ATEN

ATEN VanCryst™ Professional A/V Solutions

2018

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

Contents

ATEN Control System

Simply Intelligent

ATEN Control System - Control Box
VK2100

ATEN Control System - Compact Control Box
VK1100

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.

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:

CONNECT

Connect all hardware to the VK2100/VK1100 Control Box

CONFIGURE

VK6000 Configurator

CONTROL

ATEN Control System APP

How to deploy the ATEN Control System:

The ATEN Control System is perfectly applicable in any room that requires integration of different hardware
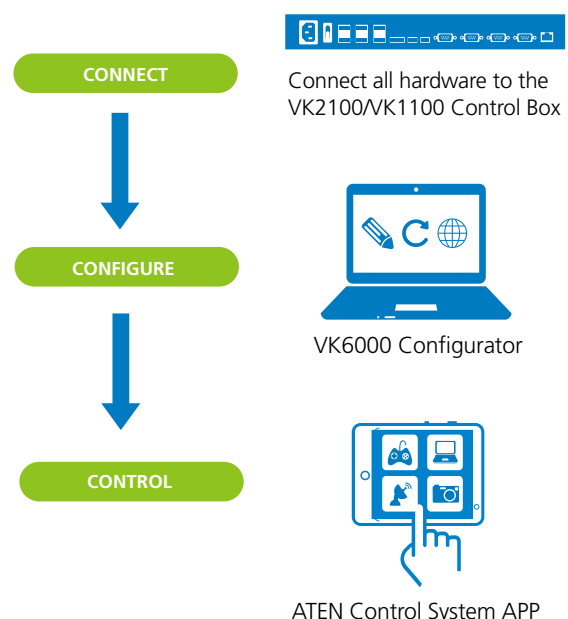
VK6000

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.
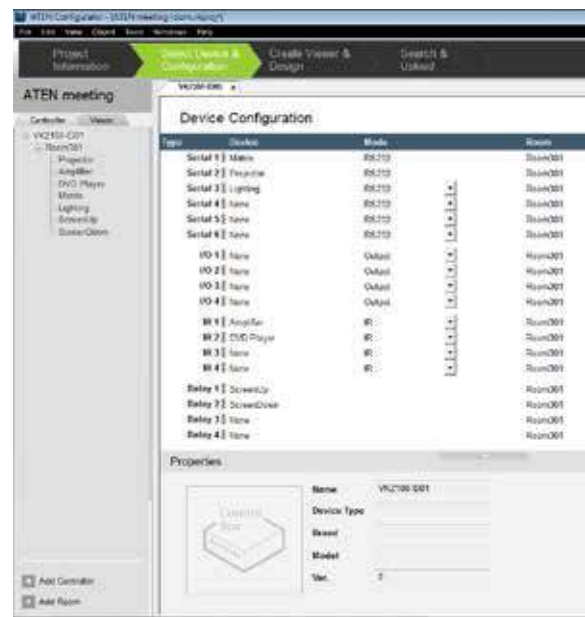
▲ Select devices or libraries
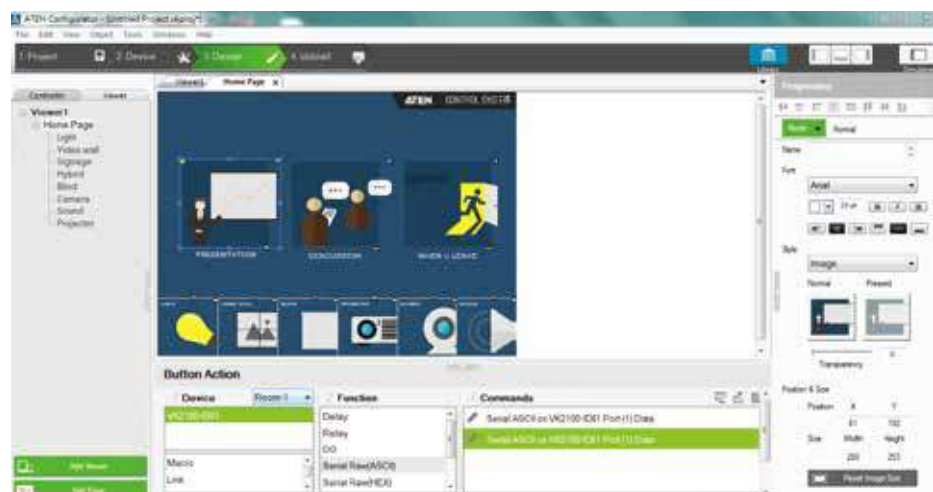
Configure viewer profile ▶

ATEN Control System App

Android   iOS   Windows

- Multiple rooms can be controlled via a single mobile device
- Authority management: Restricted user access via password authentication
- Supports multiple mobile devices
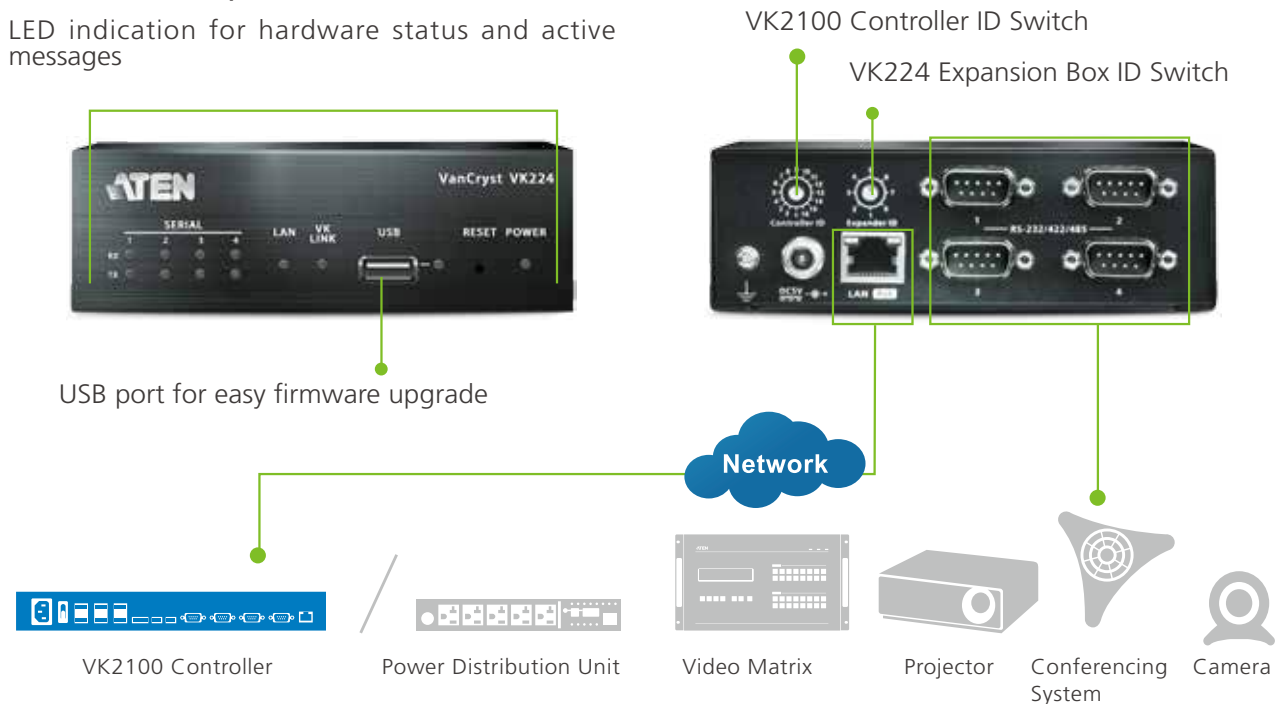- Custom interface resolutions match device screen size

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

VK2100 Controller ID Switch

VK224 Expansion Box ID Switch

USB port for easy firmware upgrade

Network

VK2100 Controller   Power Distribution Unit   Video Matrix   Projector   Conferencing System   Camera

VK236

6-Port IR / Serial Expansion Box

VK248

8-Port Relay Expansion Box

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

Integrate Your Vision
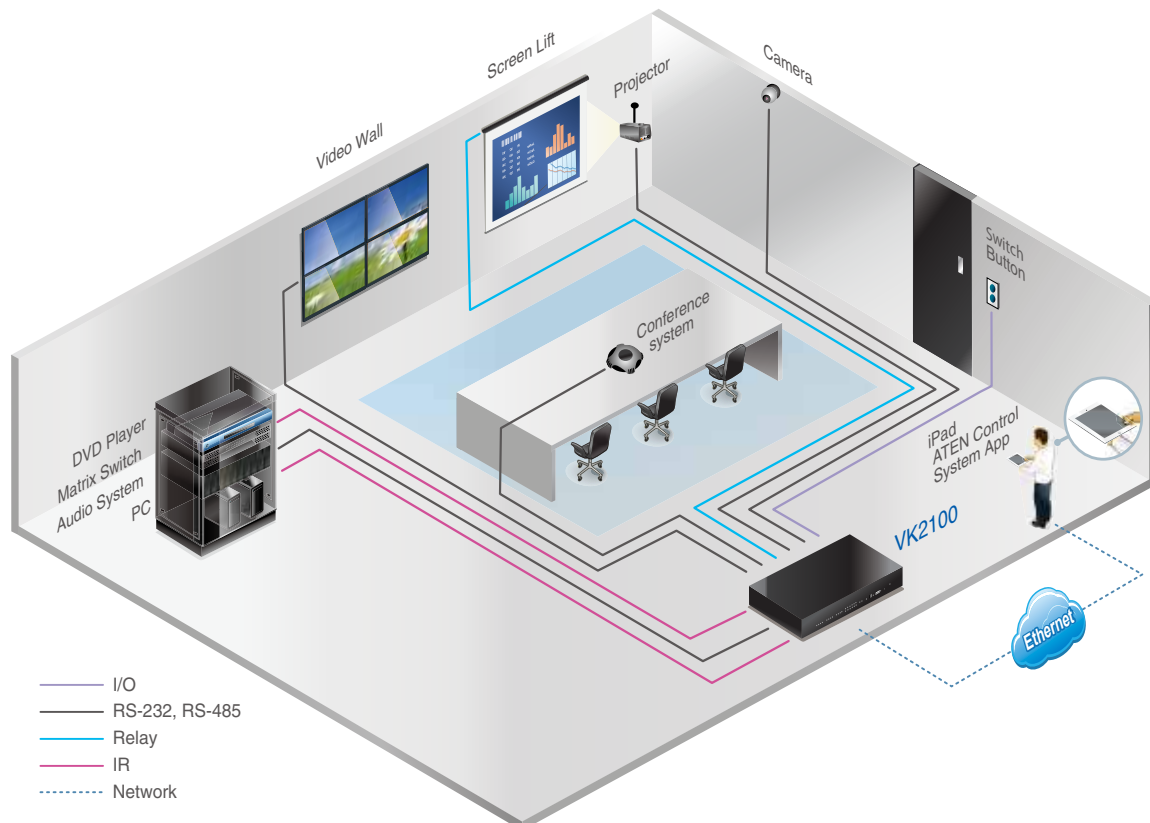
Multifunctional Room Control

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

Screen Lift
Camera
Projector
Video Wall
Switch Button
Conference system
DVD Player
Matrix Switch
Audio System
PC
iPad ATEN Control System App
VK2100
Ethernet

———	I/O
———	RS-232, RS-485
———	Relay
———	IR
....	Network

32x32 Modular
Matrix Switch
VM3200

9 x 9 HDMI HDBaseT-Lite Matrix Switch
**VM3909H**

reddot award 2015
winner interface design

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™
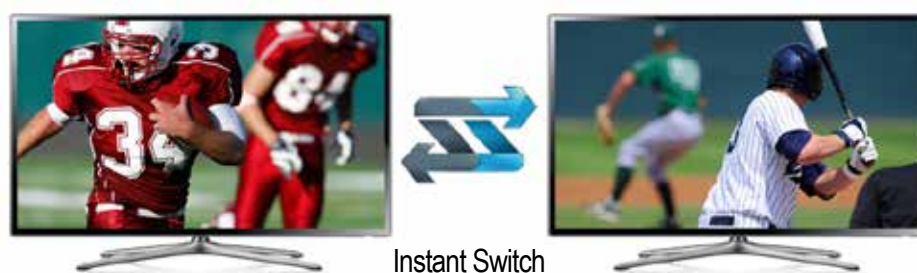• Award-winning user interface

Video Wall The video matrix switches integrate video processing functionality to create a video wall

Independent Matrix

4x4 video wall with single soruce

or mix and match
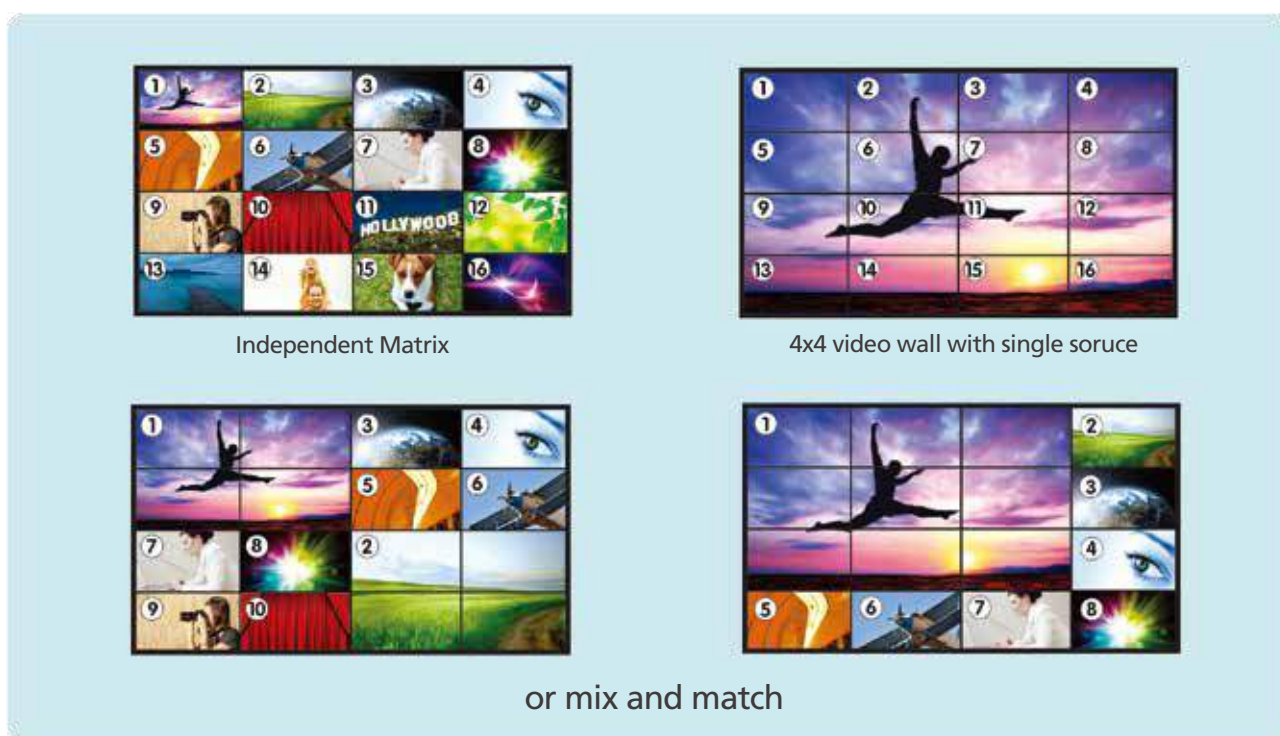
Seamless Switch™
Supports various video input/output resolutions

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.

Instant Switch

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
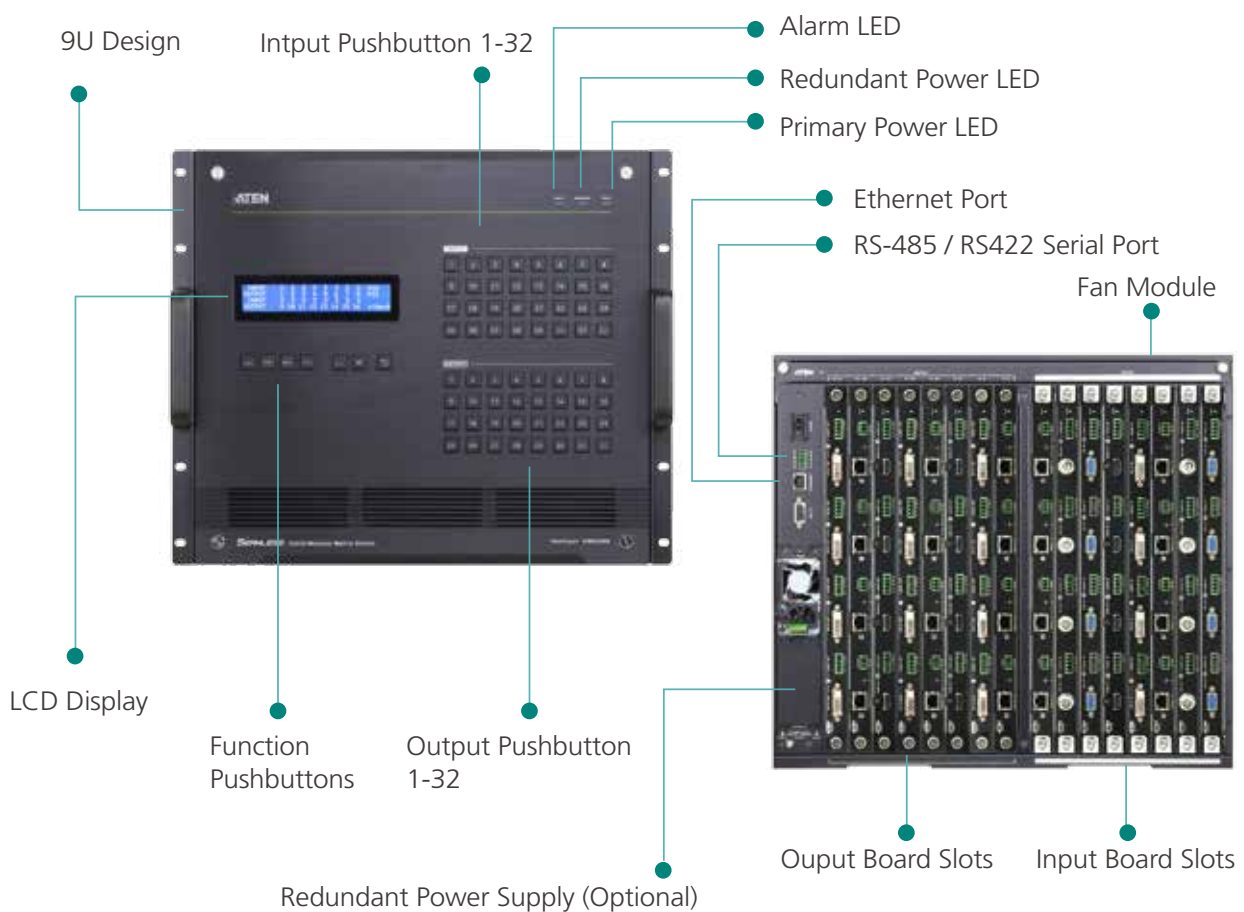• Easy to use
• Customizable web GUI

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

Intput 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

Ouput Board Slots

Input Board Slots

Redundant Power Supply (Optional)

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

VM3200

Stage Area

Control Box

cable box

Blu-ray Player

Computer

up to 32 displays

up to 32 source devices
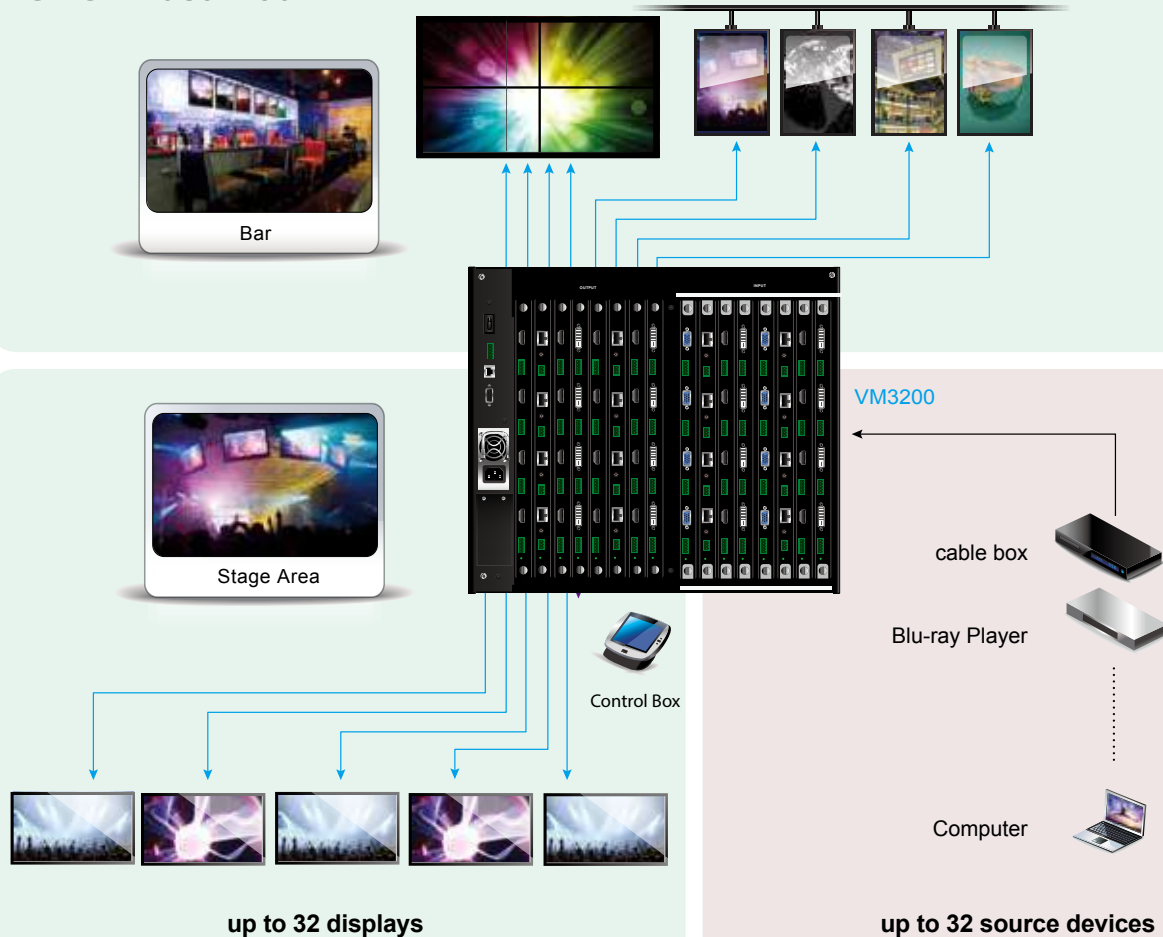
Integrate Your Vision

Digital Matrix Solution

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 show room. 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

Receiver — VE805R   Receiver — VE805R

VM3909H (Rear)

Mirrored HDMI Outputs (For Monitoring)   Source Devices   Control Box

—— HDMI   ······· Bi-directional IR Channel   —— Cat 5e   —— RS232
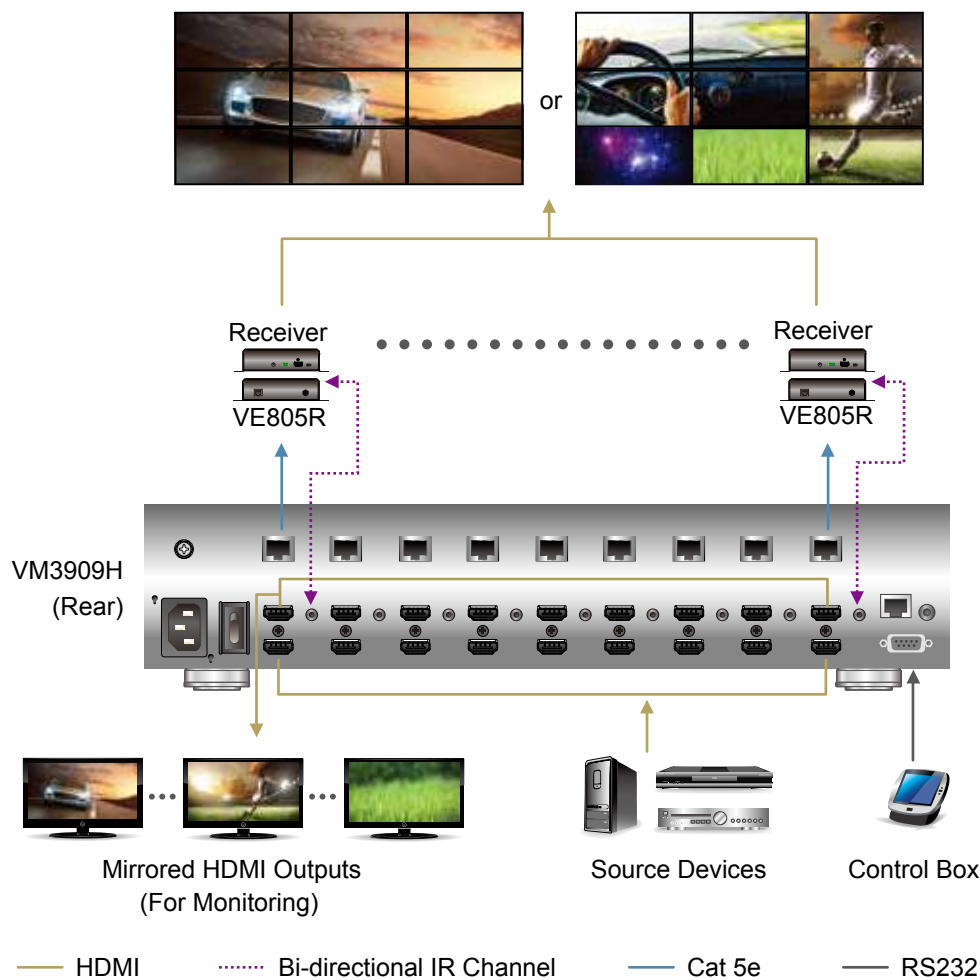
VanCryst Video Matrix Switches Comparison Chart

HDMI / DVI Matrix Switches	VM3200	VM1600A	VM51616	VM3909H	VM3404H	VM5808H	VM6809H	VM6404H
Interface	Multiple	Multiple	HDMI	HDMI / HDBaseT	HDMI / HDBaseT	HDMI	HDMI	HDMI
Input/Output	32x32	16x16	16x16	9x9	4x4	8x8	8x9	4x4
Max Video Resolution	4K*	4K*	1080p	4K@60Hz (4:2:0) 4K@30Hz (4:4:4)	4K@60Hz (4:2:0) 4K@30Hz (4:4:4)	1080p	4K@60Hz (4:2:0)	4K@60Hz (4:2:0) 4K@30Hz (4:4:4)
Video Wall Processor	x	x	x	x**	x*	x	x	x
Seamless Switch™	x	x	x	x**	x*	x	x	x
Reddot Award Winner	x	x	x	x	x	x	x	x
Browser	x	x	x	x	x	x	x	x
IR					x	x		x
RS232	x	x	x	x	x	x	x	x
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)**							HDCP 2.2 compatible

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

HDMI / DVI Matrix Switches	VM5404H	VM0404HA	VM0202H	VM0808HA	VM0808HB	VM5808D	VM5404D
Interface	HDMI	HDMI	HDMI	HDMI	HDMI	DVI	DVI
Input/Output	4x4	4x4	2x2	8x8	8x8	8x8	4x4
Max Video Resolution	1080p	4K@60Hz (4:2:0) 4K@30Hz (4:4:4)	4K@60Hz (4:2:0) 4K@30Hz (4:4:4)	4K@60Hz (4:2:0) 4K@30Hz (4:4:4)	True 4K@60Hz (4:4:4)	1920x1200	
Video Wall Processor	x					x	x
Seamless Switch™	x					x	x
Reddot Award Winner	x			x	x	x	x
Browser	x			x	x	x	x
IR	x	x	x	x	x	x	x
RS232	x	x	x	x	x	x	x

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

VGA Matrix Switches	VS0202	VM0404	VM0808	VM0808T	VM1616T
Interface	VGA	VGA	VGA	VGA	VGA
Input/Output	2x2	4x4	8x8	8x8	16x16
Audio Support	Stereo	Stereo	Stereo	Stereo Balance	Stereo Balance
RS232		x	x	x	x
Browser				x	x
Accessories				VE300T, VE300R / RQ, VE500T, VE500R/RQ	VE300T, VE300R / RQ, VE500T, VE500R/RQ

Video Switches

Quick and Easy Port Selection with Flexible Deployment

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

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

VanCryst Video Switches Comparison Chart

HDMI / DVI Switches	VS0801H	VS481C	VS481B	VS481A	VS482	VS461 / VS261
Interface	HDMI	HDMI	HDMI	HDMI	HDMI	DVI
Input	8	4	4	4	4	4 / 2
Max Video Resolution	1080p	True4K@60Hz (4:4:4)	4K@60Hz (4:2:0) 4K@30Hz (4:4:4)	1080p	1080p	1920x1200
Audio Support	HDMI	HDMI	HDMI	HDMI	Optical / Coaxial digital audio, Analog Stereo audio	RCA Stereo
RS232	x	x	x	x	x	
IR	x	x	x	x	x	x

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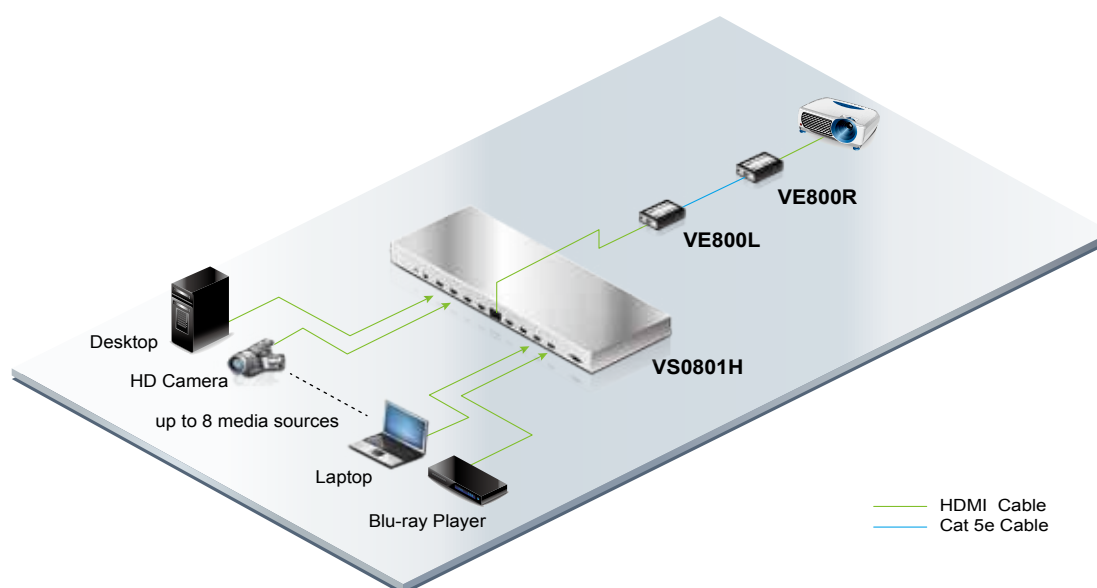
VS0801H
8-Port HDMI Video/Audio Switch with IR Remote and RS-232

VE800
HDMI Video/Audio Extender

VE800R

VE800L

VS0801H

Desktop

HD Camera

up to 8 media sources

Laptop

Blu-ray Player

——— HDMI Cable
——— Cat 5e Cable

VGA Switches	VS0201	VS0401	VS0801A	VS291 / VS491	VS881
Interface	VGA	VGA	VGA	VGA	VGA
Input	2	4	8	4 / 2	8
Max Video Resolution	1920x1440	1920x1440	1920x1440	1920x1440	1920x1440
Audio Support	x	x	x		
RS232	x	x	x		
IR			x		x

Video Splitters

High Bandwidth with Sharp and Clean Output

4-Port HDMI HDBaseT Splitter
VS1814T

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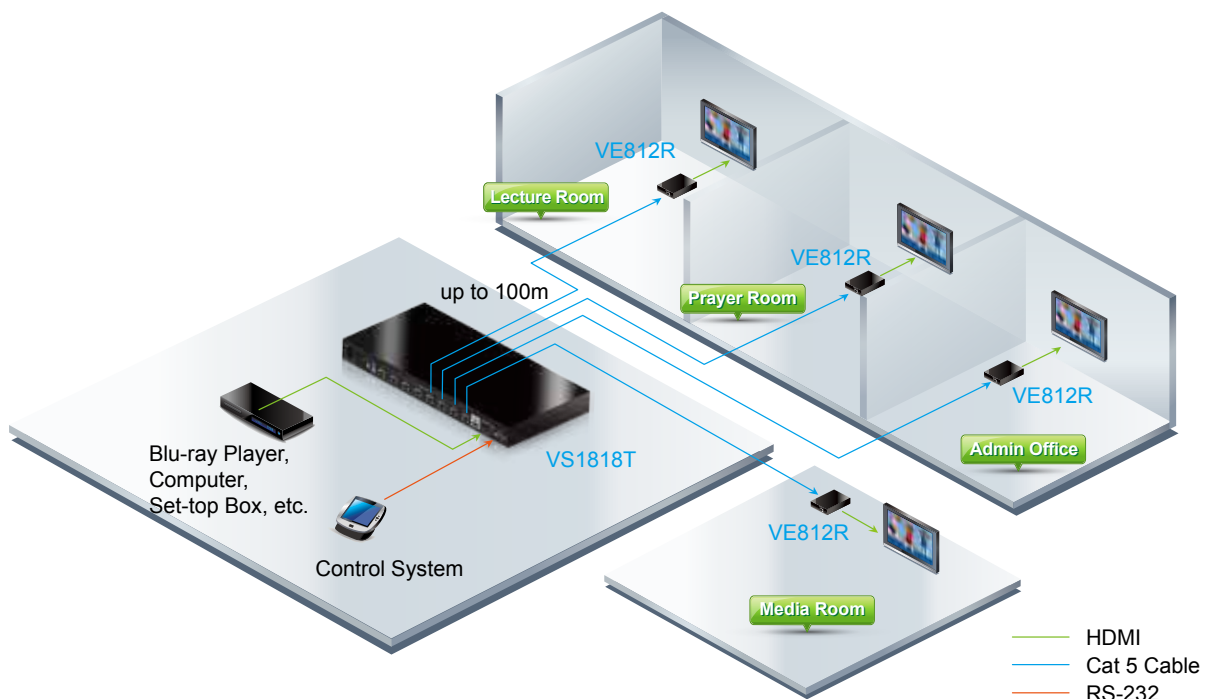
Utilizing the VS1818T in conjunction with VE812R(s), sharp image and clear sound of worship services, songs, and prayers are broadcasted seamlessly to four separate rooms in the church.

VS1818T
8-Port HDMI HDBaseT Splitter

VE812R
HDMI HDBaseT Extender

VE812R
Lecture Room

VE812R
Prayer Room

VE812R
Admin Office

up to 100m

Blu-ray Player,
Computer,
Set-top Box, etc.

VS1818T

Control System

VE812R
Media Room

— HDMI
— Cat 5 Cable
— RS-232

VanCryst Video Splitter Comparison Chart

CAT5 Splitters	VS1814T / VS1818T HDBaseT	VS1804T / VS1808T	VS1204T / VS1208T
Interface	HDMI	HDMI	VGA
Output	4 / 8	4 / 8	4 / 8
HDBaseT	x		
Maximum Distance	100m	40m	300m
Max Video Resolution	4K	1080p	1920x1200
Audio Support	HDMI	HDMI	Mono
RS232	x	x	

Splitters	VS182B / VS184B	VS0108HB	VS0108HA	VS182A / VS184A	VS192 / VS194	VS172 / VS174	VS162 / VS164	VS146
Interface	HDMI	HDMI	HDMI	HDMI	DP	DVI Dual Link	DVI	SDI
Output	2 / 4	8	8	2 / 4	2 / 4	2 / 4	2 / 4	6
Max Video Resolution	True 4K @60Hz (4:4:4)	True 4K @60Hz (4:4:4)	4K@60Hz (4:2:0)	4K@60Hz (4:2:0)	4K@60Hz (4:2:0)	2560x1600	1920x1200	1080p
Audio Support	HDMI	HDMI	HDMI	HDMI		Stereo	Stereo	SDI
RS232		x	x			x		

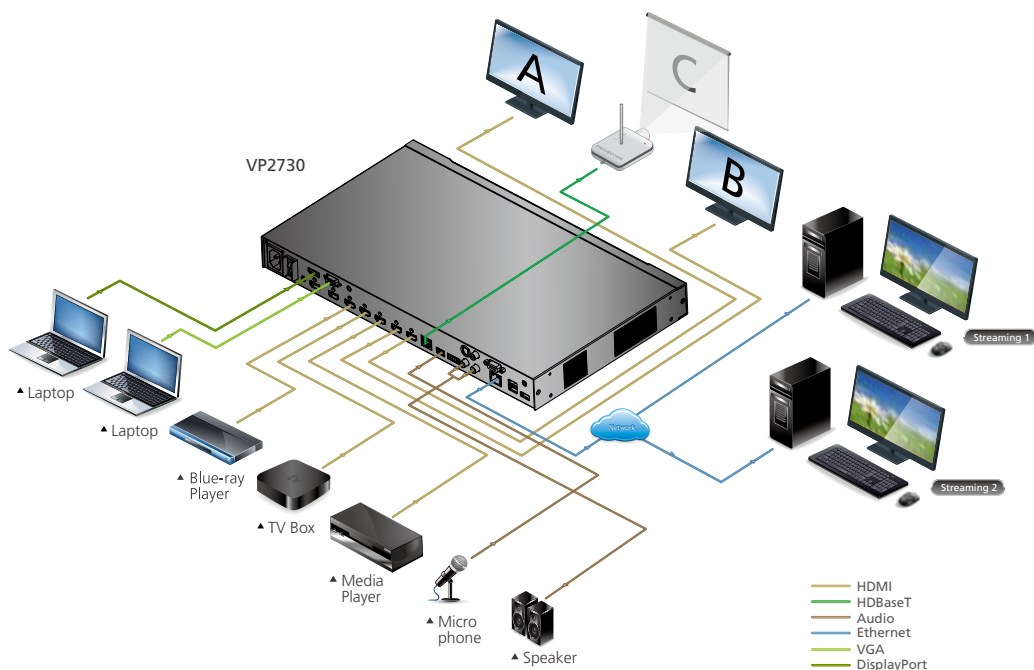| VGA Splitters	VS0102 VS0104 VS0108	VS0116	VS132A VS134A VS138A	VS92A VS94A VS98A	VS82A / VS84A
Interface	VGA	VGA	VGA	VGA	VGA
Output	2 / 4 / 8	16	2 / 4 / 8	2 / 4 / 8	2 / 4
Max Video Resolution	1920x1440	1920x1440	2048x1536	1920x1440	1920x1440
Audio Support	Stereo	Stereo			
RS232	x				

Presentation Switches

7 x 3 Presentation Matrix Switch with Streaming, HDBaseT
VP2730

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

VP2730

Laptop

Laptop

Blue-ray Player

TV Box

Media Player

Micro phone

Speaker

Streaming 1

Streaming 2

Network

HDMI
HDBaseT
Audio
Ethernet
VGA
DisplayPort

Video Extenders

Extends from 15m to 20km with Optimum Video Quality

DisplayPort HDBaseT-Lite Extender
VE901

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.

HDMI HDBaseT-Lite Extender
VE801

HDMI HDBase T-Lite Extender with POH, IR, RS232
VE802

HDMI HDBaseT Extender
VE812

HDMI HDBaseT Extender with USB
VE813A

HDMI HDBaseT Extender with Dual Output
VE814A

HDMI HDBaseT Extender
VE811

HDMI HDBaseT Extender with POH, IR, RS232
VE1812

HDMI & VGA HDBaseT Transmitter
VE2812T

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.
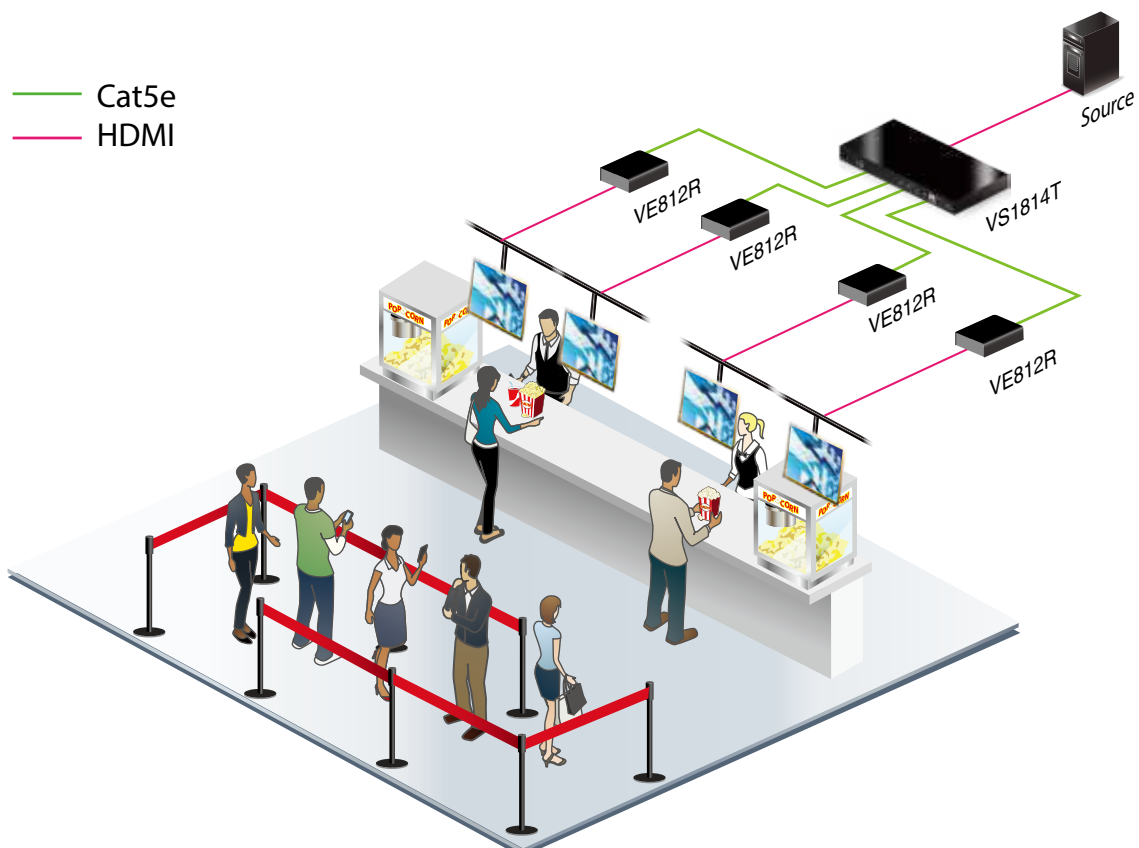
Key Benefits
• Easy Installation
• Reliable
• 3-Year Warranty

HDBaseT Extender
VE812R

Video Splitter
VS1814T

—— Cat5e
—— HDMI

Source

VE812R

VE812R

VS1814T

VE812R

VE812R

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

HDBaseT Extenders	VE801	VE802	VE805R	VE811	VE812	VE1812	VE2812	VE813	VE814
Interface	HDMI	HDMI	HDMI	HDMI	HDMI	HDMI	HDMI / VGA	HDMI	HDMI
Maximum Distance	70m	70m	70m	100m	100m	100m	100m	100m	100m
Max Video Resolution	4K	4K	1080p	4K	4K	4K	4K	4K	4K
Dual Output									x
IR Channel		x	x			x	x		x
RS232 Channel		x	x			x	x		x
USB								x ExtremeUSB 2.0	
POH		x				x			
Scaler			x						
Additional Audio Support									

HDBaseT Extenders	VE901	VE601	CE610A	CE620	CE624
Interface	DP	DVI	DVI	DVI	DVI
Maximum Distance	70m	70m	100m	100m	100m
Max Video Resolution	4K	1920x1200	1920x1200	1920x1200	1920x1200
Dual Output					x
IR Channel					
RS232 Channel				x	x
USB			x	x	x
POH					
Scaler					
Additional Audio Support			x	x	x

ATEN Extender Comparison Chart

Fiber Optic Extenders	VE882 Fiber Optic	VE892 Fiber Optic
Interface	HDMI	HDMI
Maximum Distance	600m	20km
Max Video Resolution	1080p	1080p
RS232 Channel	x	x
IR Channel	x	x
Powered Remotely Via USB		

HDMI / DVI Extenders	VB800	VE800A	VE803	VE810	VE066	VE600A
Interface	HDMI	HDMI	HDMI	HDMI	DVI	DVI
Maximum Distance	10m	40m	40m	40m	20m	40m
Max Video Resolution	True 4K @60Hz(4:4:4)	1080p	1080p	1080p	1920x1200	1080p
IR Channel				x		
USB 2.0			x			

VGA Extenders	VE022	VE150A	VE170	VE170Q	VE200
Interface	VGA	VGA	VGA	VGA	VGA
Maximum Distance	150m	150m	150m	300m	300m
Max Video Resolution	1920x1200	1920x1200	1920x1200	1920x1200	1920x1200
Audio Support	Stereo		Stereo	Stereo	Stereo
RS232 Channel					x

VGA Extenders	VE500	VE500Q
Interface	VGA	VGA
Maximum Distance	300m	300m
Max Video Resolution	1920x1200	1920x1200
Audio Support	Stereo / Balance	Stereo / Balance
RS232 Channel	x	x

Wall Plate Extenders	VE156	VE157	VE606	VE607	VE806	VE807
Interface	VGA	VGA	DVI	DVI	HDMI	HDMI
Maximum Distance	150m	150m	40m	40m	40m	40m
Max Video Resolution	1920x1200	1920x1200	1920x1200	1920x1200	1080p	1080p
Audio Support	Stereo	Stereo	Stereo	Stereo	HDMI / Stereo	HDMI / Stereo
Type	US / Decora	EU / MK	US / Decora	EU / MK	US / Decora	EU / MK

True 4K HDMI 2.0 Active Optical Cable
VE7832 / VE7833 / VE7834 / VE7835

HDMI Active Optical Cable	VE7832	VE7833	VE7834	VE7835
Interface	HDMI / AOC + Fiber			
Max Video Resolution	True 4K@60Hz (4:4:4)			
Distance	15m	30m	60m	100m
Audio Support	HDMI			

HDMI Over IP Extenders
## Making Networked AV Easy

4K HDMI Over IP Extender
VE8950

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.
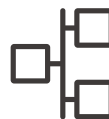
No Complicated IP Setup

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.

Airports
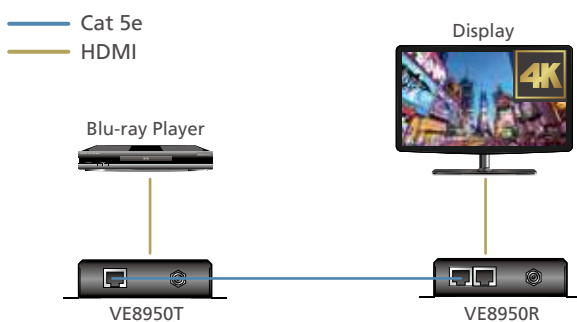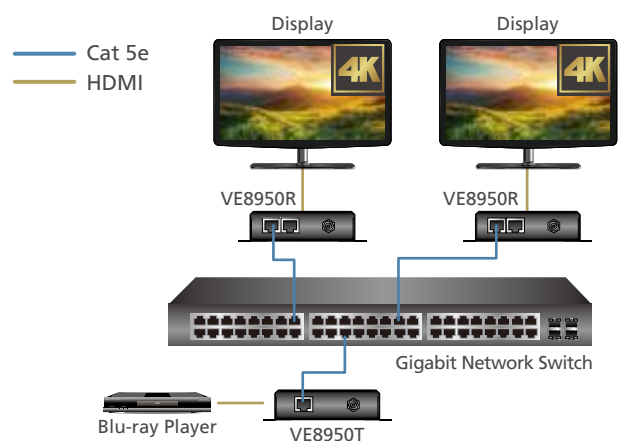
Convention Centers

Shopping Malls

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.

Extender Setting

Cat 5e
HDMI

Display

Blu-ray Player

VE8950T   VE8950R

Splitter Setting

Cat 5e
HDMI

Display   Display

VE8950R   VE8950R

Gigabit Network Switch

Blu-ray Player   VE8950T

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.

Auto IP Function

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
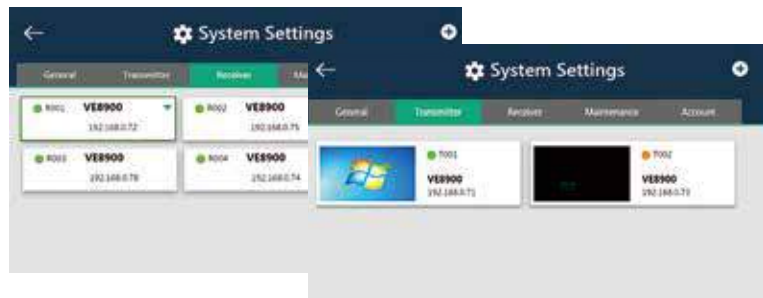
Preview

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

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

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

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, Linus, Mac and Sun

Energy Intelligence PDU
Perfect Power Distribution for Your Pro A/V System

## 8-Port 1U 16A Smart PDU Bank Level Metering with Outlet Control
PE6208AV

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.

Remote Power On/Off   **Power Sequencing**   **POP**

RS232 Control   **Auto-Ping**

Applications ▸

Integrated control
via Control System

PE6208AV

(Control Box)

ATEN Control System App
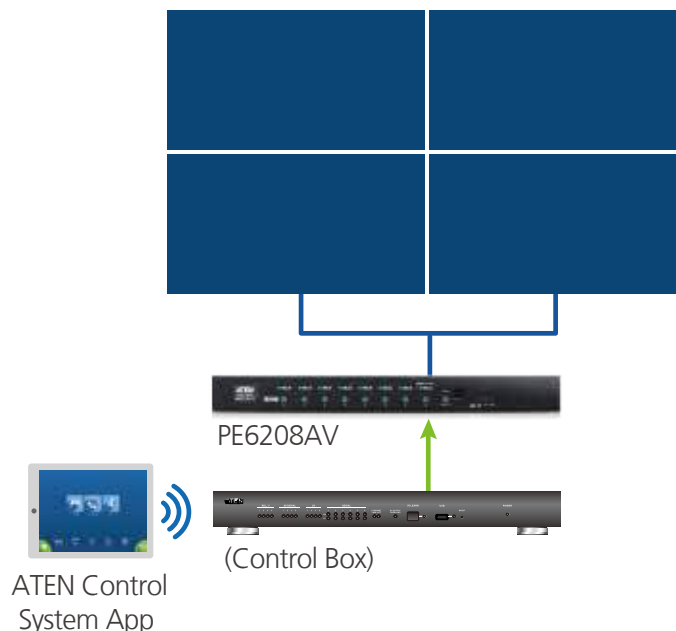
Success Stories

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.
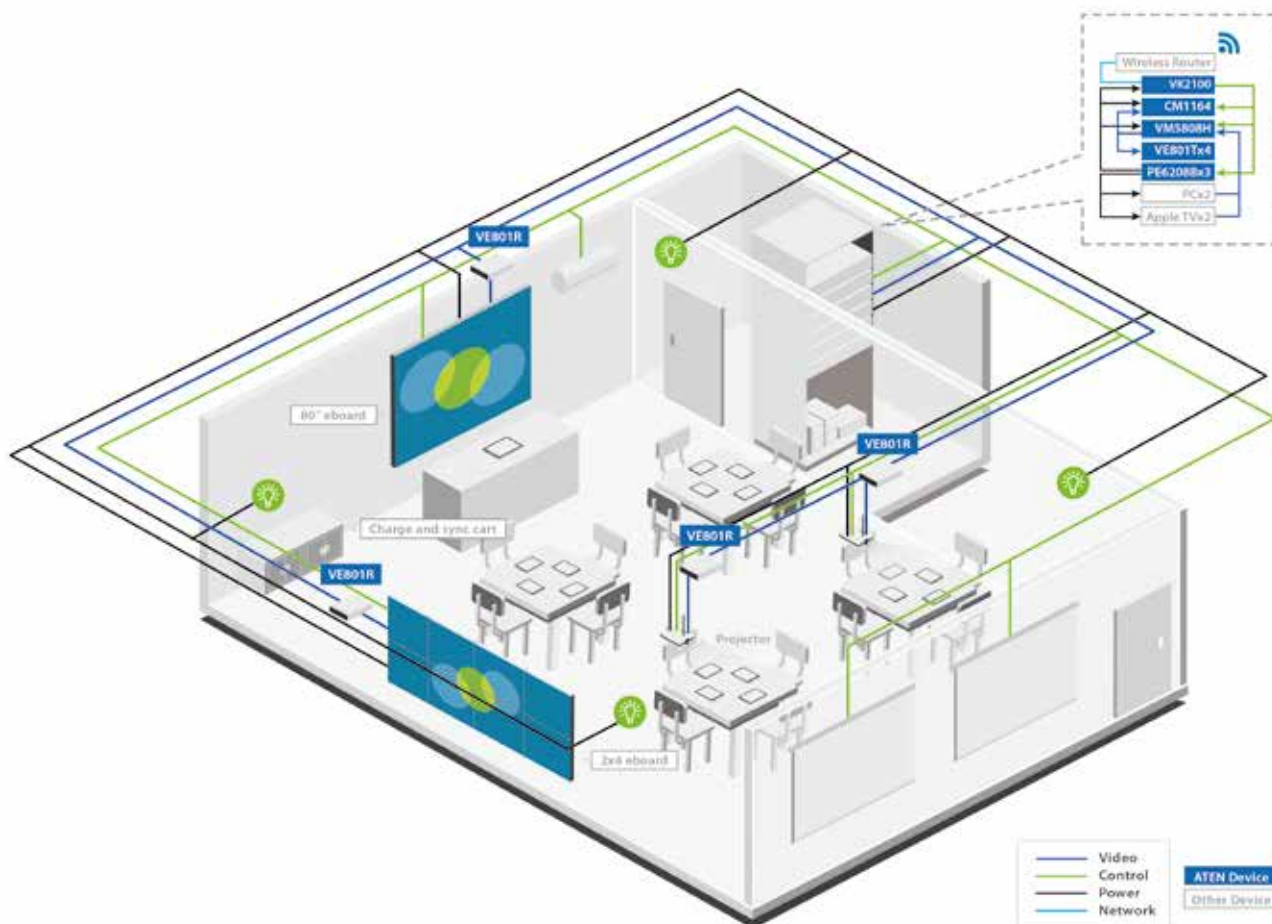

VK2100
ATEN Control System - Control Box

PE6208G
20A/16A 8-Outlet 1U Metered & Switched eco PDU

Cable Comparison Chart

Images	Part No.	Length (m)	Interface	To PC / Source Interface	To Switch Interface	Compatible Products
	2L-7D02H 2L-7D02H-1 2L-7D03H 2L-7D05H 2L-7D10H 2L-7D15H 2L-7D20H	1.8 2 3 5 10 15 20	HDMI	HDMI Male	HDMI Male	All ATEN's HDMI Devices
	2L-7D03DD 2L-7D05DD 2L-7D10DD	3 5 10	DVI-D	DVI-D Male (Dual Link)	DVI-D Male (Dual Link)	All ATEN's DVI Devices
	2L-7D02V	2	DVI-D	DVI-D Male (Single Link) Audio Plug	DVI-D Male (Single Link) Audio Plug	VS172, VS174, VS162, VS164, VE600A, VE602, VE606
	2L-2402A	2	VGA	HDB-15 Male Audio Plug	HDB-15 Female Audio Plug	VS1204T, VS1208T, VS1504, VS1508, VB552, VM0404, VM0808, VS0202, VS0201, VS0401, VS0102, VS0104, VS0108, VS0116, VE170, VE170Q, VE200, VC180, VE156
	2L-7D02U 2L-7D03U 2L-7D05U	2 3 5	DVI-D USB	USB Type A Male DVI-D Male (Single Link) 2 Audio Plugs	USB Type B Male DVI-D Male (Single Link) 2 Audio Plugs	CM1164
	2L-7D02DP 2L-7D03DP	2 3 5	DisplayPort	DisplayPort	DisplayPort	All ATEN's DisplayPort Devices
	2L-2801	305	RJ-45	RJ-45	RJ-45	All ATEN's Cat 5 / 5e / 6 / 6a Devices for Video & Audio Communication
	2L-2910	305	RJ45	RJ-45	RJ-45	All ATEN HDBT products

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.

2X-EA12 Specifications

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

Function	2X-EA12
Storage Temperature	-20 – 60°C
Humidity	0-95% R.H, Non-Condensing
Weight	1.4 g
Dimensions (LxWxH)	8.61 x 6.47 x 0.66 cm

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

Images	Part No.	Product Name	Compatible Products
	VE-RMK1U	Extender Rack Mount Kit	CE100, CE250A, CE350, CE370, CE600, CE602, CE604, CE610, CE700A, CE750, CE750A, CE770, CE790, CE800B, CN8000, CS72D, CS72E, CS74D, CS74E, KE6900ST, VB802, VC880, VE150A, VE170, VE172R, VE300, VE500, VE560, VE600A, VE601, VE602A, VE800A, VE801, VE802, VE803, VE810, VE812, VE813, VE814, VE882, VE892, VS182A, VS481A, VS481B, UC2322, UC2324, UC4852, UC4854
	VE-RMK2U	Extender Rack Mount Kit	CE100, VE560, VE600A, VE602A, VE800A, VE803, VE810
	VE-RMK3U	Extender Rack Mount Kit	CE100, VE560, VE600A, VE601, VE602A, VE800A, VE801, VE803, VE810

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
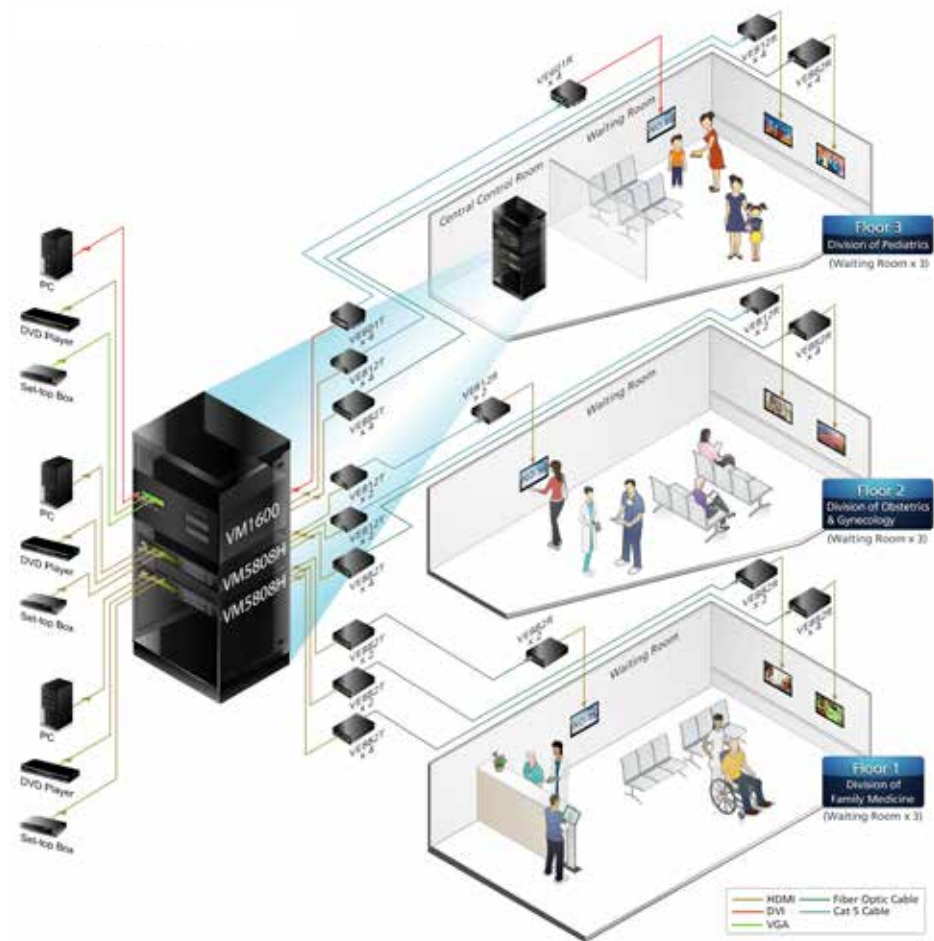

VE882
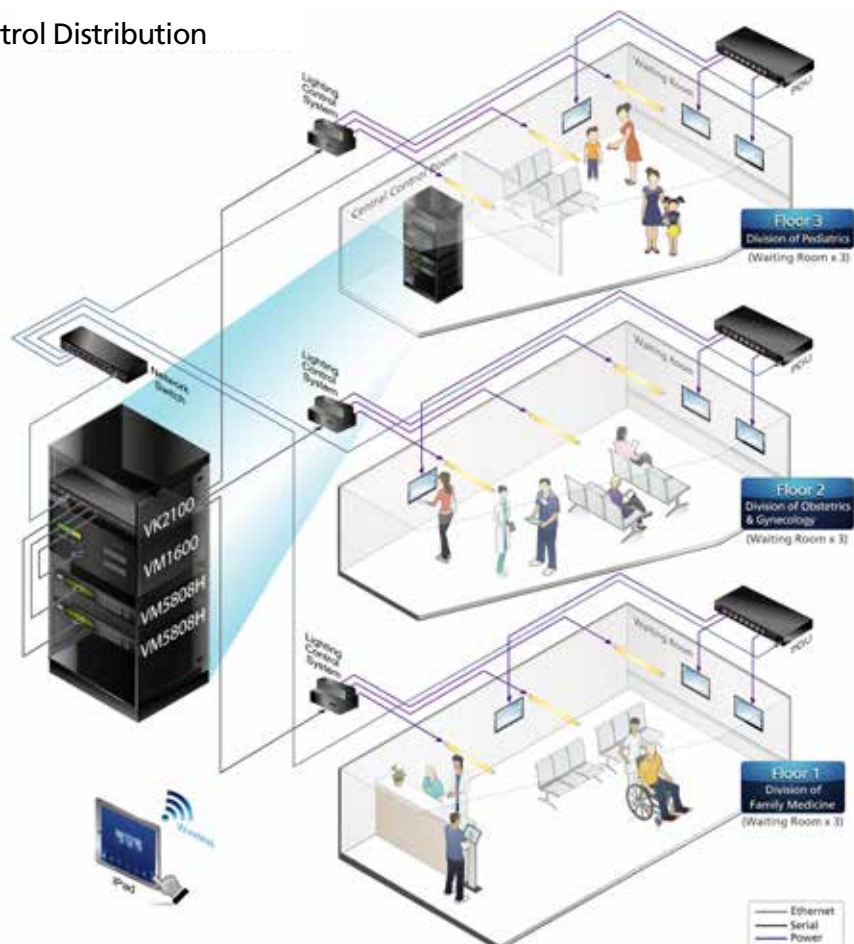HDMI Optical Extender

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 A/V 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
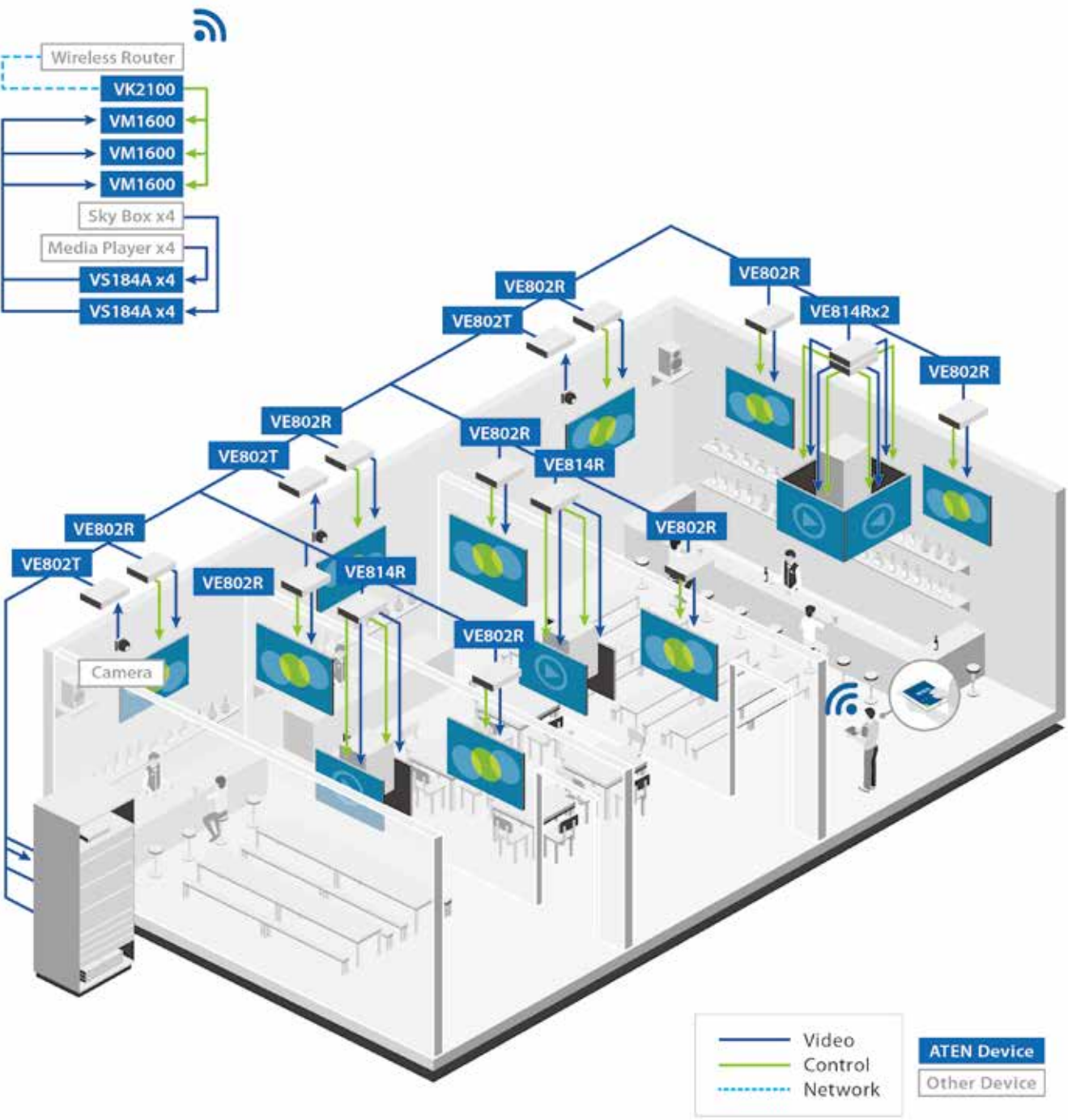Extender with POH

VE814
HDMI HDBaseT Extender with
Dual Output

VM1600
Modular Matrix
Switch

Distribution Solution

Wireless Router
VK2100
VM1600
VM1600
VM1600
Sky Box x4
Media Player x4
VS184A x4
VS184A x4

VE802R
VE802T
VE802R
VE814Rx2
VE802R
VE802R
VE802R
VE814R
VE802T
VE802R
VE802R
VE814R
VE802T
VE802R
VE802R
Camera

Video
Control
Network

ATEN Device
Other Device

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
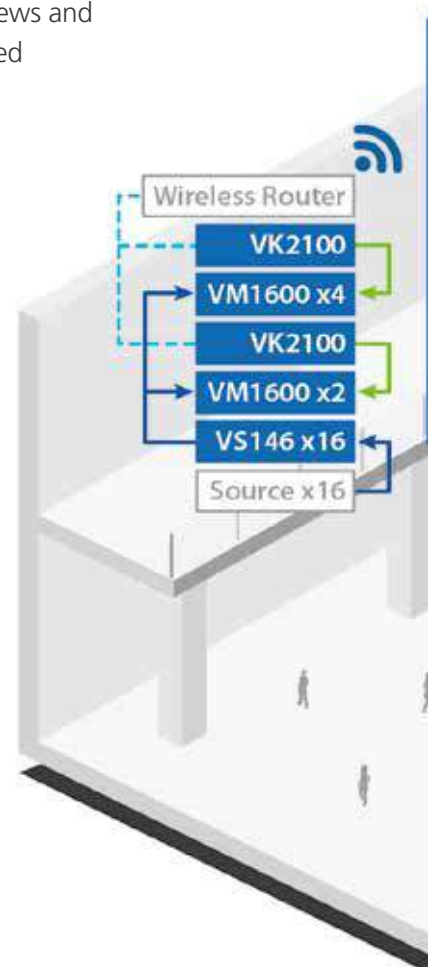
VK2100
ATEN Control System
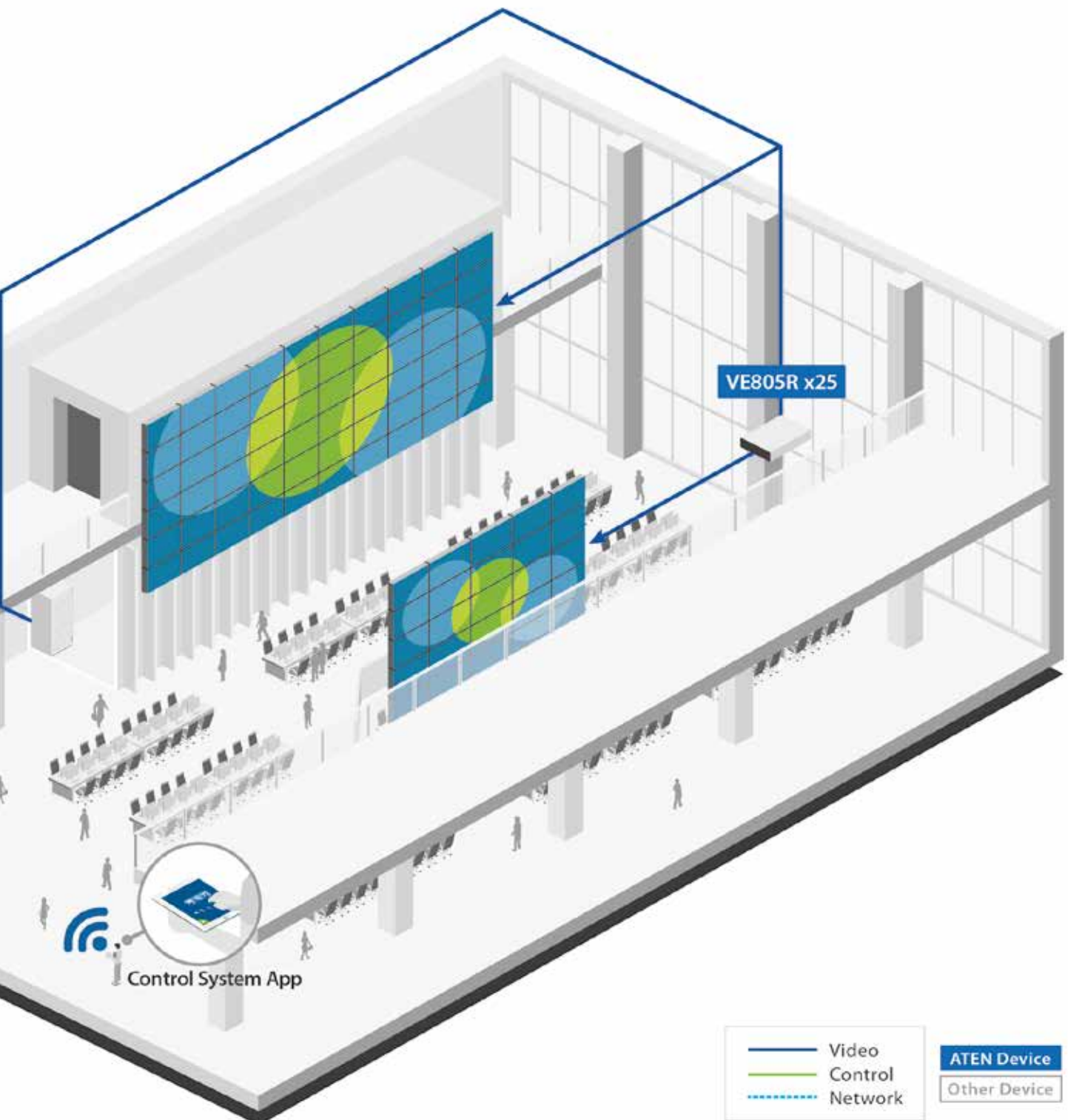
VS146
6-Port 3G-SDI Splitter

VE805R
HDMI HDBaseT-Lite
Receiver with Scaler

VM1600
16x16 Modular
Matrix Switch

VE805R x25

Control System App

Video
Control
Network

ATEN Device
Other Device

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.
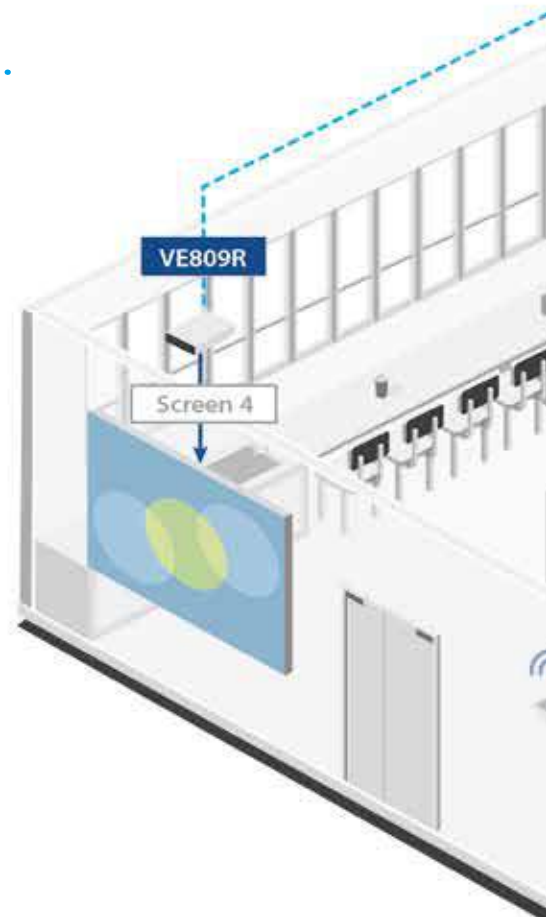
Challenges

- 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

VE809R

Screen 4

VM5808H
Video Matrix Switch

VK1100
ATEN Control System - Compact Control Box

VC480
3G-SDI to HDMI / Audio Converters

VE809
HDMI Wireless Extender (1080p @ 30m)

Wireless Router
VK1100
VM5808H
Camera x3
VC480 x3
VE809T
Laptop
Live Production Switcher
LCD Display

Screen 1

Camera

Screen 2

Screen 3

Camera

Camera

ATEN Control System App

——— Video
——— Control
——— Network
·········· Wireless

ATEN Device
Other Device

MEMO

MEMO

ATEN