

VM5404HA

4 x 4 HDMI Matrix Switch with Scaler



The 4 x 4 HDMI Matrix Switch allows any of the 4 HDMI input signals to be routed to any of the 4 HDMI output channels with no compromise on flexibility. Multiple methods are available when it comes to controlling the device, such as through the front panel pushbuttons, RS-232, and Ethernet (Telnet / Web GUI) connections. Plus, the VM5404HA supports [ATEN Video Matrix Control app](#) for device status viewing and controlling. It can also be integrated with ATEN Control System, a platform where Ethernet-based ATEN Video Matrix Switches and third-party devices (such as projectors, lights, AV devices) are centrally monitored, managed, and controlled. Signal management is made efficient with the front panel LCD, giving users a quick view of all port connections. In addition, the local HDMI output port allows real-time monitoring of multiple sources on a single display exactly where the Matrix Switch is located.

As the ultimate video wall solution, the FPGA-based VM5404HA features ATEN's exclusive Seamless Switch technology, ensuring uninterrupted video streams, real-time control, and stable signal transmission. The built-in scaler automatically scales any input video feed to match the native resolution of the output display for the best video and picture quality. To prevent screen tearing, the VM5404HA adopts FrameSync technology to synchronize the scaler output frame rates to the input signal frame rates, guaranteeing stunning tear-free video walls.

Speaking of audio functionality, the Matrix Switch features audio de-embedding, enabling digital audio from any HDMI input to be assigned to the stereo output for added flexibility of installation. The VM5404HA is an HDMI video routing solution ideal for scenarios where customizable, real-time AV signal transportation from multiple sources to one or more destinations is required, from control centers, server rooms, to any kind of video wall applications.



Features

- Routes any of 4 HDMI sources to any of 4 HDMI displays
- Local HDMI output – enables previewing of up to 4 video sources in a multi-view window
- Multiple system configuration methods including front panel pushbuttons / RS-232 / Ethernet (Telnet / Web GUI) connection, [ATEN Video Matrix Control app](#), and ATEN Control System
- Device status can be viewed and controlled via [ATEN Video Matrix Control App](#)
- Video Wall functionality via intuitive web GUI* allows for customization of up to 8 layouts for any type of video walls
- Built-in scaler automatically converts input resolutions for optimal appearance on the display
- FrameSync – prevents image tearing by synchronizing the scaler output frame rate to the input signal frame rate
- ATEN Seamless Switch technology* – adopts FPGA to unify video formats so as to provide continuous video streams, real-time switching, and stable signal transmission
- EDID Expert – selects optimum EDID settings for smooth power-up, high-quality display, and use of the best resolution across different screens
- Audio enabled; HDMI audio can be extracted to stereo audio
- HDMI (3D, Deep color); HDCP 1.4
- Supports Dolby True HD and DTS HD Master audio
- Supports Consumer Electronics Control (CEC)
- ESD protection for HDMI
- Firmware upgradeable
- Rack mountable (1U design)

*Note:

1. If Seamless Switching is enabled, the video output will not display 3D, Deep Color or interlace (i.e., 1080i) resolutions. To make these features available, disabling Seamless Switching is a must.
2. Videos may not display within range when Seamless Switch or Video Wall is enabled, in which case please adjust the display settings on your device.

Specification

Video Input	
Interfaces	4 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	5.0 m

Video Output	
Interfaces	4 x HDMI Type A Female (Black) (Array Mode): 1 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	15 m
Video	
Max. Data Rate	6.75 Gbps (2.25 Gbps Per Lane)
Max. Pixel Clock	225 MHz
Compliance	HDMI (3D, Deep Color) HDCP 1.4 Compatible Consumer Electronics Control (CEC)
Max. Resolution	Up to 1080p
Max. Distance	Up to 15 m
Audio	
Output	1 x Mini Stereo Jack Female (Green)
Control	
RS-232	Connector: 1 x DB-9 Female (Black) Baud rate and protocol: Baud Rate: 19200, Data Bits: 8, Stop Bits:1, Parity: No, Flow Control: No
Ethernet	1 x RJ-45 Female
EDID Settings	EDID Mode: Default / Port1 / Remix / Customized (EDID Wizard support)
Connectors	
Power	1 x 3-Prong AC Socket
Power	
Maximum Input Power Rating	100-240 VAC; 50-60 Hz; 1.0A
Power Consumption	AC110V:35.7W:167BTU/h AC220V:34.9W:164BTU/h Note: <ul style="list-style-type: none"> ● 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
Weight	5.12 kg (11.28 lb)
Dimensions (L x W x H)	43.24 x 37.82 x 4.40 cm (17.02 x 14.89 x 1.73 in.)
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

