ATEN VanCryst™ Professional A/V Solutions
About ATEN VanCryst

VanCryst, a professional audio video solution line by ATEN, is designed to fulfill the needs of the most demanding PRO AV applications in the industry.

From switches and splitters to extenders and converters, ATEN VanCryst products provide you with the components to build a multitude of flexible integrated solutions for all video related applications. Utilizing the latest video interfaces along with extensive audio support and meticulous engineering effort, ATEN VanCryst brings you the highest quality solutions to provide the ultimate visual and audio experience.

The Latest Technologies from VanCryst:
• Seamless Switch™
• Video Wall Processing
• 4K
• HDBaseT / Fiber Optics
• EDID Expert™
• Control System

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The ATEN Control System, incorporating the VK2100/VK1100 (Control Box), the VK6000 (ATEN Configurator) and the ATEN Control System App, is a standard Ethernet-based management system that connects all hardware devices in a room or large facility to provide centralized control of devices directly and effortlessly from any mobile device.

• The VK2100 / VK1100 works as the main control box to provide connectivity to all types of hardware devices commonly seen in a room.
• The VK6000 Configurator software features quick setup with the configuration of hardware and device controls.
• The ATEN Control System App empowers you with the mobility to control different hardware devices in different rooms whenever and however you like.

No more pre-meeting or post-meeting setup and break down, and no more redundant remote controls; everything is easily accessible from your mobile device as you tap and go. The ATEN Control System is a perfect fit in the hardware consolidation plan for any working environment, educational facility, conference hall or any other room that needs complete control.

How to deploy the ATEN Control System:
The ATEN Control System is perfectly applicable in any room that requires integration of different hardware devices with a customizable interface and controls. No matter how large the room or how complicated the hardware, deploying the ATEN Control System can be completed in 3 easy steps:

1. Connect all hardware to the VK2100/VK1100 Control Box
2. Configure the VK6000 Configurator
3. Control through the ATEN Control System App
VK6000 Configuration software

The most difficult challenge in deploying a control system is how to configure correctly and quickly through the configuration interface. ATEN’s easy-to-use graphical user interface overcomes the barrier and allows every installer to work on their cases by themselves without additional expenses.

The VK6000 Configurator software is used to streamline and simplify the complicated hardware setup process in 4 easy configuration steps: Create Project > Select Device > Configure Viewer Profile > Upload Profile. Operations for any room can be customized in a viewer profile that includes a personally designed GUI that fits the mobile device’s screen perfectly, signifying “what you see is what you get”, as you design the interface, actions and commands that correspond to the control buttons and icons added to the GUI.
Expansion

**VK224, VK236, and VK248 Expansion Boxes** provide additional serial, IR, relay ports for a flexible expansion of the ATEN Control System. This allows users to control additional devices in an environment where more devices are required. With the advantage of an Ethernet-based connection, the expansion box can be easily connected to VK2100/VK1100 control box and added to the Control System installation via a LAN connection in a variety of locations across a network.

**VK224**
4-Port Serial Expansion Box

- LED indication for hardware status and active messages
- USB port for easy firmware upgrade

**VK224 Expansion Box ID Switch**

**VK2100 Controller ID Switch**

**VK2100 Controller**

**Power Distribution Unit**

**Video Matrix**

**Projector**

**Conferencing System**

**Camera**

**Control Interface**

The wall-mount keypad is another simple control interface that allows you to interact with your meeting room.

**VK108US**
8-button Keypad (US, 1 Gang)

- Fully customizable with 14 layout combinations of 4 to 8 buttons
- Dual-color button LEDs for clear indication and visibility in dark environments
- Redundant power supplies with Power over Ethernet (PoE) and DC power
- Up to 8 keypads connect to a single Control Box for future scalability
- Button engraving service

**VK112EU**
12-button Keypad (EU, 2 Gang)

- Fully customizable with 125 layout combinations of 6 to 12 buttons
- Dual-color button LEDs for clear indication and visibility in dark environments
- Redundant power supplies with Power over Ethernet (PoE) and DC power
- Up to 8 keypads connect to a single Control Box for future scalability
- Button engraving service

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**VK236**
6-Port IR / Serial Expansion Box

**VK248**
8-Port Relay Expansion Box
Integrate Your Vision

Multifunctional Room Control

By toggling between different profiles within the ATEN Control System App on a mobile device, users can prepare the room for different scenarios in seconds.

For example, a meeting room with the AV equipment (e.g., audio, video, lighting, screen, etc) could transform into a training or seminar room instantly with dimmed light, louder audio, video on the screen and so on. Switching the application is simple with just a quick tap on the mobile devices, you can bring the hardware performance suitable for any occasion to life.

VK2100
ATEN Control System

RS-232, RS-485
Relay
IR
Network
Ethernet
Ethernet
Video Wall
Conference System
iPad ATEN Control System App
DVD Player
Matrix Switch
Audio System
PC
Screen Lift
Switch Button
VK2100
ATEN Matrix – Not Just a Matrix
ATEN’s Video Matrix Switches combine matrix, video wall, and Seamless Switch™ functions in one box. These hybrid devices provide the flexibility for various Pro AV applications, which in the past required multiple boxes. To support a wide range of installations, ATEN offers from 4x4 to 32x32 different models with different types of connections such as HDMI, HDBaseT, DVI, VGA, and SDI. With its award-winning user interface design, ATEN’s Video Matrix Switches are very easy to use and maintain, and are ideal for presentations and applications that require information from multiple source devices to be delivered to multiple screens and/or projectors – in locations such as conference room, information control centers, or customer service centers.

Key Advantages:
- Video Wall
- Seamless Switch™
- Award-winning user interface
**Video Wall** The video matrix switches integrate video processing functionality to create a video wall.

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**Seamless Switch™**

**Supports various video input/output resolutions**

ATEN’s Seamless Switch™ engine is incorporated into each output port to smoothly facilitate instantaneous switching, regardless of the source or display parameters. In order for competitors to claim instantaneous switching, it requires all sources and displays be set to the same video parameters. ATEN’s Seamless Switch has no such requirements; switching, regardless of input and output resolution parameters, is still close to 0 seconds.

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**Award-winning user interface**

ATEN was selected and awarded by Red Dot group for the innovative design of its graphical user interface. This user-friendly interface allows the user to manage the content distribution between matrix and videowall in seconds.

- Users friendly
- Easy to use
- Customizable web GUI
ATEN Modular Matrix Switch Solution Series

ATEN Modular Matrix Solution Series incorporates input and output boards that provide the option of various mixed video interface combinations – including digital and analog video formats such as HDBaseT, HDMI, SDI, DVI, and VGA – in one solution.

Models in this series feature an all-in-one control mechanism that integrates video wall processing and matrix switching in a single high performance chassis. Empowered by ATEN’s unique Seamless Switch™ technology, the matrix switch distributes live video with perfect timing in any dimension making it ideal for large-scale A/V applications such as broadcasting stations, traffic and transportation-related control rooms, emergency service centers and any application that requires customizable high-speed A/V signal routing.

VM3200

9U Design

Input Pushbutton 1-32

Alarm LED

Redundant Power LED

Primary Power LED

Ethernet Port

RS-485 / RS422 Serial Port

Fan Module

LCD Display

Function Pushbuttons

Output Pushbutton 1-32

Redundant Power Supply (Optional)

Input Board Slots

Output Board Slots

VM7514 / VM8514
4-Port HDBaseT
Input / Output Board

VM7804 / VM8804
4-Port HDMI
Input / Output Board

VM7604 / VM8604
4-Port DVI
Input / Output Board

VM7404
4-Port 3G-SDI
Input Board

VM7104
4-Port VGA
Input Board

VM7814 / VM8814
4-Port 4K HDMI Input / Output Board
Integrate Your Vision

For Entertainment Displays

Multiple displays for broadcasting music videos and commercials were installed in a popular nightclub. The various content needs to be flexibly delivered to monitors located in the stage and bar areas.

Objective:
Set up multiple monitors in several areas of a night club to display high definition video. One of the most important requirements was the ability to switch the various inputs to any or all monitors quickly and effortlessly.

Solution:
Installed ATEN’s VM3200 video matrix switch as a central switching point with ATEN’s VE812T/R units to meet distance and video quality requirements.

32x32 Video Matrix

Bar
Stage Area
up to 32 displays

VM3200
cable box
Blu-ray Player
Computer
up to 32 source devices

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32x32 Video Matrix

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up to 32 displays

VM3200
cable box
Blu-ray Player
Computer
up to 32 source devices
A car dealership wants a digital matrix solution requiring minimum engineering effort to configure, manage and display multiple video feeds.

**Solution:**
The VM3909H allows the car dealership to share up to 9 devices with 9 outputs in different locations such as reception area and showroom. Using the award-winning web GUI, the staff can easily select video sources and manage the video wall configurations wherever they are.

**Recommended Applications**
- Entertainment venue
- Showroom
- Sports bar
- Restaurant
- Retail store
- Control room

**9x9 Video Matrix**

![Diagram of 9x9 Video Matrix with Source Devices, Mirrored HDMI Outputs, and Control Box]
## VanCryst Video Matrix Switches Comparison Chart

<table>
<thead>
<tr>
<th>HDMI / DVI Matrix Switches</th>
<th>VM3200</th>
<th>VM1600A</th>
<th>VM51616</th>
<th>VM3909H</th>
<th>VM3404H</th>
<th>VM5808H</th>
<th>VM6809H</th>
<th>VM6604H</th>
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<td>HDMI / HDBaseT</td>
<td>HDMI / HDBaseT</td>
<td>HDMI</td>
<td>HDMI</td>
<td>HDMI</td>
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<td>16x16</td>
<td>16x16</td>
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<td>8x8</td>
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<td>4K*</td>
<td>1080p</td>
<td>4K@60Hz (4:2:0)</td>
<td>4K@30Hz (4:4:4)</td>
<td>4K@60Hz (4:2:0)</td>
<td>4K@30Hz (4:4:4)</td>
<td>1080p</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4K@60Hz (4:2:0)</td>
<td>4K@30Hz (4:4:4)</td>
<td>4K@60Hz (4:2:0)</td>
<td>4K@30Hz (4:4:4)</td>
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<td></td>
<td>4K@60Hz (4:2:0)</td>
<td>4K@30Hz (4:4:4)</td>
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<td>Video Wall Processor</td>
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<td>x**</td>
<td>x</td>
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<tr>
<td>Seamless Switch™</td>
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<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Reddot Award Winner</td>
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<td>x</td>
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<td>x</td>
<td>x</td>
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<tr>
<td>Browser</td>
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<td>x</td>
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<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>IR</td>
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<td>x</td>
<td>x</td>
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<td>x</td>
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</tr>
<tr>
<td>RS232</td>
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<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

### Notes
Input Cards: VM7814 (4K HDMI), VM7804 (HDMI), VM7604 (DVI), VM7514 (HDBaseT), VM7104 (VGA), VM7404 (SDI)
Output Cards: VM8814 (4K HDMI), VM8804 (HDMI), VM8604 (DVI), VM8514 (HDBaseT)**

*Through VM7814 / VM8814 / VM7514 / VM8514
**VE805R is necessary to have video wall and Seamless Switch™

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### HDMI / DVI Matrix Switches

<table>
<thead>
<tr>
<th>HDMI / DVI Matrix Switches</th>
<th>VM5404H</th>
<th>VM0404HA</th>
<th>VM0202H</th>
<th>VM0808HA</th>
<th>VM0808HB</th>
<th>VM5808D</th>
<th>VM5404D</th>
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<td>HDMI</td>
<td>HDMI</td>
<td>HDMI</td>
<td>DVI</td>
<td>DVI</td>
<td>DVI</td>
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<tr>
<td>Input/Output</td>
<td>4x4</td>
<td>4x4</td>
<td>2x2</td>
<td>8x8</td>
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<td>4x4</td>
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<td>Max Video Resolution</td>
<td>1080p</td>
<td>4K@60Hz (4:2:0)</td>
<td>4K@30Hz (4:4:4)</td>
<td>4K@60Hz (4:2:0)</td>
<td>4K@30Hz (4:4:4)</td>
<td>4K@60Hz (4:2:0)</td>
<td>4K@30Hz (4:4:4)</td>
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<td>Video Wall Processor</td>
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<td>Seamless Switch™</td>
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<td>x</td>
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<td>Browser</td>
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<td>x</td>
<td>x</td>
<td>x</td>
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</table>

*VE805R is necessary to have video wall and Seamless Switch™

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### VGA Matrix Switches

<table>
<thead>
<tr>
<th>VGA Matrix Switches</th>
<th>VS0202</th>
<th>VM0404</th>
<th>VM0808</th>
<th>VM0808T</th>
<th>VM1616T</th>
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<td>VGA</td>
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<td>VGA</td>
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<tr>
<td>Input/Output</td>
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<td>16x16</td>
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<tr>
<td>Audio Support</td>
<td>Stereo</td>
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<td>Stereo</td>
<td>Stereo Balance</td>
<td>Stereo Balance</td>
</tr>
<tr>
<td>RS232</td>
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<td>x</td>
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<td>Browser</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Accessories</td>
<td>VE300T, VE300R / RQ, VE500T, VE500R/RQ</td>
<td>VE300T, VE300R / RQ, VE500T, VE500R/RQ</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Video Switches
Quick and Easy Port Selection with Flexible Deployment

ATEN video switches allow you to conveniently direct the video output of video sources to a monitor of choice. All models offer source selection via front panel push buttons, RS-232 (serial), or IR remote control.

ATEN video switches are the ideal choice for situations requiring switchable inputs to a single display. Meeting rooms are a good example, where each participant connects their computer to the switch and, in turn shares their presentation on a common monitor or projector.

Key Benefits
• Multiple Port Selection options for convenience
• Flexible Deployment

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<table>
<thead>
<tr>
<th>HDMI / DVI Switches</th>
<th>VS0801H</th>
<th>VS481C</th>
<th>VS481B</th>
<th>VS481A</th>
<th>VS482</th>
<th>VS461 / VS261</th>
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<tbody>
<tr>
<td>Interface</td>
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<td>HDMI</td>
<td>HDMI</td>
<td>HDMI</td>
<td>HDMI</td>
<td>DVI</td>
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<td>Input</td>
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<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4 / 2</td>
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<tr>
<td>Max Video Resolution</td>
<td>1080p</td>
<td>True4K@60Hz (4:4:4)</td>
<td>4K@60Hz (4:2:0)</td>
<td>4K@30Hz (4:4:4)</td>
<td>1080p</td>
<td>1080p</td>
</tr>
<tr>
<td>Audio Support</td>
<td>HDMI</td>
<td>HDMI</td>
<td>HDMI</td>
<td>HDMI</td>
<td>Optical / Coaxial digital audio, Analog Stereo audio</td>
<td>RCA Stereo</td>
</tr>
<tr>
<td>RS232</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>IR</td>
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<td>x</td>
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</tr>
</tbody>
</table>
Integrate Your Vision

For HDMI Control

To provide more application capabilities, the ATEN HDMI Switch features a serial port for high-end system control. With this serial port, you can design your own automatic software to control your system, or integrate the system into your current customized installation. Enabling you to share one display with up to eight source devices, the ATEN HDMI Switch can be utilized in seminars, presentations, meeting rooms, and even in your home theater installation. Connect the switch to an ATEN HDMI extender and you can access the source device from hundreds of meters away.

VS0801H
8-Port HDMI Video/Audio Switch with IR Remote and RS-232

VE800
HDMI Video/Audio Extender

<table>
<thead>
<tr>
<th>VGA Switches</th>
<th>VS0201</th>
<th>VS0401</th>
<th>VS0801A</th>
<th>VS291 / VS491</th>
<th>VS881</th>
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<td>VGA</td>
<td>VGA</td>
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<td>IR</td>
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</table>
Video Splitters
High Bandwidth with Sharp and Clean Output

Media Distribution Solutions
A cost-effective and efficient way to send high quality multimedia/HDMI content over a single Cat5e cable to multiple displays from a single input source.

Video splitters serve the function of providing clear, sharp images from a single video source to multiple displays. Splitters are the best solutions for any application that involves displaying the same information in several locations simultaneously:

- In-store or tradeshow digital signage
- Broadcasting information to public locations (news and arrival/departure schedule)
- Sporting events
- Theater and lecture rooms
- Classroom and company training facilities

Video Splitters come in 2 basic versions MDS (Media Distribution Solutions Series) and regular:

MDS Splitters
- MDS uses Cat5e (or better) between the splitter and destination receiver.
- This allows for greater distances and up to potentially hundreds of displays.
- MDS splitters rely on compatible receivers to enhance signals at distances up to 450m.

Regular Splitters
- Use standard video cable (VGA, DVI, HDMI, or DP)
- Maximum distance is determined by the source resolution and the quality of the video cables.
Integrate Your Vision

For House of Worship

A church was looking for an advanced solution to transmit information and broadcast high-quality audio and video across longer distances without any loss of quality. The information would be transmitted in real time from a computer in the control room to the monitors distributed around the church.

Utilizing the VS1818T in conjunction with VE812R(s), sharp image and clear sound of worship services, songs, and prayers are broadcasted seamlessly to four separate rooms in the church.

VS1818T
8-Port HDMI HDBaseT Splitter

VE812R
HDMI HDBaseT Extender
## VanCryst Video Splitter Comparison Chart

<table>
<thead>
<tr>
<th>CATS Splitters</th>
<th>VS1814T / VS1818T</th>
<th>VS1804T / VS1808T</th>
<th>VS1204T / VS1208T</th>
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<td>VGA</td>
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<td>Audio Support</td>
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### Cat 2 Splitter Specifications

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<tr>
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<th>VS0108HB</th>
<th>VS0108HA</th>
<th>VS182A / VS184A</th>
<th>VS192 / VS194</th>
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<td>SDI</td>
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<td>Output</td>
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<td>8</td>
<td>2 / 4</td>
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<td>True 4K @60Hz (4:4:4)</td>
<td>4K@60Hz (4:2:0)</td>
<td>4K@60Hz (4:2:0)</td>
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<td>HDMI</td>
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### Cat 3 Splitter Specifications

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<th>VS0116</th>
<th>VS132A</th>
<th>VS134A</th>
<th>VS138A</th>
<th>VS92A</th>
<th>VS94A</th>
<th>VS98A</th>
<th>VS82A / VS84A</th>
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</table>
Presentation Switches
7 x 3 Presentation Matrix Switch with Streaming, HDBaseT
VP2730

- Supports multi-format inputs
  - 2 combo inputs (HDMI / VGA, HDMI / DisplayPort)
  - 3 HDMI inputs
- 2 x HDMI and 1 x HDBaseT outputs
- Superior video quality up to 1080p
- Seamless Switch™ technology
- Streaming in/out for sharing at any distance
- Remote Display Control for advanced meeting management
- Audio mixer integration
- Multiple control options, including built-in Web GUI, pushbuttons, OSD, IR Remote, RS232
**Video Extenders**

Extends from 15m to 20km with Optimum Video Quality

**HDBaseT Solutions**

ATEN’s HDBaseT solutions are compliant with the connectivity standard for home and commercial distribution of uncompressed HD multimedia content. They are also optimized for professional A/V installations, providing a simple, cost–effective solution for transmitting Full HD signals up to 100m.

![HDBaseT Solutions](image)
Integrate Your Vision

Digital Signage

A well-known movie theater chain needed an AV solution to transmit one video source to multiple screens at the concession stands.

They are looking for an affordable yet simple-to-install system. ATEN Technology provided the VS1814T and VE812 HDBaseT Splitter / extender system as a solution to meet their requirements.

The test installation performed so flawlessly, the movie theater company has made the installation a standard for all their concession stands.

Key Benefits

- Easy Installation
- Reliable
- 3-Year Warranty

HDBaseT Extender

VE812R

Video Splitter

VS1814T

Cat5e

HDMI
ATEN Video Extenders utilize Cat5e, 6, 7 or optical cables to maximize the distance between source devices and output displays in your video installations. Video Extenders allow you to place video source devices in distant locations where it is secured and protected from harsh environments and tampering.

Applications for the use of video extenders include security, surveillance, retail, and entertainment.

**Key Benefits**
- Increase Workplace Security
- Maximize Management Efficiency
- Optimum Video Quality
- Outstanding Multimedia Support

**VE882**
HDMI Optical Extender

**CE624**
DVI Dual View HDBaseT Extender w/ USB

**VS1814T / VS1818T**
4/8-Port HDMI HDBaseT Splitter

---

### ATEN Extender Comparison Chart

<table>
<thead>
<tr>
<th>HDBaseT Extenders</th>
<th>VE801</th>
<th>VE802</th>
<th>VE805R</th>
<th>VE811</th>
<th>VE812</th>
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## ATEN Extender Comparison Chart

### Fiber Optic Extenders

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<td>RS232 Channel</td>
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<td>x</td>
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<td>IR Channel</td>
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</tr>
<tr>
<td>USB 2.0</td>
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### HDMI / DVI Extenders

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<td>USB 2.0</td>
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### True 4K HDMI 2.0 Active Optical Cable

VE7832 / VE7833 / VE7834 / VE7835

### Video Extenders

#### VE500

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<tr>
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### Wall Plate Extenders

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<td>HDMI / Stereo</td>
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<td>EU / MK</td>
<td>US / Decora</td>
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<td>US / Decora</td>
<td>EU / MK</td>
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### True 4K HDMI 2.0 Active Optical Cable

VE7832 / VE7833 / VE7834 / VE7835

#### HDMI Active Optical Cable

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<th>VE7833</th>
<th>VE7834</th>
<th>VE7835</th>
</tr>
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<td>Audio Support</td>
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</tbody>
</table>
HDMI Over IP Extenders
Making Networked AV Easy

reddot award 2018
winner

The ATEN VE8900/VE8950 HDMI Over IP Extenders deliver visually lossless 1080p / 4K AV signals with low latency over long distance via a standard Gigabit network. The VE8900/VE8950 provides an effective, easy-to-use, and economical digital signage solution with the following features and advantages that directly address the challenges system integrators encounter when implementing AV over IP systems:

- **Limited Flexibility and Scalability**: From a simple point-to-point setup, to thousands of endpoints while offering multi-functionality in extender, splitter, matrix switch, and video wall applications.

- **No Complicated IP Setup**: Effortlessly switch input sources via top panel pushbutton/ID display. Simple configuration that requires no extensive IT experience.

- **No Additional Sever PCs or Software Required**: Manage your AV over IP system by logging in to any receiver or transmitter from the web GUI.

- **Go Further for Less with Daisy Chaining**: Easily expand your AV network coverage without cable clutter while also lowering per-port costs.
Applications

VE8900 / VE8950 is perfect for large-scale deployments covering hundreds of meters, such as university campuses, stations, shopping malls, and exhibition centers.

Limitless Scalability and Flexibility

- Extends AV connections from a simple point-to-point to a multi-point to multi-point setup via LAN without distance limitations.
- Offers multi-functionality in extender, splitter, matrix switch, video wall and daisy chain applications.
- Mix and match the latest 4K displays and 1080p screens. The built-in scaler automatically scales incoming video signals to match the maximum resolution of the connected display devices.
No Complicated IP Setup

- VE Manager can help you to assign IP addresses to each device automatically by Auto IP function. Configuration is simple. No extensive IT experience nor extra learning is required.
- Effortlessly switch among input sources via top panel pushbuttons.

No Additional Server PCs or Software Required

- Supports web GUI (VE Manager) for device management.
- No additional server PCs, control boxes, or software/drivers are needed.

Intuitive Web GUI – VE Manager

The VE89 Series can be configured via its built-in Graphical User Interface (GUI). The system can be accessed through the intranet, operators can easily log in via most web browsers.

Real-time System Status Monitoring

Easily configure and monitor the status of each transmitter and receiver by color indicators.

- Green: Connected and active
- Orange: Standby
- Grey: Offline

Preview

Allows you to preview the video source in real-time before selecting and showing the content on each display.

Video Wall Setup

Provides maximized flexibility to manage various video wall layouts.
Various Profiles Management
Create video wall, splitters, and matrix profiles effortlessly and manage all your profiles at the same time from a single, intuitive web GUI.

Backup and Restore Settings for Your Convenience
Easily duplicate your VE Manager settings, including the transmitter and receiver layouts and the login ID, and quickly apply the same settings to different locations.

More features

Lightweight Compression with Ultra-low Latency
- Delivers visually lossless high-quality video up to 1080p @ 60 Hz (VE8900) / 4096 x 2160 @ 30 Hz 4:4:4 (VE8950).
- Ensures stunning quality video using ATEN advanced video compression technology.
- EDID Expert™ selects the optimum EDID settings for smooth power-up, high-quality display and the best video resolution across different screens.

Embedded / De-embedded Audio Support
- For VE8900T / 8950T – separate audio signal can be embedded into the HDMI stream.
- For VE8900R / 8950R – audio stream can be extracted from the HDMI stream and delivered as a separate audio signal.

Multiple Control Channels
- Multiple control methods – the system can be managed via Ethernet or top-panel pushbuttons.
- USB Connectivity – USB port (USB 2.0) allows for connection of devices such as keyboard, mouse, flash drive, printer, and other USB peripherals.
- Bi-directional IR Channel – full range (30K~56KHz) IR transmission is processed one way at a time.
- RS-232 Channel – bi-directional RS-232 serial port allows for connection of peripherals such as touch screens and bar code scanners.
### Specifications

<table>
<thead>
<tr>
<th>Function</th>
<th>VE8900R</th>
<th>VE8950R</th>
<th>VE8900T</th>
<th>VE8950T</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Video Input</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interfaces</td>
<td>N/A</td>
<td>1 x HDMI Type A Female (Black)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impedance</td>
<td>N/A</td>
<td>100 Ω</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Distance</td>
<td>N/A</td>
<td>1.8 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Video Output</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interfaces</td>
<td>1 x HDMI Type A Female (Black)</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impedance</td>
<td>100 Ω</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Video</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Data Rate</td>
<td>Average: 150 – 500Mbps</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance</td>
<td>HDMI</td>
<td>HDMI (4K)</td>
<td>HDMI</td>
<td>HDMI (4K)</td>
</tr>
<tr>
<td></td>
<td>HDCP Compatible</td>
<td>HDCP Compatible</td>
<td>HDCP Compatible</td>
<td>HDCP Compatible</td>
</tr>
<tr>
<td><strong>Max. Resolutions / Distance</strong></td>
<td>Up to 1080p @ 100 m (Cat 5e / 6, point to point)</td>
<td>Up to 1080p @ 100 m (Cat 5e / 6, point to point)</td>
<td>Up to 4K @ 100 m (Cat 5e / 6, point to point)</td>
<td>Up to 4K @ 100 m (Cat 5e / 6, point to point)</td>
</tr>
<tr>
<td>*4K supported: 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4)</td>
<td>*4K supported: 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4)</td>
<td>*4K supported: 4096 x 2160 / 3840 x 2160 @ 60Hz (4:2:0)</td>
<td>*4K supported: 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4)</td>
<td></td>
</tr>
<tr>
<td><strong>Audio</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input</td>
<td>N/A</td>
<td>1 x HDMI Type A Female (Black)</td>
<td>1 x Mini Stereo Jack Female (Black)</td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>1 x HDMI Type A Female (Black)</td>
<td></td>
<td>1 x Mini Stereo Jack Female (Green)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Function</th>
<th>VE8900R</th>
<th>VE8950R</th>
<th>VE8900T</th>
<th>VE8950T</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Connector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit to Unit</td>
<td>2 x RJ-45 Female</td>
<td></td>
<td>1 x RJ-45 Female</td>
<td></td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IR</td>
<td>1 x Mini Stereo Jack Female (Black)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS-232</td>
<td>Connector: 1 x Terminal Block, 3 pole</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baud Rate: 19200, Data Bits: 8, Stop Bits: 1, no parity and flow control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>USB</strong></td>
<td>2 x USB Type A Female (Black)</td>
<td></td>
<td>1 x USB Type B Female (White)</td>
<td></td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connectors</td>
<td></td>
<td></td>
<td>1 x DC Jack (Black) with locking</td>
<td></td>
</tr>
<tr>
<td>Consumption</td>
<td>DC 5V, 4.2W (without USB peripheral device loading)</td>
<td>DC 5V, 4.6W (without USB peripheral device loading)</td>
<td>DC 5V, 3.2W</td>
<td>DC 5V, 3.3W</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0 - 40 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-20 - 60 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humidity</td>
<td>0 - 80% RH, Non-Condensing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical Properties</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>Metal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>0.49 kg (1.08 lb)</td>
<td>0.50 kg (1.1 lb)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions (L x W x H) with bracket</td>
<td>14.02 x 12.30 x 3.06 cm (5.52 x 4.84 x 1.2 in.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions (L x W x H) without bracket</td>
<td>13.60 x 10.10 x 2.96 cm (5.35 x 3.98 x 1.17 in.)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LCD KVM Switches
All-in-one server management solutions

USB DVI LCD Console with USB Peripheral Support
CL6700MW

• Integrated DVI KVM console with a 17.3” Widescreen Full HD LED-backlit LCD monitor in a single rail housing
• Audio support (for connecting speakers)
• Supports an external console with USB / DVI / HDMI / VGA connectors
• Superior video quality – up to 1920 x 1200 @60 Hz; DDC, DDC2B
• Standard rack mount kit included

Single Rail 8-Port DVI FHD LCD KVM Switch
CL6708MW

• Integrated KVM with a 17.3” LED-backlit LCD monitor in a single rail housing
• Cascadable up to one level – control up to 64 computers
• Support USB/DVI external console
• Front panel USB port allows each computer to access USB peripherals
• Multiplatform support – Windows, Linux, Mac and Sun
The newly released PE6208AV is especially ideal for Pro A/V applications that implement the ATEN Control System. With full RS232 support, the PE6208AV can collaborate with any type of Pro A/V installation and can be managed via the single Control System interface. Furthermore, the auto-ping function provides continuously monitoring and reboot/recovery.

### Applications

**Integrated control**

via Control System

---

ATEN Control System App

PE6208AV

(Control Box)
Success Stories

A school was looking for a major upgrade to its e-Future classroom A/V management system. In particular, the school wanted to solve the device control issues that resulted from having multiple individual remote controls. By utilizing the ATEN Control System in conjunction with PDUs, users can now centrally power on/off multiple displays at once as well as manage other equipment in the classroom, such as lighting and air conditioning.

VK2100
ATEN Control System - Control Box

PE6208G
20A/16A 8-Outlet 1U Metered & Switched eco PDU
### Cable Comparison Chart

<table>
<thead>
<tr>
<th>Images</th>
<th>Part No.</th>
<th>Length (m)</th>
<th>Interface</th>
<th>To PC / Source Interface</th>
<th>To Switch Interface</th>
<th>Compatible Products</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="HDMI Image" /></td>
<td>2L-7D02H 2L-7D02H-1 2L-7D03H 2L-7D05H 2L-7D10H 2L-7D15H 2L-7D20H</td>
<td>1.8 2 3 5 10 15 20</td>
<td>HDMI</td>
<td>HDMI Male</td>
<td>HDMI Male</td>
<td>All ATEN's HDMI Devices</td>
</tr>
<tr>
<td><img src="image2.png" alt="DVI-D Image" /></td>
<td>2L-7D03DD 2L-7D05DD 2L-7D10DD</td>
<td>3 5 10</td>
<td>DVI-D</td>
<td>DVI-D Male (Dual Link)</td>
<td>DVI-D Male (Dual Link)</td>
<td>All ATEN's DVI Devices</td>
</tr>
<tr>
<td><img src="image3.png" alt="DVI-D Image" /></td>
<td>2L-7D02V</td>
<td>2</td>
<td>DVI-D</td>
<td>DVI-D Male (Single Link)</td>
<td>DVI-D Male (Single Link)</td>
<td>VS172, VS174, VS162, VS164, VE600A, VE6002, VE606</td>
</tr>
<tr>
<td><img src="image4.png" alt="VGA Image" /></td>
<td>2L-2402A</td>
<td>2</td>
<td>VGA</td>
<td>DVI-D USB</td>
<td>Audio Plug</td>
<td>Audio Plug</td>
</tr>
<tr>
<td><img src="image5.png" alt="USB Image" /></td>
<td>2L-7D02U 2L-7D03U 2L-7D05U</td>
<td>2 3 5</td>
<td>DVI-D USB</td>
<td>DVI-D USB (Single Link)</td>
<td>2 Audio Plugs</td>
<td>CM1164</td>
</tr>
<tr>
<td><img src="image6.png" alt="DisplayPort Image" /></td>
<td>2L-7D02DP 2L-7D03DP</td>
<td>2 3 5</td>
<td>DisplayPort</td>
<td>DisplayPort</td>
<td>DisplayPort</td>
<td>All ATEN's DisplayPort Devices</td>
</tr>
<tr>
<td><img src="image7.png" alt="RJ-45 Image" /></td>
<td>2L-2801</td>
<td>305</td>
<td>RJ-45</td>
<td>RJ-45</td>
<td>RJ-45</td>
<td>All ATEN's Cat 5 / 5e / 6 / 6a Devices for Video &amp; Audio Communication</td>
</tr>
<tr>
<td><img src="image8.png" alt="RJ-45 Image" /></td>
<td>2L-2910</td>
<td>305</td>
<td>RJ45</td>
<td>RJ-45</td>
<td>RJ-45</td>
<td>All ATEN HDBT products</td>
</tr>
</tbody>
</table>
Accessories

ATEN LockPro™ - HDMI Cable Lock

ATEN LockPro™, the world’s most effective universal HDMI cable lock

LockPro™, an ATEN exclusive technology, was created to prevent signal loss by ensuring a durable connection between your HDMI cables and devices in a simple, one-piece design. Since most HDMI connectors do not have a locking mechanism, it’s common for them to become detached or loosened and create intermittent up to complete signal loss - making cable lock solutions essential.

Features

- Innovative design improves stability and flexibility
- One-piece and reusable design for easy installation and removal
- Ensures strong and reliable HDMI cable connections
- Universal design for securing most cables (not limited to HDMI)
- Environmentally safe – RoHS compliant and recyclable
- Sold 10 pieces per pack

2X-EA12 Specifications

<table>
<thead>
<tr>
<th>Function</th>
<th>2X-EA12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temperature</td>
<td>-20 – 60°C</td>
</tr>
<tr>
<td>Humidity</td>
<td>0-95% R.H, Non-Condensing</td>
</tr>
<tr>
<td>Weight</td>
<td>1.4 g</td>
</tr>
<tr>
<td>Dimensions (LxWxH)</td>
<td>8.61 x 6.47 x 0.66 cm</td>
</tr>
</tbody>
</table>

One-piece Design for Easy Installation

Loosen the screw above the port

Slide the LockPro over the loosened screw

Tighten the screw firmly

Wrap the LockPro around the cable

Rack Mount Kits

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Product Name</th>
<th>Compatible Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>VE-RMK2U</td>
<td>Extender Rack Mount Kit</td>
<td>CE100, VE560, VE600A, VE602A, VE800A, VE803, VE810</td>
</tr>
<tr>
<td>VE-RMK3U</td>
<td>Extender Rack Mount Kit</td>
<td>CE100, VE560, VE600A, VE601, VE602A, VE800A, VE801, VE803, VE810</td>
</tr>
</tbody>
</table>
Success Stories

Hospital, Australia
Simple Control Over Long Distances

Three wards of a private Brisbane hospital wanted to find a simple means of controlling the content shown on the televisions located in each client waiting room. The hospital was also looking for a solution that would minimize the time spent by hospital staff turning on and off the lights and televisions in the waiting rooms at the start and end of each day.

Challenges
The private hospital needed a solution which would allow them to easily broadcast to their nine client waiting rooms’ cable television programs, DVDs, and hospital information stored on computers located in a central control room. Furthermore, the hospital computers have a VGA output, while the television programs and DVDs have an HDMI output. Although most of the televisions located in the waiting rooms are HDMI compatible, there are some older televisions that accept DVI signals. The three hospital wards have nine client waiting rooms in total which are located across three floors; to bridge this distance, the solution needed to extend up to 984 feet. Additionally, the hospital was looking for a way to control the lights and televisions so that the hospital staff can easily turn them on and off at the start and end of each day.

ATEN Solution
Centralized, flexible control - The private hospital client waiting rooms integrate the ATEN Control System with ATEN’s professional A/V and PDU solutions to create centralized control of the multimedia devices via an Ethernet network. The flexible professional A/V solution can easily expand as the needs of the hospital changes. ATEN’s VM1600 modular matrix switch allows the hospital to choose between VGA, DVI or HDMI input and DVI or HDMI output. The current A/V combination of one VM1600 Modular Matrix Switch and two VM5808H HDMI Matrix Switches accommodates up to 32 video inputs and 32 video outputs.

Long-distance deployment - ATEN’s VE882 is an Optical HDMI Extender that overcomes the length restriction of standard HDMI cables by using optical fiber to send high definition audio and video signals up to 600 meters. This allowed the private hospital to easily distribute content to the nine client waiting rooms. The client waiting rooms, located less than 100 meters from the central control room, used ATEN’s HDMI over Single Cat 5 Extender (VE812), and the televisions with DVI ports used the DVI HDBaseT-Lite Extender (VE601).

User-friendly - The coupling of ATEN’s powerful Control System and its video matrix products create a user-friendly total solution for the hospital. Both the VM5808H and VM1600 use ATEN’s Red Dot award-winning GUI (Red Dot Interface Design Award 2015). The user-friendly interface allows the management team to effortlessly create up to 32 display profiles for the VM1600, and up to 16 display profiles for the VM5808H. The video matrix products and ATEN PDUs can then be centrally controlled using the ATEN Control System. The Control System’s Configurator, the VK6000, allows system integrators to easily add hardware and create interface options for each device. The ATEN Control System is intuitive and allows individuals without a technical background to easily master it through its simple point-n-tap iPad GUI. Using this app, the hospital staff can instantly switch profiles and have it take effect in any of the client waiting rooms. They can also control the lights and televisions, turning them on and off with the tap of a button, anywhere at anytime.
VM5808H
HDMI Matrix Switch with Scaler

VE882
HDMI Optical Extender

VM1600
Modular Matrix Switch

Video Distribution

ATEN Control System
VK2100, VK6000, and ATEN Control System App

Control Distribution
Success Stories

The Bierkeller, UK
Multisite Multimedia Control

Three jointly-owned pubs located in an entertainment complex were looking for a way to control the 60 televisions located across their three venues.

Challenges
The pub needed to be able to centrally control each pub location’s multimedia devices while making it easy for staff to instantly switch content between the three locations. In addition, staff would need to have the ability to easily and remotely power on and off all displays while remaining in complete control of the content. The pub also required a future-proof, expandable solution with scalability without having to change their IT infrastructure.

ATEN Solution
Simple, centralized multimedia control.
The three pubs incorporate the ATEN Control System and ATEN’s professional AV solutions to create centralized control of all multimedia devices via an Ethernet network. This allows staff to:

• Instantly switch profiles for any of the three locations
• Remotely power on and off all displays with a single tap from an iPad using the VM1600’s broadcast feature
• Additionally, the solution allows the televisions to no longer be controlled by IR signal. This eliminates the issue the pubs were facing with patrons controlling the televisions using a phone app

ATEN Control System
VK2100, VK6000, and ATEN Control System App

VE802
HDMI HDBaseT Lite Extender with POH

VE814
HDMI HDBaseT Extender with Dual Output

VM1600
Modular Matrix Switch
Success Stories

Artear, Argentina
Multiplatform Content Creation Center

As an innovator in the broadcasting industry in Latin America, Artear was looking for a flexible solution that could be easily and quickly customized to support the fast-paced video display needs of a cutting-edge newsroom.

Challenges

Artear required a video wall solution that was simple to control but catered to a wide range of display configurations while also facilitating fast switching between video sources in real-time. They also required a solution specifically designed with reliable power redundancy in mind. In a hectic 24-7 newsroom environment, where millions of viewers rely on Artear as an information portal, this kind of reliability is a critical factor. To accommodate the station’s ever-increasing video content management needs, Artear’s state-of-the-art newsroom was designed with two video walls - one large 10 x 6 wall and a second 5 x 5 wall - that needed to display content from various channels to monitor the latest news and information. In total, 16 different SDI inputs needed to be routed to the walls and scaled to meet their display requirements.

Finally, to maximize the efficiency of their news editors and content creators, their 5 x 5 video wall needed to be extended over distances of up to 70 meters (230 ft) without any delay or loss of signal quality and strength.

ATEN Solution

ATEN provided the perfect solution with Modular Matrix Switch Switches paired with the ATEN Control System, an Ethernet-based management system, comprised of Control Boxes and Configurator software, which connects hardware devices and centralizes control of all of them. By integrating six VM1600 units (with 3G-SDI input boards and HDMI/HDBaseT output boards) and sixteen VS146 splitters with two VK2100 Control Boxes, the ATEN solution delivered easy management and control for both the 60-screen HDMI video wall and the 25-screen HDMI video wall. Four VM1600s were used for the 10 x 6 video wall and two for the 5 x 5 video wall, each controlled by a single VK2100, while 25 VE805R units were employed to further extend the distance of the 5 x 5 installation over HDBaseT and provide seamless switching and scaling functionality.

• Customized flexibility and video wall configuration options
• Seamless switching and reliable, continuous video streams
• Centralized video wall control from multiple devices
• Long distance video transmission
• Reliable power redundancy design
VK2100
ATEN Control System

VS146
6-Port 3G-SDI Splitter

VE805R
HDMI HDBaseT-Lite Receiver with Scaler

VM1600
16x16 Modular Matrix Switch
Success Stories

VIVE Cooking School, Australia

The VIVE Cooking School is one of the hottest cooking schools in Sydney, Australia. It’s a platform for passionate home cooks of all ages. At VIVE, the chefs demonstrate the cooking process of a variety of delicious dishes and show the close-up details to students via live streaming video.

Challenges

- Needed to consolidate control of a variety of video source devices, including three cameras and one laptop computer, and four Full HD displays and one monitoring screen as video outputs
- Required a remote control solution instead of manually switching the cameras via a laptop
- Essential highest quality video resolution for all the students to see the details of chef’s cooking demonstrations
- Must be able to work in tandem with existing broadcasting hardware as well as increase its number of video outputs from one to many
- Looking for an all-in-one user-friendly solution that people with limited tech knowledge can use to control the system

ATEN Solution

- Provides centralized control for the whole system via handheld devices
- Ensures top video quality and seamless switching between reliable, continuous video streams
- High level of compatibility enabled the new ATEN solution to integrate with the existing one
- Features an intuitive and user-friendly interface so no IT experience is needed to control the system