ATEN

Product Catalog
ATEN Altusen™ Enterprise Solutions

Simply
Better
Connections

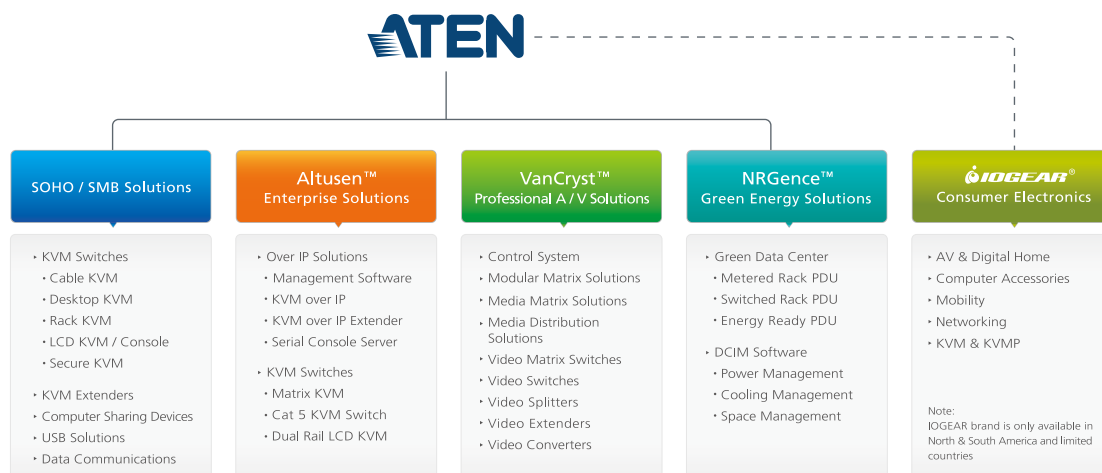2017 | 2018

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, established in 1979, specializes in connectivity management solutions for accessing and sharing technologies. ATEN consolidates all of its products under the ATEN brand to provide a standard of consistent service under one name. The ATEN brand consists of innovative solutions applied to IT infrastructure access management, professional audio/video, green energy products for consumers, small/home offices (SOHO), small to medium sized business (SMB) and enterprise customers.

ATEN's Altusen™ IT infrastructure access management solutions offer connectivity and control capabilities for SMB and Enterprise customers that allow people to effectively manage IT equipment from anywhere in the world. ATEN's VanCryst™ professional audio/video solutions offer signal management and system control for home and professional audio/video installations with a variety of applications in corporate, education, government, hospitality and home theater environments. ATEN's NRGence™ Green Energy line offers sensor-enabled energy-saving hardware and software solutions for the data center with a range of intelligent power distribution units that provide real-time energy management and performance indicators locally and remotely.

ATEN specializes in connectivity and management solutions. We distribute our products through a global sales network to meet a broad range of customer needs. ATEN delivers with quality and we care about our customers. We are committed to the best customer support in the industry.

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)

BELGIUM

UK

● 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.

KOREA

RUSSIA

CHINA

JAPAN

TURKEY

CHINA R&D

TAIWAN HQ

TAIWAN

CHINA FACTORY

AUSTRALIA

TAIWAN 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.
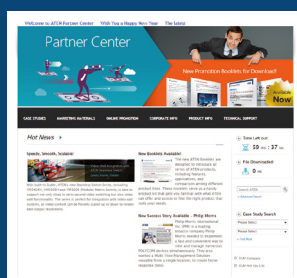
ATEN Partner Center

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 35 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.
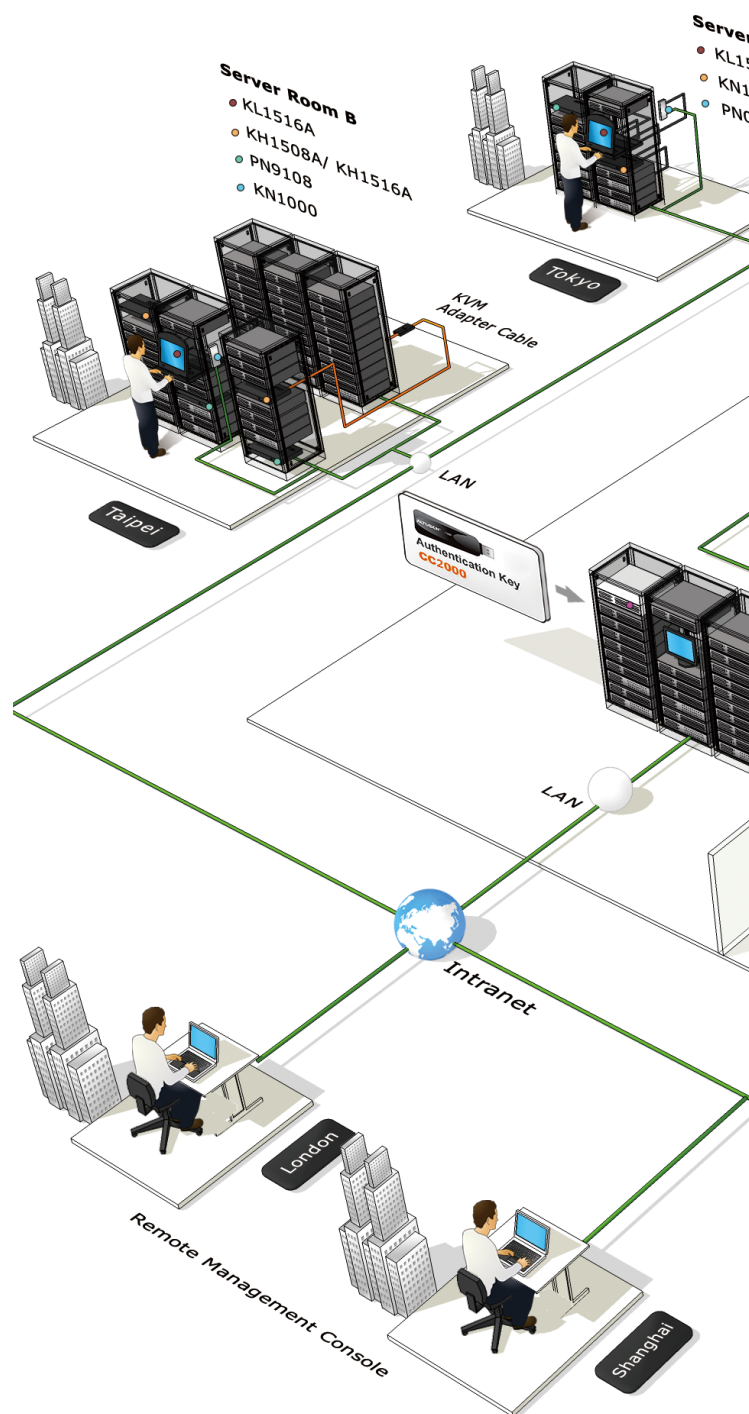
"When searching for a partner in connectivity solutions, ATEN was a natural choice due to its long history and reputation of providing high-quality, state of the art KVM switches." - Joshua Longacre, Vice President, Operations & Sales, Lyme Computer Systems.

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 specialist to simplify the user experience for you.

v

Room A
516A
000
9108

LAN

Cairo

Remote Management
Console

Boston

Intranet

KVM
Adapter Cable

Matrix Plus /
KVM Adapter
Cable

LAN

Singapore

Server Room D
KL1516Ai
KH1516Ai
PN9108
KN1000

KVM
Adapter Cable

Server Room E
KN1000
KM0032
KM0532 / KM0932
PN9108
SN0116
KL1516A
Console Module

New York

LAN

Moscow

Server Room C
KL1516Ai
PN9108
KH1516Ai
KN2116v

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 Switch

KL1508A / KL1516A • KL1108VN / KL1116VN • KL1508AI / KL1516AI • KL9108 / KL9116

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 form the KL1508A / KL1516A 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.

Keyboard / Video / Mouse
Cat 5e/6 Cable
Daisy-Chain

Dual Rail LCD KVM Switch
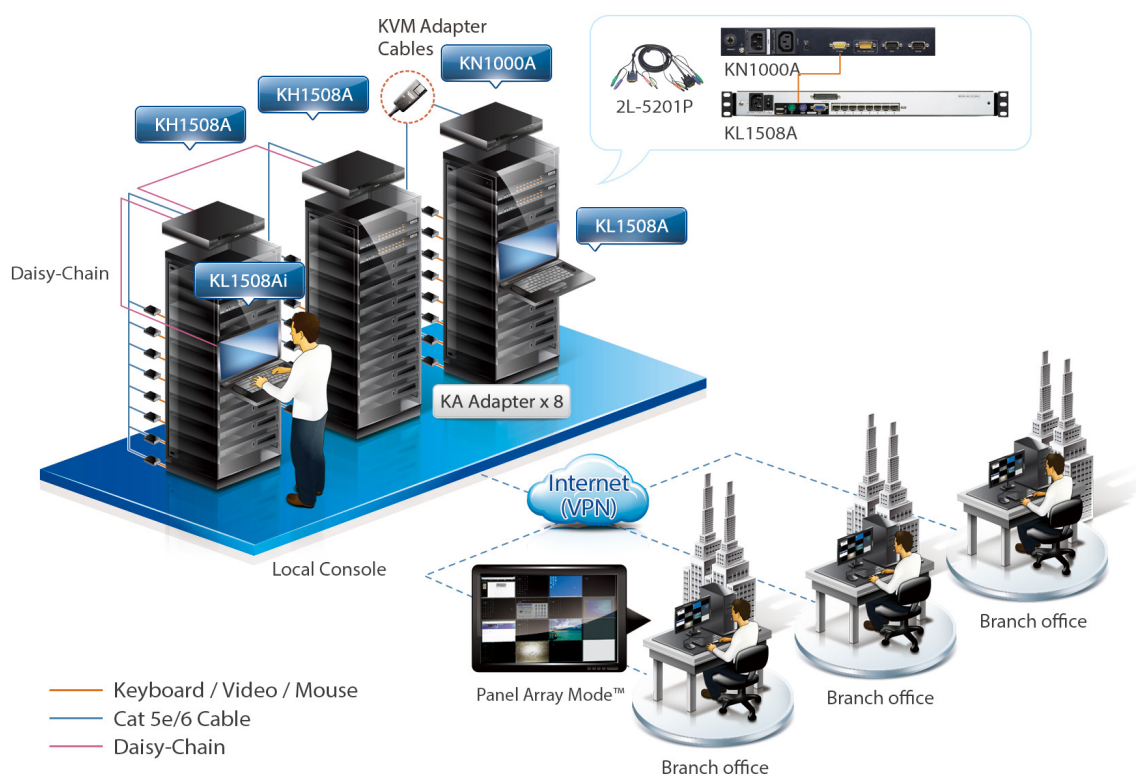
Comparison

Model		KL1508A KL1516A	KL1108VN KL1116VN	KL1508AI KL1516AI	KL9108 KL9116
Multiple Sessions	Local	1	1	1	1
	Remote	N/A	1		1
Ports		8 / 16	8 / 16	8 / 16	8 / 16
Port Selection		OSD, Hotkey, Pushbutton	OSD, Hotkey, Pushbutton	OSD, Hotkey, Pushbutton	OSD, Hotkey, Pushbutton
Expansion		256 / 512 (Daisy-Chain[1])	128 / 256 (Cascade[1])	128 / 256 (Daisy-Chain[1])	64 / 128 (Cascade[1])
Computer	Connector	RJ-45	RJ-45	RJ-45	SPHD
	Support Interface	PS/2, USB, Serial	PS/2, USB, Serial	PS/2, USB, Serial	PS/2, USB[2], Serial[4]
	Support Platform	Windows, Linux, Mac, Sun	Windows, Linux, Mac, Sun	Windows, Linux, Mac, Sun	Windows, Linux, Sun[3]
External Console		PS/2, USB; HDB-15	USB; HDB-15	PS/2, USB; HDB-15	PS/2; HDB-15
Extra Mouse Port		USB	USB	USB	PS/2
Keyboard / Mouse Emulation		PS/2, USB	PS/2, USB	PS/2, USB	PS/2
Panel Spec	LCD Module	17" / 19" TFT-LCD	19" TFT-LCD	17" / 19" TFT-LCD	17" TFT-LCD
	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			
Video	Local	1280 x 1024 @ 75Hz	1920 x 1200 @ 60Hz	1280 x 1024 @ 75Hz	1280 x 1024 @ 75Hz
	Remote	NA	1920 x 1200 @ 60Hz	1600 x 1200 @ 60Hz	1600 x 1200 @ 60Hz
Dedicated Invocation Keys		•	•	•	•
Console Lock		•	•	•	•
Pushbuttons	Port	•	•	•	•
	Station	•	N/A	•	N/A
Auto Scan		•	•	•	•
Broadcast Support		•	•	•	N/A
Multi-Level Password Security		•	•	•	•
Firmware Upgradable		•	•	•	•
KVM over IP		N/A	•	•	•
Single Person Installation		•	•	•	•
Adapter ID Support		•	•	•	N/A
Virtual Remote Desktop		N/A	•	•	•
On-Screen Keyboard		N/A	•	•	N/A
External Mouse		•	•	•	•
CC2000 Centralized Management Software		N/A	•	•	•
CCVSR Video Session Recording Software		N/A	•	N/A	N/A
Panel Array Mode™		N/A	•	•	•

Note:

Depends on KVM Adapter Cable type.

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 KVM switch.
2. Custom KVM cables available to allow PS/2 and USB interface to exist on the same installation.
3. Sun to PS/2 converters are available to allow Sun systems to exist on the same installation.
4. Requires KA9140 Serial Adapter Module.
5. With KA7xxx series adapter cables.

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 rack mount an LCD KVM switch and LCD Console. The Single Person Easy Installation Rack Mount Kit allows one person to install rack mount 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.
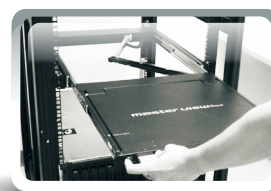
1. Secure the side rails to the rack.

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, KL9108M, KL9116M (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	External Mouse	Expansion
PS/2, USB	PS/2, USB, Sun, Serial	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 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 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: Pustbutton, 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, 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)
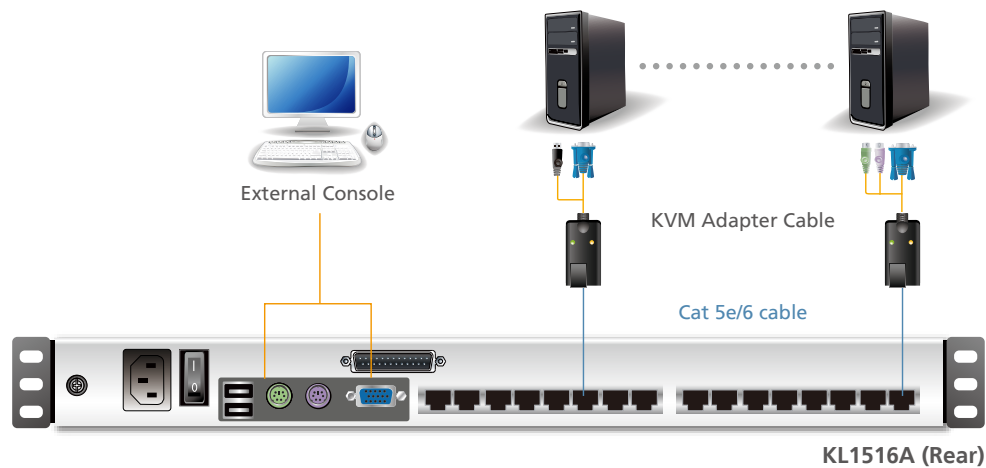
Specifications

Function		KL1508A	KL1516A
Computer Connections	Direct	8	16
	Max.	256 (Daisy-Chain)*	512 (Daisy-Chain)*
Console Connections	Local	1	1
	Remote	N/A	N/A
Port Selection		OSD, Hotkey, Pushbutton	
Platform Support		Windows, Linux, Mac, Sun	
LCD		KL1508AM : 17" KL1508AM : 19"	KL1516AM : 17" KL1516AM : 19"
Connectors	External Console Ports — Keyboard	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)
	External Console Ports — Video	1 x HDB-15 (F)	1 x HDB-15 (F)
	External Console Ports — Mouse	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)
	KVM Ports	8 x RJ-45	16 x RJ-45
	Daisy Chain	1 x DB-25 (M)	1 x DB-25 (M)
	Power	1 x IEC60320/C14	1 x IEC60320/C14
	F/W Upgrade	1 x RJ-11	1 x RJ-11
	External Mouse	1 x USB (F)	1 x USB (F)
Emulation	Keyboard / Mouse	PS/2; USB	
Video	Local	1280 x 1024 @ 75Hz, DDC2B (50m**)	
Input		100 – 240V~, 50-60Hz, 1A	
Power Consumption	17" LCD	100V/23.2W; 230V/24.4W	100V/24.5W; 230V/24.5W
	19" LCD	100V/23W; 230V/23W	100V/23W; 230V/23W
Environment	Operating Temp.	0 – 40℃	
	Storage Temp.	-20 – 60℃	
	Humidity	0 – 80% RH, Non-Condensing	
Physical Properties	Housing	Metal	
	Weight — 17" LCD	15.19 kg	15.20 kg
	Weight — 19" LCD	15.35 kg	15.36 kg
	Dimensions (L x W x H)	48.00 x 70.12 x 4.40 cm	48.00 x 70.12 x 4.40 cm
Carton Lot		1 pc	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 1-3	1-3
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 I
KVM Adapter Cables	Please refer to page 8-2	8-2

KL1108VN / KL1116VN NEW!

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

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

KL1116VN

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 all 8 or 16 ports at the same time
- Advanced security features include password protection and advanced encryption – TLS 1.2, 2048-bit RSA, 256-bit AES, 56-bit DES, 168-bit 3DES and 128-bit RC4
- Two-level access security – administrator, user
- 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.

Exclusive Features:

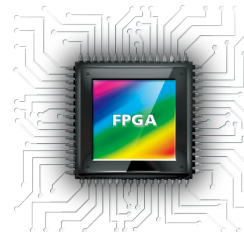- High grade security – supports FIPS 140-2 level 1 security standards
- Extreme virtual media speed – 2 x faster virtual media transmission speed
- Advanced FPGA graphics processor – with an HD resolution of 1920 x 1200

Model No.	Number of Active Sessions
KL1108VN	1-local and 1-remote user access
KL1116VN	1-local and 1-remote user access

PadClient App

Hardware

• Integrated KVM console with 19" LED-backlit 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 in 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 remote 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 operation

• 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
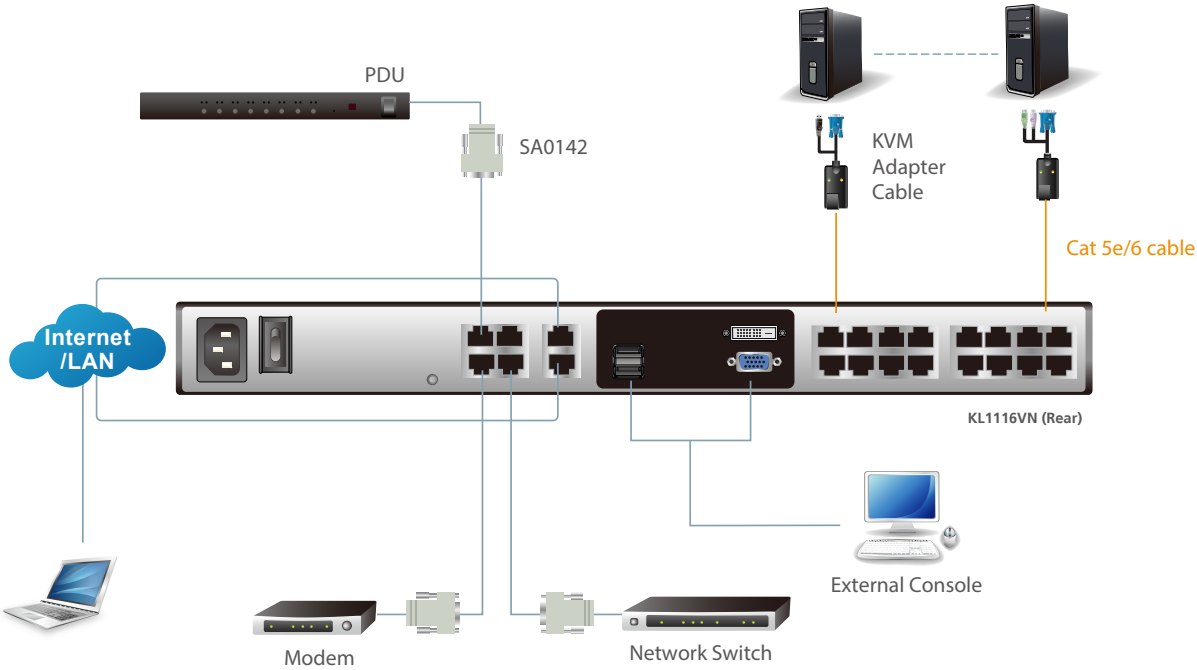
Easy-to-Use Interface

• 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, 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

PDU

SA0142

KVM Adapter Cable

Cat 5e/6 cable

Internet /LAN

KL1116VN (Rear)

External Console

Modem

Network Switch

Specifications

Function			KL1108VN	KL1116VN
Computer Connections	Direct		8	16
	Max.		128 (Cascade)	256 (Cascade)
Console Connections	Local		1	1
	Remote		1	1
Port Selection			OSD, Hotkey, Pushbutton	
LCD			KL1108VN : 19"	KL1116VN : 19"
Connectors	External Console Ports	Keyboard	1 x USB (F)	1 x USB (F)
		Video	1 x DVD-D (F) ; 1 x HDB-15 (F)	1 x DVD-D (F) ; 1 x HDB-15 (F)
		Mouse	1 x USB (F)	1 x USB (F)
	KVM Ports		8 x RJ-45	16 x RJ-45
	Power		1 x IEC60320/C14	1 x IEC60320/C14
	External Mouse		1 x USB (F)	1 x USB (F)
	LAN		2 x RJ-45	2 x RJ-45
	PON		1 x RJ-45	1 x RJ-45
	Modem		1 x RJ-45	1 x RJ-45
	Serial		2 x RJ-45	2 x RJ-45
Emulation	Keyboard / Mouse		PS/2; USB	
Video	Local		1280 x 1024@75Hz; DDC2B	
	Remote		1920 x 1200@60Hz; DDC2B	
Input			100 – 240V~, 50-60Hz, 1A	
Power Consumption			TBD	TBD
Environment	Operating Temp.		0 – 40℃	
	Storage Temp.		-20 – 60℃	
	Humidity		0 – 80% RH, Non-Condensing	
Physical Properties	Housing		Metal	
	Weight		TBD	TBD
	Dimensions (L x W x H)		TBD	TBD
Carton Lot			1 pc	1 pc

Included Accessories

	KL1108VN / KL1116VN
Firmware Upgrade Cable	•
Power Cord	•
Standard Mounting Kit	•

Optional Accessories

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

• KL1516AI

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 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 all 8 or 16 ports at the same time**
• Advanced security features include password protection and advanced encryption – 2048-bit RSA, 256-bit AES, 56-bit DES, TLS 1.2, 168-bit 3DES and 128-bit RC4
• Two-level access security – administrator, user

Hardware
• Integrated Cat 5 KVM over IP Switch with 17" or 19" LED-backlit 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 in the LCD KVM switch from an external console (monitor, USB or PS/2 keyboard and mouse)

Management
• Up to 64 user accounts – up to 32 concurrent remote 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, user-friendly interface

Setup ⟩

External Console

Internet /LAN

Remote User

KVM Adapter Cable

Cat 5e/6 cable

KL1516AI (Rear)
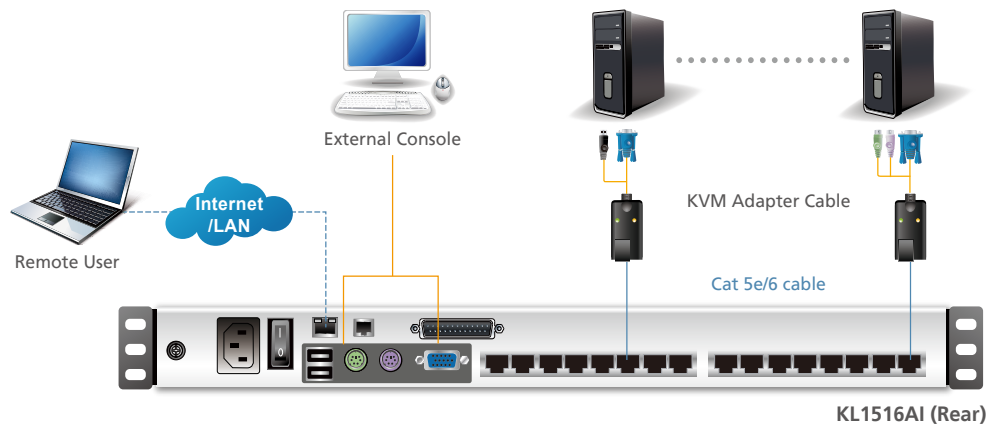
Specifications

Function			KL1508AI	KL1516AI
Computer Connections	Direct		8	16
	Max.		128 (Daisy-Chain)*	256 (Daisy-Chain)*
Console Connections	Local		1	1
	Remote			
Port Selection			OSD, Hotkey, Pushbutton	
Platform Support			Windows, Linux, Mac, Sun	
LCD			KL1508AIM : 17" KL1508AIN : 19"	KL1516AIM : 17" KL1516AIN : 19"
Connectors	External Console Ports	Keyboard	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)
		Video	1 x HDB-15 (F)	1 x HDB-15 (F)
		Mouse	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)
	KVM Ports		8 x RJ-45	16 x RJ-45
	Daisy Chain		1 x DB-25 (M)	1 x DB-25 (M)
	Power		1 x IEC60320/C14	1 x IEC60320/C14
	F/W Upgrade		1 x RJ-11	1 x RJ-11
	External Mouse		1 x USB (F)	1 x USB (F)
	LAN		1 x RJ-45	1 x RJ-45
	PON		1 x RJ-45	1 x RJ-45
Emulation	Keyboard / Mouse		PS/2; USB	
Video	Local		1280 x 1024 @ 75Hz, DDC2B (50m**)	
	Remote		1600 x 1200 @ 60Hz, DDC2B	
Input			100 – 240V~, 50-60Hz, 1A	
Power Consumption	17" LCD		120V/27W; 230V/28W	120V/29W; 230V/30W
	19" LCD		120V/27.5W; 230V/27.5W	120V/27.5W; 230V/27.5W
Environment	Operating Temp.		0 – 40°C	
	Storage Temp.		-20 – 60°C	
	Humidity		0 – 80% RH, Non-Condensing	
Physical Properties	Housing		Metal	
	Weight	17" LCD	15.23 kg	15.24 kg
		19" LCD	15.39 kg	15.40 kg
	Dimensions (L x W x H)		48.00 x 70.12 x 4.40 cm	48.00 x 70.12 x 4.40 cm
Carton Lot			1 pc	1 pc

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

Included Accessories

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

Optional Accessories

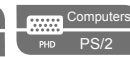| Description	Part No. / Spec.	Page No.
Rack Mount Kits	Please refer to page 1-3	1-3
Daisy Chain Cables	2L-1700 (0.6 m); 2L-1701 (1.8 m); 2L-1703 (3 m); 2L-1705 (5 m); 2L-1715 (15 m)	8-6 I
KVM Adapter Cables	Please refer to page 8-2	8-2
Management Software	Please refer to page 5-1	5-1

1

Dual Rail LCD KVM Switch

1-11

KL9108 / KL9116 > 1-Local/1-Remote Access

8/16-Port PS/2 VGA Dual Rail LCD KVM over IP Switch

IT'S VERY WELL MADE IN TAIWAN
• KL9108
• KL9116

iF design award china 2007 ■
• KL9116

| 2nd Console | Computers | External Mouse | Expansion |
| PS/2 | PHD PS/2 | PS/2 | Cascade |

KL9116

Front

Rear

Highlights

- 1 remote console (one bus) and 2 local consoles (one bus)
- Dual Rail housing with 1U-high design for convenient operation
- Cascade – up to 64 / 128 computers*
- Panel Array Mode™ – view all 8 or 16 ports at the same time
- Advanced security features include password protection and advanced encryption – 1024-bit RSA, 256-bit AES, 56-bit DES, and 128-bit SSL
- Three-level access security – administrator, user, and select

Hardware

- Integrated KVM console with 17" LED-backlit monitor in a Dual Rail housing
- Dual Rail – LCD monitor slides independently from the keyboard / touchpad
- Extra console port – manage computers in the LCD KVM switch from an external console (monitor, USB or PS/2 keyboard and mouse)

Management

- Up to 64 user accounts – up to 32 concurrent remote logins
- 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 and LDAP 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, user-friendly interface

Setup

External Console

Remote User

PS/2

Internet /LAN

KL9116 (Rear)
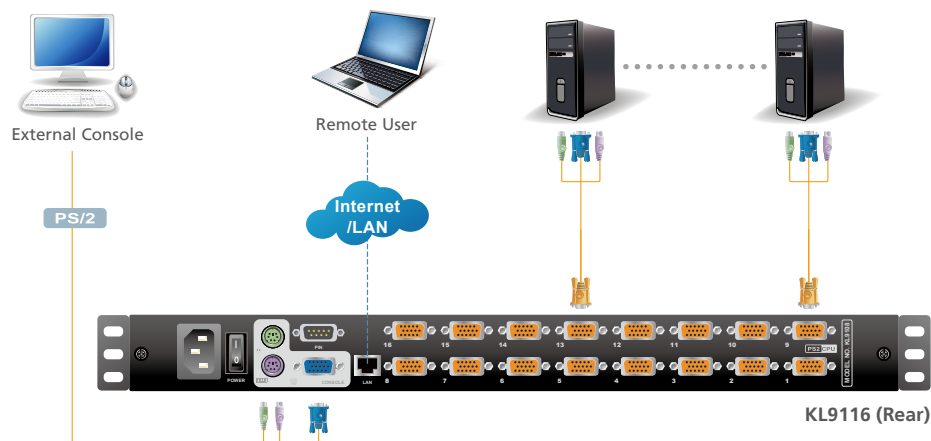
Specifications

Function		KL9108	KL9116
Computer Connections	Direct	8	16
	Max.	64 (Cascade*)	128 (Cascade*)
Console Connections	Local	1	1
	Remote	1	1
Port Selection		OSD, Hotkey, Pushbutton	
Platform Support		Windows, Linux, Sun**	
LCD		KL9108M : 17"	KL9116M : 17"
Connectors	External Console Ports — Keyboard	1 x PS/2 (F)	1 x PS/2 (F)
	External Console Ports — Video	1 x HDB-15 (F)	1 x HDB-15 (F)
	External Console Ports — Mouse	1 x PS/2 (F)	1 x PS/2 (F)
	KVM Ports	8 x SPHD (F)	16 x SPHD (F)
	Power	1 x IEC60320/C14	1 x IEC60320/C14
	External Mouse	1 x PS/2 (F)	1 x PS/2 (F)
	LAN	1 x RJ-45	1 x RJ-45
	PON	1 x DB-9 (M)	1 x DB-9 (M)
Emulation	Keyboard / Mouse	PS/2	
Video	Local	1280 x 1024 @ 75Hz; DDC2B	
	Remote	1600 x 1200 @ 60Hz; DDC2B	
Input		100 – 240V~, 50/60Hz, 1A	
Power Consumption		120V/31W; 230V/39W	
Environment	Operating Temp.	0 – 50℃	
	Storage Temp.	-20 – 60℃	
	Humidity	0 – 80% RH, Non-Condensing	
Physical Properties	Housing	Metal	
	Weight — 17" LCD	17.10 kg	17.30 kg
	Dimensions (L x W x H)	48.20 x 70.63 x 4.40 cm	48.20 x 70.63 x 4.40 cm
Carton Lot		1 pc	1 pc

Note: *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 KVM switch.

   **Sun to PS/2 converters are available to allow Sun systems to exist on the same installation.

Included Accessories

	KL9108 / KL9116
PS/2 KVM Cables	2
Power Cord	•
Standard Mounting Kit	•

Optional Accessories

Description	Part No. / Spec.	Page No.
Rack Mount Kits	Please refer to page 1-3	1-3
PS/2 KVM Cables	2L-5201P (1.2 m); 2L-5202P / 2L-5702P (1.8 m); 2L-5203P (3 m); 2L-5206P (6 m)	8-6 A,B
Cables & Converters for USB interface support	2L-5202UP (1.8 m); 2L-5203UP (3 m); 2L-5205UP (5 m); 2L-5206UP (6 m)	8-6 C
Converters for Sun interface support Sun (USB) compatible	CV131A	8-1
Management Software	Please refer to page 5-1	5-1

Cat 5 KVM Switch

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 or 16 port configurations and control from up to two KVM consoles. They can also be daisy-chained to connect up to 512 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 512 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 (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		1600 x 1200 @ 60Hz (40m*); 1280 x 1024 @ 75Hz (50m*)	

Note: *With KA7xxx series adapter cables.

　　　　**The KH1532A will be available in Q4 of 2017
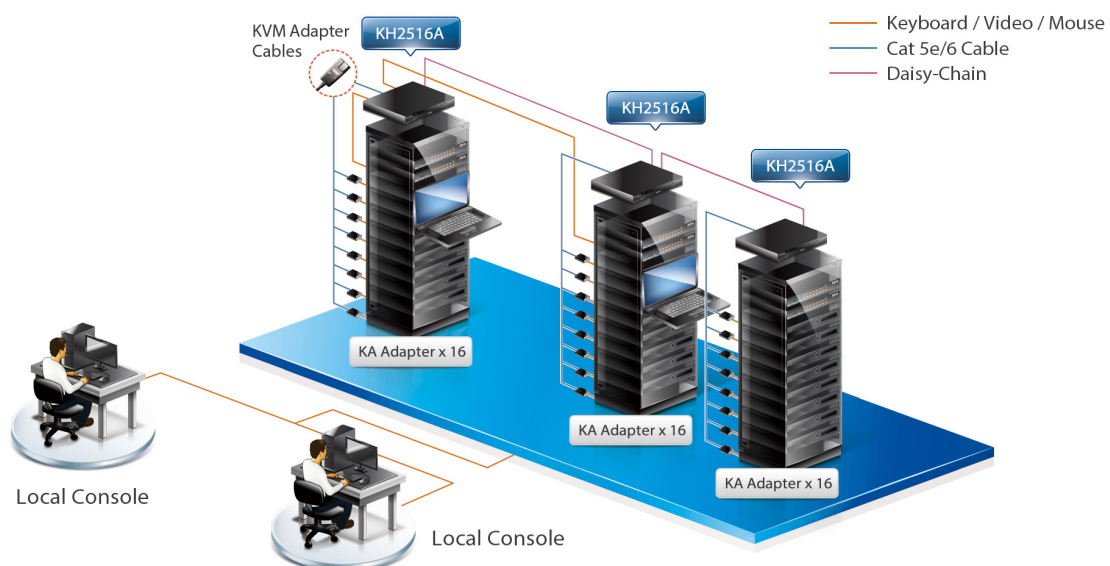
KH1508A / KH1516A / KH1532A

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, Hotkey and OSD (On Screen Display)
- Two-level password security – supports one administrator and ten user profiles. Password protection prevents unauthorized access of the installation
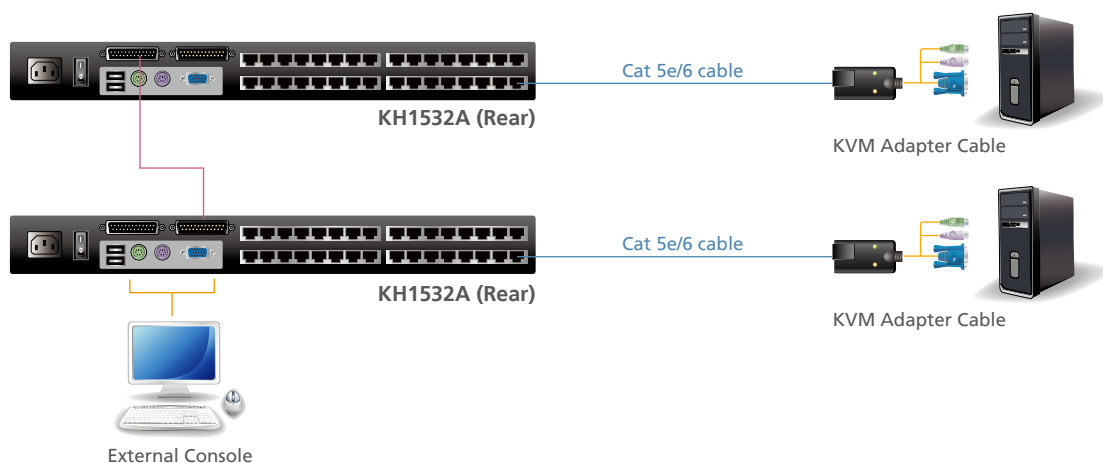
Hardware

- 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

Cat 5 KVM Switch

Setup

KH1532A (Rear)

Cat 5e/6 cable

KVM Adapter Cable

KH1532A (Rear)

Cat 5e/6 cable

KVM Adapter Cable

External Console

Specifications

Function			KH1508A	KH1516A	KH1532A***
Computer Connections	Direct		8	16	32
	Max.		256 (Daisy-Chain)*	512 (Daisy-Chain)*	1024 (Daisy-Chain)*
Port Selection			OSD, Hotkey, Pushbutton		
Platform Support			Windows, Linux, Mac, Sun**		
Connectors	Console Ports	Keyboard	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)
		Video	1 x HDB-15 (F)	1 x HDB-15 (F)	1 x HDB-15 (F)
		Mouse	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)
	KVM Ports		8 x RJ-45 (F)	16 x RJ-45 (F)	32 x RJ-45 (F)
	Daisy Chain Ports	In	1 x DB-25 (F)	1 x DB-25 (F)	1 x DB-25 (F)
		Out	1 x DB-25 (M)	1 x DB-25 (M)	1 x DB-25 (M)
	F/W Upgrade		1 x RJ-11 (F)	1 x RJ-11 (F)	1 x RJ-11 (F)
	Power Inlet		1 x IEC60320/C14	1 x IEC60320/C14	1 x IEC60320/C14
Emulation	Keyboard / Mouse		PS/2; USB		
Video			1600 x 1200 @ 60Hz (40m*); 1280 x 1024 @ 75Hz (50m*)		
Input			100 – 240V~, 50/60Hz, 1A		
Power Consumption			120V/5.8W; 230V/6W	120V/5.9W; 230V/6.1W	TBD
Environment	Operating Temp.		0 – 40℃		
	Storage Temp.		-20 – 60℃		
	Humidity		0 – 80% RH, Non-Condensing		
Physical Properties	Housing		Metal		
	Weight		2.73 kg	2.80 kg	
	Dimensions (L x W x H)		43.72 x 15.58 x 4.40 cm (19" / 1U)	43.72 x 15.58 x 4.40 cm (19" / 1U)	43.72 x 15.58 x 4.40 cm (19" / 1U)
Carton Lot			3 pcs	3 pcs	3 pcs

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

　　　**With KA7xxx series adapter cables.

　　　***The KH1532A will be available in Q4 of 2017

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 I
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
PS/2, USB

Computers
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, 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
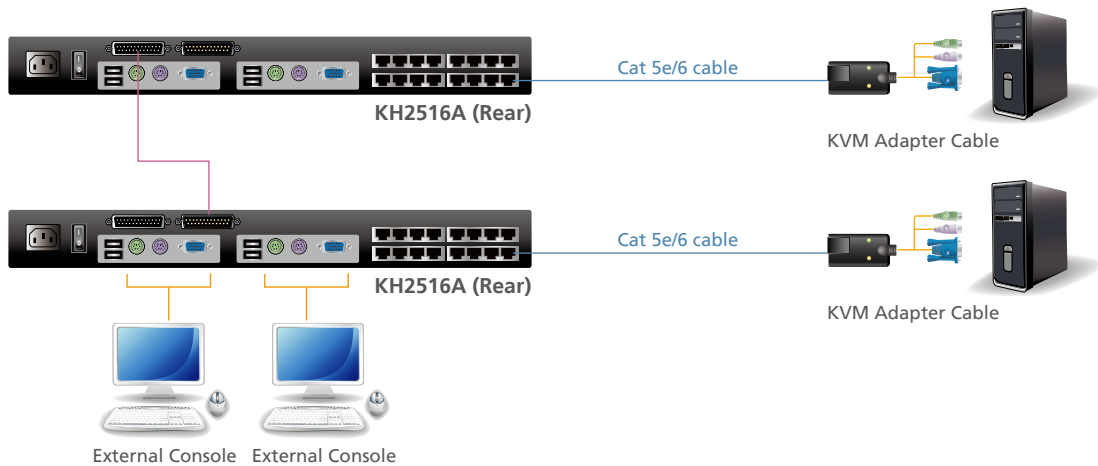
Hardware

- 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

KH2516A (Rear) — Cat 5e/6 cable — KVM Adapter Cable

KH2516A (Rear) — Cat 5e/6 cable — KVM Adapter Cable

External Console   External Console

Specifications

Function			KH2508A	KH2516A
Computer Connections	Direct		8	16
	Max.		128 (Daisy-Chain)*	256 (Daisy-Chain)*
Port Selection			OSD, Hotkey, Pushbutton	
Platform Support			Windows, Linux, Mac, Sun**	
Connectors	Console Ports	Keyboard	2 x PS/2 (F); 2 x USB (F)	2 x PS/2 (F); 2 x USB (F)
		Video	2 x HDB-15 (F)	2 x HDB-15 (F)
		Mouse	2 x PS/2 (F); 2 x USB (F)	2 x PS/2 (F); 2 x USB (F)
	KVM Ports		8 x RJ-45 (F)	16 x RJ-45 (F)
	Daisy Chain Ports	In	1 x DB-25 (F)	1 x DB-25 (F)
		Out	1 x DB-25 (M)	1 x DB-25 (M)
	F/W Upgrade		1 x RJ-11 (F)	1 x RJ-11 (F)
	Power Inlet		1 x IEC60320/C14	1 x IEC60320/C14
Emulation	Keyboard / Mouse		PS/2; USB	
Video			1600 x 1200 @ 60Hz (40m*); 1280 x 1024 @ 75Hz (50m*)	
Input			100 – 240V~, 50/60Hz, 1A	
Power Consumption			120V/7.2W; 230V/8.6W	120V/7.6W; 230V/9.0W
Environment	Operating Temp.		0 – 50°C	
	Storage Temp.		-20 – 60°C	
	Humidity		0 – 80% RH, Non-Condensing	
Physical Properties	Housing		Metal	
	Weight		2.81 kg	2.85 kg
	Dimensions (L x W x H)		43.72 x 15.58 x 4.40 cm (19" / 1U)	43.72 x 15.58 x 4.40 cm (19" / 1U)
Carton Lot			3 pcs	3 pcs

Note: *Refer to page 9-1 for details on compatible KVM switches.
　　　**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 J
KVM Adapter Cables	Please refer to page 8-2	8-2

Matrix KVM Switch

KM0932 • KM0532
Console Modules / KA7230 • KA7240

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 sessions 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 m with a 1280 x 1024 @ 60Hz video resolution.
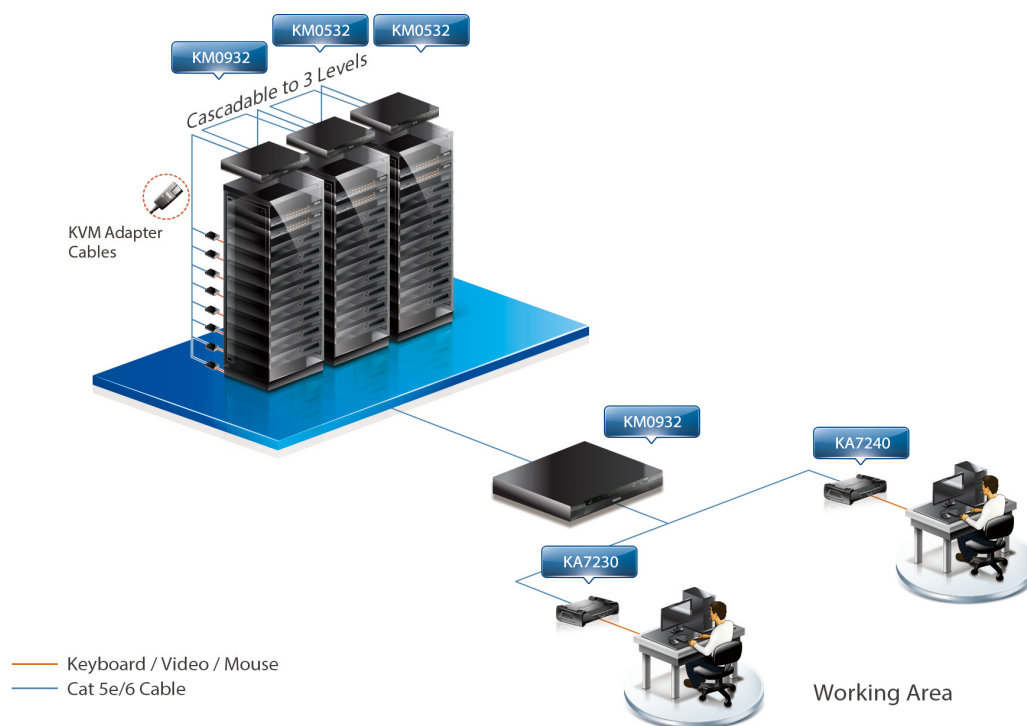
Clear Intuitive Interface

The Altusen™ Matrix KVM Switches offers 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 expansive.

KM0932

KM0532   KM0532

Cascadable to 3 Levels

KVM Adapter
Cables

KM0932

KA7240

KA7230

Keyboard / Video / Mouse
Cat 5e/6 Cable

Working Area

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.

KA7230
PS/2-USB Console Module

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

KA7240
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)

Comparison

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

KM0932 / KM0532

9/5-Console 32-Port Matrix KVM

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 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 display 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 its 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, 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 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 for the KA7240 console module and newer KVM adapter cables*
- Multicast Audio gives multiple console's access to the audio being broadcast by a single KVM port

Note: *With KA7xxx series adapter cables.

Setup >

Port Expansion
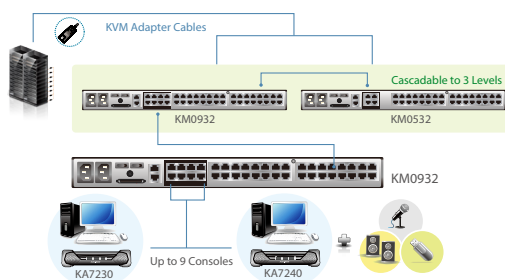
Cousole Expansion
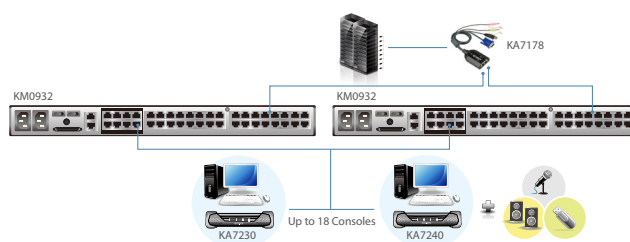
Included Accessories

	KM0532 / KM0932
Power Cords	2
Mounting Kit	•

Optional Accessories

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

Specifications

Function		KM0532	KM0932
Computer Connections	Direct	32	
Console Connections		5	9
Port Selection		GUI, Hotkey	
Connectors	Console Port	5 x RJ-45 (F)	9 x RJ-45 (F)
	KVM Port	32 x RJ-45 (F)	
	Daisy Chain	1 x VHDCI 68 (F)	
	LAN	1 x RJ-45 (F)	
	PON	1 x RJ-45 (F)	
	F/W Upgrade	N/A	
	Power	2 x IEC60320/C14	
Input		100 – 240V~, 50 – 60Hz; 1A	
Power Consumption		120V/45W; 240V/46W	120V/50W; 240V/51W
Emulation	Keyboard / Mouse	PS/2; USB	
Scan Interval		1–240 Seconds	
Video		1280 x 1024 @ 60Hz (300m)	
Environment	Operating Temp.	0 – 50℃	
	Storage Temp.	-20 – 60℃	
	Humidity	0 – 80% RH, Non-Condensing	
Physical Properties	Housing	Metal	
	Weight	6.07 kg	6.08 kg
	Dimensions (L x W x H)	43.84 x 41.09 x 4.40 cm	
Carton Lot		1 pc	

Note: *Standalone KM0032 does not supports Port Selection functionality, it requires daisy chain with other KVM switches with Port Selection function to enable it.

Function			KA7230	KA7240
Computer Connections			1	
Console Connections			1	
Port Selection			GUI, Hotkey	
Connectors	Console Ports	Keyboard	1 x USB (F); 1 x PS/2 (F)	
		Video	1 x HDB-15 (F)	
		Mouse	1 x USB (F); 1 x PS/2 (F)	
		Audio	N/A	2 x Mini Stereo Jack (F)
	Local Computer KVM Port		1 x SPHD (F)	
	USB Virtual Media Port		N/A	1 x USB (F)
	KVM Switch Ports		2 x RJ-45 (F)	
	RS-232		1 x DB-9 (M)	
	Audio		N/A	2 x Mini Stereo Jack (F)
	Power		1 x DC Jack	
Emulation	Keyboard / Mouse		PS/2; USB	
Video			1280 x 1024 @ 60Hz (300m)	
Power Consumption			DC5.3V, 6.5W	DC5.3V, 10.12W
Environment	Operating Temp.		0 – 50℃	
	Storage Temp.		-20 – 60℃	
	Humidity		0 – 80% RH, Non-Condensing	
Physical Properties	Housing		Metal	
	Weight		1.22 kg	1.26 kg
	Dimensions (L x W x H)		22.71 x 17.15 x 5.48 cm (including stacking bracket)	
Carton Lot			5 pcs	

KVM Over IP Matrix System

CCKM KE Management Software • KE6900 / KE6940 • KE6900ST

The KVM Over IP Matrix System is a solution that combines KE Series Extenders (KE6900, KE6940, KE6900ST) with the KE Management Software (CCKM) to extend, control and monitor access to computers, across a network, in a multitude of ways. The system lets you setup a matrix of workstations that access computers across a network, with the flexibility to control and configure each connection.

The KE Extenders are installed at computers and workstations, and are configured via the KE Management Software (CCKM) to create connections between them over a LAN. This allows Extenders to bridge a connection between the workstation and the remote computer they access across a network. Extender setups can be configured for one-to-one, one-to-many, many-to-one, and many-to-many workstation-to-computer connections.

The KE Management Software (CCKM) allows you to define connections and manage KE Extenders with features such as auto-detection of KE Extenders, username/password authentication, switching and sharing of connections, scheduling, permissions and more. Whether you're extending computer access for Monitoring, Broadcasting, Editing or Workstation setup, the KVM Over IP Matrix System gives you the flexibility and control to manage one or hundreds of extended connections.

Authority Management

• Access Rights: Administrators can set three permission types to meet user and shared access requirements: Exclusive, Occupy and View only.

• Device Management: Configure and control KE Extenders from a Web GUI to add, schedule and setup simple (one-to-one) or advanced (many-to-many) Transmitter/Receiver connections.

Multiple Display Methods

• Advanced Graphics Processor: ATEN's advanced graphics processor delivers high-definition images up to 1920 x 1200 in 24-bit color depth at 60 fps without delay. The superfast processor provides smooth and tantalizing pictures even with the most intense video streams.

• Single/Dual Output: KE6900 / KE6900ST supports a DVI display at each end; while the KE6940 supports two DVI displays at each end providing a dual-display output on two monitors, both with HD video quality extended across a network.

• Video Wall Versatility: With unprecedented video quality and unmatched resolutions the unlimited video wall functionality allows users to create multiple video walls with up to 8 x 8 displays (64 max).

Easy-to-Use Interface

• Boundless Switching: Automatically switch using the mouse*

• Fast Switching: Instant switching of connections and between different video resolutions from remote computers to workstations – within 0.3 seconds.

• Smart Preview: Array Mode allows administrators to view the video output of 36 computers simultaneously, on one page from the OSD menu.

• Intuitive GUI: Easily configure Video Groups (extended display setups), Profile (source stream specific connections), and Video Walls (multiple displays formed as one screen) for unit-to-unit connections.

4

Open API for 3rd Party Control Systems

ATEN's API structure allows easy integration with ATEN Control System (VK2100) or 3rd Party control systems created by companies such as AMX, Crestron, HRS and MediaLon – at the HTTP level.

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.

* Boundless Switching function will be available in Q2 of 2017.

KVM Over IP Matrix System

Software

Hardware

CCKM

KE Management Software

Highlights

- Software based to manage, configure, and control KE Matrix systems
- Install Wizard to add new equipment quickly and easily
- Diversified Video Applications: One to One, multiple-displays, 8x8 video wall and virtual transmitter
- Access and control the receiver currently paired with the transmitter
- Schedules and monitors specific behaviors and plans activities on controlled devices
- Lists all transmitter input previews
- Instant link allows to select or drag/drop to switch connections
- Integrate with control system via RS232, telnet and TCP/IP
- Boundless Switch - auto switching by using the mouse

Management

- Centralized control of all your KE6900 / KE6940 / KE6900ST devices
- Administrators can easily know device status and system logs from the dashboard
- Profiles can save reserved connections for broadcasting use or scheduling
- User account authentication and management
- Filter and export function for system logs
- Email notification of specified system events
- Fast switching feature can switch the TX/RX within 0.3 second
- Users can copy, or replace settings to other devices on the network. This allows users to share or make other settings for other users
- Redundancy settings enables users to set primary and secondary servers. Automatically connects to the main server if servers go down or there are any issues

Easy-to-Use 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 minimize user training time and increases productivity

Advanced Security

- Powerful security features include both internal and external authentication – external authentication supports includes LDAP, Active Directory, RADIUS, and TACACS+

Install Wizard

The install Wizard can auto-detect the KE device in the LAN and auto/manually assign the device IP addresses and names.
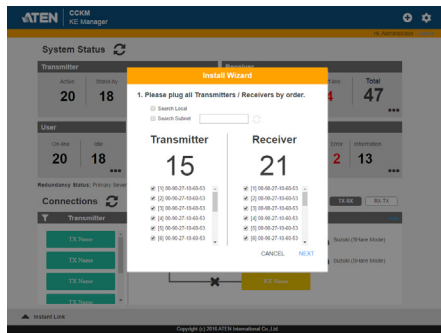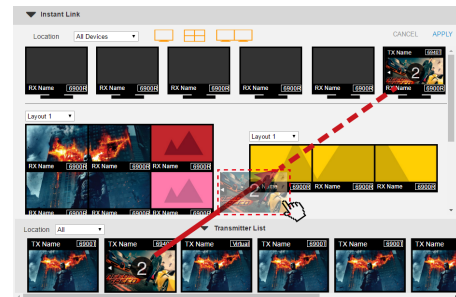

Instant Link

The Instant Link provides a real-time I/O connection, allows users to select or drag/drop to change the connective relationship.

Device Management

Device Management provides three menu bar items: Receivers, Transmitters, and Profiles. Each page offers an easy way to add, configure, locate and manage the transmitters, receivers, and reserved connections. The devices can be connected in many different ways due to great flexibility.

Preview

RX Setting
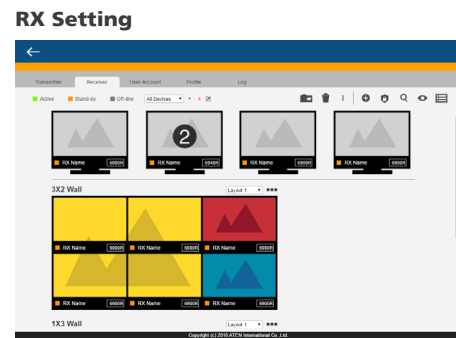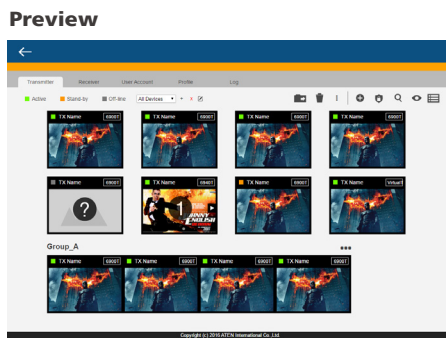
Dashboard

The Dashboard provides a view of the KE TX/RX connections, user login sessions and online TX/RX devices at a glance. With system logs, administrators can take action immediately.
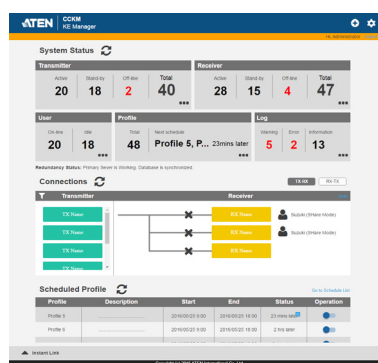
User Account Management

User account management is used to create different account levels. Advanced password protection is in use for authorized access over the network.

System & Maintenance

The System Page is used to configure the KE manager's global network settings. Allowing you to configure and control your installation, redundant operation and third part server connection as you like it. The maintenance page is used to back up and restore system date, as well as being used for firmware upgrades.

KE6900 / KE6940

Single Display / Dual Display DVI KVM over IP Extender

Console	Computers
USB, DVI-I	USB, DVI-I

KE6940

Front

Rear

Highlights

- Flexible connection – allow point and matrix connection with multi-displays and video wall application
- Supports digital (DVI) or analog (VGA) video output – fully compliant with DVI specifications
- Local console – flexible local or over IP console access
- KE devices can "Push" and "Pull" to share content
- Supports Dual Display Mode (KE6940 only)
- Fast Switching – switch between different remote video resolutions on a local display within 0.3 seconds
- Centralized KE series management software – KE Management Software (CCKM)* allows users to easily administer all KE6900 / KE6940 / KE6900ST devices over a network, using an intuitive web based GUI

Note: *Refer to page 4-2 for details.

Hardware

- Advance processor provides lossless and low latency video transmissions up to 1920 x 1200 @ 60Hz
- Audio Enabled – 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
- Mounting options:
(1) 2X-021G Dual Rack Mount Kit*
(2) 2X-031G Single Rack Mount Kit*
*Please see www.aten.com for more details.

Management

- EDID Expert™ – selects optimum EDID settings for smooth power-up and highest quality display
- Selectable Access Mode for multiple simultaneous access – Exclusive/Occupy/Share mode
- Advanced User Authority Settings – administrators can set four types of permissions to meet the users' requirements
- On-screen Preview – allows users to view the video of up to 36 displays on one screen
- Extensive Bit Rate Management – allows you to increase/decrease the video quality to adjust for better network performance
- Command Line Interface – administrators can control all KE devices via RS-232 or TCP/IP using a CLI or 3rd party application
- Supports Hotkey Commands
- Flashing LED and beeping feature helps locate and identify devices
- Compatible and interoperable with KE6900ST

Advanced Security

- Dedicated LAN port for KE direct connections – can be isolated from the corporate network
- Secure data transmission – AES-128 bit encryption to secure all data before its transmitted over a network and decrypts the data on the receiver
- Supports industry standard Transport Layer Security (TLS) protocol

Virtual Media

- High speed Virtual Media Support
- 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

Setup

KE6940T(Front)
KE6940T(Rear)
KE6940R(Front)
KE6940R(Rear)
LAN GbE Switch with IGMP
KE6900T(Front)
KE6900T(Rear)
KE6900R(Front)
KE6900R(Rear)
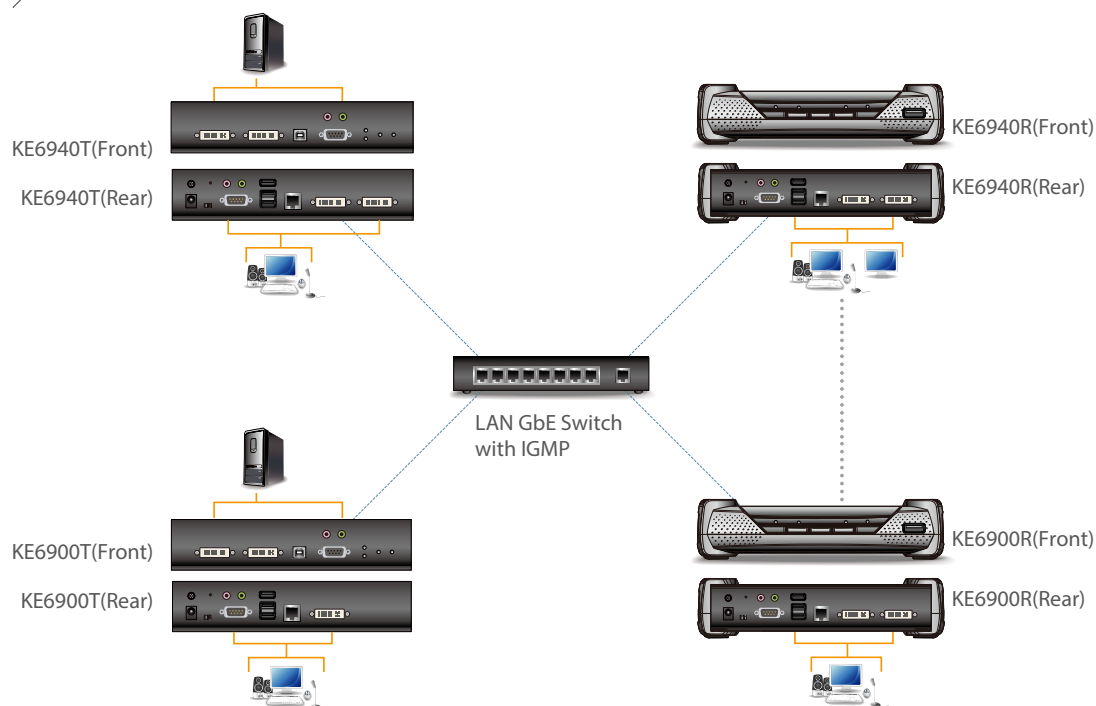
Specifications

Function			KE6900T	KE6940T	KE6900R	KE6940R
Connectors	USB Virtual Media		N/A		2 x USB (F)	
	Console Ports	Keyboard	1 x USB (F)		1 x USB (F)	
		Mouse	1 x USB (F)		1 x USB (F)	
		Video	1 x DVI-I (F)	2 x DVI-I (F)	1 x DVI-I (F)	2 x DVI-I (F)
		Audio	2 x Audio Jack		2 x Audio Jack	
		RS-232	1 x DB-9 (M)		1 x DB-9 (M)	
	KVM Ports	KB / Mouse	1 x USB (F)		N/A	
		Video	1 x DVI-I (F)	2 x DVI-I (F)	N/A	
		Audio	2 x Audio Jack		N/A	
		RS-232	1 x DB-9 (F)		N/A	
	Power		1 x DC Jack		1 x DC Jack	
	LAN		1 x RJ-45		1 x RJ-45	
Emulation	Keyboard / Mouse		USB		USB	
Power Consumption			5V/8.2W	5V/10.4W	5V/13W	5V/15.7W
Video			Up to 1920 x 1200		Up to 1920 x 1200	
Environment	Operating Temp.		0 – 50°C			
	Storage Temp		-20 – 60°C			
	Humidity		0 – 95% RH, Non-Condensing			
Physical Properties	Housing		Metal			
	Weight		1.14 kg	1.15 kg	1.25 kg	1.25 kg
	Dimensions (L x W x H)		21.50 x 16.29 x 4.56 cm	21.50 x 16.29 x 4.56 cm	22.75 x 17.16 x 5.48 cm	22.75 x 17.16 x 5.48 cm
Carton Lot			3 pcs	3 pcs	3 pcs	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
KE Management Software (CCKM)	Please refer to page 4-2	4-2
2X-021G Dual Rack Mount Kit	Please refer to www.aten.com for details	
2X-031G Single Rack Mount Kit		

KE6900ST NEW!

Slim Single Display DVD-D KVM Over IP Transmitter

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

KE6900ST

Front

Rear

Highlights

- Flexible connection – allow point and matrix connection with multi-displays and video wall application
- Slim, light and fanless design
- KE devices can "Push" and "Pull" to share content
- Fast Switching – switch between different remote video resolutions on a local display within 0.3 seconds
- Centralized KE series management software – KE Management Software (CCKM)* allows users to easily administer all KE6900 / KE6940 / KE6900ST devices over a network, using an intuitive web based GUI

Note: *Refer to page 4-2 for details.

Hardware

- Advance processor provides lossless and low latency video transmissions up to 1920 x 1200 @ 60Hz
- 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
- 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.
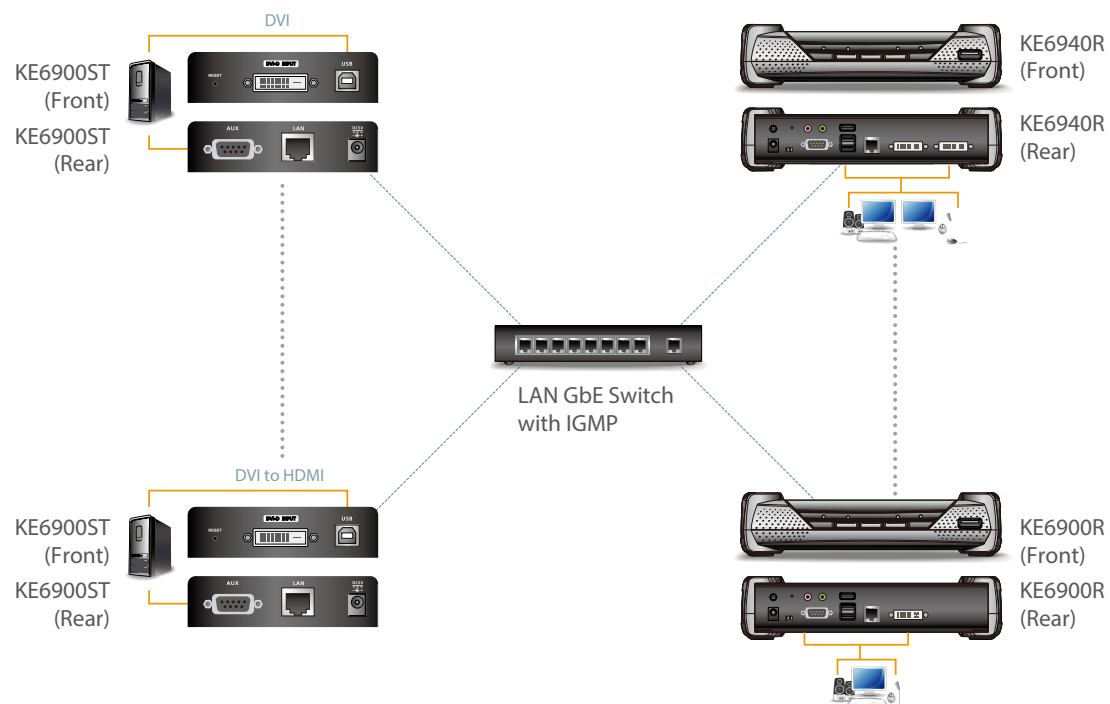
Management

- EDID Expert™ – selects optimum EDID settings for smooth power-up and highest quality display
- Selectable Access Mode for multiple simultaneous access – Exclusive/Occupy/Share mode
- Advanced User Authority Settings – administrators can set four types of permissions to meet the users' requirements
- On-screen Preview – allows users to view the video of up to 36 displays on one screen
- Extensive Bit Rate Management – allows you to increase/decrease the video quality to adjust for better network performance
- Command Line Interface – administrators can control all KE devices via RS-232 or TCP/IP using a CLI or 3rd party application
- Supports Hotkey Commands
- Flashing LED and beeping feature helps locate and identify devices
- Compatible and interoperable with KE6900 / KE6940

Advanced Security

- Dedicated LAN port for KE direct connections – can be isolated from the corporate network
- Secure data transmission – AES-128 bit encryption to secure all data before its transmitted over a network and decrypts the data on the receiver
- Supports industry standard Transport Layer Security (TLS) protocol

Virtual Media

- High speed Virtual Media Support
- 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

Setup >

KE6900ST
(Front)

KE6900ST
(Rear)

DVI

DVI to HDMI

LAN GbE Switch
with IGMP

KE6940R
(Front)

KE6940R
(Rear)

KE6900R
(Front)

KE6900R
(Rear)

Specifications

Function			KE6900ST
Connectors	KVM Ports	KB / Mouse	1 x USB (F)
		Video	1 x DVI-D (F)
		RS-232	1 x DB-9 (F)
	Power		1 x DC Jack
	LAN		1 x RJ-45
Emulation	Keyboard / Mouse		USB
Power Consumption			DC 5V
Video			Up to 1920 x 1200 @ 60 Hz
Environment	Operating Temp.		0 – 50°C
	Storage Temp		-20 – 60°C
	Humidity		0 – 95% RH, Non-Condensing
Physical Properties	Housing		Metal
	Weight		0.43 kg
	Dimensions (L x W x H)		14.17 x 10.30 x 3.00 cm
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
KE Management Software (CCKM)	Please refer to page 4-2	4-2
VE-RMK 1U Extender Rack mount Kit	*Please see www.aten.com for more details.	

Management Software

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.

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 5-7.

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

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
- eco PDU and APC PDU (AP79xx, AP89xx, AP86xx) support
- Supports Virtual Infrastructure including – VMware vCenter, ESX Servers, Citrix XenServer, and 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 right – 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 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, the browser-based UI uploads all CC2000 IP addresses 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

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 the how the ports appear on the screen. Ports can be accessed and managed simply by clicking on the panel it is displayed in.

Virtual Device 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
• Primary can pull device port names from Secondary servers. Primary can push device port names to Secondary server
• Advanced search function for log entries
• Session management integrates multiple session types: ATEN / Altusen™ KVM over IP, Blade server, VMware, PDU and more
• License savings – Aggregate devices consolidate multiple device ports into a single node license
• Data import/export to local and remote servers in real time or scheduled with AES/DES encryption for exports
• OOBC, PAP and CHAP authentication protocols
• NTS support – allows devices to get the accurate time from a server that the administrator assigns
• Supports SNMP Manager V1, V2c & V3

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 force users of all CC managed devices to be authenticated through the CC – users cannot log in to the devices directly
• 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
• Devices can identify themselves by Name, MAC address or IP in the browser
• 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.

Learn more about
CC2000-OTP

USB License Key Specifications

Function		USB License Key
Environment	Operating Temp.	0 – 40°C
	Storage Temp.	-20 – 60°C
	Humidity	0 – 80% RH, Non-Condensing
Physical Properties	Housing	Metal & Plastic
	Weight	0.01 kg
	Dimensions (L x W x H)	8.46 x 2.77 x 1.37 cm
Carton Lot		20 pcs

Included Accessories

	CC2000
USB License Key	•
Software CD	•

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 in, 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.

Note:*The CCVSR is available with or without keystroke recording.

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.

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.
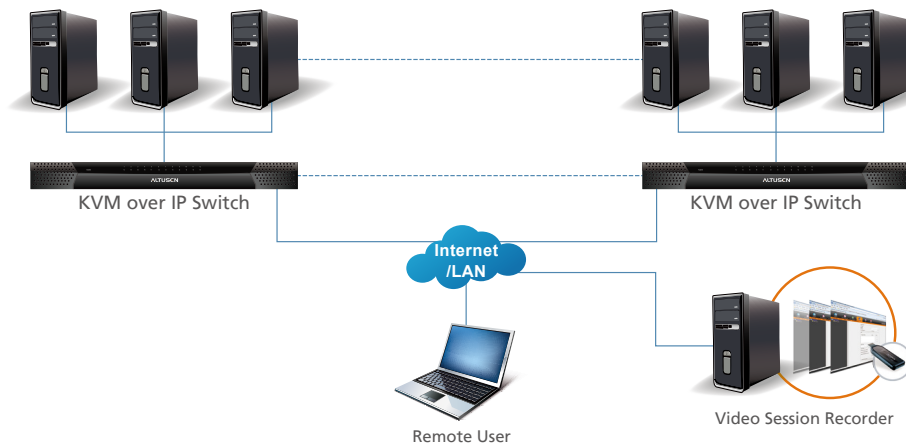
Manages and Plays Recordings Securely

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 MS AD Directory

Setup ⟩

KVM over IP Switch   KVM over IP Switch

Internet /LAN

Remote User

Video Session Recorder

USB License Key Specifications

Function		USB License Key
Environment	Operating Temp.	0 – 40°C
	Storage Temp.	-20 – 60°C
	Humidity	0 – 80% RH, Non-Condensing
Physical Properties	Housing	Metal & Plastic
	Weight	0.01 kg
	Dimensions (L x W x H)	8.46 x 2.77 x 1.37 cm
Carton Lot		20 pcs

Included Accessories

	CCVSR
USB License Key	•
Software CD	•

Compatible Products

CC2000 Compatible ATEN over IP Products

- KL1108VN / KL1116VN, KL1508AI / KL1516AI, KL9108 / KL9116, KN1000, KN1000A, KH1508Ai / KH1516Ai, KN1108v / KN1116v, KN2124VA / KN2140VA / KN4124VA / KN4140VA, KN1132V / KN2116VA / KN2132VA / KN4116VA / KN4132VA / KN4164V / KN8132V / KN8164V (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, PE6216, PE6324, PE7108, PE7208, PE7214, PE7328, PE8108, PE8208, PE8216, PE8324, PE9222, PE9330, PE7216r, PE7324r, PE8216r, PE8324r, PE9216r, PE9324r)*

CCVSR Compatible ATEN over IP Products

- KL1108VN / KL1116VN, KN1108v / KN1116v, 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)*
- SN9108 / SN9116, SN0108A / SN0116A / SN0132 / SN0148

*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 Nodes 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)

KVM over IP Switch

KN1000 / KN1000A • KH1508AI / KH1516AI• KN1108v / KN1116v • KN2124VA / KN2140VA / KN4124VA / KN4140VA • KN1132V / KN2116VA / KN2132VA / KN4116VA / KN4132VA / KN4164V / KN8132V / KN8164V

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 PDU. 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- , 32-, 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 access, and support for up to 64 user accounts and 32 simultaneous logins.

Enhanced Security
Increase security and reduce risk by utilizing 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
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		N/A	N/A	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		•	•	•	•	•

KN1000 / KN1000A 〉 1-Local / 1-Remote Access

Single Port VGA KVM over IP Switch
with Single Port Power Switch

Console
PS/2, USB

Computers
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 action assigned
• 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
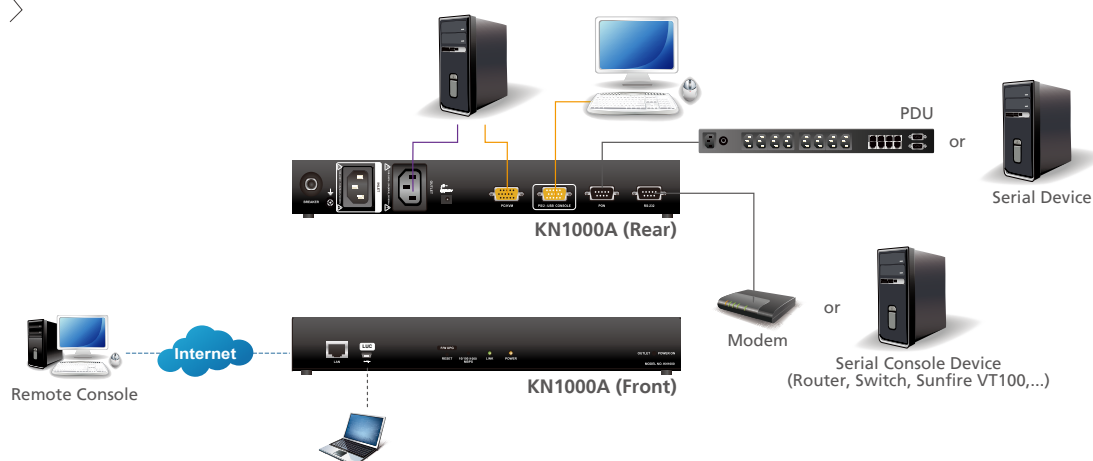
Advanced Security

• 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

6

Setup

KN1000A (Rear)

PDU

or

Serial Device

KN1000A (Front)

Remote Console

Internet

or

Modem

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

Specifications

Function			KN1000	KN1000A
Computer Connections	Direct		1	
	Max.		1	
Multiple Sessions	Local		1	
	Remote			
Connectors	Console Port	Keyboard	1 x SPHD (M)	
		Video		
		Mouse		
	KVM Ports		1 x SPHD (F)	
	Power Inlet		1 x DC Jack	
	Auxiliary Power Inlet		1 x IEC60320/C14	
	Auxiliary Power Outlet		1 x IEC60320/C13	
	LAN		1 x RJ-45 (F)	
	PON		1 x DB-9 (M)	
	Modem / RS-232		1 x DB-9 (M)	
	USB / Virtual Media		1 x mini USB (F)	N/A
	Laptop USB Console (LUC)		N/A	1 x mini USB (F)
Emulation	Keyboard / Mouse		PS/2 / USB	
Video	Local		1600 x 1200 @ 60Hz	1920 x 1200 @ 60Hz
	Remote		1600 x 1200 @ 60Hz	1920 x 1200 @ 60Hz
Power Input			100 – 240V~; 50/60Hz; 10A	
Power Output			100 – 240V~; 50/60Hz; 9A	
Power Consumption			DC5.3V; 6.3W	TBD
Environment	Operating Temp.		0 – 40℃	
	Storage Temp.		-20 – 60℃	
	Humidity		0 – 80% RH, Non-Condensing	
Physical Properties	Housing		Metal	
	Weight		0.86 kg	0.88 kg
	Dimensions (L x W x H)		31.00 x 8.15 x 4.20 cm	31.00 x 8.39 x 4.20 cm
Carton Lot			3 pcs	

Included Accessories

	KN1000	KN1000A
Custom KVM Cable Sets	2	1
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,C
USB KVM Cables	2L-5201U (1.2m); 2L-5202U (1.8 m); 2L-5203U (3 m); 2L-5205U (5 m)	8-6 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 USB or PS/2 interface servers
- Up to 64 user accounts – with up to 32 users able to simultaneously share control
- 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, 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

- Superior video quality – supporting video resolution up to 1600 x 1200 @ 60Hz at up to 40 meters, and 1280 x 1024 @ 75Hz at up to 50 meters (requires optional KVM Adapter Cable KA7xxx series)

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
- Browser-based UI allows administrative tasks to be completed without pre-installing Java
- Keyboard broadcast – keyboard input 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 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

6

KVM over IP Switch

Setup
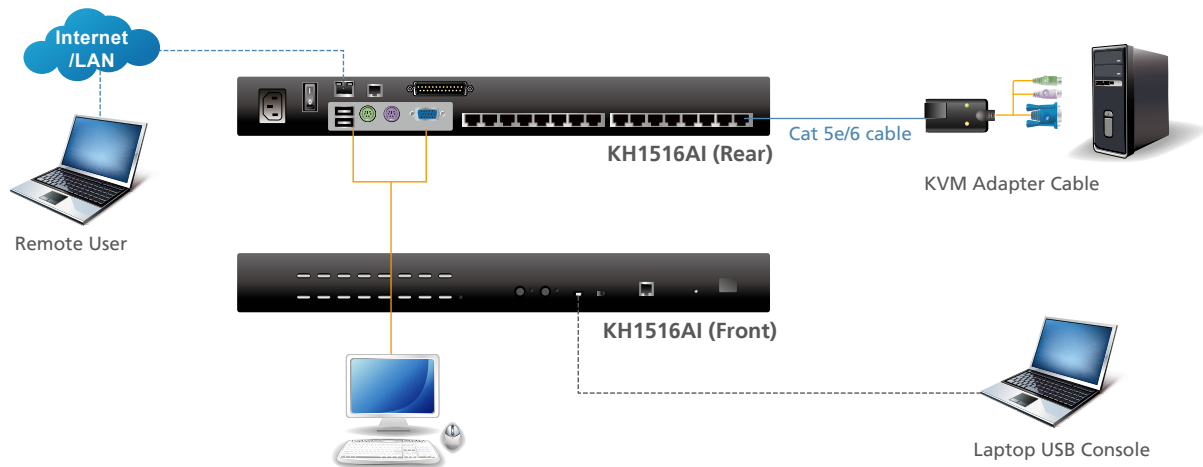
Specifications

Function			KH1508AI	KH1516AI
Computer Connections	Direct		8	16
	Max.		128 (Daisy-Chain)*	256 (Daisy-Chain)*
Multiple Sessions	Local		1	1
	Remote			
Port Selection Method			Pushbutton / GUI / Hotkey	
Connectors	Console Port	Keyboard	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)
		Video	1 x HDB-15 (F)	1 x HDB-15 (F)
		Mouse	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)
	KVM Ports		8 x RJ-45 (F)	16 x RJ-45 (F)
	Daisy Chain Ports		1 x DB-25 (M)	1 x DB-25 (M)
	Power Inlet		1 x IEC60320/C14	1 x IEC60320/C14
	LAN		1 x RJ-45 (F)	1 x RJ-45 (F)
	PON		1 x RJ-45 (F)	1 x RJ-45 (F)
	Laptop USB Console		1 x mini USB (F)	1 x mini USB (F)
	F/W Upgrade		1 x RJ-11 (F)	1 x RJ-11 (F)
Emulation	Keyboard / Mouse		PS/2; USB	
Max. Video Resolution	Local		1600 x 1200 @ 60Hz	
	Remote		1920 x 1200 @ 60Hz	
Power Input			100 – 240V~; 50-60Hz; 1A	
Power Consumption	Single Power		120V/12.5W; 230V/12.7W	120V/12.5W; 230V/12.7W
Environment	Operating Temp.		0 – 40°C	
	Storage Temp.		-20 – 60°C	
	Humidity		0 – 80% RH, Non-Condensing	
Physical Properties	Housing		Metal	
	Weight		2.76 kg	2.83 kg
	Dimensions(L x W x H)		43.72 x 15.58 x 4.40 cm (19"/1U)	43.72 x 15.58 x 4.40 cm (19"/1U)
Carton Lot			3 pcs	3 pcs

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

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 G
KVM Adapter Cables	Please refer to page 8-2	8-2
Management Software	Please refer to page 5-1	5-1

6

KVM over IP Switch

KN1108v / KN1116v › 1-Local & 1-Remote User Access
8/16-Port Cat 5 KVM over IP Switch

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

KN1116v

Front

Rear

Highlights

- One bus for remote KVM over IP access to control 8 / 16 USB or PS/2 interface servers
- Up to 64 user accounts – with up to 32 users able to simultaneously share control
- 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, 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
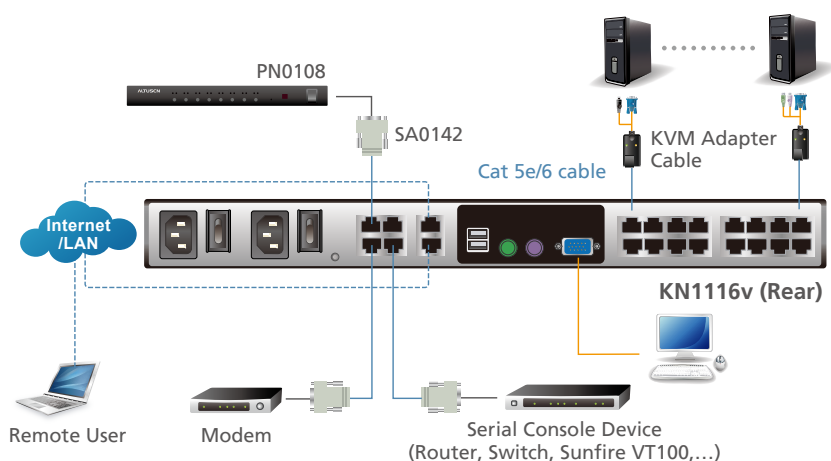
Advanced Security

- 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

KVM over IP Switch

Setup >

PN0108

SA0142

KVM Adapter Cable

Cat 5e/6 cable

Internet /LAN

KN1116v (Rear)

Remote User

Modem

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

Specifications

Function			KN1108v	KN1116v
Computer Connections	Direct		8	16
	Max.		128 (Cascade)*	256 (Cascade)*
Multiple Sessions	Local		1	1
	Remote		1	1
Port Selection Method			Pushbutton / GUI / Hotkey	
Connectors	Console Port	Keyboard	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)
		Video	1 x HDB-15 (F)	1 x HDB-15 (F)
		Mouse	1 x PS/2 (F); 1 x USB (F)	1 x PS/2 (F); 1 x USB (F)
	KVM Ports		8 x RJ-45 (F)	16 x RJ-45 (F)
	Power Inlet		2 x IEC60320/C14	2 x IEC60320/C14
	LAN		2 x RJ-45 (F)	2 x RJ-45 (F)
	PON		1 x RJ-45 (F)	1 x RJ-45 (F)
	Modem (RS-232)		1 x RJ-45 (F)	1 x RJ-45 (F)
	Serial (RS-232)		2 x RJ-45 (F)	2 x RJ-45 (F)
	USB / Virtual Media		3 x USB (F)	3 x USB (F)
	Laptop USB Console		1 x mini USB (F)	1 x mini USB (F)
	Audio		2 x Audio Jack (F)	2 x Audio Jack (F)
Emulation	Keyboard / Mouse		PS/2 / USB	
Max. Video Resolution	Local		1600 x 1200 @ 60Hz; 1920 x 1200 @ 60Hz**	
	Remote		1920 x 1200 @ 60Hz**	
Power Input			100 – 240V~; 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
Environment	Operating Temp.		0 – 40℃	
	Storage Temp.		-20 – 60℃	
	Humidity		0 – 80% RH, Non-Condensing	
Physical Properties	Housing		Metal	
	Weight		3.57 kg	3.60 kg
	Dimensions (L x W x H)		43.84 x 28.78 x 4.40 cm (19"/1U)	43.84 x 28.78 x 4.40 cm (19"/1U)
Carton Lot			1 pc	1 pc

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

  **1920x1200 (Reduced blanking) only supported by KA7170, KA7175, KA7176, KA7177, KA7178, KA7166, KA7168 and KA7169.

Included Accessories

	KN1108v / KN1116v
SA0142 Serial Adapters (RJ45-F to DB9-M; DTE to DCE)	2
Power Cord	2
Laptop USB Console Cable	•
Mounting Kit	•

Optional Accessories

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

6

KVM over IP Switch

KN2124VA / KN2140VA
KN4124VA / KN4140VA

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

⊕ Console	🖵 Computers
▭ PS/2, USB	PS/2, USB, Sun, Serial

Expansion
Cascade

KN4124VA

Front

Rear

KN4140VA

Front

Rear

Highlights

- Two / four buses for remote KVM over IP access to control up to 40 USB or PS/2 interface servers
- Up to 64 user accounts – with up to 32 users able to simultaneously share control
- Cascadable up to two levels – control up to 512 servers*
- Panel Array Mode™ – allows administrators to monitor the video output of up to 40 servers, 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 below to download the PadClient App from the Apple Store.

PadClient App

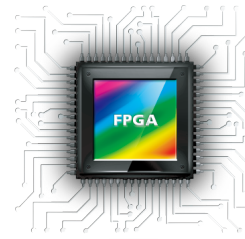| Model No.	Number of Active Sessions
KN2124VA	1-local and 2-remote user access
KN2140VA	1-local and 2-remote user access
KN4124VA	1-local and 4-remote user access
KN4140VA	1-local and 4-remote user access

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 an 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 configuation
- 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
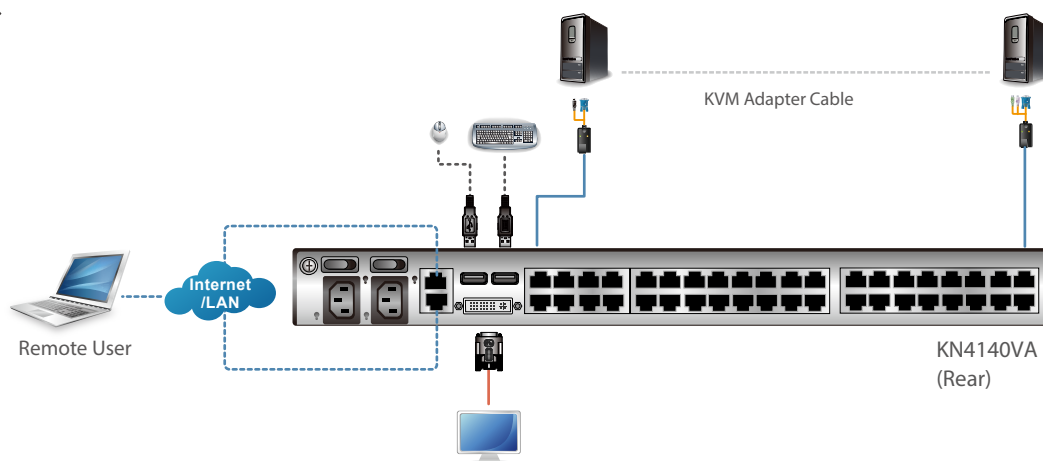
Advanced Security

- 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

Remote User

KN4140VA (Rear)

Specifications

Function		KN2124VA	KN4124VA	KN2140VA	KN4140VA
Computer Connections	Direct	24		40	
	Max.	384 (Cascade)*		512 (Cascade)*	
Multiple Sessions	Local	1			
	Remote	2	4	2	4
Port Selection Method		Pushbutton / GUI / Hotkey			
Connectors	Console Port — Keyboard	1 x USB (F)			
	Console Port — Video	1 x DVI-I (F)			
	Console Port — Mouse	1 x USB (F)			
	KVM Ports	24 x RJ-45 (F)		40 x RJ-45 (F)	
	Power Inlet	2 x IEC 60320/C14			
	LAN	2 x RJ-45 (F)			
	USB / Virtual Media	3 x USB (F)			
	Laptop USB Console	1 x Mini-USB (F)			
	Audio	2 x Audio Jack (F)			
Emulation	Keyboard / Mouse	PS/2; USB			
Max. Video Resolution	Local	1920 x 1200 @ 60Hz			
	Remote	1920 x 1200 @ 60Hz			
Power Input		100-240V, 1A, 50-60Hz			
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 (per input)	110V/18.81W; 220V/19.36W	110V/24.20W; 220V/23.65W	110V/22.99W; 220V/22.88W	110V/25.52W; 220V/24.64W
Environment	Operating Temp.	0 – 40°C			
	Storage Temp.	-20 – 60°C			
	Humidity	0 – 80% RH, Non-Condensing			
Physical Properties	Housing	Metal			
	Weight	5.48 kg	5.51 kg	5.54 kg	5.56 kg
	Dimensions (L x W x H)	43.36 x 41.21 x 4.40 cm	43.36 x 41.21 x 4.40 cm	43.36 x 41.21 x 4.40 cm	43.36 x 41.21 x 4.40 cm
Carton Lot		1 pc	1 pc	1 pc	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	Part No. / Spec.	Page No.
KVM Adapter Cables	Please refer to page 8-2	8-2
Management Software	Please refer to page 5-1	5-1

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

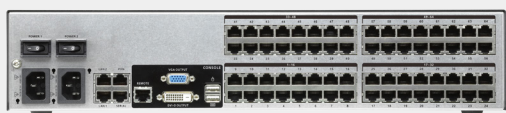16/32/64-Port Cat 5 KVM over IP Switch with Virtual Media (1920 x 1200)

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

KN8164V

Front

Rear

KN8132V

Front

Rear

Highlights

• Two / four / eight buses for remote KVM over IP access to control up to 64 USB or PS/2 interface servers
• Up to 64 user accounts – with up to 32 users able to simultaneously share control
• 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, 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 below to download the PadClient App from the Apple Store.

PadClient App

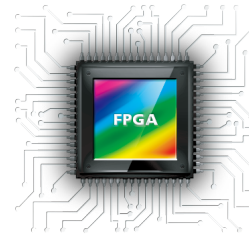| Model No.	Number of Active Sessions
KN1132V	1-local and 1-remote user access
KN2116VA	1-local and 2-remote user access
KN2132VA	1-local and 2-remote user access
KN4116VA	1-local and 4-remote user access
KN4132VA	1-local and 4-remote user access
KN4164V	1-local and 4-remote user access
KN8132V	1-local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

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 an 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 configuation
- 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
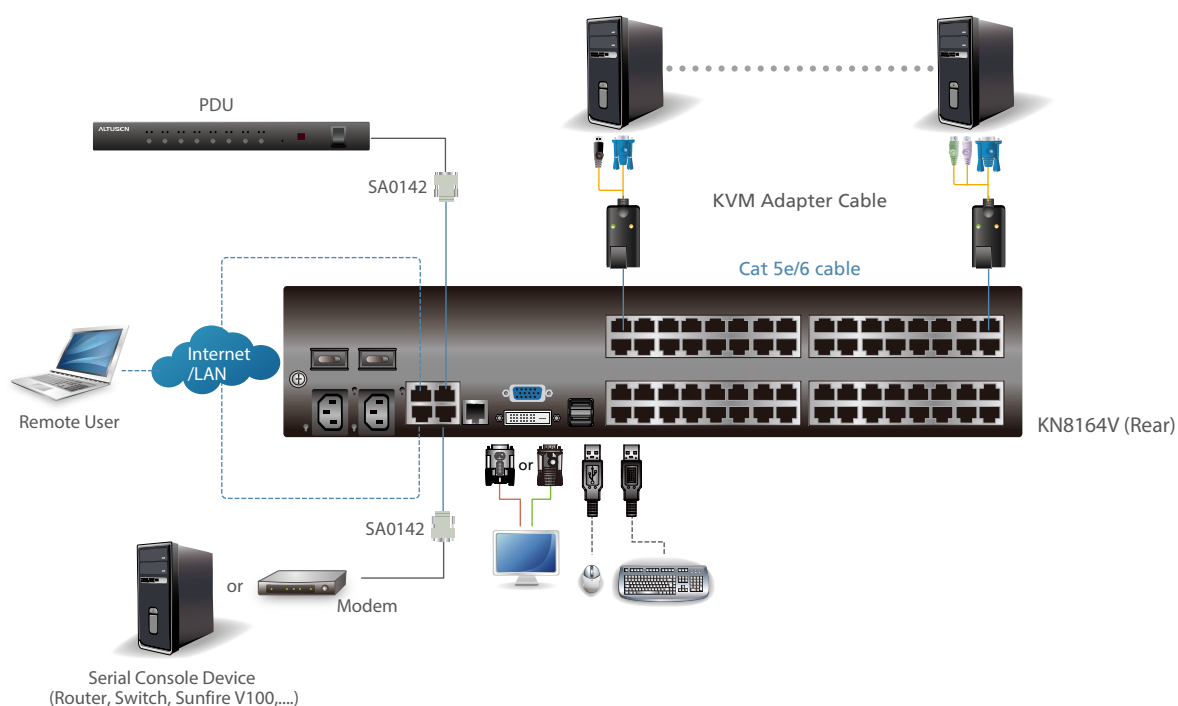
Advanced Security
- Secure login from browser with TLS 1.2 data encryption and RSA 2048-bit certificates
- Choose between 56-bit DES, 168-bit 3DES, 256-bit AES, 128-bit RC4, or random encryption for secure keyboard / mouse, video, and virtual media data encryption
- Automated CSR creation utility and 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

ALTUSCN

SA0142

KVM Adapter Cable

Cat 5e/6 cable

Internet /LAN

Remote User

KN8164V (Rear)

or

SA0142

or

Modem

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

Specifications

Function			KN2116VA	KN4116VA
Computer Connections	Direct		16	
	Max.		256 (Cascade)*	
Multiple Sessions	Local		1	
	Remote		2	4
Port Selection Method			Pushbutton / GUI / Hotkey	
Connectors	Console Port	Keyboard	1 x USB (F)	
		Video	1 x DVI-D (F) ; 1 x HDB-15 (F)	
		Mouse	1 x USB (F)	
		Reserved for Remote Port	1 x RJ-45 (F)	
	KVM Ports		16 x RJ-45 (F)	
	Power Inlet		2 x IEC 60320/C14	
	LAN		2 x RJ-45 (F)	
	PON		1 x RJ-45 (F)	
	Serial / RS-232		1 x RJ-45 (F)	
	USB / Virtual Media		3 x USB (F)	
	Laptop USB Console		1 x Mini-USB (F)	
	Audio		2 x Audio Jack (F)	
Emulation	Keyboard / Mouse		PS/2; USB	
Max. Video	Local		1920 x 1200 @ 60Hz	
Resolution	Remote		1920 x 1200 @ 60Hz	
Power Input			100-240V, 1A, 50-60Hz	
Power Consumption	Single Power		110V/34.54W;220V/34.76W	110V/49.06W; 220V/50.49W
	Dual Power (per input)		110V/17.67W; 220V/17.93W	110V/24.93W; 220V/25.8W
Environment	Operating Temp.		0 – 40℃	
	Storage Temp.		-20 – 60℃	
	Humidity		0 – 80% RH, Non-Condensing	
Physical Properties	Housing		Metal	
	Weight		5.56 kg	5.60 kg
	Dimensions (L x W x H)		43.36 x 41.21 x 4.40 cm	43.36 x 41.21 x 4.40 cm
Carton Lot			1 pc	1 pc

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

Specifications

Function			KN1132V	KN2132VA	KN4132VA	KN8132V	KN4164V	KN8164V
Computer Connections	Direct		32				64	
	Max.		512 (Cascade)*				512 (Cascade)*	
Multiple Sessions	Local		1					
	Remote		1	2	4	8	4	8
Port Selection Method			Pushbutton / GUI / Hotkey					
Connectors	Console Port	Keyboard	1 x USB (F)					
		Video	1 x DVI-D (F) ; 1 x HDB-15 (F)					
		Mouse	1 x USB (F)					
		Reserved for Remote Port	1 x RJ-45 (F)					
	KVM Ports		32 x RJ-45 (F)			64 x RJ-45 (F)		
	Power Inlet		2 x IEC 60320/C14					
	LAN		2 x RJ-45 (F)					
	PON		1 x RJ-45 (F)					
	Serial / RS-232		1 x RJ-45 (F)					
	USB / Virtual Media		3 x USB (F)					
	Laptop USB Console		1 x Mini-USB (F)					
	Audio		2 x Audio Jack (F)					
Emulation	Keyboard / Mouse		PS/2; USB					
Max. Video Resolution	Local		1920 x 1200 @ 60Hz					
	Remote		1920 x 1200 @ 60Hz					
Power Input			100-240V, 1A, 50-60Hz					
Power Consumption	Single Power		TBD	110V/43.23W; 220V/41.94W	110V/57.75W; 220V/56.67W	110V/72.6W; 220V/71.7W	110V/67.9W; 220V/66.4W	110V/82.5W; 220V/81W
	Dual Power		TBD	110V/22.02W; 220V/21.52W	110V/29.28W; 220V/28.89W	110V/28.3W; 220V/28W	110V/26.2W; 220V/25.4W	110V/35.5W; 220V/34W
Environment	Operating Temp.		0 – 40°C					
	Storage Temp.		-20 – 60°C					
	Humidity		0 – 80% RH, Non-Condensing					
Physical Properties	Housing		Metal					
	Weight		TBD	5.69 kg	5.73 kg	5.80 kg	7.00 kg	7.07 kg
	Dimensions (L x W x H)		TBD	43.36 x 41.21 x 4.40 cm	43.36 x 41.21 x 4.40 cm	43.36 x 41.21 x 4.40 cm (19"/1U)	43.36 x 41.26 x 8.80 cm (19"/2U)	43.36 x 41.26 x 8.80 cm (19"/2U)
Carton Lot			1 pc	1 pc	1 pc	1 pc	1 pc	1 pc

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

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

6

KVM over IP Switch

Serial Console Server

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 (hubs, routers, power management devices, etc.) via a Telnet or SSH TCP/ IP connection. Serial Console Servers also provide 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, banking, telecoms, 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.
*Allows authorization for the Serial Console Server products via a Control Center server (CC2000).
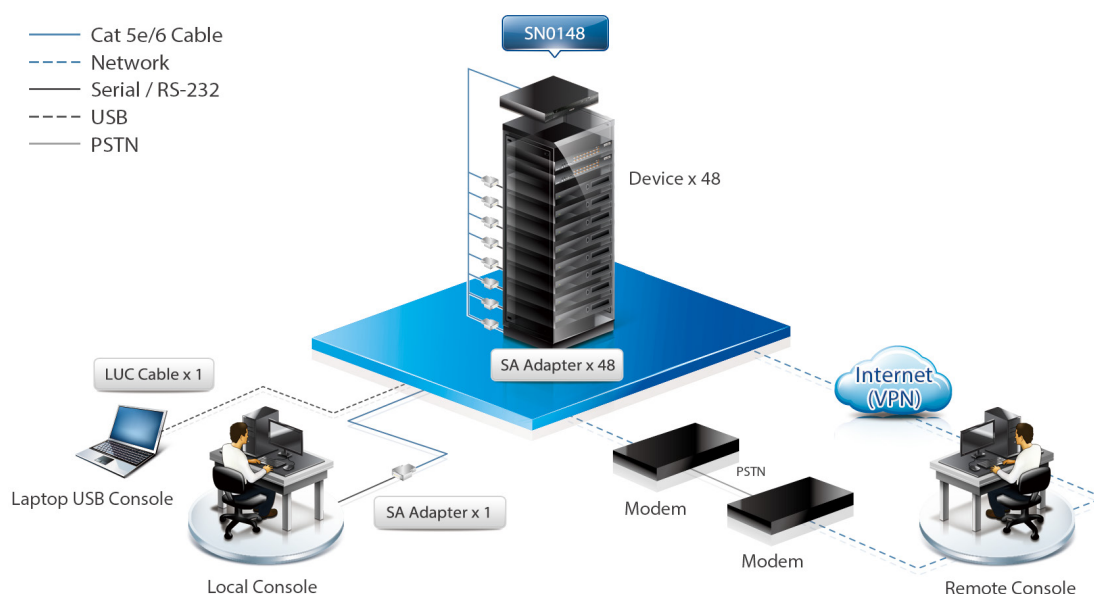
Advanced Security features

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 CC Management*, RADIUS, LDAP(s), and AD settings.

- Cat 5e/6 Cable
- Network
- Serial / RS-232
- USB
- PSTN

SN0148

Device x 48

SA Adapter x 48

LUC Cable x 1

Laptop USB Console

Local Console

SA Adapter x 1

PSTN

Modem

Modem

Internet (VPN)

Remote Console

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 SSL 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	

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

SN3101

Single Port Serial Device Server

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 SSL 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
• 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
• 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 and 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.

7

Serial Console Server

Setup
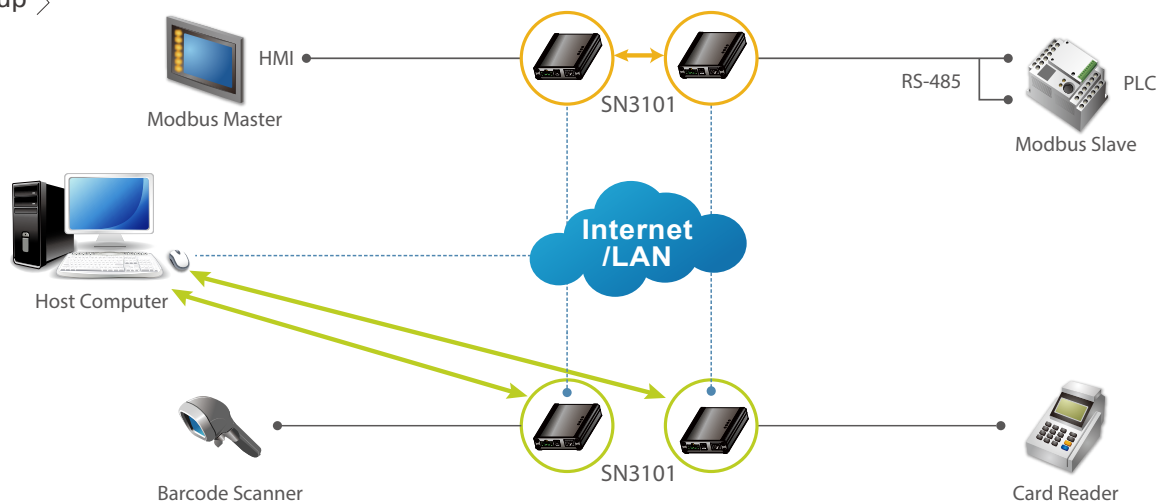
Specifications

Function		SN3101
Connectors	Serial	1 x DB-9 (M)
	Network	1 x RJ-45 (F)
Power Input	PWR1	12 – 48V DC (2-pin Terminal Block)
	PWR2	9 – 30V DC (Power Adapter Jack)
	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
Serial Interfaces	Standards	RS-232/422/485; Software Selectable
	Baud Rate	460 Kbps
	RS-232 Signals	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
	RS-422 Signals	Tx+, Tx-, Rx+, Rx-, RTS+, RTS-, CTS+, CTS-, GND
	RS-485 Signals	Data+, Data-, GND
	Serial 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 Interface	Standards	10/100BaseTX; Autosensing
	Protection	1.5 KV Magnetic Isolation
	Protocols	ARP, DHCP, DNS, HTTP, HTTPS, ICMP, IP, TCP, UDP, NTP, PPP, RADIUS, Telnet, SSH, SNMP, SNMP Trap, SMTP
Regulatory Approval		FCC Class A, CE Class A, RoHS
Environment	Operating Temp.	0 – 60°C
	Storage Temp.	-20 – 85°C
	Humidity	0 – 95% RH, Non-Condensing
Physical Properties	Housing	Metal
	Weight	0.22 kg
	Dimensions (L x W x H)	10.69 x 7.90 x 2.44 cm
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 > Single Power / LAN

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 Power Over the NET™ for port and power outlet association
• Convenient and simple access via browser or Telnet / SSH client
• Comprehensive logging and event notification
• Integrated with CC2000 for data center centralized management software

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

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 support
• Private certificate support – support CA 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
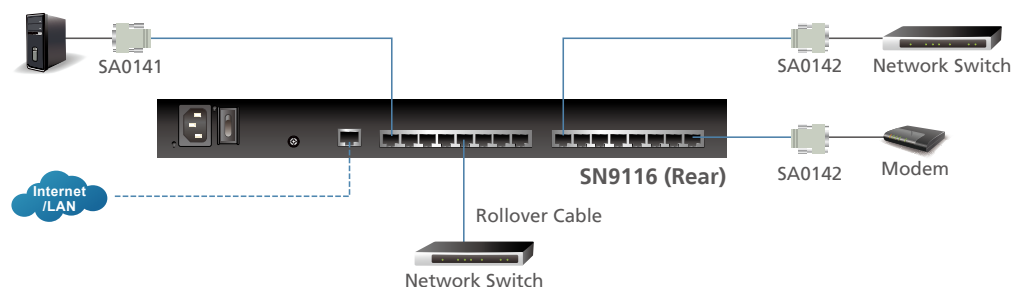• NTP for time server synchronization
• IPv4 / IPv6 support

Serial Device Management

- Versatile serial operation modes – support Real COM, TCP Server, TCP Client, UDP, Serial Tunnel and Virtual Modem
- 128-bit/256-bit SSL 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; QNX 4.25, QNX 6; 5) FreeBSD; 6) Solaris 10; 7) AIX 5.x; 8) HP-UX 11i.

Setup ⟩

SA0141

SA0142 Network Switch

SA0142 Modem

SN9116 (Rear)

Rollover Cable

Internet /LAN

Network Switch

Specifications

Function		SN9108	SN9116
Connectors	Serial	8 x RJ-45	16 x RJ-45
	Network	1 x RJ-45 (F)	
Power Input		100 – 240V~, 1A, 50/60Hz (IEC60320/C14)	
Power Consumption		110V/10.6W, 220V/11.7W	110V/11.5W, 220V/12.2W
Serial Interfaces	Standards	RS-232	
	Baud Rate	115.2 Kbps	
	RS-232 Signals	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND	
	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 Interface	Standards	10/100/1000 BaseTX; Autosensing	
	Protocols	ARP, DHCP, DNS, HTTP, HTTPS, ICMP, IP, TCP, UDP, NTP, PPP, RADIUS, Telnet, SSH, SNMP, SNMP Trap, SMTP	
Regulatory Approval		FCC Class A, CE Class A, RoHS	
Environment	Operating Temp.	0 – 50℃	
	Storage Temp.	-20 – 60℃	
	Humidity	0 – 80% RH, Non-Condensing	
Physical Properties	Housing	Metal	
	Weight	3.13 kg	3.16 kg
	Dimensions (L x W x H)	43.72 x 21.76 x 4.40 cm	43.72 x 21.76 x 4.40 cm
Carton Lot		3 pcs	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 7-8	7-8

Serial Console Server

SN0108A / SN0116A
SN0132 / SN0148

> Dual Power/LAN

Serial Device
RJ-45

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

SN0148

Front

Rear

Highlights

• Secure in-band and out-of-band network access to serial consoles
• Integrates with Power Over the NET™ for port and power outlet association
• Convenient and simple access via browser or Telnet / SSH client
• Comprehensive logging and event notification
• Integrated with CC2000 for data center centralized management software
• 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
• Front access 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 support
• Private certificate support – CA 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)

7

Serial Console Server

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
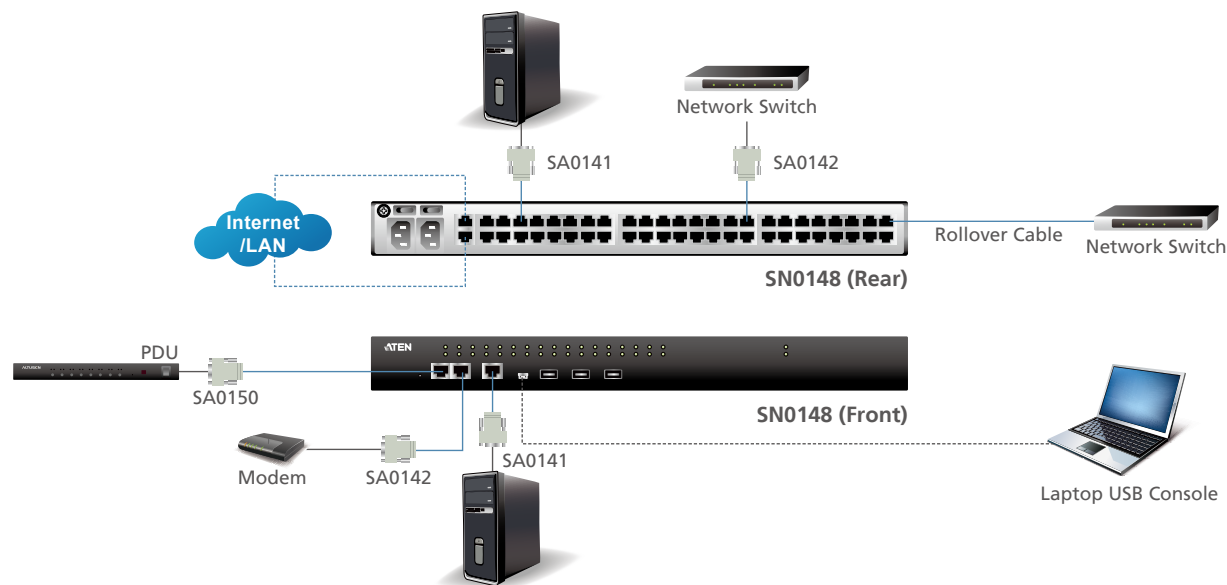• NTP for time server synchronization
• IPv4/IPv6 support

Serial Device Management

• Versatile serial operation modes – support Real COM, TCP Server, TCP Client, UDP, Serial Tunnel and Virtual Modem
• 128-bit/256-bit SSL 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; 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
SA0150	RJ45-F to DB9-F	SN to PN0108

Specifications

Function		SN0108A	SN0116A	SN0132	SN0148
Connectors	Serial	8 x RJ-45	16 x RJ-45	32 x RJ-45 (F)	48 x RJ-45 (F)
	Network	2 x RJ-45 (F)			
	PON	1 x RJ-45 (F)			
	Modem	1 x RJ-45 (F)			
	USB	3 x USB (F)			
	Laptop USB Console	1 x Mini USB (F)			
	Local Console	1 x RJ-45 (F)			
Power Input	PWR1	100 − 240V~,1A, 50/60Hz (IEC60320/C14*)			
	PWR2	100 − 240V~,1A, 50/60Hz (IEC60320/C14*)			
Power Consumption		110V/22.1W, 220V/21.8W	110V/22.9W, 220V/22.6W	120V/35W, 230V/37W	120V/42W, 230V/45W
Serial Interfaces	Standards	RS-232			
	Baud Rate	115.2 Kbps			
	RS-232 Signals	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND			
	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 Interface	Standards	10/100/1000 BaseTX; Autosensing			
	Protection	1.5 KV Magnetic Isolation			
	Protocols	ARP, DHCP, DNS, HTTP, HTTPS, ICMP, IP, TCP, UDP, NTP, PPP, RADIUS, Telnet, SSH, SNMP, SNMP Trap, SMTP			
Regulatory Approval		FCC Class A, CE Class A, RoHS			
Environment	Operating Temp.	0 − 50℃			
	Storage Temp.	-20 − 60℃			
	Humidity	0 − 80% RH, Non-Condensing			
Physical Properties	Housing	Metal			
	Weight	4.35 kg	4.38 kg	4.84 kg	4.92 kg
	Dimensions (L x W x H)	43.72 x 32.98 x 4.40 cm		43.72 x 32.77 x 4.40 cm	
Carton Lot		1 pc		1 pc	

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

Included Accessories

	SN0108A / SN0116A	SN0132 / SN0148
Power Cords	2	2
SA0142 Serial Adapter	•	•
SA0141 Serial Adapter	•	•
SA0150 Serial Adapter	N/A	•
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 7-8	7-8

KVM Accessories / Sun Console Converter

CV131A

ATEN Altusen™ provides a series of KVM switches which feature multi-platform support. In addition, we offer a host of converters to enable your PS/2 KVM switches to support both PC and Sun computers. By using ATEN converters, you can eliminate the high cost and downtime associated with replacing KVM switches. The CV131A is an interface converter which allows Sun systems to work with Altusen™ KVM switches. All computers on the installation can be controlled from a single PC-style console.

The CV131A is designed to communicate with Sun USB equipment. It takes advantage of the USB bus to transfer keyboard and mouse input to the Sun system.

• Compatible with Sun USB systems
• Compatible with ATEN's SPHD-equipped KVM switches and console extenders*
• Translates PS/2 keyboard, mouse, and VGA signals to Sun keyboard, mouse, and monitor signals
• High quality molded connectors
• Keyboard language selection via simple hotkeys
• Composite sync video support
• Supports PS/2 mouse and Microsoft Intellimouse
• External power adapter not required
• Supports 1600 x 1200, maximum video resolution – including Sun specific: 1152 x 900

CV131A

KL9116

Console
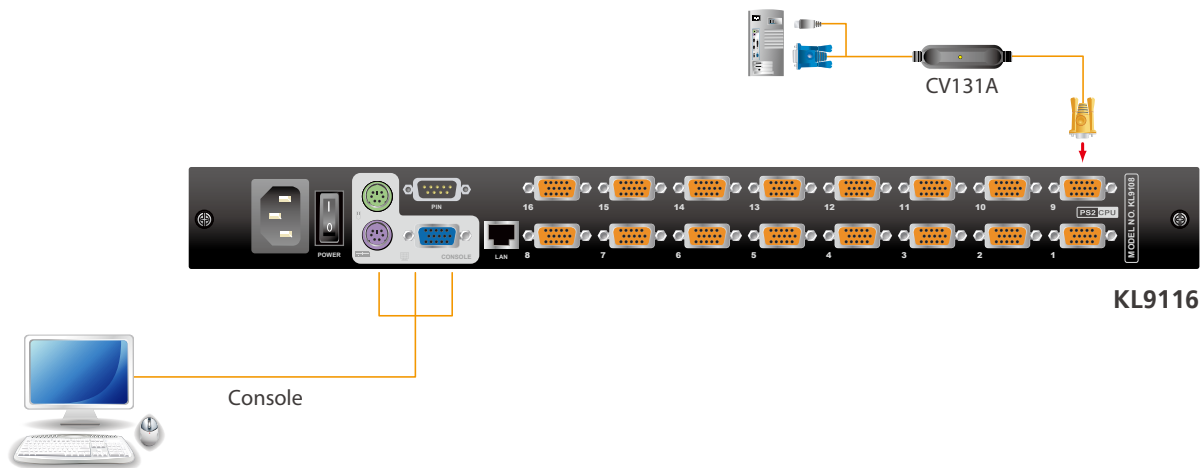
Specifications

Function			CV131A
Connectors	To Sun	Keyboard / Mouse	1 x USB (M)
		Video	1 x HDB-15 (M)
	To Switch	Keyboard	1 x SPHD (M)
		Video	
		Mouse	
Emulation	Keyboard / Mouse		Sun
Video Resolution			1600 x 1200
Environment	Operating Temp.		0 – 50°C
	Storage Temp.		-20 – 60°C
	Humidity		0 – 80% RH, Non-Condensing
Physical Properties	Housing		Plastic
	Weight		0.20 kg
	Cable Length		1.8 m
	Dimensions (L x W x H)		10.65 x 4.20 x 2.07 cm
Carton Lot			20 pcs

Note: Product information is subject to change without prior notice.
    *Compatible with SPHD PS/2 and combo products only.

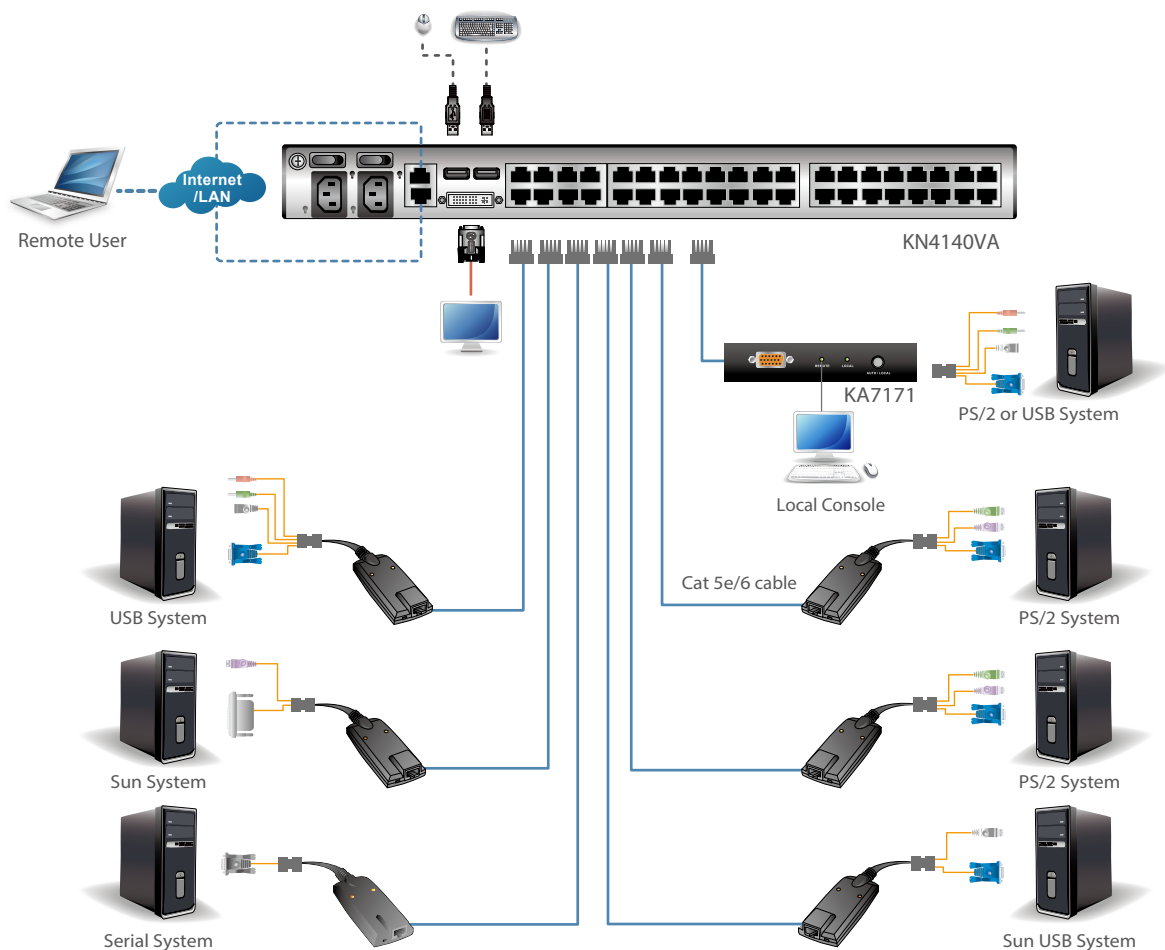# KVM Accessories / KVM Adapter Cables (CPU Modules)

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

ATEN Altusen™ 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)

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			USB				
Model			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
			KA7170	KA7570	KA7970	KA7166	KA7168
Connectors	Computer	Keyboard / Mouse / Video	1 x USB (M); 1 x HDB-15 (M)	1 x USB (M); 1 x HDB-15 (M)	1 x USB (M); 1 x HDB-15 (M)	1 x USB (M); 1 x DVI-D (M)	1 x USB (M); 1 x HDMI (M)
		Smart Card Reader / CAC	N/A	N/A	N/A	1 x USB (M)	1 x USB (M)
	Console		N/A	N/A	N/A	N/A	N/A
	Serial		N/A	N/A	N/A	N/A	N/A
	Audio		N/A	N/A	N/A	N/A	N/A
	Power		N/A	N/A	N/A	N/A	N/A
	Link		1 x RJ-45 (F)	1 x RJ-45 (F)	1 x RJ-45 (M) with 4.5 m Cat 5 cable	1 x RJ-45 (F)	1 x RJ-45 (F)
Firmware Upgradable			•	•	•	•	•
LEDs	Online / Link		1 (Green)	1 (Green)	1 (Orange)	2 (Green)	2 (Green)
	Power		1 (Orange)	1 (Orange)	N/A	1 (Orange)	1 (Orange)
	Local / Remote		N/A	N/A	N/A	N/A	N/A
Physical Properties	Housing		Plastic	Plastic	Plastic	Plastic	Plastic
	Weight		0.14 kg	0.15 kg	0.24 kg	0.14 kg	0.11 kg
	Dimensions (L x W x H)		9.00 x 4.30 x 2.18 cm	9.00 x 4.30 x 2.18 cm	7.93 x 3.70 x 1.55 cm	9.10 x 5.60 x 2.12 cm	9.10 x 5.60 x 2.12 cm
Carton Lot			40 pcs	40 pcs	20 pcs	40 pcs	40 pcs

Compatible KVM Switch					
Model No.	KA7170	KA7570	KA7970	KA7166	KA7168
KH1508A / KH1516A	•	•	•	•	•
KH2508A / KH2516A	•	•	•	•	•
KL1508A / KL1516A	•	•	•	•	•
KL1108VN / KL1116VN	•	N/A	N/A	•	•
KL1508AI / KL1516AI	•	•	•	•	•
KH1508AI / KH1516AI	•	•	•	•	•
KN1108v / KN1116v	•	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.

Type	USB				
Model	USB DisplayPort Virtual Media KVM Adapter Cable with Smart Card Reader	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
	KA7169	KA7175	KA7176	KA7177	KA7178

Connectors	Computer	Keyboard / Mouse / Video	1 x USB (M); 1 x DisplayPort (M)	1 x USB (M); 1 x HDB-15 (M)	1 x USB (M); 1 x HDB-15 (M)	1 x USB (M); 1 x HDB-15 (M)	1 x USB (M); 1 x HDB-15 (M)
		Smart Card Reader / CAC	1 x USB (M)	N/A	N/A	1 x USB (M)	N/A
	Console		N/A	N/A	N/A	N/A	N/A
	Serial		N/A	N/A	N/A	N/A	N/A
	Audio		N/A	N/A	2 x Mini Stereo	N/A	2 x Mini Stereo
	Power		N/A	N/A	N/A	N/A	N/A
	Link		1 x RJ-45 (F)	1 x RJ-45 (F)	1 x RJ-45 (F)	1 x RJ-45 (F)	2 x RJ-45 (F)
Firmware Upgradable			•	•	•	•	•
LEDs	Online / Link		2 (Green)	1 (Green)	1 (Green)	1 (Green)	2 (Green)
	Power		1 (Orange)	1 (Orange)	1 (Orange)	1 (Orange)	1 (Orange)
	Local / Remote		N/A	N/A	N/A	N/A	N/A
Physical Properties	Housing		Plastic	Plastic	Plastic	Plastic	Plastic
	Weight		0.11 kg	0.15 kg	0.17 kg	0.16 kg	0.17 kg
	Dimensions (L x W x H)		9.10 x 5.60 x 2.12 cm	9.00 x 4.30 x 2.18 cm	9.00 x 4.30 x 2.18 cm	9.00 x 4.30 x 2.18 cm	9.10 x 5.60 x 2.12 cm
Carton Lot			40 pcs	40 pcs	40 pcs	40 pcs	40 pcs

Compatible KVM Switch					
Model No.	KA7169	KA7175	KA7176	KA7177	KA7178
KH1508A / KH1516A	•	N/A	N/A	N/A	N/A
KH2508A / KH2516A	•	N/A	N/A	N/A	N/A
KL1508A / KL1516A	•	N/A	N/A	N/A	N/A
KL1108VN / KL1116VN	•	•	•	•	N/A
KL1508AI / KL1516AI	•	N/A	N/A	N/A	N/A
KH1508AI / KH1516AI	•	N/A	N/A	N/A	N/A
KN1108v / KN1116v	•	•	•	•	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

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-PS/2	PS/2		
Model			USB-PS/2 KVM Adapter Module with Local Console	PS/2 KVM AdapterCable	PS/2 KVM Adapter Cable	PS/2 KVM Adapter Cable
			KA7171	KA7120	KA7520	KA7920
Connectors	Computer	Keyboard / Mouse / Video	1 x SPHD-18(M)	1 x PS/2 (M); 1 x PS/2 (M); 1 x HDB-15 (M)	1 x PS/2 (M); 1 x PS/2 (M); 1 x HDB-15 (M)	1 x PS/2 (M); 1 x PS/2 (M); 1 x HDB-15 (M)
		Smart Card Reader / CAC	N/A	N/A	N/A	N/A
	Console		2 x USB (F) 1 x HDB-15 (M)	N/A	N/A	N/A
	Serial		N/A	N/A	N/A	N/A
	Audio		N/A	N/A	N/A	N/A
	Power		1 x DC Jack (M)	N/A	N/A	N/A
	Link		1 x RJ-45 (F)	1 x RJ-45 (F)	1 x RJ-45 (F)	1 x RJ-45 (M) with 4.5 m Cat 5 cable
Firmware Upgradable			•	•	•	•
LEDs	Online / Link		N/A	1 (Green)	1 (Green)	1 (Orange)
	Power		N/A	1 (Orange)	1 (Orange)	N/A
	Local / Remote		1 (Green) / 1 (Green)	N/A	N/A	N/A
Physical Properties	Housing		Metal	Plastic	Plastic	Plastic
	Weight		0.33 kg	0.15 kg	0.14 kg	0.25 kg
	Dimensions (L x W x H)		12.70 x 8.65 x 2.50 cm	9.00 x 4.30 x 2.18 cm	9.00 x 4.30 x 2.18 cm	7.93 x 3.70 x 1.55 cm
Carton Lot			20 pcs	40 pcs	40 pcs	20 pcs

Compatible KVM Switch				
Model No.	KA7171	KA7120	KA7520	KA7920
KH1508A / KH1516A	N/A	•	•	•
KH2508A / KH2516A	N/A	•	•	•
KL1508A / KL1516A	N/A	•	•	•
KL1108VN / KL1116VN	•	•	N/A	N/A
KL1508AI / KL1516AI	N/A	•	•	•
KH1508AI / KH1516AI	N/A	•	•	•
KN1108v / KN1116v	•	•	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.

Type			Sun Legacy	Serial	
Model			Sun Legacy KVM Adapter Cable	Serial KVM Adapter Cable	Serial KVM Adapter Module
			KA7130	KA7140	KA9140
Connectors	Computer	Keyboard / Mouse / Video	1 x Min Din 8 (M)	N/A	N/A
		Smart Card Reader / CAC	N/A	N/A	N/A
	Console		N/A	N/A	1 x Min Din 6 (F); 1 x HDB-15 (F)
	Serial		N/A	1 x DB-9 (F)	1 x DB-9 (F)
	Audio		N/A	N/A	N/A
	Power		N/A	1 x Mini USB Type B (F)	1 x DC Jack (M)
	Link		1 x RJ-45 (F)	1 x RJ-45 (F)	1 x RJ-45 (F)
Firmware Upgradable			•	•	•
LEDs	Online / Link		1 (Green)	1 (Green)	1 (Green)
	Power		1 (Orange)	1 (Orange)	1 (Orange)
	Local / Remote		N/A	N/A	N/A
Physical Properties	Housing		Plastic	Plastic	Metal
	Weight		0.16 kg	0.09 kg	0.50 kg
	Dimensions (L x W x H)		9.00 x 4.30 x 2.18 cm	9.00 x 4.30 x 2.18 cm	20.00 x 8.15 x 2.50 cm
Carton Lot			40 pcs	10 pcs	5 pcs

Compatible KVM Switch			
Model No.	KA7130	KA7140	KA9140
KH1508A / KH1516A	•	N/A	•
KH2508A / KH2516A	•	N/A	•
KL1508A / KL1516A	•	N/A	•
KL1108VN / KL1116VN	•	•	N/A
KL1508AI / KL1516AI	•	N/A	•
KH1508AI / KH1516AI	•	N/A	•
KN1108v / KN1116v	•	•	•
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.

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	HDB-15 Male 6-pin Mini-DIN Male 6-pin Mini-DIN Male	SPHD Male	KL9108 KL9116 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	USB Type A Male HDB-15 Male	SPHD Male	KL9108 KL9116
D	2L-5201U (1.2m) 2L-5202U (1.8m) 2L-5203U (3m) 2L-5205U (5m)	USB	USB Type A Male HDB-15 Male	SPHD Male	KN1000 KN1000A
E	2L-5301UP (1.2m) 2L-5302UP (1.8m)	USB PS/2	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)	DVI-D USB	USB Type A Male DVI-D Male (Single Link) 2 Audio plugs	USB Type A Male DVI-D Male (Single Link) 2 Audio plugs	KE6900 KE6940 KE6900ST
G	2L-7D02UI (1.8m) 2L-7D03UI (3m)	DVI-I USB	USB Type A Male DVI-I Male (Single Link) 2 Audio plugs	USB Type A Male DVI-I Male (Single Link) 2 Audio plugs	KE6900 KE6940 KE6900ST
H	2L-7DX2U (1.8m) 2L-7DX3U (3m)	DVI-A USB	USB Type A Male HDB-15 Male 2 Audio plugs	USB Type A Male DVI-I Male (Single Link) 2 Audio plugs	KE6900 KE6940
I	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 KH1508AI/KH1516AI KL1508A/KL1516A KL1508AI/KL1516AI
J	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.

Product Compatibility List

Model	Expansion	
	Connection	Compatible KVM Switch
KH1508A / KH1516A	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)*
KL1108VN / KL1116VN	Cascade	KH1508A / KH1516A (CS9134 / CS9138, CS1308 / CS1316)*
KL1508AI / KL1516AI	Daisy-Chain	KH1508A / KH1516A (ACS1208A / ACS1216A, CS1708A / CS1716A)*
KL9108 / KL9116	Cascade	(CS9134 / CS9138)*
KH1508AI / KH1516AI	Daisy-Chain	KH1508A / KH1516A (ACS1208A / ACS1216A, CS1708A / CS1716A)*
KN1108v / KN1116v	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 / KH1532A, 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)*

KVM Adapter Cables Compatibility List

Model	KH1508A KH1516A KH1532A KH1508AI KH1516AI	KH2508A KH2516A	KL1508A KL1516A KL1508AI KL1516AI	KL1108VN KL1116VN	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	N/A
KA7520	•	•	•	N/A	N/A
KA7570	•	•	•	N/A	N/A
KA7920	•	•	•	N/A	N/A
KA7970	•	•	•	N/A	N/A
KA9140	•	•	•	N/A	•
KA7171	N/A	N/A	N/A	•	•
KA7166	•	•	•	•	•
KA7168	•	•	•	•	•
KA7169	•	•	•	•	•

Note: Product specifications and appearance are subject to change without notice.
    *Please see www.aten.com for more details.

9

Reference

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	•	•	•

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	•	•	•

Note: Product specifications and appearance are subject to change without notice.
   *Please see www.aten.com for more details.

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