

## SPARC T4-2 SERVER

IDEAL FOR DEPARTMENTAL AND MULTI-TIER APPLICATIONS.

### KEY FEATURES AND BENEFITS

- 5x single-thread performance increase accelerates application performance and improves scalability
- Advanced integrated virtualization technology enables real-time scaling and optimal resource utilization with Oracle Solaris Containers and Oracle VM Server.
- Integrated on-chip cryptographic acceleration provides high levels of security without sacrificing application performance.
- Runs Oracle Solaris 10 and 11 with guaranteed binary compatibility and support for legacy applications.
- Smart, simple, and eco friendly designs offer greater energy and space optimization, increasing asset utilization while reducing operating costs.

*Oracle's SPARC T4 servers running Oracle Solaris delivers world record performance on a highly scalable, secure and integrated platform optimized for enterprise software. With a 5x improvement in single thread performance, SPARC T4 servers are highly optimized for Oracle and 3<sup>rd</sup> party software. The SPARC T4-2 is an ideal server for large departmental deployments and for business-critical applications, middleware and database workloads. Based on the SPARC T4 processor, this system is the perfect choice to accelerate and consolidate business processes, improve operating efficiency and reduce data center overhead.*



Figure 1: The SPARC T4-2 server delivers high performance along with maximum security, speed, and scale.

### Product Overview

The SPARC T4-2 server is powered by the SPARC T4 processor that combines a new level of single-threaded performance along with high overall system throughput. The advanced SPARC T4 processor features integrated on-chip cryptographic support that provides wire speed encryption capabilities without an application performance penalty.

The SPARC T4-2 is equipped with two SPARC T4 processors and 32 DIMM slots, which can support a total of 512GB of memory when populated with 16GB DIMMs. The SPARC T4-2 delivers highly expandable internal storage and network connectivity as the server has room for a combination of six hard disk drives or solid state drives and ten PCI Express card slots.

The SPARC T4-2 server comes integrated at no additional cost with Oracle VM Server for SPARC and Oracle Solaris. The SPARC T4-2 supports both Solaris 10 and Solaris 11 including the latest Oracle Solaris Containers, Oracle Solaris ZFS and Electronic Prognostics.

## SPARC T4-2 Server Specifications

Key Applications	
<ul style="list-style-type: none"> <li>• Departmental business applications</li> <li>• Specialized application for billing, supply chain, engineering and manufacturing</li> <li>• Middleware and multi-tiered applications</li> <li>• Application consolidation and virtualization</li> <li>• Web serving and web services</li> <li>• Security applications</li> <li>• Database and analytics</li> </ul>	
Architecture	
Processor	
<ul style="list-style-type: none"> <li>• Eight-core 2.85GHz SPARC T4 processor</li> <li>• Two processors per system, maximum 128 threads</li> <li>• Eight floating-point units</li> <li>• Dual multithreaded 10 GbE PCI integrated onto chip</li> </ul> <p>New on-chip Encryption Instruction Accelerators with direct non-privileged support for 16 industry-standard cryptographic algorithms plus random number generation in each of the eight cores: AES, Camellia, CRC32c, DES, 3DES, DH, DSA, ECC, Kasumi, MD5, RSA, SHA-1, SHA-224, SHA-256, SHA-384, SHA-512</p>	
Main Memory	
<ul style="list-style-type: none"> <li>• 32 DDR3 DIMM slots, system maximum of 512 GB</li> <li>• Support for 4 GB, 8 GB and 16 GB DIMMs</li> </ul>	
System Architecture	
<ul style="list-style-type: none"> <li>• SPARC V9 architecture, ECC protected</li> </ul>	
Cache per Processor	
<ul style="list-style-type: none"> <li>• Dedicated 128K L2 cache per core, a shared 4MB L3 cache</li> </ul>	
Interfaces	
<ul style="list-style-type: none"> <li>• Network. 4x 1Gb (10/100/1000Mbps) integrated Ethernet ports. Option slot for 4x 10GbE XAUI ports.</li> <li>• Expansion bus. Ten total. Eight x8 PCIe Gen 2 slots, two x4 PCIe Gen2 slots</li> <li>• Ports. Four external USB 2.0 port. One VGA port</li> </ul>	
Mass Storage	
<b>Internal disk:</b>	Up to six 300 GB or 600 GB GB 2.5 in. SAS drives or 100GB or 300GB SSD drives. Internal DVD: One slimline SATA DVD+/-RW.
<b>External storage</b>	Oracle offers a complete line of best-in-class, innovative storage, hardware, and software solutions, along with renowned world-class service and support. For more information, please refer to <a href="http://oracle.com/storage">oracle.com/storage</a> .

Power	
<ul style="list-style-type: none"> <li>• Two hot-swappable AC 2,060W redundant (N+1) power supplies</li> <li>• Maximum operating input current: 7.6A @ 200 V AC</li> <li>• Maximum operating input power at 200 V AC: 1451.7W</li> </ul>	
Key RAS Features	
<ul style="list-style-type: none"> <li>• Hot-pluggable disk drives</li> </ul>	

<ul style="list-style-type: none"> <li>• Redundant, hot-swappable power supplies and fans</li> <li>• Environmental monitoring</li> <li>• Extended ECC, error correction and parity checking memory</li> <li>• Easy component replacement</li> <li>• Integrated disk controller with RAID 0, 1 and 1E</li> <li>• Electronic Prognostics 1.2</li> </ul>
<b>Software</b>
<b>Operating System</b>
<ul style="list-style-type: none"> <li>• Oracle Solaris 10 8/11</li> <li>• Oracle Solaris 11</li> <li>• Support for Solaris 10 9/10 or Solaris 10 10/09 with Oracle Solaris 10 8/11 Patchset</li> </ul>
<b>Software Included</b>
<ul style="list-style-type: none"> <li>• Oracle Solaris 10 8/11 or Oracle Solaris 11</li> <li>• Oracle VM Server for SPARC 2.1</li> <li>• Electronic Prognostics 1.2</li> <li>• Oracle Solaris ZFS</li> </ul>
<b>Virtualization</b>
<ul style="list-style-type: none"> <li>• Built-in, no-cost Oracle VM Server for SPARC and Oracle Solaris Containers provide the flexibility and power of up to 128 virtual systems in a single SPARC T4-2 server</li> </ul>
<b>Environment</b>
<b>Temperature</b>
<ul style="list-style-type: none"> <li>• Operating temperature: 5°C to 35°C (41°F to 95°F)</li> <li>• Nonoperating temperature: -40°C to 65°C (-40°F to 149°F)</li> </ul>
<b>Relative Humidity</b>
<ul style="list-style-type: none"> <li>• Operating relative humidity: 10% to 90%, noncondensing, 27°C wet bulb</li> <li>• Nonoperating relative humidity: 93%, noncondensing, 38°C (100.4°F) wet bulb</li> </ul>
<b>Altitude</b>
<ul style="list-style-type: none"> <li>• Operating altitude: 0 m to 3,000 m (0 ft. to 10,000 ft.)</li> <li>• Nonoperating altitude: 0 m to 12,000 m (0 ft. to 40,000 ft.)</li> </ul>
<b>Acoustic Noise</b>
<ul style="list-style-type: none"> <li>• 7.7 B operating and 7.6 B idle (LwAd: 1 B = 10 dB)</li> <li>• 61.5 dB operating and 61.2 idle (LpAm: bystander positions)</li> </ul>
<b>Cooling</b>
<ul style="list-style-type: none"> <li>• 4953 Btu/hr, 230 cfm max</li> </ul>
<b>Regulations</b>

**Safety:** UL/CSA 60950-1, EN 60950-1, IEC 60950-1 CB Scheme with all country deviations, IEC 825-1, 2 CFR 21 part 1040, CNS 14336

**EMI/EMC:** EN 55022 Class A, 47 CFR 15B Class A, ICES-003 Class A, VCCI Class A, AS/NZ 3548 Class A, CNS 13438 Class A, KSC 5858 Class A, EN 61000-3-2, EN 61000-3-3

**Immunity:** EN 55024, 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

**Regulatory markings:** CE, FCC, ICES-003, C-Tick, VCCI, GOST-R, BSMI, MIC, UL/cUL, UL/S-Mark

**Ergonomics:** EK1-ITB-2000

**European Union Directive:** Restriction of Hazardous Substances (RoHS) Directive

### Dimensions and Weight

**Height:** 129.85mm (5.11 in); 3RU

**Width:** 436.5 mm (17.185 in.)

**Depth:** 732 mm (28.82 in.)

**Weight:** Approx. 36.28kg (80 lbs.) max., without rackmount kit.

### Warranty

The SPARC T4-2 comes with a one-year warranty. Visit <http://www.oracle.com/goto/sun/warranty> for more information about Oracle's hardware warranty.

### Support

With Oracle Premier Support, our customers get complete, integrated support to maximize the return on their Oracle investment—from software updates and operational best practices to proactive support tools and rapid problem resolution.

For more information visit <http://www.oracle.com/support>

### Contact Us

For more information about Oracle SPARC T4-2 server, visit [oracle.com](http://oracle.com) or call +1.800.ORACLE1 to speak to an Oracle representative.



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