

## Sun SPARC Enterprise® T5240 Server

Consolidate like never before.  
Virtualization comes free.



Where other systems can't keep up, the high performance Sun SPARC Enterprise® T5240 server comes through, delivering up to 2-4x the memory and storage capacity of competitive systems. Watch the T5240 server blaze through anything you throw its way, or use it to consolidate your datacenter using built-in, no-cost virtualization.

### Highlights

- Up to 128 simultaneous compute threads per server and 2,500 threads per rack, for breakthrough virtualization and consolidation
- World's first dual-socket, general-purpose server powered by the 3rd generation UltraSPARC® T2 Plus processor
- Drive up utilization, drive down costs, and massively consolidate workloads with built-in, no-cost virtualization technology with Logical Domains (LDoms) and Solaris™ Containers
- Integrated on-chip cryptographic acceleration and on-board 10-gigabit Ethernet for secure computing and high-speed networking
- Up to 2-4x the memory and storage capacity of competitive systems
- Massive I/O performance and expand-ability with the Sun External I/O Expansion Unit, supporting up to 16 PCI Express (PCIe) slots
- Instantly speed up I/O intensive application performance with Flash technology

The Sun SPARC Enterprise T5240 server is the first dual-socket, general-purpose server powered by the third generation UltraSPARC® T2 Plus “system on a chip” processor, featuring up to 128 compute threads and running on the free and open source Solaris™ Operating System (OS). Each processor packs up to eight cores and up to 64 simultaneous threads onto a single piece of silicon, together with the key functions of an entire system on a single chip— computing, security, and I/O.

The innovative design and reliability features of the Sun SPARC Enterprise T5240 server significantly increase uptime and reduce unplanned service actions. Extreme integration at both the processor and system level deliver a part count reduction of up to 53 percent compared to competitive 2-socket x86 platforms and 12x compared to legacy mid-range server platforms, directly reducing service interruptions due to component failure.

The Sun SPARC Enterprise T5240 server delivers up to 128 GB of memory, up to 16 internal disks, industry-standard systems management, no-cost development and deployment tools, and integrated cryptographic acceleration— all in a compact two-rack unit (2 RU) form factor.

Maximize your server capacity, utilization, and infrastructure agility while minimizing energy, space, and cooling requirements, as well as reducing administrative overhead. The Sun SPARC Enterprise T5240 server offers the industry's only built-in and no-cost virtualization technologies, with a choice of Solaris Containers and Sun Logical Domains (LDoms). By enabling up to 128 isolated domains per server, you can deploy up to 2,500 isolated domains per rack, for ultimate server virtualization and consolidation.

You can maximize your investment in the Sun SPARC Enterprise T5240 server by leveraging the Sun™ Eco Services Suite to optimize data-center power, space, and cooling, or Sun Consolidation and Virtualization Suite of Services to help architect and deploy consolidation and virtualization projects. In addition, Sun offers a range of services to help you upgrade to Solaris 10. You may also purchase Sun System Packs, which provide world-class hardware and operating system support, or, alternatively, consider purchasing support for the Solaris OS, which entitles you to the latest Solaris Updates, Solaris Named Releases, Software Updates, and other Sun support.

# Sun SPARC Enterprise T5240 Server Specifications

## Key applications

- Consolidation and virtualization
- Web serving
- Streaming media
- Security applications
- Web, middleware, and application tier workloads, especially Java™ environments
- OLTP databases
- Multithreaded HPC workloads with large instruction and data sets
- New Web services deployments
- SOA infrastructure implementations
- Deployments requiring memory and hard drive expandability

## Architecture

### Processor

Four-, six-, and eight-core 1.2 GHz or eight-core 1.4 GHz or eight-core 1.6 GHz UltraSPARC T2 Plus processors, two processors per system, maximum 128 threads

### Cache

4 MB integrated L2

### Main memory

32 FB DIMM slots, system maximum of 256 GB; support for 1 GB, 2 GB, 4 GB, and 8 GB low voltage (1.5V) DIMMs; minimum of 8 GB (8 x 1 GB)

## System architecture

- SPARC® V9 architecture, ECC protected

## Other processor key features

- One floatingpoint unit per core, up to eight per processor
- Onboard cryptography supporting 10 embedded security industry-standard ciphers including: DES, 3DES, AES, RC4, SHA1, SHA256, MD5, RSA to 2048 key, ECC, CRC32

## Key RAS features

- Hot-pluggable disk drives
- Redundant hot-swappable AC power supplies
- Redundant hot-swappable fans
- Up to six hot-swappable system fan modules
- Environmental monitoring
- Error correction and parity checking
- Easy component replacement
- Internal hardware drive mirroring (RAID 1)
- RAID 0 and 1 support
- Ultralow part count with 53% fewer parts than competitive 4socket x86 systems

## Standard integrated interfaces

- Network: Four 10/100/1000Mb/sec Ethernet ports; Up to 2x optional 10 GbE XAUI connections
- Expansion bus: Four dedicated eight lane PCIe expansion slots, two eightlane PCIe or XAUI expansion slots
- Ports: Four USB 2.0 ports, one RJ45 serial management port, one 10/100 Mb/sec ethernet network management port, one DB9 serial port

## Software

### Operating system

- Solaris 10 8/07, Solaris 10 10/08, and Solaris 10 5/09

### Software Included

- Solaris 10 5/09 Preloaded
- Sun LDOMs Manager and MIB 1.2 Pre-install
- ILOM 3.0
- CMT Tools 1.0 Pre-install
- GCC 4 for SPARC Systems 4.0.4 Pre-install
- Sun Studio™ 12 Pre-install
- SYS, FW, Download UTIL Pre-install
- MAI, 10 GBE ETCSYS CFG
- Live Upgrade, ABE Pre-install

### Mass Storage and Media

- Internal disk: Up to sixteen 73 GB, 146 GB, 300 GB 2.5 in. SAS drives or up to eight 32 GB 2.5 in. SATA solid-state drives (SSD)
- Internal DVD: One slimline CD-RW/DVD-RW
- External storage: Sun offers a complete line of best-in-class, innovative storage hardware, software, and solutions— including tape drives, tape libraries, disk storage systems, data management software, and more— along with renowned world-class service and support. For more information, go to [sun.com/storagetek](http://sun.com/storagetek).

## Virtualization

- Built-in, no-cost virtualization technology providing the flexibility and power of 128 virtual systems in a single server
- Pre-install software: Sun Logical Domains Manager and MIB 1.2

## Environment

- Operating temperature: Sea level to 900m (2953 ft.): 5°C to 35°C (41°F to 95°F); above 900m (2953 ft.): decrease the maximum allowable temperature by 1°C/300m (1.6°F/1000 ft.); IEC 60068-2-1 Test Ad, and 60068-2-2 Test Bd
- Nonoperating temperature: Sea level to 900m (3,000 ft.) 40° to 65° (40° to 149°F), above 900m (3,000 ft.) 40° to 60° (40° to 140°F) (maximum altitude 40,000 ft.)
- Operating relative humidity: 10% to 90% RH, 27°C maximum wet bulb (noncondensing)
- Nonoperating relative humidity: 93% RH, 35°C maximum wet bulb (noncondensing)
- Operating altitude: 3,000m (10,000 ft.)
- Nonoperating altitude: 12,000m (40,000 ft.)
- Acoustic noise: Operating/idling acoustic noise 7.7B (LwAd, 1B = 10 dB), operating/idling sound pressure level 66 dB (LpAm, bystander positions)

## Power

- Two hot-swappable AC 1100 W power supply units (PSUs), providing N+1 redundancy come standard. Also available are DC 1200 W power supply units.

## Regulations

- Safety: UL/CSA-60950-1, EN60950-1, IEC60950-1 CB Scheme with all country deviations, IEC825-1, 2, CFR21 part 1040, CNS14336, GB4943
- RFI/EMC: EN55022 Class A, 47 CFR 15B Class A, ICES-003 Class A, VCCI Class A, AS/NZ3548 Class A, CNS 13438 Class A, KSC 5858 Class A, GB9254 Class A, EN61000-3-2, GB17625.1, EN61000-3-3
- Immunity: EN55024, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC

## Learn More

For more information on the Sun SPARC Enterprise T5240 server, go to [sun.com/t5240](http://sun.com/t5240)

To try the Sun SPARC Enterprise T5240 server risk-free for 60 days, go to [sun.com/tryandbuy](http://sun.com/tryandbuy)

61000-4-11

- Regulatory: CE, FCC, ICES-003, C-tick, VCCI, GOST-R, BSMI, MIC, UL/cUL, UL/DEMOKOLVD, UL/S-mark, CCC

## Dimensions and weight

- Height: 88 mm (3.49 in.); 2 RU
- Width: 425 mm (16.75 in.)
- Depth: 714 mm (28.125 in.)
- Weight: 23.81 kg (52.5 lb.)

## Upgrades

Sun SPARC Enterprise T5240 servers are eligible for the Upgrade Advantage Program. Customers can trade in their old Sun or nonSun servers and receive a discount toward the price of their new Sun SPARC Enterprise T5240 servers. For more details on the Upgrade Advantage Program, visit [sun.com/ibb/coolthreads](http://sun.com/ibb/coolthreads).

## Warranty

- Hardware support: 1 year
- Operating system support: 90-day warranty provided for installation telephone support and defective media replacement
- Call response: 8 hours
- Delivery: Next business day onsite or parts exchange for customer replaceable units

## Customer Ready program

Take advantage of the Sun Customer Ready program and have your system tailored to your specific requirements by our factory experts. Learn more at [sun.com/crs](http://sun.com/crs).