

# PRODUCT SPECIFICATION

2-in-1 LED Controller  
**HD-VP1640A**

V1.2

## 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 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:

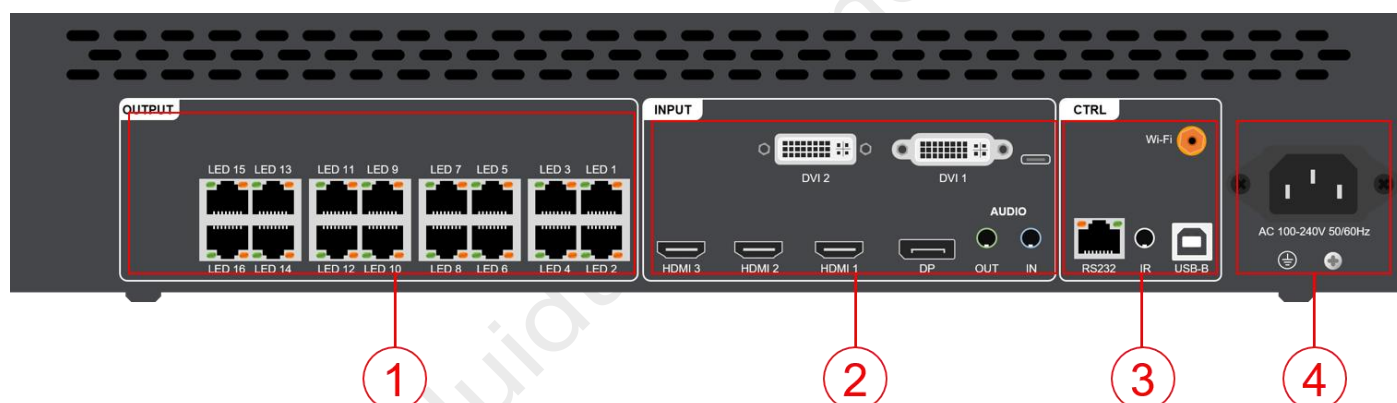


#### Key Description

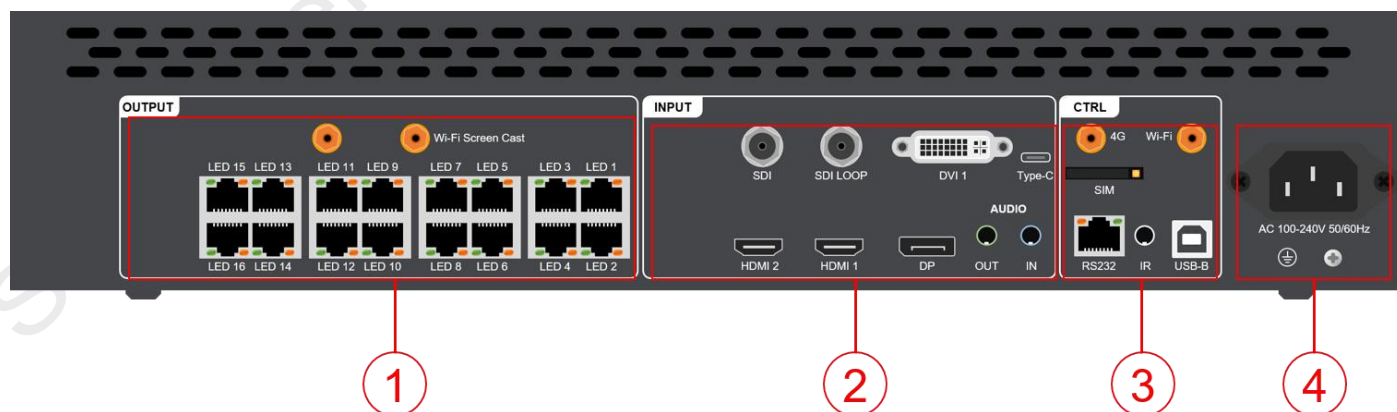
| No. | Item                  | illustrate                                                                                                                                         |
|-----|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 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<br>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<br>MODE: Quickly call out the preset mode call menu<br>BRIGHT: Enter the image effect setting interface |

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

## Standard version rear panel



## Premium version rear panel:



## Input interface

| No. | Interface name | quantity | illustrate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----|----------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Type-C         | 1        | type-C input interface<br>Interface form: Type-C<br>Signal standard: DP1.2 backward compatible<br>Resolution: VESA standard, $\leq 3840 \times 2160 @ 60\text{Hz}$<br>support audio input<br>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.<br>For specific operations, please refer to the operation manual                                                                                                                                |
|     | DP             | 1        | DP input interface<br>Interface form: DP<br>Signal standard: DP1.2 backward compatible<br>Resolution: VESA standard, $\leq 3840 \times 2160 @ 60\text{Hz}$                                                                                                                                                                                                                                                                                                                                                                                       |
|     | HDMI           |          | HDMI2.0 input interface $\times 1$ (HDMI1)<br>Interface form: HDMI-A<br>Signal standard: HDMI 2.0 backward compatible<br>Resolution: VESA standard, $\leq 3840 \times 2160 @ 60\text{Hz}$<br>Support audio input<br>HDMI1.4 input interface $\times 1$ (HDMI2)<br>HDMI1.4 input interface $\times 1$ (HDMI3 optional)<br>Interface form: HDMI-A<br>Signal standard: HDMI 1.4 backward compatible<br>Resolution: VESA standard, $\leq 3840 \times 2160 @ 30\text{Hz}$<br>Support audio input<br>Note: Choose one of HDMI3 and projection function |
|     | DVI            | 2        | DVI input interface<br>Interface form: DVI-I socket<br>Signal standard: DVI1.0, HDMI1.3 backward compatible<br>Resolution: VESA standard, PC to $1920 \times 1080$ , HD to $1080\text{p}$<br>Note: Standard DVI1 (DVI2 and SDI can only choose one of the two)                                                                                                                                                                                                                                                                                   |
|     | SDI            | 1        | SDI input interface (optional)<br>Interface form: BNC<br>Signal standard: SD-SDI, HD-SDI, 3G-SDI<br>Resolution: VESA standard, $\leq 1920 \times 1080 @ 60\text{Hz}$                                                                                                                                                                                                                                                                                                                                                                             |
| 2   | Screen Cast    | 1        | Resolution: Up to $1080\text{p}/1920 \times 1200$<br>Refresh rate: Max 30fps<br>Whether to support APP: support<br>Software projection: support<br>Launcher: support<br>Transmission distance: up to 20M between the transmitter and the host<br>Frequency band: 2.4GHz or 5GHz (default 5GHz)<br>Video output: HDMI output, adjustable resolution<br>Wireless transmission protocol: IEEE802.11ac/802.11n                                                                                                                                       |



|   |          |   |                                             |
|---|----------|---|---------------------------------------------|
| 2 | AUDIO IN | 1 | TRS 3.5mm two-channel audio input interface |
| 4 | Power    | 1 | AC 100 ~ 240V, 50/60Hz                      |

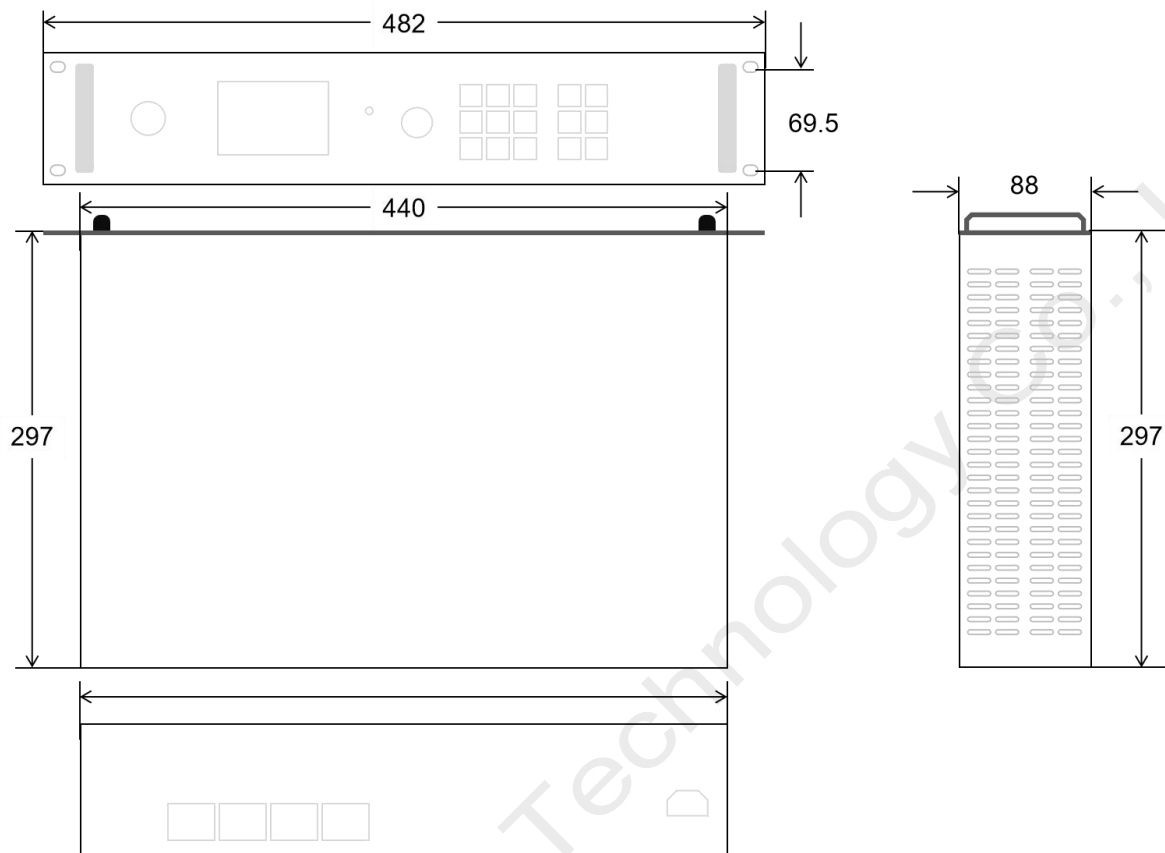
### Output Interface

| No. | Interface name        | Quantity | Illustrate                                                                                                                                               |
|-----|-----------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Gigabit Ethernet port | 16       | Used for cascading receiving cards to transmit RGB data stream<br>The control range of each network port is 650,000 pixels.                              |
| 2   | AUDIO OUT             | 1        | TRS 3.5mm two-channel audio output interface<br>Connect to an audio amplifier for high-power audio output                                                |
| 2   | SDI-LOOP              | 1        | SDI signal loop out interface (optional)<br>Interface form: BNC<br>Signal standard: SD-SDI, HD-SDI, 3G-SDI<br>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)<br>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

| Parameters                |                            | Parameter Value               |
|---------------------------|----------------------------|-------------------------------|
| Chassis specifications    |                            | 2U                            |
| Electrical specifications | power supply               | AC 100~240V 50/60Hz           |
|                           | Power consumption          | 50W                           |
| Work Environment          | Operating temperature (°C) | -10 °C ~ 60 °C                |
|                           | Operating humidity (RH)    | 20%RH~90%RH (no condensation) |
| Storage environment       | Storage temperature (°C)   | -20 °C ~60 °C                 |
|                           | Storage humidity (RH)      | 10%RH~95%RH (no condensation) |
| Equipment Specifications  | Size                       | W×H×D/482mm×88mm×297mm        |
|                           | Net weight                 | 4.4kg                         |
| Packing specifications    | Packing size               | W×H×D/508mm×154mm×390mm       |
|                           | Packing weight             | 6 kg                          |
| Packing List              | HD-VP1640A                 | 1PCS                          |
|                           | Power Cable                | 1PCS                          |
|                           | USB Cable                  | 1PCS                          |
|                           | DP Cable                   | 1PCS                          |
|                           | HDMI Cable                 | 1PCS                          |
|                           | DVI Cable                  | 1PCS                          |
|                           | Wi-Fi ANT                  | 1PCS                          |
|                           | Certificate                | 1PCS                          |

**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.