TNT

V

SEAMLESS

SWITCHER

VS9

Catalogue

1 Overview

The VS9 is a high-performance seamless switcher that integrates video processing, screen mosaic, transition effects and multi-screen display capabilities. With powerful video signal receiving and processing abilities, the VS9 supports up to 7 video input 4K×2K@60Hz . Using high-performance video processing technologies, itis capable of processing and outputting ultra-high quality images. The VS9 supports 9 video inputs, 7 layers and up to 4 group of DVI connectors for mosaic ouput. Asingle VS9 unit can load an up to 8Kx1K screen, and multiple VS9 units can becascaded for output.

Thanks to the powerful capabilities of receiving and processing a variety of video signals, the VS9 can be widely used in various scenarios, such as intermediate and high-end rental, stage control, media centers, big conference sites, exhibition sites and concert control centers.

2 Features

- Compatible with industry-standard video input connectors in the market

  Support 9 input signal inputs including: 1xDP1.1, 2xHDMI 1.4, 4xDVI, 1xDP1.2 and 1x3G-SDI:

  − DP 1.2 connector: 3840×2160@60Hz

  − DP 1.1 connector: 3840×2160@30Hz

  − HDMI 1.4 connector: 1920×1080@60Hz

  − DVI connector: 1920×1080@60Hz, 1920×1200@60Hz

  − 3G-SDI connector: 1920×1080@60Hz

- 8 DVI connectors for mosaic layout.

  Each group includes a main connector and a backup connector. A maximum of 4 connectors can be used for mosaic output. The mosaic layout can be 4×1, 1×4 or 2×2. The maximum loading capacity can reach 9,200,000 pixels and the maximum mosaic width can be up to 8192 pixels.

  Supports 4 single-link connectors or 2 dual-link connectors for mosaic output.

- Multiple layer display

  − Up to 7 layers supported at the same time. Max resolution of each layer can be up to 4K×2K. Cross connector output is supported. 2 input 4Kx2K@30Hz, 7 input 1920x1080@60Hz.
  − Layer cloning, layer mirroring and Z-order layer sorting are supported.

- Customized BKG settings

  You can load an image file from the control computer or event controller, or you can also capture an input source image displayed on the screen as the BKG image.

- Input source cropping supported

- Easy mosaic and custom mosaic

- EDID management supported

  Supports input resolution management for DVI, HDMI and DP connectors.

- Display control and transition effects
    - Allows you to black out or freeze the screen by simply clicking one button.
    - Supports setting of transition effect and effect duration.

- HDMI connector for output monitoring
    - Supports monitoring of all input sources, PVW and PGM.
    - Supports displaying of input resolution and frame rate.

- 2 × Aux output

- 36 × preset

    A total of 36 user presets can be created and saved as templates which can be used directly and conveniently. With 10 window templates. You can load one of the window templates to quickly lay out the windows.

- Genlock synchronization or synchronization with any input source, achieving output vertical synchronization

3 Appearance

Front Panel

No.	Button	Function
1	Input source buttons	Indicate input source status. • On: The input source is accessed but not in use. • Dim: The input source is accessed and in normal use. • Off: The input source is not accessed or abnormal.
2	LCD screen	Display the current device status and settings menu.
	Knob	• On the home screen, press the knob to enter the operation menu screen. • On the operation menu screen, rotate the knob to select a menu item, and press the knob to confirm the selection or enter the submenu. • When a menu item with parameters is selected, you can rotate the knob to adjust the parameters. Please note that after adjustment, you need to press the knob again to confirm the adjustment.
	BACK button	Press the button to exit the current menu or cancel the operation.

| No.	Button	Function
	TAKE button	Send PVW to PGM.
	TEST button	Enter the test patterns menu.
3	Layer buttons	Press a layer button to open the corresponding layer and enter the layer settings menu • On: Layer is open. • Flashing: Settings menu of the corresponding layer is opened and being edited. • Off: Layer is closed. • On the home screen, hold down a layer button to close the layer. • BKG: Open or close the BKG.
4	Preset button	Press it to enter the preset menu. A total of 32 presets can be loaded, saved and cleared, etc.
	Fn button	A custom function button

Rear Panel

Input	
INPUT-1	DP 1.1 connector Supports 3840×2160@30Hz video source input (downward compatible) and custom resolutions.
INPUT-2	HDMI 1.4 connectors Support 1920×1080@60Hz video source input, any
INPUT-3	input resolution that conforms to VESA standard and custom resolutions.
INPUT-4	DVI connectors
INPUT-5	Supports 1920×1080@60Hz video source input
INPUT-6	(downward compatible), any input resolution that
INPUT-7	conforms to VESA standard and custom resolutions.

INPUT-8	DP 1.2 connector Supports 3840×2160@30Hz video source input (downward compatible) and custom resolutions.
INPUT-9	3G-SDI connector Supports 1920×1080@60Hz video source input (downward compatible). Supports de-interlacing processing.
	3G-SDI LOOP for 3G-SDI signal loop output
Output	
HDMI	HDMI output connector, capable of monitoring 9 input sources, PVW and PGM
DVI1-DL/PGM1	DVI 1 output If the output mode is set to dual link, this connector is DuallinkOut1.
DVI2/PGM2	DVI 2 output If the output mode is set to dual link, this connector is invalid.
DVI3-DL/PVW1	DVI 3 output If the output mode is set to dual link, this connector is DuallinkOut2.
DVI4/PVW2	DVI 4 output If the output mode is set to dual link, this connector is invalid.
HDMI1/HDMI2	2 Aux output connectors
Control	
ETHERNET (RJ45)	A control connector
USB (Type-B)	For the connection with control computer
USB (Type-A)	For cascading VS9 units
IN-Genlock-LOOP	For synchronizing cascaded devices
Power	
AC100V-240V~, 50/60Hz	AC power connector

4 Dimensions
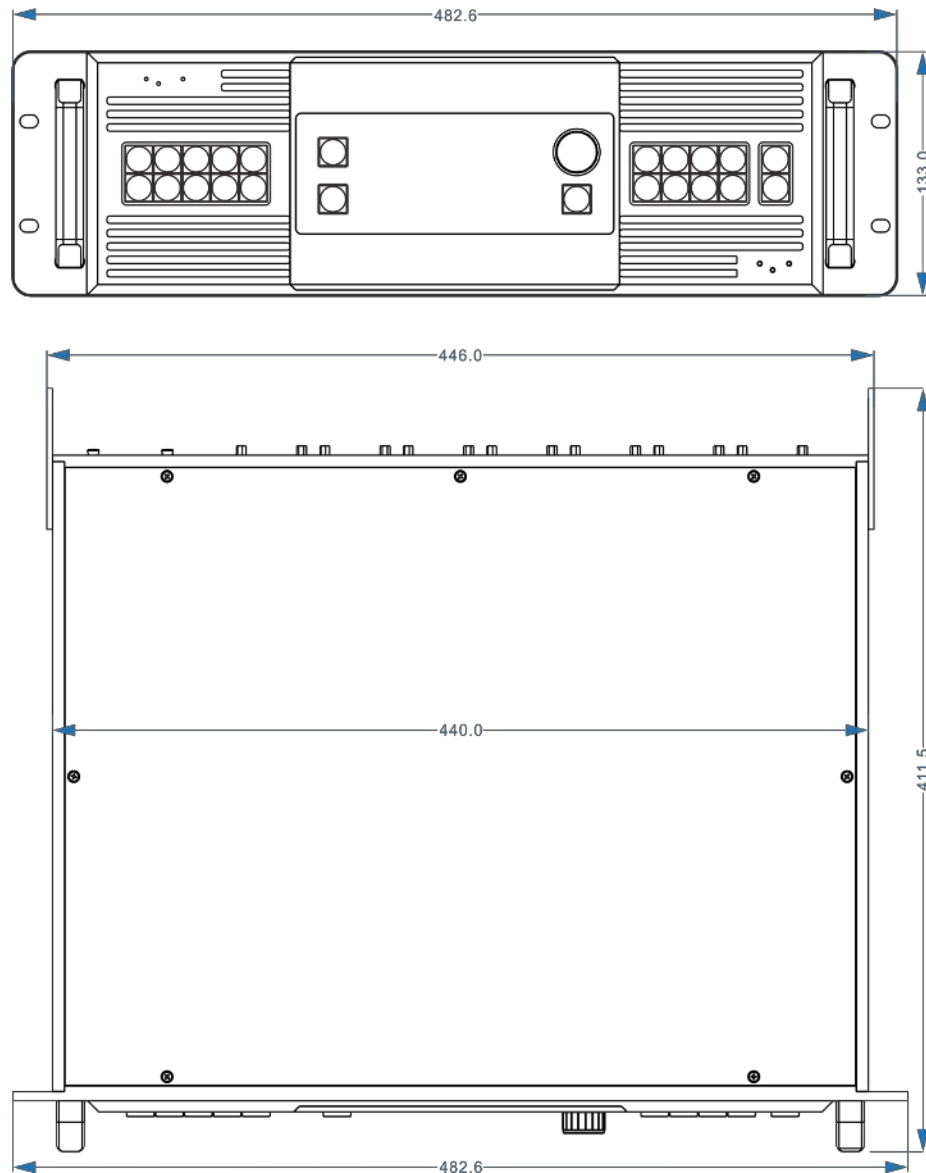
Unit: mm

5 Applications

VS9 works independently
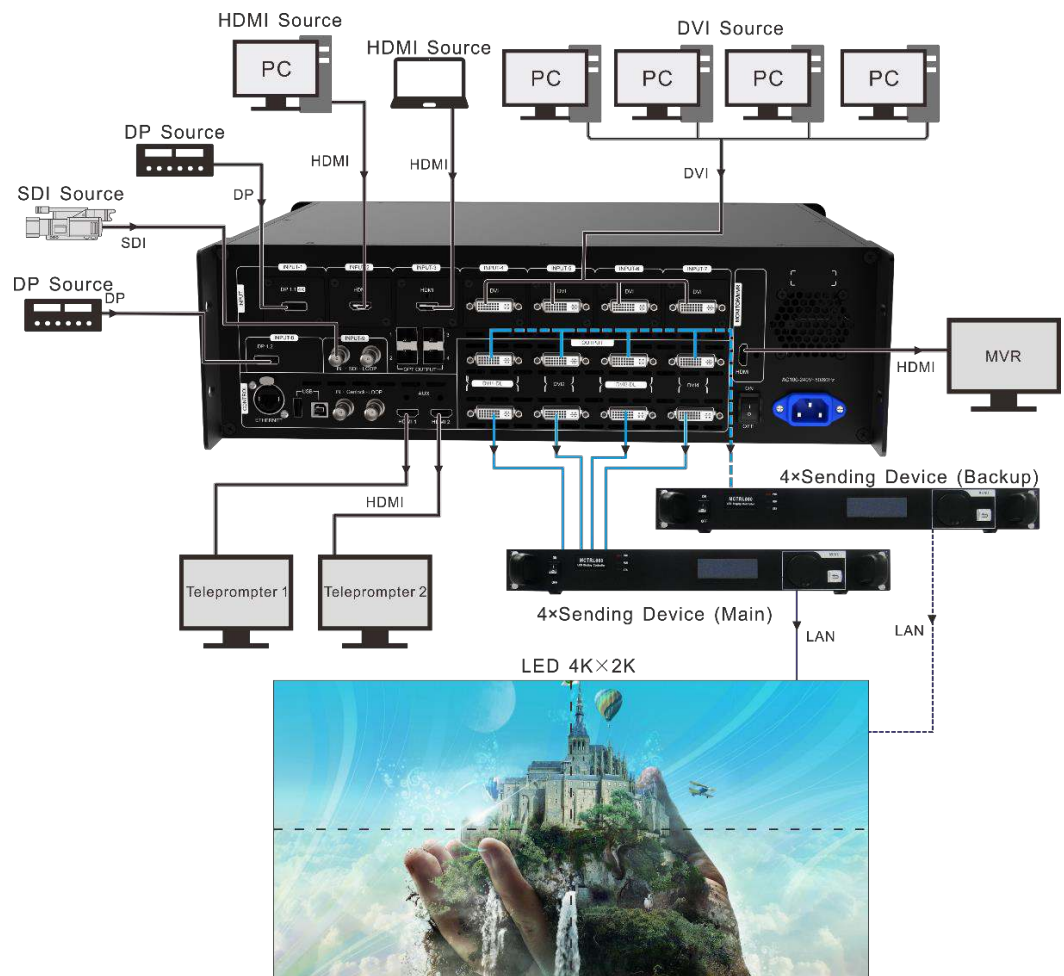
6 Specifications

Connector Specifications		
Connector	Resolution	
DP 1.1	800×600@50/60/75/120Hz 1024×768@50/60/75/120Hz 1280×720@50/60/75/120Hz 1280×768@50/60/75/120Hz 1280×800@50/60/75/120Hz 1280×1024@50/60/75/120Hz 1366×768@50/60/75/120Hz 1440×900@50/60/75/120Hz 1600×1200@50/60/75/120Hz 1680×1050@50/60/75/120Hz	1920×1080@50/60/75/120Hz 1920×1200@/50/60/75Hz 2048×640@50/60/75/120Hz 2048×1152@/50/60/75Hz 2048×1536@/50/60/75Hz 2304×1152@/50/60/75Hz 2560×816@50/60/75/120Hz 2560×960@/50/60/75Hz 2560×1600@/50/60Hz 3840×1080@/50/60Hz
DP 1.2	800×600@50/60/75/120Hz 1024×768@50/60/75/120Hz 1280×720@50/60/75/120Hz 1280×768@50/60/75/120Hz 1280×800@50/60/75/120Hz 1280×1024@50/60/75/120Hz 1364×768@50/60/75/120Hz 1440×900@50/60/75/120Hz 1600×1200@50/60/75/120Hz 1680×1050@50/60/75/120Hz 1920×1080@50/60/75/120Hz	1920×1200@50/60/75/120Hz 1920×2160@50/60/75/120Hz 2048×640@50/60/75/120Hz 2048×1152@50/60/75/120Hz 2048×1536@50/60/75/120Hz 2304×1152@50/60/75/120Hz 2560×816@50/60/75/120Hz 2560×960@50/60/75/120Hz 2560×1600@50/60/75/120Hz 3840×1080@50/60/75/120Hz 3840×2160p@/50/60Hz
HDMI 1.4 DVI	800×600@50/60/75/120Hz 1024×768@50/60/75/120Hz 1280×720@50/60/75/120Hz 1280×768@50/60/75/120Hz 1280×800@50/60/75/120Hz	1920×1080@50/60/75/120Hz 1920×1200@/50/60/75Hz 2048×640@50/60/75/120Hz 2048×1152@/50/60/75Hz 2048×1536@/50/60/75Hz

Connector Specifications	
Connector	Resolution
	1280×1024@50/60/75/120Hz 2304×1152@/50/60/75Hz 1366×768@50/60/75/120Hz 2560×816@50/60/75/120Hz 1440×900@50/60/75/120Hz 2560×960@/50/60/75Hz 1600×1200@50/60/75/120Hz 2560×1600@/50/60Hz 1680×1050@50/60/75/120Hz 3840×1080@/50/60Hz 1920×1200@60Hz
SDI	3G-SDI, compatible with HD-SDI and SD-SDI signal De-interlacing supported 576i@50Hz 480i@59.94Hz 1280×720p@23.98/24/25/29.97/30/50/59.94/60Hz 1920×1035i@59.94/60Hz 1920×1080i@50/59.94/60Hz 1920×1080p@23.98/24/25/29.97/30/50/59.94/60Hz
Overall Specifications	
Power connector	AC100V-240V~50/60Hz
Operating environment	Temperature: -20°C to +70°C
	Humidity: 20% RH to 90% RH, non-condensing
Dimensions	3U standard chassis 482.6 mm × 139.5 mm × 411.5 mm
Package dimensions	550mm × 601mm × 189mm
Power consumption	50 W
Net weight	6.5 kg
Total weight	20 kg

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