

# 8/16-Port Dual Rail LCD KVM Switch LCD Console + Cat 5 High-Density KVM Switch with KVM over IP

KL1508Ai (KL1508AiM: 17" LCD; KL1508AiN: 19" LCD) KL1516Ai (KL1516AiM: 17" LCD; KL1516AiN: 19" LCD)

• The KL1508Ai and KL1516Ai Dual Rail LCD KVM Switches are control units that allow secure access up to 8/16 computers from a single KVM (keyboard, video, and mouse) console. They consist of an integrated LED-backlit LCD monitor, keyboard, and touchpad in a 1U rack-mountable retractable sliding housing.

The LCD and keyboard/touchpad modules slide independently of each other. To maximize space in your data center, the keyboard/touchpad module slides back to "hide away" when not in use, while the thin profile LCD monitor rotates back – flush against the rack – allowing convenient monitoring of computer activity.

The KL1508Ai / KL1516Ai features IP-based connectivity that allows local and remote operators to monitor and access the computers on your installation. Because it uses TCP/IP for its communications protocol, the KL1508Ai / KL1516Ai can be accessed from any computer on the LAN, WAN, or Internet – whether that computer is located down the hall, down the street, or halfway around the world.

Compact, high-density, RJ-45 connectors and Cat 5e/6 cable make for a compact, efficient, wiring configuration, while the use of KVM Adapter Cables to link to the computers, permits any combination of PCs, Macs, Sun computers, and serial devices to coexist on the installation.

For added convenience, ports for an external keyboard, monitor, and mouse are provided on the rear panel – permitting you to manage the switch from a local console. There is also an external USB mouse port on the keyboard module, allowing you to use an external mouse, rather than the touchpad.

Enhanced features include a Panel Array Mode™ that displays the video output of up to 16 computers at the same time, and a Message Board that allows logged in users to conveniently and instantly communicate with one other – no matter where in the world they actually are. The KL1508Ai / KL1516Ai is an ideal solution for your server room management.



KL1516Ai Rear view





# **Features**

#### Hardware

- Exclusive LED illumination light designed by ATEN to illuminate the keyboard and touchpad to allow visibility in low-light conditions
- Integrated KVM console with 17" or 19" LED-backlit LCD monitor in a Dual Rail housing
- A single console controls up to 8 (KL1508<sub>Ai</sub>) or 16 (KL1516<sub>Ai</sub>) computers
- Daisy chain up to 15 additional KVM switches to control up to 256 computers\*
- One bus for remote KVM over IP access
- 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
- Extra console port manage computers in the LCD KVM switch from an external console (monitor, USB or PS/2 keyboard, and USB or PS/2 mouse)
- Multiplatform support: PC, Mac, Sun and Serial
- Supports external USB mouse
- Dual Rail housing is slightly less than 1U with top and bottom clearance for smooth operation in 1U of rack space
- Dual Rail LCD monitor slides independently of the keyboard/touchpad
- LCD module rotates up to 120 degrees for a more comfortable viewing angle
- Console lock enables the console drawer to remain securely locked away in position when not in use
- LCD power button helps save energy and prolong displays' life
- \* Compatible KVM switches: KH1508<sub>4</sub>/KH1516<sub>A</sub>, KH0116, ACS1208A/ACS1216A, CS1708<sub>4</sub>/CS1716<sub>A</sub>, KH1508/KH1516

### Management

- Up to 64 user accounts up to 32 concurrent remote logins
- End session feature administrators can terminate any running session
- Adapter ID stores port information allowing administrators to relocate servers to different ports, without having to reconfigure the adapters and switch
- Port Share Mode allows multiple users to gain access to a server simultaneously
- Remote power control for attached Power Over the NET™ devices
- Integration with ALTUSEN CC2000 Management software
- Event logging and Windows-based Log Server support
- Local Log Event
- Firmware upgradeable
- IPv6 capable

### Easy-to-Use Interface

- Easy computer selection via pushbuttons, Hotkey Mode, OSD (OnScreen Display), and Browser-based GUI
- Local Console, Browser, and AP GUIs offer a unified multi language interface to minimize user training time and increase productivity
- Multiplatform client support (Windows, Mac OS X, Linux, Sun)
- Multi-browser support: Internet Explorer, Chrome, Firefox, Safari, Opera, Mozilla, Netscape
- Browser-based UI in pure Web technology allows administrators to perform administrative tasks without the need for Java to be pre-installed
- Panel Array Mode™
- Keyboard broadcast\* keyboard input can be duplicated on all the attached servers
- \* Local Console only

# Advanced Security

- Remote authentication support: RADIUS, LDAP, LDAPS, and MS Active Directory
- Supports SSL 128-bit data encryption and RSA 1024-bit certificates to secure users log in from browser
- Flexible encryption design allows users to choose any combination of 56-bit DES, 168-bit 3DES 256-bit AES, 128-bit RC4, or Random for independent KB/Mouse, and video data encryption
- IP/MAC Filter support for enhanced security protection
- Configurable user and group permissions for server access and control



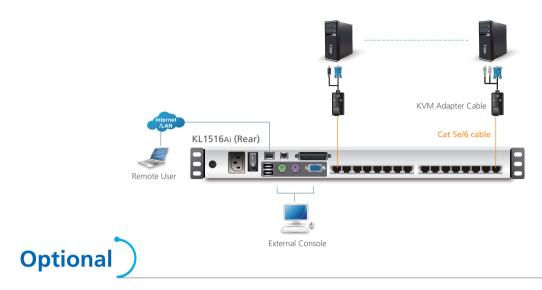
# Virtual Remote Desktop

- Video quality and video tolerance can be adjusted to optimize data transfer speed; monochrome color depth setting, threshold and noise settings for compression of the data bandwidth in low bandwidth situations
- Full-screen or sizable and scalable Virtual Remote Desktop
- Message board feature allows logged in users to communicate with each other
- Mouse DynaSync<sup>™</sup> automatically synchronizes the local and remote mouse movements
- On-screen keyboard with multi language support
- BIOS-level access

# Highlights

Space Efficient	The KL1508Ai/KL1516Ai provides a streamlined method to conserve server room rack space by integrating a retractable LCD monitor, keyboard, and touchpad in a 1U Dual Rail housing that is designed to install easily and operate smoothly.			
Convenient Monitoring	The Dual Rail system separates the LCD module from keyboard/touchpad module so they can move independently of each other. This allows the keyboard/touchpad to be pushed back into the housing and out of the way when not in use, while the LCD screen can be rotated up to the rack for convenient monitoring of server operation – the LCD module's range of rotation is adjustable to provide the best viewing angle.			
<b>Enhanced Console Control</b>	The extra console ports provide administrators with the ability to use a standard keyboard/monitor/mouse console, if they like. Other, even more powerful options for the external console ports are to connect a KVM extender.			
Easy Cabling	The KL1508Ai/KL1516Ai features RJ-45 connectors and Cat 5e/6 cable to link to the computers. Utilizing PS/2, USB, and serial KVM Adapter Cables for the final linkup, the KL1508Ai/KL1516Ai reduces cable bulk and simplifies cable management.			
Adapter Cables with ID	The KL1508Ai/KL1516Ai supports automatic ID recognition of the new ATEN KVM Cable Adapter KA7000 series. Using the new adapter cables with ID means it is not required to change cable configuration settings when moving cables from port to port—allowing you to hot-swap port connections without having to reconfigure attributes.			
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 8/16 servers for real-time server monitoring.			
Mouse DynaSync™	Automatically synchronizes the local and remote mouse movements for perfect alignment of mouse pointers, regardless of server mouse acceleration settings.			
Message Board	To alleviate the problem of access conflicts arising from multiple logins, the Message Board functions like an Internet chat program, allowing users who are logged in to instantly communicate with each other.			
Easy Operation	<ul> <li>Computer selection via front panel pushbuttons, hotkeys, and multilingual onscreen display (OSD) menu</li> <li>Multi-language keyboard support includes English(US); English(UK); French, German, German(Swiss), Greek, Hungarian, Italian, Japanese, Korean, Russian, Spanish, Swedish and Traditional Chinese.</li> </ul>			





#### Rack Mount Kits

ALTUSEN LCD KVM Switches allow you to choose from a host of optional rack mount kits to meet your needs, including the Single Person Easy Installation Rack Mount Kit, which streamlines the rack mounting process.

Normal rack mounting procedures call for at least two people to rack mount a KVM switch. The Single Person Easy Installation Rack Mount Kit enables one person to rack mount a LCD KVM Switch. In just a matter of minutes, your new LCD KVM Switch can go from the box to the rack.

For convenience and flexibility, there is one standard, and three optional rack mounting kits available:



### **KVM Adapter Cables**

The following KVM Adapter Cables are required for use with the KL1508ai / KL1516ai:





# Specifications

Console Connections	Function	KL1508AiM	KL1508AiN	KL1516AiM	KL1516AiN		
Direct   S	Console Connections						
Description   B	Local		1 (Share Re	mote Bus)			
Direct   8	Remote		1				
Maximum   128 (via Daisy-chain)   256 (via Daisy-chain)   Ports Selection   OSD, Hotkey, Pushbuttons	Computer Connections						
Post Selection	Direct		8	10	6		
Port Selection	Maximum	128 (via Γ	Daisy-chain)				
Conside Ports	Port Selection						
Septembro   Sept	Connectors		, ,,,				
Septembro   Sept	C   D	2 x USB Type-A Female (White): 1 x 6-pin Mini-DIN Female (Purple):					
March   Marc	Console Ports						
Daisy Chain Ports	External Mouse Port		1 x USB Type	e-A Female			
Table   Tabl	KVM Ports	8 x RJ-45 Female 16 x RJ-45 Female					
Table   Tabl	Daisy Chain Ports						
Firmware Upgrade							
LAN Ports	Firmware Upgrade						
Number							
Switches							
Port Selection				<u>,</u>			
Station Selection		8 x Piis	shbutton	16 x Pus	hbutton		
Firmware Upgrade		11 11111					
Power							
LCD Power	13						
LEDS   Selected   8 (Green)   16 (Green)   Selected   8 (Orange)   16 (Green)   Selected   8 (Orange)   16 (Grange)   Selected   8 (Orange)   16 (Grange)   Selected   8 (Orange)   16 (Grange)   Station Selection   2 x 7 Segments (Orange)   1 (Green)   10/100/1000 Mbps   1 (Green)   1 (Green)   1 (Green)   1 (Green)   1 (Green)   1 (Green)   1 (Orange)							
Deline							
Online         8 (Gren)         16 (Gren)           Selected         8 (Orange)         16 (Orange)           Station Selection         2 x 7 Segments (Orange)           Link         1 (Green)           10/100/1000 Mbps         non-FHD:10/100 Mbps (Orange / Green); FHD:100/1000 Mbps (Orange / Green)           Power         1 (Blue)           LCD Power         1 (Orange)           Lock         1 x Num Lock (Green); 1 x Caps Lock (Green); 1 x Scroll Lock (Green)           Video         1 1600 x 1200 @ 60Hz (non-FHD version); 1920 x 1200 @ 60Hz (FHD version)           Remote         FHD: 1920 x 1200 @ 60Hz, Non-FHD: 1600 x 1200 @ 60Hz (FHD version)           Remote         FHD: 1920 x 1200 @ 60Hz, Non-FHD: 1600 x 1200 @ 60Hz (FHD version)           Remote         FHD: 1920 x 1200 @ 60Hz, Non-FHD: 1600 x 1200 @ 60Hz (FHD version)           Remote         FHD: 1920 x 1200 @ 60Hz, Non-FHD: 1600 x 1200 @ 60Hz, FHD: 160	,		4 X I U3I	button			
Selected   8 (Orange)   16 (Orange)		8/6	roon)	16 (C	roon)		
Station Selection							
Link 1 (Green) 10/100/1000 Mbps   non-FHD:10/100 Mbps (Orange / Green), FHD:100/1000 Mbps (Orange / Green) Power   1 (Blue) LCD Power   1 (Orange) Lock   1 x Num Lock (Green); 1 x Caps Lock (Green); 1 x Scroll Lock (Green) Video  Local   1600 x 1200 @ 60Hz (non-FHD version); 1920 x 1200 @ 60Hz (FHD version) Remote   FHD: 1920 x 1200 @ 60Hz, Non-FHD: 1600 x 1200 @ 60 Hz  Panel Spec LCD Module   17" TFF-LCD   19" TFF-LCD   17" TFF-LCD   19" TFF-LCD   Resolution   1280 x 1024 @ 75Hz Pixel Pitch   0.264 mm x 0.264 mm   0.294 mm x 0.294 mm   Response time   5 ms Viewing Angle   170" (H), 160" (V) Support Color   16.7M colors Contrast Ratio   1000-1   Luminance   250 cd/m² Emulation  Keyboard / Mouse   PS/Z; USB   Scan Interval   100-240 VAC, 50-60Hz, 1A   AC210 V.22.2W   AC110 V.24.3W   AC110 V.21.2W   AC110 V.24.4W   AC220 V.22.2W   AC220 V.24.5W   AC220 V.23.1W   AC220 V.25.4W   Environmental   0" AC220 V.22.2W   AC220 V.24.5W   AC220 V.23.1W   AC220 V.25.4W   Environmental   0" AC220 V.22.2W   AC220 V.24.5W   AC220 V.23.1W   AC220 V.25.4W   Environmental   0" AC220 V.25.4W   AC220 V.25.4W   Environmental   0" AC220 V.2							
10/100/1000 Mbps		3 3 /					
Power		( = = = /					
LCD Power   1 (Orange   Lock   1 x Num Lock (Green); 1 x Caps Lock (Green); 1 x Scroll Condition (Green); 1 x Condition (Green);	<u> </u>						
Lock							
Video   1600 x 1200 @ 60Hz (non-FHD version); 1920 x 1200 @ 60Hz (FHD version)   Remote   FHD: 1920 x 1200 @ 60Hz; Non-FHD: 1600 x 1200 @ 60 Hz   Panel Spec   FHD: 1920 x 1200 @ 60Hz; Non-FHD: 1600 x 1200 @ 60 Hz   Panel Spec   FHD: 1920 x 1200 @ 60Hz; Non-FHD: 1600 x 1200 @ 60 Hz   Panel Spec   FHD: 1920 x 1200 @ 60Hz; Non-FHD: 1600 x 1200 @ 60 Hz   Panel Spec   FHD: 1920 x 1200 @ 60Hz; Non-FHD: 1600 x 1200 @ 60 Hz   Panel Spec   FHD: 1920 x 1200 @ 60Hz   FHD: 1920 @ 60Hz   F		1					
Tender		l X	Num Lock (Green); TX Caps Lo	ck (Green); T x Scroll Lock (Gre	en)		
Remote         FHD: 1920 x 1200 @ 60Hz; Non-FHD: 1600 x 1200 @ 60 Hz           Panel Spec         UCD Module         17" TFT-LCD         17" TFT-LCD         19" TFT-LCD<		1600	1200 @ COLL- / FLID	). 1020 1200 @ COLL- /FLID			
Panel Spec  LCD Module 17" TFT-LCD 19" TFT-LCD 17" TFT-LCD 19" TFT-LCD 1280 x 1024 © 75Hz  Pixel Pitch 0.264 mm x 0.264 mm 0.294 mm x 0.294 mm x 0.264 mm x 0.264 mm 0.294 mm x							
LCD Module		FHD: 1920 x 1200 @ 60Hz; Non-FHD: 1600 x 1200 @ 60 Hz					
Resolution         1280 x 1024 @ 75Hz           Pixel Pitch         0.264 mm x 0.264 mm         0.294 mm x 0.294 mm         0.264 mm x 0.264 mm         0.294 mm x 0.294 mm           Response time         5 ms           Viewing Angle         170° (H), 160° (V)           Support Color         16.7 M colors           Contrast Ratio         1000:1           Luminance         250 cd/m²           Emulation         Keyboard / Mouse           Keyboard / Mouse         PS/2; USB           Scan Interval         1-255 sec.           Maximum Input Power Rating         100-240V AC, 50-60Hz, 1A           Power Consumption         AC110V:21.1W         AC110V:24.3W         AC110V:21.2W         AC110V:24.4W           AC220V:22.2W         AC220V:22.5W         AC220V:23.1W         AC220V:25.4W           Environmental         Operating Temperature         0° - 40°C           Storage Temperature         0° - 80° C           Humidity         0 - 80% RH, Non-condensing           Physical Properties         Metal           Housing         Metal           W		1711 TET L CD	1011 TET LCD	4711 TET LCD	1011 TET LCD		
Pixel Pitch   0.264 mm x 0.264 mm   0.294 mm x 0.294 mm x 0.264 mm x 0.264 mm x 0.294		1/" IFI-LCD	1		19" IFI-LCD		
Response time							
Viewing Angle         170° (H), 160° (V)           Support Color         16.7M colors           Contrast Ratio         1000:1           Luminance         250 cd/m²           Emulation         PS/2; USB           Keyboard / Mouse         PS/2; USB           Scan Interval         1-255 sec.           Maximum Input Power Rating         100-240V AC, 50-60Hz, 1A           Power Consumption         AC 110V:21.1W         AC 110V:24.3W         AC 110V:21.2W         AC 110V:24.4W           AC 220V:22.2W         AC 220V:24.5W         AC 220V:23.1W         AC 220V:25.4W           Environmental         0° - 40°C         C           Storage Temperature         0° - 80% RH, Non-condensing           Physical Properties         Housing         Metal           Weight         15.23 kg         15.39 kg         15.24 kg         15.40 kg							
Support Color         16.7M colors           Contrast Ratio         1000:1           Luminance         250 cd/m²           Emulation           Keyboard / Mouse         PS/2; USB           Scan Interval         1-255 sec.           Maximum Input Power Rating         100-240V AC, 50-60Hz, 1A           Power Consumption         AC110V:21.1W         AC110V:24.3W         AC110V:21.2W         AC110V:24.4W           AC220V:22.2W         AC220V:24.5W         AC220V:23.1W         AC220V:25.4W           Environmental         0° - 40°C         Storage Temperature         0° - 40°C           Storage Temperature         0 - 80% RH, Non-condensing           Physical Properties         Housing         Metal           Weight         15.23 kg         15.39 kg         15.24 kg         15.40 kg							
Contrast Ratio         1000:1           Luminance         250 cd/m²           Emulation         February Scan Interval           Keyboard / Mouse         PS/2; USB           Scan Interval         1-255 sec.           Maximum Input Power Rating         100-240V AC, 50-60Hz, 1A           Power Consumption         AC110V:21.1W         AC110V:24.3W         AC110V:21.2W         AC110V:24.4W           AC220V:22.2W         AC220V:24.5W         AC220V:23.1W         AC220V:25.4W           Environmental         0° - 40°C           Storage Temperature         - 20° - 60°C           Humidity         0 - 80% RH, Non-condensing           Physical Properties         Housing           Weight         15.23 kg         15.24 kg         15.40 kg							
Luminance   250 cd/m²							
Emulation   Skeyboard / Mouse   PS/2; USB   Scan Interval   1-255 sec.   Scan Interval   100-240V AC, 50-60Hz, 1A   AC110V:21.1W   AC110V:24.4W   AC110V:21.2W   AC110V:24.4W   AC220V:22.2W   AC220V:24.5W   AC220V:23.1W   AC220V:25.4W   AC220V:2							
Keyboard / Mouse         PS/2; USB           Scan Interval         1-255 sec.           Maximum Input Power Rating         100-240V AC, 50-60Hz, 1A           Power Consumption         AC110V:21.1W AC110V:24.3W AC110V:21.2W AC110V:24.4W           AC220V:22.2W AC220V:24.5W         AC220V:23.1W AC220V:25.4W           Environmental         Operating Temperature           Storage Temperature         0° - 40°C           Humidity         0 - 80% RH, Non-condensing           Physical Properties           Housing         Metal           Weight         15.23 kg         15.29 kg         15.24 kg         15.24 kg         15.24 kg		250 cd/m <sup>2</sup>					
T-255 sec.							
Maximum Input Power Rating							
Power Consumption         AC110V:21.1W AC110V:24.3W AC110V:24.3W AC210V:21.2W AC220V:25.4W         AC110V:24.4W AC220V:25.4W           Environmental              □° - 40°C            Storage Temperature         0° - 40°C           Storage Temperature         -20° - 60°C           Humidity         0 - 80% RH, Non-condensing           Physical Properties           Housing         Metal           Weight         15.23 kg         15.39 kg         15.24 kg         15.40 kg							
AC220V:22.2W AC220V:24.5W AC220V:23.1W AC220V:25.4W  Environmental  Operating Temperature 0° - 40°C  Storage Temperature -20° - 60°C  Humidity 0 - 80% RH, Non-condensing  Physical Properties  Housing Metal  Weight 15.23 kg 15.39 kg 15.24 kg 15.40 kg	Maximum Input Power Rating						
AC220V:22.2W   AC220V:24.5W   AC220V:23.1W   AC220V:25.4W	Power Consumption						
Operating Temperature         0° - 40°C           Storage Temperature         -20° - 60°C           Humidity         0 - 80% RH, Non-condensing           Physical Properties           Housing         Metal           Weight         15.23 kg         15.39 kg         15.24 kg         15.40 kg	<u> </u>	AC220V:22.2W	AC220V:24.5W	AC220V:23.1W	AC220V:25.4W		
Storage Temperature         -20° - 60°C           Humidity         0 - 80% RH, Non-condensing           Physical Properties           Housing         Metal           Weight         15.23 kg         15.39 kg         15.24 kg         15.40 kg	Environmental						
Humidity         0 - 80% RH, Non-condensing           Physical Properties         Housing           Weight         15.23 kg         15.39 kg         15.24 kg         15.40 kg							
Physical Properties           Housing         Metal           Weight         15.23 kg         15.39 kg         15.24 kg         15.40 kg	Storage Temperature	-20° - 60°C					
Housing         Metal           Weight         15.23 kg         15.39 kg         15.24 kg         15.40 kg		0 - 80% RH, Non-condensing					
Weight 15.23 kg 15.39 kg 15.24 kg 15.40 kg	Physical Properties						
	Housing		Me	tal			
Dimensions (L x W x H) 48.00 x 70.12 x 4.40 cm	Weight	15.23 kg			15.40 kg		
	Dimensions (L x W x H)	48.00 x 70.12 x 4.40 cm					

Note: For some of rack mount products, please note that the standard physical dimensions of WxDxH are expressed using a LxWxH format.

Product information is subject to change without prior notice.

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