

# ATEN Control System

## VK2100 + VK6000 + ATEN Control System App

- The **ATEN Control System**, incorporating the **VK2100 (ATEN Controller)**, 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 via an iPad. The **VK2100** works as the main controller that provides great connectivity to all sorts of hardware devices commonly seen in a room. After connecting the hardware, the **VK6000** software allows customizable device configuration via creation of a simple system project in 4 easy steps. By connecting to the VK2100 via Ethernet, the **ATEN Control System App** empowers you with the mobility to control different hardware devices in different rooms whenever and however you like.

The **VK2100** can easily deploy into an existing installation and integrate seamlessly with ATEN VanCryst pro-AV products and a complete line of hardware devices, including AV equipments, lighting systems, air conditioning, motion sensors, power switches and much more. The **VK2100** serves as a centralized platform where hardware devices are converged to be monitored, managed and controlled directly via a tailored-made GUI from an iPad.

The **VK6000** features a quick setup that facilitates the configuration of hardware control and device operations in 4 easy steps via an intuitive GUI. Through Ethernet connection, the **ATEN Control System App** enables you to import and update viewer profiles from the VK2100 via point-n-tap user interface. Each viewer profile provides a customized control GUI that grants you quick access to target hardware device. Use of any profile is further protected with password authentication to secure system access.

The **ATEN Control System** is perfectly applicable in meeting rooms, conference centers, boardrooms, classrooms or any room that requires collaboration of a variety of hardware devices through a streamlined management with optimum efficiency and performance.

Front view



Rear view



## Features

### VK2100 (Hardware Controller)

- Supports various connecting interfaces, including:
  - 6 x Serial port;
  - 4 x IR/Serial port;
  - 4 x Relay channel;
  - 4 x I/O channel;
  - 1 x Ethernet port
- 4 x DC output for power supply connections
- 1 x USB port for easy profile upload
- IR Learning function for adding IR device drivers
- Easy system settings via the web GUI
- LED indication for hardware status and active messages
- Rack-mountable

### VK6000 (Configurator Software)

- Simple profile setup in 4 easy configuration steps via intuitive GUI
- Customizable GUI design and control operations for the iPad
- Built-in Database Generator for device driver setup and overall device management
- Built-in ATEN Library comprising 10,000+ device drivers and complete ATEN VanCryst product drivers
- Test tool to verify commands in action before uploading the profile to the VK2100
- Simulator to simulate and review the customized GUI before uploading the profile to the VK2100
- SSH tool to monitor the input and output signals of the controller

### ATEN Control System App

- Controls multiple rooms via multiple profiles imported from the VK2100(s)
- Restricted user access to profiles via password authentication
- Synchronization of system controls amongst multiple iPads

# Installation Setup

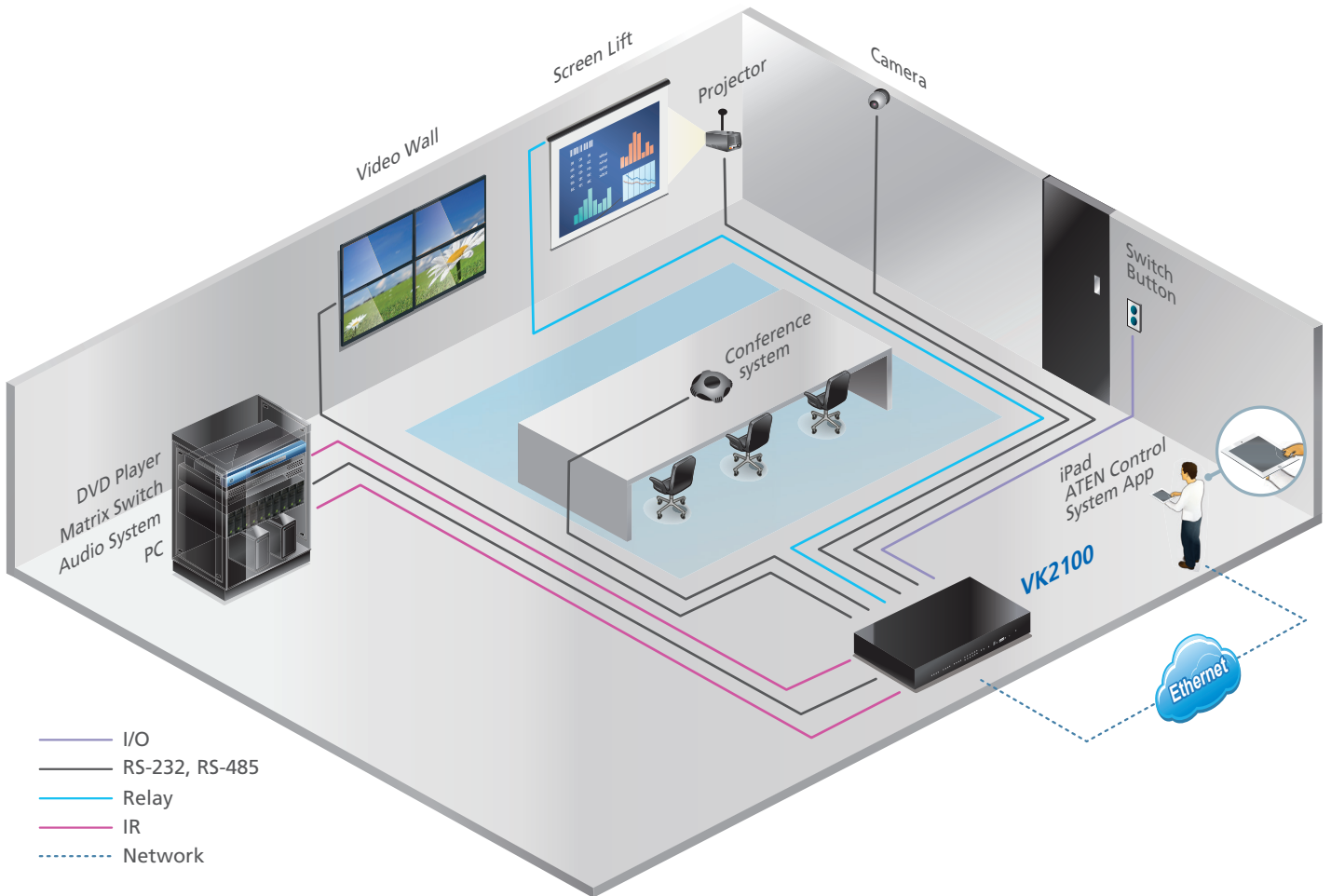
Connect hardware



Install software



Download app



## Highlights

<p><b>Expandable and Manageable Device Library</b></p>	<p>The <b>ATEN Library</b> is comprised of 10,000+ device drivers along with a complete line of ATEN VanCryst product drivers. This extensive portfolio of driver resources is built in the system upon the VK6000 installation which makes hardware installation as easy as plug-n-play. This device database can be expanded by adding new devices to the <b>Database Generator</b> which comes in handy when the system fails to locate a specific driver from the <b>ATEN Library</b>. Furthermore, device management is simplified and centralized using <b>My Library</b> which consolidates device information in an organized list for faster hardware setup in projects. This expandable and manageable device database is beneficial and time-efficient as the scope and size of installations grow.</p>
<p><b>Simplified Setup via Intuitive GUI Design</b></p>	<p>The <b>ATEN Configurator</b> (VK6000 software) offers an intuitive and streamlined GUI to simplify a complicated hardware setup process in 4 easy steps: create project &gt; select device &gt; configure viewer profile &gt; upload profile. Operations for any room can be customized in a profile that includes a programmable GUI designed for the iPad model's screen size, signifying "what you see is what you get", as well as actions and commands that correspond to the control buttons and icons added to the GUI. All control operations can be examined beforehand via Simulator and a test tool to verify how each configuration will respond and appear on the iPad, avoiding the need for re-configuration after the profile has been imported to the iPad for use. This straightforward and streamlined GUI is helpful in boosting system setup without repetitive checks to get system administrators acclimated and start device management effortlessly.</p>
<p><b>System Facilitation with Multiple Controller/ Profile/iPad Control</b></p>	<p>While plotting your installation, system control can start with one room and scale up to multiple rooms in the same area or across regions. From an iPad, toggling between profiles imported from the controller (VK2100) facilitates system control of different rooms with simple point-n-tap operations. Meanwhile, multiple iPads can be authorized with control over the same room simultaneously, depending on the system license. On the other hand, user access to any profile on the iPad can be restricted with password authentication to enhance system security. This versatile system framework is beneficial as system control can respond promptly and flexibly to any changes made, without suffering from unexpected service interruptions.</p>

# Specification

Function		VK2100																		
Interface	Serial	<ul style="list-style-type: none"> <li>4 x Programmable Bi-directional RS-232/422/485 Port (4 x DB9 Male Connector, configurable via pin assignments);                             <ul style="list-style-type: none"> <li>Baud Rate: 300 to 115200 (default: 9600);</li> <li>Data Bit: 8 (default) or 7;</li> <li>Stop Bit: 1 (default) or 2;</li> <li>Parity: No (default), Even or Odd;</li> <li>Flow Control: RTS/CTS</li> </ul> </li> </ul> <p><b>Pin Assignments</b></p> <table border="1"> <thead> <tr> <th>RS232</th> <th>RS422</th> <th>RS485</th> </tr> </thead> <tbody> <tr> <td>Pin2: RX</td> <td>Pin1: RX-</td> <td>Pin3: D+</td> </tr> <tr> <td>Pin3: TX</td> <td>Pin2: RX+</td> <td>Pin4: D-</td> </tr> <tr> <td>Pin5: GND</td> <td>Pin3: TX+</td> <td></td> </tr> <tr> <td>Pin7: RTS</td> <td>Pin4: TX-</td> <td></td> </tr> <tr> <td>Pin8: CTS</td> <td>Pin5: GND</td> <td></td> </tr> </tbody> </table>	RS232	RS422	RS485	Pin2: RX	Pin1: RX-	Pin3: D+	Pin3: TX	Pin2: RX+	Pin4: D-	Pin5: GND	Pin3: TX+		Pin7: RTS	Pin4: TX-		Pin8: CTS	Pin5: GND	
	RS232	RS422	RS485																	
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	Pin5: GND	Pin3: TX+																		
	Pin7: RTS	Pin4: TX-																		
	Pin8: CTS	Pin5: GND																		
IR/Serial	<ul style="list-style-type: none"> <li>2 x Bi-directional RS-232 Port (2 x 3-Pole Terminal Block Connector);                             <ul style="list-style-type: none"> <li>Baud Rate: 300 to 115200 (default: 9600);</li> <li>Data Bit: 8 (default) or 7;</li> <li>Stop Bit: 1 (default) or 2;</li> <li>Parity: No (default), even or odd</li> </ul> </li> </ul>																			
I/O	<ul style="list-style-type: none"> <li>4 x Programmable IR / Uni-directional RS-232 Port (2 x 4-Pole Terminal Block Connector);                             <ul style="list-style-type: none"> <li><u>IR: TTL level (0 to 5 V)</u></li> <li>Carrier Frequency: 10KHz~455KHz;</li> <li><u>Serial: Uni-directional RS-232 ( + - 5 V)</u></li> <li>Baud Rate: 300 to 115200 (default: 9600);</li> <li>Data Bit: 8 (default) or 7;</li> <li>Stop Bit: 1 (default) or 2;</li> <li>Parity: No (default), Even or Odd</li> </ul> </li> </ul>																			
Relay	<ul style="list-style-type: none"> <li>4 x Programmable Digital Input / Output Channel (1 x 5-Pole Terminal Block Connector);                             <ul style="list-style-type: none"> <li><u>Digital Output: 250 mA sink from 12 VDC</u></li> <li><u>Digital Input:</u> <ul style="list-style-type: none"> <li>VDC Input Mode</li> <li>Input Voltage Range: 0 to 24 VDC;</li> <li>Programmable Range: 1 to 24 VDC;</li> </ul> </li> <li>Dry Contact Mode</li> <li>Pull-up 2k ohms to + 12 VDC</li> </ul> </li> </ul>																			
VDC	<ul style="list-style-type: none"> <li>4 x Relay Channel (2 x 4-Pole Terminal Block Connector);</li> <li>Normally open, isolated Relays;</li> <li>Contact Rating: Max 24 VDC, 2A</li> </ul>																			
Ethernet	<ul style="list-style-type: none"> <li>4 x 12 VDC Output Port (2 x 4-Pole Terminal Block Connector);</li> <li>Power Supply: 12 VDC, 2A Max (shared by 4 ports)</li> </ul>																			
	<ul style="list-style-type: none"> <li>1 x RJ-45 Female, 10/100Base-T</li> <li>Supported Protocol: ICMP, TCP/IP, DHCP, HTTPS, SSH</li> <li>DHCP-enabled. The following default IP settings will be used if no IP is assigned within 30 seconds:                             <ul style="list-style-type: none"> <li>IP: 192.168.0.60</li> <li>Subnet Mask: 255.255.255.0</li> </ul> </li> <li>Establishes VK2100 connection with the VK6000 (ATEN Configurator) and iPad (ATEN Control System App)</li> </ul>																			

Function		VK2100
Switch	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	Consumption	40 Watt
	IP Rating	Internal Power: 100-240 VAC, 50-60 Hz
Environment	Operational Temp.	0~50°C
	Storage Temp.	-20°C~60°C
	Humidity	0~80% RH, Non-Condensing
Physical Properties	Housing	Metal
	Weight	2.64 kg
	Dimension (L x W x H)	43.72 x 16.32 x 4.40 cm

