



ZH LED Control System



ZH-Z4

Two-in-one Video Processor

Product Specification





Product Specification

ZH-Z4

I. Product Introduction:

ZH-Z4 is one two-in-one product by high-definition video processor and sending card, which special developed for LED large screen display system. It uses industry-leading lossless scaling technology, supports high-definition HDMI / DVI input and standard gigabit network port output, and provides customers with LED large-screen high-definition display solutions. This product, while realizing fast switching of video sources, has simplified the customer's operation process to the greatest extent and truly achieved the purpose of simple operation. Support partial and full-screen modes switching by one-button, picture transition is smooth and stable. Multi-mode keyboard lock is provided, which can offer customers more options for safe operation. ZH-Z4 supports online upgrades, ensuring that customers can upgrade new features from time to time.

II. Functional Features

1. Support multiple signal input: HDMI, DVI, VGA, CVBS*2, USB, audio *2;
2. Support audio and video synchronous input: in addition to HDMI audio, can be connected to two external audio input for DVI\VGA video channel (PJ3.5);
3. The following output signal interface is supported: LAN(RJ45) × 4 (with network interface connection status indicator). The maximum resolution of the machine is 2.6 million pixels, support resolution customization. Pixels support: the Max width is 8192 and Max width is 2160.
4. Audio (PJ35) × 1;
5. Built-in U disk player function: U disk once plugging in, automatically play video or pictures of U disk;
6. Support switching effects: fade in and fade out/direct cut switching effects are supported between signal source channels.
7. Support image brightness adjustment, contrast, clarity, chroma adjustment;
8. Support EDID configuration management: support reading, modifying, and customizing of EDID (Extended Display Identification Data);



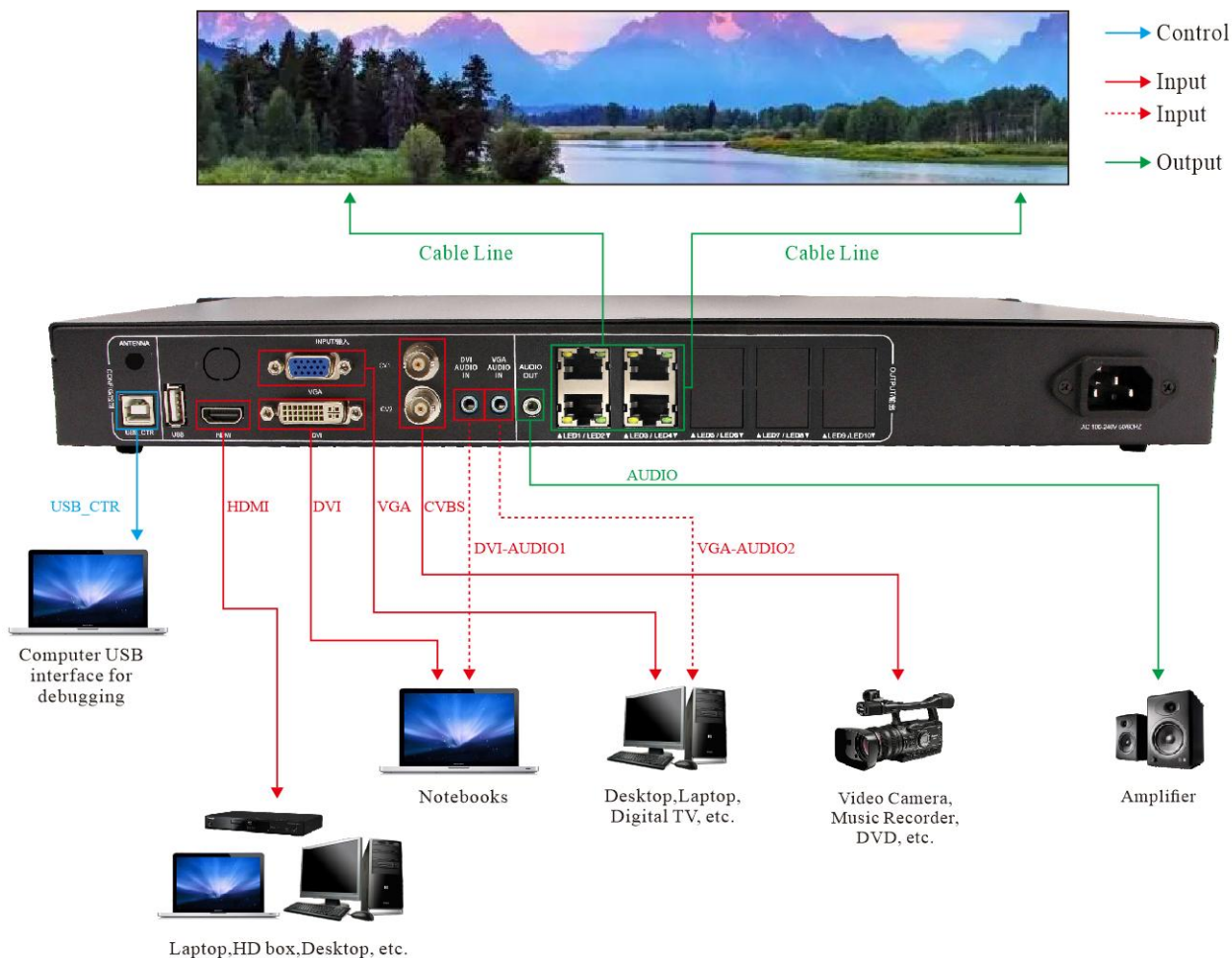
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9. Support VGA correction function: solve the problem of black edge and deviation during the transmission of analog signal;
10. Support Super Resolution zoom technology: video compensation processing algorithm. There is no limitation about picture size, and the details of the picture are retained, which reduce the out-of-focus phenomenon after the picture is put up for most times.
11. Support function of black edge removing/clipping: solve the black edge problem caused by the input signal (especially the output signal of VGA signal and non-standard camera), and do arbitrary clipping for any signal source (still keep full screen);
12. Support channel protection: protect the input and output I/O interfaces of the equipment to avoid the impact of over voltage and over current; The channels are independent and complementary to each other.
13. Support brightness adjustment: adjust the brightness of the screen in real time and quickly;
14. Support resolution customization;
15. Support multi-function key locking to prevent misoperation;
16. Support screen freezing;
17. Support LED screen test: black screen, blue screen, red screen and other arbitrary display switch;
18. Support remote controller;
19. Support intelligent Settings;
20. Support scenario invocation and saving;
21. Support Chinese and English language Settings;
22. Support multi-mode adjustment of buttons and knobs;
23. Standard 1U case, standard LCD display screen, standard case portable, convenient for construction and installation;
24. Wide power supply, voltage input range AC 100~240V, 50/60hz input;
25. Support system online upgrade.

III. System Topology

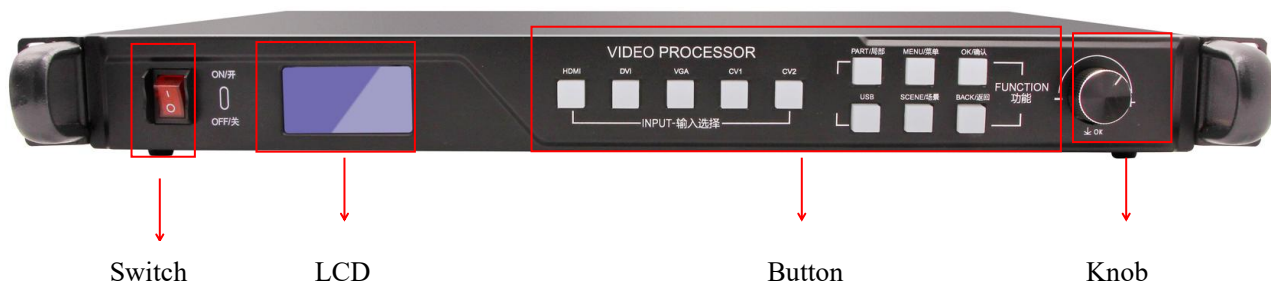


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IV. Hardware Introduction:

The Front Panel



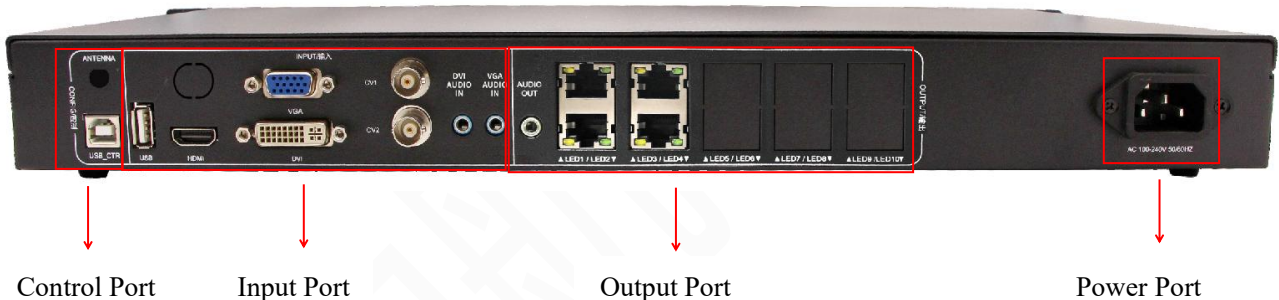
Switch	The power switch
LCD	Displays detailed prompts for user actions
Knob	Adjust the LED screen resolution and confirm



Button Part Manual

HDMI	HDMI signal input button	PART/partial	Partial/full screen switching
DVI	DVI signal input button	MENU/the menu	Enter advanced settings mode
VGA	VGA signal input button	OK/conform	Select conform button
CV1	CV1 signal input button	BACK/back	Back to the previous menu/lock function
CV2	CV2 signal input button	SCENE/scene	The call button for default scenes
USB	USB signal input button		

The Back Panel



Control Port

Input Port

Output Port

Power Port

CONFIG/Control Port		INPUT/Signal Input Port		OUTPUT/Signal Output Port	
ANTENNA	Remote controller antenna port	USB	USB input port	AUDIO	Audio output port
USB_CTR	System test port	HDMI	HDMI input port	S1/S2/S3/S4	Cable port working indicator light
		VGA	VGA input port	LED1/LED2	Output port
		DVI	DVI input port	LED3/LED4	
		CV1/CV2	CV input port		
		AUDIO1	DVI audio input port		
		AUDIO2	VGA audio input port		



V. Parameters:

Input Standard:

Port	Quantity	Resolution specification
HDMI	1	EIA/ cea-861 standard, compliant with HDMI1.4 standard, supports HDMI input, audio data output
DVI	1	Support 1920* 1200/60hz and other resolutions conform to the VESA standard
VGA	1	Support 1920* 1200/60hz and other resolutions conform to the VESA standard
CV	2	PAL/NTSC
AUDIO	2	3.5mm standard audio interface
USB	1	Standard USB2.0 interface

Output Standard:

Port	Quantity	Resolution specification
LED	4	Standard gigabit port
AUDIO	1	3.5mm standard audio interface

Device specification:

Input power	AC 100~240V, 50/60HZ, No more than 2A
Working temperature	-20~45°C
Volume	483*225*44.5(mm,L*W*H)
Weight	2.8KG

VI. Hardware Diagram:

Unit: mm



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