

The Remote Control & Monitoring (RCM) Series of KVM over IP switches

RCM416 / RCM816 / RCM464V

- The RCM Series of KVM over IP switches (RCM416 / RCM816 / RCM464V) offer superior Full HD video resolution up to 1920 x 1200, FIPS 140-2 with level 1 security standards as well as virtual media transmissions at twice the speed. The RCM models also provide local console and remote over IP access for users to monitor and access their entire data center over the network. In addition, it offers out-of-band access with external modem support for BIOS-level troubleshooting when the network is down.

With the 2XRT-0015G KVM over IP Access Control Box, the RCM416 / RCM816 / RCM464V switches allow users to enable or disable remote control privilege, and also support Panel Array for monitoring all machines with multiple RCM products. The RCM switches also support advanced and exclusive RCM and OCR API (DDL) interfaces with various function integrated for easy management. Equipped with dual on-board NICs and dual power supplies*, the RCM models are built to ensure reliability and availability of remote access to all servers.

To help you manage and control the entire data center, the RCM416 / RCM816 / RCM464V KVM over IP switches support blade servers and chassis. With powerful features such as Power Association – KVM ports can be associated with ATEN PDU power outlets for power management of servers from the KVM over IP switches' user interface.

Additional exclusive features include: a Message Board, Panel Array Mode™, Mouse DynaSync™ and the Adapter ID.

The RCM series of KVM over IP switches (RCM416 / RCM816 / RCM464V) save you time and money by allowing administrators to manage their data centers from practically anywhere – minimizing travel and MTTR (Mean Time to Repair) costs, ensuring the highest availability for data center services possible.

*Dual power supplies are only for RCM464V.

RCM416 / RCM816 Front View



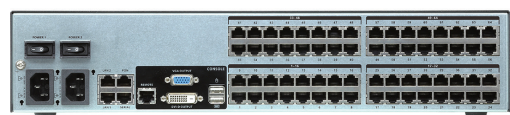
RCM464V Front View



RCM416 / RCM816 Rear View



RCM464V Rear View



Features

RCM Series Exclusive

- Supports Access Control Box which allows users to enable/disable remote control privilege
- Supports Panel Array to monitor all machines for operators with multiple RCM products
- Supports exclusive integrated RCM API (DLL) interface with various function for system integrators
- Supports OCR API (DLL) interface for optical character recognition

Hardware

- High port density – RJ-45 connectors and Cat 5e/6 cable for up to 16 ports (RCM416/RCM816) in a 1U housing or 64 ports (RCM464V) in a 2U housing
- Laptop USB Console (LUC) – A dedicated USB port directly connects to a laptop for easy console operation
- One/two/four/eight separate buses for remote KVM over IP access
- Two 10/100/1000 Mbps NICs for redundant LAN or two IP operation
- Blade server support
- Supports PS/2, USB, Sun Legacy (13W3) and serial (RS-232) connectivity
- Local console provides USB keyboard and mouse support
- Supports multiplatform server environments: Windows, Mac OS X, Sun, Linux and VT100 based serial devices
- Audio enabled
- Dual Power Supply (RCM464V only)
- High video resolution – up to 1920 x 1200 @ 60Hz with 24-bit color depth at the switch's local console and on remote session displays
- Monitor and control up to 16/64 computers on a single level, or control up to 512 computers in a cascade**
- Extreme virtual media speed – 2 x faster virtual media transmission speed
- Advanced FPGA graphics processor – with an Full HD resolution of 1920 x 1200

** Cascade-compatible KVM Switches include the following: CS9134, CS9138, CS1308, CS1316, KH1508A, and KH1516A

Management

- Up to 64 user accounts – up to 32 users simultaneously share the control
- Green IT-Fan speed varies according to temperature
- Event logging and Windows-based Log Server support
- Critical system event notification via SMTP email; SNMP trap and Syslog support
- Customizable events notification
- Firmware upgradeable
- Out-of-Band Access-Modem dial-in/dial-out/dial-back support
- Adapter ID Function: Stores port information allowing administrators to relocate the servers to different ports, without having to re-configure the adapters and switches
- Port Share Mode allows multiple users to gain access to a server simultaneously
- Power Association enables the switch's KVM ports to be associated with ATEN PDUs power outlets for remote power management
- IPv6 capable

Easy-to-Use Interface

- ATEN Exclusive Panel Array Mode™ simultaneously monitoring for both local console operators and remote access users
- Local Console, browser-based, and AP GUIs offer a unified Multilanguage interface to minimize the 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 pre-installed Java software package required
- Users can launch multiple virtual remote desktop sessions to control multiple servers during the same login
- Full-screen or sizable and scalable Virtual Remote Desktop
- Keyboard/Mouse Broadcast – keyboard and mouse inputs can be duplicated on all the attached servers
- Video syncing with the local console – local console monitor's EDID information stored on the KVM Adapter Cables for display resolution optimization

Advanced Security

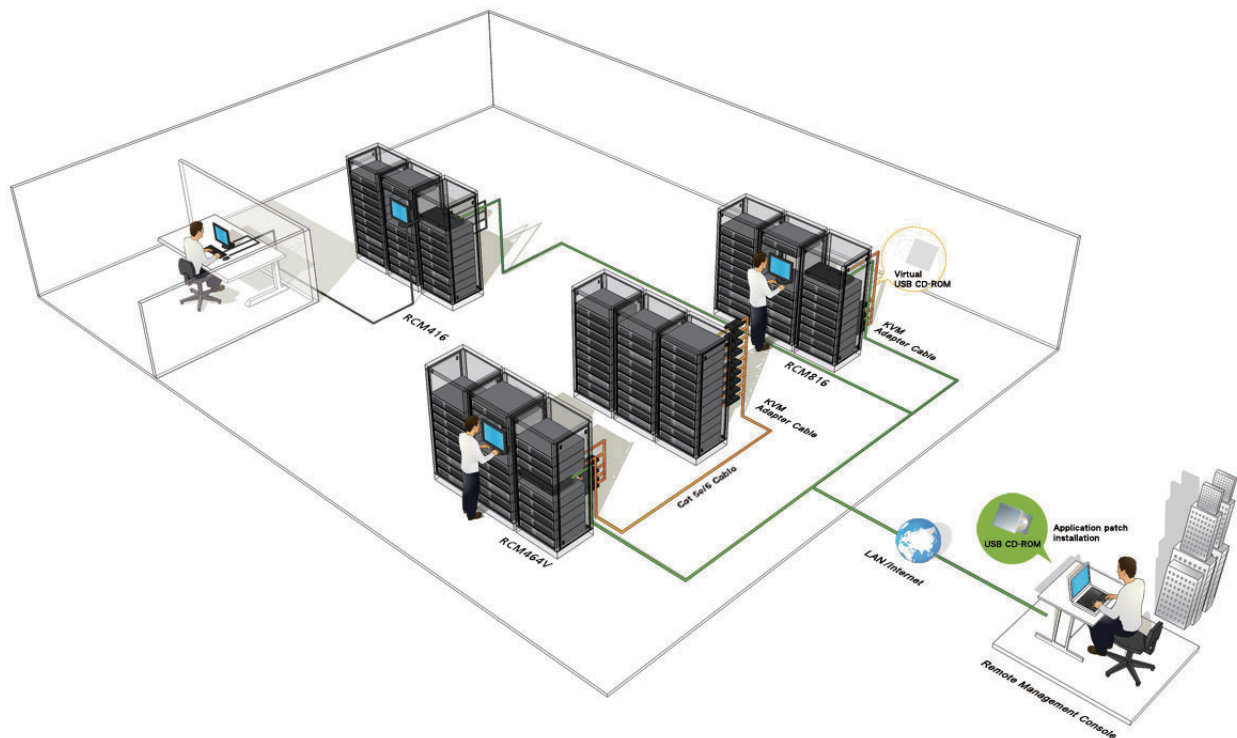
- Remote authentication support: RADIUS, LDAP, LDAPS, and MS Active Directory
- Supports TLS 1.2 data encryption and RSA 2048-bit certificates to secure users log in from browser
- Flexible encryption design allows users to choose any combination of 56-bit DES, 168-bit 3DES, 256-bit AES, 128-bit RC4, or Random for independent KB/Mouse, video, and virtual media data encryption
- Support for IP/MAC Filter
- Configurable user and group permissions for server access and control
- Automated CSR creation utility and third party CA certificate authentication
- High grade security – supports FIPS 140-2 level 1 security standards

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
- Support DVD/CD drives, USB mass storage devices, PC hard drives and ISO images

Virtual Remote Desktop

- Video quality 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 video display or scalable video display
- Message Board for communication among remote users
- Mouse DynaSync-automatically synchronizes the local and remote mouse movements
- Exit Macros support
- On-screen keyboard with multilanguage support
- BIOS-level access for trouble shooting



Highlights

RCM Series Exclusive Features	The RCM models are compatible with the 2XRT-0015G KVM over IP Access Control Box, allowing users to enable or disable remote control privilege, and also support Panel Array for monitoring all machines with multiple RCM products. The RCM switches also support advanced and exclusive RCM and OCR API (DDL) interfaces with various function integrated for easy management.
High Grade Security	FIPS 140-2 certified cryptography – provides a FIPS mode to use an embedded FIPS 140-2 certified OpenSSL cryptographic module.
Extreme Virtual Media Speed	Virtual media supports twice the transmission speed of comparable models and supports connecting to DVD/CD drives, USB mass storage devices, PC hard drives and ISO images. Virtual media allows you to conduct file transfers, application and OS patches and run diagnostics remotely.
Advanced FPGA Graphics Processor	Our enhanced fps throughput provides a responsive and vivid video display, offering resolutions up to 1920 x 1200 @ 60Hz with 24-bit color at the switch's local console – up to 50 meters from the computers and from remote sessions.
Panel Array Mode™	ATEN Exclusive Panel Array Mode™ simultaneously monitoring for both local console operators and remote access users
Power Association	Used in conjunction with ATEN PDUs power management allows you to associate a KVM over IP Switch's port with a PDU's power outlet. With this you can manage the power of a server from the switch's interface – a single point of control. It also enables you to associate a second outlet if a server has a dual power supply and lets you synchronize the operation of both power supplies. In this way, Power Association reduces maintenance time and increases management efficiency.
Blade Server Support	Support for blade server associations with KVM switch ports allows the blade server chassis and individual blades to be integrated into the sidebar tree view and accessed easily.
Dual IP/Dual Power*	Dual IP/ Dual Power supply operation provides the backup redundancy, and reliability. Should one of the IP or one of the power supplies become unavailable, the other will take over in order to keep the system functioning normally.
Configurable Network Bandwidth settings	A network setting provided that allows you to streamline data throughput by adjusting the size of the data stream (bandwidth) to match network traffic conditions. Video performance can be adjusted so that data throughput is optimized for the available network bandwidth. With high- speed LAN access, the settings can be adjusted so that a greater amount of video data is sent, resulting in a higher quality video display. In a limited bandwidth situation, the settings can be adjusted so that net lag is minimized.
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 are similar to an Internet chat program, allowing users to instantly communicate with each other.
Intelligent Bus Assignment – Flexible Port Switching	With Intelligent Bus Assignment users are automatically assigned to one of eight buses as they log in. With flexible port switching, up to 32 users can be distributed over 8 separate bus sessions and multiple users are allowed to share access to one server for maxim efficiency.
Adapter ID	The Adapter ID Function stores port information such as the Adapter ID, OS, keyboard language, adapter name, operation modes, and etc. This enables administrators to relocate the servers to different ports, without having to re-configure the adapters and the switches

* Dual Power supply is only for RCM464V.

Specifications

Function	RCM816	RCM416	RCM464V
Console Connections			
Local	1	1	1
Remote	8	4	4
Computer Connections			
Direct	16	16	64
Maximum	512 (via Cascade)		
Port Selection	Pushbuttons, Hotkeys, GUI		
Connectors			
Console Ports	2 x USB Type-A Female (White); 1 x DVI-D Female (White); 1 x VGA HDB-15 (Blue); 1 x RJ-45 Female (Black)		
USB Port	3 x USB Type-A Female		
Audio	2 x Audio Jack Female		
Laptop USB Console (LUC) Port	1 x USB Mini-B Female		
KVM Ports	16 x RJ-45 Female	16 x RJ-45 Female	64 x RJ-45 Female
Serial	1 x RJ-45 Female		
PON	1 x RJ-45 Female		
LAN Ports	2 x RJ-45 Female		
Power	1 x IEC 60320/C14	1 x IEC 60320/C14	2 x IEC 60320/C14
Switches			
Port Selection	2 x Pushbuttons		
Reset	1 x Semi-recessed Pushbutton		
Power	1 x Rocker Switches	1 x Rocker Switches	2 x Rocker Switches
LEDs			
Online / Selected	16 (Green/Orange)	16 (Green/Orange)	64 (Green/Orange)
Link 10 / 100 / 1000 Mbps	2 (Red/Orange/Green)		
Power	1 (Blue)	1 (Blue)	2 (Blue)
Emulation			
Keyboard / Mouse	PS/2; USB		
Video			
Local	1920 x 1200 @ 60Hz		
Remote	1920 x 1200 @ 60Hz		
Scan Interval	1 – 255 Sec		
Maximum Input Power Rating	100–240V~ ; 50-60Hz; 1A		
Environmental			
Operating Temperature	0 - 40°C		
Storage Temperature	-20 - 60°C		
Humidity	0 - 80% RH, Non-condensing		
Physical Properties			
Housing	Metal		
Weight	5.33 kg	5.38 kg	7.00 kg
Dimensions (L x W x H)	43.36 x 41.21 x 4.40 cm	43.36 x 41.21 x 4.40 cm	43.36 x 41.26 x 8.80 cm

KVM Adapter Cables

The following KVM Adapter cables are required for use with the KVM over IP Switches:

	PS/2 KVM Adapter Cable	USB KVM Adapter Cable	Sun Legacy KVM Adapter Cable	Serial KVM Adapter Cable	USB Virtual Media KVM Adapter Cable	USB Virtual Media KVM Adapter Cable with Audio	USB Virtual Media KVM Adapter Cable with Smart Card Reader	USB Virtual Media KVM Adapter Cable with Audio	DVI USB Virtual Media KVM Adapter Cable with Smart Card Reader	HDMI USB Virtual Media KVM Adapter Cable with Smart Card Reader	DisplayPort USB Virtual Media KVM Adapter Cable with Smart Card Reader
Type:	PS/2	For all USB systems	Sun Legacy	Serial	Connect to systems with USB 2.0 ports	Connect to systems with USB 2.0 ports + Audio	Connect to systems with USB 2.0 ports + Smart Card Reader support	Connect to systems with USB 2.0 ports + Audio	Connect to systems with USB 2.0 ports + Smart Card Reader support	Connect to systems with USB 2.0 ports + Smart Card Reader support	Connect to systems with USB 2.0 ports + Smart Card Reader support
Interface:	 6-pin Mini-DIN Male 6-pin Mini-DIN Male HDB-15 Male	 USB Type A Male HDB-15 Male	 13W3 Male DIN 8 pin Male	 RS-232 DB-9 Female	 USB Type A Male HDB-15 Male	 USB Type A Male HDB-15 Male 2 Audio plugs	 USB Type A Male HDB-15 Male	 USB Type A Male HDB-15 Male 2 Audio plugs	 USB Type A Male HDB-15 Male DVI-D Male (Single Link)	 USB Type A Male HDMI Male	 USB Type A Male DisplayPort Male

Product information is subject to change without prior notice.

ATEN International Co., Ltd.

3F., No.125, Sec. 2, Datong Rd., Sijhih District., New Taipei City 221, Taiwan
 Phone: 886-2-8692-6789 Fax: 886-2-8692-6767
 www.aten.com E-mail: marketing@aten.com

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