ORACLE
SPARC T-SERIES

SPARC T4-2 SERVER

IDEAL FOR BUSINESS CRITICAL APPLICATIONS AND DATABASE WORKLOADS

KEY FEATURES AND BENEFITS

- Outstanding performance and systems throughout in an affordable 3U rack enterprise class design
- Optimized to accelerate Oracle database, business applications and middleware software with outstanding performance and scale
- Built-in, no-cost virtualization technology with Oracle VM Server for SPARC and Oracle Solaris Containers improves utilization and reduces operational overhead.
- 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
- Provides the most comprehensive lifecycle management framework available today through a unified portfolio for systems and the cloud
- Smart, simple, and eco friendly designs offer greater energy and space optimization, increasing asset utilization while reducing operating costs.
- Oracle's unique advantage of engineering the hardware and software to work together delivers best-in-class products that are optimized to solve unique business challenges with world-record performance, unmatched value and investment protection

The SPARC T4-2 is an ideal server for large departmental deployments and for business-critical applications, middleware and database workloads. Utilizing 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, powered by the SPARC T4 processor, combines 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 any application performance penalties.

The SPARC T4-2 server is equipped with two SPARC T4 processors and 32 DIMM slots, which can support a total of 1 TB of memory when populated with 32 GB 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. It also supports large Flash storage configurations that accelerate I/O intensive application performance, improve business response times and increase productivity while reducing power and space.

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 with guaranteed binary compatibility and support for legacy applications. The Oracle Solaris Binary Application Guarantee reflects Oracle's confidence in the compatibility of applications from one release of Oracle Solaris to the next and is designed to make re-qualification a thing of the past. This helps protect your long-term investment in the development, training and maintenance of your applications.

Throughout the Oracle technology stack, products have been engineered to work together – not as an afterthought or a workaround, but incorporated into the design and built into the

code to provide a new kind of extreme integration. With superior integration and optimization of the entire stack, Oracle systems are making more things possible in the data center both for today and years to come, creating the ideal environment for your changing business initiatives

SPARC T4-2 Server Specifications

Key Applications	
• Departmental business applications • Specialized application for billing, supply chain, engineering and manufacturing • Middleware and multi-tiered applications • Application consolidation and virtualization • Web serving and web services • Security applications • Database and analytics	
Architecture	
Processor	
• Eight-core 2.85GHz SPARC T4 processor • Two processors per system, maximum 128 threads • Eight floating-point units • Dual multithreaded 10 GbE PCI integrated onto chip • 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	
Main Memory	
• 32 DDR3 DIMM slots, system maximum of 1 TB • Support for 4 GB, 8 GB, 16 GB and 32 GB DIMMs	
System Architecture	
• SPARC V9 architecture, ECC protected	
Cache per Processor	
• Dedicated 128K L2 cache per core, a shared 4MB L3 cache	
Interfaces	
• Network. 4x 1Gb (10/100/1000Mbs) integrated Ethernet ports. Option slot for 4x 10GbE XAUI ports. • Expansion bus. Ten total. Eight x8 PCIe Gen 2 slots, two x4 PCIe Gen2 slots • Ports. Four external USB 2.0 port. One VGA port	
Mass Storage	
Internal disk:	Up to six 300 GB or 600 GB GB 2.5 in. SAS drives or 100GB, 300GB or 400GB SSD drives. Internal DVD: One slim line SATA DVD+/-RW. Optional Sun Flash Accelerator F40 PCIe card
External storage	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 oracle.com/storage.

Power

- Two hot-swappable AC 2,060W redundant (N+1) power supplies
- Maximum operating input current: 7.6A @ 200 V AC
- Maximum operating input power at 200 V AC: 1451.7W

Key RAS Features

- Hot-pluggable disk drives
- Redundant, hot-swappable power supplies and fans
- Environmental monitoring
- Extended ECC, error correction and parity checking memory
- Easy component replacement
- Integrated disk controller with RAID 0, 1 and 1E

Software

Operating System

- Oracle Solaris 11.1 or later
- Oracle Solaris 11 11/11
- Oracle Solaris 10 1/13
- Oracle Solaris 10 8/11
- Support for Solaris 10 9/10 or Solaris 10 10/09 with Oracle Solaris 10 8/11 Patch set

Software Included

- Oracle Solaris 11, including Oracle VM Server for SPARC

Remote Management

Remote management features and facilities	• Oracle Integrated Lights Out Manager (ILOM) • One dedicated 10/100base-T Ethernet management port • In-band, out-of-band, and sideband network management access via any one of the four main Ethernet ports of the server • One RJ-45 serial management port • DTMF-style command-line interface • Support for access via 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) • Ability to monitor and report system and component status on all FRUs

Virtualization

- 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

Environment

Temperature

- Operating temperature: 5°C to 35°C (41°F to 95°F)
- Nonoperating temperature: -40°C to 65°C (-40°F to 149°F)

Relative Humidity

- Operating relative humidity: 10% to 90%, noncondensing, 27°C wet bulb
- Nonoperating relative humidity: 93%, noncondensing, 38°C (100.4°F) wet bulb

Altitude

- Operating altitude: 0 m to 3,000 m * (0 ft. to 10,000 ft.)

  ** Except in China markets where regulations may limit installations to a maximum altitude of 2km*

- Nonoperating altitude: 0 m to 12,000 m (0 ft. to 40,000 ft.)

Acoustic Noise

- 7.7 B operating and 7.6 B idle (LwAd: 1 B = 10 dB)
- 61.5 dB operating and 61.2 idle (LpAm: bystander positions)

Cooling

- 4953 Btu/hr, 230 cfm max

Regulations

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: 2011/65/EC 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 oracle.com/us/support/policies/ for more information about Oracle's hardware warranty.

Complete Support

With Oracle Premier Support, you'll get the services you need to maximize the return on your Oracle SPARC server investment—our complete system support includes 24/7 hardware service, expert technical support, proactive tools, and updates to Oracle Solaris, Oracle VM, and integrated software (such as firmware) – all for a single price. Learn more at oracle.com/support.

Contact Us

For more information about Oracle SPARC T4-2 server, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

Oracle is committed to developing practices and products that help protect the environment

Hardware and Software, Engineered to Work Together