

ATEN Control System

VK2100A Control Box Gen. 2

VK1100A Compact Control Box Gen. 2

VK2100A / VK1100A, ATEN's 2nd-generation Control Box equipped with a quad-core CPU, Gbps LAN, and 1 GB / 512 MB memory size, provides real-time response and status updates and can process complex, high-loading events with customized GUI designs, as well as multiuser access control to connected devices. Its LAN can be connected to ATEN Unizon™, a centralized management platform streamlining daily AV / IT management that provides users with the convenience to monitor, troubleshoot, and maintain multiple systems all at once.

The VK2100A / VK1100A Control Box is designed to easily manage any room setting, and can be deployed into an existing installation environment seamlessly not only with ATEN ProAV products, but also nearly any hardware or software device found in a room, including AV equipment, lighting, conference systems, air conditioning, motion sensors, power switches, and many more. VK2100A / VK1100A is the perfect solution for managing mass device deployments such as government agencies, military facilities, corporate organizations, and healthcare institutions.

VK2100A / VK1100A is a part of ATEN's Control System Series, a standard Ethernet-based management system, which consists of hardware, configurator software, control interfaces, and related services, to control any hardware and software devices within a room setting, such as boardrooms and lecture halls, and to provide direct, centralized management effortlessly via user-defined GUIs from any mobile device, ATEN Keypad, and Touch Panel.

VK2100A Front View



VK2100A Rear View



VK1100A Front View



VK1100A Rear View



Features

- High-performance processor embedded with quad-core CPU and 1GB / 512 MB memory for designing and controlling complex projects
- Supports various interface connections for hardware-software integration and mobile device control
- DC outputs for power supply connections
- USB port for easy project upload
- IR learning function for adding IR device drivers
- Web Viewer – integrated with 3rd-party systems or any web-based console for easier room equipment management
- Supports IEEE 802.1x authentication protocol for enhanced network security
- Supports SNMP and enables IT management software to retrieve information from ATEN controllers
- Supports native KNX IP for building management systems
- TCP, UDP, Telnet, SSH, HTTP, HTTPS, WebSocket, ONVIF, and PJLink compliant
- Supports Pronto formatted IR codes – IR command codes can be entered in Hex format
- Supports Modbus protocol – enables integration with Modbus devices, including TCP, RTU and its checksum data
- Supports Telnet CLI (command-line interface) mode for third-party system integration
- Supports centralized control and management by ATEN Unizon™
- Supports project file backup
- Web GUI for easy system configuration
- Supports SSH communication for convenient data monitoring
- LED indication of connection and hardware status
- 2 free licenses for mobile control*

Note: If you require more than 2 licenses, contact the local sales representative. For more information on licenses, see *Specifications* below.

Installation Setup

Connect hardware



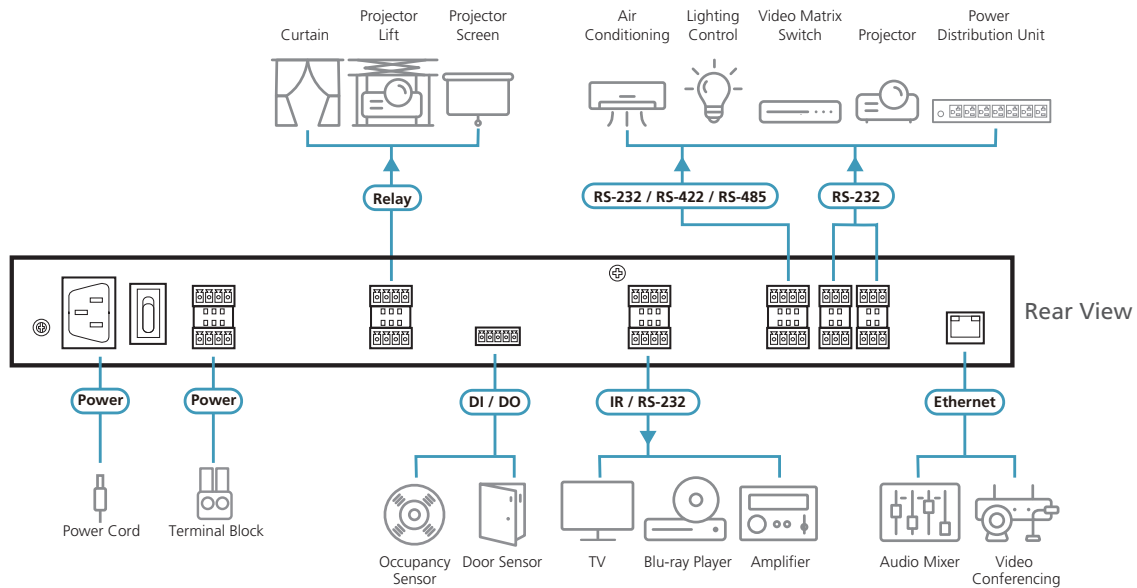
Configure settings



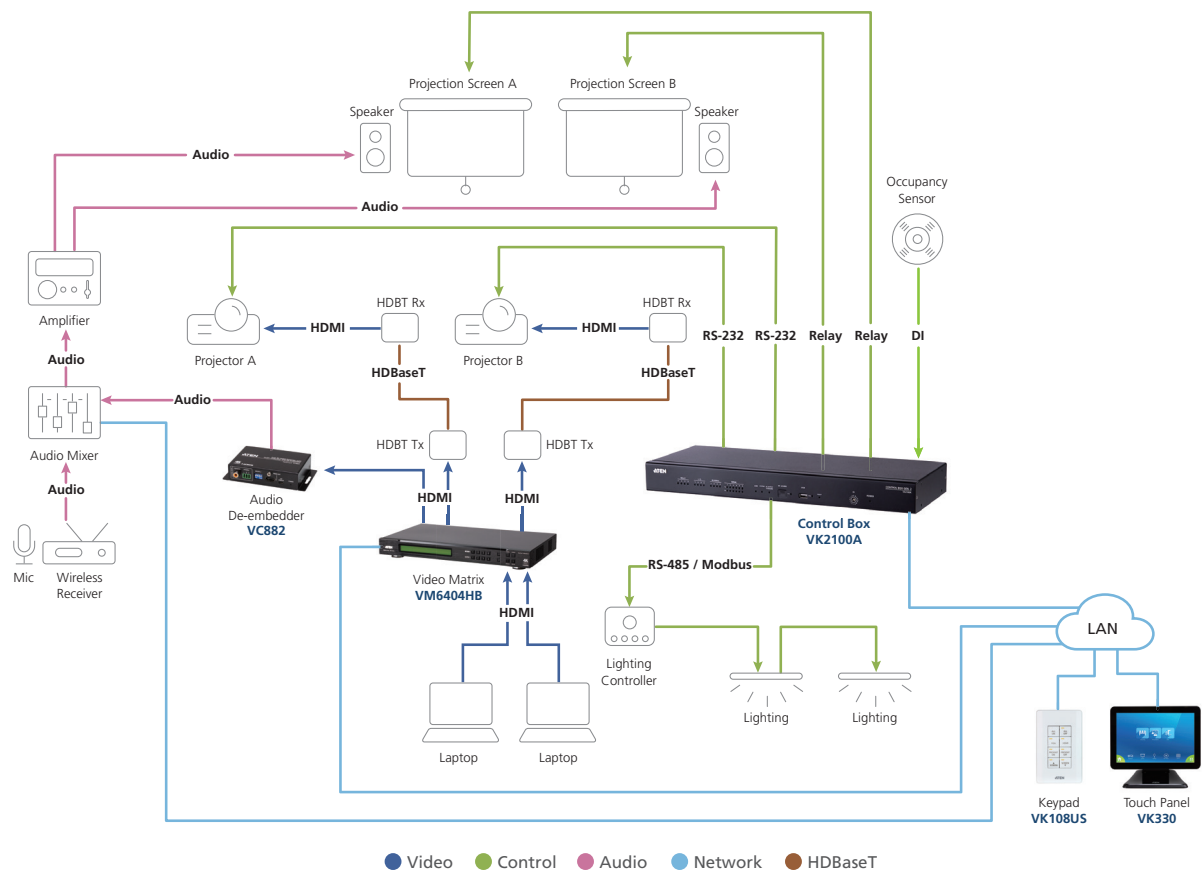
Download app



VK2100A Diagram



VK2100A Scenario Diagram



Highlights

The 2nd generation of the ATEN Control Box

The 2nd generation of the ATEN Control Box is designed with major enhancements to satisfy even the most complex of setups and features:

More Processing Power and Memory	High-performance processor embedded with quad-core CPU and 1 GB (VK2100A) / 512 MB (VK1100A) memory for designing and controlling complex projects.
System Performance Enhancement	The 2 nd -generation of the ATEN control box offers impressive system performance enhancements, including 14 x faster processing time, 10 x faster query time, 4 x faster profile upload time, and 2 x faster startup time than its predecessor.
Higher Level of Security	Dual, isolated LAN design supporting secured communication protocols such as HTTPS and SSH.
Major Software Upgrades	Advanced drivers with bidirectional control and feedback as well as 4 times more software objects such as buttons and macros.
Centralized Management	ATEN Unizon™ support for centralized management of devices across rooms, floors, and buildings.

The advantages of the ATEN Control System

The ATEN Control System has been developed with a series of advantages making it easily adaptable to varying applications in a wide range of settings, including but not limited to corporate and education facilities and conference halls or any other space that requires complete control.

Control Automation	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	Equipment status synchronizes in real time across all control interfaces for conflict-free control among multiple simultaneous users.
Simplified Configuration	Easy setup control sequences without extensive programming knowledge and effectively reducing time spent on manual configuration with our advanced driver database.
Effortless Expansion	Highly expandable with a wide range of ATEN expansion boxes, access to device drivers, and support for popular control standards and protocols including TCP, UDP, Telnet, SSH, HTTP, HTTP(s), WebSocket, ONVIF, PJLink, and KNX.
User-centered Convenience	An advanced, single-software solution enabling users to create their own control interfaces for any mobile device. Specific needs can be efficiently fulfilled by selecting from a database of control actions and GUIs for effortless deployment.
Mobile 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.
Integration Partners	ATEN collaborates with professional AV partners to provide complete solutions for applications of all sizes.

Specifications

	VK2100A	VK1100A
Memory		
SDRAM	1 GB	512 MB
Flash	8 GB	
Interfaces		
Serial	• 2 x Programmable Bi-directional RS-232 / 422 / 485 Port (2 x 5-Pole Terminal Block Connector, configurable via pin assignments); – 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) or RTS/CTS • 4 x Bi-directional RS-232 Port (4 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	• 1 x Programmable Bi-directional RS-232 / 422 / 485 Port (1 x 5-Pole Terminal Block Connector, configurable via pin assignments); – 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) or RTS/CTS • 1 x Bi-directional RS-232 Port (1 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
IR / Serial	• 4 x Programmable IR / Uni-directional RS-232 Port (2 x 4-Pole Terminal Block Connector); IR: TTL level (0 to 5 V) – Carrier Frequency: 10 kHz – 455 kHz; Serial: Uni-directional RS-232 (0 to 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 Port (2 x 2-Pole Terminal Block Connector); IR: TTL level (0 to 5 V) – Carrier Frequency: 10 kHz – 455 kHz; Serial: Uni-directional RS-232 (0 to 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
Relay	• 4 x Relay Channel (2 x 4-Pole Terminal Block Connector) • Normally open, isolated Relays • Contact Rating: Max 24 V DC, 2 A	• 4 x Relay Channel (2 x 4-Pole Terminal Block Connector) • Normally open, isolated Relays • Contact Rating: Max 24 V DC, 2 A
I / O	• 4 x Programmable Digital Input / Output Channel (1 x 5-Pole Terminal Block Connector); Digital Output: 300 mA sink from 24 V DC Digital Input: – VDC Mode Input Voltage Range: 0 to 24 V DC; Programmable Range: 1 to 24 V DC; – Dry Contact Mode Pull-up 2k Ω to + 12 V DC	• 2 x Programmable Digital Input / Output Channel (1 x 3-Pole Terminal Block Connector); Digital Output: 300 mA sink from 24 V DC Digital Input: – VDC Mode Input Voltage Range: 0 to 24 V DC; Programmable Range: 1 to 24 V DC; – Dry Contact Mode Pull-up 2k Ω to + 12 V DC
Ethernet	• 1 x RJ-45 Female, 10/100/1000Base-T • Supported Protocol: ARP, ICMP, TCP / IP, DHCP, HTTPS, SSH • DHCP mode - 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	• 1 x RJ-45 Female, 10/100/1000Base-T • Supported Protocol: ARP, ICMP, TCP/IP, DHCP, HTTPS, SSH • DHCP mode - 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
V DC	• 4 x 12 V DC Output Port (2 x 4-Pole Terminal Block Connector) • Power Supply: 12 V DC, 2 A Max (shared by 4 ports)	• 1 x 12 V DC Output Port (1 x 2-Pole Terminal Block Connector); • Power Supply: 12 V DC, 1 A Max

	VK2100A	VK1100A
USB	1 x USB Type-A	
Switches		
Power	1 x On / Off Switch	
IR Learning	1 x IR Receiver LED	
Reset Button	1 x Semi-recessed Pushbutton	
Power Consumption	AC 110 V : 5.2 W; AC 220 V : 6.5 W	AC 110 V : 4.3 W; AC220 V : 4.5 W
Power		
Maximum IP Rating	Internal Power: 100 – 240 VAC, 50 – 60 Hz	
Environmental		
Operating Temperature	0 – 50 °C	
Storage Temperature	- 20 – 60 °C	
Humidity	0 – 80% RH, Non-Condensing	
Physical Properties		
Housing	Metal	
Weight	2.59 kg	1.19 kg
Dimensions (L x W x H)	43.24 x 16.32 x 4.40 cm	20.00 x 16.41 x 4.40 cm
License		
Basic (free)	2 free licenses	
Max. No. Allowed	16 licenses	
Note	The ATEN Control Box comes with two free licenses that are stored within the device. Each time a mobile device connects to an ATEN Control Box for remote control, one license on the Control Box will be occupied. To purchase and add additional licenses to your ATEN Control Box, contact your local sales representative for more information.	

Optional Expansion Boxes

Model Number	Model Name
VK224	4-Port Serial Expansion Box
VK236	6-Port IR/Serial Expansion Box
VK248	8-Channel Relay Expansion Box
VK258	8-Channel Digital I/O Expansion Box

Optional Keypads

Model Number	Model Name
VK108US	8-Button Keypad (US, 1 Gang)
VK112EU	12-Button keypad (EU, 2 Gang)

Optional Touch Panel

Model Number	Model Name
VK330	10.1" Touch Panel

ATEN International Co., Ltd.

3F., No.125, Sec. 2, Datung Rd., Sijhih District., New Taipei City 221, Taiwan
 Phone: 886-2-8692-6789 Fax: 886-2-8692-6767
 www.aten.com E-mail: marketing@aten.com

Product information is subject to change without prior notice.

Released: 07/2025 V6.0

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