

4 x 4 True 4K HDMI Matrix Switch with Scaler

VM6404HB



reddot award 2015
winner interface design

- True 4K Pro AV solutions with High Dynamic Range (HDR) technology is the trend of high-definition video that delivers the ultimate visual experience with exceptional sharp and vibrant video quality. ATEN's VM6404HB True 4K HDMI Matrix Switch with Scaler is compatible with the latest True 4K video resolutions of 4096 x 2160 / 3840 x 2160@60Hz (4:4:4) and HDR, guaranteeing crystal-clear images across four displays.

The VM6404HB supports 4K@60Hz, HDMI 2.0, and HDCP 2.2 and features Seamless Switch™ that employs an FPGA matrix architecture that ensures continuous video streams, real-time control, and stable signal transmissions. With a built-in high-performance scaler, the VM6404HB easily converts various input resolutions into various output display resolutions, giving viewers the best video and picture quality across all displays. The switch integrates video wall functionality with an easy-to-use web GUI that lets you create 8 connection profiles that can be customized into different video wall layouts.

The VM6404HB is an ideal solution for applications that require multiple HDMI displays with multiple HDMI sources to be conveniently set up – such as for stage presentations, digital classroom, video conference rooms, and any installation that requires real-time synchronization.



Front view



Rear view



Features

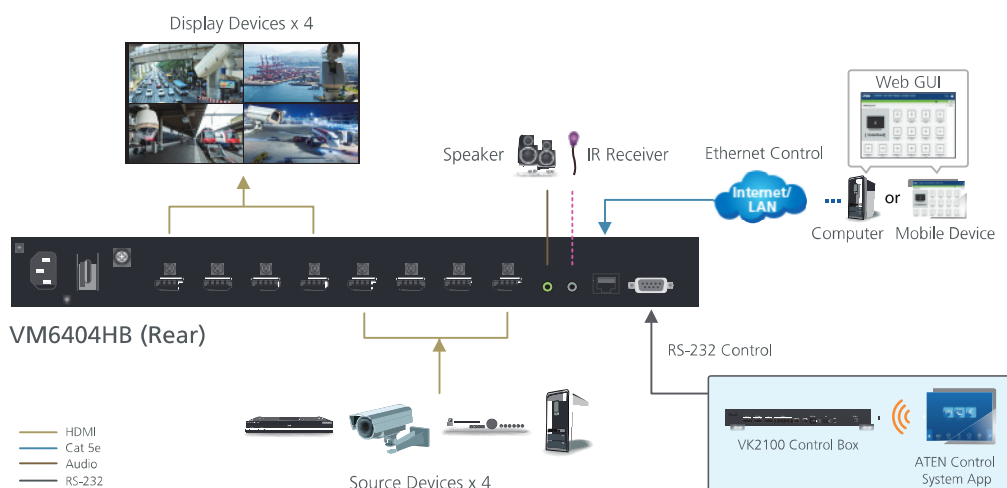
- 4 x 4 HDMI input/output connections
- Multiple Control Methods – system management via front-panel pushbuttons, IR, RS-232 control, and Ethernet connection for web GUI or Telnet
- View and control via ATEN Video Matrix Control App in a swift and agile way
- **True 4K Resolutions** – handles uncompressed video resolutions up to 4096 x 2160 / 3840 x 2160@60Hz (4:4:4)
- **4K Scaler** – features a 4K video scaler to convert input resolutions to the optimum display resolutions
- **Seamless Switch™** – features close-to-zero second switching for continuous video streams, real-time switching, and stable signal transmissions*
- **Video Wall** – allows you to create custom video wall layouts via intuitive web GUI*
- **True 4K EDID Expert** – selects optimum EDID settings for smooth power-up, high-quality display, and use of the best resolutions across different screens
- **FrameSync** – prevents image tearing by synchronizing the scaler output frame rate to the input signal frame rate
- Audio-enabled – HDMI audio can be extracted to stereo audio
- HDMI (3D, Deep color, 4K); HDCP 2.2 compatible
- Consumer Electronics Control (CEC) support
- **ESD protection** for HDMI
- Rack-mountable (1U design)

*Note:

1. When Seamless Switch™ is enabled, 3D, Deep Color, or interlace (i.e., 1080i) formats will not be supported. To use these formats, make sure to disable Seamless Switch™.
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.

Highlights

Video Wall	The VM6404HB is built in with video wall functionality that allows you to customize display layouts and keep up to 8 connection profiles using an intuitive web GUI which has won the Red Dot Interface Design award. Through profile setup, multiple displays can be easily configured as a single large screen to show video in various layouts – to see "what you want, how you want it".
4K Scaler	The VM6404HB is equipped with a high-performance 4K scaling engine that converts various input resolutions into the display's native resolution, giving viewers the best picture and video quality. Inputs with low resolutions are scaled perfectly to the best fit, so that video playback is smooth and pleasant. In addition, the premium scaling engine offers a range of aspect settings that automatically adjusts the picture ratio for maximum viewing comfort.
Smooth and Seamless Viewing Experience	The VM6404HB's built-in FPGA design unifies video formats and provides continuous video streams, real-time switching, and stable signal transmissions. It is capable of high-speed switching between all input and output ports – supporting TMDS high data transfer rates of up to 4K@60Hz (4:4:4) to minimize latency.



Specifications

Function	VM6404HB
Video Input	
Interfaces	4 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	5 m
Video Output	
Interfaces	4 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	5 m
Video	
Max. Data Rate	18.0 Gbps (6.0 Gbps per lane)
Max. Pixel Clock	600 MHz
Compliance	HDMI (3D, Deep Color, 4K); HDCP 2.2 Compatible; Consumer Electronics Control (CEC)
Max. Resolution	Up to 4096 x 2160 / 3840 x 2160 @ 60Hz (4:4:4)
Max. Distance	Up to 3 m
Audio	
Output	1x 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
IR	1 x Mini Stereo Jack Female (Black)
Ethernet	1 x RJ-45 Female
EDID Settings	EDID Mode: Default / Port 1 / Remix / Customized (EDID Wizard Support)
Connectors	
Power	1 x 3-prong AC Socket
Power	
Maximum Input Power Rating	100-240 VAC;50-60Hz;1.0A
Consumption	AC110V: 43.7W; AC220V: 43.1W
Environmental	
Operating Temperature	0 - 40°C
Storage Temperature	-20 - 60°C
Humidity	0 - 80% RH, Non-Condensing
Physical Properties	
Housing	Metal
Weight	3.52 kg
Dimensions (L x W x H)	43.24 x 26.23 x 4.40 cm

Product information is subject to change without prior notice.

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