

SPARC T3-1B Server Module

Frequently Asked Questions

Overview

The SPARC T3-1B single socket SPARC T3 based blade server module delivers extreme compute density with up to 16 cores and 128 threads in a single, highly scalable, cost-efficient blade form factor.

The SPARC T3 processor is the world's first 16 core SPARC processor with unsurpassed density and throughput, optimized for demanding business infrastructure workloads.

The SPARC T3-1B installs in the highly efficient Sun Blade 6000 chassis supporting up to 10 full-featured, top-performance blade server modules in a compact 10U form factor. The Sun Blade 6000 chassis supports the T3-1B and existing x-86 or SPARC based blade servers.

The T3-1B offers a highly efficient SPARC T3 based solution ideal for high concurrency, multi-threaded web application workloads.

Customer Benefits

Best Blade for Business Infrastructure Applications

The SPARC T3-1B offers a high scalability, highest density platform for secured Enterprise 2.0 applications. With a high core and thread count, large memory footprint, and industry leading I/O bandwidth (142Gb/s), the T3-1B and Sun Blade 6000 solution is uniquely positioned to support the high demands of multi-threaded business infrastructure applications.

Highly Efficient Sun Blade 6000 Modular Design

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

With the Sun Blade 6000 chassis and SPARC T3-1B blade server, customers are able to greatly reduce their time-to-revenue and virtually eliminate downtime for I/O upgrades.

The Sun Blade 6000 and SPARC T3-1B are enterprise ready. Combining the chassis based RAS features with Oracle Integrated Lights Out Management (ILOM), the Sun Blade 6000 and SPARC T3-1B are designed to maximize uptime, simplify system management, and reduce administration costs.

Industry Leading SPARC T3 Performance

The SPARC T3-1B server module is uniquely engineered to provide the highest chip-multithreading performance, with enterprise class reliability, availability, and scalability.

The industry's first 16-core SPARC T3 processor offers world-class performance with a 2x throughput improvement, and double the cores and threads (16 cores, 128 threads) over previous generation SPARC processors to tackle the most demanding workloads.

Highest Density T3 Server Architecture

The SPARC T3-1B and Sun Blade 6000 solution scales out to support up to 10 SPARC T3 processors in a highly energy and cost efficient 10U blade chassis. The Sun Blade 6000 provides up to 6.4 Terabit-per-second headroom for future CPU and I/O architectures.

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

The SPARC T3-1B is a perfectly balanced modular blade server optimized to deliver all of the requirements for running virtualized business applications and enterprise collaboration workloads.

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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.

Enterprise Class Virtualization

The SPARC T3-1B server 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.

Frequently Asked Questions

What is the SPARC T3-1B blade server module?

The SPARC T3-1B is a single socket SPARC T3 based server, in a compact, modular, cost efficient blade design. SPARC T3-1B system configuration options include a cost efficient, 8-core, 64 thread system, or a 16-core, 128 thread system. Both server options offer high memory density, supporting up to 16 DIMMs per blade.

What is the Sun Blade 6000 Modular System?

The Sun Blade 6000 chassis fits into a compact form factor of only 10U while supporting up to 10 full-featured, top-performance blade server modules. With 6.4 Terabit-per-second maximum I/O throughput, and up to 10 server modules per chassis offering up to 960 cores per rack and up to 1024 TB memory per rack.

The Sun Blade 6000 chassis is a versatile solution for your data center needs. The modular architecture and hot-swappable components of the Sun Blade 6000 Chassis allow you to consolidate a broader range of data center applications than is possible with traditional blade computing. This dramatically lowers costs for virtualization and enterprise applications while also facilitating accelerated deployment of production systems and high availability.

Sun Blade 6000 Chassis



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

The server modules rely on the Sun Blade 6000 chassis, in which they reside, for power and cooling support. This greatly

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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.

What is Chip Multithreading Technology?

Chip Multithreading Technology (CMT) is a processor and architecture design approach that maximizes computational throughput and delivered performance by implementing hardware multithreaded processor cores on a single chip. This innovative approach is redefining the way IT managers solve complex business issues.

With large memory support and the breakthrough performance of the SPARC T3 processor, the SPARC T3-1B server is ideally suited for compute, data, and transaction-intensive applications, making it an ideal platform for secured Enterprise 2.0 applications.

How is the SPARC T3-1B blade server module managed?

The SPARC T3-1 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 KVMs (Keyboard, Video, Mouse, Storage) support together with remote media functionality.

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

<http://www.oracle.com/us/products/enterprise-manager/opscenter/index.html>

What Virtualization technologies are available for the SPARC T3-1B server?

Oracle VM Server for SPARC (previously called Sun Logical Domains) provides highly efficient, enterprise-class virtualization capabilities for SPARC servers with Chip Multithreading (CMT) technology.

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 CMT architecture. This capability is available at no additional cost.

<http://www.oracle.com/us/technologies/virtualization/oraclevm/oracle-vm-server-for-sparc-068923.html>

What are the I/O features of the SunBlade 6000?

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 PCI EXPRESS™ EXPRESSMODULE™ 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 T3-1B leverages multiple PCIe links for an unmatched total I/O bandwidth of 292Gb/s.

What are the power and cooling requirements for the SPARC T3-1B and SunBlade 6000?

The online power calculator provides guidance for estimating the electrical and heat loads for typical operating conditions.

<http://www.oracle.com/us/products/servers-storage/sun-power-calculators-067884.html>

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Where can I obtain information about performance benchmarks?

<http://www.oracle.com/us/solutions/performance-scalability/sun-blade-server-gateway-079188.html>

Is there a choice in system configurations?

Yes, the SPARC T3-1B server can be fully customized to the configuration specified through our factory's ATO (Assemble to Order) process.

Can I order the SPARC T3-1B server today?

Yes, we are now taking orders for this product.

Where can I find out more?

Contact your Oracle Sales representative directly or call 1-800-Oracle1.

For more information about the SPARC T3-1B server on the web, go to:

<http://www.oracle.com/us/products/servers-storage/servers/sparc-enterprise/index.html>

<http://www.oracle.com/store>



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