ORACLE
SPARC T-SERIES

SPARC T4-1 SERVER

IDEAL FOR WEB INFRASTRUCTURE, APPLICATION DEVELOPMENT

KEY FEATURES AND BENEFITS

- Outstanding performance and systems throughout in an affordable 2U 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

Oracle's SPARC T4 servers running Oracle Solaris deliver outstanding performance while offering a highly scalable secure and integrated environment optimized for enterprise software. The SPARC T4-1 server boasts speed, scalability, and security in a sleek, compact design. Combined with Oracle enterprise software, the SPARC T4-1 is a cost efficient platform for web infrastructure, middleware and application development.

Figure 1: The SPARC T4-1 server offers maximum security, speed, and scale for your Web infrastructure.

Product Overview

The SPARC T4-1 server is powered by the SPARC T4 processor, combining 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 T4-1 server is equipped with one SPARC T4 processor and 16 DIMM slots, which can support a total of 512 GB of memory when populated with 32 GB DIMMs. The SPARC T4-1 delivers highly expandable internal storage and network connectivity as the server has room for a combination of eight hard disk drives or solid state drives and six 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.

Also included are four 1GbE ports and up to two 10GbE XAUI ports. The SPARC T4-1 server comes integrated at no additional cost with Oracle VM Server for SPARC and Oracle Solaris.

SPARC T4-1 Server Specifications

Key Applications

- Web serving and web services
- Application development, staging and testing
- Middleware and security applications
- Departmental and specialized application
- Database and analytics

Architecture

Processor

- Eight-core 2.85GHz SPARC T4 processor
- One processor per system, maximum 64 threads
- Eight floating-point units
- 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

- 16 DDR3 DIMM slots, system maximum of 512 GB
- Support for 4 GB, 8 GB, 16 GB and 32 GB DIMMs

System Architecture

- SPARC V9 architecture, ECC protected

Cache per Processor

- Shared L3, 4MB cache and eight cores with private L2 128K cache

Interfaces

- Network. 4x 1Gb (10/100/1000Mbs) integrated Ethernet ports.
- Up to two optional option slots for 10GbE XAUI connections.
- Expansion bus: Six PCIe slots.
- Ports: Four external USB 2.0 ports. One VGA port.

Mass Storage

Internal disk:	Up to eight 300 GB or 600 GB 10000 rpm 2.5-inch SAS HDD drives or 100GB, 300GB or 400GB SSD drives Internal DVD: One slim line SATA DVD+/- RW Optional Sun Flash Accelerator 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 1200W redundant (N+1) power supplies
- Maximum operating input current: 8.57A @ 100 V AC
- Maximum operating input current: 4.2A @ 200 V AC
- Maximum operating input power at 100 V AC: 771W
- Maximum operating input power at 200 V AC: 762W

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 and Solaris 10 10/09 + Oracle Solaris 10 8/11 Patch set

Software Included

- Oracle Solaris 11, including Oracle VM Server for SPARC

Virtualization

- Built-in, no-cost Oracle VM Server for SPARC and Oracle Solaris Containers provide the flexibility and power of 64 virtual systems in a single SPARC T4-1 server

Remote Management

- 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

Environment

Temperature

- Operating relative humidity: 10% to 90% RH, 27°C (80.6°F) maximum wet bulb (noncondensing); IEC 60068-2-56 Test Cb
- Nonoperating relative humidity: 93% RH, 38°C (100.4°F) maximum wet bulb (noncondensing); IEC 60068-2-56 Test Cb

Altitude

- Operating altitude: 0 to 3,000 m* (10,000 ft.); IEC 60068-2-13 Test M, and 60068-2-41 Test Z/BM

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

- Nonoperating altitude: 0 to 12,000 m (40,000 ft.); IEC 60068-2-13 Test M

Acoustic Noise

- Operating/idling acoustic noise 7.1B (LwAD: 1 B = 10 dB) and 63dB operating max (LpAM: bystander positions)

Cooling

- 2317 Btu/hr, 145 cfm maximum

Regulations
Safety: UL/CSA-60950-1, EN60950-1, IEC60950-1 CB Scheme with all country deviations, IEC825-1, 2 CFR21 part 1040, CNS14336
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, EN61000-3-2, 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 61000-4-11
Regulatory: CE, FCC, ICES-003, C-tick, VCCI, GOST-R, BSMI, MIC, UL/cUL, UL/Smark
Ergonomics: EK1-ITB-2000
European Union Directives: 2006/95/EC (73/23/EEC) Low Voltage Directive, 2004/108/EC (89/336/EEC) EMC Directive, 2002/96/EC Waste Electrical and Electronic Equipment (WEEE) Directive, 2011/65/EC Restriction of Hazardous Substances (RoHS) Directive
Dimensions and Weight
Height: 88 mm (3.49 in); 2 RU
Width: 425 mm (16.75 in)
Depth: 714 mm (28.13 in)
Weight: Approximately 27.2 kg (60 lb.) max, without rackmount kit.

Warranty

The SPARC T4-1 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 T4-1 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