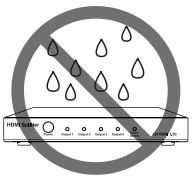
SW-620-TX-W

Wired & Wireless Presentation
Switcher with USB 3.0 & Multi-View

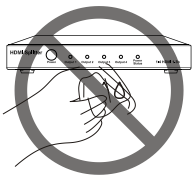
User Manual

Version: V1.0.1

Important Safety Instructions

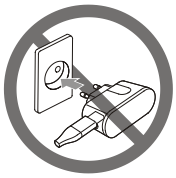


1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

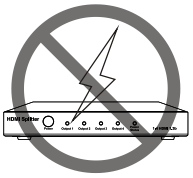


6. Clean this apparatus only with dry cloth.

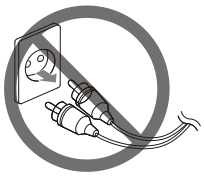
2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.



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.

Table of Contents

Introduction

Overview

The SW-620-TX-W is a versatile BYOD presentation switcher designed for collaborative environments. It provides both USB-C and HDMI inputs, along with dual HDMI outputs, supporting up to 4K@60Hz (HDMI OUT1) and seamless single-view or dual-view display modes. With its built-in Wi-Fi module, the switcher enables wireless presentation through Airplay Mirroring, Miracast, and Dongle, allowing users to easily share content from laptops (Windows/Mac) or mobile devices (iOS/Android).

In addition to video switching, it offers USB 3.0 peripheral switching for up to three USB hosts, independent analog audio output, and flexible control options via Web UI, Telnet API, or RS-232. Networking is further enhanced with dual Ethernet ports for secure and flexible connectivity. User-friendly OSD and reliable system integration features such as RS-232 and PA sensor make the switcher an ideal solution for meeting rooms, classrooms, and collaborative workspaces.

Features

- Provides one USB-C and one HDMI inputs, plus two HDMI outputs
- The USB-C input supports dual-video input (MST), device charging up to 100W, 1000 BASE-T Ethernet connection, and USB 3.0 data transmission
- Supports both HDMI output ports in single-view mode, or one HDMI output in dual-view mode
- Supports input resolutions up to 4K@30Hz 4:4:4
- Supports output resolutions up to 4K@60Hz 4:4:4 (HDMI OUT 1 only)
- Provides fast, seamless switching in both single-view and dual-view modes
- Built-in Wi-Fi modules for wireless connectivity with devices over Airplay Mirroring, Miracast, and Dongle
- Independent analog audio output
- Supports wireless conferencing (using a Dongle to connect the host PC and USB peripherals wirelessly)
- Built-in triple USB 3.0 switcher for USB switching among up to three USB hosts
- Equipped with two Ethernet ports for networking flexibility and security
- Includes RS-232 and PA sensor for peripheral integration
- Provides detailed and user-friendly OSD information
- Flexible control methods available: Web UI, Telnet API, and RS-232

Package Contents

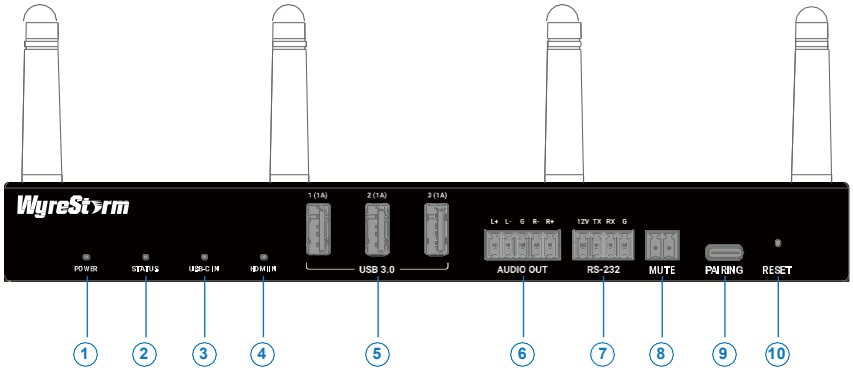
- 1x SW-620-TX-W
- 1x Power adapter 20V/10A DC
- 4x AC cables, US, EU, UK, AU specifications respectively
- 1x 2-Pin Phoenix connector for MUTE port
- 1x 4-Pin Phoenix connector for RS-232
- 1x 5-Pin Phoenix connector for analog audio output
- 4x Wi-Fi antennas
- 4x Mount brackets with screws
- 1x Quickstart Guide

Specifications

Audio and Video	
Inputs	1x HDMI: 19-pin type A, up to 4K@30Hz 4:4:4 8bit 1x USB-C, Video input with MST, up to 2x 4K@30Hz Wireless Video from APO-DG2, APO-DG2-PRO (1080@60Hz, 2160@30Hz), Airplay or Miracast source (1080@60Hz)
Outputs	2x HDMI: 19-pin type A, Output 1 – 4K@60Hz 4:4:4 8bit, Output 2 – 4K@30Hz 4:4:4 8bit, 1x Analog Audio Output (5-pin Phoenix Male Connector)
Output Video Encoding	HDMI
Audio Formats	2ch PCM
Supported Standards	DCI | RGB
Maximum Pixel Clock	300MHz (600MHz on HDMI OUT1)
Communication and Control	
HDMI	HDMI CEC | HDCP 2.3 | EDID
RS-232	1x 4-pin Phoenix (API control) | Provides 12v power
USB	3 x USB 3.0 Type A device ports | 5v 1000mA per port 1 x USB 3.0 Type B host port (assignable) 1 x USB 3.0 Type-C port
LAN	2x 8-pin RJ-45 for API control (Telnet, TLS, HTTP/HTTPS for webUI)
Wireless	4x Wi-Fi Antennas | IEEE 802.11 a/b/g/n/ac | Dual-band 2.4 & 5GHz | WEP, TKIP, AES, WPA, WPA2 Max E.I.R.P. :16.38 dBm (43.45mW) WiFi Operation Frequency: — Maximum Power: 2.4G: 2412MHz~2462MHz — 14.89 dBm (E.I.R.P.) 5G: 5180MHz~5240MHz — 16.38 dBm (E.I.R.P.) 5.8G: 5745MHz~5805MHz — 10.81 dBm (E.I.R.P.)
Power	
Power Supply	20V 10A
Max Power Consumption	132W
Environmental	
Operating Temperature	0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing
Storage Temperature	-20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing
Maximum BTU	450 BTU/hr
Dimensions and Weight	
Rack Units/Wall Box	<1U
Height	25mm/0.98in
Width	215mm/8.46in
Depth	160mm/6.30in
Regulatory	
Safety and Emission	CE | FCC | RoHS | RCM | EAC | UKCA

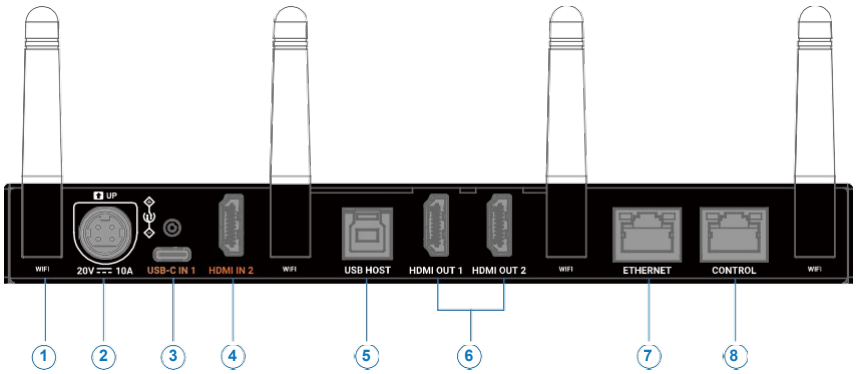
Panel Description

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 in standby status.
3	**USB-C IN LED**	**On:** The corresponding video source is valid and being output. **Blinking:** The corresponding video source is being output but not valid. **Off**: The corresponding video source is not being output, or the device is in standby mode.
4	**HDMI IN LED**	
5	**USB 3.0**	3 x USB 3.0 Type-A ports with the following two functions: 1. Connect to USB peripherals (e.g., keyboard, mouse, touch screen, camera, speakerphone, etc.) for USB expansion. Tip: Each USB-A port provides a maximum output current of 1A. 2. Connect to a USB flash drive for firmware upgrade. For more information, see the Firmware Upgrade section.
6	**AUDIO OUT**	5-pin 3.5mm Phoenix connector. Connect to an audio receiver for de-embedded balanced analog audio output.
7	**RS-232**	3-pin 3.5mm Phoenix connector with two functions: • Connect to a peripheral (e.g. a projector) to control this peripheral. • Connect to a controller (e.g. a computer) to control this device.
8	**MUTE**	2-pin 3.5mm Phoenix connector. Short the two pins (e.g., with an external switch) to mute the audio of HDMI OUT 1–2 and the analog AUDIO OUT. Leave open for normal audio output.
9	**PAIRING**	USB-C port. Connect to a Dongle for pairing or upgrading the Dongle.
10	**Reset**	A recessed button that provides two operation methods: • Short press the button to show OSD (On-screen Display) on the attached HDMI displays. • Press and hold the button for at least five seconds and then release, the device will automatically reboot and restore to its factory defaults.

Rear Panel



#	Name	Description
1	**WIFI**	Connect to the antenna set for the access to Miracast and soft AP function.
2	**20V 10A**	Connect to the power adapter and the AC power cord provided.
3	**USB-C IN 1**	USB 3.0 Type-C port, with functions of charging up to 100W, 1000BASE-T Ethernet passthrough and dual-video input (MST). Connect to a USB-C source.
4	**HDMI IN 2**	Connect to an HDMI source.
5	**USB HOST**	USB 3.0 Type-B port. Connect to a USB host device.
6	**HDMI OUT 1–2**	Connect to HDMI display devices.
7	**ETHERNET**	RJ-45 ports. Connect to network devices for LAN control, network access and Airplay Mirroring signal input. For more information about the application method for the two ports, refer to the Key Functions > Network Mode Configuration section.
8	**CONTROL**	

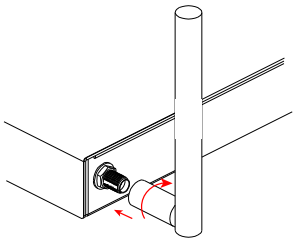
Installation

Installation

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

Attaching Antennas

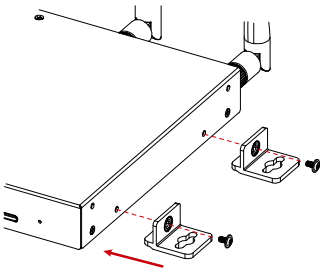
1. Attach an antenna provided to the threaded connector, and screw it down clockwise.



2. Repeat the above step for other antennas.

Attaching Installation Brackets

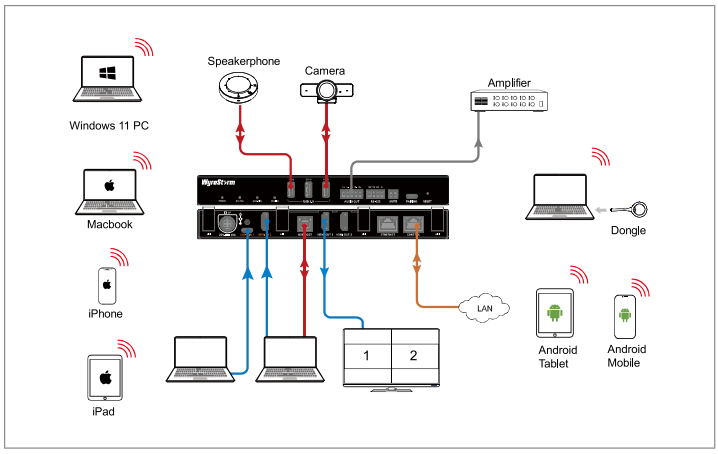
1. Attach the installation bracket to the enclosure using the screws provided in the package. The bracket is attached to the enclosure as shown.



2. Repeat step 1 for the other side of the device.
3. Install the brackets on the position as required using screws (screws are not included in the package).

Typical Application

Application 1: Single HDMI Output

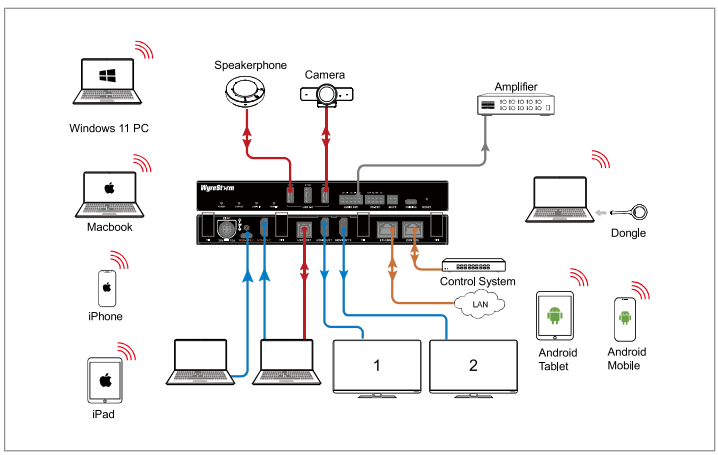


Features

When only one HDMI display is connected to either HDMI OUT 1 or HDMI OUT 2, up to two video sources can be displayed on a single screen (dual- view mode). MST is not available in this scenario.

- Connecting a laptop to the device's USB-C IN port provides the best user experience. A combination of the USB HOST and HDMI IN ports can also be used.
- After successfully pairing the Dongle with the device, your laptop can connect wirelessly and access USB peripherals (e.g., camera, speakerphone) connected to the device.
- Screen content from laptops and mobile devices can be projected to the device wirelessly via Airplay Mirroring and Miracast.
- The device is configured in Transparent Network mode, and the CONTROL port is connected to the LAN. Computers connected to the USB- C and USB HOST ports can access the LAN, and the ETHERNET port serves as an additional network interface for the computer.

Application 2: Dual HDMI Output



Features

- Two HDMI displays can be connected to HDMI OUT 1 and HDMI OUT 2 respectively. The MST feature of the USB-C IN is available in this scenario.
- After successfully pairing the Dongle with the device, your laptop can connect wirelessly and access USB peripherals (e.g., camera, speakerphone) connected to the device.
- Screen content from laptops and mobile devices can be projected to the device wirelessly via Airplay Mirroring and Miracast.
- This device is configured in the Isolated Network mode. The CONTROL port functions exclusively to connect to a controller for device management, while the ETHERNET port handles BYOD communication and provides network access to the attached PC.

Key Functions

Screen Mirroring

If you're working on a PC and want its apps and content to be shown on another screen, you'll want to consider mirroring your PC's screen to that screen. With screen mirroring support, the device allows you to share your mobile devices' content wirelessly on any HDMI displays over Airplay Mirroring, Miracast and Dongle.

In this manual, mobile devices available for screen mirroring are referred to as "screen mirroring source", which include Apple devices (iPhone/iPad/Mac), Android phones, Windows PCs and Dongles.

(1) Screen Mirroring over Airplay (for Apple Devices)

1. Connect your iPhone/iPad/Mac to the soft AP of the device.

   Soft AP SSID: As same as the switcher's device name and can be obtained from OSD at the upper right of the display screen. By default, it is set as SW-620-TX-W-XXXX. ("XXXX" corresponds to the last four hexadecimal digits of the device's MAC address—e.g., 3C43 results in SW-620-TX-W-3C43).

   Password: Set through Web UI or Telnet API and can be obtained from OSD at the bottom right of the display screen. By default, it is set as 12345678.
2. Open Control Center on your Apple device, tap Screen Mirroring to select appropriate mirroring device (default device name is SW-620-TX-W-XXXX) from the pop-up menu.
3. To disconnect Apple device from the switcher: click Stop Mirroring, the display stops displaying your device's screen.

(2) Screen Mirroring over Miracast (for Android Phones & Windows PCs)

For Android mobiles (take Samsung Galaxy series for example):

1. Enable the Wi-Fi or WLAN feature of your mobile device.
2. On your mobile device, swipe down from the top and tap or to select appropriate mirroring device from the pop-up CONNECT menu.
3. To disconnect mobile phone from the switcher: click **"DISCONNECT"** on your mobile phone's screen.

Note:

- The icon, instruction and entrance of the Miracast function may vary on different Android mobiles, please refer to your mobile's manual to get accurate instruction.
- If you fail to use Miracast function, please disable the mobile's Wi-Fi and enable it later, or restart the mobile if necessary.

For Windows PC (Window 10 or higher):

1. Enable the Wi-Fi or WLAN feature of your PC.
2. On your PC, press the combination keys **" + K"** to select appropriate mirroring device from the pop-up menu.
3. To disconnect PC from the device: click Disconnect, the display stops displaying PC's screen.

Note:
The icon and interface of the Miracast function may vary on different computers. Some Windows 10/11 computers may fail to perform screen mirroring over Miracast due to compatibility issues.

Tip: Both the Airplay mirroring and Miracast support access code. If you see the PIN entry window appears on your devices, input the access code which can be obtained through OSD. (See "OSD" section for more information.)

(3) Screen Mirroring over Dongle

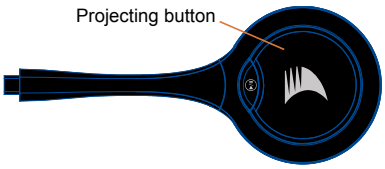
A Dongle (APO DG2) enables users to share laptop's content on a display wirelessly without even installing an application.

To pair a Dongle:

1. **Pair a Dongle with the device.**
   Connect a Dongle to the DONGLE PAIRING port of the device for pairing. Once pairing is completed, "Pairing successful" appears on the display screen.
2. **Connect the Dongle to a laptop.**
   Connect the Dongle to the laptop, it will start running and connecting to the device's soft AP. Once the Dongle connects to the device successfully,

the Dongle LED stops blinking and starts lighting constantly.

3. Now press the Dongle's projecting button, you can share your laptop's screen on the display immediately. Press and hold the button for at least 5 seconds, you will have your laptop's screen displayed in full screen.



Note: For more information about the Dongle, see its user guide.

Wireless Conference

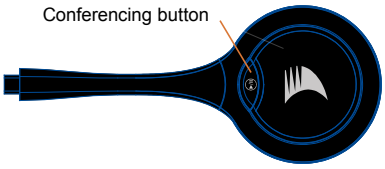
The Wireless Conference feature enables a laptop to access USB conference peripherals (such as a USB camera and/or a USB speakerphone) connected to the switcher wirelessly via a Dongle.

Tip: The switcher has three USB-A ports. For wireless conference scenarios, you can connect either one camera and one speakerphone, or one camera with a built-in microphone and one speakerphone. Multiple cameras or speakerphones are not supported simultaneously.

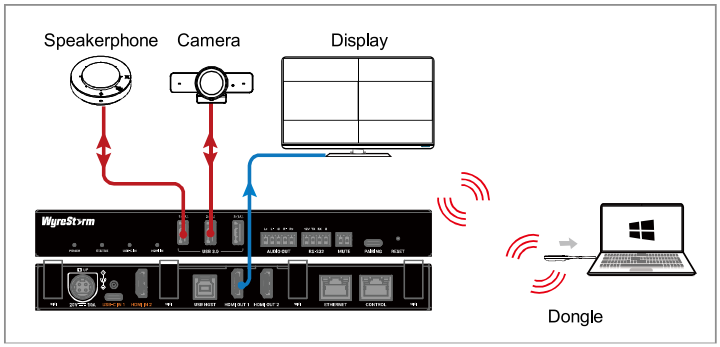
Operation Steps

1. Connect peripherals
   Connect USB conference peripherals to the switcher's USB-A ports.
2. Pair the devices
   Connect the Dongle to the switcher's PAIRING port to pair two devices. After the pairing is successful, remove the Dongle from the switcher.
3. Connect to the laptop
   Insert the Dongle into the laptop's USB-C port. The Dongle will be ready to transmit and receive signals within a few seconds.

   Note: The USB-C port of the laptop must support both audio and video output.
4. Establish the wireless connection
   Press the Wireless Conference button on the Dongle to establish a wireless connection between the laptop and the USB devices.

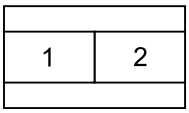


Now you can wirelessly use the USB peripherals connected to the switcher via your laptop.



Multiview Display

When only one HDMI display is attached to either HDMI OUT1 or HDMI OUT2, the device supports up to two video sources to be played on the display screen as the following:



Note: The multi-view function is enabled by default. You can disable it through the Web UI (see the Web UI Configuration > Control Tab > Video Routing section) or by using API commands. For more information about API commands, refer to the separate API documentation.

Automatic Signal Switching

The device supports automatic switching of input video signals and display layouts.

Automatic Signal Switching

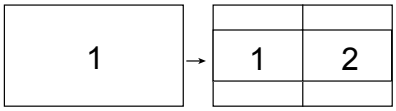
Automatic signal switching makes it easy to select the desired video sources. It follows the Last-In-First-Out (LIFO) rule:

1. When a video source is connected to the device, it is automatically output to the display screen.
2. When a displayed video source is removed, the device automatically stops outputting it.

Automatic Layout Switching

When the multi-view feature is enabled, the device also automatically adjusts the layout to display multiple video sources:

1. If a video source is being displayed in full screen and another source is connected, the device switches to the dual-view layout automatically.
2. If two video sources are displayed in dual-view mode and an additional source is connected, the latest input source replaces the one that has been displayed longer.
3. If two video sources are displayed in dual-view mode, and then one source is removed, the device automatically switches back to the single-view mode in full screen.



Note: The automatic switching is enabled by default. To enable or disable this function, refer to the Web UI Configuration > Control Tab > Video Routing section.

Optional Manual Selection

The device also allows you to select a specific video source manually via:

- The Web UI (refer to the Web UI Configuration > Control Tab > Video Routing section).
- API commands. For more information, refer to the separate API documentation.

Network Mode Configuration

The device is equipped with two Ethernet ports that can be configured for different networking modes to balance flexibility and security. The two ports support the following network modes:

Transparent Mode (Default Setting)

Transparent mode corresponds to the Web UI option “Network Isolation Mode” set to Disabled. In this mode, the two Ethernet ports are interconnected. Each port can be used for:

- Device control by connecting to the LAN where the controller resides
- BYOD communication
- Allowing the connected device (e.g., a room PC) to access the network

Isolated Mode

Isolated mode corresponds to the Web UI option “Network Isolation Mode” set to Enabled.

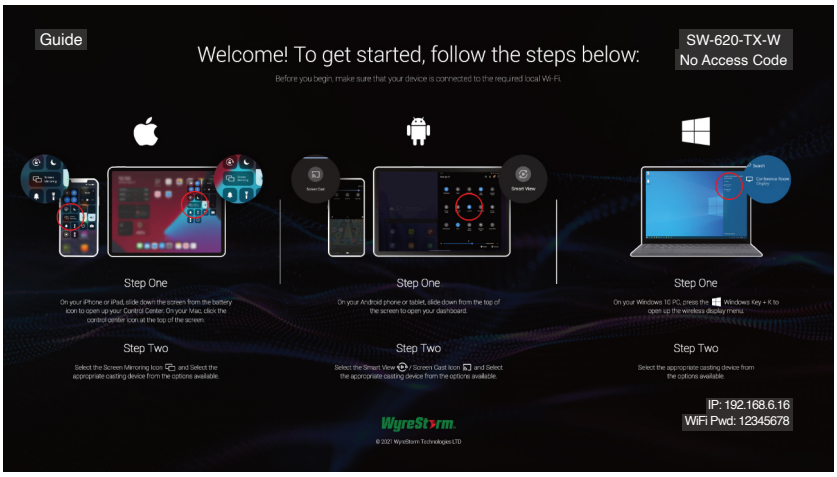
In Isolated mode:

- The CONTROL port functions exclusively for device control
- The ETHERNET port handles BYOD communication and provides network access for the attached device

For instructions on enabling/disabling this mode in the Web UI, refer to Web UI Configuration > General Settings Tab > Network Settings.

Guide Screen

The device outputs Guide Screen image when no video source is selected or being output. The Guide Screen can be personalized on the device's Web UI page to convey customized connection instructions.



The Guide Screen is accessible in the following cases:

- **Automatic switching:**
  Disconnect all video sources from the device, the Guide Screen appears automatically.
- **Manual switching:**
  Log on to the web UI page to select Guide Screen for the HDMI outputs. For more information see the Input Switching section.
  Send API command through telnet to the device to show the Guide Screen. For more information see the separate API documentation.

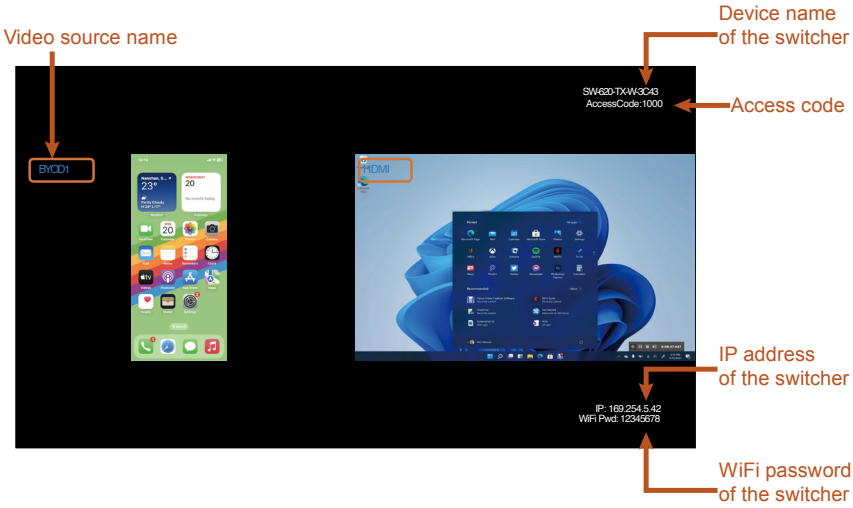
Tip: This Guide Screen image can be changed though Web UI, for more information refer to Splash Screen section. By default, if the device is outputting Guide Screen picture for 60 seconds, a 60-second OSD countdown will appear on the Guide Screen. When the countdown reaches zero, the device will enter standby status.

OSD

The device comes with OSD (On Screen Display) support, enables users to view basic information of the device, including video source channel, access code, device name and IP address, etc. Here are two different OSD examples:

Example 1: Full Screen Mode

Example 2: Dual-view Mode



Note:

- When the device outputs Guide Screen image, the OSD is shown all the time.
- When the switcher outputs specific video sources, the OSD will display on the display device for 10 seconds and then disappear.
- By default, the access code is set as blank, therefore the OSD doesn't display the access code. If you want to set access code, please see Access Point section for more information.

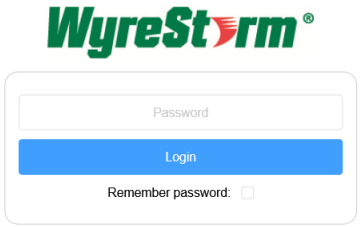
Web UI

The Web UI is an intuitive software interface for users to manage and control the device with ease, which be accessed through a web browser, e.g. Chrome, Safari, Firefox, Microsoft Edge, etc.

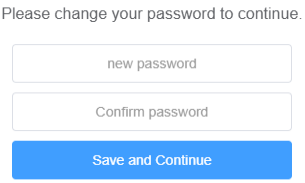
To access the Web UI:

1. Connect the CONTROL port (or the ETHERNET port in Transparent Network mode) of the device to a local area network.
   Tip: Ensure there's a DHCP server in the network so that the device can obtain a valid IP address.

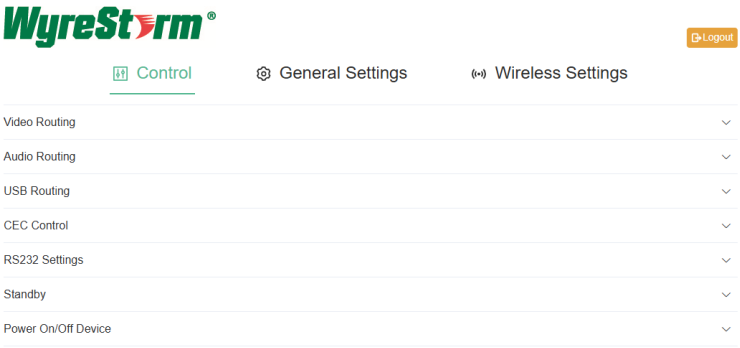
2. Connect the PC to the same network as the device.
3. Input the device's IP address in the browser and press Enter, the following window pops up. To quickly view the IP address, see OSD section.



4. Input the password (default password: admin) and click Login.
   Set up a new login password in the following dialog box and Save and Continue to enter the main page.
   Note: The new password must be alphanumeric only with 4 to 16 characters in length.



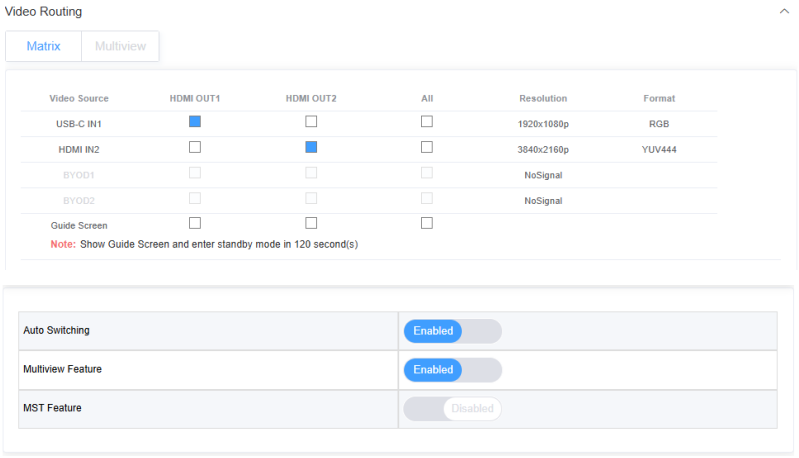
The main page is split into the following tabs: Control, General Settings and Wireless Settings.



- **Control:** Provides routings of video, audio and USB, RS-232 settings, auto standby configuration, and control of device standby and power-up.
- **General Settings:** Provides settings of splash screen, video related parameters, network, NTP server, security, and system-level operation.
- **Wireless Settings:** Provides settings of device name, wireless channel, and access point.

Control

Video Routing



This section provides settings of video matrix routing, multi-view, auto switching, and MST features.

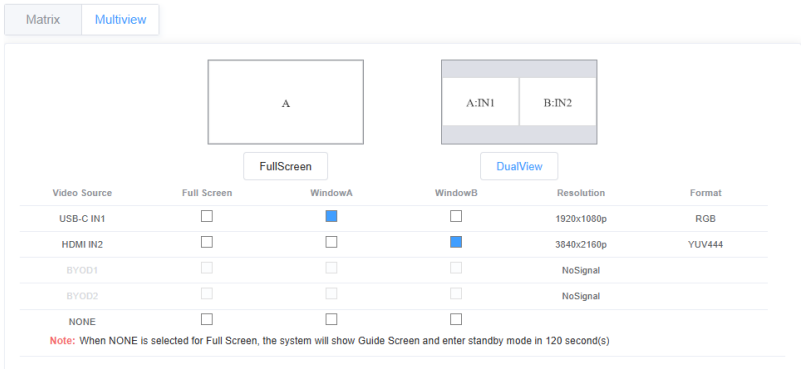
Video Matrix Routing

- **HDMI OUT1/HDMI OUT2:** Click the box to select (the box turns from blank to solid blue) or deselect (the box turns from solid blue to blank) a specific video source for the corresponding HDMI output port.
- **All:** Click to select (the box turns from blank to solid blue) or deselect (the box turns from solid blue to blank) a specific video source for both HDMI output ports.
- **Guide Screen:** Click to assign the Guide Screen to both HDMI output ports.

Note: By default, the device automatically outputs the Guide Screen and then enters standby mode in 120 seconds after the Guide Screen is selected. You can modify the auto standby timeout or disable the auto standby feature as needed—go to Control Tab > Standby in the Web UI Configuration.

Multi-View Configuration

The multi-view feature is available only if it is enabled and there's only one HDMI output (HDMI OUT1 or HDMI OUT2) being connected to an HDMI display.



For example, connect only one HDMI display to HDMI OUT1, the "Multiview" tab is become accessible and shown as below:

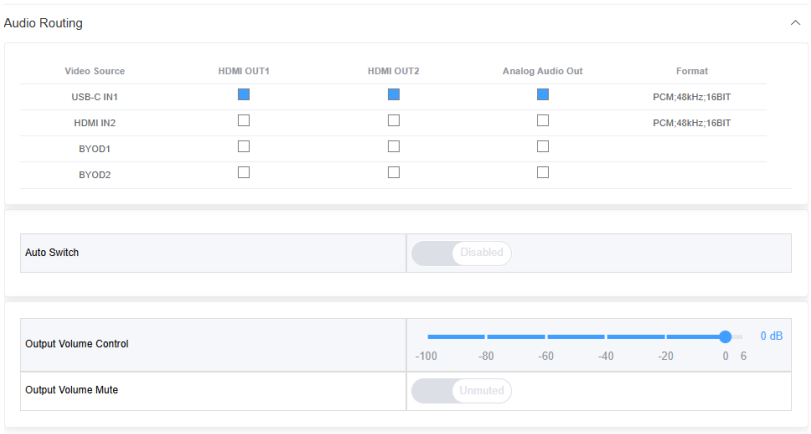
- **FullScreen:** Click to display the video source on window A in full screen.
- **DualView:** Click to display the video source in dual view.
- **Full Screen:** Click to display the specific video source in full screen.
- **WindowA/WindowB:** Click to display the specific video source on the corresponding window.
- **NONE:** Click to display a "NO SOURCE" image in the corresponding view.

Note: When NONE is selected for the full screen mode, the system will show Guide Screen and then enter standby mode in 120 seconds.

Advanced Features

- **Auto Switching:** Click to enable/disable the auto video switching feature.
  For more information about this feature, refer to the Key Functions > Automatic Switching section.
  Default setting: Enabled
- **Multiview Feature:** Click to enable/disable the multi-view feature.
  For more information about this feature, refer to the Key Functions > Multi-View section.
  Default setting: Enabled
- **MST Feature:** Click to enable/disable the Multi-Stream Transport (MST) feature for the USB-C port.
  Default setting: Disabled

Audio Routing

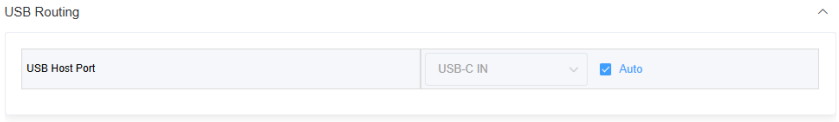


This section provides settings of audio routing and audio related parameters.

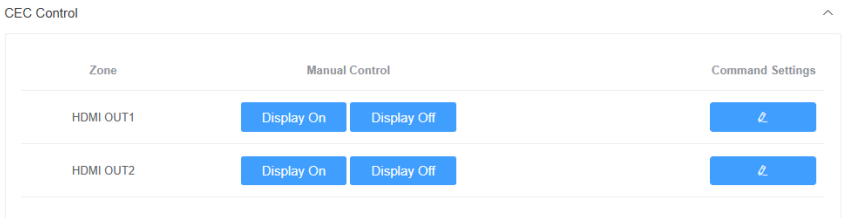
- **HDMI OUT1/HDMI OUT2/Analog Audio Out:** Click the box to select (the box turns from blank to solid blue) or deselect (the box turns from solid blue to blank) an audio source for the corresponding audio output port.
- **Auto Switch:** Click to enable or disable the automatic audio switching feature.
  - **Enabled:** The device outputs the audio signal from the most recent input video source through HDMI OUT1, HDMI OUT2, and Analog Audio Out.
  - **Disabled:** You can manually select the audio signal from a specific video source through HDMI OUT1, HDMI OUT2, and Analog Audio Out.
    Default setting: Enabled
- **Output Volume Control:** Move the slider or click a location on the volume bar to adjust the audio output volume as needed withing the range of -100 - 6 (dB).
  Default setting: 0dB
- **Output Volume Mute:** Click to toggle the audio output mute or unmuted.
  Default setting: Unmuted

USB Routing

This section provides USB Host selection for the built-in USB 3.0 switcher.

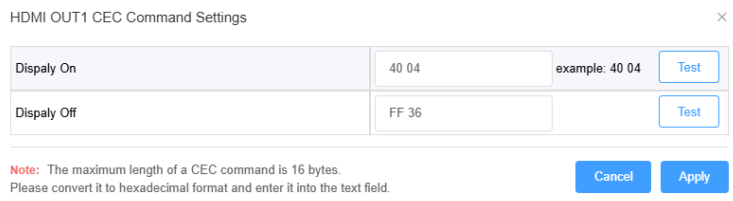


- **Dropdown list:** Click to select USB-C IN / USB HOST / Wireless as the USB host.
- **Auto:** Select among the three USB host ports as the USB host automatically. In this mode, the latest connected USB channel (USB-C IN / USB HOST / Wireless) will be selected as the USB host automatically.
  Default setting: Auto



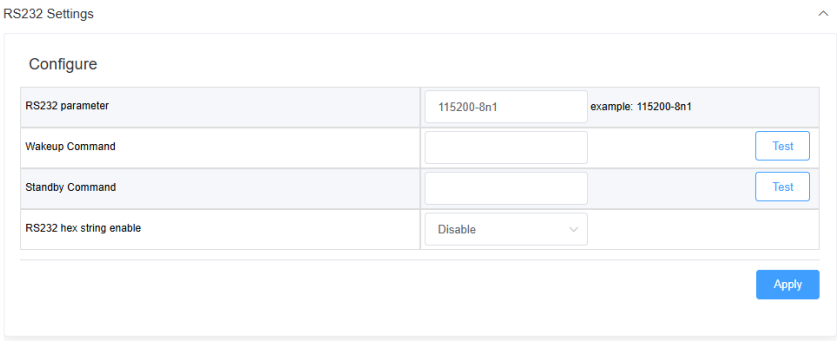
CEC Control

This section provides configurations of CEC commands to control the connected display on or off via HDMI output ports.



- **Command Settings** : Click the button to configure the Display On and Display Off commands for the selected HDMI output port.
  - **Display On:** Enter the CEC Power On command for the controlled display device in hexadecimal format.
    For more information about the command, see the user guide of your display device.
    Default setting: 40 04
  - **Display Off:** Enter the CEC Power Off command for the controlled display device in hexadecimal format. For more information about the command, see the user guide of your display device.
    Default setting: FF 36
  - **Test:** Click to send the corresponding command to the display for testing purposes.
  - **Cancel:** Click to revert settings to their previous values.
  - **Apply:** Click to save and apply the settings.
- **Display On:** Click to send the configured Power On command (from the Display On field above) to turn on the CEC-enabled display.
- **Display Off:** Click to send the configured Power Off command (from the Display Off field above) to turn off the CEC-enabled display.

RS-232 Settings



This section provides settings of RS-232 parameters to control the connected display on or off via the RS-232 port.

- **RS-232 Parameter:** Enter the RS-232 parameters for the controlled display.
  For more information about the parameters, see the user guide of your display device.

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

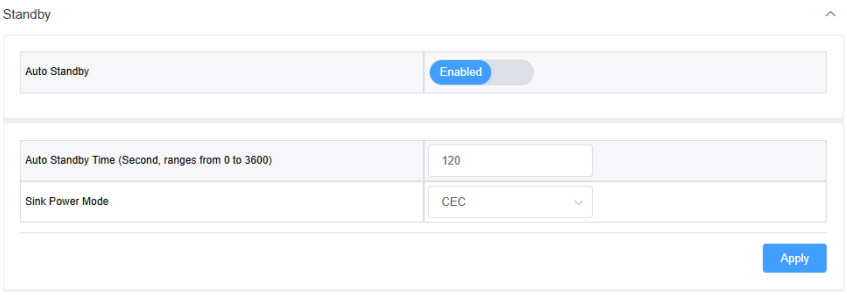
  Default setting: 115200-8n1

- **Wakeup Command:** Enter the RS-232 Power On command for the controlled display device. For more information about the command, see the user guide of your display device. To disable this function, leave this field blank.
  Default setting: Not set
  Test: Click to send the Power On command to the display for testing purposes.
- **Standby Command:** Enter the RS-232 Power Off command for the controlled display device. For more information about the command, see the user guide of your display device. To disable this function, leave this field blank.
  Default setting: Not set
  Test: Click to send the Power Off Command to the display for testing purposes.

- **RS-232 hex string enable:**
  - **Enable:** Select to use the RS-232 Power On and Power Off commands in hexadecimal string form to control your display devices. When enabled, make sure the commands are manually converted to their equivalent hex forms before entering the **Wakeup Command** and **Standby Command** fields.
    For example, RS-232 Power On command in hex form may be **50 57 52 20 4F 4E 0D 0A**.
  - **Disable:** Select to directly send the original Power On or Power Off commands to control the attached display device.
    Default setting: Enable

Standby

This section provides settings of the auto standby feature for the device.



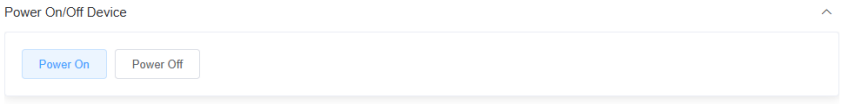
- **Auto Standby:** Click to toggle the auto standby feature on or off for the device. If enabled, when there's no valid signal input to the device during a specified period, the device will enter standby mode automatically.
- Default setting: Enabled
- **Auto Standby Time (Second, ranges from 0 to 3600):** Set the standby timeout (inactivity period) after which the device will automatically enter the standby mode.
  - If the standby timeout doesn't exceed 60 seconds, a standby countdown of the device will appear on the display screen immediately once it outputs the Guide Screen.
  - If the standby timeout is larger than 60 seconds, a 60-second standby countdown of the device will appear on the display screen when the standby timeout has only 60 seconds left.
  - If Auto Standby Time is set to 0, it means the device will enter standby mode immediately once it outputs the Guide Screen.

    For example, an 80-second auto standby time means the device will enter standby mode after it has not detected valid signal input for 80 seconds, during which when the device has output the Guide Screen for 20 seconds, a 60-second countdown appears on the display, as the countdown reaches zero, the device enters standby mode.
    Default setting: 120

- **Sink Power Mode:** Select the control mode to control the connected display on and off.
  - CEC: Select to enable the device to control the connected display on and off via CEC commands.
  - CEC & RS-232: Select to enable the device to control the connected display on and off via both CEC and RS232 commands.

  Default setting: CEC

Power On/Off Device

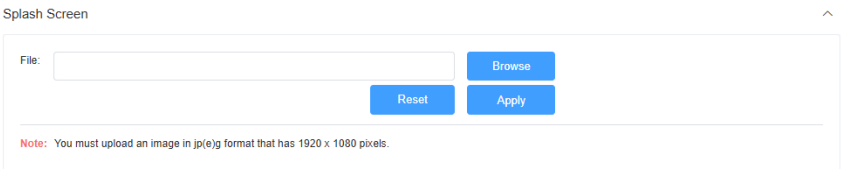


This section provides options to control the device's power state.

- **Power On:** Click to wake the device from standby.
- **Power Off:** Click to put the device into standby.

General Settings Tab

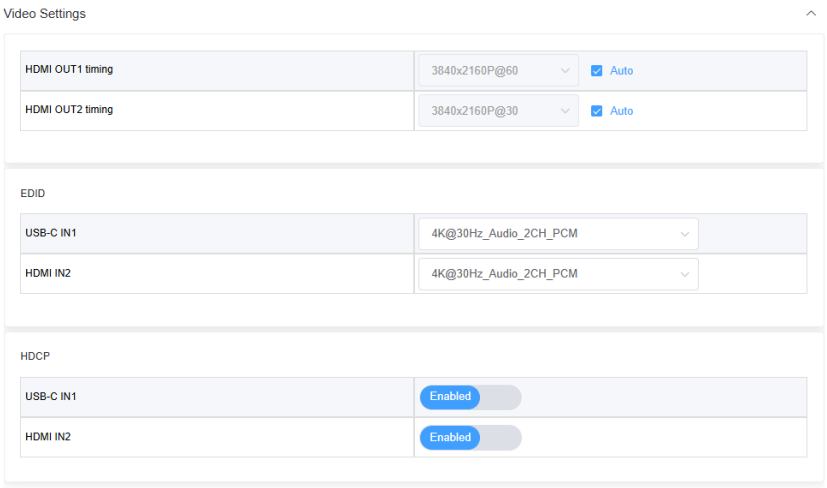
Splash Screen



The Splash Screen (functionally the Guide Screen) section allows you to customize the image displayed on the device after it enters standby mode. This screen can show the company logo, connection instructions, etc.

- **Browse:** Click to select a new image to upload.
  Note: JPEG/JPG image with 1920x1080 pixels is recommended.
- **Reset:** Click to restore the Splash Screen setting to factory defaults.
- **Apply:** Click to upload the selected image to the device.

Video Settings



This section allows you to configure video related parameters for the device.

- **HDMI OUT1 / HDMI OUT2 timing:** Set the output timing for HDMI OUT1 / HDMI OUT2. Two operation methods are offered in the following:
  - **Auto:** Select to output the optimal resolution of the connected display based on the display's EDID.
    For example, if the recommended resolution for the display is 4K@60Hz, the device will output 4K@60Hz video.
  - **Resolution range list:** Select an output resolution from the dropdown list to force output at this fixed resolution. The maximum supported resolution is 4K@60Hz for HDMI OUT1, and 4K@30Hz for HDMI OUT2.
    Default setting: Auto

EDID

- **USB-C IN1 / HDMI IN2:** Set the input EDID for USB-C IN1 / HDMI IN2. Configuration options are offered in the following:
  - 4K@30Hz_Audio_2CH_PCM
  - 1080P@60Hz_Audio_2CH_PCM
  - 720P@60Hz_Audio_2CH_PCM

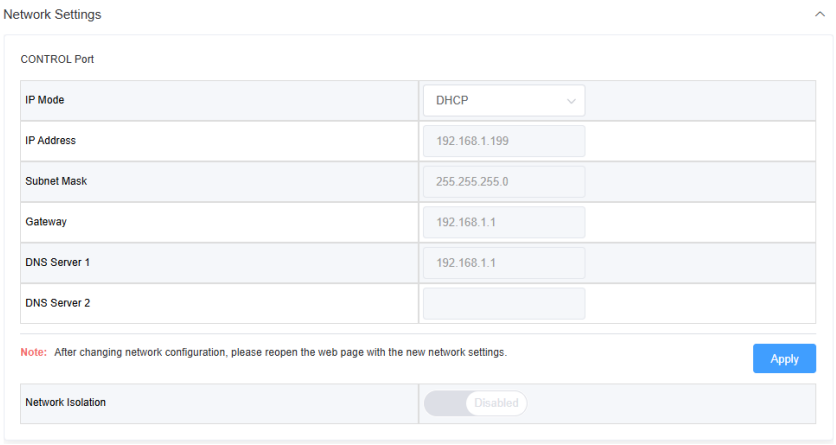
  Default setting: 4K@30Hz_Audio_2CH_PCM

HDCP

- USB-C IN1 / HDMI IN2:
  - **Enabled:** Select to enable HDCP support of the input port.
  - **Disabled:** Select to disable HDCP support of the input port.

  Default setting: Enabled

Network Settings



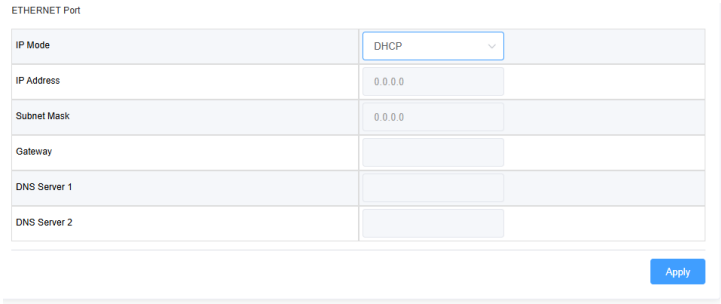
The section provides network settings of the device's Ethernet ports.

For the CONTROL port:

- **IP Mode:** Select IP addressing mode between DHCP and Static. Default setting: DHCP
- **IP Address:** Set an IP address manually for the device when static mode is selected.
- **Netmask:** Set the subnet mask manually for the device when Static mode is selected.
- **Gateway:** Set the gateway address manually for the device when Static mode is selected.
- **DNS Server 1 / 2:** Set DNS server manually for the device to ensure normal network communication.
- **Apply:** Click to save and apply current settings.

Network Isolation

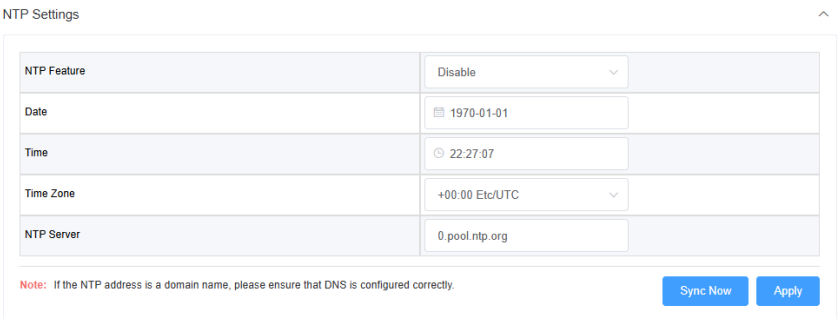
- **Enabled:** Select to activate the Network Isolation mode (corresponds to the device's Isolated Network mode). In this mode, the CONTROL port functions exclusively for device control, and the ETHERNET port handles BYOD communication and provides Ethernet passthrough.



- **Disabled:** Select to activate the Transparent mode (corresponds to the device's Transparent Network mode). In this mode, the two Ethernet ports are interconnected.
  Default setting: Disabled

Note: For more information about the two modes, refer to Key Functions > Network Mode Configuration.

NTP Settings

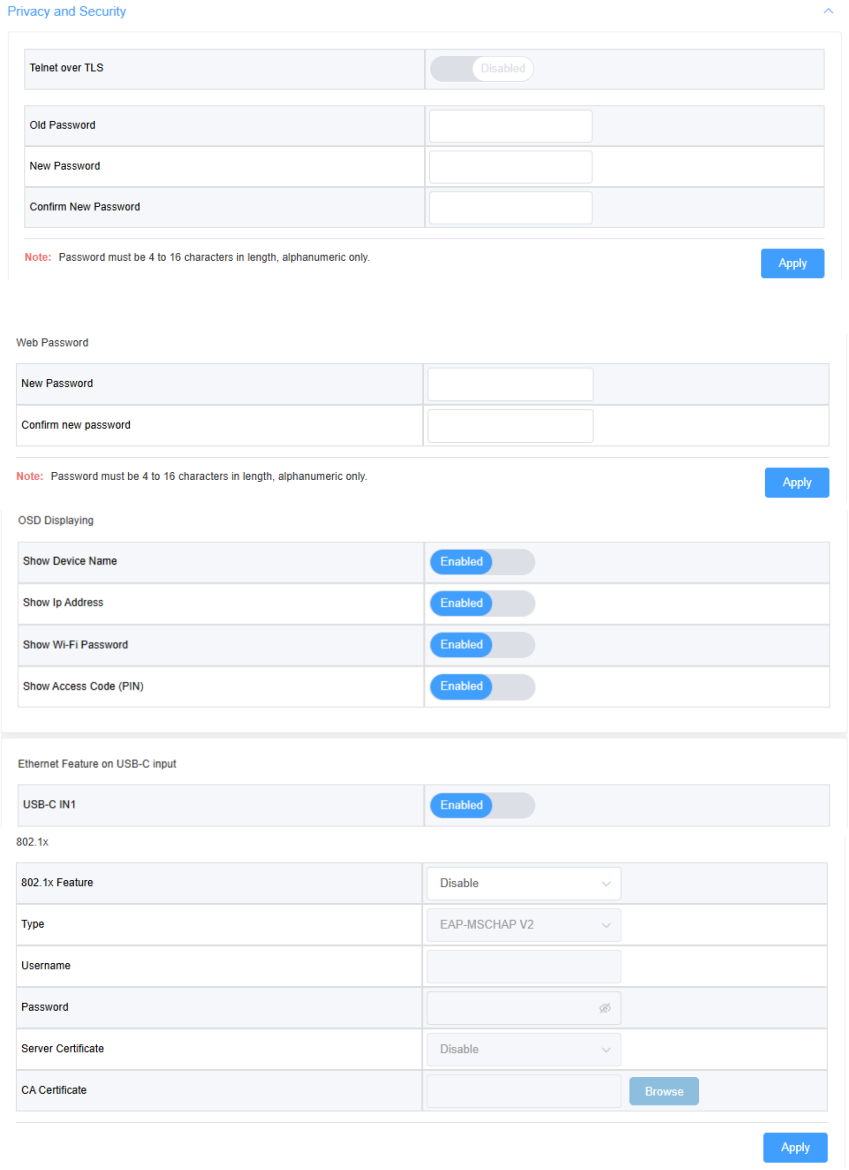


- **NTP Feature:** Select to enable or disable the NTP feature.
  - **Enable:** When enabled, the device can automatically synchronize the date with the NTP server you configure to obtain real time information once the device is powered on and connected to the network. The NTP server can be any server on internet or the one includes RTC chip or battery in the same local area network as the device. (Recommended setting, since the date setting will restore to factory defaults upon each booting if NTP feature is disabled.)
    Default setting: Disable
- **Date:** Define the date when the NTP feature is disabled. The date will start from 1970-01-01 each time the device is booting if an NTP Time Server is not configured for the device or the device has been disconnected from the network.
- **Time:** Define the time when the NTP feature is disabled.
- **Time Zone:** Select a time zone of your city from the dropdown list.
- **NTP Server:** Input the NTP server's address. Default setting: 0.pool.ntp.org

Note: If the NTP address is a domain name, please ensure the DNS is configured correctly.

- **Sync Now:** Click to synchronize the date with the NTP server immediately.
- **Apply:** Click to apply current settings.

Privacy and Security



This section provides security settings to limit unauthorized access to the device.

- **Telnet over TLS:** Click to enabled or disable TLS authentication for the Telnet connection. Default setting: Disabled
- **Old Password:** Input the old password for the Telnet over TLS authentication.
- **New Password / Confirm Password:** Input the new password for the Telnet over TLS authentication.

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

- **HTTPS:** Click to enable/disable HTTPS authentication service. Default setting: Enabled

Web Login Password

- **New Password / Confirm Password:** Input the new password to log on to the Web UI.

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

OSD Displaying

This section allows you to configure the information displayed on the OSD, including the device name, IP address, Wi-Fi password, and access code. Each item can be set to visible or hidden independently.

- **Show Device Name / IP Address / Wi-Fi Password / Access Code (PIN):** Enable or disable the display of the corresponding OSD item.
  Default setting: Enabled

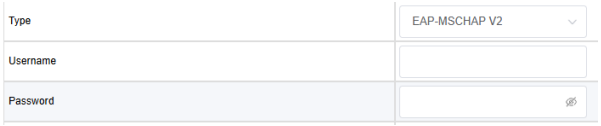
Ethernet Feature on USB-C Input

- **USB-C IN 1:** Click to enable or disable the 1000BASE-T Ethernet passthrough feature on the USB-C IN 1 port. When enabled, the device connected to the USB IN 1 can access the network.
  Default setting: Enabled

802.1x

802.1X is a port-based network access control protocol that uses a RADIUS server for authenticating devices connected to the network, ensuring that only authenticated devices are granted access. It provides an additional layer of security by enforcing device authentication before allowing network access.

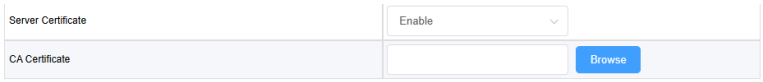
- **802.1x Feature:** Select to enable or disable 802.1x authentication service for the device.
  Default setting: Off
- **Type:** When 802.1x feature is enabled, the device can authenticate using one of the two supported methods: EAP-MSCHAP V2 or EAP-TLS.
  - **EAP-MSCHAP V2:** Performs authentication based on a username and password. This method is widely supported but offers less security compared to certificate-based methods.



The username can include letters, numbers, "-", "_", "@" and "." within the length of 1 to 24 characters; "-" and "_" shall not be at the beginning or end. The password must be printable ASCII characters within the length of 1 to 24 characters.

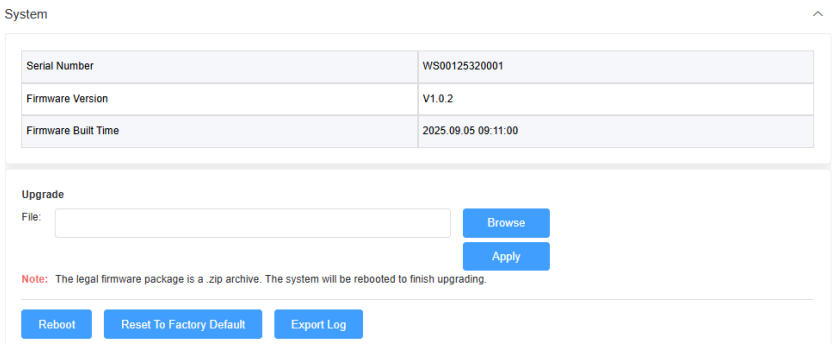
- **EAP-TLS:** Performs authentication using a client certificate, private key and private key password. The private key is optional but recommended for added security. EAP-TLS is more secure as it uses mutual certificate-based authentication, making it more difficult for attackers to impersonate or spoof a device. This method is recommended for high-security environments where device identity needs to be verified thoroughly.

- **Server Certificate:** Select to enable or disable the authentication of server certificate for the device. This is optional when the device authenticates with the RADIUS server using one of the above authentication types.



When enabled, you can click Browse to upload the CA certificate to the device, and the RADIUS server verifies the device's identity by using the server certificate. Only upon successful authentication will the device be allowed to access the network. This feature is recommended for environments with high security requirements to ensure that both the client and server identities are properly authenticated before granting network access.
Default setting: Disabled

System



This section allows you to view the device's details (serial number, firmware version and built time), perform firmware updates, system reboot and reset, and export log.

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 .zip extension.

2. Click Apply to upload the file and initiate the upgrade process.

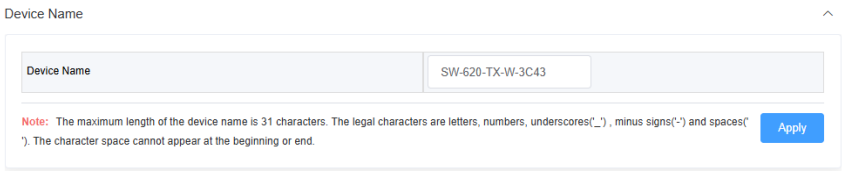
Note: Do not unplug the device during the update process. The device will automatically reboot after the firmware update is complete.

System operation

- **Reboot:** Click to restart the device without affecting any of its configurations. This is useful for applying certain changes or troubleshooting without losing data.
- **Reset to Factory Default:** Click to restore the device to its original factory settings, erasing all configurations and custom data. This action is irreversible, so ensure that you have backed up any important configurations before proceeding.
- **Export Log:** Click to export system log.

Wireless Settings Tab

Device Name



- **Device Name:** Input a new device name. This name also serves as the soft AP name and the receiver's name of Airplay and Miracast.
  Default setting: SW-620-TX-W-XXXX ("XXXX" corresponds to the last four hexadecimal digits of the device's MAC address—e.g., 3C43 results in SW-620-TX-W-3C43.)

Note: The name must be within 31 characters long (only letters, numbers, spaces (''), underscores ('_') or hyphens ('-') are supported). The space cannot appear at the beginning or the end.

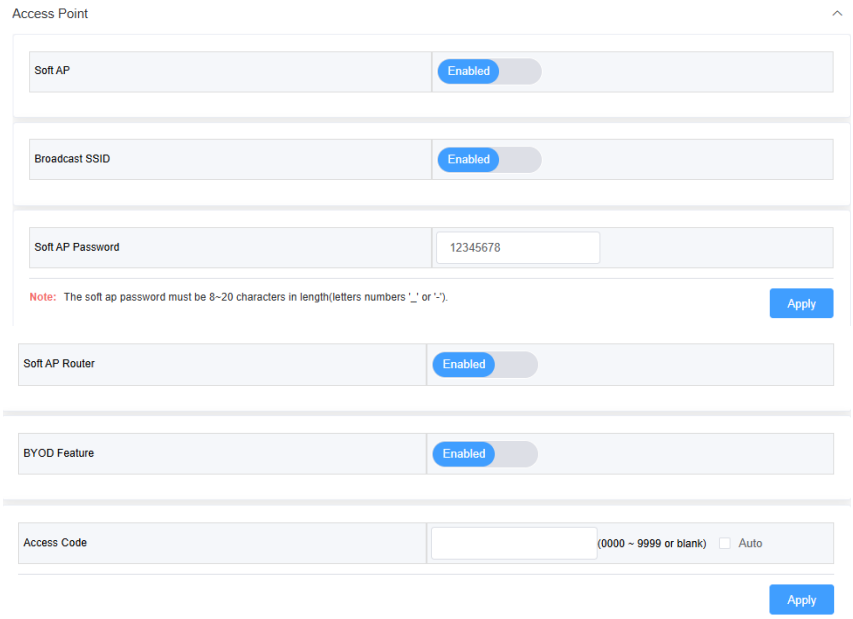
- **Apply:** Apply the setting.

Wireless Screen Sharing

This section provides settings of the frequency band and wireless channel for the device.

- **Band:** Select the frequency band between 5GHz and 2.4G for the device. Default setting: 5G
- **Channel:** Select the wireless channel between Auto or an option from the drop down list for the device.
  Default setting: Auto. Auto means the device selects a wireless channel automatically for itself.

Access Point



- **Soft AP.** Click to enable/disable the device's soft AP feature.
  Default setting: Enabled
- **Broadcast SSID:** Click to enable/disable the device's SSID Broadcast feature. When enabled, the soft AP SSID can be discovered by BYOD devices.
  Default setting: Enabled
- **Soft AP Password:** Configure the device's soft AP password. Default setting: 12345678
- **Soft AP Router:**
  - **Enable:** Enable the device's soft AP router function so that wireless devices connected to the soft AP are able to access the internet (make sure that the Ethernet port of the device is connected to the internet).

Note: When the device's IP mode is set as Static, you must configure the Ethernet port's gateway and DNS correctly so that soft AP router can work properly.

  - **Disable:** Disable the device's soft AP function to prevent wireless devices connected to the soft AP from accessing the internet.
    Default setting: Enabled

Note: Before you use this feature, ensure the soft AP function is enabled.

- **BYOD Feature:** Click to enable/disable the device's BYOD feature.
  Default setting: Enabled

Note: This feature is available for Airplay and Miracast, but doesn't apply to Dongle.

- **Access Code:** Enter a four-digit access code to help prevent users from accidentally connecting to an unintended device and protect from an unauthorized access. When an access code is set, it will appear on the upper right corner of the attached display. If you don't want to set access code, you can enter nothing here.
  - **Auto:** Select to make the device generate an access code randomly. Default setting: Blank (Not set)

Firmware Upgrade

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

Web UI Upgrade:
To upgrade firmware via the Web UI, see Web UI Configuration > General Settings Tab > System.

USB-A Upgrade:
To upgrade firmware using a USB-A port on the front panel, follow these steps:
1. Rename the upgrade file package to "MS320-update.zip".
2. Create a new folder named "upgrade" in the root directory of a FAT32 or NTFS USB flash drive, and place the upgrade file inside this folder.
3. Insert the USB flash drive into one of the switcher's USB-A ports. It takes about 1 minute for the switcher to read the USB flash drive. If the device detects that the upgrade file is a newer version, it will automatically start the upgrade process. Once the upgrade is complete, the device will reboot automatically.

Note: Before connecting a USB flash drive to the device, we recommend removing peripheral devices from the device's USB-C and USB-B ports. Do not