

# Product Specification

All-in-one LED Controller

HD-VP410H

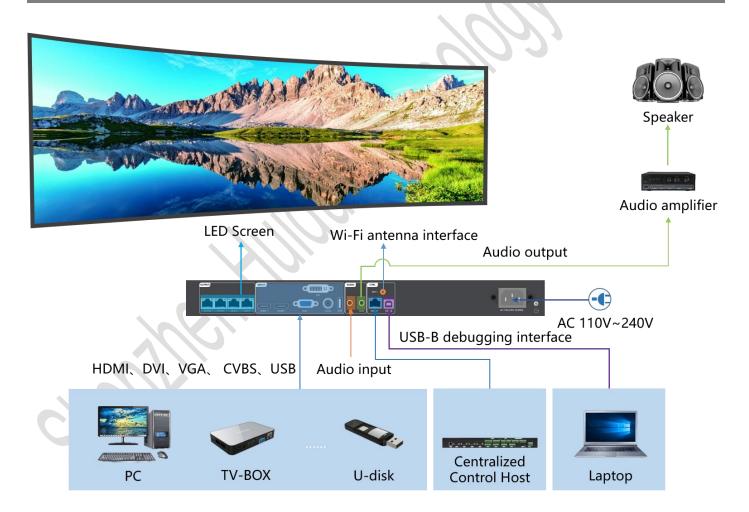
V1.2



# 1. System Overview

HD-VP410H is a three-in-one video processor that integrates traditional video processor, 4-way Gigabit network port output, and U disk playback functions. It not only simplifies the construction of the on-site environment, but also improves the reliability of the product. It supports 5 channels of synchronous signal input and 1 channel of USB input, and can be used in hotels, shopping malls, conference rooms, exhibitions, studios and other occasions that require synchronous playback; in addition, the device also supports point-to-point input/output to allow the LED display to display A clearer picture.

# 2. Connection Diagram





# 3. Product Characteristics

#### Input

- Supports 2 channels of HDMI, 1 channel of DVI, 1 channel of VGA, and 1 channel of CVBS signal input,
   which can be switched at will;
- 1 USB input supports direct playback of videos and pictures in various mainstream formats in the root directory of the USB flash drive, and supports up to 1080P high-definition video playback;
- Supports 1 channel TRS 3.5mm standard two-channel audio input and HDMI audio input.

#### **Output**

- Standard configuration is 4-way Gigabit network ports, which can be directly cascaded to the receiving card;
- The maximum control is 2.6 million pixels, with a maximum horizontal support of 3840 pixels and a maximum vertical support of 2500 pixels;
- 1 channel TRS 3.5mm standard two-channel audio output.

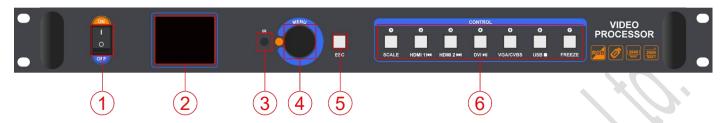
#### **Features**

- Support U disk playback, plug and play;
- Support limited conversion and full output;
- Pixel-to-pixel display effect;
- Support non-rectangular load;
- Video signal can be switched, cropped, and scaled at will;
- Support 16 scene presets and calls;
- Support brightness and color temperature adjustment;
- Support RS232 serial port protocol control, docking central control equipment;
- Support Wi-Fi Station mode, AP mode, Wi-Fi station+AP mode;
- Support mobile phone APP wireless control;
- Support infrared remote control (optional);
- Support 4G module (optional);
- Supports SDI signal loop output (optional).

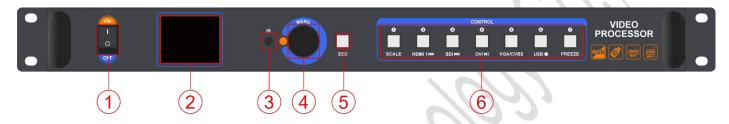


# 4. Appearance Description

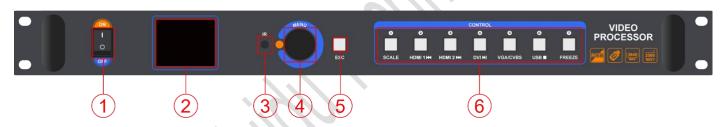
## Standard front panel:



## SDI front panel:



## 4G front panel:

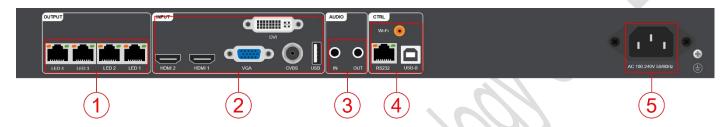


Key Description			
No.	Button	Description	
1	Switch	Control AC power input	
2	LCD display	Debugging displays menus, screen parameters and other information	
3	IR	Receive infrared remote control	
4	MENU	Press the knob to enter submenu or confirm selection  Rotate the knob to select menu items or adjust parameters	
5	ESC	Escape key/return key	
6	SCALE	Partial/full screen switch button	
O	HDMI1	Select HDMI signal to play/play the previous U disk program	



HDMI2	Select HDMI signal to play/play the next U disk program
DVI	Select DVI signal playback/U disk program playback and pause
VGA/CVBS	Select VGA/CVBS signal playback
USB	Select to play U disk program/stop playing U disk program
FREEZE	Freeze with one click

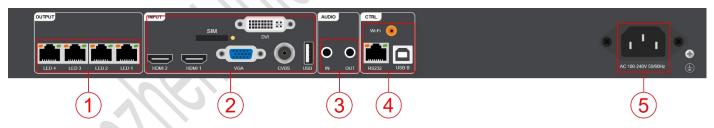
## Standard rear panel:



## SDI rear panel:



## 4 G type rear panel:



Input interface				
No.	Interface name	Quantity	Description	
	2)),		USB2.0 input interface	
			U disk can be inserted to play videos and pictures	
2	USB	1	Video file formats: mp4, avi, mpg, mkv, mov, vob and rmvb;	
			Video encoding: MPEG4 (MP4), MPEG_SD/HD, H.264 (AVI, MKV), FLV;	
			Image file formats: jpg, jpeg, png and bmp	



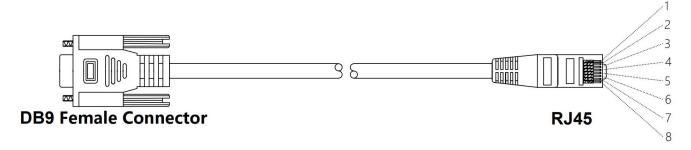
Video resolution: maximum support 1920×1080@30Hz				
Interface form: HDMI-A  Signal standard: HDMI1.4 backward compatible Resolution: VESA standard, ≤1920×1080p@60Hz Support audio input  CVBS input interface Interface form: BNC Signal standard: PAL/NTSC 1Vpp±3db (0.7V Video+0.3v Sync) 75 ohm Resolution: 480i, 576i  DVI 1  DVI 1  Interface form: DVI-I socket Signal standard: DVII.0 backward compatible Resolution: VESA standard, 1080p  VGA input interface Interface form: DB15 socket Signal standard: R, G, B, Hsync, Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) Sync) 75 ohm black level: 300mV Sync-tip: 0V Resolution: VESA standard, ≤1920×1080p@60Hz  SDI input interface (optional) Interface form: BNC Signal standard: SD-SDI, HD-SDI, 3G-SDI Resolution: VESA standard, ≤1920×1080@60Hz  3 AUDIO IN 1 TRS 3.5mm two-channel audio input interface				Video resolution: maximum support 1920×1080@30Hz
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CVBS 11 Interface   Interface   Interface   Interface form: BNC   Signal standard: PAL/NTSC 1Vpp±3db (0.7V Video+0.3v Sync) 75 ohm   Resolution: 480i, 576i    DVI input interface   Interface   Interface form: DVI-I socket   Signal standard: DVII.0 backward compatible   Resolution: VESA standard, 1080p   VGA input interface   Interface form: DB15 socket   Signal standard: R, G, B, Hsync, Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync)   75 ohm black level: 300mV Sync-tip: 0V   Resolution: VESA standard, ≤1920×1080p@60Hz   SDI input interface (optional)   Interface form: BNC   Signal standard: SD-SDI, HD-SDI, 3G-SDI   Resolution: VESA standard, ≤1920×1080@60Hz   3 AUDIO IN 1 TRS 3.5mm two-channel audio input interface				Resolution: VESA standard, ≤1920×1080p@60Hz
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DVI 1 1 Interface   Interface   Interface form: DVI-I socket   Signal standard: DVII-0 backward compatible   Resolution: VESA standard, 1080p   VGA input interface   Interface form: DB15 socket   Signal standard: R, G, B, Hsync, Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync)   75 ohm black level: 300mV Sync-tip: 0V   Resolution: VESA standard, ≤1920×1080p@60Hz   SDI input interface (optional)   Interface form: BNC   Signal standard: SD-SDI, HD-SDI, 3G-SDI   Resolution: VESA standard, ≤1920×1080@60Hz   3 AUDIO IN 1 TRS 3.5mm two-channel audio input interface		CVBS	l l	Signal standard: PAL/NTSC 1Vpp±3db (0.7V Video+0.3v Sync) 75 ohm
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VGA  1 Signal standard: R, G, B, Hsync, Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm black level: 300mV Sync-tip: 0V Resolution: VESA standard, ≤1920×1080p@60Hz  SDI input interface (optional) Interface form: BNC Signal standard: SD-SDI, HD-SDI, 3G-SDI Resolution: VESA standard, ≤1920×1080@60Hz  3 AUDIO IN  1 TRS 3.5mm two-channel audio input interface				Resolution: VESA standard, 1080p
Signal standard: R, G, B, Hsync, Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync)  75 ohm black level: 300mV Sync-tip: 0V  Resolution: VESA standard, ≤1920×1080p@60Hz  SDI input interface (optional)  Interface form: BNC  Signal standard: SD-SDI, HD-SDI, 3G-SDI  Resolution: VESA standard, ≤1920×1080@60Hz  3 AUDIO IN 1 TRS 3.5mm two-channel audio input interface				VGA input interface
VGA  Sync)  75 ohm black level: 300mV Sync-tip: 0V  Resolution: VESA standard, ≤1920×1080p@60Hz  SDI input interface (optional)  Interface form: BNC  Signal standard: SD-SDI, HD-SDI, 3G-SDI  Resolution: VESA standard, ≤1920×1080@60Hz  AUDIO IN  1 TRS 3.5mm two-channel audio input interface				Interface form: DB15 socket
Sync)  75 ohm black level: 300mV Sync-tip: 0V  Resolution: VESA standard, ≤1920×1080p@60Hz  SDI input interface (optional)  Interface form: BNC  Signal standard: SD-SDI, HD-SDI, 3G-SDI  Resolution: VESA standard, ≤1920×1080@60Hz  3 AUDIO IN 1 TRS 3.5mm two-channel audio input interface			1	Signal standard: R, G, B, Hsync, Vsync:0 to1Vpp±3dB (0.7V Video+0.3v
75 ohm black level: 300mV Sync-tip: 0V  Resolution: VESA standard, ≤1920×1080p@60Hz  SDI input interface (optional)  Interface form: BNC  Signal standard: SD-SDI, HD-SDI, 3G-SDI  Resolution: VESA standard, ≤1920×1080@60Hz  3 AUDIO IN 1 TRS 3.5mm two-channel audio input interface		VGA		Sync)
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SDI  Interface form: BNC  Signal standard: SD-SDI, HD-SDI, 3G-SDI  Resolution: VESA standard, ≤1920×1080@60Hz  3 AUDIO IN  1 TRS 3.5mm two-channel audio input interface				Resolution: VESA standard, ≤ 1920× 1080p@60H2
SDI  Signal standard: SD-SDI, HD-SDI, 3G-SDI  Resolution: VESA standard, ≤1920×1080@60Hz  3 AUDIO IN  1 TRS 3.5mm two-channel audio input interface		SDI	1	SDI input interface (optional)
Signal standard: SD-SDI, HD-SDI, 3G-SDI  Resolution: VESA standard, ≤1920×1080@60Hz  3 AUDIO IN 1 TRS 3.5mm two-channel audio input interface				Interface form: BNC
3 AUDIO IN 1 TRS 3.5mm two-channel audio input interface				Signal standard: SD-SDI, HD-SDI, 3G-SDI
3 AUDIO IN 1 TRS 3.5mm two-channel audio input interface				Resolution: VESA standard, ≤1920×1080@60Hz
·				
5 Power supply 1 AC 100~240V 50/60Hz	3	AUDIO IN	1	TRS 3.5mm two-channel audio input interface
	5	Power supply	1	AC 100~240V 50/60Hz



Output interface				
No.	Interface name	Quantity	Description	
1	Gigabit network	4	Used to cascade receiving cards to transmit RGB data streams; each	
			network port controls a range of 650,000 pixels.	
			Support docking multi-function card	
3	AUDIO OUT	1	TRS 3.5mm two-channel audio output interface	
			Connect to audio power amplifier for high-power audio external amplifier	

Control interface			
No.	Interface name	Quantity	Description
	USB-B	1	Connect to computer for debugging equipment
4	Wi-Fi	1	Connect Wi-Fi antenna to enhance Wi-Fi signal
	RJ45	1	RJ45 interface, connected to central control equipment

<sup>\*</sup> The schematic diagram of the RJ45 to DB9 connection cable is as follows. It is optional. If you need it, please contact Grayscale sales or technical support in advance.



## 9 8 7 6 0 1

# Line Ordering:

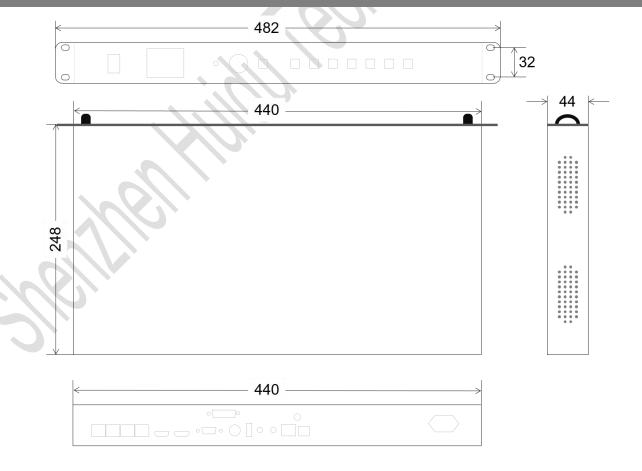
DB9 female connector			45 connector
	2-RX		TX-1(Red)
	3-TX		RX-2(Blue)
	5-GND		GND-3(Black)



\* The schematic diagram of the remote control is as follows. It is optional. If you need it, please contact Grayscale sales or technical support in advance.



# 5. Product Size





# 6. Basic Parameters

Pa	rameter item	Parameter value
Chas	sis specifications	1U standard
Electrical	Power supply	AC 100~240V 50/60Hz
Specifications	Power consumption	14W
Working	Working temperature (℃)	-20℃~55℃
environment	Working humidity (RH)	20%RH~90%RH(no condensation)
Storage	Storage temperature (℃)	-20℃~60℃
environment	Storage humidity (RH)	10%RH~95%RH(no condensation)
Equipment	Size	W×H×D/482mm×44mm×240mm
Specifications	Net weight	2.6KG
Packing	Packing size	W×H×D/515mm×82mm×355mm
specifications	Packing weight	2.7KG
	HD-VP410H	1PCS
	USB Cable	1PCS
	HDMI Cable	1PCS
Packing List	DVI-HDMI Converter	1PCS
	Power Cable	1PCS
	Wi-Fi ANT	1PCS
	Certificate	1PCS

#### illustrate:

1. Welcome to choose Huidu Technology products. There may be slight differences between the product pictures in the specifications and the actual appearance (including the number of holes in the product size diagram, etc.). If you have any questions, please contact technical support or salesperson for confirmation.