

# VIDEO PROCESSOR TWV165



Model: TWV16S



# 02 INTRODUCTION

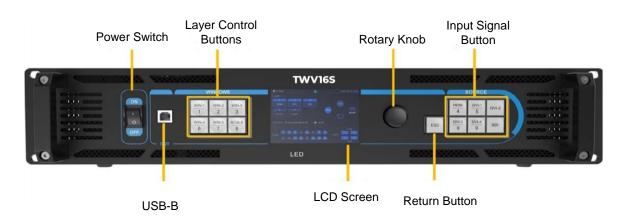
- ➤ The TWV16S is the latest all-in-one product launched by TWT, integrating video processing configuration, video control, LED display, the ability to receive diverse video signals and ultra-high resolution, fully supporting 4K × 2K @ 60Hz. It features image processing and signal transmission/broadcasting capabilities.
- The TWV16S can send processed video to the LED display through network and fiber optic ports. It utilizes an industrial-grade enclosure, offering powerful video processing and transmission abilities, ensuring adaptability to complex operating environments. This makes it ideal for large-scale fixed installations such as government, enterprises, organizations, and military command centers.



- Complete video input interface: 1 HDMI 2.0, 4 DVI, 1 3G-SDI
- Multi-output, large load: Support 16-channel network ports and 4channel fiber output with load up to 10.4 million pixels
- Support HDR output: Can greatly enhance the quality of the display screen, make the screen color more real and vivid, more clear details.
- Support for personalized scaling: Support three screen scaling modes, including point-to-point mode, full-screen scaling, custom scaling.
- Multi-window display: Can display up to 5 windows simultaneously.
- ➤ Support for monitoring output images sends the monitoring content through the HDMI to the display.
- Support intelligent control software TWT operation control.
- > Scene Presets: Supports up to 10 user-defined scene presets.
- Supports EDID management. Supports user-defined EDID and preset EDID.



### FRONT PANEL



Control Button	Description		
Opening key	ON boot/ OFF shutdown		
USB-B	Connect to PC, configure settings, set up the display, troubleshoot issues.		
Layer Control Buttons	<ul> <li>When the window is not open, press the window button to enter the corresponding window properties menu and open the window.</li> <li>When the window is open, press the window button to enter the corresponding window properties menu.</li> <li>When the window is open, press the window button to close the window</li> <li>Key lamp status:</li> <li>The button light indicates that the layer is on.</li> <li>The keystroke light indicates that the layer is off.</li> <li>When the key lamp flashes, it represents the layer editing.</li> </ul>		
	SCALE key: full screen automatic zoom shortcut key, the lowest priority and open window adaptive spread to the full screen.		
LCD Screen	Used to display the current status of the device and the settings menu.		
Rotary Knob	<ul> <li>In the main interface, press the knob to enter the menu operation interface.</li> <li>In the menu operation interface, rotate the knob to select the menu, press the knob to select the current menu or enter the submenu.</li> <li>After selecting the menu with parameters, you can adjust the parameters by rotating the knob. After adjusting, press the knob again to confirm.</li> <li>Press and hold the rotary knob and the ESC key simultaneously for more than 3 seconds to lock or unlock the keyboard.</li> </ul>		
Return Button	Exit the current menu or cancel the operation.		
Input Signal Button	<ul> <li>Switch input sources and input signal status.</li> <li>Indicator light off: No input signal source connected, and the input source is not in use.</li> <li>Indicator light half on: The input signal source is connected, and the input source is not in use,</li> <li>All indicators are on: The input signal source is connected, and the input source is in use.</li> <li>Indicator light blinks: No input signal source connected, and the input source is in use.</li> <li>Note: Before switching the signal source, select the window first. If the window is not selected, it will directly switch to the input source settings interface.</li> </ul>		



## **INPUT AND OUTPUT SPECIFICATIONS**



INPUT INTERFACE				
Interface	Quantity	Description		
DVI	4	<ul> <li>Single-link DVI input, each channel supports video input up to 1920 x 1200 @ 60Hz</li> <li>Supports custom resolution</li> <li>Maximum Width: 2048</li> <li>Maximum Height: 2048</li> </ul>		
HDMI 2.0	1	<ul> <li>Supports video input up to 3840 x 2160 @ 60Hz, backward compatible</li> <li>Supports HDCP 1.4 and EDID 1.4</li> <li>Supports custom resolution</li> <li>Maximum Width: 81922</li> <li>Maximum Height: 81922</li> <li>Interlacing signal input is not supported</li> </ul>		
3G-SDI	1	<ul> <li>One x3 G-SDI input, maximum resolution 1920x1080@60 Hz</li> <li>Input resolution settings are not supported</li> <li>Support for interlaced signal input, and support for deinterlacing processing</li> </ul>		
OUTPUT INTE	RFACE			
LAN port	16	<ul> <li>Outputs 16 Gigabit Ethernet ports, supports up to 10.4 million pixels.</li> <li>Management capability: <ul> <li>Maximum Width: 16384</li> <li>Maximum Height: 8192</li> </ul> </li> <li>Management up to a single network port: <ul> <li>When input signal is 8-bit: 650000 pixels</li> <li>When input signal is 10-bit / 12 bit: 320000 pixels</li> </ul> </li> <li>Does not support audio output</li> </ul>		
OPT1∼4	4	<ul> <li>4-channel 10G fiber optic input interface.</li> <li>OPT1 transmits network data channels 1~8</li> <li>OPT2 transmits network data channels 9~16</li> <li>OPT3 is the copy channel of OPT1 or 1~8 network channels</li> <li>OPT4 is the copy channel of OPT2 or 9~16 network channels</li> </ul>		
MONITOR	1	HDMI interface, preview output, supports resolution up to 1920 x 1080 @ 60Hz		
CONTROL INTERFACE				
ETHERNET	1	Connect PC communication (only for debugging)		
USB	1	<ul> <li>USB 2.0(Type-B, square port): connect PC, debug device, device cascade input</li> <li>USB 2.0(Type-A, flat port): device cascade output</li> </ul>		
RS232	1	Connects to central control device.		

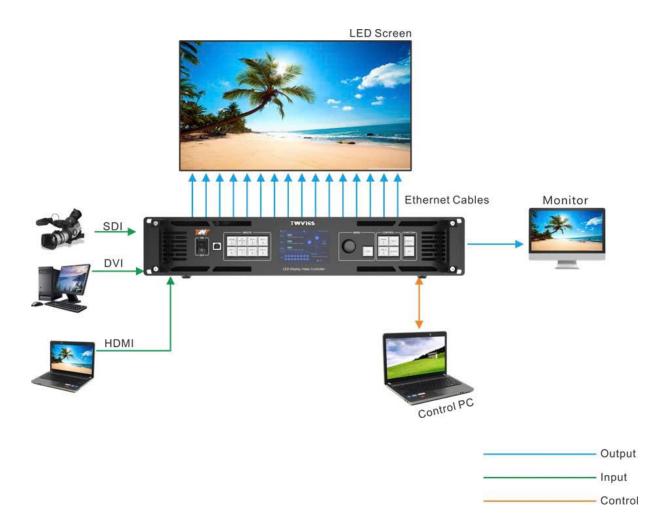
Electrical	Power Input		AC100V~240V 50/60Hz	
Specifications	Power Consumption		50W	
Operating Environment	Temperature		0°C~50°C	
Storage Environment	Temperature		-20°C~60°C	
	Dimensions		482.6mm x 72.5mm x 94.7mm	
Physical Specifications	Net Weight		6.2kg	
Opecifications	Gross Weight		9.5kg	
Packaging Information	<ul> <li>Packaging includes: Carton box, accessory box, and outer large box.</li> <li>Packaging process: Product and accessory box (accessories related to the product are packed in the accessory box) are placed inside a carton box, and the whole unit is wrapped with a large outer box.</li> </ul>			
	Carton Box Dimensions	530.0mm x 420.0mm x 193.0mm, white corrugated box.		
	Accessory Box Dimensions	405.0mm x 290.0mm x 48.0mm, white corrugated box, accessory box contains Accessories: 9.6kg including main unit, 1 cap USB, 4 cap DVI, 1 HDMI cable, 1 quick start guide, 4 silicon pads.		
	Outer Large Box Dimensions	550.0mm x 440.0mm x 215.0mm.		

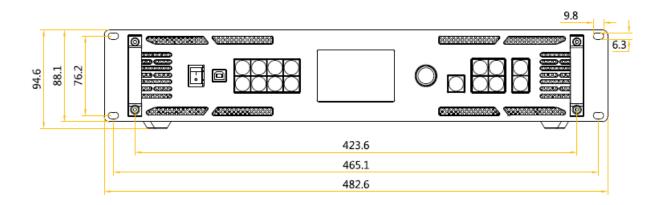
Input Interface	Color Depth	Maximum Input Resolution	
HDMI 2.0	8bit	RGB4:4:4: 3840×2160@60Hz	
		YCbCr4:4:4: 3840×2160@60Hz	
		YCbCr4:2:2: 3840×2160@60Hz	
		YCbCr4:2:0: Not supported	
	10bit/12bit	RGB4:4:4: 1920×1080@60Hz	
		YCbCr4:4:4: 1920×1080@60Hz	
		YCbCr4:2:2: 1920×1080@60Hz	
		YCbCr4:2:0: Not supported	
S-DVI	8bit	RGB4:4:4: 1920×1080@60Hz	
3G-SDI	Maximum input resolution: 1920 x 1080 @ 60Hz.		
	Note: When the input source is 3G-SDI, the input resolution is not supported.		

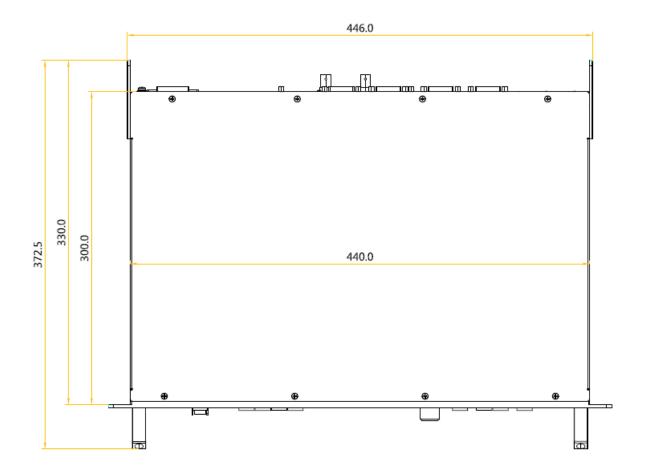


## SUPPORT REMOTE CONTROL DEVICE

Remote control device for scheduling playback on LED screens			
CPU	Quad Core ARM Cortex A53		
GPU	Mali G31 MP2		
Flash	EMMC 4GB		
Sdram	2GB		
os	Android 9		
Support	H265 Main10@L5. 1 decoder up to 4K@60fps or 6K@30fps		
USB	1 Type-A USB 3.1 Gen1 and 1 High speed USB 2.0		
Displayport	HDMI port and Type-c port ,Support double screen		
Card Reader	Micro SD cards, Maximum support 64G (Not included)		
High Definition Video Output	4K (4096x2160 pixel)		
Lan/Ethernet	10/100/1000M standard RJ-45		
Wireless	2.4G /5G dual-band Wifi, IEEE 802.11 a/b/g/n/ac		
Bluetooth	V4.1		
Audio	MP3, AAC, WMA, FLAC, Ogg		
Image	HD JPEG BMP GIF PNG TIF		
Mouse/ Keyboard	Support mouse and keyboard via USB;Support 2.4GHz wireless mouse and keyboard via 2.4GHz USB dongle		
НОМІ	HDMI 2.0a for 4k @ 60Hz		
4G Chip	ZXIC 7520V3		
Wifi Chip	Realtek 8189		
Lan Chip	IC+ IP101		
Power Input	AC100V ~240 V 50/60Hz		
Power Consumption	50W		
Storage Environment Temperature	0°C~50°C		







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