HITACHI
Inspire the Next

DATASHEET

Do more in your data center with Hitachi Compute Blade 500. This highly reliable enterprise blade server is designed for virtualization and is the ideal platform for cloud computing applications.

Enterprise Blade Computing With Hitachi Compute Blade 500: Flexibility, Scalability and Outstanding Performance

Hitachi Compute Blade 500 (CB 500) delivers top computing power and performance, as well as unprecedented scalability and configuration flexibility with the latest Intel Xeon E5 and E7 family processors. It extends the benefits of Hitachi logical partitioning to new areas of the enterprise data center and includes a choice of integrated switched-fabric networking options.

Standard and double-width blade models are available with up to two CPUs in each standard-width blade, and up to four CPUs in each double-width blade. The standard CB520H blade features the E5-2600 processor series and supports 24 slots for high-speed, DDR4-registered ECC memory DIMMs. It supports up to 768GB of shared memory when 32GB DIMM modules are used, as well as up to two hot-pluggable, front-side-accessible, serial-attached SCSI (SAS), or solid-state disk (SSD) drives, with hardware RAID. The double-width CB540A blade uses four E5-4600 processors with 48 DIMM slots per blade.

CB520H blade capabilities may be enhanced using either of two available expansion blades. These blades may be combined with a compute blade to add either storage or I/O expansion capability to the blade. These expansion blade types allow a CB 500 system to support PCIe-based flash for application acceleration as well as graphics processing units (GPUs) for virtual desktop deployments.

Scale Up to Eight Sockets

The CB520X blade, powered by dual E7 series processors, supports Hitachi multiblade SMP interconnect technology. It enables you to scale up to four connected CB520X blades to achieve a single eight-socket SMP system with 192 memory DIMM slots. CB520X blades can be combined in two- or four-blade configurations, and can be increased incrementally by simply adding blades. In this way, compute, memory and I/O capacity scale together, to support large workloads and high memory capacity needs.

Rapid Deployment

A dedicated LCD control panel and simplified USB-enabled configuration setup allow fast implementation and accelerated time to value for your application. Simple, tool-free access speeds configuration, setup or upgrades and, optionally, allows you to replace critical modules for lower service cost for basic maintenance.

Flexible, Scalable Networking

Hitachi Compute Blade 500 provides a wide range of network connectivity options, including high-speed integrated fabric switching and future-proof shared access to high-speed IP networking. It also offers Fibre Channel and converged switched-fabric architectures. Connect to almost any network infrastructure to reduce cabling and complexity within your data center.

Secure Logical Partitions

The Hitachi Compute Blade 500 logical partitioning feature, LPAR, is embedded in CB 500 server blade firmware. The combination of Hitachi expertise with Intel virtualization technologies improves performance, reliability and security.

Unlike software emulation solutions, the CB 500 logical partitioning feature does not degrade application performance. Unlike third-party virtualization solutions, it does not require additional components, keeping total cost of ownership low. Support for four logical partitions per blade is included with the system, and may be expanded to allow for configuration of up to 30 logical partitions per blade. CB 500 provides additional flexibility: Use the embedded logical partitioning feature or Microsoft® Hyper-V® or VMware, or all three in a single chassis.

Unprecedented Adaptability

Hitachi Compute Blade 500 elegantly integrates network, I/O and server resources into a single, space-efficient, flexible solution. The rack-mountable 6U chassis houses up to eight server blade modules.

For I/O versatility, there are four bays for internal network switches, and dedicated storage expansion blades allow high-capacity onboard high-density disk (HDD) or SSD storage to be supported. With sophisticated, built-in reliability, availability and serviceability features, Hitachi Compute Blade 500 is an ideal data center platform for consolidation of mission-critical applications, virtualization and cloud computing applications.

CHASSIS

Chassis	Size	6U (rack mountable)
	Dimensions (w x d x h)	447mm x 820mm x 266mm
	Server blade modules	Up to 8
	Management modules	1 standard, 2 maximum (redundant)
	Cooling fans	6 standard
	HDD RAID	Up to 4 expansion blades with 6 HDD/SSD per blade
	Switch modules	2 standard, 4 maximum
	Power supplies	Up to 4 power supply modules (N+1 or fully redundant) 80 PLUS Platinum Efficiency Rating

CB 500 SERVER BLADES

Item		Description	
		CB520H Server Blade 	CB520X Server Blade 
CPU	CPU	Intel Xeon E5-2600 series	Intel Xeon E7-8800 series
	Number of sockets	2	2 (per blade), 4-8 (SMP mode)
Memory	DIMM type	Registered ECC DDR4	Registered ECC DDR4
	Number of slots	24	48 (single blade), 192 (8S SMP)
	Maximum memory capacity	768GB (32GB DIMM)	1.5TB (32GB DIMM) (Single Blade), 6.0TB (32GB DIMM) (8S SMP), 12.0TB (64GB LRDIMM) (8S SMP)
Management Interface	BMC/rKVM	SH core based	
	Management LAN	1Gb Ethernet	
Onboard I/O	NIC	4x dual-port 10Gb or 1Gb Ethernet	2x dual-port 10Gb or 1Gb Ethernet
Mezzanine	Host bus	PCIe (Gen. 3)	
	Number of slots	2x mezzanine card slots	4x mezzanine card slots
HDD	RAID	Hardware RAID	
	HDD bay	Hot-swappable 2x 2.5-inch SAS HDD/SSD (per blade)	
Front Port	KVM	USB connector (USB 3.0 for bootable optical drive)/KVM connector (USB 3.0 x2, VGA)	
	Indicator	Power, location, failure	
Form Factor		Standard width	Double width
Operating System		Microsoft® Windows Server® 2012, Red Hat Enterprise Linux, VMware ESX; Hitachi Compute Blade logical partitioning feature	

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DS-232-I DG April 2016