



BG-PSC51-4K

**5x1 4K60 18Gbps Seamless HDMI/USB-C Presentation Switcher
with Multiview/KVM/60W Charging/Dante Audio
and Included HDBaseT 3.0 Receiver**

User Manual







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Statement

Please read these instructions carefully before connecting, operating, or configuring this product. Please save this manual for future reference.

Safety Precaution

- To prevent damaging this product, avoid heavy pressure, strong vibration, or immersion during transportation, storage, and installation.
- The housing of this product is made of organic materials. Do not expose to any liquid, gas, or solids which may corrode the shell.
- Do not expose the product to rain or moisture.
- To prevent the risk of electric shock, do not open the case. Installation and maintenance should only be carried out by qualified technicians.
- Do not use the product beyond the specified temperature, humidity, or power supply specifications.
- This product does not contain parts that can be maintained or repaired by users. Damage caused by dismantling the product without authorization from BZBGear is not covered under the warranty policy.
- Installation and use of this product must strictly comply with local electrical safety standards.



Introduction

The BG-PSC51-4K is a professional 5×1 seamless presentation switch designed for modern collaboration, conferencing, and AV integration environments. It supports three HDMI inputs and two USB-C inputs with DisplayPort Alt Mode, enabling video, USB 2.0, 100M Ethernet, and up to 60W device charging over a single USB-C connection. The system provides mirrored HDMI and HDBaseT outputs, delivering uncompressed video up to 4K@60Hz 4:4:4 with seamless switching performance. Using HDBaseT 3.0 with standard PoE support, signals can be extended up to 230 ft (70 m) at 4K@30Hz or 131 ft (40 m) at 4K@60Hz over a single CAT6A cable, ensuring reliable long-distance transmission for centralized or remote display deployments.

The switch supports a wide range of advanced display modes, including single full-screen, picture-in-picture (PIP), picture-by-picture (PBP), triple-window, and quad-window layouts, making it ideal for multi-source presentation and comparison workflows. Integrated USB 2.0 KVM functionality allows local and remote USB device switching over HDBaseT, while bi-directional RS-232 and IR pass-through enable centralized control of connected source and display devices. Flexible signal management is further enhanced by advanced EDID handling, HDCP 2.2 compliance, and support for automatic or manual input switching.

Audio capabilities are equally robust, featuring analog audio input/output and built-in Dante 2×2 audio input and output with a 3×3 internal audio matrix. Independent audio EQ, volume, and delay control allow precise audio tuning across HDMI, HDBaseT, analog, and Dante paths. The BG-PSC51-4K can be controlled via front-panel buttons, IR remote, RS-232, TCP/IP, or an intuitive Web GUI.

Features

- **5×1 Seamless Presentation Switching:** Supports three HDMI and two USB-C inputs with glitch-free source switching for professional presentation environments.
- **Dual USB-C with DP Alt Mode:** USB-C inputs deliver video, USB 2.0 data, 100M Ethernet, and up to 60W power charging over a single cable.
- **4K60 4:4:4 Video Support:** Delivers up to 18Gbps bandwidth with resolutions up to 4K@60Hz 4:4:4 in compliance with HDMI 2.0b.
- **HDBaseT 3.0 Extension with PoE:** Extends uncompressed 4K60 video up to 131 ft (40 m) or 4K30 up to 230 ft (70 m) over a single CAT6A cable while powering the receiver via PoE.
- **Mirrored HDMI and HDBaseT Outputs:** Provides simultaneous local HDMI and remote HDBaseT outputs for flexible display deployment.
- **Advanced Multiview Display Modes:** Supports Single, PIP, PBP, Triple, and Quad display layouts for multi-source collaboration.
- **Seamless and Fast Switching:** Enables seamless switching in single-screen mode and rapid switching in multiview configurations.



- **Integrated USB 2.0 KVM Extension:** Allows keyboard, mouse, and USB device switching locally or over HDBaseT for remote system control.
- **Bi-Directional RS-232 and IR Pass-Through:** Enables centralized control and automation of source and display devices.
- **Analog and Networked Audio Support:** Features balanced/unbalanced analog audio I/O and built-in Dante 2x2 audio input/output.
- **Built-In 3x3 Audio Matrix:** Provides independent audio routing with adjustable EQ, volume, and delay for precise audio management.
- **Audio Embedding and De-Embedding:** Supports embedding and extracting analog or Dante audio across HDMI and HDBaseT outputs.
- **Advanced EDID Management:** Ensures optimal compatibility with connected sources and displays through customizable EDID control.
- **Automatic and Manual Input Switching:** Supports auto-switching with configurable fallback sources or manual source selection.
- **Comprehensive Control Options:** Offers control via front panel buttons, IR remote, RS-232, TCP/IP, or Web GUI.
- **CEC and Display Power Control:** Supports CEC and RS-232 display on/off and input control for streamlined system automation.
- **PoE Functionality Control:** Allows enabling or disabling HDBaseT PoE operation through the Web GUI for system flexibility.
- **Firmware Upgrade and Configuration Backup:** Supports MCU, scaler, web, and receiver firmware updates with import/export of system settings.

Packing List

- 1 x 5x1 Seamless Presentation Switch
- 1 x HDBaseT Receiver
- 1 x IR Blaster Cable (1.5 meters)
- 1 x IR Wideband Receiver Cable (1.5 meters)
- 2 x 3pin-3.5mm Phoenix Connector (male)
- 3 x 5pin-3.5mm Phoenix Connector (male)
- 4 x Mounting Ear
- 8 x Machine Screw
- 1 x 24V/8A Desktop Power Supply & 1 x AC Power Cord (1.5 meters)
- 1 x IR Remote
- 1 x User Manual



Specifications

TECHNICAL	
Product Model	BG-PSC51-4K
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
DisplayPort Version	DP 1.2
Video Bandwidth	18 Gbps
Input Video Resolution	480i-1080p@50/60Hz, 4K@24/30Hz, 4K@50/60Hz 4:4:4
Output Video Resolution	Auto, up to 4096×2160@60Hz
Color Space	RGB, YCbCr 4:4:4 / 4:2:2, YUV 4:2:0
Color Depth	Input: 8/10/12-bit (8-bit @ 4K60 4:4:4); Output: 8-bit
HDR Support	Input supported; output not supported
HDBaseT Standard	HDBaseT 3.0
Transmission Distance	230 ft / 70 m (1080p & 4K30); 131 ft / 40 m (4K60)
PoE Support	Yes (TX PSE, RX PD)
Multiview Modes	Single, PIP, PBP, Triple, Quad
USB Support	USB 2.0 local KVM and USB extension over HDBaseT
USB-C Functions	Video (DP Alt Mode), USB 2.0, 100M Ethernet, up to 60W charging
Network Bandwidth	100 Mbps
Control Methods	Front panel, IR, RS-232, TCP/IP, Web GUI
EDID Management	Advanced, user-configurable
ESD Protection	IEC 61000-4-2 ±8kV (air), ±4kV (contact)
TX ANALOG AUDIO	
Input Impedance	10 kΩ
Output Impedance	330 Ω
Max Line Input Level	8.2 dBu (2 Vrms), balanced/unbalanced
Max Line Output Level	8.2 dBu (2 Vrms) balanced; 2.2 dBu (1 Vrms) unbalanced



Frequency Response	20 Hz–20 kHz (+0.5 dB / –1 dB)
Audio Delay	0–50 ms
S/N Ratio	93 dB @ 2 Vrms, 1 kHz (A-weighted)
THD+N	<0.1% @ 0 dBV, 1 kHz
RX ANALOG AUDIO	
Output Impedance	330 Ω
Max Line Output Level	8.2 dBu (2 Vrms) balanced; 2.2 dBu (1 Vrms) unbalanced
Frequency Response	20 Hz–20 kHz (+0.5 dB / –1 dB)
Audio Delay	0–50 ms
S/N Ratio	93 dB @ 2 Vrms, 1 kHz (A-weighted)
THD+N	<0.1% @ 0 dBV, 1 kHz
DANTE AUDIO	
Network Audio	Dante 2×2
Audio Format	LPCM 2.0
Sample Rates	44.1 / 48 / 88.2 / 96 kHz @ 24-bit
Audio Delay	2, 3, 4, 5, 10 ms
Network Bandwidth	100 Mbps
CONNECTION	
Transmitter Inputs	3× HDMI, 2× USB-C, 1× Line In, 1× Dante
Transmitter Outputs	1× HDMI, 1× HDBaseT, 1× Line Out
Transmitter Control	RS-232, LAN, USB Host, 2× USB Device, IR In/Out
Receiver Inputs	HDBaseT, HDMI
Receiver Outputs	HDMI, Line Out
Receiver Control	RS-232, USB Host, 2× USB Device, IR In/Out
Receiver Power	PoE via HDBaseT or DC 24V
MECHANICAL	
Housing	Aluminum front panel, metal enclosure

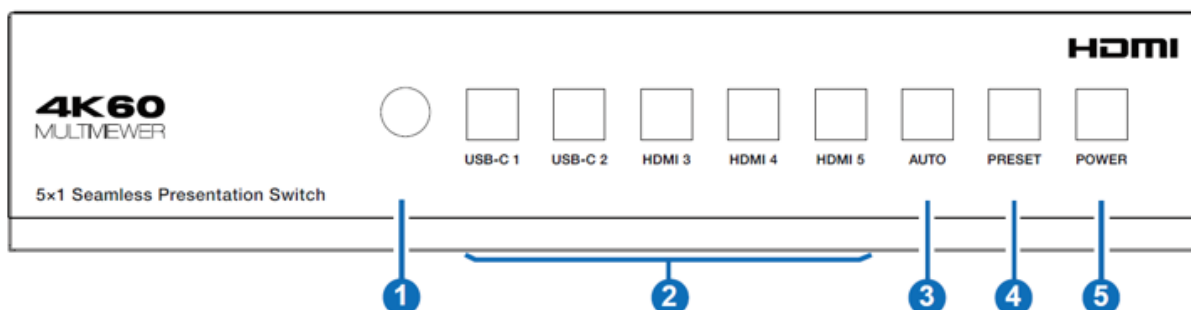


Color	Black
Dimensions (Transmitter)	8.7 × 5.9 × 1.7 in [220 × 150 × 44 mm]
Dimensions (Receiver)	5.5 × 4.1 × 0.85 in [140 × 105 × 21.5 mm]
Weight (Transmitter)	2.7 lbs [1.21 kg]
Weight (Receiver)	0.93 lbs [424 g]
Power Supply	AC 100–240V, DC 24V / 8A
Max Power Consumption	150 W
Operating Temperature	32°F to 104°F / 0°C to 40°C
Storage Temperature	–4°F to 140°F / –20°C to 60°C
Operating Humidity	20%–80% RH (non-condensing)
Storage Humidity	10%–90% RH (non-condensing)



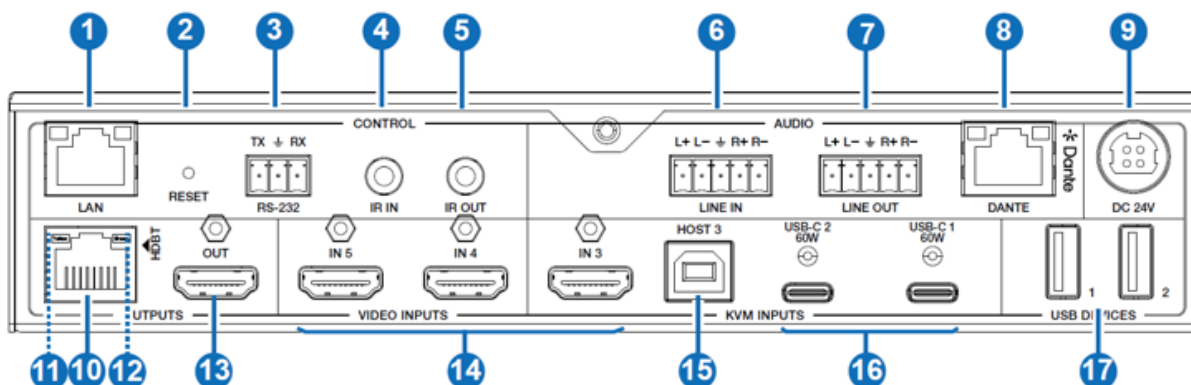
Operation Controls and Functions

Transmitter Front Panel



No.	Name	Description
1	IR Window	Receives IR signals from the remote control for system operation and control.
2	Input Selection Buttons (USB-C 1 / USB-C 2 / HDMI 3 / HDMI 4 / HDMI 5)	Selects active input source in single-screen mode; in multiview mode indicates active sources assigned to display windows.
3	AUTO Button	Enables or disables automatic input switching based on signal detection priority.
4	PRESET Button	Cycles through saved multiview or layout presets configured via Web GUI.
5	POWER Button	Turns the unit on or places it into standby mode with a long press (3 seconds).

Transmitter Rear Panel

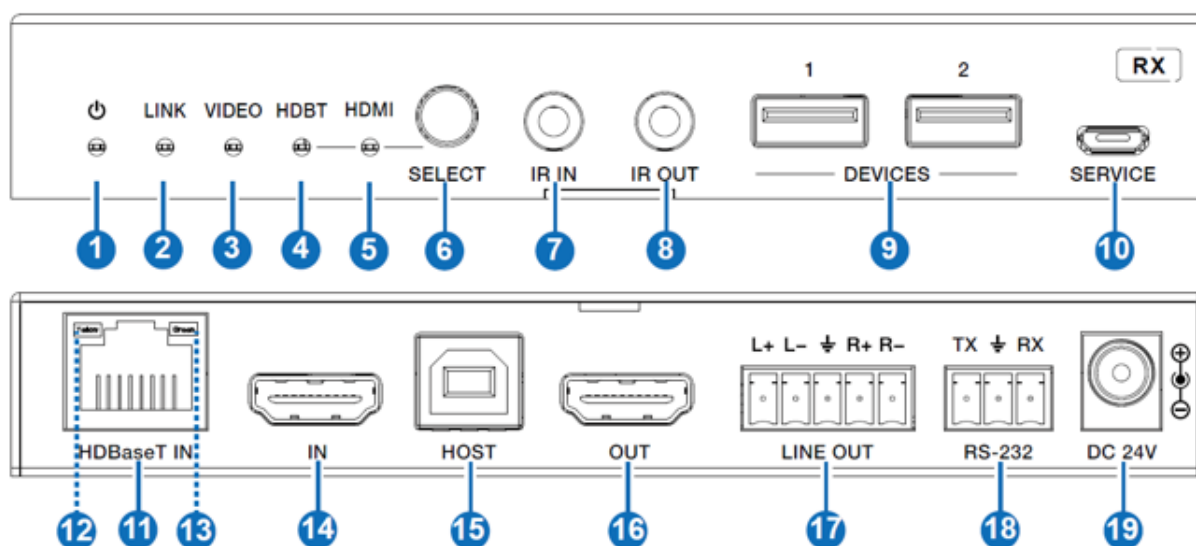




No.	Name	Description
1	LAN Port	Provides network access for Web GUI control and USB-C Ethernet functionality.
2	RESET Button	Restores the device to factory default settings when pressed and held for 5 seconds.
3	RS-232 Port	Enables serial control and bi-directional RS-232 pass-through communication.
4	IR IN Port	Receives external IR signals for control or pass-through to connected devices.
5	IR OUT Port	Sends IR signals from the system to controlled devices via IR blaster.
6	LINE IN Port	Accepts balanced or unbalanced analog audio input (up to 2 Vrms).
7	LINE OUT Port	Outputs analog audio with support for balanced and unbalanced connections.
8	DANTE Port	Provides Dante 2x2 network audio input/output.
9	DC 24V Port	Power input for the external 24V power adapter.
10	HDBaseT OUTPUT Port	Transmits uncompressed AV signal to receiver over CAT6A with PoE support.
11	Data Signal Indicator (Yellow)	Indicates HDMI signal status (HDCP, active signal, or no signal).
12	Link Signal Indicator (Green)	Shows HDBaseT link status between transmitter and receiver.
13	HDMI OUTPUT Port	Provides mirrored local HDMI output to a display device.
14	HDMI IN 3/4/5 Ports	HDMI inputs for connecting external video sources.
15	USB HOST Port	USB-B connection for PC host control in KVM mode.
16	USB-C 1/2 Ports	USB-C inputs supporting video (DP Alt Mode), USB 2.0, Ethernet, and 60W charging.
17	USB DEVICE Ports	USB-A ports for peripherals such as keyboard, mouse, or USB cameras.



HDBaseT Receiver Panel



No.	Name	Description
1	Power LED	Indicates the receiver is powered on.
2	LINK LED	Shows HDBaseT connection status between transmitter and receiver.
3	VIDEO LED	Indicates active video signal presence and HDCP status.
4	HDBT LED	Illuminates when HDBaseT input is selected as the active source.
5	HDMI LED	Illuminates when HDMI input is selected as the active source.
6	SELECT Button	Manually switches between HDMI IN and HDBaseT IN inputs.
7	IR IN Port	Receives IR signals for pass-through or remote system control.
8	IR OUT Port	Outputs IR signals to controlled devices via IR blaster.
9	USB DEVICE Ports (2x)	Connects USB peripherals such as keyboard, mouse, or touchscreen devices.
10	SERVICE Port	Used for firmware upgrades and maintenance via USB connection.
11	HDBaseT IN Port	Receives AV, USB, control, and power signals from the transmitter via CAT6A cable.
12	Data Signal Indicator (Yellow)	Indicates HDMI signal status (HDCP active, non-HDCP signal, or no signal).
13	Link Signal Indicator (Green)	Shows HDBaseT link quality and connection status.

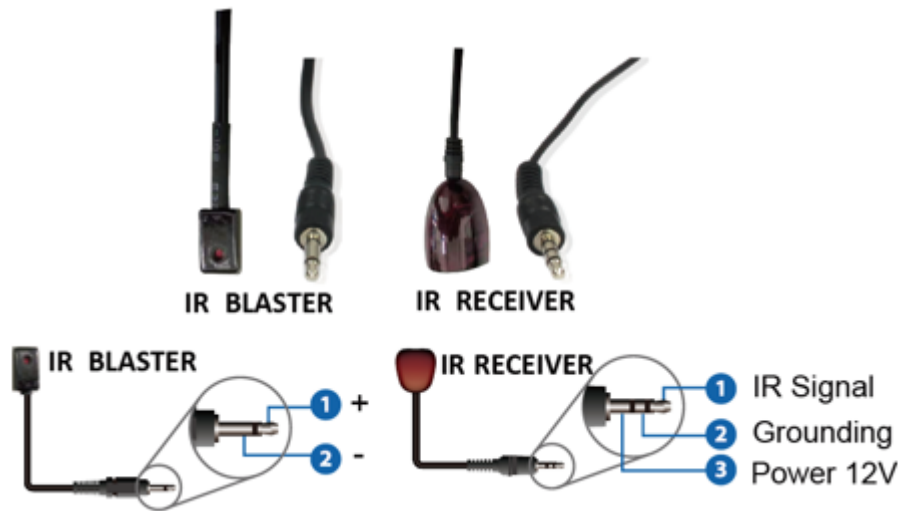


14	HDMI IN Port	Local HDMI input for alternate source selection at the receiver.
15	USB HOST Port	USB-B connection for PC host in KVM operation mode.
16	HDMI OUT Port	Outputs video signal to connected display device.
17	LINE OUT Port	Provides balanced/unbalanced analog audio output.
18	RS-232 Port	Enables serial control and bi-directional pass-through communication.
19	DC 24V Port	Optional power input when PoE is not used via HDBaseT.



IR Cable Pin Assignment

The IR interface on the BG-PSC51-4K uses a standard 3.5mm stereo (TRS) connector for both the IR receiver and IR blaster cables.



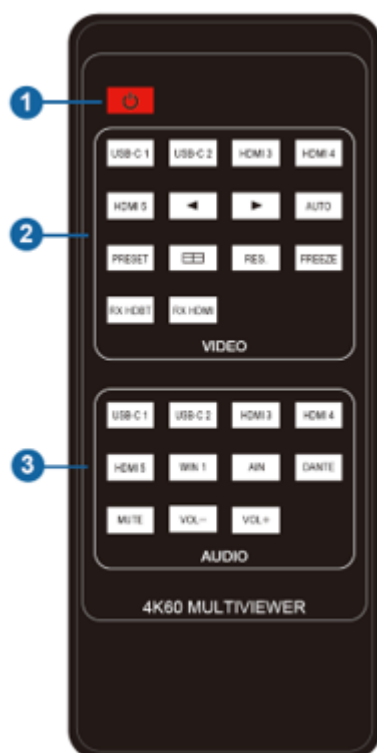
- **Tip (T):** IR Signal
- **Ring (R):** +5V DC (power for IR module)
- **Sleeve (S):** Ground (GND)

The **IR Receiver Cable** is used to receive infrared commands from the remote control and pass them to the system for local or remote device control. The **IR Blaster Cable** outputs infrared signals to external devices such as displays or source equipment for power and input control functions.

For best performance, the IR receiver should be positioned with a clear line of sight to the remote. Effective transmission range is approximately **0–5 meters within $\pm 45^\circ$** , and up to **0–8 meters within $\pm 90^\circ$** depending on alignment and environmental conditions.



IR Remote Description



1. **Power Button:** Press to power the switcher on or place it into standby mode.

2. **Video Control Buttons:** Includes input selection (USB-C 1 / USB-C 2 / HDMI 3 / HDMI 4 / HDMI 5) for single-screen mode, with corresponding front panel indicator lighting in blue. Provides channel navigation (previous/next input), AUTO switching enable/disable, PRESET scene cycling, multiview mode switching (Single → PIP → PBP → Triple → Quad), output resolution cycling (RES.), screen freeze/unfreeze (FREEZE), and receiver source selection (RX HDBT / RX HDMI) to choose between HDBaseT IN or HDMI IN as the receiver input source.

3. **Audio Control Buttons:** Allows selection of audio input sources (USB-C 1 / USB-C 2 / HDMI 3 / HDMI 4 / HDMI 5 / WIN 1 / AIN / DANTE) for HDMI/HDBT output audio routing, with USB-C/HDMI/WIN sources grouped under Main In. Includes Master Out mute/unmute control and volume adjustment (VOL- / VOL+) to increase or decrease output level.



Web GUI User Guide

The presentation switch can be controlled via the built-in Web GUI interface. Follow the steps below to access and operate the system.

Step 1: Obtain IP Address

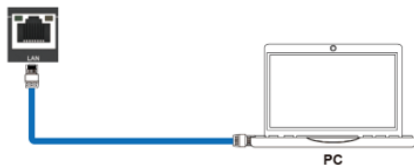
The default IP address is **192.168.0.100** when the system is not connected to a router.

To retrieve the current IP address, send the RS-232 ASCII command: `r ip addr`

Use a serial command tool to execute the command. The device will return its current IP address. (The IP may vary depending on network configuration.)

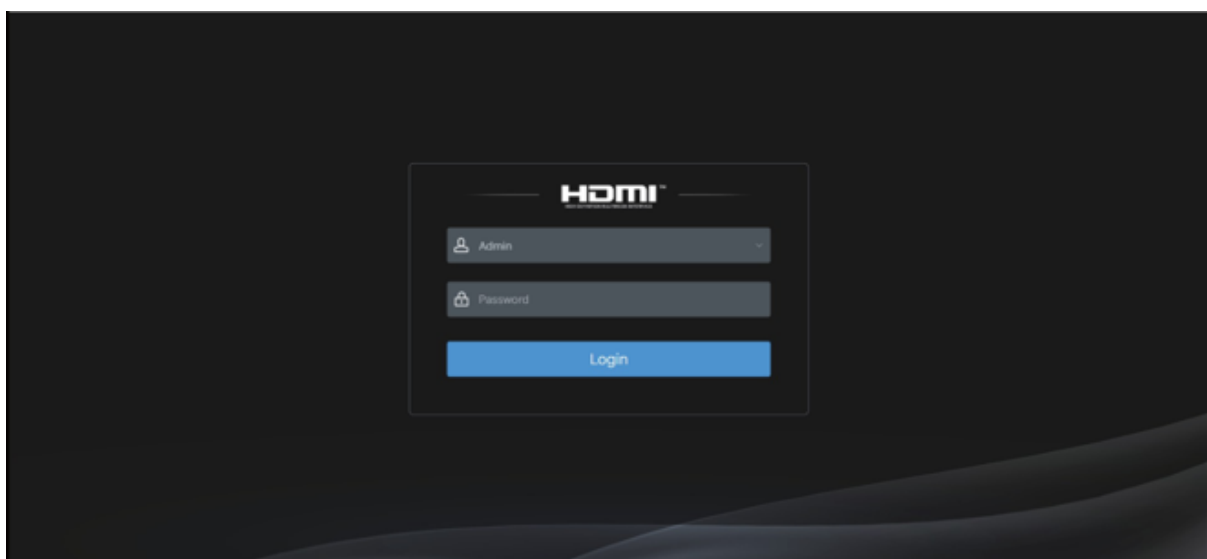
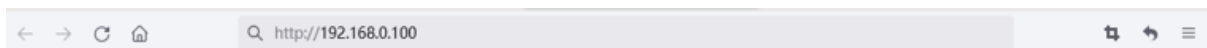
For RS-232 command details, refer to **Section 9: RS-232 Control Command**.

Step 2: Network Connection



Connect the LAN port of the presentation switch to a PC using an Ethernet cable. Ensure the PC is set to the same network segment as the device IP address.

Step 3: Access Web GUI





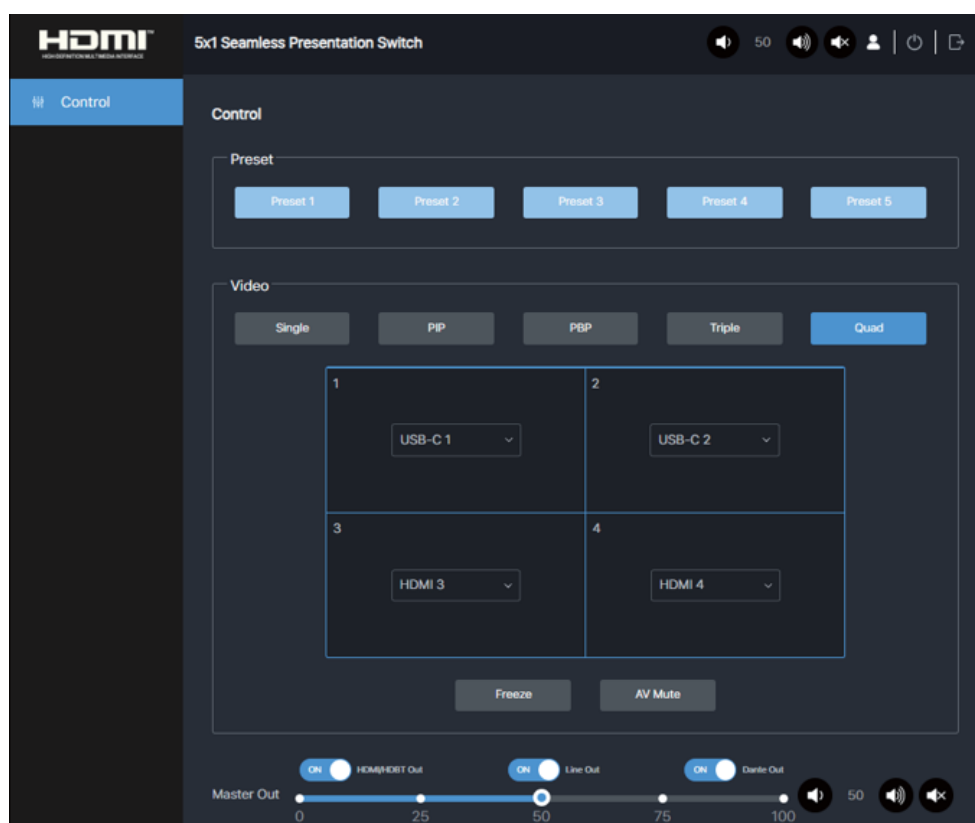
Enter the device IP address into a web browser (Chrome/Edge recommended) to open the Web GUI login page.

Login Credentials

Username	Password
Admin	admin
User	user

Select **User** or **Admin**, enter the corresponding password, then click **Login**.

User Page (User Login)



The User interface allows basic control functions:

- **Preset:** Recall saved application scenes.
- **Video:** Select multiview display mode, assign input sources per window, freeze screen, or mute audio.
- **Master Out:** Adjust volume or mute/unmute Master Out audio. Enable/disable HDMI/HDBT Out, Line Out, or Dante Out individually.



Admin Interface

Information Page



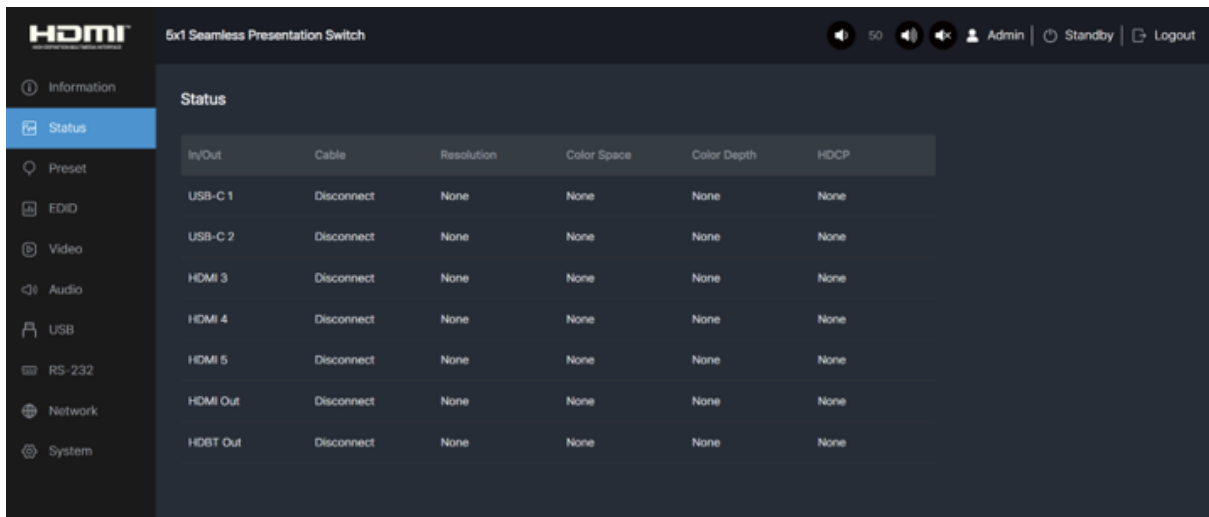
Displays system information including:

- Model name
- Software version
- IP information
- System temperature

Top-right corner controls:

1. Master Out volume control (increase/decrease/mute)
2. Current user display (User/Admin)
3. Power control (ON/Standby)
4. Logout button

Status Page

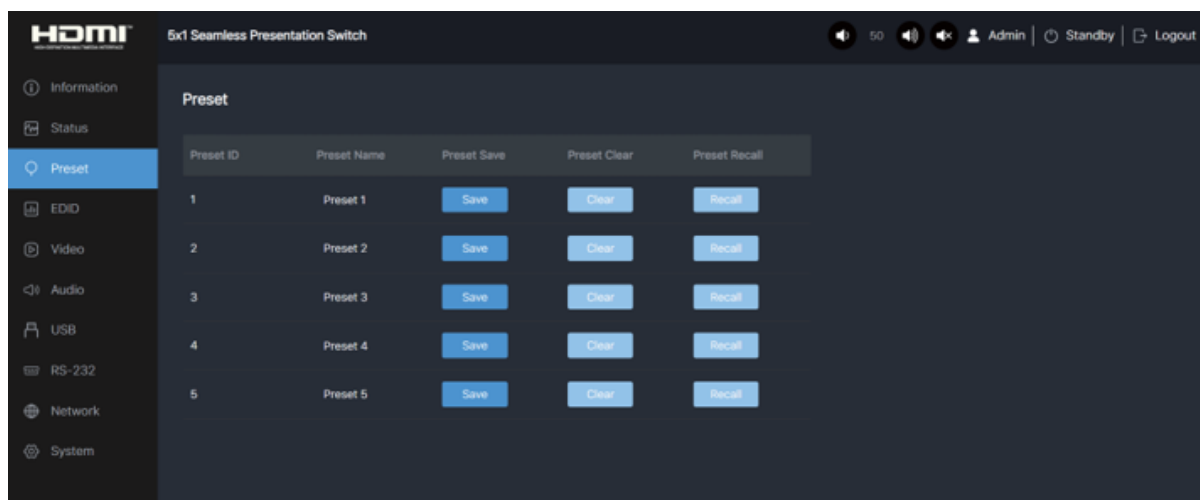




Displays real-time system status including:

- Input/output connection status
- Input/output resolution
- Color space
- Color depth
- HDCP status

Preset Page

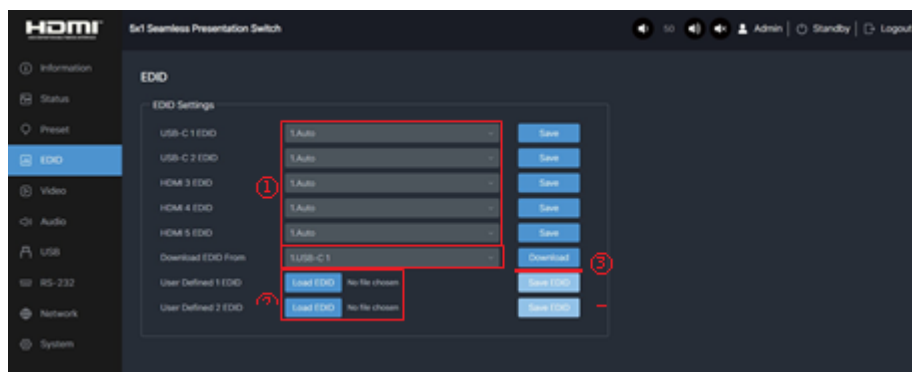


Supports up to **5 preset scenes**:

1. **Preset Name:** Assign a name (no Chinese characters supported)
2. **Save:** Save current configuration
3. **Clear:** Delete saved preset
4. **Recall:** Load saved preset



EDID Page



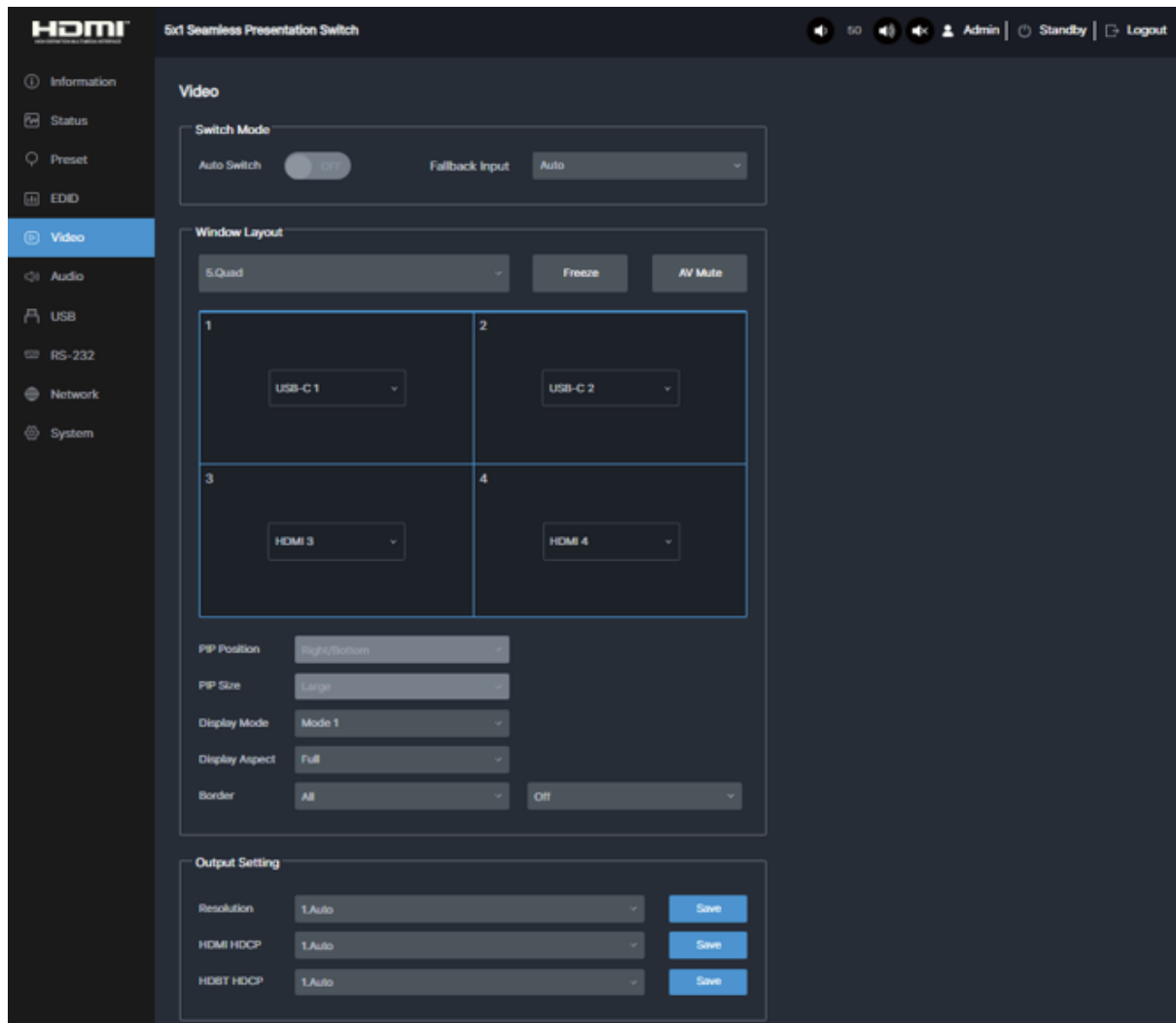
Controls EDID management per input.

- Select EDID mode from predefined list (Auto, Copy HDMI OUT, 4K/1080P/720P options, user-defined, etc.)
- Select input/output port for EDID download (USB-C 1/2, HDMI 3–5, HDMI OUT, HDBT OUT)
- **Download:** Export EDID (.bin file)
- **Load EDID:** Upload custom EDID file (.bin only)
- **Save EDID:** Store user-defined EDID

No.	EDID Mode	No.	EDID Mode
1	Auto	9	1680x1050, Stereo Audio 2.0
2	Copy HDMI OUT	10	1600x1200, Stereo Audio 2.0
3	Copy HDBT OUT	11	1440x900, Stereo Audio 2.0
4	4K2K60_444, Stereo Audio 2.0	12	1360x768, Stereo Audio 2.0
5	4K2K30_444, Stereo Audio 2.0	13	1280x1024, Stereo Audio 2.0
6	1080P, Stereo Audio 2.0	14	1024x768, Stereo Audio 2.0
7	720P, Stereo Audio 2.0	15	User Defined 1
8	1920x1200, Stereo Audio 2.0	16	User Defined 2



Video Page



Switch Mode

- Auto Switch ON/OFF
- Fallback Input selection (Auto / USB-C 1 / USB-C 2 / HDMI 3 / HDMI 4 / HDMI 5)
 - Auto fallback follows priority: USB-C 1 → USB-C 2 → HDMI 3 → HDMI 4 → HDMI 5
- Auto switching works only in single-screen mode

Window Layout

- Select display mode: Single / PIP / PBP / Triple / Quad
- Freeze screen
- AV Mute (audio/video mute)
- PIP position and size selection
- Display mode options for PBP/Triple/Quad
- Aspect ratio settings



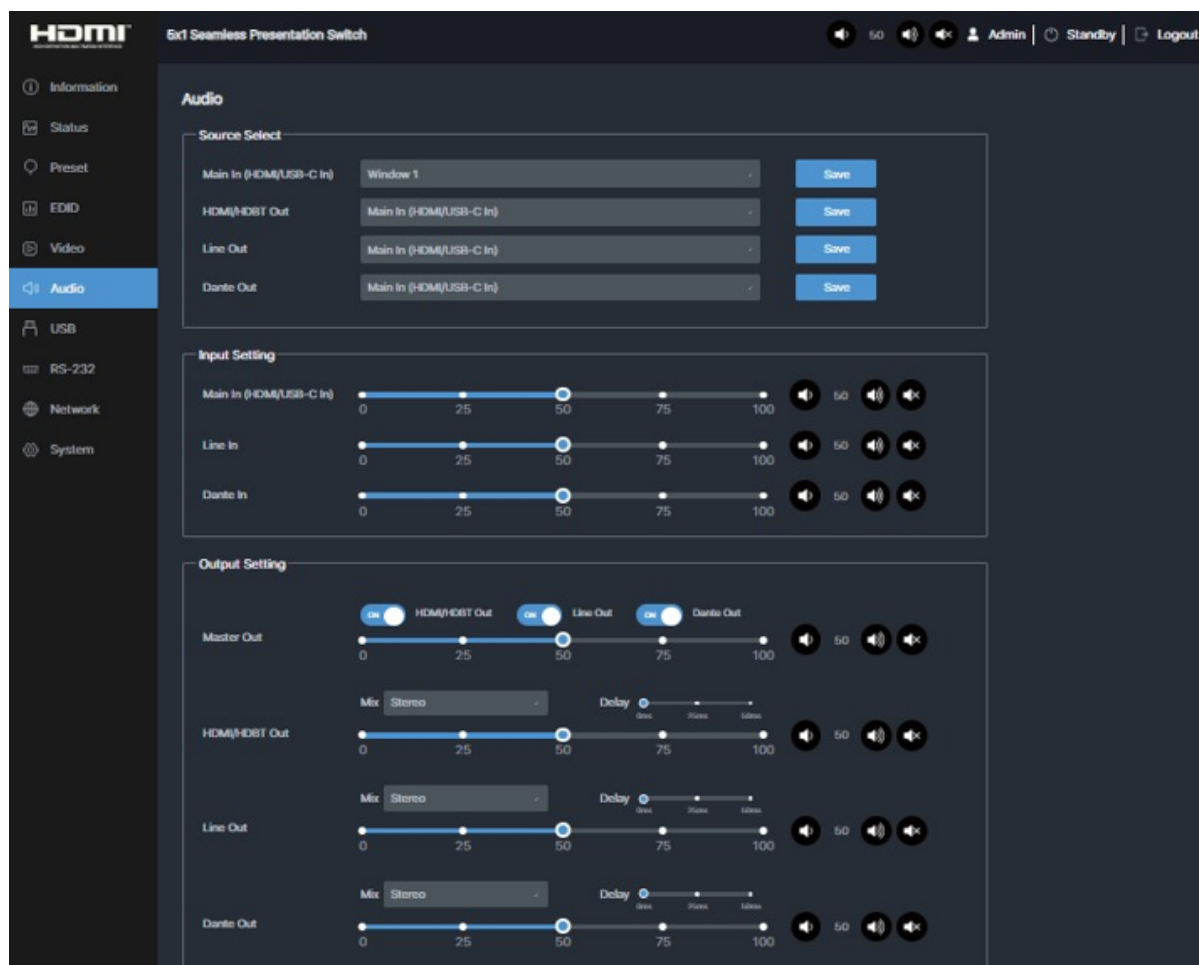
- Border and border color settings

Output Settings

- Output resolution selection (Auto, up to 4K/60Hz and lower formats)
- HDMI HDCP version selection
- HDBT HDCP version selection
- Click **Save** to apply changes

No.	Output Resolution	No.	Output Resolution
1	Auto	9	1920x1080p60
2	3840x2160p60	10	1920x1080p50
3	3840x2160p50	11	1360x768p60
4	4096x2160p60	12	1280x800p60
5	4096x2160p50	13	1280x720p60
6	3840x2160p30	14	1280x720p50
7	3840x2160p25	15	1024x768p60
8	1920x1200p60RB		

Audio Page





Source Select

- Select Main In source
- Assign audio sources for HDMI/HDBT Out, Line Out, Dante Out
- Click **Save** to apply

Input Settings

- Adjust volume or mute for Main In, Line In, Dante In

Output Settings

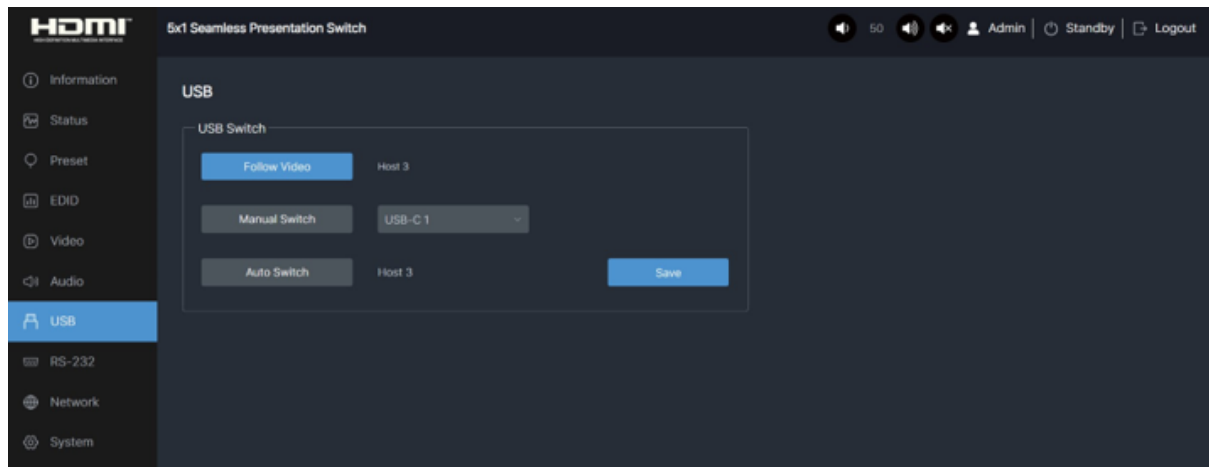
- Master Out volume and mute control for HDMI/HDBT, Line Out, Dante Out
- Independent or synchronized control supported
- Select audio mix channel per output
- Delay and gain adjustment available

GEQ Settings

- Select output channel
- EQ presets: Flat, Custom 1–5



USB Page



- **Follow Video:** USB follows video window 1 in multiview
- **Manual Switch:** Select USB-C 1 / USB-C 2 / Host 3 manually
- **Auto Switch:** Automatic USB switching between inputs
- Click **Save** to apply



RS-232 Page

The screenshot shows the RS-232 configuration page for an HDMI 5x1 Seamless Presentation Switch. The page has a dark theme and a sidebar on the left with navigation options: Information, Status, Preset, EDID, Video, Audio, USB, RS-232 (selected), Network, and System. The top right of the page shows user information: Admin, Standby, and Logout.

RS-232 Settings

This section is divided into two columns: Local RS-232 and Remote RS-232. Each column contains the following settings:

- Baud Rate: 115200
- Data Bit: 8 Bit
- Parity: None
- Stop Bit: 1 Bit

Each column has a 'Save' button at the bottom.

RS-232 Commands (Display Auto Power)

This section is divided into two main parts: Local RS-232 Commands and Remote RS-232 Commands. Each part has a toggle switch for 'ON' (selected) and 'OFF'. To the right of each toggle is a 'HEX' toggle switch, which is currently 'OFF'.

Local RS-232 Commands:

- Display On Command: PWRON
- Delay 1: 1 (s)
- Display Input Select: INPUT
- Delay 2: 1 (s)

Remote RS-232 Commands:

- Display On Command: PWRON
- Delay 1: 1 (s)
- Display Input Select: INPUT
- Delay 2: 1 (s)

Each part has a 'Save' button at the bottom.

RS-232 Commands (General)

This section contains a single configuration area with the following settings:

- RS-232: Local RS-232
- Command: (empty text field)
- Command Ending: Null

There is a 'Send' button at the bottom and a 'HEX' toggle switch (currently 'OFF') to the right.

RS-232 Settings

- Configure baud rate, data bit, parity, stop bit for:
 - Local RS-232 (transmitter)
 - Remote RS-232 (receiver)

Display Control Commands

- Enable/disable RS-232 commands
- Set display ON/OFF command
- Configure delay timers
- Set input switching commands

General RS-232 Control

- Select Local/Remote RS-232



- Enter command (HEX optional)
- Select command ending format
- Click **Send**

Network Page

The screenshot displays the 'Network' configuration page for an HDMI 5x1 Seamless Presentation Switch. The interface includes a sidebar with navigation options: Information, Status, Preset, EDID, Video, Audio, USB, RS-232, Network (selected), and System. The main content area is titled 'Network' and contains two sections: 'Network Configuration' and 'Account Passwords'.

Network Configuration:

- IP Mode: ☒ DHCP ☐ Static
- IP Address: 192.168.124.102
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.124.1
- Telnet Port: 23
- Domain Name: P56KVM-75AA.local
- Buttons: Cancel, Save

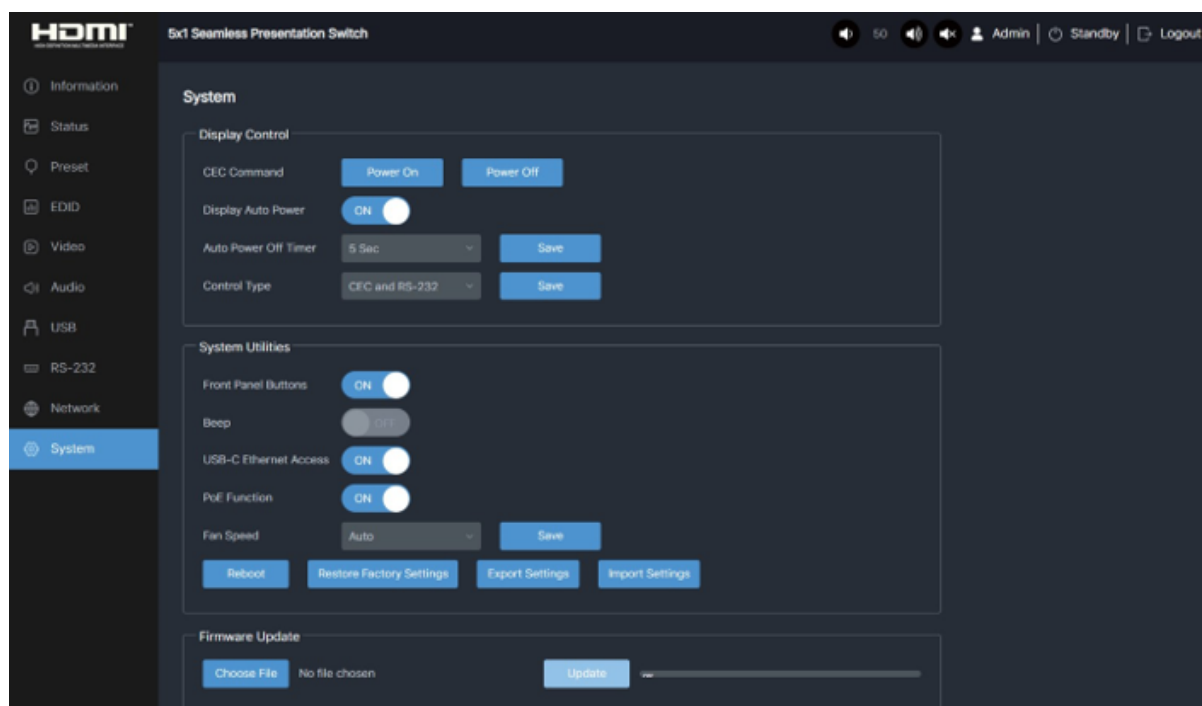
Account Passwords:

Account	Old Password	New Password	Confirm Password	Save
User				
Admin				

- Set IP mode (DHCP/Static)
- Configure IP address, subnet mask, gateway, DNS, Telnet port
- Domain name access supported (e.g., device.local)
- Modify User/Admin passwords



System Page



Display Control

- CEC power control ON/OFF
- Display auto power control
- Auto power-off timer
- Control type selection

System Utilities

- Front panel lock/unlock
- Beep ON/OFF
- USB-C Ethernet access ON/OFF
- PoE ON/OFF
- Fan speed control
- Reboot system
- Factory reset
- Export/import configuration

Firmware Update

- Supports MCU, Web, Scaler, and receiver updates
- Select file → click Update → wait for completion (100%)



Dante Web GUI User Guide

Dante audio control is integrated within the **Audio Page** of the Web GUI. It allows routing, level adjustment, and equalization of Dante audio signals within the system.

Dante Output Source Selection

In the **Source Select** section, you can assign the audio source for Dante output:

- Select **Dante Out** from the available input sources (e.g., Main In, Line In, HDMI/USB-C sources depending on routing options)
- Click **Save** to apply the selected routing

This determines which audio signal is transmitted to the Dante network output.

Dante Input / Processing Settings

Within the **Input Settings** section:

- Adjust **Dante In** audio level (increase or decrease volume)
- **Mute/Unmute** Dante input as needed

These controls allow you to manage incoming Dante audio before it is routed to outputs.

Dante Output Control

Under **Output Settings**:

- Adjust **Dante Out volume**
- Enable or disable **mute**
- Select the **audio mix channel** assigned to Dante Out via the Mix drop-down menu
- Fine-tune audio with:
 - Gain adjustment (increase/decrease audio level)
 - Delay settings (for synchronization)

Master Out Synchronization

Dante output can be managed alongside other system outputs:

- HDMI/HDBT Out



- Line Out
- Dante Out

You can choose to control these outputs independently or synchronize them under **Master Out** settings.

GEQ (Equalizer) for Dante

The Dante output supports built-in equalization control:

- Select **Dante Out** (or relevant output channel) in the GEQ section
- Choose EQ mode:
 - Flat (0 dB baseline)
 - Custom 1–5 presets

This allows tone shaping of Dante audio for different environments or system tuning.

~ All changes must be confirmed by clicking **Save** to ensure settings take effect.

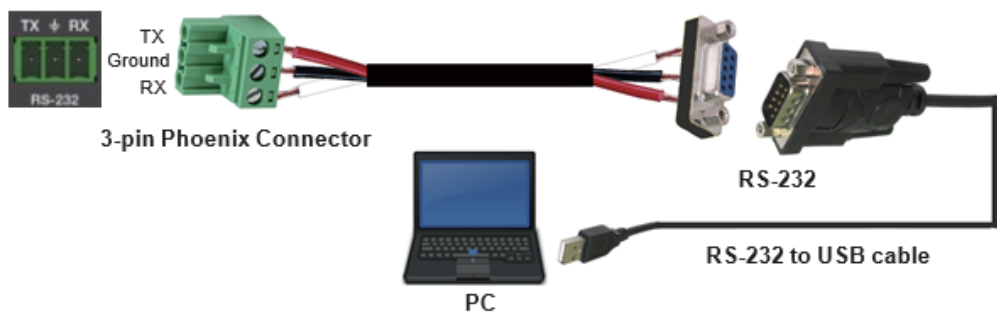


RS-232 Control Command

The presentation switch supports serial control via RS-232, allowing third-party control systems, PCs, or automation platforms to manage device operation, switching, and display control.

RS-232 Connection

RS-232 communication is available on both the **local (transmitter)** and **remote (receiver)** RS-232 ports. Use a standard straight-through serial cable to connect the device to a control system or PC.



Default RS-232 Parameters

- Baud Rate: 9600 bps
- Data Bits: 8
- Parity: None
- Stop Bits: 1
- Flow Control: None

(Parameters can be modified via the Web GUI under the RS-232 Page.)



RS-232 Control Command List

ASCII Command				
Serial port protocol: Baud rate: 115200 (default), Data bits: 8bit, Stop bits:1, Parity bit: none TCP/IP protocol port: 8000				
x - Parameter 1. y - Parameter 2.				
Command Code	Function Description	Example	Feedback	Default Setting
System Setting				
?	Get the list of all commands	?	<pre>===== Help Info MCU 1.1.0 Web 1.1.0 Scaler 20230228-10 FPGA 1.1.0 RX 1.18.02 ? Get the list of all commands help Get the list of all commands r type Get device model r status Get device current status r fw version Get Firmware version =====</pre>	List all API commands
help	Get the list of all commands	help	<pre>===== Help Info MCU 1.1.0 Web 1.1.0 Scaler 20230228-10 FPGA 1.1.0 RX 1.18.02 ? Get the list of all commands help Get the list of all commands r type Get device model r status Get device current status r fw version Get Firmware version =====</pre>	List all API commands
r type	Get device model	r type	PS51KVM	
r status	Get device current status	r status	Please refer to the note at the end of the list.	
r fw version	Get Firmware version	r fw version	MCU 1.1.0 Web 1.1.0 Scaler 20230228-10 FPGA 1.1.0 RX 1.18.02	
s power on	Power on the device	s power on	Power on System Initializing... Initialization Finished! MCU 1.1.0 Web 1.1.0 Scaler 20230228-10 FPGA 1.1.0 RX 1.18.02	
s power off	Power off the device	s power off	Power off	



r power	Get current power state	r power	power on /power off	
s reboot	Reboot the device	s reboot	Reboot... System Initializing... Initialization Finished! MCU 1.1.0 Web 1.1.0 Scaler 20230228-10 FPGA 1.1.0 RX 1.18.02	

Command Code	Function Description	Example	Feedback	Default Setting
s reset	Reset to factory defaults	s reset	Reset to factory defaults System Initializing... Initialization Finished! MCU 1.1.0 Web 1.1.0 Scaler 20230228-10 FPGA 1.1.0 RX 1.18.02	
s front button x	Set front button locked on/off (x=0~1) 0. Unlocked 1. Locked	s front button 0	Front button: Unlocked	0
r front button	Get front button locked on/off status	r front button	Front button: Unlocked	
s beep x	Set buzzer on/off (x=0~1) 0. Off 1. On	s beep 0	Beep: Off	0
r beep	Get buzzer on/off status	r beep	Beep: Off	
s ir x	Set IR on/off (x=0~1) 0. Off 1. On	s ir 1	IR: On	1
r ir	Get IR on/off status	r ir	IR: Off	
s UsbcAccess Network x	Set USB-C access network feature on/off (x=0~1) 0. Off 1. On	s UsbcAccess Network 1	USB-C Access Network: On	1
r UsbcAccess Network	Get USB-C access network feature on/off	r UsbcAccess Network	USB-C Access Network: On	
s fan speed x	Set fan speed (x=0~4) 0. Auto 1. 25% 2. 50% 3. 75% 4. 100%	s fan speed 0	Fan Speed: Auto	0
r fan speed	Get fan speed	r fan speed	Fan Speed: Auto	
r temp	Get device internal temperature	r temp	Temp: 65C	
s poe x	Set HDBT port PoE feature on/off (x=0~1) 0. Off 1. On	s poe 1	PoE: On	1
r poe	Get HDBT port PoE feature on/ off status	r poe	PoE: On	
Input Setting				



Set input x EDID y	Set input EDID (x=0~5) (y=1~16) x=0: all inputs x=1: USB-C 1 x=2: USB-C 2 x=3: HDMI 3 x=4: HDMI 4 x=5: HDMI 5 y=1: Auto (HDBT or HDMI or HDBT+HDMI) y=2: Copy HDMI OUT y=3: Copy HDBT OUT y=4: 4K2K60_444, Stereo Audio 2.0 y=5: 4K2K30_444, Stereo Audio 2.0 y=6: 1080P, Stereo Audio 2.0 y=7: 720p, Stereo Audio 2.0 y=8: 1920x1200, Stereo Audio 2.0 y=9: 1680x1050, Stereo Audio 2.0 y=10: 1600x1200, Stereo Audio 2.0 y=11: 1440x900, Stereo Audio 2.0 y=12: 1360x768, Stereo Audio 2.0 y=13: 1280x1024, Stereo Audio 2.0 y=14: 1024x768, Stereo Audio 2.0 y=15: User Defined 1 y=16: User Defined 2	Set input 0 EDID 1	Input USB-C 1 EDID: Auto Input USB-C 2 EDID: Auto Input HDMI 3 EDID: Auto Input 1 HDMI 4 EDID: Auto Input HDMI 5 EDID: Auto	
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Command Code	Function Description	Example	Feedback	Default Setting
Get input x EDID	Get input EDID mode (x=0~5) x=0: all inputs x=1: USB-C 1 x=2: USB-C 2 x=3: HDMI 3 x=4: HDMI 4 x=5: HDMI 5	Get input 0 EDID	Input USB-C 1 EDID: Auto Input USB-C 2 EDID: Auto Input HDMI 3 EDID: Auto Input HDMI 4 EDID: Auto Input HDMI 5 EDID: Auto	
Get input x EdidData	Get input EDID Data (x=0~5) x=0: all inputs x=1: USB-C 1 x=2: USB-C 2 x=3: HDMI 3 x=4: HDMI 4 x=5: HDMI 5	Get input 0 EdidData	Input USB-C 1 EDID Data: <00 FF FF FF....> Input USB-C 2 EDID Data: <00 FF FF FF....> Input HDMI 3 EDID Data: <00 FF FF FF....> Input HDMI 4 EDID Data: <00 FF FF FF....> Input HDMI 5 EDID Data: <00 FF FF FF....>	



Output Setting				
s output res x	Set Output Resolution (x=1~15) x=1: Auto x=2: 3840x2160p60 x=3: 3840x2160p50 x=4: 4096x2160p60 x=5: 4096x2160p50 x=6: 3840x2160p30 x=7: 3840x2160p25 x=8: 1920x1200p60RB x=9: 1920x1080p60 x=10: 1920x1080p50 x=11: 1360x768p60 x=12: 1280x800p60 x=13: 1280x720p60 x=14: 1280x720p50 x=15: 1024x768p60	s output res 1	Out Resolution: Auto	1
r output res	Get output resolution	r output res	Out Resolution: Auto	
s output x hdcp y	Set output (x=0~2) hdcp (y=1~3) x=0: all outputs (HDMI/HDBT) x=1: HDMI output x=2: HDBT output y=1: Auto y=2: HDCP 1.4 y=3: HDCP 2.2	s output 0 hdcp 1	Output HDMI HDCP: Auto Output HDBT HDCP: Auto	1
r output x hdcp	Get output hdcp status (x=0~2) x=0: all outputs (HDMI/HDBT) x=1: HDMI output x=2: HDBT output	r output 0 hdcp	Output All HDCP: Auto	
s output avmute x	Set output avmute on/off (x=0~1) x=0: Off x=1: On	s output avmute 1	Output AV Mute: On	0
r output avmute	Get output avmute on/off status	r output avmute	Output AV Mute: On	
s output freeze x	Set output freeze on/off (x=0~1) x=0: Off x=1: On	s output freeze 1	Output Freeze: On	0
r output freeze	Get output freeze on/off status	r output freeze	Output Freeze: On	
s output itc x	Set output video mode (x=1~2) x=1: Video mode x=2: PC mode	s output itc 1	Output ITC: Video Mode	1
r output itc	Get output video mode	r output itc	Output ITC: Video Mode	



Command Code	Function Description	Example	Feedback	Default Setting
Audio Setting				
s main in audio x	Set Main In (HDMI/USB-C In) audio from (x=1~6) x=1: Window 1 x=2: USB-C 1 x=3: USB-C 2 x=4: HDMI 3 x=5: HDMI 4 x=6: HDMI 5	s main in audio 1	Main In Audio: Window 1	1
r main in audio	Get Main In (HDMI/USB-C In) audio source	r main in audio	Main In Audio: Window 1	
s output x audio y	Set output (x=0~3) audio source from (y=1~3) x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out y=1: Main In (HDMI/USB-C In) y=2: Line In y=3: Dante In	s output 0 audio 1	Output HDMI/HDBT Audio: Main In (HDMI/USB-C In) Output Line Audio: Main In (HDMI/USB-C In) Output Dante Audio: Main In (HDMI/USB-C In)	1
r output x audio	Get output (x=0~3) audio source x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out	r output 1 audio	Output HDMI/HDBT Audio: Main In (HDMI/ USB-C In)	
s input x audio vol+	Increase input (x=0~3) audio volume x=0: all inputs (HDMI/USB-C, Line, Dante) x=1: Main In (HDMI/USB-C In) x=2: Line In x=3: Dante In	s input 1 audio vol+	Input Main In (HDMI/ USB-C In) Audio Volume: 50	
s input x audio vol-	Decrease input (x=0~3) audio volume x=0: all inputs (HDMI/USB-C, Line, Dante) x=1: Main In (HDMI/USB-C In) x=2: Line In x=3: Dante In	s input 1 audio vol-	Input Main In (HDMI/ USB-C In) Audio Volume: 50	



Set input x audio vol y	Set input (x=0~3) audio volume value (y=0~100) x=0: all inputs (HDMI/USB-C, Line, Dante) x=1: Main In (HDMI/USB-C In) x=2: Line In x=3: Dante In	Set input 1 audio vol 50	Input Main In (HDMI/ USB-C In) Audio Volume: 50	50
Get input x audio vol	Get input (x=0~3) audio volume value x=0: all inputs (HDMI/USB-C, Line, Dante) x=1: Main In (HDMI/USB-C In) x=2: Line In x=3: Dante In	Get input 1 audio vol	Input Main(HDMI/USB-C In) Audio Volume: 50	

Command Code	Function Description	Example	Feedback	Default Setting
Set input x audio mute y	Set input (x=0~3) audio mute on/off (y=0~1) x=0: all inputs (HDMI/USB-C, Line, Dante) x=1: Main In (HDMI/USB-C In) x=2: Line In x=3: Dante In y=0: mute off y=1: mute on	Set input 0 audio mute 1	Input Main(HDMI/USB-C In) Audio Mute: On Input Line Audio Mute: On Input Dante Audio Mute: On	0
Get input x audio mute	Get input (x=0~3) audio mute on/off x=0: all inputs (HDMI/USB-C, Line, Dante) x=1: Main In (HDMI/USB-C In) x=2: Line In x=3: Dante In	Get input 0 audio mute	Input Main (HDMI/USB-C In) Audio Mute: On Input Line Audio Mute: On Input Dante Audio Mute: On	
Set master member x y z	Set master output member (x/y/z=0~1) x=0: Exclude HDMI/HDBT Out x=1: Include HDMI/HDBT Out y=0: Exclude Line Out y=1: Include Line Out z=0: Exclude Dante Out z=1: Include Dante Out	Set master member 1 1 1	Master Member: 111	111
Get master member	Get master output member	Get master member	Master Member: 111	



s master audio vol+	Increase master output audio volume	s master audio vol+	Master Audio Volume: 50	
s master audio vol-	Decrease master output audio volume	s master audio vol-	Master Audio Volume: 50	
s master audio vol x	Set master output audio volume value (x=0~100)	s master audio vol 50	Master Audio Volume: 50	50
r master audio vol	Get master output audio volume value	r master audio vol	Master Audio Volume: 50	
s master audio mute x	Set master output audio mute on/off (x=0~1) x=0: mute off x=1: mute on	s master audio mute 1	Master Audio Mute: On	0
r master audio mute	Get master output audio mute on/off status	r master audio mute	Master Audio Mute: On	
s output x audio vol+	Increase output (x=0~3) audio volume x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out	s output 1 audio vol+	Output HDMI/HDBT Audio Volume: 50	
s output x audio vol-	Decrease output (x=0~3) audio volume x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out	s output 1 audio vol+	Output HDMI/HDBT Audio Volume: 50	

Command Code	Function Description	Example	Feedback	Default Setting
s output x audio vol y	Set output (x=0~3) audio volume value (y=0~100) x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out	s output 1 audio vol 50	Output HDMI/HDBT Audio Volume: 50	50
r output x audio vol	Get output (x=0~3) audio volume value x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out	r output 1 audio vol	Output HDMI/HDBT Audio Volume: 50	



Set output (x=0~3) audio mute on/off (y=0~1) x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out y=0: mute off y=1: mute on	Output HDMI/HDBT Audio Mute: On Output Line Audio Mute: On Output Dante Audio Mute: On	0
Get output (x=0~3) audio mute on/off x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out	Output HDMI/HDBT Audio Mute: On Output Line Audio Mute: On Output Dante Audio Mute: On	
Set output (x=0~3) audio mix (y=1~4) x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out y=1: Stereo y=2: Left y=3: Right y=4: Left and Right	Output HDMI/HDBT Audio Mix: Stereo Output Line Audio Mix: Stereo Output Dante Audio Mix: Stereo	Stereo
Get output (x=0~3) audio mix mode x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out	Output HDMI/HDBT Audio Mix: Stereo Output Line Audio Mix: Stereo Output Dante Audio Mix: Stereo	
Set output (x=0~3) audio delay (y=0~50) x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out y=[0~50]: Delay Time, Millisecond	Output HDMI/HDBT Audio Delay: 50ms Output Line Audio Delay: 50ms Output Dante Audio Delay: 50ms	0



Command Code	Function Description	Example	Feedback	Default Setting
Get output x audio delay	Get output (x=0~3) audio delay value x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out	Get output 0 audio delay	Output HDMI/HDBT Audio Delay: 50ms Output Line Audio Delay: 50ms Output Dante Audio Delay: 50ms	
Set output x audio eq y value z	Set output (x=0~3) audio GEQ Index (y=1~31) to value (z=0~20) x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out y=[1~31]: EQ Index z=[0~20]: EQ Value	Set output 0 audio eq 1 value 20	Output HDMI/HDBT Audio EQ Index 1 to Value 20 Output Line Audio EQ Index 1 to Value 20 Output Dante Audio EQ Index 1 to Value 20 Output Dante Audio EQ Preset is Flat Mode	
Get output x audio eq y value	Get output (x=0~3) audio GEQ Index (y=1~31) value x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out y=[1~31]: EQ Index	Get output 0 audio eq 1 value	Output HDMI/HDBT Audio EQ Index 1 to Value 20 Output Line Audio EQ Index 1 to Value 20 Output Dante Audio EQ Index 1 to Value 20	
Set output x audio eq preset y	Set output (x=0~3) audio GEQ to preset (y=1~6) x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out y=1: Flat y=2: Custom1 y=3: Custom2 y=4: Custom3 y=5: Custom4 y=6: Custom5	Set output 0 audio eq preset 1	Output HDMI/HDBT Audio EQ Preset 1 Output Line Audio EQ Preset 1 Output Dante Audio EQ Preset 1	
Get output x audio eq preset	Get output (x=0~3) audio GEQ preset x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out	Get output 0 audio eq preset	Output HDMI/HDBT Audio EQ Preset 1 Output Line Audio EQ Preset 1 Output Dante Audio EQ Preset 1	



s output x audio eq reset	Set output (x=0~3) audio GEQ reset x=0: all outputs (HDMI/HDBT, Line, Dante) x=1: HDMI/HDBT Out x=2: Line Out x=3: Dante Out	s output 0 audio eq reset	Output HDMI/HDBT Audio EQ Reset Output Line Audio EQ Reset Output Dante Audio EQ Reset	
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Command Code	Function Description	Example	Feedback	Default Setting
Single Screen Setting				
s auto switch x	Enable/disable auto switch feature (x=0~1) x=0: Disable auto switch x=1: Enable auto switch	s auto switch 0	Auto Switch: Off	0
r auto switch	Get auto switch feature	r auto switch	Auto Switch: Off	
s input source x	Route input source to output (x=1~5) x=1: USB-C 1 x=2: USB-C 2 x=3: HDMI 3 x=4: HDMI 4 x=5: HDMI 5	s input source 1	Input Source: USB-C 1	1
r input source	Get output selected input source	r input source	Input Source: USB-C 1	
s fallback input x	Set fallback input source (x=0~5) x=0: Next Input x=1: USB-C 1 x=2: USB-C 2 x=3: HDMI 3 x=4: HDMI 4 x=5: HDMI 5	s fallback input 0	Fallback Input: Next Input	0
r fallback input	Get fallback input source	r fallback input	Fallback Input: Next Input	
Multiview Setting				
s multiview x	Set multiview display mode (x=1~5) x=1: Single x=2: PIP x=3: PBP x=4: Triple x=5: Quad	s multiview 1	Multiview: Single	1
r multiview	Get multiview display mode	r multiview	Multiview: Single	



Set window x in y	Set window (x=0~4) source from (y=1~5) x=0: All Windows x=1: Window 1 x=2: Window 2 x=3: Window 3 x=4: Window 4 y=1: USB-C 1 y=2: USB-C 2 y=3: HDMI 3 y=4: HDMI 4 y=5: HDMI 5	Set window 1 in 1	Window 1 in USB-C 1	
Get window x in	Get window (x=0~4) source x=0: All Windows x=1: Window 1 x=2: Window 2 x=3: Window 3 x=4: Window 4	Get window 0 in	Window 1 in USB-C 1 Window 2 in USB-C 2 Window 3 in HDMI 3 Window 4 in HDMI 4	
Set PIP position x	Set PIP window position (x=1~4) x=1: Left Top x=2: Left Bottom x=3: Right Top x=4: Right Bottom	Set PIP position 4	PIP Position: Right Bottom	4
Get PIP position	Get PIP window position	Get PIP position	PIP Position: Right Bottom	

Command Code	Function Description	Example	Feedback	Default Setting
Set PIP size x	Set PIP window size (x=1~3) x=1: Small x=2: Medium x=3: Large	Set PIP size 3	PIP Size: Large	3
Get PIP size	Get PIP window size	Get PIP size	PIP Size: Large	
Set PBP mode x	Set PBP windows display mode (x=1~2) x=1: PBP Mode 1 x=2: PBP Mode 2	Set PBP mode 1	PBP Mode: Mode 1	1
Get PBP mode	Get PBP windows display mode	Get PBP mode	PBP Mode: Mode 1	
Set PBP aspect x	Set PBP windows display aspect ratio (x=1~2) x=1: Full screen x=2: 16:9	Set PBP aspect 1	PBP Aspect: Full Screen	1
Get PBP aspect	Get PBP windows display aspect ratio	Get PBP aspect	PBP Aspect: Full Screen	
Set triple mode x	Set triple windows display mode (x=1~2) x=1: Triple Mode 1 x=2: Triple Mode 2	Set triple mode 1	Triple Mode: Mode 1	1



r triple mode	Get triple windows display mode	r triple mode	Triple Mode: Mode 1	
s triple aspect x	Set triple windows display aspect ratio (x=1~2) x=1: Full screen x=2: 16:9	s triple aspect 1	Triple Aspect: Full Screen	1
r triple aspect	Get triple windows display aspect ratio	r triple aspect	Triple Aspect: Full Screen	
s quad mode x	Set quad windows display mode (x=1~2) x=1: Quad Mode 1 x=2: Quad Mode 2	s quad mode 1	Quad Mode: Mode 1	1
r quad mode	Get quad windows display mode	r quad mode	Quad Mode: Mode 1	
s quad aspect x	Set quad windows display aspect ratio (x=1~2) x=1: Full screen x=2: 16:9	s quad aspect 1	Quad Aspect: Full Screen	1
r quad aspect	Get quad windows display aspect ratio	r quad aspect	Quad Aspect: Full Screen	
s window x border y	Set the border(y=0~9) mode of the specified window (x=0~4) x=0: All x=1: Window 1 x=2: Window 2 x=3: Window 3 x=4: Window 4 y=0: Off y=1: Black y=2: Red y=3: Green y=4: Blue y=5: Yellow y=6: Magenta y=7: Cyan y=8: White y=9: Gray	s window 0 border 0	Window 1 Border: Off Window 2 Border: Yellow Window 3 Border: Off Window 4 Border: Cyan	0,0

Command Code	Function Description	Example	Feedback	Default Setting
r window x border	Get the border mode of the specified window (x=0~4) x=0: All x=1: Window 1 x=2: Window 2 x=3: Window 3 x=4: Window 4	r window 0 border	Window 1 Border: Off Window 2 Border: Yellow Window 3 Border: Off Window 4 Border: Cyan	
RX Setting				
s rx input x	Set RX input source (x=1~2) x=1: HDBT IN x=2: HDMI IN	s rx input 1	RX Input: HDBT Error,RX not ready!	1
r rx input	Get RX input source	r rx input	RX Input: HDBT	
r rx hdmi5v	Get RX HDMI input power 5V	r rx hdmi5v	RX HDMI 5V: 1	



r rx host5v	Get RX USB host power 5V	r rx host5v	RX Host 5V: 1	
s rx auto switch mode x	Set RX Auto Switch detection mode (x=1~2) x=1: TMDS x=2: 5V	s rx auto switch mode 1	RX Auto Switch Mode: TMDS	1
r rx auto switch mode	Get RX Auto Switch detection mode	r rx auto switch mode	RX Auto Switch Mode: TMDS	
s rx auto switch x	Set RX Auto Switch on/off (x=0~1) x=0: Off x=1: On	s rx auto switch 1	RX Auto Switch: On	1
r rx auto switch	Get RX Auto Switch on/off	r rx auto switch	RX Auto Switch: On	
s rx usbpower x	Set RX 2 USB device ports 5V power mode (x=0~2) x=0: Force off x=1: Force on x=2: Follow	s rx usbpower 0	RX UsbPower: Force On	2
r rx usbpower	Get RX 2 USB device ports 5V power mode	r rx usbpower	RX UsbPower: Force On	
CEC Setting				
s cec power on	Set CEC power on command	s cec power on	CEC Power On	
s cec power off	Set CEC power off command	s cec power off	CEC Power Off	
s auto power feature x	Set display auto power feature on/off (x=0~1) x=0: Off x=1: On	s auto power feature 1	Auto Power Feature: On	1
r auto power feature	Get display auto power feature on/off status	r auto power feature	Auto Power Feature: On	
s auto power off timer x	Set auto power off command (CEC/RS-232) will be sent out after x (x=1~6) x=1: 5 sec x=2: 10 sec x=3: 30 sec x=4: 1 min x=5: 5 min x=6: 10 min	s auto power off timer 4	Auto Power Off Timer: 1 min	4
r auto power off timer	Get auto power off timer	r auto power off timer	Auto Power Off Timer: 1 min	
s auto power control x	Set auto power feature control via (x=1~3) x=1: CEC x=2: RS-232 x=3: CEC and RS-232	s auto power control 1	Auto Power Control: CEC	1



Command Code	Function Description	Example	Feedback	Default Setting
r auto power control	Get auto power feature control type	r auto power control	Auto Power Control: CEC	
USB Setting				
s UsbSwitchMode x	Set USB switch mode (x=1~3) x=1: Auto mode (detect USB 5V then switch) x=2: Manual mode x=3: Follow video (HDMI 3 bind with USB Host 3)	s UsbSwitchMode 1	UsbSwitchMode: Auto mode	1
r UsbSwitchMode	Get USB switch mode	r UsbSwitchMode	UsbSwitchMode: Auto mode	
s UsbManual x	Set USB manual switch (x=1~3) x=1: USB-C 1 x=2: USB-C 2 x=3: USB Host 3	s UsbManual 3	UsbManual: USB Host 3	1
r UsbSwitchStatus	Get USB switch status	r UsbSwitchStatus	UsbSwitchStatus: USB-C 1	
s UsbPower x	Set TX 2 USB device ports 5V power mode (x=0~2) x=0: Force off x=1: Force on x=2: Follow	s UsbPower 0	UsbPower: Force on	2
r UsbPower	Get TX 2 USB device ports 5V power mode	r UsbPower	UsbPower: Force on	
RS-232 Setting				
s serial x setting y	Set serial port (x=0~2) setting to y x=0: All RS-232 (Local and HDBT) x=1: Local RS-232 x=2: HDBT RS-232 y=115200-8n1 Baud rate: 115200/57600/56000/38400/19200/9600/4800/2400 Data bits: 7/8 Parity: n(None)/o(Odd)/e(Even) Stop bits: 1/2	s serial 0 setting 115200-8n1	Local RS-232: 115200-8n1 HDBT RS-232: 115200-8n1	115200-8n1
r serial x setting	Get serial port (x=0~2) setting x=0: All RS-232 (Local and HDBT) x=1: Local RS-232 x=2: HDBT RS-232	r serial 0 setting	Local RS-232: 115200-8n1 HDBT RS-232: 115200-8n1	



s serial x enable y	Set serial port (x=0~2) on/off (y=0~1) x=0: All RS-232 (Local and HDBT) x=1: Local RS-232 x=2: HDBT RS-232 y=0: Off y=1: On	s serial 0 enable 1	Local RS-232: on HDBT RS-232: on	on
r serial x enable	Get serial port (x=0~2) on/off status x=0: All RS-232 (Local and HDBT) x=1: Local RS-232 x=2: HDBT RS-232	r serial 0 enable	Local RS-232: on HDBT RS-232: on	

Command Code	Function Description	Example	Feedback	Default Setting
s serial x HEX/ ASCII power on <y1> delay1 <y2> input <y3> delay2 <y4>	Set serial port (x=0~2) HEX/ ASCII power on <y1> delay1 <y2> input <y3> delay2 <y4> x=0: TX/RX RS-232 x=1: TX RS-232 x=2: RX RS-232 Command format is HEX or ASCII y1= RS-232 power on command y2= 0~999sec y3= RS-232 input port selection y4= 0~999sec NOTE: delay1 <y2> input <y3> delay2 <y4> can be NULL	s serial 1 ASCII power on <PWRON> delay1 <10> input <INPUT1> delay2 <10> s serial 2 ASCII power on <PWRON> s serial 2 HEX power on <11 22 33 44> delay1 <10> input <55>	Set TX RS-232 ASCII power on <PWRON> delay1 <10> input <INPUT1> delay2 <10> Set RX RS-232 ASCII power on <PWRON> Set RX RS-232 HEX power on <11 22 33 44> delay1 <10> input <55>	
r serial x power on command	Get serial port (x=0~2) power on command x=0: TX/RX RS-232 x=1: TX RS-232 x=2: RX RS-232	r serial 0 power on command	TX RS-232 ASCII power on <PWRON> delay1 <10> input <INPUT1> delay2 <10> RX RS-232 ASCII power on <PWRON> delay1 <10> input <INPUT1> delay2 <10>	
s serial x HEX/ ASCII power off <y1> delay <y2>	Set serial port (x=0~2) HEX/ ASCII power off <y1> delay <y2> x=0: TX/RX RS-232 x=1: TX RS-232 x=2: RX RS-232 Command format is HEX or ASCII y1= RS-232 power off	s serial 1 ASCII power off <PWROFF> delay <1> s serial 2 HEX power off	Set TX RS-232 ASCII power off <PWROFF> delay <1> Set RX RS-232 HEX power off <66 77 88 99>	



	command y2= 0~999sec NOTE: delay <y2> can be NULL	<66 77 88 99>		
r serial x power off command	Get serial port (x=0~2) power off command x=0: TX/RX RS-232 x=1: TX RS-232 x=2: RX RS-232	r serial 0 power off command	TX RS-232 ASCII power off <PWROFF> delay <1>RX RS-232 HEX power off <66 77 88 99> delay <1>	
s serial x HEX/ ASCII command <y> end z	Set serial port (x=0~2) HEX/ ASCII command <y> ending with (z=0~3) x=0: TX/RX RS-232 x=1: TX RS-232 x=2: RX RS-232 Command format is HEX or ASCII y= RS-232 command z=0: Null z=1: <CR> z=2: <LF> z=3: <CR><LF>	s serial 1 ASCII command <SET INPUT1> end 0 s serial 2 HEX command <66 77 88 99> end 3	Set TX RS-232 ASCII command <SET INPUT1> Set RX RS-232 HEX command <66 77 88 99>	
Preset Setting				
s preset save x	Save the current unit's settings to the specified preset (x=1~5) All settings except network setting. x=1: Preset 1 x=2: Preset 2 x=3: Preset 3 x=4: Preset 4 x=5: Preset 5	s preset save 1	Preset Save: Preset 1	

Command Code	Function Description	Example	Feedback	Default Setting
s preset recall x	Recall a specified preset into unit (x=1~5) All settings except network setting. x=1: Preset 1 x=2: Preset 2 x=3: Preset 3 x=4: Preset 4 x=5: Preset 5	s preset recall 1	Preset Recall: Preset 1	
s preset clear x	Clear a specified preset into unit (x=1~5) All settings except network setting. x=1: Preset 1 x=2: Preset 2 x=3: Preset 3	s preset clear 1	Preset Clear: Preset 1	



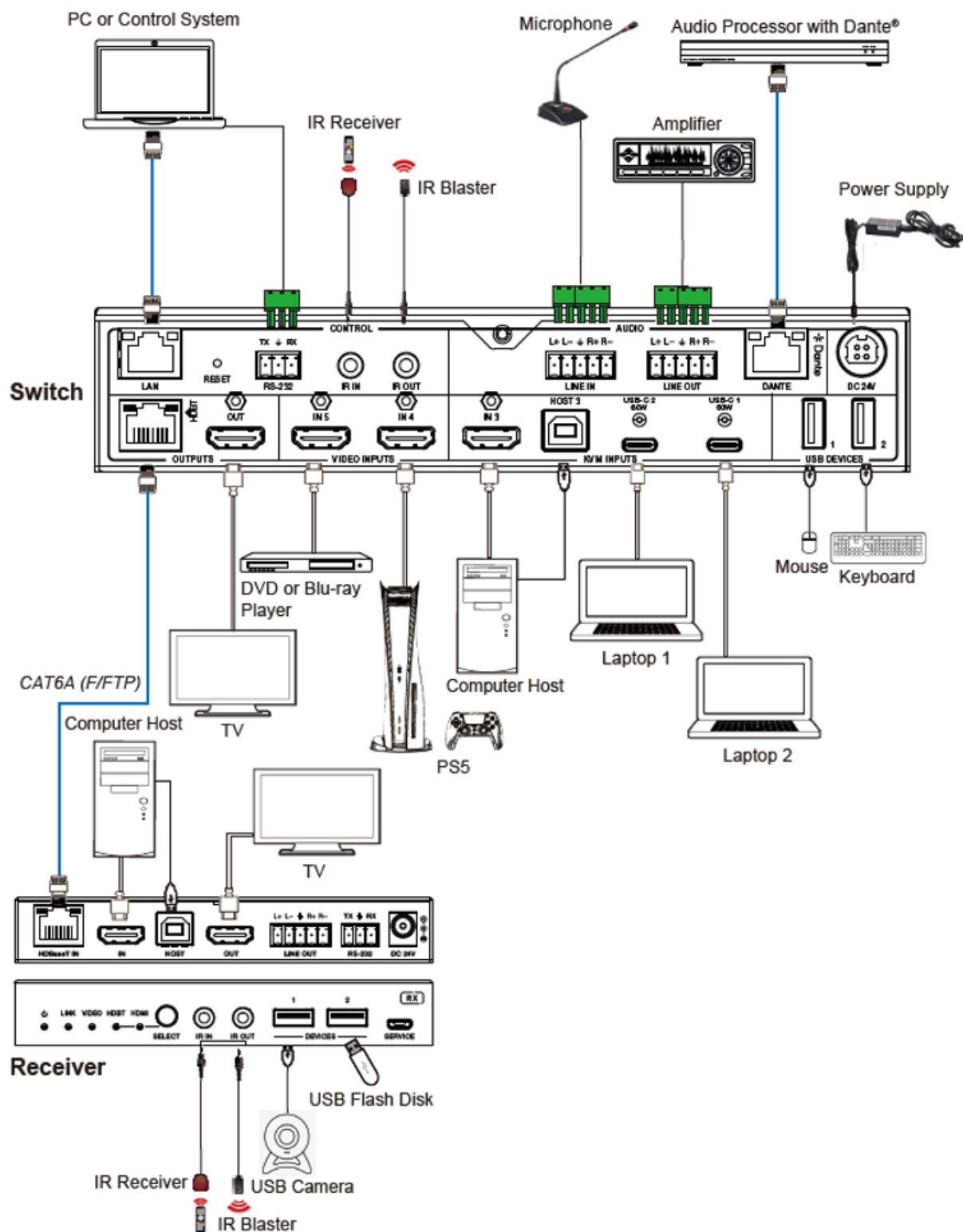
	x=4: Preset 4 x=5: Preset 5			
s preset x name y	Set preset (x=1~5) name to y (16 characters max) x=1: Preset 1 x=2: Preset 2 x=3: Preset 3 x=4: Preset 4 x=5: Preset 5	s preset 1 name MeetingRoom 1	Preset 1 Name: MeetingRoom 1	
r preset x name	Get preset (x=1~5) name x=1: Preset 1 x=2: Preset 2 x=3: Preset 3 x=4: Preset 4 x=5: Preset 5	r preset x name	Preset 1 Name: MeetingRoom 1	
Network Setting				
r ipconfig	Get the current IP Configuration	r ipconfig	IP Mode: DHCP IP: 192.168.62.106 Subnet Mask: 255.255.255.0 Gateway: 192.168.62.1 TCP/IP port: 8000 Telnet port: 23 MAC: 6C:DF:FB:0C:B3:8E (Static: 255.255.0.0 169.254.100.200 255.255.0.0 169.254.100.1)	default static IP is 192.168.0.100/ 255.255.0.0/ 192.168.0.1
r mac addr	Get network MAC address	r mac addr	MAC: 6C:DF:FB:0C:B3:8E	
s ip mode x	Set network IP mode to static IP or DHCP (x=0~1) x=0: Static x=1: DHCP	s ip mode 0	IP mode: Static (Please use "s net reboot!" command or repower device to apply new config!)	1
r ip mode	Get network IP mode	r ip mode	IP mode: DHCP	
s ip addr xxx.xxx. xxx.xxx	Set network IP address	s ip addr 192.168.1.10 0	IP address: 192.168.1.100 (Please use "s net reboot!" command or repower device to apply new config!) DHCP on, Device can't config static address, set DHCP off first.	
r ip addr	Get network IP address	r ip addr	IP: 192.168.62.106	

Command Code	Function Description	Example	Feedback	Default Setting
s subnet xxx.xxx.xxx.x xx	Set network subnet mask	s subnet 255.255.255. 0	Subnet Mask: 255.255.255.0 (Please use "s net reboot!" command or repower device to apply new config!) DHCP on, Device can't config subnet mask, set DHCP off first.	
r subnet	Get network subnet mask	r subnet	Subnet Mask: 255.255.255.0	



s gateway xxx.xxx.xxx.x xx	Set network gateway	s gateway 192.168.1.1	Gateway: 192.168.1.1 (Please use "s net reboot!" command or repower device to apply new config!) DHCP on, Device can't config gateway, set DHCP off first.	
r gateway	Get network gateway	r gateway	Gateway: 192.168.1.1	
s tcp/ip port x	Set network TCP/IP port (x=1~65535)	s tcp/ip port 8000	TCP/IP port: 8000	8000
r tcp/ip port	Get network TCP/IP port	r tcp/ip port	TCP/IP port: 8000	
s telnet port x	Set network telnet port (x=1~65535)	s telnet port 23	Telnet port: 23	23
r telnet port	Get network telnet port	r telnet port	Telnet port: 23	
s net reboot	Reboot network modules	s net reboot	Search for IP, Please wait ...! IP Mode: DHCP IP: 192.168.62.106 Subnet Mask: 255.255.255.0 Gateway: 192.168.62.1 TCP/IP port: 8000 Telnet port: 23 MAC: 6C:DF:FB:0C:B3:8E (Static: 169.254.100.200 255.255.0.0 169.254.100.1)	
Password Setting				
s admin password x	Set admin login password (x=[16 characters max])	s admin password admin	admin password: admin	admin
r admin password	Get admin login password	r admin password	admin password: admin	
s user password x	Set user login password (x=[16 characters max])	s user password user	user password: user	user
r user password	Get user login password	r user password	user password: user	

Connection Diagram





Troubleshooting

Problems	Causes	Solutions
No Power / All LED off	Power supply not connected, connected fully, or wrong power supply.	Check if the power supply is connected correctly and the output voltage value is within recommended specifications.
No sound or sound issues	The HDMI connection is faulty, the audio format is not supported by the displays, or the source player is set to another port for audio output	Check if the HDMI cables are connected correctly. Check if the audio format is supported by the display and that a user has not changed the supported audio format on the player's audio output. Ensure output settings from the HDMI source device as set correctly.
No picture or picture flickers	The HDMI cable may be faulty or the category cable quality is faulty.	Check if the HDMI and category cable connections are correct and undamaged. Change to another good working HDMI cable or category cable (CAT6 or better cable is recommended).



Tech Support

Have technical questions? We may have answered them already!

Please visit BZBGear's support page (bzbgear.com/support) for helpful information and tips regarding our products. Here you will find our Knowledge Base (bzbgear.com/knowledge-base) with detailed tutorials, quick start guides, and step-by-step troubleshooting instructions. Or explore our YouTube channel, BZB TV (youtube.com/c/BZBTVchannel), for help setting up, configuring, and other helpful how-to videos about our gear.

Need more in-depth support? Connect with one of our technical specialists directly:

Phone	Email	Live Chat
1.888.499.9906	support@bzbgear.com	bzbgear.com

Limited Product Warranty Terms

Pro Line: 5-year warranty from the date of purchase for AV/Broadcasting products bought on or after August 1, 2024.

Essential Line: 3-year warranty from the date of purchase for AV/Broadcasting products bought on or after August 1, 2024.

Cables: Lifetime Limited Product Warranty.

For complete warranty information, please visit bzbgear.com/warranty.

For questions, please call 1.888.499.9906 or email support@bzbgear.com.



Mission Statement

BZBGear is a breakthrough manufacturer of high-quality, innovative audiovisual equipment ranging from AVoIP, professional broadcasting, conferencing, home theater, to live streaming solutions. We pride ourselves on unparalleled customer support and services. Our team offers system design consultation, and highly reviewed technical support for all the products in our catalog. BZBGear delivers quality products designed with users in mind.

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