

meta brain® server

i24G7

New Generation High-Density Multi-Node Server

[Using AMD processors]



Overview

i24G7 is latest 2U 4-node server which is optimized for data center and high-speed computing. i24G7 is powered by 8x latest AMD EPYC™ 9004 series Processors with liquid cooling solution covering CPU, memory and VR module, meet low PUE requirements. i24G7 is optimized in terms of heat dissipation, power supply, monitoring and management to meet the requirements of customers for the ultimate performance experience and new generation of high-density energy-saving data centers.

Description of Applicable Models

Model of Server	Model of Node	Front/Rear Access	Cooling
i24-A7-A0-R0-00	NS5180-A7-A0-R0-00	Rear	Air Cooling
i24-A7-C0-R0-00	NS5180-A7-C0-R0-00	Rear	Liquid cooling

Product Features

Extreme Performance

- Powered by 8x latest AMD EPYC™ 9004 series Processors Each node supports 24 DDR5 DIMM , Up to 6TB
- Support NDR InfiniBand , providing high-bandwidth node interconnection

Intelligent Maintenance

- Precise water leakage detection, leakage node can be located accurately and powered off automatically, effectively reducing risks
- 3D dynamic management for cabinet environment monitoring temperature, humidity and leakage information in real time, achieving intelligent maintenance

High Efficiency Liquid Cooling

- Reliable full cold-plate liquid cooling design for CPU+DIMM+VR, meet low PUE requirements
- Less cooling devices deployment in data center, significantly optimizing datacenter TCO

Flexible Deployment

- Integrated and simplified delivery of the whole cabinet
- Exclusive air-liquid CDU solution, quickly deploying liquid-cooled system without data center modification
- Supporting Liquid-liquid CDU, one-site agile deployment of datacenter

Product Specifications

Model	i24-A7-A0-R0-00 (Air cooling) /i24-A7-C0-R0-00 (Liquid cooling)
Specifications	4 independent hot-swappable nodes in 2U Chassis
Storage	Config 1: 8*2.5 inches SATA/NVMe SSD (7mm)
	Config 2: 4*2.5 inches SATA/NVMe SSD (15mm)
PSU	4*2200W Platinum/Titanium PSUs or 2700W Titanium PSUs, support N+N redundancy
Cooling	Air cooling: Four or five 8086 fans in the front of the chassis, N+1 redundancy
	Liquid cooling: 2x8080 fans in the front of the chassis, N+1 redundancy, node liquid cooling
Chassis	447mm(W)*87mm(H)*896mm(D), without chassis lugs
	447mm(W)*87mm(H)*921mm(D), with lugs
Operating temperature	Air cooling: 5 C ~40 C
	Liquid cooling: 5 C ~45 C
Weight	net weight: < 54kg (fully equipped)
	gross weight: < 80kg (host+package+rail+accessory+pallet)
	Air cooling and liquid cooling are different, refer to the technical white paper for details
Node	NS5180-A7-A0-R0-00 (Air cooling) / NS5180-A7-C0-R0-00 (Liquid cooling)
Specifications	1U half-width 2-socket compute node
CPU	2*AMD EPYC™ 9004 series Processors per node, 4 GMI links,TDP 400W(The operating temperature is limited when 400W CPU is supported under air cooling); Supports 500W CPU under liquid cooling
Memory	24 DDR5 4800MHz RDIMM per node
PCIe expansion	Air cooling: 1 PCIe 5.0 x16+1 PCIe 4.0 x16 slots per node
	Liquid cooling: 1 PCIe 5.0 x16 slot per node
IO	Front: 2*USB2.0 , 1*VGA, 1*PWR button, 1*UID
	Rear: 1*RJ45, 1*UID, 1*RST button, 1*micro USB for debug, 1*micro USB
Storage	Config 1: 2*2.5 inches SATA/NVMe SSD(7mm) per node
	Config 2: 1*2.5 inches SATA/NVMe SSD(15mm) per node
	2*SATA/PCIe M.2 per node
BMC	Aspeed AST2600
TPM	TPM2.0
NIC	1*OCP 3.0 card per node,can also support PCIe network card
OS	Red Hat Enterprise Linux8.6/9.0、 SLES 15、 CentOS 8、 Ubuntu 22.04.01 , etc