

## KN4116VA

1-Local/4-Remote Access 16-Port Multi-Interface Cat 5 KVM over IP Switch – TAA



ATEN's 4th generation of KVM over IP switches exceed expectations. The KN4116VA features superior video quality (Full HD resolution of 1920 x 1200), FIPS 140-2 with level 1 security standards and virtual media transmissions at twice the speed. The KN series provides local console and remote over IP access for users to monitor and access their entire data center over a network. In addition, it offers out-of-band access with external modem support for BIOS level troubleshooting when the network is down.

New KN Series Exclusive:

- High grade security – supports FIPS 140-2 level 1 security standards
- Extreme virtual media speed – 2 x faster virtual media transmission speed
- Advanced FPGA graphics processor – with an Full HD resolutions of 1920 x 1200

With dual on-board NICs and dual power supplies, the KN series are built for reliability, to ensure 24/7 availability of remote access to all servers.

The KN series offers out-of-band (OOB) management that enables IT administrators to manage network devices (e.g. server, storage, router/switch) in server rooms via management networks that are separate from the main/production networks. So if there's difficulty in accessing the network devices through the production network, the administrators can still access them via the KVM switch. The KVM switch offers several out-of-band access methods, such as a direct console connection from a local computer, a USB console connection from a laptop, a PSTN connection via modem, or a dedicated management network connection via the Ethernet (LAN) port.

KN series devices can be integrated into the [CC2000](#) Management Software. The [CC2000](#) puts administrators in complete control of remote data centers and branch offices no matter where they are in the world – allowing IT administrators to remotely monitor and control all devices on a network, including blade servers and virtual machines.

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.

To help you manage and control an entire data center, ATEN KVM over IP switches support blade servers and chassis. With powerful 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.

Additional exclusive features of ATEN KVM over IP switches include: a Message Board, Panel Array Mode™, Mouse DynaSync™ and the Adapter ID.

A Windows Client and a Java Client are available for remote access. They allow IP connection and login from anywhere over the internet. In addition, ATEN also provides an iOS APP - PadClient, whose intuitive interface makes it easy to connect to the KVM over IP switch and control computers direct from your iPad. Please visit the [PadClient webpage](#) for more information.

ATEN KVM over IP switches save you time and money by allowing administrators to manage their data centers from practically anywhere – minimizing travel and MTTR (Mean Time to Repair) costs, ensuring the highest availability for data center services possible.

## Features

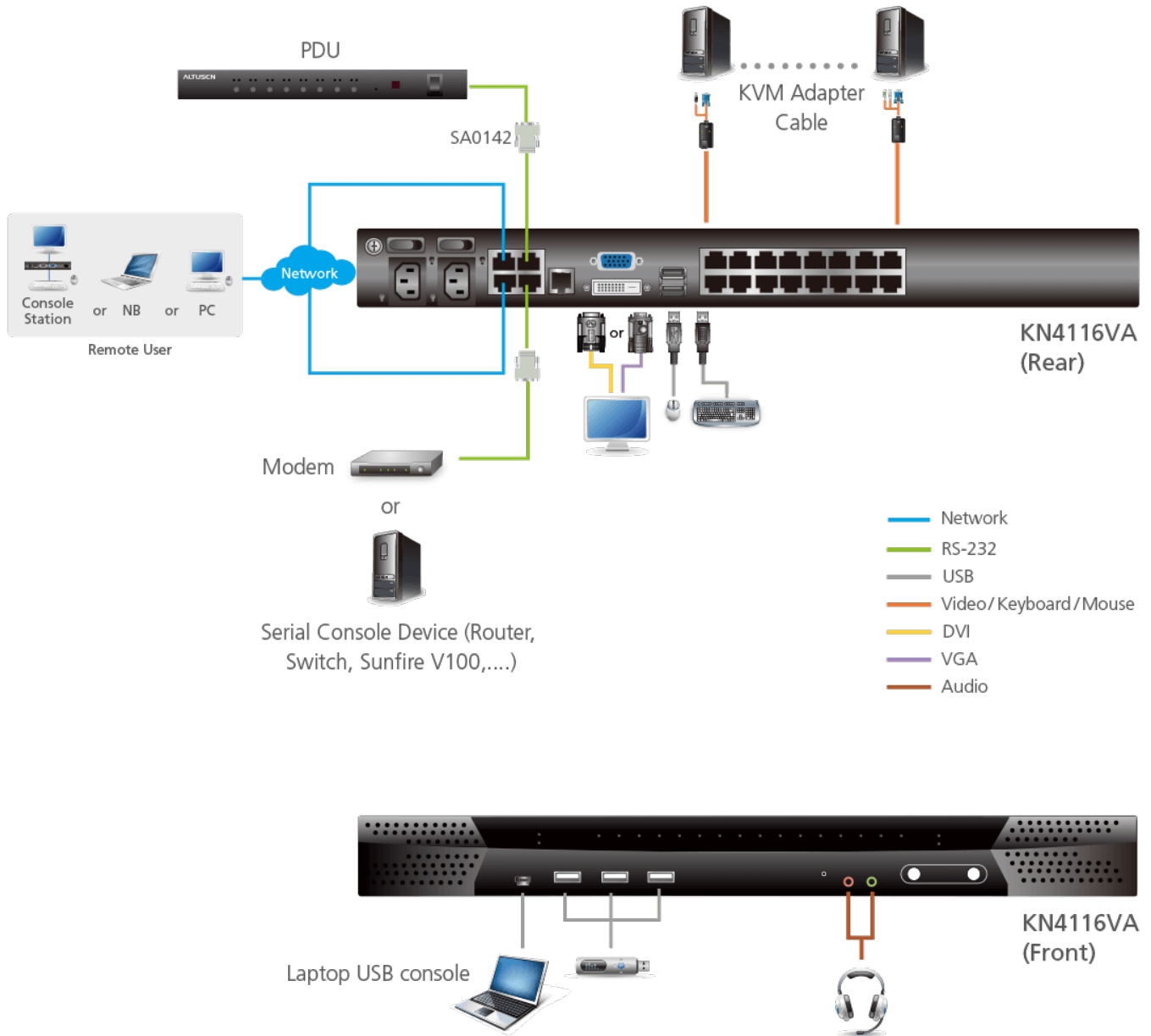
- **New KN Series Exclusive**
- High-Grade Security – supports FIPS 140-2 level 1 security standards that use an embedded FIPS 140-2 certified OpenSSL cryptographic module (Certificate #1747, #2398, #2473)
- Extreme virtual media speed – 2 x faster virtual media transmission speed
- Advanced FPGA graphics processor – with an Full HD resolution of 1920 x 1200
- Simultaneously share one local console and four independent connections to the attached servers
- **Hardware**
- High port density – RJ-45 connectors and Cat 5e/6 cable for up to 16 ports
- Laptop USB Console (LUC) – A dedicated USB port directly connects to a laptop for easy Console operation
- Four separate buses for 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 USB keyboard and mouse support
- Supports multiplatform server environments: Windows, Mac, Sun, Linux and VT100 based serial devices
- [Audio enabled](#)
- [Dual Power Supply](#)
- [High video resolution – up to 1920 x 1200 @ 60Hz \(50m\) with 24-bit color depth at the switch's local console and on remote session displays](#)
- Monitor and control up to 16 computers on a single level, or control up to 256 computers in a cascade\*
- \* Cascade-compatible KVM Switches include the following: [CS9138](#), [CS1308](#), [CS1316](#), [KH1508A](#), [KH1516A](#) and [KH1532A](#)
- **Management**
- Up to 64 user accounts
- Up to 32 concurrent logins
- [Green IT-Fan speed varies according to temperature](#)
- Event logging and Windows-based Log Server support
- [Critical system event notification via SMTP email; SNMP trap and Syslog support](#)
- [Customizable events notification](#)
- 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
- Supports ATEN KVM over IP Console Station ([KA8270](#) / [KA8280](#) / [KA8278](#) / [KA8288](#))
- Integration with ATEN [CCVSR](#) Video Session Recording Software\*
- [Power Association enables the switch's KVM ports to be associated with ATEN PDUs power outlets for remote power management](#)
- [IPv6 capable](#)
- \*supports recording computer operations accessed through the local console and via remote sessions.
- **Ease-to-Use Interface**
- ATEN Exclusive Panel Array Mode™ simultaneously monitoring for both local console operators and remote access users
- 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, Sun)
- Multi-browser support: Internet Explorer, Chrome, Firefox, Safari, Opera, Mozilla, Netscape
- Browser-based UI in pure Web technology allows administrators to perform administrative tasks without pre-installed Java software package required
- Users can launch multiple virtual remote desktop sessions to control multiple servers during the same login
- Full-screen or sizable and scalable Virtual Remote Desktop
- [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 Cables for display resolution optimization](#)
- **Advanced Security**
- [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 KB/Mouse, video, and virtual media data encryption
- [Support for IP/MAC Filter](#)
- 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 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](#)
- [Exit Macros support](#)
- [On-screen keyboard with multilanguage support](#)
- BIOS-level access for trouble shooting

## Specification

|                      |                           |
|----------------------|---------------------------|
| Console Connections  |                           |
| Local                | 1                         |
| Remote               | 4                         |
| Computer Connections |                           |
| Direct               | 16                        |
| Maximum              | 512 (via Cascade)         |
| Port Selection       | Pushbuttons, Hotkeys, GUI |
| Connectors           |                           |

|                               |                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Console Ports                 | 2 x USB Type-A Female (White)<br>1 x DVI-D Female (White)<br>1 x VGA HDB-15 (Blue)<br>1 x RJ-45 Female (Black)                                                                                                                                                                                                                         |
| 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                     | 16 x RJ-45 Female                                                                                                                                                                                                                                                                                                                      |
| Serial                        | 1 x RJ-45 Female                                                                                                                                                                                                                                                                                                                       |
| PON                           | 1 x RJ-45 Female                                                                                                                                                                                                                                                                                                                       |
| LAN Ports                     | 2 x RJ-45 Female                                                                                                                                                                                                                                                                                                                       |
| Power                         | 2 x IEC 60320/C14                                                                                                                                                                                                                                                                                                                      |
| Switches                      |                                                                                                                                                                                                                                                                                                                                        |
| Port Selection                | 2 x Pushbuttons                                                                                                                                                                                                                                                                                                                        |
| Reset                         | 1 x Semi-recessed Pushbutton                                                                                                                                                                                                                                                                                                           |
| Power                         | 2 x Rocker Switches                                                                                                                                                                                                                                                                                                                    |
| LEDs                          |                                                                                                                                                                                                                                                                                                                                        |
| Online / Selected             | 16 (Green/Orange)                                                                                                                                                                                                                                                                                                                      |
| Link 10 / 100 / 1000 Mbps     | 2 (Red/Orange/Green)                                                                                                                                                                                                                                                                                                                   |
| Power                         | 2 (Blue)                                                                                                                                                                                                                                                                                                                               |
| Emulation                     |                                                                                                                                                                                                                                                                                                                                        |
| Keyboard / Mouse              | PS/2; USB                                                                                                                                                                                                                                                                                                                              |
| Video                         |                                                                                                                                                                                                                                                                                                                                        |
| Local                         | 1920 x 1200 @ 60Hz                                                                                                                                                                                                                                                                                                                     |
| Remote                        | 1920 x 1200 @ 60Hz                                                                                                                                                                                                                                                                                                                     |
| Scan Interval                 | 1 – 255 Sec                                                                                                                                                                                                                                                                                                                            |
| Maximum Input Power Rating    | 100–240V~ ; 50-60Hz; 1A                                                                                                                                                                                                                                                                                                                |
| Power Consumption             | AC110V:50.3W:272BTU/h<br>AC220V:48.9W:266BTU/h<br><br>Note:<br><ul style="list-style-type: none"> <li>● The measurement in Watts indicates the typical power consumption of the device with no external loading.</li> <li>● The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.</li> </ul> |
| Environmental                 |                                                                                                                                                                                                                                                                                                                                        |
| Operating Temperature         | 0 - 40°C                                                                                                                                                                                                                                                                                                                               |
| Storage Temperature           | -20 - 60°C                                                                                                                                                                                                                                                                                                                             |
| Humidity                      | 0 - 80% RH, Non-condensing                                                                                                                                                                                                                                                                                                             |
| Physical Properties           |                                                                                                                                                                                                                                                                                                                                        |
| Housing                       | Metal                                                                                                                                                                                                                                                                                                                                  |
| Weight                        | 5.60 kg ( 12.33 lb )                                                                                                                                                                                                                                                                                                                   |
| Dimensions (L x W x H)        | 43.36 x 41.21 x 4.40 cm<br>(17.07 x 16.22 x 1.73 in.)                                                                                                                                                                                                                                                                                  |
| Note                          | For some of rack mount products, please note that the standard physical dimensions of WxDxH are expressed using a LxWxH format.                                                                                                                                                                                                        |

Diagram



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