



**CAM-0402-BRG  
CAM-0402-NDI-BRG**

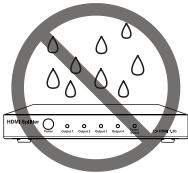
Multi-Camera Switchers

**User Manual**

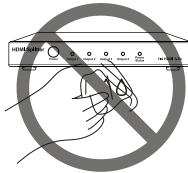
Version: V1.0.1



# 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.



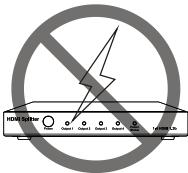
6. Clean this apparatus only with dry cloth.



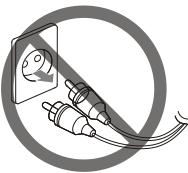
2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.



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.

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# Introduction

## Overview

The product 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 provides 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 OUT. The built-in configurable audio matrix allows flexible audio routing and mixing.

The CAM-0402-NDI-BRG model additionally supports NDI features, including up to four NDI inputs and one mirrored NDI output (video only), enabling smooth integration into IP-based video workflows. (The CAM-0402-BRG model does not include NDI functionality.)

Featuring fast 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.

## 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 two video outputs: HDMI OUT and USB HOST (UVC/UAC), with USB HOST mirroring HDMI OUT
- NDI support:
  - Up to four NDI inputs (video only, up to 4K@30Hz)
  - One NDI output (video only), mirroring USB HOST and HDMI OUT
- Fast 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
- Front panel OLED screen displays IP address and firmware version for easy setup and status monitoring
- Physical buttons on the front panel allow fast source switching and layout changes
- Flexible control options, including LAN (web UI & Telnet API) and RS-232 serial control
- Compatible with Windows and macOS systems

## Package Contents

1x CAM-0402-NDI-BRG Switcher  
1x 3.5mm 4-Pin Phoenix Male Connector  
1x 20V DC 3A Power Adapter (US/EU/UK/AU)  
4x Mounting Brackets (with Screws)  
1x Quickstart Guide

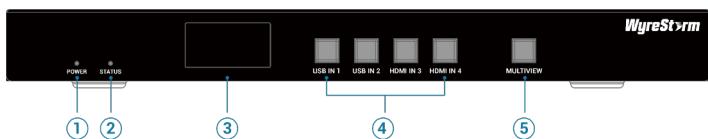
## Specifications

| Audio and Video           |  |
|---------------------------|--|
| <b>Inputs</b>             | 2 x USB 3.0 Type-A (up to 3840x2160@30Hz MJPEG)<br>2 x HDMI (up to 3840x2160@30Hz)<br>4 x NDI over LAN (up to 3840x2160@30Hz, video only)  |
| <b>Outputs</b>            | 1 x USB Type-C (up to 3840x2160@30Hz, MJPEG)<br>1 x HDMI (up to 3840x2160@30Hz)<br>1 x NDI (LAN, up to 3840x2160@30Hz, video only)   |
| <b>Multiview Support</b>  | HDMI out, USB HOST and NDI share the same signal and support multiview display (up to quad-view)   |
| <b>Control Options</b>    | RS-232, Web GUI, LAN   |
| <b>OS Compatibility</b>   | Windows 10 or above<br>macOS 10.15 or above  |
| <b>USB Protocols</b>      | UVC & UAC  |
| <b>HDCP Compliance</b>    | HDCP 2.2   |
| <b>CEC Support</b>        | HDMI outputs support CEC one-touch play and standby (customizable via Web UI)  |
| <b>EDID Configuration</b> | Web UI and API adjustable<br>Default: 3840x2160@30Hz stereo audio  |
| <b>Video Formats</b>      | HDMI: up to 3840x2160@30Hz<br>USB: MJPEG up to 3840x2160@30Hz<br>NDI: up to 3840x2160@30Hz (H.264/H.265, 8-bit, YUV 4:2:0)<br>HDMI OUT: up to 3840x2160@30Hz<br>USB HOST and NDI: up to 3840x2160@30Hz |
| <b>Audio Formats</b>      | HDMI IN:RAW PCM, 16-bit, 2-channel, 32/44.1/48KHz<br>USB IN:RAW PCM, 16-bit, 2-channel, 16/32/48KHz<br>HDMI OUT:RAW PCM, 16-bit, 2-channel, 48KHz<br>USB HOST: RAW PCM, 16-bit, 2-channel, 48KHz       |

|                                   |  |
|-----------------------------------|--|
| <b>NDI Bitrate</b>                | Up to 16 Mbps  |
| <b>Supported Standards</b>        | DCI   RGB  |
| <b>Maximum Pixel Clock (HDMI)</b> | 300MHz   |
| <b>Power</b>                      |  |
| <b>Power Supply</b>               | DC 20V/3A via 5.5/2.1mm barrel connector                 |
| <b>Power Consumption</b>          | 36W  |
| <b>Environmental</b>              |  |
| <b>Operating Temperature</b>      | 0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing |
| <b>Storage Temperature</b>        | -20 to +70°C (-4 to +158 °F), 10% to 90%, non-condensing |
| <b>Maximum BTU</b>                | 1228 BTU/Hr  |
| <b>Dimensions and Weight</b>      |  |
| <b>Length x Width x Height</b>    | 140mm x 250mm x 25mm                                     |
| <b>Weight</b>                     | 0.92Kg   |
| <b>Regulatory</b>                 |  |
| <b>Safety and Emission</b>        | CE   FCC   RoHS   RCM   EAC   UKCA                       |

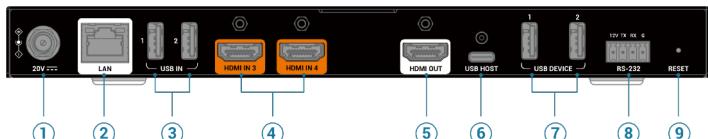
## Panel Description

### Front Panel



| # | Name                        | Description   |
|---|-----------------------------|---|
| 1 | <b>Power LED</b>            | <b>On:</b> The device is powered on.<br><b>Off:</b> The device is powered off.  |
| 2 | <b>STATUS LED</b>           | <b>On:</b> The device is working properly.<br><b>Off:</b> The device is not working.  |
| 3 | <b>OLED Screen</b>          | Displays the device's IP address and firmware version.<br>Example:<br>IP Address:<br>192.168.11.2<br>Version: V1.0.9                          |
| 4 | <b>USB IN 1 - HDMI IN 4</b> | Four source selection buttons. Click a button to output the corresponding video source for full-screen display.                               |
| 5 | <b>Multiview Button</b>     | Toggle among between preset layouts for the HDMI OUT. For more information, refer to the Switching Layouts with the MULTIVIEW Button section. |

### Rear Panel



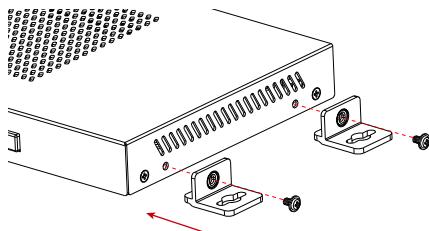
| # | Name                 | Description   |
|---|----------------------|---|
| 1 | <b>20V</b>           | Connect to 20 V DC 3A (or higher) power using the power adapter provided.   |
| 2 | <b>LAN</b>           | Connect to a Gigabit Ethernet switch for device management (via web UI or Telnet API) and for NDI traffic transmission.       |
| 3 | <b>USB IN (1-2)</b>  | Two USB 3.0 Type-A female connectors. Connect to USB cameras for camera source input. Each port supplies up to 1A of current. |
| 4 | <b>HDMI IN (3-4)</b> | Connect to HDMI sources.  |

|   |                   |   |
|---|-------------------|---|
| 5 | <b>HDMI OUT</b>   | Connect to an HDMI display to output video sources in single-view or multi-view mode.   |
| 6 | <b>USB HOST</b>   | Connect to a USB-C computer for USB video output. This port mirrors the HDMI OUT signal, and supports UVC and UAC. DisplayPort Alternate Mode (DP Alt mode) is not supported.   |
| 7 | <b>USB DEVICE</b> | 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 supplies up to 1A of current.  |
| 8 | <b>RS-232</b>     | Connect to an RS232 controller for device management or to an RS232 peripheral for peripheral control.<br><b>12V:</b> Connect for 12 V DC 0.5 A output.<br><b>RX:</b> Connect to TX terminal.<br><b>TX:</b> Connect to RX terminal.<br><b>G:</b> Connect to ground.   |
| 9 | <b>RESET</b>      | <ul style="list-style-type: none"> <li>Long press for 10 seconds: Restore factory defaults.</li> <li>Five short presses within 15 seconds: Restore IP address and web UI login password.</li> <li>Short press once: Display OSD information on the screen.</li> </ul> |

## Installation

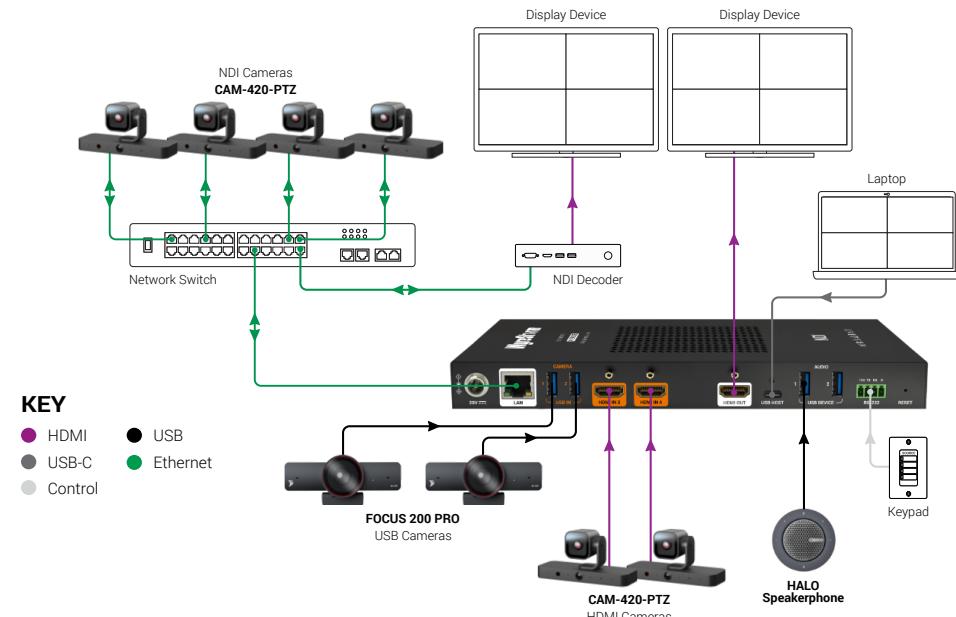
**Note:** Before installation, please ensure the device is disconnected from the power source.  
Recommended maximum installation height for the device is 2 meters.

1. Attach the two wall mount brackets to one side of the device using the screws provided in the package as illustrated below.



2. Mount the device onto the desired surface using appropriate screws (not included).

## Typical Application



### Features:

- Supports up to two USB cameras and two HDMI cameras connected via local input ports.
- HDMI OUT 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.

# 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.

## 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:

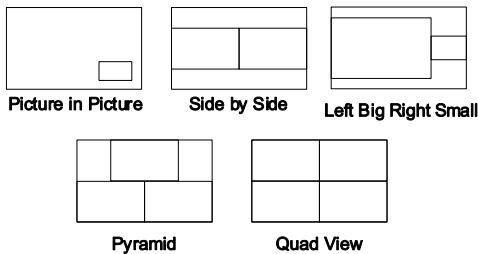
```
IP Address:  
192.168.11.2  
Version:  
V1.0.9
```

**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.

## Switching Layouts with the MULTIVIEW Button

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

Picture in Picture → Side by Side → Left Big Right Small → Pyramid → Quad View



# 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.

## 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.



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.

Please change your password to continue

New Password:

Verify Password:

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

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

WyreStorm CAM-0402-NDI-BRG-1415F1 English

Overview Control Settings Support

**CAM-0402-NDI-BRG-1415F1**

| Firmware | V1.3.3        |
|----------|---------------|
| USB IN1  | Disconnected  |
| USB IN2  | Disconnected  |
| HDMI IN3 | 1280x720P@60  |
| HDMI IN4 | 1920x1080P@60 |
| HDMI OUT | 1920x1080P@60 |
| USB HOST | 1920x1080P@30 |

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:** Provides firmware version information, contact details for customer support, and options for performing firmware updates.

The web UI provides two languages: English and Chinese, with English set as the default. To switch languages, click the dropdown menu in the top-right corner of the web page.

The following sections use the CAM-0402-NDI-BRG as an example to guide you through the web UI. Please note that the CAM-0402-BRG may differ slightly, as it does not support NDI-related features.

## Overview

CAM-0402-NDI-BRG-1415F1

| Firmware | V1.3.3        |
|----------|---------------|
| USB IN1  | Disconnected  |
| USB IN2  | Disconnected  |
| HDMI IN3 | 1280x720P@60  |
| HDMI IN4 | 1920x1080P@60 |
| HDMI OUT | 1920x1080P@60 |
| USB HOST | 1920x1080P@30 |

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.

# Control

## Video

Video Routing

Video Source

Video Output: HDMI OUT / USB HOST / NDI OUT

Multiview Layout:  Full Screen

USB IN1

USB IN2

HDMI IN3

HDMI IN4

NDI IN1

NDI IN2

NDI IN3

NDI IN4

NO SOURCE

Low Latency Mode  Note: Enable this option to lock HDMI input and HDMI/NDI output parameters to their optimized values. NDI Mode is force enabled too, resulting in lower video latency and faster source switching.

Video Source

| Video Source | Timing        |
|--------------|---------------|
| USB IN1      | NO SIGNAL     |
| USB IN2      | NO SIGNAL     |
| HDMI IN3     | 1280x720P@60  |
| HDMI IN4     | 1920x1080P@60 |
| NDI IN1      | NO SIGNAL     |
| NDI IN2      | NO SIGNAL     |
| NDI IN3      | NO SIGNAL     |
| NDI IN4      | NO SIGNAL     |

NDI Source Routing

| No. | NDI Source      | IP Address      | NDI Channel             | NDI IN1                  | NDI IN2                  | NDI IN3                             | NDI IN4                  |
|-----|-----------------|-----------------|-------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1   | LAPTOP-3B880MBA | 169.254.218.180 | intel UHD Graphics G... | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Showing all 1 items

Rows per page: 10

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

### Video Routing

In this section, you could assign up to four video sources to the output ports - HDMI OUT, USB HOST and NDI OUT.

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

Video Routing

Video Source

Video Output: HDMI OUT / USB HOST / NDI OUT

Multiview Layout:  Full Screen

Full Screen

Left right in Picture

Side by side

Left big right small

Pyramid

Quad View

USB IN1

USB IN2

HDMI IN3

HDMI IN4

NDI IN1

NDI IN2

NDI IN3

NDI IN4

NO SOURCE

Low Latency Mode  Note: Enable this option to lock HDMI input and HDMI/NDI output parameters to their optimized values. NDI Mode is force enabled too, resulting in lower video latency and faster source switching.

- To assign one or more video sources for the video outputs, drag the source on the left to the corresponding window.

- Low Latency Mode:** Toggle the low latency mode on or off.

Default setting: Enabled

When enabled, the device adjusts automatically video-related parameters for minimal latency and the fastest video switching. Specifically:

- HDMI output resolution is forced to 1920 x 1080p@60Hz.
- HD mode for USB Host is forced enabled.
- The output resolution, I-Frame interval, and bitrate of the NDI main stream are locked to optimized values (user-defined settings are disabled)

Corresponding prompts will appear in the Web UI.

### Video Source

Video Source

| Video Source | Timing            |
|--------------|-------------------|
| USB IN1      | NO SIGNAL         |
| USB IN2      | NO SIGNAL         |
| HDMI IN3     | 1280x720P@60      |
| HDMI IN4     | 1920x1080P@60     |
| NDI IN1      | NO SIGNAL         |
| NDI IN2      | NO SIGNAL         |
| NDI IN3      | Connected / Ready |
| NDI IN4      | NO SIGNAL         |

This section lists video source channels, and their timing / signal state.

## NDI Source Routing

| No. | NDI Source           | IP Address      | NDI Channel             | NDI IN1                  | NDI IN2                  | NDI IN3                  | NDI IN4  |
|-----|----------------------|-----------------|-------------------------|--------------------------|--------------------------|--------------------------|--|
| 1   | LAPTOP-SR89DMBA      | 169.254.219.188 | Intel UHD Graphics 6... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| 2   | NDI-128-RX-360EA9... | Offline         | channel1                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  |

Showing all 2 items

Rows per page: 10    

This section displays 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 allows users to remove an offline NDI source from the list by clicking the "delete" (trash bin) icon.

## Audio

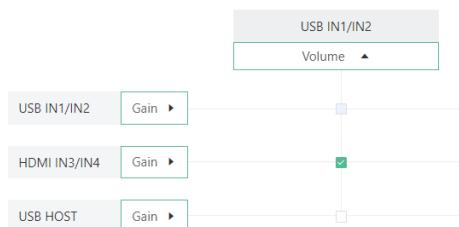
### Audio

#### Audio Routing



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 channels, check the box that corresponds to the input and output channels in the routing matrix. The box will turn from blank into solid green with a tick when routing relationship has been established successfully.



- 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 of an audio input channel, for example, the USB IN1/IN2, the following content will appear beneath the audio routing matrix.

#### Audio Routing



#### Gain (USB IN1/IN2)



Volume Mute

 Unmuted

Source

 USB IN1  USB IN2

- Gain Control:** To drag the slider to adjust the input audio volume. Default setting: 0 dB
- Volume Mute:** To toggle volume mute on and off for the input audio. Default setting: Unmuted
- Source:** To select the audio source between the two audio channels.

- To configure the audio volume for a certain audio output:  
Click the Volume button beneath an audio output channel, for example, the USB IN1/IN2, the following content will appear beneath the audio routing matrix.



- **Volume Control:** To drag the slider to adjust the output audio volume.  
Default setting: 0 dB
- **Volume Mute:** To toggle the volume mute on or off for the output audio.  
Default setting: Unmuted

#### Prohibited Mixing Behavior

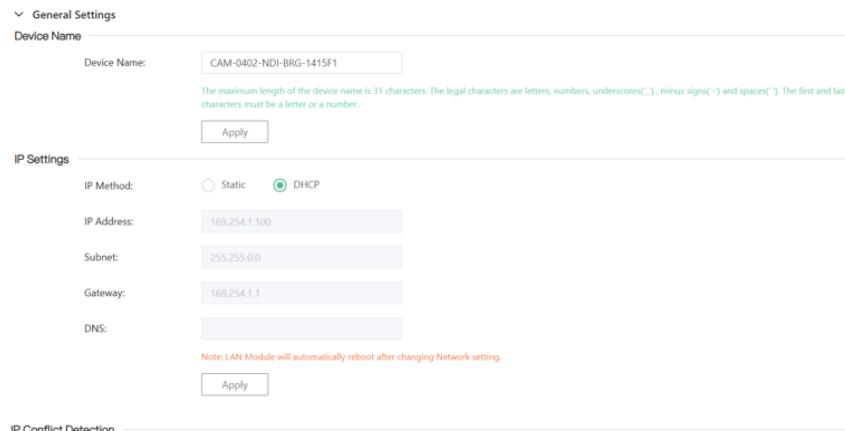
Since USB IN1/IN2 and USB HOST are bidirectional audio ports, routing an input port to its corresponding output port is prohibited to prevent invalid audio loops. Specifically, do not select the checkbox at the intersection of:

- USB IN1/IN2 input → USB IN1/IN2 output
- USB HOST input → USB HOST output

These checkboxes are disabled by default, and a warning prompt will appear when hovering over them.

## Settings

### General Settings



#### Device Name

- **Device Name:** To specify a new device name.  
Default setting: CAM-0402-NDI-BRG-XXXXXX or CAM-0402-BRG-XXX XXX ("XXXXXX" corresponds to the last six hexadecimal digits of the device's MAC address—e.g., 1415F1 results in CAM-0402-NDI-BRG-1415F1.)  
**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

## Video Input

### Video Input

#### Transform

| Video Source | Flip Vertical            | Flip Horizontal          |
|--------------|--------------------------|--------------------------|
| USB IN1      | <input type="checkbox"/> | <input type="checkbox"/> |
| USB IN2      | <input type="checkbox"/> | <input type="checkbox"/> |
| HDMI IN3     | <input type="checkbox"/> | <input type="checkbox"/> |
| HDMI IN4     | <input type="checkbox"/> | <input type="checkbox"/> |
| NDI IN1      | <input type="checkbox"/> | <input type="checkbox"/> |
| NDI IN2      | <input type="checkbox"/> | <input type="checkbox"/> |
| NDI IN3      | <input type="checkbox"/> | <input type="checkbox"/> |
| NDI IN4      | <input type="checkbox"/> | <input type="checkbox"/> |

[Apply](#)

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.

## Video Output

### Video Output

#### HDMI OUT

Resolution: [1920x1080P@60](#)  Auto

Note: When Low Latency Mode enabled, HDMI output resolution is locked to 1920X1080P@60.

[Apply](#)

HDCP: [ON](#)

#### USB HOST

HD Mode: [ON](#)

Note: When Low Latency Mode enabled, this option is force-enabled.

#### NDI OUT

Main Stream: [1920x1080@60](#) [ON](#)

Preview Stream: [320x240@60](#) [ON](#)

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

## HDMI OUT

- **Resolution:** To configure output resolution for the HDMI OUT.

• **Auto:** To allow the HDMI OUT 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 from the dropdown menu.

Default setting: 1920x1080P@60Hz

**Note:** When Low Latency mode is enabled on the device (default setting), the HDMI OUT resolution is forced to 1920x1080P@60Hz. To toggle the Low Latency mode on/off, go to Control > Video on the web UI. HDMI OUT supports output resolutions up to 3840x2160P@30Hz.

- **HDCP:** To toggle HDCP support function on and off for the HDMI OUT.

• **On:** To enable HDCP support of the output port.

When set to On, the HDMI OUT will follow the HDCP setting of the connected display. The HDMI OUT supports 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 supports 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 supports the following resolutions:

3840\*2160P@30Hz / 1080P@30Hz / 720P@30Hz / 640\*480P @30Hz / 640\*360P@30Hz / 320\*240P@30Hz

Default setting: On

**Note:** When Low Latency mode is enabled on the device (default setting), HD mode for the USB HOST is forced on. To toggle the Low Latency mode on/off, go to Control > Video on the web UI.

## NDI OUT

- **Main Stream:** Displays the current output resolution of the NDI main stream, and provides a button to toggle NDI main stream output on or off.

Default setting: On

- **Preview Stream:** Displays the current output resolution of the NDI preview stream, and provides a button to toggle NDI preview stream output on or off.

Default setting: On

## NDI IN Settings

### NDI IN Settings

Name

|              |   |
|--------------|---|
| Group Name:  | <input type="text" value="Public"/>                 |
|              | <input type="button" value="Apply"/>                |
| Device Name: | <input type="text" value="CAM-0402-BRG-1415F1-RX"/> |
|              | <input type="button" value="Apply"/>                |

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: CAM-0402-BRG-XXXXXX-RX ("XXXXXX" corresponds to the last six hexadecimal digits of the device's MAC address—e.g., EE0E results in CAM-0402-BRG-EE0E-RX.)

## 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

|              |   |
|--------------|---|
| Name         |   |
| Group Name:  | <input type="text" value="Public"/>                 |
|              | <input type="button" value="Apply"/>                |
| Device Name: | <input type="text" value="CAM-0402-BRG-1415F1-TX"/> |
|              | <input type="button" value="Apply"/>                |
| Channel ID:  | <input type="text" value="NDI"/>                    |
|              | <input type="button" value="Apply"/>                |

- **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: CAM-0402-BRG-XXXXXX-TX ("XXXXXX" corresponds to the last six hexadecimal digits of the device's MAC address—e.g., EE0E results in CAM-0402-BRG-EE0E-TX.)

- **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

Main Stream

Note: When Low Latency Mode enabled, NDI output resolution, I-Frame Interval and Bitrate is locked to their optimized values.

|  |  |                             |
|--|--|-----------------------------|
| Encoder:   | <input checked="" type="radio"/> H.264 | <input type="radio"/> H.265 |
| Resolution:  | 1920x1080                              |                             |
| I-Frame Interval:  | 30                                     |                             |
| The number of frames between two consecutive I-frames, the range is 1~150. |  |                             |
| Bitrate Control:   | <input checked="" type="radio"/> CBR   | <input type="radio"/> VBR   |
| Bitrate (Kbps):  | 4096                                   |                             |
| The bitrate should be in the range 64~16384.                               |  |                             |
| <input type="button" value="Apply"/>                                       |  |                             |

- **Encoder:** To select the encoding protocol between H.264 or H.265 for the NDI main stream output.  
Default setting: H.264
- **Resolution:** To select a resolution via the dropdown menu for the NDI main stream output.  
Available options: 1280x720, 1920x1080, 3840x2160  
Default setting: 1920x1080  
**Note:** When Low Latency mode is enabled on the device (default setting), the NDI main stream output resolution is forced to 1920x1080P@60Hz. To toggle the Low Latency mode on/off, go to Control > Video on the web UI.
- **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  
**Note:** When Low Latency mode is enabled on the device (default setting), the NDI main stream I-frame Interval is forced to 30. To toggle the Low Latency mode on/off, go to Control > Video on the web UI.
- **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  
**Note:** When Low Latency mode is enabled on the device (default setting), NDI main stream bitrate is forced to 4096. To toggle the Low Latency mode on/off, go to Control > Video on the web UI.
- **Apply:** To apply setting changes.

## Preview Stream

### Preview Stream

Encoder:  H.264  H.265

Resolution: 320x240

I-Frame Interval: 30  
The number of frames between two consecutive I-frames, the range is 1~150.

Bitrate Control:  CBR  VBR

Bitrate (Kbps): 1024  
The bitrate should be in the range 64~4096.

- **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
- **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.

## Display Control

### Display Control

#### HDMI OUT

Wakeup: 4004

Standby: FF36

CEC command just supports Hex format with a maximum of 15 byte (example: 4004).

#### RS232

Control Display:  OFF  ON

Hexadecimal Format:  ON  OFF

Wakeup:

Standby:

#### Policy

Auto Standby:  ON  OFF

Auto Standby activates only when every window shows "NO SOURCE".

Auto Standby Time: 120

Auto standby time unit is second, range from 0 to 3600.

This section allows you to configure display control settings via HDMI CEC and RS-232, including wakeup/standby commands, command format, and auto-standby policy.

## HDMI OUT

- **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).

## RS-232

- **Control Display:** To enable or disable RS-232 data passthrough to control the connected display.

**Note:** When enabled, RS-232 data will be passed through to the display. Make sure the RS-232 settings match the connected display's requirements.

| Parameter        | Value     | Abbreviation |
|------------------|-----------|--------------|
| <b>Baud rate</b> | 115200bps | 115200       |
| <b>Data Bits</b> | 8bits     | 8            |
| <b>Parity</b>    | None      | n            |
| <b>Stop Bits</b> | 1         | 1            |

Default setting: Off

- **Hexadecimal Format:** To enable or disable hexadecimal input format for RS-232 commands.  
When enabled, make sure the Standby and Wakeup commands are manually converted into their hexadecimal representations before input.
- For example, an RS-232 wake up command in hexadecimal format could be: 50 57 52 20 4F 4E 0D 0A  
Default setting: On
- **Wakeup:** To enter the RS-232 wakeup command for the connected display device. Leave it blank to disable this function.  
Refer to your display device's user guide for supported RS-232 commands.  
Default setting: Blank (not set)
- **Standby:** To enter the RS-232 standby command for the connected display device. Leave it blank to disable this function.  
Refer to your display device's user guide for supported RS-232 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 this option on or off to enable or disable the Auto Standby function.  
When enabled, the device enters automatically standby mode if no valid signal is detected (when every window shows "NO SOURCE" for a specified period).  
Default setting: On
- **Auto Standby Time:** To set the timeout period in seconds after which the device 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.

## System Settings

### System Settings

#### Login

Current Password:

New Password:

Verify Password:

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

#### System

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.

## Support

### Device Information

#### Device Information

Device Model: CAM-0402-NDI-BRG

Current Version: V1.3.3 

Build Time: 2025-10-25 03:57:08

Serial Number: WS28325280007

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

### Firmware Update

#### Firmware Update

Note: Do not unplug the device while upgrading.

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 initiate the upgrade process.  
**Note:** 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 automatically reboot.

## Support

### ✓ Support

[Documentation](#)

Toll free: (844)-280-WYRE (9973)

Email: [support@wyrestorm.com](mailto:support@wyrestorm.com)

This section provides the contact information for customer support. You can reach out for assistance regarding product usage, troubleshooting, or general inquiries.

