

SPARC T4-1B Server

Frequently Asked Questions

Overview

The SPARC T4-1B is a single socket, SPARC T4 processor based server in a highly efficient and compact blade system design.

The new SPARC T4 processor is engineered and optimized to support a full range of Oracle enterprise datacenter applications including database, middleware, and web application workloads.

The SPARC T4-1B installs in the Sun Blade 6000 Modular blade chassis which supports up to 10 blade modules and integrated networking in a compact 10U chassis.

Customer Benefits

Balanced Workload Performance Optimized for a Full Range of Oracle Applications

SPARC T4 servers with Oracle Solaris are the most scalable, secure, and integrated platforms, highly optimized for Oracle enterprise software. The SPARC T4 processor is engineered to provide industry leading single-thread and multi-thread performance for database, batch, middleware, and web server workloads.

The SPARC T4 systems and Oracle Solaris offer an integrated, scalable platform for consolidation and virtualization. Oracle Solaris offers continuing [binary compatibility](#) to migrate legacy Solaris application to the most proven and feature-rich enterprise operating system.

Highly Efficient Sun Blade 6000 Modular Design

Designed for high reliability and efficiency, the Sun Blade 6000 chassis provides a flexible, modular network infrastructure.

With the Sun Blade 6000 chassis and SPARC T4-1B server module, customers will greatly reduce their time-to-revenue and virtually eliminate downtime for I/O upgrades.

The Sun Blade 6000 chassis and SPARC T4-1B server module are enterprise ready. Combining the chassis based RAS features with Oracle Solaris, and Oracle Integrated Lights Out Management (ILOM), the Sun Blade 6000 chassis and SPARC T4-1B server module are designed to maximize uptime, simplify system management, and reduce administration costs.

Highest Density SPARC T4 Server Architecture

The SPARC T4-1B server module and the Sun Blade 6000 chassis offer an integrated platform supporting multiple workloads in a compact, highly efficient, centrally managed blade chassis.

The Sun Blade 6000 chassis supports up to 10 full featured Oracle SPARC or x86 based blades, and provides up to 6.4 Terabit-per-second headroom for CPU and I/O architectures.

Centralized management using the built-in Sun Blade 6000 Chassis Management Module (CMM) enables management of blade configurations across different CPU architectures.

The SPARC T4-1B can be installed along with Oracle x86 based blade server modules in existing Sun Blade 6000 chassis offering scalability and protecting customer investments.

Award Winning Oracle Solaris Operating System

Oracle Solaris is the #1 Enterprise operating system, with proven results running mission-critical enterprise databases to high performance enterprise infrastructure applications. Oracle Solaris innovative, built-in features deliver breakthrough virtualization, high availability, advanced security, and industry-leading performance.

The proven reliability of Oracle Solaris gives customers built-in fault tolerance through features such as ZFS, DTrace and Predictive Self Healing. Oracle Solaris delivers the highest

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levels of enterprise-class security with Common Criteria Certification.

Oracle Solaris 11 raises the bar on the functionality introduced in Oracle Solaris 10, continuing Oracle's leadership for providing the best choice for mission critical operating system enterprise environments, with a fully production ready release that previews much of the technology that will be introduced with Oracle Solaris 11.

Enterprise Class Virtualization

The SPARC T4-1B server module offers built-in, no cost virtualization technologies that enable organizations to extract maximum value from IT assets while creating an infrastructure capable of rapidly adapting to today's dynamic business environment.

Oracle VM Server for SPARC provides highly efficient, enterprise-class virtualization capabilities by creating partitions called logical (or virtual) domains. Each logical domain can run an independent operating system, and the live migration feature of the release 2.1 allows customers to quickly and easily migrate running domains (Oracle Solaris 10 or 11) from one physical server to another, eliminating application outages and server downtime.

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What is the SPARC T4-1B server module?

The SPARC T4-1B is a single socket blade server module with one SPARC T4 2.85GHz 8 core, 64 thread processor in a compact, modular, cost efficient blade design. The SPARC T4-1B offer high memory density, supporting up to 16 DDR3 DIMMs, with up to 256GB total memory.

What is the Sun Blade 6000 Modular System?

The Sun Blade 6000 chassis fits into a compact enclosure of only 10U while supporting up to 10 full-featured, top-performance blade server modules, and provides a massive 6.4 Terabit-per-second maximum I/O throughput.



Sun Blade 6000 Chassis

The Sun Blade 6000 also supports two Network Expansion Modules, and up to 10 PCIe Express Modules with workload specific I/O available for each blade.

The Sun Blade 6000 chassis is a versatile solution for your datacenter needs. The modular architecture and hot-swappable components of the Sun Blade 6000 chassis allow customers to consolidate a broader range of datacenter applications than is possible with traditional blade computing.

This Sun Blade 6000 integrated design dramatically improves virtualization and enterprise applications while also facilitating accelerated deployment of production systems and high availability.

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Why would I use a blade server instead of a rack mount server?

Blade servers leverage the highly efficient, shared infrastructure including power, cooling, and networking provided by the chassis within which the blades reside.

When compared to 10 similarly configured rack mount servers, 10 blade servers can consume up to 30% less power while occupying the same amount of physical space.

The server modules rely on the Sun Blade 6000 chassis, in which they reside, for power and cooling support. This greatly reduces the number of moving parts located in the server module. This leads to higher reliability and better power & cooling efficiency.

In addition, blade architecture offers a low-cost solution with the ability to install additional blade systems based on future requirements. Both Oracle SPARC and x86 based blades can be installed and centrally managed in the SunBlade 6000.

How is the SPARC T4-1B blade server module managed?

The SPARC T4-1B server includes the [Oracle Integrated Lights Out Manager \(ILOM\)](#), which is driven by an integrated system service processor that also has power management and power capping capability to help reduce energy cost.

ILOM provides full remote KVM (Keyboard, Video, Mouse, Storage) support together with remote media functionality.

ILOM is an integral part of the [Oracle Enterprise Manager Ops Center](#), which provides the most comprehensive management across Oracle servers, operating systems, and Oracle Solaris virtualization technologies, and dramatically improves the efficiency of IT operations with its integrated lifecycle management and built-in automation.

What virtualization technologies are available for the SPARC T4-1B server module?

Oracle VM Server for Oracle SPARC provides highly efficient, enterprise-class virtualization capabilities for SPARC servers.

Unlike other virtualization technologies, [Oracle VM Server](#) for SPARC allows you to create up to 128 virtual servers on one system to take advantage of the massive thread scale offered by the T4 processor architecture.

What are the I/O features of the Sun Blade 6000 Modular System?

The Sun Blade 6000 Modular System was designed from the ground up with I/O flexibility in mind. Each blade server has access to two PCIe modules slots for blade and workload specific I/O requirements.

PCIe Express Modules enable each individual blade server module (up to 10) to be configured to satisfy the specific workload requirements by application. All I/O modules are externally accessible and support redundant configurations.

The SPARC T4-1B server module leverages multiple PCIe links for an unmatched total I/O bandwidth of 292Gb/s.

What are the power and cooling requirements for the SPARC T4-1B and SunBlade 6000?

The online [power calculator](#) provides guidance for estimating the electrical and heat loads for typical operating conditions.

What support is available for Oracle hardware products?

Oracle offers complete system support including 24/7 hardware service, rapid on site expert technical support, and proactive tools. Oracle Support includes updates to Oracle Solaris, Oracle VM Server for SPARC, and integrated software, such as firmware. More information on Oracle Premier Support is available [here](#).

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Where can I find more information about Oracle Hardware Warranty?

For more information on Oracle technical support policies warranty is available [here](#).

Where can I obtain information about performance benchmarks for SPARC?

The SPARC T4 processor massive single-thread performance has benchmarked world record performance. A comprehensive list of Oracle SPARC T4 system benchmarks is available [here](#).

Is there a choice in SPARC T4-1B system configurations?

Yes, the SPARC T4-1B server module can be customized to the configuration required through the Oracle Assemble to Order process. Options are available to select memory, drive types, Raid Expansion Modules, Fabric Expansion Modules, and PCIe I/O cards for the SPARC T4-1B.

Can I order the SPARC T4-1B server module today?

Yes, the SPARC T4-1B can be ordered now. Contact your Oracle Sales representative or call 1-800-Oracle1.

Additional information about the SPARC T4-1B server module is available [here](#).

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