

Cat5 High-Density KVM Over the NET™ KH1508Ai/KH1516Ai

Steve / Enterprise Solution Department / PMC

- Market Positioning
- Why is KH1508Ai/KH1516Ai?
- Competitor Comparison
- FAQ

- Design Concept:

KH1508Ai/1516Ai is a Cat5 KVM over the NET specifically designed to offer **best cost / performance ratio** to the market. With new **fixed length KVM adapter cable KA7920/KA7970** the total package cost can be more competitive.

**KH1508Ai is to replace KH1508i; KH1516Ai is to replace KH1516i*

- Target User:

Small-to-medium size organization, Data center and large corporation.

- MSRP: KH1508Ai US\$940/ KH1516Ai US\$1095

- Product Description:

- 1-console, 8/16-port Cat5 High Density KVM Switch over NET

- Control up to 512 computers by **daisy chain**.

- Video resolution (Remote)

1600x1200@60Hz, 24bits

- Video resolution (Local)

1280x1024@75Hz, up to **50m** (with KA7xxx series)

1600X1200@60Hz, up to **40m**(with KA7xxx series)

- Support **adapter ID**

- With Extra Laptop Console Port for crash cart application



- Video resolution:
 - 1280x1024@75Hz, up to 50m (with KA75xx series)
 - 1600X1200@60Hz, up to 40m(with KA75xx series)

- Support low cost, short distance adapter cable

- KA7920
- KA7970



- Support Adapter ID
- Local console supports both USB/PS2 Keyboard/mouse

Crash Cart Solution for Data Cent

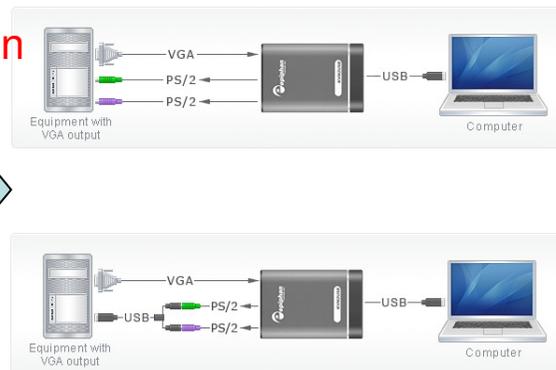
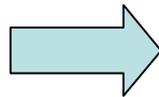


Laptop Console Port Benefit

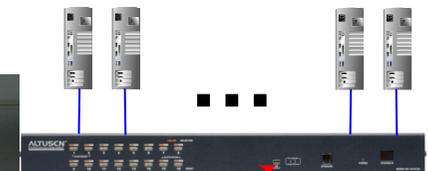
- Save the cost
- Easier in use (USB)
- More convenient. (USB connection only, at front panel)



Evolution



Evolution



The Best Selling Point

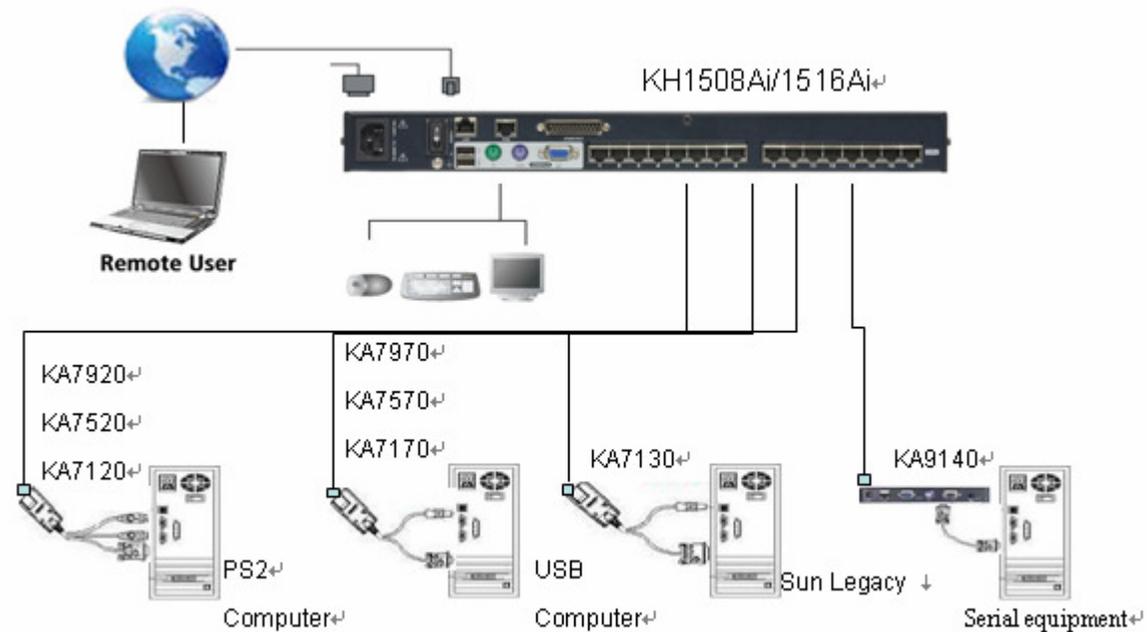
- Lower total cost with fixed length KVM adapter cable
 - KH1508Ai: MSRP US\$ 940 / KH1516Ai: MSRP US\$ 1095
 - KA7920: MSRP US\$ 39 / KA7970: MSRP US\$ 39
- Superior performance with long distance extension with new KA7520/7570 KVM adapter cable.
 - 1280x1024@75Hz, 50m (Local), 1600x1200@60Hz, 40m (Local)



Benefit for KH1508Ai/KH1516Ai



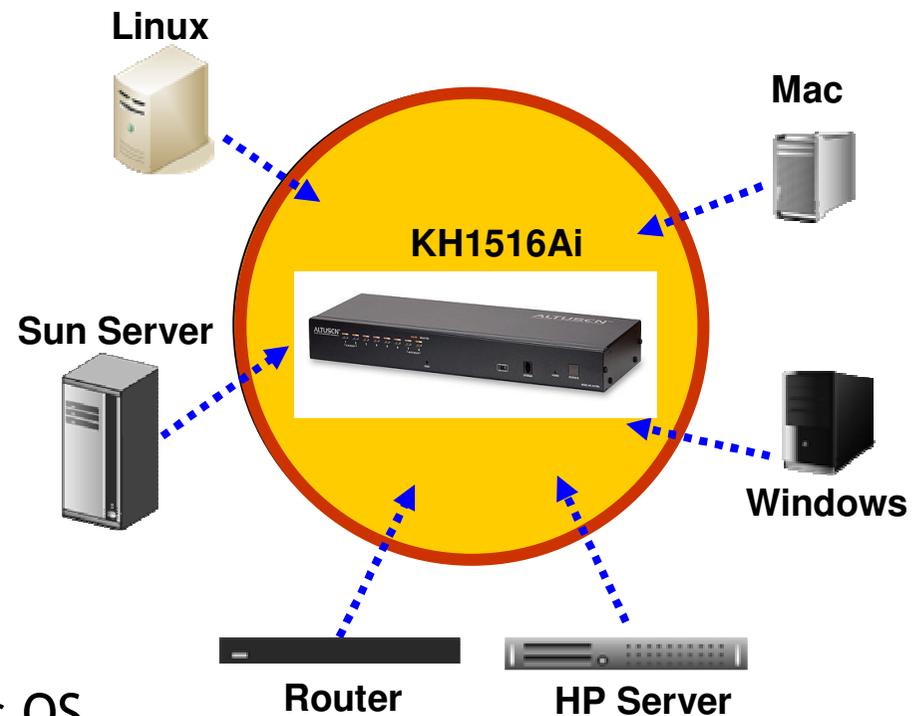
- Lower cost, focusing on small business that just needs only one user.
- Simplify server room management by a single box
 - Manage multi-platform computers & servers
 - Manage serial devices, like Router, Switch, PBX and UPS
 - No software required



Heterogeneous IT Devices Support



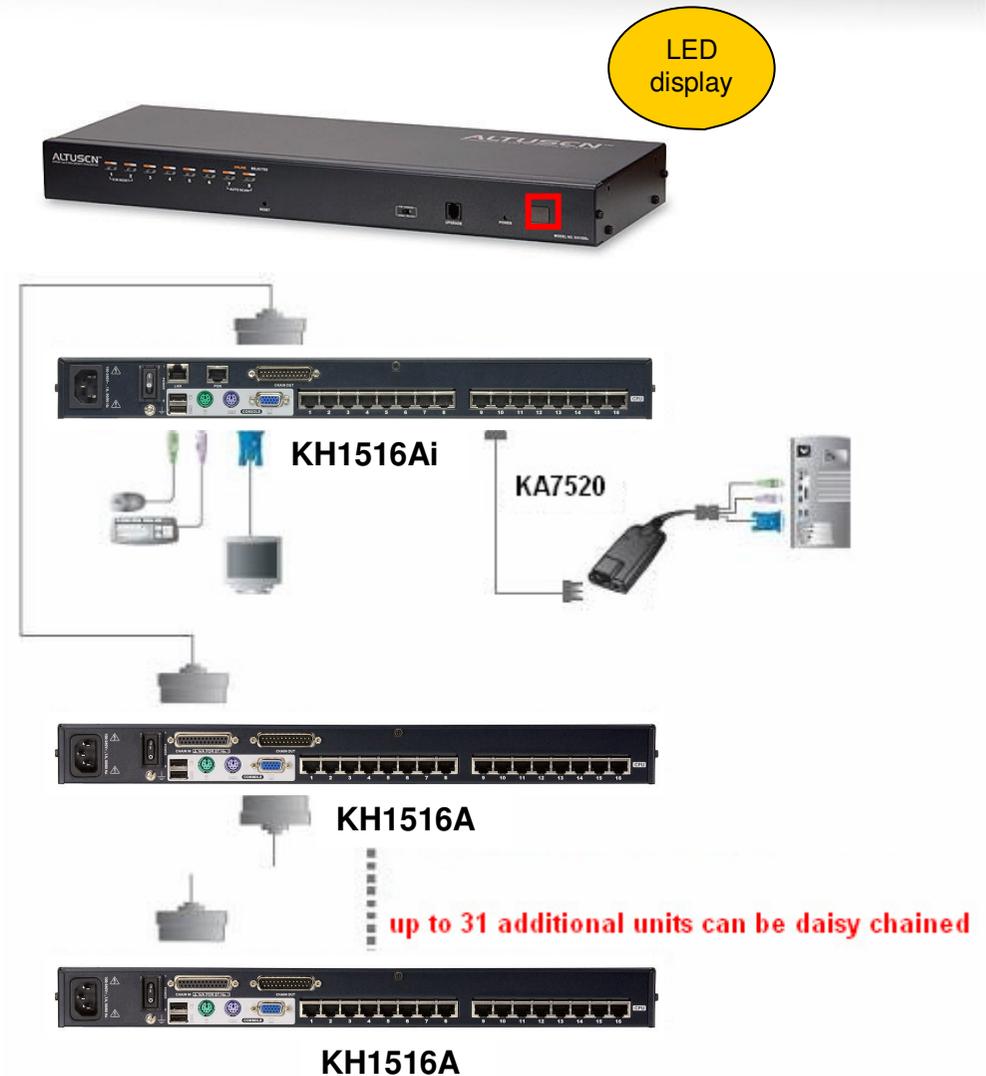
- BIOS-level control
- Control complex IT environment via single console
 - PS/2
 - USB
 - Sun
 - Serial (with KA9140)
- Hardware platform and OS independence
 - Different manufacturers (e.g., HP, IBM, Mac, and Sun)
 - Different operating systems (e.g., Solaris, UNIX, Linux, Mac OS, or Windows)



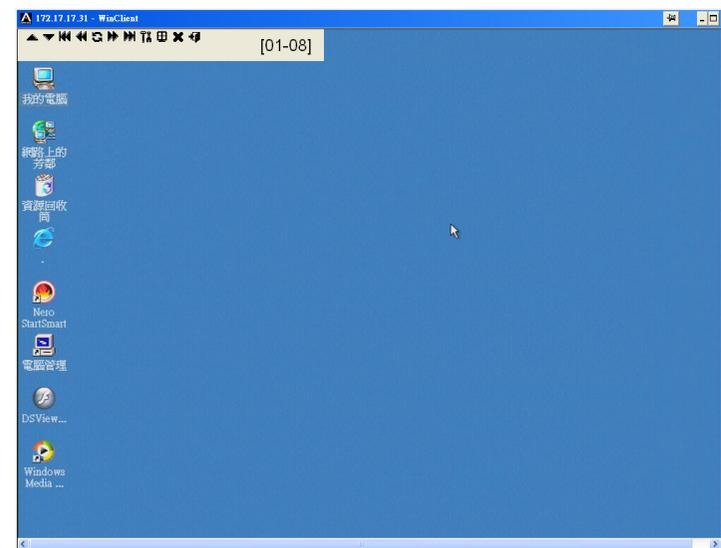
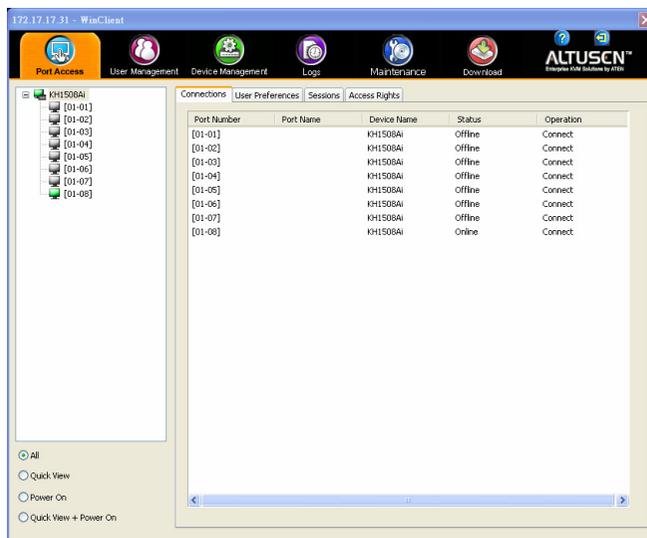
Excellent Scalability and Integration

ATEN

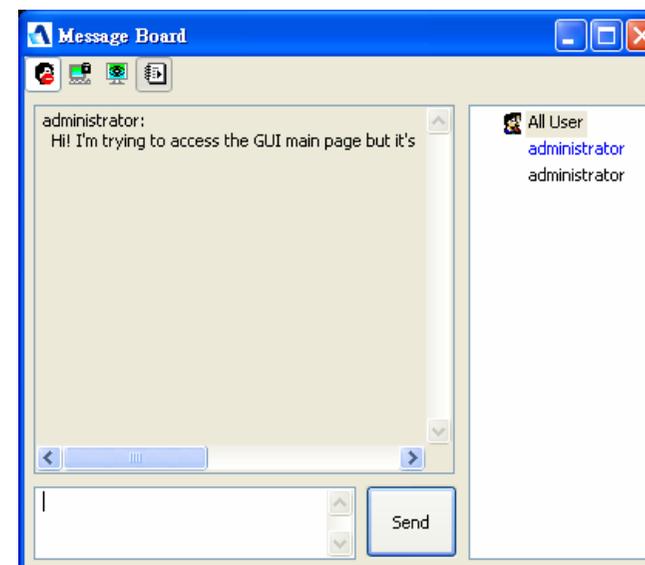
- Expand to control 512 servers via excellent daisy-chain capability
- Fully integrated OSD
- Auto detection and location, no DIP switch required
- Manage multi-rack via single console for centralized server management



- **Secure Virtual Remote Desktop from Either Web Browser or AP**
 - The remote desktop can appear full-screen. Remote users access the switches over the Internet by means of a web browser with 128 bit SSL encryption as secure protocol and RC4 128 bit encryption for secure keyboard, mouse, as well as video data transmission.



- **Multi-session**
 - The KH1508Ai/KH1516Ai supports up to 32 concurrent user logins for single-bus computer access.
- **Message Board**
 - A built-in feature that resembles an Internet chat program lets users communicate with each other. The ability to exchange information in real time allows them to cooperatively manage the installation in a smooth and efficient manner.
- **User Account Management**
 - Two level password security, up to 64 user accounts with separate profiles
 - RADIUS, LDAP, LDAPS, MS Active MS Directory support for centralized access control



- **Mouse DynaSync™**
 - Automatically synchronizes the local and remote mouse movements for perfect alignment of mouse pointers, regardless of server mouse acceleration settings.*
- **Panel Array Mode**
 - Panel array mode permits simultaneous monitoring of the video output of the installations' servers. Operators can monitor the screen display of up to 16 servers per switch for real-time server monitoring
- **Superior Video**
 - With enhanced fps throughput for crisp responsive video display, the switches offer resolutions of up to 1600 x 1200 @ 60Hz; vibrant 24-bit color depth for rich remote session display

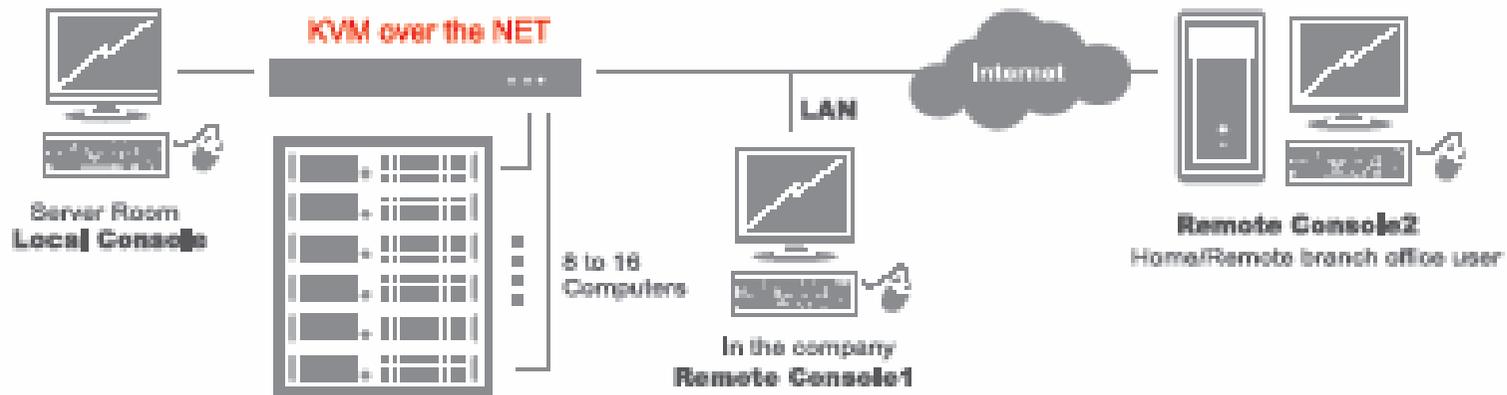
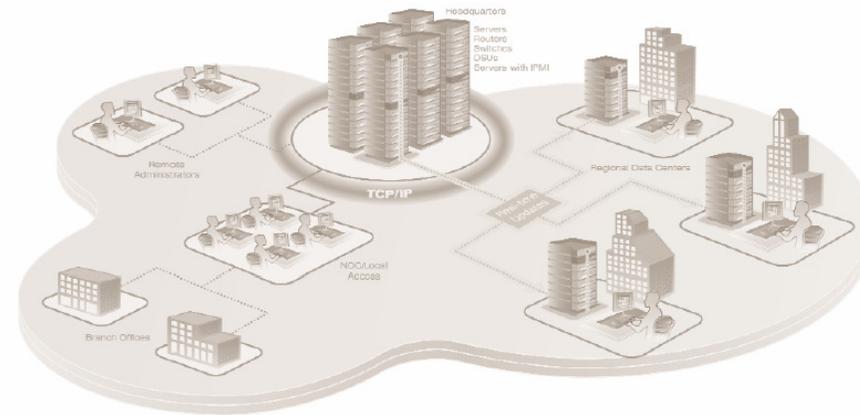
- **Laptop Console Port**

- The KH1508Ai / KH1516Ai can be accessed via a USB application (AP) program at the local site. This AP is built into the KH1508Ai / KH1516Ai's firmware and does not require a download.



Application

The major application is using CC2000 with KVM Over the NET between the Datacenter of the headquarter and Branch office saves space and money, reduces downtime, offers at-the-rack access to systems from any where in the world.



Major Competitors



Company	ATEN	ATEN	Avocent	Avocent	Raritan	Raritan	Belkin	Minicom
Brand / Series	Altusen / KVM Over the	Altusen / KVM Over the	AutoView	AutoView	Master Console IP	MasterConsole CAT	OmniView SMB KVM-	Smart 116 IP
Model No. / PN	KH1508Ai/KH1516Ai	KH1508i/KH1516i	AV3008-001/AV3016-001	AV3100-001	MCIP18/MCIP116	DKX2-108/DKX2-116	F1DP108G	0SU70030
ID								
Remote User	1	1	1	1	1	1	1	1
Local User	1 (Share 1bus with Remote User)	1 (Share 1bus with Remote User)	1 (Share 1bus with Remote User)	1 (Share 1bus with Remote User)	1 (Share 1bus with Remote User)	1	1 (Share 1bus with Remote User)	1 (Share 1bus with Remote User)
No. of Server/CPU Control	8 ; 16	8 ; 16	8 ; 16	16	8 ; 16	8 ; 16	8 ; 16	16
LAN Port	10/100 RJ-45	10/100 RJ-45	10/100 RJ-45	10/100/1000 RJ-45	10/100 RJ-45	10/100/1000 RJ-45	10/100 RJ-45	10/100 RJ-45
Local Console Port	PS/2-USB+HDB15	PS/2+HDB15	PS/2-USB+HDB15	PS/2-USB+HDB15	PS/2+HDB15	PS/2-USB+HDB15	PS/2, HDB15	PS/2, HDB15
Server Port	8 / 16 RJ-45	8 / 16 RJ-45	8 / 16 RJ-45	16 RJ-45	8 / 16 x SPHD-15	8 / 16 RJ-45	8 / 16 RJ-45	16 RJ-45
Max. Resolution & Distance	Local: 1280X1024@75Hz, 50m 1600x1200@60Hz, 40m Remote: 1600x1200@60Hz, 24bits	Local: 1280X1024@75Hz, 40m 1600x1200@60Hz, 30m Remote: 1280x1024@75Hz	Local: 1280x1024@75Hz, 30m 1600x1200@60Hz, 30m Remote: 1600x1200@60Hz	Local: 1280X1024@75Hz, 45m Remote: 1280x1024@75Hz	Local: 1280X1024@75Hz, 9m Remote: 1280X1024@75Hz	1280x1024@60Hz, 30m 1600x1200@60Hz, 15m Remote: 1600X1200@60hZ	Local: 1600x1200@75Hz, 30m Remote: 1600x1200@75Hz, 16bits	Local: 1600x1200@75Hz, 30m Remote: 1600x1200@75Hz, 16bits
Power Control	Yes	Yes	No	Yes	No	Yes	Yes	Yes
Modem Access	Yes	No	No	Yes	Yes	Yes	No	No
Grayscale	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Unique Adapter Cable ID	Yes	No	No	Yes	No	No	No	No
Security	SSL 128bit, DES, 3DES, AES 256bit	SSL 128bit, DES, 3DES, AES 256bit	SSL 128bit, DES, 3DES, AES	SSL 128bit, DES, 3DES, AES	128-bit SSL	SSL 128bit, AES, RC4	SSL 128bit	SSL 128bit
Expansion	Daisy chain to 256/512 servers	Daisy chain to 128/256 servers	Cascade up to 64/256 servers (RJ-45)	No	No	Cascade up to 64 servers	Daisy chain to 256 servers	No
User Account	64 users/32 concurrent login	64 users/32 concurrent login	64 users	64 users	25 users	254 users/8 concurrent login	26 users/8 concurrent login	8 users
UI	Multilingual web OSD, Windows and Java software	Multilingual web OSD, Windows and Java software	Web OSD	Web OSD	Web OSD	Web OSD	Web OSD	Web OSD
Mouse Dynasync	Yes	No	Yes	Yes	Yes	Yes	No	No
Panel Array	8 / 16 servers	8 / 16 servers	No	No	No	No	No	No
Message board	Yes	Yes	No	No	No	No	No	No
Central Management	CC2000	CC1000	No	No	No	Command Center Secure Gateway	No	KVM.Net
Software keyboard	Yes	Yes	No	No	Yes	No	No	No
Macro command	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Authentication	RADIUS, LDAP(S), MS active directory	RADIUS, LDAP(S)	LDAP(S)	LDAP(S)	RADIUS, LDAP(S)	RADIUS, LDAP(S)	No	No
MSRP (SP) USD	940/1095 KA7920: \$39 (4.5m) KA7970: \$39 (4.5m) KA7520: \$59 KA7570: \$59 KA7130: \$99 (SUN, 13W3) KA7170: \$99 (SUN, USB) KA9140: \$395 (Serial) (also support KA91xx and KA95xx)	895(527) / 1095 (575) KA9520: \$59 (59) KA9130: \$99 KA9131: \$129 (86.19) KA9140: \$395 (273.88) KA9570: \$59 (59)	875(546.99) / 1185(776.98) AVRIQ-PS2: \$99 (71.2) AVRIQ-USB: \$99 (72.37) AVRIQ-VSN: \$105 (71.35) AVRIQ-SRL: \$125 (88.29)	1695 (1061) AVRIQ-PS2: \$99 (71.2) AVRIQ-USB: \$99 (72.37) AVRIQ-VSN: \$105 (71.35) AVRIQ-SRL: \$125 (88.29)	\$895(734) / \$995(816) CMCIP20: \$40 (20.5) CMCIP40: \$50 (28.5) CMCIP90: \$80 (57.5)	1695 (1286.99) / 2995 (2333.99) D2CIM-PWR: 99 (81) D2CIM-VUSB: 135 (110.5) DCIM-PS2: 99 (81) DCIM-SUN: 109 (89.5) DCIM-USBG2: 99 (81) P2CIM-SER: 149 (122)	899(887.99) / 1099 (726.99) F1DP101A-AP: \$79.99 (67.1) F1DP101A-AU: \$79.99 (66.74) F1DP101A-AL: \$89.99 (78.45)	995 (714.69) RICC PS/2: \$59.99 (45.5) RICC USB: \$79.99 (60.50) RICC Sun: \$129.99 ROC PS/2: \$59.99 (46.68) ROC USB: \$79.99

KH1508Ai/KH1516Ai support more advance function than KH1508i/KH1516i:

- Adapter cable with ID
- Daisy chain up to 256/512 servers
- Mouse DynaSync™
- Laptop Console Port
- KA7XXX dongle series, local video resolution up to 1280x1024@75Hz, 50m, 1600x1200@60Hz, 40m
- Local console support PS2/USB Keyboard/Mouse

Features & Benefits



Easy Operation	Three port selection methods: Manual (via front panel pushbuttons), Hotkey, and multi-language OSD (On Screen Display).
Multi-language	Multi-language OSD support English, German, Japanese, Simplified and Traditional Chinese. Multi-language keyboard support includes US English, UK English, French, German, Swiss German, Hungarian, Italian, Japanese, Korean, Russian, Spanish, Swedish and Traditional Chinese.
Auto Scanning	Auto scanning provides hands-free monitoring of selected devices at variable rates.
Broadcast Mode	Broadcast Mode sends commands from the console to computers - allowing you to perform operations (such as software installation, upgrades, shutdowns, etc.), on them simultaneously.
Superior Video Quality	With the new ATEN KVM Cable Adapter KA7000 series, Local console supports the video resolutions up to 1600x1200@60hz for up to 40 meters, and 1280x1024@75hz for up to 50 meters.
Multiple User Accounts	Supports up to 10 user and 1 administrator accounts.
Adapter Cables with ID	Using the new adapter cables with ID means it is not required to change cable configuration settings when moving cables from port to port. Device ID and attributes are stored in the adapter cables allowing you to hot-swap port connections without having to reconfigure attributes.

- Q2:
What is the difference of prime KVM adapter cable used by KH1508Ai/KH1516Ai?
- A2:
 - KA91xx/95xx series is old model, can support distance up to 40m (1280x1024@75Hz).
 - KA71xx/75xx/79xx series support adapter ID.
 - KA71xx/75xx support distance up to 50m (1280x1024@75Hz).
 - KA79xx comes with a fixed length Cat5 cable, can only support distance up to 4.5m.

Model name	Interface	Distance	Cost	Adapter ID
KA9120	PS/2	40m	High	No
KA9170	USB	40m	High	No
KA9130	SUN	40m	High	No
KA9140	Serial	40m	High	No
KA9520	PS/2	40m	Mid.	No
KA9570	USB	40m	Mid.	No
KA7120	PS/2	50m	High	Yes
KA7170	USB	50m	High	Yes
KA7130	SUN	50m	High	Yes
KA7520	PS/2	50m	Mid.	Yes
KA7570	USB	50m	Mid.	Yes
KA7920	PS/2	4.5m	Low	Yes
KA7970	USB	4.5m	Low	Yes

- Q3:

What is adapter cable ID?

- A3:

The advanced adapter cable ID feature stores the Adapter Cable's configuration information – such as its ID, port name, OS, keyboard language. This feature allows administrators to relocate servers to different ports without having to reconfigure the adapters . Administrator can re-allocate servers with less effort.

- Q4:**
 Can you list all KVM adapter cables compatibility with Cat5 KVM switches?
- A4:**
 Please see the table provided on right. The symbol ■ means supported.

Model Number	KH1508	KH2508	KH1508A	KH2508A
	KH1508i	KH2516	KL1508A	KH2508i
	KH1516		KH1508Ai	KH2516A
	KH1516i		KH1516A	KH2516i
	KL1508		KL1516A	
	KL1516		KH1516Ai	
Console Module				
Model name	CAT5:	CAT5:	CAT5:	CAT5:
distance up to	40m	40m	40m	40m
KA9120	■	■	■	■
KA9170	■	■	■	■
KA9130	■	■	■	■
KA9140	■	■	■	■
KA9520	■	■	■	■
KA9570	■	■	■	■
distance up to	50m	50m	50m	50m
KA7120	□	□	■	■
KA7170	□	□	■	■
KA7130	□	□	■	■
KA7140	□	□	□	□
KA7175	□	□	□	□
KA7176	□	□	□	□
KA7177	□	□	□	□
KA7520	□	□	■	■
KA7570	□	□	■	■
distance up to	4.5m	4.5m	4.5m	4.5m
KA7920	□	□	■	■
KA7970	□	□	■	■

- Q5:

Can KH1516Ai be remotely managed and configured via Web browser?

- A5:

Yes. KH1516Ai can be completely configured remotely via Web browser. Everything about the solution can be completely set up over the network.

Although the remote graphic OSD and local graphic OSD look different, but it is integrated.

Thank You!

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The ATEN logo is centered at the bottom of the slide. It consists of the word "ATEN" in a bold, white, sans-serif font. The letters are slightly shadowed, giving them a three-dimensional appearance as if they are floating above a dark blue, semi-transparent circular base. The background of the slide is a gradient of blue with abstract, curved light patterns.

ATEN