ATEN

2018
2019

Product Catalog
ATEN Altusen™ Enterprise Solutions

Simply Better Connections

Our Vision

"Simply Better Connections" has always been at the heart of the ATEN brand. It means providing innovative solutions for you to make better connections, efficiently and seamlessly, to the information and people that you value. As a result, ATEN connects you to the world, anytime and anywhere, by providing technologies that enable you to share and to care. ATEN makes professional and personal life easier and better connected.
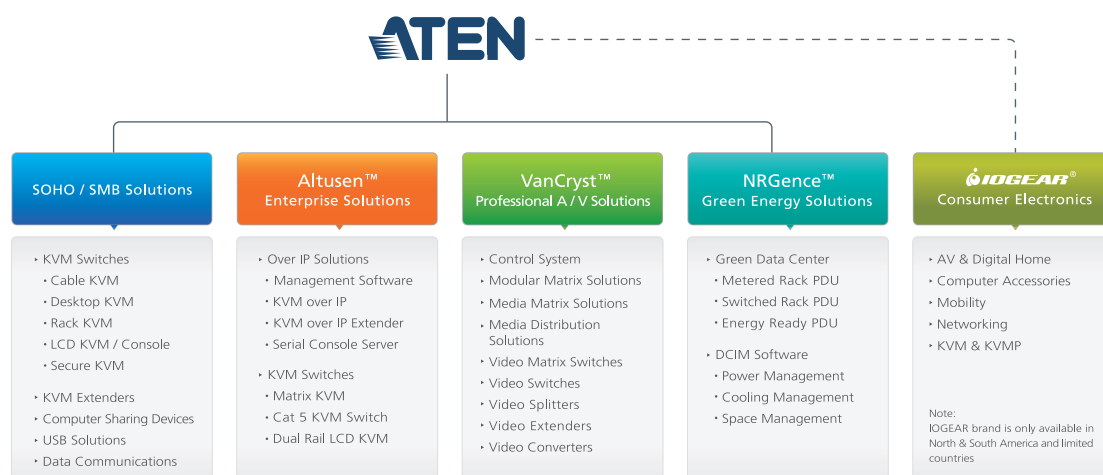
About ATEN

ATEN International Co., Ltd., established in 1979, specializes in IT connectivity and management solutions that are uniquely positioned at the convergence of KVM and Pro A/V.

ATEN's Altusen™ IT infrastructure access and management solutions offer integrated KVM connectivity and control capabilities for Enterprise customers that facilitate the effective management of IT infrastructures from anywhere in the world. Our ATEN VanCryst™ Professional A/V range leverages our enhanced video and control capabilities and offers signal management and system control components to build a multitude of flexible integrated solutions for all home and professional audio/video-related applications. Our ATEN SOHO/SMB solutions invite you to experience the very latest standards in USB connectivity, mobility and speed while embracing the next generation of 4K-enabled workstation solutions. Finally, our ATEN NRGence™ Green Energy line of intelligent power solutions offers sensor-enabled energy-saving hardware and software for data centers that provide real-time energy management and performance indicators.

Our 38+ years of excellence in connective technologies means that we are at the forefront of the seamless integration of A/V with IT. Whether it's for a corporate, education, manufacturing, industrial, government, hospitality or retail environment, ATEN shares infinite possibilities through connective technologies. We have 500+ issued international patents and global R&D teams that produce a constant stream of innovative solutions, resulting in a comprehensive portfolio of products available worldwide, all crowned by some of the best technical support and customer service in the industry.

Headquartered in Taiwan, ATEN has grown to include subsidiaries in China, Japan, Korea, Belgium, Australia, the U.S., the U.K., Russia, India, and Turkey – with R&D centers in Taiwan, China, and Canada.

ATEN

SOHO / SMB Solutions	Altusen™ Enterprise Solutions	VanCryst™ Professional A / V Solutions	NRGence™ Green Energy Solutions	IOGEAR® Consumer Electronics
· KVM Switches · Cable KVM · Desktop KVM · Rack KVM · LCD KVM / Console · Secure KVM · KVM Extenders · Computer Sharing Devices · USB Solutions · Data Communications	· Over IP Solutions · Management Software · KVM over IP · KVM over IP Extender · Serial Console Server · KVM Switches · Matrix KVM · Cat 5 KVM Switch · Dual Rail LCD KVM	· Control System · Modular Matrix Solutions · Media Matrix Solutions · Media Distribution Solutions · Video Matrix Switches · Video Switches · Video Splitters · Video Extenders · Video Converters	· Green Data Center · Metered Rack PDU · Switched Rack PDU · Energy Ready PDU · DCIM Software · Power Management · Cooling Management · Space Management	· AV & Digital Home · Computer Accessories · Mobility · Networking · KVM & KVMP Note: IOGEAR brand is only available in North & South America and limited countries

Our Core Value

i CAN

Integrity
with pragmatism as our philosophy

Ambition
with optimism as our attitude

Caring
with respect as our spirit

Novelty
with added-value as our achievement

Contents

Company Profile

CANADA R&D

USA (CA)

USA (NJ)

UK

BELGIUM

- ● Corporate Headquarters
- ● Asia-Pacific / Europe / America / Oceania
- ● R&D / Manufacturing

Global Sales and Service Network
ATEN has built a global network of sales and engineering professionals to provide our customers with fast, efficient and comprehensive service. Our distribution channels and partners extend worldwide to more than 100 countries.

ATEN eNews
ATEN eNews is a monthly publication featuring the latest ATEN product developments, marketing and promotional resources, and corporate activities.

POLAND

RUSSIA

CHINA

KOREA

JAPAN

TURKEY

INDIA

CHINA R&D

TAIWAN HQ

TAIWAN R&D

TAIWAN

TAIWAN FACTORY

AUSTRALIA

CHINA FACTORY

ATEN eService

ATEN eService is a web portal which provides several ATEN online services, including technical support, product registration, and partner services. All services can be accessed with a single ID and password.

ATEN Partner Center

Authorized distributors can access the ATEN Partner Center to get the latest marketing materials, sales tools, technical documents, product certifications and more. Registered partners receive a monthly newsletter to stay up-to-date with ATEN's latest product news and events. ATEN also provides integrated marketing programs and promotions to assist partners in promoting ATEN products and services.

Complete Enterprise Solutions

ATEN is a leading manufacturer of connectivity management solutions. With over 38 years' experience in the connectivity and shared access management industry, we are committed to empowering individuals and organizations with innovative and effective solutions. Our Altusen™ enterprise line is the preeminent answer for those seeking best-in-class access management and share technology.

Quality

Our commitment to quality begins at the very conception of each new product, with a team of experts from a diverse range of fields overseeing development. Sharing a vision of the marriage between design and reliability, teams at ATEN subject each new product to an array of tests, including extended operation, environmental fluctuations and vibration durability, to name a few. As further evidence of ATEN's efforts, the company has been awarded numerous international certificates for CE, FCC, UL, TUV, PSE and ISTA 3A standards.
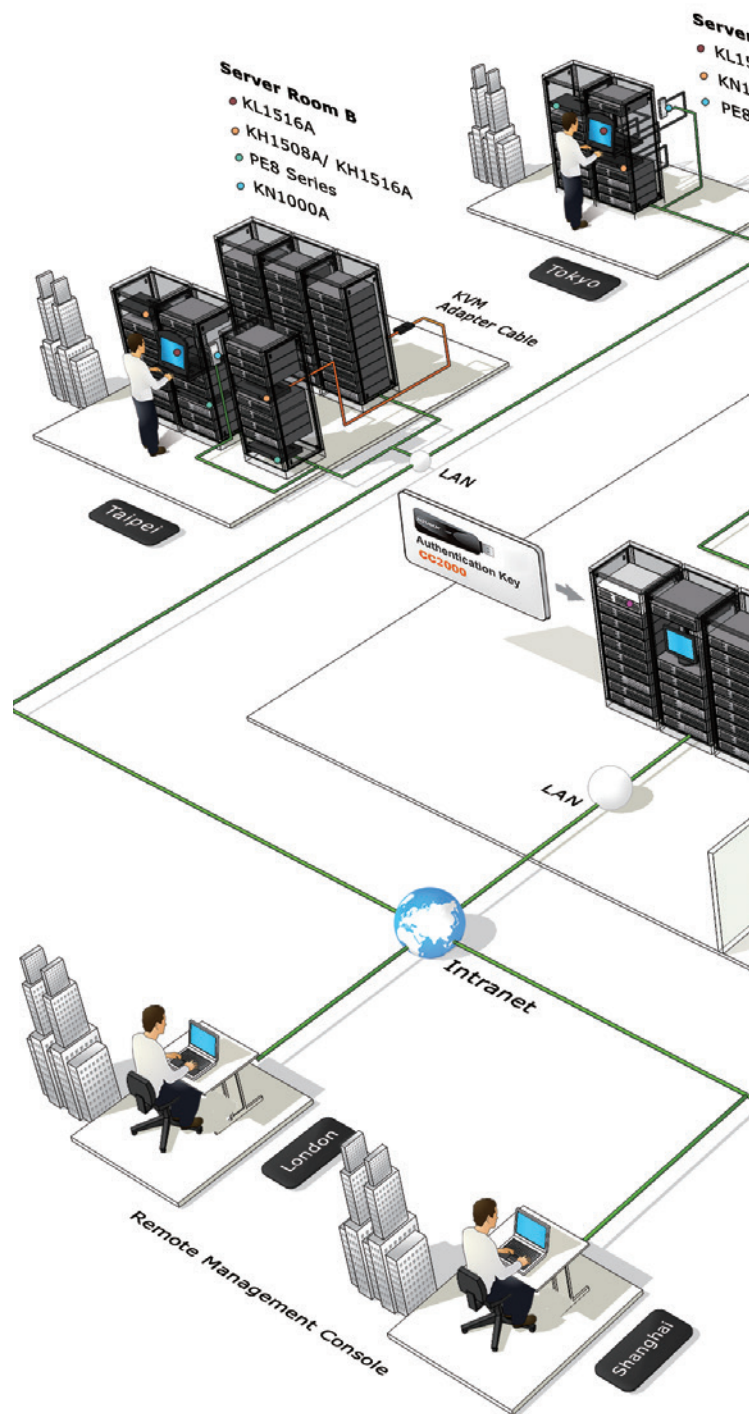
"When searching for a partner in connectivity solutions, ATEN was a natural choice due to its long history and reputation of providing high-quality, state of the art KVM switches." - Joshua Longacre, Vice President, Operations & Sales, Lyme Computer Systems.

Research

Research and development is at the heart of ATEN's success. With R&D centers located in Taiwan and Canada, we continue to add to a growing portfolio of over 320 products and 600 patents and applications on connectivity, accessibility, sharing and peripheral management. One highlight of our manufacturing is the production of Application Specific Integrated Circuits (ASIC). Developed in-house, these chips have allowed ATEN to deliver customers with features and benefits found only in our products, such as improved reliability, compatibility, cost, performance, as well as unique functionality and customized feature sets.

User Experience

For every ATEN product, we strive to perfect the user experience through R&D and valuable feedback from our customers. Innovations stemming from our global teams include dual-rail mounting brackets, detachable front panels, space-saving internal power supplies, integrated monitor/keyboard/touchpads, modular connectivity, improved scalability and cabling. Beyond these, enhanced software and a dedication to the user interface to empower customers with improved accessibility and better browser-based management drives our team of specialists to simplify the user experience for you.

Room A

516A

000A

Series

LAN

Cairo

Remote Management Console

Intranet

Boston

KVM Adapter Cable

Matrix Plus / KVM Adapter Cable

LAN

Singapore

Server Room D
- KL1516Ai
- KH1516Ai
- PE8 Series
- KN1000A

Server Room E
- KN1000A
- KM0532 / KM0932
- PE8 Series
- SN0116A
- KL1516A
- Console Module

New York

LAN

KVM Adapter Cable

Moscow

Server Room C
- KL1516Ai
- PE8 Series
- KH1516Ai
- KN2116VA
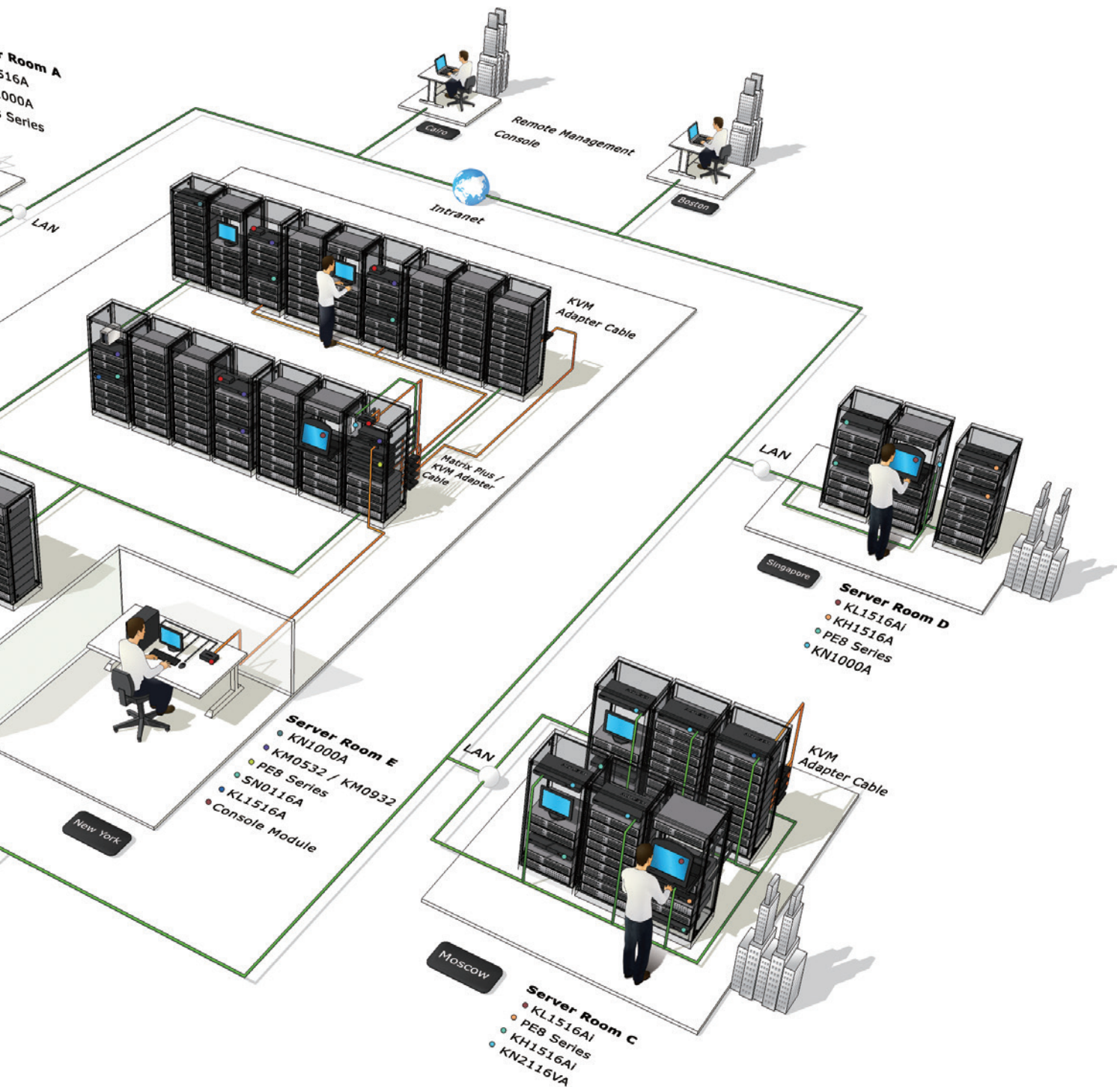
Customer Satisfaction

ATEN prides itself in excellence at every level of operations and this also applies to after-sales and technical support. Thanks to our dedicated teams of sales personnel and technicians, ATEN has proudly focused its attention on service to customer, reseller and partner satisfaction.

Dual Rail LCD KVM Switches

KL1508A / KL1516A • KL1108V / KL1116V • KL1508AI / KL1516AI

IT managers are now, more than ever, looking for solutions that can help reduce costs and maximize space.

The ATEN Altusen™ Dual Rail LCD KVM Switches connect up to 16 computers. The Dual Rail LCD KVM Switches are space-saving, provide robust control and when incorporated with ATEN Rack KVM switches and Cat 5 KVM switches, are fully scalable.

Exclusive LED Illumination Light
ATEN's LCD KVM features an LED illumination light, designed to illuminate the keyboard and touchpad in a dark room. The LED illumination light is ON by default as you lift up the LCD and can be switched OFF by pushbutton if needed. The unique design serves to brighten low-light conditions and provide a more flexible working environment.

Slim and Convenient
ATEN Altusen™ Dual Rail LCD KVM Switches maximize space on server racks by integrating a retractable LCD monitor, keyboard and touchpad in a 1U Dual Rail housing. The unique Dual Rail design separates the LCD module from the keyboard/touchpad module, which allows the keyboard/touchpad to be pushed away into the housing and out of the way when not in use.

Boost Efficiency
ATEN Altusen™ Dual Rail LCD KVM Switches allow administrators to monitor the status of individual ports without the hassle of manual switching. The dynamic Auto Scan function automatically switches among user selected ports at specified intervals. The broadcast function can transmit the administrators keyboard and mouse inputs to all the available computers at once, instead of performing the same commands on each server.

Easy Access and Control
ATEN Altusen™ LCD KVM Switches provide three convenient methods to monitor, access and control devices on your installation.
  1) Port selection pushbuttons.
  2) Hotkey.
  3) OSD (On Screen Display).
Station and port selectors with 7-segment LED displays are also provided for fast switching to target computers from the KL1508A / KL1516A, KL1108V / KL1116V, and KL1508AI / KL1516AI.

Note: The features highlighted above are not available in all products. Please refer to each product page for more details. Product information is subject to change without prior notice.

Easy Installation

Rack mounting ATEN Altusen™ LCD KVM Switches and LCD Consoles is simple. A normal rack mounting process requires two people and ATEN offers Easy Installation Rack Mount Kits for single person installation.

1
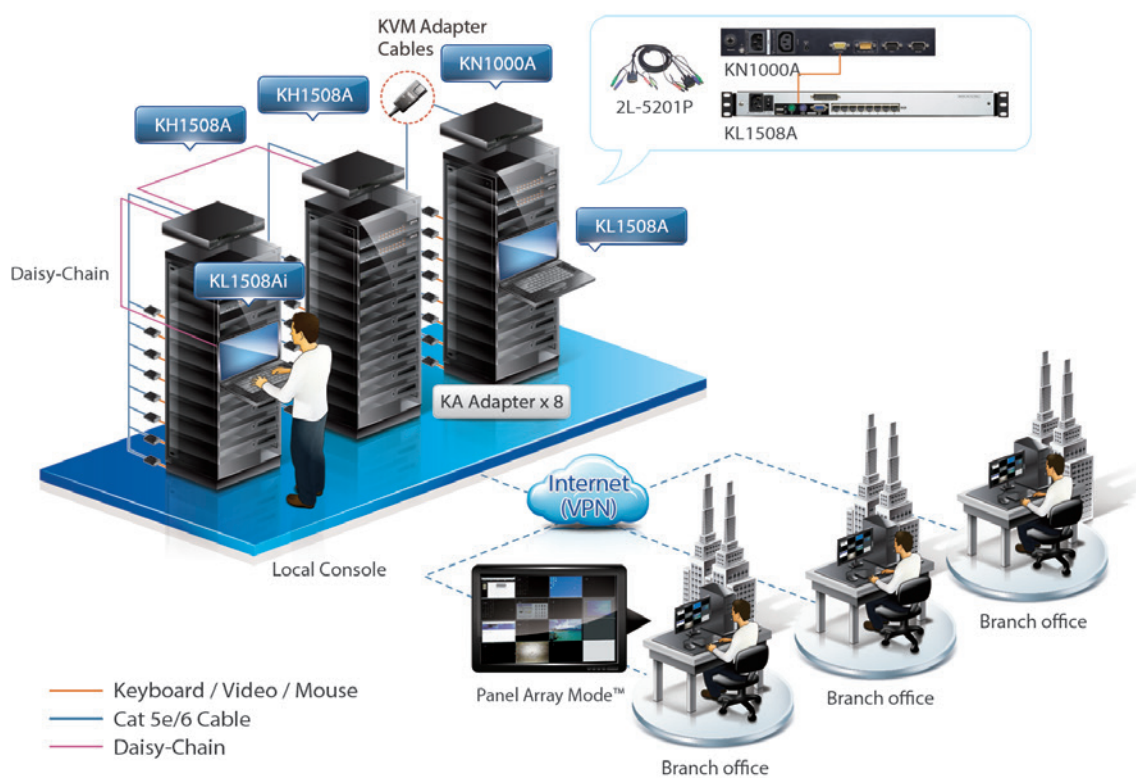
Comparison

Model		KL1508A / KL1516A	KL1108V / KL1116V	KL1508AI / KL1516AI
Multiple Sessions	Local	1	1	1
	Remote	N/A	1	
Ports		8 / 16	8 / 16	8 / 16
Port Selection		OSD, Hotkey, Pushbutton	OSD, Hotkey, Pushbutton	OSD, Hotkey, Pushbutton
Expansion		256 / 512 (Daisy-Chain[1])	128 / 256 (Cascade[1])	128 / 256 (Daisy-Chain[1])
Computer	Connector	RJ-45	RJ-45	RJ-45
	Support Interface	PS/2, USB, Serial	PS/2, USB, Serial	PS/2, USB, Serial
	Support Platform	Windows, Linux, Mac, Sun	Windows, Linux, Mac, Sun	Windows, Linux, Mac, Sun
External Console		PS/2, USB; HDB-15	USB; DVI, HDB-15	PS/2, USB; HDB-15
Extra Mouse Port		USB	USB	USB
Keyboard / Mouse Emulation		PS/2, USB	PS/2, USB	PS/2, USB
Panel Spec	LCD Module	17" / 19" TFT-LCD	19" TFT-LCD	17" / 19" TFT-LCD
	Resolution	1280 x 1024 @ 75Hz		
	Response time	5 ms		
	Viewing Angle	170° (H), 160° (V)		
	Pixel Pitch	0.264 mm x 0.264 mm (17") / 0.294 mm x 0.294 mm (19")		
	Support Color	16.7M colors		
	Contrast Ratio	1000:1		
	Luminance	250 cd/m²		
Input Video Resolution		1920 x 1200 @ 60Hz	1920 x 1200 @ 60Hz	FHD:1920 x 1200 @ 60Hz Non-FHD:1600 x 1200@ 60Hz
Dedicated Invocation Keys		•	•	•
Console Lock		•	•	•
Pushbuttons	Port	•	•	•
	Station	•	N/A	•
Auto Scan		•	•	•
Broadcast Support		•	•	•
Multi-Level Password Security		•	•	•
Firmware Upgradable		•	•	•
KVM over IP		N/A	•	•
Single Person Installation		•	•	•
Adapter ID Support		•	•	•
Virtual Remote Desktop		N/A	•	•
On-Screen Keyboard		N/A	•	•
External Mouse		•	•	•
CC2000 Centralized Management Software		N/A	•	•
CCVSR Video Session Recording Software		N/A	•	N/A
Panel Array Mode™		N/A	•	•

Note:
1. Refer to page 9-1 for details on compatible KVM switches. Some KVM over IP features may not be supported, depending on the functionality of the cascaded or daisy-chained KVM switch.

Installation Options

ATEN Altusen™ LCD KVM Switches and LCD Consoles allow you to choose from several rack mount kit options, including the Single Person Easy Installation Rack Mount Kit, which streamlines the rack mounting process. Standard rack mounting procedures need at least two people to install an LCD KVM switch and LCD Console. The Single Person Easy Installation Rack Mount Kit allows one person to install an LCD KVM Switch.

Single Person Installation

The following illustrations demonstrate just how easy it is to install your LCD KVM Switch with the Easy Installation Rack Mount Kit.

1. Secure the side rails to the rack.

2. Slide the Dual Rail LCD KVM Switch onto the rails and secure it to the rack.

3. Open the Dual Rail LCD KVM Switch. Now you are ready to begin installing the servers.
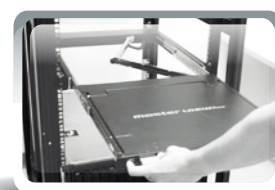
Standard Installation Rack Mount Kit

Short (Standard)

Long (Optional)

2X-010G

Easy Installation Rack Mount Kit

Short (Optional)

Long (Optional)

2X-011G

2X-012G

Rack Mount Kits

For convenience and flexibility, 4 rack mount kits are available.

Model No.	Bracket Type	Depth (cm)
KL1508AN, KL1516AN, KL1108VN, KL1116VN, KL1508AIN, KL1516AIN (19" LCD)	Standard Installation – Short (Standard)	42 – 77
	Standard Installation – Long (2X-010G)	68 – 105
	Easy Installation – Short (2X-011G)	63 – 70
	Easy Installation – Long (2X-012G)	74 – 105
KL1508AM, KL1516AM, KL1508AIM, KL1516AIM, (17" LCD)	Standard Installation – Short (Standard)	42 – 77
	Standard Installation – Long (2X-010G)	68 – 105
	Easy Installation – Short (2X-011G)	57 – 70
	Easy Installation – Long (2X-012G)	68 – 105

KL1508A / KL1516A

8/16-Port Cat 5 Dual Rail LCD KVM Switch with
Daisy-Chain Port

2nd Console	Computers
PS/2, USB	PS/2, USB, Sun, Serial
External Mouse	Expansion
USB	Daisy-Chain

KL1516A

Front

Rear

Highlights

- **Exclusive LED illumination light – designed by ATEN to illuminate the keyboard and touchpad to allow visibility in low-light conditions**
- Dual Rail housing with 1U-high design for convenient operation
- Daisy-chain up to 31 additional KVM switches to control up to 256 / 512 computers
- KVM adapter cables designed with automatic conversion to allow flexible interface combinations (PS/2, USB, Sun and serial) to control all computer types
- Two-level access security – administrator, user

Hardware
- Integrated Cat 5 KVM switch with 17" or 19" LED-backlit LCD monitor
- Space-saving RJ-45 connectors and Cat 5e/6 cabling
- Dual Rail – LED-backlit LCD monitor slides independently from the keyboard / touchpad
- Extra console port – manage computers connected to the switch from an external console (monitor, USB or PS/2 keyboard and mouse)

Management
- Adapter ID – adapter cable's configuration is stored on the adapter – no need to reconfigure the adapter when moving a server to a new port
- Multiple User Accounts – supports up to 10 user and 1 administrator accounts
- Three port selection methods: Pushbutton, Hotkey and OSD (On Screen Display)

Easy-to-Use Interface
- Station and port selectors with 7-segment LED displays are able to quickly switch to target computers
- Auto Scan Mode enables continuous monitoring of user-selected computers
- Broadcast Mode – operations simultaneously performed on all selected computers, such as software installation and upgrading, system wide shutdown, etc.
- Dedicated Invocation Keys – two dedicated keys are provided on the keyboard module to make it easy to invoke Hotkey Mode and the OSD

Setup ＞

External Console

KVM Adapter Cable

Cat 5e/6 cable

KL1516A (Rear)
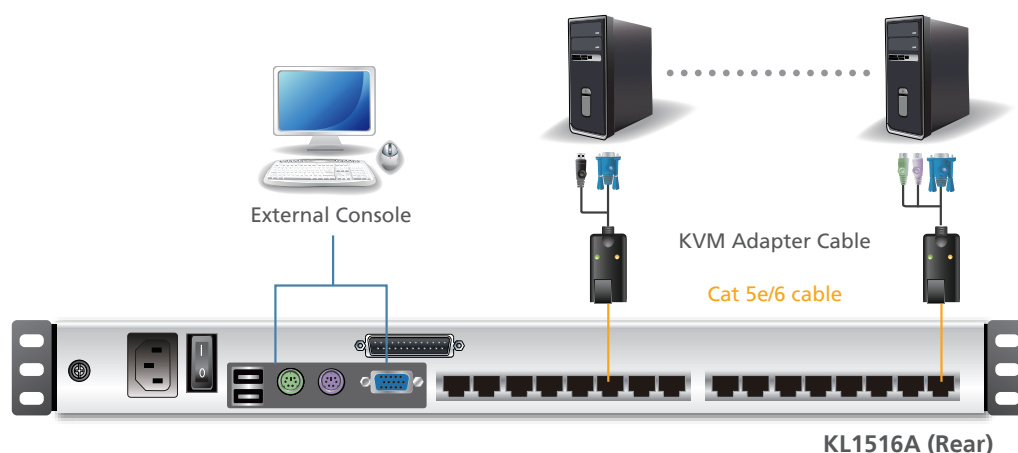
Specifications

Function	KL1508AM / KL1508AN	KL1516AM / KL1516AN
Computer Connections		
Direct	8	16
Maximum	256 (via Daisy-chain)*	512 (via Daisy-chain)*
Port Selection	OSD, Hotkeys, Pushbuttons	
Connectors		
Console Ports	2 x USB Type A Female 1 x 6-pin Mini-DIN Female (Purple) 1 x 6-pin Mini-DIN Female (Green) 1 x HDB-15 Female (Blue)	
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female
Daisy Chain Ports	1 x DB-25 Male	
Firmware Upgrade	1 x RJ-11 Female	
Power	1 x IEC 60320/C14	
External Mouse Port	1 x USB Type A Female	
LEDs		
Online	8 (Green)	16 (Green)
Selected	8 (Orange)	16 (Orange)
Power	1 (Blue)	
Station ID	1 x 2 Digit 7-segment (Orange)	
Lock	1 x Num Lock (Green) 1 x Caps Lock (Green) 1 x Scroll Lock (Green)	
LCD Power	1 (Orange)	
Input Video Resolution	1920 x 1200 @ 60Hz	
LCD Module	KL1508AM: 17" KL1508AN: 19"	KL1516AM: 17" KL1516AN: 19"
	1600 x 1200 @ 60 Hz (40 m); 1280 x 1024 @ 75 Hz (50 m)**	
Emulation		
Keyboard / Mouse	PS/2; USB (PC, Mac, Sun); Serial	
Maximum Input Power Rating	100-240V AC; 50-60Hz; 1A	
Power Consumption	KL1508AM: 100V/23.2W; 230V/24.4W KL1508AN: 100V/23W; 230V/23W	KL1516AM: 100V/24.5W; 230V/24.5W KL1516AN: 100V/23W; 230V/23W
Environmental		
Operating Temperature	0 - 40°C	
Storage Temperature	-20 - 60°C	
Humidity	0–80% RH, Non-condensing	
Physical Properties		
Housing	Metal	
Weight	KL1508AM: 15.19 kg (33.46 lb) KL1508AN: 15.35 kg (33.81 lb)	KL1516AM: 15.20 kg (33.48 lb) KL1516AN: 15.36 kg (33.83 lb)
Dimensions (L x W x H)	48.00 x 70.12 x 4.40 cm (18.9 x 27.61 x 1.73 in.)	
Carton Lot	1 pc	

Note: *Refer to page 9-1 for details on compatible KVM switches.
   **With KA7xxx series adapter cables.

Included Accessories

	KL1508A / KL1516A
Firmware Upgrade Cable	•
Power Cord	•
Standard Mounting Kit	•

Optional Accessories

Description	Part No. / Spec.	Page No.
Rack Mount Kits	Please refer to page 1-4	1-4
Daisy Chain Cables	2L-1700 (0.6 m); 2L-1701 (1.8 m); 2L-1703 (3 m); 2L-1705 (5 m); 2L-1715 (15 m)	8-6 K
KVM Adapter Cables	Please refer to page 8-2	8-2

Dual Rail LCD KVM Switch

KL1108V / KL1116V ⟩ 1-Local & 1-Remote User Access

8/16-Port Cat 5 Dual Rail LCD KVM over IP Switch with
Virtual Media (1920 x 1200)

2nd Console	Computers	External Mouse
USB	PS/2, USB	USB

KL1116V

Front

Rear

Highlights

- Exclusive LED illumination light – designed by ATEN to illuminate the keyboard and touchpad to allow visibility in low-light conditions
- Dual Rail housing with 1U-high design for convenient operation
- One bus for remote KVM over IP access via the LAN, WAN, or Internet
- Cascadable up to two levels – control up to 128 / 256 servers*
- Panel Array Mode™ – View the video output of up to 42 servers on one screen simultaneously
- Advanced security features include password protection and advanced encryption – TLS 1.2, RSA 2048-bit, 256-bit AES, 56-bit DES, 168-bit 3DES and 128-bit RC4
- Message Board for communication among remote users
- Integration with ATEN CC2000 Centralized Management Software & CCVSR Video Session Recording Software**
- PadClient provides instant, convenient, and secure remote access to control servers through your iPad. (available free on the Apple Store)***

Note:
*Refer to page 9-1 for details on compatible KVM switches.
**Refer to page 5-1, Management Software, for details.
***Please use the QR code below to download the PadClient App from the Apple Store.
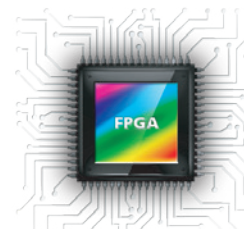
PadClient App

Exclusive Features:

- 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 HD resolution of 1920 x 1200

Hardware

- Integrated KVM console with 19″ LED-backlit LCD monitor in a dual rail housing
- Space-saving RJ-45 connectors and Cat 5e/6 cabling
- Dual Rail – LED-backlit LCD monitor slides independently from the keyboard / touchpad
- Extra console port – manage computers connected to the LCD KVM switch from an external console (monitor, USB keyboard and mouse)
- KVM adapter cables designed with automatic conversion to allow flexible interface combinations (PS/2, USB, Sun and serial) to control all computer types
- Dual Gigabit Ethernet Network Interface Controllers (NIC) provide complete and reliable network access

Management

- Up to 64 user accounts – up to 32 concurrent logins
- Remote power control for ATEN PDU devices
- Adapter ID – adapter cable's configuration is stored on the adapter – no need to reconfigure the adapter when moving a server to a new port
- Port Access Mode – Exclusive, Occupy, Share
- Customizable critical system event notification via SMTP email, SNMP trap, and Syslog support
- SNMP agent supports standard SNMP for device monitoring
- PPP mode (modem) dial-in/dial-out support for out-of-band and low bandwidth operations
- Event logging and Windows-based Log Server support
- Power Association enables the switch's KVM ports to be associated with ATEN PDU power outlets for remote power management of the servers from the switch's interface

Easy-to-Use Interface

- Auto Scan Mode enables continuous monitoring of user-selected computers
- Access via web browser, Windows Client and Java Client (works with all operating systems)
- Supports RADIUS, LDAP, LDAPS and MS Active Directory authentication
- Dedicated Invocation Keys – two dedicated keys are provided on the keyboard module to make it easy to invoke Hotkey Mode and the OSD
- Graphical OSD and toolbars provide convenient and user-friendly interface

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
- Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives, and ISO images
- Supports Smart Card/CAC Reader

Virtual Remote Desktop

- Adjustable video quality to deliver optimal video transfer speed and minimize network bandwidth
- Full screen or scalable video display
- Exit macros support

Setup ⟩
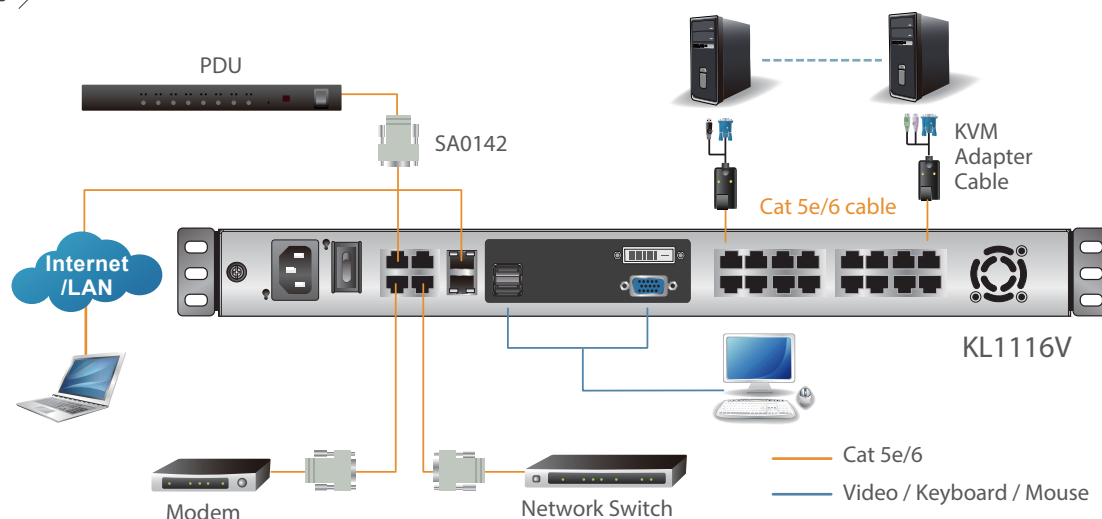
Specifications

Function	KL1108VN	KL1116VN
Computer Connections		
Direct	8	16
Maximum	128 (via Cascade)*	256 (via Cascade)*
Console Connections		
Local	1	
Remote	1	
Port Selection	OSD, Hotkeys, Pushbuttons	
Connectors		
Console Ports	2 x USB Type A Female (White) 1 x DVI-D Female (White) 1 x HDB-15 Female (Blue)	
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female
Power	1 x IEC 60320/C14	
External Mouse Port	1 x USB Type-A Female	
LAN Ports	2 x RJ-45 Female	
PON	1 x RJ-45 Female	
Modem	1 x RJ-45 Female	
Serial	2 x RJ-45 Female	
LEDs		
Online	8 (Green)	16 (Green)
Selected	8 (Orange)	16 (Orange)
Power	1 (Blue)	
Lock	1 x Num Lock(Green) 1 x Caps Lock(Green) 1 x Scroll Lock(Green)	
10/100/1000 Mbps	2 (Orange / Orange & Green / Green)	
LCD Power	1 (Orange)	
Video	1920 x 1200@60Hz	
LCD Module	KL1108VN: 19" (1280 x 1024@75Hz)	KL1116VN: 19" (1280 x 1024@75Hz)
Emulation		
Keyboard / Mouse	PS/2; USB	
Maximum Input Power Rating	100-240V AC; 50-60Hz; 1A	
Power Consumption	110V/29.0W; 220V/29.4W	110V/32.1W; 220V/32.4W
Environmental		
Operating Temperature	0 - 40°C	
Storage Temperature	-20 - 60°C	
Humidity	0–80% RH, Non-condensing	
Physical Properties		
Housing	Metal	
Weight	15.22 kg (33.52 lb)	15.28 kg (33.69 lb)
Dimensions (L x W x H)	48.00 x 70.12 x 4.40 cm (18.9 x 27.61 x 1.73 in.)	
Carton Lot	1pc	

Note: *Refer to page 9-1 for details on compatible KVM switches.

Included Accessories

	KL1108V / KL1116V
SA0142 Serial Adapters	2
Power Cord	•
Standard Mounting Kit	•

Optional Accessories

Description	Part No. / Spec.	Page No.
Rack Mount Kits	Please refer to page 1-4	1-4
KVM Adapter Cables	Please refer to page 8-2	8-2
Management Software	Please refer to page 5-1	5-1

KL1508AI / KL1516AI 〉 1-Local/Remote Share Access

8/16-Port Cat 5 Dual Rail LCD KVM over IP Switch with Daisy-Chain Port

2nd Console	Computers	External Mouse	Expansion
PS/2, USB	PS/2, USB, Sun, Serial	USB	Daisy-Chain

KL1516Ai

Front

Rear

Highlights

• Exclusive LED illumination light – designed by ATEN to illuminate the keyboard and touchpad to allow visibility in low-light conditions
• Dual Rail housing with 1U-high design for convenient operation
• One bus for remote KVM over IP access via the LAN, WAN, or Internet
• Daisy-chain up to 15 additional KVM switches to control up to 128/256 computers
• KVM adapter cables designed with automatic conversion to allow flexible interface combinations (PS/2, USB, Sun and serial) to control all computer types
• Panel Array Mode™ – View the video output of up to 42 servers on one screen simultaneously
• Advanced security features include password protection and advanced encryption – RSA 2048-bit, 256-bit AES, 56-bit DES, TLS 1.2, 168-bit 3DES and 128-bit RC4

Hardware

• Integrated Cat 5 KVM over IP Switch with 17" or 19" LED-backlit LCD monitor
• Space-saving RJ-45 connectors and Cat 5e/6 cabling
• Dual Rail – LED-backlit LCD monitor slides independently from the keyboard / touchpad
• Extra console port – manage computers connected to the switch from an external console (monitor, USB or PS/2 keyboard and mouse)

Management

• Up to 64 user accounts – up to 32 concurrent logins
• Adapter ID – adapter cable's configuration is stored on the adapter – no need to reconfigure the adapter when moving a server to a new port
• Port Access Mode – Exclusive, Occupy, Share

Easy-to-Use Interface

• Auto Scan Mode enables continuous monitoring of user-selected computers
• Access via web browser, Windows Client and Java Client (works with all operating systems)
• Supports RADIUS, LDAP, LDAPS and MS Active Directory authentication
• Dedicated Invocation Keys – two dedicated keys are provided on the keyboard module to make it easy to invoke Hotkey Mode and the OSD
• Graphical OSD and toolbars provide convenient and user-friendly interface

Remote User
External Console
KVM Adapter Cable
Cat 5e/6 cable
Internet /LAN

KL1516AI (Rear)
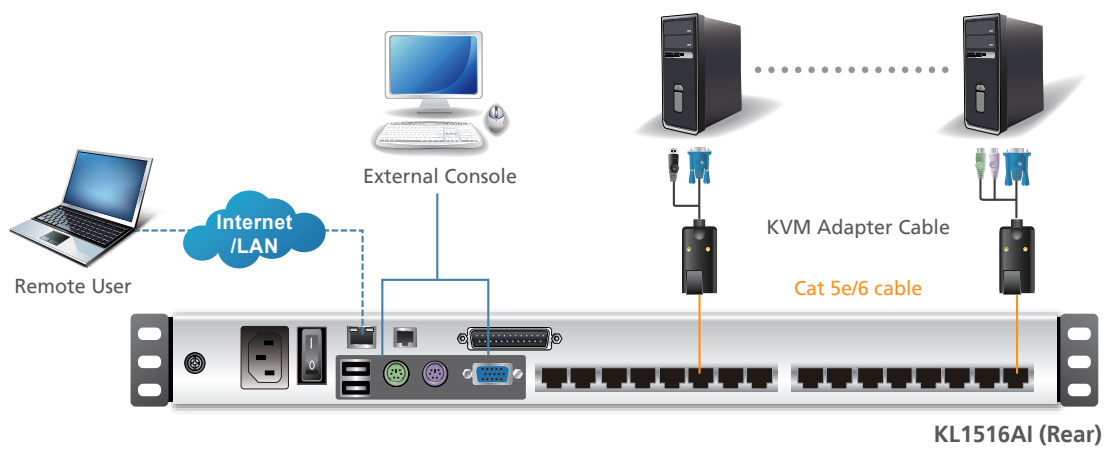
Included Accessories

	KL1508AI / KL1516AI
Firmware Upgrade Cable	•
Power Cord	•
Standard Mounting Kit	•

Optional Accessories

Description	Part No. / Spec.	Page No.
Rack Mount Kits	Please refer to page 1-4	1-4
Daisy Chain Cables	2L-1700 (0.6 m); 2L-1701 (1.8 m); 2L-1703 (3 m); 2L-1705 (5 m); 2L-1715 (15 m)	8-6 K
KVM Adapter Cables	Please refer to page 8-2	8-2
Management Software	Please refer to page 5-1	5-1

Dual Rail LCD KVM Switch

1

Specifications

Function	KL1508AIM / KL1508AIN	KL1516AIM / KL1516AIN
Computer Connections		
Direct	8	16
Maximum	128 (via Daisy-chain)*	256 (via Daisy-chain)*
Console Connections		
Local	1	
Remote		
Port Selection	OSD, Hotkeys, Pushbuttons	
Connectors		
Console Ports	2 x USB Type A Female 1 x 6-pin Mini-DIN Female (Purple) 1 x 6-pin Mini-DIN Female (Green) 1 x HDB-15 Female (Blue)	
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female
Daisy Chain Ports	1 x DB-25 Male	
Power	1 x IEC 60320/C14	
Firmware Upgrade	1 x RJ-11 Female	
External Mouse Port	1 x USB Type A Female	
LAN Ports	1 x RJ-45 Female	
PON	1 x RJ-45 Female	
LEDs		
Online	8 (Green)	16 (Green)
Selected	8 (Orange)	16 (Orange)
Power	1 (Blue)	
Station Selection	2 x 7 Segments (Orange)	
Lock	1 x Num Lock (Green) 1 x Caps Lock (Green) 1 x Scroll Lock (Green)	
Link	1 (Green)	
10/100 Mbps	1 (Orange / Green)	
LCD Power	1 (Orange)	
Video	FHD:1920 x 1200 @ 60Hz Non-FHD:1600 x 1200 @ 60Hz	
LCD Module	KL1508AIM: 17" / KL1508AIN: 19" (1280 x 1024 @ 75Hz)	KL1516AIM: 17" / KL1516AIN: 19" (1280 x 1024 @ 75Hz)
Emulation		
Keyboard / Mouse	PS/2; USB	
Maximum Input Power Rating	100–240V AC, 50-60Hz, 1A	
Power Consumption	KL1508AIM: 120V/27W; 230V/28W KL1508AIN: 120V/27.5W; 230V/27.5W	KL1516AIM: 120V/29W; 230V/30W KL1516AIN: 120V/27.5W; 230V/27.5W
Environmental		
Operating Temperature	0 - 40°C	
Storage Temperature	-20 - 60°C	
Humidity	0–80% RH, Non-condensing	
Physical Properties		
Housing	Metal	
Weight	KL1508AIM: 15.23 kg (33.55 lb) KL1508AIN: 15.39 kg (33.9 lb)	KL1516AIM: 15.24 kg (33.57 lb) KL1516AIN: 15.40 kg (33.95 lb)
Dimensions (L x W x H)	48.00 x 70.12 x 4.40 cm (18.9 x 27.61 x 1.73 in.)	
Carton Lot	1pc	

Note: *Refer to page 9-1 for details on compatible KVM switches.

Cat 5 KVM Switches

KH1508A / KH1516A / KH1532A • KH2508A / KH2516A

ATEN Altusen™ Cat 5 High-Density KVM Switches are designed to improve IT asset management by reducing costs and consolidating access and control of computer resources. The KVM switches feature a compact 1U high housing design, 8, 16 or 32 port configurations and control from up to two KVM consoles. They can also be daisy-chained to connect up to 1024 servers at a distance of up to 50 meters away.

The ATEN Altusen™ Cat 5 High-Density KVM Switches let you manage PS/2, USB, Sun and serial devices from one source. Various KVM adapter cables provide keyboard, video and mouse connectivity through a single Cat 5e/6 cable, which reduces cable bulk and saves money. The ATEN Adapter ID function makes server re-allocation easy by automatically assigning and retaining unique names and settings for each attached server.

In addition, administrators can easily connect and manage servers with the on-screen display (OSD), hotkey combinations and pushbuttons located on the switch. The powerful Auto Scan function allows users to scan all server activities running on the installation by interval setting or automatically scan one port at a time.

Flexible Deployment
Cat 5e/6 cables can extend your connection up to 50 meters. They also minimize cable clutter and eliminate the need to purchase additional KVM extenders.

Multi-Platform Integration
Windows, Mac, Sun, Linux and VT100 based serial devices can be easily managed from one solution by using KVM adapter cables.

Grow Your Business With Smart Investment
Effortlessly expand your growing network by using the existing switches and daisy-chain additional switches to control up to 1024 servers.

Working Smart
ATEN's unique Adapter ID function simplifies the server re-allocation reconfiguration procedures. All that is required is to move the server's adapter cable along with the server. When you move a server with its adapter cable from one port to another, the Adapter ID function retains all the settings at the new location.

Note: The features highlighted above are not available in all products. Please refer to each product page for more details. Product information is subject to change without prior notice.
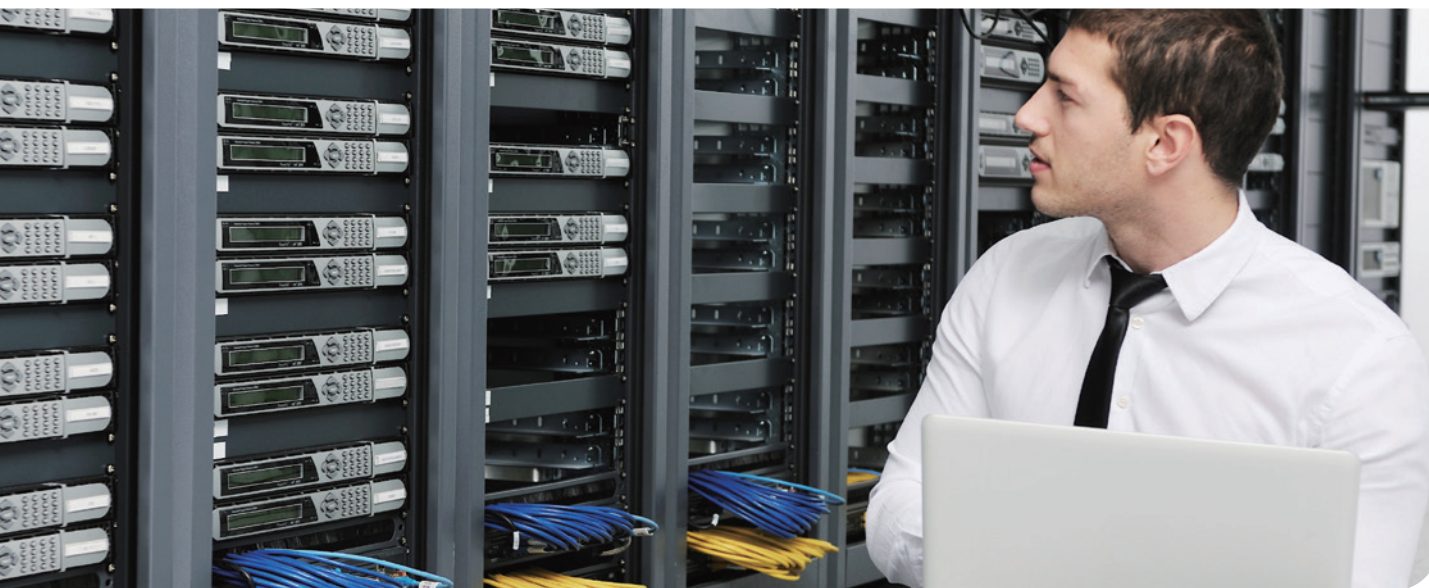
Comparison

Model		KH1508A / KH1516A / KH1532A	KH2508A / KH2516A
Console		1	2
Computer Connections	Direct	8 / 16 / 32	8 / 16
	Max.	256 / 512 / 1024 (Daisy-Chain)	128 / 256 (Daisy-Chain)
Port Selection		OSD, Hotkey, Pushbutton	
Computer	Connector	RJ-45	
	Support Interface	PS/2, USB, Serial*	
	Support Platform	Windows, Linux, Mac, Sun*	
Console Connectors		PS/2; USB; HDB-15	
Video		1920 x 1200 @ 60Hz (30m*); 1600 x 1200 @ 60Hz (40m*); 1280 x 1024 @ 75Hz (50m*)	

Note: *With KA7xxx series adapter cables.
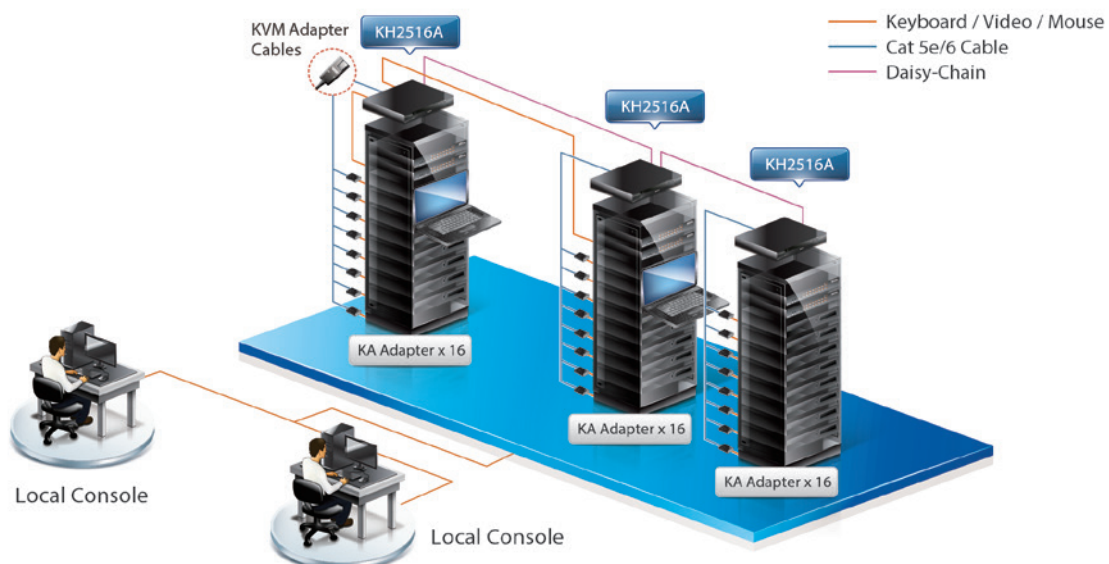
KH1508A / KH1516A / KH1532A

8/16/32-Port Cat 5 KVM Switch with Daisy-Chain Port

Console	Computers	Expansion
PS/2, USB	PS/2, USB, Sun, Serial	Daisy-Chain

KH1532A

Front

Rear

Highlights

- Daisy-chain up to 31 additional KVM switches for control of up to 256 / 512 / 1024 servers*
- Three port selection methods: Pushbutton (via front panel pushbuttons), Hotkey and OSD (On Screen Display)
- Two-level password security – supports one administrator and ten user profiles. Password protection prevents unauthorized access to the installation

Note: *Refer to page 9-1 for details on compatible KVM switches.

Hardware

- Space-saving RJ-45 connectors and Cat 5e/6 cabling
- KVM adapter cables designed with automatic conversion to allow flexible interface combinations (PS/2, USB, Sun and serial) to control all computer types

Management

- Adapter ID – adapter cable's configuration is stored on the adapter – no need to reconfigure the adapter when moving a server to a new port
- Multiple User Accounts – supports up to 10 user and 1 administrator accounts

Easy-to-Use Interface

- Broadcast Mode – operations simultaneously performed on all selected computers, software installation and upgrading, system wide shutdown, etc.
- Multilingual OSD support – English, German, Japanese, Simplified Chinese, Traditional Chinese, French, Spanish, Russian

Setup ⟩

Cat 5e/6 cable

KH1532A (Rear)

KVM Adapter Cable

Cat 5e/6 cable

KH1532A (Rear)

KVM Adapter Cable

External Console

Specifications

Function	KH1508A	KH1516A	KH1532A
Computer Connections			
Direct	8	16	32
Maximum	256 (via Daisy-chain)	512 (via Daisy-chain)	1024 (via Daisy-chain)
Port Selection	OSD, Hotkey, Pushbutton		
Connectors			
Console Ports	2 x USB Type A Female 1 x 6-pin Mini-DIN Female (Purple) 1 x 6-pin Mini-DIN Female (Green) 1 x HDB-15 Female (Blue)		
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female	32 x RJ-45 Female
Daisy Chain Ports	1 x DB-25 Female (Black) 1 x DB-25 Male (Black)		
Firmware Upgrade	1 x RJ-11 Female (Black)		
Power	1 x IEC 60320 / C14		
LEDs			
Online	8 (Green)	16 (Green)	32 (Green)
Selected	8 (Orange)	16 (Orange)	32 (Orange)
Power	1 (Blue)		
Station ID	1 x 2 Digit 7-segment (Orange)		
Video	1920 x 1200 @ 60 Hz (30 m*) 1600 x 1200 @ 60 Hz (40 m*) 1280 x 1024 @ 75 Hz (50 m*)		
Emulation			
Keyboard / Mouse	PS/2; USB		
Maximum Input Power Rating	100-240V AC; 50 / 60 Hz; 1A		
Power Consumption	120V / 5.8W; 230V / 6W	120V / 5.9W; 230V / 6.1W	110V / 4.6W; 220V / 4.8W
Environmental			
Operating Temperature	0 - 40°C		
Storage Temperature	-20 - 60°C		
Humidity	0–80% RH, Non-condensing		
Physical Properties			
Housing	Metal		
Weight	2.65 kg (5.84 lb)	2.67 kg (5.88 lb)	2.81 kg (6.19 lb)
Dimensions (L x W x H)	43.72 x 16.36 x 4.40 cm (17.21 x 6.44 x 1.73 in.)	43.72 x 16.36 x 4.40 cm (17.21 x 6.44 x 1.73 in.)	43.72 x 16.37 x 4.40 cm (17.21 x 6.44 x 1.73 in.)
Carton Lot	3 pcs		

Note: *With KA7xxx series adapter cables.

Included Accessories

	KH1508A / KH1516A / KH1532A
Firmware Upgrade Cable	•
Power Cord	•
Mounting Kit	•

Optional Accessories

Description	Part No. / Spec.	Page No.
Daisy Chain Cables	2L-1700 (0.6 m); 2L-1701 (1.8 m); 2L-1703 (3 m); 2L-1705 (5 m); 2L-1715 (15 m)	8-6 K
KVM Adapter Cables	Please refer to page 8-2	8-2

KH2508A / KH2516A

2-Console 8/16-Port Cat 5 KVM Switch with Daisy-Chain Port

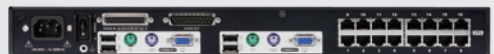|	
Console	Computers
PS/2, USB	PS/2, USB, Sun, Serial
	Expansion
	Daisy-Chain

KH2516A

Front

Rear

Highlights

- Two KVM consoles independently control up to 8 / 16 connected servers
- Daisy-chain up to 15 additional KVM switches for control of up to 128 / 256 servers*
- Three port selection methods: Pushbutton (via front panel pushbuttons), Hotkey and OSD (On Screen Display)
- Two-Level Password Security – supports one administrator and ten user profiles. Password protection prevents unauthorized accessing to the installation

Note: *Refer to page 9-1 for details on compatible KVM switches.

Hardware

- Space-saving RJ-45 connectors and Cat 5e/6 cabling
- KVM adapter cables designed with automatic conversion to allow flexible interface combinations (PS/2, USB, Sun and serial) to control all computer types

Management

- Adapter ID – adapter cable's configuration is stored on the adapter – no need to reconfigure the adapter when moving a server to a new port
- Multiple User Accounts – supports up to 10 user and 1 administrator accounts

Easy-to-Use Interface

- Broadcast Mode – operations simultaneously performed on all selected computers, software installation and upgrading, system wide shutdown, etc.
- Multilingual OSD support – English, German, Japanese, Simplified Chinese, Traditional Chinese, French, Spanish, Russian

Setup ⟩

Cat 5e/6 cable

KH2516A (Rear)

KVM Adapter Cable

Cat 5e/6 cable

KH2516A (Rear)

KVM Adapter Cable

External Console   External Console

Cat 5 KVM Switch

Specifications

Function	KH2508A	KH2516A
Computer Connections		
Direct	8	16
Maximum	128 (via Daisy-chain)	256 (via Daisy-chain)
Port Selection	OSD, Hotkey, Pushbutton	
Connectors		
Console Ports	4 x USB Type A Female	
	2 x 6-pin Mini-DIN Female (Purple)	
	2 x 6-pin Mini-DIN Female (Green)	
	2 x HDB-15 Female (Blue)	
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female
Daisy Chain Ports	1 x DB-25 Female (Black) 1 x DB-25 Male (Black)	
Firmware Upgrade	1 x RJ-11 Female	
Power	1 x IEC 60320/C14	
LEDs		
Online	8 (Green)	16 (Green)
Selected	8 (Orange)	16 (Orange)
Console	2 (Orange)	
Power	1 (Blue)	
Station ID	1 x 7-segment LED display (Orange)	
Video	1920 x 1200 @ 60 Hz (30 m*) 1600 x 1200 @ 60 Hz (40 m*) 1280 x 1024 @ 75 Hz (50 m*)	
Emulation		
Keyboard / Mouse	PS/2; USB	
Maximum Input Power Rating	100–240 V AC; 50/60 Hz; 1A	
Power Consumption	120V/7.2W; 230V/8.6W	120V/7.6W; 230V/9.0W
Environmental		
Operating Temperature	0-50°C	
Storage Temperature	-20-60°C	
Humidity	0-80% RH, Non-condensing	
Physical Properties		
Housing	Metal	
Weight	2.81 kg (6.19 lb)	2.85 kg (6.28 lb)
Dimensions (L x W x H)	43.72 x 15.58 x 4.40 cm (17.21 x 6.13 x 1.73 in.)	
Carton Lot	3 pcs	

Note: *With KA7xxx series adapter cables.

Included Accessories

	KH2508A / KH2516A
Firmware Upgrade Cable	•
Power Cord	•
Mounting Kit	•

Optional Accessories

Description	Part No. / Spec.	Page No.
Daisy Chain Cables	2L-2700 (0.6 m); 2L-2701 (1.8 m); 2L-2703 (3 m); 2L-2705 (5 m); 2L-2715 (15 m)	8-6 L
KVM Adapter Cables	Please refer to page 8-2	8-2

Matrix KVM Switches

KM0932 • KM0532

Console Modules / KA7240 • KA7230 • KA7240S • KA7230S

ATEN Altusen™ Matrix KVM Switches are reliable, secure and provide multiple server control. With quick access and flexible expansion, Matrix KVM Switches offer high quality video with easy, real-time control of your entire data center.

ATEN Altusen™ Matrix KVM Switches provide superb video quality, transmitting signals via Cat 5e/6 cables. Seamless video output is created with automatic skew compensation and ATEN's Auto Signal Compensation (ASC) technology. The switch supports a video resolution of up to 1280 x 1024 @ 60Hz for 300 meters. The industry's first full screen graphical user interface offers a tree view list of installed devices – providing smooth navigation and convenient access to all servers.

The ATEN Altusen™ KM0932 / KM0532 is the first Matrix KVM Switch to offer both audio and virtual media features. With audio enabled, the sound output of servers allows administrators to identify and troubleshoot problems easily. The sound capability is ideal for presentation and media applications. The Virtual Media function allows USB storage devices to be shared among all the servers. Operators can perform file transfers, install applications and OS patches from a single console – reducing down-time and saving costs.

With high availability, reliability, integration and security, the ATEN Altusen™ Matrix KVM Switch is the best solution for large server rooms and data centers. The ATEN Altusen™ Matrix KVM Switches are designed with dual power supplies for redundancy to minimize downtime and ensure the highest level of availability for server rooms and data centers.

Cut Costs – Save Space – Eliminate Cable Clutter

ATEN Altusen™ Matrix KVM Switches can connect up to 9 consoles to manage up to 32 servers, while only taking up 1U of rack space. With RJ-45 connectors for the KVM ports and adapter cables for the link, only a single Cat 5e/6 cable is required to provide complete KVM connectivity to each device. This not only eliminates the tangled mess and bulk of traditional KVM connections but also saves the cost that traditional cabling entails. It also allows you to extend the distance between the console and servers up to 300 meters with a 1280 x 1024 @ 60Hz video resolution.

Clear Intuitive Interface

ATEN Altusen™ Matrix KVM Switches offer an intuitive full screen user interface for both console and browser-based sessions. All ports are displayed in a simple tree view – providing efficient access, administration and control of your entire installation. The GUI is consistent across all ATEN Altusen™ products, which saves on training and costs to increase efficiency.

Note: The features highlighted above are not available in all products. Please refer to each product page for more details. Product information is subject to change without prior notice.

Incremental KVM Switch Expansion

ATEN Altusen™ Matrix KVM Switches allow you to reap the benefits of high-end KVM switching. You can start out purchasing only the number of switches you require to manage your servers. As your server installation grows, your KVM switch investment is protected because additional switches can easily be added. Flexible expansion configurations allow up to 9 consoles to control hundreds of servers. Cascading KVM switches offers cost-saving expansions – since the switches are less expensive.
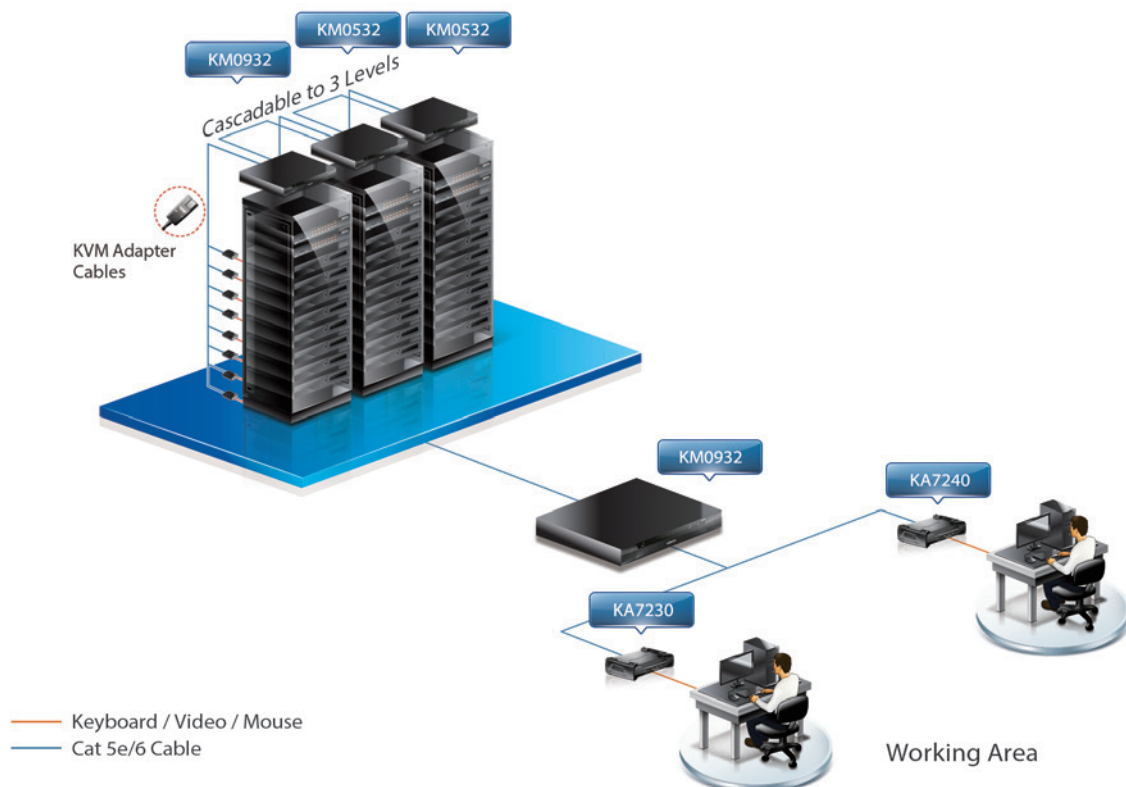
Integrated Power Management

Used in conjunction with an ATEN power management device, administrators have the convenience of a single interface for both KVM and power management control of the servers. Once an association has been made, the power status of the server can be controlled from the switch's interface – saving the inconvenience of having to open a separate session to manage the server's power status. If any of servers have a dual power supply, you can associate a second outlet – a synchronization feature that allows you to correlate the power management operation of both power supplies, reducing maintenance and administration time.

Superior Video Quality

ATEN Altusen™ Matrix KVM Switches transmit their video signals via Cat 5e/6 cable, providing superior video quality. The outstanding video output is achieved through the incorporation of several key features – ATEN's unique Auto Signal Compensation (ASC), storing EDID information on the server's adapter cable and ATEN's patented Deskew technology – which automatically synchronizes the time delay of RGB signals and corrects the color phase and timing errors that occur over long distances to provide clear, sharp, optimized video to remote displays – making the Matrix KVM Switch an excellent choice for video intensive applications.

Effortless Port Access and Control

Several design functions built into ATEN Altusen™ Matrix KVM Switches make accessing and managing any device on the installation almost effortless – no matter how many servers are deployed. For example, the Console Selector function allows administrators to set up a connection between a console and selected ports for quick and easy access to critical servers. The Push Video hotkey lets an operator push the console's port connection to a different console so another operator can take over.

Flexible Re-Deployment

With the Matrix KVM Switch Adapter ID Function, moving servers to a new location no longer means going through the hassle of reconfiguring the settings and recreating user authorization. All that is required is to move the server's adapter cable along with the server. When you move a server together with its adapter cable from one port to another, the Adapter ID function restores all the settings at the new location.

Note: The features highlighted above are not available in all products. Please refer to each product page for more details. Product information is subject to change without prior notice.

Comparison

Function		KM0932	KM0532
Computer Connections	Direct	32	
Console Connections		9	5
Port Selection		GUI, Hotkey	

- KA7230 / KA7230S
  PS/2-USB Console Module

  - PS/2 and USB interface
  - RS-232 port
  - Dual RJ-45 ports
  - External PC port

- KA7240 / KA7240S
  Virtual Media PS/2-USB Console Module

  - PS/2 and USB interface
  - RS-232 port
  - Dual RJ-45 ports
  - External PC port
  - Virtual Media port
  - Audio ports
  - Superior RGB Deskew function
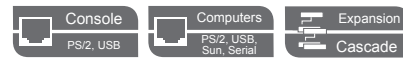
- KVM Adapter Cables
  (Page 8-2)

Note: Refer to page 3-6 for details on specifications

KM0932 / KM0532

9/5-Console 32-Port Matrix KVM Switch

Console	Computers	Expansion
PS/2, USB	PS/2, USB, Sun, Serial	Cascade

KM0932

Front

Rear

Highlights

- Flexible expansion – the installation can grow as your needs grow: up to 3 levels of KVM switches can be cascaded from a master switch
- Console expansion support – allows up to 18 consoles to access the servers by connecting KA7178 Dual Output KVM Adapter Cables
- MultiView supports grouping for single port access to a computer connected to multiple ports utilizing multiple video cards
- Stores EDID information for updates on KVM adapters for optimum display resolutions
- RS-232 port login permits an administrator to control KVM port access for all consoles connected to the switch – any console can be assigned access to any KVM port from a single interface point

3

Matrix KVM Switch

Hardware
- Dual power supply for fail-safe reliability

Easy-to-Use Interface
- Embedded web interface for easy system configuration and management
- Composite tree view – all connected devices displayed in a single device tree for convenient management and control
- The port list automatically expands when stations are added – port names are automatically reconfigured when the station sequence changes
- Multilingual user interface – English, German, Japanese, Korean, Russian, Simplified Chinese, Traditional Chinese
- Simplified OSD mode sets limited functionality for all user level accounts

Convenient Port Operation
- Port level access control – users can only access the ports they have been authorized for – whether in a single-station or multi-stage installation
- Users can access features on multiple computers simultaneously
- Port operation modes for flexible server management:
  1) Scan – provides automatic monitoring of user-selected computers
  2) Exclusive – allows the first user to access a port exclusive viewing rights and control over the port for as long as it's accessed
  3) Occupy – allows the first user to access a port to have control of that port while others can only view it
  4) Share – allows multiple users to access and control a port at the same time on a cooperative basis
- Broadcast Mode – operations simultaneously performed on all selected computers, such as software installation and upgrading, system wide shutdown, etc.
- Push Video hotkey allows a user to push their console's port connection to another console for viewing or operating
- Console Selector allows administrators the ability to force multiple consoles to connect to selected ports

Management

• Supports up to 1024 user and 255 group accounts
• Three level password security: super administrator, administrator, user
• Stringent password policy features that include password expiration, required password changes, account disabling and account expiration
• Disable Login OSD Mode allows non-authenticated logins
• Disable RS-232 Login Mode allows non-authenticated serial terminal logins
• Power Association enables the KVM ports to be associated with a PDU for remote power management of the servers from the switch
• Session Management – the Kill Session function provides administrators the ability to force user logouts
• Backup and restore of settings and user account information
• Firmware upgrades can be performed simultaneously on daisy chained and cascaded slave switches as well as connected adapter cables
• Adapter ID – adapter cable's configuration is stored on the adapter – no need to reconfigure the adapter when moving a server to a new port
• Supports Log Server and Syslog Server
• Remote authentication supports: RADIUS, LDAP, TACACS+, TACACS, LDAPS, and MS Active Director

Virtual Media

• Virtual Media support lets you map storage media to servers that are connected to the switch allowing operators to conduct file transfers, install applications and OS patches, and perform diagnostics from a single console
• Works on USB enabled servers at the operating system and BIOS levels

Audio & Video

• Local display automatically adjusts to fit the resolution of the remote server
• Auto Signal Compensation (ASC) assures optimum video resolutions for distances up to 300m between computers and consoles – no DIP switch setting required
• Enhanced video quality via automatic skew compensation with the KA7240 / KA7240S console module and newer KVM adapter cables*
• Multicast Audio gives multiple console access to the audio being broadcast by a single KVM port

Note: *With KA7xxx series adapter cables.

Setup >

Port Expansion
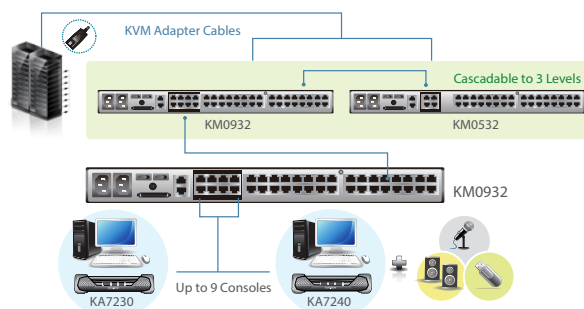
Console Expansion
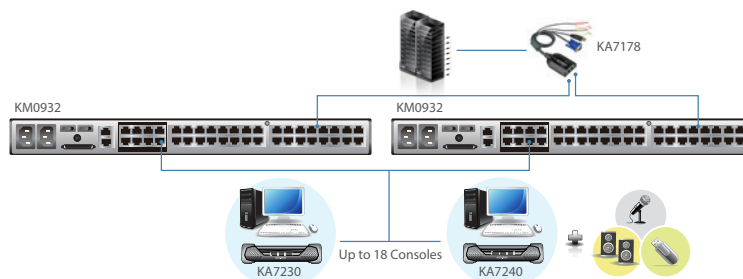
Included Accessories

	KM0532 / KM0932
Power Cords	2
Mounting Kit	•

Optional Accessories

Description	Part No. / Spec.	Page No.
Console Modules	• KA7230 / KA7230S PS/2-USB Console Module • KA7240 / KA7240S Virtual Media PS/2-USB Console Module	3-3
KVM Adapter Cables	Please refer to page 8-2	8-2

Specifications

Function	KM0532	KM0932
Computer Connections	32	
Console Connections	5	9
Port Selection	GUI, Hotkey	
Connectors		
Console Ports	5 x RJ-45 Female	9 x RJ-45 Female
KVM Ports	32 x RJ-45 Female	
Daisy Chain Ports	1 x VHDCI 68 Female (Black)	
LAN Ports	1 x RJ-45 Female	
PON	1 x RJ-45 Female	
Power	2 x IEC 60320/C14	
Video	1280 x 1024 @ 60Hz (300m max.)	
Maximum Input Power Rating	100–240V~, 50/60 Hz; 1A	
Power Consumption	120V/45W; 240V/46W	120V/50W; 240V/51W
Environmental		
Operating Temperature	0 - 50°C	
Storage Temperature	-20 - 60°C	
Humidity	0-80% RH, Non-condensing	
Physical Properties		
Housing	Metal	
Weight	6.07 kg (13.37 lb)	6.08 kg (13.39 lb)
Dimensions (L x W x H)	43.84 x 41.09 x 4.40 cm (17.26 x 16.18 x 1.73 in.)	
Carton Lot	1 pc	

Function	KA7230	KA7230S	KA7240	KA7240S
Computer Connections	1			
Console Connections	1			
Port Selection	GUI, Hotkey			
Connectors				
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)			
Local Computer KVM Port	1 x SPHD-17 Female (Yellow)			
Virtual Media	N/A		1 x USB Type A Female (White)	
KVM Switch Ports	2 x RJ-45 Female			
RS-232	1 x DB-9 Male (Black)			
Audio	N/A		2 x Mini Stereo Jack Female (Green) 2 x Mini Stereo Jack Female (Pink)	
Power	1 x DC Jack			
Video	1280 x 1024 @ 60Hz (300m max.)	1280 x 1024 @ 60Hz (200m max.)	1280 x 1024 @ 60Hz (300m max.)	1280 x 1024 @ 60Hz (200m max.)
Emulation				
Keyboard / Mouse	PS/2; USB (PC, Sun, Mac)			
Power Consumption	DC5.3V, 6.5W		DC5.3V, 10.12W	
Environmental				
Operating Temperature	0 - 50°C			
Storage Temperature	-20 - 60°C			
Humidity	0-80% RH, Non-condensing			
Physical Properties				
Housing	Metal			
Weight	1.22 kg (2.69 lb)		1.26 kg (2.78 lb)	
Dimensions (L x W x H)	22.71 x 17.15 x 5.48 cm (8.94 x 6.75 x 2.16 in.)			
Carton Lot	5 pcs			

KVM over IP Matrix System

CCKM KE Matrix Management Software • KE8950 / KE8952 • KE6900 / KE6940 •
KE8900S • KE9900ST • KE6900ST

The ATEN Altusen™ KVM over IP Matrix System is an innovative solution that combines KVM over IP Extenders (KE8950, KE8952, KE6900, KE6940, KE8900S, KE9900ST, KE6900ST) with the KE Matrix Management Software (CCKM) to extend, control and monitor access to computers across an independent network in a multitude of ways. The system lets you set up a matrix of workstations that access computers across a network with the flexibility to configure each connection for the seamless data flow required for any and all applications.

The KVM over IP Extenders are installed at computers and workstations, and are configured via the KE Matrix Management Software (CCKM) to create connections between them over a LAN. Extender setups can be configured for one-to-one, one-to-many, many-to-one, and many-to-many connections. Whether you're extending computer access for Monitoring, Broadcasting, Editing or Workstation setups, the KVM over IP Matrix System gives you the flexibility and control to manage one or hundreds of extended connections.

Effortless over IP Digital Media Extension
Eliminates the distance restrictions of control room management; enables a faster response to mission-critical data center emergencies; all models support unlimited distances via Cat 5e/6 over a LAN, while the KE89xx also support connectivity via a SFP fiber optic transceiver module over an optical Ethernet network.

Exceptional Video Quality up to 4K
ATEN's KE series delivers high-definition images up to 3840x2160 @ 30HZ (KE89xx) at 36-bit color depth / 1920x1200 @ 60Hz (KE69xx) at 24-bit color depth for stunning colors and razor-sharp video quality even with the most intense video streams.

Powerful Centralized Management
ATEN's KE Matrix Management Software (CCKM) makes it easy to define connections and manage all KE devices over a network with a new intuitive user-friendly web based GUI; administrators can set three permission types – Admin., Super User, and User, to meet user access requirements.

Fast Switching
ATEN's unique Fast Switching technology features instant switching between different video resolutions providing immediate viewing of critical information for video surveillance or monitoring applications.

Unbeatable Video Wall Versatility
With unprecedented video quality and unmatched resolutions, the native video wall functionality allows users to create multiple video walls with up to 8 x 8 displays in each layout in various configurations, offering outstanding flexibility and scalability without need for a separate video wall processor.

Secure Data Transmission
The KVM over IP Extender utilizes AES-128 bit encryption to secure all data before it's transmitted over a network and decrypts the data on the receiver.

Comparison

Model	KE8950	KE8952	KE6900	KE6940	KE8900S	KE9900ST	KE6900ST
Support Interface	HDMI	HDMI	DVI-I	2*DVI-I	HDMI	DisplayPort	DVI-D
Max. Video Resolution	3840 x 2160 @30Hz	3840 x 2160 @30Hz	1920 x 1200 @60Hz	1920 x 1200 @60Hz	1920 x 1200 @60Hz	1920 x 1200 @60Hz	1920 x 1200 @60Hz
HDCP	1.4	1.4	N/A	N/A	1.4	1.4	N/A
Audio	•	•	•	•	N/A	N/A	N/A
Mouse Emulation	•	•	•	•	•	•	•
Tx Local Console	•	•	•	•	N/A	N/A	N/A
Fast Switching*	•	•	•	•	•	•	•
Dual Video Output	N/A	N/A	N/A	•	N/A	N/A	N/A
Video Wall*	•	•	•	•	•	•	•
RS-232	•	•	•	•	•	•	•
OSD	•	•	•	•	•	•	•
Virtual media	•	•	•	•	•	•	•
Virtual USB	•	•	•	•	N/A	N/A	N/A
PoE	N/A	•	N/A	N/A	N/A	N/A	N/A
LAN	1 Gbps	1 Gbps	1 Gbps	1 Gbps	1 Gbps	1 Gbps	1 Gbps
Network Interface	RJ45 (SFP)	RJ45 (SFP)	RJ45	RJ45	RJ45	RJ45	RJ45

Note: *Supported by KE Matrix Management Software (CCKM)

KVM over IP Matrix System

Software

Hardware

KE Matrix Management
Software (CCKM)

KVM over IP Extenders
(KE99 / 89 / 69 series)

CCKM
KE Matrix Management Software
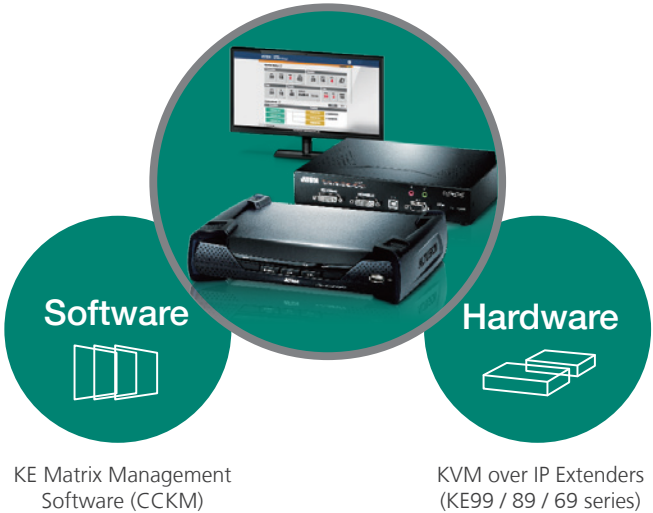
Highlights

- Software-based to manage, configure, and control KE Matrix Systems
- Versatile functionality – KVM Switches, Computer Sharing Devices, Matrix Systems, Extenders
- Install Wizard to add new devices instantly
- Diversified Video Applications: One to One, Multi-displays, 8 x 8 Video Wall and Virtual Transmitter
- Previews all transmitters' video content
- Instant link allows users to select or drag/drop to different transmitters
- Integrate with VK Series control system via RS232 and Telnet
- Boundless Switching – simply move the mouse cursor across screen boundaries to switch between different receivers
- Intuitive Dashboard – Administrators can easily know system status, device connections, scheduled profiles, and user sessions
- Anonymous Login – allows users to login without authentication
- Allows users to copy and paste configurations to other devices
- Enables users to replace devices that go down and copy the settings of the original devices
- Video Wall Layout Selection: Video Wall / Splitter / Customized
- Independently stream HDMI audio signals to either digital or analog audio interfaces

Management

- Centralized control of all your KE8950 / KE8952 / KE6900 / KE6940 / KE8900S / KE9900ST / KE6900ST devices
- Profiles can save reserved connections for current operation or scheduling
- User account authentication and management
- Filter and export function for system logs
- Email notification of specified system events
- Fast switching within 0.3 seconds
- Redundancy settings enable users to set primary and secondary servers. The secondary server automatically replaces the primary server if it goes down

Intuitive User Interface

- Multi-platform installation support: Windows / Linux
- Multi-platform client support (Windows, Mac OS X, Linux, Sun)
- Multi-browser support: Internet Explorer, Chrome, Firefox, Safari, Opera
- Browser-based GUI offers a multi-language interface to improve the efficiency and increase productivity

Advanced Security

- Powerful security features include both internal and external authentication – external authentication supports LDAP, Active Directory, RADIUS, and TACACS+
- Supports TLS 1.2 data encryption and RSA 2048-bit certificates to secure users log in from browser

Install Wizard

The install Wizard can auto-detect the KE devices in the LAN and auto assign the device IP addresses, names, and permissions.
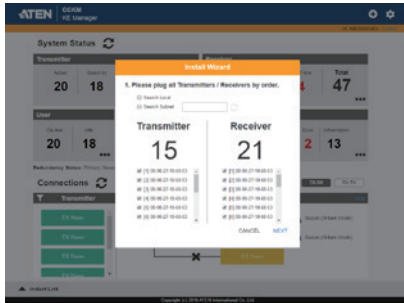
Dashboard

The Dashboard provides a view of the KE Tx/Rx connections, scheduled profile, user login sessions and online Tx/Rx devices at a glance. With Dashboard, users will be in the center of the information and monitor all data simultaneously, within easy reach.

Configuration

The Configuration provides five tabs: **Transmitter, Receiver, User Account, Profile, and Log**.

Transmitter and Receiver: Offer an easy way to add, configure, locate and manage the devices' settings.

User account management: Used to create different user account levels. Enhanced Password Rule provides advanced security.

Profile: Advanced Scheduling improves efficiency and saves costs by allowing connections to be set based on time and date. In addition, the Profile saves and reserves unlimited Tx to Rx device connections.

Log: Offers flexible logging and reporting options with audit trails for diagnostics and troubleshooting. Powerful search functions and extensive sorting and filtering of log categories that quickly pinpoint the events you are searching for are also provided. Complete logs, as well as log search results, can be exported for audit and analysis.

Preview
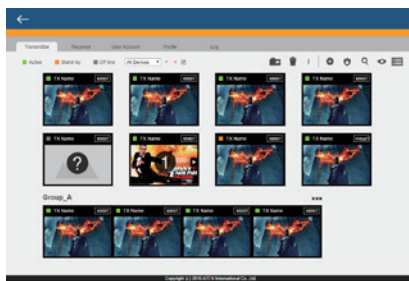
Rx Setting
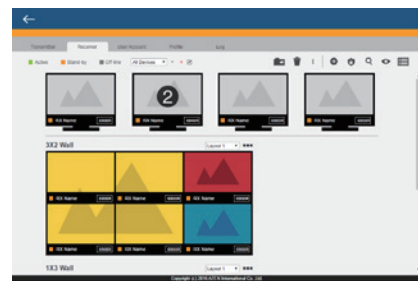
Instant Link

The Instant Link provides real-time connections, allowing users to select or drag/drop to different transmitters.
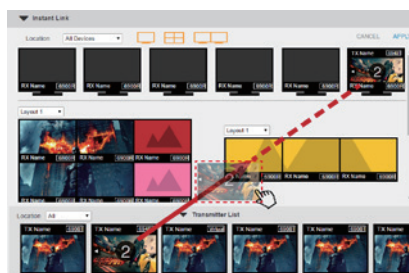
Global Setting

The Global Setting Page is used to configure the KE Matrix manager's general settings, allowing you to configure secondary server for redundancy and remote authentication (RADIUS, LDAP, AD, TACACS+). The page can also be used to back up and restore settings, as well as being used for firmware upgrades. Additionally, with its automated CSR creation utility and third party certificate authentication, ultimate security can be ensured.

KE8950 / KE8952

4K HDMI Single Display KVM over IP Extender

KE8952

Front

Rear

Highlights

- Flexible connections – allows multiple extender and matrix connections for multi-display installations and video wall applications
- Supports HDMI video output - providing a greatly improved video display image with 4K x 2K video resolution (up to 3840 x 2160)
- Supports 1Gbps SFP fiber module expansions
- Supports Power over Ethernet (PoE) function (KE8952 only)
- Local console for emergency operation
- "Push" and "Pull" – share content instantly by just one click
- Fast Switching – switch between different remote video resolutions on a local display within 0.3 seconds
- Centralized KE series management software – KE Matrix Management Software (CCKM)* allows users to easily administer all KE devices with an intuitive web based GUI

Note: *Refer to page 4-3 for details.

Hardware

- Ultra High Definition (UHD) video quality – up to 3840 x 2160 @ 30Hz (4:4:4); 36-bit color depth
- Supports interlaced video format
- Supports standard HDMI resolutions from 640 x 480 up to 3840 x 2160
- Supports stereo speakers and stereo microphone
- Virtual Media or vUSB Support
- Compliant with HDMI 1.4a and HDCP 1.4
- Auto-MDIX – automatically detects cable type
- Built-in 8KV/15KV ESD protection and 1KV surge protection
- Fanless design for silent operations that are energy efficient
- Rack Mountable – Mounting options:
(1) 2X-021G Dual Rack Mount Kit*
(2) 2X-031G Single Rack Mount Kit*
- Supports connection via Gigabit Ethernet port or SFP Port**
- Supports Power over Ethernet (PoE) function – compliant with the IEEE 802.3at standard (KE8952 only)
Note: *Refer to www.aten.com for more details.
  **SFP modules are required for fiber network connection.

Management

- Dual console operation – control your system from both the transmitter's and receiver's keyboard, monitor, and mouse consoles
- OSD (On Screen Display) on the Receiver configures both Tx / Rx devices
- EDID Expert™ – selects optimum EDID settings to prevent video compatibility issue caused by different monitors
- On-screen Preview – allows users to view the video of up to 36 displays on one screen
- Video Compression Level – allows you to increase/decrease the video quality to adjust for appropriate network bandwidth
- CLI – administrators can control all KE devices via RS-232 or Telnet by issuing commands
- RS-232 serial ports – allow you to connect to a serial terminal for TextMenu, CLI, or serial devices such as touch screens and barcode scanners
- Flashing LED and beeping features help locate and identify devices
- Compatible with all KE devices

Security

- Dedicated LAN port for KE direct connections – can be isolated from the corporate network
- Secure data transmission – AES encryption to secure Video / Keyboard / Mouse / Data transmission
- Support industry standard Transport Layer Security (TLS) protocol

Virtual Media
- Virtual Media mode enhances data transmission performance, ideally for file transfers, OS patching, software installations and diagnostic testing
- Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives and ISO images
- Supports Smart Card/CAC Reader

Advanced Features***
- Video Walls – create multiple video walls with up to 8 x 8 (64 displays max.) in each layout
- Advanced Scheduling – improves efficiency and saves costs by allowing connections to be set based on time and date
- Virtual Transmitter – to stream video, audio, USB and serial sources independently
- Supports both internal and external authentication – external authentication supports LDAP, Active Directory, RADIUS and TACACS+
- Advanced User Authorization Settings – administrators can set four access modes of permissions on Tx devices for collaboration or to avoid interference among users
- Configurable user and group permissions for access and control of KE devices
- Video grouping of up to 4 sets of KE series devices to support Multi-Display applications

Note: ***These advanced functions are supported when the KE devices are managed by KE Matrix Management Software (CCKM)

Setup ⟩

KE8952T (Rear)

KE8952T (Front)

* Power can be supplied through a PoE Network Switch (no need for a power adapter).

KE Matrix Management Software Server (Primary)

KE Martrix Management Software Server (Secondary)

LAN GbE Switch with IGMP & PoE

KE8950R   KE8950R   KE8950R   Front

SFP Modules

2A-136G
Fiber Multi-Mode 1.25G SFP Transceiver Module

- 1 GbE connectivity up to 550 meters
- Operates at a nominal wavelength of 850 nm
- Hot pluggable

2A-137G
Fiber Single-Mode 1.25G SFP Transceiver Module

- 1 GbE connectivity up to 10 kilometers
- Operates at a nominal wavelength of 1310 nm
- Hot pluggable

Note: Refer to page 4-7 for details on specifications

Specifications

Function	KE8950R	KE8952R	KE8950T	KE8952T
Connectors				
Virtual Media	2 x USB Type A Female (White)		N/A	
Console Ports	2 x USB Type A Female (White) 1 x HDMI Female (Black) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Male (Black)			
KVM Ports	N/A		1 x USB Type B Female (White) 1 x HDMI Female (Black) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Female (Black)	
Power	1 x DC Jack (Black)			
LAN Ports	1 x RJ-45 (Black)	1 x RJ-45 (Black,PoE)	1 x RJ-45 (Black)	1 x RJ-45 (Black,PoE)
	1 x SFP Slot			
LEDs				
10/100/1000 Mbps	1 (10: Orange / 100: Orange & Green / 1000: Green)			
Power	1 (Blue)			
Local	1 (Green)			
Remote	1 (Green)			
Video Resolution	Up to 3840 x 2160 @ 30Hz			
Emulation				
Keyboard / Mouse	USB			
Power Consumption	DC 5V/5.65W		DC 5V/7.22W	
Environmental				
Operating Temperature	0–50°C			
Storage Temperature	-20–60°C			
Humidity	0–95% RH, Non-condensing			
Physical Properties				
Housing	Metal			
Weight	1.23 kg (2.71 lb)	1.26 kg (2.78 lb)	1.10 kg (2.42 lb)	1.13 kg (2.49 lb)
Dimensions (L x W x H)	22.75 x 17.16 x 5.48 cm (8.96 x 6.76 x 2.16 in.)		21.50 x 16.29 x 4.18 cm (8.46 x 6.41 x 1.65 in.)	
Carton Lot	3 pcs			

Function	2A-136G	2A-137G
Fiber Optics		
Data Rate	1.25 Gbps	
Operating Distance	550 m	10 km
Fiber Type	Multi Mode	Single Mode
Environmental		
Operating Temperature	0-70°C	
Storage Temperature	-40-85°C	
Physical Properties		
Weight	0.02 kg (0.04 lb)	
Dimensions (L x W x H)	5.59 x 1.46 x 1.30 cm (2.2 x 0.57 x 0.51 in.)	
Carton Lot	10 pcs	

Included Accessories

	KE8950 / KE8952
Power Adapters*	2
USB HDMI KVM Cable**	•
HDMI LockPro	2
Mounting Kit**	•

*This accessory is only included with KE8950 models
**These accessories are only included with
    transmitter models

Optional Accessories

Description	Part No. / Spec.	Page No.
SFP Modules	• 2A-136G (Multi-Mode) • 2A-137G (Single-Mode)	4-6
USB HDMI KVM Cable	2L-7D02UH (1.8 m)	8-6 J
KE Management Software (CCKM)	Please refer to page 4-3	4-3
2X-021G Dual Rack Mount Kit	Please refer to www.aten.com for details	
2X-031G Single Rack Mount Kit		

KE6900 / KE6940

DVI Single Display / Dual Display KVM over IP Extender

KE6940

Front

Rear

Highlights

- Flexible connections – allows multiple extender and matrix connections for multi-display installations and video wall applications
- Supports digital or analog video output–fully compliant with DVI specifications
- Local console for emergency operation
- "Push" and "Pull" – share content instantly by just one click
- Supports Dual Display Mode (KE6940 only)
- Supports two video outputs as different channels (KE6940T only)
- Fast Switching – switch between different remote video resolutions on a local display within 0.3 seconds
- Centralized KE series management software – KE Matrix Management Software (CCKM)* allows users to easily administer all KE devices with an intuitive web based GUI

Note: *Refer to page 4-3 for details.

4

Hardware

- Superior video quality – up to 1920 x 1200 @ 60Hz; 24 bit color depth
- Supports interlaced video format
- Supports stereo speakers and microphone
- Auto-MDIX – automatically detects cable type
- Built-in 8KV/15KV ESD protection and 2KV surge protection
- Fanless design for silent operations that are energy efficient
- Rack Mountable - Mounting options:
- (1) 2X-021G Dual Rack Mount Kit*
- (2) 2X-031G Single Rack Mount Kit*

Note: *Please see www.aten.com for more details.

Management

- Dual console operation – control your system from both the transmitter's and receiver's keyboard, monitor, and mouse consoles
- OSD (On Screen Display) on the Receiver configures both Tx / Rx devices
- EDID Expert™ – selects optimum EDID settings for smooth power-up and highest quality display
- On-screen Preview – allows users to view the video of up to 36 displays on one screen
- Video Compression Level – allows you to increase/decrease the video quality to adjust for appropriate network bandwidth
- CLI – administrators can control all KE devices via RS-232 or Telnet by issuing commands
- RS-232 serial ports – allow you to connect to a serial terminal for TextMenu, CLI, or serial devices such as touch screens and barcode scanners
- Flashing LED and beeping feature helps locate and identify devices
- Compatible with all KE devices

Security

• Dedicated LAN port for KE direct connections – can be isolated from the corporate network
• Secure data transmission – AES encryption to secure Video / Keyboard / Mouse / Data transmission
• Supports industry standard Transport Layer Security (TLS) protocol

Virtual Media

• Virtual media enables file transfers, OS patching, software installations and diagnostic testing
• Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives and ISO images
• Supports Smart Card/CAC Reader

Advanced Features**

• Video Walls – create multiple video walls with up to 8 x 8 (64 displays max.) in each layout
• Advanced Scheduling – improves efficiency and saves costs by allowing connections to be set based on time and date
• Virtual Transmitter – to stream video, audio, USB and serial sources independently
• Supports both internal and external authentication – external authentication supports LDAP, Active Directory, RADIUS and TACACS+
• Advanced User Authorization Settings – administrators can set four access modes of permissions on TX devices for collaboration or to avoid interference among users
• Configurable user and group permissions for access and control of KE devices
• Video grouping of up to 4 sets of KE series devices to support Multi-Display applications

Note: **These advanced functions are supported when the KE devices are managed by KE Matrix Management Software (CCKM)

Setup 〉

KE6940T(Front)
KE6940T(Rear)

KE6940R(Front)
KE6940R(Rear)

LAN GbE Switch
with IGMP

KE6900T(Front)
KE6900T(Rear)

KE6900R(Front)
KE6900R(Rear)

Specifications

Function	KE6900R	KE6940R	KE6900T	KE6940T
Connectors				
Virtual Media	2 x USB Type A Female (White)		N/A	
Console Ports	2 x USB Type A Female (White) 1 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Male (Black)	2 x USB Type A Female (White) 2 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Male (Black)	2 x USB Type A Female (White) 1 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Male (Black)	2 x USB Type A Female (White) 2 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Female (Black)
KVM Ports	N/A		1 x USB Type B Female (White) 1 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Female (Black)	1 x USB Type B Female (White) 2 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Female (Black)
Power	1 x DC Jack (Black)			
LAN Ports	1 x RJ-45 (Black)			
LEDs				
10/100/1000 Mbps	1 (10: Orange / 100: Orange & Green / 1000: Green)			
Power	1 (Blue)			
Local	1 (Green)			
Remote	1 (Green)			
Video Resolution	Up to 1920 x 1200 @ 60Hz			
Emulation				
Keyboard / Mouse	USB			
Power Consumption	DC 5V/6.90W	DC 5V/9.53W	DC 5V/7.34W	DC 5V/8.91W
Environmental				
Operating Temperature	0–50°C			
Storage Temperature	-20–60°C			
Humidity	0–95% RH, Non-condensing			
Physical Properties				
Housing	Metal			
Weight	1.25 kg (2.75 lb)		1.14 kg (2.51 lb)	1.15 kg (2.53 lb)
Dimensions (L x W x H)	22.75 x 17.16 x 5.48 cm (8.96 x 6.76 x 2.16 in.)		21.50 x 16.29 x 4.18 cm (8.46 x 6.41 x 1.65 in.)	
Carton Lot	3 pcs			

Included Accessories

	KE6900 / KE6940
Power Adapter	2
USB DVI-D KVM Cable*	•
Mounting Kit*	•
DVI-D Cable*	• (KE6940 only)

*This accessory is only included with KE transmitter models.

Optional Accessories

Description	Part No. / Spec.	Page No.
USB DVI-D Single Link KVM Cable	2L-7D02U (1.8 m); 2L-7D03U (3 m); 2L-7D05U (5 m)	8-6 F
USB DVI-I Single Link KVM Cable	2L-7D02UI (1.8 m); 2L-7D03UI (3 m)	8-6 G
USB VGA-DVI KVM Cable	2L-7DX2U (1.8 m); 2L-7DX3U (3 m)	8-6 H
USB HDMI-DVI KVM Cable	2L-7D02DH (1.8 m)	8-6 I
KE Management Software (CCKM)	Please refer to page 4-3	4-3
2X-021G Dual Rack Mount Kit	Please refer to www.aten.com for details	
2X-031G Single Rack Mount Kit		

KVM over IP Matrix System

KE8900S

Slim HDMI Single Display KVM over IP Extender

Console	Computers
USB, HDMI	USB, HDMI

KE8900S

Front

Rear

Highlights

- Flexible connections – allows multiple extender and matrix connections for multi-display installations and video wall applications
- Slim, light and fanless design
- "Push" and "Pull" – share content instantly by just one click
- Fast Switching – switch between different remote video resolutions on a local display within 0.3 seconds
- Centralized KE series management software – KE Matrix Management Software (CCKM)* allows users to easily administer all KE devices with an intuitive web based GUI

Note: *Refer to page 4-3 for details.

Hardware
- Superior video quality – up to 1920 x 1200 @ 60Hz; 24 bit color depth
- Supports standard HDMI resolutions from 640 x 480 up to 1920 x 1200
- Auto-MDIX – automatically detects cable type
- Built-in 8KV/15KV ESD protection and 1KV surge protection
- Fanless design for silent operations that are energy efficient
- Compliant with HDMI 1.4a and HDCP 1.4
- Rack Mountable
- Supports connection via Gigabit Ethernet port

Management
- OSD (On Screen Display) on the Receiver configures both Tx / Rx devices
- EDID Expert™ – selects optimum EDID settings for smooth power-up and highest quality display
- On-screen Preview – allows users to view the video of up to 36 displays on one screen
- Video Compression Level – allows you to increase/decrease the video quality to adjust for appropriate network bandwidth
- CLI – administrators can control all KE devices via RS-232 or Telnet by issuing commands
- RS-232 serial ports – allow you to connect to a serial terminal for TextMenu, CLI, or serial devices such as touch screens and barcode scanners
- Flashing LED and beeping feature helps locate and identify devices
- Compatible with all KE devices

Security
- Dedicated LAN port for KE direct connections – can be isolated from the corporate network
- Secure data transmission – AES encryption to secure Video / Keyboard / Mouse / Data transmission
- Supports industry standard Transport Layer Security (TLS) protocol

Virtual Media
- Virtual media enables file transfers, OS patching, software installations and diagnostic testing
- Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives and ISO images
- Supports Smart Card/CAC Reader

Advanced Features*

• Video Walls – create multiple video walls with up to 8 x 8 (64 displays max.) in each layout

• Advanced Scheduling – improves efficiency and saves costs by allowing connections to be set based on time and date

• Virtual Transmitter – to stream video, audio, USB and serial sources independently

• Supports both internal and external authentication – external authentication supports LDAP, Active Directory, RADIUS and TACACS+

• Advanced User Authorization Settings – administrators can set four access modes of permissions on Tx devices for collaboration or to avoid interference among users

• Configurable user and group permissions for access and control of KE devices

• Video grouping of up to 4 sets of KE series devices to support Multi-Display applications

Note: *These advanced functions are supported when the KE devices are managed by KE Matrix Management Software (CCKM)

Setup ⟩

KE8900ST (Front)
KE8900ST (Rear)
HDMI
KE8900SR(Front
KE8900SR(Rear)
LAN GbE Switch with IGMP
KE9900ST (Front)
KE9900ST (Rear)
DisplayPort
KE8952R(Front)
KE8952R(Rear)

Specifications

Function	KE8900SR	KE8900ST
Connectors		
Virtual Media	2 x USB Type A Female (Black)	N/A
Console Ports	2 x USB Type A Female (Black) 1 x HDMI Female (Black) 1 x DB-9 Male (Black)	N/A
KVM Ports	N/A	1 x USB Type B Female (White) 1 x HDMI Female (Black) 1 x DB-9 Female (Black)
Power	1 x DC Jack (Black)	1 x DC Jack (Black) 1 x 3-Pole Terminal Block Connector (Green)
LAN Ports	1 x RJ-45 (Black)	
LEDs		
10/100/1000 Mbps	1 (10: Orange / 100: Orange & Green / 1000: Green)	
Power	1 (Blue)	
Video Resolution	Up to 1920 x 1200 @ 60Hz	
Emulation		
Keyboard / Mouse	USB	
Environmental		
Operating Temperature	0–50°C	
Storage Temperature	-20–60°C	
Humidity	0–95% RH, Non-condensing	
Physical Properties		
Housing	Metal	
Weight	0.64 kg (1.41 lb)	0.65 kg (1.43 lb)
Dimensions (L x W x H)	18.20 x 11.75 x 2.87 cm (7.17 x 4.63 x 1.13 in.)	
Carton Lot	5 pcs	

Included Accessories

	KE8900S
Power Adapter	2
USB HDMI KVM Cable*	•
HDMI LockPro	2
Mounting Kit*	•

*This accessory is only included with KE8900ST

Optional Accessories

Description	Part No. / Spec.	Page No.
USB HDMI KVM Cable	2L-7D02UH (1.8 m)	8-6 J
KE Management Software (CCKM)	Please refer to page 4-3	4-3

KE9900ST

Slim DisplayPort Single Display KVM over IP Transmitter

| Console | Computers |
| USB, DisplayPort | USB, DisplayPort |

KE9900ST

Front

Rear

Highlights

- Flexible connections – allows multiple extender and matrix connections for multi-display installations and video wall applications
- Slim, light and fanless design
- "Push" and "Pull" – share content instantly by just one click
- Fast Switching – switch between different remote video resolutions on a local display within 0.3 seconds
- Centralized KE series management software – KE Matrix Management Software (CCKM)* allows users to easily administer all KE devices with an intuitive web based GUI

Note: *Refer to page 4-3 for details.

Hardware

- Superior video quality – up to 1920 x 1200 @ 60Hz; 24 bit color depth
- Supports standard DisplayPort resolutions from 640 x 480 up to 1920 x 1200
- Auto-MDIX – automatically detects cable type
- Built-in 8KV/15KV ESD protection and 1KV surge protection
- Fanless design for silent operations that are energy efficient
- Compliant with HDMI 1.4a and HDCP 1.4
- Rack Mountable
- Supports connection via Gigabit Ethernet port

Management

- EDID Expert™ – selects optimum EDID settings for smooth power-up and highest quality display
- On-screen Preview – allows users to view the video of up to 36 displays on one screen
- Video Compression Level – allows you to increase/decrease the video quality to adjust for appropriate network bandwidth
- CLI – administrators can control all KE devices via RS-232 or Telnet by issuing commands
- RS-232 serial ports – allow you to connect to a serial terminal for TextMenu, CLI, or serial devices such as touch screens and barcode scanners
- Flashing LED and beeping feature helps locate and identify devices
- Compatible with all KE devices

Security

- Dedicated LAN port for KE direct connections – can be isolated from the corporate network
- Secure data transmission – AES encryption to secure Video / Keyboard / Mouse / Data transmission
- Supports industry standard Transport Layer Security (TLS) protocol

Virtual Media

- Virtual media enables file transfers, OS patching, software installations and diagnostic testing
- Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives and ISO images
- Supports Smart Card/CAC Reader

Advanced Features*

• Video Walls – create multiple video walls with up to 8 x 8 (64 displays max.) in each layout

• Advanced Scheduling – improves efficiency and saves costs by allowing connections to be set based on time and date

• Virtual Transmitter – to stream video, audio, USB and serial sources independently

• Supports both internal and external authentication – external authentication supports LDAP, Active Directory, RADIUS and TACACS+

• Advanced User Authorization Settings – administrators can set four access modes of permissions on Tx devices for collaboration or to avoid interference among users

• Configurable user and group permissions for access and control of KE devices

• Video grouping of up to 4 sets of KE series devices to support Multi-Display applications

Note: *These advanced functions are supported when the KE devices are managed by KE Matrix Management Software (CCKM)

Setup 〉

DisplayPort

KE9900ST (Front)

KE9900ST (Rear)

KE8952R(Front)

KE8952R(Rear)

LAN GbE Switch with IGMP

KE8950T(Front)

KE8950T(Rear)

KE8950R(Front)

KE8950R(Rear)

KVM over IP Matrix System

4

Specifications

Function	KE9900ST
Connectors	
KVM Ports	1 x USB Type B Female (White) 1 x DisplayPort Female (Black) 1 x DB-9 Female (Black)
Power	1 x DC Jack (Black) 1 x 3-Pole Terminal Block Connector (Green)
LAN Ports	1 x RJ-45 (Black)
LEDs	
10/100/1000 Mbps	1 (10: Orange / 100: Orange & Green / 1000: Green)
Power	1 (Blue)
Video Resolution	Up to 1920 x 1200 @ 60Hz
Emulation	
Keyboard / Mouse	USB
Environmental	
Operating Temperature	0–50°C
Storage Temperature	-20–60°C
Humidity	0–95% RH, Non-condensing
Physical Properties	
Housing	Metal
Weight	0.65 kg (1.43 lb)
Dimensions (L x W x H)	18.20 x 11.75 x 2.87 cm (7.17 x 4.63 x 1.13 in.)
Carton Lot	5 pcs

Included Accessories

	KE9900ST
DisplayPort Cable	•
USB Cable	•
Power Adapter	•
Mounting Kit	•

Optional Accessories

Description	Part No. / Spec.	Page No.
KE Management Software (CCKM)	Please refer to page 4-3	4-3

KE6900ST
Slim DVI-D Single Display KVM over IP Transmitter

Console	Computers
USB, DVI-D	USB, DVI-D

KE6900ST

Front

Rear

Highlights

• Flexible connections – allows multiple extender and matrix connections for multi-display installations and video wall applications
• Slim, light and fanless design
• "Push" and "Pull" – share content instantly by just one click
• Fast Switching – switch between different remote video resolutions on a local display within 0.3 seconds
• Centralized KE series management software – KE Matrix Management Software (CCKM)* allows users to easily administer all KE devices with an intuitive web based GUI

Note: *Refer to page 4-3 for details.

Hardware
• Superior video quality – up to 1920 x 1200 @ 60Hz; 24 bit color depth
• Auto-MDIX – automatically detects cable type
• Built-in 8KV/15KV ESD protection and 2KV surge protection
• Fanless design for silent operations that are energy efficient
• Rack Mountable - Mounting options: VE-RMK 1U Extender Rack Mount Kit*
   Note: *Refer to www.aten.com for more regarding the VE-RMK 1U Extender Rack Mount Kit.

Management
• EDID Expert™ – selects optimum EDID settings for smooth power-up and highest quality display
• On-screen Preview – allows users to view the video of up to 36 displays on one screen
• Video Compression Level – allows you to increase/decrease the video quality to adjust for appropriate network bandwidth
• CLI – administrators can control all KE devices via RS-232 or Telnet by issuing commands
• RS-232 serial ports – allow you to connect to a serial terminal for TextMenu, CLI, or serial devices such as touch screens and barcode scanners
• Flashing LED and beeping feature helps locate and identify devices
• Compatible with all KE devices

Security
• Dedicated LAN port for KE direct connections – can be isolated from the corporate network
• Secure data transmission – AES encryption to secure Video / Keyboard / Mouse / Data transmission
• Supports industry standard Transport Layer Security (TLS) protocol

Virtual Media
• Virtual media enables file transfers, OS patching, software installations and diagnostic testing
• Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives and ISO images
• Supports Smart Card/CAC Reader

Advanced Features**
• Video Walls – create multiple video walls with up to 8 x 8 (64 displays max.) in each layout
• Advanced Scheduling – improves efficiency and saves costs by allowing connections to be set based on time and date
• Virtual Transmitter – to stream video, audio, USB and serial sources independently
• Supports both internal and external authentication – external authentication supports LDAP, Active Directory, RADIUS and TACACS+
• Advanced User Authorization Settings – administrators can set four access modes of permissions on Tx devices for collaboration or to avoid interference among users
• Configurable user and group permissions for access and control of KE devices
• Video grouping of up to 4 sets of KE series devices to support Multi-Display applications

Note: **These advanced functions are supported when the KE devices are managed by KE Matrix Management Software (CCKM)

Setup

KE6900ST (Front)
KE6900ST (Rear)

DVI

KE6940R (Front)
KE6940R (Rear)

LAN GbE Switch with IGMP

DVI to HDMI

KE6900ST (Front)
KE6900ST (Rear)

KE6900R (Front)
KE6900R (Rear)

Specifications

Function	KE6900ST
Connectors	
KVM Ports	1 x USB Type B Female (White) 1 x DVI-D Female (White) 1 x DB-9 Female (Black)
Power	1 x DC Jack (Black)
LAN Ports	1 x RJ-45 (Black)
LEDs	
10/100/1000 Mbps	1 (10: Orange / 100: Orange & Green / 1000: Green)
Power	1 (Blue)
Video Resolution	Up to 1920 x 1200 @ 60Hz
Emulation	
Keyboard / Mouse	USB
Power Consumption	DC 5V/3.25W
Environmental	
Operating Temperature	0–50°C
Storage Temperature	-20–60°C
Humidity	0–95% RH, Non-condensing
Physical Properties	
Housing	Metal
Weight	0.43 kg (0.95 lb)
Dimensions (L x W x H)	14.39 x 10.30 x 3.00 cm (5.67 x 4.06 x 1.18 in.)
Carton Lot	5 pcs

Included Accessories

	KE6900ST
Power Adapter	•
USB DVI-D KVM Cable	•
Mounting Kit	•

Optional Accessories

Description	Part No. / Spec.	Page No.
USB DVI-D Single Link KVM Cable	2L-7D02U (1.8 m); 2L-7D03U (3 m); 2L-7D05U (5 m)	8-6 F
USB DVI-I Single Link KVM Cable	2L-7D02UI (1.8 m); 2L-7D03UI (3 m)	8-6 G
USB HDMI-DVI KVM Cable	2L-7D02DH (1.8 m)	8-6 I
KE Management Software (CCKM)	Please refer to page 4-3	4-3
VE-RMK 1U Extender Rack mount Kit	*Please see www.aten.com for more details.	

Management Softwares

CC2000 Centralized Management Software • CCVSR Video Session Recording Software

ATEN Altusen™ Management Software offers:

• CC2000 Centralized Management Software
• CCVSR Video Session Recording Software

Providing IT administrators with complete centralized management of data centers.

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CC2000 Centralized Management Software

Offering convenient, economical, centralized management of IT devices, the CC2000 Centralized Management Software puts administrators in complete control of remote data centers and branch offices no matter where in the world they are deployed. When used in conjunction with KVM over IP switches, Serial Console Servers and ATEN PDU devices*, the CC2000 software allows IT administrators to remotely monitor and control all devices on their network, including blade servers and virtual machines.To improve security, the CC2000 also supports two-factor authentication with OTP (One-Time Password) services.

CCVSR Video Session Recording Software

The Video Session Recording Software (CCVSR) is ATEN's innovative software developed to work with ATEN / Altusen™ KVM over IP products* to securely and reliably record the video and operation of computers which are connected through KVM ports. Not only does the software record a video of the screen display but it also logs operations such as key-strokes and mouse clicks. The software can record all or specific server ports automatically for convenient auditing of operations conducted through a KVM over IP switch; from BIOS level and logging in, to running software applications and configuring the operating system – all actions are recorded and saved without exception.

Note:

The features highlighted above are not available in all products. Please refer to each product page for more details. Product information is subject to change without prior notice.

*Please see CC2000 & CCVSR compatible products on page 5-8.

CC2000 Centralized Management Software

A secure and centralized systems management solution that enables you to manage all the IT equipment, connected to over IP devices, through a single portal.

CCVSR Video Session Recording Software

An innovative new software that records a video of all operations on servers connected to KVM over IP Switches.

ATEN PDU

Remotely manage the power status of IT devices in enterprise server rooms around the world.

Serial Console Server

Manage and control all serial devices inside server rooms from anywhere at anytime.

KVM over IP Switch

Access and manage different types of server platforms in remote data centers with ease.

CC2000

Centralized Management Software

Highlights

- Automatic scheduling of system, configuration and maintenance tasks
- Session logs provide serial device keystroke history
- ATEN / Altusen™ device auto discovery with device-availability status and alarms
- Blade server support
- ATEN eco PDU and APC PDU (AP79xx, AP89xx, AP86xx) support
- Supports Virtual Infrastructure including – VMware vSphere, Citrix XenServer, and Windows Hyper-V
- Supports single sign-on for Dell DRAC 5, iDRAC 6, IBM RSA II, HP iLO 2, iLO 3, iLO 4, Dell CMC, IBM AMM, plus HP OA
- Integrates all access rights – Web, SSH / Telnet, VNC/RDP, IPMI/SPM, KVM, serial and power to target device
- Panel DynaArray™ – view the output of multiple ports in individual panels on the same screen
- IPv6 support
- IP/MAC address filter for enhanced security protection
- Message Box for administrators to communicate with users

Centralized Control and Management

ATEN Altusen™ CC2000 Centralized Management Software provides control of your enterprise through single portal, single sign-on, secure, centralized management of your entire IT installation, locally and worldwide – anywhere, anytime. The software consolidates the management of all ATEN / Altusen™ KVM over IP switches, serial console servers, ATEN PDU and other devices including blade servers and virtual machines. Instead of having to access these devices through a separate interface, the CC2000 integrates all systems into a single easy-to-use interface – making system management faster and more efficient.

Unsurpassed Reliability

The CC2000 Centralized Management Software uses Primary-Secondary architecture to offer service redundancy with database updating. With this feature, a Secondary server can substitute for the Primary, when the Primary server fails. Redundancy also means that should any of the CC2000 servers go down, its function and information is not lost – a redundant Secondary unit can provide the required management services until the downed unit is back online. In addition, CC2000 servers push their IP address to ATEN devices automatically – providing multiple paths for ATEN devices to communicate with CC2000 servers.

Clear Intuitive Interface

Administrators can access, configure and manage all of their IT equipment in all of their data centers and remote offices through an intuitive browser-based UI. Servers and serial devices are integrated into a single tree view, making the CC2000 ideal for an enterprise with data centers and branch offices located in remote locations. In addition, the browser-based UI provides a multi-language interface to minimize user training and increase productivity.

Flexible Scheduling

The CC2000 supports flexible scheduling for a wide variety of system tasks. Scheduled tasks include standard maintenance, firmware updates, software installations, exporting logs, power management, device configuration, account administration and more. These tasks can be performed across the entire installation from a single interface – allowing administrators to use their time more effectively.

Management Software

5

Logging, Audits and Alerts

The CC2000 Centralized Management Software delivers comprehensive logging and reporting of system events that include audit trails for effective diagnostics and troubleshooting. Powerful search functions and extensive sorting and filtering options let you quickly pinpoint the events you are searching for. Search results, as well as complete logs, can be conveniently exported for analysis and reports.

Convenient Monitoring

The CC2000's Panel DynaArray™ function displays the output of multiple ports in individual panels on the administrator's screen – allowing administrators to monitor the status without the bother of having to switch to each port manually. The panel configuration is flexible – panels can be easily opened, closed, moved and resized – permitting administrators to select which devices they wish to monitor and how the ports appear on the screen. Ports can be accessed and managed simply by clicking on the panel it is displayed in.

Virtualization Support

Virtualization helps enterprises save space, hardware costs and utility expenses by allowing them to consolidate their data centers and server rooms. With virtualization, the same number of tasks can be performed by fewer physical servers. The CC2000 integrates virtual machines into its GUI tree structure and manages them just as if they were real, physical machines. Virtualization support not only saves on your costs to manage, it also increases the efficiency and longevity of your network infrastructure.

Centralized Management

- Complete control of your enterprise – consolidates the management of all ATEN / Altusen™ over IP devices
- Single portal, single sign-on, single IP address to securely access every device on the installation
- All devices are integrated into a single tree view for centralized access, administration and management of a global network – from anywhere at anytime
- Administrators have a dashboard for instant access to monitor the status of different device types
- Primary / Secondary topology provides redundancy – including database updating
- Preferred and alternate CC2000 IP addresses – provide multiple paths for ATEN devices to communicate with CC2000 servers
- Aggregate Devices – allows the KVM port, serial port and power outlet of an IT device to be associated in the same web page which gives administrators complete control from a single location
- Access Report/Asset Status functions help administrators generate "use-case" analysis for better maintenance
- Multi-platform installation support for Windows and Linux
- Multi-platform client support for Windows, Mac OS X, Linux and Sun
- Multi-browser support for Internet Explorer, Chrome, Firefox, Safari, Opera and Mozilla
- Email notification of system event
- Logging and auditing of system events for the CC2000 and managed devices
- View, manage and terminate active user sessions in real time
- User level authentication and management
- Browser-based GUI offers a multi-language interface to minimize training and increase productivity
- Generic Devices – users can be redirected to 3rd party data center devices via CC2000
- Flexible logging and report options
- Power association with ATEN PDUs enables KVM ports to be associated with power outlets for remote power management of servers from the CC2000 interface
- Web-based wizard quickly installs devices
- Advanced search function for log entries
- Session management integrates multiple session types: ATEN / Altusen™ KVM over IP, Blade server, VMware, PDU and more
- Data import/export to local and remote servers in real time or scheduled with AES/DES encryption for exports
- NTP support – allows devices to get the accurate time from a server that the administrator assigns
- Supports SNMP Manager V1, V2c & V3

Management Software

Powerful Security

- Powerful security features include both internal and external authentication – external authentication support includes LDAP, LDAPS, Kerberos, Active Directory, RADIUS, TACACS+ and NT Domain
- Option to require users to manage the devices only through the CC2000.
- Compliant with the X.509 Digital Certificate Standard
- Supports TLS 1.2 data encryption and RSA 2048-bit certificates to secure users log in from a browser
- Flexible session time-outs
- Configurable user and group permissions for server access and control
- Supports password protection, SAS 70 compliance for configurable amount of failed login attempts and user ID lock out parameters
- OOBC, PAP and CHAP authentication protocols
- Private CA support
- Supports OTP (One-Time Password)* authentication

Note:*Please see www.aten.com for more details / CC2000-OTP or scan the QR code for further information regarding the OTP function.
   **Please refer to page 5-8 for compatible products and license options.
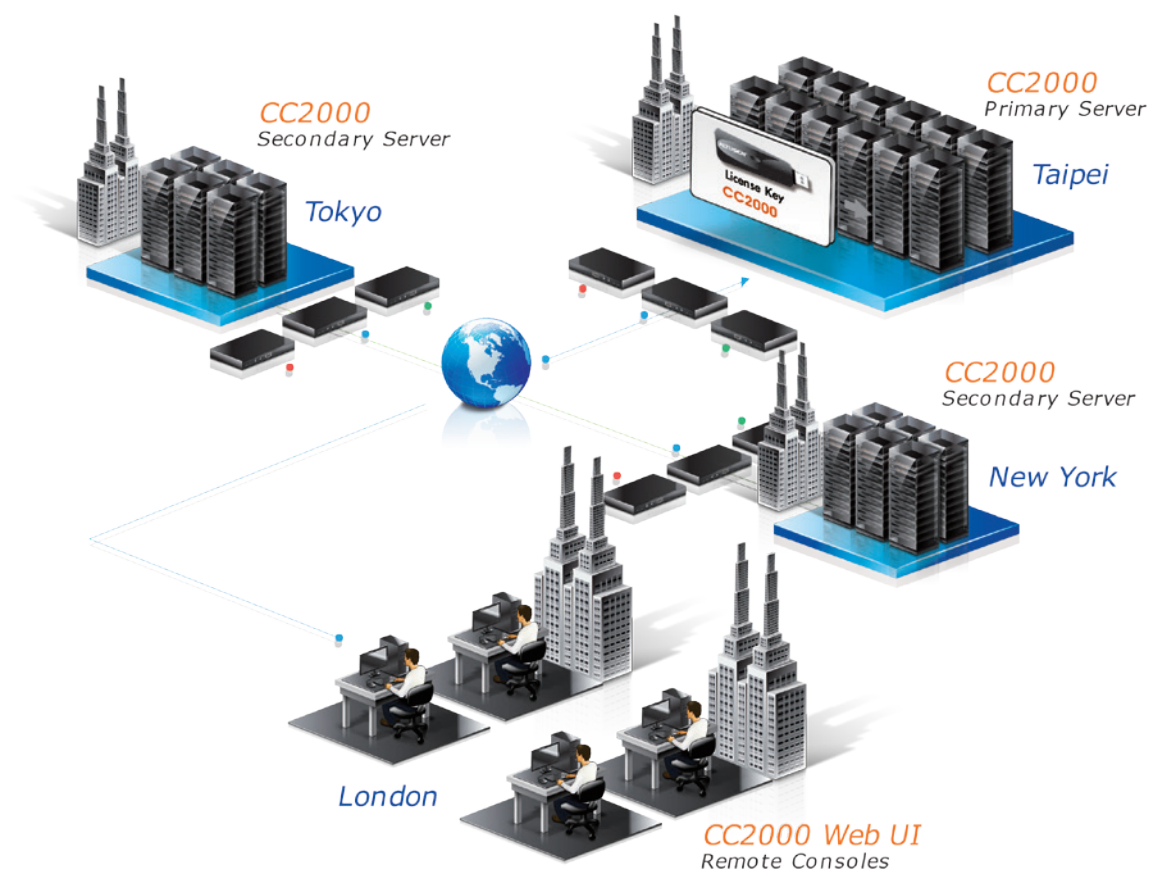
Included Accessories

	CC2000
USB License Key	•
Software CD	•

Learn more about
CC2000-OTP

CCVSR
Video Session Recording Software

Highlights

• Automatically create complete recordings of a computer's operations when remote users access a KVM port – which are saved to an indexed database for advanced searches

• Search functions with keyword filters for video recordings

Records All Operations and Changes Made On Computers Connected to KVM over IP Switches

Each time a remote session is created with a client computer through a KVM over IP switch, the CCVSR starts recording. No matter what the target server's operating status is; whether booting up the operating system, logged in, logging out, or in pre-boot BIOS mode, all activity is recorded, including the video display, key strokes and mouse clicks. The CCVSR is easy to implement and can be used to track company compliance. It also provides an effective means of fast troubleshooting and problem resolution for IT managers. The software allows managers to go back and easily trace changes made on any computer. The CCVSR increases the productivity of auditing and troubleshooting.

No Agent Software On Target Computers

Unlike other software, the CCVSR does not rely on agent software installed on target computers. The CCVSR is installed as a server to record computers connected to KVM over IP switches. The CCVSR bypasses the system interference and problems caused by client software; eliminating installation and removing all client software issues. With no agent software the CCVSR eliminates the use of CPU resources, disk space, memory and network bandwidth on all target computers. The CCVSR runs independently as a central management tool to record all operations and changes made to the computers.

Transparent Recording

With the CCVSR, recordings of target computers are fully automatic and completely transparent. This allows your infrastructure to be monitored 24 hours a day, 7 days a week, with the ability to go back and view a video of all activities made on a computer. With the CCVSR there is no need for an administrator or end user to trigger the recordings, which are captured silently in the background. The automatic functions ensure you will never miss recording a target computer by accident and provides the confidence that all changes on a computer are tracked.

Scalable CCVSR System

The CCVSR supports single server and multiple server setups. The simple and flexible license policy allows you to license only the nodes you want to manage (target servers), allowing smaller installations affordable computer management. CCVSR license policy accommodates a growing systems environment, to easily expand the CCVSR installation as you do. The CCVSR servers manage video recordings and allow all administrative activity to be controlled from a central CCVSR server, through a single IP port. Allowing you to easily maintain and access all CCVSR data from one computer.

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Management Software

Indexed Database of Video Recordings

All videos are recorded and saved automatically to a database, which are indexed for easy search and playback. Keyword searches plus date/time filtering functions simplify searching for playback.

Manages and Plays Recordings Securely

All recordings are securely saved in an ATEN Altusen™ proprietary file format, and played by the CCVSR's own video player. There is no need to install an additional media player. The player provides integrated tools for playback, including accelerated speed, pause, export, scaling, and other advanced functions via control panel. In addition, all recordings for distribution can be password protected to enhance security.

Easy Storage Management

The CCVSR manages disk space automatically. All disk space can be recognized by the Operation System of CCVSR server, and assigned as a part of the CCVSR storage space for recordings. The disk can be a local hard drive, network disk, or NAS. When an assigned disk space reaches its limit, the CCVSR will send out a notification to the administrator and clean storage space according to the time period of recordings you want to keep.

- Supports high quality video recordings – with a video resolution up to 1920 x 1200 with 24-bit color depth
- Supports recording on multiple KVM over IP switches*
- Simultaneously records and plays the operation of multiple KVM ports
- Special video player with format and video exporting with password protection for enhanced security
- IP address filter for enhanced protection
- System event notification via SMTP email; SNMP trap and Syslog support
- Configurable user and group permissions – for search, play, system, record, and save management
- Port level permissions – users can only view ports they have been authorized to access
- Supports device level event logs
- Multi-browser support: Internet Explorer, Chrome, Firefox, Safari, Opera, Mozilla, Netscape
- Supports TLS 1.2 data encryption and RSA 2048-bit certificates for secure web browser logins
- 3rd party remote authentication supports: RADIUS, LDAP, LDAPS and Active Directory

*The CCVSR supports recording computer operations accessed through the local console and via remote sessions, although a few KVM switches do not support recording of their local console operations. Please refer to each product page for more details.

Setup >

KVM over IP Switch   KVM over IP Switch

Internet /LAN

Remote User   Video Session Recorder
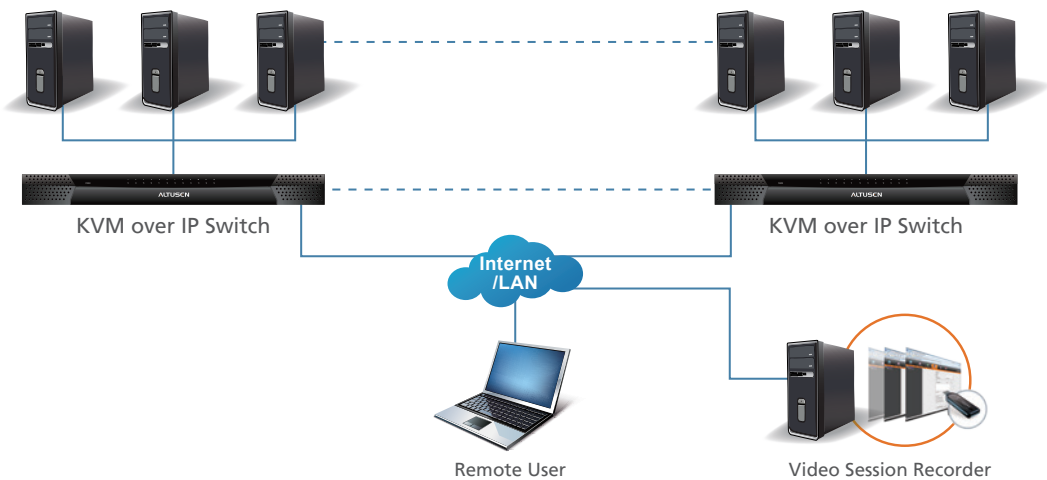
Included Accessories

	CCVSR
USB License Key	•
Software CD	•

Management Software

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Compatible Products

CC2000 Compatible ATEN over IP Products

• KL1108V / KL1116V, KL1508AI / KL1516AI, KN1000, KN1000A, KH1508AI / KH1516AI, KN1108V / KN1116V, KN1108VA / KN1116VA, KN2124VA / KN2140VA / KN4124VA / KN4140VA, KN1132V / KN2116VA / KN2132VA / KN4116VA / KN4132VA / KN4164V / KN8132V / KN8164V (KL9108 / KL9116, KN2116A / KN2132 / KN4116 / KN4132, KN2116v / KN2132v / KN4116v / KN4132v, KN2124v / KN2140v / KN4124v / KN4140v, CN8000A, CN8000, CN8600, CS1708i / CS1716i, IP8000)*

• SN3101, SN0108A / SN0116A / SN0132 / SN0148 , SN9108 / SN9116, (SN0108 / SN0116)*

• (PN0108, PN9108, EC1000, EC2004, PE5220s, PE5340s, PE5108, PE5208, PE6108, PE6208,PE6208AV, PE6216, PE6324, PE7108, PE7208, PE7214, PE7328, PE8108, PE8208, PE8216, PE8324, PE9222, PE9330, PE7216r, PE7324r, PE8216r, PE8324r, PE9216r, PE9324r)*

CCVSR Compatible ATEN over IP Products

• KL1108V / KL1116V, KN1108V / KN1116V, KN1108VA / KN1116VA, KN2124VA / KN2140VA / KN4124VA / KN4140VA, KN1132V / KN2116VA / KN2132VA / KN4116VA / KN4132VA / KN4164V / KN8132V / KN8164V (KN2116A / KN2132 / KN4116 / KN4132, KN2116v / KN2132v / KN4116v / KN4132v, KN2124v / KN2140v / KN4124v / KN4140v, CN8600)*

• SN0108A / SN0116A / SN0132 / SN0148, SN9108 / SN9116

*Please see www.aten.com for more details.

License Options

CC2000 License Options with USB Licence Key

• CC2000TN (Tiny Pack: 1 Primary, 32 Nodes)
• CC2000XL (Extra Lite Pack: 1 Primary, 64 Nodes)
• CC2000LE (Lite Pack: 1 Primary, 128 Nodes)
• CC2000LS (Lite Plus Pack: 1 Primary, 256 Nodes)
• CC2000SD (Standard Pack: 1 Primary, 1 Secondary, 512 Nodes)
• CC2000PS (Plus Pack: 1 Primary, 5 Secondary, 2048 Nodes)
• CC2000PM (Premium Pack: 1 Primary, 9 Secondary, 5120 Nodes)
• CC2000PL (Platinum Pack: 1 Primary, 15 Secondary, Unlimited Nodes)
• CC2000MX (Maximum Pack: 1 Primary, 31 Secondary, Unlimited Nodes)

CC2000 System Add-On License

• CCS1 (Add-on 1 Secondary Server License)
• CCN1 (Add-on 1 Node License)
• CCN10 (Add-on 10 Nodes License)
• CCN50 (Add-on 50 Nodes License)
• CCN100 (Add-on 100 Nodes License)
• CCN500 (Add-on 500 Nodes License)
• CCN1000 (Add-on 1000 Nodes License)
• CCN10000 (Add-on 10000 Nodes License)
• CCNU (Add-on unlimited Nodes License)

CCVSR License Options with USB Licence Key

• CCVSR08 (8 Nodes)
• CCVSR16 (16 Nodes)
• CCVSR32 (32 Nodes)
• CCVSR64 (64 Nodes)
• CCVSR128 (128 Nodes)
• CCVSR256 (256 Nodes)
• CCVSR512 (512 Nodes)
• CCVSR1024 (1024 Nodes)
• CCVSR2048 (2048 Nodes)

CCVSR Add-On System License

• CCVSRN1 (Add-on 1 Node License)
• CCVSRN8 (Add-on 8 Nodes License)
• CCVSRN16 (Add-on 16 Nodes License)
• CCVSRN32 (Add-on 32 Nodes License)
• CCVSRN64 (Add-on 64 Nodes License)
• CCVSRN128 (Add-on 128 Nodes License)
• CCVSRN256 (Add-on 256 Nodes License)
• CCVSRN512 (Add-on 512 Nodes License)
• CCVSRN1024 (Add-on 1024 Nodes License)
• CCVSRN2048 (Add-on 2048 Nodes License)
• CCVSRAS1 (Add-on Archive Server License)

Management Software

KVM over IP Switches KN1000 / KN1000A • KH1508AI / KH1516AI

KN1108V / KN1116V • KN1108VA / KN1116VA • KN2124VA / KN2140VA / KN4124VA / KN4140VA
KN1132V / KN2116VA / KN2132VA / KN4116VA / KN4132VA / KN4164V / KN8132V / KN8164V
KVM over IP Console Station / KA8270 • KA8280 • KA8278 • KA8288

ATEN Altusen™ KVM over IP switches offer remote access to manage data center or branch office's servers anytime anywhere. They offer IT managers a scalable, sustainable, and secure enterprise-class KVM over IP solution.

ATEN Altusen™ KVM over IP switches allow connected servers and serial-based devices BIOS-level access with power management when incorporated with ATEN PDUs. Additionally, when the network is down, they provide external modem support for out-of-band service. For organization security concerns, ATEN adopts the industry's highest level of security standards and networking protocols. ATEN's CC2000 Centralized Management Software and CCVSR Video Session Recording Software create an extra layer of security for your organization's IT assets.

There are a wide range of models available for branch and enterprise environments, including 1-, 8-, 16- , 24-, 32-, 40-, and 64-port models connecting up to 512 servers with 1, 2, 4, and 8 buses for remote access.

Improved IT Management Efficiency
ATEN Altusen™ KVM over IP switches greatly increase management efficiency and administrative flexibility. Manage your organization's servers with up to 1 local and 8 remote user access, and support for up to 64 user accounts and 32 simultaneous logins.

Enhanced Security
Increase security and reduce risk by utilizing the industry's highest security standards and protocols, such as support for RADIUS, LDAP, LDAPS, MS Active Directory for secured authentication TLS 1.2, 2048-bit RSA, 256-bit AES, FIPS 140-2 for data encryption, and network IP/MAC address filter for secured network access.

24-7 Management
ATEN Altusen™ KVM over IP switches provide comprehensive reliability. The integration of dual power supplies and dual Network Interface Controllers (NIC) provides backup redundancy. In addition, with powerful SNMP Trap features and sophisticated notification options, administrators are able to customize the settings for how significant events will be communicated on their systems and respond to critical situations in a timely manner.

Complete Monitor & Control
Managing multiple KN Series solutions is simple with CC2000 Centralized Management Software, CCVSR Video Session Recording Software and PadClient mobile app. Experience total control of the enterprise server room through a single portal: secure, centralized management of your entire IT installation, locally and worldwide, is now yours. Anywhere, anytime.

Blade Server Access and Control
With support for the industry's leading blade server brands such as IBM®, Dell®, Cisco® and HP®, administrators can now easily create an association between a port on the switch and any individual blade, or an entire blade server – allowing the blade server to be integrated into the switch's tree view to be accessed.

Intuitive Control

Managing large scale servers is simplified with ATEN KVM over IP switches. A user friendly Magic Panel™ Graphics User Interface (GUI) with multi-language support provides convenient management through configurable function icons. Panel Array Mode™ incorporated with Virtual Remote Desktop allows administrators to display the video output of up to 64 servers on their monitors at the same time. Mouse DynaSync™ function provides automatic locked-in syncing of the remote and local mouse pointers – resulting in perfect mouse alignment.

Centralized Real-Time Updating and Maintenance

Virtual Media support allows operators to map DVD/CD-ROMs and other storage media to a remote server. Performing firmware upgrades, diagnostic tests, file transfers, and installing OS and application patches can all be accomplished smoothly and quickly across the installation from a single console located anywhere.

Note: The features highlighted above are not available in all products. Please refer to each product page for more details. Product information is subject to change without prior notice.
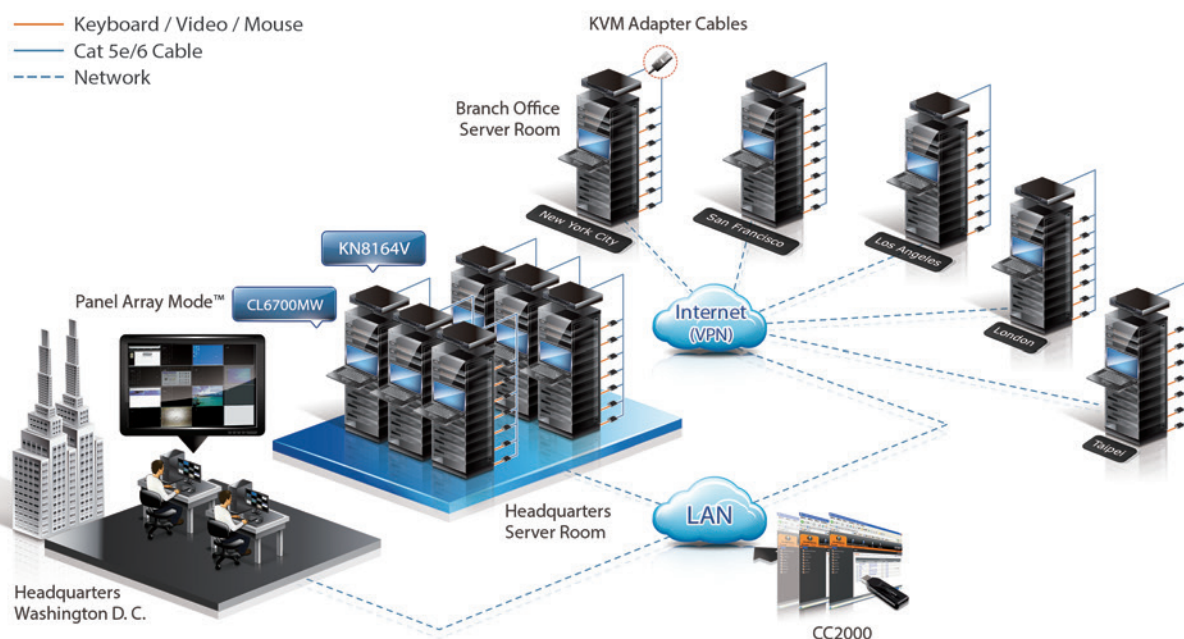
Comparison

Function		KN1000 / KN1000A	KH1508AI / KH1516AI	KN1108V / KN1116V KN1108VA / KN1116VA
Computer Connections	Direct	1	8 / 16	8 / 16
	Max.	1	128 / 256 (Daisy-Chain)	128 / 256 (Cascade[1])
Multiple Sessions	Local	1	1	1
	Remote			1
Computer	Connector	SPHD	RJ-45	
	Support Interface	PS/2, USB, Serial	PS/2, USB, Serial[2]	PS/2, USB, Serial[3]
	Support Platform	Windows, Linux, Mac, Sun[4]	Windows, Linux, Mac, Sun	
Local Console Interface		PS/2, USB		
RADIUS Support		•	•	•
LDAP/AD		•	•	•
BIOS Level Control		•	•	•
GUI		•	•	•
Concurrent Access		32		
Share Mode Support		•	•	•
Message Board		•	•	•
Panel Array Mode™		N/A	•	•
External PON		•	•	•
Virtual Media		•	N/A	•
External Modem Support		•	N/A	•
On-Screen Keyboard		•	•	•
Mouse DynaSync™		•	•	•
Virtual Remote Desktop		•	•	•
Firmware Upgradable		•	•	•
Multilingual Support		•	•	•
Dual NIC Design		N/A	N/A	•
Dual Power Supply		N/A	N/A	•
Audio		N/A	N/A	•
Independent Bus Switching		N/A	N/A	•
Adapter ID Support		N/A	•	•
Blade Server Support		N/A	N/A	•
Green IT – Fan Speed		N/A	N/A	N/A
IPv4 & IPv6 Dual Stack		•	•	•
Laptop USB Console (LUC)		• (KN1000A)	•	•
Built-in 1-Port Power Switch		•	N/A	N/A
RS-232 Built-in		•	N/A	•
CC2000 Centralized Management Software		•	•	•
CCVSR Video Session Recording Software		N/A	N/A	•
PadClient		• (KN1000A)	N/A	•

Note:
1. Cascade-compatible KVM switches include the following: CS9134, CS9138,CS1308, CS1316, KH1508A, and KH1516A. Some KVM over IP features may not be supported, depending on the functionality of the cascaded KVM switch.
2. Requires KA9140 Serial Adapter Module.
3. Requires KA7140 Serial Adapter Module.
4. Sun to PS/2 converters are available to allow Sun systems to exist on the same installation.

Function		KN2116VA KN4116VA	KN2124VA KN4124VA	KN1132V KN2132VA KN4132VA KN8132V	KN2140VA KN4140VA	KN4164V KN8164V
Computer Connections	Direct	16	24	32	40	64
	Max.	256 (Cascade[1])	384 (Cascade[1])	512 (Cascade[1])	512 (Cascade[1])	512 (Cascade[1])
Multiple Sessions	Local	1	1	1	1	1
	Remote	2 / 4	2 / 4	1 / 2 / 4 / 8	2 / 4	4 / 8
Computer	Connector	RJ-45				
	Support Interface	PS/2, USB, Serial[3]				
	Support Platform	Windows, Linux, Mac, Sun				
Local Console Interface		USB				
RADIUS Support		•	•	•	•	•
LDAP/AD		•	•	•	•	•
BIOS Level Control		•	•	•	•	•
GUI		•	•	•	•	•
Concurrent Access		32				
Share Mode Support		•	•	•	•	•
Message Board		•	•	•	•	•
Panel Array Mode™		•	•	•	•	•
External PON		•	N/A	•	N/A	•
Virtual Media		•	•	•	•	•
External Modem Support		•	N/A	•	N/A	•
On-Screen Keyboard		•	•	•	•	•
Mouse DynaSync™		•	•	•	•	•
Virtual Remote Desktop		•	•	•	•	•
Firmware Upgradable		•	•	•	•	•
Multilingual Support		•	•	•	•	•
Dual NIC Design		•	•	•	•	•
Dual Power Supply		•	•	•	•	•
Audio		•	•	•	•	•
Independent Bus Switching		•	•	•	•	•
Adapter ID Support		•	•	•	•	•
Blade Server Support		•	•	•	•	•
Green IT – Fan Speed		•	•	•	•	•
IPv4 & IPv6 Dual Stack		•	•	•	•	•
Laptop USB Console (LUC)		•	•	•	•	•
RS-232 Built-in		•	N/A	•	N/A	•
Multi-Display		•	•	•	•	•
CC2000 Centralized Management Software		•	•	•	•	•
CCVSR Video Session Recording Software		•	•	•	•	•
PadClient		•	•	•	•	•

KVM over IP Switches		Port Number						
		64 Ports	40 Ports	32 Ports	24 Ports	16 Ports	8 Ports	1 Port
Number of Buses* for Remote Access	8	KN8164V		KN8132V				
	4	KN4164V	KN4140VA	KN4132V	KN4124VA	KN4116VA		
	2		KN2140VA	KN2132VA	KN2124VA	KN2116VA		
	1			KN1132V		KN1116VA	KN1108VA	
	1 (Share bus)					KH1516AI	KH1508AI	KN1000A

*Each bus permits a separate remote user session, up to 1/2/4/8 servers connected to each KVM over IP switch can be controlled simultaneously.

KN1000 / KN1000A ⟩ 1-Local/Remote Share Access
Single Port VGA KVM over IP Switch
with Single Port Power Switch

Console	Computers
PS/2, USB	SPHD PS/2, USB

KN1000

Front

Rear

KN1000A

Front

Rear

Highlights

- Provides over IP capability to servers or KVM switches that do not have built-in over IP functionality*
- High video resolution – up to 1920 x 1200 @ 60 Hz***
- Laptop USB Console (LUC) – a dedicated USB port directly connects to a laptop for easy Console operation***
- Easy configuration through local console OSD***
- Extreme virtual media speed – 6x faster virtual media transmission speed***
- Serial terminal access through RS-232 and PON port***
- On/Off scheduling for power outlet – power management tasks can be scheduled on a daily, weekly, monthly or user-specified time basis
- Safe shutdown support
- Auto-Ping pings a device to determine its status, if the ping test fails after a set amount of time, it automatically takes an assigned action
- Supports DDNS (Dynamic Domain Name System)
- Message Board for communication among remote users

Note:

*Compatible KVM switches include the following: CS9134, CS9138, CS1308, CS1316, CS1754**, CS1758**, CS1708A, CS1716A, ACS1208A, ACS1216A, KH1508A, KH1516A, KH2508A, and KH2516A.

**Some features found on the connected KVM switches may not be supported on the KN1000 / KN1000A. (For example, the CS1754's audio)

***Advanced features for KN1000A.

Hardware
• Built-in single port Power Switch with circuit breaker function for powering connected servers

Management
• Critical system event notification via SMTP email; SNMP trap and Syslog support
• Serial terminal access via a built-in serial viewer, or third-party Telnet / SSH client (such as PuTTY)
• PPP mode (modem) dial-in/dial-out support for out-of-band, and low bandwidth operation
• Port Share Mode allows multiple users to simultaneously gain access to a server
• Power Association enables the switch's KVM ports to be associated with ATEN PDU power outlets for remote power management of the servers from the switch's interface
• Remote power on and off control function with Wake on LAN
• Export/import user account and configuration settings
• Manage browser access methods (browser, http, https)

Easy-to-Use Interface
• Browser-based and AP GUIs offer a unified multi-language interface increasing work productivity

Advanced Security
• Supports RADIUS, LDAP, LDAPS, and MS Active Directory authentication
• Secure login from browser with TLS 1.2 data encryption and RSA 2048-bit certificates***
• Choose between 56-bit DES, 168-bit 3DES, 256-bit AES, 128-bit RC4, or random encryption for secure keyboard / mouse, video, and virtual media data transmission
• IP/MAC address filter for enhanced network access security protection
• Private certificate authority (CA)
• Supports password protection

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
• Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives, and ISO images
• Supports Smart Card/CAC Reader

Virtual Remote Desktop
• Adjustable video quality to deliver optimal video transfer speed and minimize network bandwidth
• Full screen or scalable video display
• Exit macros support

Setup ❯

PDU

Serial Device

KN1000A (Rear)

Modem   or

Serial Console Device
(Router, Switch, Sunfire VT100,...)

Remote Console   Internet   **KN1000A (Front)**
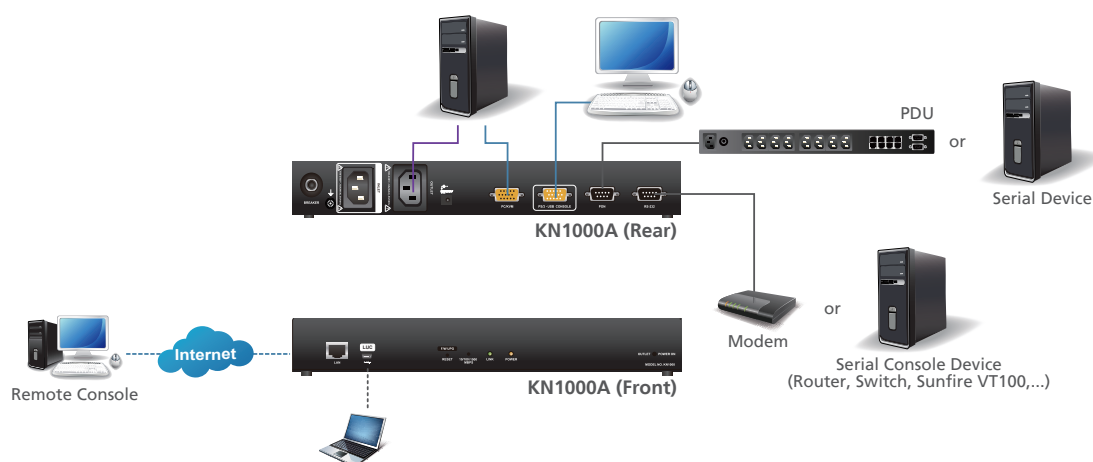
Specifications

Function	KN1000	KN1000A
Computer Connections		
Direct / Max.	1	
Console Connections		
Local / Remote	1	
Connectors		
Console Ports	1 x SPHD-18 Male (Yellow)	
KVM Ports	1 x SPHD-18 Female (Yellow)	
Laptop USB Console (LUC) Port	N/A	1 x USB Mini-B Female
PON	1 x DB-9 Male	
RS-232	1 x DB-9 Male	
LAN Ports	1 x RJ-45 Female	
Power Inlets	1 x IEC320 C14	
Power Outlets	1 x IEC320 C13	
Power	1 x DC Jack	
Virtual Media	1 x USB Mini-B Female	N/A
LEDs		
Power	1 (Orange)	
Power Outlets	1 (Orange)	
Link	1 (Green)	
10/100 Mbps	1 (Orange/Green)	N/A
10/100/1000 Mbps	N/A	1 (Orange/Orange&Green/Green)
Video	1600 x 1200 @ 60 Hz; DDC2B	1920 x 1200 @ 60 Hz; DDC2B
Emulation		
Keyboard / Mouse	USB; PS/2	
Maximum Input Power Rating	100–240 V~ 50/60 Hz, 10A	
Output	100–240 V~; 50/60 Hz; 9A	
Power Consumption	DC5.3V; 6.3W	DC5.3V; 4.48W
Environmental		
Operating Temperature	0-40°C	
Storage Temperature	-20-60°C	
Humidity	0 - 80% RH, Non-condensing	
Physical Properties		
Housing	Metal	
Weight	0.86 kg (1.89 lb)	0.88 kg (1.94 lb)
Dimensions (L x W x H)	31.00 x 8.15 x 4.20 cm (12.2 x 3.21 x 1.65 in.)	31.00 x 8.39 x 4.20 cm (12.2 x 3.3 x 1.65 in.)
Carton Lot	3 pcs	

Included Accessories

	KN1000	KN1000A
Custom KVM Cable Sets	2	•
Custom Console Cable Set	•	•
Laptop USB Console Cable	N/A	•
USB 2.0 Virtual Media Cable	•	N/A
Power Adapter	•	•
Outlet Power Cord	•	•
Mounting Kit	•	•
Software CD	•	N/A

Optional Accessories

| Description	Part No. / Spec.	Page No.
PS/2 KVM Cables	2L-5201P (1.2m); 2L-5202P / 2L-5702P (1.8 m); 2L-5203P (3 m) ; 2L-5206P (6 m)	8-6 A, B
USB KVM Cables	2L-5201U (1.2m); 2L-5202U / 2L-5202UP (1.8 m); 2L-5203U / 2L-5203UP (3 m); 2L-5205U / 2L-5205UP (5 m) 2L-5206UP (6 m)	8-6 C, D
PS/2-USB KVM Cables (KN1000A)	2L-5301UP (1.2m); 2L-5302UP (1.8 m)	8-6 E
Management Software	Please refer to page 5-1	5-1

KH1508AI / KH1516AI ⟩ 1-Local/Remote Share Access
8/16-Port Cat 5 KVM over IP Switch with Daisy-Chain Port

Console	Computers	Expansion
PS/2, USB	PS/2, USB, Sun, Serial	Daisy-Chain

KH1516Ai

Front
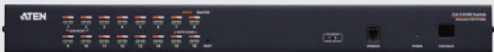
Rear

Highlights

- One bus for local/remote KVM over IP access to control 8 / 16 servers
- Up to 64 user accounts – with up to 32 users able to simultaneously log in
- Daisy-Chain up to 15 extra compatible switches with control of up to 128 / 256 servers
- Panel Array Mode™ – allows administrators to monitor the video output of up to 42 servers on one screen simultaneously
- Laptop USB Console (LUC) – a dedicated USB port directly connects to a laptop for easy console operation
- Message Board for communication among remote users
- Supports TLS 1.2 data encryption and RSA 2048-bit certificates

Hardware
- Superior video quality – Supports the video resolutions up to 1920 x 1200 @60Hz for up to 30 meters.

Management
- Serial terminal access via a built-in serial viewer, or third-party Telnet / SSH client (such as PuTTY)
- Port Share Mode allows multiple users to simultaneously gain access to a server
- Adapter ID automatically assigns and retains unique server names and settings for each attached server
- Local Log event
- Power Association enables the switch's KVM ports to be associated with ATEN PDU power outlets for remote power management of the servers from the switch's interface

Easy-to-Use Interface
- Browser-based and AP GUIs offer a unified multi-language interface increasing work productivity
- Keyboard broadcast – keyboard input can be duplicated on all the attached servers

Advanced Security
- Choose between 56-bit DES, 168-bit 3DES, 256-bit AES, 128-bit RC4, or random encryption for secure keyboard / mouse and video data transmission
- IP/MAC address filter for enhanced network access security protection
- Configurable user and group permissions for server access and control

Virtual Remote Desktop
- Adjustable video quality to deliver optimal video transfer speed and minimize network bandwidth
- Full screen or scalable video display
- Exit macros support

Setup ⟩

Internet /LAN

Remote User

KH1516AI (Rear)

Cat 5e/6 cable

KVM Adapter Cable

KH1516AI (Front)

Laptop USB Console
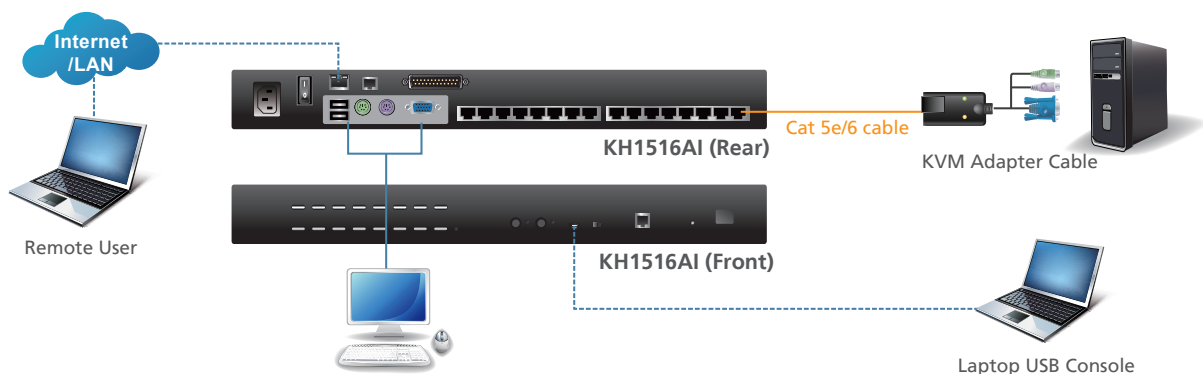
Specifications

Function	KH1508AI	KH1516AI
Computer Connections		
Direct	8	16
Maximum	128 (via Daisy-chain)	256 (via Daisy-chain)
Console Connections		
Local / Remote	1	
Port Selection	OSD; Hotkeys; Pushbuttons	
Connectors		
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)	
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female
Daisy Chain Ports	1 x DB-25 Male	
Power	1 x IEC 60320/C14	
LAN Ports	1 x RJ-45 Female	
Firmware Upgrade	1 x RJ-11 Female	
PON	1 X RJ-45 Female	
Laptop USB Console (LUC) Port	1 x USB Mini-B Female	
LEDs		
Online	8 (Green)	16 (Green)
Selected	8 (Orange)	16 (Orange)
Power	1 (Blue)	
Station ID	1 x 2-digit 7-segment (Orange)	
Link	1 (Orange)	
10/100/1000 Mbps	FHD: 100/1000 Mbps (Orange / Green) Non-FHD: 10/100 Mbps (Orange / Green)	
Video		
Local / Remote	FHD:1920 x 1200 @ 60 Hz / Non-FHD:1600 x 1200 @ 60Hz	
Emulation		
Keyboard / Mouse	PS/2; USB	
Maximum Input Power Rating	100–240 V AC; 50/60 Hz; 1A	
Power Consumption	120V/12.5W; 230V/12.7W	
Environmental		
Operating Temperature	0 - 40°C	
Storage Temperature	-20 - 60°C	
Humidity	0–80% RH; Non-condensing	
Physical Properties		
Housing	Metal	
Weight	2.76 kg (6.08 lb)	2.83 kg (6.23 lb)
Dimensions (L x W x H)	43.72 x 15.58 x 4.40 cm (17.21 x 6.13 x 1.73 in.)	
Carton Lot	3 pcs	

Included Accessories

	KH1508AI / KH1516AI
Firmware Upgrade Cable	•
Power Cord	•
Laptop USB Console Cable	•
Mounting Kit	•

Optional Accessories

Description	Part No. / Spec.	Page No.
Daisy Chain Cables	2L-1700 (0.6 m); 2L-1701 (1.8 m); 2L-1703 (3 m); 2L-1705 (5 m); 2L-1715 (15 m)	8-6 K
KVM Adapter Cables	Please refer to page 8-2	8-2
Management Software	Please refer to page 5-1	5-1

KN1108VA / KN1116VA
KN1108V / KN1116V

1-Local & 1-Remote User Access

Console	Computers	Expansion
PS/2, USB	PS/2, USB, Sun, Serial	Cascade

8/16-Port Cat 5 KVM over IP Switch

KN1116VA

Front

Rear

Highlights

- One bus for remote KVM over IP access to control 8 / 16 servers
- Up to 64 user accounts – with up to 32 users able to simultaneously log in
- Cascadable up to two levels – control up to 128 / 256 servers
- High video resolution – 1920 x 1200 @ 60Hz (reduced blanking) for local and remote sessions
- Panel Array Mode™ – allows administrators to monitor the video output of up to 42 servers on one screen simultaneously
- Laptop USB Console (LUC) – a dedicated USB port directly connects to a laptop for easy console operation
- Message Board for communication among remote users

Hardware

- Dual Gigabit Ethernet Network Interface Controllers (NIC) provide complete and reliable network access
- Integrated dual power supplies provide power redundancy

Management

- Critical system event notification via SMTP email, SNMP trap, and Syslog support
- PPP mode (modem) dial-in/dial-out support for out-of-band, and low bandwidth operation
- Port Share Mode allows multiple users to simultaneously gain access to a server
- Adapter ID automatically assigns and retains unique server names and settings for each attached server
- Manage browser access methods (browser, http, https)
- Event logging and Windows-based Log Server support
- Power Association enables the switch's KVM ports to be associated with ATEN PDU power outlets for remote power management of the servers from the switch's interface

Easy-to-Use Interface

- Browser-based and AP GUIs offer a unified multi-language interface increasing work productivity
- Browser-based UI allows administrative tasks to be completed without pre-installing Java
- Keyboard / mouse broadcast – keyboard and mouse inputs can be duplicated on all the attached servers
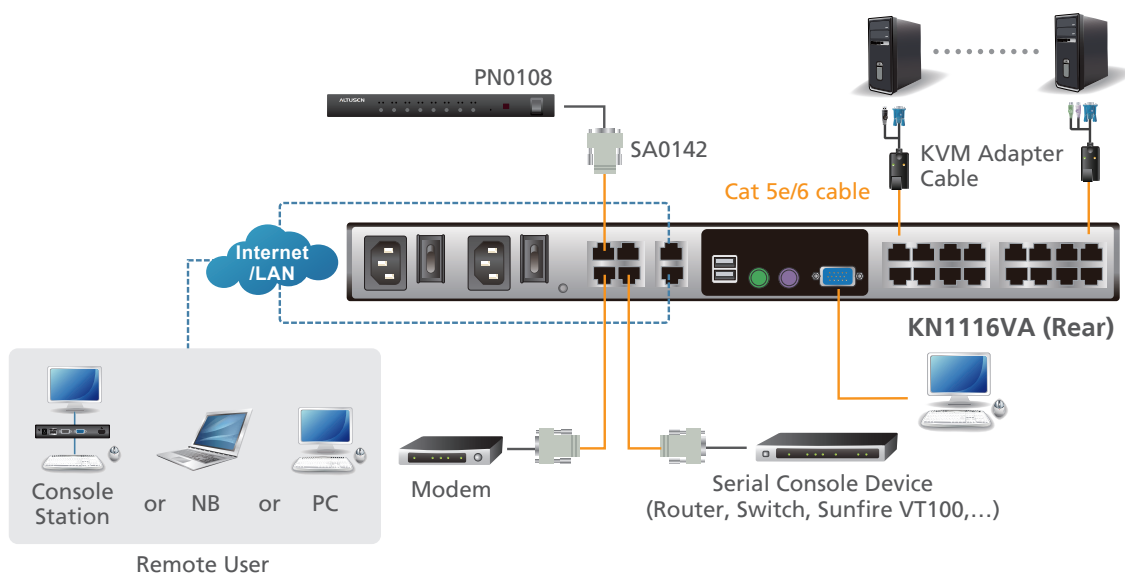
Advanced Security

- Secure login from browser with TLS 1.2 data encryption and RSA 2048-bit certificates
- Choose between 56-bit DES, 168-bit 3DES, 256-bit AES, 128-bit RC4, or random encryption for secure keyboard / mouse, video, and virtual media data transmission
- Automated CSR creation utility and third-party certificate authentication (CA)
- IP/MAC address filter for enhanced network access security protection

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
- Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives, and ISO images
- Supports Smart Card/CAC Reader

Virtual Remote Desktop

- Adjustable video quality to deliver optimal video transfer speed and minimize network bandwidth
- Full screen or scalable video display
- Exit macros support

PN0108

SA0142

KVM Adapter Cable

Cat 5e/6 cable

Internet /LAN

KN1116VA (Rear)

Console Station   or   NB   or   PC

Remote User

Modem

Serial Console Device (Router, Switch, Sunfire VT100,…)

Included Accessories

	KN1108V / KN1116V KN1108VA / KN1116VA
SA0142 Serial Adapters (RJ45-F to DB9-M; DTE to DCE)	2
Power Cord	2
Laptop USB Console Cable	•
Mounting Kit	•

Optional Accessories

Description	Page No.
KVM Adapter Cables	Please refer to page 8-2
Management Software	Please refer to page 5-1
Console Stations	Please refer to page 6-20

Specifications

Function	KN1108V	KN1108VA	KN1116V	KN1116VA
Computer Connections				
Direct	8		16	
Maximum	128 (via Cascade)		256 (via Cascade)	
Console Connections				
Local	1			
Remote	1			
Port Selection	Pushbuttons, GUI, Hotkeys			
Connectors				
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)			
KVM Ports	8 x RJ-45 Female		16 x RJ-45 Female	
Power	2 x IEC 60320/C14			
LAN Ports	2 x RJ-45 Female			
PON	1 x RJ-45 Female			
Modem	1 x RJ-45 Female			
Serial	2 x RJ-45 Female			
USB Port	3 x USB Type A Female			
Laptop USB Console (LUC) Port	1 x USB Mini-B Female			
Audio	2 x Audio Jack Female			
LEDs				
Online	8 (Green)		16 (Green)	
Power	KN1108V: 1 (Blue) KN1108VA: 2 (Blue)		KN1116V: 1 (Blue) KN1116VA: 2 (Blue)	
Link 10 / 100 / 1000 Mbps	2 (Red/Orange/Green)			
Video				
Local / Remote	1920 x 1200@60 Hz			
Emulation				
Keyboard / Mouse	PS/2 / USB			
Maximum Input Power Rating	100-240V AC; 50-60Hz; 1A			
Power Consumption				
Single Power	120V/15W; 230V/16W		120V/15W; 230V/15W	
Dual Power	120V/17W; 230V/17W		120V/16W; 230V/17W	
Environmental				
Operating Temperature	0 - 50℃			
Storage Temperature	-20 - 60℃			
Humidity	0 - 80% RH, Non-condensing			
Physical Properties				
Housing	Metal			
Weight	3.57 kg (7.86 lb)	3.52 kg (7.76 lb)	3.60 kg (7.93 lb)	3.56 kg (7.85 lb)
Dimensions (L x W x H)	43.84 x 28.78 x 4.40 cm (17.26 x 11.33 x 1.73 in.)			
Carton Lot	1 pc			

KN2124VA / KN2140VA
KN4124VA / KN4140VA

24/40-Port Cat 5 KVM over IP Switch with Virtual Media (1920 x 1200)

| | Console |
| | PS/2, USB |

| | Computers |
| | PS/2, USB, Sun, Serial |

| | Expansion |
| | Cascade |

KN Series Microsite

KN4124VA

Front

Rear

KN4140VA

Front

Rear

Highlights

- Two / four buses for remote KVM over IP access to control up to 40 servers
- Up to 64 user accounts – with up to 32 users able to simultaneously log in
- Cascadable up to two levels – control up to 512 servers*
- Panel Array Mode™ – allows administrators to monitor the video output of up to 64 servers on one screen simultaneously
- Multi-View supports computers with multiple video outputs
- Single sign-on for multi-system setup creates easy management and integration
- Message Board for communication among remote users
- Integration with ATEN CC2000 Centralized Management Software & CCVSR Video Session Recording Software**
- PadClient provides instant, convenient, and secure remote access to control servers through your iPad. (available free on the Apple Store)***

Note: *Refer to page 9-1 for details on compatible KVM switches.
 **Refer to page 5-1, *Management Software*, for details.
 ***Please use the QR code to download the PadClient App from the Apple Store.
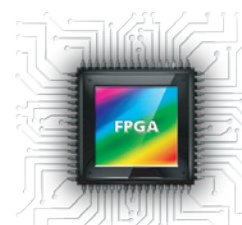
PadClient App

Key Enhancements:

- 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 a Full HD resolution of 1920 x 1200

Model No.	Number of Active Sessions
KN2124VA	1-local and 2-remote user access
KN2140VA	1-local and 2-remote user access
KN4124VA	1-local and 4-remote user access
KN4140VA	1-local and 4-remote user access

Hardware

• Self-diagnostics to help resolve connection problems
• Dual Gigabit Ethernet Network Interface Controllers (NIC) provide complete and reliable network access
• Integrated dual power supplies provide reliable power redundancy

Management

• Customizable critical system event notification via SMTP email, SNMP trap, and Syslog support
• SNMP agent supports standard SNMP for device monitoring and configuration
• Port Share Mode allows multiple users to simultaneously gain access to a server
• Adapter ID automatically assigns and retains unique server names and settings for each attached server
• Manage browser access methods (browser, http, https)
• Event logging and Windows-based Log Server support
• Power Association enables the switch's KVM ports to be associated with ATEN PDU power outlets for remote power management of the servers from the switch's interface

Easy-to-Use Interface

• Browser-based and AP GUIs offer a unified multi-language interface increasing work productivity
• Browser-based UI allows administrative tasks to be completed without pre-installing Java
• Launch multiple Virtual Remote Desktops and control multiple servers from one login session
• Keyboard / Mouse broadcast – keyboard and mouse inputs can be duplicated on all the attached servers

Advanced Security

• Secure login from browsers with TLS 1.2 encryption and RSA 2048-bit certificates
• Choose between 56-bit DES, 168-bit 3DES, 256-bit AES, 128-bit RC4, or random encryption for secure keyboard / mouse, video, and virtual media data encryption
• Automated CSR creation utility and third party certificate authentication (CA)
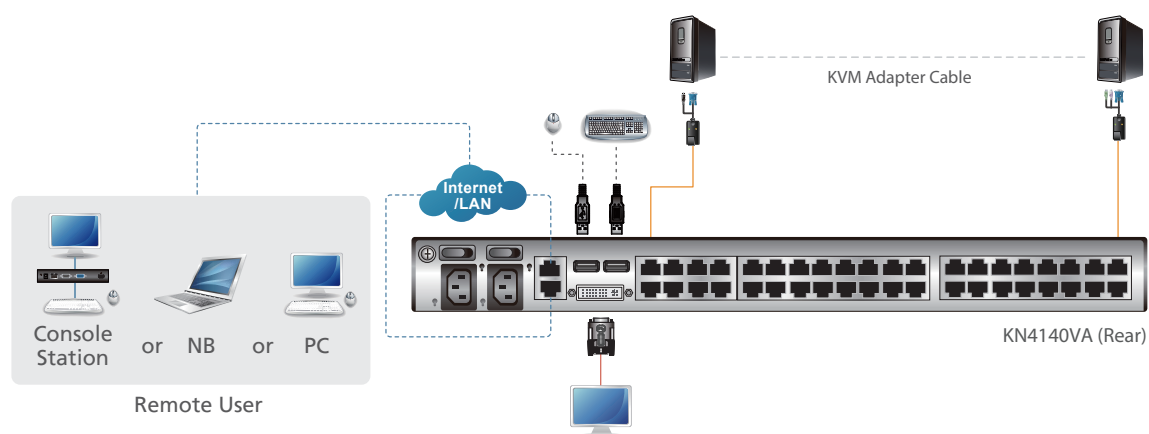• IP/MAC address filter for enhanced network access security protection

Virtual Media

• Virtual media enables file applications, OS patching, software installation, and diagnostic testing
• Works with USB enabled servers in the operating system and BIOS level
• Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives, and ISO images
• Supports Smart Card/CAC Reader

Virtual Remote Desktop

• Adjustable video quality to deliver optimal video transfer speed and minimize network bandwidth
• Full screen or scalable video display
• Exit macros support

Setup ⟩

KVM Adapter Cable

Console Station   or   NB   or   PC

Remote User

Internet /LAN

KN4140VA (Rear)

Specifications

Function	KN2124VA	KN4124VA	KN2140VA	KN4140VA
Computer Connections				
Direct	24		40	
Maximum	384 (via Cascade)*		512 (via Cascade)*	
Console Connections				
Local	1			
Remote	2	4	2	4
Port Selection	Pushbuttons, Hotkeys, GUI			
Connectors				
Console Ports	2 x USB Type A Female (White) 1 x DVI-I Female (White)			
KVM Ports	24 x RJ-45 Female		40 x RJ-45 Female	
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			
LAN Ports	2 x RJ-45 Female			
Power	2 x IEC 60320/C14			
LEDs				
Online / Selected	24 (Green/Orange)		40 (Green/Orange)	
Power	2 (Blue)			
Link 10 / 100 / 1000 Mbps	2 (Red/Orange/Green)			
Video				
Local / Remote	1920 x 1200 @ 60Hz			
Emulation				
Keyboard / Mouse	PS/2; USB			
Maximum Input Power Rating	100–240V~ ; 50-60Hz; 1A			
Power Consumption				
Single Power	110V/32.78W; 220V/33.44W	110V/47.19W; 220V/45.87W	110V/45.87W; 220V/44.66W	110V/47.41W; 220V/46.09W
Dual Power	110V/18.81W; 220V/19.36W (per input)	110V/24.20W; 220V/23.65W (per input)	110V/22.99W; 220V/22.88W (per input)	110V/25.52W; 220V/24.64W (per input)
Environmental				
Operating Temperature	0 - 40℃			
Storage Temperature	-20 - 60℃			
Humidity	0 - 80% RH, Non-condensing			
Physical Properties				
Housing	Metal			
Weight	5.48 kg (12.07 lb)	5.51 kg (12.14 lb)	5.54 kg (12.2 lb)	5.56 kg (12.25 lb)
Dimensions (L x W x H)	43.36 x 41.21 x 4.40 cm (17.07 x 16.22 x 1.73 in.)			
Carton Lot	1 pc			

Note: *Refer to page 9-1 for details on compatible KVM switches.

Included Accessories

	KN2124VA / KN2140VA KN4124VA / KN4140VA
Lok-U-Plugs	2
Lok-U-Plug Installation Tool	•
Power Cords	2
Mounting Kit	•

Optional Accessories

Description	Page No.
KVM Adapter Cables	Please refer to page 8-2
Management Software	Please refer to page 5-1
Console Stations	Please refer to page 6-20

KVM over IP Switch

KN1132V / KN2116VA / KN2132VA
KN4116VA / KN4132VA / KN4164V
KN8132V / KN8164V

16/32/64-Port Cat 5 KVM over IP Switch with Virtual Media (1920 x 1200)

	Console		Computers		Expansion
	PS/2, USB		PS/2, USB, Sun, Serial		Cascade

KN Series
Microsite

KN8164V

Front

Rear

KN8132V

Front

Rear

Highlights

- Two / four / eight buses for remote KVM over IP access to control up to 64 servers
- Up to 64 user accounts – with up to 32 users able to simultaneously log in
- Cascadable up to two levels – control up to 512 servers*
- Panel Array Mode™ – allows administrators to monitor the video output of up to 64 servers on one screen simultaneously
- Multi-View supports computers with multiple video outputs
- Single sign-on for multi-system setup creates easy management and integration
- Message Board for communication among remote users
- Integration with ATEN CC2000 Centralized Management Software & CCVSR Video Session Recording Software**
- PadClient provides instant, convenient, and secure remote access to control servers through your iPad. (available free on the Apple Store)***

Note: *Refer to page 9-1 for details on compatible KVM switches.

    **Refer to page 5-1, *Management Software*, for details.

    ***Please use the QR code to download the PadClient App from the Apple Store.

PadClient App

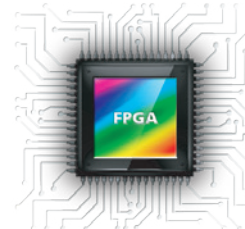| Model No.	Number of Active Sessions
KN1132V	1-local and 1-remote user access
KN2116VA	1-local and 2-remote user access
KN2132VA	1-local and 2-remote user access
KN4116VA	1-local and 4-remote user access
KN4132VA	1-local and 4-remote user access
KN4164V	1-local and 4-remote user access
KN8132V	1-local and 8-remote user access
KN8164V	1-local and 8-remote user access

6

KVM over IP Switch

Key Enhancements:

- **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 a Full HD resolution of 1920 x 1200**

Hardware
- Self-diagnostics to help resolve connection problems
- Dual Gigabit Ethernet Network Interface Controllers (NIC) provide complete and reliable network access
- Integrated dual power supplies provide reliable power redundancy

Management
- Customizable critical system event notification via SMTP email, SNMP trap, and Syslog support
- SNMP agent supports standard SNMP for device monitoring and configuration
- PPP mode (modem) dial-in/dial-out support for out-of-band, and low bandwidth operation
- Port Share Mode allows multiple users to simultaneously gain access to a server
- Adapter ID automatically assigns and retains unique server names and settings for each attached server
- Manage browser access methods (browser, http, https)
- Event logging and Windows-based Log Server support
- Power Association enables the switch's KVM ports to be associated with ATEN PDU power outlets for remote power management of the servers from the switch's interface

Easy-to-Use Interface
- Browser-based and AP GUIs offer a unified multi-language interface increasing work productivity
- Browser-based UI allows administrative tasks to be completed without pre-installing Java
- Launch multiple Virtual Remote Desktops and control multiple servers from one login session
- Keyboard / Mouse broadcast – keyboard and mouse inputs can be duplicated on all the attached servers
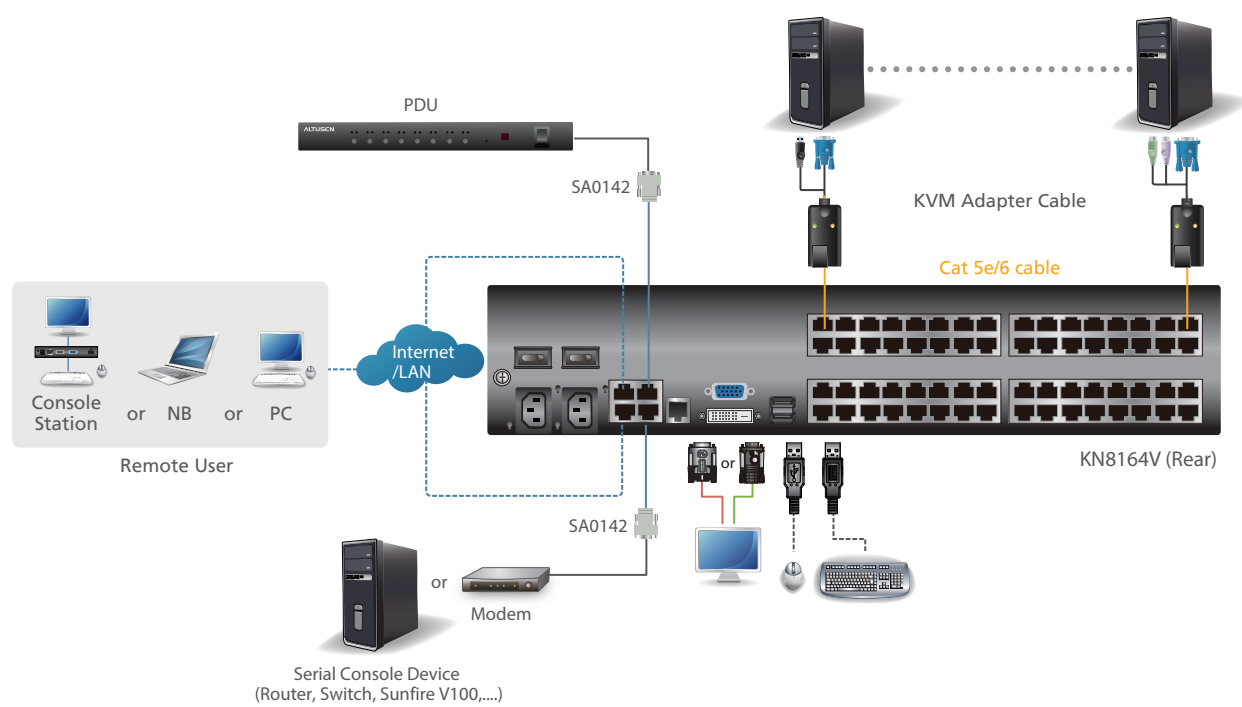
Advanced Security
- Secure login from browser with TLS 1.2 data encryption and RSA 2048-bit certificates
- Choose between 56-bit DES, 168-bit 3DES, 256-bit AES, 128-bit RC4, or random encryption for secure keyboard / mouse, video, and virtual media data encryption
- Automated CSR creation utility and third party certificate authentication (CA)
- IP/MAC address filter for enhanced network access security protection

Virtual Media
- Virtual media enables file applications, OS patching, software installation, and diagnostic testing
- Works with USB enabled servers in the operating system and BIOS level
- Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives, and ISO images
- Supports Smart Card/CAC Reader

Virtual Remote Desktop
- Adjustable video quality to deliver optimal video transfer speed and minimize network bandwidth
- Full screen or scalable video display
- Exit macros support

Setup ⟩

PDU

SA0142

KVM Adapter Cable

Cat 5e/6 cable

Internet /LAN

Console Station   or   NB   or   PC

Remote User

SA0142

KN8164V (Rear)

or

Modem

Serial Console Device
(Router, Switch, Sunfire V100,....)

Included Accessories

	KN1132V / KN2116VA / KN2132VA / KN4116VA / KN4132VA / KN4164V / KN8132V / KN8164V
SA0142 Serial Adapters (RJ45-F to DB9-M; DTE to DCE)	2
Lok-U-Plugs	2
Lok-U-Plug Installation Tool	•
Power Cords	2
Mounting Kit	•

Optional Accessories

Description	Page No.
KVM Adapter Cables	Please refer to page 8-2
Management Software	Please refer to page 5-1
Console Stations	Please refer to page 6-20

Specifications

Function	KN2116VA	KN4116VA	KN1132V	KN2132VA	KN4132VA	KV8132V	KN4164V	KN8164V
Computer Connections								
Direct	16		32				64	
Maximum	256 (via Cascade)*		512 (via Cascade)*					
Console Connections								
Local	1							
Remote	2	4	1	2	4	8	4	8
Port Selection	Pushbuttons, Hotkeys, GUI							
Connectors								
Console Ports	2 x USB Type A Female (White) 1 x DVI-D Female (White) 1 x VGA HDB-15 (Blue) 1 x RJ-45 Female (Black)							
KVM Ports	16 x RJ-45 Female		32 x RJ-45 Female				64 x RJ-45 Female	
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							
PON	1 x RJ-45 Female							
Serial	1 x RJ-45 Female							
LAN Ports	2 x RJ-45 Female							
Power	2 x IEC 60320/C14							
LEDs								
Online / Selected	16 (Green/Orange)		32 (Green/Orange)				64 (Green/Orange)	
Power	2 (Blue)							
Link 10 / 100 / 1000 Mbps	2 (Red/Orange/Green)							
Video								
Local / Remote	1920 x 1200 @ 60Hz							
Emulation								
Keyboard / Mouse	PS/2; USB							
Maximum Input Power Rating	100–240V~ ; 50-60Hz; 1A							
Power Consumption								
Single Power	110V/34.54W; 220V/34.76W	110V/49.06W; 220V/50.49W	110V/25.6W; 220V/26.5W	110V/43.23W; 220V/41.94W	110V/57.75W; 220V/56.67W	110V/72.27W; 220V/70.4W	110V/64.24W; 220V/61.27W	110V/78.76W; 220V/77W
Dual Power	110V/17.67W; 220V/17.93W (per input)	110V/24.93W; 220V/25.8W (per input)	110V/15.46W; 220V/16.16W (per input)	110V/22.02W; 220V/21.52W (per input)	110V/29.28W; 220V/28.89W (per input)	110V/36.54W; 220V/35.75W (per input)	110V/32.52W; 220V/31.19W (per input)	110V/39.5W; 220V/39.1W (per input)
Environmental								
Operating Temperature	0 - 40℃							
Storage Temperature	-20 - 60℃							
Humidity	0 - 80% RH, Non-condensing							
Physical Properties								
Housing	Metal							
Weight	5.56 kg (12.25 lb)	5.60 kg (12.33 lb)	5.54 kg (12.2 lb)	5.69 kg (12.53 lb)	5.73 kg (12.62 lb)	5.80 kg (12.78 lb)	7.00 kg (15.42 lb)	7.07 kg (15.57 lb)
Dimensions (L x W x H)	43.36 x 41.21 x 4.40 cm (17.07 x 16.22 x 1.73 in.) 43.36 x 41.21 x 4.40 cm (17.07 x 16.22 x 1.73 in.)						43.36 x 41.26 x 8.80 cm (17.07 x 16.24 x 3.46 in.)	
Carton Lot	1 pc							

Note: *Refer to page 9-1 for details on compatible KVM switches.

KA8270 / KA8280
KA8278 / KA8288

KVM over IP Console Station

KN8278

Front

Rear

Highlights

- Remote console to access KVM over IP switches – replaces PC or NB
- Supports 1 VGA video output (KA8270) or 1 HDMI video output (KA8280)
- Supports 1 VGA plus 1 HDMI video outputs (KA8278) or 2 HDMI video outputs (KA8288)
- Cascade up to 1 level (dual display for KA8270/KA8280 and quad display for KA8278/KA8288)
- ATEN'S exclusive FPGA and proprietary protocol technologies prevent virus threats and provide impervious data protection
- High video resolution – up to 1920 x 1200 @ 60 Hz
- Flexible and easy configuration
- Specifically designed for KN Series devices – no compatibility issues
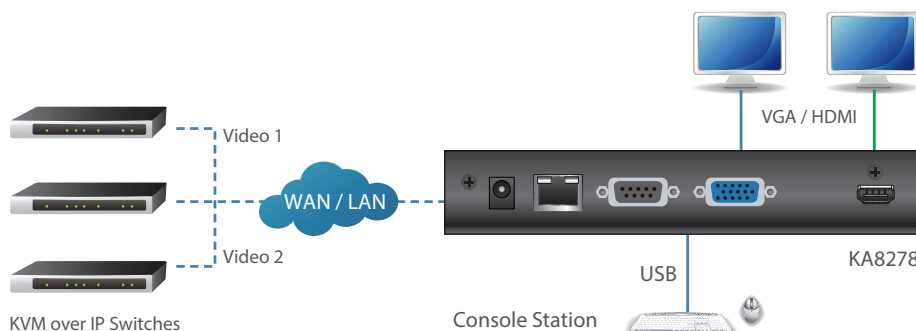- Intuitive operation – create customized user profiles

Specifications

Function	KA8270	KA8280	KA8278	KA8288
Connectors				
Video	1 x HDB-15 Female	1 x HDMI Female	1 x HDB-15 Female 1 x HDMI Female	2 x HDMI Female
RS-232	1 x DB-9 Male			
Power	1 x DC Jack			
Audio	2 x Audio Jack Female			
LAN Ports	1 x RJ-45 Female			
Keyboard	1 x USB Type-A Female			
Mouse	1 x USB Type-A Female			
USB Port	2 x USB Type-A Female			
Cascade Port	1 x RJ-45 Female			
LEDs				
Power	1 (Blue)			
Video	1920 x 1200 @ 60Hz			
Environmental				
Operating Temperature	0 -40°C			
Storage Temperature	-20 - 60°C			
Humidity	0-80% RH, Non-condensing			
Physical Properties				
Housing	Metal			
Weight	0.8 kg (1.76 lb)	0.79 kg (1.74 lb)	0.8 kg (1.76 lb)	0.8 kg (1.76 lb)
Dimensions (L x W x H)	17.42 x 15.54 x 2.88 cm (6.86 x 6.12 x 1.13 in.)			
Carton Lot	5 pcs			

Setup >

VGA / HDMI

WAN / LAN

Video 1

Video 2

KVM over IP Switches

KA8278

USB

Console Station

Serial Console Servers

SN3101 • SN9108 • SN9116 • SN0108A • SN0116A • SN0132 • SN0148

ATEN Altusen™ Serial Console Server products are control units that provide both In-Band and Out-of-Band remote serial access to up to 48 servers or other serial IT devices (network switches, routers, power management devices, etc.) via a Telnet or SSH TCP/ IP connection. Serial Console Servers also include one port Serial Device Servers that support RS-232, RS-422, and RS-485 data transfers, as well as providing Ethernet connectivity for a wide variety of serial devices used in commercial applications. These include industrial control, data acquisition, access control, environment monitoring, remote site management, etc. This total serial data transfer system transforms the capability of legacy serial devices, and allows them to take advantage of the speed and reliability of today's modern communication techniques.

Virtual Port Management

ATEN Altusen™ Serial Console Server products offer Real COM Port support. Devices connected to this type of virtual port appear as if they were directly connected to a COM port on the local computer. Data transmission between the device and the local computer takes place over the virtual COM port to the Serial Console Server device. This mode is especially convenient for use with POS terminals, Barcode Readers, Serial printers, etc.

Simultaneous Control

Multiple users can log in at the same time via a TCP/IP connection from any computer connected to the Internet. Since the first 8/16/32/48 users are able to control separate ports, all attached devices (up to 8/16/32/48) can be accessed concurrently. The other concurrent login users may view the port's video output.

Alert Settings Support

Serial Console Server products can inform you via email about problems that have occurred on the devices that are connected to them. Up to 10 keywords or phases for each port can be emailed to you. For example, when a device encounters a problem – such as a critical error that requires a reboot – a debug message is sent through its COM port. When the Serial Console Server device receives the message, it sends an email to inform the user.

Multiple Communication Modes

The Serial Console Server supports a wide variety of serial communication modes, such as Real COM, TCP Server, TCP Client, UDP, Modbus, Virtual Modem, and Serial Tunnel – offering versatile and diversified serial data access methods to meet a broad range of application requirements.

Out of Band Configuration

OOBC (Out of Band Configuration) provides the ability to access Serial Console Server devices over a serial connection. This can either be a direct serial connection from a local computer, or a dial in connection via modem. OOBC connection supports includes HyperTerminal, Telnet, and SSH.

Note:
The features highlighted above are not available in all products. Please refer to each product page for more details. Product information is subject to change without prior notice.

Advanced Security features

Serial Console Server devices are equipped with internal and external user authentication methods and port specific access rights. The administrator may set different port access rights to specific users on a port-by-port basis, allowing for customized security. Each port can be accessed individually by up to eight or sixteen users. Login security is port-specific and supports secure multi-user and multi-level login.

Complete Serial and Power Management Solution

Serial Console Server products can work in tandem with other remote management products

Authentication Network Management Service

ANMS (Authentication Network Management Service) supports login authorization management from external sources. External authorization sources include CC2000 Management Software*, RADIUS, LDAP(s), and AD settings.
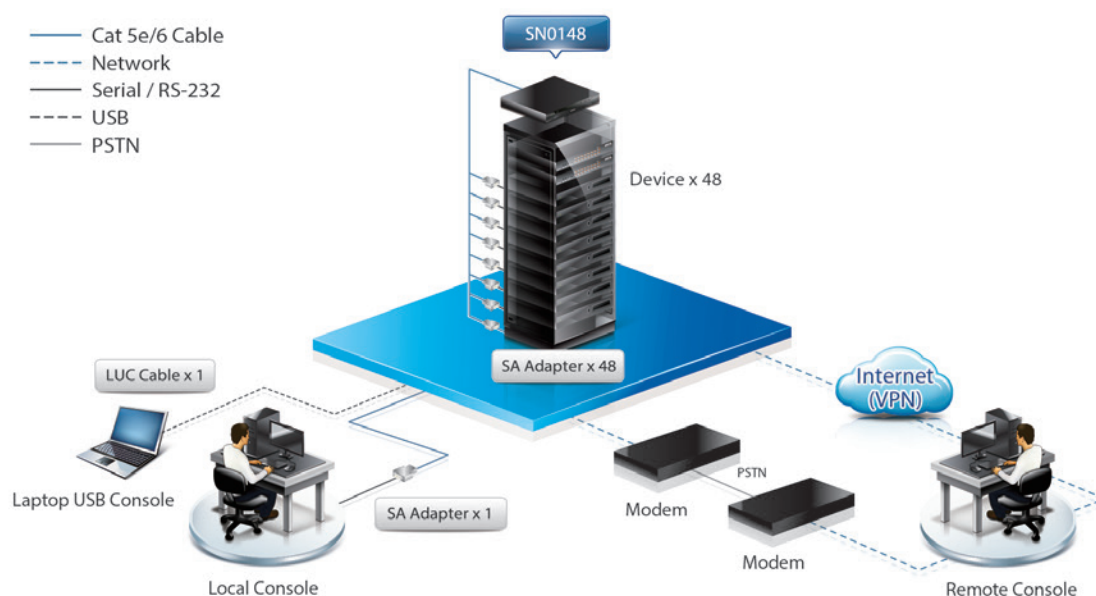
Note:*Please refer to page 5-3.

SN3101 Serial Device Server
Standard TCP/IP Interface – Broad Choice of Operation Modes

The SN3101 offers versatile, diversified serial data access operations to meet a broad range of application requirements – these include Console Management, Real COM, TCP Server, TCP Client, UDP, Modbus, Serial Tunnel, and Virtual Modem.

More Convenient, More Efficient Serial Device Management across the Entire Installation

The Serial Network Device Manager, a windows-based configuration and management utility, provides convenient and efficient management of your SN3101 installation.

Flexible Access and Configuration

The SN3101 offers a variety of "over IP" methods to control your serial devices – from browser login, a stand-alone Serial Network Device Manager AP program, to Telnet / SSH terminal access.

Secure Data Transmission

Recognizing the importance of secure data transmission to your operations, powerful safety features have been designed into the SN3101. With 128-bit/256-bit SSL (TLS v1.0) serial data encryption for TCP Server, TCP Client, Virtual Modem, and Serial Tunnel operation modes, you can feel confident that your data is completed safeguarded.

Centralized Access Control

The SN3101 makes security policy enforcement smooth and easy. Administrators can authenticate user logins and authorize individual user rights via RADIUS, LDAP, LDAPS, and Microsoft Active Directory servers.

Modbus Ethernet-to-Serial Support

The SN3101's support for Modbus Ethernet-to-serial data transmission provides a bridge that seamlessly integrates Modbus devices (such as PLCs, DCSs, HMIs, etc.) into your serial network.

Note: The features highlighted above are not available in all products. Please refer to each product page for more details. Product information is subject to change without prior notice.

Comparison

Model		SN3101	SN9108 / SN9116	SN0108A / SN0116A SN0132 / SN0148
Device Connection		1	8 / 16	8 / 16 32 / 48
Concurrent Access		1	8 / 16	8 / 16 32 / 48
Device	Interface	Serial (RS-232/RS-485/RS-422)	Serial (RS-232)	Serial (RS-232)
	Connector	DB-9	RJ-45	RJ-45
Remote Access		•	•	•
LAN Connection		RJ-45	RJ-45	RJ-45
Out of Band Configuration		N/A	•	•
PON Support		•	•	•
Real COM Port Support		•	•	•
Power		AC, DC Power	AC Power	AC, DC Power
Communication Modes		Real COM, TCP Server (RAW TCP), TCP Client, UDP Server/ Client, Modbus, Virtual Modem, and Serial Tunnel	Real COM, TCP Server, TCP Client, UDP, Serial Tunnel, and Virtual Modem	

SN3101

Single Port Serial Device Server
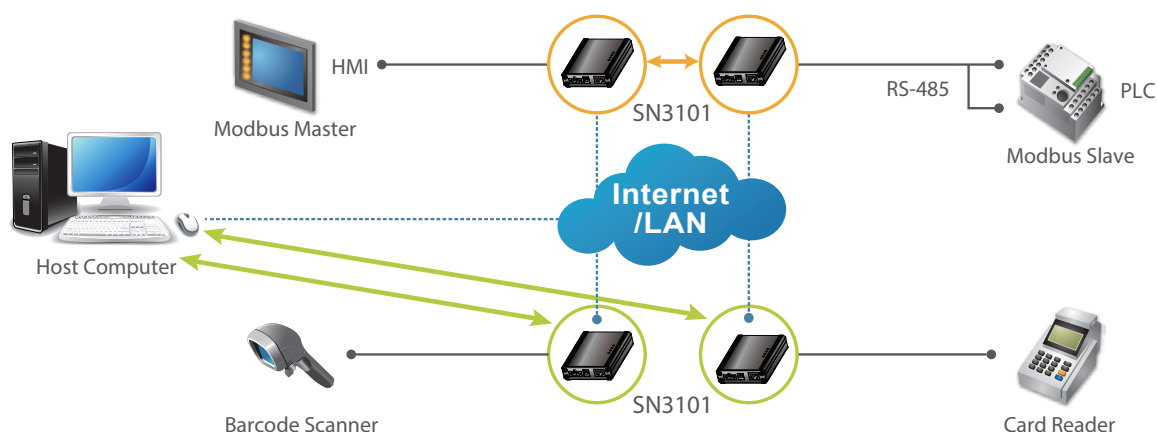

Serial Device
DB-9

SN3101

Rear

Highlights

• Provides over IP access for industrial serial devices
• Software selectable RS-232/422/485 3-in-1 serial port
• 64 Kbyte port buffer prevents data loss when the
  network is unstable
• SNMP MIB II and RS-232 MIB for network management
• SMTP and SNMP trap event notification
• Choice of power input: AC – DC adapter or DC IN direct

• Built-in 15KV ESD serial port protection
• Wide range of versatile serial operation modes
• High security via 128-bit/256-bit SSL (TLS 1.0) encryption for serial data transmission
• Redundancy support via multiple simultaneous Real COM, TCP Server, and TCP Client connections
• Real COM driver for Windows
• Real TTY driver for Linux, Fixed TTY driver for Unix*
• Modbus Ethernet-to-Serial support
• Modem emulation enables existing modem-based applications to make connections over IP networks
• Virtual Terminal support (VT320, VT52, VT100, VT220)
• System configuration via Web Console (HTTP/HTTPS), Telnet / SSH Console, and Windows utility
• Backup/restore and firmware upgrading via Web Console (HTTP/HTTPS) and Windows utility
• Easy-to-use Windows utility for auto discovery, multiple device setting and monitoring
• Centralized external authentication support for RADIUS, LDAP(S), and MS Active Directory
• Max. baud rate: 460 Kbps
• Operating Temperature 0 – 60°C
• 2 types of power input: 2-pin terminal block and adapter jack
• Wide range of power input from 9 – 30V DC to 12 – 48V DC

Note: *Fixed TTY Driver Supports 1) Sco Unix, Sco OpenServer; 2) UnixWare 7, SVR 5; 3) UnixWare 2.1, SVR 4.2; 4) QNX 4.25, QNX 6; 5)
      FreeBSD; 6) Solaris 10; 7) AIX 5.x; 8) HP-UX 11i.

Setup 〉

HMI
Modbus Master
SN3101
RS-485
PLC
Modbus Slave
Host Computer
Internet /LAN
Barcode Scanner
SN3101
Card Reader

Specifications

Function	SN3101
Connectors	
Serial	1 x DB-9 Male (Black)
Network	1 x RJ-45 Female (Black)
Power	1 x 2-pin Terminal Block (Green) 1 x DC Jack (Black)
LEDs	
Power	1 (Green)
Link	1 (Green)
10/100 Mbps	1 (Orange/Green)
TxRx (ACT)	1 (Green)
Power Input	
Power Adapter	100-240V AC; 50/60 Hz
Power Line Protection	4KV burst (EFT), EN61000-4-4 2KV surge, EN61000-4-4
Power Consumption	9V, 2.7W
Interfaces	
Serial	RS-232/422/485; Software selectable RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND RS-422: Tx+, Tx-, Rx+, Rx-, RTS+, RTS-, CTS+, CTS-, GND RS-485: Data+, Data-, GND Baud Rate: 460Kbps Protection: 15 KV ESD Protection for the serial port Parity: None, Even, Odd, Mark, Space Data Bits: 5, 6, 7, 8 Stop Bits: 1, 1.5, 2 Flow Control: None, XON/XOFF, RTS/CTS
Network	10/100BaseTX; Autosensing ARP, DHCP, DNS, HTTP, HTTPS, ICMP, IP, TCP, UDP, NTP, PPP, RADIUS, Telnet, SNMP, SNMP Trap, SMTP, SSH Protection: 1.5 KV Magnetic Isolation
Compliance	FCC Class A, CE Class A, RoHS
Environmental	
Operating Temperature	0 - 60°C
Storage Temperature	-20 - 85°C
Humidity	0 ~ 95% RH, Non-condensing
Physical Properties	
Housing	Metal
Weight	0.22 kg (0.48 lb)
Dimensions (L x W x H)	10.69 x 7.90 x 2.44 cm (4.21 x 3.11 x 0.96 in.)
Carton Lot	5 pcs

Included Accessories

	SN3101
Power Adapter	•
Mounting Kit	•
Software CD	•
DC Terminal Connector	•

Optional Accessories

Description	Part No. / Spec.	Page No.
Management Software	Please refer to page 5-1	5-1

SN9108 / SN9116

8/16-Port Serial Console Server with Single Power / LAN

Serial Device
RJ-45

SN9116

Front

Rear

Highlights

• Secure in-band and out-of-band network access to serial consoles
• Integrates with PDUs for port and power outlet association
• Convenient and simple access via browser or Telnet / SSH client
• Comprehensive logging and event notification
• Integrates with CC2000 for centralized data center management

System Accessibility and Availability
• In-band access of Ethernet and Out-of-band access of dial-up modem
• Browser access with an intuitive GUI and Terminal-based access with a menu-driven UI
• Modem dial-in/dial-back/dial-out access

Serial Console Management
• Port access via Telnet / SSH client and third-party clients such as PuTTY
• Direct port access from Telnet client – bypassing login to SN
• Convenient port access via the applet serial viewer from SN Web GUI
• Selectable ActiveX or Java for the serial viewer
• Comprehensive viewer function – copy/paste, logging, data import, Macro, broadcast, and Message Board
• Sun Solaris ready – Sun "break-safe"
• Alert String
• Command filter – administrators can define what commands cannot be executed by users
• Data buffering
• Multiple users simultaneous port access – up to 16 connections per port

Security
• SSH and SSL / TLS support
• Secure login from browser with TLS 1.2 data encryption and RSA 2048-bit certificates
• Configurable user permissions for port access and control
• Local and remote authentication and logging
• Third-party authentication – support RADIUS, TACACS+, LDAP/AD, and Kerberos
• IP and MAC address filter for enhanced security protection
• FIPS 140-2 certified cryptography – provides a FIPS mode to use an embedded FIPS 140-2 certified OpenSSL cryptographic module (Certificate # 1747)

System Management
• System configuration via Web browser of HTTP/HTTPS, Telnet / SSH client, and local console
• System log and event logging
• ATEN Log server and Syslog server
• SNMP agent
• Event notification – support notification of SMTP email, SNMP Trap, and SMS (with additional mobile device)
• Backup / restore system configuration and firmware upgradable
• Multi-browser support – Internet Explorer, Chrome, Firefox, Safari, Opera, and Mozilla
• Customizable global time zone
• NTP for time server synchronization
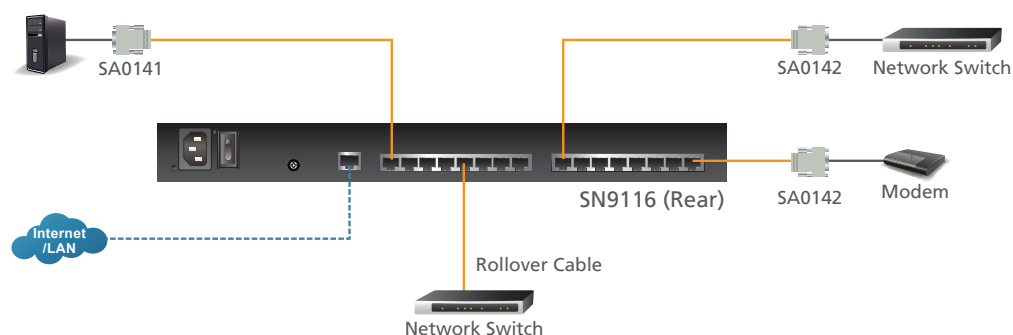• IPv4 / IPv6 support

Serial Console Server

Serial Device Management

• Versatile serial operation modes – support Real COM, TCP Server, TCP Client, UDP, Serial Tunnel and Virtual Modem
• Data encryption for Real COM, TCP Server, TCP Client, Serial Tunnel, and Virtual Modem
• Real COM driver for Windows 2000/XP/Vista/7/8 and Windows Server 2003/2008
• Real TTY driver for Linux
• Fixed TTY driver for UNIX*

Note:
*Fixed TTY Driver Supports 1) Sco Unix, Sco OpenServer; 2) UnixWare 7, SVR 5; 3) UnixWare 2.1, SVR 4.2; 4) QNX 4.25, QNX 6; 5) FreeBSD; 6) Solaris 10; 7) AIX 5.x; 8) HP-UX 11i.

Setup ⟩

Specifications

Function	SN9108	SN9116
Connection	8	16
Connectors		
Serial	8 x RJ-45 Female	16 x RJ-45 Female
LAN Ports	1 x RJ-45 Female	
Power	1 x IEC60320/C14	
LEDs		
Serial	8 (Green)	16 (Green)
10/100/1000 Mbps	1 (Red / Orange / Green)	
Power	1 (Blue)	
Maximum Input Power Rating	100-240V~, 1A, 50/60Hz	
Power Consumption	110V/10.6W; 220V/11.7W	110V/11.5W; 220V/12.2W
Environmental		
Operating Temperature	0 - 40℃	
Storage Temperature	-20 - 60℃	
Humidity	0 - 80% RH, Non-condensing	
Physical Properties		
Housing	Metal	
Weight	3.13 kg (6.89 lb)	3.16 kg (6.96 lb)
Dimensions (L x W x H)	43.72 x 21.76 x 4.40 cm (17.21 x 8.57 x 1.73 in.)	
Carton Lot	3 pcs	

Included Accessories

	SN9108 / SN9116
Power Cord	•
Mounting Kit	•
Software CD	•
Lok - U - Plug	•
Lok - U - Plug Installation Tool	•

Optional Accessories

Description	Part No. / Spec.	Page No.
Management Software	Please refer to page 5-1	5-1
Serial Console Server devices feature RJ-45 connectors and Cat 5e cable to link to serial IT devices via RJ-45 to Serial Adapters	Please refer to page 7-9	7-9

SN0108A / SN0116A
SN0132 / SN0148

8/16/32/48-Port Serial Console Server with Dual Power / LAN

Serial Device
RJ-45

SN0148

Front

Rear

Highlights

• Secure in-band and out-of-band network access to serial consoles
• Integrates with PDUs for port and power outlet association
• Convenient and simple access via browser or Telnet / SSH client
• Comprehensive logging and event notification
• Integrates with CC2000 for centralized data center management
• Extra Laptop USB Console (LUC) port and USB ports for USB storage and USB-based PC cards
• FIPS 140-2 compliant cryptography
• Dual Ethernet ports for failover or for dual IP addresses access
• Dual power supply for power redundancy

System Accessibility and Availability

• In-band access of Ethernet and Out-of-band access of dial-up modem
• Browser access with an intuitive GUI and Terminal-based access with a menu-driven UI
• Modem dial-in / dial-back / dial-out access
• Front USB ports for USB storage or for USB-based PC cards

Serial Console Management

• Port access via Telnet / SSH client and third-party clients such as PuTTY
• Direct port access from Telnet client – bypassing login to SN
• Convenient port access via the applet serial viewer from SN Web GUI
• Selectable ActiveX or Java for the serial viewer
• Comprehensive viewer function – copy/paste, logging, data import, Macro, broadcast, and Message Board
• Sun Solaris ready – Sun "break-safe"
• Alert String
• Command filter – administrators can define what commands cannot be executed by users
• Data buffering
• Multiple users simultaneous port access – up to 16 connections per port

Security

• SSH and SSL / TLS support
• Secure login from browser with TLS 1.2 data encryption and RSA 2048-bit certificates
• Configurable user permissions for port access and control
• Local and remote authentication and logging
• Third-party authentication – support RADIUS, TACACS+, LDAP/AD, and Kerberos
• IP and MAC address filter for enhanced security protection
• FIPS 140-2 certified cryptography – provides a FIPS mode to use an embedded FIPS 140-2 certified OpenSSL cryptographic module (Certificate # 1747)

System Management

- System configuration via Web browser of HTTP/HTTPS, Telnet / SSH client, and local console
- System log and event logging
- ATEN Log server and Syslog server
- SNMP agent
- Event notification – support notification of SMTP email, SNMP Trap, and SMS (with additional mobile device)
- Backup / restore system configuration and firmware upgradable
- Multi-browser support – Internet Explorer, Chrome, Firefox, Safari, Opera, and Mozilla
- Customizable global time zone
- NTP for time server synchronization
- IPv4 / IPv6 support

Serial Device Management

- Versatile serial operation modes – support Real COM, TCP Server, TCP Client, UDP, Serial Tunnel and Virtual Modem
- Data encryption for Real COM, TCP Server, TCP Client, Serial Tunnel, and Virtual Modem
- Real COM driver for Windows 2000/XP/Vista/7/8 and Windows Server 2003/2008
- Real TTY driver for Linux
- Fixed TTY driver for UNIX*

Note:

*Fixed TTY Driver Supports 1) Sco Unix, Sco OpenServer; 2) UnixWare 7, SVR 5; 3) UnixWare 2.1, SVR 4.2; 4) QNX 4.25, QNX 6; 5) FreeBSD; 6) Solaris 10; 7) AIX 5.x; 8) HP-UX 11i.

Setup ⟩
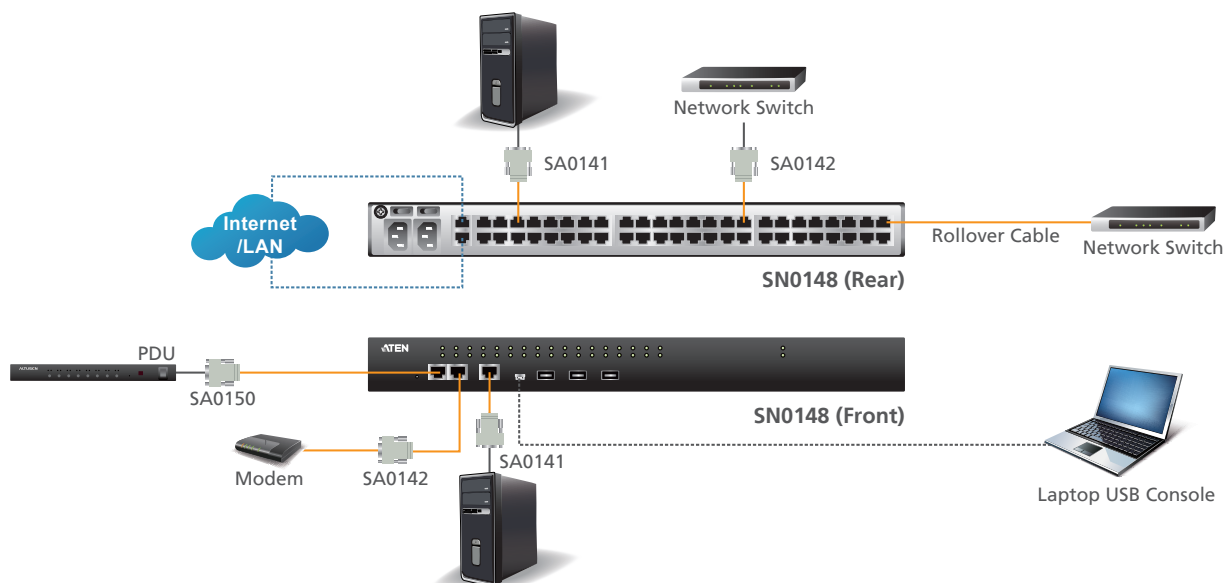
RJ-45 to Serial Adapters

Model	Connector	Interface
SA0141	RJ45-F to DB9-F	DTE to DTE
SA0142	RJ45-F to DB9-M	DTE to DCE
SA0143	RJ45-F to DB25-F	DTE to DTE
SA0144	RJ45-F to DB25-M	DTE to DCE
SA0145	RJ45-F to DB9-M	DTE to DTE
SA0146	RJ45-F to DB9-F	DTE to DCE
SA0147	RJ45-F to DB25-M	DTE to DTE
SA0148	RJ45-F to DB25-F	DTE to DCE

Specifications

Function	SN0108A	SN0116A	SN0132	SN0148
Connectors				
Serial	8 x RJ-45 Female	16 x RJ-45 Female	32 x RJ-45 Female	48 x RJ-45 Female
LAN Ports	2 x RJ-45 Female			
Power	2 x IEC 60320/C14*			
Local Console	1 x RJ-45 Female			
Modem	1 x RJ-45 Female			
PON	1 x RJ-45 Female			
Laptop USB Console (LUC) Port	1 x Mini USB			
USB Port	3 x USB Type A Female			
LEDs				
Serial	8 (Green)	16 (Green)	32 (Green)	48 (Green)
10/100/1000 Mbps	2 (Red / Orange / Green)			
Power	2 (Blue)			
Maximum Input Power Rating	100-240V~, 1A, 50/60Hz			
Power Consumption	110V/22.1W; 220V/21.8W	110V/22.9W; 220V/22.6W	120V/35W; 230V/37W	120V/42W; 230V/43W
Environmental				
Operating Temperature	0 - 40℃			
Storage Temperature	-20 - 60℃			
Humidity	0 - 80% RH, Non-condensing			
Physical Properties				
Housing	Metal			
Weight	4.35 kg (9.58 lb)	4.38 kg (9.65 lb)	4.84 kg (10.66 lb)	4.92 kg (10.84 lb)
Dimensions (L x W x H)	43.72 x 32.98 x 4.40 cm (17.21 x 12.98 x 1.73 in.)		43.72 x 32.77 x 4.40 cm (17.21 x 12.9 x 1.73 in.)	
Carton Lot	1 pc			

Note: *Available with DC power at customer's request (SN0108AD / SN0116AD / SN0132D / SN0148D).

Included Accessories

	SN0108A SN0116A	SN0132 SN0148
Power Cords	2	2
SA0142 Serial Adapter	•	•
SA0141 Serial Adapter	•	•
Laptop USB Console Cable	•	•
Mounting Kit	•	•
Software CD	•	•
Lok - U - Plug	2	N/A
Lok - U - Plug Installation Tool	•	N/A

Optional Accessories

Description	Part No. / Spec.	Page No.
Management Software	Please refer to page 5-1	5-1
Serial Console Server devices feature RJ-45 connectors and Cat 5e cable to link to serial IT devices via RJ-45 to Serial Adapters	Please refer to page 7-9	7-9

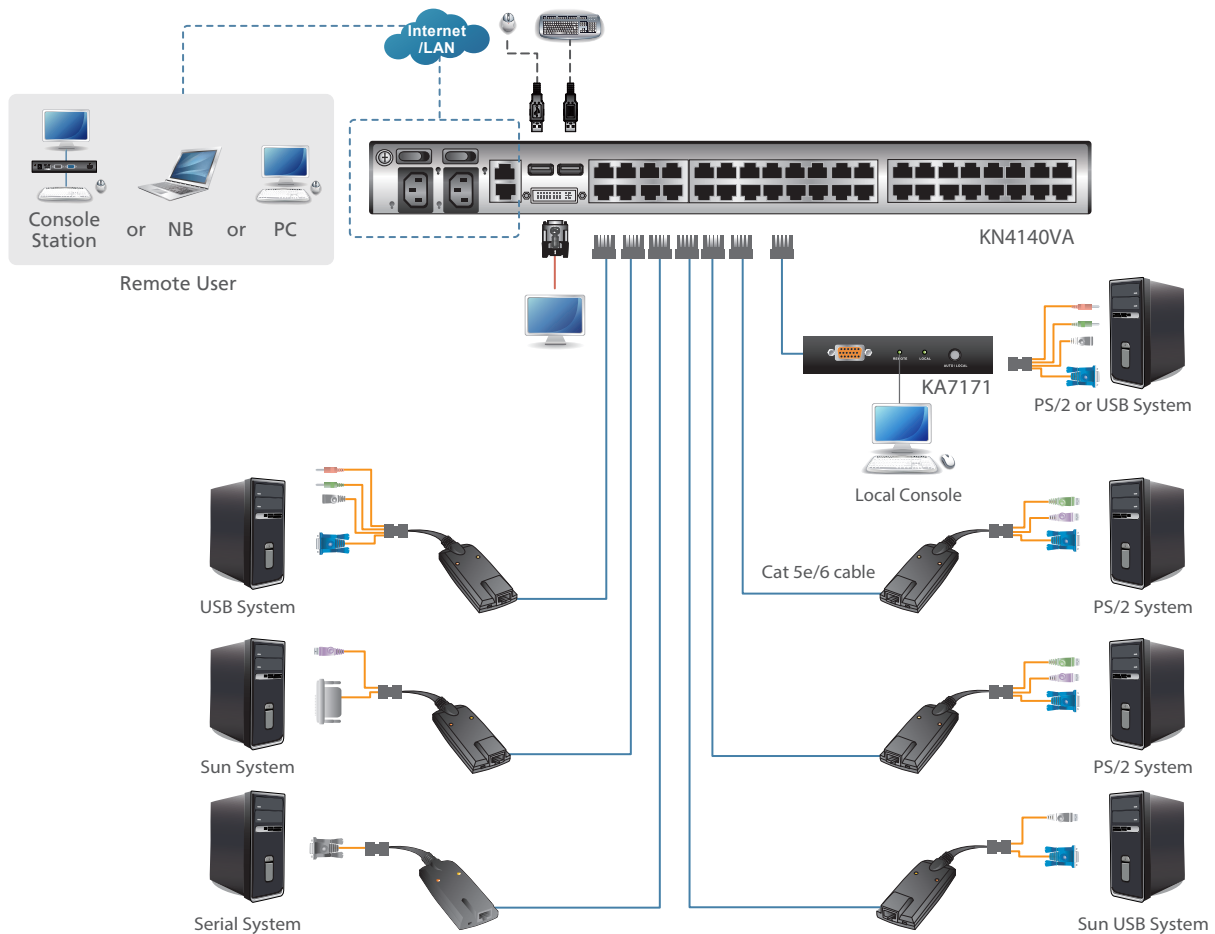# KVM Accessories / KVM Adapter Cables (CPU Modules) & Cables

KA7120 • KA7130 • KA7140 • KA7166 • KA7168 • KA7169 • KA7170 • KA7171 • KA7175 • KA7176 •
KA7177 • KA7178 • KA7188 • KA7189 • KA7520 • KA7570 • KA7920 • KA7970 • KA9140

ATEN Altusen™ KVM adapter cables connect the computers via Cat 5e/6 cable to the KVM switches. This provides high quality data transmissions over longer distances without the need of extenders.

Utilizing KVM adapter cables for the connection permits any combination of PC, Mac and Sun computers and serial devices to easily co-exist on the same installation. KVM adapters are light and small, so fit perfectly into almost any rack-mount location.

- Keyboard and mouse emulation – keeps your server functioning smoothly when it is disconnected from the switch's KVM port or relocated to a different KVM port
- Firmware upgradable
- Built-in ASIC for greater reliability and compatibility
- CPU module designed with automatic conversion to allow for flexible interface combinations to control all server types
- Built-in 4.5m Cat 5 cable (KA7920 / KA7970)
- High video quality (KA7xxx series)
- Compact size
- Supports VT100 (KA7140 / KA9140)
- Supports local console (KA7171)
- Supports digital audio (KA7188 / KA7189)

Note: The features highlighted above are not available in all products. Please refer to each product page for more details. Product information is subject to change without prior notice.

KVM Adapter Cables (CPU Modules)

Type	PS/2			Sun Legacy
Model	PS/2 KVM Adapter Cable	PS/2 KVM Adapter Cable	PS/2 KVM Adapter Cable	Sun Legacy KVM Adapter Cable
	KA7120	KA7520	KA7920	KA7130
Connectors				
Link	1 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Male with 4.5m Cat 5 cable	1 x RJ-45 Female
Computer	1 x HDB-15 Male 2 x Min Din 6 Male	1 x HDB-15 Male 2 x Min Din 6 Male	1 x HDB-15 Male 2 x Min Din 6 Male	1 x 13W3 Male 1 x Min Din 8 Male
LEDs				
Online / Link	1 (Green)	1 (Green)	1 (Orange)	1 (Green)
Power	1 (Orange)	1 (Orange)	N/A	1 (Orange)
Emulation				
Keyboard / Mouse	PS/2	PS/2	PS/2	Sun
Physical Properties				
Housing	Plastic	Plastic	Plastic	Plastic
Weight	0.15 kg (0.33 lb)	0.14 kg (0.31 lb)	0.25 kg (0.55 lb)	0.16 kg (0.35 lb)
Dimensions (L x W x H)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	7.93 x 3.70 x 1.55 cm (3.12 x 1.46 x 0.61 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)
Carton Lot	40 pcs	40 pcs	20 pcs	40 pcs

Compatible KVM Switch				
Model No.	KA7120	KA7520	KA7920	KA7130
KH1508A / KH1516A / KH1532A	•	•	•	•
KH2508A / KH2516A	•	•	•	•
KL1508A / KL1516A	•	•	•	•
KL1108V / KL1116V	•	N/A	N/A	•
KL1508AI / KL1516AI	•	•	•	•
KH1508AI / KH1516AI	•	•	•	•
KN1108V / KN1116V	•	N/A	N/A	•
KN1108VA / KN1116VA	•	N/A	N/A	•
KN2124VA / KN2140VA KN4124VA / KN4140VA	•	N/A	N/A	•
KN1132V / KN2116VA KN2132VA / KN4116VA KN4132VA / KN4164V KN8132V / KN8164V	•	N/A	N/A	•
KM0932 / KM0532 / KM0032*	•	N/A	N/A	•
(KN2116A/ KN2132 / KN4116 KN4132 / KN2116v / KN2132v KN4116v / KN4132v / KN2124v KN2140v / KN4124v / KN4140v)*	•	N/A	N/A	•

Note: *Virtual Media & CAC Reader features support will depend on the functionality of the connected KVM switch. Please see www.aten.com for more details.

KVM Adapter Cables (CPU Modules)

Type	USB					
	USB KVM Adapter Cable	USB KVM Adapter Cable	USB KVM Adapter Cable	USB DVI Virtual Media KVM Adapter Cable with Smart Card Reader	USB HDMI Virtual Media KVM Adapter Cable with Smart Card Reader	USB DisplayPort Virtual Media KVM Adapter Cable with Smart Card Reader
Model	KA7170	KA7570	KA7970	KA7166	KA7168	KA7169
Connectors						
Link	1 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Male with 4.5m Cat5 cable	1 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Female
Computer	1 x USB Type A Male 1 x HDB-15 Male	1 x USB Type A Male 1 x HDB-15 Male	1 x USB Type A Male 1 x HDB-15 Male	2 x USB Type A Male 1 x DVI-D Male	2 x USB Type A Male 1 x HDMI Male	2 x USB Type A Male 1 x DisplayPort Male
LEDs						
Online / Link	1 (Green)	1 (Green)	1 (Orange)	1 (Green)	1 (Green)	1 (Green)
Power	1 (Orange)	1 (Orange)	N/A	1 (Orange)	1 (Orange)	1 (Orange)
Emulation						
Keyboard / Mouse	USB	USB	USB	USB	USB	USB
Physical Properties						
Housing	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic
Weight	0.14 kg (0.31 lb)	0.15 kg (0.33 lb)	0.24 kg (0.53 lb)	0.14 kg (0.31 lb)	0.11 kg (0.24 lb)	0.11 kg (0.24 lb)
Dimensions (L x W x H)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	7.93 x 3.70 x 1.55 cm (3.12 x 1.46 x 0.61 in.)	9.10 x 5.60 x 2.12 cm (3.58 x 2.2 x 0.83 in.)	9.10 x 5.60 x 2.12 cm (3.58 x 2.2 x 0.83 in.)	9.10 x 5.60 x 2.12 cm (3.58 x 2.2 x 0.83 in.)
Carton Lot	40 pcs	40 pcs	20 pcs	40 pcs	40 pcs	40 pcs

Compatible KVM Switch						
Model No.	KA7170	KA7570	KA7970	KA7166	KA7168	KA7169
KH1508A / KH1516A KH1532A	•	•	•	•	•	•
KH2508A / KH2516A	•	•	•	•	•	•
KL1508A / KL1516A	•	•	•	•	•	•
KL1108V / KL1116V	•	N/A	N/A	•	•	•
KL1508AI / KL1516AI	•	•	•	•	•	•
KH1508AI / KH1516AI	•	•	•	•	•	•
KN1108V / KN1116V	•	N/A	N/A	•	•	•
KN1108VA / KN1116VA	•	N/A	N/A	•	•	•
KN2124VA / KN2140VA KN4124VA / KN4140VA	•	N/A	N/A	•	•	•
KN1132V / KN2116VA KN2132VA / KN4116VA KN4132VA / KN4164V KN8132V / KN8164V	•	N/A	N/A	•	•	•
KM0932 / KM0532 / KM0032*	•	N/A	N/A	•	•	•
(KN2116A/ KN2132 KN4116 / KN4132 KN2116v / KN2132v KN4116v / KN4132v KN2124v / KN2140v KN4124v / KN4140v)*	•	N/A	N/A	•	•	•

Note: *Virtual Media & CAC Reader features support will depend on the functionality of the connected KVM switch. Please see www.aten.com for more details.

KVM Adapter Cables (CPU Modules)

Type	USB					
	USB Virtual Media KVM Adapter Cable	USB Virtual Media KVM Adapter Cable with Audio	USB Virtual Media KVM Adapter Cable with Smart Card Reader	Dual Output USB Virtual Media KVM Adapter Cable with Audio	USB HDMI Virtual Media KVM Adapter Cable with Audio/Smart Card Reader	USB DisplayPort Virtual Media KVM Adapter Cable with Audio/ Smart Card Reader
Model	KA7175	KA7176	KA7177	KA7178	KA7188	KA7189
Connectors						
Link	1 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Female	2 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Female
Computer	1 x USB Type A Male 1 x HDB-15 Male	1 x USB Type A Male 1 x HDB-15 Male 2 x Mini Stereo Plug	2 x USB Type A Male 1 x HDB-15 Male	1 x USB Type A Male 1 x HDB-15 Male 2 x Mini Stereo Plug	2 x USB Type A Male 1 x HDMI Male	2 x USB Type A Male 1 x DisplayPort Male
LEDs						
Online / Link	1 (Green)	1 (Green)	1 (Green)	2 (Green)	1 (Green)	1 (Green)
Power	1 (Orange)	1 (Orange)	1 (Orange)	1 (Orange)	1 (Orange)	1 (Orange)
Emulation						
Keyboard / Mouse	USB	USB	USB	USB	USB	USB
Physical Properties						
Housing	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic
Weight	0.15 kg (0.33 lb)	0.17 kg (0.37 lb)	0.16 kg (0.35 lb)	0.17 kg (0.37 lb)	0.11 kg (0.24 lb)	0.11 kg (0.24 lb)
Dimensions (L x W x H)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	9.10 x 5.60 x 2.12 cm (3.58 x 2.2 x 0.83 in.)	9.10 x 5.60 x 2.12 cm (3.58 x 2.2 x 0.83 in.)	9.10 x 5.60 x 2.12 cm (3.58 x 2.2 x 0.83 in.)
Carton Lot	40 pcs	40 pcs	40 pcs	40 pcs	40 pcs	40 pcs

Compatible KVM Switch						
Model No.	KA7175	KA7176	KA7177	KA7178	KA7188	KA7189
KH1508A / KH1516A / KH1532A	N/A	N/A	N/A	N/A	N/A	N/A
KH2508A / KH2516A	N/A	N/A	N/A	N/A	N/A	N/A
KL1508A / KL1516A	N/A	N/A	N/A	N/A	N/A	N/A
KL1108V / KL1116V	•	•	•	•	N/A	N/A
KL1508AI / KL1516AI	N/A	N/A	N/A	N/A	N/A	N/A
KH1508AI / KH1516AI	N/A	N/A	N/A	N/A	N/A	N/A
KN1108V / KN1116V	•	•	•	N/A	N/A	N/A
KN1108VA / KN1116VA	•	•	•	•	N/A	N/A
KN2124VA / KN2140VA KN4124VA /KN4140VA	•	•	•	•	•	•
KN1132V / KN2116VA KN2132VA / KN4116VA KN4132VA / KN4164V KN8132V / KN8164V	•	•	•	•	•	•
KM0932 / KM0532 KM0032*	N/A	•	•	•	•	•
(KN2116A/ KN2132 KN4116 / KN4132 KN2116v / KN2132v KN4116v / KN4132v KN2124v / KN2140v KN4124v / KN4140v)*	•	•	•	N/A	N/A	N/A

Note: *Virtual Media & CAC Reader features support will depend on the functionality of the connected KVM switch. Please see www.aten.com for more details.

KVM Accessories

KVM Adapter Cables (CPU Modules)

Type	USB-PS/2	Serial	
Model	USB-PS/2 KVM Adapter Module with Local Console	Serial KVM Adapter Module	Serial KVM Adapter Cable
	KA7171	KA9140	KA7140
Connectors			
Link	1 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Female
Computer	1 x SPHD-18 Female (Yellow)	1 x DB-9 Female	1 x DB-9 Female
Console Ports	2 x USB Type A Female (White) 1 x HDB-15 Female (Blue)	1 x HDB-15 Female 1 x Min Din 6 Female	N/A
Power	1 x DC Jack (Black)	1 x DC Jack (Black)	1 x Mini USB Type B Female (Black)
Pushbuttons			
Operating Mode Selection	1 x Pushbutton	N/A	N/A
LEDs			
Online / Link	1 (Green)	1 (Green)	1 (Green)
Power	1 (Orange)	1 (Orange)	1 (Orange)
Local	1 (Green)	N/A	N/A
Remote	1 (Green)	N/A	N/A
Emulation			
Keyboard / Mouse	PS/2, USB	N/A	N/A
Video	Up to 1920 x 1200 @ 60Hz; DDC2B	N/A	N/A
Power Consumption	DC5.3V/3W	DC 5V/1.5W	N/A
Physical Properties			
Housing	Metal	Metal	Plastic
Weight	0.33 kg (0.73 lb)	0.50 kg (1.1 lb)	0.09 kg (0.2 lb)
Dimensions (L x W x H)	12.70 x 8.65 x 2.50 cm (5 x 3.41 x 0.98 in.)	20.00 x 8.15 x 2.50 cm (7.87 x 3.21 x 0.98 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)
Carton Lot	20 pcs	5 pcs	10 pcs

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KVM Accessories

Compatible KVM Switch			
Model No.	KA7171	KA9140	KA7140
KH1508A / KH1516A / KH1532A	N/A	•	N/A
KH2508A / KH2516A	N/A	•	N/A
KL1508A / KL1516A	N/A	•	N/A
KL1108V / KL1116V	•	N/A	•
KL1508AI / KL1516AI	N/A	•	N/A
KH1508AI / KH1516AI	N/A	•	N/A
KN1108V / KN1116V	•	N/A	•
KN1108VA / KN1116VA	•	N/A	•
KN2124VA / KN2140VA KN4124VA / KN4140VA	•	N/A	•
KN1132V / KN2116VA KN2132VA / KN4116VA KN4132VA / KN4164V KN8132V / KN8164V	•	N/A	•
KM0932 / KM0532 / KM0032*	•	•	•
(KN2116A/ KN2132 / KN4116 KN4132 / KN2116v / KN2132v KN4116v / KN4132v / KN2124v KN2140v / KN4124v / KN4140v)*	•	•	•

Note: *Virtual Media & CAC Reader features support will depend on the functionality of the connected KVM switch.
        Please see www.aten.com for more details.

8-5

Cables

Image	Part No.	Interface/ Function	PC Cable Interface	KVM Cable Interface	Compatible
A	2L-5201P (1.2m) 2L-5202P (1.8m) 2L-5203P (3m) 2L-5206P (6m)	PS/2 VGA	6-pin Mini-DIN Male 6-pin Mini-DIN Male HDB-15 Male	SPHD Male	KN1000 KN1000A
B	2L-5702P (1.8m)				
C	2L-5202UP (1.8m) 2L-5203UP (3m) 2L-5205UP (5m) 2L-5206UP (6m) With built-in USB to PS/2 Converter	USB VGA	USB Type A Male HDB-15 Male	SPHD Male	KN1000 KN1000A
D	2L-5201U (1.2m) 2L-5202U (1.8m) 2L-5203U (3m) 2L-5205U (5m)	USB VGA	USB Type A Male HDB-15 Male	SPHD Male	KN1000 KN1000A
E	2L-5301UP (1.2m) 2L-5302UP (1.8m)	USB PS/2 VGA	USB Type A Male HDB-15 Male 6-pin Mini-DIN Male	SPHD Male	KN1000A
F	2L-7D02U (1.8 m) 2L-7D03U (3m) 2L-7D05U (5m)	USB DVI-D Audio	USB Type A Male DVI-D Male (Single Link) 2 Audio plugs	USB Type B Male DVI-D Male (Single Link) 2 Audio plugs	KE6900 KE6940 KE6900ST
G	2L-7D02UI (1.8m) 2L-7D03UI (3m)	USB DVI-I Audio	USB Type A Male DVI-I Male (Single Link) 2 Audio plugs	USB Type B Male DVI-I Male (Single Link) 2 Audio plugs	KE6900 KE6940 KE6900ST
H	2L-7DX2U (1.8m) 2L-7DX3U (3m)	USB VGA Audio	USB Type A Male HDB-15 Male 2 Audio plugs	USB Type B Male DVI-I Male (Single Link) 2 Audio plugs	KE6900 KE6940
I	2L-7D02DH (1.8m)	USB HDMI Audio	USB Type A Male HDMI Male 2 Audio plugs	USB Type B Male DVI-D Male (Single Link) 2 Audio plugs	KE6900 KE6940 KE6900ST
J	2L-7D02UH (1.8 m)	USB HDMI Audio	USB Type A Male HDMI Male 2 Audio plugs	USB Type B Male HDMI Male 2 Audio plugs	KE8950 KE8952 KE8900S
K	2L-1700 (0.6m) 2L-1701 (1.8m) 2L-1703 (3m) 2L-1705 (5m) 2L-1715 (15m)	Daisy-Chain	Chain In DB-25 Male	Chain Out DB-25 Female	KH1508A / KH1516A KH1532A KH1508AI / KH1516AI KL1508A / KL1516A KL1508AI / KL1516AI
L	2L-2700 (0.6m) 2L-2701 (1.8m) 2L-2703 (3m) 2L-2705 (5m) 2L-2715 (15m)	Daisy-Chain (2 Buses)	Chain In DB-25 Male	Chain Out DB-25 Female	KH2508A KH2516A

About SPHD Connectors:
Many of our KVM switches use SPHD connectors for their KVM and/or console ports. We have specifically modified the shape of these connectors so that only KVM cables that we have designed to work with the KVM switch can be connected.

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KVM Accessories

Product Compatibility List

Model	Expansion	
	Connection	Compatible KVM Switch
KH1508A / KH1516A / KH1532A	Daisy-Chain	KH1508A / KH1516A / KH1532A* (ACS1208A / ACS1216A, CS1708A / CS1716A)**
KH2508A / KH2516A	Daisy-Chain	KH2508A / KH2516A
KL1508A / KL1516A	Daisy-Chain	KH1508A / KH1516A (ACS1208A / ACS1216A, CS1708A / CS1716A)**
KL1108V / KL1116V	Cascade	KH1508A / KH1516A (CS9134 / CS9138, CS1308 / CS1316)**
KL1508AI / KL1516AI	Daisy-Chain	KH1508A / KH1516A (ACS1208A / ACS1216A, CS1708A / CS1716A)**
KH1508AI / KH1516AI	Daisy-Chain	KH1508A / KH1516A (ACS1208A / ACS1216A, CS1708A / CS1716A)**
KN1108V / KN1116V KN1108VA / KN1116VA	Cascade	KH1508A / KH1516A (CS9134 / CS9138, CS1308 / CS1316)**
KN1132V / KN2116VA / KN2132VA KN4116VA /KN4132VA / KN4164V KN8132V / KN8164V / KN2124VA KN2140VA / KN4124VA / KN4140VA	Cascade	KH1508A / KH1516A (CS9134 / CS9138, CS1308 / CS1316)**
KM0932 / KM0532	Cascade	KH1508A / KH1516A, KN1108V / KN1116V, KN1132V / KN2116VA / KN2132VA / KN4116VA / KN4132VA / KN4164V / KN8132V / KN8164V, KN2124VA / KN2140VA / KN4124VA / KN4140VA (KN2116A / KN2132 / KN4116 / KN4132, KN2116v / KN2132v / KN4116v / KN4132v, KN2124v / KN2140v / KV4124v / KN4140v)*

Note: *KH1532A must be the primary device.
 **Product specifications and appearance are subject to change without notice.
  Please see www.aten.com for more details.

KVM Adapter Cables Compatibility List

Model	KH1508A KH1516A KH1532A KH1508AI KH1516AI	KH2508A KH2516A	KL1508A KL1516A KL1508AI KL1516AI	KL1108V KL1116V	KN1108V KN1116V	KN1108VA KN1116VA
KA7120	•	•	•	•	•	•
KA7130	•	•	•	•	•	•
KA7140	N/A	N/A	N/A	•	•	•
KA7170	•	•	•	•	•	•
KA7175	N/A	N/A	N/A	•	•	•
KA7176	N/A	N/A	N/A	•	•	•
KA7177	N/A	N/A	N/A	•	•	•
KA7178	N/A	N/A	N/A	•	N/A	•
KA7520	•	•	•	N/A	N/A	N/A
KA7570	•	•	•	N/A	N/A	N/A
KA7920	•	•	•	N/A	N/A	N/A
KA7970	•	•	•	N/A	N/A	N/A
KA9140	•	•	•	N/A	N/A	N/A
KA7171	N/A	N/A	N/A	•	•	•
KA7166	•	•	•	•	•	•
KA7168	•	•	•	•	•	•
KA7169	•	•	•	•	•	•
KA7188	N/A	N/A	N/A	N/A	N/A	N/A
KA7189	N/A	N/A	N/A	N/A	N/A	N/A

KVM Adapter Cables Compatibility List

Model	KN2124VA KN2140VA KN4124VA KN4140VA	KN1132V / KN2116VA KN2132VA / KN4116VA KN4132VA / KN4164V KN8132V / KN8164V	KM0532 KM0932 KM0032*
KA7120	•	•	•
KA7130	•	•	•
KA7140	•	•	•
KA7170	•	•	•
KA7175	•	•	N/A
KA7176	•	•	•
KA7177	•	•	•
KA7178	•	•	•
KA7520	N/A	N/A	N/A
KA7570	N/A	N/A	N/A
KA7920	N/A	N/A	N/A
KA7970	N/A	N/A	N/A
KA9140	N/A	N/A	•
KA7171	•	•	•
KA7166	•	•	•
KA7168	•	•	•
KA7169	•	•	•
KA7188	•	•	•
KA7189	•	•	•

KVM Adapter Cables Compatibility List

Model	(KN2116A / KN2132 KN4116 / KN4132)*	(KN2116v / KN2132v KN4116v / KN4132v)*	(KN2124v / KN2140v KN4124v / KN4140v)*
KA7120	•	•	•
KA7130	•	•	•
KA7140	•	•	•
KA7170	•	•	•
KA7175	•	•	•
KA7176	•	•	•
KA7177	•	•	•
KA7178	N/A	N/A	N/A
KA7520	N/A	N/A	N/A
KA7570	N/A	N/A	N/A
KA7920	N/A	N/A	N/A
KA7970	N/A	N/A	N/A
KA9140	•	•	•
KA7171	•	•	•
KA7166	•	•	•
KA7168	•	•	•
KA7169	•	•	•
KA7188	N/A	N/A	N/A
KA7189	N/A	N/A	N/A

Note: *Product specifications and appearance are subject to change without notice.
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ATEN

Corporate Headquarters

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
E-mail: marketing@aten.com

America Region:

ATEN Technology Inc.
15365 Barranca Parkway, Irvine, CA 92618, U.S.A
Phone: +1-949-428-1111   Fax: +1-949-428-1100
http://www.aten-usa.com
E-mail: sales@aten-usa.com

ATEN New Jersey Inc.
220 Davidson Avenue, Suite 404, Somerset,
NJ 08873, U.S.A
Phone: +1-732-356-1703   Fax: +1-732-356-1639
http://www.aten-usa.com
E-mail: sales@aten-usa.com

EMEA Region:

ATEN Infotech N.V.
Mijnwerkerslaan 34, 3550 Heusden-Zolder, Belgium
Phone: +32-11-531543   Fax: +32-11-531544
http://www.aten.eu   E-mail: sales@aten.be

ATEN U.K. Limited
466 Malton Avenue, Slough SL1 4QU, U.K.
Phone: +44-1753-539-121   Fax: +44-1753-215-253
http://www.aten.co.uk   E-mail: sales@aten.co.uk

ATEN Poland Sp. z o. o.
ul. Daimlera 2, 02-460 Warszawa, Poland
Phone: +48-669-062-112
E-mail: tomasz.kruszynski@pl.aten.com

ATEN Russia
Office 14212, No.14 Sereblyakova proezd,
Moscow, Russia.
Phone : +7-495-134-2808
http://ru.aten.com/   E-mail : russia@aten.com

ATEN Info Iletisim Ltd.
Beştepe Mah.Yaşam Cad. 13-A / 76
Yenimahalle Ankara, Turkey
Phone : +90-312-284-00-27
E-mail : turkey@aten.com

Oceania Region:

ATEN ANZ Pty Ltd.
Suite 3. 19, 32 Delhi Road, North Ryde,
NSW 2113, Australia
Phone: +61-2-9114-9933   Fax: +61-2-8072-3723
http://www.aten.com   E-mail: sales@au.aten.com

Asia Pacific Region:

ATEN China Co., Ltd.
18/F, Tower A, Horizon International Tower, No.6,
Zhichun Road, Haidian District, Beijing, China 100088
Phone: +86-10-5255-0110   Fax: +86-10-8296-1318
http://www.aten.com.cn   E-mail: sales@aten.com.cn

ATEN Japan Co., Ltd.
Tokyo Headquarters
ATEN Bldg. 8-4, Minami-senjyu 3-chome, Arakawa-ku,
Tokyo 116-0003 Japan
Phone: +81-3-5615-5810   Fax: +81-3-3891-3810
http://www.atenjapan.jp   E-mail: info@atenjapan.jp

Osaka Branch
Awajimachi Dai-Building 3F
3-1-9, Awajimachi, Chuo-ku, Osaka-shi, 541-0047, Japan
Phone: +81-6-6229-5810   Fax: +81-6-6229-8810
http://www.atenjapan.jp   E-mail: info@atenjapan.jp

ATEN Korea Co., Ltd.
B-303, Gabeul Great Valley, 60-5, Gasan-dong,
Geumcheon-gu, Seoul, Korea; 153-801
Phone: +82-2-467-6789   Fax: +82-2-467-9876
http://www.aten.co.kr   E-mail: sales@aten.co.kr

Atech Peripherals, Inc.
6F., No.133, Sec. 2, Datung Rd., Sijhih District.,
New Taipei City 221, Taiwan
Phone: +886-2-8692-6969   Fax: +886-2-8692-6926
http://www.aten.com.tw   E-mail: taiwan@aten.com

ATEN India Rep. Office
Unit 406, 4th Floor, Barton Center, M.G. Road,
Bangalore - 560001, India
Phone: +91-80-48517231
E-mail: South-Asia@aten.com