DATASHEET
FUJITSU SPARC ENTERPRISE T5140 SERVER

TOP CLASS PERFORMANCE AND A 1U SPACE SAVING FORMAT PROVIDE THE BEST ECONOMICS, POWER EFFICIENCY AND WEB CONSOLIDATION IN A RACK SERVER. THE UP TO 128 SEPARATE THREADS DELIVER MAJOR WEB AND THROUGHPUT APPLICATION CONSOLIDATION.

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 ENVIRONMENTS MEAN MANAGEABILITY AND RELIABILITY

Based on a two socket design, Fujitsu SPARC Enterprise T5140 provides up to 128 threads to give the highest throughput density in a 1U rack unit. This means outstanding web performance and data throughput, plus excellent server consolidation capability. Fully supported by solid management and the top scalability and openness of the Solaris Operating system, you have the ability to maximise thread utilization, deliver application capability, and scale as large as you need.

The intrinsic service management in Fujitsu SPARC Enterprise T5140 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 T5140 is both a cost effective and well engineered system that you can rely on to deliver responsive Web and application performance.

8 disk model

4 disk model

FEATURES AND BENEFITS

MAIN FEATURES	BENEFITS
FLEXIBLE INVESTMENT PROTECTION	
■ 8, 12 or 16 core systems from 2 x UltraSPARC T2 Plus processors ■ Many growth options by use of Logical domains, Solaris containers, processor addition and space-saving server node addition ■ High memory and disk capacity growth	■ Let's you select the performance you need, in a cost effective way, by choosing 64, 96 or 128 threads ■ Able to grow the underlying hardware platforms while maximizing the use of all available resources; for best return on investment ■ Power server consolidation capability from the 128 thread system, ensuring simpler and more cost efficient management of previously dispersed Net applications
RELIABILITY THAT MAKES YOU FORGET	
■ A broad range of RAS functions including cache protection mechanisms using ECC for Coherency Links, thread and core offlining, memory page retirement register protection by ECC , cache memory 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	■ 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
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	■ 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 8, 12 or 16 cores from a just two processors delivers the performance that reduces socket based application license fees as well as allowing more flexible and extensive use of Solaris Containers and Logical Domains. High reliability coupled with low operating costs also delivers unrivalled investment protection. Not only will your Fujitsu SPARC Enterprise T5140 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. When used to the maximum in high throughput computing environments you will achieve outstanding return on investment. Low than average power consumption also means savings in cooling costs particularly in high-density rack use in the data center.

The ability to load high levels of main memory and up to 4 or 8 disk drives ensures system longevity as well enabling maximum benefits from systems consolidation. With just one device to manage for up to 128 separate application threads, systems administration costs will tumble.

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 T5140 inter-works will all other Solaris and SPARC Enterprise systems to let you add performance 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 Plus processors, provide 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 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	2 x UltraSPARC T2 Plus
Processor options	2 x UltraSPARC T2 Plus four-core processor (1.2GHz, 24KB L1 cache on core, 4MB L2 cache per chip)
	2 x UltraSPARC T2 Plus six-core processor (1.2GHz, 24KB L1 cache on core, 4MB L2 cache per chip)
	2 x UltraSPARC T2 Plus eight-core processor (1.2GHz, 24KB L1 cache on core, 4MB L2 cache per chip)
	2 x UltraSPARC T2 Plus eight-core processor (1.4GHz, 24KB L1 cache on core, 4MB L2 cache per chip)

MEMORY	
Memory slots	16 slots
Memory slot type	FB-DIMM
Memory capacity (min. – max.)	16GB–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	**4 disk model**	4 x 2.5-inch hot-plug SAS/SATA
	8 disk model	8 x 2.5-inch hot-plug SAS/SATA (maximum 4 in 8 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 port (2 on front, 2 on rear)
Service LAN for ILOM	1 ports (10/100Mbit/s, RJ45)
Service serial for ILOM	1 port (RS232C, RJ45)

SLOTS	
PCI Express	3 x PCI Express (x8, half-height, short)
Note	XAUI cards can be installed in pre-determined PCI Express slots
Note	Expandable to 13 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		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)
Rack infrastructure		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 RAID and hardware RAID (RAID1)
		Solid state drive dynamic-degrade by software RAID
	Static degradation	Processor (core)
		Memory
		Hard disk drive static-degraded by software RAID and hardware RAID (RAID1)
		PCI cards
		Solid state drive static degraded by software RAID

DIMENSIONS / WEIGHT	
Rack-mount (W x D x H)	425 x 714 x 44 mm; 1U
	16.8 x 28.1 x 1.7 inches ; 1U
Weight	19 kg (42 lb.)

ENVIRONMENT	
Sound pressure (LpAm)	70 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.	**4 disk model**	717W	609W
	8 disk model	730W	-
Apparent power max.	**4 disk model**	755VA	-
	8 disk model	769VA	-
Heat emission	**4 disk model**	2,581 kJ/h	2,193 kJ/h
	8 disk model	2,628 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 T5140, 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 T5140, 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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CONTACT

FUJITSU LIMITED
Website: www.fujitsu.com
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