

# PARTILINK

## User manual

**P4K-HUL4E1     4K UHD HDMI & USB Over IP Extender**

**P4K-HUL4E1-P   4K UDH HDMI & USB Over IP Extender with PoE**



**P4K-HRSUL4E1 / P4K-LHRSU1E4  
P/ P4K-LHRSU1E4-P**

**P4K-HRSUL4E1-**

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## 1. INTRODUCTION

The 4K HDMI & USB over IP Extender is a solution for audio, video and USB signal extension via Local Area Network (LAN). It can be used as audio, video and KVM extender over IP and applied to point to point, point to multi-point, multi-point to multi-point and screen wall broadcast system controlled by USB, RS-232, IR and configured the 4K HDMI & USB over IP Extender by web browser. An easy installation system built up with Giga Ethernet switch which has IGMP function and CATx cable for extension or broadcast. The P4K-HUL4E1-P supports PoE (Power over Ethernet) function.



## **2. FEATURES & APPLICATIONS**

- 4K HDMI over IP extension
- USB 2.0 over IP extension
- RS-232 bi-directional extension
- 4-bit DIP switch for 16 stream channel selection
- HDCP 1.4 compliant and Blu-Ray ready
- Support two-way IR extension
- Output video rotation
- Output video partial enlargement
- Automatic EDID configuration
- Networking environment under Giga Ethernet switch and CATx cable
- Point to point extension, unicast, multicast and screen wall system.
- Point to point extension via CAT5e cable without Ethernet switch up to 100M
- Ethernet webpage management
- RS-232 Serial control command management
- P4K-HUL4E1-P supports Power over Ethernet

### 3. SPECIFICATION

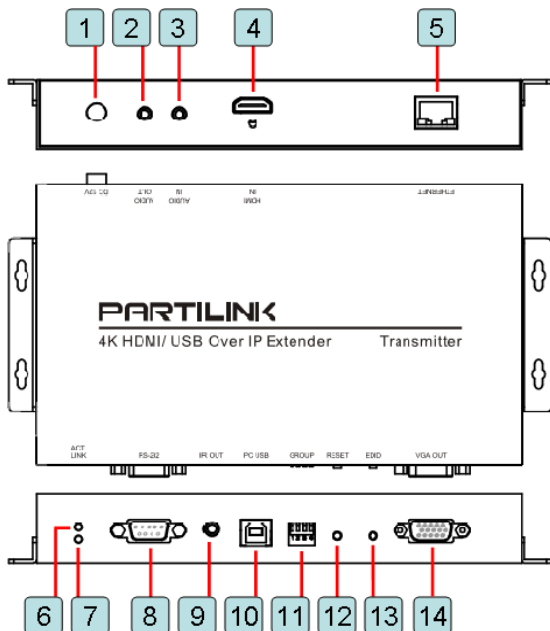
P4K-HUL4E1 P4K-HUL4E1-P 4K UHD HDMI Over IP Extender	P4K-HRSUL4E1 P4K-HRSUL4E1-P Transmitter	P4K- LHR SU1E4 P4K-LHR SU1E4-P Receiver
VIDEO INPUT	HDMI Type-A female connector	None
VIDEO OUTPUT	HDMI Type-A female connector for loop through VGA DB-15 female local output	HDMI Type-A female connector
IR	2x 3.5mm phone jack for IR emitter and receiver to control video source device	
COMPRESSION	Visual lossless compression	
HDMI INPUT RESOLUTION	3840x2160 30/24, 1080p 60/50, 1080p 30/25, 1080i 60/50 720p 60/50, 480i 60/50, 480p 60/50	
HDMI OUTPUT RESOLUTION	3840x2160 30/24, 1080p 30/25, 1080i 60/50, 720p 60/50 480i 60/50, 480p 60/50	
VGA OUTPUT RESOLUTION	1080p 30/25, 1080i 60/50, 720p 60/50 480i 60/50, 480p 60/50	
AUDIO FORMAT	Stereo 192Kbps	
IP PROTOCOL	TCP, UDP, RTSP, RTP, DHCP, IGMP, Multicast, IPV4	
LAN PORT	RJ45 connector for Giga Ethernet	
SERIAL	DB-9 male connector for RS-232 extension	
MANAGEMENT	LAN port	None
	Embedded webpage management	HDMI Type-A female connector
POWER INPUT	2.0mm power jack for DC12V/2A input	
OPERATING TEMPERATURE	0~55℃	
OPERATING HUMIDITY	5%~90% RH	
POWER SUPPLY	Power adapter AC in 100~240V (50~60Hz)	
ESD	ESD protection air gap discharge ±8KV, contact discharged ±4KV	
DIMENSION	194 x 114 x 28 mm	
WEIGHT	TX 620g, RX 610g	

\*\* Product specifications are subject to change without notice.

## 4. HARDWARE DESCRIPTION

### 4.1 Transmitter

#### P4K-HUL4E1/ 4K-HUL4E1-P (TX)





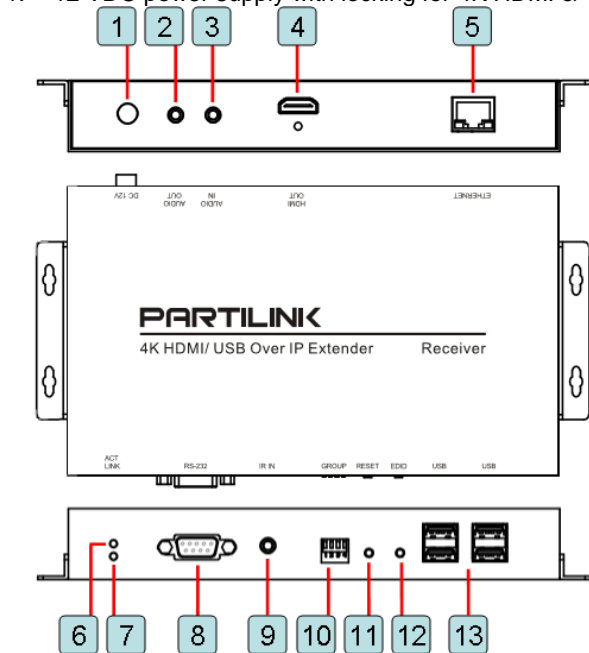
1. 12 VDC power supply with locking for 4K HDMI & USB over IP Extender.
2. RCA connector for stereo audio output.
3. RCA connector for stereo audio input.
4. HDMI video input connector
5. 10/100/1000 Mbps self-adaptive Ethernet interface.
6. ACT LED indicator turns green when 4K HDMI & USB over IP Extender is powered up.
7. LINK LED indicator flickers green when network connection is waiting for video source, turns green when network connection and video source is functioning properly
8. DB9 connector for RS-232 remote extension
9. Connect IR extension cable to IR port and position the emitters near the devices you want to control
10. PC USB port for remote additional device such as USB mouse, USB keyboard and USB pen drive connecting to PC
11. Group configuration, 4-bit DIP switch to set up the group ID
12. Restart the 4K HDMI & USB over IP extension by pressing RESET button

13. Press EDID button for manual EDID copy function
14. DB9 connector for VGA local display

## 4.2 Receiver

### P4K-LHRSU1E4/ P4K-LHRSU1E4-P (RX)

1. 12 VDC power supply with locking for 4K HDMI &



USB over IP Extender.

2. RCA connector for stereo audio output.
3. RCA connector for stereo audio input.
4. HDMI video input connector
5. 10/100/1000 Mbps self-adaptive Ethernet interface.
6. ACT LED indicator turns green when 4K HDMI & USB over IP Extender is powered up.
7. LINK LED indicator flickers green when network connection is waiting for video source, turns green when network connection and video source is functioning properly
8. DB9 connector for RS-232 remote extension
9. Connect IR extension cable to IR port and position the emitters near the devices you want to control
10. Group configuration, 4-bit DIP switch to set up the group ID
11. Restart the 4K HDMI & USB over IP extension by pressing RESET button
12. Press EDID button for manual EDID copy function
13. 4 USB ports for additional USB devices such as USB mouse, USB keyboard and USB pen drive.

Group Setting via 4-bit DIP switch

TX



ology Co., L



RX

Setting the Transmitter and Receiver group ID via the 4-bit DIP switch. The correspondent receivers are required to switch to the same ID as the receiver. It can set up maximum 16 Group IDs. Reboot the system to apply the group setting.

## 5. INSTALLATION

### 5.1 Device Connection

1. Check the power supply is unplugged.
2. Set up the group of the transmitter with the correspondent receiver for signal extension and display.
3. Connect the Transmitter to video source with HDMI cable, and connect Receiver to a monitor or display with HDMI cable.
4. Connect the USB cables from Transmitter to PC, and connect the USB additional devices such as USB mouse, USB keyboard and USB pen drive to Receiver.

5. Connect Transmitter and Receiver to the Ethernet switch with network cable.
6. Power on the Transmitter, Receiver and all the connected devices.
7. Power on and activate all the connected devices.
8. Connect the IR extension cable with Transmitter and the IR receiver cable with Receiver for remote control.



## ◆ Configuration



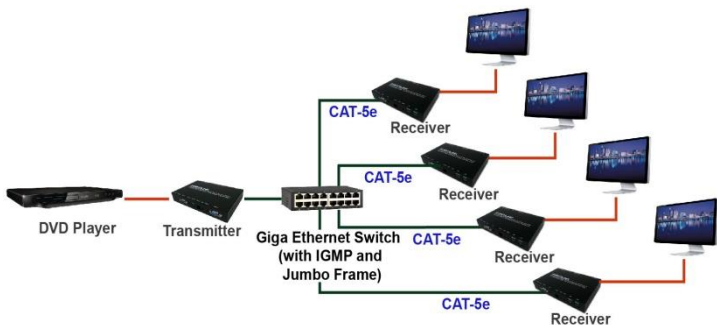
## ◆ Application Pattern

## ■ Unicast

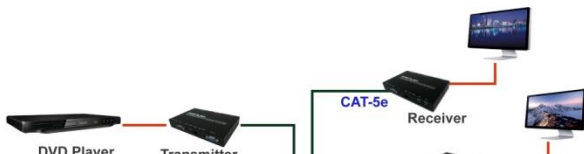


## ■ Multicast

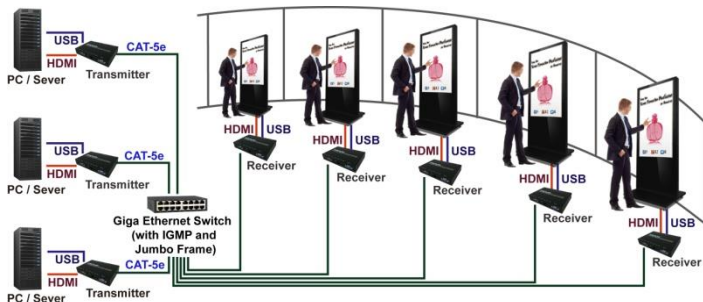
### a. Video Distribution



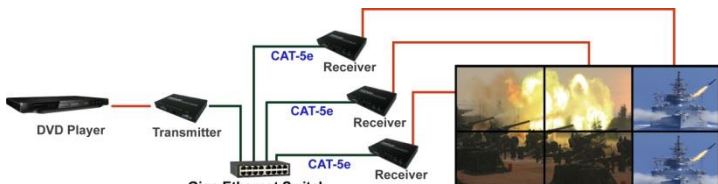
### b. Matrix Distribution



### c. Billboard & Kiosk, PC to HDMI and USB Interactive Monitor



### ■ Screen Wall



## 5.2 IP Configuration

The 4K HDMI & USB Over IP Extender can configure via LAN in the same subnet.

1. Assign a LAN IP address to the computer in the same subnet. The IP address default of the Transmitter and Receiver is B class Networking: 169.254.xxx.xxx.



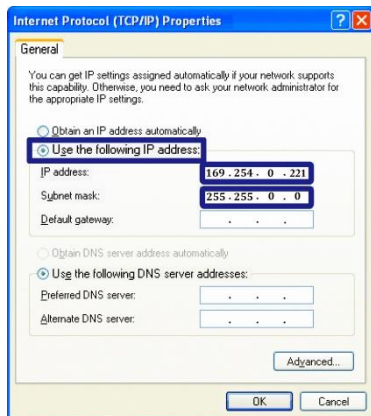


Figure 1. Internet Protocol (TCP/IP) Properties

2. Connect all devices with proper cables except video source, please refer to Figure 2

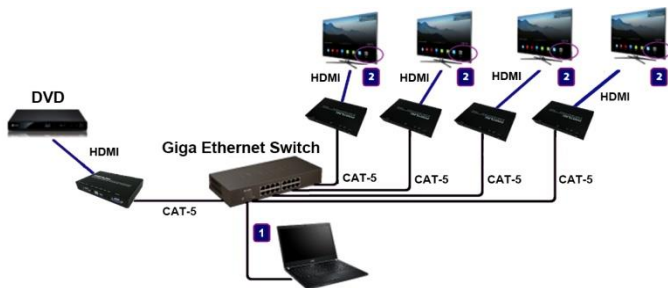


Figure 2. Demonstrate the 4K HDMI &amp; USB Over IP Extender

3. After activation, the device information including the Transmitter and Receiver IP address will be shown in the lower right corner. Remember the Transmitter and Receiver IP address on monitor screen and then plug HDMI video source cable into Transmitter.

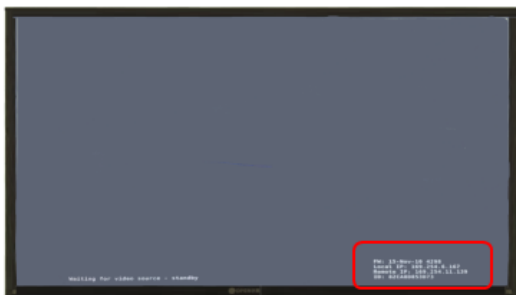


Figure 3. Device IP Indication

4. The administrator can input Transmitter or Receiver IP address into address bar of web browser to enter the Extender Web UI. If link success, administrator will see the Web UI as shown in Figure 4.

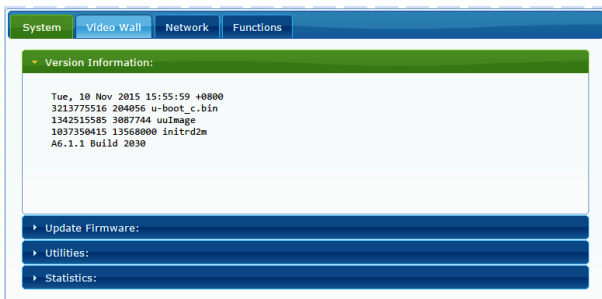


Figure4. Web User Interface

## 6. WEB USER INTERFACE CONFIGURATION

### 6.1 System

The relevant information of the connected extender and setting

#### 6.1.1 [Version Information]

Indicating the firmware version and relevant information of the devices

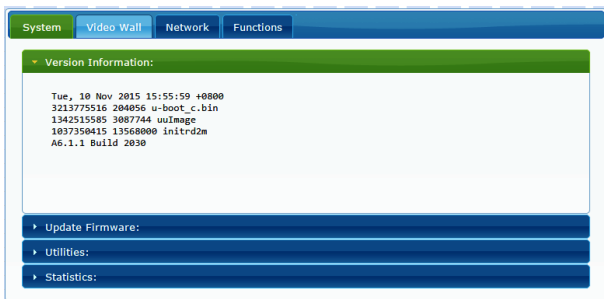


Figure 5. Version Information of the Extender

### 6.1.2 [Update Firmware]

To update the firmware of the connected extender, please click on the [Select File] to select the firmware and click on [Upload] to upload the firmware and update accordingly.

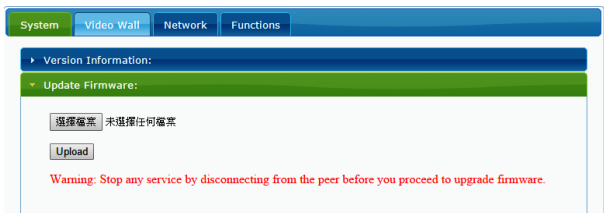


Figure 6. Update Firmware

- **Transmitter Firmware Update:** please select

[webfw.bin] to update

- **Receiver Firmware Update:** please select [webfwc.bin] to update

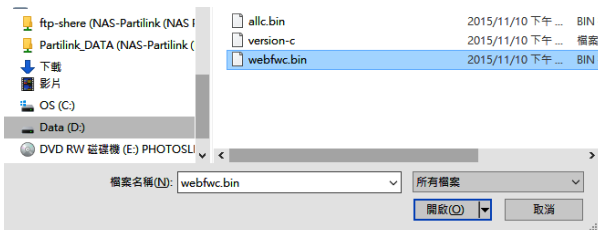


Figure 7. Select File to Update Firmware

It takes time to update the firmware. During the process of update, the Web user interface shows the status as below diagram. The extender system will reboot automatically after updating firmware. If it doesn't reboot automatically, please reboot to apply the new firmware manually.

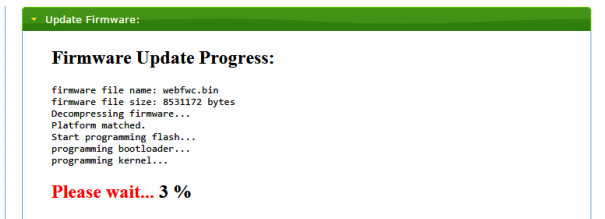


Figure 8. Firmware Update Progress

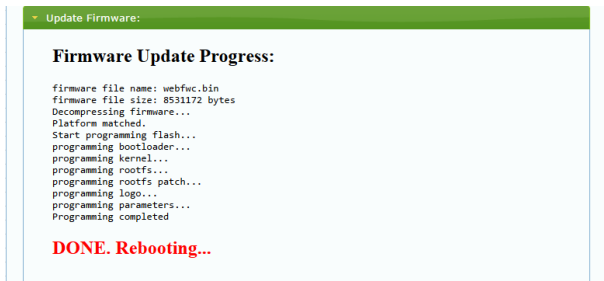


Figure 9. Firmware Upgrade Complete and Reboot

### 6.1.3 [Utilities]

There are some functions

- **Factory Default:**

Click on to return to the factory default when necessary

- **Reboot:**

Click on to reboot the extender system

- **Console API Command:**

Input Linux command for advanced setting

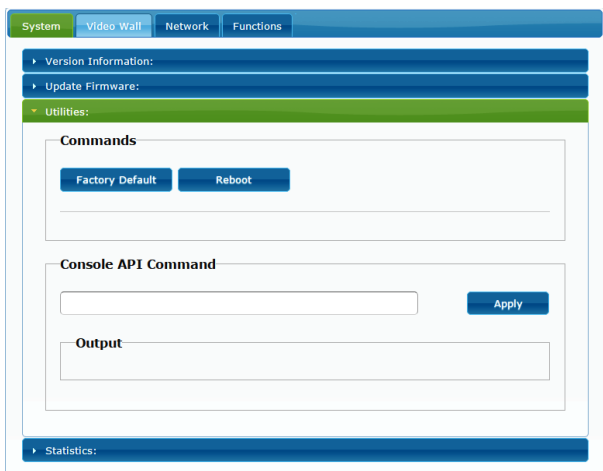


Figure 10. Utilities

## 6.1.4 [Statistics]

Indicating the extender linking and working status

Figure 11. Statistics of Linking and Working Status





## 6.2 Video Wall

To set up the video wall application

### 6.2.1 [Basic Setup]

**Basic Setup:**

**Bezel and Gap Compensation**

OW:

OH:

VW:

VH:

UNIT: 0.1mm

**Wall Size and Position Layout**

Vertical Monitor Count:

Horizontal Monitor Count:

Row Position:

Column Position:

UNIT: Panel

**Preferences**

Stretch Type:

Clockwise Rotate:

Apply To: "This" device connected by your browser

☐ Show OSD

**Advanced Setup:**

Figure 12. Basic Setup page

**Bezel and Gap Compensation:**

Dimension of the screen (inside and outside width and height)

**OW:** outside width

**OH:** outside height

**VW:** viewable width

**VH:** viewable height

Please NOTE:

- 1) The viewable width must be less than the outside width, and the viewable height must be less than the outside height.
- 2) If administrator doesn't need this, just set all values to 0.
- 3) The unit is 0.1mm and the value MUST be integer.

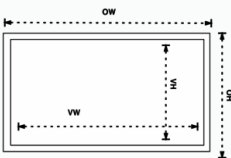
**Bezel and Gap Compensation**  
**OW:**  
  
**OH:**  
  
**VW:**  
  
**VH:**  
  
  
UNIT: 0.1mm

Figure 13. Monitor Bezel and Gap Setup

### ● Wall Size and Position Layout:

Select number of vertical and/ or horizontal monitors, row position and column position.

Vertical monitor number 1~8, horizontal monitor number 1~16

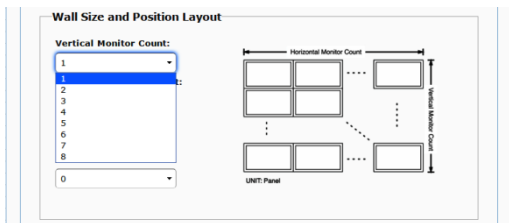


Figure 14. Vertical Monitor Number Setup

Figure 15. Horizontal Monitor Number Setup

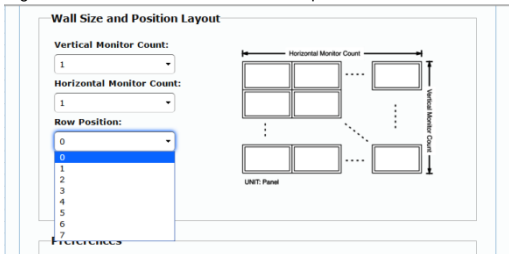


Figure 15. Row Position Setup

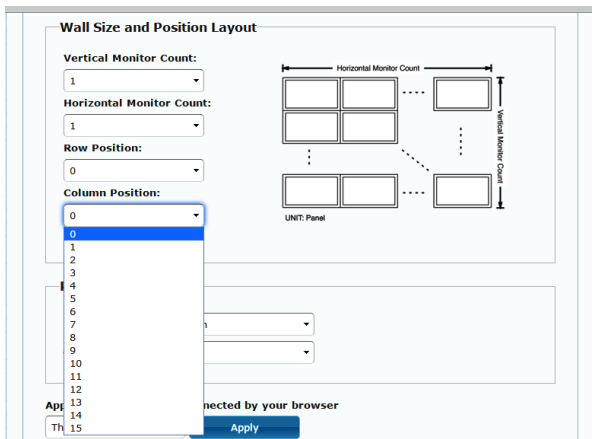


Figure 16. Column Position Setup

### ● Preferences:

Select the video fit in the screen or stretch out and the rotate angle

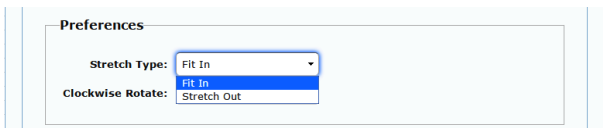


Figure 17. Video Stretch or Fit Screen Setup

**Preferences**

Stretch Type: Fit In

Clockwise Rotate: 0

Apply To: "This" device connected by your browser

This Apply

Figure 18. Video Rotation Angle Setup

### ● Apply To:

- 1) All: Configure all Transmitter and Receiver in the same Group IP.
- 2) This (Local): The IP you input into address bar of web browser.
- 3) Hosts or Clients: select which Transmitter or Receiver you want to configure.

**Preferences**

Stretch Type: Fit In

Clockwise Rotate: 0

Apply To: "All" device(s) in the list

All  
This  
Hosts:  
0000:169.254.10.103  
Clients:  
0:169.254.4.78

Apply

- **Show OSD:**

Check this box to output each receiver's specific number to the connected monitor

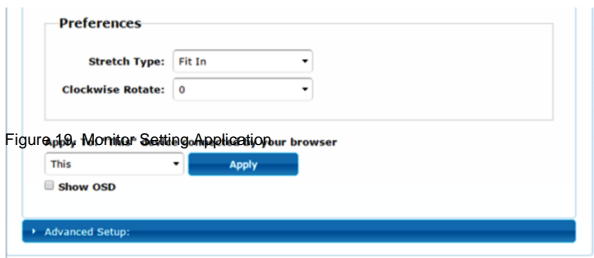


Figure 19. Monitor Setting Application

Figure 20. Show OSD Check box

## 6.2.2 [Advance Setup]

The screenshot displays the 'Video Wall' configuration interface. At the top, there are four tabs: 'System', 'Video Wall', 'Network', and 'Functions'. The 'Video Wall' tab is selected. Below the tabs, there are two main sections: 'Basic Setup' and 'Advanced Setup'. The 'Advanced Setup' section is expanded, showing two steps.

**Step 1: Choose Control Target**

This step contains two groups of buttons. The first group has three buttons: 'All', 'This', and 'This'. The second group has two buttons: 'All' and 'This'. Below these buttons is a checkbox labeled 'Show OSD'.

**Step 2: Control Options**

This step contains several configuration options, each with an 'Apply' button:

- Reset to Basic Setup:** A 'Reset' button.
- Stretch Type:** A dropdown menu set to 'Fit In'.
- Clockwise Rotate:** A dropdown menu set to '0'.
- Screen Layout (Row x Column):** Two dropdown menus set to '1' and '1'.
- Row Position:** A dropdown menu set to '0'.
- Column Position:** A dropdown menu set to '0'.
- Horizontal Shift:** Two buttons 'Left' and 'Right', and a text input field set to '0'.
- Vertical Shift:** Two buttons 'Up' and 'Down', and a text input field set to '0'.
- Horizontal Scale Up (N pixels/column\_count):** A text input field set to '0'.
- Vertical Scale Up (N pixels/row\_count):** A text input field set to '0'.
- Console API Command:** A text input field.

Figure 21. Video Wall Advanced Setup

Before entering “Advanced Setup”, please complete the “Basic Setup” as follows:

Step1: In “Basic Setup”, select Vertical and Horizontal Monitor Count. For example, Vertical Monitor Count = 3, Horizontal Monitor Count = 5

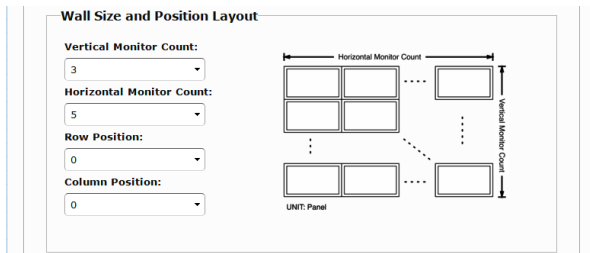


Figure 22. Basic Setup of the Video Wall before Access

Sept2: In “Advanced Setup”, choose the target of the video wall to control

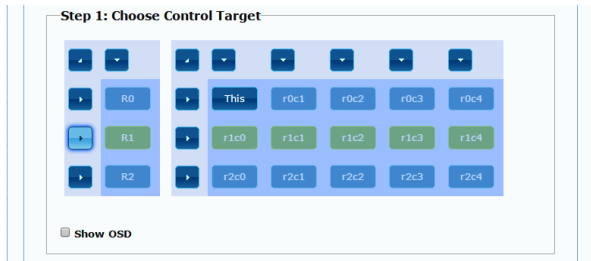


Figure 23. Choose Video Wall Control Target



If user make incorrect operations, press “Reset” in Reset to Basic Setup function.



Figure 24. Reset to Basic Setup

Setup the video output to “Fit In’ or “Stretch Out” mode in the screen



Figure 25. Video Stretch Type

Setup the rotation angle of the video output



Figure 26. Clockwise Rotate

Set up the number of vertical and horizontal monitor based on the video wall layout. Vertical number 1~8 and horizontal number 1~16.

Setup the row position of monitor, number from 0 to the total number of vertical monitor.



Figure 27. Setup the Vertical and Horizontal Number of Monitor

Setup the column position of monitor, number from 0 to the total number of horizontal monitor.

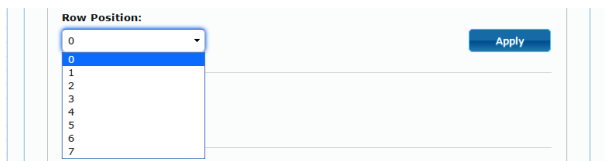


Figure 28. Setup the Row Position of the Monitor

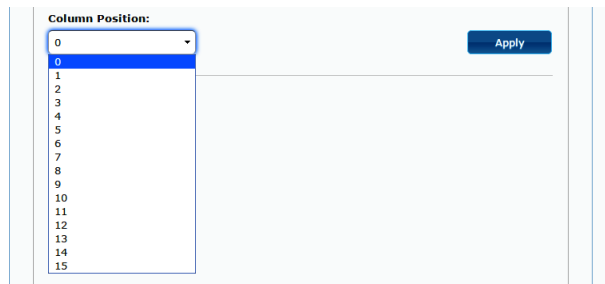


Figure 29. Setup Column Position of the Monitor

Setup the video position shift and video enlarge.

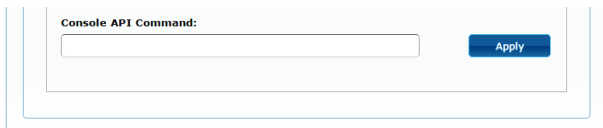
- **Horizontal Shift:** Setup the video horizontal shift, Left or Right
- **Vertical Shift:** Setup the video vertical shift, Up or Down
- **Horizontal Scale Up:** Setup the video horizontal scale up.
- **Vertical Shift Scale Up:** Setup the video vertical scale up.

Figure 30. Output Video Adjustment

The screenshot displays a web interface for video adjustment with the following sections:

- Horizontal Shift:** Features two buttons labeled "Left" and "Right", a text input field containing the value "0", and a blue "Apply" button.
- Vertical Shift:** Features two buttons labeled "Up" and "Down", a text input field containing the value "0", and a blue "Apply" button.
- Horizontal Scale Up (N pixels/column\_count):** Features a text input field containing the value "0" and a blue "Apply" button.
- Vertical Scale Up (N pixels/row\_count):** Features a text input field containing the value "0" and a blue "Apply" button.

- **Consol API Command:** Input Linux command to do advanced setup.

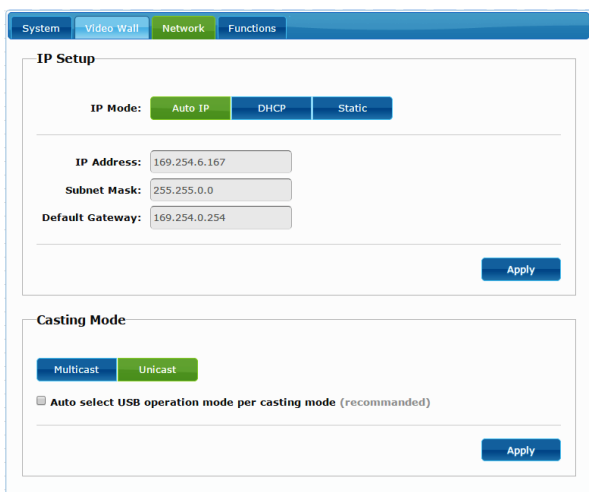


Console API Command:

Apply

Figure 31. Consol API Command Input

## 6.3 Network: Update the network setup of the



System Video Wall **Network** Functions

### IP Setup

IP Mode: **Auto IP** DHCP Static

IP Address:

Subnet Mask:

Default Gateway:

Apply

### Casting Mode

**Multicast** Unicast

☐ Auto select USB operation mode per casting mode (recommended)

Apply

## extender system

### 6.3.1 [IP Setup]

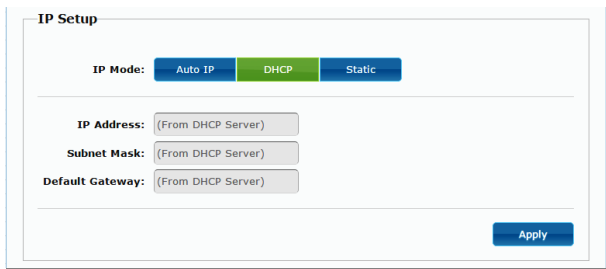
- **Auto IP:** use automatically Extender assign IP system for example: 169.254.xxx.xxx



The screenshot shows the 'IP Setup' window with the 'Auto IP' mode selected. The 'IP Address' field is populated with '169.254.6.167', the 'Subnet Mask' with '255.255.0.0', and the 'Default Gateway' with '169.254.0.254'. An 'Apply' button is located at the bottom right.

Figure 33. Auto IP Setup

- **DHCP:** use the DHCP of the external device

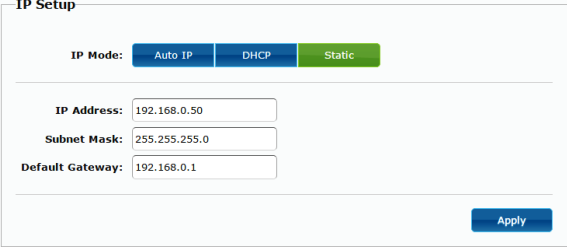


The screenshot shows the 'IP Setup' window with the 'DHCP' mode selected. The 'IP Address', 'Subnet Mask', and 'Default Gateway' fields are all populated with the text '(From DHCP Server)'. An 'Apply' button is located at the bottom right.

such as the IP sharer to assign IP

Figure 34. DHCP

- **Static:** use the static IP to assign manually



The screenshot shows a web interface titled "IP Setup". At the top, there are three buttons for "IP Mode": "Auto IP", "DHCP", and "Static". The "Static" button is highlighted in green, indicating it is the selected mode. Below the mode selection, there are three input fields: "IP Address" with the value "192.168.0.50", "Subnet Mask" with the value "255.255.255.0", and "Default Gateway" with the value "192.168.0.1". At the bottom right of the form, there is a blue "Apply" button.

Figure 35. Assign Static IP

### 6.3.2 [Casting Mode]

**Select the broadcast mode of the extender application**

- **Multicast:** point to multiple points or multiple point to multiple points broadcast

- **Unicast:** point to point broadcast

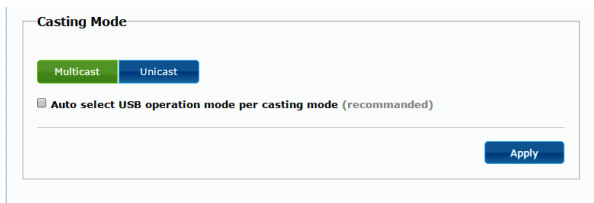


Figure 36. The Casting Mode Setup

## 6.4 Functions:

## Setup the video output and USB extension mode

The screenshot displays the 'Functions' tab of the Partilink web interface. It is divided into two main sections: 'Video over IP' and 'USB over IP'. The 'Video over IP' section includes checkboxes for 'Enable Video over IP' and 'Enable Video Wall', both of which are checked. Below these are a 'Scaler Output Mode' dropdown menu set to 'Pass-Through' and a 'Timeout for Detecting Video Lost' dropdown menu set to '10 seconds'. There is also an unchecked checkbox for 'Turn off screen on video lost'. An 'Apply' button is located at the bottom right of this section. The 'USB over IP' section starts with a checked 'Enable USB over IP' checkbox. Under 'Operation Mode', there are three radio button options: 'Auto select mode' (Recommended, choose per network casting mode), 'Active on link' (Unicast network's default mode), and 'Active per request' (Multicast network's default mode). The 'Compatibility Mode' section has a checked checkbox for 'K/M over IP' (Uncheck when mouse/keyboard/touch panel not working as expected). An 'Apply' button is also present at the bottom right of this section.

**System** | **Video Wall** | Network | Functions

**Video over IP**

☒ Enable Video over IP

☒ Enable Video Wall

Scaler Output Mode: Pass-Through

Timeout for Detecting Video Lost: 10 seconds

☐ Turn off screen on video lost

**Apply**

**USB over IP**

☒ Enable USB over IP

**Operation Mode:**

- ☐ Auto select mode (Recommended, choose per network casting mode)
- ☒ Active on link (Unicast network's default mode)
- ☐ Active per request (Multicast network's default mode)

**Compatibility Mode:**

☒ K/M over IP (Uncheck when mouse/keyboard/touch panel not working as expected)

**Apply**

Figure 37. Video and USB over IP Functions



### 6.4.1 [Video over IP]: Setup the video output mode

- **Enable Video over IP:** Check to enable video extension over IP
- **Enable Video Wall:** Check to enable the video extension for building up video wall
- **Enable EDID Copy:** This function is limited to copy one of the receivers.
- **Scaler Output Mode:**

Select the required scalar output mode or select “customize” and input 8 Hex values for more video output resolution and refresh rate selections.

- 1) 80000004: HD 720p60
  - 2) 81000061: WXGA 1366x768@60
  - 3) 81000040: WXGA+ 1440x900@60
  - 4) 81000051: WUXGA 1920x1200@60
  - 5) 8100003C: SXGA+ 1400x1050@60
- **Timeout for Detecting Video Lost:** Setup the time of stop the video storage when detecting video lost to transmit

**Video over IP**

☒ **Enable Video over IP**

☒ **Enable Video Wall**

**Scaler Output Mode:** Pass-Through ▼

**Timeout for Detecting Video Lost:** 10 seconds ▼

☐ **Turn off screen on video lost**

**Apply**

Pass-Through  
Full HD 1080p60  
Full HD 1080p50  
Ultra HD 2160p30  
Ultra HD 2160p25  
Customize

Figure 38. Video over IP Setup

**Video over IP**

☒ **Enable Video over IP**

☒ **Enable Video Wall**

**Scaler Output Mode:** Pass-Through ▼

**Timeout for Detecting Video Lost:** 10 seconds ▼

☐ **Turn off screen on video lost**

**Apply**

3 seconds  
5 seconds  
10 seconds  
20 seconds  
30 seconds  
60 seconds  
Never Timeout

Figure 39. Customize Scaler Output Mode

**Video over IP**

☒ Enable Video over IP

☒ Enable Video Wall

Scaler Output Mode: Pass-Through

Timeout for Detecting Video Lost: 10 seconds

☐ Turn off screen on video lost

10 seconds  
3 seconds  
5 seconds  
20 seconds  
30 seconds  
60 seconds  
Never Timeout

Apply

Figure 40. Timeout for Detecting Video Lost

## 6.4.2 [USB over IP]: Setup the USB extension mode

- **Enable USB over IP:** Check to enable USB extension mode over IP
- **Operation Mode:** Including “auto select mode”, “active on line” and “active per request” modes for option.
- **Compatibility Mode:** Check to enable USB keyboard, USB mouse transmission mode.

**USB over IP**

☒ **Enable USB over IP**

---

**Operation Mode:**

- ☒ **Auto select mode** (Recommended, choose per network casting mode)
- ☐ **Active on link** (Unicast network's default mode)
- ☐ **Active per request** (Multicast network's default mode)

---

**Compatibility Mode:**

☒ **K/M over IP** (Uncheck when mouse/keyboard/touch panel not working as expected)

**Apply**

Figure 41. USB over IP Functions

### 6.4.3 [Serial over IP]: **set up the serial extension mode**

- Select Type 2 as operation mode
- Set up the baud rate for Type 2.

**Serial over IP**

☒ **Enable Serial over IP**

---

**Operation Mode:**

- ☐ **Type 1** (Need extra control instruction. For advanced usage.)
- ☒ **Type 2** (Recommended. Dumb redirection.)
- ☐ **Type 1 guest mode**
- ☐ **Type 2 guest mode**

---

**Baudrate Setting for Type 2:**

Baudrate:

Data bits:

Parity:

Stop bits:

Figure 42. Serial over IP

**Casting Mode**

☐ **Auto select USB operation mode per casting mode (recommended)**

Figure 43. Broadcast Mode Setting

## 7. BROADCAST CONFIGURATION SETTING

There are some examples to show the setup for unicast, multicast, matrix and video wall.

Broadcast setting including unicast and multicast

### 7.1 Multicast :

To enable the USB interactive devices controlled by

turns, please check “Auto select USB operation mode per casting mode”

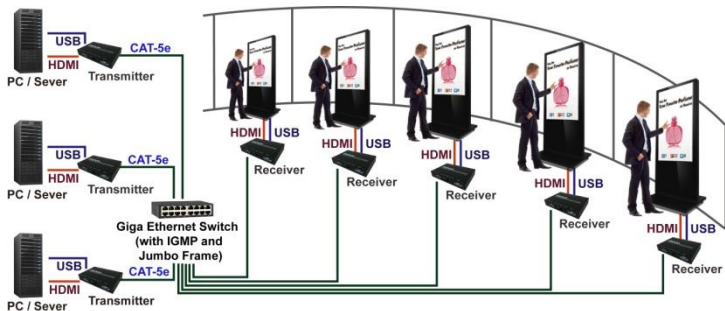


Figure 44. USB Interaction Application

## 7.2 Unicast:



Figure 45. Unicast Application

## 7.3 Matrix:

Install multiple transmitters and setting ID of these transmitters individually, edit the group of transmitters and receivers. The correspondent receivers will output the video from the transmitter belonged to the same group ID.



Figure 46. Transmitter and Receiver Unit Grouping

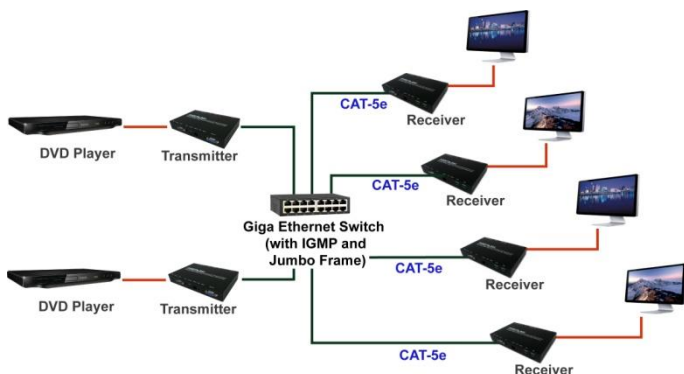


Figure 47. Multicast Application

## 7.4 Video Wall:

A 3x5 (row x column) video wall setting example here for reference. In multicast and matrix application mode, access the Web user interface of correspondent receiver to setup

### 7.4.1 [Basic Setup]

Please refer to “Section 6.2.1 Basic setup” and follow the steps as below.



Step1: Set up the vertical monitor count to “3”

Step2: Set up the horizontal monitor count to “5”

Step3: Set up the row position of the monitor to 0

Step4: Set up the column position to 0

Step5: Apply the setting to the extender system

Administrator can complete each Extender position setting after following 5 steps in above. And then follow the above steps to set the other Extenders to the rest of row and column positions from 0x1, 0x2, 0x3 to 3x5.

After the basic setup of the video wall, please access the advanced setup to proceed other detailed setting of the video output

## **7.4.2 Advanced Setup**

Select the monitor you want to control. The one you select will show “This” in green in video wall matrix layout. Take below diagram for

example, the monitor we select to control here is the monitor in the upper left corner.



Figure 53. Example for the Video Wall Control

Here's the diagram of the actual video wall layout showing the selected monitor in the upper left corner with green outline.



Figure 54. Example for the Video Wall Control

Return to the previous setup of video wall quickly when incorrect operation was input.



Figure 55. Reset

Adjust the horizontal position of the video output, "Left/ Right Shift", the selected monitor to adjust is shown with green outline.



Figure 56. Example for Adjust the Monitor of Video Wall

Adjust the vertical position of the video output, "Up/ Down Shift", the selected monitor to adjust is shown with green outline.



Figure 57. Example for Adjust the Monitor of Video Wall

**Horizontal Scale Up:** To scale up the video output horizontally as the monitor shown with green outline



Figure 58. Example for Adjust the Monitor of Video Wall

**Vertical Scale Up:** To scale up the video output vertically as the monitor shown with green outline



Figure 59. Example for Adjust the Monitor of Video Wall

## 8. PACKAGE CONTENTS

1. P4K-HRSUL4E1 / P4K-HRSUL4E1-P HDMI & USB extender over IP transmitter (1)
2. P4K-LHRSU1E4 / P4K-LHRSU1E4-P HDMI & USB extender over IP receiver (1)
3. DC12V 2A power adapter, one comes with the transmitter P4K-HRSUL4E1 (1) and one comes with receiver P4K-LHRSU1E4 (1). Please NOTE: The standard package of PoE model doesn't include power adapter.
4. IR receiver cable comes with receiver (1)
5. IR emitter cable comes with transmitter (1)
6. User manual (1)
7. Rear bracket (2)





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