

BladeSymphony® 1000 Intel® Xeon® Server Modules

Datasheet

High Performance with Headroom for Growth

BladeSymphony 1000 is the first true enterprise-class blade server. It combines a choice of Dual-Core or Quad-Core Intel Xeon and/or Dual-Core Itanium 2 server modules, integrated management capabilities, and powerful, reliable, scalable system resources—so you can run mission-critical applications with confidence.

By populating the BladeSymphony chassis with server modules running Intel Dual-Core or Quad-Core Xeon processors, you get a powerful blend of industry-leading performance, blazing data throughput, and energy efficiency—to help you tackle virtually any workload—from applications and Web services to multi-threaded, mission-critical processing tasks.

Packed with Power

BladeSymphony 1000 uses the built-in performance and reliability of Intel Xeon processors to maximum advantage. With its 19" rack-compatible chassis, the eight-slot BladeSymphony 1000 accommodates a total of up to 16 Dual-Core or Quad-Core Xeon processors (up to 64 cores per system).

The Dual-Core Intel Xeon 5100 Series is the most widely deployed 64-bit processor platform in the world, delivering exceptionally fast data throughput with Intel I/O Acceleration Technology, up to 4MB of L2 cache memory that can be allocated entirely to one core, and support for both 32-bit and 64-bit applications.

The Quad-Core Intel Xeon 5300 Series is the world's first quad-core processor for mainstream servers, delivering breakthrough performance, energy efficiency, and the ability to run applications with a smaller footprint.

More Options, Higher Reliability

Each BladeSymphony Xeon processor-based server module can support up to four PCI slots, accommodates standard PCI-X and PCI Express modules, and gives you the option of adding Fibre Channel HBA, additional Ethernet ports, and even a SCSI interface for more storage. Four on-board 2.5" hot-swappable SAS drives support hardware-based RAID configurations. Two on-board Gigabit Ethernet ports are also provided, along with IP KVM for remote blade access and virtual media support. You can run either the Windows or Linux operating system.

The BladeSymphony 1000 combines the power of Intel Xeon processors with outstanding reliability features. On-board HDDs, power, fan management modules and others are fully redundant and components are hot-swappable. The system leverages Hitachi's main-frame-class memory management; there are redundant switch and management modules; power supply modules are N+1 and fully redundant; and the N+M cold stand-by feature provides fast failure recovery.

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BladeSymphony 1000 Key Features

- Support for up to eight Dual-Core or Quad-Core Xeon processor-based server modules
- Fully buffered memory support (FBDIMMs)
- Four on-board 2.5" hot-swappable SAS drives supporting up to RAID 5 configurations
- Support for up to four PCI slots per blade for high I/O bandwidth
- IP KVM support for remote operations
- Virtual media for remote media installation
- Two switched on-board Gigabit Ethernet ports
- Multi-OS Support (Windows, Red Hat Linux)

Intel Xeon 5100/5300 Series Key Features

- Dual-core/quad-core processing for significant performance headroom, especially for multi-threaded applications
- 1066 and 1333-MHz system bus with Intel I/O Acceleration Technology (I/OAT) for blazing data throughput
- Up to 2 x 4MB L2 cache memory; entire L2 cache can be allocated to one core
- Support for both 32-bit and 64-bit applications and larger data sets for smooth migration to 64-bit workloads

BladeSymphony



Server modules running Intel Dual-Core or Quad-Core Xeon processors deliver a powerful blend of performance, data throughput, and energy efficiency.

BladeSymphony® 1000 supports up to eight Intel Dual-Core or Quad-Core Xeon processor-based server modules per chassis for enterprise-class performance.

Specifications

BladeSymphony 1000 Server Module (Intel® Xeon® Processor Model)

Processor	Dual Core Intel® Xeon® Processor			Quad Core Intel® Xeon® Processor	
	5110 Series	5140 Series	5160 Series	E5345 Series	X5355 Series
Processor Frequency	1.60GHz	2.33GHz	3GHz	2.33GHz	2.66GHz
# of Processors	Max. 2 (Max. 4 cores)			Max. 2 (8 cores)	
Cache Memory	L2:4MB			L2: 2 x 4MB	
System Bus (FSB) Frequency	1,066MHz	1,333MHz			
Main Memory	ECC DDR2-667 FB-DIMM Chipkill / Memory Mirroring				
Capacity	Max. 32GB				
Memory Slots	8				
Internal HDD	2.5" 73GB (10,000min-1) SAS HDD, Max. 4				
Internal Expansion Slot	1 (Dedicated for RAID card of Internal SAS HDD)				
Network Interface	1 Gbit Ethernet (SERDES) x 2 ports				
Power Consumption (Max)	255W	306W	337W	400W	470W
Support OS	Microsoft® Windows Server™ 2003 R2, Standard Edition Microsoft® Windows Server™ 2003 R2, Enterprise Edition Microsoft® Windows Server™ 2003 R2, Standard x64 Edition Microsoft® Windows Server™ 2003 R2, Enterprise x64 Edition Red Hat Enterprise Linux ES4 Red Hat Enterprise Linux AS 4				

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