



MVB2S

2IN1 Video Processor

Specification V4.0



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1 Update Records

Document Version	Hardware Version	Release Time	Update Record
V4.0	MVB2S (V5.2)	July 23(th), 2025	First release

2 Product Introduction

MVB2S is an easy-to-operate and feature-rich device that specially developed for LED displays. The maximum load of a single device 1.30 million pixels, the regular version supports a maximum width of 3840 pixels, and a maximum height of 1920 pixels; It supports high-definition multi-type interface input, integrates professional display control technology and powerful video processing capabilities, and it simplifies the scene environment to build a video processor. Using high-performance image processing chip; with advanced interlaced image adaptive processing technology and ultra-clear noise reduction engine, eliminating video image motion smearing and jagged phenomenon, the video image enhancement technology makes the image clearer and more detailed, rich in details, and full of colors , Image quality is stable.

3 Product Characteristics

3.1 Improve the display effect

- Multiple input interfaces
 - 1 × HDMI1.4 video signal input
 - 1 x DVI input
 - 1 x USB 2.0 input

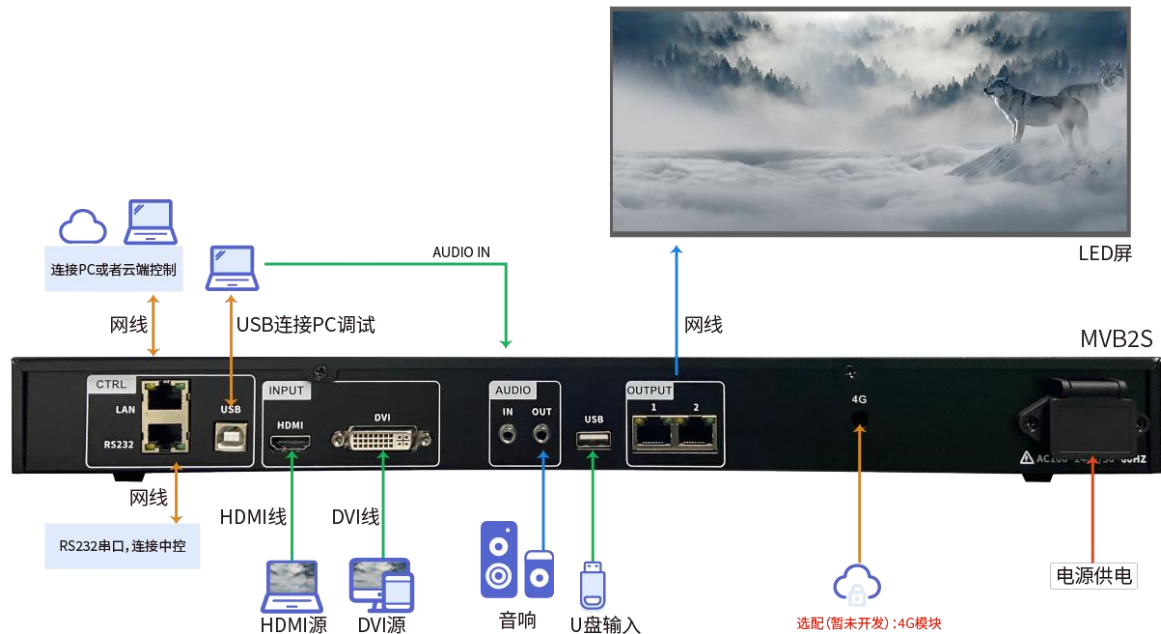
- EDID, Support custom EDID management
- Output interface
 - 2 gigabit network ports
 - Maximum load 1.30 million pixels, custom output resolution, regular version maximum width 3840, maximum height 1920, FPGA scaled version supports maximum width/height 7680.
- Audio interface: Support audio input and output

3.2 Diversified Display Function

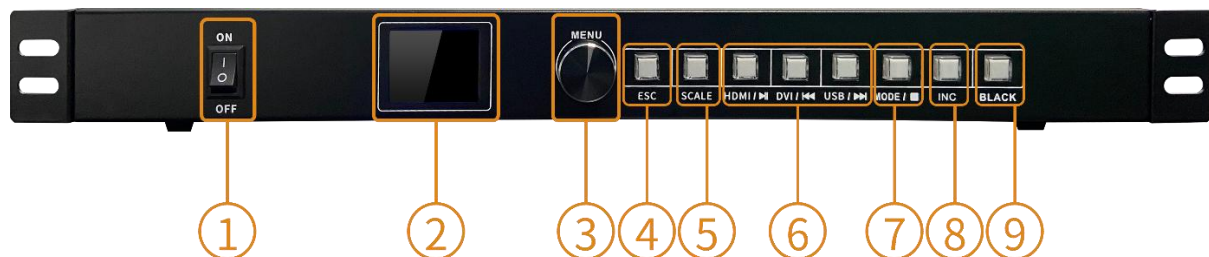
- Support U disk playback, plug and play
- It supports 3 zoom modes: Full Screen Zoom, Pixel-to-Pixel Display and Custom Zoom
- It supports seamless switching or fade-in and fade-out between multiple signal input channels to enhance and present professional-quality presentation pictures.
- It supports the quick screen connection, with very simple operation, the screen configuration could be completed.
- The intuitive LCD display interface on the front panel and clear button light prompts simplify the control operation of the system.
- It support to create 8 user scenes as templates, save them and call them directly, which is convenient to use.
- It supports to adjust the positions and sizes of the window and also the window capture function is supported.
- it supports external independent audio input and output.
- The output resolution could be user defined(custom the resolution)
- The Input EDID could be user defined (customized)
- It supports the synchronous switching of the video and audio.
- It supports the switching of the partial or Full Screen.
- It supports to have just one-click to get the black screen.

4 Application Scenarios

It is suitable for many application scenarios such as small and medium-sized LED displays in shopping malls, hotels, exhibitions, TV studios, etc.



5 Product Appearance

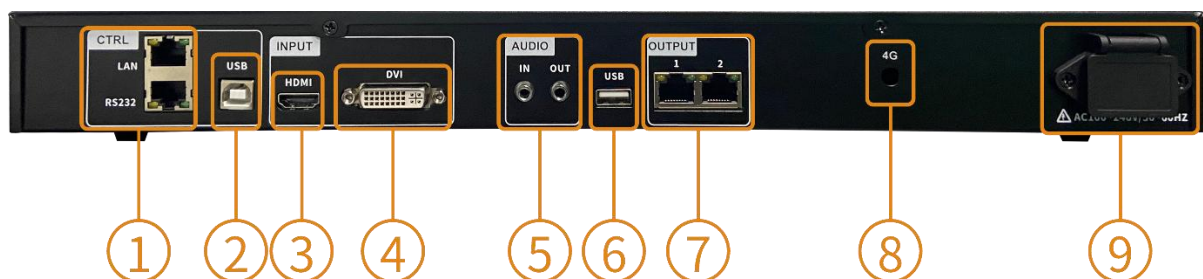


*Product images are for reference only. The actual product shall prevail upon purchase.

5.1 Data Interface Illustration

#	Keys	Illustrations
1	ON/OFF	Power ON/OFF
2	LCD Display	To display the current status of the device and to have the menu settings.
3	Knob	1 、 In the main interface,press the knob to enter the menu operation interface; 2、 In the menu operation interface,rotate the knob to choose the menu, press the knob to select the current menu or enter its sub-menu. 3 、Once the menu that is with parameters selected, you could rotate the knob to adjust the parameters, and make sure to double press the knob to confirm.
4	Esc	Return(ESC)/Cancel the current menu or operation.
5	SCALE	Full Screen Scale Shortcut Key
6	Input Signal Source Key	Input Source Key Description: HDMI: HDMI Source Input Key, when it is on U-Disk playing ,to press“ ”, to pause or play the file. DVI: DVI Source Input Key, when it is on U-Disk Playing, to press the “ ”, to select to play the previous file. VGA: VGA Source Input key, when it is on the U-Disk playing to press the “ ”, to select to play the next file. USB: External Media Playing, U Drive Disk Playing Input
7	MODE	Save and load shortcuts Key for scenes
8	INC	Inspection shortcut Key
9	Black	One Click to get the Black Screen Shortcut Key

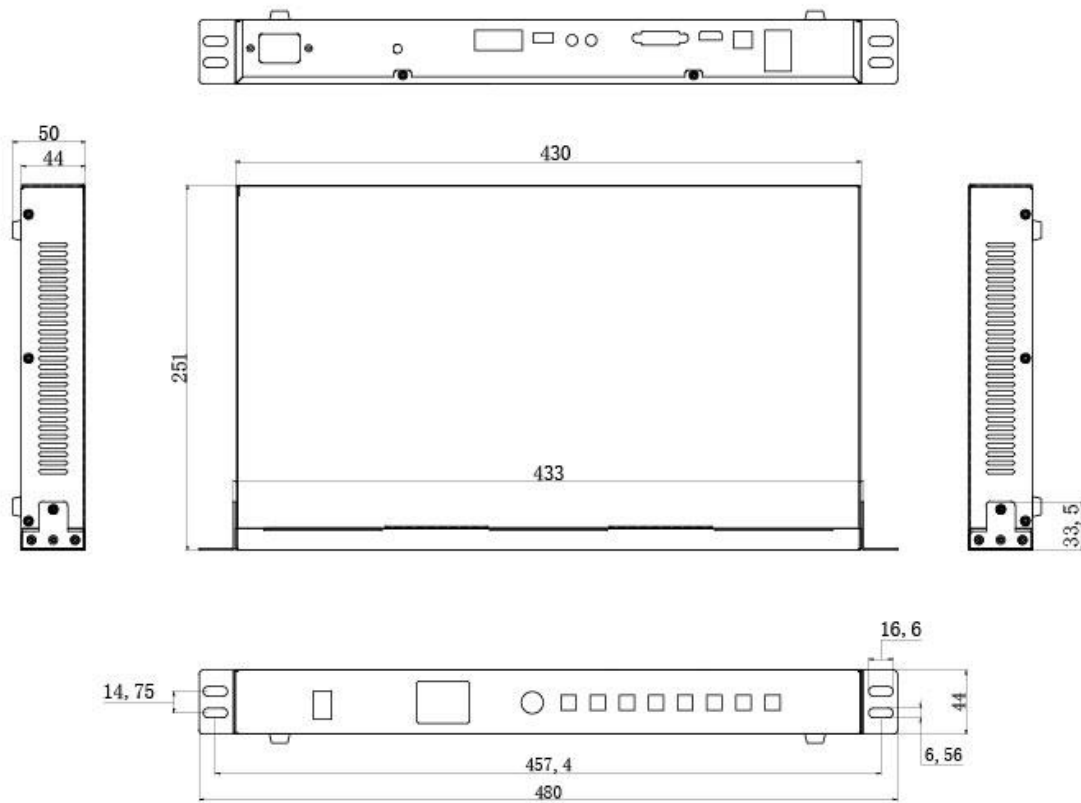
Rear Panel



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Input Ports			
#	Ports	Unit	Illustrations
3	HDMI	1	HDMI1.4 Standards, the maximum resolution it could support: 3840×2160@30Hz. It is downwards compatible and support HDCP1.4。
4	DVI	1	The maximum resolution, it could support:1920×1080@60Hz. It is backwards compatible Support custom resolution Maximum width: 3840 (3840 × 640@60Hz) Maximum height: 3840 (640 × 3840@60Hz) Interlaced signal input is not supported
5	AUDIO IN	1	3.5mm Audio Interface.
6	USB	1	1×USB 2.0 Interface , connecting to the U-disk , it supports 1080p@30fps Video files。 The U-Disk File System Supports NTFS、FAT32 and FAT16, but the exFAT (FAT64) is not supported. Image Formats: jpg、jpeg、png and bmp。 Video Encoding : MPEG1/2 , MPEG4 , Sorenson, H.263 , H.263, H.264(AVC1), H.265(HEVC), RV30/40, Divx, Xvid。 Video Bit Rate: Below 4000 Audio Encoding : MPEG1/2 Layer I , MPEG1/2 LayerII , MPEG1/2 Layer III, AAC-LC, VORBIS, PCM and FLAC。
Output Ports			
#	Port	Unit	Illustration
7	Network Port	2	2 Ethernet Port Output,directly connecting to the receiving card.
8	AUDIO OUT	1	3.5mm Audio Port It supports the audio channel: 3.5mm audio channel、HDMI、USB
Control Ports			
#	Ports	Unit	Illustration
1	RS232	1	Serial port, connect to central control
	LAN	1	Gigabit network communication interface
2	USB-B	1	For Debugging
8	4G	1	Reserved 4G module part, optional (not yet developed)

5.2 Dimensions



Tolerance: ± 0.3 Unit: mm

6 Product Specification

6.1 Basic Parameters

6.1.1 Conventional Version

Loading capacity	Single network port	The maximum load is 655360 pixels, and the network port load is 1280×512 .
	Whole Unit	1.30 million Pixels
Output Resolution	Pixels are controlled within 1.30 million points Widest: 3840 Highest: 1920 When the horizontal pixels exceed 1920, the vertical pixels must be within 1080 When the vertical pixels exceed 1080, the horizontal pixels are controlled within 1080, and the limit common resolution $1080 \times 1920@60\text{HZ}$	
Input Resolution	Maximum support $3840 \times 2160@30\text{Hz}$ resolution video source input, backward compatible	

6.1.2 FPGA Scaled Version

Loading capacity	Single network port	The maximum load is 655360 pixels, and the network port load is 1280×512 .
	Whole Unit	1.30 million Pixels
Scale window size (output resolution)	Pixels are controlled within 1.30 million pixels Widest: 7680 Highest: 7680	
Input Resolution	Maximum support $3840 \times 2160@30\text{Hz}$ resolution video source input, backward compatible	

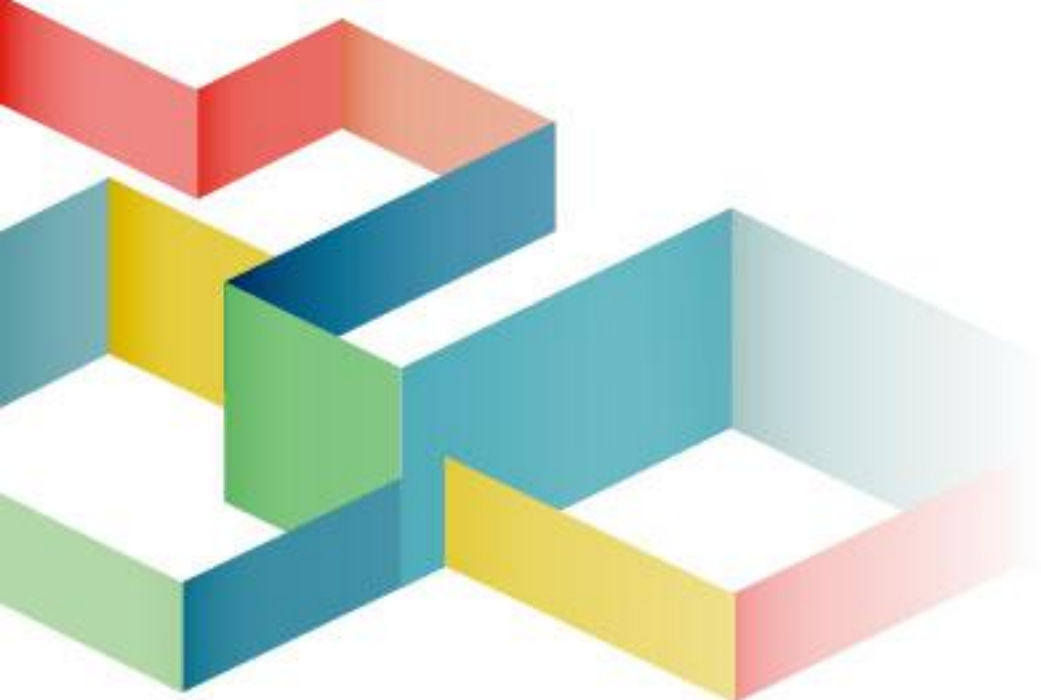
6.2 Specification

Electrical parameters	Input voltage	AC-100-240V-50/60HZ
	Rated current	11W
Working environment	Working temperature	0°C~50°C
	Working humidity	5%RH~85%RH has no condensation.
Storage environment	Temperature	-10°C~60°C
Board size	480mm×251×44mm	
Net weight	2.53kg	
Outer packing size	515×135×360mm	
Gross weight of product	3.6 Kg Description: Including wire, accessories	
Packing mode	3 PCS /box	
Accessory	1 × power cord, 1 × USB2.0 cable, 1 × HDMI cable, 1 × certificate	

*Current and power consumption may vary depending on factors such as product usage, environment, and settings.

7 Precautions

- High voltage hazard: This product operates at AC 100V~240V.
- Do not allow liquids or metal fragments and other conductive materials to enter the device, to prevent safety accidents.
- Please use the device in a dry and clean environment.



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