

Flagship Versatile Server R820 E50M



Product Description

The R820 E50M is a premium 2U rack server powered by 4th/5th Gen Intel® Xeon® Scalable processors.

Designed for flexible resource allocation to meet diverse industry demands, it excels in cloud computing, HPC, cloud storage, big data, virtualization, enterprise systems, and more.

Key Features and Highlights

Extreme Performance with Scalability

- Supports 2*4th/5th Gen Intel® Xeon® Scalable processors, up to 64 cores per CPU for unparalleled computing power.
- 32*DDR5 DIMM slots, 5600MHz max frequency, 75% memory bandwidth increase.
- Up to 28*2.5" drives, NVMe SSD compatibility for customizable storage.
- Flexible expansion with OCP NICs and PCIe slots (supports PCIe 5.0, 100% faster transfer rates).

Simplified Operations and Intelligent Management

- Tool-Free Maintenance Design: Quick installation/removal of peripherals, minimizing downtime.
- Out-of-Band Visual Management: Remote physical device tracking for optimized efficiency.
- Automatic Logging: Real-time log viewing/download for precise fault diagnosis.
- Health Monitoring: Proactive status reporting for key components, enabling full lifecycle management.

Energy Efficiency and Advanced Cooling

- 15% Increased Airflow Area: Enhances cooling efficiency by 8%.
- Triple-Speed Dynamic Cooling: Adjusts fan speeds based on temperature and workload for optimal energy savings.
- Patented Custom Fans: 30% higher airflow, 15% lower power consumption, and 10% noise reduction.



Product Specifications

Processor	Supports 2*4th/5th Gen Intel® Xeon® Scalable Processors (TDP 385W).
Memory	32*DDR5 slots, up to 5600MHz. Supports memory mirroring, hot spare, fault isolation, and CXL expansion (additional 16 slots).
Storage Controller	Supports RAID 0/1/10/5/50/6/60. Features 4G/8G cache supercapacitor protection, disk roaming, remote Web configuration, secure boot, solid-state algorithms, and serial port remote debug.
Local Storage	Max 28*3.5" drives (24* NVMe compatible). Internal: 2*SATA/PCIe M.2, 1*onboard eMMC. Onboard support for 16*SATA drives (no external controller required).
Network Interfaces	1*OCP 3.0 slot with NCSI. Optional interfaces: 2*1GE, 2*10GE, 2*25GE, 2*100GE, 2*200GE.
PCIe Expansion	8*PCIe 5.0 slots + 1*OCP 3.0 slots.
Additional Interfaces	Rear: 1*RJ-45 management port, 2*USB 3.0, 1*VGA. Front: Optional 2*USB 3.0 + VGA or USB 2.0. Internal: 1*USB 3.0.
Power Supply	800W/1300W/2000W/2700W CRPS Titanium/Platinum PSU (hot-swappable, 1+1 redundant). Voltage: 100-240Vac (refer to nameplate).
Fans	6*hot-swappable fans (N+2 redundancy).
Management	Integrated BMC with 1Gbps RJ-45 port. Supports Redfish, SNMP, IPMI 2.0, HTML5/iKVM remote control. BMC dual-flash backup.
OS Support	Windows Server, RHEL, SLES, CentOS, Ubuntu, VMware ESXi, Kylin, RedFlag, etc.
Operating Temperature	5°C ~ 45°C
Chassis Dimensions	770mm (L)*446mm (W) (without ears) / 482mm (W) (with ears) *87mm (H).
Packaging Dimensions	1000mm (L)*600mm (W)*260mm (H).
Weight	Max 40kg (varies by configuration).

Ordering List

Part Number	Server Configuration		
	Front Ports	Rear Ports	Server Suits
S24000 ABNN	24*2.5" (SATA/SAS) 2*USB3.0+1*VGA	➤ 4*x8+2*x16 PCIE 5.0 ➤ 1*RJ45 management ➤ 2*USB3.0 ➤ 1*VGA 1300W redundant power supplies	➤ 2*heat sinks, TDP≥270W 3*raid card cable applicable for 95 series of raid cards 24*2.5" hard drive brackets
S24000 ABCN	24*2.5" (SATA/SAS) 2*USB3.0+1*VGA	➤ 6*x8+2*x16 PCIE 5.0 ➤ 1*RJ45 management ➤ 2*USB3.0 ➤ 1*VGA 1300W redundant power supplies	➤ 2*heat sinks, TDP≥270W 3*raid card cable applicable for 95 series of raid cards 24*2.5" hard drive brackets

S24000 ABN2	24*2.5" (SATA/SAS) 2*USB3.0+1*VGA	➤ 2*2.5" (SATA/SAS) ➤ 4*x8+2*x16 PCIE 5.0 ➤ 1*RJ45 management ➤ 2*USB3.0 ➤ 1*VGA 1300W redundant power supplies	➤ 2*heat sinks, TDP≥ 270W 3*raid card cable applicable for 95 series of raid cards 26*2.5" hard drive brackets
S24000 AB22	24*2.5" (SATA/SAS) 2*USB3.0+1*VGA	➤ 4*2.5" (SATA/SAS/NVME)4*x8+2*x16 PCIE 5.0 ➤ 1*RJ45 management ➤ 2*USB3.0 ➤ 1*VGA 1300W redundant power supplies	➤ 2*heat sinks, TDP≥ 270W 3*raid card cable applicable for 95 series of raid cards 28*2.5" hard drive brackets
S24000 ABC2 (custom)	24*2.5" (SATA/SAS) 2*USB3.0+1*VGA	➤ 2*2.5" (SATA/SAS) ➤ 6*x8+2*x16 PCIE 5.0 ➤ 1*RJ45 management ➤ 2*USB3.0 ➤ 1*VGA 1300W redundant power supplies	➤ 2*heat sinks, TDP≥ 270W 3*raid card cable applicable for 95 series of raid cards 26*2.5" hard drive brackets

Part Numbers	Product Configurations		
	Front	Rear	Kits
E24000 ABNN	24*2.5" (SATA/SAS)EXP 2*USB3.0+1*VGA	➤ 4*x8+2*x16 PCIE 5.0 ➤ 1*RJ45management ➤ 2*USB3.0 ➤ 1*VGA 1300W redundant power supplies	➤ 2*heat sinks, TDP≥ 270W 2*raid card cable applicable for 95 series of raid cards 24*2.5" hard drive brackets
E24000 ABCN	24*2.5" (SATA/SAS)EXP 2*USB3.0+1*VGA	➤ 6*x8+2*x16 PCIE 5.0 ➤ 1*RJ45management ➤ 2*USB3.0 ➤ 1*VGA 1300W redundant power supplies	➤ 2*heat sinks, TDP≥ 270W 2*raid card cable applicable for 95 series of raid cards 24*2.5" hard drive brackets
E24000 ABN2	24*2.5" (SATA/SAS)EXP 2*USB3.0+1*VGA	➤ 2*2.5" (SATA/SAS) ➤ 4*x8+2*x16 PCIE 5.0 ➤ 1*RJ45management	➤ 2*heat sinks, TDP≥ 270W 2*raid card cable



		➤ 2*USB3.0 ➤ 1*VGA 1300W redundant power supplies	applicable for 95 series of raid cards 26*2.5" hard drive brackets
E24000 AB22	24*2.5" (SATA/SAS)EXP 2*USB3.0+1*VGA	➤ 4*2.5" (SATA/SAS/NVME)4*x8+2*x16 PCIE 5.0 ➤ 1*RJ45management ➤ 2*USB3.0 ➤ 1*VGA 1300W redundant power supplies	➤ 2*heat sinks, TDP≥ 270W 2*raid card cable applicable for 95 series of raid cards 28*2.5" hard drive brackets
E24000 ABC2 (custom)	24*2.5" (SATA/SAS)EXP 2*USB3.0+1*VGA	➤ 2*2.5" (SATA/SAS) ➤ 6*x8+2*x16 PCIE 5.0 ➤ 1*RJ45management ➤ 2*USB3.0 ➤ 1*VGA 1300W redundant power supplies	➤ 2*heat sinks, TDP≥ 270W 2*raid card cable applicable for 95 series of raid cards 26*2.5" hard drive brackets