VWPE Series
Modular Video Wall Processor

OVERVIEW

The VitBest VWPE series professional image processor is a new generation of multifunctional image processor designed to meet various high-quality processing needs. It supports the acquisition, transmission, switching, and processing of ultra-high-definition image signals at 4K@60Hz. Based on a powerful hardware FPGA system architecture and modular design concept, the VWPE series splicing processor is stable and efficient, and can support various scales and functional expansions, providing the optimal solution for aerospace, medical, and emergency applications.

FEATURES

- Employing a pure hardware FPGA architecture, it features a fully modular card design and supports continuous working 7x24
- Supports the acquisition and processing of 4K@60Hz image signals
- Function of mixed insertion of input and output cards
- The entire series output is synchronized with the backplane, ensuring strict microsecond-level synchronization of all input signals to each output screen
- Supports output grouping, capable of simultaneously supporting the splicing of multiple screens with different resolutions
- A single output channel can support 16 2K layers or 4 4K layers
- Supports various types of signal acquisition, including DP1.2, HDMI2.0, HDMI1.4, HDMI1.3, DVI, and RJ45
- Supports multiple signal outputs, including HDMI2.0/HDMI1.4/HDMI1.3/DVI-D/RJ45, etc
- Supports H.264/H.265 streaming media decoding
- Standard configuration with rolling subtitle function, the font, size, color, and scrolling speed of the subtitles can be customized
- Standard configuration includes the Background image function, allowing users to upload the required images without occupying the image layer count
- All signals can be seamlessly and real-time switched at the display end, without any black screen flickering
- Supports EDID configuration management, allowing for the customization and modification of EDID for input boards
- Supports signal cropping function, allowing image cropping at a minimum unit of 1 pixel as per requirements
- Supports power-off save function, after active power-off or accidental power-off and re-powering, the processor can still maintain the image layout before the power
- Supports custom output resolution, with a maximum width of 3200 and a maximum height of 2048, not exceeding 23 million pixels
- Full-frame lossless 4:4:4 image processing
- Visual operation management supports visual preview, real-time signal visualization management, dynamic monitoring of signal sources, and real-time viewing of large screen signals
- Supports adjusting the screen brightness
- Supports real-time detection of board temperature
- Supports mobile control on Android, IOS, and Windows systems

About VitBest

VitBest is a professional digital audio video products manufacturer dedicates in manufacturing high quality, reliable and stable products. For audio-visual system integrators, a trustworthy distribution and control electronics components means much more than their sizes.

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CHASSIS SPECIFICATIONS

Model No.	Chassis Size	Slots Capacity	Dimension	Full Load Power	Weight
VWPE-2	2.5U	4 input/output card slots	300x325x112mm	100W	5kg
VWPE-4	4U	9 input/output card slots	300x325x180mm	150W	9kg
VWPE-6	6.5U	19 input/output card slots	300x325x292mm	300W	14kg
VWPE-13	13U	27 input/output card slots	300x325x584mm	450W	28kg

TECHNICAL PARAMETER OF I/O CARDS

INPUT CARDS

VWPE-IN-8-HDMI-1080P	**8 channel 1080P HDMI 1.3 input Card for VWPE Series** 8 HDMI 1.3 inputs, HDCP support, EDID management support and signal source cropping. Supports a maximum resolution of 1920x1200@60Hz.
VWPE-IN-4-HDMI-1080P	**4 channel 1080P HDMI 1.3 input Card for VWPE Series** 4 HDMI 1.3 inputs, HDCP support, EDID management support and signal source cropping. Supports a maximum resolution of 1920x1200@60Hz.
VWPE-IN-2-HDMI-4K30	**2 channel 4K30 HDMI 1.4 input Card for VWPE Series** 2 HDMI 1.4b inputs, supporting 4K@30Hz input, EDID management, and signal source cropping.
VWPE-IN-4-HDMI-4K30	**4 channel 4K30 HDMI 1.4 input Card for VWPE Series** 4 HDMI 1.4b inputs, supporting 4K@30Hz input, EDID management, and signal source cropping.
VWPE-IN-2-HDMI-4K60	**2 channel 4K60 HDMI 2.0 input Card for VWPE Series** 2 HDMI 2.0 inputs, supporting 4K@60Hz input, EDID management, and signal source cropping. It also supports custom resolution with a maximum width of 6500.
VWPE-IN-8-DVI-1080P	**8 channel 1080P DVI-D input Card for VWPE Series** 8-channel DVI-D inputs, supporting DVI signal input, EDID management and signal source cropping. It supports a maximum resolution of 1920x1200@60Hz and occupies two card slot positions.
VWPE-IN-2-DP-4K60	**2 channel 4K60 DP1.2 input Card for VWPE Series** 2 DP1.2 inputs, supporting 4K@60Hz input, with EDID management and signal source cropping support. It also supports custom input with a maximum width of 6500.
VWPE-PreView	**Input Card for Preview in network by iPad** 1 Lan port input, supporting the preview function of all signals within the software.
VWPE-LAN	**Input Card for IP network encoded signals** 1 Lan port input, supporting IP network encoded signals including network cameras and computer network encoded signals. Supports signal source cropping, supports 4-Channel 4K 16-Channel 1080P, 36-Channel 720P, 64-Channel D1 signals.

OUTPUT CARDS

VWPE-OUT-8-HDMI-1080P	**8 channel 1080P HDMI 1.3 output Card for VWPE Series** 8-channel HDMI output, with a maximum output resolution of 1920*1200@60Hz, supporting up to 16 layer per port, with a maximum width support of 3200 pixels and a maximum limit of 230W pixels.
VWPE-OUT-4-HDMI-1080P	**4 channel 1080P HDMI 1.3 output Card for VWPE Series** 4-channel HDMI output, with a maximum output resolution of 1920*1200@60Hz, supporting up to 16 layer per port, with a maximum width support of 3200 pixels and a maximum limit of 230W pixels.
VWPE-OUT-2-HDMI-4K60	**2 channel 4K60 HDMI 2.0 output Card for VWPE Series** 2 HDMI 2.0 outputs with a resolution of 3840x2160@60Hz, each port supports up to 40 layers of 2K /4 layers of 4K, with a maximum width of 7680 and a maximum pixel of 1040W.
VWPE-OUT-8-DVI-1080P	**8 channel 1080P DVI-D output Card for VWPE Series** 8-channel DVI-D output, 24 5-pin DVI-I interface, with a maximum output resolution of 1920*100@60Hz, supports custom resolution, and occupies two card slot positions. Each port supports 16 layers, with a maximum width support of 3840 pixels.

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