

36 x 20 Modular Video Wall Processor

VW3620

Purpose-built to meet the increasingly stringent system performance requirements in mission-critical applications, the VW3620 is a 7U, modular 4K video wall processor with 7 input slots, 5 output slots, and 2 function board slots, which also work as input board slots, to support up to 36 input sources and 20 display terminals while being able to handle 4K sources without delay. Advanced 4K@60 4:4:4 scaling technology plus the signal processing capability allow the VW3620 to deliver astonishing, accurate True 4K imagery. The hot-swappable, redundant CPU control board and dual power modules add an extra level of reliability. With input / output cards and cooling fan module also coming hot-swappable, the VW3620 guarantees 24/7 operation and easy maintenance in scenarios where system malfunction or shutdown is unacceptable.

Thanks to ATEN's cutting-edge windowing technology, the VW3620 supports multiple video walls with varying resolutions. Nearly restriction-free window placement functionality allows source cropping, overlap, and more, displaying a tailored view of every piece of crucial information. Organization logos, color schemes, calendar, clock, and scrolling text can be added to the video walls to widely broaden applications. Moreover, the VW3620 can be configured and controlled via various methods to overcome geographical limitations, from RS-232, Ethernet, the front panel buttons, web GUI to RESTful API. Integration with ATEN Control System and the 3rd party devices is allowed through its RS-232 and Ethernet interfaces as well as the support for RESTful APIs.

The VW3620's unrivalled video wall processing power, configurability and reliability have made it suitable for a range of mission-critical video wall applications, including command centers, control rooms, public security organizations, governments, or other large-scale digital signage scenarios such as exhibitions, broadcasting, and education organizations.



Front View



Rear View



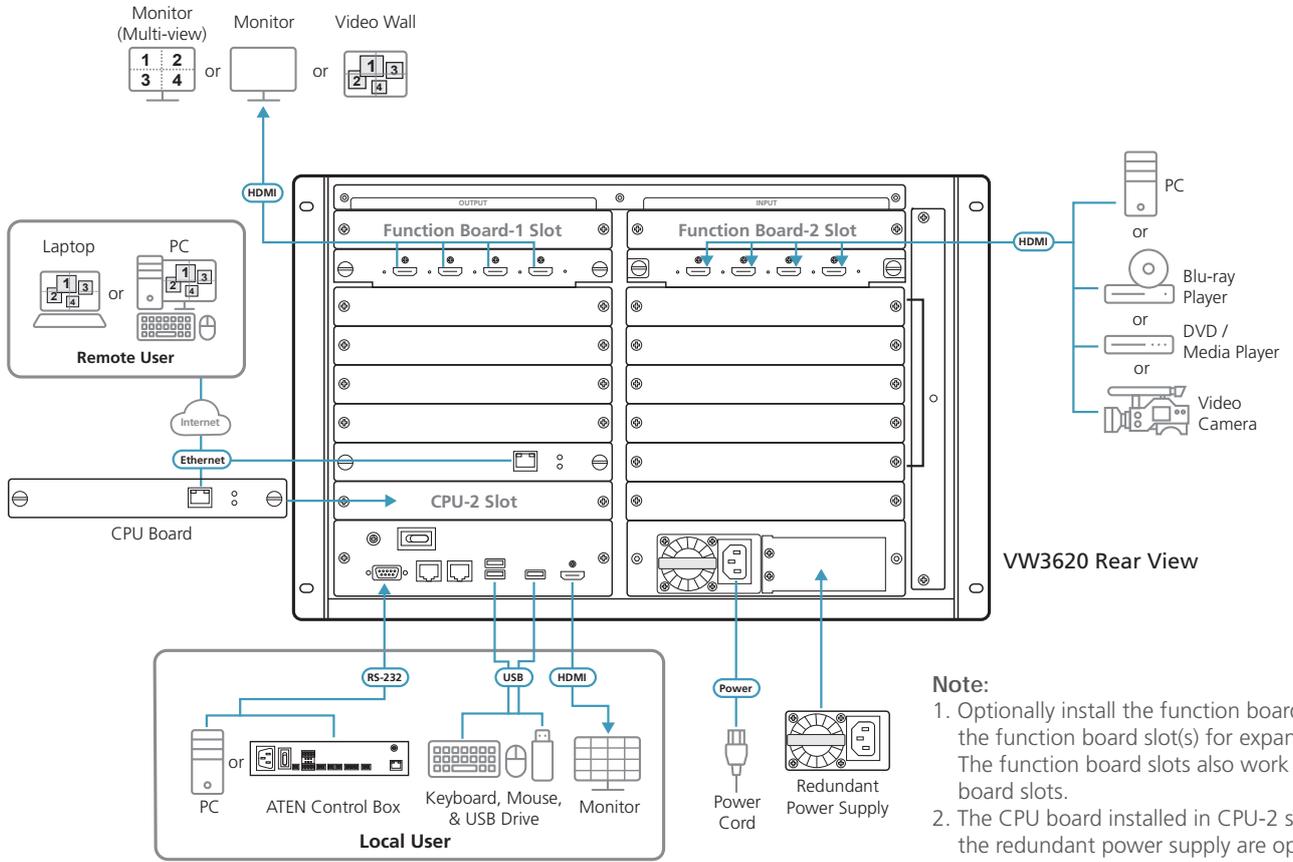
Features

- Processes up to 36 input sources and manages up to 20 displays in any sizes at varying resolutions from a single 7U chassis
- Modular construction with 7 input slots, 5 output slots, and 2 function board slots, which also work as input board slots, to meet various expansion needs
- FPGA hardware architecture — handles 4K input sources, supports near-zero-second seamless source switching, and transmits high quality video streams without delay
- True 4K@60 scalability with 4:4:4 signal processing — supports custom resolutions and enables upscaling of video signals for crystal clear, accurate imagery regardless of the display size or type from LED, LCD, DLP, to other large screens
- Reliable 24/7 operation with hot-swappable, redundant CPU control board and dual power modules, and hot-swappable input / output cards and cooling fan module
- HDMI (Deep Color, True 4K); HDCP 2.2 compliant
- Powerful windowing technology for nearly restriction-free content placement — outputs signals in real-time in customizable layouts, such as PiP, PbP, source cropping, overlapping, and spreading across multiple screens, and in any sizes based on the correct aspect ratio
- Supports Multiview — content source monitoring in 2x2 or 4x4 layouts from a single display
- Customizable elements to enhance organization identity and video wall presentation including logos, color schemes, calendar, clock, and scrolling text
- Direct control via RS 232 / Ethernet connection and the front panel buttons
- Remote control via intuitive Web GUI to preview input signals in real-time and control outputs including content placement and management of up to 4 canvases
- Local HDMI output — monitoring of video input signals and video wall layouts via Single / Array mode at up to 1080p in real-time from one display
- Integration with ATEN Control System and the 3rd party devices via RS-232 / Ethernet / RESTful API
- Built-in USB Type-A ports — video wall background image change and firmware upgrade
- Supports FrameSync — avoids image tearing by synchronizing the scaler output frame rate to the input signal frame rate
- EDID Expert™ — selects optimum EDID settings for smooth power-up, high-quality display and use of the best video resolution across different screens
- Perfect for mission-critical video wall applications, including command centers, control rooms, public security organizations, governments, or other large-scale digital signage scenarios

Highlights

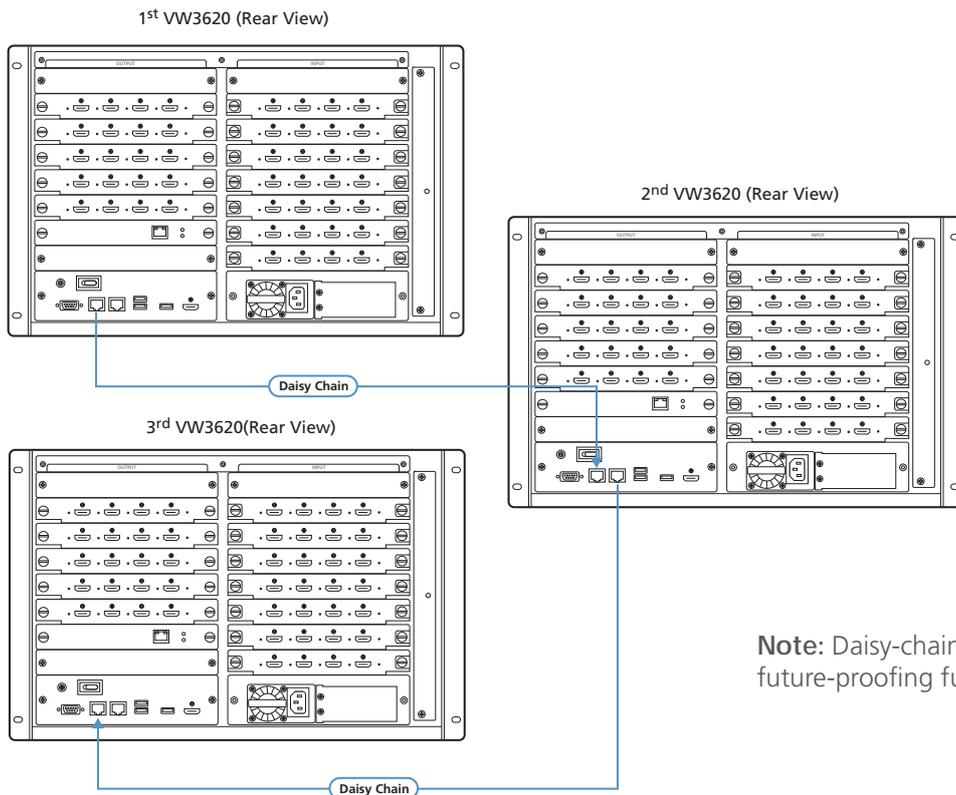
<p>Modular Construction, Flexible Configuration</p>	<p>Containing 7 input slots, 5 output slots, and 2 function board slots, which also work as input board slots, the VW3620's modular architecture supports up to 36 input signals and 20 display terminals. Each processor can be equipped with the necessary number of modules depending on user demands. Such design provides a convenient solution when it comes to daily maintenance and future upgrades / expansion, without the need to disassemble the chassis for component replacement.</p>
<p>FPGA Hardware Architecture</p>	<p>With the implementation of FPGA technology, the VW series can handle 4K input sources, support near-zero-second seamless source switching, and transmit high quality video streams without delay.</p>
<p>True 4K@60 Scaling Technology</p>	<p>The advanced scaling and signal processing technologies support custom resolutions and upscaling of video signals up to 4K@60 4:4:4 for crystal clear, accurate imagery regardless of the display size or type from LED, LCD, DLP, to other large screens.</p>
<p>Highly-Customizable, Nearly Restriction-Free Window Placement and Management</p>	<p>To make the video wall adaptive to the changing requirements in mission-critical applications and display a tailored view of significant information, video signals can be output to the video wall in highly customizing layouts, such as PiP, PbP, source cropping, overlapping, and spreading across multiple screens, and in any sizes based on the correct aspect ratio, easily through a VW3620. Besides, operators can add / edit elements including organization logos, color schemes, calendar, clock, as well as create a scrolling text to show slogans or emergency alerts and information.</p>
<p>Hot-Swappable, Redundant Components for 24/7 Operation</p>	<p>Purpose-built for mission critical applications, the VW series includes a hot-swappable, redundant CPU control board and dual power modules, along with hot-swappable input / output cards and cooling fan module, ensuring reliable 24/7 operation while avoiding system failure led by overheating.</p>
<p>Multiple Configuration and Control Methods, Directly and Remotely</p>	<p>To maximize usage flexibility, the VW3620 can be configured and controlled by multiple methods, including RS-232 / Ethernet / front panel buttons / web GUI / RESTful API. Integration with ATEN Control System and the 3rd party devices is made easy thanks to the VW3620's RS-232 and Ethernet interfaces plus its support for RESTful APIs, extending the video wall ecosystem.</p> <p>Remote users can preview video walls of any size in real-time at up to 1080p60 and manage the content from any compatible browser and mobile device. Features include content placement on video walls, input / output content preview, and simultaneous / independent management of up to 4 video walls. These video walls can be separately managed by up to 4 individuals, making the VW3620 suitable for control room applications that require independent control for each of its own areas.</p>
<p>Preview and Control through Local HDMI Output</p>	<p>A local HDMI output port is built in for real-time content preview and control purposes, enabling operators to monitor a single or multiple video input signals and video wall layouts via Single/Array mode at up to 1080p.</p>

Connection Overview



- Note:**
1. Optionally install the function board(s) to the function board slot(s) for expansion. The function board slots also work as input board slots.
 2. The CPU board installed in CPU-2 slot and the redundant power supply are optional and for hot-standby operation.
 3. Currently the USB ports support storage and firmware upgrade.

Daisy-chaining



Note: Daisy-chaining is a future-proofing function.

Specifications

VW3620	
Board Input	7 x Slots, up to 32 4K inputs
Board Output	5 x Slots, up to 20 4K outputs
Function	2 x Slots for Function Board, which can also used as Input Slots
Video Input	
Interfaces	Depends on which I/O board is inserted
Video Output	
Interfaces	Local Output: 1x HDMI Type A Female (Black)
Control	
RS-232	Connector: 1 x DB-9 Female (Black) Serial Control Pin Configurations: Pin2 = Tx, Pin 3=Rx, Pin 5= Gnd Baud Rate and Protocol: Baud Rate:19200, Data Bits:8, Stop Bits:1, Parity: No, Flow Control: No
Ethernet	Connector: 1 x RJ-45 Female
USB	3 x Keyboard (TBD) / Mouse (TBD) /FW upgrade & Storage
EDID Settings	EDID Mode: Default / Port1 / Remix / Customized (EDID Wizard support)
Communication	
Daisy Chain Ports	RJ45 x2
Connectors	
Power	1 x 3-Prong AC Socket
Power (Optional)	Redundancy, Optional Hot Swap PSU
Power	
Maximum Input Power Rating	100-240 VAC; 50-60Hz; 10A
Power Consumption	AC110V:573.4W AC220V:555.4V
Environmental	
Operating Temperature	0 – 40 °C
Storage Temperature	-20 – 60 °C
Humidity	0 – 80 % RH, Non-Condensing
Physical Properties	
Housing	Metal
Dimensions (L x W x H)	48.20 x 45.80 x 30.98 cm
Weight	16.21 kg
Rack Height (U Spaces)	7U

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