RCM1000

Ruijie RCM1000 Series

User Manual

RCM1000 RCM1000-Office RCM1000-Edu RCM1000-Smart

E3-1200 V5 4 2133 UDIMM DDR4

ECC 6 SATA3 6Gb/s 2 PCIE

M.2(NGFFNGFF 2280/2260/2242) SSD 4 3.5 2.5

2 2.5 M.2 SATA 2.5 SATA

BMC/KVM

1

	RCM1000-Office RCM1000-Edu RCM1000-Smart

		4 3.5 /2.5 SATA3 HDD +2 2.5 SATA3 SSD 2 M.2(NGFF 2280/2260/2242 SATA3 SSD M.2 PCIE SSD 2.5 SATA3 SSD
		2×4TB 3.5 SATA3 HDD+1×240GB 2.5 SATA3 SSD
		Intel® Xeon® E3-1230 V5 4 8 3.4GHz 3.8GHz)
		1 LGA1151
		Intel® C232
		DDR4 2133 ECC UDIMM
		16GB)
		4 2 64GB 16GB
I/O		2×VGA 1 1
	USB	4×USB3.0 2 2 2×USB2.0 2
		1×
	Location	1 × Location

	PS/2	1×PS/2 /ش
		Aspeed AST2400 + 32MB VRAM
		4×Intel® 1210 4 1000 M
		BCM 1 1000M IPMI

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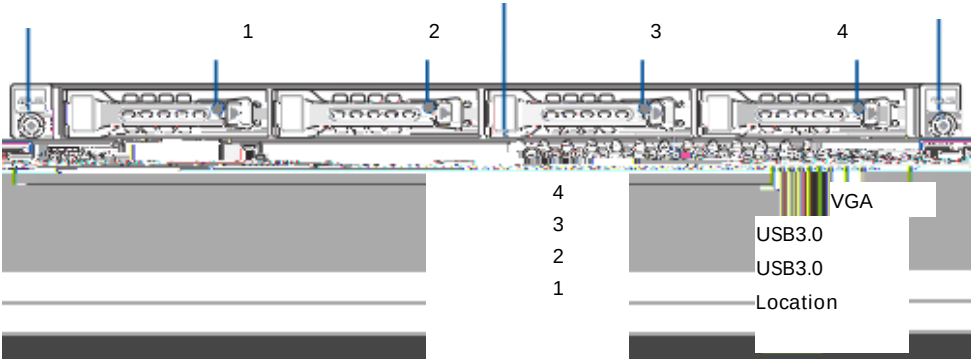
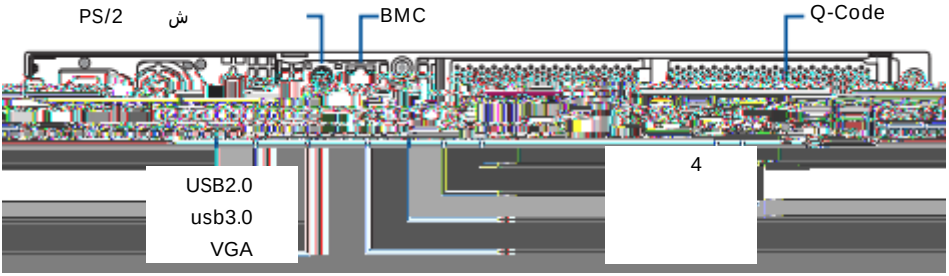
4 3.5 /2.5

LED VGA USB3.0





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LED			
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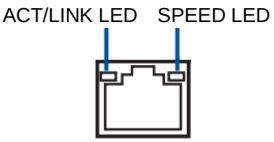

CMOS

CMOS CMOS

6 CMOS

		1. 2. CLRTC1 1-2 2-3 5~10 CMOS 1-2

CLRTC1 CMOS

CL CAS-Latency

7

	DIMM_A2	DIMM_A1	DIMM_B2	DIMM_B1
1 DIMM			√	
2 DIMMs	√		√	
4 DIMMs	√	√	√	√

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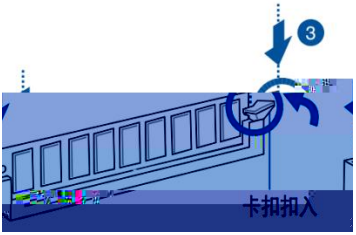

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SOP

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USB USB

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KVM

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1) VGA

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2) BIOS setup “ ruijie ” logo Delete BIOS admin BIOS setup BIOS setup

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Disclaimer

Thank you for using our products.
We strongly recommend you to carefully read this manual before using the product. Ruijie Networks will not bear any responsibility for losses and damages caused by your operations without reading the manual in prior. Meanwhile, to improve device performance, we may make little adjustments on actual products, which may cause differences between the manual and actual operations. We are sorry for this, but please be assured that this will not affect your use of this product.

Precautions

Before operating the RCM Server, please carefully read the following precautions to avoid damages to the system or even human injuries due to manual errors.

By default, the RCM Server automatically starts after it is connected to AC power supply. When the RCM Server is not disconnected from the AC power supply but is shut down, you need to press the Power button on the RCM Server to restart it.

You can use the ON/OFF button on the Web UI or directly press the Power button on the RCM Server to power it off. **Do not shut down the RCM Server by directly cutting off the power. Otherwise, the hardware of the RCM Server may be damaged.** It is recommended to cut off the power after powering off the RCM Server normally.

It is recommended to place the RCM Server on a dedicated rack in the equipment room. Keep it away from environments with the temperature and humidity out of the allowable range or with excess dust. When excess dust accumulates inside the RCM Server, remove the front panel to clear the dust. Make sure to have sufficient space for good dissipation.

The RCM Server may encounter hardware faults such as startup failure or black screen after long-term shutdown (for example, long-term shutdown due to winter or summer vacation). In this case, clear the CMOS configuration or remove and then insert the memory module to rectify the fault. It is not recommended to keep the RCM Server in the OFF state for a long time.

It is recommended to prevent frequent power-on/off of the RCM Server under the premise of energy conservation and environmental protection, in order to extend the service life and make full use of the RCM Server. Due to its server-like property, the RCM Server is more adaptable to long-term working state.

Do not use power cables not delivered with the product, which may cause damages to internal components due to different circuit design. Check whether the power cable is damaged or incorrectly connected. If yes, contact Ruijie customer service personnel to replace a good cable.

Do not eat food while using the RCM Server to prevent getting the RCM Server dirty and causing failures.

Do not put shredded paper, screws, or thread snip near the connectors, slots, and holes of the RCM Server to prevent short circuit and poor connection.

Do not insert anything into the RCM Server chassis to prevent short circuit or circuit damage of the chassis.

Do not disassemble the RCM Server by yourself, which may lead to device failure.

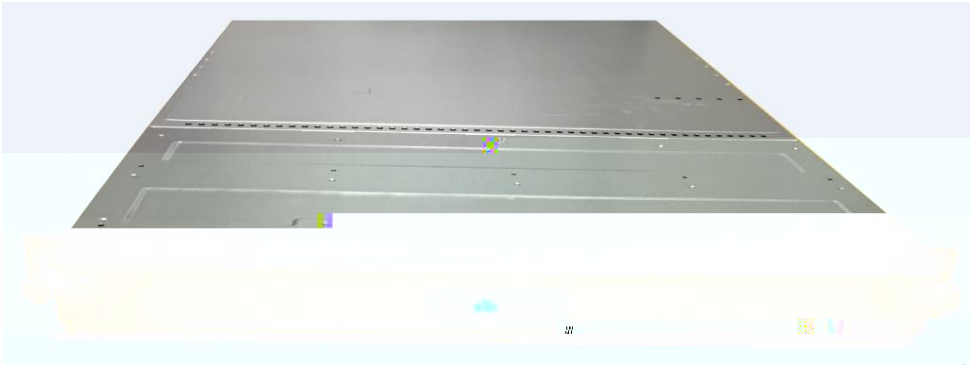
Anti-cut measures have been taken on most parts of the RCM Server chassis. However, you still need to be careful to avoid cut by the tip or edge of iron sheets. You'd better wear gloves when disassembling the RCM Server.

This is a class A product, in the living environment, the product may cause radio interference. In this case, the user may need to take practical measures to interfere.

The recommended ambient temperature for this product is 35°C (95°F).

Product Introduction

The RCM1000 series includes RM1000-Office, RCM1000-Edu, and RCM1000-Smart. The RCM1000 uses the Intel Xeon E3-1200 V5 series processors. The memory module supports a maximum of four 2133 UDIMM DDR4 slots and ECC. The storage module supports a maximum of six hard disks with SATA3 6Gb/s ports and two M.2 (NGFFNGFF 2280/2260/2242) PCIE SSD cards. There are four external hot pluggable 3.5-inch (or 2.5-inch) disk slots and two internal 2.5-inch disk slots. If the M.2 card is inserted into the SATA port, the SATA port of the internal 2.5-inch disk slot is unavailable. The product supports advanced network features, and the supervisor module integrates BMC/KVM chips.



Features and Specifications

Table 1 Main technical specifications

Product Model		RCM1000-Office, RCM1000-Edu, or RCM1000-Smart
Physical Specification	**Dimensions**	615 mm x 444 mm x 43.4 mm (24.21 in. x 17.48 in. x 1.71 in.)
	Gross weight	10.43 kg (22.99 lbs)
	Noise	Standby: ≤55dB

	capacity	a maximum capacity of 64 GB (16 GB per slot).
I/O Interface	**Display interface**	2 × VGA display interfaces (one front interface and one rear interface)
	USB interface	4 × USB3.0 interfaces (two front interfaces and two rear interfaces) 2 ×USB2.0 interfaces (two rear interfaces)
	Serial interface	One rear serial interface
	Location indicator interface	One Location indicator interface (blue) and its button
	PS/2 interface	One PS/2 keyboard/mouse interface
Display		Aspeed AST2400 + 32 MB VRAM
Network	**Universe network port**	4 × Intel® 1210 NIC controllers, 4 rear 1000 M self-adaptive network ports
	Remote management function	Standard BCM management module with one rear independent 1000M network port specialized for IPMI remote management.
Power Supply	**Specifications**	Single 400W 80PLUS Gold power supply
	Input	100 V~ to 240 V~ 50 HZ to 60 HZ

Ambient Parameters	**Operating temperature**	0°C to 40°C (32°F to 104°F)
	Storage temperature	-40°C to 70°C (-40°F to158°F)
	Storage humidity	10% to 90% (non-condensing)

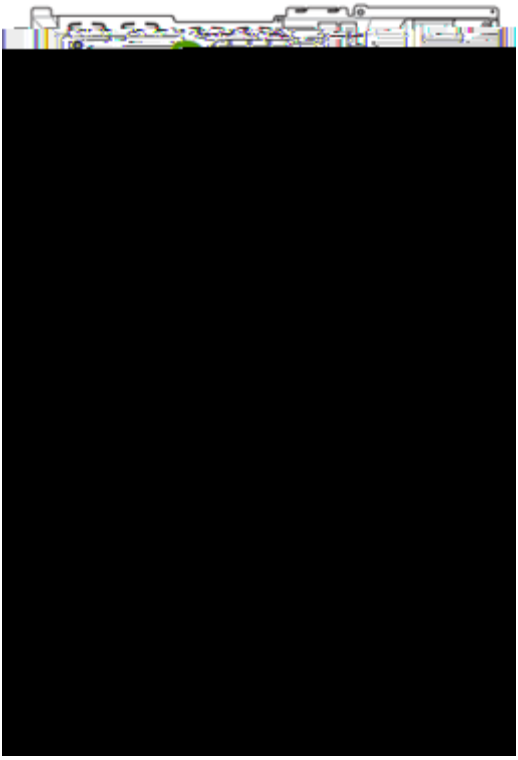
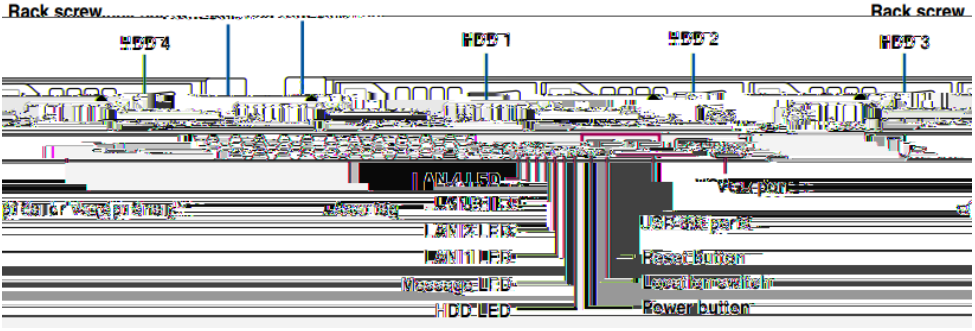


Table 2 Description of the device structure

No.	Module
1	Power supply and power fan
2	PCI Express slot Riser Card
3	Ruijie RCM1000 Server Board
4	System fans
5	SAS/SATA backplane (hidden)
6	Hard tray 1-4
7	Front I/O boards (hidden)
8	SSD Cage
9	Asset Tag

Front view

The device supports four 3.5-inch/2.5-inch hot pluggable hard disks. The structure of the front panel facilitates operations on the hard disk. The Power and reset buttons, LED indicators, VGA, and two USB 3.0 ports are located on the front panel.



Rear view

Ports are provided at the rear side of the device for connecting external devices.

Description of Indicators

Front Panel LEDs

Table 3 Description of the front panel LEDs

LED	Icon	Display status	Description
Power LED		ON	System power ON

HDD LEDs

Table 5 Description of HDD LEDs

HDD Status LED	Green	ON	SATA HDD power ON
	Red	ON	HDD has failed and should be swapped
	green/red	Blinking	RAID rebuilding
	green/red	OFF	HDD not found

Jumpers

Memory Location

Table 7 Memory location

	DIMM_A2	DIMM_A1	DIMM_B2	DIMM_B1
1 DIMM			√	
2 DIMMs	√		√	
4 DIMMs	√	√	√	√

Installing a DIMM on a single clip DIMM socket

1. Unlock a DIMM socket by pressing the retaining clip outward.
2.Align a DIMM on the socket such that the notch on the DIMM matches the DIMM slot key on the socket. (A DIMM is keyed with a notch so that it fBT4lW*nBT/F1 9 Tf1 0 et. (A DIM(A it ereM

Procedures

1. Fix the fixing latches on the two sides of the device.
2. Install q thetau-3()-8(i)-4(d)-3(e r-3(ta3(f)-3(i)-5(s)7(o)-3(n)-39t)-3(h)-3(e)-39(ra3(fm-4(c)-6(e)-3

3) If there is a power module with the same configuration used on another device of the same model, use this power module for replacement to test whether the power module is faulty.

4) If the fault persists, contact Ruijie technical support personnel.

2. Fault symptom: After the Power button is pressed, the power indicator on the front panel of the RCM Server is on, but nothing is output on the display.

Operation steps:

1) Check whether the display is properly connected to the VGA interface of the RCM Server.

2) Replace the display for a test.

3) If the fault persists, contact Ruijie technical support personnel.

3. Fault symptom: The memory capacity of the OS is inconsistent with the physical memory capacity.

Operation steps:

1) Ensure that all memory modules are correctly installed and memory modules of the correct type are installed.

2) Access the BIOS setup screen (when the system enters the "Ruijie" logo screen after startup, press and hold down Delete. The BIOS password is admin) to view the memory capacity. If the BIOS setup screen shows that memory modules are completely identified, the cause may be that the OS has restrictions on the memory capacity. If the BIOS setup screen shows that not all memory modules are completely identified, contact Ruijie technical support personnel.

4.Fault symptom: The keyboard and mouse cannot function properly.

Operation steps:

1) Check whether the cable of the keyboard or mouse is connected correctly and securely.

2) Use the keyboard or mouse of another device for replacement to test whether the keyboard or mouse is faulty.

3) Power off and power on the device for a test.

4) Use the keyboard or mouse of another device for replacement, or use the keyboard or mouse on another device to determine whether it is the problem of the keyboard, mouse, or device.

5. Fault symptom: The USB interface of the device fails.

Operation steps:

1) Ensure that the OS running on the RCM Server supports the USB device.

2) Ensure that the correct USB device driver is installed on the OS.

3) Power off the RCM Server and then power it on for a test.

4) Check whether the USB device functions properly when it is connected to other RCM Servers.

5) If the USB device functions properly when connected to other RCM Servers, the RCM Server is faulty. Contact Ruijie technical support personnel. If the USB device still fails to function properly when connected to other RCM Servers, replace the USB device.

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