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## VM51616H

16 x 16 HDMI Matrix Switch with Scaler



reddot award 2015  
winner interface design



The VM51616H is a 16 x 16 HDMI Matrix Switch that offers an easy and affordable way to route any of 16 HDMI video and audio sources to 16 HDMI displays, with a quick view of all port connections via the front panel LCD or local HDMI output for multiple source preview.

The VM51616H features seamless switching that employs an FPGA matrix architecture to ensure continuous video streams, real-time control and stable signal transmissions. With a built-in high-performance scaler, the VM51616H easily converts various input resolutions to optimum output display resolutions, giving viewers the best video and picture quality across all displays. The switch integrates video wall function with an intuitive web GUI that allows you create 32 connection profiles that can be customized into different video wall layouts.

The VM51616H is an ideal solution for applications that require multiple HDMI displays with multiple HDMI sources to be conveniently delivered to multiple locations, such as railway stations, competition venues, casinos, control centers, conference rooms, logistics centers, security management, and more.



## Features

- Connects any of 16 HDMI sources to any of to 16 HDMI displays
- Multiple means for system configuration including front-panel pushbuttons, RS-232 control, and Ethernet connections for web-based GUI or Telnet
- View and control via [ATEN Video Matrix Control App](#) in a swift and agile way
- [Seamless Switch™](#) – features close-to-zero second switching for continuous video streams, real-time switching, and stable signal transmissions\*
- [Scaler](#) – features a video scaling function to convert input resolutions to the optimum display resolutions
- [Video Wall](#) – allows you to create custom video wall layouts via intuitive web GUI\*
- [EDID Expert™](#) – selects optimum EDID settings for smooth power-up, high-quality display, and use of the best resolution across different screens
- [FrameSync](#) – prevents image tearing by synchronizing the scaler output frame rate to the input signal frame rate
- Superior video quality – HDTV resolution of 480p, 720p, 1080i and 1080p (1920 x 1080)
- HDMI (3D, Deep color); HDCP 1.4 compatible
- Consumer Electronics Control (CEC) support
- [Local HDMI output](#) – allows multiple preview of 16 video sources
- Audio-enabled; HDMI audio can be extracted to stereo audio
- Supports Dolby True HD and DTS HD Master audio
- [ESD protection](#) for HDMI
- Rack-mountable (2U 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.

## Specifications

Video Input	
Interfaces	16 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	up to 5m
Video Output	
Interfaces	16 x HDMI Type A Female (Black) (Array Mode): 1 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	up to 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
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)
Switches	
Power	1 x Rocker Switch
Connectors	
Power	1 x 3-Prong AC Socket
Power	
Maximum Input Power Rating	100-240 VAC; 50-60 Hz; 1.0A
Power Consumption	AC110V:124.5W:584BTU/h AC220V:121.8W:571BTU/h  Note: <ul style="list-style-type: none"> <li>● The measurement in Watts indicates the typical power consumption of the device with no external loading.</li> <li>● The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.</li> </ul>
Environmental	
Operating Temperature	0-40°C
Storage Temperature	-20 - 60°C
Humidity	0 - 80% RH, Non-Condensing
Physical Properties	
Housing	Metal
Weight	7.86 kg ( 17.31 lb )
Dimensions (L x W x H)	43.24 x 38.18 x 8.80 cm (17.02 x 15.03 x 3.46 in.)
Rack Height (U Spaces)	2U
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

