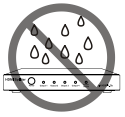
USER MANUAL

UNITY™ UC STUDIO
TA-MCS42-4KNDI

4K Multi-Camera Video Bridge with USB, HDMI & NDI Inputs & Outputs

Contents

Important Safety Instructions



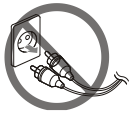
1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

6. Clean this apparatus only with dry cloth.

2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.

7. Unplug this apparatus during lightning storms or when unused for long periods of time.

3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.



8. Protect the power cord from being walked on or pinched particularly at plugs.

4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Only use attachments / accessories specified by the manufacturer.

5. Do not place sources of naked flames, such as lighted candles, on the unit.

10. Refer all servicing to qualified service personnel.

1. Introduction

1.1 Overview

The TA-MCS42-4KNDI is a multi-camera switcher that combines up to four local video sources into HDMI and USB output streams. It supports two HDMI inputs and two USB cameras (UVC/UAC) up to 4K@30Hz, and offers flexible multi-view layout options such as quad view, picture-in-picture, and more.

Simultaneous video output is available via HDMI and USB (UVC), with the USB HOST port mirroring the HDMI OUT2, while HDMI OUT1 delivers a dedicated full-screen output. Built-in analog audio input and output, along with a configurable audio matrix, allow flexible audio routing and mixing.

The device also supports up to four NDI inputs and one mirrored NDI output (video only), enabling smooth integration into IP-based video workflows.

Featuring seamless switching, an OLED screen and control buttons on the front panel, and versatile control via LAN (web UI & Telnet API) or RS-232, the switcher delivers reliable performance and streamlined operation. It is ideal for PC-based video recording, conferencing, lecture capture, and more.

1.2 Features

- Supports four local video inputs up to 4k@30Hz: two USB (UVC/UAC) and two HDMI (camera and non-camera input sources supported)
- Offers multiple multi-view layouts, including quad view, picture-in-picture, and more
- Provides three video outputs: HDMI OUT1, HDMI OUT2 and USB HOST (UVC/UAC), with USB HOST mirroring HDMI OUT2
- NDI support:

    - Up to four NDI inputs (video only, up to 4K@30Hz)
    - One NDI output (video only), mirroring USB HOST and HDMI OUT2
- Seamless, low-latency switching among video sources
- Two USB peripheral ports connect to the USB HOST through the built-in USB hub
- Built-in audio matrix for flexible audio routing and mixing, with volume and mute control
- One analog audio input and one analog audio output for easy integration with third-party audio equipment
- Front panel OLED screen displays IP address and firmware version for easy setup and status monitoring
- Physical buttons on the front panel allow quick source switching and layout changes (for HDMI OUT2)
- Flexible control options, including LAN (web UI & Telnet API) and RS232 serial control
- Compatible with Windows and macOS systems

1.3 Package Contents

- 1 x Switcher Unit
- 1 x 3.5mm 4-Pin Phoenix Male Connector
- 1 x 20V DC 3A Power Adapter
- 1 x AC Power Cord (US Plug)
- 4 x Mounting Brackets

1.4 Specifications

Technical	
Video Input	• USB IN 1–2: 2 x USB 3.0 Type-A Female (USB 3.0/2.0) • HDMI IN 1–2: 2 x HDMI Type-A (HDMI 1.4, HDCP 1.4) • LAN: 1 xRJ-45 Female Connector (H.264/H.265, for NDI input)
Input Resolutions	• USB IN 1–2: - **Single input**: 3840x2160P@30Hz, 1920x1080P@60Hz, 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz - **Dual input**: 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz • HDMI IN 1–2: - 3840x2160P@30Hz, 1920x1080P@60Hz, 1920x1200P@60Hz,1920x1080P@50Hz, 1920x1080P@30Hz, 1920x1080P@25Hz, 1920x1080P@24Hz, 1680x1050P@60Hz, 1600x1200P@60Hz, 1450x1050P@60Hz, 1440x900P@60Hz, 1366x768P@60Hz, 1360x768P@60Hz, 1280x1024P@60Hz, 1280x800P@60Hz, 1280x768P@60Hz, 1280x720P@60Hz, 1280x720P@50Hz, 1280x720P@30Hz, 1024x768P@60Hz, 800x600P@60Hz, 720x576P@50Hz, 720x480P@60Hz, 640x480P@60Hz • LAN: - **Dual stream:** 3840x2160P@30Hz, 1920x1080P@60Hz, 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz - **Quad stream:** 1920x1080P@60Hz, 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz
Video Output	• HDMI OUT1: 1 x HDMI Type-A (HDMI 2.0, HDCP 2.2) • HDMI OUT2: 1 x HDMI Type-A (HDMI 1.4, HDCP 2.2) • USB HOST: 1 x USB 3.0 Type-C (USB 3.0/2.0) • LAN: 1 x RJ-45 (H.264/H.265, NDI output)
Output Resolutions	• HDMI OUT 1: - 3840x2160P@60Hz, 3840x2160P@50Hz, 3840x2160P@30Hz, 3840x2160P@25Hz, 3840x2160P@24Hz, 2560x1440P@60Hz, 2560x1440P@30Hz, 1920x1080P@60Hz, 1920x1080P@50Hz, 1920x1080P@30Hz, 1680x1050P@60Hz, 1600x1200P@60Hz, 1440x900P@60Hz, 1366x768P@60Hz, 1280x1024P@60Hz,1280x800@60Hz, 1280x720P@60Hz, 1280x720P@50Hz, 1024x768P@60Hz, 720x576P@50Hz, 720x480P@60Hz • HDMI OUT 2: - 3840x2160P@30Hz, 2560x1440P@30Hz, 1920x1080P@60Hz, 1920x1080P@50Hz, 1920x1080P@30Hz, 1680x1050P@60Hz, 1600x1200P@60Hz, 1440x900P@60Hz, 1366x768P@60Hz, 1280x1024P@60Hz,

Technical	
	1280x800@60Hz, 1280x720P@60Hz, 1280x720P@50Hz, 1024x768P@60Hz, 720x576P@50Hz, 720x480P@60Hz • USB HOST: - 3840x2160P@30Hz, 1920x1080P@60Hz, 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz, 640x480@30Hz, 640x360@30Hz, 320x240@30Hz • LAN: - 3840x2160P@30Hz, 1920x1080P@60Hz, 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz
USB Protocol	• USB IN 1–2 & USB HOST: UAC, UVC • USB PERIPHERAL: All features
Input Audio Port	2 x USB IN, 2 x HDMI IN, 1 x USB HOST, 1 x Analog AUDIO IN
Input Audio Format	• USB IN 1–2 /HDMI IN 1–2/USB HOST: LPCM, 2CH • AUDIO IN: Balanced, 2CH
Output Audio Port	2 x HDMI, 1 x Analog AUDIO OUT, 1 x USB HOST
Output Audio Format	• USB HOST / HDMI OUT 1–2: LPCM, 2CH • AUDIO OUT: Balanced, 2CH
Control Method	• Front panel OLED screen and buttons • RS232 serial control • LAN-based control (Web UI, Telnet API)

General	
Operating Temperature/ Humidity	32°F – 113°F (0°C – 45°C), 10% – 90%, non-condensing
Storage Temperature/ Humidity	-4°F – 158°F (-20°C – 70°C), 10% – 90%, non-condensing
Power	20V DC 3A
Power Consumption	Max: 31.4W
ESD Protection	Human body model: ±12kV (air-gap discharge) / ±8kV (contact discharge)
Dimensions (W x H x D)	9.84" x 0.98" x 5.52" (250mm x 25mm x 140.2mm)
Net Weight	2.02lbs (0.92kg)

2. Panel Overview

2.1 Front Panel

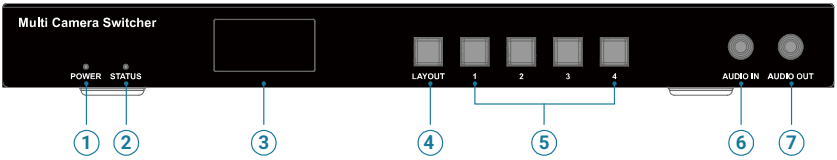


Figure 1: Front Panel

#	Name	Description
1	POWER LED	• On: The device is powered on. • Off: The device is powered off.
2	STATUS LED	• On: The device is working properly. • Off: The device is not working.

3	OLED Screen	Displays the device's IP address and firmware version.
		Example:
		`IP Address:`
		`192.168.11.2`
		`Version:`
		`V1.0.9`

4	LAYOUT Button	Toggle among multiple preset layouts for HDMI OUT2. For more information, refer to the *Switching Layouts with the Layout Button* section.
5	Buttons (1–4)	Four source selection buttons. Click one button to cycle through the four physical video sources—USB IN1, USB IN2, HDMI IN 1, and HDMI IN2—for the corresponding window in the multi-view layout on HDMI OUT2.
6	AUDIO IN	3.5mm TRS connector. Connect to an audio source for analog audio input.
7	AUDIO OUT	3.5mm TRS connector. Connect to an audio receiver for analog audio output.

2.2 Rear Panel

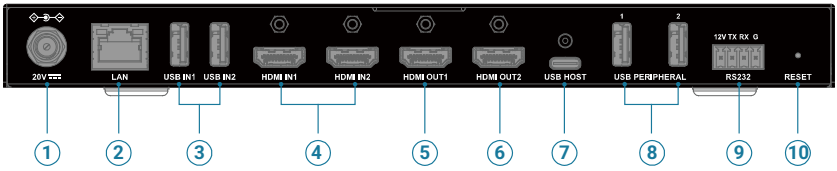


Figure 2: Rear Panel

#	Name	Description
1	20V	Connect to 20 V DC 3A (or higher) power via the power adapter provided.
2	LAN	Connect to a Gigabit Ethernet switch for device management (via web UI or Telnet API) and for NDI traffic transmission.
3	USB IN (1–2)	Two USB 3.0 Type-A female connectors. Connect to USB cameras for camera source input. Each port outputs up to 1 A of current.
4	HDMI IN (1–2)	Connect to HDMI sources.
5	HDMI OUT 1	Connect to an HDMI display.
6	HDMI OUT 2	Connect to an HDMI display to output video sources in either single-view or multi-view mode.
7	USB HOST	Connect to a USB-C computer for USB video output. This port mirrors the HDMI OUT2 signal and supports UVC and UAC specifications. DisplayPort Alternate Mode (DP Alt mode) is not supported.
8	USB PERIPHERAL	Two USB 3.0 Type-A female connectors. Connect to USB peripheral devices. These ports are routed to the USB HOST port via the built-in USB hub. Each port outputs up to 1 A of current.
9	RS232	Connect to an RS232 controller for device management or to an RS232 peripheral for peripheral control. • **12V**: Connect for 12 V DC 0.5 A output. • **RX**: Connect to TX terminal. • **TX**: Connect to RX terminal. • **G**: Connect to ground.
10	RESET	Short press to show OSD; or press and hold for five seconds to restore the device to factory defaults.

3. Installation

Note:

- Before installation, ensure the device is disconnected from the power source.
- Recommended maximum installation height for the device is 2 meters.

Steps to install the device on a flat surface:

1. Attach two mounting brackets to each side of the device using the screws provided in the package (two screws per side).
2. Secure the brackets to a flat surface using appropriate screws (not included).

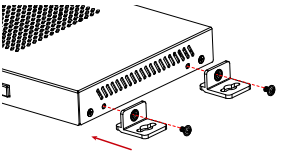


Figure 3: Installing Brackets

4. Typical Application

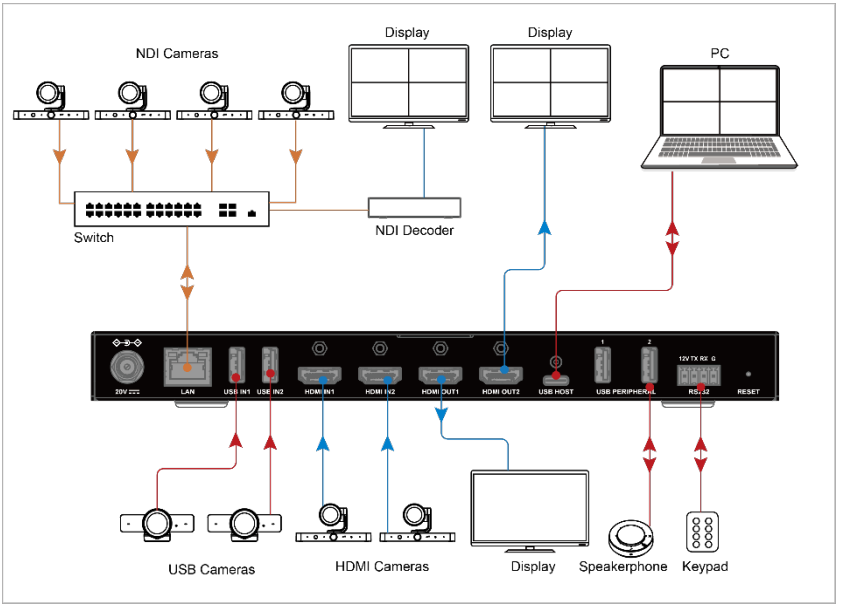


Figure 4: Application Example

Features:

- Supports up to two USB cameras and two HDMI cameras connected via local input ports.
- HDMI OUT1 displays any selected video source in single-view mode.
- HDMI OUT2 and USB HOST output identical video content, supporting up to quad-view display.
- Supports external control via RS232 and LAN (web UI and Telnet API).
- Additionally supports up to four NDI input sources and one NDI output stream over the network.

5. Device Control via Front Panel

Users can easily view the device information on the OLED screen and perform layout and source switching using the buttons on the front panel.

5.1 Identifying the IP Address

By default, the device automatically obtains a valid IP address from the DHCP server.

To check the assigned IP address, refer to the OLED screen on the front panel.

Example:

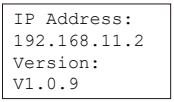


Figure 5: OLED Screen

Note: You can also acquire the IP address by connecting the device to a display, and the IP address will appear in the bottom-right corner of the display.

5.2 Switching Layouts with the Layout Button

By default, HDMI OUT2 supports up to quad-view output. You can cycle through the following layouts by pressing the **Layout** button on the front panel:

Full Screen > Picture in Picture > Side by Side > Left Big Right Small > Pyramid > Quad View

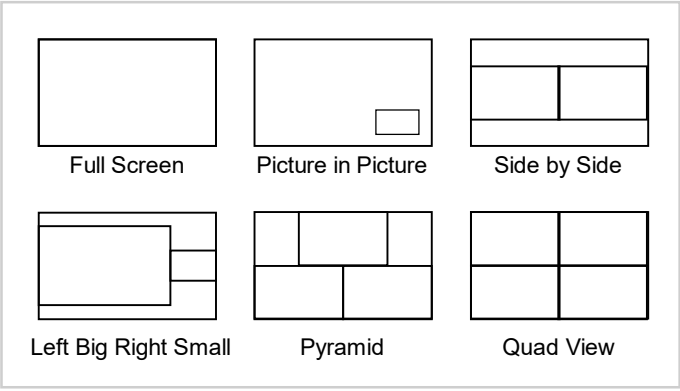


Figure 6: Preset Multi-View Layouts

5.3 Switching Sources in Certain Layouts

The buttons 1–4 are used to cycle through the four physical video sources—USB IN1, USB IN2, HDMI IN 1, and HDMI IN2—for the corresponding windows in the multi-view layout on HDMI OUT2.

For example, when the Picture in Picture layout is active, Button 1 controls Window 1 (the larger window), and Button 2 controls Window 2 (the smaller overlay).

Press each button to cycle through the four physical video sources for its assigned window.

Note: These buttons only control HDMI OUT2. For HDMI OUT1, which supports single source output only, source switching must be performed via the Web UI or API.

6. Device Control via Web UI

The web UI is an intuitive software interface that enables users to easily manage and control the device via a browser. It is recommended to use Chrome, Safari, Microsoft Edge or Firefox browser for the best experience.

6.1 Accessing the Web UI

By default, the IP addressing mode for the device is DHCP.

To access the Web UI of the device:

1. Connect the LAN port of the device to a local area network equipped with a DHCP server. This allows the device to acquire a valid IP address.
2. Connect your PC to the same network as the device.
3. Check the device's IP address through the OLED screen on front panel.
4. Input the device's IP address in the browser and press Enter. The Login page appears.

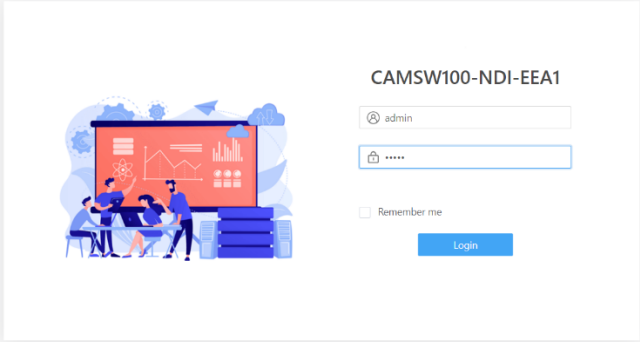


Figure 7: Login Page

5. Input the login name and password, then press Enter.
   The login name and default password are both set to **admin**.

Upon the first login, you will be prompted to change the password. Enter a new one and click **Apply** to complete the update.

Note: The new password must be alphanumeric and 4 to 16 characters long.

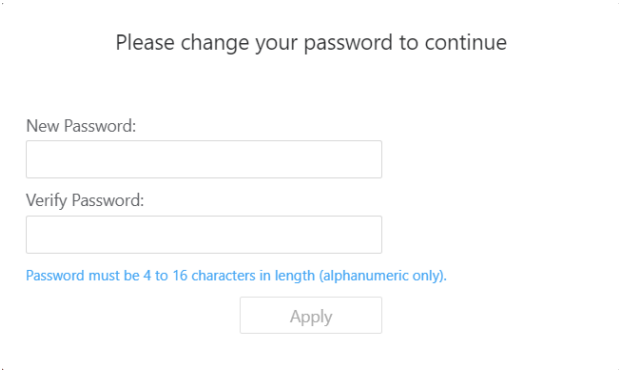


Figure 8: Change Password Window

6. The main page opens. Click a tab on the top navigation pane to open the corresponding page.

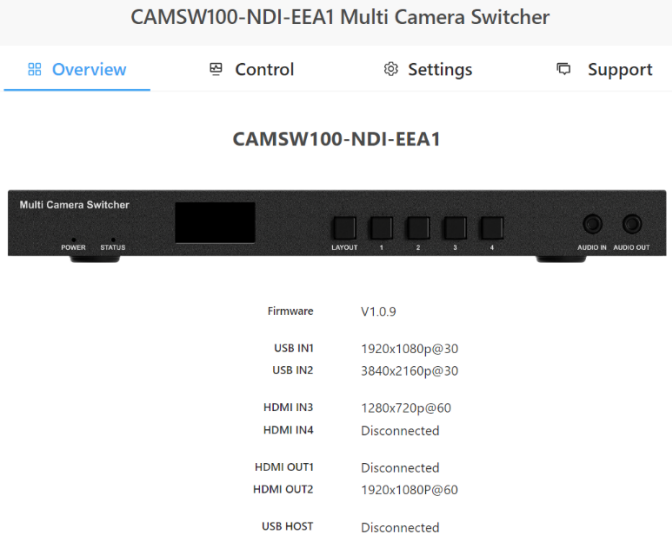


Figure 9: Main Page

The top navigation pane contains four tabs:

- **Overview**: Displays the connection status of input and output ports.
- **Control**: Allows you to route video and audio signals.
- **Settings**: Provides configuration options for video I/O, NDI I/O, display control, and system settings.
- **Support**: Displays device firmware information and allows firmware updates.

6.2 Overview

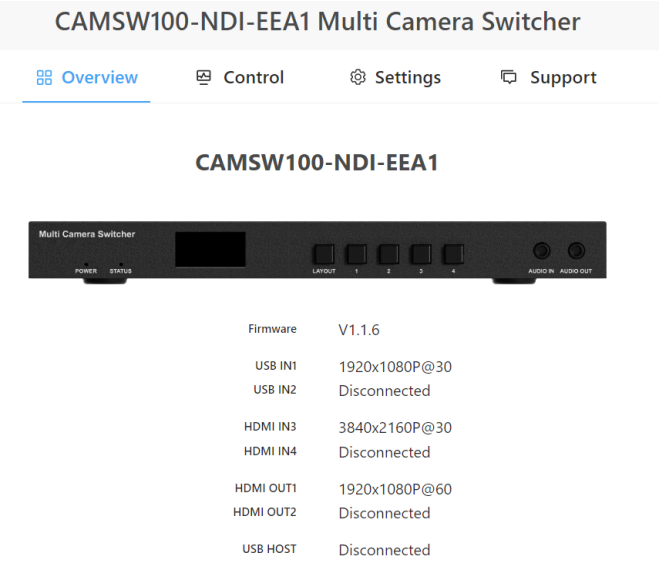


Figure 10: Overview Tab

On the Overview tab, you can view the current firmware version, along with the connection status and resolution for each video input and output port.

6.3 Control

6.3.1 Video

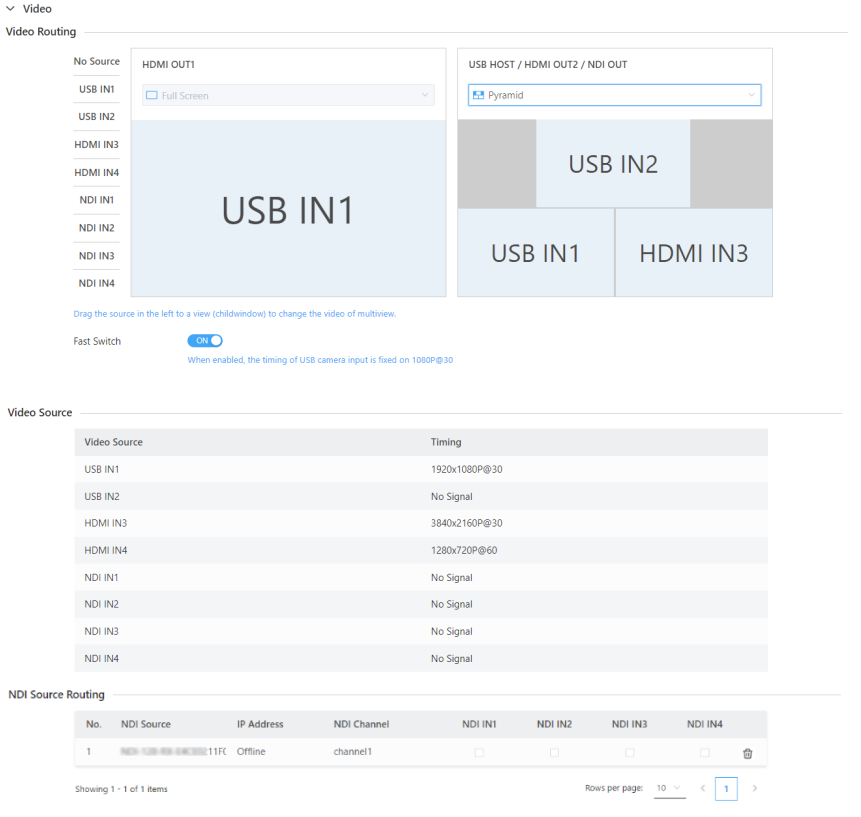


Figure 11: Video Section

The **Video** section comprises three subsections—Video Routing, Video Source and NDI Source Routing.

Video Routing

In this section, you could assign a certain video source to the corresponding output port, HDMI OUT1, as well as HDMI OUT2 and USB HOST (HDMI OUT2

and USB HOST output the same video content).

- To select a specific layout (single view or multi-view) for USB HOST/HDMI OUT2/NDI OUT, click the dropdown menu to select a desired one.

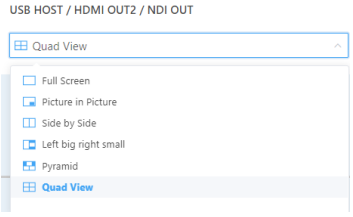


Figure 12: Selecting a Layout for USB HOST/HDMI OUT2/NDI OUT

- To assign one or more certain video sources for HDMI OUT1 (supports single-view only) or HDMI OUT2/USB HOST/NDI OUT: drag the source on the left to the corresponding window of the output port.
- Fast Switch: To toggle the fast switching of video sources on or off. By default, it is enabled, and the resolutions of the USB IN 1–2 are fixed at 1920 x 1080P@30Hz to support fast seamless switching.

Video Source

This section lists each video source channel and its timing.

NDI Source Routing

This section displays available NDI sources on the same network and allows you to assign them to the switcher's NDI input channels by checking the corresponding box(es). The switcher supports up to four NDI input channels, and also allows users to remove an offline NDI source from the list by clicking the delete (trash bin) icon.

6.3.2 Audio

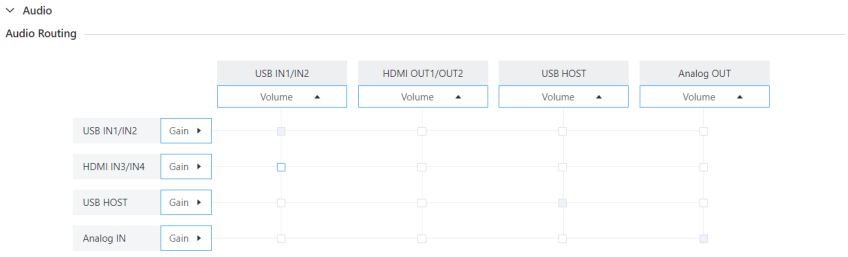


Figure 13: Audio Routing Matrix

This section allows you to perform audio routing between certain audio input and output ports.

- To route an audio input channel to one or more audio output channel, check the box that corresponds to the input and output channel in the routing matrix. The box will turn from blank into solid blue with a tick when routing relationship has been established successfully.

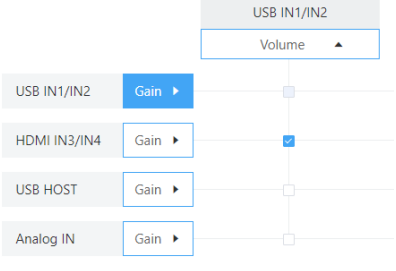


Figure 14: Routing an Audio Source to an Output

- To undo the audio routing, check the corresponding boxes to make them return to blank.
- To configure the audio gain for a certain audio source:
  Click the **Gain** button next to an audio input option, for example, the **USB IN1/IN2**, the following content will appear beneath the routing matrix.

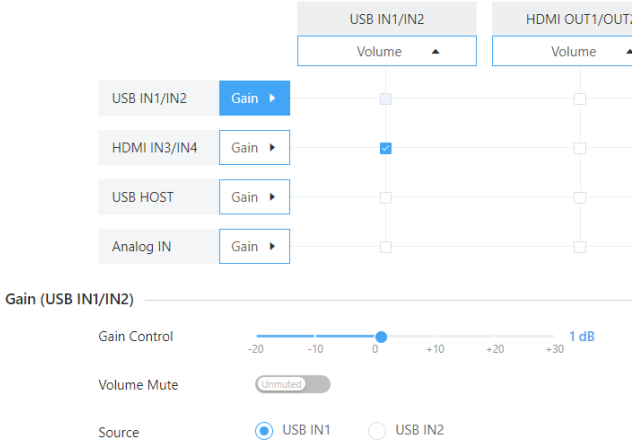


Figure 15: Configuring Audio Volume of an Audio Input

- **Gain Control**: To drag the slider to adjust the input audio volume. Default setting: 0 dB
- **Volume Mute**: To toggle on and off volume mute for the input audio. Default setting: Unmuted
- **Source:** To select the audio source between two audio channels. This configuration item applies to the USB IN1/IN2 and HDMI IN3/IN4 options only.

- To configure the audio volume for a certain audio output:
  Click the **Volume** button beneath an audio output option, for example, the **HDMI OUT1/OUT2**, the following content will appear beneath the routing matrix.

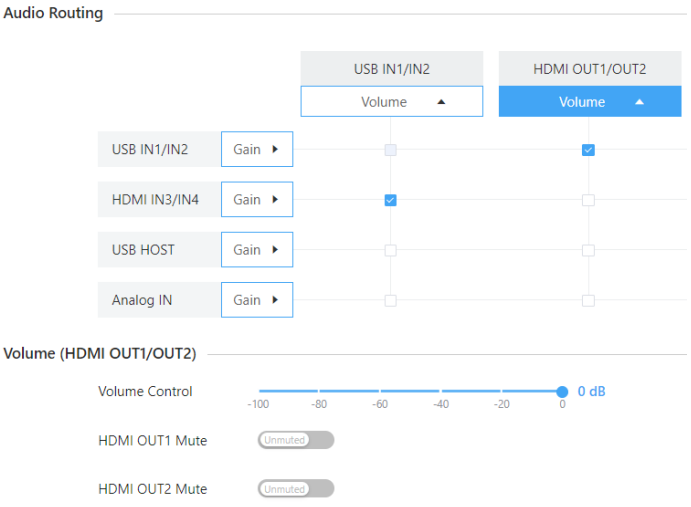


Figure 16: Configuring Audio Volume of an Audio Output

- **Volume Control**: To drag the slider to adjust the output audio volume.
  Default setting: 0 dB
- **Mute**: To toggle volume mute on and off for the output audio.
  Default setting: Unmuted
  Note: Only HDMI OUT1 and HDMI OUT2 support individual mute control. USB IN1/IN2 does not support this feature.

6.4 Settings

6.4.1 General Settings

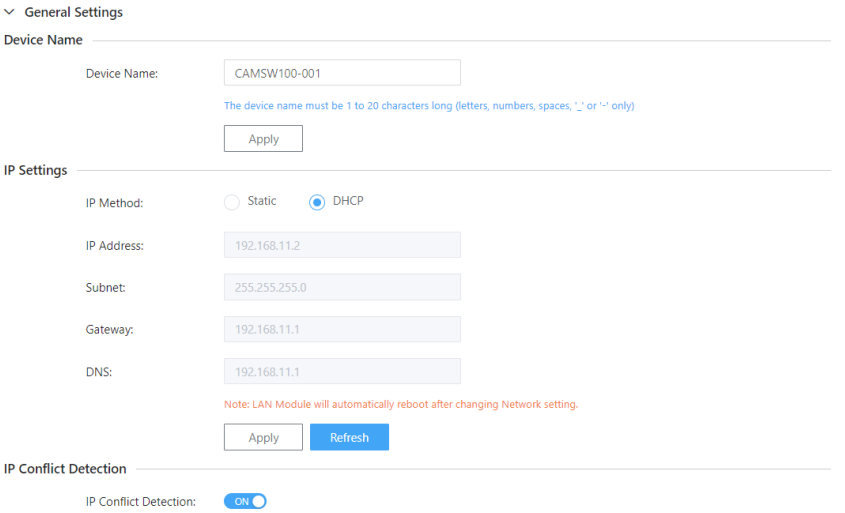


Figure 17: General Settings Section

Device Name

- **Device Name:** To specify a new device name.
  Default setting: CAMSW100-001
  Note: The name must be 1 to 20 characters long (only letters, numbers, spaces, '_' or '-' are supported).
- **Apply**: To apply the setting changes.

IP Settings

- **IP Method**: To select IP mode between Static and DHCP for the device.
  - **Static**: When selected, you must specify the IP address, Subnet, Gateway and DNS manually.
  - **DHCP**: When selected, the device will acquire a valid IP address from the DHCP server on the network.

Default setting: DHCP

- **Apply**: To apply the setting changes.
- **Refresh**: To refresh and show the current setting.

Note: The device will automatically reboot after IP settings are changed.

IP Conflict Detection

- **IP Conflict Detection:** To toggle the IP conflict detection function on or off.
  When enabled, if the PC you use to access the switcher is accidentally configured with the same IP address as the switcher, and both devices are on the same network, the switcher will display a prompt on the connected screen indicating an IP address conflict.
  Default setting: On

6.4.2 Video Input

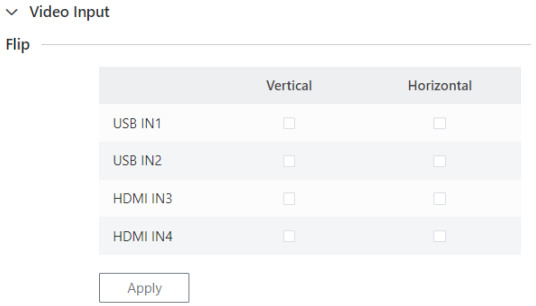


Figure 18: Configuring Video Flipping

This section allows you to flip one or multiple certain video sources vertically and/or horizontally by checking the corresponding box(es).

- **Apply**: Click to apply the setting change immediately.

6.4.3 Video Output

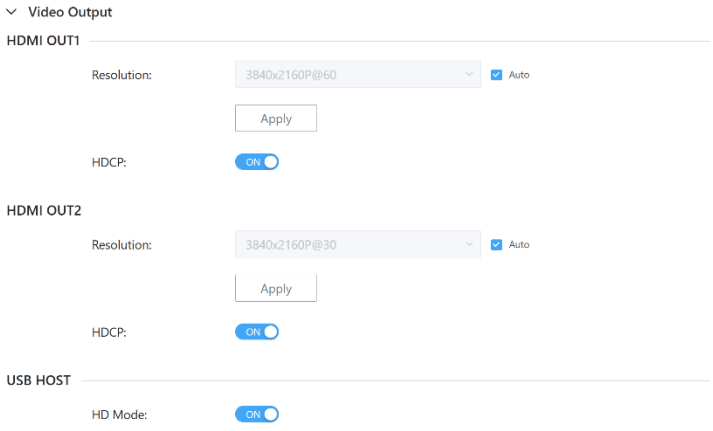


Figure 19: Video Output Section

This section allows you to configure resolution and HDCP support function for the video output ports.

HDMI OUT1 / HDMI OUT2

- **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 the EDID it is reading from the connected display.
  - Resolution list: To select a fixed resolution the video source will be scaled to from the dropdown menu.

  Note:

  - HDMI OUT1 supports output resolutions up to 3840x2160P@60.
  - HDMI OUT2 supports output resolutions up to 3840x2160P@30.

  Default setting: Auto
- **HDCP:** To toggle on and off HDCP support function for the output port.
  - **On**: To enable HDCP support of the output port.

    When set to On, the output port will follow the HDCP setting of the

connected display. Both HDMI OUT1 and HDMI OUT2 support HDCP versions up to 2.2. This option is applicable to HDCP-enabled displays.

- **Off**: To disable HDCP support of the output port.

Default setting: On

USB HOST

- **HD Mode**: To toggle HD mode on and off for the USB HOST port.
  - **On**: To enable HD mode.

    When set to On, the USB HOST will support the following resolutions (720P@30 and above):
    - 3840*2160P@30Hz / 1080P@30Hz / 720P@30Hz
  - **Off**: To disable HD mode.

    When set to Off, the USB HOST will support the following resolutions:
    - 3840*2160P@30Hz / 1080P@30Hz / 720P@30Hz / 640*480P @30Hz / 640*360P@30Hz / 320*240P@30Hz

  Default setting: On

6.4.4 NDI IN Settings

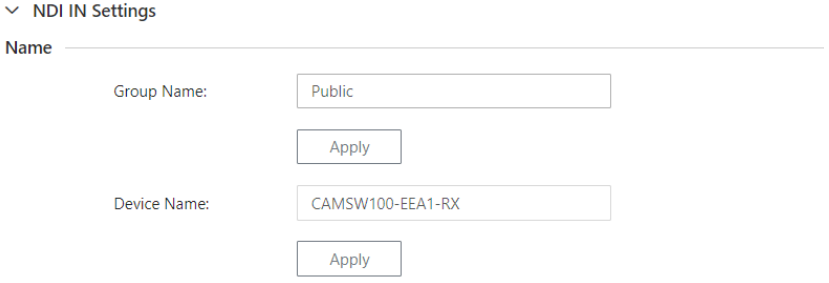


Figure 20: Name Configuration for NDI IN

This section allows you to configure the NDI group and device name used for source discovery.

- **Group Name**: To determine which group the receiving module of this device belongs to for NDI source discovery. Only devices within the same group name can discover each other.
  - **Public***:* The default group name assigned to the receiving module. The receiving module using the Public group can discover other NDI transmitters with the same group name.
  - **Custom group name**: A user-defined group name that limits discovery to devices sharing the same group name, providing more control in large networks.

  Default setting: Public
- **Device Name**: To define the name the receiving module uses on the NDI network.

  Note:
  - This name is how the NDI receiving module will be identified by other NDI sources.
  - Customizing helps identify the device more easily in multi-device environments.

  Default setting: CAMSW100-XXXX-RX (“XXXX” corresponds to the last four hexadecimal digits of the device’s MAC address—e.g., EEA1 results in CAMSW100-NDI-EEA1.)

6.4.5 NDI OUT Settings

This section allows you to configure the group name, device name and channel ID for NDI streaming, as well as the encoding parameters for the main and preview NDI streams.

Name

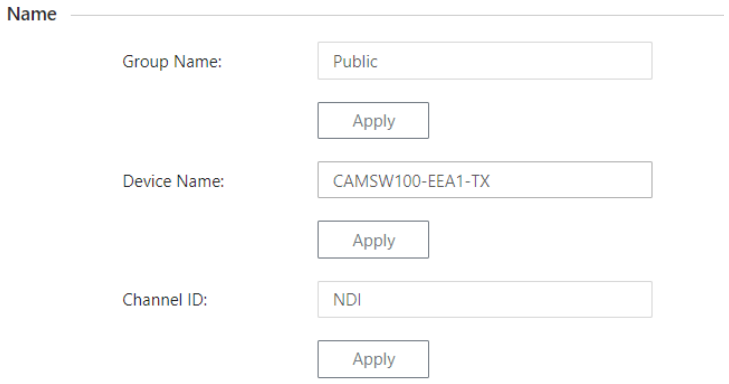


Figure 21: Name Configuration for NDI OUT

- **Group Name**: To define the group to which the transmitting module broadcasts its NDI streams. Only receivers within the same group can discover these streams.
  - **Public***:* The default group name for the transmitting module. By default, streams broadcasted under the Public group are discoverable by all receivers assigned to Public.
  - **Custom group name**: A user-defined group name that restricts stream visibility to receivers sharing the same group name, enhancing network organization and security.

  Default setting: Public
- **Device Name**: To define the name the transmitting module uses when streaming on the NDI network.

  Note:
  - This name is how the NDI transmitting module will be identified by other NDI-enabled receivers.
  - Customizing this name makes it easier to identify this device in environments with multiple streams.

  Default setting: CAMSW100-XXXX-TX (“XXXX” corresponds to the last four hexadecimal digits of the device’s MAC address—e.g., EEA1 results

in CAMSW100-NDI-EEA1.)

- **Channel ID**: To define a custom label for the NDI output stream from this device.

  Note:

  - This ID helps receivers distinguish the stream, especially in environments with multiple devices or sources.
  - The device supports only one NDI output stream.

  Default setting: NDI
- **Apply**: Click to apply the setting change.

Main Stream

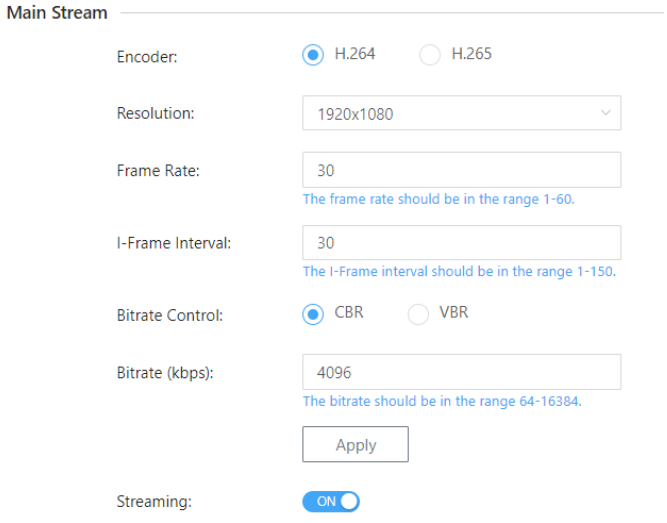


Figure 22: Main Stream Configuration for NDI OUT

- **Encoder:** To select the encoding protocol between H.264 or H.265 for the main stream.

  Default setting: H.264
- **Resolution**: To select the desired resolution from the dropdown menu for the NDI main stream.

Available options: 1280x720, 1920x1080, 3840x2160

Default setting: 1920x1080

- **Frame Rate**: To define the number of frames per second.

  Available range: 1–60 fps

  Default setting: 30

- **I-Frame Interval**: To set the interval (in frames) between keyframes (I-frames). Lower values improve seek accuracy but increase bandwidth usage.

  Available range: 1–150

  Default setting: 30

- **Bitrate Control**: To choose the bitrate control method.
  - **CBR** (Constant Bitrate)*:* Maintains consistent bandwidth usage.
  - **VBR** (Variable Bitrate): Adjusts bitrate dynamically for quality optimization.

  Default setting: CBR

- **Bitrate (kbps)**: To set the encoding bitrate in kilobits per second.

  Available range: 64–16384

  Default setting: 4096

  - **Apply:** To apply setting changes.

- **Streaming:** To toggle to enable or disable NDI streaming for the main stream.

  Default setting: On

Preview Stream

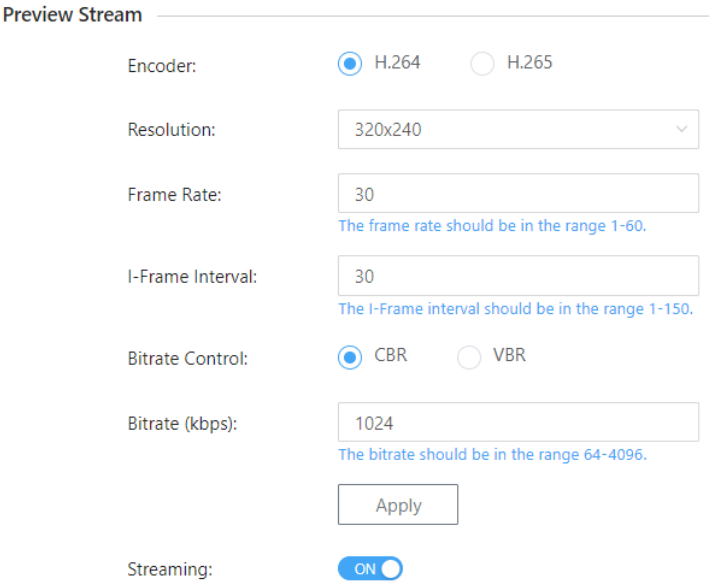


Figure 23: Preview Stream Configuration for NDI OUT

- **Encoder:** To select the encoding protocol between H.264 or H.265 for the preview stream.
  Default setting: H.264
- **Resolution**: To select the desired resolution from the dropdown menu for the NDI preview stream.
  Available options: 320x240, 640x360
  Default setting: 320x240
- **Frame Rate**: To define the number of frames per second.
  Available range: 1–60
  Default setting: 30
- I-**Frame Interval**: To set the interval (in frames) between keyframes (I-frames). Lower values improve seek accuracy but increase bandwidth usage.
  Available range: 1–150

Default setting: 30

- **Bitrate Control**: To choose the bitrate control method.
  - **CBR** (Constant Bitrate)*:* Maintains consistent bandwidth usage.
  - **VBR** (Variable Bitrate): Adjusts bitrate dynamically for quality optimization.

  Default setting: CBR
- **Bitrate (kbps)**: To set the encoding bitrate in kilobits per second.

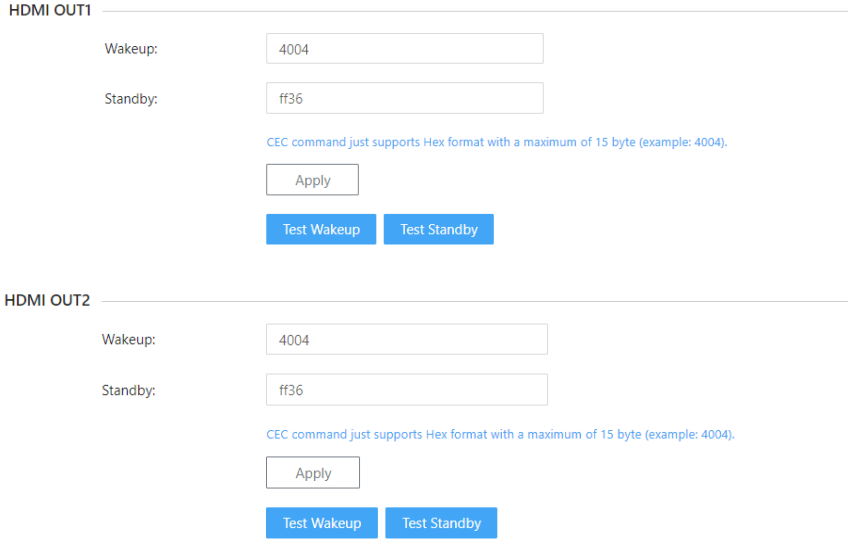
  Available range: 64–4096

  Default setting: 1024

  Apply: To apply setting changes.
- **Streaming:** To toggle to enable or disable NDI streaming for the preview stream.

  Default setting: On

6.4.6 Display Control



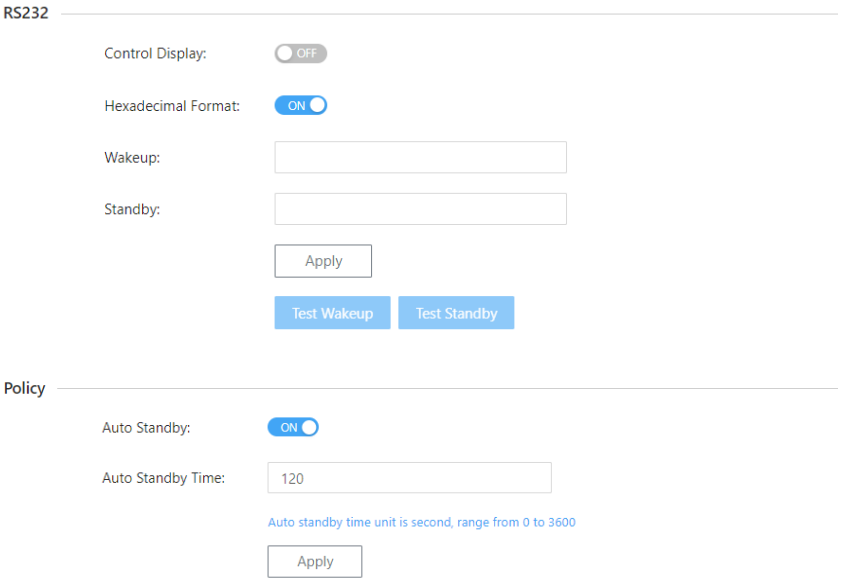


Figure 24: Display Control Settings

This section allows you to configure display control settings via HDMI CEC and RS232, including power commands, command format, and auto-standby policy.

HDMI OUT1/HDMI OUT2

- **Wakeup**: To enter the CEC wakeup command for the connected display device in hexadecimal format.
  Refer to your display device's user guide for supported CEC commands.
  Default setting: 40 04
- **Standby**: To enter the CEC standby command of the controlled display device in hex format.
  Refer to your display device's user guide for supported CEC commands.
  Default setting: ff 36
- **Apply**: To save and apply current settings.
- **Test Wakeup**: To send the Wakeup command to wake the display up from standby mode (for testing purposes).

- **Test Standby**: To send the Standby command to switch the display to standby mode (for testing purposes).

RS232

- **Control Display**: To toggle on or off to enable or disable RS232 data pass-through to control the connected display.

  Note:

  - When enabled, RS232 data will be passed through to the display. Make sure the RS232 settings match the connected display's requirements.

Parameter	Value	Abbreviation
Baud Rate	115200bps	115200
Data Bits	8bits	8
Parity	None	n
Stop Bits	1	1

Table 1: Default RS232 Parameter Settings

  Default setting: Off

- **Hexadecimal Format**: To toggle on or off to enable or disable hexadecimal input format for RS232 commands.

  - When enabled, make sure the Standby and Wakeup commands are manually converted into their hexadecimal representations before input.

    For example, an RS232 wake up command in hexadecimal format could be: `50 57 52 20 4F 4E 0D 0A`

  Default setting: On

- **Wakeup**: To enter the RS232 wakeup command for the connected display device. Leave it blank to disable this function.

  Refer to your display device's user guide for supported RS232 commands.

  Default setting: Blank (not set)

- **Standby**: To enter the RS232 standby command for the connected display device. Leave it blank to disable this function.

  Refer to your display device's user guide for supported RS232 commands.

  Default setting: Blank (not set)

- **Apply**: To save and apply current settings.
- **Test Wakeup**: To send the Wakeup command to wake the display up from standby mode (for testing purposes).
- **Test Standby**: To send the Standby command to switch the display to standby mode (for testing purposes).

Policy

- **Auto Standby**: To toggle on or off to enable or disable Auto Standby function.

  When enabled, the device will enter standby mode automatically if there is no valid signal input for a specified period.

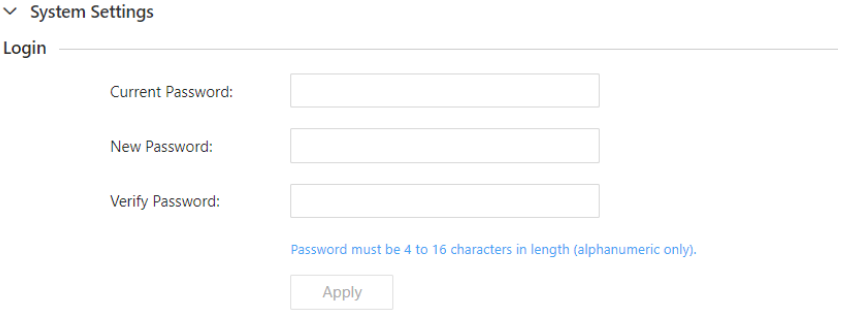
  Default setting: On
- **Auto Standby Time**: To set the timeout period in seconds after which the enters standby mode due to inactivity.

  If Auto Standby Time is set to 0, the device will enter standby mode immediately when no signal input is detected.

  Available range: 0–3600

  Default setting: 120
- **Apply**: To save and apply current settings.

6.4.7 System Settings



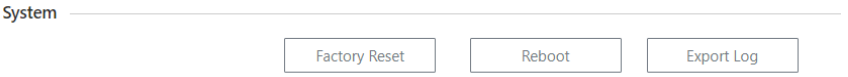


Figure 25: System Settings Section

This section allows you to change login password and perform system operations.

Login

- **Current Password**: To input the current login password.
- **New Password / Verify Password**: To input and confirm the new login password.

Note: The password must be 4 to 16 characters long and contain only letters and numbers.

System

- **Reboot**: To reboot the device.
  Note: You need to wait around 40 seconds to log on to the web UI again by refreshing the browser after device reboots.
- **Reset to Factory Default**: To restore the device to factory default settings. You can also perform this action by pressing and holding the Reset button on the front panel for five seconds.
- **Export Log**: To export system log.

6.5 Support

6.5.1 Device Information

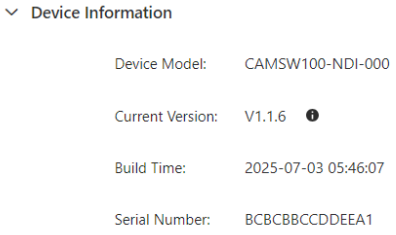


Figure 26: Device Information

This section allows you to view device model, firmware version and build time as well as serial number.

6.5.2 Firmware Update

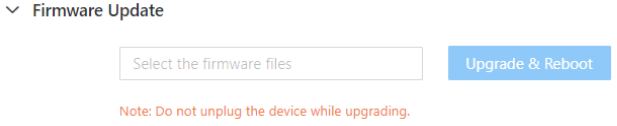


Figure 27: Firmware Update

This section allows you to perform firmware updates for the device.

Steps for firmware update:

1. Click **Browse** to select the firmware upgrade file from your local computer.
   Note: A valid firmware file must have the `.bin` extension.
2. Click **Upgrade & Reboot** to upload the file and initial the upgrade process.

Note:

- Do not unplug the device during the update process.
- The device will automatically reboot after the firmware update is complete.

7. Firmware Upgrade

The device supports firmware upgrades via the Web UI and the USB-A ports on the front panel.

- To upgrade the firmware through Web UI, see the Firmware Update section.
- To upgrade the firmware via a USB-A port on the front panel, perform the following:

1. Rename the upgrade file package to **CAMSW100-update.zip**.
2. On a USB flash drive formatted as FAT32 or NTFS, create a folder named **upgrade** in the root directory, and place the upgrade file inside this folder.
3. Insert the USB flash drive into one of the device's **USB IN** (1 or 2) ports.
   If the device detects the upgrade file as a newer version, the upgrade process will begin automatically. Once the upgrade is complete, the device will reboot.

Note:

- Before connecting a USB flash drive, it is recommended to disconnect any devices connected to the **USB-C IN** and **USB HOST** ports.
- Do not power off the device during the upgrade process.
- If the upgrade file is not a newer version than the current firmware, the upgrade will not start.