A-NEUVIDEO ANI-PiP-42UHD 4X2 4K60 UHD Multiviewer Seamless Video Matrix Switcher Instruction Manual

Contents

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SAFETY INFORMATION

1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment. Retain all documentation for future reference.
2. Follow all instructions printed on unit chassis for proper operation.
3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
10. Turn power off and disconnect unit from AC current before making connections.
11. Never hold a power switch in the “ON” position.
12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically “blown free” of foreign dust and matter.
14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
15. When moving the unit, disconnect input ports first, then remove the power cable; finally, disconnect the

interconnecting cables to other devices.

16. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
19. Service Information Equipment should be serviced by qualified service personnel when:
    1. The power supply cord or the plug has been damaged.
    2. Objects have fallen, or liquid has been spilled into the equipment.
    3. The equipment has been exposed to rain.
    4. The equipment does not appear to operate normally, or exhibits a marked change in performance.
    5. The equipment has been dropped, or the enclosure damaged.

Dear Customer
Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

INTRODUCTION

This product is an 18G HDMI video switcher with (4) HDMI inputs and (2) scaling HDMI outputs. Each input and output supports up to 4K60 444 HDMI 18G video. The outputs can be individually scaled for 1080p or HDBaseT™ compatibility. De-embedded audio as analogue L+R and optical TosLink is available for both outputs. The Matrix Switcher can automatically control the display device using RS-232, CEC or IR when the last input signal is lost, or when the first video input is detected. This switcher can be controlled from the front panel, RS-232, IR, or LAN. This product has a 3 year warranty.

PACKAGE CONTENTS

Before attempting to use this unit, please check the packaging and make sure the following items are contained in the shipping carton:

- ANI-42HDFIX 4×2 HDMI 2.0 18Gbps Matrix Switcher
- 12V/1A Locking Power Adapter
- IR Remote
- (2) Mounting Ears
- IR Blaster Cables (4.9ft / 1.5M)
- 20~60KHz IR Receiver Cable (4.9ft / 1.5M)
- (5) 3-pin Phoenix Connectors
- Users Guide

SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.

- 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.
- Do not attach the power supply cabling to building surfaces.
- 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.
- 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.

DISCLAIMERS

The information in this manual has been carefully checked and is believed to be accurate. We assume no responsibility for any infringements of patents or other rights of third parties which may result from its use. We assume no responsibility for any inaccuracies that may be contained in this document. We make no commitment to update or to keep current the information contained in this document. We reserve the right to make improvements to this document and/or product at any time and without notice.

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FEATURES

- HDMI 2.0, HDCP 2.2 / HDCP 1.4 and DVI 1.0 compliant
- (4) 18G HDMI 2.0 video inputs supporting up to 4K60 444 resolution
- 2) 18G HDMI 2.0 video outputs supporting up to 4K60 444 resolution
- Both outputs can be individually scaled for 4K→1080p or HDBaseT™ mode
- Automatic RS-232, CEC and IR control of the display device power state
- (2) sets of de-embedded audio analogue and TosLink outputs, for both outputs
- ARC decoding to the TosLink audio outputs only
- Test Pattern mode for testing output signal integrity to the display
- Built-in Web GUI for LAN control
- (4) methods of control: Front panel, RS-232, IR and LAN

Resolution / Cable Length	4K60 – Feet / Meters	4K30 – Feet / Meters	1080P60 – Feet / Meters
HDMI IN / OUT	16ft / 5M	32ft / 10M	50ft / 15M
The use of “Premium High Speed HDMI” cable is highly recommended.			

SPECIFICATIONS

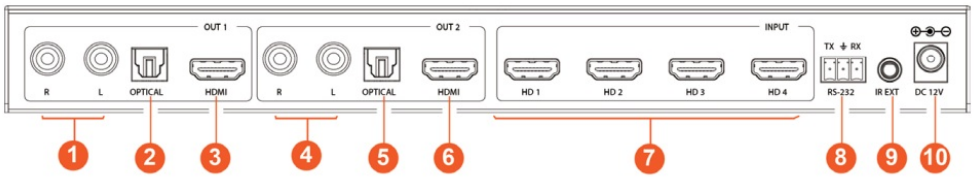
- **Input Ports:** (4) HDMI Type A [19-pin female]
- **Output Ports:**
  - (2) HDMI Type A [19-pin female]
  - (2) L/R audio out [3-pin phoenix connector]
  - (2) OPTICAL audio out [S/PDIF]
  - (2) RS-232 A/B [3-pin phoenix connector]
- **Control Port:**
  - LAN [RJ45]
  - (3) RS-232 [3-pin phoenix connector]
  - IR IN [3.5mm Stereo Mini-jack]
  - (2) IR OUT A/B [3.5mm Stereo Mini-jack]
- **HDMI Compliance:** HDMI 2.0
- **HDCP Compliance:** HDCP 2.2 and HDCP 1.4
- **Video Bandwidth:** 18Gbps
- **Video Resolutions:**
  - 4K2K 50/60Hz 4:4:4
  - 4K2K 50/60Hz 4:2:0
  - 4K2K 30Hz 4:4:4
  - 1080p, 1080i, 720p, 720i, 480p, 480i
  - All HDMI 3D TV formats
  - All PC resolutions including 1920 x 1200
- **3D Support:** Yes
- **Output Scaling:**
  - 4K to 1080p
  - 4K to HDBaseT™ (Down-scale to no more than 10.2Gbps)
- **Color Space:** RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
- **Color Depth:** 8-bit, 10-bit, 12-bit [1080P, 4K30Hz, 4K60Hz (YCbCr 4:2:0)] 8-bit [4K60Hz (YCbCr4:4:4)]
- **HDMI Audio Formats:** PCM2.0/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX,DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
- **HDR Formats:** HDR10, HDR10+, Dolby Vision, HLG
- **L/R Audio Formats:** PCM2.0CH (Note: If ARC function is turned on, the audio port will mute.)
- **Optical Audio Formats:** PCM2.0, Dolby Digital / Plus, DTS
- **Audio Frequency:** Response 20Hz to 20kHz, ±3dB

- **RS-232 Control:** 57600, No parity, 8 data bits, 1 stop bit, No handshaking
- **RS-232-A and RS-232-B:** Configurable from 4800 to 115200 baud; 7 or 8 bits; none, odd or even parity and 1 or 2 stop bits.
- **ESD Protection Human Body Model**:
  - ± 8KV (air-gap discharge)
  - ± 4KV (contact discharge)
- **Power Supply:** Input: AC100~240V 50/60Hz / Output: DC12V/1A (Locking connector)
- **Dimensions (WxDxH):** 8.6 x 5.5 x 1.7 in (218x140x43mm)
- **Weight:** 2.3 lbs / 1050g
- **Housing:** Metal Enclosure
- **Color:** Black
- **Operating Temperature:** 0˚C~40˚C / 32˚F~ 104˚F
- **Storage Temperature:** –20˚C~60˚C / –4˚F~140˚F
- **Relative Humidity:** 20~90% RH (non-condensing)
- **Power Consumption**: 4.3W (max)

FRONT PANEL

1. POWER LED: Blue LED indicates that the unit is powered. Red LED indicates that the unit is in standby mode.
2. IR SENSOR: IR input for remote control of the switcher.
3. OUT A / OUT B: LED and button for each output
    1. LED 1 to LED 4: Blue LED Indicates when the input is selected for the respective output.
    2. AUTO LED: Green when Auto detection mode is enabled.
        - Press to select the desired input.
        - Press and hold for 3 seconds to toggle the Auto detection mode.

REAR PANEL



1. **SOURCE:** HDMI Source inputs 1 to 4
2. **DISPLAY:** HDMI outputs for displays A and B.
3. **12V:** Plug DC 12V/1A power supply into the unit and connect the adapter to an AC outlet.
4. **CONTROL**:
    - LAN (RJ45): Control port for LAN control or accessing the built-in Web GUI.

- RS-232: 3-pin pluggable connector for RS-232 control of the Matrix.
- IR IN: IR Eye input for IR control of the Matrix.

5. **RS-232-A** / **RS-232-B:** 3-pin pluggable connectors for RS-232 of the display devices.
    1. IR OUT A / IR OUT B: IR eye output for IR control of the display devices.
6. **AUDIO OUT A:** TosLink connector for optical audio from HDMI Output A / 3-pin pluggable connector for stereo audio from HDMI Output A.
7. **AUDIO OUT B:** TosLink connector for optical audio from HDMI Output B / 3-pin pluggable connector for stereo audio from HDMI Output B.
8. **EARTHING POINT:** Screw terminal for earthing the Matrix.

Connecting to the Matrix

1. Connect the desired HDMI input sources.
2. Connect the desired HDMI display devices.
3. Connect any CONTROL inputs that may be required: LAN, RS-232, or IR IN.
4. Connect any Display control port: RS-232-A, RS-232-B, IR OUT A or IR OUT B.
5. Connect any audio devices to either the Optical or L+R outputs.
6. Connect the 12V DC PSU.

Using the Matrix

Power LED and Standby Mode

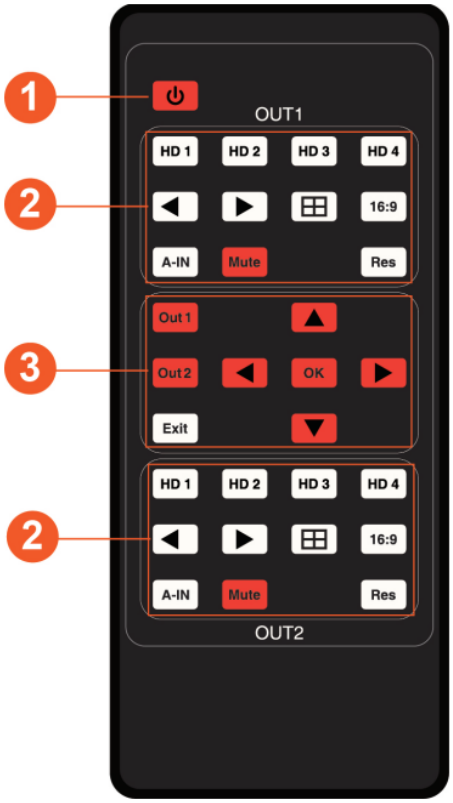
The Power LED provides the following indications:

Colour	Description
Blue	The Matrix is active and fully controllable
Red	The Matrix is in standby mode, this state can be changed by using RS-232 or LAN co mmands, or from the Web GUI interface.

Auto LED and Button
The green AUTO LED for both outputs A and B is lit when that channel has its Auto Detection mode active. Auto Detection mode will detect any new HDMI signals and immediate switch to the input. If the currently selected input is removed then the switcher will switch to the next available input, or remain on the current input if there are no active HDMI input signals.
The change the Auto Detection mode, press and hold the button for that channel for 3 seconds until the Auto LED changes state.

Selecting Inputs
Manual Selection of the inputs is done by briefly pressing the push button repeatedly for that channel until the desired input is selected. Manual selection is always possible, irrespective of the Auto LED state. Selected inputs that have no signal will be indicated by a flashing LED.

REMOTE CONTROL



Power on the product or set it to standby mode.

OUTPUT A / B:

- 1/2/3/4: Select input source signal to Out A / B port output, corresponding Out A / B LED on the front panel illuminates in blue.
- ►: Select the last or next input source signal to OUT A / B port output, corresponding Out A / B LED on the front panel illuminates in blue.
- AUTO: Turn on / off AUTO function.
- 4K/HD: Select Out A / B 4K→1080P downscale output. For example, if source is 4K but TV only supports 1080P, the input resolution with 4K will downscale to 1080P to TV output.

IR CODES

USER CODE:	00FF			
POWER	00FF 14			
OUTPUT A 1	00FF 19		OUTPUT B 1	00FF 5E
OUTPUT A 2	00FF 1B		OUTPUT B 2	00FF 06
OUTPUT A 3	00FF 11		OUTPUT B 3	00FF 05
OUTPUT A 4	00FF 15		OUTPUT B 4	00FF 03
OUTPUT A AUTO	00FF 17		OUTPUT B AUTO	00FF 47
OUTPUT A PRE	00FF 19		OUTPUT B PRE	00FF 07
OUTPUT A NXT	00FF 59		OUTPUT B NXT	00FF 40
OUTPUT A 4K	00FF 08		OUTPUT B 4K	00FF 02

Power Toggle	08F7 4D		Aspect Ratio (OUT 1)	08F7 43
HD Input 1 (OUT 1)	08F7 09		Aspect Ratio (OUT 2)	08F7 53
HD Input 2 (OUT 1)	08F7 54		Resolution (OUT 1)	08F7 03

HD Input 3 (OUT 1)	08F7 47		Resolution (OUT 2)	08F7 51
HD Input 4 (OUT 1)	08F7 42		A-IN (OUT 1)	08F7 0C
HD Input 1 (OUT 2)	08F7 4F		A-IN (OUT 2)	08F7 18
HD Input 2 (OUT 2)	08F7 44		MUTE (OUT 1)	08F7 19
HD Input 3 (OUT 2)	08F7 50		MUTE (OUT 2)	08F7 45
HD Input 4 (OUT 2)	08F7 0E		Out 1 OSD (OUT 1)	08F7 55
Previous Source (OUT 1)	08F7 08		Out 1 OSD (OUT 2)	08F7 4C
Next Source (OUT 1)	08F7 48		Exit OSD	08F7 40
Previous Source (OUT 2)	08F7 13		OK	08F7 56
Next Source (OUT 2)	08F7 12		Menu Up	08F7 4E

Cycle Multiview (OUT 1)	08F7 4B		Menu Down	08F7 11
Cycle Multiview (OUT 2)	08F7 15		Menu Left	08F7 0D
			Menu Right	08F7 16

EDID SETTINGS

User can select following EDID modes via RS-232 command or OSD menu navigation.

No.	**EDID Mode**		**No.**	**EDID Mode**
1	4K2K60_444, Stereo Audio 2.0		11	1680×1050, Stereo Audio 2.0
2	4K2K60_444, Dolby/DTS 5.1		12	1600×1200, Stereo Audio 2.0
3	4K2K60_444, HD Audio 7.1		13	1440×900, Stereo Audio 2.0
4	4K2K30_444, Stereo Audio 2.0		14	1360×768, Stereo Audio 2.0
5	4K2K30_444, Dolby/DTS 5.1		15	1280×1024, Stereo Audio 2.0

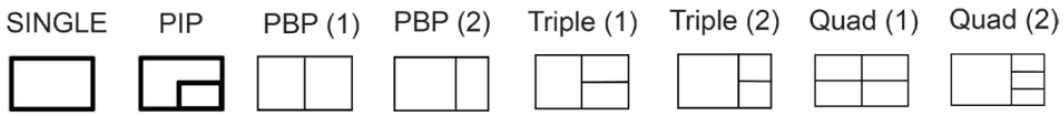
6	4K2K30_444, HD Audio 7.1		16	1024×768, Stereo Audio 2.0
7	1080P, Stereo Audio 2.0		17	720p, Stereo Audio 2.0
8	1080P, Dolby/DTS 5.1		18	AUTO
9	1080P, HD Audio 7.1		19	USER1
10	1920×1200, Stereo Audio 2.0			

VIDEO & AUDIO

The switcher supports multiple resolution video input up to 3840×2160@60, and supports multiple audio formats (PCM2.0/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio) pass-through function via HDMI cable. The switcher supports following video output resolutions via a powerful scaling engine. The switcher supports following video output resolutions via a powerful scaling engine.

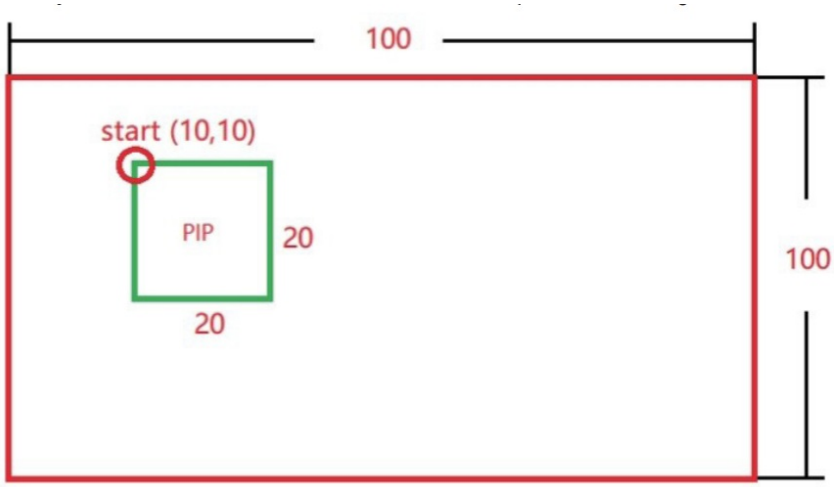
No.	EDID Mode		No.	EDID Mode
1	4K60-2.0CH		8	1920×1200-2.0CH
2	4K60-5.1CH		9	1680×1050-2.0CH
3	4K60-7.1CH		10	1600×1200-2.0CH
4	4K30-2.0CH		11	1440×900-2.0CH
5	4K30-5.1CH		12	1360×768-2.0CH
6	4K30-7.1CH		13	1280×1024-2.0CH
7	1080P-2.0CH		14	1024×768-2.0CH

The switcher supports (8) categories of multiview display modes: SINGLE, PIP, PBP (1), PBP (2), Triple (1), Triple (2), Quad (1), Quad (2)
Users can select different operations for different Multiview modes as following:
SINGLE: Inputs selection
PIP: Inputs selection, Sub window size and position selection
PBP (1), PBP (2), Triple (1), Triple (2), Quad (1), Quad (2): Inputs selection, Display mode selection.
Display aspect selection Multiview window distributions are as following:



Users can select Multiview modes via RS-232 commands or OSD menu navigation.
* The ANI-PIP-42UHD switcher supports customized PIP size and location via RS-232 commands.
The command format is **"s output y PIP Hstart Vstart Hsize Vsize!"**
y=output channel Hstart=(1~100) Vstart=(1~100) Hsize=(1~100) Vsize=(1~100)

For example: the command **"s PIP 10 10 20 20!"** will produce an image as shown below:



1. A total of eight buttons on the IR Remote are used for OSD menu navigation, including OUT 1, OUT 2, Exit, /,/ / **OK**. Menu contents are as follows:

   Menu contents are as follows:

Output	Resolution	3840x2160p60	4096x2160p 60Hz / 4096x2160p 50Hz / 3840x2160p 60Hz / 3840x2160p 50Hz / 3840x2160p 30Hz / 3840x2160p 25Hz / 1920x1200p60Hz RB / 1920x1080p 60Hz / 1920x1080p 50Hz / 1360x768p 60Hz / 1280x800p 60Hz / 1280x720p 60Hz / 1280x720p 50Hz / 1024×768 60Hz
	VKA	BLACKSCREEN	BLACKSCREEN, BLUESCREEN
	ITC	OFF	ON,OFF
	Single	Input select	HDMI1, HDMI2, HDMI3, HDMI4

Multiview	PIP	Win1 Select	HDMI1, HDMI2, HDMI3, HDMI4
		Win2 Select	HDMI1, HDMI2, HDMI3, HDMI4
		PIP Position	Right Bottom, Right Top, Left Bottom, Left Top
		PIP Size	Small, Middle, Large
	PBP	Win1 Select	HDMI1, HDMI2, HDMI3, HDMI4
		Win2 Select	HDMI1, HDMI2, HDMI3, HDMI4
		MODE	1, 2
		Aspect	Full, 16:9
		Win1 Select	HDMI1, HDMI2, HDMI3, HDMI4
		Win2 Select	HDMI1, HDMI2, HDMI3, HDMI4

	3xWIN	Win3 Select	HDMI1, HDMI2, HDMI3, HDMI4
		MODE	1, 2
		Aspect	Full, 16:9
	4xWIN	Win1 Select	HDMI1, HDMI2, HDMI3, HDMI4
		Win2 Select	HDMI1, HDMI2, HDMI3, HDMI4
		Win3 Select	HDMI1, HDMI2, HDMI3, HDMI4

Multiview		MODE	1, 2
		Aspect	Full, 16:9
	Audio Select	WIN1	WIN1, HDMI1, HDMI2, HDMI3, HDMI4

AUDIO	Volume	100	0..100
	Audio-Mute	OFF	ON, OFF
System	EDID	4K60-2.0	4K60-2.0, 4K60-5.1CH, 4K60-7.1CH, 4K30-2.0CH, 4K30-5.1CH, 4K30-7.1CH, 1080P-2.0CH, 1080P-5.1CH, 1080P-7.1CH, 1920×1200-2.0CH, 1680×1050-2.0CH, 1600×1200-2.0CH, 1440×900-2.0CH, 1360×768-2.0CH, 1280×1024-2.0CH, 1024×768-2.0CH, 720P-2.0CH, AUTO

2 A total of two buttons on the IR Remote are used for audio setting on OSD menu navigation, including A-IN, Mute. Menu contents are as follows:

A-IN	Audio Input	WIN1	WIN1,HDMI1,HDMI2,HDMI3, HDMI4
Mute	Audio Mute	OFF	ON, OFF

The product also supports RS-232 command control. Connect the RS-232 port of the product to a PC with a 3-pin phoenix connector cable. Then, open a Serial Command tool on PC to send ASCII commands to control the product.
The ASCII command list about the product is shown as below.

ASCII Commands			
Serial port protocol: baud rate: 115200(default) Data bits: 8 Stop bits: 1 Check bit: 0			
x – Parameter 1; y – Parameter 2; ! – Delimiter			
Command Code	**Function Description**	**Example**	**Feedback**
System Setting			
help!	List all commands	help!	
r type!	Get device model	r type!	4×1 HDMI Multiviewer
r fw version!	Get Firmware version	r fw version!	MCU FW version x.xx.xx SCALER FW version x.xx.xx

power z!	Power on/off the device, z=0~1(z=0 power off, z=1 power on)	power z!	power on System Initializing… Initialization Finished! MCU FW version x.xx.xx SCALER FW version x.xx.xx
r power!	Get current power state	r power!	power on/power off
reboot!	Reboot the device	reboot!	Reboot… System Initializing… Initialization Finished! MCU FW version x.xx.xx SCALER FW version x.xx.xx
reset!	Reset to factory defaults	reset!	Reset to factory defaults System Initializing…Initialization Finished! MCU FW version x.xx.xx SCALER FW version x.xx.xx
Output Setting			

s output y res x!	Set Output y Resolution (y=1~2, x=1~14) y=1. output 1 y=2. output 2 1. 4096x2160p60, 2. 4096x2160p50, 3. 3840x2160p60, 4. 3840x2160p50, 5. 3840x2160p30, 6. 3840x2160p25,	s output res 3!	out resolution: 3840x2160p60

Command Code	**Function Description**	**Example**	**Feedback**
Output Setting			

s output y res x! ***cont'd***	7. 1920x1200p60RB, 8. 1920x1080p60, 9. 1920x1080p50, 10.1360x768p60, 11.1280x800p60, 12.1280x720p60, 13.1280x720p50, 14. 1024x768p60,	s output res 3!	out resolution: 3840x2160p60
r output y res!	Get output y resolution (y=1~2) 1. output 1 2. output 2	r output res!	output 1 resolution: 3840x2160p60
s output hdcp x!	set output hdcp (y=1~2, x=1~3) y=1. output 1 y=2. output 2 x=1. HDCP 1.4 x=2. HDCP 2.2 x=3. HDCP OF F	s output 1 hdcp 2!	output 1 HDCP: HDCP 1.4

r output y hdcp!	Get output y hdcp status. (y=1 ~2) 1. output 1 2. output 2	r output 1 hdcp!	output 1 HDCP: HDCP 1.4
s output y vka x!	Set output video keep active p attern. (y=1~2, x=1~2) y=1. ou tput 1 y=2. output 2 x=1. black scree n x=2. blue screen	s output 1 vka 1!	output 1 VKA pattern: black screen
r output y vka!	Get output y video keep active pattern. (y=1~2) 1. output 1 2. output 2	r output 1 vka!	output 1 VKA pattern: black screen
s output y itc x!	Set output video mode (y=1~2, x=1~2) y=1. output 1 y=2. output 2 x=1: video mode x=2: pc mode	s output 1 itc 1!	output 1 ITC: video mode

r output y itc!	Get output video mode (y=1~2) 1. output 1 2. output 2	r output 1 itc!	output 1 ITC: video mode

Command Code	**Function Description**	**Example**	**Feedback**
EDID Setting			

s input EDID x!	Set HDMI input EDID mode (x=1~19) 1. 4K2K60_444,Stereo Audio 2.0 2. 4K2K60_444,Dolby/DTS 5.1 3. 4K2K60_444,HD Audio 7.1 4. 4K2K30_444,Stereo Audio 2.0 5. 4K2K30_444,Dolby/DTS 5.1 6. 4K2K30_444,HD Audio 7.1 7. 1080P,Stereo Audio 2.0 8. 1080P,Dolby/DTS 5.1 9. 1080P,HD Audio 7.1 10.1920×1200,Stereo Audio 2.0 11.1680×1050,Stereo Audio 2.0 12.1600×1200,Stereo Audio 2.0 13.1440×900,Stereo Audio 2.0 14.1360×768, Stereo Audio 2.0 15.1280×1024,Stereo Audio 2.0 16.1024×768, Stereo Audio 2.0 17. 720p,Stereo Audio 2.0 18.AUTO 19. USER1	s input EDID 1!	input EDID:4K2K60_444, Stereo Audio 2.0
r input EDID!	Get input EDID mode	r input EDID!	input EDID:4K2K60_444, Stereo Audio 2.0
s edid user1 00 FF FF …!	Set user1 EDID data	s edid user1 00 FF FF FF FF …!	user1 EDID data: 00 FF FF ….

r edid user1!	Get user1 EDID data	r edid user1!	user1 EDID data: 00 FF FF FF FF FF FF 00 ……
Audio Setting			
s output y audio x!	Set output y udio source (y=1~2, x=0~4) y=1. output 1 y=2. output 2 x=0. follow window 1 selected source x=1. HDMI 1 input audio x=2. HDMI 2 input audio x=3. HDMI 3 input audio x=4. HDMI 4 input audio	s output 1 audio 0!	output 1 audio follow window 1 video source
r output y audio!	Get output y audio source (y=1~2) 1. output 1 2. output 2	r output 1 audio!	output 1 audio follow window 1 video source

s output y audio mute x!	Set output audio mute on/off (x=0 ~1, y=1~2) y=1. output 1	s output 1 audio mute 0!	output 1 audio mute off

Command Code	**Function Description**	**Example**	**Feedback**
s output y audio mute x! ***cont'd***	y=2. output 2 x=0. mute off x=1. mute on	s output 1 audio mute 0!	output 1 audio mute off
r output y audio mute!	Get output y audio mute on/off (y =1~2) 1. output 1 2. output 2	r output 1 audio mute!	output 1 audio mute off
Single Screen Mode Setting			

s output y auto switch x!	Enable/disable auto switch feature(y=1~2,x=0~1) y=1. output 1 y=2. output 2 0. Disable auto switch 1. Enable auto switch	s auto switch 0!	auto switch off
r output y auto switch!	Get output y auto switch feature (y=1~2) 1. output 1 2. output 2	r auto switch!	auto switch off
s output y in source x!	Route input source to output y (y= 1~2, x=1~4) y=1. output 1 y=2. output 2 x=1. HDMI 1 x=2. HDMI 2 x=3. HDMI 3 x=4. HDMI 4	s in source 1!	HDMI 1

r output y in source!	Get output y secected input sourc e(y=1~2) 1. output 1 2. output 2	r in source!	HDMI 1
Multi-viewer Mode Setting			
s output y multiview x!	Set output y multi-viewer display mode(y=1~2, x=1~5) y=1. output 1 y=2. output 2 x=1. single screen x=2. PIP x=3. PBP x=4. triple screen x=5. quad scree n	s output 1 multiview 1!	output 1 multiview: single screen
r output y multiview!	Get output y multi-viewer display mode(y=1~2) 1. output 1 2. output 2	r output 1 multiview!	output 1 multiview: single screen

Command Code	Function Description	Example	Feedback
s output z window x in y!	Select output z one input for one display window for the current Multiview mode. (z=1~2) 1. output 1 2. output 2 (x=1~4) 1. window 1 2. window 2 3. window 3 4. window 4 (y=1~4) 1. HDMI 1 2. HDMI 2 3. HDMI 3 4. HDMI 4	s output 1 window 1 in 1!	output 1: window 1 select HDMI 1

r output y window x in!	Get output y windows selected in put source (y=1~2) 1. output 1 2. output 2 (x=0~4) 0. ALL 1. window 1 2. window 2 3. window 3 4. window 4	r output 1 window 1 in!	oupput 1 window 1 select HDMI 1
s output y PIP position x!	Set output y PIP window position (y=1~2) 1. output 1 2. output 2 (x=1~4) 1. Left Top 2. Left Bottom 3. Right Top 4. Right Bottom	s output 1 PIP position 3!	output 1 PIP on right top

r output y PIP position!	Get ouput y PIP window positon (y=1~2) 1. output 1 2. output 2	r output 1 PIP position!	output 1 PIP on right top
s output y PIP size x!	Get output y PIP window size (y=1~2) 1. output 1 2. output 2 (x=1~3) 1. small 2. middle 3. large	s output 1 PIP size 3!	output 1 PIP size large

Command Code	**Function Description**	**Example**	**Feedback**

r output y PIP size!	Get output y PIP window size (y=1~2) 1. output 1 2. output 2	r output 1 PIP size!	output 1 PIP size large
s output y PBP mode x!	Set output y PBP windows display mode (y=1~2) 1. output 1 2. output 2 (x=1~2) 1. PBP mode 1 2. PBP mode 2	s output 1 PBP mode 1!	output 1 PBP mode 1
r output y PBP mode!	Get output y PBP windows displa y mode (y=1~2) 1. output 1 2. output 2	r output 1 PBP mode!	output 1 PBP mode 1

s output y PBP aspect x!	Set output y PBP windows display aspect ratio (y=1~2) 1. output 1 2. output 2 (x=1~2) 1. Full screen 2. 16:9	s output 1 PBP aspect 1!	output 1 PBP aspect full screen
r output y PBP aspect!	Get output y PBP windows displa y aspect ratio (y=1~2) 1. output 1 2. output 2	r output 1 PBP aspect!	output 1 PBP aspect full screen
s output y triple mode x!	Set output y triple windows displa y mode (y=1~2) 1. output 1 2. output 2 (x=1~2) 1. triple mode 1 2. triple mode 2	s output 1 triple mode 1!	output 1 triple mode 1

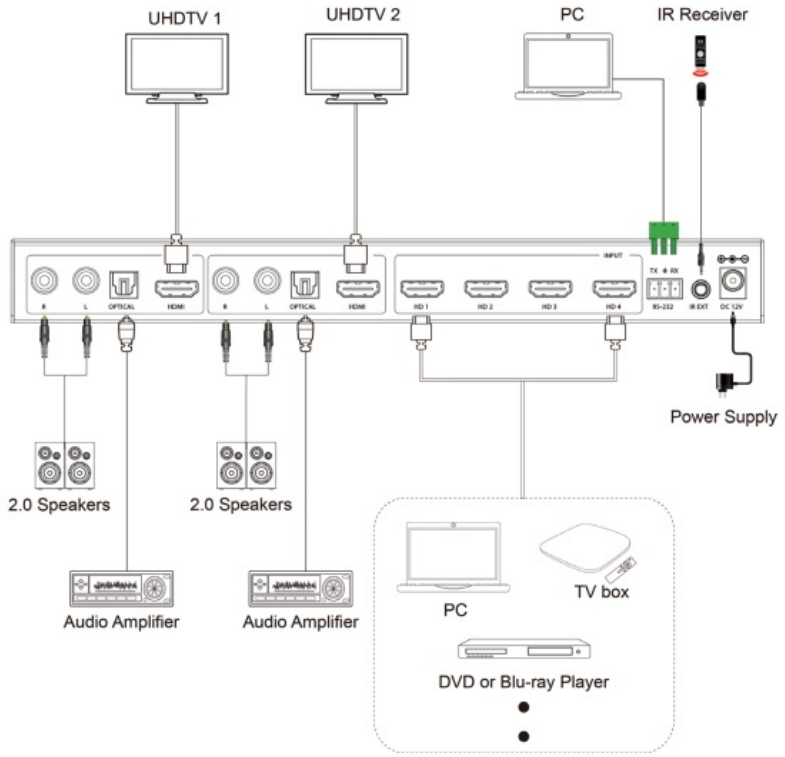
r output y triple mode!	Get output y triple windows displa y mode (y=1~2) 1. output 1 2. output 2	r ouput 1 triple mode!	output 1 triple mode 1
s output y triple aspect x!	Set output y triple windows displa y aspect ratio (y=1~2) 1. output 1	s output 1 triple aspect 1!	output 1 triple aspect full screen

Command Code	**Function Description**	**Example**	**Feedback**
s output y triple aspect x! ***cont'd***	2. output 2 (x=1~2) 1. Full screen 2. 16:9	s output 1 triple aspect 1!	output 1 triple aspect full screen

r output y triple aspect!	Get output y triple windows displa y aspect ratio (y=1~2) 1. output 1 2. output 2	r output 1 triple aspect!	output 1 triple aspect full screen
s output y quad mode x!	Set output y quad windows displa y mode (y=1~2) 1. output 1 2. output 2 (x=1~2) 1. quad mode 1 2. quad mode 2	s output 1 quad mode 1!	output1 quad mode 1
r output y quad mode!	Get output y quad windows displa y mode (y=1~2) 1. output 1 2. output 2	r output 1 quad mode!	output1 quad mode 1

s output y quad aspect x!	Set output y quad windows displa y aspect ratio (y=1~2) 1. output 1 2. output 2 (x=1~2) 1. Full screen 2. 16:9	s output 1 quad aspect 1!	output 1 quad aspect full screen
r output y quad aspect!	Get output y quad windows displa y aspect ratio (y=1~2) 1. output 1 2. output 2	r output 1 quad aspect!	output 1 quad aspect full screen
s output y PIP Hst art Vstart Hsize V size!	Set PIP window to user define mode y=Output Channel Hstart=(1~100) Vstart=(1~100) Hsize=(1~100) Vsize=(1~100) NOTE: Hstart+Hsize< =101, Vstart+Vsize< =101	s output 1 PIP 10 10 20 20!	PIP 10 10 20 20

Application Example



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Documents / Resources

	**A-NEUVIDEO ANI-PiP-42UHD 4X2 4K60 UHD Multiviewer Seamless Video Matrix Switcher** [pdf] Instruction Manual ANI-PiP-42UHD, 4X2 4K60 UHD Multiviewer Seamless Video Matrix Switcher, ANI-PiP-42UHD 4X2 4K60 UHD Multiviewer Seamless Video Matrix Switcher, 4K60 UHD Multiviewer Seamless Video Matrix Switcher, UHD Multiviewer Seamless Video Matrix Switcher, Multiviewer Seamless Video Matrix Switcher, Seamless Video Matrix Switcher, Video Matrix Switcher, Matrix Switcher, Switcher

References

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