




ATEN Video Matrix Solutions

A background image showing a group of business professionals in an office setting. A man in a light blue shirt and tie is pointing at a computer monitor, while a woman in a light blue top looks on. Other people are visible in the background, some looking at the screen. The image is overlaid with a semi-transparent light blue filter.

ATEN Video Matrix Solutions offer an easy and affordable way to route multiple audio/video sources to multiple audio/video targets. Each input can be directed to any or all outputs - giving you ultimate flexibility and control in any multimedia installation.

ATEN offers a wide range of Video Matrix solutions, including the Media Matrix Solution, which is a combination of a Matrix Switch, transmitters and receivers; and the standalone matrix switches, which are available in VGA and HDMI interfaces.

The Video Matrix Solutions are designed for deployment in environments that involve routing video signals, such as those found in campuses, boardrooms, sports bars, transportation and logistics centers, traffic control centers, etc.

Seamless Switch

The VM5808H has built-in Scaler in FPGA design that can unify the video format and provide continuous video streams, real-time switching and stable signal transmission.

Products: VM5808H

FPGA Design Benefits

Implementation of the FPGA design allows TMDS signals to be rearranged when transmitting high-speed data. This is used by the HDMI video interfaces, as well as other digital communication interfaces. Consequently, this benefit brings our video products better cascade compatibility, and extends digital signals to longer distances.

Products: VM0404H, VM0808H, VM5808H

Superior CD Audio Quality

To ensure audio quality, our technology converts analog signals to digital signals. This reduces electromagnetic interference and provides better CD audio quality at sample sizes of 24-bit, with sample rates up to 48 KHz.

Products: VM0808T, VM1616T

EDID Expert

EDID Mode Selection is an exclusive ATEN technology that allows you to choose an EDID recognition mode that optimizes display resolution throughout your installation allows for faster, smoother switching between displays. Currently, five modes are available: Default mode \ Learning mode \ Port 1 mode \ Customized mode and Remix mode.

Products: VM0404, VM0808, VM0808H, VM5808H

3D Support

3D capabilities are the future for many displays and content sources, especially in the worlds of entertainment. In keeping with this trend, ATEN has launched HDMI devices that establish the critical infrastructure for implementing 3D video in the home. They are ideal for 3D home theater integration, and commercial use.

Products: VM0404H, VM0808H, VM5808H

Media Matrix Solution

VM0808T/VM1616T + VE500 or VE300

VM0808T/VM1616T

8 x 8 / 16 x 16 Cat 5 A/V Matrix Switch

PRO



- Connects any of 8/16 Cat 5 A/V inputs to any of 8/16 Cat 5 A/V outputs in combination with ATEN VE300 / VE500 A/V Extender system
- Supports additional local input – provides an extra input source (VM0808T)
- Supports additional local display – provides an extra output source
- Superior video quality – up to 1920 x 1200 @ 60Hz
- Automatic and adjustable video and audio quality

VE300T/VE300R/VE300RQ

A/V Over Cat 5 Transmitter/Receiver

PRO



- Uses Cat 5e cable to connect the Transmitter and Receiver
- Long distance transmission – up to 300m
- Superior RGB deskew function (VE300RQ) – automatically synchronizes the time delay of RGB signals to compensate for distance
- Adjustable gain control – manually adjust signal strength to compensate for distance

VE500T/VE500R/VE500RQ

A/V Over Cat 5 Transmitter/Receiver
(With RS-232 Serial Functionality)

PRO



- Uses Cat 5e cable to connect the Transmitter and Receiver
- Long distance transmission – up to 300m
- Superior RGB deskew function (VE500RQ) – automatically synchronizes the time delay of RGB signals to compensate for distance
- Adjustable gain control – manually adjust signal strength to compensate for distance
- Superior audio quality – balanced audio provides flawless long-distance transmission

HDMI Matrix Switch

VM0404H

4 x 4 HDMI Matrix Switch

PRO

HDMI
HIGH DEFINITION MULTIMEDIA INTERFACE



- Connects any of four HDMI sources to any of four HDMI displays
- HDMI (3D, Deep Color); HDCP compatible
- FPGA design benefit brings the matrix switch better cascade compatibility, and extends digital signals to longer distances
- Built-in bi-directional RS-232 serial remote port for high-end system control

VM5808H

8x8 HDMI Matrix Switch with Scaler

PRO

HDMI
High Speed HDMI with Ethernet
Seamless Switch



- Connects any of eight HDMI sources to any of eight HDMI displays
- HDMI (3D, Deep Color); HDCP compatible
- FPGA design benefit brings the matrix switch better cascade compatibility, and extends digital signals to longer distances
- Seamless Switch – provides continuous video streams, real-time switching and stable signal transmission
- Features a built in high-performance scaler function for best image quality

VM0808H

8 x 8 HDMI Matrix Switch

PRO

HDMI
High Speed HDMI with Ethernet
Blu-ray Super 3D



- Connects any of eight HDMI sources to any of eight HDMI displays
- HDMI (3D, Deep Color); HDCP compatible
- FPGA design benefit brings the matrix switch better cascade compatibility, and extends digital signals to longer distances
- Built-in bi-directional RS-232 serial remote port for high-end system control

VGA Matrix Switches

VM0404

4 x 4 Video Matrix Switch with Audio

PRO



- Connects any of four VGA Video + Audio inputs to any of four VGA Video + Audio outputs
- Long distance transmission – up to 30m
- Supports up to 300 MHz bandwidth
- Built-in bi-directional RS-232 serial port for high-end system control
- EDID Expert – selects the optimum EDID settings for smooth power-up and highest quality display

VM0808

8 x 8 Video Matrix Switch + Audio

PRO



- Connects any of eight VGA Video + Audio inputs of any of eight VGA Video + Audio outputs
- Long signal range – supports up to 30m
- Supports up to 500 MHz bandwidth
- EDID Expert – selects the optimum EDID settings for smooth power-up and highest quality display

VS0202

2 x 2 Video Matrix Switch + Audio



- Each of the 4 video outs can toggle between Source 1 and Source 2 using the front panel pushbuttons
- Supports up to 300 MHz bandwidth
- Superior video quality – up to 1920 x 1440

VS0204

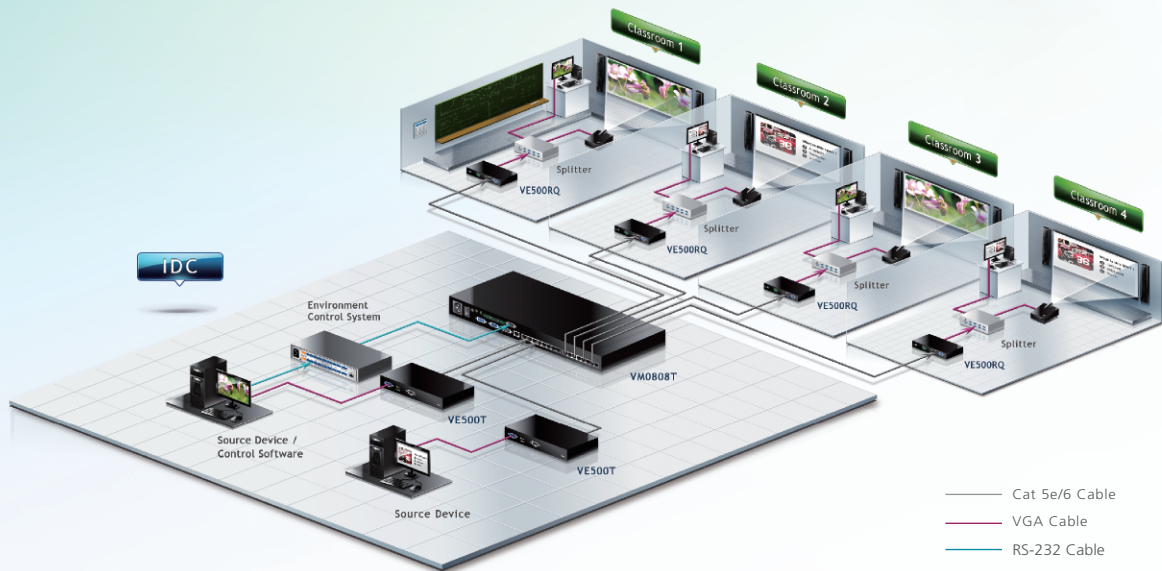
2 x 4 Video Matrix Switch + Audio



- Each of the 4 video outs can toggle between Source 1 and Source 2 using the front panel pushbuttons
- Supports up to 300 MHz bandwidth
- Superior video quality – up to 1920 x 1440

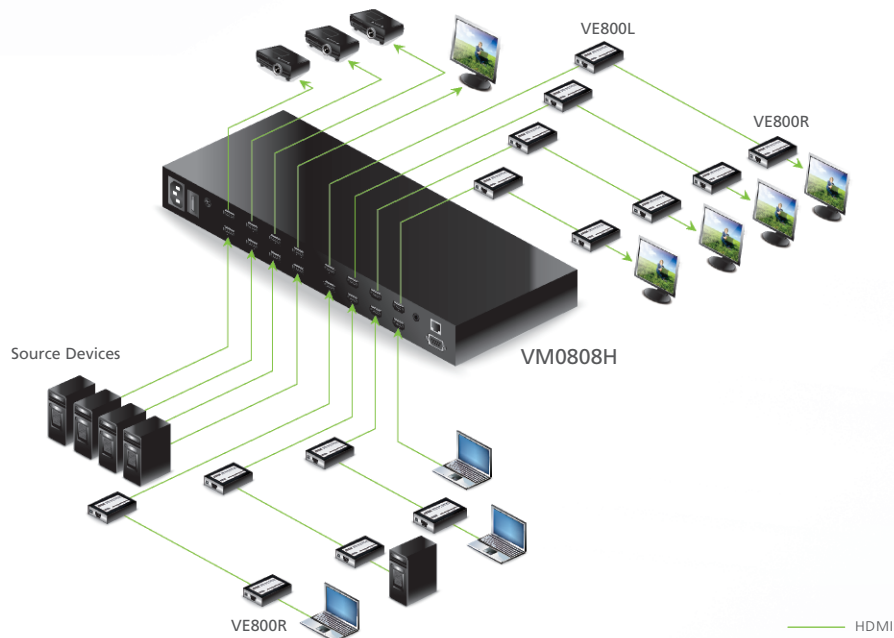
University

In addition to disseminating teaching materials, utilizing modern A/V technology can also improve the examination procedure. With the VanCryst VM0808T Media Matrix Solution, exam content retrieved from multiple servers can be delivered to specific displays situated in several different classrooms. The VM0808T's display extension capability allows the exam content servers to be kept safe and secure in the server room and while the displays can be deployed up to 300 m away.

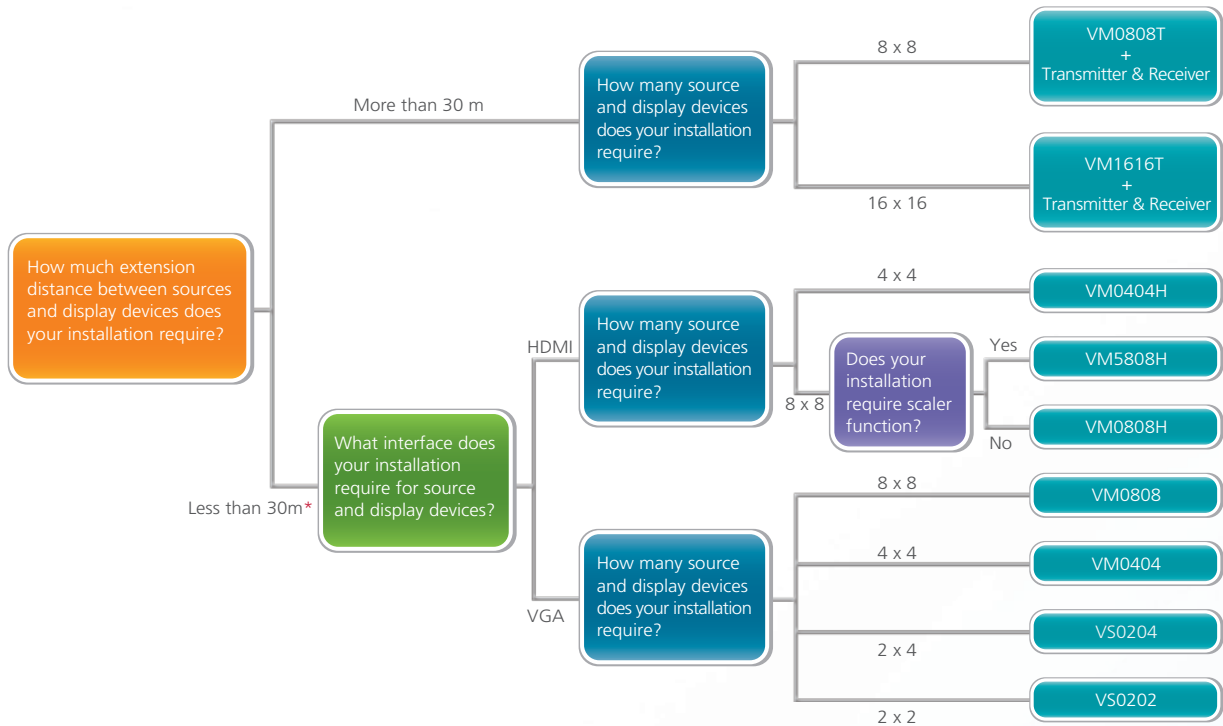


Boardroom

Because of their size, company boardrooms are often used to hold large meetings and training sessions. During the meetings or training sessions, staff members make presentations or demonstrate technical procedures that are shown on multiple large-screen displays located throughout the room. Depending on the situation, the presenters may want a different output for each display. A VM0808H Video Matrix Switch combined with a VE800 Video Extender lets them select from 8 input sources, choose which display will receive the output, and have the content displayed crisply and clearly – even if the display is located far from the source devices.



ATEN Video Matrix Solutions



*The VM0404H, VM0808H and VM5808H support the longest distance between source and display devices at 20m.

Solution	Media Matrix Solution		HDMI Matrix Switch			VGA Matrix Switch			
Model	VM0808T	VM1616T	VM0404H	VM5808H	VM0808H	VM0404	VM0808	VS0202	VS0204
Interface	VGA	VGA	HDMI	HDMI	HDMI	VGA	VGA	VGA	VGA
Inputs to Outputs	8 to 8	16 to 16	4 to 4	8 to 8	8 to 8	4 to 4	8 to 8	2 to 2	2 to 4
Cat 5 Connection	.	.							
Video Resolution	1920 x 1200	1920 x 1200	1080p	1080p	1080p	1920 x 1200	1920 x 1200	1920 x 1440	1920 x 1440
Bandwidth			225 MHz	225 MHz	225 MHz	300 MHz	500 MHz	300 MHz	300 MHz
Distance	300 m*	300 m*	20 m (24 AWG)	20 m (24 AWG)	20 m (24 AWG)	30 m**	30 m**	65 m**	65 m**
RS-232 Control	.	.	.	.	.	.	.
Web GUI Configuration	.	.		.	.
Local A/V Ports	.	.							
Independent Routing	.	.				.	.
FPGA Design			.	.	.				
3D Support			.	.	.				
EDID Expert				.	.	.	.
Deskew Support	.*	.*							
Scaler Support				.					

* In combination with compatible Transmitters and Receivers.

** Video content sent over very long distance using a VGA Cable might result in slight degradation of the video signal and quality.



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