

## 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:

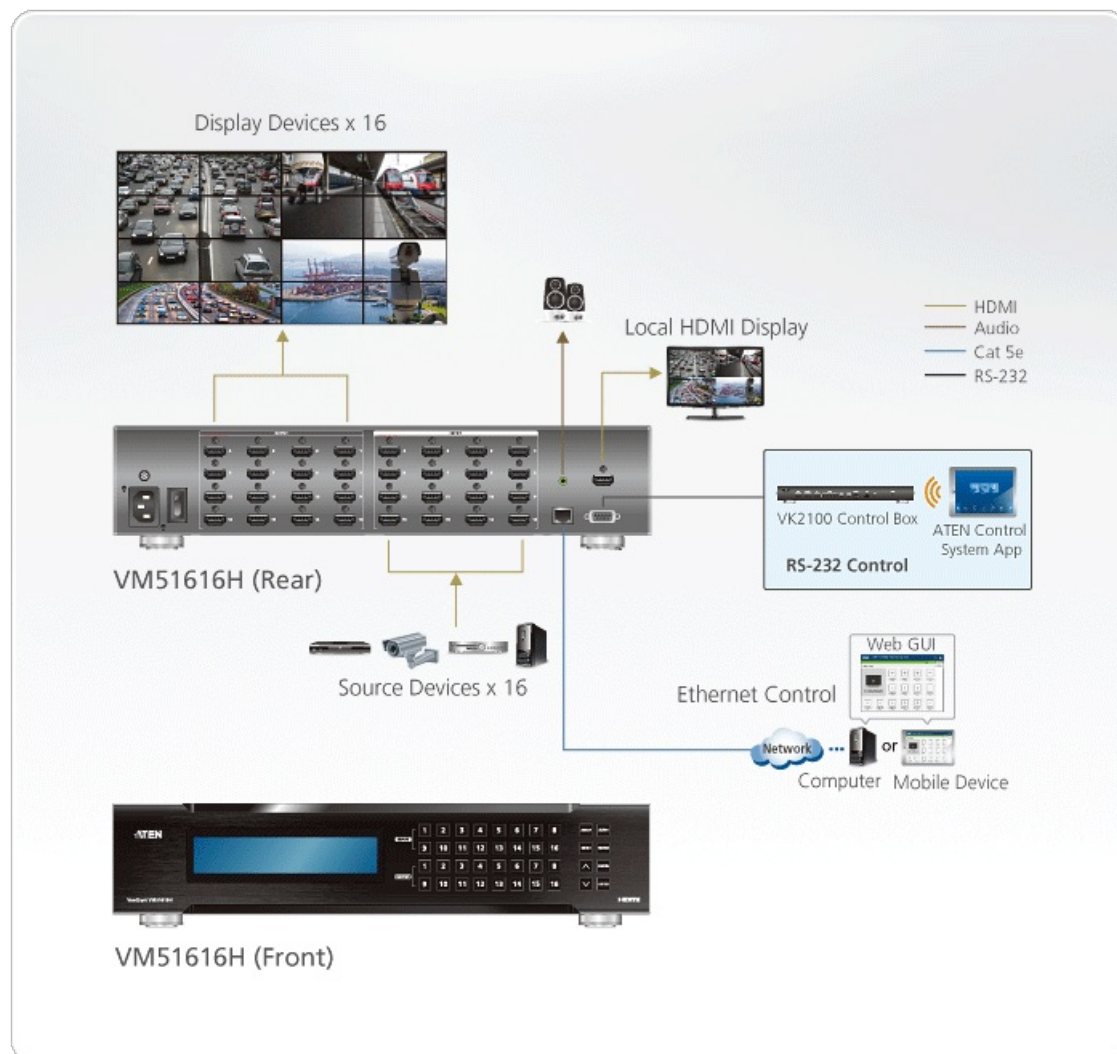
1. When Seamless Switch™ is enabled, 3D, Deep Color, or interlace (i.e., 1080i) formats will not be supported. To use these formats, make sure to disable Seamless Switch™.
2. Videos may not display within range when Seamless Switch™ or Video Wall is enabled, in which case please adjust the display settings 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)<br>(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)<br>HDCP 1.4 Compatible<br>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)<br>Baud rate and protocol:<br>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<br>AC220V:121.8W:571BTU/h<br><br>Note:<br><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<br>(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



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