



ZH LED Control System



ZH-Z4D

Video Processor

Product Specification





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ZH-Z4D

I. Product Introduction:

ZH-Z4D is a two-in-one high-definition video processor which developed for LED large-screen display systems. It adopts the industry's leading lossless scaling technology, supports high-definition HDMI/U-disk input and audio output and standard Gigabit Ethernet port output, and provides customers with LED screen high-definition display solutions; this product supports one-click switching between synchronous high-definition video source and asynchronous U-disk content display, which simplifies the customer operation process to the greatest extent and truly achieves the purpose of simple operation; it supports online upgrades to ensure that customers upgrade new functions from time to time.

II. Functional Features

1. Support multiple signal inputs: HDMI, USB interface;
2. Support audio and video synchronous input;
3. Supports the following output signal interfaces: LAN (RJ45) \times 4 (with network port connection status indication).
4. The max resolution: 2.6 million pixels, it supports custom resolutions: max width: 8192 pixels, max height 4096 pixels; Audio audio (PJ35) \times 1;
5. Comes with U-disk playback function: U-disk content once plug and play;
6. Supports image brightness adjustment, contrast, sharpness, and chroma adjustment;
7. Support EDID configuration management: support the reading, modification and customization of EDID (Extended Display Identification Data, extended display identification data);
8. Supports Super Resolution amplification technology: video compensation processing algorithm. There is no size limit when the screen is reduced, and image



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details are retained, reducing the out-of-focus phenomenon that occurs after the screen is enlarged multiple times;

9. Supports black border removal/cropping function: solves the black border problem caused by input signals and performs arbitrary cropping for any signal source (still maintaining full screen status);

10. Support channel protection: protect the input and output I/O interfaces of the device to avoid the impact of over-voltage and over-current; channels are independent of each other and complementary to each other;

11. Support custom resolution;

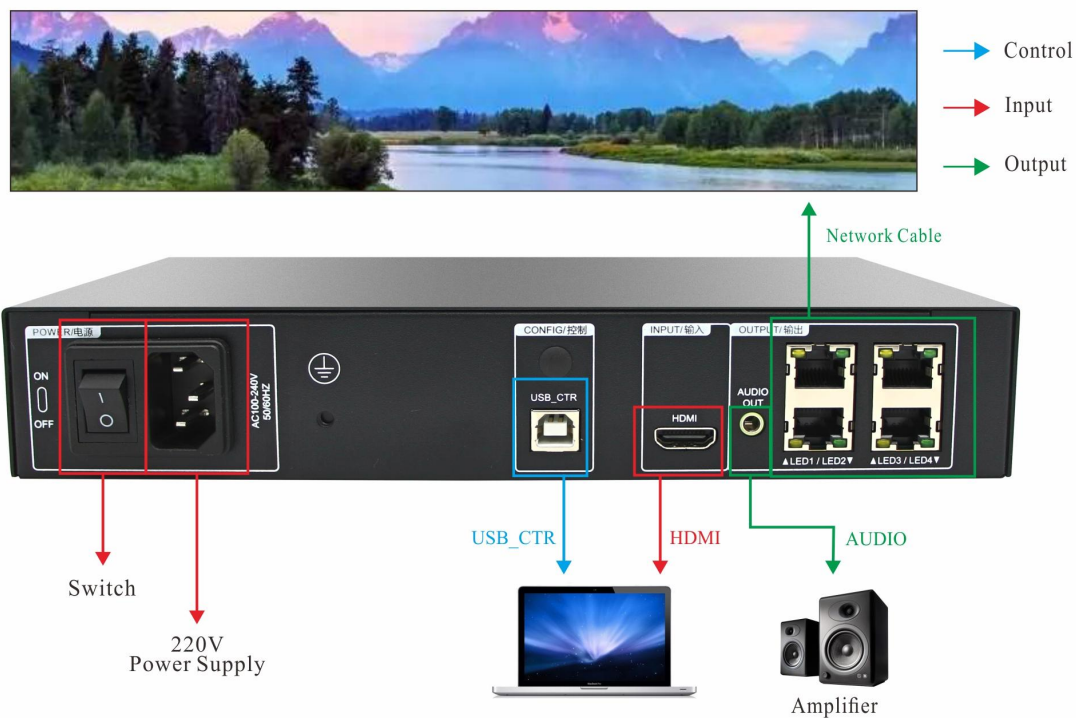
12. Supports LED screen testing: black screen, blue screen, red screen and other display switching;

13. Support smart settings;

14. Support scene calling and saving;

15. Support online system upgrade.

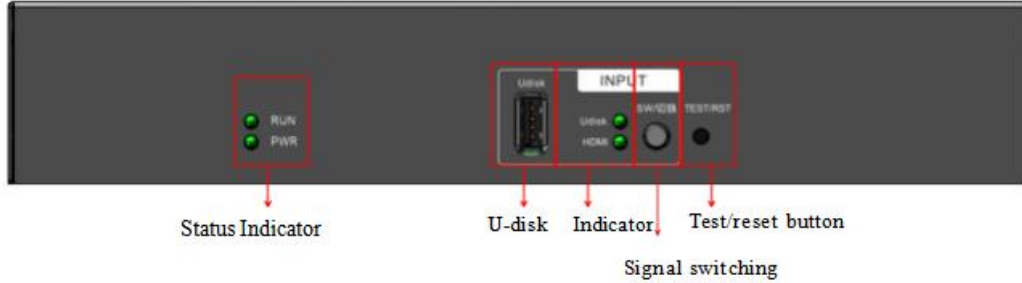
III. System Topology





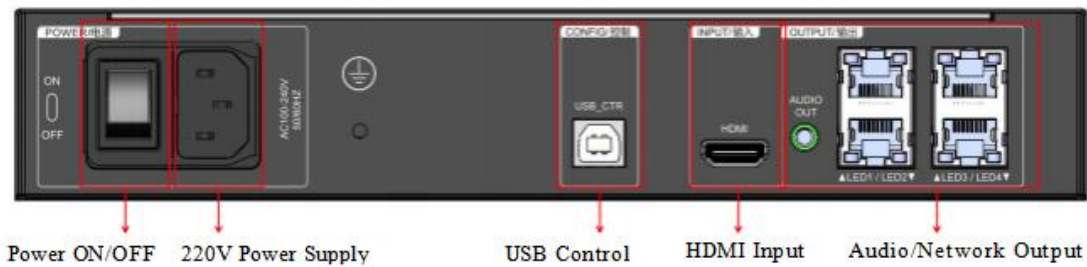
IV. Hardware Introduction:

The Front Panel



Status Indicator	RUN:; Operation indicator light PWR: power indicator light;
U-disk	Read and display the videos and pictures in the U-disk
Indicator	Power On/off; with/without signal.
Signal switching	Click it to switch to USB/HDMI.
Test/reset button	Click it to enter test mode, long press to restore factory settings

The Back Panel



Power ON/OFF	Power switch
220V Power Supply	220V power supply input
USB Control Port	USB_CTR: set the parameter
HDMI Input Port	HD HDMI signal input
Network Port/AUDIO OUT	LED1/LED2/LED3/LED4 connect with receiving card AUDIO OUT connet with active speakers

V. Parameters:

Input Standard:

Input Port	Number	Resolution specifications
HDMI	1	EIA/CEA-861 standard, compliant with HDMI1.4 standard, supports HDMI input audio data output



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USB	1	Standard USB2.0 interface
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Output Standard:

Port	Quantity	Resolution specification
LED	2	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	-20~70°C
Volume size	251.5*140.1*44.45(mm,L*W*H)
Weight	≈1.3KG

VI. Hardware Diagram:

Unit: mm

