

KVM Over the NET™

ALTUSCEN™
Enterprise KVM Solutions by ATEN

The new generation of KVM Over the NET™ switches allow local and remote operators to monitor and access the entire enterprise data center over the Internet using a web-based browser. In addition, they offer out-of-band access – including external modem support – for BIOS-level troubleshooting when the network is down.

These switches have been designed with unique and powerful features for that enable administrators to manage their entire server room and data center devices easily and conveniently from just about anywhere in the world.

A special *Message Board* feature – which like an internet chat program – lets any number of remotely logged in users exchange information and communicate with each other or to cooperatively manage the installation. A *Panel Array Mode*- allows real-time monitoring of up to 40 servers at once. Other features that contribute to the switches' powerful capabilities include: *Mouse DynaSync™*, *Adapter ID*, and *Virtual Media* support.

The Virtual Media function lets you map USB storage media (including DVD/CD drives), and image files to a remote server – allowing administrators to conduct file transfers, install applications and OS patches, and perform diagnostics remotely with ease.

With their dual on-board NICs and dual power supplies, these switches have been built for 24/7 reliability to ensure the highest rate of availability for your server room and data center services. The switch design also features *Green IT* solutions that include four temperature sensors to regulate up to six fans – making sure they are always running at optimum speed – throttling down and speeding up depending on the room temperature, reducing data center IT operation costs through a more efficient use of energy.

Now, using ALTUSEN KVM Over the NET™ switches, IT administrators can manage their server rooms and data centers from practically anywhere – minimizing travel costs and MTTR (Mean Time to Repair) – and ensuring the highest availability of data center services possible.

KN2116A

- 16 ports
- 1 local and 2 remote user access

KN2132

- 32 ports
- 1 local and 2 remote user access

KN4116

- 16 ports
- 1 local and 4 remote user access

KN4132

- 32 ports
- 1 local and 4 remote user access

KN2124v

- 24 ports
- 1 local and 2 remote user access
- Audio, virtual media, dual power and fan speed control support

KN2140v

- 40 ports
- 1 local and 2 remote user access
- Audio, virtual media, dual power and fan speed control support

KN4124v

- 24 ports
- 1 local and 4 remote user access
- Audio, virtual media, dual power and fan speed control support

KN4140v

- 40 ports
- 1 local and 4 remote user access
- Audio, virtual media, dual power and fan speed control support

» FEATURES

Hardware

- High port density – RJ-45 connectors and Cat 5e/6 cable for up to 40 ports in a 1U housing
- Two or four separate buses for remote KVM over IP access
- Two 10/100/1000 Mbps NICs for redundant LAN or two IP operation
- 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
- Dual Power Supply
- High video resolution – up to 1600 x 1200 @ 60Hz – 32 bit color depth for the local console; up to 1600 x 1200 @ 60Hz with 24 bit color depth for remote sessions, at up to 50 m
- Monitor and control up to 16, 24, 32, or 40 computers on a single level, or control up to 640 computers in a two-level cascade*

* Cascade-compatible KVM Switches include the following: CS9134, CS9138, CS88A, KH1508, and KH1516

Management

- Up to 64 user accounts – up to 32 users simultaneously share the control
- Fan speed varies according to temperature **New!**
- End session feature – administrators can terminate running sessions
- Event logging and Windows-based Log Server support
- Critical system events sent by email and SNMP trap; and Syslog support **New!**
- Firmware upgradeable
- Modem dial-in/dial back support
- Adapter ID
- Port Share Mode allows multiple users to gain access to a server simultaneously
- Integration with ALTUSEN CC2000 Management software
- Power Over the NET™ integration for remote power control

Ease-to-Use Interface

- Local Console, browser-based, and AP GUIs offer a unified multilanguage interface to minimize user training time and increase productivity
- Multiplatform client support (Windows, Mac OS X, Linux, Sun)
- Multibrowser support (IE, Mozilla, Firefox, Safari, Opera, Netscape)

- Browser-based UI in pure Web technology allows administrators to perform administrative tasks without pre-installed Java software package required **New!**
- User can launch multiple Virtual Remote Desktop to control multiple connected servers from the same login session **New!**
- Magic Panel
- Full-screen or sizable and scalable Virtual Remote Desktop
- Panel Array Mode

Advanced Security

- Remote authentication support: RADIUS, LDAP, LDAPS, and MS Active Directory
- Advanced security features include password protection and advanced encryption technologies – 1024 bit RSA; 56 bit DES; 256 bit AES; and 128 bit SSL
- Flexible encryption design allows users to choose any combination of 56-bit DES, 168-bit 3DES, 256-bit AES, 128-bit RC4, or Random for independent KB/Mouse, video, and virtual media data encryption **New!**
- Support for IP/MAC Filter
- Supports strong password protection
- Configurable user and group permissions for server access and control
- Local and remote access logged and authenticated
- Private CA **New!**

Virtual Media

- Virtual media enables file applications, OS patching, software installation and diagnostic testing **New!**
- Works with USB enabled servers in operating system and BIOS level
- Supports 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™
- Keyboard pass through support
- Exit Macros support **New!**
- On-screen keyboard with multilanguage support
- BIOS-level access

» Benefits

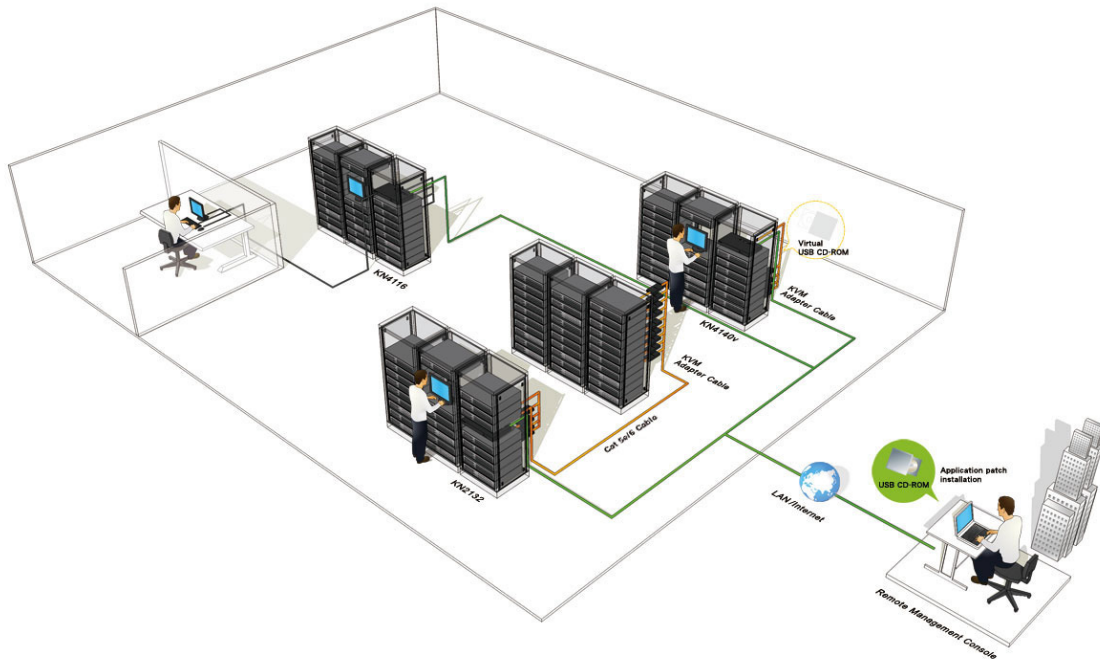
Dual IP/Dual Power	Dual IP/ Dual Power supply operation provides the backup redundancy, and reliability. Should one of the IP or one of the power supplies become unavailable, the other will take over in order to keep the system functioning normally.
Magic Panel	A special hideaway control panel with configurable function icon enables you to control and manage the servers more convenient.
Ease-to-use user interface	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.
Virtual Remote Desktop	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.
Superior Video	With enhanced fps throughput for crisp responsive video display, the switches offer resolutions of up to 1600 x 1200 @ 60Hz; vibrant 24-bit color depth for rich remote session display at up to 50m
Configurable Network Bandwidth settings	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.
Mouse DynaSync	Automatically synchronizes the local and remote mouse movements for perfect alignment of mouse pointers, regardless of server mouse acceleration settings.
Panel Array Mode	Panel array mode permits simultaneous monitoring of the video output of the installations' servers. Operators can monitor the screen display of up to 40 servers for real-time server monitoring.
Message Board	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.
Intelligent Bus Assignment – Flexible Port Switching	With Intelligent Bus Assignment users are automatically assigned to one of four buses as they log in. With Flexible Port Switching, up to 32 users can be flexibly distributed over 4 separate bus sessions and multiple users are allowed to share access to one server for maximizing system efficiency.
Adapter ID	The Adapter ID Function stores port information such as the Adapter ID, OS, keyboard language, adapter name, operation modes, and etc. This enables administrators to relocate the servers to different ports, without having to re-configure the adapters and the switches

Virtual Media

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.

Green IT- Variable Fan Speed

The switches have support for four temperature sensors that can control up to six fans. The sensors regulate the fans to run at optimum speed, using energy more efficiently and prolonging the life of both the fans and the switch.



Product Specifications

Front View



Rear View



KN4132



KN4140v








KN series Model	Description	Dimensions (L x W x H)	Weight	Power Consumption
KN2116A	16 KVM ports, 1 Local and 2 Remote User Access	43.36 x 41.35 x 4.40 cm	5.46 kg	110V/33W 230V/33.80W
KN2132	32 KVM ports, 1 Local and 2 Remote User Access	43.36 x 41.35 x 4.40 cm	5.59 kg	110V/33.40W 230V/33.60W
KN4116	16 KVM ports, 1 Local and 4 Remote User Access	43.36 x 41.35 x 4.40 cm	5.52 kg	110V/39.60W 230V/40.00W
KN4132	32 KVM ports, 1 Local and 4 Remote User Access	43.36 x 41.35 x 4.40 cm	5.63 kg	110V/45.80W 230V/46.30W
KN2124v	24 KVM ports, 1 Local and 2 Remote User Access	43.36 x 41.35 x 4.40 cm	5.99 kg	Single Power: 115V/36.4W; 230V/37.2W Dual Power 115V/41.8W; 230V/42.5W
KN2140v	40 KVM ports, 1 Local and 2 Remote User Access	43.36 x 41.35 x 4.40 cm	6.08 kg	Single Power 115V/36.8W; 230V/37.7W Dual Power 115V/42.2W; 230V/43W
KN4124v	24 KVM ports, 1 Local and 4 Remote User Access	43.36 x 41.35 x 4.40 cm	6.04 kg	Single Power 115V/43.7W; 230V/44.6W Dual Power 115V/49.1W; 230V/50W
KN4140v	40 KVM ports, 1 Local and 4 Remote User Access	43.36 x 41.35 x 4.40 cm	6.12 kg	Single Power 115V/49W; 230V/50W Dual Power 115V/54W; 230V/56W

General Specifications

Connectors	LAN	2 x RJ-45 Female (Black)
	Modem	1 x RJ-45 Female (Black)
	USB	3 x USB Type A Female (White)
	PON	1 x RJ-45 Female (Black)
Switches	Reset	1 x Semi-recessed Pushbutton
	Power	2 x Rocker Switch
	Port Selection	2 x Pushbutton
LEDs	On Line	16/24/32/40 (Green)
	Selected	16/24/32/40 (Red)
	Power	1 (Blue)
	Link	2 (Red / Red + Green / Green)
Environment	Operating Temp.	0-50°C
	Storage Temp.	-20-60°C
	Humidity	0-80% RH, Non-condensing
Form Factor		19" / 1U
Network Protocol		10Base-T, 100Base-T, 1000Base-T, Auto-Sense, TCP, IP, HTTP, HTTPS, DNS, DHCP, PPP, UDP, ARP, ICMP, SMTP, RADIUS, LDAP, LDAPS

KVM Adapter Cables

The following KVM Adapter cables are required for use with the KVM Over the NET Switches:

Type:	PS/2 KVM Adapter Cable	USB KVM Adapter Cable	Sun Legacy KVM Adapter Cable	Serial KVM Adapter Module	Serial KVM Adapter Cable	USB Virtual Media KVM Adapter Cable	USB Virtual Media KVM Adapter Cable with Audio
Interface:	 KA9120/KA7120 PS/2 6-pin Mini-DIN Male 6-pin Mini-DIN Male HDB-15 Male	 KA9170/KA7170 For all USB systems USB Type A Male HDB-15 Male	 KA9130/KA7130 Sun Legacy 13W3 Male DIN 8 pin Male	 KA9140 Serial RS-232 DB-9 Female	 KA7140 Serial RS-232 DB-9 Female	 KA7175 Connect to systems with USB 2.0 ports USB Type A Male HDB-15 Male	 KA7176 Connect to systems with USB 2.0 ports+Audio USB Type A Male HDB-15 Male 2 Audio plugs

* Available with KN2124v / KN2140v / KN4124v / KN4140v.

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