

# DATASHEET

## FUJITSU SPARC ENTERPRISE T5120 SERVER

WHATEVER THE TRAFFIC, YOU NOW HAVE THE ANSWER TO HIGH PERFORMANCE, SECURE AND EFFICIENT WEB SERVICE. THE MULTI-CORE MULTI-THREAD TECHNOLOGY PROVIDES UP TO 64 SIMULTANEOUSLY USABLE COMPUTE THREADS IN JUST 1U OF RACK HEIGHT.

### FUJITSU SPARC ENTERPRISE FOR WEB SECURITY, EFFICIENCY AND PERFORMANCE

Fujitsu SPARC Enterprise throughput computing servers are the ultimate in Web and front-end business processes. Designed for space efficiency, low power consumption, and maximum compute performance they provide high throughput, energy-saving, and space-saving solutions, in Web server deployment. Built on UltraSPARC T2 or UltraSPARC T2 Plus processors, everything is integrated together on each processor chip to reduce the overall component count. This speeds performance lowers power use and reduces component failure. Add in the no-cost virtualization technology from Logical Domains and Solaris Containers and you have a fully scalable environment for server consolidation. Finish it off with on-chip encryption and 10 Giga-bit Ethernet freeways and they provide the compete environment for secure data processing and lightening fast throughput.

### SPARC PERFORMANCE MANAGEABILITY AND RELIABILITY

Fujitsu SPARC Enterprise T5120 delivers up to 64 processor threads which can support up to 64 separate domains. This means excellent parallel throughput management and high web traffic control. Fully supported by the top scalability and openness of the Solaris Operating system, there is the ability to maximise thread utilization, deliver application capability, and scale across hundreds of platform nodes.

The intrinsic service management in Fujitsu SPARC Enterprise T5120 combined with the SPARC hardware architecture and Solaris operating system enables predictive self-healing and simpler implementation and operation. In addition, with fewer components and a low-power, low-heat design, the overall incidence of server stress and component failure is well below equivalent systems. This further increases operational reliability and reduces the need for manual intervention. As a result Fujitsu SPARC Enterprise T5120 is a very cost effective and well engineered system that mostly looks after itself.



8 disk model



4 disk model

# FEATURES AND BENEFITS

## MAIN FEATURES

### FLEXIBLE INVESTMENT PROTECTION

- A range of 4 or 8 core UltraSPARC T2 processors
- Many growth options by use of Logical Domains, Solaris Containers, and space-saving server node addition

### RELIABLE OPERATION

- A broad range of RAS functions including cache protection mechanisms, thread and core offlining register protection, cache scrubbing
- Overall system management and service security from hot swap and redundant disk drives (software and hardware RAID), power supplies, and Fans, system environment monitoring and easy component replacement

### WORLD'S MOST ADVANCED OS, SOLARIS 10

- Solaris 10 is pre-installed
- Supports Dynamic Tracing (DTrace) Solaris Zettabyte File System (ZFS), plus use and process rights management
- The choice of the world's most advanced developers

## BENEFITS

- Can choose the performance required at lowest cost of ownership
- Able to grow the underlying hardware platforms while maximizing the use of all available resources; for best return on investment
- Minimizes the possibility of server failure and ensures application continuity by removing, correcting or isolating in-processor faults
- Lower management and maintenance costs coupled with non-stop system operation
- Easy installation and upgrades with Solaris binary compatibility means software investment protection
- The outstanding diagnostics and secure data handling makes high throughput operations simpler and more secure.
- Able to access the widest range of business applications available

---

### **FLEXIBLE INVESTMENT PROTECTION**

The choice of two, four and eight core processors reduces the cost of socket based application licenses as well as allowing more flexible and extensive use of Solaris Containers. High reliability coupled with low operating costs also delivers unrivalled investment protection. Not only will your Fujitsu SPARC Enterprise T5120 servers have a longer and more useful life but they will also reduce your overall IT spends.

Advanced high thread processor technology continues to provide additional performance at lower than average power consumption, less than 2 watts per thread. When used to the maximum in high throughput computing environments you achieve outstanding return on investment. Such low levels of power consumption will also save on cooling costs with high-density rack use in the data center.

To ensure that all available performance can be fully used, Logical Domains and Solaris Containers let you quickly and dynamically reconfigure the system to support both existing and new processes concurrently. Fully compatible with all Solaris applications Fujitsu SPARC Enterprise T5120 inter-works with all other Solaris and SPARC Enterprise systems to let you start small and grow as your requirements increase.

### **RELIABLE OPERATION**

The hot swap and component redundancy in all Fujitsu SPARC Enterprise throughput computing servers, coupled with the high RAS functions embodied in UltraSPARC T2 processors, provides Web platform reliability second to none. The result is a stable self sustaining system that works well with all the applications it supports. Error checking and correction systems implemented directly in the hardware not only take the pressure off the OS and applications but it also ensure the platform really manages itself. This means less systems administration and many fewer diagnostic and recovery tasks are required. Once you own a Fujitsu SPARC Enterprise system you will soon forget the operational problems of the past.

### **WORLD'S MOST ADVANCED OS, SOLARIS 10**

Every Fujitsu SPARC Enterprise comes pre-installed with the latest Solaris operating system. This ensures the best in binary compatibility with the world's most important application systems. It's just one more important factor in ensuring the maximum life of your IT investments. But equally importantly, Solaris is the only OS that has the scalability, security, and diagnostic features to fully and quickly respond if a major application problem occurs. That has directly led to Solaris having one of the world's largest application portfolios and why it is the development platform of choice for many of the world's major software developers

# TECHNICAL DETAILS

## PROCESSOR

<b>Processor quantity and type</b>	1 x UltraSPARC T2
<b>Processor options</b>	1 x UltraSPARC T2 quad-core processor (1.2GHz, 24KB L1 cache on core, 4MB L2 cache per chip)
	1 x UltraSPARC T2 eight-core processor (1.4GHz, 24KB L1 cache on core, 4MB L2 cache per chip)
	1 x UltraSPARC T2 eight-core processor (1.6GHz, 24KB L1 cache on core, 4MB L2 cache per chip)

## MEMORY

<b>Memory slots</b>	16 slots
<b>Memory slot type</b>	FB-DIMM
<b>Memory capacity (min. – max.)</b>	8GB–128GB
<b>Memory protection</b>	ECC
<b>Memory modules</b>	8GB Memory Expansion (4 x 2GB DIMM)
	16GB Memory Expansion (4 x 4GB DIMM)
	32GB Memory Expansion (4 x 8GB DIMM)

## DRIVE BAYS

<b>Disk bay configuration</b>	<b>4 disk model</b>	4 x 2.5-inch hot-plug SAS/SATA
	<b>8 disk model</b>	8 x 2.5-inch hot-plug SAS/SATA (maximum 4 in 8 disk bays for SATA)
<b>Disk drives</b>		HDD SAS, 146GB, 10,000rpm, 2.5-inch
		HDD SAS, 300GB, 10,000rpm, 2.5-inch
		SSD SAS, 32GB, 2.5-inch
<b>Optical drive bay configuration</b>		1 x 128mm bay
<b>Optical drives</b>		CD-RW, DVD+/-RW (8xDVD+/-R, 8xDVD+/-RW, 24CD-R, 24xCD-RW)

## INTERFACES

<b>LAN/Ethernet</b>	4 ports (Gbit/s, RJ45)
<b>Serial</b>	1 port (RS232C, DSUB9)
<b>USB</b>	4 ports (2 on front, 2 on rear)
<b>Service LAN for ILOM</b>	1 port (10/100Mbit/s, RJ45)
<b>Service serial for ILOM</b>	1 port (RS232C, RJ45)

## SLOTS

<b>PCI Express</b>	1 x PCI Express (x8, half-height, short)
	2 x PCI Express (x4, half-height, short)
<b>Note</b>	XAUI cards can be installed in pre-determined PCI Express slots.
<b>Note</b>	Expandable to 8 slots (PCI Express) when using 1 x External I/O Expansion Units

**CONNECTABLE COMPONENTS**

<b>SCSI/SAS controller</b>	Dual-Channel Ultra320 SCSI Card, PCI Express Single-Channel SAS Card, PCI Express
<b>Fibre channel controller</b>	Single-Channel 4 Gbps Fibre Channel Card, PCI Express Dual-Channel 4 Gbps Fibre Channel Card, PCI Express Single-Channel 8 Gbps Fibre Channel Card, PCI Express Dual-Channel 8 Gbps Fibre Channel Card, PCI Express
<b>LAN controller</b>	Quad Gigabit Ethernet Card (10/100/1000Base-T), PCI Express Dual Gigabit Ethernet Card (10/100/1000Base-T), PCI Express Dual Gigabit Ethernet Card (1000Base-SX), PCI Express Single 10 Gigabit Ethernet Card, (10Gbase-SR), PCI Express Single 10 Gigabit Ethernet Card, (XAUI: 10Gbase-SR/LR)
<b>Rack infrastructure</b>	Rack rail kit

**SUPPORTED OPERATING SYSTEMS**

<b>Supported operating systems</b>	Solaris 10 8/07 or later
<b>Operating system release link</b>	<a href="http://www.fujitsu.com/sparcenterprise/manual/notes/">www.fujitsu.com/sparcenterprise/manual/notes/</a>

**SERVER MANAGEMENT**

<b>Service processor</b>	Integrated Lights Out Manager (ILOM)
<b>Supported software</b>	Enhanced Support Facility Server System Manager

**VIRTUALISATION**

<b>Virtualization features</b>	Logical Domains Solaris Containers
--------------------------------	---------------------------------------

**RAS FEATURES**

<b>Processor RAS</b>	ECC protection for L2 cache and registers, Thread and core offlining
<b>Redundant components</b>	Hard disk drive redundant by software RAID or hardware RAID(RAID1) Solid state drive redundant by software RAID Fan PCI card (multi-path configuration) Power supply unit, Power system
<b>Hot-swap components</b>	Hard disk drive hot-replaceable by software RAID and hardware RAID(RAID1) Solid state drive hot-replaceable by software RAID Fan Power supply unit,
<b>Degradation features</b>	<b>Dynamic degradation</b> Processor (core) Memory Hard disk drive dynamic-degraded by software and hardware RAID Solid state drive dynamic-degraded by software RAID
	<b>Static degradation</b> Processor (core) Memory Hard disk drive dynamic-degraded by software and hardware RAID PCI cards Solid state drive static-degraded by software RAID

**DIMENSIONS / WEIGHT**

<b>Rack-mount (W x D x H)</b>	425 x 714 x 44 mm; 1U 16.8 x 28.1 x 1.7 inches ; 1U
<b>Weight</b>	18 kg (40 lb.)

**ENVIRONMENT**

<b>Sound pressure (LpAm)</b>	59 dB (A)
<b>Operating ambient temperature</b>	5–35°C (depending on altitude)
<b>Operating relative humidity</b>	10–90%
<b>Operating altitude</b>	0–3,000 m

**ELECTRICAL VALUES**

	<b>AC POWER</b>	<b>DC POWER</b>
<b>Rated voltage range</b>	AC 100–240V +/- 10%	DC -48 V, DC -60V
<b>Rated frequency range</b>	50/60 Hz	-
<b>Active power max.</b>		
<b>4 disk model</b>	661W	617W
<b>8 disk model</b>	698W	652W
<b>Apparent power max.</b>		
<b>4 disk model</b>	696VA	-
<b>8 disk model</b>	735VA	-
<b>Heat emission</b>		
<b>4 disk model</b>	2,378 kJ/h	2,221 kJ/h
<b>8 disk model</b>	2,511 kJ/h	2,345 kJ/h

**COMPLIANCE**

<b>Europe</b>	CE RoHS
<b>Russia</b>	GOST-R
<b>USA/Canada</b>	FCC ICES-003 UL/cUL UL/DEMKOLVD UL/S-mark
<b>Japan</b>	VCCI
<b>China</b>	CCC Chinese RoHS
<b>Korea</b>	MIC
<b>Taiwan</b>	BSMI
<b>Australia</b>	C-tick
<b>Compliance notes</b>	There is general compliance with the safety requirements of major countries. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request.

**WARRANTY AND SUPPORT SERVICES**

<b>Service link</b>	<a href="http://www.fujitsu.com/support">www.fujitsu.com/support</a>
---------------------	--

**FUJITSU PLATFORM SOLUTIONS**

In addition to Fujitsu SPARC Enterprise T5120, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

**Dynamic Infrastructures**

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure-as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

**Computing Products**

[www.fujitsu.com/global/services/computing/](http://www.fujitsu.com/global/services/computing/)

- PRIMERGY: Industrial standard server
- SPARC Enterprise: UNIX server
- PRIMEQUEST: Mission-critical IA server
- ETERNUS: Storage system
- BS2000/OSD: Mainframe
- GS21: Mainframe
- ESPRIMO: Desktop PC
- LIFEBOOK: Notebook PC
- CELSIUS: Workstation

**Software**

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

- Interstage: Application infrastructure software
- Systemwalker: System management software
- Symfoware: Database software
- PRIMECLUSTER: Clustering software
- GLOVIA: ERP solution

**MORE INFORMATION**

Learn more about Fujitsu SPARC Enterprise T5120, please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website.  
[www.fujitsu.com/sparcenterprise/](http://www.fujitsu.com/sparcenterprise/)

**FUJITSU GREEN POLICY INNOVATION**

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at:  
[www.fujitsu.com/global/about/environment/](http://www.fujitsu.com/global/about/environment/)



**COPYRIGHT**

©Copyright 2010 Fujitsu Limited.  
Fujitsu, the Fujitsu logo, PRIMERGY, PRIMEQUEST, ETERNUS, BS2000/OSD, GS21, ESPRIMO, LIFEBOOK, CELSIUS, Interstage, Systemwalker, Symfoware, PRIMECLUSTER are trademarks or registered trademarks of Fujitsu Limited in Japan and other countries.  
GLOVIA is a trademark of GLOVIA International LLC in the United States and other countries.  
UNIX is a registered trademark of The Open Group in the United States and other countries.  
All SPARC trademarks are trademarks or registered trademarks of SPARC International, Inc. in the United States and other countries.  
Oracle and Java are registered trademarks of Oracle and/or its affiliates.  
Other company, product and service names may be trademarks or registered trademarks of their respective owners.

**DISCLAIMER**

Technical data subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

**CONTACT**

FUJITSU LIMITED  
Website: [www.fujitsu.com](http://www.fujitsu.com)  
2010-09-14 WW-EN