ATEN Control System

Simply Intelligent

Contents

WHAT is the ATEN Control System?

The ATEN Control System is a standard Ethernet-based management system consisting of controllers, expansion boxes, configurator and control interfaces that connect all the hardware devices in a room or large facility in order to provide centralized control of the devices directly and effortlessly from any mobile device and ATEN Control System interfaces.

The Solution at a Glance

Controllers	Expansion Boxes	Software	Control Interfaces
• Control Boxes (VK2100, VK1100) • Control Pads (VK0200, VK0100)	• Expansion Boxes (VK224, VK236, VK248)	• Configurator Software (VK6000) • ControlAssist • Database Generator	• Keypads (VK108US, VK112EU) • Mobile App

Services & Support	
• Keypad Button Engraving Service • Training Videos	• Certified Device Drivers Download • Technical Support

Controllers
Controllers, in the form of control boxes and control pads, serve as a central platform where all hardware devices connect in order to be controlled.

Expansion Boxes
Expansion Boxes provide additional serial, IR, and relay ports to flexibly increase the number or type of connections to hardware devices in your installation.

Software
Features Configurator Software that lets you configure settings and GUIs for controls used on any mobile device, as well as additional software tools for setup.

Control Interfaces
The Mobile App allows for control of hardware devices wherever you are, while fully customizable keypads control interfaces from a standard wall-mounted faceplate.

WHY Choose the ATEN Control System?

When it comes to creating the perfect environment for the ideal meeting, training program, video conference or digital signage application, the ATEN Control System is the perfect solution, both as a brand new installation or to give an existing environment a makeover. The ATEN Control System has been developed to facilitate applications in work environments, educational facilities, conference halls or any other space that needs complete control by making it a simple and adaptive with many other advantages.

Intelligent Control
Your devices can interact and respond to each other intelligently through pre-programmed actions to perform a fully automated series of advanced operations.

Real-time Synchronization
Actual equipment status is synchronized in real-time across all control interfaces, enabling conflict-free control among multiple users simultaneously.

Simplified Setup
The ATEN Control System is deployed in 3 easy steps: Connect, Configure, and Control. Easily set up and customize control patterns without any programming knowledge.

Effortless Expansion
Highly expandable with a wide range of ATEN expansion boxes, an extensive database of device drivers, and support for popular control standards and protocols.

KNX | Projector over IP | Camera over IP | Http(s) | Telnet | TCP | UDP

User-centered Convenience
An advanced, single-software solution creates intuitive control interfaces for any mobile device while specific needs can be conveniently tailored by selecting from an extensive library of action options and design elements.

On-the-Go Control
Support for iOS, Android, and Windows mobile devices facilitates centralized control of different rooms via user-defined profiles with simple point-n-tap operations.

Android   iOS   Windows

Comprehensive Solution Integration
Full integration with ATEN's pro AV, IT management and energy management products, as well as a variety of equipment from our AV partners, provides comprehensive solutions for diverse industry applications.

ACTi Connecting Vision | BenQ | BXB | Lumens Brilliance by Design | NEC | Optoma Projector Expert | TOA Smiles for the Public | ViewSonic

A Combination for Applications of Any Complexity

The ATEN Control System portfolio is designed to meet the needs of different kinds of applications, from simple environments in small-size meeting rooms, presentation rooms, and classrooms to highly complex environments that require control of a multitude of devices to perform extensive actions, such as those in corporate multi-function meeting and conference rooms, shop floors, or even control rooms.

Suggested Product Combination

Room & Application Characteristics

• Small-size room that fits 6-8 people • Single display • Switch between different AV inputs	• Medium-size room that fits 8-30 people • Single or dual displays • Switch between multiple AV inputs and outputs • Audio equipment	• Large-size room that fits more than 30 people • Switch between multiple AV inputs and outputs across multiple displays or video walls • Audio equipment • Video conferencing equipment

Suggested ATEN Products

• Control Pads
  (VK0100, VK0200)
	• Compact Control Box
	  (VK1100)
	• Expansion Boxes
	  (VK224, VK236, VK248)
	• Mobile App
		• Control Box
		  (VK2100)
		• Expansion Boxes
		  (VK224, VK236, VK248)
		• Keypads
		  (VK112EU, VK108US)
		• Mobile App

Note: This table shows suggested product combinations only; it does not represent the complete solution.

HOW to Deploy the ATEN Control System?

The ATEN Control System is perfectly suited to 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.

- **CONNECT** all hardware to the Controller.
- **CONFIGURE** control settings and customized GUI design for controls used on any mobile device with the Configurator Software.
- **CONTROL** the hardware from a mobile device via the ATEN Control System App.

1 CONNECT

Control Box

2 CONFIGURE

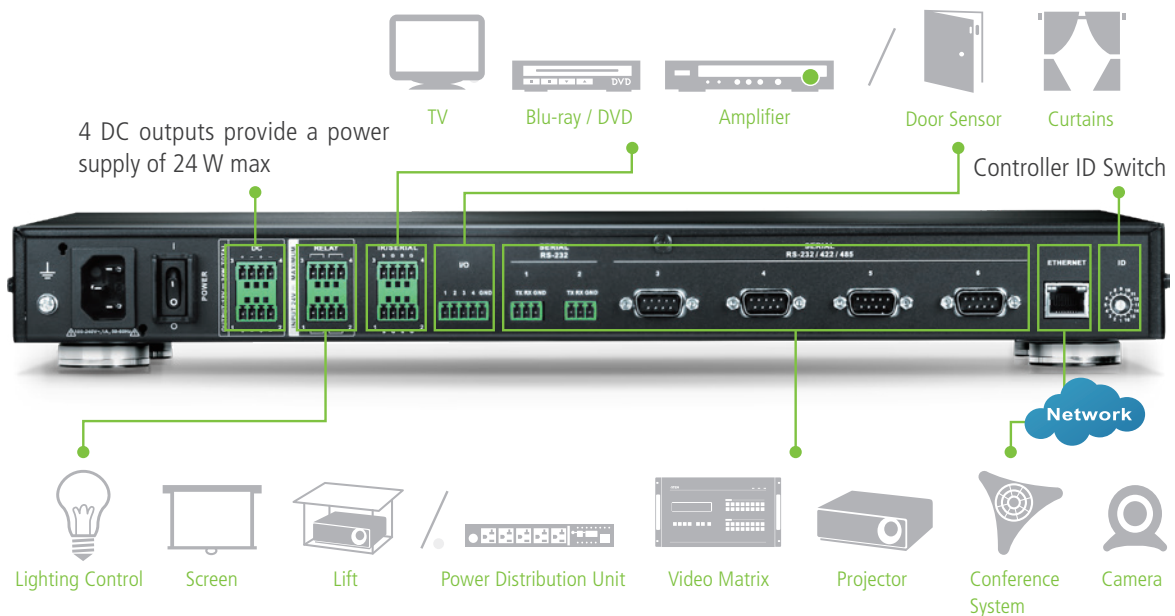VK6000 Configurator Software

3 CONTROL

ATEN Control System App

1 CONNECT

At the heart of the ATEN Control System are the controllers that serve as a central platform where all hardware devices connect to in order to be controlled. These can be easily deployed into an existing installation as well as integrated seamlessly with ATEN Pro AV products and any other hardware devices found in a room, including AV equipment, lighting, conference systems, air conditioning, motion sensors, power switches, and many more.

Control Boxes

VK2100

LED indicators for hardware status and active messages

IR Learning function for adding IR device drivers

USB port for easy profile upload

TV   Blu-ray / DVD   Amplifier   Door Sensor   Curtains

4 DC outputs provide a power supply of 24 W max

Controller ID Switch

Network

Lighting Control   Screen   Lift   Power Distribution Unit   Video Matrix   Projector   Conference System   Camera
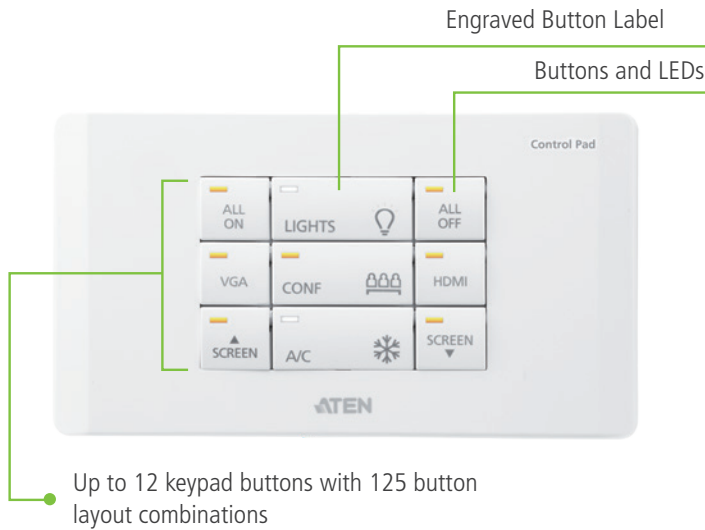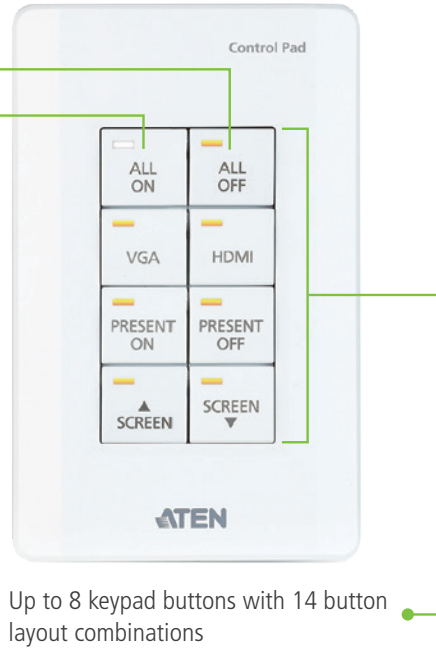
VK1100

Control Pads

VK0200 ►
12-Button Control Pad (EU, 2 Gang)

VK0100 ►
8-Button Control Pad (US, 1 Gang)

Engraved Button Label

Buttons and LEDs

Up to 12 keypad buttons with 125 button layout combinations

Up to 8 keypad buttons with 14 button layout combinations

VK0100 ►

Projector

Video Switch

Dry Contact Device

Door Sensor

PoE Switch

Ethernet Cable

Network

Lighting Control

Screen

Lift

Projector

Conference System

Camera
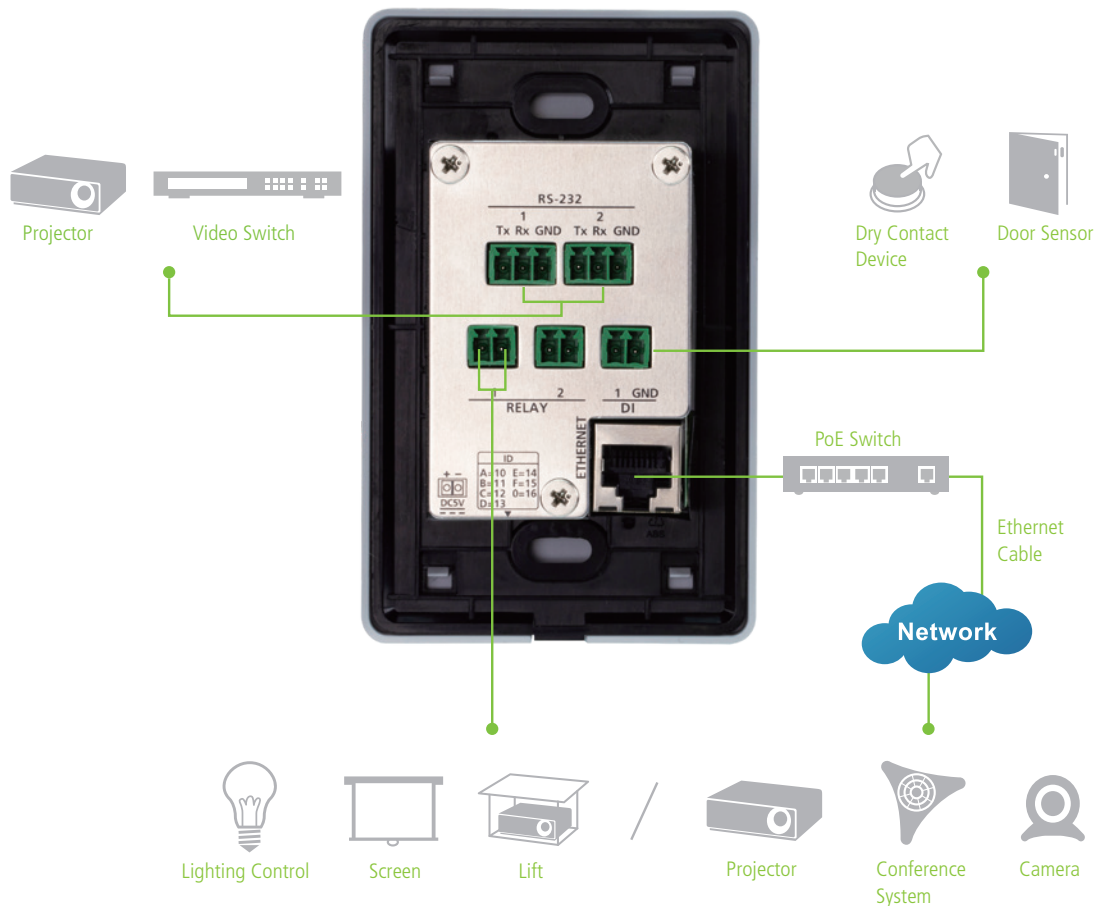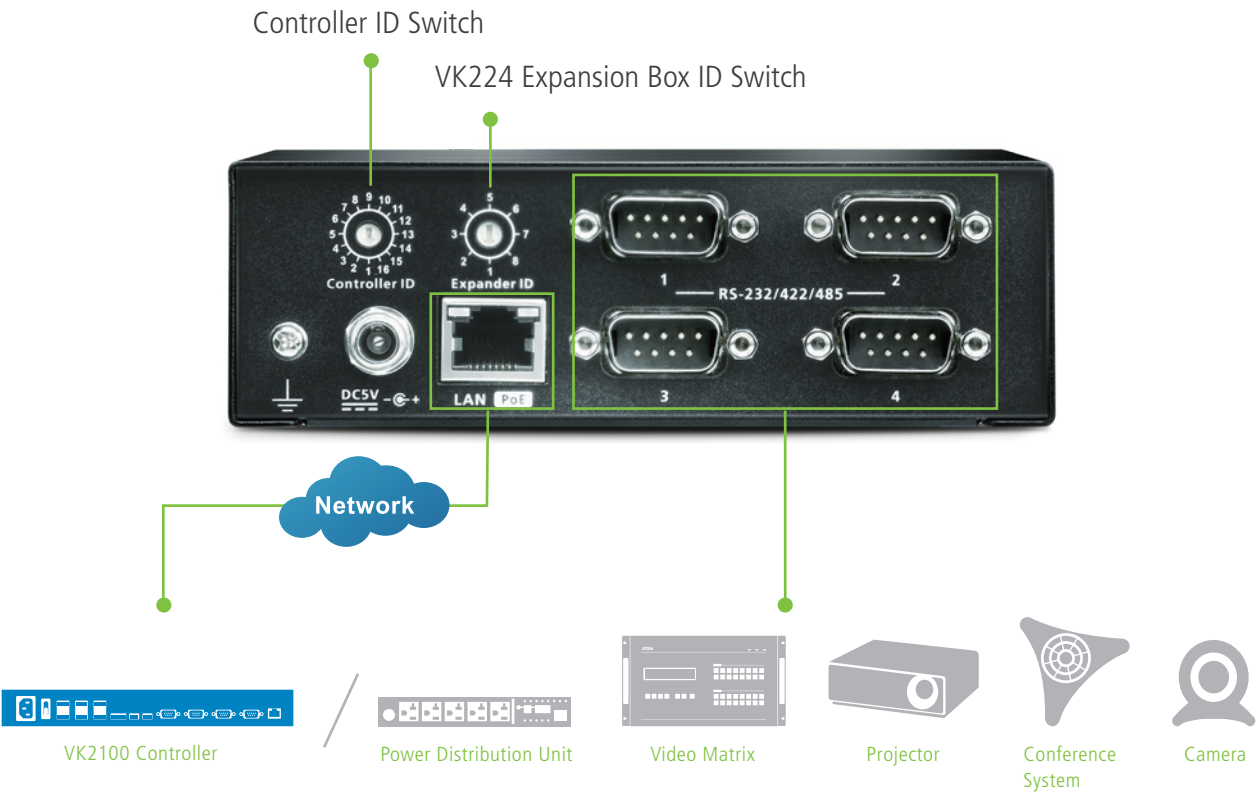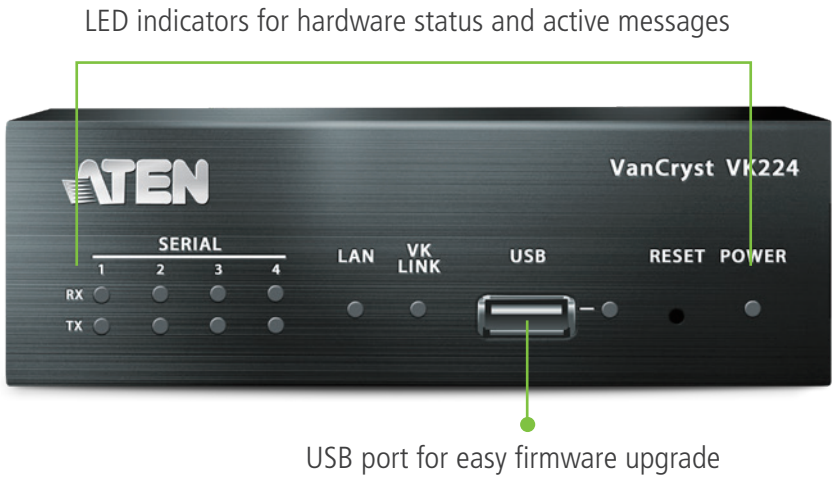
Expansion Boxes

The ATEN VK224, VK236, and VK248 Expansion Boxes provide additional Serial, IR, and Relay ports for 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 ATEN controllers 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 indicators for hardware status and active messages

USB port for easy firmware upgrade

Controller ID Switch

VK224 Expansion Box ID Switch

Network

VK2100 Controller

Power Distribution Unit

Video Matrix

Projector

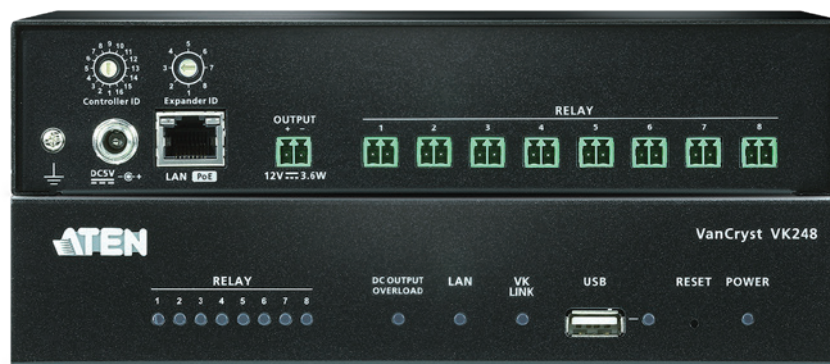Conference System

Camera

VK236

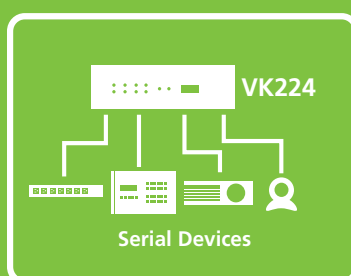6-Port IR / Serial Expansion Box

VK248

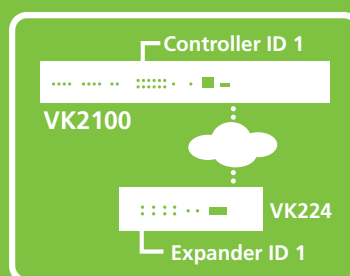8-Channel Relay Expansion Box

Benefits of Expansion Boxes

Expansion via Ethernet with PoE support for single cable installations

Connect hardware

Pair ID Switches

Software Configuration

2 CONFIGURE

The VK6000 Configurator Software is used to streamline and simplify complicated hardware setup in 4 easy steps: Create Project > Select Device > Configure Viewer > Upload Profile. Operation for any room and control of all devices can be customized in a viewer that includes a personally designed GUI that fits perfectly in the tablet or mobile device's screen, signifying "what you see is what you get" as you design the interface, actions and commands that correspond to the control buttons and custom icons added to your GUI.

1 Create Project

- Simple setup in 4 easy steps via VK6000 Configurator Software

2 Select Device

- Database Generator for device driver setup and overall device management
- ATEN Library consisting of an extensive database of device drivers and all ATEN device drivers

Driver Management

The Database Generator assists the creation of device drivers and maintains a favorite device library for time-saving, code-free device configuration with no extra effort.
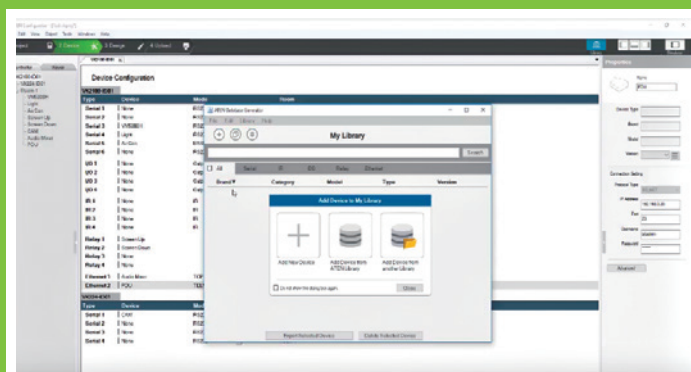
3 Configure Viewer

- Customizable GUI design and device controls for use on any mobile device
- Test to verify commands in action, simulate and review customized GUI before uploading the Profile to Controllers

4 Upload Profile

- Search for controllers and upload or update Profiles and project files
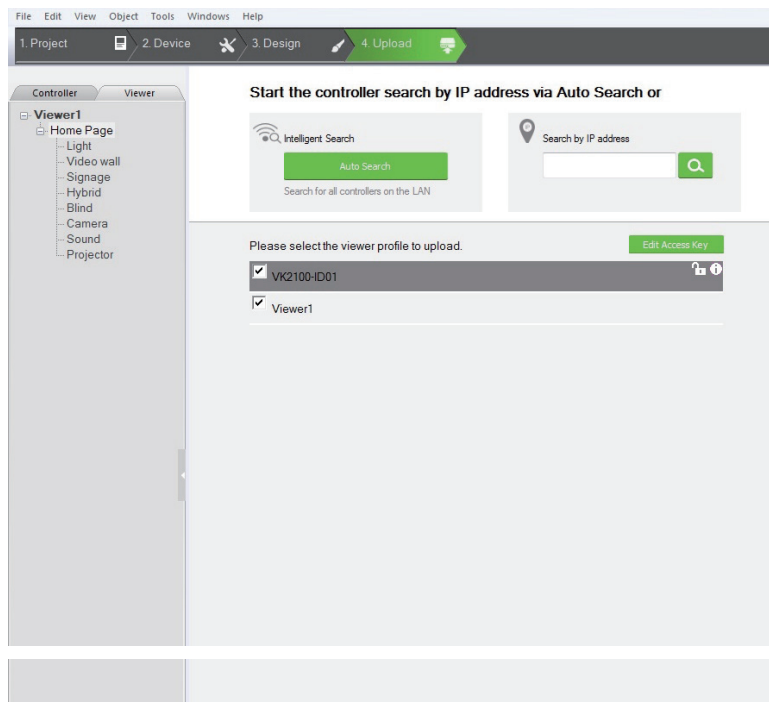
Graphic Library

Choose design elements, including buttons, new themes, color palettes and slider bar control from the Graphic Library to create an intuitive control interface.
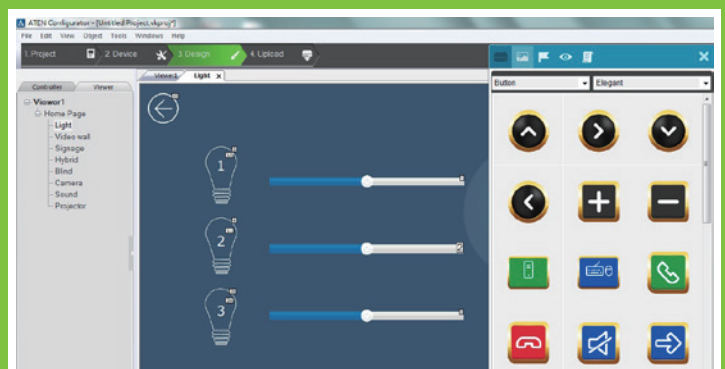
3 CONTROL

The ATEN Control System provides users with both wireless and physical control options respectively via the ATEN Control System Mobile App and Control System Keypads whereby pre-programmed actions can provide a fully automated series of advanced operations with the simple touch of a finger.

Control System App

Through an Ethernet connection, the ATEN Control System Mobile App imports and updates profiles from the controller to a mobile device, allowing you to control hardware devices via simple point-n-tap operations from a customized GUI. Multiple mobile devices can be authorized with control over the same room simultaneously, depending on your license. Meanwhile, user access to any viewer can be restricted with password authentication for system security.

Android   iOS   Windows

PC Control

Use ControlAssist to remotely control a computer to perform actions when working with PowerPoint files, media files, and control the PC's volume and even turn the PC off. This tool is especially helpful when a presenter needs to control PowerPoint files in a computer as well as other equipment in the room.

Keypads

The VK108US and VK112EU are fully customizable keypads designed to provide a physical interface to control devices in a room from a standard faceplate. Special features include:

- Fully customizable with multiple button layout options
- Dual-color button LEDs for clear indication and visibility in dark environments
- Easy ID pairing with ATEN controllers for Ethernet communication
- Dual power supply options – DC 5V or Power over Ethernet (PoE)

VK108US

8-button Keypad (US, 1 Gang)

- Up to 14 layout combinations of 4 to 8 buttons
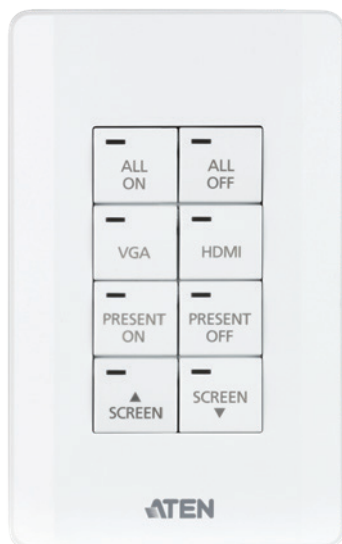
VK112EU

12-button Keypad (EU, 2 Gang)

- Up to 125 layout combinations of 6 to 12 buttons

Button Engraving Service

Layout and map corresponding button label requirements on the Customized Button Engraving Service platform online.

Featured Application

ATEN CIC Room
Communication / Interaction / Control

In order to showcase its capabilities for developing solutions for advanced communication, interaction, and control, ATEN established a showroom located at the heart of Taipei City. Here, customers can experience the complete ATEN Control System solution integrated with its pro AV, IT management, and energy management products.

Integration for Total Environment Control
The ATEN Control System flawlessly integrates 3rd party presentation equipment, audio, and video equipment, lighting and air conditioning systems, as well as ATEN Pro AV, KVM, and PDU devices, to deliver a total solution. User-defined control sequences and control UI were set up in 4 simple steps using the intuitive Configurator Software, allowing devices to work in tandem with a simple tap on an iPad.

Integration for Seamless Video Performance
Video walls and displays designed to adjust content under different application scenarios (such as presentation, training, multi-person presentation) utilizes ATEN's Modular Matrix Switch that seamlessly switches between different video sources and provides stable video transmission through ATEN's Video Extenders, all of which are controlled by the ATEN Control System.

Integration for Security
By integrating ATEN's KVM over IP Extenders into the solution, IT staff or security can easily switch between computers, on-site surveillance cameras, and servers to maintain operations, and troubleshoot problems, ensuring the utmost security and zero down-time of critical systems.

Integration for Energy Management
ATEN eco PDUs were implemented in the solution, which allows administrators to control and manage the power of equipments via network protocols in the CIC room in real-time, enhancing its energy-saving efficiency.

Solution Architecture

Projector | Video Conference System | Aver PTZ-310 | Aver PTZ-500 | 4 x 3 Video Wall | 2 x 2 Video Wall | 3 x 1 Video Wall | Display

RS-232

RS-232

Touch Panel | Display 1 | Display 2

VK224
Expansion Box

Ethernet

VK224
Expansion Box

Ethernet

RS-232

2 x Projector Screen

RS-485

2 x Air Condition

Relay

2 x Projector Lift

IR

Server Room Air Condition

VK2100 Control Box

Ethernet

RS-232

Mixer

Ethernet

2 x VK248
Expansion Box

2 x VK108US
Keypad

RS-232

TCP

Telnet

DI

Ethernet

Relay

VM3200
Modular Matrix

6 x Lights

2 x ATEN Logo Lights

Control Room Lights

2 x ATEN Logo Lights

KE8950R
KVM over IP Receiver

PE8324A
24-Outlet eco PDU

EA1442
Door Sensor

2 X PC

Big Meeting Room Lights

2 x Control Room Curtains

Small Meeting Room Lights

iPad

— Serial, Relay, DIO, IR
— Ethernet (Telnet / TCP)

Other Device

LIGHT CONTROL

ON | OFF

light show
You can choose different light shows.

Area
You can control the light in all areas.

L1 | L4
L2 | L5
L3 | L6

Success Stories

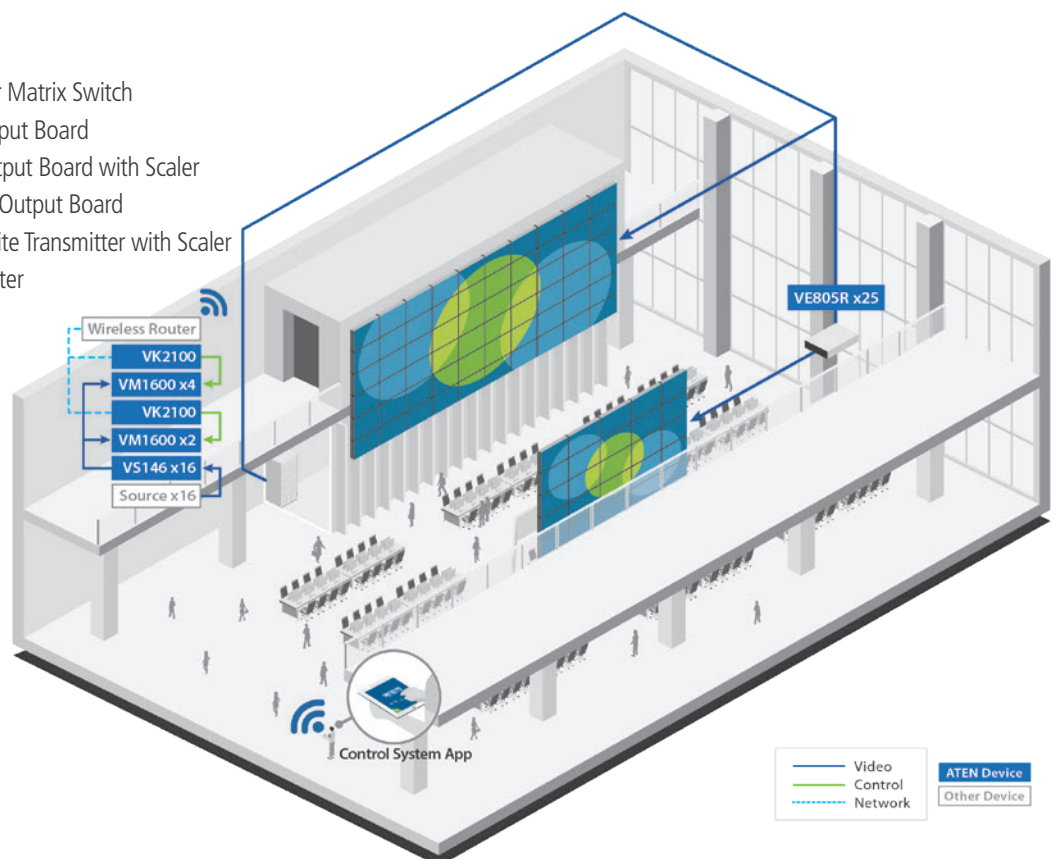Broadcasting & Media

Video Wall
Artear, Argentina

Artear, Argentina's longest-running and most prolific television network, decided to build a state-of-the-art newsroom to keep setting the pace for news broadcasting and creative, high-quality content. The requirements were:

• Centralized control of a 10x6 and 5x5 video wall from multiple devices.
• Extend video content across long distances as well as switch among different video wall layouts and contents with minimal lag.
• Power stability and redundancy for 24-7 operation.

ATEN Solution
Enables flexible video wall configurations and seamless content switching via centralized control from multiple devices across long distances. Featured ATEN products include:

VK2100 – Control Box
VM1600 – 16 x 16 Modular Matrix Switch
VM7404 – 4-Port 3G-SDI Input Board
VM8804 – 4-Port HDMI Output Board with Scaler
VM8514 – 4-Port HDBaseT Output Board
VE805R – HDMI HDBaseT-Lite Transmitter with Scaler
VS146 – 6-Port 3G-SDI Splitter
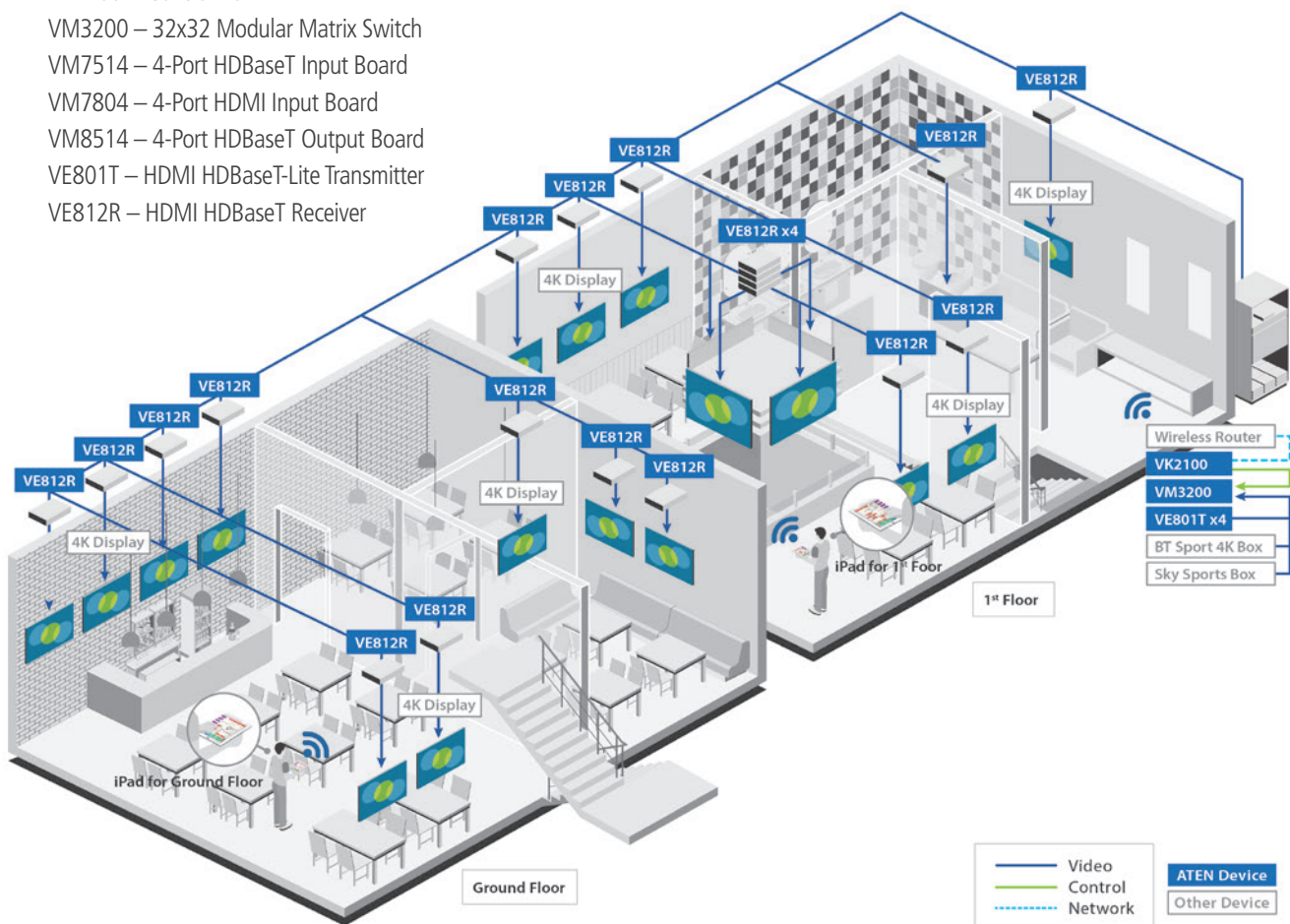
Digital Signage
Elevens Bar & Grill, UK

Owned by Real Madrid footballer Gareth Bale, Elevens Bar & Grill decided to build an advanced solution to keep offering unparalleled broadcasting of live sporting events in 4K to its customers. The requirements were:

- 4K video transmission to up to 20 screens with quick source switching.
- Simple, easy to operate and control by the staff without technical knowledge.
- Facilitate the increase of video sources or displays at later stage expansions.

ATEN Solution

Provides simple, centralized control of all connected video sources and display equipment across the entire venue from an iPad. Featured ATEN products include:

VK2100 – Control Box
VM3200 – 32x32 Modular Matrix Switch
VM7514 – 4-Port HDBaseT Input Board
VM7804 – 4-Port HDMI Input Board
VM8514 – 4-Port HDBaseT Output Board
VE801T – HDMI HDBaseT-Lite Transmitter
VE812R – HDMI HDBaseT Receiver

Multifunction Meeting Room
Optoma, Taiwan

Corporate

Optoma, leading designer and manufacturer of projection and audio products, decided to renovate their meeting room located at their headquarters. The requirements were:

• Integrate lighting, Avaya conferencing system, projectors, audio system, wireless presentation system, and local HDMI and VGA for users to take full control over the meeting room.
• Intuitive, automated controls that can quickly shift among various lighting environments, computer source feeds, and a variety of AV outputs.

ATEN Solution

Delivers a highly automated solution that meets the full range of requirements in this advanced corporate conferencing system through a fully customized UI for seamless, centralized wireless control. Featured ATEN products include:

VK2100 - Control Box
VM5404H - 4 x 4 HDMI Matrix Switch with Scaler
VE801 - HDMI HDBaseT-Lite Extender
VC880 - HDMI Repeater Plus Audio De-embedder
VC182 - VGA/Audio to HDMI Converter with Scaler
UEH4002 - 4-Port USB 2.0 Cat 5 Extender

QUESTURA DI TORINO

![Government]
Government

# Surveillance
Turin State Police, Italy

The State Police in Turin established a surveillance control center to monitor crowd behavior and detect incidents during city-wide public events. The requirements were:

- Mass media distribution over multiple video walls installed in 3 control rooms.
- Remote access of multiple computers stored in separate server area.
- Easy to manage and control for operators without any technical background.

ATEN Solution
Seamlessly integrates with commonly used hardware interfaces and provides centralized control via a dedicated, custom-designed web interface. Featured ATEN products include:

VK2100 – Control Box
VM3200 – 32x32 Modular Matrix Switch
VM7604 – 4-Port DVI Input Board
VM8514 – 4-Port HDBaseT Output Board
VE805R – HDMI HDBaseT-Lite Receiver with Scaler
KE6900/KE6940 – USB DVI-I Single/Dual Display
KVM over IP Extender
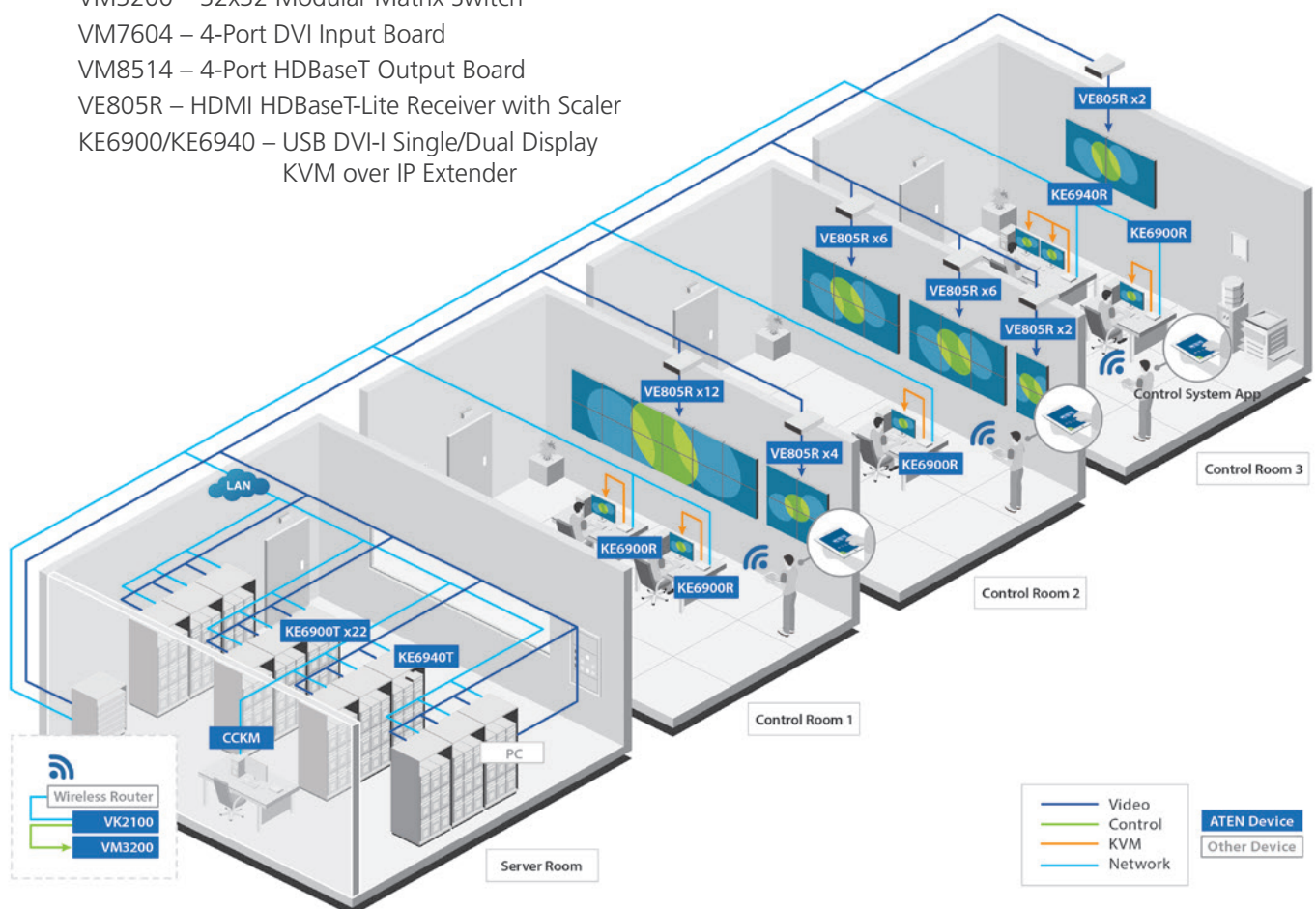
Product Comparison

Controller		VK2100	VK1100	VK0200	VK0100
Type		Control Box (1U)	Control Box (1/2 Rack Wide)	Control Pad (EU, 2 Gang)	Control Pad (US, 1 Gang)
Serial		6	2	2	2
IR / Serial		4	2	N/A	N/A
Relay		4	4	2	2
Digital I/O		4	N/A	1	1
Ethernet		•	•	•	•
USB		•	•	N/A	N/A
DC 12V Power Supply		2A	1A	N/A	N/A
POE		N/A	N/A	•	•
IR Learning		•	•	N/A	N/A
No. of Keypad Buttons		N/A	N/A	6 - 12	4 - 8
Keypad Layout Combinations		N/A	N/A	125	14
Max. No. of Ethernet Devices Supported	3rd Party Devices	25	25	8	8
	ATEN Expansion Boxes	8 per model	8 per model	8 per model	8 per model
Max. No. of Viewers Supported*		10	10	10	10
Max. No. of ATEN Keypads Supported		8	8	N/A	N/A

Expansion Box	VK224	VK236	VK248
Interface	Serial	IR / RS-232	Relay
Number of Ports	4	6	8
POE	•	•	•

Keypad	VK108US	VK112EU
Type	US, 1 Gang	EU, 2 Gang
No. of Buttons	4 - 8	6 - 12
Layout Combinations	14	125
POE	•	•

* Contact your local representative if you require more than 10 connections.

Product Specifications

Control Boxes

Model	VK2100	VK1100
Photo		

Interfaces

	VK2100	VK1100
Keypad Layout	N/A	N/A
Serial	• 4 x Programmable Bi-directional RS-232/422/485 Ports (4 x DB9 Male Connectors); - Baud Rate: 300 to 115200 (default: 9600); - Data Bit: 8 (default) or 7; - Stop Bit: 1 (default) or 2; - Parity: None (default), Even or Odd; - Flow Control: None (default) RTS/CTS • 2 x Bi-directional RS-232 Ports (2 x 3-Pole Terminal Block Connectors); - Baud Rate: 300 to 115200 (default: 9600); - Data Bit: 8 (default) or 7; - Stop Bit: 1 (default) or 2; - Parity: None (default), even or odd	• 2 x Programmable Bi-directional RS-232/422/485 Ports (2 x DB9 Male Connectors); - Baud Rate: 300 to 115200 (default: 9600); - Data Bit: 8 (default) or 7; - Stop Bit: 1 (default) or 2; - Parity: None (default), Even or Odd; - Flow Control: None (default) RTS/CTS
IR/Serial	• 4 x Programmable IR / Uni-directional RS-232 Ports (2 x 4-Pole Terminal Block Connectors); **IR:** TTL level (0 to 5 V) - Carrier Frequency: 10KHz~455KHz; **Serial:** Uni-directional RS-232 (+ - 5 V) - Baud Rate: 300 to 115200 (default: 9600); - Data Bit: 8 (default) or 7; - Stop Bit: 1 (default) or 2; - Parity: None (default), Even or Odd	• 2 x Programmable IR / Uni-directional RS-232 Ports (1 x 3-Pole Terminal Block Connector); **IR:** - Carrier Frequency: 10KHz~455KHz; **Serial:** - Baud Rate: 300 to 115200 (default: 9600); - Data Bit: 8 (default) or 7; - Stop Bit: 1 (default) or 2; - Parity: None (default), Even or Odd
I/O	• 4 x Programmable Digital Input / Output Channels (1 x 5-Pole Terminal Block Connector); Digital Output: 250 mA sink from 12 VDC Digital Input: - VDC Mode Input Voltage Range: 0 to 24 VDC; Programmable Range: 1 to 24 VDC; - Dry Contact Mode Pull-up 2k ohms to + 12 VDC	N/A
Relay	• 4 x Relay Channels (2 x 4-Pole Terminal Block Connector); • Normally open, isolated Relays; • Contact Rating: Max 24 VDC, 2A	• 4 x Relay Channel (2 x 4-Pole Terminal Block Connectors); • Normally open, isolated relays; • Contact Rating: Max 24 VDC, 2A
VDC	• 4 x 12 VDC Output Ports (2 x 4-Pole Terminal Block Connectors); • Power Supply: 12 VDC, 2A Max (shared by 4 ports)	• 1 x 12 VDC Output Port (1 x 2-Pole Terminal Block Connector); • Power Supply: 12 VDC, 1A Max
Ethernet	• 1 x RJ-45 Female, 10/100Base-T • Supported Protocol: ARP, ICMP, TCP/IP, DHCP, HTTPS, SSH • DHCP-enabled. The following default IP settings will be used if no IP is assigned within 30 seconds: IP: 192.168.0.60, Subnet Mask: 255.255.255.0	

Switches

	VK2100 / VK1100
Controller ID	1 x 16-segment Switch
Power	1 x On/Off Switch
IR Learning	1 x IR Receiver LED
Reset Button	1 x Semi-recessed Pushbutton
USB	1 x USB Type A

Power

	VK2100	VK1100
Consumption	AC110V: 4.8W, AC220V: 5.7W	AC110V: 5.4W, AC220V: 5.4W
Max. Input Power Rating	Internal Power: 100-240 VAC, 50-60 Hz	Internal Power: 100-240 VAC, 50-60 Hz

Environmental

	VK2100 / VK1100
Operating Temperature	0 – 50°C
Storage Temperature	–20 – 60°C
Humidity	0 - 80% RH, Non-Condensing

Physical Properties

	VK2100	VK1100
Housing	Metal	
Weight	2.64 kg (5.81 lb)	1.19 kg (2.62 lb)
Dimensions (L x W x H)	43.72 x 16.32 x 4.40 cm (17.21 x 6.43 x 1.73 in.)	21.50 x 16.23 x 4.18 cm (8.46 x 6.39 x 1.65 in.)

License

	VK2100	VK1100
Basic	2 free licenses	2 free licenses
Max. No. Allowed*	10 licenses	10 licenses

* Contact your local representative if you require more than 10 connections.

Control Pads

Model	VK0200	VK0100
Photo		
Interfaces		
Keypad Layout	6~12 buttons customizable in 125 keypad layouts	4~8 buttons customizable in 14 keypad layouts
Serial	• 2 x Bi-directional RS-232 Port (2 x 3-Pole Terminal Block Connector); - Baud Rate: 300 to 115200 (default: 9600); - Data Bit: 8 (default) or 7; - Stop Bit: 1 (default) or 2; - Parity: None (default), even or odd	
I/O	• 1 x Digital Input Channel (1 x 2-Pole Terminal Block Connector); - VDC Mode Input Voltage Range: 0 to 5 VDC; Programmable Range: 1 to 5 VDC; - Dry Contact Mode Pull-up 2k ohms to + 5 VDC	
Relay	• 2 x Relay Channel (2 x 2-Pole Terminal Block Connector); • Normally open, isolated Relays; • Contact Rating: Max 24 VDC, 1A	
Ethernet	• 1 x RJ-45 Female, 10/100Base-T • Supported Protocol: ARP, ICMP, TCP/IP, DHCP, HTTPS, SSH • DHCP-enabled. The following default IP settings will be used if no IP is assigned within 30 seconds: IP: 192.168.0.60, Subnet Mask: 255.255.255.0	
Switches		
Controller ID	1 x 16-segment Switch	
Power	N/A	
IR Learning	N/A	
Reset Button	1 x Semi-recessed Pushbutton	
USB	N/A	
Power		
Adapter	DC5V: 1.15W	DC5V: 1.16W
PoE 802.3 AF/AT	DC48V: 1.44W	DC48V: 1.375W
Environmental		
Operating Temperature	0 – 50°C	
Storage Temperature	–20 – 60°C	
Humidity	0 - 80% RH, Non-Condensing	
Physical Properties		
Housing	Plastic	
Weight	0.17 kg (0.37 lb)	0.14 kg (0.31 lb)
Dimensions (L x W x H)	8.32 x 14.76 x 4.84 cm (3.28 x 5.81 x 1.91 in.)	11.63 x 7.06 x 4.84 cm (4.58 x 2.78 x 1.91 in.)
License		
Basic	N/A	N/A
Max. No. Allowed*	10 licenses	10 licenses

* Contact your local representative if you require more than 10 connections.

Expansion Boxes

Model	VK224	VK236	VK248
Photo			

Interfaces			
Serial / Relay	• 4 x Programmable Bi-directional RS-232/422/485 Ports (4 x DB9 Male Connectors); - Baud Rate: 300 to 115200 (default: 9600); - Data Bit: 8 (default) or 7; - Stop Bit: 1 (default) or 2; - Parity: None (default), Even or Odd; - Flow Control: None (default) RTS/CTS	• 6 x Programmable IR / Uni-directional RS-232 Ports (6 x 2-Pole Terminal Block Connectors) **IR:** TTL level (0 to 5 V) - Carrier Frequency: 10KHz~455KHz; **Serial:** Uni-directional RS-232 (+ - 5 V) - Baud Rate: 300 to 115200 (default: 9600); - Data Bit: 8 (default) or 7; - Stop Bit: 1 (default) or 2; - Parity: None (default), Even or Odd	• 8 normally open relays (8 x 2-pole terminal blocks) • Contact Rating: Max 24 VDC, 2A
Ethernet	• 1 x RJ-45 Female, 10/100Base-T • Supported Protocol: ARP, ICMP, TCP/IP, DHCP, HTTPS, SSH • DHCP-enabled. The following default IP settings will be used if no IP is assigned within 30 seconds: IP: 192.168.0.60 Subnet Mask: 255.255.255.0		

Switches			
Controller ID	1 x 16-segment Switch		
Expander ID	1 x 8-segment Switch		
Reset Button	1 x Semi-recessed Pushbutton		
USB	1 x USB Type A (Firmware upgrade only)		

Power			
Adapter	DC5V: 3.8W	DC5V: 1.31W	DC5V: 2.82W
PoE 802.3 AF/AT	DC48V: 4.75W	DC48V: 1.64W	DC48V: 3.53W

Environmental			
Operating Temperature	0 – 50°C		
Storage Temperature	−20 – 60°C		
Humidity	0 - 80% RH, Non-Condensing		

Physical Properties			
Housing	Metal		
Weight	0.45 kg (0.99 lb)	0.45 kg (0.99 lb)	0.65 kg (1.43 lb)
Dimensions (L x W x H)	13.00 x 7.58 x 4.20 cm (5.12 x 2.98 x 1.65 in.)	13.00 x 7.58 x 4.20 cm (5.12 x 2.98 x 1.65 in.)	20.00 x 7.58 x 4.20 cm (7.87 x 2.98 x 1.65 in.)

Keypads

Model	VK108US	VK112EU
Photo		
Type	US, 1 Gang	EU, 2 Gang
Interfaces		
Ethernet	• 1 x RJ-45 Female, 10/100Base-T • Supported Protocol: ARP, ICMP, TCP/IP, DHCP, HTTPS • DHCP-enabled. The following default IP settings will be used if no IP is assigned within 30 seconds: IP: 192.168.0.60 Subnet Mask: 255.255.255.0	
Keypad Layout	4~8 buttons customizable in 14 keypad layouts	6~12 buttons customizable in 125 keypad layouts
Switches		
Controller ID	1 x 16-segment Switch	
Keypad ID	1 x 8-segment Switch	
Reset Button	1 x Semi-recessed Pushbutton	
Power		
Adapter	DC5V: 1.25W	DC5V: 1.25W
PoE 802.3 AF/AT	DC48V: 1.58W	DC48V: 1.56W
Environmental		
Operating Temperature	0 – 50°C	
Storage Temperature	–20 – 60°C	
Humidity	0 - 80% RH, Non-Condensing	
Physical Properties		
Housing	Plastic	
Weight	0.13 kg (0.29 lb)	0.14 kg (0.31lb)
Dimensions (L x W x H)	11.63 x 7.06 x 3.89 cm (4.58 x 2.78 x 1.53 in.)	8.32 x 14.76 x 3.87 cm (3.28 x 5.81 x 1.52 in.)
Faceplate Dimensions (L x W x H)	11.92 x 7.42 x 0.92 cm (4.69 x 2.92 x 0.36 in.)	8.62 x 15.12 x 0.92 cm (3.39 x 5.95 x 0.36 in.)

Memo

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Simply Better Connections

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About ATEN

ATEN International Co., Ltd., established in 1979, is the leading provider of AV/IT connectivity and management solutions. Offering integrated KVM, professional AV, and intelligent power solutions, ATEN products connect, manage, and optimize AV/IT equipment in corporate, government, education, broadcasting and media, and transportation environments. ATEN has 570+ issued international patents and a global R&D team that produces a constant stream of innovative solutions, resulting in a comprehensive portfolio of products available worldwide.