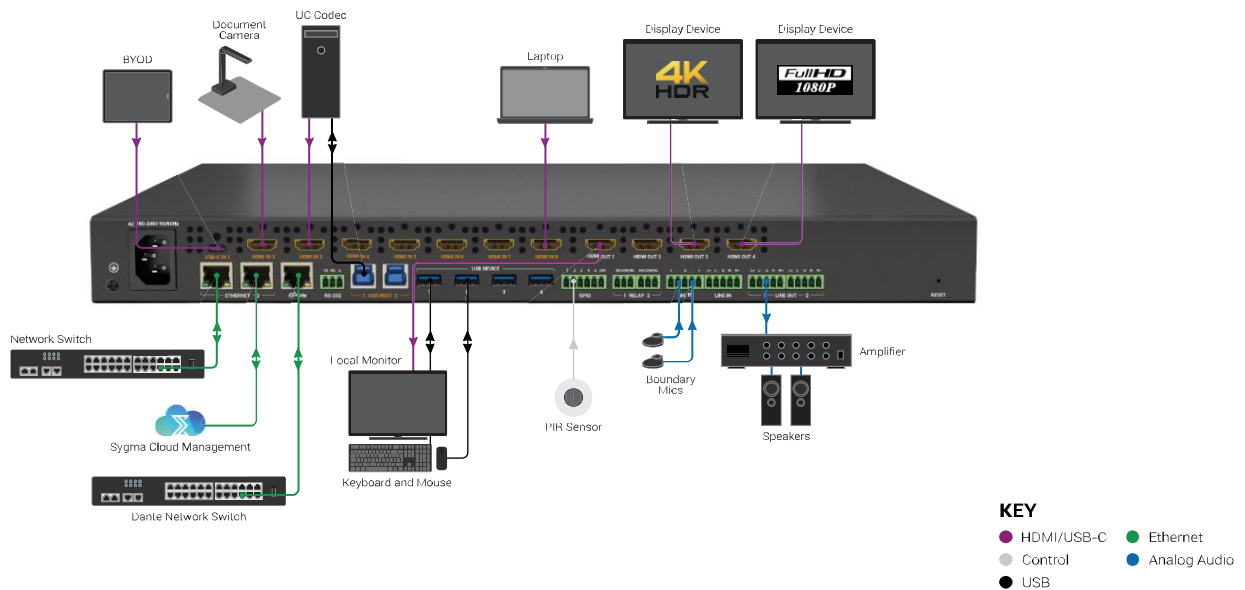
To rack mount:

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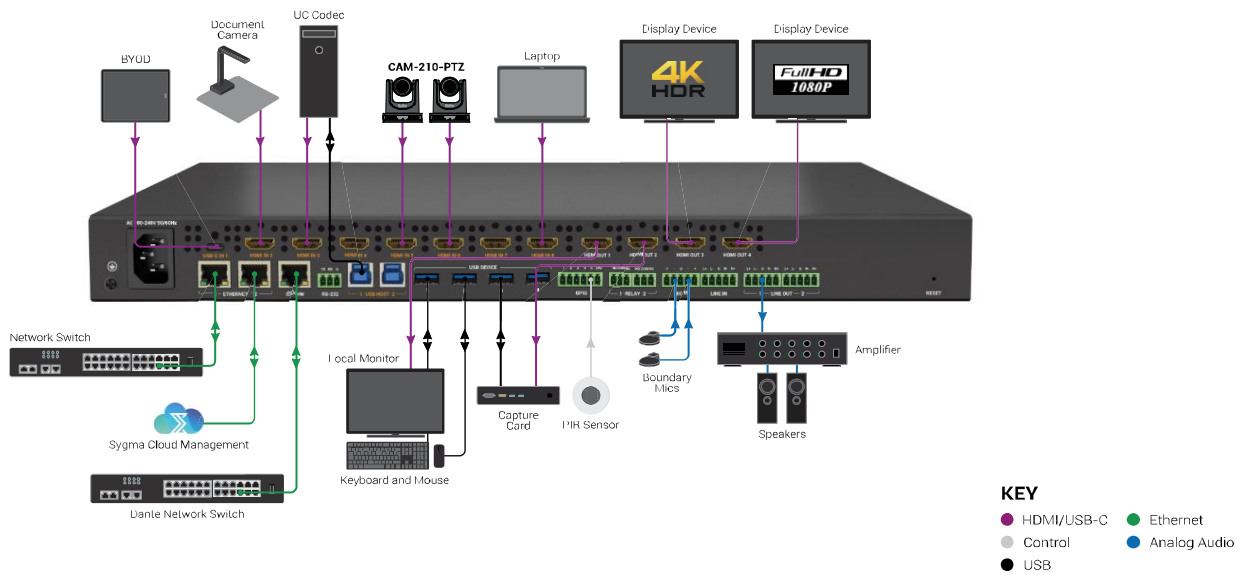

2. Install the matrix in the rack by using the mounting screws to affix the matrix to the rack.
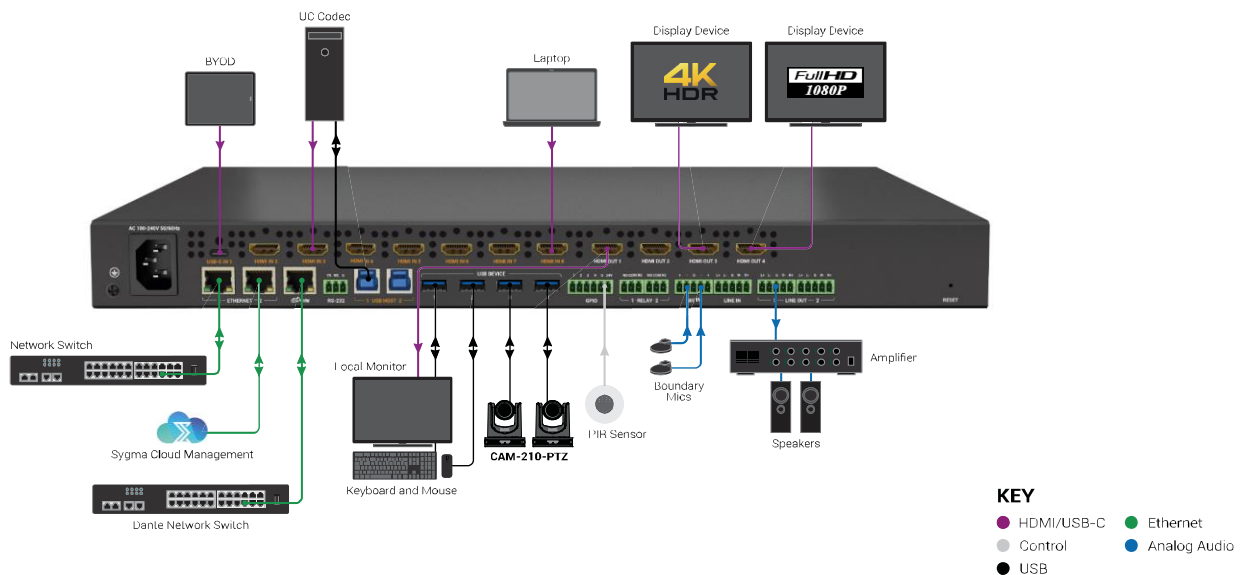
Wiring Diagram

Wiring 1 (Local Presentation):

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Wiring 2 (Large Lecture Hall):

Wiring 3 (Corporate Unified Communications):

Instruction of Dante:

The matrix supports 4x4 Dante audio transmission. Before using Dante function, please enable all devices are connected to the same 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 to the same network) as required on the Dante Controller with the matrix. 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-0804-EDC*" or "Web UI Control" section for more information.

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RELAY Pinout Introduction

The matrix is equipped with two relay ports.

• NO: Normally open.

• NC: Normally closed.

• COM: Common connector.
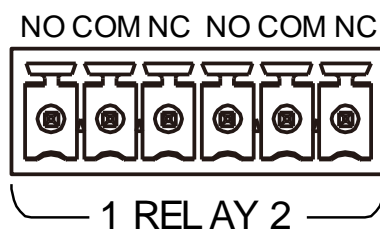
Note: Relay port configuration, please refer to "Web UI Control" section.

Control of the Matrix

The matrix can be controlled through Front Panel, RS-232, 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.

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

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

    1) Press the "SWITCH" button to enter switch mode.

    2) Press the Left (◄) or Right (►) button to select output channel. Follow the selection icon ">" to selected the number output .

    3) Press the Up (▲) or Down (▼) button to scroll input channel.

    4) Press "ENTER" button to confirm the selection or press "CANCEL" to exit the mode and return to the main page.

2. To adjust individual audio volume

    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 "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.

Command Control

Advanced users may need to control the device via API commands. API commands can be obtained from the separate document "*MX-0804-EDC_xxxxxx*".

Two methods are provided for controlling this device through API commands:

1. RS232.

Connect a control PC to the RS232 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 RS232 serial interface software (e.g., Serial Assist) may be needed as well.

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

2. Telnet.

Connect the Control System or PC to the LAN port of the device. Before you intend to control the device through telnet API, establish the 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

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Web UI Control

The Web UI design 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. 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.

2. Get the IP address through the LED indicator window on front panel, using the "SmartSetGUI" tool on PC or sending command "*GET IPADDR<CR><LF>*".

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:
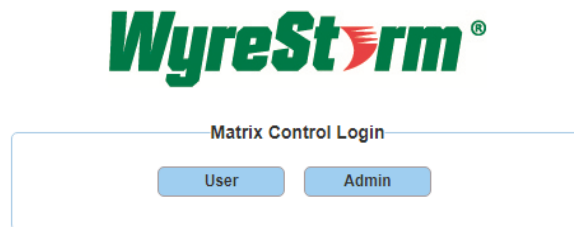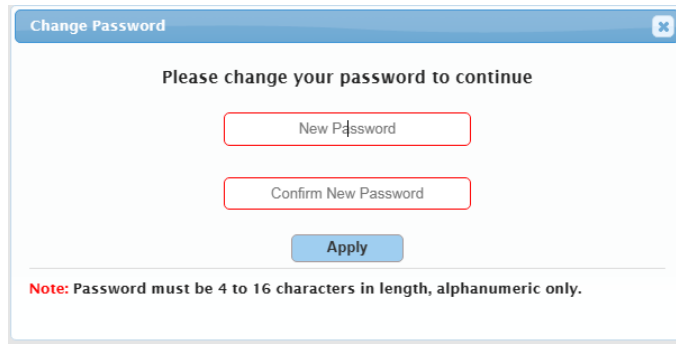
- To implement basic video and audio control of the matrix, click "User" to login as User. When logging in as "User", no password is required. In this mode, only the submenus in the Matrix Control tab can be set.
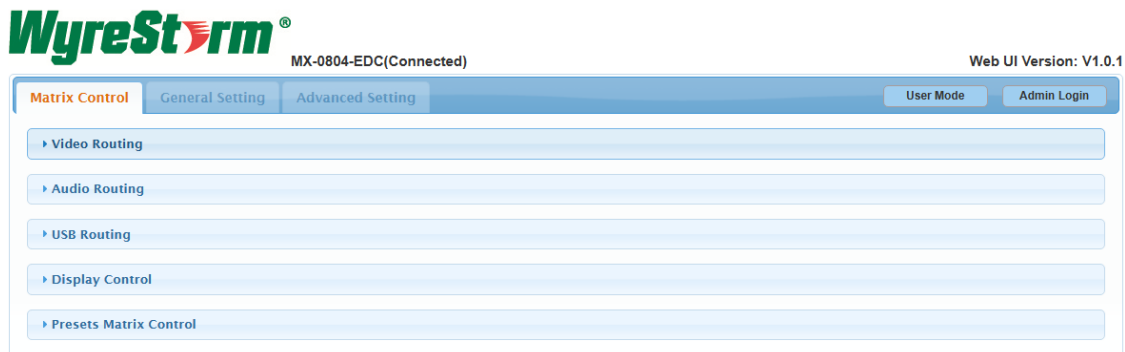
- If advanced setting is required, click "Admin" and enter the password to login as Admin.
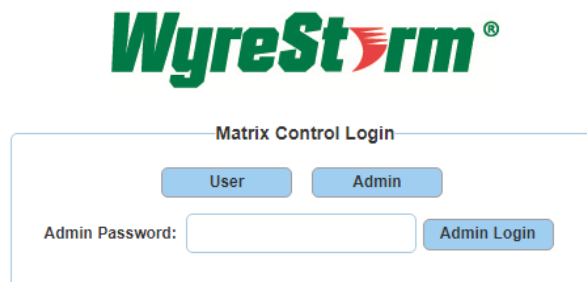
The default password is "admin". Upon first-time login, after and after clicking "Admin Login", users will enter the following window to change login password. Input new password and click "Apply" to enter the main page.

Note: The new password must be 4 to 16 characters in length, alphanumeric only.
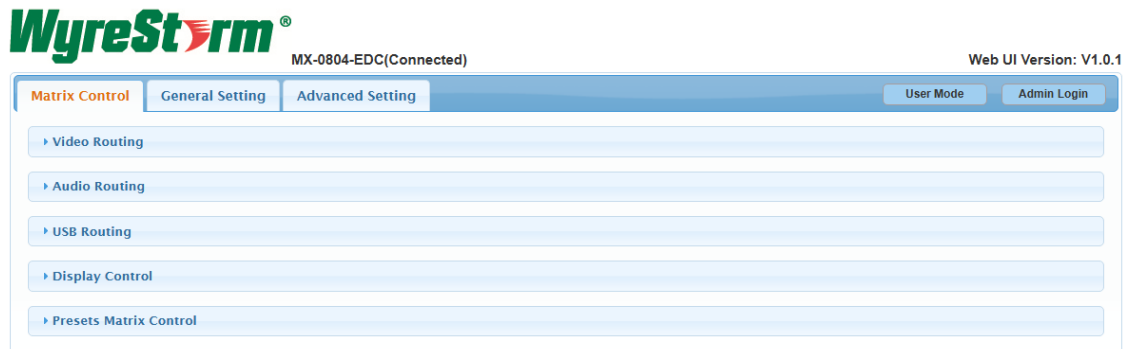
- In User mode, users can also click "Admin Login" on the upper right corner, then input the password enter Matrix Control, General Setting and Advanced Setting pages. The default password is "admin". When login the admin mode first time, users also need to change login password first. The operations are same with logging through the home page.

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

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Web UI Introduction

1. Matrix Control

1) Video Routing

Source/Zone	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4	All
input 1	■	☐	☐	☐	☐
input 2	☐	■	☐	☐	☐
input 3	☐	☐	■	☐	☐
input 4	☐	☐	☐	■	☐
input 5	☐	☐	☐	☐	☐
input 6	☐	☐	☐	☐	☐
input 7	☐	☐	☐	☐	☐
input 8	☐	☐	☐	☐	☐
None	☐	☐	☐	☐	☐

This section manages distribution of input video sources to output 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).

• All: Click to route one input to all outputs.

• None: None input is routed to the output (or the output is turned off).

By default, Video Input 1 routes to Output 1…Video Input 3 routes to Output 3, Video Input 4 routes to Output 4.

2) Audio Routing

Audio Routing

○ Local Audio mixer1   ○ Local Audio mixer2   ○ Remote USB mixer

|		
Mixer inputs	Analog input ⓘ	⌄
	Digital input ⓘ	⌄
	Video De-embed ⓘ	⌄
Ducking	OFF	
	Master Selection ⓘ	Mic 1 ⌄
	Attack Time	72 ms - ▬▬●▬▬▬ +
	Release Time	868 ms - ▬▬▬▬●▬ +
	Ducking Depth	100 - ▬▬▬▬▬● +
	Ducking Trigger	-35.0 dB - ▬▬▬●▬▬ +
Mixer Outputs ⓘ	☐ Line Out1 ☐ Dante Output 1-2	
	Mixer Output Volume	-100 dB - ●▬▬▬▬▬ + Unmuted

This section allows users to select mixed audio sources, set ducking, and set mixer audio output.

The matrix supports three audio mixer modes: Local Audio mixer1, Local Audio mixer2, Remote USB mixer.
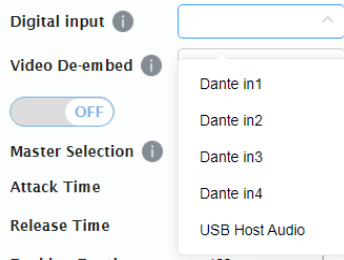
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When selecting Local Audio mixer1:

- Mixer inputs:
  - ➢ Analog input (multiple-choice): Select the analog audio input source(s) from the drop-down menu.
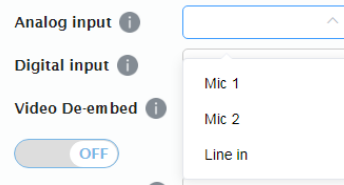

  - ➢ Digital input (multiple-choice): Select the digital audio input source(s) from the drop-down menu.


    Note: The matrix is equipped with a built-in USB audio speaker, when the matrix is used for conferencing through remote conferencing software, and the laptop can select the matrix USB audio speaker, this source is from the conferencing software. When select the USB Host Audio, it will be mixed to output from the output channels users selected.

  - ➢ Video De-embed (multiple-choice): Select the video de-embed audio as input source from the drop-down menu.
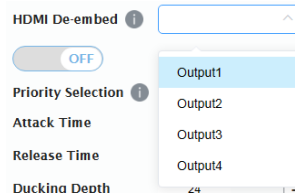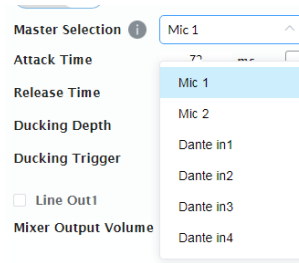

    Note: When selecting audio inputs "Analog input", "Digital input" and "HDMI De-embed", users can also adjust the sources' volume and set them to mute/unmute. The default volume of all inputs is -20dB, and the mute status is set to unmute. For example:
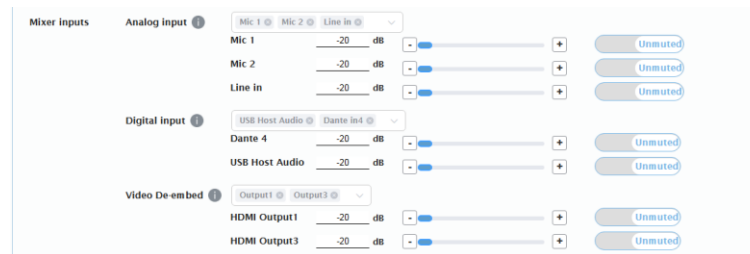
- Ducking: Set input audio ducking function to On/Off.
  - ➢ Master Selection: Select the master input source from the drop-down menu for triggering ducking. When the selected input source reaches the Ducking trigger, other inputs are Ducked.

    For example, when select Mic 1 as master, other input sources' volume will be Ducked down when Mic 1 is triggered Ducking.

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- ➢ Attack Time: Drag over the slider to specify the time it takes to lower the volume to the Ducking Depth after the Ducking Trigger threshold is met. Default setting is 72ms.

- ➢ Release Time: Drag over the slider to specify the time it takes to return to the regular volume from Ducking Depth. When the release time times out, the Ducking audio volume comes back up to its normal volume. Default setting is 868ms.

- ➢ Ducking Depth: Drag over the slider to specify the volume reduction. The lower the value is set, the lower the volume of the specified audio input is when Ducking is triggered. Default setting is 100.

- ➢ Ducking Trigger: Drag over the slider to specify the volume threshold for Ducking to occur. The lower the value is set, the easier the Ducking is triggered.

- ➢ For example, if Ducking trigger is set as -30dB, the Ducking is triggered when the Ducking master's volume reaches -30dB.

  Default setting is -35dB.

- • Mixer Outputs (multiple-choice): Click the check box to select the audio output channel(s) among Line Out 1, Amplifier Out, Dante 1-2, and NHD- 500 OUT. The audio outputs(s) will output the audio from the selected audio source. All selected audio outputs will output the same audio.

  - ➢ Mixer Output Volume: Drag over the slider to set the mixer audio output volume. The default setting is -100dB.

  - ➢ Muted/Unmuted: Set the mixer audio output to mute/unmute. The default setting is unmuted.

When selecting Local mixer2:
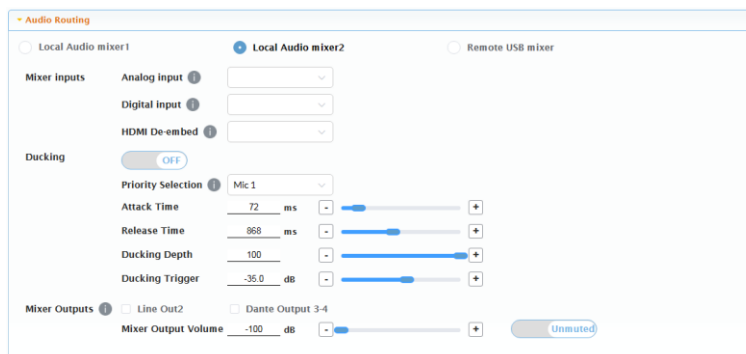
Mixer inputs and Ducking settings are same with Local Audio mixer1.

Mixer Outputs (multiple-choice): Click the check box to select the audio output channel(s) among Line Out 2, and Dante Output 3-4. The audio outputs(s) will output the audio from the selected audio source. All selected audio outputs will output the same audio. Other settings are same with selecting Local Audio mixer1.

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When select Remote USB mixer:

This section is used when the matrix is used for conferencing through remote conferencing software. The matrix is built-in a USB mic, when select this mixer and the connected laptop selected the matrix's USB mic, users can select the sources for the remote participants can receive, set AES, and set the audio volume to be transmitted through the conferencing software.

Analog input selection and HDMI De-embed selection are same with Local Audio mixer 1 and 2.

The digital audio input can be selected from the drop-down menu:
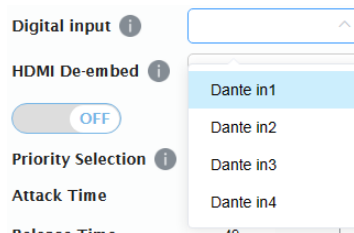

- Master Microphone Selection (multiple-choice): AEC function will be applied to this (these) input port(s).
- Mixer Outputs:
  ➢ Remote USB Audio: Drag over the slider to set the mixer audio output volume. The default setting is -100dB.
  ➢ Muted/Unmuted: Set the mixer audio output to mute/unmute. The defaulting setting is unmuted.

3) USB Routing
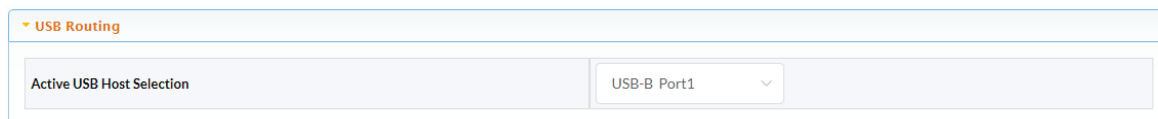
This section allows users to select USB host all the USB devices (including the local USB devices and remote USB devices (connected with HDBT receivers or NHD 500 receivers) connected.

Active USB Host Selection: Select the USB Host from the drop-menu. The default setting is USB-B Port1.
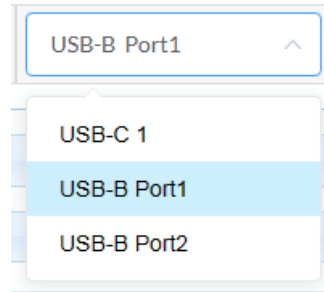
For example, when selecting USB-B Port1, all USB devices the matrix connected and the remote receivers connected are connected with USB-B Port 1.

4) Display Control
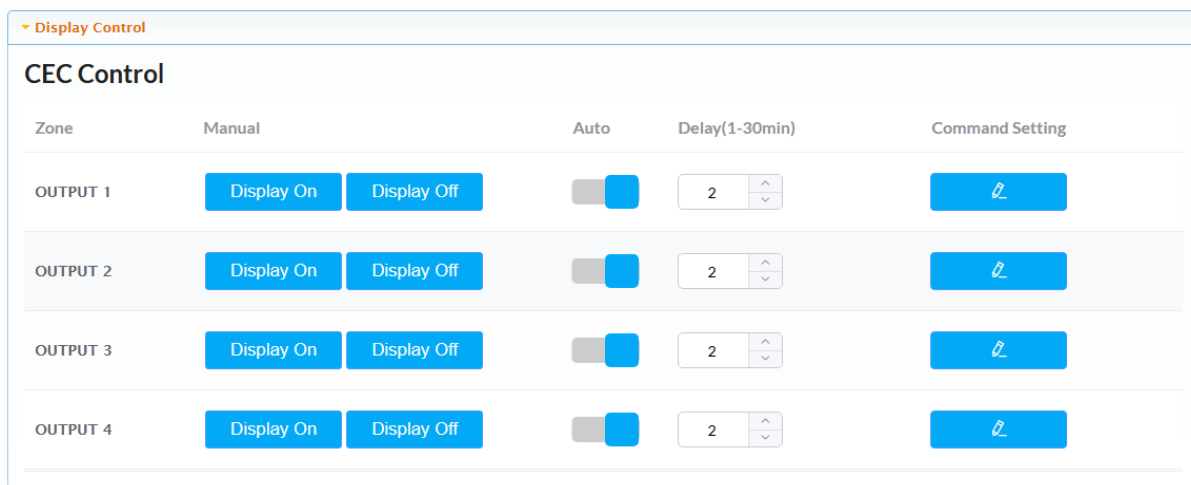
- Display On: Click to send the saved Display On command to the connected CEC-enabled display to power it on immediately.

- Display Off: Click to send the saved Display Off command to the connected CEC-enabled display to power it off 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 confirm change has takes effect.

- ➢ 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) Presets Matrix Control

This section saves/loads the matrix control settings to or from the Matrix.

- Save: Save the selection settings to the matrix.
- Load: Load the saved preset file from the matrix.

2. **General Setting**

1) A/V Configuration

A/V Configuration

Source

1	INPUT 1	2	INPUT 2
3	INPUT 3	4	INPUT 4
5	INPUT 5	6	INPUT 6
7	INPUT 7	8	INPUT 8

Zone

1	OUTPUT 1	2	OUTPUT 2
3	OUTPUT 3	4	OUTPUT 4

Input 1 Name

INPUT 1

EDID

Fixed 4K30 2.0CH PCM Audio with SDR   Apply

Save EDID

Video In

Video Details			
Resolution	0x0	Frame Rate	0
HDR Info	None	Color Space	None
Deep Color	None	HDCP Version	None

Audio In

Audio Details			
Format	None	Sampling Rate	0kHZ

A/V Configuration

Source

1	INPUT 1	2	INPUT 2
3	INPUT 3	4	INPUT 4
5	INPUT 5	6	INPUT 6
7	INPUT 7	8	INPUT 8

Zone

1	OUTPUT 1	2	OUTPUT 2
3	OUTPUT 3	4	OUTPUT 4

Output 1 Name

OUTPUT 1

Save EDID

HDCP ⓘ

Auto

Output Resolution

Auto

Video Out

Video Details			
Resolution	0x0	Frame Rate	0
HDR Info	None	Color Space	None
Deep Color	None	HDCP Version	None

Audio Out

Audio Details			
Format	None	Sampling Rate	0kHZ

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 selected input/output button turns from white to green).

- Input (1~8) / Output (1~4) Name: Input a new name for the selected input/output.

- EDID (for input 1-8): Select EDID for the corresponding input port, and click "Apply" to take effect. The default EDID of input 2-8 is Fixed 4K60 2.0CH PCM Audio with SDR, and the default EDID of the input 1 is Fixed 4K30 2.0CH PCM Audio with SDR.

  EDID Selection includes:

  Copy form HDMI Output 1;

  Copy form HDMI Output 2;

  Copy form HDMI Output 3;

  Copy form HDMI Output 4;

  Fixed 4K60 2.0CH PCM Audio with HDR;

  Fixed 4K60 2.0CH PCM Audio with SDR;

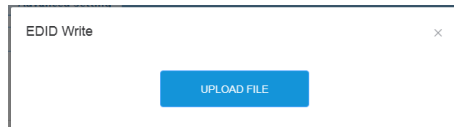 Fixed 4K30 2.0CH PCM Audio with HDR;

  Fixed 4K30 2.0CH PCM Audio with SDR;

  Fixed 1080p@60Hz 2.0CH PCM Audio with HDR;

  Fixed 1080p@60Hz 2.0CH PCM Audio with HDR;

  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.

- Save EDID: Click to save the EDID information of the select input/output as a bin file to local PC.

- HDCP (ON/OFF) (for input 2~8): Click to enable/disable HDCP encryption of each input port, the default setting is "ON".

- HDCP (for output 1~4): 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.
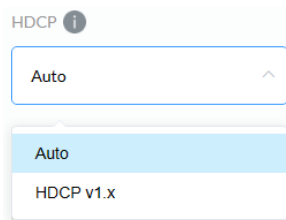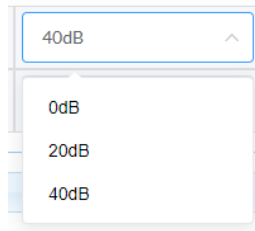

- Output Resolution (for output 1~4): Select output resolution for the selected output port. The default setting is "AUTO".

- Video In/Audio In (for input 1~8): Shows the video and audio information of the selected input.

- Video Out/Audio Out (for input 1~4): Shows the video and audio information of the selected input.

2) Mic Setting

Mic Settings	
Mic1 Gain Control	0dB
Mic1 Phantom Power Control	Disabled
Mic2 Gain Control	0dB
Mic2 Phantom Power Control	Disabled

This section allows users to set phantom power control to enable/disable and set mic gain control value.

- Mic1/2 Gain Control: Set gain control of the mic in1/2 from the drop-down menu, the default setting is 0dB.

40dB	∧
0dB	
20dB	
40dB	

- Mic1/2 Phantom Power Control (Enabled/Disabled): Set phantom power of mic in1/2 to enable/disable. When set it to enable, please ensure a phantom microphone is connected to the corresponding mic in port to avoid a damage to the microphone. Both the default setting of Mic1 and Mic 2 Phantom Power Control are "Disabled".

3) GPIO Settings

GPIO Settings	
GPIO Channel	1
GPIO Type	
GPIO State	
	Apply

This section allows users to set the GPIO pins.

- GPIO Channel: Select the port number from the drop-down menu to configure.

- GPIO Type: Select the GPIO trigger type from the drop-down menu between Digital In and Digital Out.

When selecting Digital In (default):

GPIO Settings		
GPIO Channel	1	
GPIO Type	Digital In	
Low-state Threshold(V)	1	ⓘ
High-state Threshold(V)	2	ⓘ
GPIO State	LOW	
		Apply

This section allows users to set low and high state threshold. This mode reads the digital input of an external sensor device that is connected to the GPIO port, and detects the voltage state.

➢ Low-state Threshold (V): Define the low detect voltage threshold (the range is 1 to 22V).

➢ High state Threshold (V): Define the high detect voltage threshold (the range is 2 to 23V).

➢ GPIO State: If the detected result is less than the low-state threshold users set, it wills display "LOW" here, and if the result is more than the high-state threshold users set, it will display "HIGH" here.

➢ Apply: Click "Apply" to confirm the settings.

When selecting Digital Out:

▼ GPIO Settings	
GPIO Channel	1 ⌄
GPIO Type	Digital Out ⌄
Pull-up Resistor	Disconnected ⌄
GPIO State	Low ⌄
	Apply

➢ Pull-up Resistor: Set Pull-up Resistor to "Connected" / "Disconnected".

➢ GPIO State: Set GPIO state to "High" or "Low".

When set the GPIO State to "High", and set Pull-up Resistor to "Connected", the matrix supplies an internal 5V Pull-up resistor. While set Pull-up Resistor to "Disconnected", the pull-up voltage is determined by the external connected pull-up resistor. When GPIO state is set to "Low", the output voltage is low level.

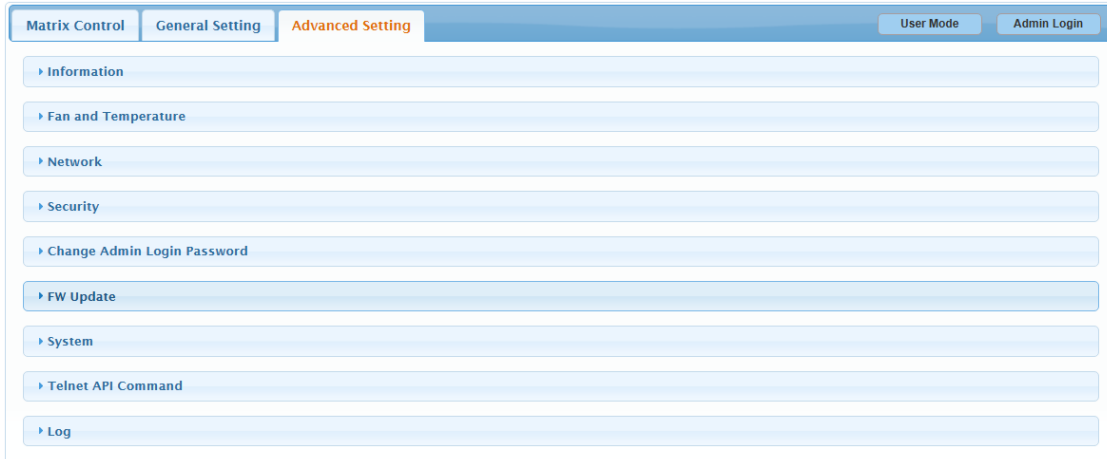➢ Apply: Click to confirm the settings.

4) Relay Settings

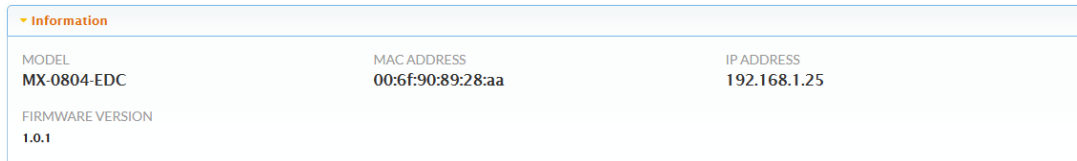| ▼ REALY Settings	
Relay Channel	1 ⌄
Relay State	Off ⌄

This section allows users to configure relay ports.

• Relay Channel: Select relay channel between 1 and 2.

• Relay State: Set relay state from the drop-down menu. When set to "On", NO and COM pins of the selected relay port are active, and NC and COM pins of the selected are inactive. When it is set to "Off", NC and COM pins of the selected relay port are active, and NO and COM pins of the selected relay port are inactive.
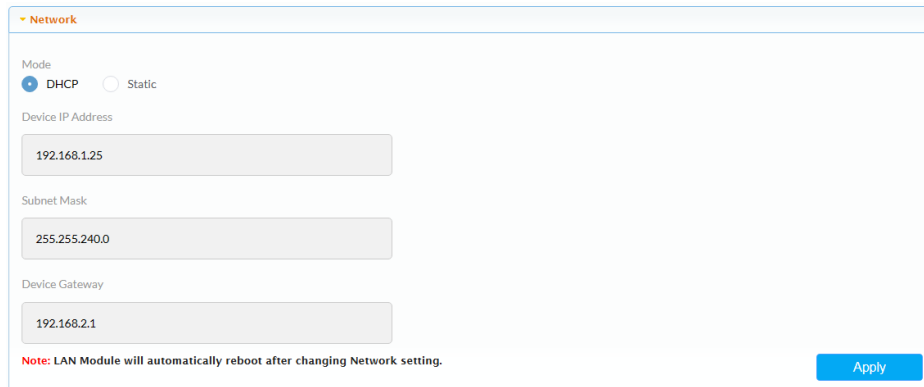
3. Advanced Setting

Matrix Control	General Setting	**Advanced Setting**		User Mode	Admin Login

▸ Information

▸ Fan and Temperature

▸ Network

▸ Security

▸ Change Admin Login Password

▸ FW Update

▸ System

▸ Telnet API Command

▸ Log

1) Information

▾ **Information**

MODEL	MAC ADDRESS	IP ADDRESS
MX-0804-EDC	**00:6f:90:89:28:aa**	**192.168.1.25**

FIRMWARE VERSION
1.0.1

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

2) Fan and Temperature

▾ **Fan and Temperature**

Fan Speeds	Temperatures(℃)
[2760,2730]	[46]

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

3) Network

▾ **Network**

Mode
◉ DHCP   ○ Static

Device IP Address
192.168.1.25

Subnet Mask
255.255.240.0

Device Gateway
192.168.2.1

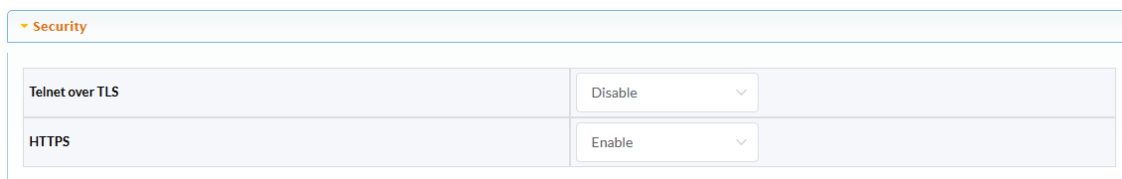Note: LAN Module will automatically reboot after changing Network setting.

Apply

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

- DHCP: 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.
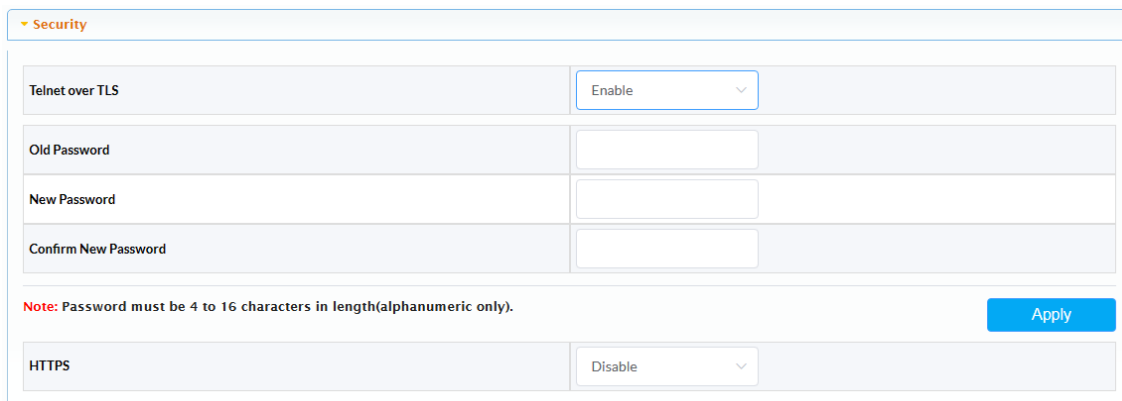
4) Security

▾ Security	
Telnet over TLS	Disable ▿
HTTPS	Enable ▿

- 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.

▾ Security	
Telnet over TLS	Enable ▿
Old Password	
New Password	
Confirm New Password	
Note: Password must be 4 to 16 characters in length(alphanumeric only).	Apply
HTTPS	Disable ▿

- HTTPS (Enable/Disable): Set HTTPS to "Enable" or "Disable". The default setting is "Enable". HTTPS (Enable): HTTPS is active.

    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 text, so it becomes incomprehensible for a third-party and keeps the data secure.

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Technical Support: 844.280.WYRE (9973)
Support@WyreStorm.com

5) Change Admin Login Password

▾ Change Admin Login Password	
Old Password	
New Password	
Confirm New Password	

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

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

▾ FW Update	
File:	[Browse] [Update]

Note: Do not power off the matrix when updating.

This section allows users to update firmware.

To update Firmware:

1. Click "Browse" for the update bin file.
2. Click "Update" to proceed.
3. The matrix will reboot automatically after upgrading is completed.

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

7) System

▾ System
[Reboot] [Factory Reset]

- 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) Telnet API

▾ Telnet API Command
[Apply]

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

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

For example:

9) Log

This section shows the operation log and commands return.

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