

Optimized for performance, high density and power efficiency, this general-purpose dual-processor server delivers a balance of compute and storage capacity with the flexibility to power a wide range of solutions and applications.



DATA SHEET

Hitachi Advanced Server DS120

Flexible Power for Solutions

High Density, High Performance

With support for two Intel Xeon Scalable processors in just 1U of rack space, the Hitachi Advanced Server DS120 delivers exceptional compute density. It provides flexible memory and storage options to meet the needs of converged and hyperconverged infrastructure solutions, as well as for dedicated application platforms such as internet of things (IoT) and data appliances.

The Intel Xeon Scalable processor family is optimized to address the growing demands on today's IT infrastructure. The server provides 24 slots for high-speed DDR4 memory, allowing up to 3TB of memory per node (when 128GB DIMMs are used).

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Flexible Storage Options

DS120 supports up to 12 hot-pluggable, front-side-accessible 2.5-inch serial attached SCSI (SAS) or serial-ATA (SATA) drives. Hard disk drive (HDD), solid-state drive (SSD) and NVMe options can be supported by the system. With these options, the server can be flexibly configured to address both I/O performance and capacity requirements for a wide range of applications and solutions.

I/O Expansion

A selection of low profile and mezzanine PCIe 3.0 expansion slots are available, allowing the configuration of I/O expansion and controller modules. This approach adds versatility, and enables DS120 to be optimized for many different solutions, applications and workloads.

Enterprise-Class Features

DS120 server provides the reliability, availability and serviceability (RAS) features demanded by business-critical enterprise applications. The server's modular design simplifies cable routing and reduces service time. Redundant, hot-swap drives and power supplies provide a resilient architecture for important applications, and dual-rotor hot-swap fans help ensure continuous operation.

Embedded Server Management

An integrated baseboard management controller allows DS120 to be managed remotely and independently. A dedicated interface facilitates secure remote access through a LAN connection and provides a powerful, easy-to-use web console interface for remote initialization, management and configuration.

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Processor	<p>Processor Type: Intel Xeon Scalable processor family</p> <p>Max. Thermal Design Power (TDP) Support: 165W</p> <p>Number of Processors: 2 processors</p> <p>Internal Interconnect: 9.6 or 10.4 gigatransfers per second (GT/s)</p>
Form Factor	1U
Dimensions	<p>W x H x D (inch): 17.3 x 1.7 x 30.7</p> <p>W x H x D (mm): 440 x 43.2 x 780</p>
Chipset	Intel C624
Storage	Internal Storage: Serial ATA (SATA) or Serial-Attached SCSI (SAS): (8) 2.5" (63.5mm) hot-plug SATA or SAS drives + (4) 2.5" (63.5mm) hot-plug NVMe, SATA or SAS drives
Memory	<p>Total Slots: 24</p> <p>Capacity: Up to 3TB (128Gx24) of memory for RDIMM/LRDIMM, Up to 6TB (512GBx12) of memory for Intel Optane persistent memory (Pmem)</p> <p>Memory Type: 2933, 2666 MHz DDR4 RDIMM and 2666 MHz Intel Optane Pmem</p> <p>Memory Size: 128GB, 64GB, 32GB, 16GB RDIMM and 512GB, 256GB, 128GB Intel Optane Pmem</p>
Expansion Slot	<p>(1) PCIe Gen3 x 16 SAS mezzanine slot</p> <p>(1) PCIe Gen3 x 16 OCP 2.0 mezzanine slot or PHY card</p> <p>(1) PCIe Gen3 x 16 LP MD-2</p> <p>(2) PCIe Gen3 x 8 LP MD-2</p>
Network Controller	<p>LAN on Motherboard (LOM): Dedicated (1) gigabit Ethernet (GbE) management port</p> <p>Optional Network Interface Card (NIC): Intel X527-DA2 10G SFP+ dual-port OCP PHY mezzanine, Intel X557-T4 10GBASE-T quad-port OCP PHY mezzanine</p>
Front I/O	<p>(2) USB 3.0 ports</p> <p>Power, ID and reset buttons</p> <p>Power, ID and status LEDs</p>
Storage Controller	<p>Intel 624</p> <p>14 x SATA 6Gb/s ports</p> <p>SATA RAID-0, RAID-1, RAID-1+0</p>
Power Supply	(1+1) High-efficiency, redundant, hot-plug power supply unit (PSU), titanium, 800 W or 1200W
Fan	(8) dual rotor fans (15+1 redundant)
Video	Integrated ASPEED AST2500 8MB DDR4 video memory
System Management	<p>Baseboard management controller</p> <p>IPMI v2.0 compliant, onboard "KVM over IP" support</p>
Rear I/O	<p>(2) USB 3.0 ports</p> <p>(1) VGA port</p> <p>(1) RS232 serial port</p> <p>(1) GbE RJ45 management port</p> <p>(1) ID LED</p> <p>(1) MicroSD slot</p>
Operating Environment	<p>Operating temperature: 5°C to 40°C (can support 45°C under certain circumstances)</p> <p>Nonoperating temperature: -40°C to 70°C</p> <p>Operating relative humidity: 20% to 85%RH</p> <p>Nonoperating relative humidity: 10% to 95%RH</p>
Security	Trusted Platform Module 2.0, UEFI Secure Boot, Cryptographic Signed BIOS and BMC Firmware
Weight (Max. Configuration)	45 lbs.10 oz. (20.7kg)

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