# 4K Viewer - User Guide



## Description

A four x 4K video input processor with a single 4K Displayport output providing a choice of video modes showing:

- Full screen or any input;
- Quad split showing all four inputs;
- Picture-in-picture showing and two inputs, one full screen and the other as a smaller overlay window.



## Connection

At a minimum to get an image on a display:

- Connect the viewer to the 4K Displayport video input of a monitor or video wall (with daisychain connection). Ensure the Displayport cable is of suitable quality for 4K video.
- Connect a video source to any one of the video inputs on the Viewer.
- Connect the supplied power adaptor.

Add additional video inputs as required.

Video mode control can be by:

- IR remote, supplied.
- Ethernet LAN connection
- RS-232

## **Modes & Control**

There are three ways to select the video modes:

- IR remote control, supplied
- Windows based app, free download
- RS-232 commands

**IR Remote Control:** Provided with the Viewer.



**PiP button:** Press to select Quad split mode, this will show each video input in a quarter of the display area.

DVI, HDMI, HDSDI 1, HDSDI 2 buttons will select the various sources for full screen.

The IR remote control can also be used to access and control the on-screen menu:

BUTTON	FUNCTION
POWER BUTTON	Soft power ON/OFF button.
ATTENTION BUTTON	Use combined with digit keys to enable/disable the IR control of individual monitors or the entire video wall
SEL UP ( $\Lambda$ ) / SEL DN ( $\vee$ )	Move up or down within menus
OSD BACK BUTTON	Use to display the OSD menu and go to the previous OSD screen.
OSD NEXT BUTTON	Use to display the OSD menu and go to the next OSD screen.
DISPLAY BUTTON	When OSD menu displayed, press this button to turn it off.
All other buttons	Disabled

**Note:** IR input on the Viewer is for an external IR remote sensor.

#### Windows Based Application

A basic Windows application available for free download enables switching between Quad split and Full Screen modes. For this to work the PC running the application needs to be connected to the Viewer by network, see below.



When the PC running the application and the Viewer are on the same network the Setup function will help find the Viewer, and it can then be used to select the video modes.

Refresh	Please selec	ect [	OK	
Address	Host Name	MAC Address	Status	
92.168.1.140	VW-109A	00-05-62-03-20-2D	Ready	

#### **Network Connection:**

- Lan1: Network
- Lan2: Direct to PC

### **RS-232 Commands**

In addition the various functions can be access directly with RS-232 commands from a suitable device connected the the Viewer's RS-232 or over the network.

#### Setup: Baud 9600

The relevant commands are:

Function	Command	Description	Acknowledge (if enabled)
Input main video (P1) select	0x98, nn   "+"   "-"   "r"   "R"   "?"	Select P1 video input = value/next input/previous input Reset Query	"nn" = "0x41,0x31" A0: VGA "0x50, 0x31"D0: DP (Default) "0x48,0x31" D1: HDMI "0x48,0x32" D2: HDMI "0x46,0x31" D4: DVI
Source Layout	0x9a, n   "r"   "R"   "?"	Select video source layout = Single, PIP , PBP, 4P Reset, Query	"n": "0"- 1P (Single) (Default) "1"- 2P PIP "2"- 2P PBP (Left Right) "3"- 2P PBP (Top Bottom) "4"- 4P
PIP H position	0xa4, nn   "+"   "-"   "r"   "R"   "?"	Set PIP horizontal position= value/go right/go left Reset Query	PIP window horizontal position. nn: 0x00(left)~0x64(right) Default: 0x64
PIP V position	0xa5, nn   "+"   "-"   "r"   "R"   "?"	Set PIP vertical position= value/go down/go up Reset Query	PIP window vertical position. nn: 0x00(top)~0x64(bottom) Default: 0x64
PIP window size select	0xa6, nn   "r"   "R"   "?"	Select PIP window size = PIP window size value Reset Query	nn: 0x00(smallest)~0x0A (largest) Default: 0x0A
PIP /P2 source select	0xa7, nn   "r"   "R"   "?"	Select PIP or P2 video source = Video source value Reset Query	P2 is: 2P PBP left right: right window 2P PBP top bottom: bottom window 4P: lower left window "nn" = "0x41,0x31" A0: VGA "0x50,0x31" D0: DP
			"0x48,0x31" D1: HDMI (Default) "0x48,0x32" D2: HDMI "0x46,0x31" D4: DVI Please note that PIP or PBP mode should be enabled first before select video source.

P3 source select	0xa7, "c" nn   "r"   "R"   "?"	Select P3 video source = Video source value Reset Query	P3 is upper right window in 4P mode "nn" = "0x41,0x31" A0: VGA "0x50,0x31" D0: DP "0x48,0x31" D1: HDMI "0x48,0x32" D2: HDMI (Default) "0x46,0x31" D4: DVI Please note that 4P PBP mode should be enabled first before select video source.
P4 source select	0xa7, "d" nn   "r"   "R"   "?"	Select P4 video source = Video source value Reset Query	P4 is lower right window in 4P mode "nn" = "0x41,0x31" A0: VGA "0x50,0x31" D0: DP "0x48,0x31" D1: HDMI "0x48,0x32" D2: HDMI "0x46,0x31" D4: DVI Please note that 4P PBP mode should be enabled first before select video source.