Simply Better Connections

VW3620

36 x 20 Modular Video Wall Processor

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Seamless Switch, 4K60 4:4:4 Visual Excellence, 36-in/20-out Modular Scalability

The ATEN VW3620 is a high-performance True 4K hardware-based video wall processor distinguished by its unparalleled capability to seamlessly deliver HDMI sources up to 4K60 4:4:4, ensuring flawless real-time video and impeccable image quality without any delays or frame loss. Engineered with a modular architecture for exceptional scalability within a compact 7U frame, the ATEN VW3620 boasts 7 input slots, 5 output slots, and 2 function board slots, accommodating up to 36 input sources and 20 display terminals. Its remarkable flexibility also makes it the perfect choice for seamless integration with LED video walls, delivering pixel-by-pixel precision for mission-critical applications.


ATEN Product Lines
Visualization Control
Network Switch
IP Cam
PC
Mobile
Server
TV
Setup Box
PTZ
Conferencing System

Modular Design Layout

28+8* Inputs
*From Function Board

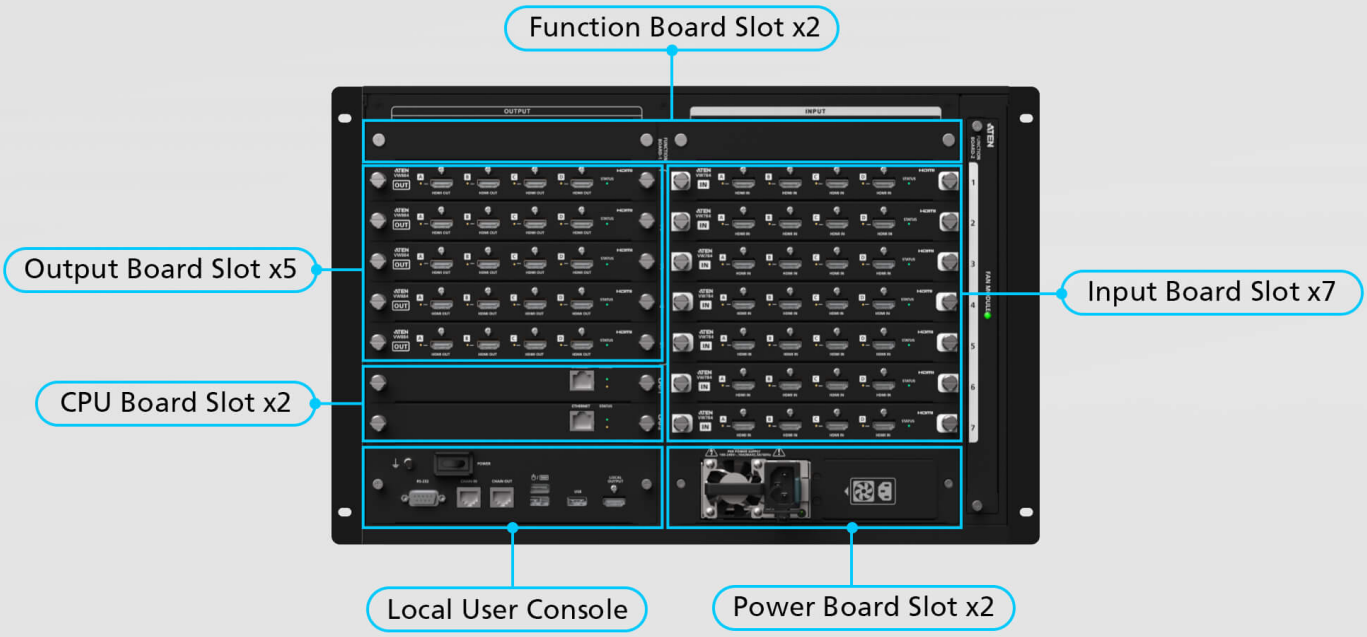
20 Outputs
*From Function Board

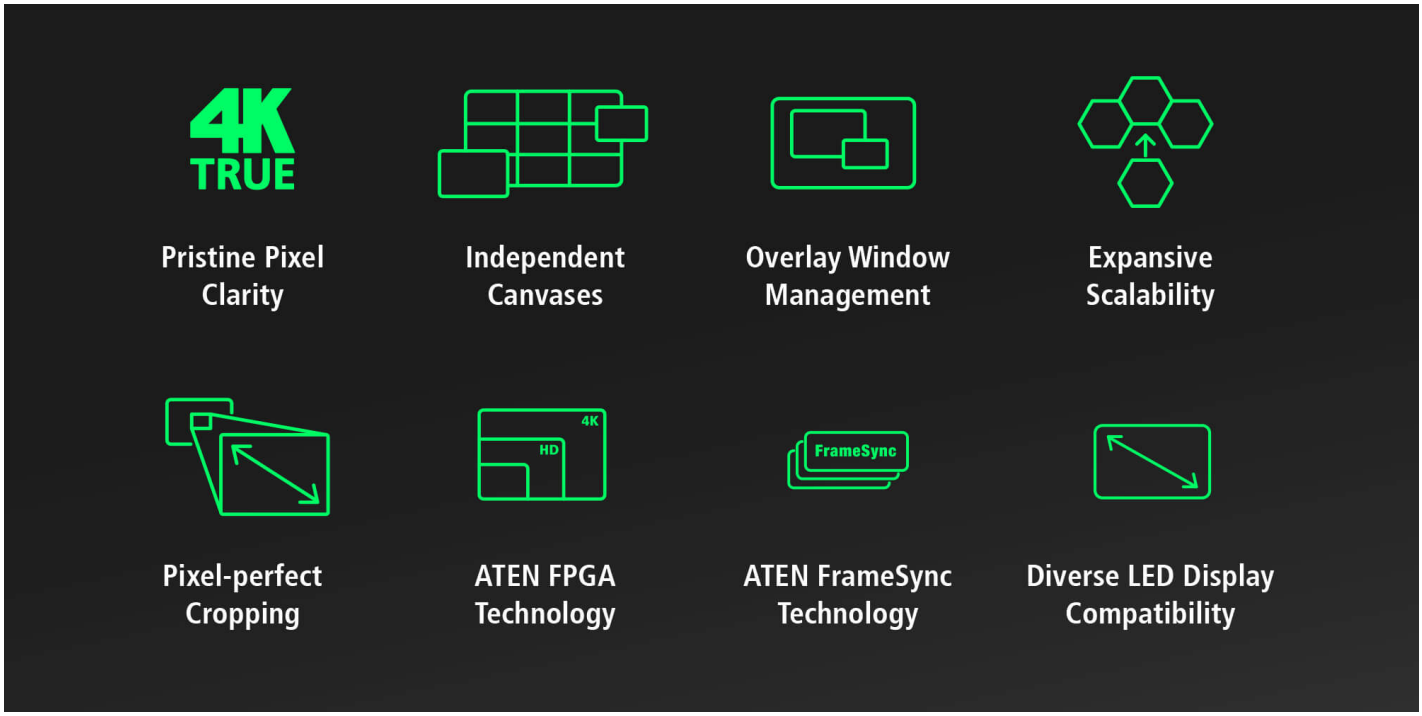
2 Functional Slots

2* CPU Boards
*Dual Slot Redundancy

2* Power Boards
*Dual Slot Redundancy

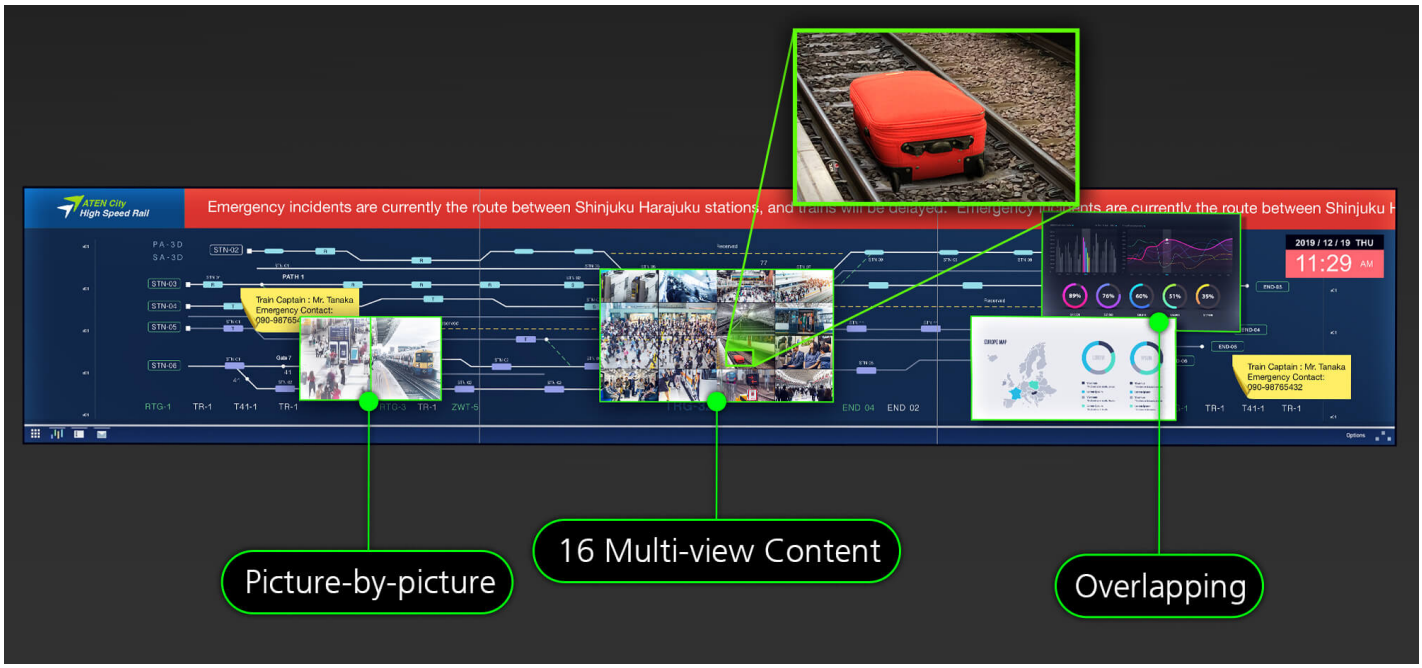
1 Local Output





Multi-view Efficiency and Pixel-Perfect Cropping

The VW3620 optimizes screen real estate and enhances productivity by allowing easy window management via overlapping, picture-by-picture, and picture-in-picture configurations. Up to four 4K windows can be overlaid, and up to 16 content streams can be multi-viewed per display to achieve accurate information visualization across multiple displays with bezel compensation. Furthermore, video content can be pixel-perfectly cropped as desired, with specific details emphasized, for a more engaging viewing experience.



Captivating Video Walls with Independent Canvases and Customizable Backgrounds

By allocating up to 4 distinct canvases within a video wall, the VW3620 allows for easy management and display of video content exactly as required. Each canvas can be customized for dynamic, tailored presentations with diverse sources, resolutions, and layouts. Furthermore, independent video walls depicting unique scenes can be created using differently-scaled background images up to True 4K.

Unlock Unparalleled Clarity with Vivid True 4K Support

Seamless 8K display accommodates up to four 4K60 sources simultaneously for an immersive visual experience, unlocking unparalleled visual clarity in content representation for enhanced data analysis, decision-making, and productivity.

FPGA-enabled Scaler and FrameSync Capability for Smooth Playback

For pristine image quality, the built-in high-performance scaler, powered by ATEN's FPGA technology, delivers flawless scaling of diverse input sources to any desired output resolution across

multiple displays, ensuring seamless, delay-free, and lossless content delivery. Furthermore, ATEN's FrameSync technology ensures synchronized output for smooth, tear-free playback, even for high-speed content.

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Maximizing System Uptime through Efficient Local Site Management

Experience efficient management and real-time monitoring of local resources that are crucial for maintaining optimal performance and reliability, guaranteeing immediate detection of potential issues, enabling swift responses while minimizing downtime.

Instant and Complete Control at Your Fingertips

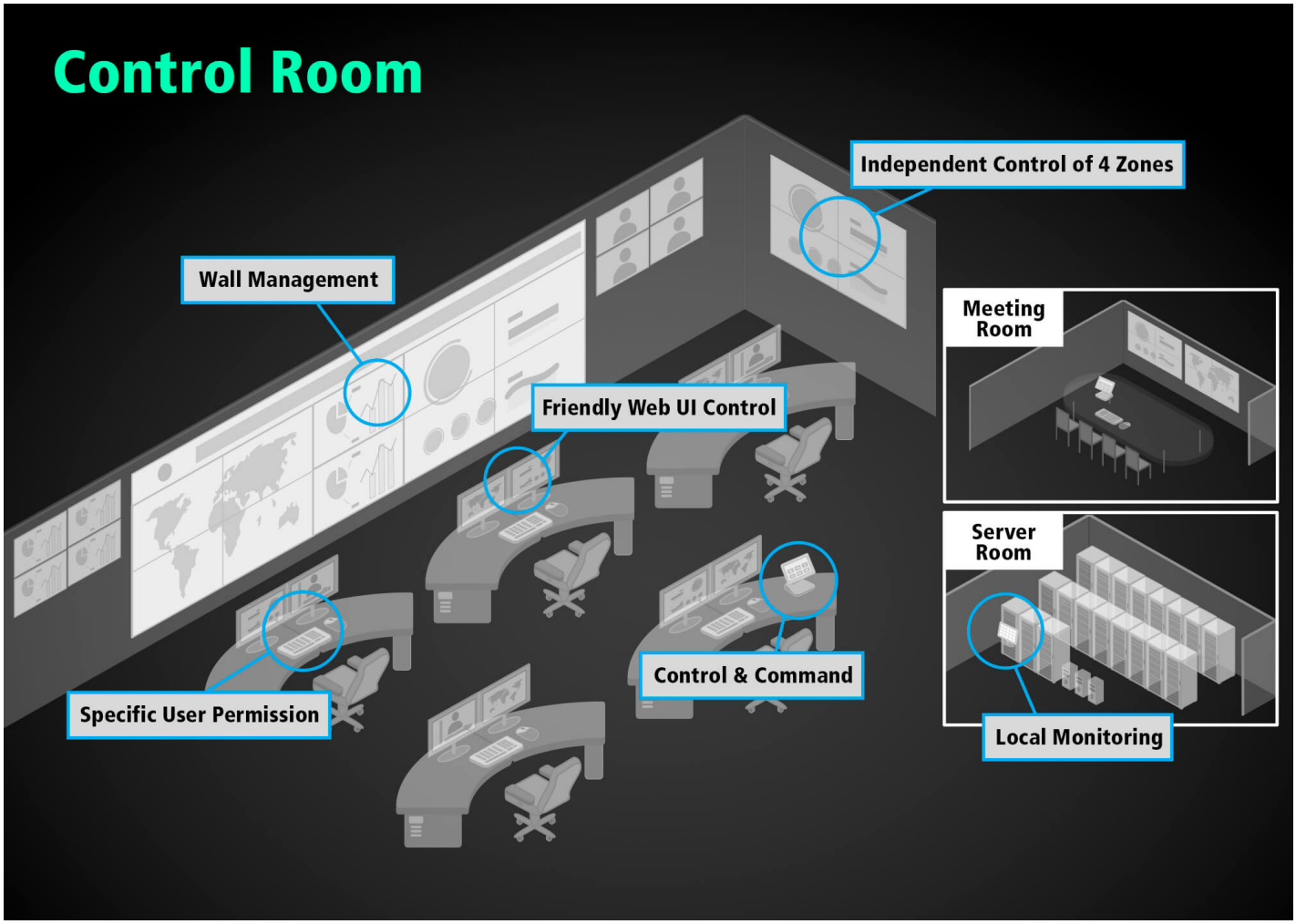
Video wall management is effortless and straightforward via a user-friendly web-based GUI, allowing for intuitive, real-time remote monitoring and complete control over your visual environment. The video wall can serve various purposes with customizable logos, scrolling text, and floating memos for added context and information, all of which can be previewed easily on specific windows to ensure clarity and enhance decision-making.

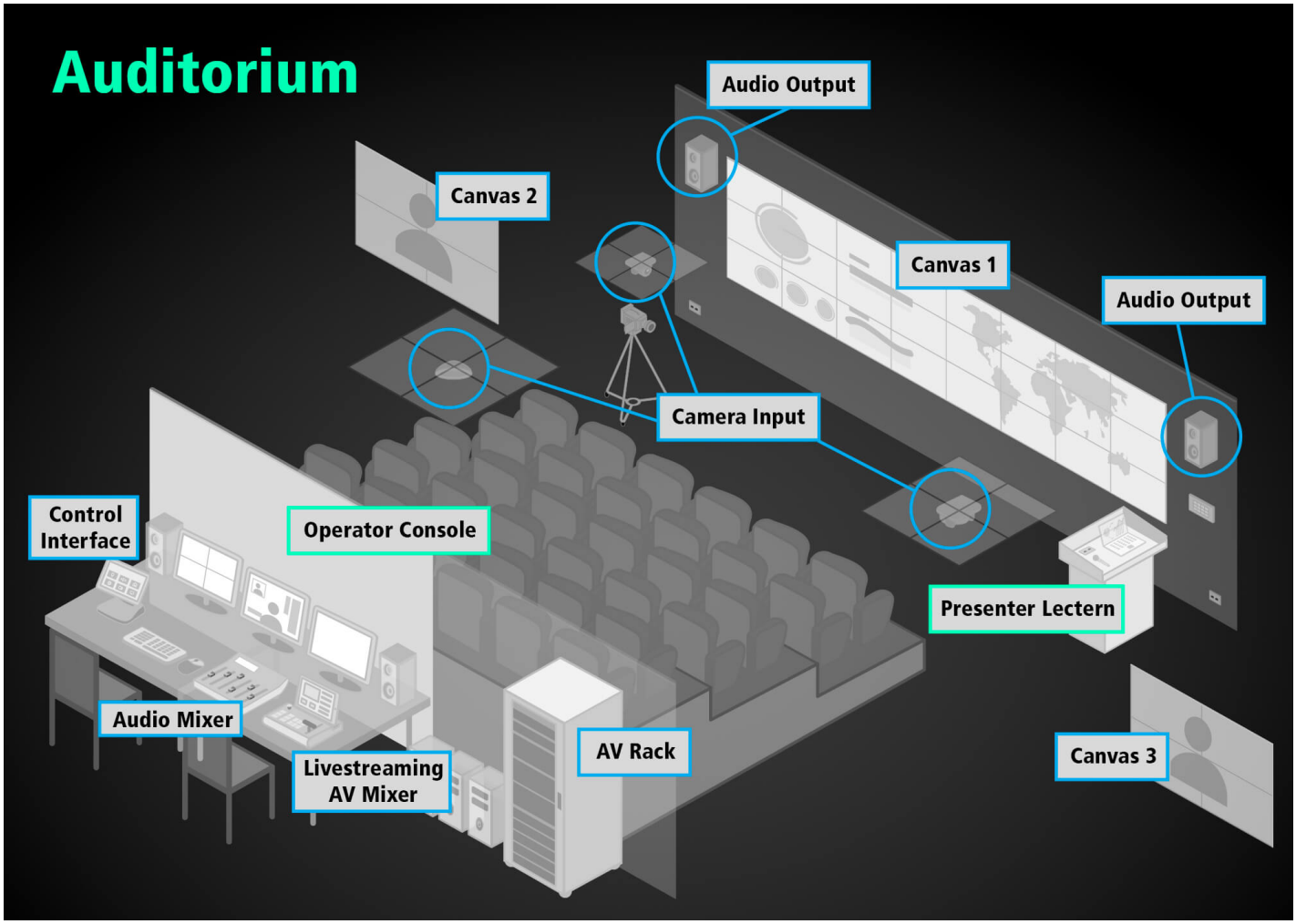
Smooth System Integration and Heightened Situational Awareness

Beyond its exceptional visualization and control capabilities, the VW3620 seamlessly integrates with both ATEN and third-party control systems through RS-232, Telnet, and Restlink APIs, ensuring compatibility with your existing infrastructure for a unified workflow. Moreover, the VW3620 enhances situational awareness by automatically magnifying critical incident alerts, empowering more effective crisis management.

Applications

Beyond its technical prowess, the VW3620 excels in a wide range of applications. From control rooms, command simulation centers, transportation hubs, corporate boardrooms, to broadcasting studios, auditoriums, museums and exhibitions, the VW3620's intuitive design facilitates the analysis of complex data, streamlines decision-making processes, and promotes collaborative efforts with ease.


Control Room
Independent Control of 4 Zones
Wall Management
Meeting Room
Friendly Web UI Control
Server Room
Control & Command
Specific User Permission
Local Monitoring



Talk to Our Experts

If you prefer ATEN to call you, please fill out the form and a representative will contact you as soon as possible.

First Name *

Last Name *

- Country *

Company *

Email *

Phone Number

- Customer Type *

Job Title *

Features

Purpose-built to meet the increasingly stringent system performance requirements in mission-critical applications, the VW3620 is a 7U, modular True 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 True 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 VW3620 is cascadable for backup / expansion purpose. The Backup Mode enables the replication of all the system settings and configurations across two VW3620s in real-time, so when the primary unit encounters a failure or becomes unresponsive, the backup unit automatically takes control of the video wall output with no manual intervention, ensuring uninterrupted display performance and minimizing downtime in mission-critical environments. As for the Expansion Mode, up to three VW3620s can be daisy-chained together to run as a unified system to drive a larger video wall of up to 60 displays while allowing for centralized control by the primary unit, synchronized video output clocking across all units, and consistent, frame-accurate playback without tearing or drift. In addition, the hot-standby CPU control board and dual hot-swappable 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.

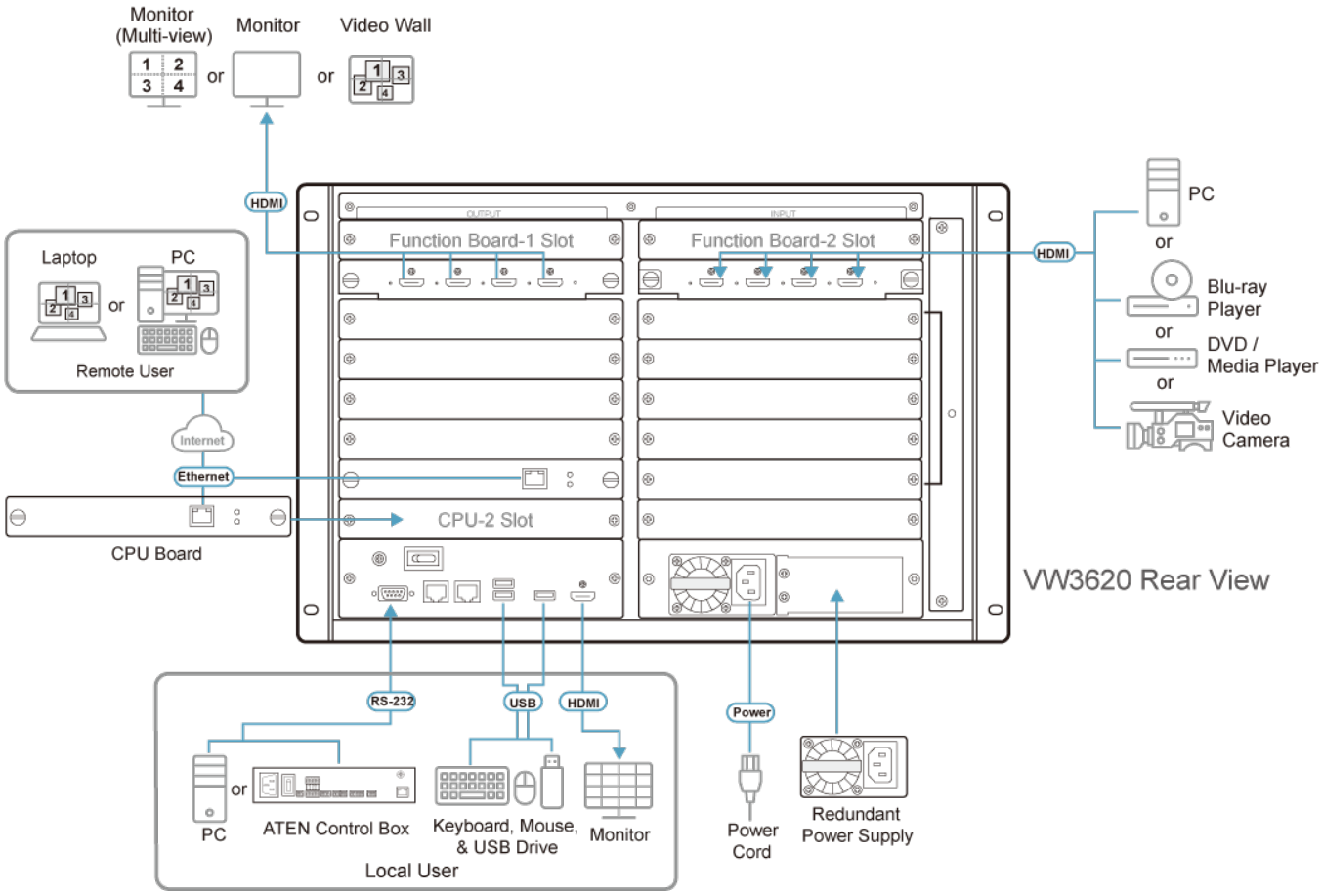
Note: By enabling the 4K@60 mode, you are able to play the video at 4K resolution (3840 2160) and 60 fps (frames per second) from port A and port C of the selected input card (VW784), which supports up to four 4K@30Hz inputs or two 4K@60Hz inputs.

- 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 True 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
- Backup Mode enabled with two VW3620s daisy-chained together – the secondary unit continuously mirrors all system settings and configurations from the primary one in real time and takes control automatically when any primary unit malfunctions occurs for uninterrupted display performance
- Expansion Mode enabled with up to three VW3620s daisy-chained together – supports up to 60 display outputs for larger video wall installation with centralized control being conducted by the primary unit while ensuring synchronized video output clocks across all units and consistent, frame-accurate playback without tearing
- Reliable 24/7 operation with hot-swappable, redundant CPU control board and dual power modules, and hotswappable 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
- Supports SSH to strengthen data and information protection
- Perfect for mission-critical video wall applications, including command centers, control rooms, public security organizations, governments, or other large-scale digital signage scenarios

Specifications

Board Input	7 x Slot, up to 32 4K inputs
Board Output	5 x Slot, up to 20 4K outputs
Function	2 x Slots for Function Board, can also used as Input Slot
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:2720BTU/h AC220V:555.4W:2636BTU/h Note: ● The measurement in Watts indicates the typical power consumption of the device with no external loading. ● The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.
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 (18.98 x 18.03 x 12.2 in.)
Weight	16.21 kg (35.7 lb)
Rack Height (U Spaces)	7U
Carton Lot	1 pc
Note	For some of rack mount products, please note that the standard physical dimensions of WxDxH are expressed using a LxWxH format.

Diagram



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.

ATEN International Co., Ltd.
3F., No.125, Sec. 2, Datong Rd., Sijhih District., New Taipei City 221, Taiwan
Phone: 886-2-8692-6789 Fax: 886-2-8692-6767
www.aten.com E-mail: marketing@aten.com