



Product Catalog **ATEN Altusen™ Enterprise Solutions** 





2019 marks ATEN's 40th anniversary since the company was established in 1979. ATEN's success is anchored upon our dedication to AV/IT technologies, and our commitment to sustained innovation and achieving excellence, all fueled by a passion for bringing better connectivity to the world. We will continue to enjoy a solid base of market diversity, geographical expansion, and numerous achievements in alliance with our highly respected clients and partners.

As an accelerator for the integration of AV and IT technologies, ATEN works consistently to create secure, efficient, and productive IP-based AV networking and IT control solutions. Offering integrated KVM, professional AV, and intelligent power solutions, ATEN products connect, manage, and optimize AV/IT equipment in corporate, government, education, broadcasting and media, and transportation environments.



# **ATEN Product Portfolio**

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



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# **Company Profile**



# **Our Services for You**

We help you satisfy all your customers' needs and grow your business.



# **Global Sales and Service Network**

ATEN has 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. Registered partners receive a monthly newsletter to stay up-to-date with ATEN's latest product news and events.





# **ATEN Download Center**

As an ATEN partner, you are guaranteed to have all the tools, knowledge, and support you require to succeed. Authorized partners can access our intuitive information sharing platform to get the latest marketing materials, sales tools, technical documents, product certifications, and more. ATEN also provides integrated marketing programs and promotions to assist partners in promoting ATEN products and services.



# **ATEN Partner Portal**

The ATEN Partner Portal is a web portal that is dedicated to Solution Partners, Channel Partners, and DMR Partners, and provides several ATEN online services, including technical support, product registration, and a wide range of unique partner services.

# **Complete Enterprise Solutions**

ATEN is a leading manufacturer of connectivity management solutions. With 40 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 sharing 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.

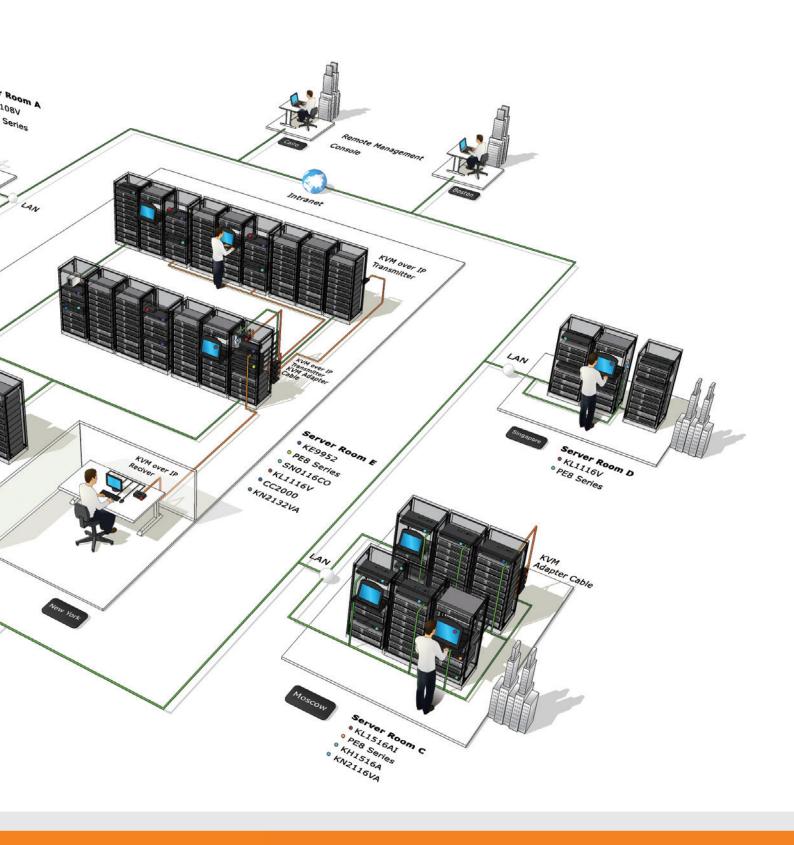
#### Research

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 and applications on connectivity, accessibility, sharing, and peripheral management. One highlight of our manufacturing is the production of Application Specific Integrated Circuits (ASIC). Developed inhouse, these chips have allowed ATEN to provide customers with features and benefits found only in our products, such as improved reliability, compatibility, cost, performance, as well as unique functionality and customized feature sets.



#### **User Experience**

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



# **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 the customer, and to reseller and partner satisfaction.

# **Dual Rail LCD KVM Switches**

KL1508A / KL1516A • KL1108V / KL1116V • KL1508AI / KL1516AI

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

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



#### **Exclusive LED Illumination Light**

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

#### Slim and Convenient

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

# **Boost Efficiency**

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

#### **Easy Access and Control**

ATEN Altusen™ LCD KVM Switches provide three convenient methods to monitor, access, and control devices on your installation:

- 1) Port selection pushbuttons.
- 2) Hotkey.
- 3) OSD (On Screen Display).

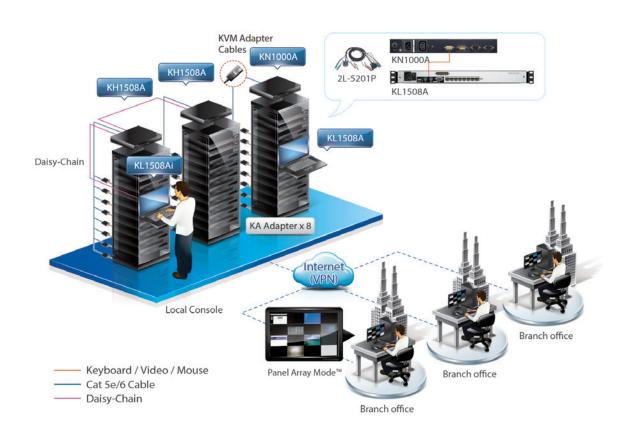
Station and port selectors with 7-segment LED displays are also provided for fast switching to target computers from the KL1508A / KL1516A, KL1108V / KL1116V, and KL1508AI / KL1516AI models.

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.



# Comparison

M	odel	KL1508A / KL1516A	KL1108V / KL1116V	KL1508AI / KL1516AI	
	Local	1	1		
Multiple Sessions	Remote	N/A	1	1	
Ports		8 / 16	8 / 16	8 / 16	
Port Selection		OSD, Hotkey, Pushbutton	OSD, Hotkey, Pushbutton	OSD, Hotkey, Pushbutton	
Expansion		256 / 512 (Daisy-Chain¹)	128 / 256 (Cascade¹)	128 / 256 (Daisy-Chain¹)	
	Connector	RJ-45	RJ-45	RJ-45	
Computer	Support Interface	PS/2, USB, Serial	PS/2, USB, Serial	PS/2, USB, Serial	
	Support Platform	Windows, Linux, Mac, Sun	Windows, Linux, Mac, Sun	Windows, Linux, Mac, Sur	
External Console		PS/2, USB; HDB-15	USB; DVI, HDB-15	PS/2, USB; HDB-15	
Extra Mouse Port		USB	USB	USB	
Keyboard / Mouse I	Emulation	PS/2, USB	PS/2, USB	PS/2, USB	
	LCD Module	17" / 19" TFT-LCD	19" TFT-LCD	17" / 19" TFT-LCD	
	Resolution		1280 x 1024 @ 75Hz		
	Response time	5 ms			
	Viewing Angle	170° (H), 160° (V)			
Panel Spec Pixel Pitch Support Color		0.264 mm x 0.264 mm (17") / 0.294 mm x 0.294 mm (19")			
		16.7M colors			
	Contrast Ratio	1000:1			
	Luminance	250 cd/m <sup>2</sup>			
Input Video Resolution		1920 x 1200 @ 60Hz	1920 x 1200 @ 60Hz	1920 x 1200 @ 60Hz	
Dedicated Invocation	n Keys	•	•	•	
Console Lock		•	•	•	
	Port	•	•	•	
Pushbuttons	Station	•	N/A	•	
Auto Scan		•	•	•	
Broadcast Support		•	•	•	
Multi-Level Passwor	rd Security	•	•	•	
Firmware Upgradab	ole	•	•	•	
KVM over IP		N/A	•	•	
Single Person Instal	lation	•	•	•	
Adapter ID Support	:	•	•	•	
Virtual Remote Desktop		N/A	•	•	
On-Screen Keyboard		N/A	•	•	
External Mouse		•	•	•	
CC2000 Centralized Management Software		N/A	•	•	
CCVSR Video Session Recording Software		N/A	•	N/A	
Panel Array Mode™		N/A	•	•	

# Note:

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

### **Installation Options**

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

#### **Single Person Installation**

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

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



3. Open the Dual Rail LCD KVM Switch. Now you are ready to begin installing the servers.



#### Standard Installation Rack Mount Kit

Short (Standard)







#### Easy Installation Rack Mount Kit

Short (Optional)







2X-011G

2X-012G

#### **Rack Mount Kits**

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

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





# Highlights

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

#### Hardware

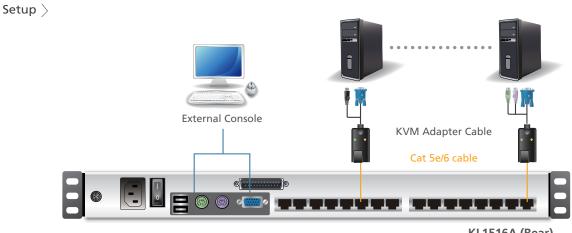
- Integrated Cat 5 KVM switch with 17" or 19" LED-backlit LCD monitor
- Space-saving RJ-45 connectors and Cat 5e/6 cabling
- Dual Rail LED-backlit LCD monitor slides independently from the keyboard / touchpad
- Extra console port manage computers connected to the switch from an external console (monitor,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

#### Management

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

#### Easy-to-Use Interface

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



Function	KL1508AM / KL1508AN	KL1516AM / KL1516AN	
Computer Connections			
Direct	8	16	
Maximum	256 (via Daisy-chain)*	512 (via Daisy-chain)*	
Port Selection	OSD, Hotkeys	s, Pushbuttons	
Connectors			
Console Ports	2 x USB Type A Female 1 x 6-pin Mini-DIN Female (Purple) 1 x 6-pin Mini-DIN Female (Green) 1 x HDB-15 Female (Blue)		
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female	
Daisy Chain Ports	1 x DB-	25 Male	
Firmware Upgrade	1 x RJ-1	1 Female	
Power	1 x IEC 6	0320/C14	
External Mouse Port	1 x USB Typ	pe A Female	
LEDs			
Online	8 (Green)	16 (Green)	
Selected	8 (Orange)	16 (Orange)	
Power	1 (Blue)		
Station ID	1 x 2 Digit 7-segment (Orange)		
Lock	1 x Num Lock (Green) 1 x Caps Lock (Green) 1 x Scroll Lock (Green)		
LCD Power	1 (Orange)		
Input Video Resolution	1920 x 12	00 @ 60Hz	
KL1508AM: 17" LCD Module  KL1508AN: 19"		KL1516AM: 17" KL1516AN: 19"	
	1280 x 1024 @ 75 Hz		
Emulation			
Keyboard / Mouse	PS/2; US	SB; Serial	
Maximum Input Power Rating	100-240V AC	; 50-60Hz; 1A	
Power Consumption	KL1508AM:110V / 16.7W; 220V / 18.9W KL1508AN: 110V / 19.9W; 220V / 21.2W	KL1516AM: 110V / 16.8W; 220V / 19.8W KL1516AN: 110V / 20W; 220V / 22.1W	
Environmental			
Operating Temperature	0-4	0°C	
Storage Temperature	-20-60°C		
Humidity	0-80% RH, No	on-condensing	
Physical Properties			
Housing	Me	etal	
Weight	KL1508AM: 15.19 kg (33.46 lb) KL1508AN: 15.35 kg (33.81 lb)	KL1516AM: 15.20 kg (33.48 lb) KL1516AN: 15.36 kg (33.83 lb)	
Dimensions (L x W x H)	48.00 x 70.12 x 4.40 cm (18.9 x 27.61 x 1.73 in.)		
Carton Lot	1 pc		

Note: \*Refer to page 8-1 for details on compatible KVM switches.

# Included Accessories

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

Description	Part No. / Spec.	Page No.
Rack Mount Kits	Please refer to page 1-4	1-4
Daisy Chain Cables	2L-1700 (0.6 m); 2L-1701 (1.8 m); 2L-1703 (3 m); 2L-1705 (5 m); 2L-1715 (15 m)	7-6 M
KVM Adapter Cables	Please refer to page 7-2	7-2

# **KL1108V / KL1116V** $\rightarrow$ 1-Local & 1-Remote User Access

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







#### KL1116V







#### 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<sup>1</sup>
- Panel Array Mode<sup>™</sup> View the video output of up to 42 servers on one screen simultaneously
- Advanced security features include password protection and advanced encryption – TLS 1.2, RSA 2048-bit, 256bit AES, 56-bit DES, 168-bit 3DES and 128-bit RC4
- Message Board for communication among remote users
- Integration with ATEN CC2000 Centralized
   Management Software & CCVSR Video Session
   Recording Software<sup>2</sup>
- <u>PadClient provides instant, convenient, and secure remote access to control servers through your iPad.</u> (available free on the Apple Store)<sup>3</sup>

#### Note:

- 1. Refer to page 8-1 for details on compatible KVM switches.
- 2. Refer to page 4-1, Management Software, for details.
- 3. Please use the QR code below to download the PadClient App from the Apple Store.



PadClient App

### **Exclusive Features:**



 High grade security – supports FIPS 140-2 level 1 security standards



 Extreme virtual media speed
 2 x faster virtual media transmission speed



 Advanced FPGA graphics processor – with an HD resolution of 1920 x 1200

#### Hardware

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

#### Management

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

#### Easy-to-Use Interface

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

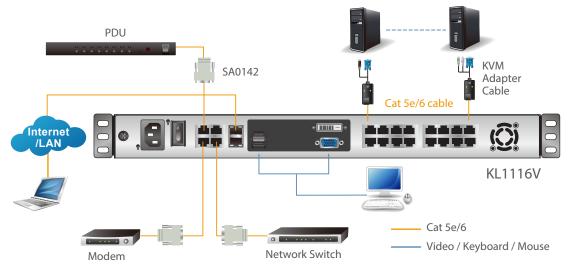
#### Virtual Media

- Works with USB enabled servers in operating system and BIOS level
- Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives, and ISO images
- Supports Smart Card/CAC Reader

#### Virtual Remote Desktop

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

# Setup >



Function	KL1108VN	KL1116VN
Computer Connections		
Direct	8	16
Maximum	128 (via Cascade)*	256 (via Cascade)*
Console Connections		
Local		1
Remote		1
Port Selection	OSD, Hotkeys	s, Pushbuttons
Connectors		
Console Ports	1 x DVI-D Fe	Female (White) male (White) Female (Blue)
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female
Power	1 x IEC 6	0320/C14
External Mouse Port	1 x USB Typ	pe-A Female
LAN Ports	2 x RJ-4	5 Female
PON	1 x RJ-4	5 Female
Modem	1 x RJ-4	5 Female
Serial	2 x RJ-4	5 Female
LEDs		
Online	8 (Green)	16 (Green)
Selected	8 (Orange)	16 (Orange)
Power	1 (E	Blue)
Lock	1 x Num Lock (Green) 1 x Caps Lock (Green) 1 x Scroll Lock (Green)	
10/100/1000 Mbps	2 (Orange / Orang	e & Green / Green)
LCD Power	1 (Or	range)
Input Video Resolution	1920 x 12	200@60Hz
LCD Module	KL1108VN: 19" (1280 x 1024 @ 75Hz)	KL1116VN: 19" (1280 x 1024 @ 75Hz)
Emulation		
Keyboard / Mouse	U	SB
Maximum Input Power Rating	100-240V AC	; 50/60Hz; 1A
Power Consumption	110V/29.0W; 220V/29.4W	110V/32.1W; 220V/32.4W
Environmental		
Operating Temperature	0-4	.0°C
Storage Temperature	-20-60°C	
Humidity	0-80% RH, Non-condensing	
Physical Properties		
Housing	Me	etal
Weight	15.22 kg ( 33.52 lb )	15.28 kg ( 33.69 lb )
Dimensions (L x W x H)	48.00 x 70.12 x 4.40 cm (18.9 x 27.61 x 1.73 in.)	
Carton Lot	1pc	

Note: \*Refer to page 8-1 for details on compatible KVM switches.

# Included Accessories

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

Description	Part No. / Spec.	Page No.
Rack Mount Kits	Please refer to page 1-4	1-4
KVM Adapter Cables	Please refer to page 7-2	7-2
Management Software	Please refer to page 4-1	4-1



# KL1508AI / KL1516AI > 1-Local/Remote Share Access

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



















# Highlights

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

#### Hardware

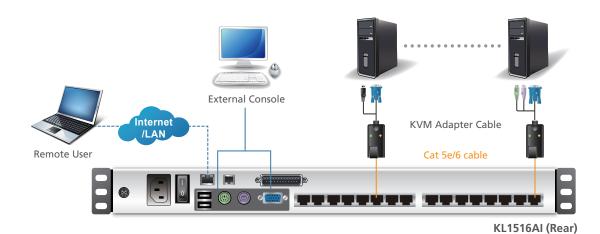
- Integrated Cat 5 KVM over IP Switch with 17" or 19" LED-backlit LCD monitor
- Space-saving RJ-45 connectors and Cat 5e/6 cabling
- Dual Rail LED-backlit LCD monitor slides independently from the keyboard / touchpad
- Extra console port manage computers connected to the switch from an external console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

#### Management

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

#### Easy-to-Use Interface

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



# Included Accessories

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

Description	Part No. / Spec.	Page No.
Rack Mount Kits	Please refer to page 1-4	1-4
Daisy Chain Cables	2L-1700 (0.6 m); 2L-1701 (1.8 m); 2L-1703 (3 m); 2L-1705 (5 m); 2L-1715 (15 m)	7-6 M
KVM Adapter Cables	Please refer to page 7-2	7-2
Management Software	Please refer to page 4-1	4-1

Function	KL1508AIM / KL1508AIN	KL1516AIM / KL1516AIN			
Computer Connections					
Direct	8	16			
Maximum	128 (via Daisy-chain)*	256 (via Daisy-chain)*			
Console Connections	-				
Local					
Remote	1				
Port Selection	OSD, Hotkeys,	, Pushbuttons			
Connectors					
Console Ports	2 x USB Typ 1 x 6-pin Mini-Dlf 1 x 6-pin Mini-Dlf 1 x HDB-15 F	N Female (Purple) N Female (Green)			
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female			
Daisy Chain Ports	1 x DB-2	25 Male			
Power	1 x IEC 60	0320/C14			
Firmware Upgrade	1 x RJ-11	Female			
External Mouse Port	1 x USB Typ	e A Female			
LAN Ports	1 x RJ-45	5 Female			
PON	1 x RJ-45	5 Female			
LEDs					
Online	8 (Green)	16 (Green)			
Selected	8 (Orange)	16 (Orange)			
Power	1 (Blue)				
Station Selection	2 x 7 Segments (Orange)				
Lock	1 x Num Lock (Green) 1 x Caps Lock (Green) 1 x Scroll Lock (Green)				
Link	1 (Gr	reen)			
10/100/1000 Mbps	10/100/1000 (Orang	ge / Orange / Green)			
LCD Power	1 (Ora	ange)			
Input Video Resolution	1920 x 120	00 @ 60Hz			
LCD Module	KL1508AIM: 17" / KL1508AIN: 19" (1280 x 1024 @ 75Hz)	KL1516AIM: 17" / KL1516AIN: 19" (1280 x 1024 @ 75Hz)			
Emulation					
Keyboard / Mouse	PS/2;	USB			
Maximum Input Power Rating	100-240V AC,	, 50-60Hz, 1A			
Power Consumption	KL1508AIM: 110V / 21.1W; 220V / 22.2W KL1508AIN: 110V / 24.3W; 220V / 24.5W	KL1516AIM: 110V / 21.2W; 220V / 23.1W KL1516AIN: 110V / 24.4W; 220V / 25.4W			
Environmental					
Operating Temperature	0-40	D°C			
Storage Temperature	-20-60°C				
Humidity	0-80% RH, No	on-condensing			
Physical Properties					
Housing	Me	tal			
Weight	KL1508AIM: 15.23 kg ( 33.55 lb ) KL1516AIM: 15.24 kg ( 33.55 lb ) KL1516AIM: 15.40 kg ( 33.95 lb ) KL1516AIN: 15.40 kg ( 33.95 lb )				
Dimensions (L x W x H)	48.00 x 70.12 x 4.40 cm (18.9 x 27.61 x 1.73 in.)				
Carton Lot	1 <sub>p</sub>	OC .			

Note: \*Refer to page 8-1 for details on compatible KVM switches.

# Cat 5 KVM Switches

# KH1508A / KH1516A / KH1532A • KH2508A / KH2516A

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

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



assigning and retaining unique names and settings for each attached server.

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

#### Flexible Deployment

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

#### Multi-Platform Integration

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

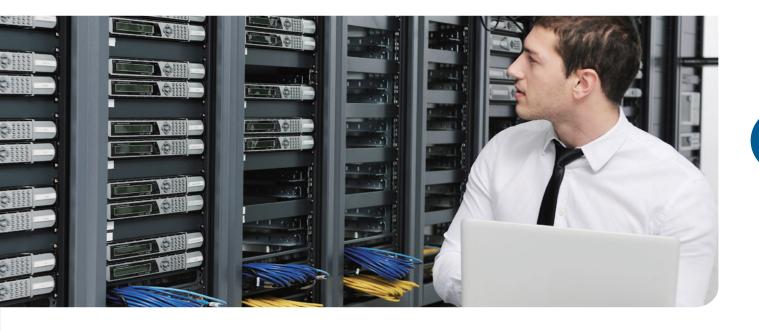
#### **Grow Your Business With Smart Investment**

Effortlessly expand your growing network by using the existing switches and daisy-chain additional switches to control up to 1024 servers.

# **Working Smart**

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

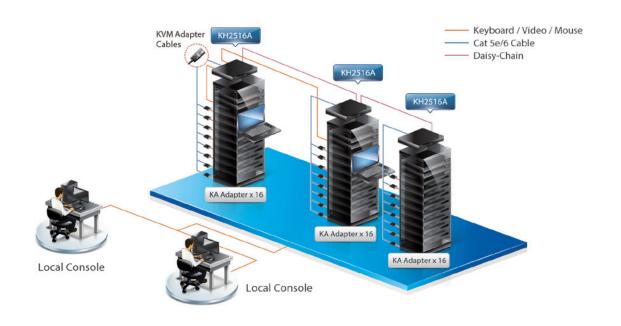
Note: The features highlighted above are not available in all products. Please refer to each product page for more details. Product information is subject to change without prior notice.



# Comparison

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

Note: \*With KA7xxx series adapter cables.



# KH1508A / KH1516A / KH1532A

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





# Highlights

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

Note: \*Refer to page 8-1 for details on compatible KVM switches.

#### Hardware

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

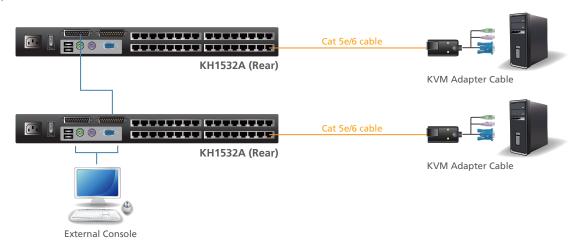
#### Management

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

# Easy-to-Use Interface

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

#### Setup >



Function	KH1508A	KH1516A	KH1532A		
Computer Connections					
Direct	8	16	32		
Maximum	256 (via Daisy-chain)	512 (via Daisy-chain)	1024 (via Daisy-chain)		
Port Selection	OSD, Hotkey, Pushbutton				
Connectors					
Console Ports		2 x USB Type A Female 1 x 6-pin Mini-DIN Female (Purple) 1 x 6-pin Mini-DIN Female (Green) 1 x HDB-15 Female (Blue)			
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female	32 x RJ-45 Female		
Daisy Chain Ports		1 x DB-25 Female (Black) 1 x DB-25 Male (Black)			
Firmware Upgrade		1 x RJ-11 Female (Black)			
Power		1 x IEC 60320 / C14			
LEDs					
Online	8 (Green)	16 (Green)	32 (Green)		
Selected	8 (Orange)	16 (Orange)	32 (Orange)		
Power	1 (Blue)				
Station ID	1 x 2 Digit 7-segment (Orange)				
Video	1920 x 1200 @ 60 Hz (30 m*) 1600 x 1200 @ 60 Hz (40 m*) 1280 x 1024 @ 75 Hz (50 m*)				
Emulation					
Keyboard / Mouse		PS/2; USB			
Maximum Input Power Rating		100-240V AC; 50/60 Hz; 1A			
Power Consumption	110V / 5.1W; 220V / 5.1W	110V / 5.3W; 220V / 5.3W	110V / 4.6W; 220V / 4.8W		
Environmental					
Operating Temperature		0-40°C			
Storage Temperature		-20-60°C			
Humidity		0-80% RH, Non-condensing			
Physical Properties					
Housing	Metal				
Weight	2.65 kg ( 5.84 lb )	2.67 kg ( 5.88 lb )	2.81 kg ( 6.19 lb )		
Dimensions (L x W x H)	43.72 x 16.36 x 4.40 cm (17.21 x 6.44 x 1.73 in.)	43.72 x 16.37 x 4.40 cm (17.21 x 6.44 x 1.73 in.)			
Carton Lot		3 pcs			

Note: \*With KA7xxx series adapter cables.

# Included Accessories

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

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)	7-6 M
KVM Adapter Cables	Please refer to page 7-2	7-2

# KH2508A / KH2516A

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





# Highlights

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

Note: \*Refer to page 8-1 for details on compatible KVM switches.

#### Hardware

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

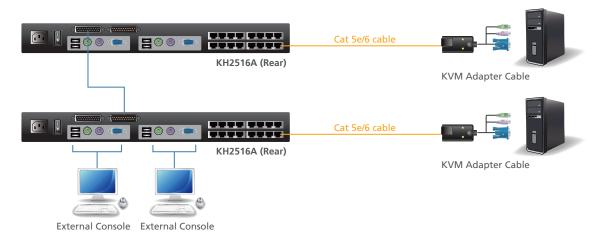
#### Management

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

#### Easy-to-Use Interface

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

#### Setup >



Function	KH2508A	KH2516A	
Computer Connections			
Direct	8	16	
Maximum	128 (via Daisy-chain)	256 (via Daisy-chain)	
Port Selection	OSD, Hotkey	, Pushbutton	
Connectors			
	4 x USB Τγ	oe A Female	
Consolo Ports	2 x 6-pin Mini-Dl	N Female (Purple)	
Console Ports	2 x 6-pin Mini-Di	N Female (Green)	
	2 x HDB-15	Female (Blue)	
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female	
Daisy Chain Ports		emale (Black) Male (Black)	
Firmware Upgrade	1 x RJ-1	1 Female	
Power	1 x IEC 6	0320/C14	
LEDs			
Online	8 (Green)	16 (Green)	
Selected	8 (Orange)	16 (Orange)	
Console	2 (Orange)		
Power	1 (Blue)		
Station ID	1 x 7-segment LE	D display (Orange)	
Video	1920 x 1200 @ 60 Hz (30 m*) 1600 x 1200 @ 60 Hz (40 m*) 1280 x 1024 @ 75 Hz (50 m*)		
Emulation			
Keyboard / Mouse	PS/2	; USB	
Maximum Input Power Rating	100-240V AC	; 50/60 Hz; 1A	
Power Consumption	110V / 8.5W; 220V / 9.3W	110V / 9.7W; 220V / 10.7W	
Environmental			
Operating Temperature	0-5	0°C	
Storage Temperature	-20-60°C		
Humidity	0-80% RH, N	on-condensing	
Physical Properties			
Housing	M	etal	
Weight	2.81 kg ( 6.19 lb )	2.85 kg ( 6.28 lb )	
Dimensions (L x W x H)	43.72 x 15.58 x 4.40 cm	ı (17.21 x 6.13 x 1.73 in.)	
Carton Lot	3 pcs		

Note: \*With KA7xxx series adapter cables.

# Included Accessories

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

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)	7-6 N
KVM Adapter Cables	Please refer to page 7-2	7-2

# **KVM over IP Matrix System**

CCKM KE Matrix Management Software • KE9950 / KE9952 • KE9900ST • KE8950 / KE8952 KE8900S • KE6910 / KE6912 • KE6900 / KE6940 • KE6900ST • ES0152 / ES0152P

The ATEN Altusen™ KVM over IP Matrix System is an innovative solution that combines KVM over IP Extenders (KE9950 / KE9952 / KE9900ST / KE8950 / KE8952 / KE8900S / KE6910 / KE6912 / KE6900 / KE6940 / KE6900ST) with the KE Matrix Management Software (CCKM) to extend, control, monitor, and, accesses to computers across an independent network in a multitude of ways. The system lets you set up a matrix of workstations that accesses computers across a network with the flexibility to configure each connection for the seamless data flow required for any and all applications.

The KVM over IP Extenders are installed at computers and workstations, and are configured via the KE Matrix Management Software (CCKM) to create connections between them over a LAN. Extender setups can be configured for one-to-one, one-to-many, many-to-one, and many-to-many connections. Whether



you're extending computer access for monitoring, broadcasting, editing or workstation setups, the KVM over IP Matrix System gives you the flexibility and control to manage one or hundreds of extended connections.

# **Boundless Switching**

ATEN Boundless Switching technology provides an intuitive way to switch control to another receiver by simply moving your mouse cursor across the screen border and onto the target computer display. Move the mouse cursor in any direction to switch the control focus without limitations.

#### Effortless over IP Digital Media Extension

Eliminates the distance restrictions of control room management; enables a faster response to mission-critical data center emergencies; all models support unlimited distances via Cat 5e/6 over a LAN, while the KE8950 / KE8952 also supports up to 10km via a SFP fiber optic transceiver module over an optical Ethernet network.

#### Exceptional Video Quality up to 4K

ATEN's KE series delivers high-definition images up to 3840 x 2160 @30HZ (KE8950 / KE8952 / KE9950 / KE9952) at 36-bit color depth, 2560 x 1600 @60Hz (KE6910 / KE6912) and 1920 x 1200 @60Hz (KE6900 / KE6940 / KE6900ST / KE8900S / KE9900ST) at 24-bit color depth for stunning colors and razor-sharp video quality even with the most bandwidth-heavy video streams.

#### **Powerful Centralized Management**

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

#### **Fast Switching**

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

#### **Unbeatable Video Wall Versatility**

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

#### **Secure Data Transmission**

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



# Comparison

Model	KE9950	KE9952	KE9900ST	KE8950	KE8952	KE8900S	KE6910	KE6912	KE6900	KE6940	KE6900ST
Support Interface	DisplayPort	DisplayPort	DisplayPort	HDMI	HDMI	HDMI	DVI-D	DVI-D	DVI-I	2*DVI-I	DVI-D
Max. Video	3840 x 2160	3840 x 2160	1920 x 1200	3840 x 2160	3840 x 2160	1920 x 1200	2560 x 1600	2560 x 1600	1920 x 1200	1920 x 1200	1920 x 1200
Resolution	@30Hz	@30Hz	@60Hz	@30Hz	@30Hz	@60Hz	@60Hz	@60Hz	@60Hz	@60Hz	@60Hz
HDCP	1.3	1.3	1.3	1.4	1.4	1.4	N/A	N/A	N/A	N/A	N/A
Audio	•	•	• (Digital)	•	•	• (Digital)	•	•	•	•	N/A
Mouse Emulation	•	•	•	•	•	•	•	•	•	•	•
Tx Local Console	•	•	N/A	•	•	N/A	•	•	•	•	N/A
Boundless Switching	•	•	•	•	•	•	•	•	•	•	•
Fast Switching*	•	•	•	•	•	•	•	•	•	•	•
Dual Video Output	N/A	•	N/A								
Video Wall*	•	•	•	•	•	•	•	•	•	•	•
RS-232	•	•	•	•	•	•	•	•	•	•	•
OSD	•	•	N/A	•	•	•	•	•	•	•	N/A
Virtual Media	•	•	•	•	•	•	•	•	•	•	•
Virtual USB	•	•	N/A	•	•	N/A	•	•	•	•	N/A
PoE	N/A	•	N/A	N/A	•	N/A	N/A	•	N/A	N/A	N/A
LAN	1 Gbps										
Network Interface	RJ45 (SFP)	RJ45 (SFP)	RJ45	RJ45 (SFP)	RJ45 (SFP)	RJ45	RJ45 (SFP)	RJ45 (SFP)	RJ45	RJ45	RJ45

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

# KVM over IP Matrix System



KE Matrix Management Software (CCKM) KVM over IP Extenders (KE99 / 89 / 69 series)



# Highlights

- Software-based to manage, configure, and control KE Matrix Systems
- Versatile functionality KVM Switches, Computer Sharing Devices, Matrix Systems, Extenders
- Install Wizard to add new devices instantly
- <u>Previews all transmitters' video content</u> <u>simultaneously on one screen</u>
- Instant link allows to select or drag/drop to switch connections
- Integrate with VK Series control system via RS232 and Telnet
- Boundless Switching simply move the mouse cursor across screen boundaries to switch between different receivers
- Intuitive Dashboard Administrators can easily know system status, device connections, scheduled profiles, and user sessions
- Anonymous Login allows users to login without authentication
- Allows users to select any required configurations and copy/paste them to new devices within 1 sec.
- Enables users to replace devices that go down with the original configurations
- Video Wall Layout Selection: Video Wall / Splitter / Customized
- Independently stream HDMI audio signals to either digital or analog audio interfaces
- Intelligenc Dual Video Output Management

#### Management

- Centralized control of all your KE9950 / KE9952 / KE9900ST / KE8950 / KE8952 / KE8900S / KE6910 / KE6912 / KE6900 / KE6940 / KE6900ST devices
- Profiles can save reserved connections for current operation or scheduling
- User account authentication and management
- Filter and export function for system logs
- Email notification of specified system events
- Fast switching within 0.3 seconds
- Redundancy settings enable users to set primary and secondary servers. The secondary server automatically replaces the primary server if it goes down

#### **Intuitive User Interface**

- CCKM multi-platform installation support: Windows / Linux
- Transmitter multi-platform OS support (Windows, Mac OS X, Linux, Sun)
- Browser-based GUI offers a multi-language interface to improve the efficiency and increase productivity

# **Advanced Security**

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

#### **Install Wizard**

Detects all devices in the LAN automatically for quick installation.



#### Dashboard

Provides system status, KE connections, user login, schedule profiles and current sessions at a glance.



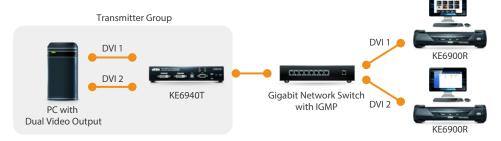
#### **Boundless Switching**

Switch between computers by moving the mouse across the display border.



#### Intelligent Dual Video Output Management

Using KE6940T, two video outputs from a PC can be delivered to multiple receivers as two separate sources. This is especially beneficial for single display receivers (e.g KE6900R / KE6910R / KE6912R / KE8900SR / KE8950R / KE9952R) because operators can switch to either one of sources from the OSD instead of accessing source 1 only.



# **Easy Device Replacement**

Device configurations are saved to help bypass the setup process when replacing transmitters/receivers with same settings.



#### **Real-time Preview**

Monitor all transmitters simultaneously on one screen.



# Configuration Copy & Paste

Select any required configurations you want to keep, paste them to the new devices, and everything is ready to go.



#### **Instant Link**

Connect transmitters and receivers with a simple drag-and-drop.



#### KE9950 / KE9952

4K DisplayPort Single Display KVM over IP Extender



#### KE9952



Front



Rear



# Highlights

- Flexible connections allows multiple extender and matrix connections for multi-display installations and video wall applications
- Supports DisplayPort video output providing a greatly improved video display image up to 3840 x 2160
- Supports 1Gbps SFP fiber module expansions up to 10 km
- Supports Power over Ethernet (PoE) function (KE9952 only) as PD (Powered Device)
- Local console for emergency operation
- "Push" and "Pull" share content instantly by just one click
- Fast Switching switch between different remote video resolutions on a local display within 0.3 seconds
- Centralized KE series management software KE
   Matrix Management Software (CCKM)\* allows users to
   easily administer all KE devices with an intuitive web
   based GUI

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

#### Hardware

- Ultra High Definition (UHD) video quality up to 3840 x 2160 @ 30Hz (4:4:4); 36-bit color depth
- Supports interlaced video format
- Supports stereo speakers and stereo microphone
- Virtual Media or vUSB Support
- Compliant with DP 1.2 and HDCP 1.3
- Auto-MDIX automatically detects cable type
- Built-in 8KV/15KV ESD protection and 2KV surge protection
- Fanless design for silent operations that are energy efficient
- Rack Mountable Mounting options:
  - (1) 2X-021G Dual Rack Mount Kit1
  - (2) 2X-031G Single Rack Mount Kit1
- Supports connection via Gigabit Ethernet port (RJ-45) or SFP port for failover or for dual IP addresses access
- Support 1Gbps SFP fiber module expansions<sup>2</sup> up to 10 km
- Power Redundancy Dual DC Jack (KE9950 only) or 1 DC Jack + PoE (KE9952 only)
- Supports Power over Ethernet (PoE) function compliant with the IEEE 802.3at standard (KE9952 only)
- Embedded / De-embedded DP Audio Support

# Management

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

#### Security

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

#### Virtual Media

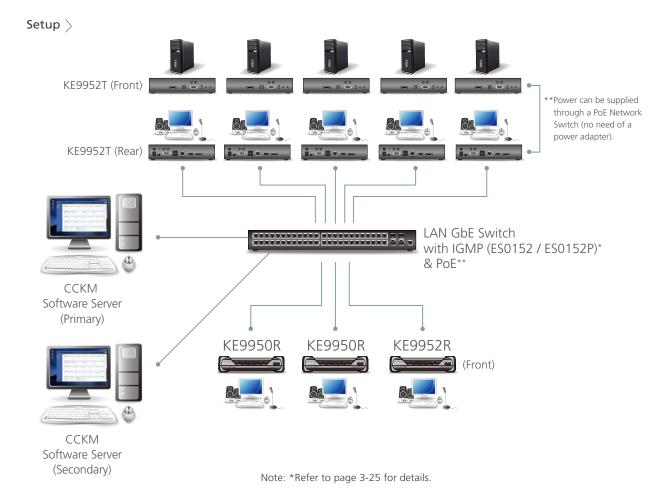
- Virtual Media mode enhances data transmission performance, ideally for file transfers, OS patching, software installations and diagnostic testing
- Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives and ISO images
- Supports Smart Card/CAC Reader

#### Advanced Features<sup>3</sup>

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

Note: 1. Refer to <a href="www.aten.com">www.aten.com</a> for more details.

- 2. SFP modules are required for fiber network connection. Refer to page 3-26 for details.
- 3. These advanced functions are supported when the KE transmitters are paired with KE receivers and managed by KE Matrix Management Software (CCKM).
- 4. The KVM over IP Access Control Box (2XRT-0015G) is sold separately. Refer to page 3-26 for details.



Functions	KE9950R	KE9952R	KE9950T	KE9952T		
Connectors						
Virtual Media	2 x USB Type A	Female (White)	N	I/A		
	2 x USB Type A Female (White)					
		1 x DisplayPort	Female (Black)			
Console Ports		1 x Mini Stered	Jack (Green)			
		1 x Mini Stere	o Jack (Pink)			
		1 x DB-9 M	ale (Black)			
			1 x USB Type B	Female (White)		
			1 x DisplayPort	Female (White)		
KVM Ports	N	/A	1 x Mini Stere	eo Jack (Green)		
			1 x Mini Ster	reo Jack (Pink)		
			1 x DB-9 Fe	emale (Black)		
Power	2 x DC Jack (Black)	1 x DC Jack (Black)	2 x DC Jack (Black)	1 x DC Jack (Black)		
ANIDouto	1 x RJ-45 (Black)	1 x RJ-45 (Black, PoE)	1 x RJ-45 (Black)	1 x RJ-45 (Black, Pol		
LAN Ports		1 x SFI	P Slot			
LEDs						
10 / 100 / 1000 Mbps		1 (10: Orange / 100: Orange & Green / 1000: Green)				
Power		1 (Bl	ue)			
Local		1 (Gr	een)			
Remote		1 (Gr	een)			
Video Resolution		3840 x 2160 @	9 30Hz (4:4:4)			
Emulation						
Keyboard / Mouse		US	SB .			
Environmental						
Operating Temperature		0-50	)°C			
Storage Temperature		-20-6	50°C			
Humidity		0-95% RH, No	n-condensing			
Physical Properties						
Housing		Me	tal			
Weight	1.24kg (2.73 lb)	1.27kg (2.80 lb)	1.12kg (2.47 lb) 1.15kg (2.5			
Dimensions (L x W x H)	22.75 x 17.16 x 5.48 cr	22.75 x 17.16 x 5.48 cm (8.96 x 6.76 x 2.16 in.) 21.5 x 16.29 x 4.18 cm (8.46 x 6.41 x 1.65 in.)				
Carton Lot		5 p	CS			

# Included Accessories

	KE9950 / KE9952
Power Adapters <sup>1</sup>	2
DisplayPort Cable <sup>2</sup>	•
USB 2.0 Type-A to Type-B Cable <sup>2</sup>	•
Mounting Kit <sup>2</sup>	•

- This accessory is only included with KE9950 model.
   These accessories are only included with transmitter models.

Description	Part No. / Spec.	Page No.
KE Management Software (CCKM)	Please refer to page 3-3	3-3
Access Control Button	2XRT-0015G	3-26
SFP Modules	2A-136G ( Multi-Mode ) 2A-137G ( Single-Mode )	3-26
DisplayPort Cable	2L-7D02DP (2 m) 2L-7D03DP (3 m) 2L-7D05DP (5 m)	7-6 L
2X-021G Dual Rack Mount Kit	Please refer to www.aten.com for details	
2X-031G Single Rack Mount Kit	riease refer to <u>www.aten.com</u>	TOT details

#### **KE9900ST**

Slim DisplayPort Single Display KVM over IP Transmitter





# Highlights

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

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

#### Hardware

- Superior video quality up to 1920 x 1200 @ 60Hz; 24 bit color depth
- Supports standard DisplayPort resolutions from 640 x 480 up to 1920 x 1200
- Auto-MDIX automatically detects cable type
- Built-in 8KV/15KV ESD protection and 1KV surge protection
- Fanless design for silent operations that are energy efficient
- Compliant with DP 1.2 and HDCP 1.3
- Rack Mountable
- Supports connection via Gigabit Ethernet port
- Embedded / De-embedded DP Audio Support

#### Management

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

# Security

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

#### Virtual Media

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

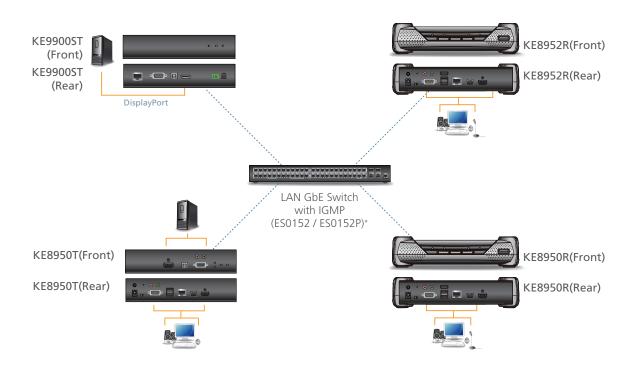
#### Advanced Features<sup>1</sup>

- Video Walls create multiple video walls with up to 8 x 8 (64 displays max.) in each layout
- · Advanced Scheduling improves efficiency and saves costs by allowing connections to be set based on time and date
- Virtual Transmitter to stream video, audio, USB and serial sources independently
- Supports both internal and external authentication external authentication supports LDAP, Active Directory, RADIUS and TACACS+
- Advanced User Authorization Settings administrators can set four access modes of permissions on Tx devices for collaboration or to avoid interference among users
- Configurable user and group permissions for access and control of KE devices
- Tx grouping of up to 4 sets of KE series devices to support Multi-Display applications
- Rx privilege control users at the Tx local console can enable / disable Rx control privilege by simply pressing a control button<sup>2</sup>

Note: 1. These advanced functions are supported when the KE devices are managed by KE Matrix Management Software (CCKM).

2. The KVM over IP Access Control Box (2XRT-0015G) is sold separately. Refer to page 3-26 for details...

#### Setup >



Note: \*Refer to page 3-25 for details.

Function	KE9900ST	
Connectors		
KVM Ports	1 x USB Type B Female (White) 1 x DisplayPort Female (Black) 1 x DB-9 Female (Black)	
Power	1 x DC Jack (Black) 1 x 3-Pole Terminal Block Connector (Green)	
LAN Ports	1 x RJ-45 (Black)	
LEDs		
10/100/1000 Mbps	1 (10: Orange / 100: Orange & Green / 1000: Green)	
Power	1 (Blue)	
Video Resolution	Up to 1920 x 1200 @ 60Hz	
Emulation		
Keyboard / Mouse	USB	
Power Consumption	DC5V / 4.75W; DC48V / 6.97W	
Environmental		
Operating Temperature	0-50°C	
Storage Temperature	-20-60°C	
Humidity	0-95% RH, Non-condensing	
Physical Properties		
Housing	Metal	
Weight	0.65 kg (1.43 lb)	
Dimensions (L x W x H)	18.20 x 11.75 x 2.87 cm (7.17 x 4.63 x 1.13 in.)	
Carton Lot	5 pcs	

# Included Accessories

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

Description	Part No. / Spec.	Page No.
KE Management Software (CCKM)	Please refer to page 3-3	3-3
Access Control Button	2XRT-0015G	3-26
DisplayPort Cable	2L-7D02DP (2 m) 2L-7D03DP (3 m) 2L-7D05DP (5 m)	7-6 L
VE-RMK 1U Extender Rack mount Kit	Please see <u>www.aten.com</u> for more details.	

# KE8950 / KE8952

4K HDMI Single Display KVM over IP Extender







Front



Rear



# Highlights

- Flexible connections allows multiple extender and matrix connections for multi-display installations and video wall applications
- Supports HDMI video output providing a greatly improved video display image up to 3840 x 2160
- Supports 1Gbps SFP fiber module expansions up to 10 km
- Supports Power over Ethernet (PoE) function (KE8952 only) as PD (Powered Device)
- Local console for emergency operation
- "Push" and "Pull" share content instantly by just one click
- Fast Switching switch between different remote video resolutions on a local display within 0.3 seconds
- Centralized KE series management software KE
   Matrix Management Software (CCKM)\* allows users to
   easily administer all KE devices with an intuitive web
   based GUI

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

#### Hardware

- Ultra High Definition (UHD) video quality up to 3840 x 2160 @ 30Hz (4:4:4); 36-bit color depth
- Supports interlaced video format
- Supports standard HDMI resolutions from 640 x 480 up to 3840 x 2160
- Supports stereo speakers and stereo microphone
- Virtual Media or vUSB Support
- Compliant with HDMI 1.4a and HDCP 1.4
- Auto-MDIX automatically detects cable type
- Built-in 8KV/15KV ESD protection and 1KV surge protection
- Fanless design for silent operations that are energy efficient
- Rack Mountable Mounting options:
  - (1) 2X-021G Dual Rack Mount Kit1
- (2) 2X-031G Single Rack Mount Kit<sup>1</sup>
- Supports connection via Gigabit Ethernet port (RJ-45) or SFP port for failover or for dual IP addresses access<sup>2</sup>
- Support 1Gbps SFP fiber module expansions<sup>2</sup> up to 10 km
- Power Redundancy 1 DC Jack + PoE (KE8952 only)
- Supports Power over Ethernet (PoE) function compliant with the IEEE 802.3at standard (KE8952 only)
- Embedded / De-embedded HDMI Audio Support

#### Management

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

#### Security

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

#### Virtual Media

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

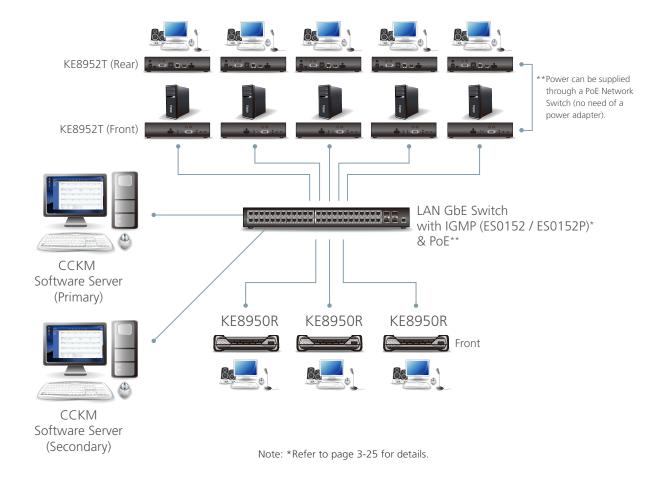
#### Advanced Features<sup>3</sup>

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

Note: 1. Refer to www.aten.com for more details.

- 2. SFP modules are required for fiber network connection. Refer to page 3-26 for details.
- 3. These advanced functions are supported when the KE transmitters are paired with KE receivers and managed by KE Matrix Management Software (CCKM).
- 4. The KVM over IP Access Control Box (2XRT-0015G) is sold separately. Refer to page 3-26 for details.

## Setup >



Function	KE8950R	KE8952R	KE8950T	KE8952T	
Connectors					
Virtual Media	2 x USB Type A	2 x USB Type A Female (White) N/A			
Console Ports		2 x USB Type A Female (White) 1 x HDMI Female (Black) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Male (Black)			
KVM Ports	N	1 x USB Type B Female (Wh 1 x HDMI Female (Black N/A 1 x Mini Stereo Jack (Gree 1 x Mini Stereo Jack (Pinl 1 x DB-9 Female (Black)		emale (Black) eo Jack (Green) reo Jack (Pink)	
Power		1 x DC Jack (Black)			
LAN Ports	1 x RJ-45 (Black)	1 x RJ-45 (Black,PoE)	1 x RJ-45 (Black)	1 x RJ-45 (Black,PoE)	
LAN PORS		1 x SFP Slot			
LEDs					
10/100/1000 Mbps		1 (10: Orange / 100: Orange & Green / 1000: Green)			
Power		1 (Blue)			
Local		1 (Green)			
Remote		1 (Green)			
Video Resolution		Up to 3840 x 2160 @ 30Hz			
Emulation					
Keyboard / Mouse		U	SB		
Power Consumption	DC 5V / 5.65W	DC 48V / 7.06W	DC 5V / 7.22W	DC 48V / 9.02W	
Environmental					
Operating Temperature		0-50°C			
Storage Temperature		-20-60°C			
Humidity		0-95% RH, Non-condensing			
<b>Physical Properties</b>					
Housing		Metal			
Weight	1.23 kg ( 2.71 lb )	1.26 kg ( 2.78 lb )	1.10 kg ( 2.42 lb )	1.13 kg ( 2.49 lb )	
Dimensions (L x W x H)	22.75 x 17.16 x 5.48 c	22.75 x 17.16 x 5.48 cm (8.96 x 6.76 x 2.16 in.) 21.50 x 16.29 x 4.18 cm (8.46 x 6.41 x 1.65			
Carton Lot		3 pcs			

# Included Accessories

	KE8950 / KE8952
Power Adapters <sup>1</sup>	2
USB HDMI KVM Cable <sup>2</sup>	•
HDMI LockPro	2
Mounting Kit <sup>2</sup>	•

- 1. This accessory is only included with KE8950
- model
  2. These accessories are only included with transmitter models

Description	Part No. / Spec.	Page No.
KE Management Software (CCKM)	Please refer to page 43-3	3-3
Access control button	2XRT-0015G	3-26
SFP Modules	• 2A-136G ( Multi-Mode ) • 2A-137G ( Single-Mode )	3-26
USB HDMI KVM Cable	2L-7D02UH (1.8 m)	7-6 K
2X-021G Dual Rack Mount Kit	Please refer to <u>www.aten.com</u> for details	
2X-031G Single Rack Mount Kit		

# **KE8900S**

Slim HDMI Single Display KVM over IP Extender



#### KE8900S



#### Front



#### Rear



# Highlights

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

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

#### Hardware

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

#### Management

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

#### Security

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

#### Virtual Media

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

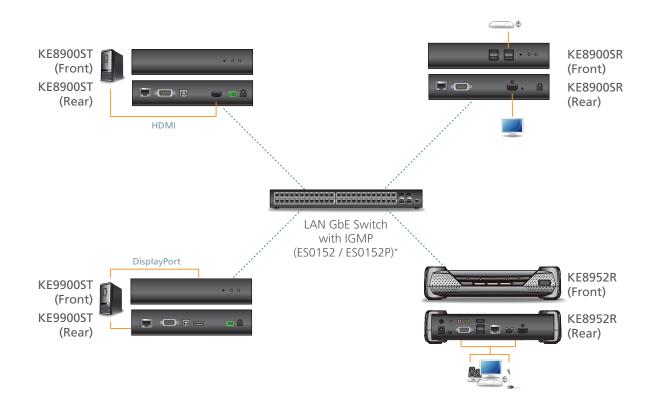
#### Advanced Features<sup>1</sup>

- Video Walls create multiple video walls with up to 8 x 8 (64 displays max.) in each layout
- Advanced Scheduling improves efficiency and saves costs by allowing connections to be set based on time and date
- Virtual Transmitter to stream video, audio, USB and serial sources independently
- Supports both internal and external authentication external authentication supports LDAP, Active Directory, RADIUS and TACACS+
- Advanced User Authorization Settings administrators can set four access modes of permissions on Tx devices for collaboration or to avoid interference among users
- Configurable user and group permissions for access and control of KE devices
- Tx grouping of up to 4 sets of KE series devices to support Multi-Display applications
- Rx privilege control users at the Tx local console can enable / disable Rx control privilege by simply pressing a control button<sup>2</sup>

Note: 1. These advanced functions are supported when the KE devices are managed by KE Matrix Management Software (CCKM).

2. The KVM over IP Access Control Box (2XRT-0015G) is sold separately. Refer to page 3-26 for details.

#### Setup >



Note: \*Refer to page 3-25 for details.

Function	KE8900SR	KE8900ST		
Connectors	'	<u>'</u>		
Virtual Media	2 x USB Type A Female (Black)	N/A		
Console Ports	2 x USB Type A Female (Black) 1 x HDMI Female (Black) 1 x DB-9 Male (Black)	N/A		
KVM Ports	N/A	1 x USB Type B Female (White) 1 x HDMI Female (Black) 1 x DB-9 Female (Black)		
Power	1 x DC Jack (Black)	1 x DC Jack (Black) 1 x 3-Pole Terminal Block Connector (Gree		
LAN Ports		1 x RJ-45 (Black)		
LEDs				
10/100/1000 Mbps	1 (10: Orange / 1	00: Orange & Green / 1000: Green)		
Power		1 (Blue)		
Video Resolution	Up t	Up to 1920 x 1200 @ 60Hz		
Emulation				
Keyboard / Mouse		USB		
Power Consumption	DC5V / 4.35W	DC5V / 4.3W DV48V / 6.61W		
Environmental				
Operating Temperature		0-50°C		
Storage Temperature		-20-60°C		
Humidity	0-95	% RH, Non-condensing		
Physical Properties	'			
Housing		Metal		
Weight	0.64 kg (1.41 lb)	0.65 kg (1.43 lb)		
Dimensions (L x W x H)	18.20 x 11.75 x 2.87 cm (7.17 x 4.63 x 1.13 in.)			
Carton Lot	5 pcs			

# Included Accessories

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

<sup>\*</sup>This accessory is only included with KE8900ST.

Description	Part No. / Spec.	Page No.
KE Management Software (CCKM)	Please refer to page 3-3	3-3
Access control button	2XRT-0015G	3-26
USB HDMI KVM Cable	2L-7D02UH (1.8 m)	7-6 K
VE-RMK 1U Extender Rack mount Kit	Please see <u>www.aten.com</u> for more details.	

# KE6910 / KE6912

DVI-D Dual Link Single Display KVM over IP Extender







Front



Rear



# Highlights

- Exclusive Features for ATC Industry such as 2K x 2K video resolution (2048 x 2048 @ 60Hz) support, <u>Adaptive</u>
  <u>Fast Switching, Authentication Lock, Connection</u>
  <u>Redundancy, and Disconnection Alert</u>
- Flexible connections allows multiple extender and matrix connections for multi-display installations and video wall applications
- Supports 1Gbps SFP fiber module expansions up to 10 km
- Supports Power over Ethernet (PoE) function (KE6912 only) as PD (Powered Device)
- Local console for emergency operation
- "Push" and "Pull" share content instantly by just one click
- Centralized KE series management software KE
   Matrix Management Software (CCKM)\* allows users to
   easily administer all KE devices with an intuitive web
   based GUI

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

#### Exclusive Features for ATC Industry<sup>1</sup>

- Supports 2K x 2K video resolution (2048 x 2048 @ 60Hz)
- Adaptive Fast Switching automatically fast switches between different Tx video resolutions on a Rx display within 0.3 second
- Boundless Switching simply move the mouse cursor across screen boundaries to switch between different receivers (Rx)
- "Push" and "Pull" share content instantly to/from a single Rx or video wall by just one click
- · Authentication Lock automatically logs in when the power of the system is resumed after power off
- Connection Redundancy automatically connects to another transmitter (Tx) after disconnection with the original Tx, ensuring constant access to servers
- Disconnection Alert Pop-up warning message and looping alarm beeping notify users the disconnection status

# Hardware

- Supports DVI-D Dual Link video resolutions up to 2560 x 1600 @60Hz and 2560 x 2048 @50Hz
- Supports stereo speakers and stereo microphone
- Virtual Media or vUSB Support
- Auto-MDIX automatically detects cable type
- Built-in 8KV/15KV ESD protection and 2KV surge protection
- Fanless design for silent operations that are energy efficient
- Rack Mountable Mounting options:
  - (1) 2X-021G Dual Rack Mount Kit<sup>2</sup>
- (2) 2X-031G Single Rack Mount Kit<sup>2</sup>
- Supports connection via Gigabit Ethernet port (RJ-45) or SFP port for failover or for dual IP addresses access
- Support 1Gbps SFP fiber module expansions<sup>3</sup> up to 10 km
- Power Redundancy Dual DC Jack (KE6910 only) or 1 DC Jack + PoE (KE6912 only)
- Supports Power over Ethernet (PoE) function compliant with the IEEE 802.3at standard (KE6912 only)

#### Management

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

#### Security

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

#### Virtual Media

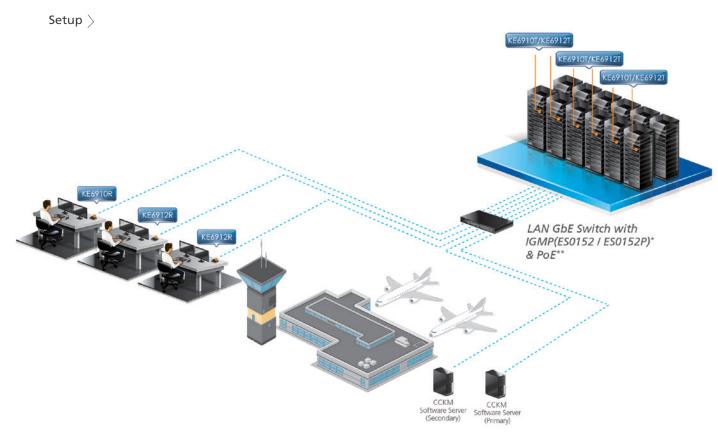
- Virtual Media mode enhances data transmission performance, ideally for file transfers, OS patching, software installations and diagnostic testing
- Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives and ISO images
- Supports Smart Card/CAC Reader

#### Advanced Features<sup>1</sup>

- Video Walls create multiple video walls with up to 8 x 8 (64 displays max.) in each layout
- Advanced Scheduling improves efficiency and saves costs by allowing connections to be set based on time and date
- Virtual Transmitter to stream video, audio, USB, and serial sources independently
- Support both internal and external authentication external authentication supports LDAP, Active Directory, RADIUS and TACACS+
- Advanced User Authorization Settings administrators can set four access modes of permissions on Tx devices for collaboration or to avoid interference among users
- Configurable user and group permissions for access and control of KE devices
- Tx grouping of up to 4 sets of KE transmitters to support Multi-Display applications
- Rx privilege control users at the Tx local console can enable / disable Rx control privilege by simply pressing a control button<sup>4</sup>

#### Note:

- 1. These advanced functions are supported when the KE transmitters are paired with KE receivers and managed by KE Matrix Management Software (CCKM).
- 2. Refer to www.aten.com for more details.
- 3. SFP modules are required for fiber network connection. Refer to page 3-26 for details.
- 4. The KVM over IP Access Control Box (2XRT-0015G) is sold separately. Refer to page 3-26 for details.



#### Note:

- \*Refer to page 3-25 for details.
- \*\*Power can be supplied through a PoE Network Switch (no need of a power adapter).

Functions	KE6910R	KE6912R	KE6910T	KE6912T	
Connectors					
Virtual Media	2 x USB Type A	A Female (White)	N	V/A	
		2 x USB Type A Female (White)			
		1 x DVI-D Fe	male (White)		
Console Ports		1 x Mini Stere	o Jack (Green)		
		1 x Mini Stere	eo Jack (Pink)		
		1 x DB-9 N	Nale (Black)		
	ı	V/A	1 x USB Type E	3 Female (White)	
	N	V/A	1 x DVI-D F	emale (White)	
KVM Ports	ı	V/A	1 x Mini Ster	eo Jack (Green)	
	N	I/A	1 x Mini Ste	reo Jack (Pink)	
	N	V/A	1 x DB-9 F	emale (Black)	
Power	2 x DC Jack (Black)	1 x DC Jack (Black)	2 x DC Jack (Black)	1 x DC Jack (Black)	
LAN Ports	1 x RJ-45 (Black)	1 x RJ-45 (Black, PoE)	1 x RJ-45 (Black)	1 x RJ-45 (Black, Pol	
LAIN POILS	1 x SFP Slot				
LEDs					
10 / 100 / 1000 Mbps	1 (10: Orange / 100: Orange & Green / 1000: Green)				
Power	1 (Blue)				
Local	1 (Green)				
Remote	1 (Green)				
Video Resolution	Up to 2560 x 2048 @ 50Hz				
Emulation					
Keyboard / Mouse		US	SB		
Power Consumption	DC5V / 9.02W	DC48V / 11.27W	DC5V / 10.02W	DC48V / 12.53W	
Environmental					
Operating Temperature		0-5	0°C		
Storage Temperature	-20-60°C				
Humidity	0-95% RH, Non-condensing				
Physical Properties					
Housing		Me	etal		
Weight	1.26 kg (2.78 lb)	1.28kg (2.82 lb)	1.13 kg (2.49 lb)	1.17 kg (2.58 lb)	
Dimensions (L x W x H)	22.75 x 17.16 x 5.48 cm (8.96 x 6.76 x 2.16 in.) 21.5 x 16.33 x 4.18 cm (8.46 x 6.43 x 1.65 i			n (8.46 x 6.43 x 1.65 in.)	
Carton Lot		5 pcs			

# Included Accessories

	KE6910 / KE6912
Power Adapters <sup>1</sup>	2
USB DVI-D KVM Cable <sup>2</sup>	•
Mounting Kit <sup>2</sup>	•

- This accessory is only included with KE6910 model.
   These accessories are only included with transmitter models.

Description	Part No. / Spec.	Page No.
KE Management Software (CCKM)	Please refer to page 3-3	3-3
Access Control Box	2XRT-0015G	3-26
SFP Modules	2A-136G ( Multi-Mode ) 2A-137G ( Single-Mode )	3-26
USB DVI-D Dual Link KVM Cable	2L-7D002UD (1.8 m) 2L-7D003UD (3 m) 2L-7D005UD (5 m)	7-6 G
2X-021G Dual Rack Mount Kit	Please refer to www.aten.com for details	
2X-031G Single Rack Mount Kit		

# KE6900 / KE6940

DVI Single Display / Dual Display KVM over IP Extender



#### KE6940



#### Front



#### Rear



# Highlights

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

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

#### Hardware

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

# Management

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

#### Security

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

#### Virtual Media

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

#### Advanced Features<sup>2</sup>

- Video Walls create multiple video walls with up to 8 x 8 (64 displays max.) in each layout
- · Advanced Scheduling improves efficiency and saves costs by allowing connections to be set based on time and date
- Virtual Transmitter to stream video, audio, USB and serial sources independently
- Supports both internal and external authentication external authentication supports LDAP, Active Directory, RADIUS and TACACS+
- Advanced User Authorization Settings administrators can set four access modes of permissions on TX devices for collaboration or to avoid interference among users
- Configurable user and group permissions for access and control of KE devices
- Tx grouping of up to 4 sets of KE series devices to support Multi-Display applications
- Rx privilege control users at the Tx local console can enable / disable Rx control privilege by simply pressing a control button<sup>3</sup>

Note: 1. Please see www.aten.com for more details.

- 2. These advanced functions are supported when the KE devices are managed by KE Matrix Management Software (CCKM)
- 3. The KVM over IP Access Control Box (2XRT-0015G) is sold separately. Refer to page 3-26 for details.



Note: \*Refer to page 3-25 for details.

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

# Included Accessories

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

<sup>\*</sup>This accessory is only included with KE transmitter models.

Description	Part No. / Spec.	Page No.
KE Management Software (CCKM)	Please refer to page 3-3	3-3
Access Control Box	2XRT-0015G	3-26
USB DVI-D Single Link KVM Cable	2L-7D02U (1.8 m); 2L-7D03U (3 m); 2L-7D05U (5 m)	7-6 F
USB DVI-I Single Link KVM Cable	2L-7D02UI (1.8 m); 2L-7D03UI (3 m)	7-6 H
USB VGA-DVI KVM Cable	2L-7DX2U (1.8 m); 2L-7DX3U (3 m)	7-6 I
USB HDMI-DVI KVM Cable	2L-7D02DH (1.8 m)	7-6 J
2X-021G Dual Rack Mount Kit	Please refer to <u>www.aten.com</u> for details	
2X-031G Single Rack Mount Kit		

## **KE6900ST**

Slim DVI-D Single Display KVM over IP Transmitter





# Highlights

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

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

#### Hardware

- Superior video quality up to 1920 x 1200 @ 60Hz; 24 bit color depth
- Auto-MDIX automatically detects cable type
- Built-in 8KV/15KV ESD protection and 2KV surge protection
- Fanless design for silent operations that are energy efficient
- Rack Mountable Mounting options: VE-RMK 1U Extender Rack Mount Kit<sup>1</sup>

#### Management

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

#### Security

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

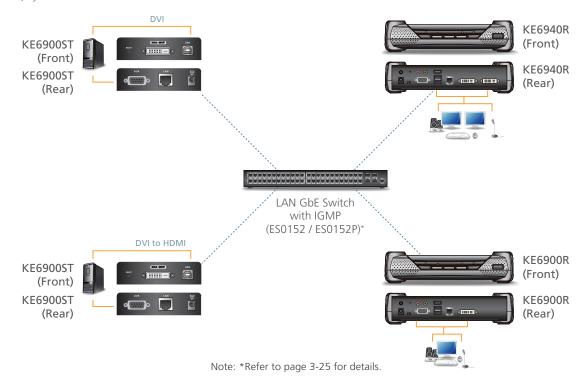
#### Virtual Media

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

#### Advanced Features<sup>2</sup>

- Video Walls create multiple video walls with up to 8 x 8 (64 displays max.) in each layout
- Advanced Scheduling improves efficiency and saves costs by allowing connections to be set based on time and date
- Virtual Transmitter to stream video, audio, USB and serial sources independently
- Supports both internal and external authentication external authentication supports LDAP, Active Directory, RADIUS and TACACS+
- Advanced User Authorization Settings administrators can set four access modes of permissions on Tx devices for collaboration or to avoid interference among users
- Configurable user and group permissions for access and control of KE devices
- Tx grouping of up to 4 sets of KE series devices to support Multi-Display applications
- Rx privilege control users at the Tx local console can enable / disable Rx control privilege by simply pressing a control button<sup>3</sup>
- Note: 1. Refer to www.aten.com for more regarding the VE-RMK 1U Extender Rack Mount Kit.
  - 2. These advanced functions are supported when the KE devices are managed by KE Matrix Management Software (CCKM).
  - 3. The KVM over IP Access Control Box (2XRT-0015G) is sold separately. Refer to page 3-26 for details.

# $\mathsf{Setup} \, \big> \,$



# Specifications

Function	KE6900ST		
Connectors			
KVM Ports	1 x USB Type B Female (White) 1 x DVI-D Female (White) 1 x DB-9 Female (Black)		
Power	1 x DC Jack (Black)		
LAN Ports	1 x RJ-45 (Black)		
LEDs			
10/100/1000 Mbps	1 (10: Orange / 100: Orange & Green / 1000: Green)		
Power	1 (Blue)		
Video Resolution	Up to 1920 x 1200 @ 60Hz		
Emulation			
Keyboard / Mouse	USB		
Power Consumption	DC 5V / 3.35W		
Environmental			
Operating Temperature	0-50°C		
Storage Temperature	-20-60°C		
Humidity	0-95% RH, Non-condensing		
Physical Properties			
Housing	Metal		
Weight	0.43 kg ( 0.95 lb )		
Dimensions (L x W x H)	14.39 x 10.30 x 3.00 cm (5.67 x 4.06 x 1.18 in.)		
Carton Lot	5 pcs		

# Included Accessories

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

Description	Part No. / Spec.	Page No.	
KE Management Software (CCKM)	Please refer to page 3-3	3-3	
Access Control Box	2XRT-0015G	3-26	
USB DVI-D Single Link KVM Cable	2L-7D02U (1.8 m); 2L-7D03U (3 m); 2L-7D05U (5 m)	7-6 F	
USB DVI-I Single Link KVM Cable	2L-7D02UI (1.8 m); 2L-7D03UI (3 m)	7-6 H	
USB HDMI-DVI KVM Cable	2L-7D02DH (1.8 m)	7-6 J	
VE-RMK 1U Extender Rack Mount Kit	*Please see <u>www.aten.com</u> for more details.		

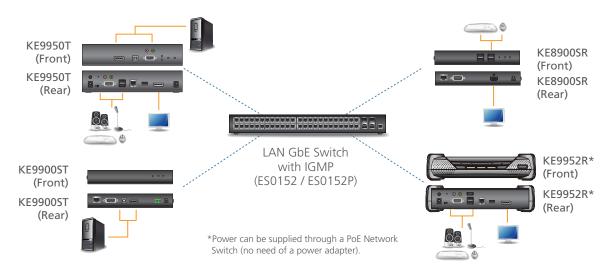
# ES0152 / ES0152P

52-Port GbE Managed Switch / 52-Port GbE PoE Managed Switch



# Highlights

- Auto detects KE Series devices
- Plug-n-play without additional settings
- Supports IGMP v1/v2/v3 Snooping and IGMP v1/v2 Querier
- Support 48 Gigabit Ethernet ports and 4 SFP uplink ports (10Gbps)
- High-performance Gigabit Ethernet L2 access switches with 104 Gbps switching capacity significantly improving the responsiveness of applications and file transfer times.
- PoE Port configuration and scheduling (ES0152P only)
- Supports 802.3at/802.3af with PoE power capacity up to 740W



#### **Specifications**

Function	ES0152	ES0152P				
Connectors						
RJ-45 10/100/1000 Ports	4	8				
SFP Uplink Ports	4	4				
Console Ports	1 x F	RJ-45				
Performance						
Switching Capacity	176	Gbps				
Forwarding Rate	130.95	5 Mpps				
Jumbo Frames	10	DK .				
Certification	FCC Cla	FCC Class A, CE				
Maximum Input Power Rating	100-240V A	C, 50-60 Hz				
Power Consumption	AC110V / 45.98W; AC220V / 46.55W	AC110V / 885.36W; AC220V / 858.09W				
Environmental						
Operating Temperature	0-4	0°C				
Storage Temperature	-20-	70°C				
Humidity	10-90% RH, N	on-condensing				
Physical Properties						
Rack Space	19	9"				
Housing	Metal					
Weight	4.2 kg (9.3 lb) 5.6 kg (12.3 lb)					
Dimensions (L x W x H)	44.2 x 4.4 x 30.0 cm (17.4x 1.7x 11.8 in.)	44.2 x 4.4 x 37.5 cm (17.4x 1.7x 14.8 in.)				
Carton Lot	2	ocs				

#### Included Accessories

	ES0152 / ES0152P
Power Cord	•
Mounting Kit	•

# **Accessories for KE Series**

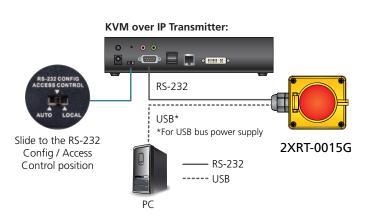
#### 2XRT-0015G

KVM over IP Access Control Box



# Highlights

- Users at the Tx local console can enable / disable Rx control privilege by simply pressing a control button
- Plug-and-Play no software installation required on either side
- USB bus-powered design No external power adapter required
- Multiple connectors (PS/2, USB, RJ-11, RS-232) for future extension
- Cable length reaches 5m for more flexible installation



Function	2XRT-0015G			
Connectors				
Link	USB, PS/2, RJ-11, RS-232			
LEDs				
Status	Pressed: Red Light Released: Dim			
<b>Physical Properties</b>				
Housing	Plastic			
Weight	0.43 kg (0.95 lb)			
Dimensions (L x W x H)	7.20 x 10.39 x 11.00 cm (2.83 x 4.09 x 4.33 in.)			
Carton Lot	16 pcs			

## 2A-136G

Fiber Multi-Mode 1.25G SFP Transceiver Module



# Highlights

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

# 2A-137G

Fiber Single-Mode 1.25G SFP Transceiver Module



# Highlights

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

Function	2A-136G	2A-137G		
Fiber Optics				
Data Rate	1.2	5 Gbps		
Operating Distance	550 m	10 km		
Fiber Type	Multi Mode	Single Mode		
Environmental				
Operating Temperature	0	-70°C		
Storage Temperature	-40-85°C			
Physical Properties				
Weight	0.02 kg	g ( 0.04 lb )		
Dimensions (L x W x H)	5.59 x 1.46 x 1.30 c	rm (2.2 x 0.57 x 0.51 in.)		
Carton Lot	1	0 pcs		

# **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.

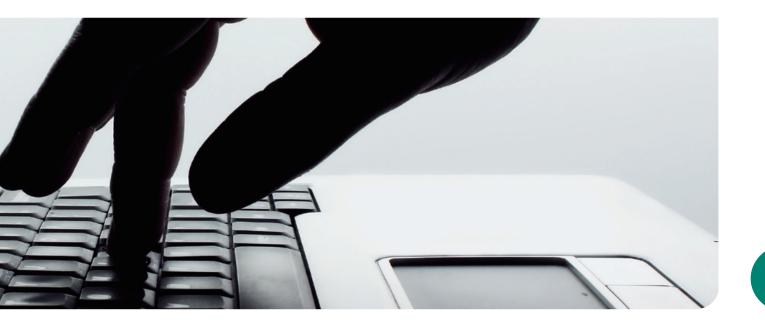
#### **CCVSR Video Session Recording Software**

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 4-8.



# CC2000 Centralized Management Software

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

# **CCVSR Video Session Recording Software**

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



## ATEN PDU

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

# Serial Console Server

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

# KVM over IP Switch

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



# Highlights

- Single sign-on to consolidate the management of ATEN's KVM over IP switches, serial console servers, intelligent PDU, and third party devices such as embedded service processor, and physical and virtual servers
- Flexible remote access through service processors and IP tools including Dell iDRAC6, IBM RSA II, HP iLO3, Dell CMC, IBM AMM, HP OA, IPMI, IMM and RDP, VNC, SSH, and Telnet
- Virtual Infrastructure includes VMware vSphere 5.5, 6.0, Windows Server 2008, 2012 & 2016, and Citrix XenServer 6.5
- Support Windows AD, LDAP, Kerberos, RADIUS and TACACS+ for centralized authentication and authorization
- Consolidate logs from ATEN's KVM over IP switches, serial console servers, and other devices through syslog protocol for audit trail
- Panel Array Mode allows administrators to monitor multiple video outputs of remote servers in one screen
- Provide server redundancy through primary/secondary CC2000 servers for service availability

# Centralized Control and Management

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

#### **Unsurpassed Reliability**

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

#### Clear Intuitive Interface\*

The CC2000 is enhanced with a brand new HTML5 user interface with a modern flat design that integrates all information and facilitates effective management. The new UI delivers a better user experience and advanced usability via its simplified structure, improved text readability, and increased icon visibility, as well as ancillary functions such as the wizard guide and system notifications. Utilizing consolidated data, task-based navigation, and simplified menus, administrators can access, configure, and manage all of the IT equipment in all of their data centers and remote offices with greater ease and in fewer clicks. For example, no matter which page is being viewed, the message center button remains at the top-right of the toolbar, showing system alerts or critical logs that can be viewed in full detail with just one simple click.

#### Dashboard\*

This consolidated portal provides an at-a-glance overview for IT administrators to easily monitor all important information, such as device status, device events, task results, online users, and licensed nodes usage. With the device status and device events sections, administrators can be immediately notified about the condition of the connected devices (e.g. Online/Offline, Abnormal, etc.), as well as the generation of critical logs within a certain time period. Meanwhile, the task results section delivers vital messages about operation success or failure. Administrators can also view details of currently logged-in users and terminate suspicious user sessions. The Dashboard not only meets the administrative requirements of easy monitoring and centralized management, but also strengthens system notification functionality, allowing users to promptly handle issues and fix problems efficiently.

#### 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.

#### Logging, Audits and Alerts

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

#### **Convenient Monitoring**

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

#### **Virtualization Support**

Virtualization helps enterprises save space, hardware costs and utility expenses by allowing them to consolidate their data centers and server rooms. With virtualization, the same number of tasks can be performed by fewer physical servers. The CC2000 manages virtual machines 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
- 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 client support for Windows, Mac OS X, Linux and Sun
- Email notification of system event
- Generic Devices users can be redirected to 3rd party data center devices via CC2000
- Power association with ATEN PDUs enables KVM ports to be associated with power outlets for remote power management of servers from the CC2000 interface
- Supports SNMP Manager V1, V2c & V3

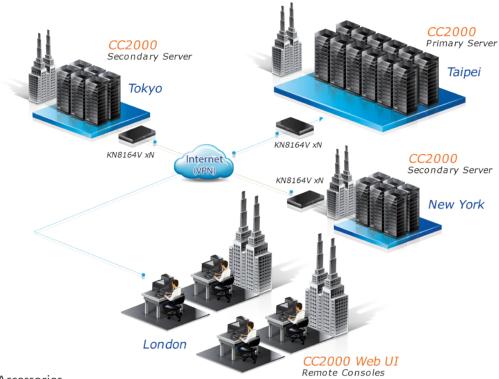
#### **Powerful Security**

- Supports local user accounts, LDAP, AD, Kerberos, RADIUS and TACACS+
- Role-based (Super Administrator, System Administrator, Device Administrator, User Administrator, User, Auditor) policy for access privilege control
- Import user list (\*.csv) to create multiple users at once
- AES 256-bit encryption for secure end-to-end node access
- IP or MAC addresses blocking
- Virtual media security blocking
- Configurable failed login attempts and lockout
- Supports certificate signed from third-party authorities (CA)
- Secure web connection with TLS v1.2 and RSA 2048-bit certificates
- Supports 2-factor authentication (OTP)1
- Strong user password authentication
- Configurable user session timeout

# Learn more about

#### Note:

- 1. Please see <a href="www.aten.com">www.aten.com</a> for more details / CC2000-OTP or scan the QR code for further information regarding the OTP function.
- 2. Please refer to page 4-5 for compatible products and license options.



Included Accessories

	CC2000
USB License Key	•
Software CD	•

# **Compatible Products**

# CC2000 Compatible ATEN over IP Products

- KL1108V / KL1116V, KL1508AI / KL1516AI, KN1000, KN1000A, KH1508AI / KH1516AI, KN1108V / KN1116V, KN1108VA / KN1116VA, KN2124VA / KN2140VA / KN4124VA / KN4140VA, KN1132V / KN2116VA / KN2132VA / KN4116VA / KN4132VA / KN4132VA / KN4132V / KN8164V (KL9108 / KL9116, KN2116A / KN2132 / KN4116 / KN4132, KN2116v / KN2132v / KN4116v / KN4132v, KN2124v / KN2140v / KN4124v / KN4140v, CN8000A, CN8000, CN8600, CS1708I / CS1716I, IP8000)\*
- SN3101, SN0108A / SN0116A / SN0132 / SN0148 , SN9108 / SN9116, SN0108CO / SN0116CO / SN0132CO / SN0148CO, SN9108CO / SN9116CO, (SN0108 / SN0116)\*
- (PN0108, PN9108, EC1000, EC2004, PE5220s, PE5340s, PE5108, PE5208, PE6108, PE6208, PE6208AV, PE6216, PE6324, PE7108, PE7208, PE7214, PE7328, PE8108, PE8208, PE8216, PE8324, PE9222, PE9330, PE7216r, PE7324r, PE8216r, PE8324r, PE9216r, PE9324r)\*

# **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)

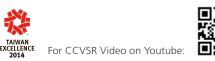
#### CC2000 System Add-On License

- 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)

<sup>\*</sup>Please see www.aten.com for more details.

# **CCVSR**

Video Session Recording Software





# Highlights

- User Session Recording record user sessions from system boot up (BIOS) for visual playback when users access ATEN over IP KVM switches and serial console servers
- Incident Investigation easily search through captured sessions for trouble tracing and problem solving
- Compliance use recorded videos for auditing and regulatory compliance
- Service Failover provides failover through primary-andsecondary architecture for service availability
- LiveView real-time monitoring of user sessions that are being recorded

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

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

#### LiveView

When recording user sessions, the CCVSR also provides live-video surveillance that enables administrators to track operations made on servers or the status of the connected devices. Various layout combinations and customizable layouts are available for selection by users to monitor multiple channels simultaneously, while the Playback function allows users to instantly search and view previous videos for troubleshooting or problem resolution. The LiveView function is especially suitable for server rooms or production lines which require real-time monitoring of continuous operations and performance to facilitate an immediate response when abnormalities or emergencies happen.

#### 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.

#### Intuitive User Interface

With its clear and concise interface designed to boost user ease and engagement, the CCVSR provides enhanced usability and ancillary functions to deliver a great interactive experience. The new UI with HTML5 implementation delivers a better user experience and advanced usability via its simplified structure, improved text readability, and increased icon visibility, as well as ancillary functions such as the wizard guide and system notifications. The UI's minimalist flat design aesthetic and two levels of typographic hierarchy, with the most commonly-used key features listed on a handy sidebar, enable you to smoothly navigate and complete your tasks intuitively. For instance, simply click the LiveView tab to see instant live videos of the recorded user sessions for multiple channels at once. In addition, the Playback function simplifies video search and playback, so you can search the recorded videos by date and time for the utmost in convenient playback.

#### **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 up to 3 secondary servers (to expand recording storage) 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.

#### 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, secondary server, or network shared folder (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.

#### Service Failover

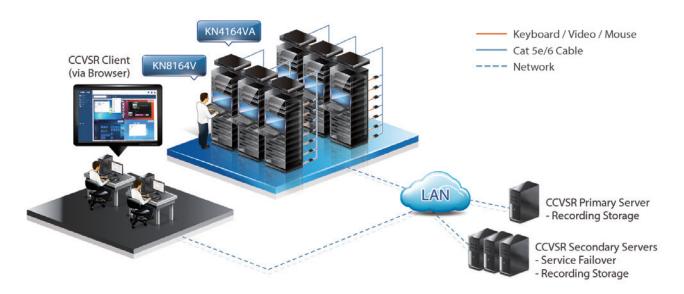
The CCVSR uses Primary-Secondary architecture to offer service redundancy. During standard operation, a Secondary server (max. 3 servers) acts as storage to store recorded videos and as a substitute for the Primary server. However, if the Primary server fails, one of the Secondary servers will provide the required management and recording services for KVM over-IP Switches until the downed Primary server is back online. This feature ensures that the recording service is always uninterruptible.

#### **System Management**

- 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 & MAC 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
- Supports TLS 1.2 data encryption and RSA 2048-bit certificates for secure web browser logins
- 3rd party remote authentication supports: RADIUS, LDAP, LDAPS and Active Directory

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

## Setup >



#### Included Accessories

	CCVSR
USB License Key	•
Software CD	•

# **Compatible Products**

#### **CCVSR Compatible ATEN over IP Products**

- KL1108V / KL1116V, KN1108V / KN1116V, KN1108VA / KN1116VA, KN2124VA / KN2140VA / KN4124VA / KN4140VA, KN1132V / KN2116VA / KN2132VA / KN4116VA / KN4132VA / KN4164V / KN4164V / KN2132 / KN4116 / KN4132, KN2116v / KN2132v / KN4116v / KN4132v, KN2124v / KN2140v / KN4124v / KN4140v, CN8600, CN8000A)\*
- SN0108A / SN0116A / SN0132 / SN0148, SN9108 / SN9116, SN0108CO / SN0116CO / SN0132CO / SN0148CO, SN9108CO / SN9116CO

# **License Options**

# **CCVSR License Options with USB Licence Key**

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

# **CCVSR Add-On System License**

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

<sup>\*</sup>Please see www.aten.com for more details.

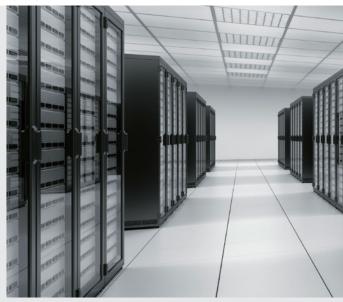
# KVM over IP Switches KN1000A • KH1508AI / KH1516AI

KN1108VA / KN1116VA • KN2124VA / KN2140VA / KN4124VA / KN4140VA / KN1132V / KN2116VA KN2132VA / KN4116VA / KN4132VA / KN4164V / KN8132V / KN8164V

KVM over IP Console Station / KA8270 • KA8280 • KA8278 • KA8288

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

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



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

#### Improved IT Management Efficiency

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

# **Enhanced Security**

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

## 24-7 Management

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

#### Complete Monitor & Control

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

#### Blade Server Access and Control

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



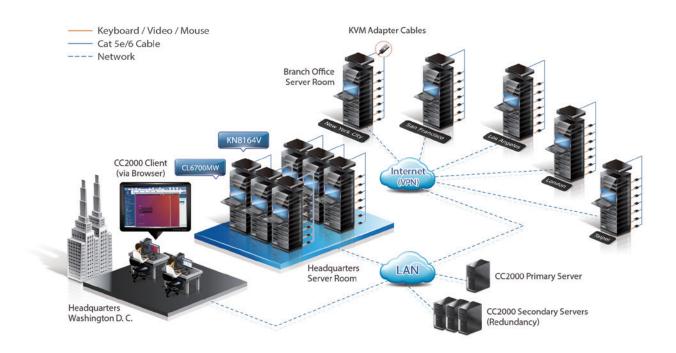
#### **Intuitive Control**

Managing large scale servers is simplified with ATEN KVM over IP switches. A user friendly Magic Panel<sup>™</sup> Graphics User Interface (GUI) with multi-language support provides convenient management through configurable function icons. Panel Array Mode<sup>™</sup> 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<sup>™</sup> 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

Fu	ınction	KN1000A	KH1508AI / KH1516AI	KN1108VA / KN1116VA	
Computer	Direct	1	8 / 16	8 / 16	
Connections Max.		1	128 / 256 (Daisy-Chain)	128 / 256 (Cascade <sup>1</sup> )	
Multiple Local		,		1	
Sessions	Remote	1	1	1	
	Connector	SPHD	RJ-45		
Computer	Support Interface	PS/2, USB, Serial	PS/2, USB, Serial <sup>2</sup>	PS/2, USB, Serial <sup>3</sup>	
	Support Platform	Windows, Linux, Mac, Sun <sup>4</sup>	Windows, Linux, Mac, Sun		
Local Console I	nterface		PS/2, USB		
RADIUS Suppoi	rt	•	•	•	
LDAP/AD		•	•	•	
BIOS Level Con	trol	•	•	•	
GUI		•	•	•	
Concurrent Aco	cess		32		
Share Mode Su	pport	•	•	•	
Message Board		•	•	•	
Panel Array Mo	ode™	N/A	•	•	
External PON		•	•	•	
Virtual Media		•	N/A	•	
External Modem Support		•	N/A	•	
On-Screen Keyboard		•	•	•	
Mouse DynaSync™		•	•	•	
Virtual Remote	Desktop	•	•	•	
Firmware Upgra	adable	•	•	•	
Multilingual Su	pport	•	•	•	
Dual NIC Desig	n	N/A	N/A	•	
Dual Power Sup	oply	N/A	N/A	•	
Audio		N/A	N/A	•	
Independent Bu	us Switching	N/A	N/A	•	
Adapter ID Sup	port	N/A	•	•	
Blade Server Su	ipport	N/A	N/A	•	
Green IT – Fan	Speed	N/A	N/A	N/A	
IPv4 & IPv6 Dua	al Stack	•	•	•	
Laptop USB Co	nsole (LUC)	•	•	•	
Built-in 1-Port F	Power Switch	•	N/A	N/A	
RS-232 Built-in		•	N/A	•	
CC2000 Centra Software	alized Management	•	•	•	
CCVSR Video S Software	ession Recording	N/A	N/A	•	
PadClient		•	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.
- ${\it 4. Sun to PS/2 converters are available to allow Sun systems to exist on the same installation.}\\$

Fu	unction	KN2116VA KN4116VA	KN2124VA KN4124VA	KN1132V KN2132VA KN4132VA KN8132V	KN2140VA KN4140VA	KN4164V KN8164V			
Computer	Direct	16	24	32	40	64			
Connections Max.		256 (Cascade <sup>1</sup> )	384 (Cascade <sup>1</sup> )	512 (Cascade <sup>1</sup> )	512 (Cascade <sup>1</sup> )	512 (Cascade <sup>1</sup> )			
Multiple	Local	1	1	1	1	1			
Sessions	Remote	2/4	2/4	1/2/4/8	2/4	4/8			
	Connector	RJ-45							
Computer	Support Interface		PS/2, USB, Serial <sup>3</sup>						
	Support Platform		Wi	indows, Linux, Mac, S	Sun				
Local Console I	Interface			USB					
RADIUS Suppo	rt	•	•	•	•	•			
LDAP/AD		•	•	•	•	•			
BIOS Level Con	ntrol	•	•	•	•	•			
GUI		•	•	•	•	•			
Concurrent Ac	cess			32		1			
Share Mode Su	ıpport	•	•	•	•	•			
Message Boar	d	•	•	•	•	•			
Panel Array Mo	ode™	•	•	•	•	•			
External PON		•	• N/A •		N/A	•			
Virtual Media		•	•	•	•	•			
External Mode	m Support	•	N/A	•	N/A	•			
On-Screen Key	yboard	•	•	•	•	•			
Mouse DynaSy	nc <sup>™</sup>	•	•	•	•	•			
Virtual Remote	Desktop	•	•	•	•	•			
Firmware Upg		•	•	•	•	•			
Multilingual Su		•	•	•	•	•			
Dual NIC Desig		•	•	•	•	•			
Dual Power Su		•	•	•	•	•			
Audio	,	•	•	•	•	•			
Independent B Switching	us	•	•	•	•	•			
Adapter ID Sup	pport	•	•	•	•	•			
Blade Server Su	upport	•	•	•	•	•			
Green IT – Fan	Speed	•	•	•	•	•			
IPv4 & IPv6 Dua	al Stack	•	•	•	•	•			
Laptop USB Co	onsole (LUC)	•	•	•	•	•			
RS-232 Built-in		•	N/A	•	N/A	•			
Multi-Display		•	•	•	•	•			
	alized Management	•	•	•	•	•			
	Session Recording	•	•	•	•	•			
PadClient		•	•	•	•	•			

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

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

## **KN1000A** > 1-Local/Remote Share Access

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



#### KN1000A



#### Front



#### Rear



# Highlights

- Provides over IP capability to servers or KVM switches that do not have built-in over IP functionality<sup>1</sup>
- <u>High video resolution</u> <u>up to 1920 x 1200 @ 60 Hz</u>
- <u>Laptop USB Console (LUC)</u> <u>a dedicated USB port</u> 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 ports
- On/Off scheduling for power outlet power management tasks can be scheduled on a daily, weekly, monthly or userspecified time basis
- Safe shutdown support
- Auto-Ping pings a device to determine its status, if the ping test fails after a set amount of time, it automatically takes an assigned action
- Supports DDNS (Dynamic Domain Name System)
- Message Board for communication among remote users

#### Note:

- Compatible KVM switches include the following: CS9134, CS9138, CS1308, CS1316, CS1754<sup>2</sup>, CS1758<sup>2</sup>, CS1708A, CS1716A, ACS1208A, ACS1216A, KH1508A, KH1516A, KH2508A, and KH2516A
- Some features found on the connected KVM switches may not be supported on the KN1000A. (For example, the CS1754's audio)

#### Hardware

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

## Management

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

# Easy-to-Use Interface

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

#### **Advanced Security**

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

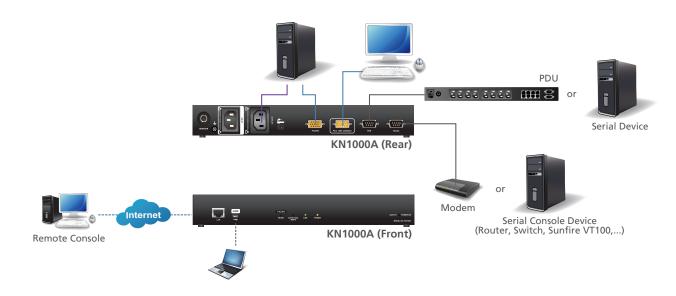
#### Virtual Media

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

# Virtual Remote Desktop

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

# Setup >



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

# Included Accessories

	KN1000A
Custom KVM Cable Set	•
Custom Console Cable Set	•
Laptop USB Console Cable	•
Power Adapter	•
Outlet Power Cord	•
Mounting Kit	•

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)	7-6 A, B
USB KVM Cables	2L-5201U (1.2m); 2L-5202U / 2L-5202UP (1.8 m); 2L-5203U / 2L-5203UP (3 m); 2L-5205U / 2L-5205UP (5 m) 2L-5206UP (6 m)	7-6 C, D
PS/2-USB KVM Cables	2L-5301UP (1.2m); 2L-5302UP (1.8 m); 2L-5303UP (3m)	7-6 E
Management Software	Please refer to page 4-1	4-1

## KH1508AI / KH1516AI > 1-Local/Remote Share Access

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





# Highlights

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

#### Hardware

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

# Management

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

#### Easy-to-Use Interface

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

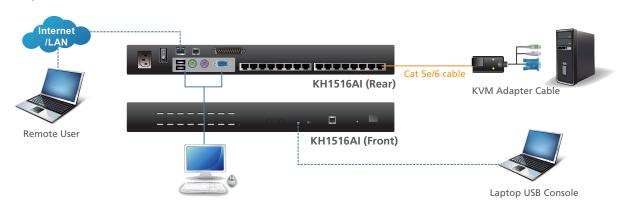
#### **Advanced Security**

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

#### Virtual Remote Desktop

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

#### Setup >



Function	KH1508AI	KH1516AI
Computer Connections		
Direct	8	16
Maximum	128 (via Daisy-chain)	256 (via Daisy-chain)
Console Connections		
Local / Remote		1
Port Selection	OSD; Hotk	eys; Pushbuttons
Connectors		
Console Ports	2 x USB Type A Female (White) 1 x 6-pin Mini-DIN Female (Purple) 1 x 6-pin Mini-DIN Female (Green) 1 x HDB-15 Female (Blue)	
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female
Daisy Chain Ports	1 x E	DB-25 Male
Power	1 x IEC 60320/C14	
LAN Ports	1 x RJ-45 Female	
Firmware Upgrade	1 x RJ-11 Female	
PON	1 X RJ-45 Female	
Laptop USB Console (LUC) Port	1 x USB Mini-B Female	
LEDs		
Online	8 (Green)	16 (Green)
Selected	8 (Orange)	16 (Orange)
Power		1 (Blue)
Station ID	1 x 2-digit 7	-segment (Orange)
Link	1 (Orange)	
10/100/1000 Mbps	10 / 100 / 1000 (C	Orange / Orange / Green)
Video		
Local / Remote	1920 x	1200 @ 60 Hz
Emulation		
Keyboard / Mouse	P	S/2; USB
Maximum Input Power Rating	100-240V AC; 50/60 Hz; 1A	
Power Consumption	110V / 8.7W; 220V / 8.7W	110V / 8.9W; 220V / 8.9W
Environmental		
Operating Temperature	(	0-40°C
Storage Temperature	-20-60°C	
Humidity	0-80% RH; Non-condensing	
Physical Properties		
Housing		Metal
Weight	2.68 kg ( 5.9 lb )	2.70 kg ( 5.95 lb )
Dimensions (L x W x H)	43.72 x 16.36 x 4.40 cm (17.21 x 6.44 x 1.73 in.)	
Carton Lot	3 pcs	

# Included Accessories

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

•		
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)	7-6 M
KVM Adapter Cables	Please refer to page 7-2	7-2
Management Software	Please refer to page 4-1	4-1

# KN1108VA / KN1116VA > 1-Local & 1-Remote User Access

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



#### KN1116VA



#### Front



#### Rear



# Highlights

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

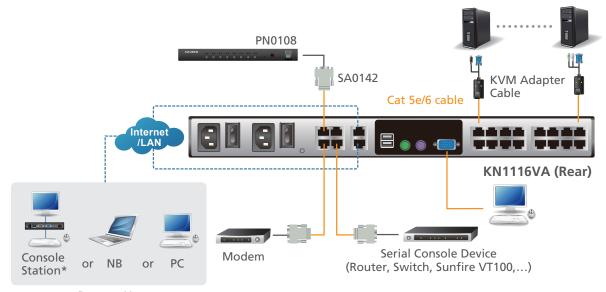
- Secure login from browser with TLS 1.2 data encryption and RSA 2048-bit certificates
- Choose between 56-bit DES, 168-bit 3DES, 256-bit AES, 128-bit RC4, or random encryption for secure keyboard / mouse, video, and virtual media data transmission
- Automated CSR creation utility and third-party certificate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



Remote User

Note: \*Refer to page 5-20 for details.

# Included Accessories

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

Description	Page No.
KVM Adapter Cables	Please refer to page 7-2
Management Software	Please refer to page 4-1
Console Stations	Please refer to page 5-20

Function	KN1108VA	KN1116VA
Computer Connections		
Direct	8	16
Maximum	128 (via Cascade)	256 (via Cascade)
Console Connections		
Local		1
Remote		1
Port Selection	Pushbuttons,	GUI, Hotkeys
Connectors		
Console Ports	2 x USB Type A Female (White) 1 x 6-pin Mini-DIN Female (Purple) 1 x 6-pin Mini-DIN Female (Green) 1 x HDB-15 Female (Blue)	
KVM Ports	8 x RJ-45 Female	16 x RJ-45 Female
Power	2 x IEC 6	0320/C14
LAN Ports	2 x RJ-45 Female	
PON	1 x RJ-45 Female	
Modem	1 x RJ-45 Female	
Serial	2 x RJ-45 Female	
USB Port	3 x USB Type A Female	
Laptop USB Console (LUC) Port	1 x USB Mini-B Female	
Audio	2 x Audio	lack Female
LEDs		
Online	8 (Green)	16 (Green)
Power	2 (E	Blue)
Link 10 / 100 / 1000 Mbps	2 (Red / Ora	nge / Green)
Video		
Local / Remote	1920 x 120	00 @ 60 Hz
Emulation		
Keyboard / Mouse	PS/2	/ USB
Maximum Input Power Rating	100-240V AC; 50-60Hz; 1A	
Power Consumption	110V / 14.5W; 220V / 14.06W	110V / 16.5W; 220V / 16W
Environmental		
Operating Temperature	0-5	50°C
Storage Temperature	-20-60°C	
Humidity	0-80% RH, Non-condensing	
Physical Properties		
Housing	Me	etal
Weight	3.52 kg ( 7.75 lb )	3.56 kg ( 7.84 lb )
Dimensions (L x W x H)	43.84 x 28.78 x 4.40 cm (17.26 x 11.33 x 1.73 in.)	
Carton Lot	1 pc	

# KN2124VA / KN2140VA KN4124VA / KN4140VA









Microsite

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



# Highlights

- Two / four buses for remote KVM over IP access to control up to 40 servers
- Up to 64 user accounts with up to 32 users able to simultaneously log in
- Cascadable up to two levels control up to 512 servers<sup>1</sup>
- Panel Array Mode<sup>TM</sup> allows administrators to monitor the video output of up to 64 servers on one screen simultaneously
- Multi-View supports computers with multiple video outputs
- Single sign-on for multi-system setup creates easy management and integration
- Message Board for communication among remote users
- Integration with ATEN CC2000 Centralized Management Software & CCVSR Video Session Recording Software<sup>2</sup>
- <u>PadClient provides instant, convenient, and secure remote access to control servers through your iPad.</u> (available free on the Apple Store)<sup>3</sup>

Note: 1. Refer to page 8-1 for details on compatible KVM switches.

- 2. Refer to page 4-1, Management Softwares, for details.
- 3. Please use the QR code to download the PadClient App from the Apple Store.



# Key Enhancements:







 Extreme virtual media speed
 2 x faster virtual media transmission speed



 Advanced FPGA graphics processor – with a Full HD resolution of 1920 x 1200

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

### Hardware

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

### Management

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

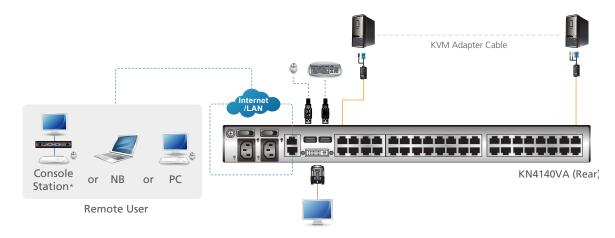
### Virtual Media

- · 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 >



Note: \*Refer to page 5-20 for details.

# Specifications

Function	KN2124VA	KN4124VA	KN2140VA	KN4140VA	
Computer Connections			<u>'</u>		
Direct	24		40		
Maximum		512 (via	Cascade)*		
Console Connections					
Local			1		
Remote	2	4	2	4	
Port Selection		Pushbuttons	s, Hotkeys, GUI		
Connectors	'				
Console Ports			A Female (White) emale (White)		
KVM Ports	24 x RJ-4	45 Female	40 x RJ-4	5 Female	
USB Port		3 x USB Ty	pe A Female		
Audio		2 x Audio	Jack Female		
Laptop USB Console (LUC) Port		1 x USB N	1ini-B Female		
LAN Ports	2 x RJ-45 Female				
Power	2 x IEC 60320/C14				
LEDs					
Online / Selected	24 (Green / Orange) 40 (Green / Orange)			/ Orange)	
Power	2 (Blue)				
Link 10 / 100 / 1000 Mbps	2 (Red / Orange / Green)				
Video					
Local / Remote	1920 x 1200 @ 60Hz				
Emulation					
Keyboard / Mouse		PS/2; USB			
Maximum Input Power Rating		100-240V~	; 50-60Hz; 1A		
Power Consumption	110V / 34.3W; 220V / 34.3W	110V / 38.2W; 220V / 38.5W	110V / 36.5W; 220V / 36W	110V / 41.2W; 220V / 41.5W	
Environmental					
Operating Temperature		0-	40°C		
Storage Temperature	-20-60°C				
Humidity	0-80% RH, Non-condensing				
Physical Properties					
Housing		N	1etal		
Weight	5.48 kg ( 12.07 lb )	5.51 kg ( 12.14 lb )	5.54 kg ( 12.2 lb )	5.56 kg ( 12.25 lb	
Dimensions (L x W x H)		43.36 x 41.21 x 4.40 cm	n (17.07 x 16.22 x 1.73 in.)		
Carton Lot	1 pc				

Note: \*Refer to page 8-1 for details on compatible KVM switches.

# Included Accessories

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

# **Optional Accessories**

•	
Description	Page No.
KVM Adapter Cables	Please refer to page 7-2
Management Software	Please refer to page 4-1
Console Stations	Please refer to page 5-20

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









Microsite

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

# KN8164V Front









KN8132V



Rear



# Highlights

Rear

- One / two / four / eight bus(es) for remote KVM over IP access to control up to 64 servers
- Up to 64 user accounts with up to 32 users able to simultaneously log in
- Cascadable up to two levels control up to 512 servers1
- Panel Array Mode<sup>™</sup> allows administrators to monitor the video output of up to 64 servers on one screen simultaneously
- Multi-View supports computers with multiple video outputs
- Single sign-on for multi-system setup creates easy management and integration
- Message Board for communication among remote users
- Integration with ATEN CC2000 Centralized Management Software & CCVSR Video Session Recording Software<sup>2</sup>
- PadClient provides instant, convenient, and secure remote access to control servers through your iPad. (available free on the Apple Store)3
- Note: 1. Refer to page 8-1 for details on compatible KVM switches.
  - 2. Refer to page 4-1, Management Softwares, for details.
  - 3. Please use the QR code to download the PadClient App from the Apple Store.



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 a Full HD resolution of 1920 x 1200

### Hardware

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

### Management

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

### Easy-to-Use Interface

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

### **Advanced Security**

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

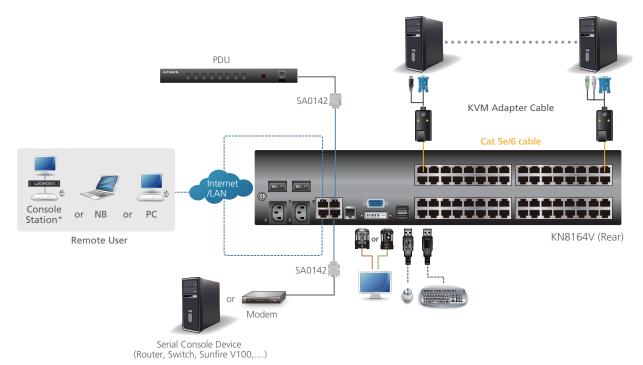
### Virtual Media

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

### Virtual Remote Desktop

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

# Setup >



Note: \*Refer to page 5-20 for details.

# Included Accessories

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

# Optional Accessories

Description	Page No.
KVM Adapter Cables	Please refer to page 7-2
Management Software	Please refer to page 4-1
Console Stations	Please refer to page 5-20

# Specifications

Specification				l		l		l
Function	KN2116VA	KN4116VA	KN1132V	KN2132VA	KN4132VA	KN8132V	KN4164V	KN8164V
Computer Conn			I					
Direct	16 32 64				64			
Maximum				512 (via	Cascade)*			
Console Connec	tions							
Local					1			
Remote	2	4	1	2	4	8	4	8
Port Selection				Pushbuttons	, Hotkeys, GUI			
Connectors								
Console Ports				1 x DVI-D F 1 x VGA H	A Female (White emale (White) DB-15 (Blue) emale (Black)	)		
KVM Ports	16 x RJ-4	45 Female		32 x RJ-	45 Female		64 x RJ-	45 Female
USB Port				3 x USB Ty	pe A Female			
Audio				2 x Audio	Jack Female			
Laptop USB Console (LUC) Port				1 x USB M	ini-B Female			
PON				1 x RJ-4	15 Female			
Serial				1 x RJ-4	15 Female			
LAN Ports				2 x RJ-4	15 Female			
Power	2 x IEC 60320/C14							
LEDs								
Online / Selected	16 (Green	n / Orange)	32 (Green / Orange) 64 (Green / Orange)			n / Orange)		
Power	2 (Blue)							
Link 10 / 100 / 1000 Mbps	2 (Red / Orange / Green)							
Video								
Local / Remote				1920 x 12	200 @ 60Hz			
Emulation								
Keyboard / Mouse				PS/2	2; USB			
Maximum Input Power Rating				100-240V~	; 50-60Hz; 1A			
Power Consumption	110V/32.97W; 220V/33.18W			110V/39.5W; 220V/39.7W	110V/58.4W; 220V/57W	110V/69.83W; 220V/68.04W		110V/75.18W 220V/73.5W
Environmental								
Operating Temperature	0-40°C							
Storage Temperature	-20-60°C							
Humidity				0-80% RH, N	Ion-condensing			
Physical Propert	ies							
Housing				N	letal			
Weight	5.56 kg ( 12.25 lb )	5.60 kg ( 12.33 lb )	5.54 kg ( 12.2 lb )	5.69 kg ( 12.53 lb )	5.73 kg ( 12.62 lb )	5.80 kg ( 12.78 lb )	7.00 kg ( 15.42 lb )	7.07 kg ( 15.57 lb )
Dimensions (L x W x H)		43.36 x	41.21 x 4.40 cm	า (17.07 x 16.22	x 1.73 in.)			26 x 8.80 cm .24 x 3.46 in.)
Carton Lot				1	рс			

Note: \*Refer to page 8-1 for details on compatible KVM switches.

# KA8270 / KA8280 KA8278 / KA8288

KVM over IP Console Station



# Highlights

- Support video output with 1 VGA (KA8270), 1 HDMI (KA8280), 1 VGA & 1 HDMI (KA8278), or 2 HDMI (KA8288)
- A standalone Java-free console that replaces PC or NB, enabling users to remotely access and control KVM over IP switches
- $\bullet$  Advanced FPGA graphics processor with a Full HD resolution of 1920 x 1200 @ 60Hz
- Panel Array Mode<sup>™</sup> allows administrators to monitor the video output of up to 64 servers on one screen simultaneously
- Space-saving OU rack mount design for rear rack mounting

# **Specifications**

Function	KA8270	KA8280	KA8278	KA8288	
Connectors	'				
Video	1 x HDB-15 Female	1 x HDMI Female	1 x HDB-15 Female 1 x HDMI Female	2 x HDMI Female	
RS-232		1 x DB-9 Male (Reserved)			
Power		1 x [	OC Jack		
Audio		2 x Audio	Jack Female		
LAN Ports		1 x RJ-4	45 Female		
Keyboard		1 x USB Ty	pe-A Female		
Mouse		1 x USB Ty	pe-A Female		
USB Port		2 x USB Ty	pe-A Female		
Cascade Port*	1 x RJ-45 Female				
LEDs					
Power		1 (Blue)			
Video	1920 x 1200 @ 60Hz				
<b>Power Consumption</b>	DC 5V; 4.66W DC 5V; 6.53W			6.53W	
Environmental					
Operating Temperature		0-40°C			
Storage Temperature		-20-60°C			
Humidity	0-80% RH, Non-condensing				
Physical Properties					
Housing		Metal			
Weight	0.75 kg	0.75 kg ( 1.65 lb ) 0.8 kg (1.76 lb)			
Dimensions (L x W x H)	17.42 x 15.54 x 2.88 cm (6.86 x 6.12 x 1.13 in.)				
Carton Lot	5 pcs				

Note: \*Provides the cascaded console station with network access.



# **Serial Console Servers**

SN3101 • SN0108CO / SN0108A • SN0116CO / SN0116A • SN0132CO / SN0132 • SN0148CO / SN0148 SN9108CO / SN9108 • SN9116CO / SN9116

ATEN Altusen™ Serial Console Server products are control units that provide both In-Band and Out-of-Band remote serial access to up to 48 servers or other serial IT devices (network switches, routers, power management devices, etc.) via a Telnet or SSH TCP/ IP connection. Serial Console Servers also include one port Serial Device Servers (SN3101) that support RS-232, RS-422, and RS-485 data transfers, as well as providing Ethernet connectivity for a wide variety of serial devices used in commercial applications. These include industrial control, data acquisition, access control, environment monitoring, remote site management, etc. This total serial data transfer system transforms the capability of legacy serial devices and allows them to take advantage of the speed and reliability of today's modern communication techniques.



### No Rollover Cables Needed

ATEN Serial Console Servers<sup>1</sup> with Cisco pinouts and auto-sensing DTE/DCE feature support a direct connection to Cisco network switches (and other compatible devices) without the need for rollover cables for even more convenient IT infrastructure deployment.

### Serial Device Online Detection

Some specific models<sup>1</sup> support online detection of connected serial devices, including terminal blocks for device status monitoring to ensure that the connected devices are always running. A notification email alert will be sent to the administrator when connected devices are offline.

### 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 phrases 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 support includes HyperTerminal, Telnet, and SSH.

### Advanced Security Features

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

# Complete Serial and Power Management Solution

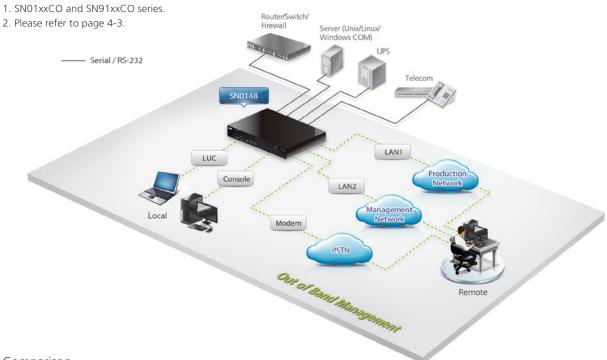
Serial Console Server products can work in tandem with other remote management products.

### Authentication Network Management Service

ANMS (Authentication Network Management Service) supports login authorization management from external sources. External authorization sources include CC2000 Management Software<sup>2</sup>, RADIUS, LDAP(s), and AD settings.

### 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	SN0108A / SN0116A SN0132 / SN0148 SN0108CO / SN0116CO SN0132CO / SN0148CO	SN9108 / SN9116 SN9108CO / SN9116CO	
Device Connection		1	8 / 16 32 / 48	8 / 16	
Concurrent Access		1	8 / 16 32 / 48	8 / 16	
Device	Interface	Serial (RS-232/RS-485/RS-422)	Serial (RS-232)	Serial (RS-232)	
Device	Connector	DB-9	RJ-45	RJ-45	
Remote Access		•	•	•	
Support Straight-through cable with Cisco Network Switches		N/A	• (SN0108CO / SN0116CO SN0132CO / SN0148CO)	• (SN9108CO / SN9116CO)	
LAN Connection		RJ-45	RJ-45	RJ-45	
Out of Band Configuration		of Band Configuration N/A		• (SN9108 / SN9116 only)	
PON Support		pport N/A		N/A	
Power		AC, DC Power	AC, DC Power	AC Power	
Communication Modes		Real COM, TCP Server (RAW TCP), TCP Client, UDP Server/ Client, Modbus, Virtual Modem, and Serial Tunnel		P Client, UDP, Serial Tunnel, al Modem	





# 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

# Serial Device Management

- Wide range of versatile serial operation modes Console Management, Real Com, TCP Server, UDP, Modbus, Serial Tunnel and Virtual Modem.
- Provides a bridge that seamlessly integrates Modbus devices (such as PLCs, DCSs, HMls) into your serial network.
- Real COM driver for Windows
- Real TTY driver for Linux, Fixed TTY driver for Unix\*
- Virtual Terminal support (VT320, VT52, VT100, VT220)
- Built-in 15KV ESD serial port protection

# Security

- High security via 128-bit/256-bit SSL encryption for serial data transmission
- Centralized external authentication support for RADIUS, LDAP(S), and MS Active Directory

### Serial Console Management

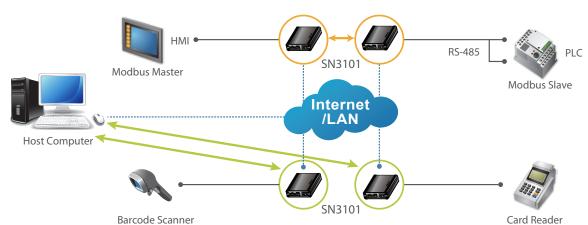
- System configuration via Web Console (HTTP/HTTPS), Telnet / SSH Console, and Windows utility
- Modem emulation enables existing modem-based applications to make connections over IP networks

### System Management

- Backup/restore and firmware upgrading via Web Console (HTTP/HTTPS) and Windows utility
- Easy-to-use Windows utility (2000/XP/2003/Vista) for auto discovery, multiple device setting and monitoring
- SNMP MIB II and RS-232 MIB for network management
- SMTP and SNMP trap event notification

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

# Setup >



# Specifications

Function	SN3101		
Connectors			
Serial	1 x DB-9 Male (Black)		
Network	1 x RJ-45 Female (Black)		
Power	1 x 2-pin Terminal Block (Green) 1 x DC Jack (Black)		
LEDs			
Power	1 (Green)		
Link	1 (Green)		
10/100 Mbps	1 (Orange/Green)		
TxRx (ACT)	1 (Green)		
Power Input			
Power Adapter	100-240V AC; 50/60 Hz		
Power Line Protection	4KV burst (EFT), EN61000-4-4 2KV surge, EN61000-4-4		
Power Consumption	9V, 2.28W		
Interfaces			
Serial	RS-232/422/485; Software selectable RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND RS-422: Tx+, Tx-, Rx+, Rx-, RTS+, RTS-, CTS+, CTS-, GND RS-485: Data+, Data-, GND Baud Rate: 460Kbps Protection: 15 KV ESD Protection for the serial port Parity: None, Even, Odd, Mark, Space Data Bits: 5, 6, 7, 8 Stop Bits: 1, 1.5, 2 Flow Control: None, XON/XOFF, RTS/CTS		
Network  ARP, DHCP, DNS, HTTP, HTTPS, ICMP, IP, TCP, UDP, NTP, PPP, SNMP Trap, SMTP, SSH Protection: 1.5 KV Magnetic Isolation			
Compliance	FCC Class A, CE Class A, RoHS		
Environmental			
Operating Temperature	0-60°C		
Storage Temperature	-20-85°C		
Humidity	0-95% RH, Non-condensing		
Physical Properties			
Housing	Metal		
Weight	0.22 kg ( 0.48 lb )		
Dimensions (L x W x H)	10.69 x 7.90 x 2.44 cm (4.21 x 3.11 x 0.96 in.)		
Carton Lot	5 pcs		

# Included Accessories

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

# **Optional Accessories**

Description	Part No. / Spec.	Page No.
Management Software	Please refer to page 4-1	4-1

# SN0108CO / SN0108A / SN0116CO / SN0116A / SN0132CO / SN0132 / SN0148CO / SN0148



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

### SN0148CO



### Front



### Rear



# Highlights

- Secure in-band and out-of-band network access to serial consoles
- Supports a direct connection to Cisco network switches without rollover cables for more convenient deployment\*
- Online/Offline detection of connected serial devices for device status monitoring\*
- Convenient and simple access via browser or Telnet / SSH client
- Comprehensive logging and event notification
- Integrates with CC2000 for centralized data center management
- Extra Laptop USB Console (LUC) port and USB ports for USB storage and USB-based PC cards
- FIPS 140-2 compliant cryptography
- Dual Ethernet ports for failover or for dual IP addresses access
- Dual power supply for power redundancy

Note: \*SN0108CO / SN0116CO / SN0132CO / SN0148CO only

# System Accessibility and Availability

- Secure in-band and out-of-band remote serial console accesses
- Browser access with an intuitive GUI and Terminal-based access with a menu-driven UI
- Modem dial-in / dial-back / dial-out access
- Front USB ports for USB storage or for USB-based PC cards

### Serial Console Management

- Auto-sensing DTE/DCE feature supports a direct connection to Cisco network switches (and other compatible devices) without rollover cables for more convenient IT infrastructure deployment\*
- Online/Offline detection of connected serial devices (including terminal blocks) automatically send event notifications when the devices are offline for device status monitoring\*
- 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
- Multiple users simultaneous port access up to 16 connections per port

### Security

- SSH and SSL / TLS support
- Secure login from browser with TLS 1.2 data encryption and RSA 2048-bit certificates
- Configurable user permissions for port access and control
- Local and remote authentication and logging
- Third-party authentication support RADIUS, TACACS+, LDAP/AD, and Kerberos
- IP and MAC address filter for enhanced security protection
- High-Grade Security supports FIPS 140-2 level 1 security standards that use an embedded FIPS 140-2 certified OpenSSL cryptographic module (Certificate #1747, #2398, #2473)

Note: \*SN0108CO / SN0116CO / SN0132CO / SN0148CO only

### System Management

- System configuration via Web browser of HTTP/HTTPS, Telnet / SSH client, and local console
- System log and event logging
- Event Destination Event logs will be saved to Log server, Syslog server, and USB drive
- 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
- Customizable global time zone
- NTP for time server synchronization
- IPv4 / IPv6 support

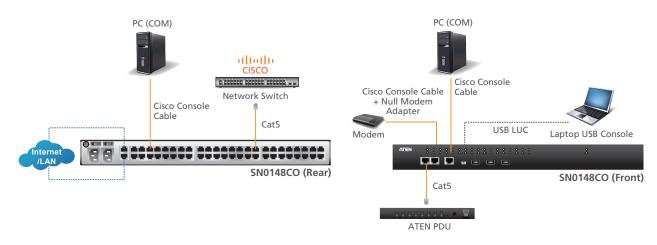
### Serial Device Management

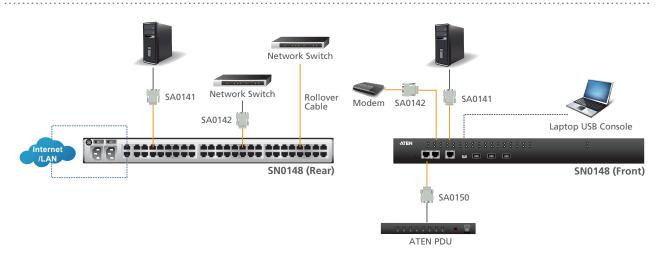
- Versatile serial operation modes support Console Management, Console Management Direct, Real Com Port, TCP Server/Client, UDP Server/Client, and Virtual Modem
- Real COM driver for Windows 2000/XP/Vista/7/8 and Windows Server 2003/2008
- Real TTY driver for Linux
- Fixed TTY driver for UNIX<sup>1</sup>
- Supports baud rates of 300, 600, 1200, 1800<sup>2</sup>, 2400, 4800, 9600, 19200, 28800<sup>2</sup>, 38400, 57600, 115200, 230400<sup>2</sup> bps

### Note:

- 1. Fixed TTY Driver Supports 1) OpenServer (Sco Unix); 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
- 2. SN0108CO / SN0116CO / SN0132CO / SN0148CO only

# Setup >





# Specifications

Function	SN0108CO / SN0108A	SN0116CO / SN0116A	SN0132CO / SN0132	SN0148CO / SN0148		
Connection	8	16	32	48		
Connectors						
Serial	8 x RJ-45 Female	16 x RJ-45 Female	32 x RJ-45 Female	48 x RJ-45 Female		
LAN Ports		2 x RJ-4!	5 Female			
Power		2 x IEC 60	320/C14*			
Local Console		1 x RJ-4!	5 Female			
Modem		1 x RJ-4!	5 Female			
PON		1 x RJ-4!	5 Female			
Laptop USB Console (LUC) Port		1 x Mi	ni USB			
USB Port		3 x USB Typ	oe A Female			
LEDs						
Serial	8 (Green)	16 (Green)	32 (Green)	48 (Green)		
10/100/1000 Mbps		2 (Red / Ora	nge / Green)			
Power		2 (B	llue)			
Maximum Input Power Rating	100-240V~,	1A, 50/60Hz	100-240V~, 1	.8A, 50/60Hz		
Power Consumption	110V / 14.1W; 220V / 14W	110V / 15.4W; 220V / 14.9W	110V / 20.2W; 220V / 21W	110V / 25.8W; 220V / 26.2W		
Environmental						
Operating Temperature		0-4	0°C			
Storage Temperature		-20-	60°C			
Humidity		0-80% RH, No	on-condensing			
Physical Properties						
Housing		Me	etal			
Weight		SN0116CO: 4.48 kg (9.88 lb) SN0116A: 4.38 kg (9.65 lb)	SN0132CO: 4.84 kg ( 10.66 lb) SN0132: 4.84 kg ( 10.66 lb)			
Dimensions (L x W x H)	43.72 x 32.98 x 4.40 cm (17.21 x 12.98 x 1.73 in.) 43.72 x 32.77 x 4.40 cm (17.21 x 12.9					
Carton Lot	1 pc					

# Included Accessories

	SN0108CO / SN0108A SN0116CO / SN0116A	SN0132CO / SN0132 SN0148CO / SN0148
Power Cords	2	2
Serial Adapters	2 (SN0108A /	2 (SN0132 /
(1 x SA0141; 1 x SA0142)	SN0116A only)	SN0148 only)
Laptop USB Console Cable	•	•
Mounting Kit	•	•
Software CD	• (SN0108A /	• (SN0132 /
SOITWARE CD	SN0116A only)	SN0148 only)
Lok - U - Plugs	2	N/A
Lok - U - Plug Installation Tool	•	N/A

# Optional Accessories

Description	Part No. / Spec.	Page No.
Management Software	Please refer to page 4-1	4-1
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 6-10 (SN0108A / SN0116A/ SN0132 / SN0148 only)	6-10

Note:

\*Available with DC power at customer's request (SN0108COD / SN0108AD / SN0116COD / SN0116AD / SN0132COD / SN0132D / SN0148COD / SN0148D).

# SN9108CO / SN9108 SN9116CO / SN9116



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



# Highlights

- Secure in-band and out-of-band network access to serial consoles
- Supports a direct connection to Cisco network switches without rollover cables for more convenient deployment\*
- Online/Offline detection of connected serial devices for device status monitoring\*
- Convenient and simple access via browser or Telnet / SSH client
- Comprehensive logging and event notification
- Integrates with CC2000 for centralized data center management

Note: \*SN9108CO / SN9116CO only

### System Accessibility and Availability

- Secure in-band and out-of-band remote serial console accesses
- Browser access with an intuitive GUI and Terminal-based access with a menu-driven UI

### Serial Console Management

- Auto-sensing DTE/DCE feature supports a direct connection to Cisco network switches (and other compatible devices) without rollover cables for more convenient IT infrastructure deployment\*
- Online/Offline detection of connected serial devices (including terminal blocks) automatically send event notifications when the devices are offline for device status monitoring\*
- Port access via Telnet / SSH client and third-party clients such as PuTTY
- Direct port access from Telnet client bypassing login to SN
- 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
- Multiple users simultaneous port access up to 16 connections per port

# Security

- SSH and SSL / TLS support
- Secure login from browser with TLS 1.2 data encryption and RSA 2048-bit certificates
- Configurable user permissions for port access and control
- Third-party authentication support RADIUS, TACACS+, LDAP/AD, and Kerberos
- IP and MAC address filter for enhanced security protection
- High-Grade Security supports FIPS 140-2 level 1 security standards that use an embedded FIPS 140-2 certified OpenSSL cryptographic module (Certificate #1747, #2398, #2473)

Note: \*SN9108CO / SN9116CO only

### System Management

- System configuration via Web browser of HTTP/HTTPS, Telnet / SSH client, and local console
- Event Destination Event logs will be saved to 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
- IPv4 / IPv6 support

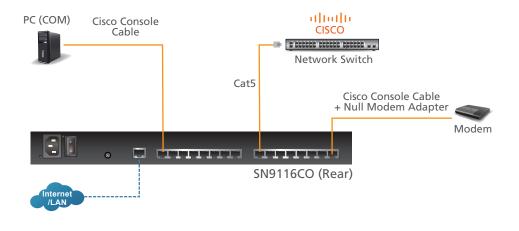
### Serial Device Management

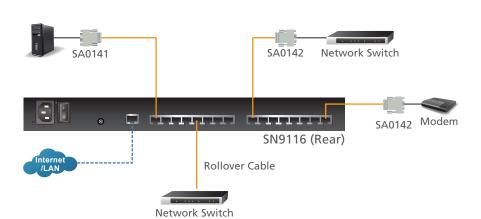
- Versatile serial operation modes support Console Management, Console Management Direct, Real Com Port, TCP Server/Client, UDP Server/Client, and Virtual Modem
- Real COM driver for Windows 2000/XP/Vista/7/8 and Windows Server 2003/2008
- Real TTY driver for Linux
- Fixed TTY driver for UNIX<sup>1</sup>
- Supports baud rates of 300, 600, 1200, 1800<sup>2</sup>, 2400, 4800, 9600, 19200, 28800<sup>2</sup>, 38400, 57600, 115200, 230400<sup>2</sup> bps

### Note:

- 1. Fixed TTY Driver Supports 1) OpenServer (Sco Unix); 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
- 2. SN9108CO / SN9116CO only

### Setup >





# Specifications

Function	SN9108CO / SN9108	SN9116CO / SN9116			
Connection	8	16			
Connectors					
Serial	8 x RJ-45 Female	16 x RJ-45 Female			
LAN Ports	1 x RJ-4	5 Female			
Power	1 x IEC60	0320/C14			
LEDs					
Serial	8 (Green)	16 (Green)			
10/100/1000 Mbps	1 (Red / Ora	nge / Green)			
Power	1 (Blue)				
Maximum Input Power Rating	100-240V~,	1A, 50/60Hz			
Power Consumption	110V / 9.7W; 220V / 9.6W	110V / 10.9W; 220V / 11.6W			
Environmental					
Operating Temperature	0-4	0°C			
Storage Temperature	-20-	60°C			
Humidity	0-80% RH, No	on-condensing			
Physical Properties					
Housing	Me	etal			
Weight	SN9108CO:3.12 kg ( 6.88 lb ) SN9108: 3.13 kg ( 6.89 lb )	SN9116CO: 3.16 kg ( 6.96 lb ) SN9116: 3.16 kg ( 6.96 lb )			
Dimensions (L x W x H)	43.72 x 21.76 x 4.40 cm (17.21 x 8.57 x 1.73 in.)				
Carton Lot	3 pcs				

# Included Accessories

	SN9108CO / SN9108 SN9116CO / SN9116
Power Cord	•
Mounting Kit	•
Software CD	• (SN9108/SN9116 only)
Lok - U - Plug	•
Lok - U - Plug Installation Tool	•

# **Optional Accessories**

Description	Part No. / Spec.	Page No.
Management Software	Please refer to page 4-1	4-1
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 6-10 (SN9108/SN9116 only)	6-10

# 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

Note: \*SN0108A / SN0116A / SN0132 / SN0148 / SN9108 / SN9116 only

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

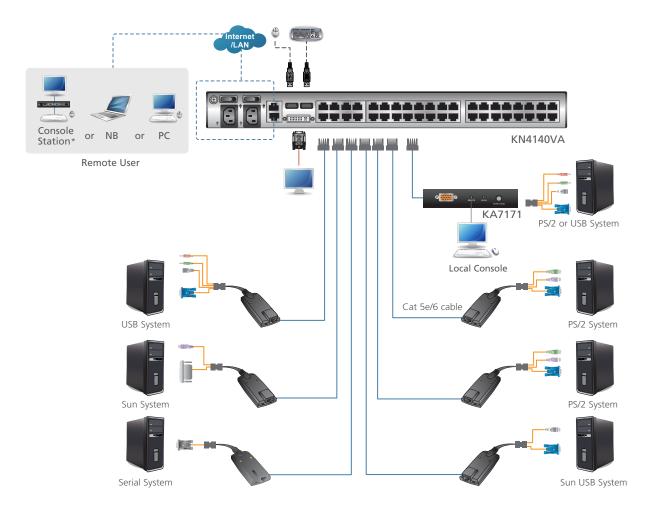
KA7120 • KA7130 • KA7140 • KA7166 • KA7168 • KA7169 • KA7170 • KA7171 • KA7175 • KA7176 • KA7177 • KA7178 • KA7188 • KA7189 • KA7520 • KA7570 • KA7920 • KA7970 • KA9140

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

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

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

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



Note: \*Refer to page 5-20 for details.

Туре		PS/2 Sun Leg		
	PS/2 KVM Adapter Cable	PS/2 KVM Adapter Cable	PS/2 KVM Adapter Cable	Sun Legacy KVM Adapter Cable
	KA7120	KA7520	KA7920	KA7130
Model			50	
Connectors				
Link	1 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Male with 4.5m Cat 5 cable	1 x RJ-45 Female
Computer	1 x HDB-15 Male 2 x Min Din 6 Male	1 x HDB-15 Male 2 x Min Din 6 Male	1 x HDB-15 Male 2 x Min Din 6 Male	1 x 13W3 Male 1 x Min Din 8 Male
LEDs				
Online / Link	1 (Green)	1 (Green)	1 (Orange)	1 (Green)
Power	1 (Orange)	1 (Orange)	N/A	1 (Orange)
Emulation				
Keyboard / Mouse	PS/2	PS/2	PS/2	Sun
Physical Properties				
Housing	Plastic	Plastic	Plastic	Plastic
Weight	0.15 kg ( 0.33 lb )	0.14 kg ( 0.31 lb )	0.25 kg ( 0.55 lb )	0.16 kg ( 0.35 lb )
Dimensions (L x W x H)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	7.93 x 3.70 x 1.55 cm (3.12 x 1.46 x 0.61 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)
Carton Lot	40 pcs	40 pcs	20 pcs	40 pcs

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

Туре	USB					
	USB KVM Adapter Cable	USB KVM Adapter Cable	USB KVM Adapter Cable	USB DVI Virtual Media KVM Adapter Cable with Smart Card Reader	USB HDMI Virtual Media KVM Adapter Cable with Smart Card Reader	USB DisplayPort Virtual Media KVM Adapter Cable with Smart Card Reader
Model	KA7170	KA7570	KA7970	KA7166	KA7168	KA7169
			*90	P	60	
Connectors						
Link	1 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Male with 4.5m Cat5 cable	1 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Female
Computer	1 x USB Type A Male 1 x HDB-15 Male	1 x USB Type A Male 1 x HDB-15 Male	1 x USB Type A Male 1 x HDB-15 Male	2 x USB Type A Male 1 x DVI-D Male	2 x USB Type A Male 1 x HDMI Male	2 x USB Type A Male 1 x DisplayPort Male
LEDs	<u>'</u>		1			
Online / Link	1 (Green)	1 (Green)	1 (Orange)	1 (Green)	1 (Green)	1 (Green)
Power	1 (Orange)	1 (Orange)	N/A	1 (Orange)	1 (Orange)	1 (Orange)
Emulation						
Keyboard / Mouse	USB	USB	USB	USB	USB	USB
Physical Properties						
Housing	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic
Weight	0.14 kg ( 0.31 lb )	0.15 kg ( 0.33 lb )	0.24 kg ( 0.53 lb )	0.14 kg ( 0.31 lb )	0.11 kg ( 0.24 lb )	0.11 kg ( 0.24 lb )
Dimensions (L x W x H)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	7.93 x 3.70 x 1.55 cm (3.12 x 1.46 x 0.61 in.)	9.10 x 5.60 x 2.12 cm (3.58 x 2.2 x 0.83 in.)	9.10 x 5.60 x 2.12 cm (3.58 x 2.2 x 0.83 in.)	9.10 x 5.60 x 2.12 cm (3.58 x 2.2 x 0.83 in.)
Carton Lot	40 pcs	40 pcs	20 pcs	40 pcs	40 pcs	40 pcs

Compatible KVM Switch						
Model No.	KA7170	KA7570	KA7970	KA7166	KA7168	KA7169
KH1508A / KH1516A KH1532A	•	•	•	•	•	•
KH2508A / KH2516A	•	•	•	•	•	•
KL1508A / KL1516A	•	•	•	•	•	•
KL1108V / KL1116V	•	N/A	N/A	•	•	•
KL1508AI / KL1516AI	•	•	•	•	•	•
KH1508AI / KH1516AI	•	•	•	•	•	•
KN1108V / KN1116V	•	N/A	N/A	•	•	•
KN1108VA / KN1116VA	•	N/A	N/A	•	•	•
KN2124VA / KN2140VA KN4124VA / KN4140VA	•	N/A	N/A	•	•	•
KN1132V / KN2116VA KN2132VA / KN4116VA KN4132VA / KN4164V KN8132V / KN8164V	٠	N/A	N/A	٠	٠	٠
KM0932 / KM0532 / KM0032*	•	N/A	N/A	•	•	•
(KN2116A/ KN2132 KN4116 / KN4132 KN2116v / KN2132v KN4116v / KN4132v KN2124v / KN2140v KN4124v / KN4140v)*		N/A	N/A	•	•	•

Туре			U	SB		
	USB Virtual Media KVM Adapter Cable	USB Virtual Media KVM Adapter Cable with Audio	USB Virtual Media KVM Adapter Cable with Smart Card Reader	Dual Output USB Virtual Media KVM Adapter Cable with Audio	USB HDMI Virtual Media KVM Adapter Cable with Audio/Smart Card Reader	USB DisplayPort Virtual Media KVM Adapter Cable with Audio/ Smart Card Reader
Model	KA7175	KA7176	KA7177	KA7178	KA7188	KA7189
			7			P
Connectors						
Link	1 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Female	2 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Female
Computer	1 x USB Type A Male 1 x HDB-15 Male	1 x USB Type A Male 1 x HDB-15 Male 2 x Mini Stereo Plug	2 x USB Type A Male 1 x HDB-15 Male	1 x USB Type A Male 1 x HDB-15 Male 2 x Mini Stereo Plug	2 x USB Type A Male 1 x HDMI Male	2 x USB Type A Male 1 x DisplayPort Male
LEDs			1			
Online / Link	1 (Green)	1 (Green)	1 (Green)	2 (Green)	1 (Green)	1 (Green)
Power	1 (Orange)	1 (Orange)	1 (Orange)	1 (Orange)	1 (Orange)	1 (Orange)
Emulation						
Keyboard / Mouse	USB	USB	USB	USB	USB	USB
Physical Propertie	es					
Housing	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic
Weight	0.15 kg ( 0.33 lb )	0.17 kg ( 0.37 lb )	0.16 kg ( 0.35 lb )	0.17 kg ( 0.37 lb )	0.11 kg ( 0.24 lb )	0.12 kg ( 0.26 lb )
Dimensions (L x W x H)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	9.10 x 5.60 x 2.12 cm (3.58 x 2.2 x 0.83 in.)	9.10 x 5.60 x 2.14 cm (3.58 x 2.2 x 0.84 in.)	9.10 x 5.60 x 2.14 cm (3.58 x 2.2 x 0.84 in.)
Carton Lot	40 pcs	40 pcs	40 pcs	40 pcs	40 pcs	40 pcs

		Compa	atible KVM Swite	ch		
Model No.	KA7175	KA7176	KA7177	KA7178	KA7188	KA7189
KH1508A / KH1516A / KH1532A	N/A	N/A	N/A	N/A	N/A	N/A
KH2508A / KH2516A	N/A	N/A	N/A	N/A	N/A	N/A
KL1508A / KL1516A	N/A	N/A	N/A	N/A	N/A	N/A
KL1108V / KL1116V	•	•	•	•	N/A	N/A
KL1508AI / KL1516AI	N/A	N/A	N/A	N/A	N/A	N/A
KH1508AI / KH1516AI	N/A	N/A	N/A	N/A	N/A	N/A
KN1108V / KN1116V	•	•	•	N/A	N/A	N/A
KN1108VA / KN1116VA	•	•	•	•	•	•
KN2124VA / KN2140VA KN4124VA /KN4140VA	•	•	•	•	•	•
KN1132V / KN2116VA KN2132VA / KN4116VA KN4132VA / KN4164V KN8132V / KN8164V	٠	•	•	٠	٠	٠
KM0932 / KM0532 KM0032*	N/A	•	•	•	•	•
(KN2116A/ KN2132 KN4116 / KN4132 KN2116v / KN2132v KN4116v / KN4132v KN2124v / KN2140v KN4124v / KN4140v)*	•		•	N/A	N/A	N/A

Туре	USB-PS/2	Serial		
	USB-PS/2 KVM Adapter Module with Local Console	Serial KVM Adapter Module	Serial KVM Adapter Cable	
	KA7171	KA9140	KA7140	
Model		Ma		
Connectors				
Link	1 x RJ-45 Female	1 x RJ-45 Female	1 x RJ-45 Female	
Computer	1 x SPHD-18 Female (Yellow)	1 x DB-9 Female	1 x DB-9 Female	
Console Ports	2 x USB Type A Female (White) 1 x HDB-15 Female (Blue)	1 x HDB-15 Female 1 x Min Din 6 Female	N/A	
Power	1 x DC Jack (Black)	1 x DC Jack (Black)	1 x Mini USB Type B Female (Black)	
Pushbuttons				
Operating Mode Selection	1 x Pushbutton	N/A	N/A	
LEDs				
Online / Link	N/A	1 (Green)	1 (Green)	
Power	N/A	1 (Orange)	1 (Orange)	
Local	1 (Green)	N/A	N/A	
Remote	1 (Green)	N/A	N/A	
Emulation				
Keyboard / Mouse	PS/2, USB	N/A	N/A	
Video	Up to 1920 x 1200 @ 60Hz; DDC2B	N/A	N/A	
Power Consumption	DC5.3V / 1.88W	DC 5V / 1.6W	N/A	
Physical Properties	'			
Housing	Metal	Metal	Plastic	
Weight	0.33 kg ( 0.73 lb )	0.50 kg ( 1.1 lb )	0.09 kg ( 0.2 lb )	
Dimensions (L x W x H)	12.70 x 8.65 x 2.50 cm (5 x 3.41 x 0.98 in.)	20.00 x 8.15 x 2.50 cm (7.87 x 3.21 x 0.98 in.)	9.00 x 4.30 x 2.18 cm (3.54 x 1.69 x 0.86 in.)	
Carton Lot	20 pcs	5 pcs	10 pcs	

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

# Cables

Cables					
Image	Part No.	Interface/ Function	PC Cable Interface	KVM Cable Interface	Compatible
A B O	2L-5201P ( 1.2m ) 2L-5202P ( 1.8m ) 2L-5203P ( 3m ) 2L-5206P ( 6m )	PS/2 VGA	6-pin Mini-DIN Male  6-pin Mini-DIN Male  6-pin Mini-DIN Male  HDB-15 Male	SPHD Male	KN1000A
C	2L-5202UP ( 1.8m) 2L-5203UP ( 3m ) 2L-5205UP ( 5m ) 2L-5206UP ( 6m ) With built-in USB to PS/2 Converter	USB VGA	USB Type A Male HDB-15 Male	SPHD Male	KN1000A
D	2L-5201U ( 1.2m ) 2L-5202U ( 1.8m ) 2L-5203U ( 3m ) 2L-5205U ( 5m )	USB VGA	USB Type A Male HDB-15 Male	SPHD Male	KN1000A
	2L-5301UP ( 1.2m ) 2L-5302UP ( 1.8m ) 2L-5303UP (3m)	USB PS/2 VGA	USB Type A Male HDB-15 Male 6-pin Mini-DIN Male	SPHD Male	KN1000A
F	2L-7D02U ( 1.8 m ) 2L-7D03U ( 3m ) 2L-7D05U ( 5m )	USB DVI-D Audio	USB Type A Male  USB Type A Male  DVI-D Male (Single Link) 2 Audio plugs	USB Type B Male  USB Type B Male  DVI-D Male  (Single Link) 2 Audio plugs	KE6900 KE6940 KE6900ST
G	2L-7D02UD (1.8 m) 2L-7D03UD (3 m) 2L-7D05UD (5 m)	USB DVI-D Dual Link Audio	USB Type A Male  USB Type A Male  DVI-D Male (Dual Link) 2 Audio plugs	USB Type B Male  USB Type B Male  DVI-D Male (Dual Link) 2 Audio plugs	KE6910 KE6912
H O	2L-7D02UI ( 1.8m ) 2L-7D03UI ( 3m )	USB DVI-I Audio	USB Type A Male  USB Type A Male  DVI-I Male  (Single Link) 2 Audio plugs	USB Type B Male  USB Type B Male  DVI-I Male (Single Link) 2 Audio plugs	KE6900 KE6940 KE6900ST
	2L-7DX2U ( 1.8m ) 2L-7DX3U ( 3m )	USB VGA Audio	USB Type A Male  HDB-15  Male  2 Audio plugs	USB Type B Male  USB Type B Male  USB Type B Male  USB Type B Male	KE6900 KE6940
	2L-7D02DH (1.8m)	USB HDMI Audio	USB Type A Male	USB Type B Male  USB Type B Male  USB Type B Male  USB Type B Male  A Wall of the state of the s	KE6900 KE6940 KE6900ST
	2L-7D02UH (1.8 m)	USB HDMI Audio	USB Type A Male  HDMI Male 2 Audio plugs	USB Type B Male	KE8950 KE8952 KE8900S
0	2L-7D02DP (2m) 2L-7D03DP (3m) 2L-7D05DP (5m)	DisplayPort	DisplayPort Male	DisplayPort Male	KE9900ST KE9950 KE9952
M	2L-1700 ( 0.6m ) 2L-1701 ( 1.8m ) 2L-1703 ( 3m ) 2L-1705 ( 5m ) 2L-1715 ( 15m )	Daisy-Chain	Chain In  DB-25 Male	Chain Out  DB-25 Female	KH1508A / KH1516A KH1532A KH1508AI / KH1516AI KL1508A / KL1516A KL1508AI / KL1516AI
N S S S S S S S S S S S S S S S S S S S	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:

# **Product Compatibility List**

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

Note: \*KH1532A must be the primary device.

# KVM Adapter Cables Compatibility List

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

<sup>\*\*</sup>Product specifications and appearance are subject to change without notice. Please see <a href="www.aten.com">www.aten.com</a> for more details.

# KVM Adapter Cables Compatibility List

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

# KVM Adapter Cables Compatibility List

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

Note: \*Product specifications and appearance are subject to change without notice. Please see <a href="https://www.aten.com">www.aten.com</a> for more details.



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