

Sun Blade™ X6270 Server Module

Open network system design for leading virtualization platform



Highlights

- Supports up to two high-performance Intel Xeon processor 5500 series CPUs to run the most demanding applications
- 18 DDR3 DIMM slots provide capacity for up to 144 GB¹ of memory — ideal for virtualization and other memory-intensive workloads
- I/O flexibility with industry-standard PCI Express (PCIe) 1.1 and 2.0 ExpressModules (EMs), which provide unique I/O per blade, and Network Express Modules (NEMs), for common I/O
- Versatile storage with integrated (optional) hardware RAID controller, and up to four small form factor (SFF) SAS or SATA² hard disk drives, or solid-state drives (SSDs)
- Operating system flexibility — run the Solaris™ 10 OS, Linux, Windows, or VMware
- Modular design is highly efficient and serviceable without compromising performance or scalability
- Ease of management with Sun™ xVM Ops Center or third-party software — no additional training required

¹ 8 GB DDR3 DIMMs available in upcoming release.

² Available in upcoming release.

Powered by the Intel Xeon processor 5500 series, the two-socket Sun Blade X6270 server module helps you scale your compute resources without adding complexity. The Sun Blade X6270 server module offers streamlined management, breakthrough performance, and superior energy efficiency. When combined with Sun's rich portfolio of software, storage, and service offerings, this server module helps reduce cost and complexity while accelerating time to revenue for datacenters that run a broad range of applications, including Web, enterprise, database, and grid.

The Sun Blade X6270 server module leverages the high-performance, power-efficient features of the Intel Xeon processor 5500 series with Turbo Boost, QPI, and Hyper-Threading Technologies, to run the most demanding applications while reducing power and cooling demands. Supporting all 32- and 64-bit applications, the Sun Blade X6270 server module offers optional high performance with solid-state drives (SSDs) that can combine with Solaris ZFS™ File System for exceptional I/O performance. Additionally, the system provides superior scalability that is streamlined and simplified — with minimal risk. Regardless of the application, a datacenter utilizing the Sun Blade X6270 server module will meet today's challenges as well as the changing demands of business needs in the future.

Utilized in the Sun Blade 6000 and 6048 modular systems, the Sun Blade X6270 server module offers enterprise-class reliability, with many redundant, hot-swappable components — including fans, disk drives, and power supply modules. Each server module is equipped with an Integrated Lights Out Manager (iLOM) service processor offering industry-standard protocols for standalone system manageability as well as integration with many industry-leading management systems, including Sun xVM Ops Center. Combining the Sun Blade X6270 server module with other Sun products and services offers your datacenter unprecedented performance and price/performance.

Sun Blade X6270 Server Module Specifications

Architecture

Processor

One or two Intel Xeon processors 5500 series; 95 W, 80 W, and 60 W, with heat sink

Cache

- Level 1: 32 KB instruction and 32 KB data L1 cache per core
- Level 2: 256 KB unified (data and instruction) L2 cache per core
- Level 3: 8 MB shared inclusive L3 cache per processor

Main memory

- Support for 2 GB, 4 GB, and 8 GB³ DDR3 DIMMs at 1,066 MHz and 1,333 MHz
- Eighteen DIMM slots supporting up to 144 GB³ of memory per server module

Interfaces

Network

- Two 10/100/1000Base-T Ethernet ports using a dual-port Intel 82575EB Gigabit Ethernet Controller
- One dedicated 10/100Base-T Ethernet port for the management network

Storage

- Four SAS interfaces to the midplane, two to each NEM
- Four hot-swappable SFF SAS or SATA drive bays
- IDE CompactFlash (CF) Module interface (Types I and II)

Note: RAID Expansion Module (REM) required to enable SAS.

Graphics

Embedded graphics using the AST2100 video controller with 128 MB of shared SDRAM

Midplane I/O

- Four (x8) PCIe 2.0 busses, two to the PCIe EM slots and two to the NEM slots
- Four 3 Gb/sec SAS/SATA interfaces, two to each NEM slot

- Two 10/100/1000Base-T Ethernet interfaces using an Intel 82575EB Gigabit Ethernet Controller, one interface to each NEM
- 10/100 Ethernet management port to the Chassis Monitoring Module (CMM)

Front panel I/O

- Available via dangle cable:
 - VGA graphics (DB-15 connector)
 - ILOM serial console
 - Dual USB ports for keyboard, mouse, or storage
- Four SFF drive bays:
 - Supporting SAS/SATA SFF disks and SSDs (REM required for SAS)

Software

Operating systems

- Solaris 10 OS 10/08
- OpenSolaris™ OS 2008.11
- Red Hat Enterprise Linux 4.7 (32-bit/64-bit)
- Red Hat Enterprise Linux 5.3 (64-bit)
- SUSE Linux Enterprise Server 10 SP2 (64-bit)
- VMware ESX 3.5
- VMware ESXi 3.5
- Windows Server 2003 (32-bit/64-bit)
- Windows Server 2008 (32-bit/64-bit)

Networking

- ONC™, ONC+™, NFS, WebNFS™, TCP/IP, SunLink™, OSI, MHS, IPX/SPX, SMB Technologies, and XML

Management

- Advanced onboard management and monitoring enabled by embedded ILOM service processor, providing:
 - DMTF style CLI
 - Support for SSH 2.0, HTTPS, RADIUS, LDAP, and Microsoft Active Directory
 - Browser-based GUI for control of the system through a graphical interface
 - IPMI 2.0; SNMP v1, v2c, and v3
 - Remote management with full keyboard, video, mouse, storage (KVMS) redirection and remote media capability (floppy, DVD, CD, and more)

Learn More

To learn more about the Sun Blade X6270 server module, go to: sun.com/x6270.

- Monitor and report system and component status on all FRUs
- Optional Sun xVM Ops Center software — generation of profiles to ensure compliance and compliance reporting, discovery and registration of datacenter assets, job scheduling to perform network tasks, system provisioning, and updates to Linux and the Solaris OS

I/O modules

- Supported I/O module form factors
 - PCIe (1.1 and 2.0) EM
 - NEM
- Up to two industry-standard (PCI-SIG) form factor, hot-pluggable PCIe EMs per server module
- Up to two NEMs per Sun Blade 6000 modular system
- Up to eight NEMs per Sun Blade 6048 modular system

For information on I/O module choices, go to: sun.com/servers/blades/iomodules.

Dimensions and weight

Height

327mm (12.87 in.)

Width

44mm (1.7 in.)

Depth

512mm (20.16 in.)

Weight

7.9 kg (17.4 lbs.) with four disks, one FEM, one REM, and two CPUs

³ 8 GB DDR3 DIMMs available in upcoming release.

