

# 32 x 32 Modular Matrix Switch

## VM3200

- The VM3200 Modular Matrix Switch offers advanced access and real-time control of multiple local and remote AV input devices and displays from a single chassis. The VM3200 allows users to independently switch and route video and/or audio content directly to various monitors, displays, projectors, and/or speakers simply by pressing front panel pushbuttons. A built-in Scaler encodes the video format in order to provide seamless, real-time switching. The front panel LCD shows a quick view of active port connections. The switch also includes an option to select an EDID Mode that yields the best resolution across different monitors.

The VM3200 is easily expandable and accommodates a lineup of hot-swappable ATEN I/O boards. Equipped with automatic signal conversion, it allows various combinations of digital video interfaces, including HDBaseT (VM7514 / VM8514), HDMI (VM7804 / VM8804), DVI (VM7604 / VM8604), 3G-SDI (VM7404), and VGA (VM7104). This makes it ideal for large-scale AV applications such as broadcasting stations, traffic and transportation-related control rooms, emergency service centers, and any application that requires customizable, high-speed AV signal routing.

VM3200 Front view



VM3200 Rear view



## Features

- Connects any of 32 video sources to any of 32 displays in combination with ATEN Modular Matrix Solutions
- Built-in Scaler on each output port converts input resolutions into the display's native resolution
- Supports 4K resolutions up to UHD (3840 x 2160) and DCI (4096 x 2160) with refresh rates of 30 Hz (4:4:4) and 60 Hz (4:2:0)
- Seamless Switch™ – ATEN FPGA design unifies video formats to provide continuous video streams, real-time switching, and stable signal transmissions\*
- Video Wall – allows you to create custom video wall layouts via intuitive web GUI
- Live stream of connected video channels and image preview of video wall layouts via web GUI
- Calendar-based scheduling plays connection profiles synchronized with real-time clock
- EDID Expert™ – selects optimum EDID settings for smooth power-up and highest quality display
- Multiple Control Methods – system management via front-panel pushbuttons, RS-232, RS-485/422, and Ethernet (Telnet / Web GUI) connections
- Hot-pluggable fan and power modules for easy maintenance and higher reliability
- Flexible system expandability via hot-swappable tool-free installation of I/O boards
- Optional redundant power supply that ensures reliability for mission-critical applications
- Audio-enabled, HDMI audio can be extracted, and stereo audio can be embedded (VM7804/VM8804)
- HDMI (3D, Deep Color) (VM7804/VM8804); HDCP 1.4 compatible
- Consumer Electronics Control (CEC) support (VM7804/VM8804)
- ESD protection for HDMI
- Firmware upgradeable
- Aluminum frame provides light-weight design
- Rack mountable (9U design)

\***Note:** If Seamless Switch is enabled, the video output will not display 3D, Deep Color, or interlace (i.e., 1080i) resolution features. To use these features, you must disable Seamless Switch.

## Highlights

<b>Flexible Integration</b>	<p>The VM3200 can be configured with up to 32 video sources x 32 displays, with a flexible installation process that allows integration of different video interfaces and encoding of various video formats to customize system configurations for each application. The I/O slots are hot-swappable, making it easy and convenient to switch between multiple video sources and displays.</p>
<b>Smooth and Seamless Viewing Experience</b>	<p>The VM3200 has a built-in Scaler and CrossPoint design that unifies video formats and provides continuous video streams, real-time switching, and stable signal transmissions. The VM3200 is also capable of high-speed switching between all input/output ports – supporting high data transfer rates of up to 15.2 Gbps/ch to minimize latency and increase the processing power for time-critical video applications.</p>
<b>Hot-pluggable Modular Fan and Redundant Power</b>	<p>Overheating slows down device performance significantly and can result in equipment breaking down mid-operation. The VM3200 is equipped with fan modules to ensure that a cooling system is always in place and working. The fans are hot-pluggable and can easily be replaced without shutting down the system. The VM3200 has two power slots that can connect to two different power supplies. If the primary power fails, the secondary power supply can automatically take over. ATEN ensures that your investment is protected while delivering outstanding performance.</p>

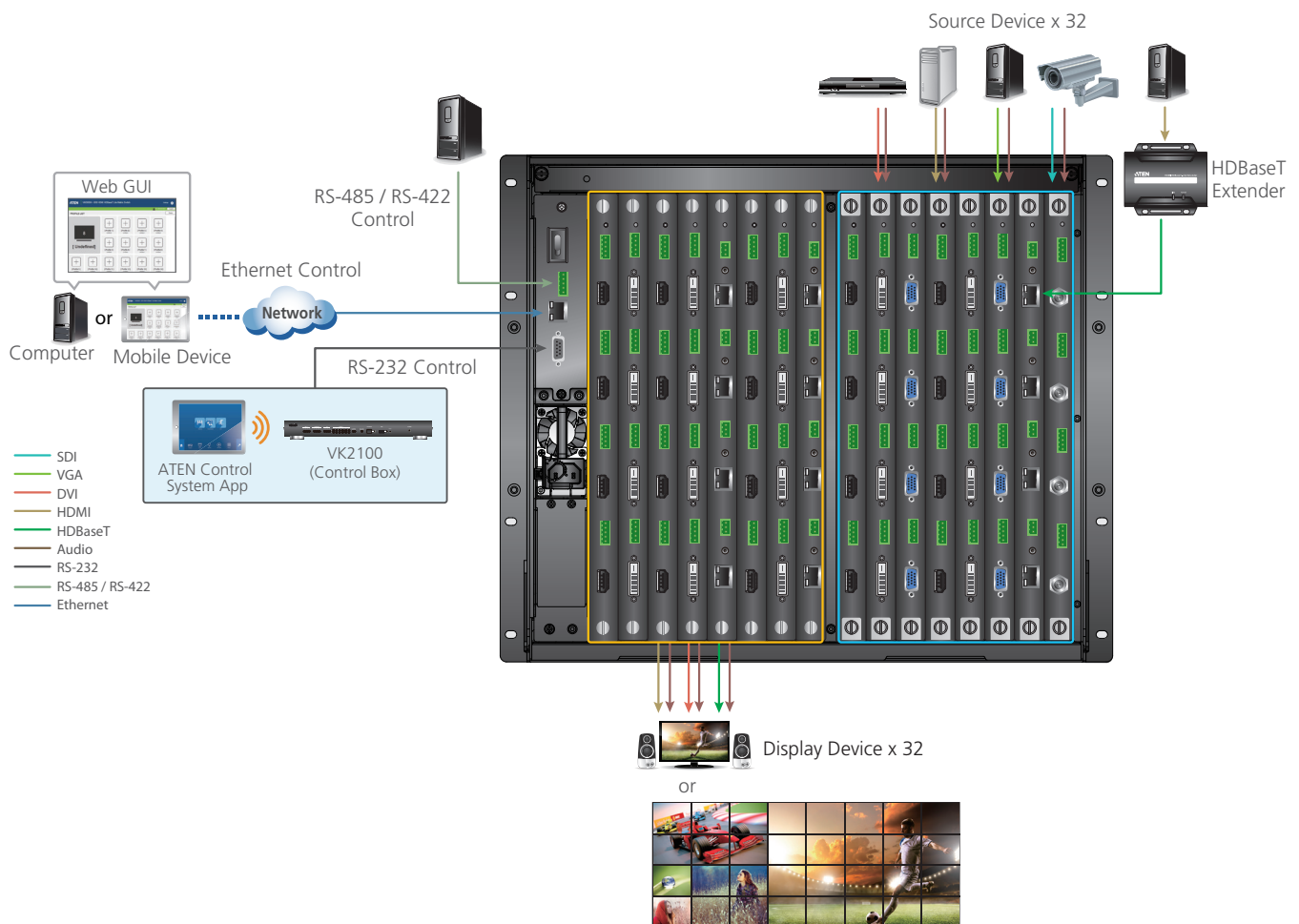
**Video Wall**

The VM3200 is equipped with Video Wall functionality integrated with a Scaler and Cross Point design that ensures all input sources are processed at the same time so that the video content is delivered across all screens with no delays or signal loss. The video wall functionality provides up to 64 profiles that you can customize into layouts by setting the display outputs in accordance to your preference, designed from an easy to use web GUI. Through profile setup, you can form a single large screen or a variation of multiple screens in different layouts.



**Audio Separation**

The VM3200 provides the capability to separate audio signals from their corresponding video signals, including both HDMI extracted audio and embedded stereo audio. This allows the audio and video signals from one source device to be switched and sent out to different destinations.



## Optional Equipments

### Available Input and Output Boards

Input Boards	Output Boards
<p>VM7604 (DVI Input Board)</p>	<p>VM8604 (DVI Output Board)</p>
<p>VM7804 (HDMI Input Board)</p>	<p>VM8804 (HDMI Output Board)</p>
<p>VM7514 (HDBaseT Input Board)</p>	<p>VM8514 (HDBaseT Output Board)</p>
<p>VM7404 (3G-SDI Input Board)</p>	-
<p>VM7104 (VGA Input Board)</p>	-

### Available Accessories

<b>VM-PWR800</b>	<b>Video Matrix Power Module</b>
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Input voltage	100 - 240Vac
Power Consumption	Max. Load 800 W
Operating temp.	0° to 40° C

<b>VM-FAN556</b>	<b>Video Matrix Fan Module</b>
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Airflow	55.2 cfm
Operating voltage	10.8 - 13.8 Vdc
Operating temp.	-10° to 70° C

### Rack Mount Kits (Optional)

Easy Installation Rack Mount Kit	Rack Depth
2X-034G (Short)	41 to 72 cm
2X-035G (Long)	68 to 108 cm

# Specifications

Function	VM3200
<b>Board Input</b>	8 x Slot
<b>Board Output</b>	8 x Slot
<b>Video Input</b>	
Interfaces	Depends on which I/O board is inserted
Max. Data Rate	15.2 Gbps (3.8 Gbps per Lane)
<b>Audio</b>	
Input	Depends on which Input board is inserted
Output	Depends on which Output board is inserted
<b>Control</b>	
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
RS-485/RS-422	1 x Captive Screw Connector, 5 Pole
Ethernet	1 x RJ-45 Female
<b>EDID Settings</b>	EDID Mode: Default / Port1 / Remix / Customized (EDID Wizard support)
<b>Power</b>	
Connectors	1 x 3-Prong AC Socket
Max. Input Power Rating	100 - 240 VAC; 50 - 60 Hz; 1.0 A
Consumption	800W (Max.) *A power module can be purchased for power redundancy.
<b>Environmental</b>	
Operating Temperature	0° to 40° C
Storage Temperature	-20° to 60° C
Humidity	0 - 80% RH, Non-condensing
<b>Physical Properties</b>	
Housing	Metal
Weight	18.20 kg (chassis only)
Dimensions (L x W x H)	48.20 x 47.19 x 39.90 cm

Combination	Matrix Switch	VM3200				
	Input Board	VM7514	VM7804	VM7604	VM7104	VM7404
	Output Board	VM8514	VM8804	VM8604	-	-
Interface		HDBaseT (RJ-45)	HDMI	DVI	VGA	3G-SDI
Max. Video Resolution		4K @ 60 Hz (4:2:0); 4K @ 30 Hz (4:4:4)***	1920 x 1080	1920 x 1200	1920 x 1200	SD: 625i (PAL) / 525i (NTSC) HD / 3G: Up to 1920 x 1080
Max. Distance		100 m***	15 m	5 m	1.8m	SD: 300 m HD: 150 m 3G: 90 m
Audio		V	V *	V	V	V
Scaler Support		VM8514 + VE805R**	VM8804	VM8604	N/A	N/A
Seamless Switch		VM8514 + VE805R**	VM8804	VM8604	N/A	N/A
Video Wall		VM8514 + VE805R**	VM8804	VM8604	N/A	N/A

**Note :** \* HDMI audio signals can be extracted into stereo audio. Stereo audio can be embedded into HDMI audio.

\*\* For the VM8514, the Seamless Switch™, scaler, and video wall functions are only available when used with the VE805R.

\*\*\* Supported resolution and distance may vary depending on which HDBaseT extender is used.

