

WOXCON



WX-SEM88-H2

4K Seamless Switching HDMI Matrix

User Manual

Version: V1.0.2



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Introduction

Overview

This product is an 8 x 8 seamless switching HDMI matrix with 4K60 scalers built-in on each HDMI output. It includes one multi-function USB-C input that features AV, 1G network and PD 3.0 host charging up to 60W. It also provides independent audio routing between eight inputs to four analog outputs.

Designed for 1U rackmount and stand-alone installation, this product provides perfect 4K A/V switching and distribution solutions for professional markets, such as corporate training rooms, hotel conference rooms, university classrooms, etc.

Features

- All inputs and outputs support resolutions up to 4K@60Hz 4:4:4 8bit.
- HDCP 2.3 and backwards compatible.
- Each HDMI output has a 4K60 scaler built-in and supports scaling output resolutions from 480p to 2160p.
- Seamless switching between HDMI inputs and outputs.
- USB-C input port supports 4K@60Hz, 1G network, and PD 3.0 host laptop charging up to 60W.
- Supports independent audio switching:
 - ⇒ Provides audio de-embedding of 1 x USB-C and 7 x HDMI inputs, and each input supports sampling frequencies up to 192KHz.
 - ⇒ Supports 4 x analog line audio outputs.
 - ⇒ Supports independent switching between de-embedding audio and analog line audio outputs.
- Multiple control options, including front panel buttons, RS-232 and LAN (Web UI & Telnet).

Package Contents

- 1 x Matrix Switcher
- 1 x AC Power Cord with US Pins
- 1 x 2m USB 3.1 Type-C Cable (5Gbps per lane)
- 1 x 3.5mm 3-Pin Phoenix Male Connector
- 4 x 3.5mm 5-Pin Phoenix Male Connectors
- 2 x 1U Rack Mounting Brackets
- 8 x M3*L7 Mounting Screws
- 1 x Quick Start Guide

Specifications

Technical	
Input Video Ports	1 x USB-C, 7 x HDMI
Input 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 Video Ports	8 x HDMI
Output Video Type	4K@60Hz 4:4:4 8bit, HDCP 2.3
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/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)

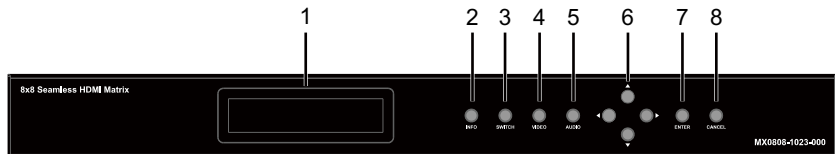
General	
Operating Temperature	0°C ~ 45°C (32°F ~ 113°F)
Storage Temperature	-20°C ~ 70°C (-4°F ~ 158°F)
Humidity	10% ~ 90%, non-condensing
ESD Protection	Human-body model: ±8kV (air-gap discharge) / ±4kV (contact discharge)
Power Supply	AC 100~240V 50/60Hz
Power Consumption (max)	128W (Max)
Dimensions (W x H x D)	440mm x 43.5mm x 330mm/17.32" x 1.71" x 12.99" (Brackets not included)
Rack Space Required	1U
Weight	4.68kg/10.3lbs

Transmission Distance

Cable Type	Range	Supported Video
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

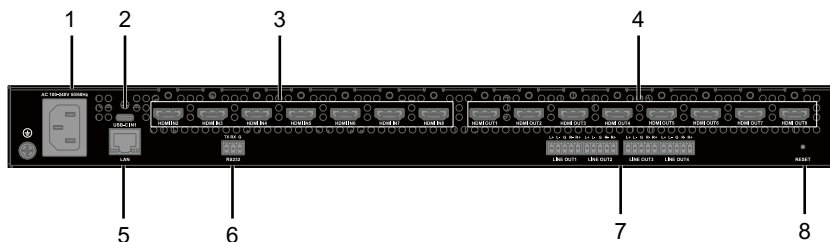


#	Name	Description
1	LCD Screen	Displays the information of the button operation.
2	INFO	Press to display the device's information on the LCD screen, including IP address, fan speed, physical address, firmware version and temperature.
3	SWITCH	Press the button to enter input channel selection mode.
4	VIDEO	Press to display the video information of the selected input port on LCD screen, including resolution, color space and HDCP encrypted status.

#	Name	Description
5	AUDIO	Press to enter the volume adjustment mode.
6	Selection Buttons	<ul style="list-style-type: none"> • INFO: Press the four selection buttons to turn the page to display the information. • AUDIO: Press the left/right button to switch audio output ports and the up/down button to increase/decrease volume. • SWITCH: Press the left/right button to switch output and the up/down button to select input for the selected output. • VIDEO: Press the left/right button to switch input port and the up/down button to turn the page to display video information.
7	ENTER	Press to perform the button operation.
8	CANCEL	Press to cancel the button operation or exit current mode.

Note: For more information about the button operation, refer to the “[Front Panel Control](#)” section.

Rear Panel



#	Name	Description
1	AC 100~240V 50/60Hz	Connect to the power source using the AC power cord provided.
2	USB-C IN1	<p>USB 3.0 Type-C port; connect to a laptop. It provides the following functions:</p> <ul style="list-style-type: none"> • Supports audio, video and USB 3.0 (data rate up to 5Gbps) / 2.0 transmission; • Charges the USB-C source (that supports USB PD 3.0) up to 60W;

#	Name	Description
		<ul style="list-style-type: none"> Supports 1GbE connection for the connected laptop to access 1G network. <p>Tip: A USB Type-C to Type-C cable (USB 3.0 or above) is recommended.</p>
3	HDMI IN 2-8	Connect to HDMI sources.
4	HDMI OUT 1-8	Connect to HDMI displays.
5	LAN	Connect to an Ethernet device for LAN control (Web UI/Telnet).
6	RS232	Connect to an RS232 device for bi-directional serial communication.
7	LINE OUT 1-4	Connect to audio receivers.
8	RESET	<p>Reset button. Use a pointed stylus to press and hold the recessed button for the following:</p> <ol style="list-style-type: none"> Less than 5 seconds: Nothing will happen. 5 to 15 seconds: Reset the IP addressing mode of the device to DHCP and the login passwords of telnet-TLS session & web UI to factory defaults. <ul style="list-style-type: none"> Tip: The default login passwords for telnet-TLS session and web UI are “admin”. More than 15 seconds: Reset the device to factory defaults.

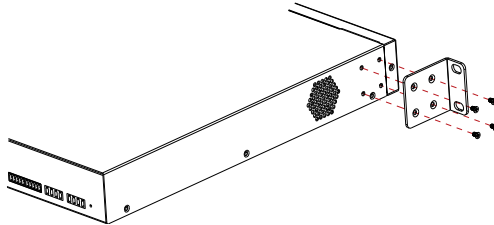
Installation and Wiring

Installation

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

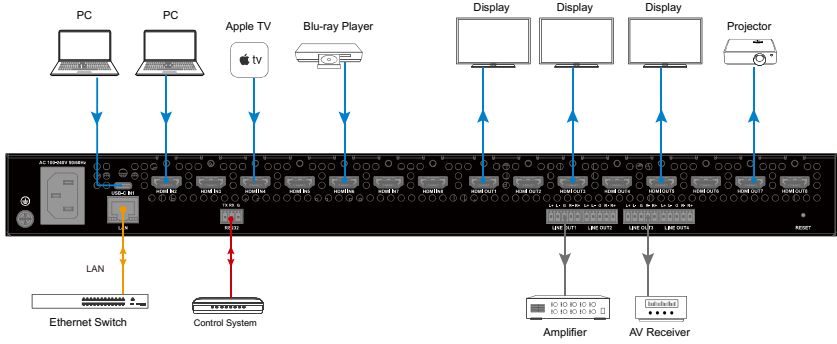
The matrix occupies 1U space and can be installed on a standard equipment rack, see following:

1. Position and secure the rack mounting brackets to the panels on two sides with screws (four on each side) provided.



2. Screw the unit to the equipment rack (screws are not included in the package).

Wiring



Control of the Matrix

The matrix can be controlled through front panel buttons, RS-232 or LAN (Web UI or Telnet).

Front Panel Button Control

Basic switching of input sources to output displays, audio volume adjustment, and device information can be achieved through front panel buttons.

Power on the device, the LCD window shows “Starting...”, followed by the device’s model No. and IP address, indicating that the device is ready for operation.

- To select an input source for an output display
 - 1) Press “SWITCH” button to enter input and output selection mode.
 - 2) Press the Left (◀) or Right (▶) button to select the output port number from 1 to 8. The “>” icon moves to the currently selected output port number.
 - 3) Press the Up (▲) or Down (▼) button to select the input port number in ascending or descending order from 1 to 8.

For example,

```
OUT: > 1 2 3 4 5 6 7 8
      IN: 3 2 3 4 5 6 7 8
```

- 4) Press “ENTER” button to implement the selection or press “CANCEL” to exit current mode and return to the main page.
- To adjust output audio volume
 - 1) Press “AUDIO” to enter volume adjustment mode.
 - 2) Press the Left (◀) or Right (▶) button to select audio output port number from 1 to 4.
 - 3) Press the Up (▲) or Down (▼) button to adjust volume of the selected channel from 0dB to -99dB, or mute.

For example,

Audio Out1 Volume

0dB

- 4) Press “CANCEL” to exit current mode and return to the main page.
- To view video information
 - 1) Press “VIDEO” button to enter input video information display mode.
 - 2) Press the Left (◀) or Right (▶) button to select the input port.
 - 3) Press the Up (▲) or Down (▼) button to view the selected input port’s video information.

For example,

HDMI IN2 Info

3840x2160 60, 8 bit

RGB, NO HDCP

- 4) Press “CANCEL” to exit the current mode and return the main page.
- To view device information
 - 1) Press “INFO” button to enter device information display mode.
 - 2) Press the Left (◀), Right (▶), Up (▲) or Down (▼) button to view the display information.

For example,

Device info

192.168.5.120

00:6f:90:11:20:1f

Temp: 45

Fan speed: 3990

Version: v1.0.2

- 3) Press “CANCEL” to exit the current mode and return the main page.

Command Control

Advanced users may need to control the device via API commands. For more information about API commands, refer to the separate document “*API Command Set_MX0808-1023-000*”.

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

1. RS232

Connect a PC to the RS232 port of the device. Before sending API commands to the device, ensure the serial ports between this device and the PC are configured correctly. A professional RS232 serial interface software (e.g., Serial Assist) may be needed as well.

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

2. Telnet

By default, Telnet protocol is enabled on the matrix. Before sending commands to the LAN port of the matrix through telnet, establish a telnet session between it and the PC.

The format of the command for establishing a telnet connection is as below:

```
telnet ip (port)
```

- *ip*: The device’s IP address.
- *port*: The protocol port number, this is non-required for some telnet client tools. Telnet port number is 23 and telnet-TLS port number is 24.

For example, if the device’s IP address is 192.168.11.143, the command for establishing telnet session with the device shall be the following:

```
telnet 192.168.11.143 23
```

Web UI Control

The Web UI is an intuitive software interface for users to manage and control the device with ease through a browser. A Chrome, Safari, Microsoft Edge or Firefox browser is recommended.

Accessing the Web UI

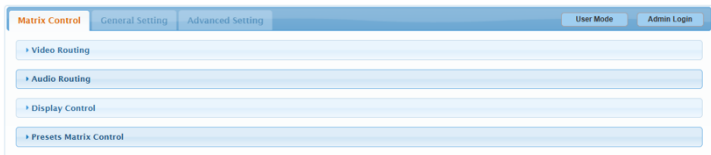
By default, the device's IP addressing mode is DHCP.

To access the Web UI:


1. Connect the LAN port of the device to local area network. Ensure there's a DHCP server in the network so that the device can obtain a valid IP address. The allocated IP address can be checked through the LCD screen menu. Tip: Another simple way to obtain the IP address is to send command "`GET IPADDR<CR><LF>`" to the device through RS232 port.
2. Connect a PC to the same network as the device.
3. Input the device's IP address in the browser and press Enter, the following page appears.



- User: To log on as a user, you are able to access the Matrix Control tab only for basic video and audio settings. Click **User** you will enter the web UI directly and no login password is required.



- Admin: To log on as an administrator, you are granted with full privileges to configure the matrix system. Select **Admin**, type the password (default password is **admin**) in the Admin Password field and press Enter.

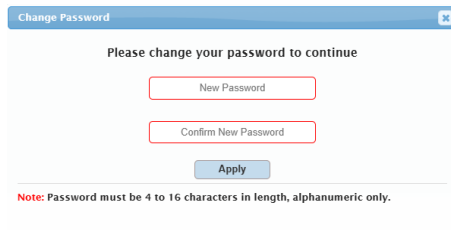


Matrix Control Login

User Admin

Admin Password: Admin Login

Input a new password in the following pop-up window and click **Apply** to enter the main page. The password must be alphanumeric with 4 to 16 characters in length.



Change Password

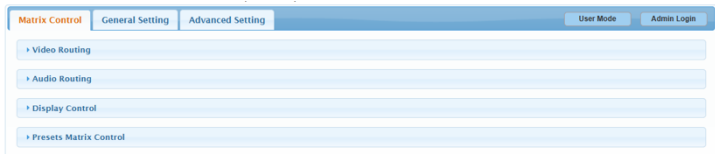
Please change your password to continue

New Password

Confirm New Password

Apply

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



Matrix Control General Setting Advanced Setting User Mode Admin Login

- Video Routing
- Audio Routing
- Display Control
- Presets Matrix Control

The web UI main page is split into Matrix Control, General Setting and Advanced Setting tabs.

- Matrix Control provides settings of video and audio routing, display control and preset management.
- General Setting provides settings of video and audio parameters.
- Advanced Setting provides device information and system settings, such as network settings, firmware upgrade, Telnet API command sending, etc.

Matrix Control

Video Routing

Video Routing									
Source/Zone	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4	OUTPUT 5	OUTPUT 6	OUTPUT 7	OUTPUT 8	All
input 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
input 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
input 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
input 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
input 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
input 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
input 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
input 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This section manages association relationships between the input video sources and output displays. Click the button in the table to select an input for a certain output display (button turns from white to blue once selection is done).

- **All:** Click to route a certain input to all outputs.
- **None:** Click to deselect the input for a certain output.

By default, Video Input 1 routes to Output 1, ..., Video Input (n) routes to Output (n), Video Input 8 routes to Output 8.

Audio Routing

Audio Routing					
<input type="radio"/> Follow Video		<input checked="" type="radio"/> Independent Switching			
Source/Zone	LINE OUT1	LINE OUT2	LINE OUT3	LINE OUT4	All
INPUT 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INPUT 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INPUT 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INPUT 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
INPUT 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INPUT 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INPUT 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INPUT 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This section manages audio routing mode and association relationships between the input audio sources and LINE OUT ports.

- **Follow Video:** In this mode, LINE OUT 1-4 follow the input channel selection of video outputs 1-4.

For example, if HDMI IN 1 routes to HDMI OUT 1, ..., HDMI IN 4 routes to HDMI OUT 4, when Follow Video is selected, audio of HDMI IN 1 routes to LINE OUT 1, ..., audio of HDMI IN 4 routes to LINE OUT 4.

- **Independent Switching:** In this mode, you are able select a desired audio input for a certain LINE OUT port manually, which will be independent of the settings in [Video Routing](#) section.

In Independent Switching mode, click the button in the table to select an audio input for a certain output (button turns from white to blue once selection is done).

- ☐ **All:** Click to route a certain audio input to all LINE OUT ports.

Default setting: Follow Video

Display Control

Display Control					
CEC Control					
Zone	Manual		Auto	Delay(1-30min)	Command Setting
OUTPUT 1	Display On	Display Off	<input type="checkbox"/>	2	ℓ
OUTPUT 2	Display On	Display Off	<input type="checkbox"/>	2	ℓ
OUTPUT 3	Display On	Display Off	<input type="checkbox"/>	2	ℓ
OUTPUT 4	Display On	Display Off	<input type="checkbox"/>	2	ℓ
OUTPUT 5	Display On	Display Off	<input type="checkbox"/>	2	ℓ
OUTPUT 6	Display On	Display Off	<input type="checkbox"/>	2	ℓ
OUTPUT 7	Display On	Display Off	<input type="checkbox"/>	2	ℓ
OUTPUT 8	Display On	Display Off	<input type="checkbox"/>	2	ℓ

This section provides configuration of CEC control on output displays.

Manual

- **Display On:** Click to send the Display On command (predefined in the Command Setting dialog box) to the certain output display immediately.
- **Display Off:** Click to send the Display Off command (predefined in the

Command Setting dialog box) to the certain output display immediately.


- **Auto:** Toggle to turn on/off the automatic CEC control function. If Auto is turned on, the corresponding output port sends Display Off command to the connected display automatically when it detects no valid signal input within the predefined Delay time.

Default setting: On

- **Delay (1-30min):** Define the delay time for the output port to automatically send Display Off command to the connected display when no signal is present. For example, if the Delay is set to 2 minutes, the output display will automatically power off when there's no signal at the display in 2 minutes.

Default setting: 2

Command Setting

Click the  icon to open the Command Setting dialog box:



Command Testing	<input type="text"/>	<input type="button" value="Test"/>
Display On	<input type="text" value="40 04"/>	<input type="button" value="Save"/>
Display Off	<input type="text" value="40 36"/>	<input type="button" value="Save"/>

- **Command Testing:** Input a command and click **Send** to test if it sends out the command to the connected display successfully.
- **Display On/Off:** Type the defined CEC command for controlling display on/off, and click **Save**.

Default setting for Display On command is “40 04”, for Display Off command is “40 36”.

Note: To change CEC commands, please refer to the CEC specification document.

Presets Matrix Control

The screenshot shows a window titled "Presets Matrix Control" containing six preset slots arranged in a 2x3 grid. Each slot (Preset 1 through Preset 6) has two blue buttons: "SAVE" and "LOAD".

This section saves or loads settings to or from the Matrix.

- **SAVE:** Save the Settings in Matrix Control and General Setting tabs as a certain preset to the matrix.
- **LOAD:** Load the preset from the matrix.

General Setting

General Setting tab includes two submenus: A/V Configuration and Audio Output Settings.

A/V Configuration

The screenshot shows the "A/V Configuration" window. It is divided into several sections:

- Source:** A grid of 8 buttons labeled "INPUT 1" through "INPUT 8". "INPUT 1" is highlighted in green.
- Zone:** A grid of 8 buttons labeled "OUTPUT 1" through "OUTPUT 8".
- Input 1 Name:** A text input field containing "INPUT 1".
- EDID:** A dropdown menu showing "Fixed 4K30 2.0CH PCM Audio with SDR" and an "Apply" button. Below it is a "Save EDID" button.
- Video In:** A section with a blue header "Video Details" and a table:

Resolution	0x0	Frame Rate	0
HDR Info	None	Color Space	None
Deep Color	None	HDCP Version	None
- Audio In:** A section with a blue header "Audio Details" and a table:

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
5	OUTPUT 5	6	OUTPUT 6
7	OUTPUT 7	8	OUTPUT 8

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 manages alias name, input EDID, output HDCP support and displays video and audio detailed information for the input/output ports.

For input ports 1-8:

- **Source:** To select an input port.
- **Input Name (1~8):** Input a new alias name for the selected input.
- **EDID (Input 1-8):** Select EDID for the corresponding input port, and click **Apply**.

Note: Default EDID for Input 1 is Fixed 4K30 2.0CH PCM Audio with SDR and for Input 2-8 is Fixed 4K60 2.0CH PCM Audio with HDR.

EDID Options include the following:

- Copy from HDMI Output 1
- Copy from HDMI Output 2
- Copy from HDMI Output 3
- Copy from HDMI Output 4
- Copy from HDMI Output 5
- Copy from HDMI Output 6
- Copy from HDMI Output 7

- Copy from HDMI Output 8
- 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 SDR
- EDID Write

For EDID Write, click **Apply** > **UPLOAD FILE** to select an EDID file from your computer to have it imported to the matrix.



- **Save EDID:** To download the EDID information of the select input port as a bin file to local PC.
- Video Details: Displays the input port's video information.
- Audio Details: Displays the input port's audio information.

For output ports 1-8:

- **Zone:** To select an output port.
- **Output Name** (1~8): Input a new alias name for the selected output.
- **Save EDID:** To download the EDID information of the select input port as a bin file to the PC.
- **HDCP:** To configure the HDCP support function.
 - Auto:** To allow the selected output port to perform HDCP setting automatically.
 - HDCP v1.x:** To set the output port to HDCP 1.4 encryption.
Default setting: Auto
- **Output Resolution:** To configure output resolution for the selected output port.
 - Auto:** To allow the output port to select the most appropriate output

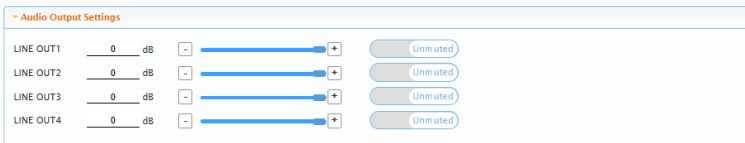
resolution automatically based on reading the attached display's EDID.

- Resolution list: To select a fixed resolution for the output port.

Default setting: Auto

- Video Details: Displays the output port's video information.
- Audio Details: Displays the output port's audio information.

Audio Output Settings



This section manages the audio properties of the LINE OUT ports (1-4), including the output audio volume, and toggle switch between mute and unmute.

- The output volume of LINE OUT 1-4 ranges from -100dB to 0dB, and can be turned up and down by and buttons.

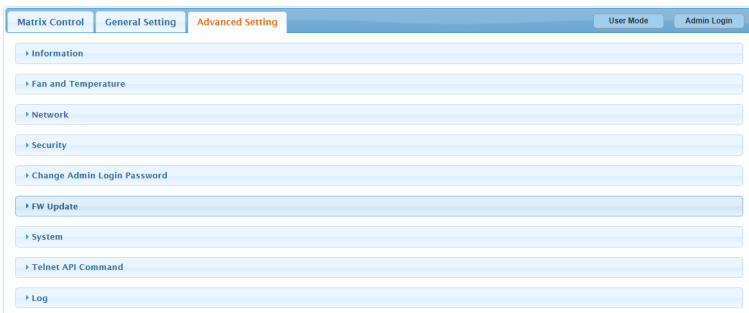
Default output audio volume is 0 dB.

- The toggle switch is provided for switching between mute and unmute of the audio output.

Default audio output status is unmuted.

Advanced Setting

The Advanced Setting includes the following submenus.



Information

Information		
MODEL	MAC ADDRESS	IP ADDRESS
MX-0808-SCL	00:6f:90:02:55:dd	192.168.5.129
FIRMWARE VERSION		
1.0.3		

This section displays the device information, including Model number, physical address, IP address and firmware version.

Fan and Temperature

Fan and Temperature	
Fan Speeds	Temperatures(°C)
[4050,4050]	[45]

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

Network

Network

Mode
 DHCP Static

Device IP Address
192.168.5.129

Subnet Mask
255.255.240.0

Device Gateway
192.168.2.1

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

[Apply](#)

This section manages network settings.

- IP Addressing mode:
 - DHCP:** When enabled, the IP address of the Matrix is assigned automatically by the DHCP server in the system.
 - Static:** When enabled, the IP address can be set manually.
 - ⇒ **Subnet Mask:** Set subnet mask manually when Static is selected.
 - ⇒ **Device Gateway:** Set gateway address manually to

communicate with another network when Static is selected.

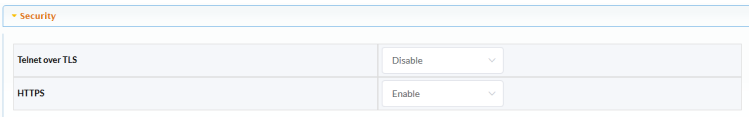
Default setting: DHCP

- **Apply:** Click to perform the network setting.

Tips:

- When "Static" is selected, ensure your PC is in the same network segment as the Matrix.
- Please wait for 2-3 minutes for the Matrix to reboot after the network settings are changed.

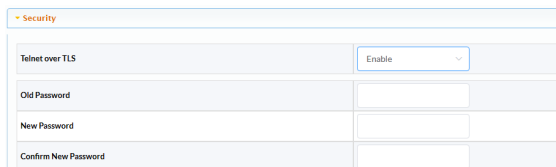
Security



Security	
Telnet over TLS	Disable
HTTPS	Enable

This section manages the protocol settings of communication to the API channel on the matrix.

- **Telnet over TLS:**
 - Disable:** When Telnet over TLS is disabled, telnet will be used for establishing an open and insecure connection to the matrix on port 23, which allows access to send and receive API commands from the computer.
 - Enable:** When Telnet over TLS is enabled, it will be used for establishing an encrypted and secure connection to the matrix on port 24. Default username and password for TLS login are listed in the following table, you can optionally set a new password for logging on to the matrix through TLS.



Security	
Telnet over TLS	Enable
Old Password	
New Password	
Confirm New Password	

	Telnet (Default)	Telnet over TLS
Port	23	24
Credentials	<none>	User: admin Default password: admin

Note: The password to log on to the matrix through TLS must be alphanumeric with 4 to 16 characters in length.

Default setting: Disable

- **HTTPS:** HTTPS provides an encrypted and secure access to the matrix, and can be enabled or disabled as needed to meet application security requirements.
 - Enable:** HTTPS will be used for providing an encrypted and secure access to the web server of the matrix.
 - Disable:** HTTP will be used for providing an open and unencrypted access to the web server of the matrix.

Default setting: Enable

Change Admin Login Password

Change Admin Login Password

Old Password	<input type="text"/>	
New Password	<input type="text"/>	
Confirm New Password	<input type="text"/>	

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

This section is for changing admin login password. The default password is “admin”.

- **Apply:** Click to perform the setting.

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

FW Update

FW Update

File:

Note: Do not power off the matrix when updating.

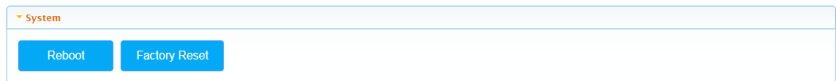
This section is for firmware update.

Steps for firmware update:

1. Contact your product supplier for the latest upgrade file.
2. Click “Browse” to select the upgrade file on your computer.
3. Click “Update” to proceed. The matrix reboots automatically after upgrading is completed.

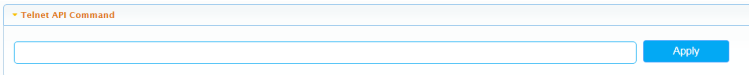
Note: Do not power off the matrix during the upgrading.

System



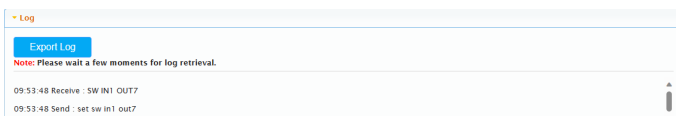
- **Reboot:** Click to reboot the device, and wait for 2 minutes to log back in by refreshing the browser.
- **Factory Reset:** Click to reset the device to factory defaults, and wait for 2 minutes to log back in by refreshing the browser.

Telnet API

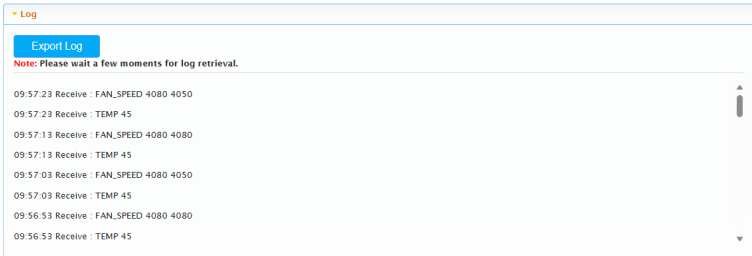


This section allows users to send telnet API commands to the matrix. The command response can be obtained in “Log” section.

- **Apply:** Click to send the input command to the matrix.
For example, enter the telnet API `set sw in1 out7<CR><LF>` and click **Apply**, a response of `SW IN1 OUT7` will be displayed in the Log section as the following:



Log



This section displays the system log and command response.

- **Export Log:** Click to export the log to the computer.

