Avenview

CONTROL YOUR VIDEO

VIDEO WALL VIDEO PROSESSORS MILTIVIEWERS
DIGITAL SIGNAGE EXNTENDERS CONTROL
CENTERS SCALERS WIRELESS



HDM-SWITCHPRO-4X2USB

4K@60 4x2 Seamless Matrix with USB Docking

USB Docking | USB Type-C | Seamless Switch | 4K Ultra HD | HDMI

USER GUIDE

PRODUCT APPLICATION & MARKET SECTORS

Corporate | Military | Education | Medical

House of Worship | Residential | Industrial | Aviation

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1.1 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.

1.2 SAFETY INSTRUCTIONS

The Avenview HDM-SWITCHPRO-4X2USB, HDMI Extender has been tested for conformity to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment's, the HDM-SWITCHPRO-4X2USB 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.

1.3 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.
	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.



SECTION 2: INTRODUCTION

This 4K@60 4 by 2 Matrix is a high performance HDMI/USB-C matrix switcher with integrated scaling, multi-window mode, and USB with mouse control interface. With the seamless switch feature, it is an ideal solution for monitoring or displaying multiple sources simultaneously for control rooms, conference rooms or classrooms. Any of 4 different sources including HDMI and USB-C may be displayed individually, full screen, or multi-window mode including quad mode, PiP, and PoP with the output being sent to 2 HDMI outputs. Management of input/window routing, position and sizing can be controlled easily by use the with a USB mouse. Video resolution is up to 4K@60Hz and LPCM audio 2 channel at 48kHz are supported on both input and output ports. This unit is fully compatible with the HDCP 1.x and 2.2 standards.

Best for use in:

- Conference call & meeting room presentation
- Show Room & Demo Room
- Lecture Room & Hall Presentation
- Public Commercial Display
- Multiview Video Monitoring

2.1 PACKAGE CONTENTS



HDM-SWITCHPRO-4X2USB
×1pcs



24V/7.5A DC Power Adapter
×1pcs



UserManual
×1pcs



3-Pin Phoenix Connector
×1pcs

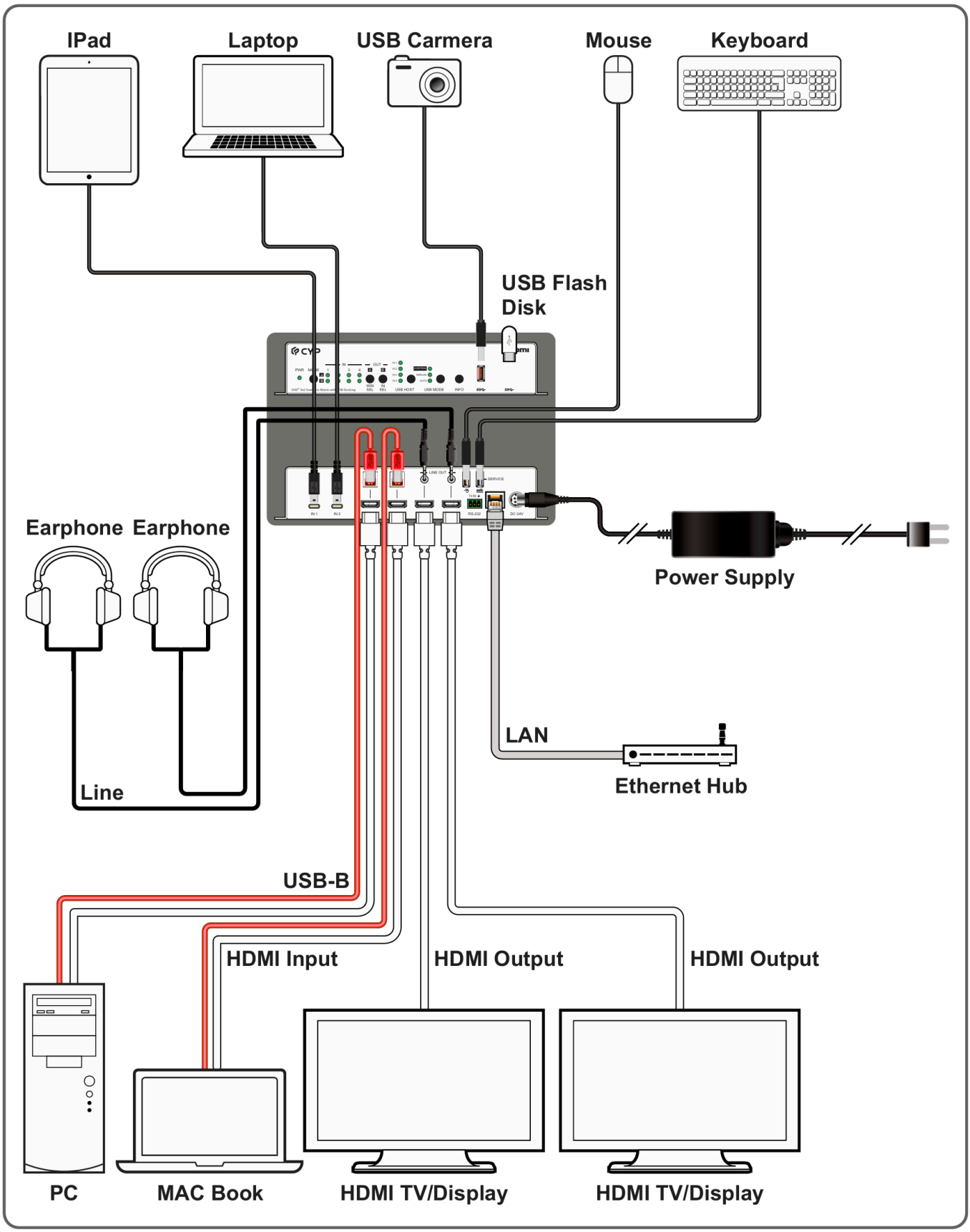


Shockproof Feet (Set of 4)
×1pcs

2.2 BEFORE INSTALLATION

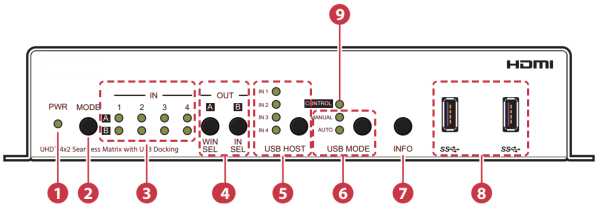
- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction.
- Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- Please completely disconnect the power when the unit is not in use to avoid wasting electricity.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.

2.3
APPLICATION DAIGRAM



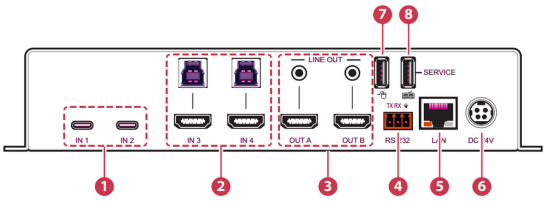
2.4 DEVICE DESCRIPTION & LAYOUT

2.4.1 Front Panel (HDM-SWITCHPRO-4X2USB)



1	**Power light**	This LED will illuminate to indicate the unit is on and receiving power. Note: When layout selection is active the LED will blink.
2	**MODE Button**	Press this button to sequentially switch the operational mode between Dual Monitor (matrix), 2 Display, 3 Display, and 4 Display. Press and hold the button for 3 seconds will activate layout selection, and additional presses will sequentially step through the available layouts. Press and hold again to back out from layout selection.
3	**A~B/IN 1~4 LEDs**	In Matrix mode, these LED's indicate the currently selected sources (IN 1~4) routed to each of the two outputs (OUT A~B). When the unit is in a multi-windowing mode (PiP/PoP/Quad/Preset) all LEDs will be illuminated simultaneously
4	**OUT A/B WIN/IN SEL Buttons**	In Matrix mode, press either of these buttons to activate source selection for the associated output. In multiwindowing modes (2/3/4 Display) OUT A/WIN SEL button will activate window selection, or additional presses will sequentially step through the available windows. Press OUT B/IN SEL button to sequentially switch the source for the currently selected window. Note: Press and hold OUT B button for 3 seconds will put the border highlighted window in Matrix mode. Press and hold again to back out from Matrix mode.
5	**USB HOST Button**	Press this button to sequentially switch the USB host ports. IN 1~2 selects the USB Type-C ports, and IN 3~4 selects the USB Type-B ports on the unit.
6	**USB MODE Button** **Manual & Auto LEDs**	Press this button to enable or disable the automatic selection of the USB host port. The illuminated LED indicates which mode is currently selected for USB.
7	**Info Button**	Press this button to activate the information OSD, additional presses will sequentially step through the available information OSD. Press and hold the button for 3 seconds will sequentially step through OUT A mute, OUT B mute, all mute, and unmute. Note: Press and hold this button when power up will reset the unit back to its factory default settings.
8	**USB 3.2 Device Ports (Type-A)**	Connect directly to standard USB devices such as a mouse, keyboard or flash drive to extend their USB functionality to the host connected to the USB 3.2 Host Port.
9	**Control LED:**	This LED will illuminate to indicate the unit is in normal control mode. When the unit is in window lock mode the LED will be off.

2.4.2 Rear Panel (HDM-SWITCHPRO-4X2USB)



1	**USB-C IN 1~2 Ports**	Connect to USB Type-C host or video source equipment such as a PCs or laptops. When the USB-C port has "USB3.2" support active, this port can support 4K60 A/V, Ethernet, and USB simultaneously. When "USB3.2" is disabled, this port will support full bandwidth 4K60 A/V content but USB data functionality will be limited to USB 2.0 levels. Input 1 provides up to 45W and input 2 provides 30W of power to connected device. Note 1: Not all devices with USB Type-C ports can support video output. Please verify that the device supports video output from the USB Type-C port before attempting to use it as a video source. Note 2: When USB3.2 is enabled, the output resolution may vary from USB-C sources.
2	**HDMI IN 3~4 Ports**	Connect to HDMI source equipment such as media players, game consoles, or set-top boxes. DVI source are supported with the use of an HDMI to DVI adapter.
	USB 3.2 Host 3~4 Ports (Type-B)	Connect directly to a standard USB hosts such as a PC or laptop to extend their USB functionality to all currently connected USB devices.
3	**HDMI OUT A~B Ports**	Connect to HDMI TVs, monitors, or amplifiers for digital video and audio output.
	LINE OUT Ports	Connect to powered speakers or amplifiers for analog stereo audio output.
4	**RS-232**	Connect directly to a PC, laptop, or other serial control device with a 3-pin adapter cable to send RS-232 commands to control the unit.
5	**Lan Port**	Connect directly, or through a network switch, to your PC/ laptop to control the unit via Telnet and to extend the network across the USB Type-B and Type-C ports.
6	**DC 24V Port:**	Plug the 24V DC power adapter into this port and connect it to an AC wall outlet for power.
7	**USB 2.0 Mouse Port**	Connect directly to standard USB devices such as a mouse to extend their USB functionality, or to control the unit.
7	**USB 2.0 Keyboard/ Service Port**	Connect directly to standard USB devices such as keyboard to extend their USB functionality, or to control the unit. Firmware update is also available on this port.

SECTION 5: SPECIFICATIONS

Interfaces	
Input Port 2	HDMI(Type-A) 2 USB(Type-C)
Output Port 2	HDMI(Type-A) 2 Stereo Audio (3.5mm)
Control I/O	1 RS-232 (3-pin Terminal Block)
Pass-through Port	2 USB(Type-B) 2 USB (Type-A) 2 USB(Type-A) 1 LAN (RJ-45)
Service Port	1 USB (Type-A) *Combined with USB of Keyboard
USB	
Input Port	
Type	Type-C
Generation	USB3.2 Gen1
Transfer Rate	5Gbps
Pass-through Ports	
Type	Type-A | Type-B
Generation	2 USB3.2 Gen1 2 USB2.0 | 2 USB3.2 Gen1
Transfer Rate	5Gbps (USB3.2 Gen1) | 5Gbps 480Mbps (USB2.0)
Video	
HDMI Compliance	2.0 (DVI 1.0
HDCP Compliance	2.2
Input/Output Signal Types	4K@60 8bit YUV/RGB 4:4:4
Maximum Input/Output	HDMI 4096×2160p@60(input/output) | 2560×1600p@60RB (just output)
Audio	
HDMI	LPCM (2 channel, 48kHz) | Dolby Digital pass-through | DTS 5.1 channel pass-through
Power	
Power Supply	24V/7.5A
Power Consumption	140W
Enclosure	
Chassis Material	Metal (Steel)
Chassis Color	Black
Dimensions (W×H×D)	213.5mm×44mm×158mm [Case Only] 231.5mm×49mm×163mm [All Inclusive]
Weight	1270g

Notes

Avenview Warranty Certificate

AVENVIEW CORP. ("Avenview") warrants Avenview-branded product(s) contained in the original packaging against defects in materials and workmanship when used normally in accordance with Avenview's enclosed manual guidelines for a period of THREE (3) YEARS from the date of original retail purchase - Warranty Period. Avenview's published guidelines include but are not limited to information contained in technical specifications, user manuals and service communications.

LABOR: During the Warranty Period of THREE (3) YEARS, Avenview will repair or replace the product(s) at no cost using new or used parts equivalent to novel performance and reliability if the product(s) is determined to have abide by Avenview's published guidelines. Cost of Labor applicable to product(s) after Warranty Period. For labor costs, please contact **support@avenview.com**.

PARTS: During the Warranty Period of of THREE (3) YEARS, Avenview will supply new or rebuilt replacements in exchange for defective parts of the product(s) at no cost if the product(s) is determined to have abide by Avenview's published guidelines. Cost of Parts applicable to product(s) after Warranty Period. For part(s) costs, please contact **support@avenview.com**.

To obtain Warranty: (a) proof of purchase in the form of a bill of sale or receipted invoice reflecting that the registered product(s) is within warranty period must be presented to obtain warranty service; (b) product(s) must be registered at time of purchase. Failure to do so will result in applicable parts and labor charges. Returning product(s) must be shipped in Avenview's original packaging or in packaging pertaining equal degree of protection to Avenview's. Both Avenview and purchaser are responsible for freight charges and brokerages when shipping the product(s) to the receiver.

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Avenview

275 Woodward Avenue, Kenmore, NY 14217
1.866.508.0269



AVENVIEW CORP

+ 1 716 218 4100

sales@avenview.com

+ 1 866 387 8764

1100 Military Road Kenmore, NY |4217

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