Avenview HDM2-SPLITPRO-T4K-V3 60 Quad Multiviewer With Rotation and USB Video Capture



Avenview HDM2-SPLITPRO-T4K-V3 60 Quad Multiviewer With Rotation and USB Video Capture User Guide

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Avenview HDM2-SPLITPRO-T4K-V3 60 Quad Multiviewer With Rotation and USB Video Capture



Specifications

• Model: HDM2-SPLITPRO-T4K-V3

Product Type: HDMI 2.0a Quad Multiviewer

• Resolution: 4K@60

• Inputs: 4 HDMI 4K Inputs

• Outputs: 2 HDMI 4K Outputs

Output Resolution Support: Up to 4K@60 (3840×2160)

Product Usage Instructions

Section 1: Getting Started

Important Safeguards

Please read all instructions carefully before using the device. Save the manual for future reference.

Safety Instructions

The HDM2-SPLITPRO-T4K-V3 is a 4K UHD 4×2 HDMI 2.0a Quad multiviewer with USB video capture and audio out. Follow these safety instructions:

- Do not dismantle or modify the device to avoid electrical shock.
- Refer servicing to qualified personnel.
- Avoid contact with liquids to prevent fire or electrical shock.
- Keep away from objects or liquids falling on the device; unplug immediately.
- Do not use liquid or aerosol cleaners; unplug before cleaning.

Regulatory Notices

FCC Compliance: This equipment complies with FCC rules to prevent harmful interference in residential installations. Follow these warning symbols:

- Use provided power cable or adapter to avoid electrical hazards.
- Do not tamper with the unit to maintain warranty and product use.

• Ensure a grounded environment when rack-mounted or installed on a surface.

Section 2: Introduction

Features

- 4 HDMI 4K Inputs & 2 HDMI 4K Outputs (auto downscale)
- Output resolution support up to 4K@60 (3840×2160)
- Supports Full HD or 4K@60 (3840×2160)

FAQ

· Q: What do I do if the device stops working?

A: If the device stops working, unplug it immediately and contact qualified service personnel for assistance.

• Q: Can I clean the unit with liquid cleaners?

A: No, do not use liquid or aerosol cleaners on the unit. Always unplug before cleaning.

• Q: How many HDMI inputs and outputs does the device have?

A: The device has 4 HDMI inputs and 2 HDMI outputs.

HDMI 2.0a 4K@60 QUAD MULTIVIEWER W/ROTATION & USB VIDEO CAPTURE

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SECTION 1: GETTING STARTED

IMPORTANT SAFEGUARDS

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
- Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
- Repair or attempted repair by anyone not authorized by us.
- Any damage of the product due to shipment.
- Removal or installation of the product.
- Causes external to the product, such as electric power fluctuation or failure.
- Use of supplies or parts not meeting our specifications.
- Normal wear and tear.
- Any other causes which does not relate to a product defect.

· Removal, installation, and set-up service charges.

SAFETY INSTRUCTIONS

The HDM2-SPLITPRO-T4K-V3 is a 4K UHD 4×2 HDMI 2.0a Quad multiviewer with USB video capture and audio out. It has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the HDM2-SPLITPRO-T4K-V3 should be used with care. Read the following safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Do not dismantle the housing or modify the module.
- Dismantling the housing or modifying the module may result in electrical shock or burn.
- Refer all servicing to qualified service personnel.
- Do not attempt to service this product yourself as opening or removing housing may expose you to dangerous voltage or other hazards
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Have the module checked by a qualified service engineer before using it again.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

REGULATORY NOTICES FEDERAL COMMUNICATIONS COMMISSION (FCC)

This equipment has been tested and found to comply with part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment.

Warning symbols	Description
	ONLY USE THE PROVIDED POWER CABLE OR POWER ADAPTER SUPPLIED. DO NOT TAMPER WITH THE ELECTRICAL PARTS. THIS MAY RESULT IN ELECTRICAL SHOCK OR BURN.
	DO NOT TAMPER WITH THE UNIT. DOING SO WILL VOID THE WARRANTY AND CONTINUED USE OF THE PRODUCT.
BEWARE this unit contains static sensitive devices	THE VIDEO BOARDS ARE VERY SENSITIVE TO STATIC. PLEASE ENSURE IF RACK MOUNTED OR INSTALLED ON A SURFACE, IT SHOULD BE IN A GROUNDED ENVIROMENT.

WARNING

Read & understand user guide before using this device. Failure to follow the proper installation instructions could result in damage to the product and preventing expected results.



INTRODUCTION

This 4 x2 Quad multiviewer was developed for the purpose of supporting higher output resolution (4K@60) UHD for

multiple sources on a single screen with built in USB 3.0 FHD video capture to output 4K video to a computer. This HDMI device can accept 4 HDMI 4K input digital sources and combine (4) four video signals onto a single HDMI UHD or HD monitor. The user can easily manage each input via the supplied Control Software and create any layout and position of any of the 4 (four) Inputs on a single monitor. This device supports full range of input video resolutions up to 4K and audio RCA breakout supported for external audio distribution systems. Audio channels can be selected to playback with input or can be muted.

Fast Switching – This device can input any 4 HDMI input digital sources and then combine, (4) four video signals onto a single HDMI UHD monitor. The user will benefit with from its processing power to switch between the 8 user defined function using control software via Ethernet or RS232, cloud, 4 IR Remote preset.

Crop – This device can Crop any 4 HDMI input digital sources to remove black bars and then combine, (4) four video signals onto a single HDMI HD monitor. This device can be configured using the supplied Control software via Ethernet or RS232 to set the desired layout on the connected screens.

PIP, PAP, Overlay – This device can input any 4 HDMI digital sources and then combine, (4) four video signals onto a single HDMI HD monitor, which the user can select picture in picture (PIP), picture Aside picture (PAP) or overlay with the supplied Control Software via Ethernet or RS232 to set the desired layout configuration. Window Scale and Position – The user can easily change the individual channel size and choose different position and layout on the single monitor with the Control Software via Ethernet or RS232 to set the desired layout configuration.

Scalable Rotation (90° & -90°) – The user can easily Rotate/Scale only a single input/window image 90° left and right. This device can be configured with the Control Software, IR Remote, Ethernet, RS232 or front panel buttons. USB 3.0 Built in 4K Video Capture – The user can capture up to 4K video via the built in USB 3.0 capture to computer.

FEATURES

- 4 HDMI 4K Inputs & 2 HDMI 4K Outputs (HDMI 2 OUT auto downscale to connected display)
- Output resolution support up to 4K@60 (3840×2160);
- Output resolution support Full HD or to 4K@60 (3840×2160);
- USB 3.1 FHD Video Capture (up to 4K2K @30, UVC 1.0, deinterlace & scaler)
- Supports USB 3.1 Gen 1 (RGB/YUY2/NV12) (capture up to 4K2K@30)
- USB 2.0 (YUY2/NV12) (capture up to 720P@30)
 - HDCP 1.4/2.2 compliant
 - Fast switching between input channels and combined multiple images on single UHD display;
 - Cropping the (4) four HDMI Input Channels;
 - Supports PIP, PAP and multi-windows layout configurations;
 - Single Input Rotation (90° left & right) functions;
 - Background picture & logo support

- Resize, position, zoom & pan and blend output video
- Fade-in-&-out, wipe and dissolve transitions in full screen mode
- 8 preset Hot keys with 4 Custom layouts and 4 Full screen layouts within the supplied control software;
- 4 Custom saved layout buttons via the IR Remote;
- Input resolution support full range of video resolutions up to WUXGA@60 (RB) or full HD1080p;
- Uncompressed 7.1ch digital over HDMI
- RS 232 port for Service mode and firmware upgrade;
- Supports RS 232, Ethernet, IR Remote and front panel buttons and remote control via cloud platform.
- Factory Reset feature.
- Low Latency

PACKAGE CONTENTS

Before you start the installation of the converter, please check the package contents.

1	HDM2-SPLITPRO-T4K-V3	хі	A STATE OF THE PARTY OF THE PAR
2	POWER SUPPLY (12V 5A)	хі	
3	IR REMOTE	хі	
4	RACKMOUNT BRACKET	X 2	
5	USER MANUAL	хі	Market Control of the
6	Software CD Software and User guide available on The Product page on Avenview.com	, XI	

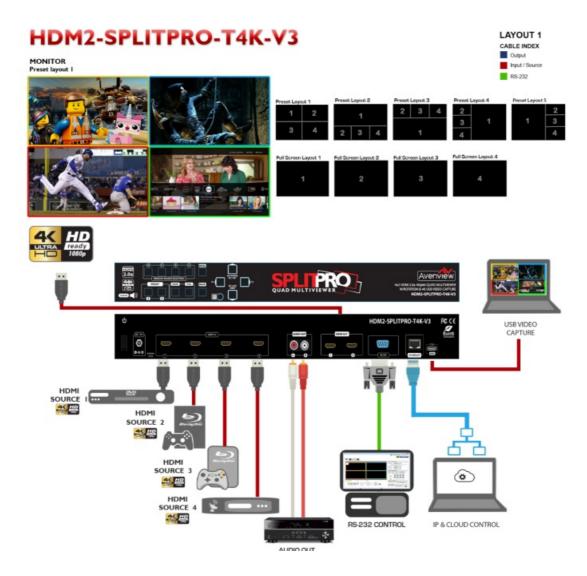
BEFORE INSTALLATION

- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction. Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate power supply is used, then it may cause

a fire.

• Do not twist or pull by force ends of the video cable. It can cause malfunction.

APPLICATION DIAGRAM

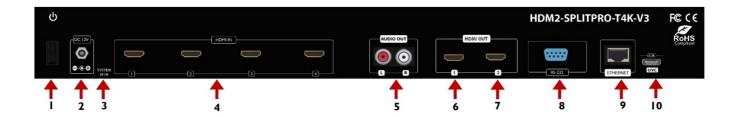


INPUT PANEL (HDM2-SPLITPRO-T4K-V3) Front



1. Preset Layouts	2.: Quad Screen / Full Screen Mode Buttons
3. IR Sensor: Receive IR commands from IR remote	4. Resolution Button: 4K UHD/1080p
5. Reserved Buttons: F1 & F2	6. Rotation Button: +90 & -90
7. OSD Menu: Menu control button	8. Window Source Selection: Source A/B/C/D

INPUT PANEL (HDM2-SPLITPRO-T4K-V3) Rear

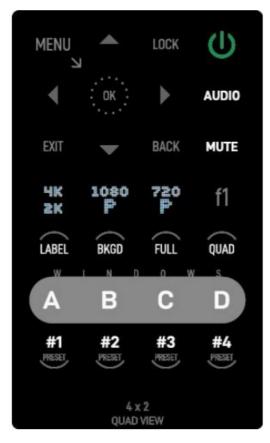


1. Power Switch	2. DC 12V: plug the 12V DC power supply into the unit supplied to an AC 110v outlet.
3. IR Input: 3.5mm socket for plugging in the extension	4. HDMI IN 1-4: Connect up to 4 HDMI devices to the
cable of IR receiver	INPUT ports 1-4(Blu-Ray Player, Media Box or PC)
5. Stereo Audio Out L/R: Audio Out	6. HDMI OUT 1: Connect HDMI 4K monitor/ Display to view the four inputs connected.
7. HDMI OUT 2: Automatically downscale according to	8. RS-232: D-Sub 9pin port for sending and controlling
EDID of connected display	the unit by PC/Notebook via RS232 cable.
9. Ethernet: RJ45 jack for sending and controlling the unit by PC/Notebook via Ethernet cable.	10. USB C: Connect to computer to capture up to 4K v ideo out and Firmware update port

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^{*} Some display/monitor brands the window border may have interference, adjusting the display's motion setting may resolve the interference issue.

Button	Function
POWER	Power on/off the unit
LOCK	Lock/unlock the unit
A	Navigate up
MENU	OSD menu
AUDIO	Select audio sources
>	Navigate right
ок	Trigger the setting
•	Navigate left
MUTE	Turn off the audio
BACK	Back to previous page of OSD menu
▼	Navigate down
EXIT	Exit from the menus
F1	Rotate 900
720P	Switch output resolution to 720p 60Hz
1080P	Switch output resolution to 1080p 60Hz
4K2K	Switch output resolution to 4K2K 60Hz
QUAD	Fast switch to quad-view mode
FULL	Fast switch to full screen mode
Background	To set up the background picture of window
LABEL	Window label ON/OFF
Α	Select source A to be the input source
В	Select source B to be the input source
С	Select source C to be the input source
D	Select source D to be the input source
Preset 1	User preset 1
Preset 2	User preset 2
Preset 3	User preset 3
Preset 4	User preset 4



INSTALLATION (HDM2-SPLITPRO-T4K-V3)

HARDWARE SETUP

To setup Avenview HDM2-SPLITPRO-T4K-V3 follow these steps below:

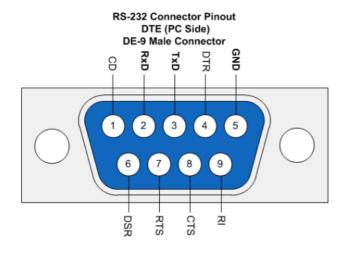
- 1. Mount or fix the HDM2-SPLITPRO-T4K-V3 on a secure shelf, AV rack or steady surface;
- 2. Ensure the power is off on the HDM2-SPLITPRO-T4K-V3, all source devices and displays that will be connected;
- 3. Connect your (4) four HDMI cables to the (4) four HDMI sources such as (Media Box, Blu-ray player, Laptop or Set-Top-Box or Gaming device);
- 4. Connect your HDMI cables to the single HD Displays, LCD or PC monitors that is receiving the video signals.
- 5. Power on all devices.
- 6. Connect your computer to HDM2-SPLITPRO-T4K-V3 via RS232 using an RS-232 to USB Cable or Ethernet cable in order to control via RS232 or Telnet.

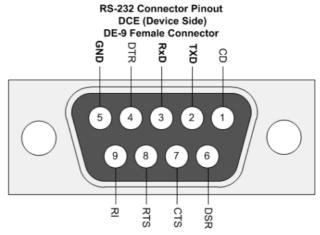
SERIAL PORT SETTING

RS-232 Wiring (Cross Cable Connection)

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

HDM-SPLITPRO-4K-V2	
PIN	Definition
1	NC
2	RxD
3	TxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC





RS-232 SETTINGS

Baud Rate: 115200bps Data Bit: 8 bits parity: None flow Control: None Stop Bit: 1

Control through RS-232 port / Ethernet port

- 1. Please note when power cycling device, please restart unit at least 5 to 15 seconds after to allow the power capacitors to discharge.
- 2. The HDM2-SPLITPRO-T4K-V3 PC control software operates with Microsoft Windows 7, 8, 10, 11 through the interface of Ethernet or RS-232 serial control.
- 3. Through software and COM port you can assign an IP address before connecting via RJ45.

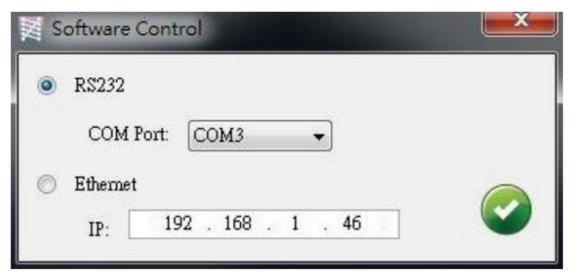
Please NOTE: (Under Microsoft Windows 7, please run software as administrator).

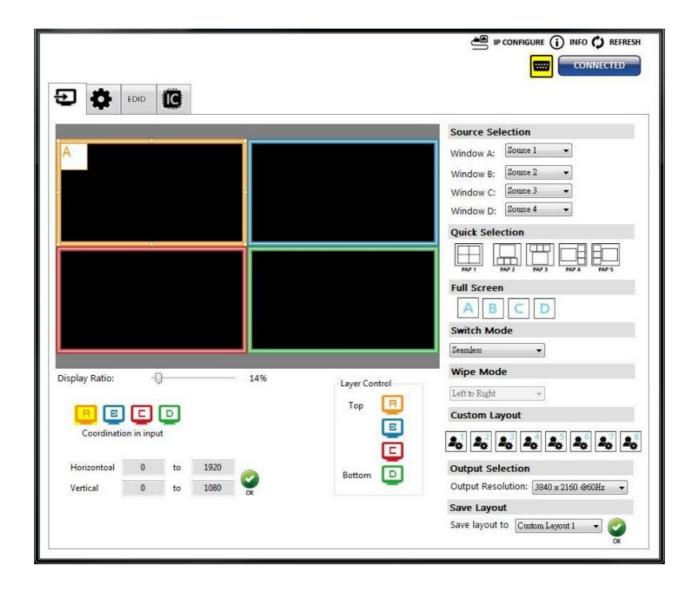
Once the software is installed click on the ICON, the following dialog will pop-up. First time connection, please connect via RS232 serial cable.

RS-232 serial Mode: Use RS-232 to connect the port on device and computer. Select the correct COM port and click the OK button.

Ethernet Mode: Enter the IP address of the device and click the OK button and power cycle the unit.

The default IP: 192.168.1.46





1. Connection Status:

This shows the active connection status. If connected by RS-232 serial Mode device, the icon is

connected by ethernet . Easily change the control method, by clicking on the button.

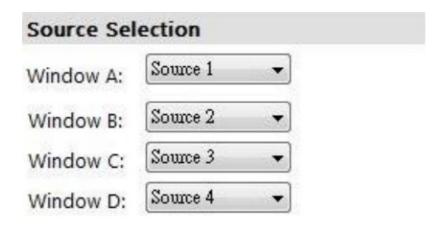
2. Output Settings

Users can set up the designated inputs, to each window A~D or duplicate, output resolution, PAP predefined layout setting or single input rotation.

1. Source Selection

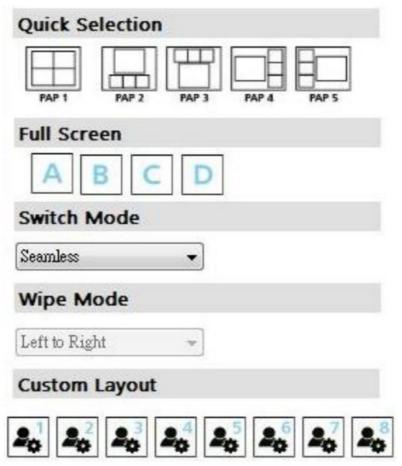
For each display window, you can assign the video source the caption below:

2.



Quick Selection Tabs

Provided in the software 9 default modes (5 PAP and 4 Full Screen) and 8 custom modes for you to create. Switching effects include (Seamless, Fade in/out, Dissolve, Wipe)

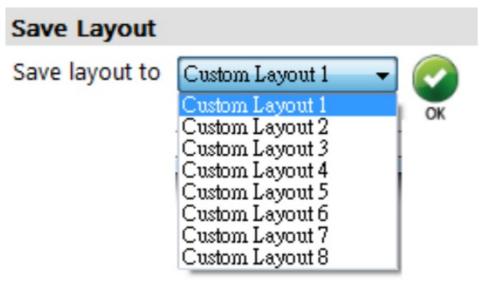


3. Output Resolution

Set the output resolution from 640×480-4K@60 to match the connected Monitor Timings

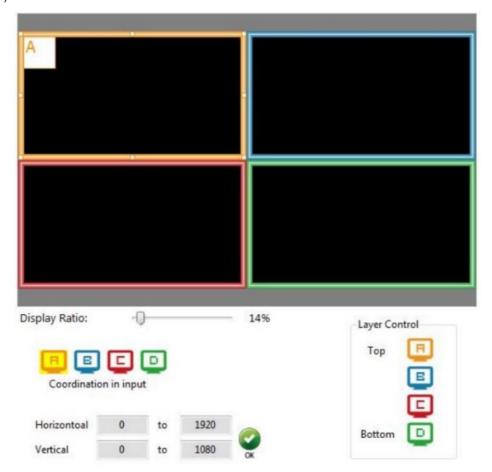


Also the user can define their own 8 custom layouts and save the frequently used scenarios into the flash memory.



5. Display Panel

As illustrated below, users can resize any window by simply dragging the highlighted box with the mouse and immediately see the results on the attached monitor. The different colors of the frames represent the different inputs for easy identification. The Horizontal and Vertical coordinate shows the position of input source on the screen. In addition, the display ratio can be adjusted to view the layout in software (Zoom in Zoom out).

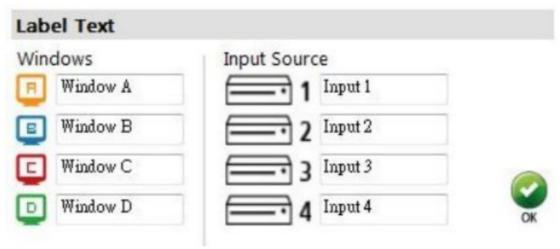


3. Advanced Setting



1. Window settings

Users can adjust each display area and input source as desired. To proceed with this function user have to click on the specific channel
, as indicated by the icons in the control panel as shown above. After the specific channel is chosen, users can click on the "CROP ENABLE" box, then crop the display area of that and other channels. The control panel of the software illustrates by preview on how those settings would to be presented at the output. Using "DIVIDE- Horizontal/Vertical"



2. Label Text

In here, users can easily rename /label the input to be shown on the window with the video to identify the input.

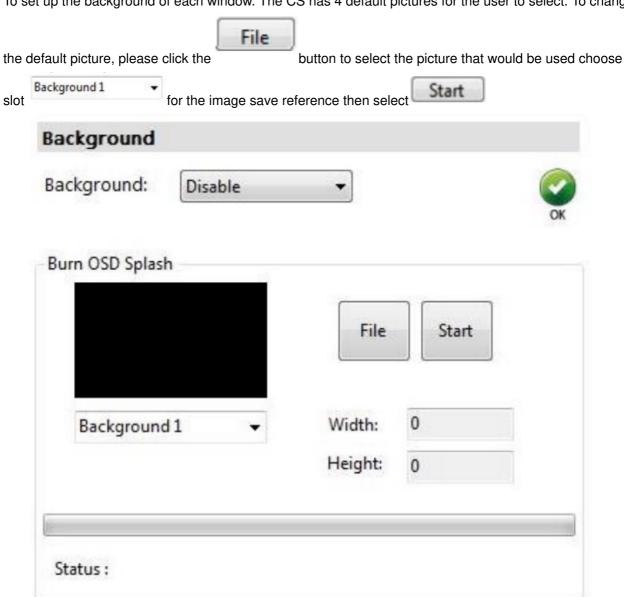
3. Sound

To set and match which audio source to the output video through the R/L channels.



4. Background

To set up the background of each window. The CS has 4 default pictures for the user to select. To change



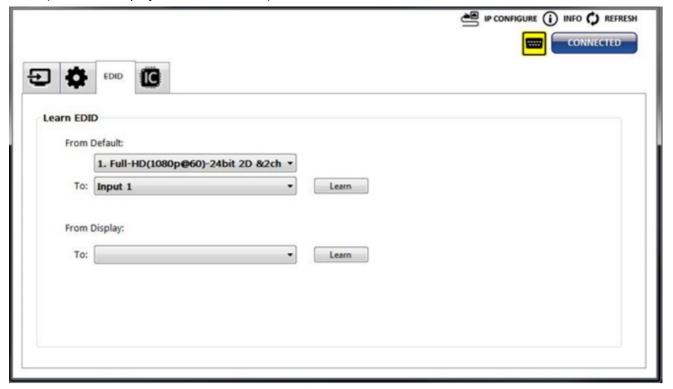
5. Window Label

Users can simply determine if the window's label/border can be shown or invisible.

Window Label

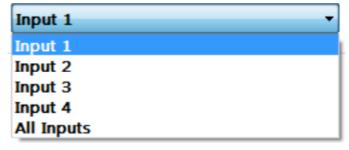
Selected Window: Window A

- ✓ Window label✓ Border✓ Source label☐ Border Tally
- 4. EDID (Extended Display Identification Data)



- 1. Learn EDID from Default
 - > Select Default EDID
 - Select Default EDID
 - Select Input

1. Full-HD(1080p@60)-24bit 2D &2ch ▼
1. Full-HD(1080p@60)-24bit 2D &2ch
2. HD(1080i/720p@60)-24bit 2D &2ch



➤ Click Learn button to learn default EDID.

5. System Setting



1. Firmware Update

• There are 2 connections that's needed (1) RS-232 on the unit to the PC, (2) USB-C firmware update port to the PC via the USB C cable provided. These will give you 2 new com port items in your windows device manager.



- Click button to perform authorized firmware update.
- The "Firmware update" window pops up as below.

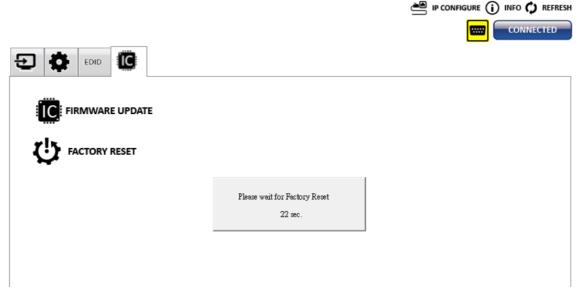


- Please select the correct COM port (corresponding to the USB-C) or click "Scan" button then select the correct COM port (corresponding to the USB-C firmware port) to update the device.
- Click "update" button to do firmware update. The unit will power cycle atomically when done.



2. Factory Reset

- Click button to perform a factory default reset.
- The process will take approx. 25 seconds.



6. IP Configure

To use Ethernet control users should click on the

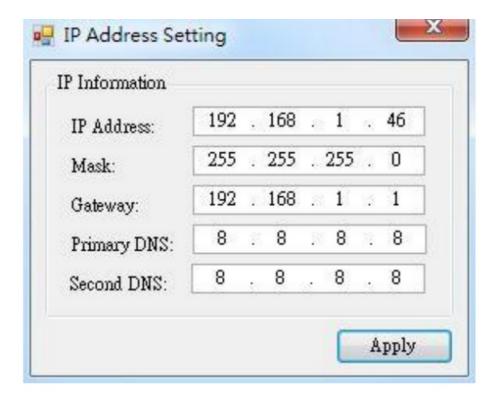


button to set the network IP range.

Please see the caption below. After the information has been complete, please click the button.

The default IP: 192.168.1.46





7. Info

Displays the Software and firmware version.



Software/firmware information is subject to change without prior notice

8. Refresh

This function will gather the changes made within software and hardware. Then update the software interface state with its current info.

SPECIFICATIONS

Item	Description	
UNITS	HDM2-SPLITPRO-T4K-V3	
UNIT DESCRIPTION	HDMI 2.0a 4K@60 QUAD MULTIVIEWER W/ROTATION & USB VIDEO CAPTURE	
HDCP COMPLIANCE	Yes 1.4, 2.2	
VIDEO BANDWIDTH	HDMI 600MHz [18Gbps]	
HDMI COMPLIANCE	Input: HDMI 1.4 /Output: HDMI	2.0a
VIDEO FORMAT SUPPORT	HDMI 2.0	
	720p 50Hz, 720p 60Hz, 1080p	24Hz,
INPUT SUPPORTED RESOLUTIO	1080p 25Hz, 1080p 30Hz, 1080	0p 50Hz, 1080p 60Hz, 1920X1200 Hz,
NS	3840×2160 60 Hz and 4K2K@60 (4:4:4 8bits)	
	720p 50Hz, 720p 60Hz, 1080p 24Hz,	
OUTPUT SUPPORTED	1080p 25Hz, 1080p 30Hz, 1080p 50Hz, 1080p 60Hz, 1920X	
RESOLUTIONS	3840×2160 60 Hz and 4K2K@60 (4:4:4 8bits)	
USB VIDEO SUPPORT	Up to 4K2K@30Hz	
USB VIDEO FORMAT	YUY2 (USB3.0), MJPG (USB2.0/3.0)	
USB CONNECTOR	USB 3.0 Type A (SuperSpeed USB)	
AUDIO SUPPORT	LPCM 2CH, 6CH, 8CH/AC3/DTS/Dolby Digital Plus/ Dolby TruHD/DTS-H	
INPUT	4x HDMI + 1xRS-232 + 1x RJ-45(Ethernet) + 1x 3.5mm (IR)	
ОИТРИТ	2x HDMI + 1x USB-C + 2x RCA	
CONTROL	RS 232 / IP Control / IR / Front Panel	
RJ45 CONNECTOR	WE/SS 8P8C with 2 LED indicators	
	Human body model	
ESD PROTECTION	±15kV [air-gap discharge] & ± 8kV [contact discharge]	
WEIGHT	Unit: 2.3 kg [5 lbs]	Package: 3.5 kg [7.8 lbs]
	Unit (Metal enclosure): 440 x 237 x 44mm [1'4" x 9.3" x 1.7"]	
DIMENSIONS (L X W X H)	Package: 526 x 318 x 156mm [1'7" x 12.5" x 6.1"]	
POWER SUPPLY	12V/5A DC (US/EU standards, CE/FCC/UL certified)	
POWER CONSUMPTION	22W (max)	

Environmental

OPERATING TEMPERATURE	32° ~ 104° F (0° to 40° C)
STORAGE TEMPERATURE	-4° ~ 140° F (-20° ~ 60° C)
RELATIVE HUMIDITY	20~90% RH (no condensation)



TECHNICAL SUPPORT

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Documents / Resources



<u>Avenview HDM2-SPLITPRO-T4K-V3 60 Quad Multiviewer With Rotation and USB Video C apture</u> [pdf] User Guide

HDM2-SPLITPRO-T4K-V3 60 Quad Multiviewer With Rotation and USB Video Capture, HDM2-SPLITPRO-T4K-V3, 60 Quad Multiviewer With Rotation and USB Video Capture, Multiviewer W ith Rotation and USB Video Capture, Rotation and USB Video Capture, Video Capture

References

User Manual

Manuals+, Privacy Policy

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