

Procesador de Video Wall / 16 Entradas HDMI / 8 Salidas HDMI / True 4K@60Hz / Chasis 4U / FPGA / Redundancia Dual / Expansión 24 Displays

SKU: VW1608 Marca: ATEN Categoría: Matriciales

Garantía: 3 años

$374,325.25

Precios con IVA incluido

DESCRIPCIÓN

El procesador de video wall ATEN VW1608 es una plataforma modular de alta densidad diseñada para entornos de misión crítica que requieren gestión simultánea de múltiples fuentes de video. Integra 16 puertos de entrada y 8 puertos de salida HDMI dentro de un chasis compacto de 4U, ofreciendo procesamiento True 4K@60Hz en formato 4:4:4 con latencia mínima. Su arquitectura basada en FPGA garantiza conmutación seamless near-zero-second y sincronización framesync que elimina el tearing y el drift temporal. El sistema soporta redundancia dual de fuentes de alimentación hot-swappable para operación continua 24/7, así como expansión en cascada hasta 24 displays mediante el encadenamiento de hasta tres unidades. Además, permite la composición libre de ventanas, ajuste de capas, vista previa local o remota y la gestión de múltiples lienzos independientes, siendo ideal para salas de control, centros de mando y auditorios.

Características Generales
Procesamiento True 4K@60Hz (4:4:4) sin latencia perceptible
Chasis modular 4U con 16 entradas HDMI y 8 salidas HDMI
Conmutación seamless near-zero-second con arquitectura FPGA
Redundancia dual con fuentes hot-swappable para operación 24/7
Expansión en cascada hasta 24 displays (3 unidades)
Framesync para sincronización sin tearing ni drift
Compresión H.265 / H.264
Control remoto mediante Web GUI, RS-232 y Ethernet
Composición libre de ventanas y múltiples lienzos independientes
Vista previa local y remota

Desempeño
Procesamiento True 4K@60Hz (4:4:4)
16 entradas HDMI / 8 salidas HDMI
Conmutación seamless near-zero-second
Arquitectura FPGA
Framesync integrado
Compresión H.265 / H.264
Expansión en cascada hasta 24 displays (3 unidades)
Composición libre de ventanas
Ajuste de capas
Vista previa local y remota
Múltiples lienzos independientes

Físicas / Eléctricas
Chasis modular 4U
Redundancia dual PSU
Fuentes de alimentación hot-swappable
Diseño para operación 24/7

Control y Conectividad
Interfaz Web GUI remota
Puerto RS-232
Conectividad Ethernet
Encadenamiento para respaldo y expansión

ESPECIFICACIONES

Característica 1	**Resolución 4:4:4 con latencia imperceptible para video crítico**
Característica 2	**Conmutación sin cortes mediante arquitectura FPGA programable**
Característica 3	**Fuentes redundantes intercambiables en caliente para operación continua**
Característica 4	**Sincronización Framesync que elimina tearing y drift de imagen**
Característica 5	**Escalabilidad por cascada para ampliar hasta 24 pantallas**
Característica 6	**Composición de ventanas con múltiples lienzos independientes**

MEMORIA TÉCNICA · VW1608

Número de parte de esta ficha: VW1608. La información corresponde a esta variante.

Simply Better Connections
1 16 x 8 Modular Video Wall Processor
VW1608
A 4U modular video wall processor with support for up to 16 input sources and 8 displays while featuring True 4K performance, flexible windowing technology, and enterprise-grade reliability, empowering LED video walls in space-constrained control rooms, corporate war rooms, energy centers, or any small-to-medium sized mission-critical environment.
Modular Design with Customizable I/O configurations
Purpose-built for 24/7 mission-critical operations, the modularly designed VW1608 contains 4 input board slots, 2 output board slots, and 1 board slot to support up to 16 input sources and 8 displays. The ample amount of I/O board slots enable the customization of I/O combination to tailor it to any specific application. Its expansion capability also allows for decoding of multiple H.265 / H.264 streams at True 4K simultaneously via VW754 4-Channel 4K H.265 IP Stream Decoder Input Card for surveillance scenarios, improving situational awareness and decision-making.
Precision-Driven Visual Performance
Thanks to VW1608's FPGA architecture, it supports resolutions up to True 4K, near-zero-second seamless

source switching, and outputs without delay. The built-in scaler allows for mix-and-match of displays of different resolutions and upscaling of video signals for crystal clear, accurate imagery regardless of the display size or type from LED, LCD, DLP, to other large screens. Besides, FrameSync technology ensures that all output signals remain synchronized to prevent image tearing and frame mismatch, providing seamless playback across multiple displays.

Optimum Component Redundancy, Optimized Serviceability

To keep operations running when every second counts, the VW1608 boasts optimum component redundancy via dual redundant power boards, hot-swappable I/O boards as well as a fan module, reducing downtime for 24/7 operation in critical spaces.

Daisy-Chainable for Backup and Expansion Purposes

An extra level of reliability is added with it being cascadable for backup / expansion purposes. The Backup Mode enables real-time replication of the system settings and configurations across two VW1608s. Whenever the primary unit malfunctions, the backup unit automatically takes control of video wall outputs to ensure uninterrupted display. As for the Expansion Mode, up to three VW1608s can be daisy-chained together to run as a unified system to drive a larger video wall of up to 24 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.

Advanced Windowing Technology

Window management from cropping, overlapping, cross-screen, picture-by-picture, picture-in-picture, to bezel compensation, and more is made easy with the powerful video wall engine. Plus, the VW1608 is able to output in real-time in any size based on the correct aspect ratio. Customizable logos / color schemes / calendar / clock / scrolling texts can be added for a tailored view for every piece of crucial information, meeting the specific needs in every mission-critical settings effectively.

Configure and Control via Multiple Methods Locally or from Afar

The VW1608 supports multiple control and monitor methods, including local HDMI output, RS-232, Ethernet, front panel buttons, web GUI, Telnet, and SSH, to overcome geographical limitations.

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Features

4U modular chassis with ample slot amount for system control and expansion

- Accepts up to 16 HDMI input ports and 8 HDMI output ports
- Compact, yet competent for LED video walls in small-to-medium sized mission-critical environments
- Modular board compatibility – Contains 7 board slots (4 input card slots, 2 output card slots, and 1 CPU board slot) to support multiple I/O boards for flexible configuration and future expandability

Superior Visual Quality for Mission-Critical Communications

- FPGA architecture – supports True 4K inputs, near-zero-second seamless source switching, and outputs without delay clear, accurate imagery regardless of the display size or type from LED, LCD, DLP, to other large screens
- Decodes high density H.265 / H.264 IP channels (via VW754) – ideal for surveillance control rooms and real-time monitoring scenarios
- Advanced video wall engine – allows easy window management via cropping, overlapping, picture-by-picture, picture-in-picture, bezel compensation, and more
- Multi-resolution support – allows mix-and-match of displays of different resolutions
- FrameSync – ensures that all output signals remain synchronized to prevent image tearing and frame mismatch, providing seamless playback across multiple displays
- EDID Expert™ – selects optimum EDID settings for smooth power-up, high quality display and use of the best video resolution across different screens
- Customizable logos / color schemes / calendar / clock / scrolling texts

Front View Rear View

HDMI
A/V In
HDMI
A/V Out
FPGA
Design
FPGA
RS-232
Channel

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Reliable 24/7 Operation

- Backup Mode 2x VW1608s daisy chain – the secondary unit continuously mirrors all system settings and configurations from a primary one in real time and takes control automatically when primary unit malfunction occurs for uninterrupted display performance
- Expansion Mode with 3x VW1608s daisy chain – up to 24 display outputs supported 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
- Optimum component redundancy via dual redundant power boards (2 slots) and hot-swappable I/O boards as well as fan module

Direct and Remote Configurations and Control Methods

- Direct control via RS-232 / Ethernet and the front panel buttons
- Local HDMI output – monitor input signals and video wall layouts via Single / Array mode at up to 1080p in real-time from one display
- Remote control via web GUI, Telnet, and SSH to preview input signals in real-time and control outputs including content placement and management of up to 4 canvases
- Multiview – source monitoring in 2x2 or 4x4 layouts from a single 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

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4
3
Monitor
(Multi-view)
Local User
or or
Monitor Video Wall
HDMI
HDMI
Ethernet
RS-232
Internet
12
34
Laptop
Remote User
PC
or
2
1
4
3
2
1
4
3
PC
or
ATEN Control Box
Keyboard, Mouse,
& USB Drive

Monitor Power
Cord
Redundant
Power Supply
PC
Blu-ray
Player
DVD /
Media Player
Video
Camera
or
or
or
VW1608 Rear View
USB HDMI
Power

- Simply Better Connections Specifications
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- VW1608
Board Input
4 x Slot, up to 16 4K inputs
(Note: Top 2 slots can used as Function Board)
Board Output 2 x Slot, up to 8 4K outputs
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 USB Type-A Female (White)
Note: Currently the USB ports support storage and firmware upgrade.
EDID Settings EDID Mode: Default / Port1 / Remix / Customized (EDID Wizard support)
Communication
Daisy Chain Ports RJ-45 x 2
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:550W
AC220V:550W
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 46.61 x 17.67 cm
Weight 11.65 kg
Rack Height (U Spaces) 4U