

4x1 HDMI Matrix Switch with Picture-in-Picture – 1080p

VS421HDPIP



*actual product may vary from photos

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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CAN ICES-3 (B)/NMB-3(B)

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Introduction

Packaging Contents

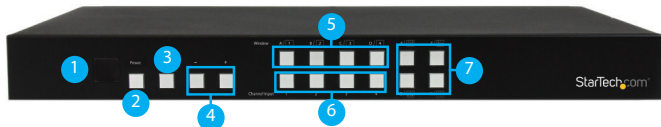
- 1x 4-Port HDMI Switch w/PAP
- 1x Remote Control
- 2x Mounting brackets
- 1x Universal Power Adapter (NA/UK/EU)
- 1x Instruction Manual

System Requirements

- Up to 4 x HDMI-enabled Video Source Devices (i.e. computer, Blu-ray Player)
- Up to 1x HDMI-enabled Display Devices (i.e. television, projector)
- Up to 5x M/M HDMI cables for your display, and video sources

Product Diagram

Front View



1. IR Sensor
2. Power Button / LED
3. Menu Button / LED
4. Menu Operation Buttons / LEDs
5. Input Selection Buttons / LEDs
6. Picture-in-Picture Selection Buttons / LEDs (A-H)
7. All Display Operation Buttons / LEDs (E-H)

Back View



1. HDMI Input Ports
2. HDMI Output Port
3. LAN Port
4. USB Service Port
5. RS232 Serial Port
6. Power Adapter Port

Hardware Installation

1. Connect up to four HDMI cables (not included) from each of your HDMI video source devices (i.e. computers, Blu-ray Players) to each of the HDMI input ports on the matrix switch.
2. Connect up to an HDMI cable (not included) from the HDMI output port on the matrix switch to the HDMI input port on your display device (i.e. televisions, projectors).
3. Connect the power adapter from an available power outlet to the Power adapter port the Matrix switch.
4. (Optional) If you would like to control your Matrix Switch with RS232, connect a DB-9 pin serial cable (not included) from the RS232 serial port on the matrix switch to your RS232 serial port on your computer system.
5. (Optional) If you would like to control your Matrix Switch over your network, connect a network cable (not included) from the LAN port on the matrix switch to an available LAN port on your network device.

Hardware Operation

Full Screen Display Operation

1. Press the Output select button (that corresponds with the numbered output display) you wish to select.
2. Your selected video input will now be displayed on your video output.

Dual Mode Picture-in-Picture Operation

1. Select your primary video input, by pressing the Output select button (that corresponds with the numbered output display) you wish to select.
2. Press the Picture-in-Picture Selection Button (A through D) that corresponds with your desired secondary video output.

Note: A through D represents video Inputs 1 through 4 respectively.

3. Your secondary display is displayed along with your primary display.

All Input Display Operation

1. Press the All Display button (E through H) that corresponds with your desired display configuration.
2. All Video sources will now display in your desired video output.

Note: The Audio output will be the source device connected to Input 1.

On Screen Display Menu

The OSD menu gives you access to advanced functionality. The below table lists each OSD menu option. The description field outlines the functionality of each menu selection.

Main Menu	Sub Menu	Sub Menu	Adjustments	Default	Description
		Output Resolution	480P, 579P, 720P50/60, 1080P24/25/ 30/50/60, 1024x768, 1280x800, 1280x1024, 1366x768, 1440x900, 1600x900, 1600x1200, 1680x1050, 1920x1200, NATIVE	720p60	Enables you to select your desired output resolution.
	Menu Back				Returns to main menu.
I/O Setup		Info display	On/Off	Off	
		H Offset	0~20 (5)	5	Enables you to adjust the specified attributes in relation to the On the Screen display positioning and operation. Note: TIMEOUT =OFF means MENU and INFO will continue showing on the screen
		V Offset	0~20	5	
		Timeout	Off~50	Off	
		OSD Settings	Gain	0~10	
		Menu Back			
	Menu Exit				Returns to main menu.

Image Adjust	Brightness Adjust	CH 1	0~100	50	Enables you to adjust the specified attributes for your desired picture quality.
		CH 2	0~100	50	
		CH 3	0~100	50	
		CH 4	0~100	50	
	Contrast Adjust	CH 1	0~100	50	
		CH 2	0~100	50	
		CH 3	0~100	50	
		CH 4	0~100	50	
Value Reset				Restores default image settings.	
Menu Exit				Returns to Main Menu.	
Window Setup	Channel 1 Select	Size	CH1 Wxxx Hxxx	Enables you to physically define the size of the video source on your display.	
			Width Unit		
			Width Ten		
			Width Hundred		
			Height Unit		
			Height Ten		
	Height Hundred				
	Position	CH1 Hxxx Vxxx	Enables you to physically define the position of the video source on your display.		
		Horizontal Unit			
		Horizontal ten			
		Horizontal Hundred			
		Vertical Unit			
		Vertical Ten			
		Vertical Hundred			

Window Setup	Channel 1 Select	Image Output	On/Off	On	Enables or disables the output of the specific video source.
		Priority	CH1->4, CH2->3, CH3->2, CH4->4		Enables you to define the device priority for automatic switching.
			Window Reset		Restores your default settings for the specified source device.
			Menu Exit		Returns to Main Menu.
	Channel 2 Select	Size	CH1 Wxxx Hxxx		Enables you to physically define the size of the video source on your display.
			Width Unit		
			Width Ten		
			Width Hundred		
			Height Unit		
			Height Ten		
Position		Height Hundred		Enables you to physically define the position of the video source on your display.	
		CH1 Hxxx Vxxx			
		Horizontal Unit			
		Horizontal ten			
	Horizontal Hundred				
Vertical Unit					
Vertical Ten					
Vertical Hundred					

Window Setup	Channel 2 Select	Image Output	On/Off	On	Enables or disables the output of the specific video source.
		Priority	CH1->4, CH2->3, CH3->2, CH4->4	CH1->4, CH2->3, CH3->2, CH4->4	Enables you to define the device priority for automatic switching.
			Window Reset	Restores your default settings for the specified source device.	
	Menu Exit	Returns to Main Menu.			
	Channel 3 Select	Size	CH1 Wxxx Hxxx	Enables you to physically define the size of the video source on your display.	
			Width Unit		
			Width Ten		
			Width Hundred		
			Height Unit		
			Height Ten		
Height Hundred					
Position	CH1 Hxxx Vxxx	Enables you to physically define the position of the video source on your display.			
	Horizontal Unit				
	Horizontal ten				
	Horizontal Hundred				
	Vertical Unit				
	Vertical Ten				
Vertical Hundred					

Window Setup	Channel 3 Select	Image Output	On/Off	On	Enables or disables the output of the specific video source.
		Priority	CH1->4, CH2->3, CH3->2, CH4->4	CH1->4, CH2->3, CH3->2, CH4->4	Enables you to define the device priority for automatic switching.
			Window Reset	Restores your default settings for the specified source device.	
	Menu Exit	Returns to Main Menu.			
	Channel 4 Select	Size	CH1 Wxxx Hxxx	Enables you to physically define the size of the video source on your display.	
			Width Unit		
			Width Ten		
			Width Hundred		
			Height Unit		
			Height Ten		
Height Hundred		Enables you to physically define the position of the video source on your display.			
Position			CH1 Hxxx Vxxx		
			Horizontal Unit		
			Horizontal ten		
	Horizontal Hundred				
	Vertical Unit				
	Vertical Ten				
Vertical Hundred					

Window Setup	Channel 4 Select	Image Output	On/Off	On	Enables or disables the output of the specific video source.
		Priority	CH1->4, CH2->3, CH3->2, CH4->4	CH1->4, CH2->3, CH3->2, CH4->4	Enables you to define the device priority for automatic switching.
		Window Reset			Restores your default settings for the specified source device.
		Menu Exit			Returns to Main Menu.
	Label Select	VIDEO 1			Enables you to specify a label for each video output.
		VIDEO 2			
		VIDEO 3			
		VIDEO 4			
	Menu Exit			Returns to previous menu.	
	Favours Store	FAV 1 Store			<i>Enables you to access the save and recall features from the OSD menu.</i>
FAV 2 Store					
FAV 3 Store					
FAV 4 Store					
Menu Exit			Returns to previous menu.		
Menu Exit			Returns to Main Menu.		

Window
Convert

Channel 1 Convert	Mirror	On/Off	Off	Enables you to mirror the specified video source on your display.
	Fade In-Out	Off/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/ 2.3/2.4/2.5/2.6/ 2.7/2.8/2.9/3.0	Off	Enables you to implement transition effects while switching between video sources.
	Rotation	R90/L90/Up-Side Down180/Off	Off	Enables you to rotate the video source on your display.
	Window Reset			Restores default Convert settings for the specified display.
	Menu Exit			Returns to previous menu.
Channel 2 Convert	Mirror			Enables you to mirror the specified video source on your display.
	Fade In-Out	Off/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/ 2.3/2.4/2.5/2.6/ 2.7/2.8/2.9/3.0	Off	<i>Enables you to implement transition effects while switching between video sources.</i>

Channel 2 Convert	Rotation	R90/L90/Up-Side Down180/Off	Off	Enables you to rotate the video source on your display.
	Window Reset			Restores default Convert settings for the specified display.
	Menu Exit			Returns to previous menu.
Window Convert	Mirror			Enables you to mirror the specified video source on your display.
	Fade In- Out	Off/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/ 2.3/2.4/2.5/2.6/ 2.7/2.8/2.9/3.0	Off	<i>Enables you to implement transition effects while switching between video sources.</i>
	Rotation	R90/L90/Up-Side Down180/Off	Off	<i>Enables you to rotate the video source on your display.</i>
	Window Reset			Restores default Convert settings for the specified display.
Channel 3 Convert				

	Channel 3 Convert		Menu Exit	Returns to previous menu.	
			Mirror	Enables you to mirror the specified video source on your display.	
Window Convert	Channel 4 Convert	Fade In-Out	Off/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/ 2.3/2.4/2.5/2.6/ 2.7/2.8/2.9/3.0	Off	<i>Enables you to implement transition effects while switching between video sources.</i>
		Rotation	R90/L90/Up-Side Down180/ Off	R90/L90 / Up-Side Down180 /Off	<i>Enables you to rotate the video source on your display.</i>
				Window Reset	<i>Restores default Convert settings for the specified display.</i>

Chromakey Setup

Minimum For R	000~255	0
Maximum For R	000~255	15
Minimum For G	000~255	0
Maximum For G	000~255	15
Minimum For B	000~255	0
Maximum For B	000~255	15
Switch	Off	

The Chromakey Setup section enables you to isolate a particular color for chroma keying special effects.

Exit

Returns to main menu

Ethernet Setup

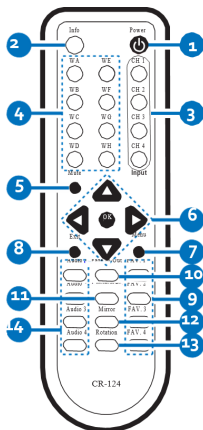
IP Mode	Static/DHCP	DHCP
Static Set	IP/Mask/Gate	
Byte1 High	XXX 192 255 192	000~255
Byte2	XXX 168 255 168	000~255
Byte3	XXX 5 255 5	000~255
Byte4 Low	XXX 159 0 254	000~255
Re-Link	No/Yes	
Exit		
Static/DHCP IP	LINKED/NOT LINKED	

Enables you to define Network communication protocols for remote operation.

	IP	IP/Mask/Gate	
Ethernet Setup	Mask	XXX.XXX.XXX.XXX	
	Gate	XXX.XXX.XXX.XXX	
	Mac	XXX.XXX.XXX.XXX	
	Sink HDMI / DVI		
Information		Model	<i>Enables you to view the technical specifications of the specified attributes.</i>
		Native	
		F/V Version	
	Menu Exit		<i>Closes OSD menu.</i>

IR Remote Control Operation

An IR remote control is included with the VS421HDPIP for hassle-free remote operation. Please review the legend below for a detailed description of each remote control function.



- Power:** Press this button to switch on the device or press it again to set it to standby mode.
- Info:** Press this button to show the device's firmware version.
- Input CH 1~4:** Press these buttons to rotate HDMI 1~4 input source on each

channel to be

4. **WA~WH:** Press these hot keys to select the screen setting where WA~WD are display a full screen of each channel and WE~WH are a different combination of a full screen setting with all 4 channels.

Note: Functions are limited to Window A to D. The system will force to switch to Window A when operate under Window E~H.

5. **Mute:** Press this button to disable the audio from HDMI output port.
6. **▲▼▶◀ & OK:** Press this buttons to scroll through the OSD selection and press OK to enter and confirm the setting.
7. **Menu:** Press this button to enter into the OSD menu.
8. **Exit:** Press this button to exit the OSD menu or the OSD settings.
9. **FAV. 1~4:** Press these buttons to bring up the customized screen settings.
10. **Fade-In-Out:** Press this button to switch on or off the Fade-in-out function.
11. **Chromakey:** Press this button to enter into Chroma function where CH 1 is the background and CH 2 is the top image.
12. **Mirror:** Press this button to display the screen in mirror image.ç
13. **Rotation:** Press this button to rotate the image 90° left and right or 180° upside down.
14. **Audio 1~4:** Press these buttons to select audio from HDMI input source 1~4.

RS232 Serial Operation

RS232 Pin Assignment

VS424HDMIPI	
PIN	Assignment
1	NC
2	TxD
3	RxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Serial Controller (PC)	
PIN	Definition
1	NC
2	RxD
3	TxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

RS232 Protocols

Baud Rate: 115200bps

Data Bit: 8 bits

Parity: None

Flow Control: None

Stop Bit: 1

RS232 Telnet Commands

Note: All commands will be not executed unless followed with a carriage return (0x0D) and commands are case-sensitive.

RESO 0~18	SET OUTPUT RESOLUTION (0) 480p, (1) 576p, (2) 720p 50Hz, (3) 720p 60Hz, (4) 1080p 24Hz, (5) 1080p 25Hz, (6) 1080p 30Hz, (7) 1080p 50Hz, (8) 1080p 60Hz, (9) 1024x768 60Hz, (10) 1280x800 60Hz, (11) 1280x1024 60Hz, (12) 1366x768 60Hz, (13) 1440x900 60Hz, (14) 1600x900 60Hz, (15) 1600x1200 60Hz, (16) 1680x1050 60Hz, (17) 1920x1200 60Hz, (18) Native
OSDDIS 0/1	ENABLE/DISABLE ONSCREEN DISPLAY (0) OFF, (1) ON
OSDH 0~20	OSD H OFFSET 0~20
OSDV 0~20	OSD V OFFSET 0~20
OSDTIME 0~50	OSD TIMEOUT 0~50

OSDGAIN 0~10	OSD GAIN VALUE 0~10
BRI 0~4 0~100	SET BRIGHTNESS VALUE FOR CHANNEL (0) All, (1~4) CHANNEL, (0~100) VALUE
CON 0~4 0~100	SET CONTRAST VALUE FOR CHANNEL PORT (0) All, (1~4) CHANNEL, (0~100) VALUE
SAT 0~4 0~100	SET SATURATATION VALUE FOR CHANNEL PORT (0) All, (1~4) CHANNEL, (0~100) VALUE
HSIZE 1~4 0~X	SET HUE VALUE FOR CHANNEL PORT (0) All, (1~4) CHANNEL, (0~100) VALUE
HSIZE 1~4 0~X	SET IMAGE HORIZONTAL SIZE (1~4) CHANNEL, (0~X) X=HORIZONTAL PIXEL FOR CURRENT RESOLUTION
VSIZE 1~4 0~X	SET IMAGE VERTICAL SIZE (1~4) CHANNEL, (0~X) X=VERTICAL PIXEL FOR CURRENT RESOLUTION
HPOS 1~4 0~X	SET HORIZONTAL POSITION OF SPECIFIED CHANNEL (1~4) CHANNEL, (0~X) X=HORIZONTAL PIXEL FOR CURRENT RESOLUTION
VPOS 1~4 0~X	SET VERTICAL POSITION OF SPECIFIED CHANNEL (1~4) CHANNEL, (0~X) X=VERTICAL PIXEL FOR CURRENT RESOLUTION

IMAGE 1~4 0~1	CHANNEL(S) OUTPUT ON/OFF (1~4) CHANNEL, (0/1) OFF/ON
PRI 1~4 1~4	SET CHANNEL PRIORITY (1~4) CHANNEL, (1~4) PRIORITY
LABEL 1~4 XXX	ASSIGN A VIDEO NAME (1~4) VIDEO, (XXX) ABCDEFGH...
STORE 1~4	SAVE THE CURRENT WINDOW STATE TO FAV. (1~4) FAV.
RECALL 1~12	RECALL A WINDOW STATE (1) WINDOW A, (2) WINDOW B, (3) WINDOW C, (4) WINDOW D, (5) WINDOW E, (6) WINDOW F, (7) WINDOW G, (8) WINDOW H, (9) WINDOW FAV. 1, (10) WINDOW FAV. 2, (11) WINDOW FAV. 3, (12) WINDOW FAV. 4
MIRROR 0/1	ENABLE/DISABLE MIRROR EFFECT (0/1) OFF/ON
FADE 0~21	ENABLE/DISABLE FADE EFFECTS (0) OFF, (1) 1.0 s, (2) 1.1 s, (3) 1.2 s, (4) 1.3 s, (5) 1.4 s, (6) 1.5 s, (7) 1.6 s, (8) 1.7 s, (9) 1.8 s, (10) 1.9 s, (11) 2.0 s, (12) 2.1 s, (13) 2.2 s, (14) 2.3 s, (15) 2.4 s, (16) 2.5 s, (17) 2.6 s, (18) 2.7 s, (19) 2.8 s, (20) 2.9 s, (21) 3.0 s
ROTATE 0~3	SET VIDEO ROTATION VIDEO TO PRESET POSITIONS (0) ROTATE OFF, (1) R90, (2) L90, (3) 180

CHRC R/G/B	SET THE RGB COLOR RANGE FOR THE CHROMA KEY
MIN/MAX 0~255	(R/G/B) COLOR CHANNEL
	(MIN/MAX) COLOR VALUE
	(0~15) SET PRESENT VALUE 0~255
	RBG MAX
	(0)15, (1)31, (2)47, (3)63, (4)79, (5)95, (6)111, (7)127,
	(8)143, (9)159, (10)175, (11)191, (12)207, (13)223,
	(14)239, (15)255
	RGB MIN
	(0)00, (1)16, (2)32, (3)48, (4)64, (5)80, (6)96, (7)112,
	(8)128, (9)144, (10)160, (11)176, (12)192, (13)208,
(14)224, (15)240	
CHRSW 0/1	SET THE CHROMA KEY ON/OFF (0) OFF, (1) ON
IPMODE 0/1	SET IP MODE TO DHCP OR STATIC (0) DHCP, (1) STATIC
IPADD XXX.XXX.XXX.XXX	SET IP ADDRESS (XXX) 0~255
MAADD XXX.XXX.XXX.XXX	SET SUBNET ADDRESS (XXX) 0~255
GAADD XXX.XXX.XXX.XXX	SET GATEWAY ADDRESS (XXX) 0~255

ETHTIME 0~6	ETHERNET TIMEOUT (0) OFF, (1) 10 MINUTE, (2) 20 MINUTE, (3) 30 MINUTE, (4) 40 MINUTE, (5) 50 MINUTE, (6) 60 MINUTE
RELINK	RELINK THE UNIT IN 2 SECONDS
DEFAULT	RESET THE UNIT TO FACTORY DEFAULTS
VICH 1~4 0~4	VIDEO CHANNEL COMMAND (1~4) VIDEO, (0) ALL CHANNEL OUTPUTS, (1~4) CHANNEL OUTPUTS
MUTE 0/1	MUTE AUDIO (0) OFF, (1) ON
POW 0/1	POWER THE UNIT ON/OFF (0) OFF, (1) ON
AUDIO 1~4	CHANGE OUTPUT AUDIO TO SPECIFIED SOURCE (1~4) AUDIO SOURCE
IMRE B/C/S/H	RESET THE IMAGE TO FACTORY DEFAULTS (B) BRIGHTNESS, (C) CONTRAST, (S) SATURATION, (H) HUE
PIRE	RESET THE UNIT PICTURE SETTINGS TO FACTORY
CHRE 0~4	DEFAULTS
WICORE	RESET THE WINDOW CONVERT TO FACTORY DEFAULTS
RIPM	SHOW CURRENT IP MODE
IPCONFIG	SHOW IP CONFIGURATION
HELP	HELP PRINTS ALL AVAILABLE RS-232/ TELNET COMMANDS TO THE SCREEN

IP Operation Using Web Browser

Before you begin:

- Power Status must be set to on, and source status must be unlocked
- Ensure step 5. of hardware Setup has been completed.
- Obtain the IP address of the VS421HDPIP using the OSD menu.

Access the following sub menu:

ETHERNET -> IP

Your IP address will be displayed next to IP.

Note: The switch supports DHCP and it is activated by default. As a result if you connect it to a piece of network equipment that supports DHCP your IP address will automatically change. If your network equipment does not support DHCP your default IP address will be 192.168.5.155

Access IP Operation Web GUI

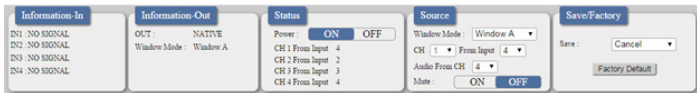
1. Open your web browser.
2. In the address bar type the IP address obtained from your OSD menu, and press enter.
3. The VS421HDPIP web GUI is now displayed.

Operate your VS421HDPIP using the Web GUI

The web GUI enables you to remotely operate your VS421HDPIP with basic and advanced functionality. The below sections outline the features and navigation of the Web GUI.

Operation Pane

The operation pane gives you a high level overview as well as access to basic switch operation. The Operation pane is always visible at the top of every page in the Web GUI.



The **Information-in** and **information-out** sections gives you an overview of the current connected video source and display devices.

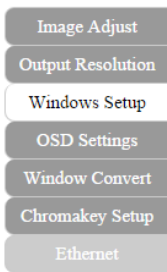
The **Status** section enables you to power off the device.

The **Source** section enables you to select your desired mode as well as define which video source devices will be shown on each display.

The Save/Factory section enables you to save and action the customized input and output corresponding settings.

Advanced Menu

The Advanced menu is available on the left hand side of the GUI, and enables you to navigate between advanced sections of operation.



Descriptions outlining navigation as well as the available functionality for each tab are listed below.

Image Adjust

By default, the **Image Adjust** tab is the first window displayed when the web GUI is opened. If you would like to access the **Image Adjust** tab, and have navigated away from the Window, click **Image Adjust** tab from the side menu.

*The **Image Adjust** tab enables you to define the specific attributes listed for optimal picture quality based on the requirements of your application.*



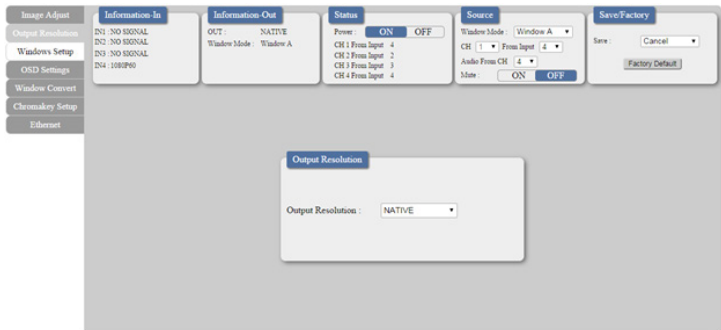
Note: In Matrix mode, all four pictures adjust simultaneously.

In Dual/TV Wall mode, each picture can adjust individual and support individual last memory feature.

Output Resolution

To access the **Output Resolution** tab, click **Output Resolution** on the side menu.

The Output Resolution tab enables you to set your desired output resolution from the available drop down menu.



Notes:

- 1080i@50/60 are supported in Matrix mode only.
- Selecting NATIVE enables the VS421HDPiP to use EDID to determine the best output resolution automatically.

OSD Settings

To access the **OSD settings** tab, click **OSD Settings** on the side menu.

The **OSD settings** tab enables you to adjust the specified attributes in relation to the On the Screen display positioning and operation.

The screenshot shows the OSD Settings menu on the left side of the interface. The menu items are: Image Adjust, Output Resolution, Windows Setup, OSD Settings (highlighted), Window Convert, Chromakey Setup, and Ethernet. The main panel contains several tabs: Information-In, Information-Out, Status, Source, and Save/Factory. The OSD Settings window is open, showing the following settings:

- Info Display: ON OFF
- H Offset: 5
- V Offset: 5
- Timeout: OFF
- Gain: 2

Note: TIMEOUT=OFF means MENU and INFO will continue showing on the Screen.

Window Convert

To access the **Window Convert** tab, click **Window Convert** on the side menu.

The **Window Convert** tab enables you to implement transition effects while switching between video sources.

The screenshot shows the Window Convert menu on the left side of the interface. The menu items are: Image Adjust, Output Resolution, Windows Setup, OSD Settings, Window Convert (highlighted), Chromakey Setup, and Ethernet. The main panel contains several tabs: Information-In, Information-Out, Status, Source, and Save/Factory. The Window Convert window is open, showing the following settings:

- Mirror: ON OFF
- Fade In-Out: OFF
- Rotation: OFF
- Window Reset button

Chromakey Setup

To access the **Chromakey Setup** tab, click **Chromakey setup** on the side menu.

The Chromakey Setup section enables you to isolate a particular color for chroma keying special effects.

The screenshot shows the Chromakey Setup interface. The top navigation bar includes tabs for Image Adjust, Information-In, Information-Out, Status, Source, and Save/Factory. The main content area shows the Chromakey Setup panel with the following settings:

- Minimum For R: 00
- Maximum For R: 15
- Minimum For G: 00
- Maximum For G: 15
- Minimum For B: 00
- Maximum For B: 15
- Switch: ON

Ethernet

To access the **Ethernet** tab, click **Ethernet** on the side menu.

The **Ethernet** section enables you to define Network communication protocols for remote operation.

The screenshot shows the Ethernet interface. The top navigation bar includes tabs for Image Adjust, Information-In, Information-Out, Status, Source, and Save/Factory. The main content area shows the Ethernet panel with the following settings:

- DHCP
- IP Address: 192.168.208.133
- Netmask: 255.255.255.0
- Gateway: 192.168.208.1
- Telnet Timeout: OFF

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