

# SUN SPARC ENTERPRISE T5120 SERVER

## KEY FEATURES

### EXTREME EFFICIENCY AND SECURITY FOR YOUR WEB INFRASTRUCTURE

- World's first 64-thread, general-purpose server powered by the ground-breaking UltraSPARC T2 "system on a chip" processor.
- Record-breaking performance, maximum energy, and space efficiency.
- Drive up utilization, drive down costs, and massively consolidate workloads with built-in, no-cost virtualization technology with Oracle VM Server for SPARC (previously called Sun Logical Domains) and Oracle Solaris Containers.
- Integrated on-chip cryptographic acceleration and 10 Gigabit Ethernet (GbE) enables secure computing at wire speed.
- The industry's most open platform, built on open source technologies and open standards.
- Massive I/O performance and expandability with Oracle's Sun External I/O Expansion Unit, supporting up to 6 additional PCI Express (PCIe) slots.
- Accelerate application response times and slash energy consumption with Oracle's Flash SSDs.

*When you need to securely and efficiently serve millions of Web users, Oracle's Sun SPARC Enterprise T5120 server is up to the task. It provides integrated on-chip 10 Gigabit Ethernet (GbE) and cryptographic acceleration and very efficient, low-power consumption in one rack unit (1RU).*



**The Sun SPARC Enterprise T5120 server offers extreme efficiency and security for your Web infrastructure.**

### Designed for Reliable, Scalable Web Build-Outs

The Sun SPARC Enterprise T5120 server is the first 64-thread, general-purpose server powered by UltraSPARC T2 "system on a chip" processor. It 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, networking, security, and I/O. And it's all delivered in a compact 1RU form factor.

The Sun SPARC Enterprise T5120 server offers the industry's only built-in and no-cost virtualization technologies with a choice of Oracle Solaris Containers and Oracle VM Server for SPARC (previously called Sun Logical Domains). By enabling up to 64 isolated domains per server, you can deploy more than 2,500 isolated domains per rack for ultimate server virtualization and consolidation.

The Sun SPARC Enterprise T5120 server is also the industry's most open platform. It is built on open source technologies and open standards, packaging the only mainstream processor and virtualization hypervisor offered under the GPL, and pre-loaded with Oracle Solaris Operating System and pre-installed software tools. The Oracle Solaris Operating System is free, open, and the only open source UNIX-based OS to run on more than 900 platforms on multiple x86 and SPARC processors.

### Sun SPARC Enterprise T5120 Server Specifications

#### Key Applications

- Consolidation and virtualization
- Web serving
- Streaming media
- Security applications

<ul style="list-style-type: none"> <li>• Java application servers</li> <li>• Java virtual machines</li> <li>• Network infrastructure</li> <li>• SOA and business integration platforms</li> <li>• Compute and network node</li> <li>• Multithreaded floating-point applications for manufacturing, pharmaceutical, and financial services industries</li> </ul>
<b>Architecture</b>
Processor
<ul style="list-style-type: none"> <li>• Four-core 1.2 GHz, eight-core 1.2 GHz, eight-core 1.4 GHz, or eight-core 1.6 GHz UltraSPARC T2 processors; one processor per system, maximum 64 threads</li> </ul>
Cache
<ul style="list-style-type: none"> <li>• 4 MB integrated L2</li> </ul>
Main Memory
<ul style="list-style-type: none"> <li>• 16 FB DIMM slots, system maximum of 128 GB; support for 2 GB, 4 GB, and 8 GB DIMMs; minimum of 8 GB (4x 2 GB)</li> </ul>
System Architecture
<ul style="list-style-type: none"> <li>• SPARC V9 architecture, ECC protected</li> </ul>
<b>Other Processor Key Features</b>
<ul style="list-style-type: none"> <li>• Under 95 W (nominal) and fewer than 2W per thread</li> <li>• Dual, multithreaded, 10 GbE PCIe integrated onto chip</li> <li>• Eight floating-point units</li> <li>• Onboard cryptography supporting 10 embedded security industry-standard ciphers including DES, 3DES, AES, RC4, SHA1, SHA256, MD5, RSA to 2048 key, ECC, and CRC32</li> </ul>
<b>Key RAS Features</b>
<ul style="list-style-type: none"> <li>• Hot-pluggable disk drives</li> <li>• Redundant hot-swappable power supplies</li> <li>• Redundant hot-swappable fans</li> <li>• Environmental monitoring</li> <li>• Error correction and parity checking</li> <li>• Easy component replacement</li> <li>• Internal hardware drive mirroring (RAID 1)</li> <li>• RAID 0 and 1 support</li> </ul>
<b>Standard Integrated Interfaces</b>
<ul style="list-style-type: none"> <li>• Network. Four 10/100/1000 Mb/sec Ethernet ports; up to 2x optional 10 GbE XAUI connections.</li> <li>• Expansion bus. One eight-lane PCIe and two four-lane PCIe or XAUI.</li> <li>• USB. Four 2.0 USB ports.</li> </ul>

<b>Software</b>
Operating system
<ul style="list-style-type: none"> <li>• Oracle Solaris 10 8/07</li> <li>• Oracle Solaris 10 5/08</li> <li>• Oracle Solaris 10 10/08</li> <li>• Oracle Solaris 10 5/09</li> </ul>

<ul style="list-style-type: none"> <li>• Oracle Solaris 10 10/09</li> </ul>
<b>Software Included</b>
<ul style="list-style-type: none"> <li>• Oracle Solaris 10 10/09 Preloaded</li> <li>• Oracle VM Server for SPARC 1.3, including MIB pre-install</li> <li>• Oracle Sun Studio 12 U1 pre-install</li> <li>• GCC for SPARC Systems Version 4.3.2 pre-install</li> <li>• CMT Developer Tools Version 1.2 pre-install</li> <li>• Live Upgrade, Alternate Boot Environment (ABE) pre-install</li> </ul>
<b>Mass Storage and Media</b>
<ul style="list-style-type: none"> <li>• <b>Internal disk.</b> Up to four or eight 146 GB/300 GB 2.5 in. SAS drives, depending on selected backplane; or up to four 32 GB 2.5 in. SATA solid-state drives (SSD).</li> <li>• <b>Internal DVD.</b> One slimline CD-RW/DVD-RW.</li> <li>• <b>External storage.</b> Oracle offers a complete line of best-in-class, innovative storage hardware, software, and solutions, including tape drives, tape libraries, disk storage systems, and data management software. Oracle also offers renowned world-class service and support.</li> </ul>
<b>Virtualization</b>
<ul style="list-style-type: none"> <li>• Built-in, no-cost virtualization technology providing the flexibility and power of 64 virtual systems in a single server</li> <li>• Pre-install software: Oracle VM Server for SPARC (previously called Sun Logical Domains)</li> </ul>
<b>Environment</b>
<ul style="list-style-type: none"> <li>• <b>Operating temperature.</b> Sea level to 900 m (2,953 ft.): 5°C to 35°C (41°F to 95°F); above 900 m (2,953 ft.): decrease the maximum allowable temperature by 1°C/300 m (1.6°F/1000 ft.); IEC 60068-2-1 Test Ad, and 60068-2-2 Test Bd.</li> <li>• <b>Nonoperating temperature.</b> -40°C to 65°C (-40°F to 149°F); IEC 60068-2-1 Test Ab and 60068-2-2 Test Bb.</li> <li>• <b>Operating relative humidity.</b> 10% to 90% RH, 27°C maximum wet bulb (noncondensing); IEC 60068-2-56 Test Cb.</li> <li>• <b>Nonoperating relative humidity.</b> 93% RH, 35°C maximum wet bulb (noncondensing); IEC 60068-2-56 Test Cb.</li> <li>• <b>Operating altitude.</b> 3,000 m (10,000 ft.); IEC 60068-2-13 Test M, and 60068-2-41 Test Z/BM.</li> <li>• <b>Nonoperating altitude.</b> 12,000 m (40,000 ft.); IEC 60068-2-13 Test M.</li> <li>• <b>Acoustic noise.</b> Operating/idling acoustic noise 7.0 B (LwAd, 1 B = 10 dB), operating/idling acoustic noise 59 dB (LpAm, bystander positions).</li> </ul>
<b>Power</b>
<ul style="list-style-type: none"> <li>• The Sun SPARC Enterprise T5120 server supports two hot swap power supplies providing N+1 redundancy. Also available is a DC 660 W power supply unit.</li> </ul>

Regulations
<ul style="list-style-type: none"> <li>• Safety. UL/CSA-60950-1, EN60950-1, IEC60950-1 CB Scheme with all country deviations, IEC825-1, 2, CFR21 part 1040, CNS14336, GB4943.</li> <li>• 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.</li> <li>• 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 61000-4-11.</li> <li>• Regulatory CE, FCC, ICES-003, C-tick, VCCI, GOST-R, BSMI, MIC, UL/cUL, UL/DEMKOLVD, UL/S-mark, CCC.</li> <li>• Ergonomics. EK1-ITB-2000.</li> </ul>
Dimensions and Weight
<ul style="list-style-type: none"> <li>• Height: 44 mm (1.746 in.); 1 RU</li> <li>• Width: 425 mm (16.75 in.)</li> <li>• Depth: 714 mm (28.125 in.)</li> <li>• Weight: Approximately 18 kg (40 lb.)</li> </ul>

### Warranty

Visit [oracle.com/sun/warranty](http://oracle.com/sun/warranty) for Oracle's global warranty support information on Sun products.

### Services

You can maximize your investment in the Sun SPARC Enterprise T5120 server by leveraging Oracle services that optimize your data center power, space, and cooling or that help you architect and deploy your consolidation and virtualization projects. Visit [oracle.com/sun/services](http://oracle.com/sun/services) for information on Oracle's service program offerings for Sun products.

### Contact Us

For more information about Oracle's Sun SPARC Enterprise T5120 server, please visit [oracle.com/sun](http://oracle.com/sun) or call +1.800.786.0404 to speak to an Oracle representative.



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