灰度科技
HUIDU TECHNOLOGY

Product Specification

2-in-1 LED Controller

HD-VP1640A

V1.0

1. System overview

HD-VP1640A is a two-in-one video processor for LED display, which integrates 16 Gigabit Ethernet port outputs and supports four-screen display. It has 7 channels of synchronous signal input, supports up to 4K video signal input (some interfaces), and can switch between multiple synchronous signals at will. It can be used in hotels, shopping malls, conference rooms, exhibitions, studios and other occasions that require synchronous playback. At the same time, VP1640A is equipped with Wi-Fi function as standard, and supports mobile APP wireless control.

2. Connection diagram

3. Product Features

Input:

- Support 1 channel of DP/1 channel of Type-C (both cannot be used at the same time), 1 channel of HDMI2.0, 2 channels of HDMI1.4 (or 1 channel of HDMI1.4 + optional 1 channel of projection), 2 channels of DVI (Or optional 1-way DVI + 1-way SDI input and loop out) signal input, multiple video signals can be switched arbitrarily.
- Support 1 TRS 3.5mm standard two-channel audio input and HDMI/DP audio input.

Output:

- Standard configuration of 16 Gigabit Ethernet ports, directly cascaded to the receiving card.
- 1 channel HDMI OUT, used for display screen program preview.
- 1 SDI LOOP interface (optional).
- The maximum control is 10.4 million pixels, the maximum horizontal support is 16000 pixels, and the maximum vertical support is 4000 pixels.
- 1 TRS 3.5mm standard two-channel audio output.

Function:

- Support 4K@60Hz synchronous signal input, point-to-point display.
- Support four-screen display, support any layout of the screen.
- Support 8 scene presets and calls.

- Standard Wi-Fi, support mobile phone APP wireless control.
- Support brightness adjustment and key lock function.
- Support mobile phone/tablet wireless projection.

4. Appearance Description

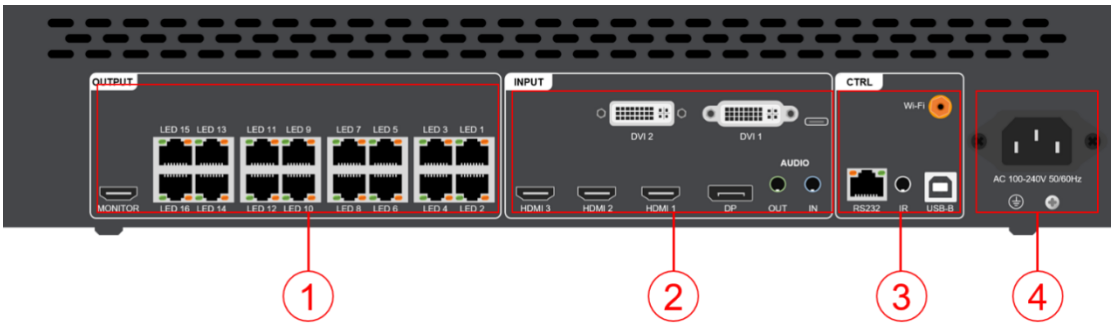
Standard front panel:

High version front panel:

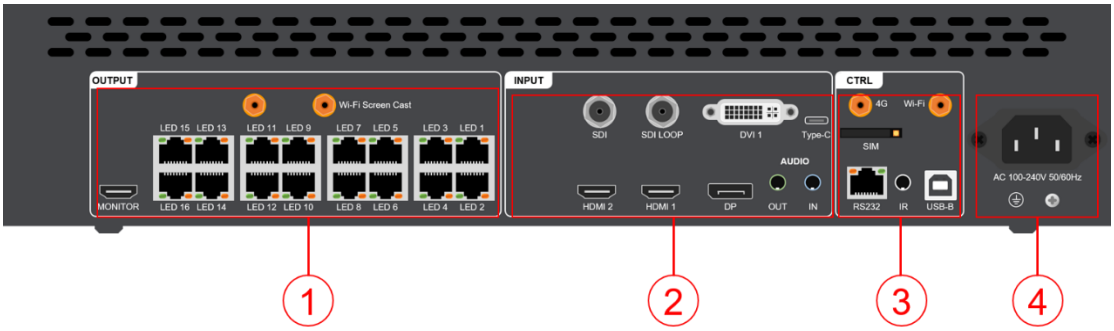
Key Description		
No.	Item	illustrate
1	switch	Control AC Power Input
2	LCD display	Debug display menu, screen parameters and other information
3	IR&MIC	IR: infrared remote control receiver MIC: microphone voice input (optional)
4	Multi-function button	Select menus, adjust screen parameters, and confirm operations
5	MENU	WIN1~WIN4: Select the opened screen window MODE: Quickly call out the preset mode call menu BRIGHT: Enter the image effect setting interface ESC: exit/return key

		FREEZE: One-click screen freeze BLACK: One key black screen button Function key, key multiplexing function is digital selection, generally used when setting the resolution
6	SOURCE	Input signal selection area
7	USB	USB2.0 input interface (optional) Play video and picture programs in U disk Resolution: Up to 1080p/1920×1200 Refresh rate: Max 30fps U disk file system: only supports U disk with FAT32 file system Video file format: MP4, MKV, TS, AVI Video encoding support: h.264/h.265 Audio encoding support: MP3/AAC Video encoding: MPEG4(MP4), MPEG_SD/HD Image file format: jpg, png, bmp

Standard version rear panel



Premium version rear panel:



Input interface			
No.	**Interface name**	**quantity**	**illustrate**

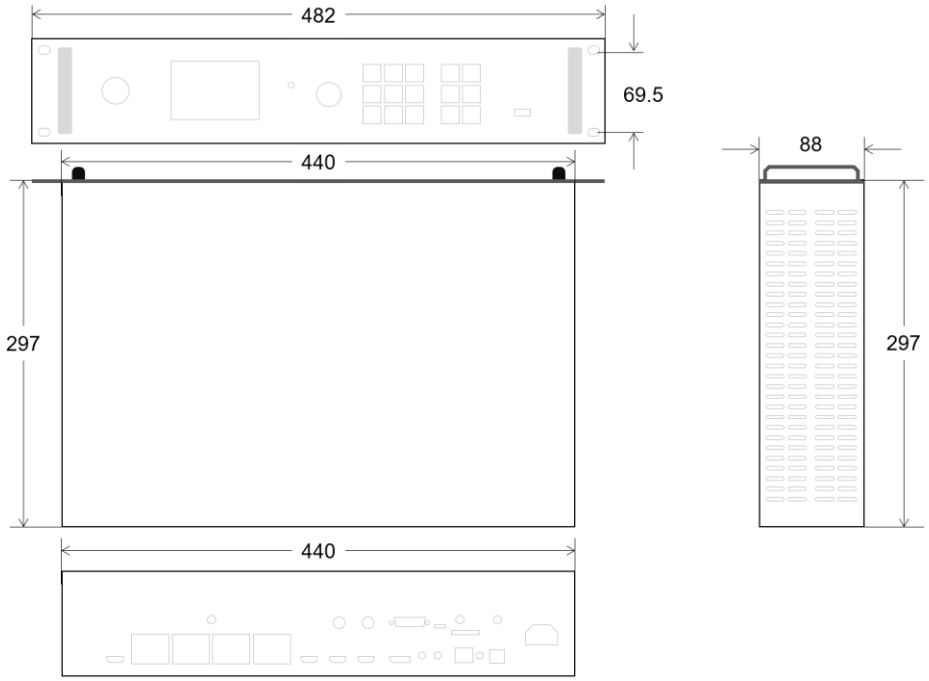
2	Type-C	1	type-C input interface Interface form: Type-C Signal standard: DP1.2 backward compatible Resolution: VESA standard, ≤3840×2160@60Hz support audio input Note: Type-C and DP share a button, and the default is DP mode. If you want to turn on Type-C, you need to go to [Advanced Settings] to turn it on. For specific operations, please refer to the operation manual
	DP	1	DP input interface Interface form: DP Signal standard: DP1.2 backward compatible Resolution: VESA standard, ≤3840×2160@60Hz
	HDMI		HDMI2.0 input interface × 1 (HDMI1) Interface form: HDMI-A Signal standard: HDMI 2.0 backward compatible Resolution: VESA standard, ≤3840×2160@60Hz Support audio input HDMI1.4 input interface × 1 (HDMI2) HDMI1.4 input interface × 1 (HDMI3 optional) Interface form: HDMI-A Signal standard: HDMI 1.4 backward compatible Resolution: VESA standard, ≤3840 x 2160 @ 30Hz Support audio input Note: Choose one of HDMI3 and projection function
	DVI	2	DVI input interface Interface form: DVI-I socket Signal standard: DVI1.0, HDMI1.3 backward compatible Resolution: VESA standard, PC to 1920x1080, HD to 1080p Note: Standard DVI1 (DVI2 and SDI can only choose one of the two)
	SDI	1	SDI input interface (optional) Interface form: BNC Signal standard: SD-SDI, HD-SDI, 3G-SDI Resolution: VESA standard, ≤1920x1080@60Hz
2	Screen Cast	1	Resolution: Up to 1080p/1920×1200 Refresh rate: Max 30fps

			Whether to support APP: support Software projection: support Launcher: support Transmission distance: up to 20M between the transmitter and the host Frequency band: 2.4GHz or 5GHz (default 5GHz) Video output: HDMI output, adjustable resolution Wireless transmission protocol: IEE802.11ac/802.11n
2	AUDIO IN	1	TRS 3.5mm two-channel audio input interface
4	Power	1	AC 100 ~ 240V, 50/60Hz

Output Interface			
No.	**Interface name**	**Quantity**	**Illustrate**
1	Gigabit Ethernet port	16	Used for cascading receiving cards to transmit RGB data stream The control range of each network port is 650,000 pixels.
1	MONITOR	1	HDMI OUT for monitoring what is playing on the display
2	AUDIO OUT	1	TRS 3.5mm two-channel audio output interface Connect to an audio amplifier for high-power audio output
2	SDI-LOOP	1	SDI signal loop out interface (optional) Interface form: BNC Signal standard: SD-SDI, HD-SDI, 3G-SDI Resolution: VESA standard, ≤1920x1080@60Hz

Control interface			
No.	**Interface name**	**Quantity**	**Illustrate**
3	USB-B	1	Connect to a computer for debugging the device
	RS232	1	Connect central control equipment for centralized control
	Wi-Fi	1	Connect Wi-Fi Antenna
	IR	1	Used to connect an external infrared remote control extension cable
	4G	1	For connecting 4G antenna (optional)
	SIM	1	SIM card slot (optional) Currently only standard cards are supported: the size is 25mm×15mm×0.8mm
1	Screen Cast Wi-Fi	2	For wireless projection

5. Product size



6. Basic parameters

parameter item	parameter value
Working voltage (V)	AC 100-240V 50/60Hz
Power (W)	50W
Working temperature (℃)	-10℃~60℃
Working humidity (RH)	20%RH~90%RH
Storage Humidity (RH)	10%RH~95%RH

Illustrate:

1. Welcome to choose Huidu Technology products. The product pictures in the specifications are renderings, which are somewhat different from the actual appearance. There are differences in the functions of the standard version and the high-end version. Please pay attention to distinguishing them. If you have any questions, please contact technical support or salesperson for confirmation.