

Sun Blade™ X6440 Server Module

Uncompromising multicore processing power for I/O- and compute-intensive workloads



Highlights

- Highest-performing Six-Core AMD Opteron™ processor technology with 6 MB L3 cache per processor for the most demanding workloads
- 32 DIMM slots; supports large memory configurations using cost-efficient 2 GB or 4 GB DIMMs. Scales up to 256 GB of memory using 8 GB DIMMs.
- 142 Gb/sec of I/O, providing more than twice the I/O capacity of competing systems
- Seamlessly integrable Sun Blade™ transparent management and split-plane Dual Dynamic Power Management
- Operating system flexibility, supporting the Solaris™ 10 OS, Linux, Windows, or VMware
- Supported by the Sun Blade 6000 modular system family for streamlined installation and service as well as superior availability, with no fans or power supplies on the blades



Part of the Sun Blade 6000 modular system family and supported in both the Sun Blade 6000 and 6048 modular systems, the Sun Blade X6440 server module offers significant reductions in cooling and power costs while providing the massive performance of a four socket, enterprise-class datacenter workhorse. Leveraging the power of Six-Core AMD Opteron technology, blazingly fast and flexible I/O, and a large memory support, the system offers you the best of both rackmount and blade systems — unrivaled reliability, availability, serviceability, and scalability — all with no compromises.

Designed to handle challenging floating point operations and ideal for heavy-duty workloads — from Web servers to application servers, high-performance computing (HPC) to databases — the Sun Blade X6440 server module supports a vast range of applications. It also supports a broad variety of configurations, with extreme scalability, large memory footprints, and I/O flexibility, to help protect your IT investment and evolve as your business expands. The server is also well suited to datacenter consolidation and virtualization initiatives for Web farms and IT infrastructure, using the power of Six-Core AMD Opteron processor technology and the easy integration and leading innovation of Sun modular systems technology.

In addition the Sun Blade X6440 server module reduces the risks associated with these initiatives by providing balanced features that help ensure maximum RAS and system performance. With hot-swappable, hot-pluggable components and transparent, streamlined management, the system is designed for the highest possible uptime. The diskless server is built on DDR2 memory and the power efficiency of AMD Opteron processors — running cooler and offering increased performance to minimize costs and emissions in the datacenter.

Sun Blade X6440 Server Module Specifications

Architecture

Processor choice

- Four Six-Core AMD Opteron processors, 75 W: 512 KB dedicated L2 cache per processor core, 6 MB shared L3 cache per processor
- Four enhanced Quad-Core AMD Opteron processors, 75 W: 512 KB dedicated L2 cache per processor core, 6 MB shared L3 cache per processor

Main Memory

- One of industry leading 32 DIMM slots, supporting up to 256 GB of memory per server module
- Supports 2 GB, 4 GB, or 8 GB DDR2 667 MHz PC2-5300 ECC Registered DIMMs

Interfaces

Network

- Two 10/100/1000 Base-T Ethernet ports using Intel 82575EB Gigabit Ethernet (GbE) Controllers
- One dedicated 10/100 Base-T Ethernet port for the management network

Storage

Four SAS interfaces to the midplane, two to each PCI Express (PCIe) Network Express Module (NEM) slot

IDE CompactFlash (CF) Module Interface (Type I)

Graphics

Embedded graphics using the AST2000 video controller with 128 MB of shared SDRAM

Midplane I/O

- Four (x8) PCIe busses, two to the NEM slots, two to the PCIe ExpressModule (EM) slots
- Four 3 Gb/sec SAS interfaces, two to each NEM slot
- Two 10/100/1000 Base-T Ethernet interfaces using Intel 82575EB GbE Controller, one interface to each NEM
- 10/100 Ethernet management port to the Chassis Monitoring Module (CMM)

Front panel I/O

- Available via dongle cable:
 - VGA graphics (DB-15 connector)
 - Serial console to server module on-board Integrated Lights Out Manager (ILOM)
 - Dual USB ports for keyboard, mouse, or storage

Software

Operating System

- Solaris 10
- Red Hat Enterprise Linux (32/64)
- SUSE Linux Enterprise Server (64)
- Microsoft Windows Server 2003 (32/64)
- Microsoft Windows Server 2008 (32/64)
- VMware vSphere ESX/ESXi
- For the latest list of supported OSes, please see: <http://www.sun.com/servers/blades/os.jsp>

Networking

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

Management

On-board lights-out management via embedded service processor, providing:

- DMTF-style command line
- Support for SSH 2.0, HTTPS, RADIUS, LDAP, and MS Active Directory
- Browser-based GUI
- IPMI 2.0; SNMP v1, v2c, v3
- Local and remote KVM (keyboard, video, mouse) and media (CD, floppy)
- Optional Sun xVM Ops Center – 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 EMs
- PCIe NEMs

Learn More

To learn more about the Sun Blade X6440 server module, go to sun.com/x6440

- Up to two industry-standard (PCI-SIG) form factor, hot-pluggable PCIe EMs per server module
- Up to two hot-pluggable PCIe NEMs per Sun Blade 6000 modular system
- Up to eight hot-pluggable NEMs per Sun Blade 6048 modular system
- For information on I/O module choices, please see sun.com/servers/blades/iomodels

Dimensions and weight

Height: 44.45 mm (1.75 in.)

Width: 327.15 mm (12.88 in.)

Depth: 496.82 mm (19.56 in.)

Weight: 7.26 kg (16.00 lbs.)

7.90 kg (18.12 lbs.)



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