DATASHEET
FUJITSU SPARC ENTERPRISE T5220 SERVER

SECURE, HIGH-PERFORMANCE WEB INFRASTRUCTURE: 2U HIGH FUJITSU SPARC ENTERPRISE T5220 HAS SCALABLE STORAGE FOR NET INTENSIVE APPLICATIONS. IT DELIVERS UP TO 64 SIMULTANEOUS COMPUTE THREADS & OVER 4 TERABYTES OF STORAGE.

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 T5220 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.

Fujitsu SPARC Enterprise T5220 also provides local storage capability that scales to 2.4 or 4.8 terabytes. This ensures in-Web processes and applications have the local growth capacity that will deliver maximum transaction response times.

The intrinsic service management in Fujitsu SPARC Enterprise T5220 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 T5220 is a very cost effective and well engineered system that mostly looks after itself.

16 disk model

8 disk model

FEATURES AND BENEFITS

MAIN FEATURES	BENEFITS
FLEXIBLE INVESTMENT PROTECTION	
■ A range of 4 or 8 core UltraSPARC T2 processors	■ Can choose the performance required at lowest cost of ownership
■ Many growth options by use of Logical domains, Solaris Containers, and space-saving server node addition	■ Able to grow the underlying hardware platforms while maximizing the use of all available resources; for best return on investment
■ Able to install up to 8 or 16 internal disk drives	■ Excellent growth capacity to keep up with Web application growth and fast transaction performance turn-around requirements
RELIABLE OPERATION	
■ A broad range of RAS functions including cache protection mechanisms, thread and core offlining, register protection, cache scrubbing	■ Minimizes the possibility of server failure and ensures application continuity by removing, correcting or isolating in-processor faults
■ 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	■ Lower management and maintenance costs coupled with non-stop system operation.
WORLD'S MOST ADVANCED OS, SOLARIS 10	
■ Solaris 10 is pre-installed	■ Easy installation and upgrades with Solaris binary compatibility means software investment protection
■ Supports Dynamic Tracing (DTrace) Solaris Zettabyte File System (ZFS), plus use and process rights management	■ The outstanding diagnostics and secure data handling makes high throughput operations simpler and more secure
■ The choice of the world's most advanced developers	■ 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 T5220 servers have a longer and more useful life but they will also reduce your overall IT spends.

The ability to load up to 8 or 16 disk drives also ensures longevity as the system is better able to keep up with Net application growth.

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 T5220 inter-works will 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	
Processor quantity and type	1 x UltraSPARC T2
Processor options	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	
Memory slots	16 slots
Memory slot type	FB-DIMM
Memory capacity (min. – max.)	8GB–128GB
Memory protection	ECC
Memory modules	8GB Memory Expansion (4 x 2GB DIMM)
	16GB Memory Expansion (4 x 4GB DIMM)
	32GB Memory Expansion (4 x 8GB DIMM)

DRIVE BAYS		
Disk bay configuration	**8 disk model**	8 x 2.5-inch hot-plug SAS/SATA
	16 disk model	16 x 2.5-inch hot-plug SAS/SATA (maximum 8 in 16 disk bays for SATA)
Disk drives		HDD SAS, 146GB, 10,000rpm, 2.5-inch
		HDD SAS, 300GB, 10,000rpm, 2.5-inch
		SSD SAS, 32GB, 2.5-inch
Optical drive bay configuration		1 x 128mm bay
Optical drives		CD-RW, DVD+/-RW (8xDVD+/-R, 8xDVD+/-RW, 24CD-R, 24xCD-RW)

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

SLOTS	
PCI Express	2 x PCI Express (x8, half-height, short)
	4 x PCI Express (x4, half-height, short)
Note	XAUI cards can be installed in predetermined PCI Express slots
Note	Expandable to 16 slots (PCI Express) when using 1 x External I/O Expansion Units

CONNECTABLE COMPONENTS		
SCSI/SAS controller		Dual-Channel Ultra320 SCSI Card, PCI Express
		Single-Channel SAS Card, PCI Express
Fibre channel controller		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
LAN controller		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)
Rack infrastructure		Cable Management Arm
		Rack rail kit

SUPPORTED OPERATING SYSTEMS	
Supported operating systems	Solaris 10 8/07 or later
Operating system release link	www.fujitsu.com/sparcenterprise/manual/notes/

SERVER MANAGEMENT	
Service processor	Integrated Lights Out Manager (ILOM)
Supported software	Enhanced Support Facility
	Server System Manager

VIRTUALISATION	
Virtualization features	Logical Domains
	Solaris Containers

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

DIMENSIONS / WEIGHT	
Rack-mount (W x D x H)	425 x 714 x 88 mm; 2U
	16.8 x 28.1 x 3.5 inches ; 2U
Weight	25 kg (55 lb.)

ENVIRONMENT	
Sound pressure (LpAm)	63 dB (A)
Operating ambient temperature	5–35°C (depending on altitude)
Operating relative humidity	10–90%
Operating altitude	0–3,000 m

ELECTRICAL VALUES		AC POWER	DC POWER
Rated voltage range		AC 100–240V +/- 10%	DC -48 V, DC -60V
Rated frequency range		50/60 Hz	-
Active power max.	**8 disk model**	845W	789W
	16 disk model	939W	877W
Apparent power max.	**8 disk model**	890VA	-
	16 disk model	989VA	-
Heat emission	**8 disk model**	3,040 kJ/h	2,840 kJ/h
	16 disk model	3,379 kJ/h	3,156 kJ/h

COMPLIANCE	
Europe	CE
	RoHS
Russia	GOST-R
USA/Canada	FCC
	ICES-003
	UL/cUL
	UL/DEMKOLVD
	UL/S-mark
Japan	VCCI
China	CCC
	Chinese RoHS
Korea	MIC
Taiwan	BSMI
Australia	C-tick
Compliance notes	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	
Service link	www.fujitsu.com/support

FUJITSU PLATFORM SOLUTIONS

In addition to Fujitsu SPARC Enterprise T5220, 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/
- 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/
- 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 T5220, please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website.
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/

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