



KA281 HDMI VIDEO WALL CONTROLLER 3X3 4K-LITE VERSION



Introduction

The 4K60 1x10 Video Wall Controller is designed to realize truly capturing, AD converting, routing, and distributing all-format signal to the video wall (LCD displays), while maintaining a true digital signal transmission. It features HDMI™ and USB-C dual inputs with resolution up to 4K@60 4:4:4, and 10 HDMI™ outputs. The product supports multiple video wall modes, such as 2x1, 3x1, 4x1, 1x2, 1x3, 1x4, 2x2, 3x3, 2x4, 2x5. Furthermore, optical audio and L/R analog audio de-embedding output are also supported. It can be controlled via front panel buttons, IR remote and RS-232 commands.

Features

- HDCP 2.2 and DP 1.2a compliant
- HDMI™ and USB-C dual inputs, and the resolution is up to 4K@60Hz 4:4:4
- Support optical audio and L/R analog audio de-embedding output
- Multiple video wall splicing modes: 2x2, 1x4, 4x1, 1x3, 3x3, 2x4, 2x5, etc.
- Support image 180° rotation, convenient for ceiling installation
- Support bezel adjustment for the splicing edge
- Advanced EDID management
- Control via front panel buttons, IR remote and RS-232 commands
- Zero configuration, no drive installation and software setting are required

Specifications

Technical	
HDMI™ Compliance	HDMI™ 2.0b
DP Compliance	DP1.4 ALT Mode
HDCP Compliance	HDCP 2.2
Video Bandwidth	18Gbps
HDMI™ & USB-C Input Resolution	640x480p60Hz, 800x600p60Hz, 1024x768p60Hz, 1280x800p60Hz, 1280x1024p60Hz, 1360x768p60Hz, 1440x900p60Hz, 1440x1050p60Hz, 1600x1200p60Hz, 1920x1200p60Hz, 480i60, 480p60, 576i50, 576p50, 720p50/60Hz, 1080i50/60Hz, 1080p24/25/30/50/60Hz, 3840x2160p24/25/30/50/60Hz, 4096x2160p24/25/30/50/60Hz
HDMI™ Output Resolution	720P60Hz, 1080P60Hz, 4K30Hz, 1024x768P60Hz
Color Space	RGB_4:4:4, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0
Color Depth	8/10/12-bit
IR Level	5Vp-p
IR Frequency	Fixed Frequency 38KHz
HDMI™ & USB-C Audio Formats	LPCM 2.0/5.1, Dolby Digital/Plus/EX, DTS, DTS-EX, DTS-96/24
L/R Audio Formats	PCM 2.0
Optical Audio Formats	Dolby Digital/plus, DTS 5.1, PCM 2.0
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connection	
Inputs	1× HDMI™ INPUT [HDMI™ Type A, 19-pin female] 1× USB-C INPUT [USB Type C, 24-pin female]
Outputs	10× HDMI™ OUTPUT [HDMI™ Type A, 19-pin female] 1× OPTICAL AUDIO OUT [S/PDIF] 1× L/R AUDIO OUT [3.5mm stereo mini-jack]
Control	1× RS-232 [3pin-3.5mm phoenix connector] 1× IR EXT [3.5mm stereo mini-jack]

Mechanical		
Housing	Metal Enclosure	
Color	Black	
Dimensions	270mm [W] × 141mm [D] × 30mm [H]	
Weight	935g	
Power Supply	Input: AC 100-240V 50/60Hz, Output: DC 12V/2.5A (US/EU standard, CE/FCC/UL certified)	
Power Consumption	9.5W (Max)	
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F	
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F	
Operating Humidity	20%~80% (relative humidity, non-condensing)	
Storage Humidity	10%~90% (relative humidity, non-condensing)	
Recommended HDMI Cable		
Video Resolution	4K60	1080P
HDMI™ Cable Length (IN / OUT)	5m/16ft	10m/33ft
The use of “Premium High Speed HDMI™” cable is highly recommended.		

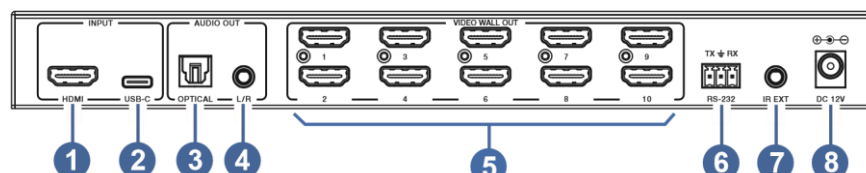
Operation Controls and Functions

Front Panel



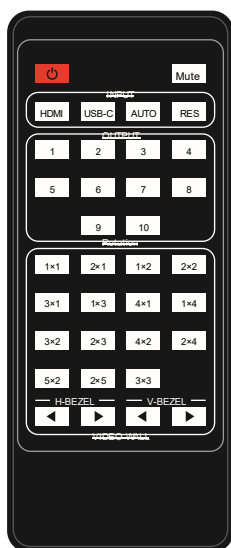
No.	Name	Function Description
1	Power Button	In shutdown/standby status, short press this button to power on; In power-on status, long press this button 2-3 seconds to enter standby status
2	Power LED	The LED will light in green when the product is working normally, and red when the product is standby.
3	HDMI LED	The green LED will light up when HDMI input is selected.
4	USB-C LED	The green LED will light up when USB-C input is selected.
5	AUTO LED	The green LED will light up when auto switching is enable.
6	IR window	IR signal receiving window.
7	HDMI button	Press this button to select the HDMI input channel
8	USB-C button	Press this button to select the USB-C input channel
9	MODE button	Press this button to switch the 15 splicing modes circularly.
10	RES button	Press this button to switch the resolutions of 720p, 1080p, 4k, XGA for the ten HDMI outputs circularly.

Rear Panel



No	Name	Function Description
1	HDMI INPUT	HDMI signal input port, connected to an HDMI source device.
2	USB-C INPUT	USB-C input port, connected to a USB-C source device.
3	OPTICAL AUDIO OUT	Optical audio de-embedding output port, connected to an audio output such as audio amplifier.
4	L/R AUDIO OUT	Analog audio de-embedding output port, connected to an audio.
5	VIDEO WALL OUT (1~10)	HDMI signal output ports, connected to TVs.
6	RS-232	3-pin phoenix connector, connected to a PC or control system for serial port upgrade or RS-232 command control.
7	IR EXT	IR signal receiving port, connected to IR Receiver cable. If the IR signal receiving window of the unit is blocked or the unit is installed in a closed area out of infrared line of sight, the IR receiver cable can be connected to the "IR EXT" port to receive the IR remote signal.
8	DC 12V	Connect to 12V/2.5A power adapter.

IR Remote



Power: Press to power on or enter the standby mode.

Mute: Press to mute the audio of HDMI, Optical and L/R audio output ports

HDMI: Press to select the HDMI input channel.

USB-C: Press to select the USB-C input channel.

AUTO: Press to enable or disable the auto switching function for the inputs.

RES: Press to switch the resolutions of 720p, 1080p, 4K, XGA for the ten HDMI outputs circularly.

Rotation 1~10: Press each number button to switch rotation angle between 0° and 180° for the corresponding output channel.

Splicing Modes: Press to switch the 15 splicing modes for the outputs.

H-BEZEL & V-BEZEL ◀ ▶: Press to adjust the bezels of the splicing images.

Application Example

