

# 1-Local/1-Remote Access 8/16-Port Cat 5 KVM over IP Switch with Virtual Media (1920 x 1200)

KN1108VA / KN1116VA

ATEN's new generation of KVM over IP switches — KN series allows local console access and remote over IP access for operators to monitor and access their entire data center over a network using a web-based browser. In addition, they offer out-of-band access with external modem support for BIOS-level troubleshooting when the network is down.

To help users manage and control an entire data center, ATEN KVM over IP switches support blade servers and chassis. With powerful new features such as Power Association — KVM ports can be associated with ATEN PDU power outlets for power management of servers from the KVM over IP switches' user interface.

KVM over IP switches now support the new Control Center Video Session Recorder (CCVSR) software. The CCVSR records all operations made on servers accessed through KVM over IP switches. Every operation and change from the BIOS level to logging in, from running software applications to configuring the operating system is recorded and saved to a secure video file as evidence, without exception.

In addition, the KN series is compatible with ATEN's KVM over IP Console Station, the KA82 series. The KA82 series is a hardware-based standalone console solution that can centrally manage multiple KN devices. It is especially suitable for environments where a PC is not allowed. The KVM over IP Console Station features a 0U space-saving compact design and low power consumption for 24/7 operations.

The Virtual Media function lets you map to storage media on USB, hard disk and DVD / CD drives located on remote servers — allowing administrators to conduct file transfers, install applications, run O.S. updates, or perform diagnostics across a network with ease.

Enhanced capabilities of KVM over IP switches also include: a Message Board, Panel Array Mode™, Mouse DynaSync™, Adapter ID and Secure Serial Server Access. The secure access to serial-controlled devices includes network equipment, Unix servers, Linux servers, Sun servers and many more serial consoles. It provides installation without needing expensive serial dongles.

With dual on-board NICs and dual power supplies, the KVM over IP switches are built for reliability, to ensure 24/7 availability of remote access to all server room computers.

With ATEN KVM over IP switches, IT administrators can manage their server rooms and data centers from practically anywhere — minimizing travel costs and MTTR (Mean Time to Repair) — ensuring the highest availability of data center services possible.

KN1108VA



Front View



Rear View



KN1116VA



Front View



Rear View



## Features

### Hardware

- High port density — RJ-45 connectors for up to 8 / 16 ports in a 1U housing
- Laptop USB Console (LUC) — a dedicated USB port directly connects to a laptop for easy console operation
- Two separate buses for one local console access and one remote KVM over IP access
- Two 10 / 100 / 1000 Mbps NICs for redundant LAN or two IP operation
- Blade server support
- Supports PS/2, USB, Sun Legacy (13W3) and serial (RS-232) connectivity
- Local console provides PS/2 and USB keyboard and mouse support
- Supports multiplatform server environments: Windows, Mac, Sun, Linux and VT100 based serial devices
- Audio enabled
- Virtual Media support lets you map DVD / CD-ROMs and other storage media to a remote server
- Dual power supply
- High video resolution — up to 1920 x 1200 @ 60 Hz for local and remote sessions<sup>1</sup>
- Monitor and control up to 8 / 16 computers on a single level, or control up to 64 / 256 computers in a cascade<sup>2</sup>

**Note:** 1. 1920 x 1200 only supported by KA7166, KA7168, KA7169, KA7175, KA7176, KA7177, KA7170, and KA7178  
2. Cascade-compatible KVM Switches include the following: CS9134, CS9138, CS1308, CS1316, KH1508A, and KH1516A

### Management

- Up to 64 user accounts
- UP to 32 concurrent logins
- End session feature — administrators can terminate running sessions
- Event logging and Windows-based Log Server support
- Critical system event notification via SMTP email; SNMP trap and Syslog support
- Firmware upgradeable
- Out-of-Band Access — modem dial-in / dial-out / dial-back support
- Adapter ID Function: stores port information allowing administrators to relocate the servers to different ports, without having to re-configure the adapters and switches
- Port Share Mode allows multiple users to gain access to a server simultaneously
- Integration with ATEN CC2000 Management Software
- Integration with ATEN CCVSR Video Session Recording Software<sup>1</sup>
- Supports ATEN KVM over IP Console Station (KA8270 / KA8280 / KA8278 / KA8288)
- Power Association enables the switch's KVM ports to be associated with ATEN'S PDUs power outlets for remote power management of the servers from the switch's interface
- Power Over the NET™ integration for remote power control, plus support for 3rd party power distribution units (PDUs)
- Manage browser access methods (browser, http, and https)
- IPv6 capable

**Note:** 1. Supports recording computer operations accessed via remote sessions

### Easy-to-Use Interface

- Local console, browser-based, and AP GUIs offer a unified multilanguage interface to minimize the user training time and increase productivity
- Multiplatform client support (Windows, Mac OS X, Linux, and Sun)
- Multi-browser support: Edge, Chrome, Firefox, Safari, and Opera
- Browser-based UI in pure Web technology allows administrators to perform administrative tasks without pre-installed Java software package required
- Supports web-friendly KVM-over-IP access with HTML5 WebClient viewer – users can remotely access all the connected servers and PCs without Java or browser plug-in installation
- Magic Panel — a special hideaway control panel with configurable function icon
- Full-screen or sizable and scalable Virtual Remote Desktop
- Panel Array Mode™ available to both local console operators and remote access users
- Keyboard / Mouse Broadcast — keyboard and mouse inputs can be duplicated on all the attached servers
- Video syncing with the local console — local console monitor's EDID information stored on the KVM Adapter for display resolution optimization

### Advanced Security

- High grade security — supports FIPS 140-2 level 1 security standards
- Remote authentication support: RADIUS, LDAP, LDAPS, and MS Active Directory
- Supports TLS 1.2 data encryption and RSA 2048-bit certificates to secure users log in from browser
- Flexible encryption design allows users to choose any combination of DES, 3DES, AES, RC4, or Random for independent keyboard / mouse, video, and virtual media data encryption
- IP / MAC Filter for enhanced security protection
- Configurable user and group permissions for server access and control
- Automated CSR creation utility and third party CA certificate authentication

### Virtual Media

- Virtual media enables file applications, OS patching, software installation and diagnostic testing
- Works with USB enabled servers in operating system and BIOS level
- Support DVD / CD drives, USB mass storage devices, PC hard drives and ISO images

### Virtual Remote Desktop

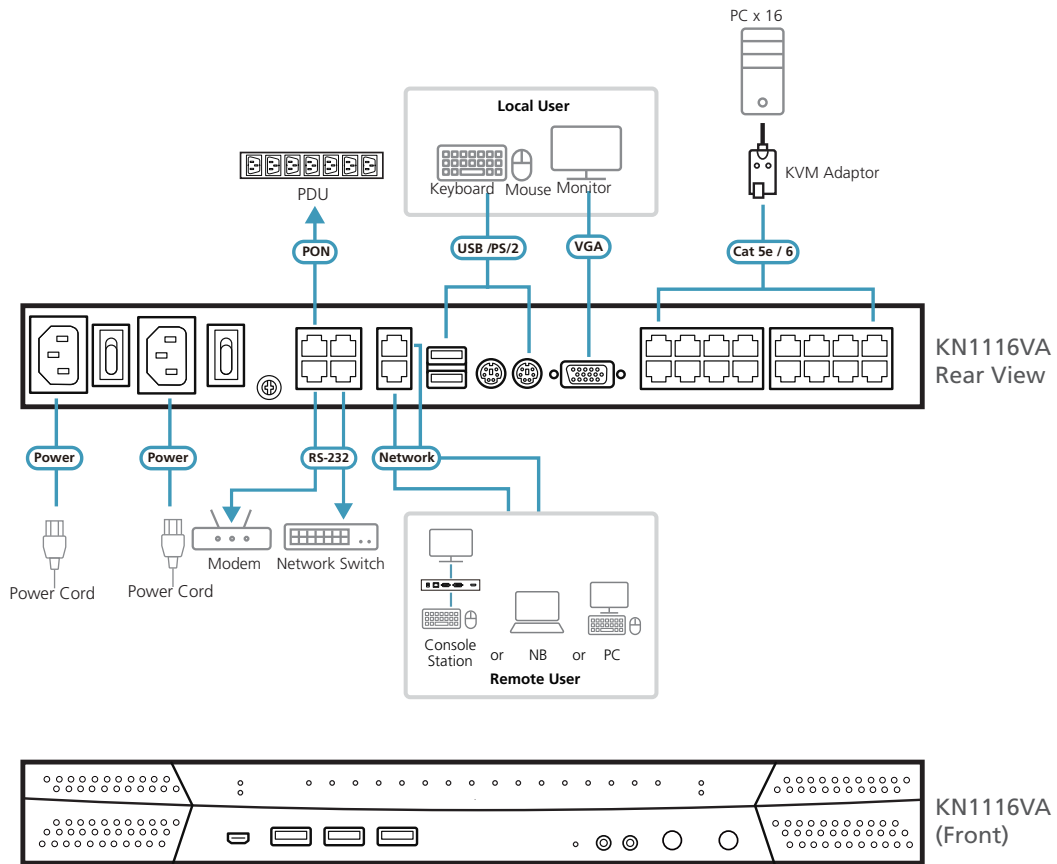
- Video quality and video tolerance can be adjusted to optimize data transfer speed; monochrome color depth setting, threshold and noise settings for compression of the data bandwidth in low bandwidth situations
- Full screen video display or scalable video display
- Message Board for communication among remote users
- Mouse DynaSync™ — automatically synchronizes the local and remote mouse movements
- Keyboard pass through support
- Exit Macros support
- On-screen keyboard with multilanguage support
- BIOS-level access

## Highlights

<b>Laptop USB Console (LUC)</b>	A dedicated USB port directly connects to your Laptop for easy console operation.
<b>Power Association</b>	Used in conjunction with ATEN PDUs power management device, you can associate a KVM over IP Switch's port with a PDU's power outlet, and then manage the power operation of a server from the switch's interface – a single interface point. It also enables you to associate a second outlet port if the server has a dual power supply, and lets you synchronize the operation for both power supplies. In this way, Power Association reduces maintenance time and increases management efficiency.
<b>Blade Server Support</b>	Support for blade server associations with KVM switch ports allows the blade server chassis and individual blades to be integrated into the sidebar tree view and accessed easily.
<b>Improved SNMP Trap</b>	Monitor the critical events on your system and customize the settings according to your needs. Logged events are divided into categories providing clear and complete information to administrators.
<b>Dual IP / Dual Power</b>	Dual IP / Dual Power supply operation provides the backup redundancy, and reliability. Should one of the IP or one of the power supplies become unavailable, the other will take over in order to keep the system functioning normally.
<b>Magic Panel</b>	A special hideaway control panel with configurable function icon enables you to control and manage the servers more convenient.

<b>Easy-to-Use User Interface</b>	A user-friendly, intuitive, GUI provides convenient, access, configuration and operation. Local console , browser-based and AP GUIs offer a unified multilanguage interface to minimize user training time and increase productivity.
<b>Virtual Remote Desktop</b>	The remote desktop can appear full-screen or as a window with a flexible scaling video display. Advanced features such as the Message Board, Mouse DynaSync™, Virtual Media, and Keyboard Pass Through, create a Virtual Remote Desktop that allows users to operate servers from remote locations just as if they were actually at the local site.
<b>Superior Video</b>	With enhanced fps throughput for crisp responsive video display, the switches offer resolutions of up to 1920 x 1200 @ 60 Hz.*
<b>Configurable Network Bandwidth Settings</b>	A network setting is provided that allows you to streamline data throughput by adjusting the size of the data stream (bandwidth) to match network traffic conditions. Video performance can be adjusted so that data throughput is optimized for the available network bandwidth. With high speed LAN access, the network setting can be adjusted so that a greater amount of video information is sent, resulting in a higher quality video display. In a limited bandwidth situation, the network setting can be adjusted so that net lag is minimized.
<b>Mouse DynaSync™</b>	Automatically synchronizes the local and remote mouse movements for perfect alignment of mouse pointers, regardless of server mouse acceleration settings.
<b>Panel Array Mode™</b>	Panel Array Mode™ permits simultaneous monitoring of the video output of the installations' servers. Operators can monitor the screen display of multiple servers for real-time server monitoring.
<b>Message Board</b>	To alleviate the problem of access conflicts arising from multiple logins, the Message Board functions like an Internet chat program, allowing users who are logged in to instantly communicate with each other.
<b>Adapter ID</b>	The Adapter ID Function stores port information such as the Adapter ID, OS, keyboard language, adapter name, operation modes. This enables administrators to relocate the servers to different ports, without having to re-configure the adapters and the switches.
<b>Virtual Media</b>	Virtual Media support lets you map DVD / CD-ROMs and other storage media to a remote server. This function allows you to conduct file transfers, application and OS patches, and diagnostics remotely.
<b>Remote Management of KVM and Serial Devices</b>	Combined access fit for data centers and computer rooms with system racks containing both KVM and serial controlled devices.
<b>Secure Serial Server Access</b>	Supports secure access to serial-controlled devices including network equipment, Unix servers, Linux servers, Sun servers and many more. Plus ATEN's secure serial server access provides installation without needing expensive serial dongles.

**Note:** \*1920 x 1200 only supported by KA7166, KA7168, KA7169, KA7175, KA7176, KA7177, KA7170, and KA7178.



## KVM Adapter

The following KVM Adapter are required for use with the KVM over IP Switches:

Type:	PS/2 KVM Adapter	USB KVM Adapter	Sun Legacy KVM Adapter	Serial KVM Adapter	USB Virtual Media KVM Adapter	USB Virtual Media KVM Adapter with Audio	USB Virtual Media KVM Adapter with Smart Card Reader	Dual Output USB Virtual Media KVM Adapter with Audio	DVI USB Virtual Media KVM Adapter with Smart Card Reader	HDMI USB Virtual Media KVM Adapter with Smart Card Reader	DisplayPort USB Virtual Media KVM Adapter with Smart Card Reader
Interface:	6-pin Mini-DIN Male 6-pin Mini-DIN Male HDB-15 Male	USB Type-A Male HDB-15 Male	13W3 Male 8-pin Mini-DIN	RS-232 DB-9 Female	USB Type-A Male HDB-15 Male	USB Type-A Male HDB-15 Male 2 Audio plugs	USB Type-A Male HDB-15 Male	USB Type-A Male HDB-15 Male 2 Audio plugs	USB Type-A Male HDB-15 Male DVI-D Male	USB Type-A Male HDB-15 Male HDMI Male	USB Type-A Male HDB-15 Male DisplayPort Male

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## Specifications

	KN1108VA	KN1116VA
<b>Console Connections</b>		
Local		1
Remote		1
<b>Computer Connections</b>		
Direct	8	16
Maximum	128 (via Cascade)	256 (via Cascade)
<b>Port Selection</b>	Pushbuttons, GUI, Hotkeys	
<b>Connectors</b>		
Console Ports	2 x USB Type-A Female (White) 1 x 6-pin Mini-DIN Female (Purple) 1 x 6-pin Mini-DIN Female (Green) 1 x HDB-15 Female (Blue)	
USB Port	3 x USB Type-A Female	
Audio	2 x Audio Jack Female	
Laptop USB Console (LUC) Port	1 x USB Mini-B Female	
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female
Serial	2 x RJ-45 Female	
PON	1 x RJ-45 Female	
Modem	1 x RJ-45 Female	
LAN Ports	2 x RJ-45 Female	
Power	2 x IEC 60320 / C14	
<b>Switches</b>		
Port Selection	2 x Pushbutton	
Reset	1 x Semi-recessed Pushbutton	
Power	2 x Rocker	
<b>LEDs</b>		
Online	8 (Green)	16 (Green)
Link 10 / 100 / 1000 Mbps	2 (Red / Orange / Green)	
Power	2 (Blue)	
<b>Emulation</b>		
Keyboard / Mouse	PS/2, USB	
<b>Video</b>		
Local	1920 x 1200 @ 60 Hz	
Remote	1920 x 1200 @ 60 Hz	
<b>Scan Interval</b>	1 - 255 Seconds	
<b>Maximum Input Power Rating</b>	100 - 240 V AC, 50 - 60 Hz, 1A	
<b>Power Consumption</b>	AC110V:13.6W AC220V:14.5W	AC110V:14W AC220V:15W
<b>Environmental</b>		
Operating Temperature	0 – 40 °C	
Storage Temperature	-20 – 60 °C	
Humidity	0 – 80% RH, Non-condensing	
<b>Physical Properties</b>		
Housing	Metal	
Weight	3.52 kg	3.56 kg
Dimensions (L x W x H)	43.84 x 28.78 x 4.40 cm	

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