Data Sheet
Fujitsu PRIMERGY TX300 S7 Server

Datasheet for Red Hat certification

No compromise tower server

PRIMERGY TX tower servers are ideal for use in SMEs or branch offices. They increase operational efficiency by providing rock solid, record-breaking, energy efficient performance. That performance is built on 20-years of pioneering work in Green IT. As a customer, you benefit from a reduction in your organization's environmental impact and lower running costs. The reliability is proven by testing the machines through 5000 boot cycles – far more than other vendors do. PRIMERGY TX servers are also easy to manage via the PRIMERGY ServerView Suite, reducing IT admin workload and costs. Plus, tower to rack conversion kits are available for most TX systems, ensuring investment protection.

PRIMERGY TX300 S7

The PRIMERGY TX300 S7 is a no compromise tower server with maximum levels of performance, expandability and availability. It combines the performance of Intel® Xeon® processors E5 family with up to two 6GB general-purpose computing on graphics processing units (GPGPU) for computationally intensive applications. The expandability is excellent thanks to the 10 expansion slots and up to 24 2.5-inch hard disks. Thanks to the high availability offered by a choice of LAN cards, redundant fans and up to 4 hot-plug power supplies, the TX300 S7 is suited to database, virtualization or high performance computing scenarios. Moreover, the TX300 S7 power supplies reach energy efficiency levels of 94%, minimizing running costs and the environmental impact.

Features and Benefits

Main Features	Benefits
Meet today's demand and be prepared for future requirements ■ Intel Xeon E5-2600 product family with up to 8 core processors and Turbo Boost 2.0 ■ Up to 2 NVIDIA® Tesla™ C2075 general-purpose computing on graphics processing units (GPGPU) with 448 cores each.	■ Increased performance of minimum 30% compared to the previous generation ■ Optimized for business applications, cloud and virtualization as well as for computationally intensive applications, e.g. high performance computing (HPC) or computer tomography
Lifecycle investment protection ■ Expanded scalability of up to 24 DIMMs with 768 GB memory, up to 24 hard disk drives and 10 PCIe slots Gen3 ■ New modular concept for the base unit as well as a choice for LAN controller, RAID controller and power supplies ■ Upgrade kits for hard disk drives, backup devices as well as LTO drives	■ Maximum expandability to meet future demand ■ Individual and cost-saving configuration of the server according to the need of today with upgrade option to meet the demand of tomorrow ■ Upgrade kits save budget as the system can be upgraded when the company grows and thus protect the investment ■ Ability to protect the data by integrating LTO drives
Cost efficient operations ■ Simplified power management with profiles for 'minimum power' and 'low-noise' ■ 4 hot-plug PSU with 94% efficiency ■ Fujitsu ServerView Suite offers tools for installation and deployment, permanent status monitoring and control. A wide range of integration packs allow a seamless and easy integration in widely-used enterprise management systems.	■ Simplified and comprehensive powermanagement that results with the high efficient power supplies in significant savings ■ Fujitsu ServerView Suite provides all the functions for fail-safe, flexible and automated 24x7 server operations and improves end-user productivity via intelligent and innovative system management solutions.

Technical details

PRIMERGY TX300 S7		
Housing types	Tower	Tower
Storage drive architecture	4x 3.5" SAS/SATA	8x 2.5" SAS/SATA
Power supply	Hot-plug	Hot-plug

Mainboard	
Mainboard type	D2949
Chipset	Intel® C600 (Intel® Patsburg A)
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5-2600 product family
Processor	Intel® Xeon® processor E5-2603 (4C/4T, 1.80 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1066 MHz, 80 W)
	Intel® Xeon® processor E5-2609 (4C/4T, 2.40 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1066 MHz, 80 W)
	Intel® Xeon® processor E5-2620 (6C/12T, 2.00 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s , Mem bus: 1333 MHz, 95 W)
	Intel® Xeon® processor E5-2630 (6C/12T, 2.30 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s , Mem bus: 1333 MHz, 95 W)
	Intel® Xeon® processor E5-2630L (6C/12T, 2.00 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s , Mem bus: 1333 MHz, 60 W)
	Intel® Xeon® processor E5-2637 (2C/4T, 3.00 GHz, TLC: 5 MB, Turbo: Yes, 6.4 GT/s, Mem bus: 1600 MHz, 80 W)
	Intel® Xeon® processor E5-2640 (6C/12T, 2.50 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s , Mem bus: 1333 MHz, 95 W)
	Intel® Xeon® processor E5-2643 (4C/8T, 3.30 GHz, TLC: 10 MB, Turbo: Yes, 6.4 GT/s, Mem bus: 1600 MHz, 130 W)
	Intel® Xeon® processor E5-2650 (8C/16T, 2.00 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 95 W)
	Intel® Xeon® processor E5-2650L (8C/16T, 1.80 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 70 W)
	Intel® Xeon® processor E5-2660 (8C/16T, 2.20 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 95 W)
	Intel® Xeon® processor E5-2665 (8C/16T, 2.40 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 115 W)
	Intel® Xeon® processor E5-2667 (6C/12T, 2.90 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s , Mem bus: 1600 MHz, 130 W)
	Intel® Xeon® processor E5-2670 (8C/16T, 2.60 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 115 W)
	Intel® Xeon® processor E5-2680 (8C/16T, 2.70 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 130 W)
	Intel® Xeon® processor E5-2690 (8C/16T, 2.90 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 135 W)
Memory slots	24 (12 DIMMs per CPU, 4 channels with 3 slots per channel)
Memory slot type	DIMM (DDR3)
Memory capacity (min. - max.)	2 GB - 768 GB
Memory protection	Advanced ECC Memory Scrubbing SDDC (Chipkill™) Hot-spare memory support Memory Mirroring support Rank sparing memory support

Memory notes	Max. 8 memory modules/CPU with UDIMM (low voltage or standard) OR quad-rank RDIMM; max. 12 memory modules/CPU with single or dual-rank RDIMM or single, dual-rank or quad-rank Load-Reduced (LR) DIMM. Memory Mirroring with identical modules in both channel pairs of a bank (4 modules per bank), Rank sparing or Performance Mode with identical modules in all four channels (4 modules per bank).

Interfaces

USB ports	10 x USB 2.0 (2x front, 4x rear, 2x internal for backup devices, 1x USB stick, 1x USSD)
Graphics (15-pin)	2 x VGA (thereof 1x front optional)
Serial 1 (9-pin)	1 x serial RS-232-C, usable for iRMC S3 or system or shared
LAN / Ethernet Server	2 x Gbit/s Ethernet (RJ45) plus 2x1 Gbit/s as default Modular On-Board LAN with upgrade options to 4x 1 Gbit/s (RJ45) or 2x 10 Gbit/s (SFP+
Service LAN (RJ45)	1 x dedicated management LAN port for iRMC S3 (10/100/1000 Mbit/s) Service LAN traffic can be switched to shared onboard Gbit LAN port Shared 10Gbit/s (SPF+) Management LAN as option if Modular integrated on-board LAN 2x 10 Gbit/s is configured

Onboard or integrated Controller

RAID controller	4 port for internal 3G SATA and SAS (as upgrade option "Patsburg B") for HDDs with RAID 0/1/10 or SAS LTO device (Intel C600) See under Components RAID controller
SATA Controller	Intel® C600, 2 x SATA channel for DVD
LAN Controller	Intel® Ethernet Controller I350, 2 x 10/100/1000 Mbit/s Ethernet (I/O acceleration), In addition 2x1 Gbit/s as default Modular On-Board LAN with upgrade options to 4x 1 Gbit/s or 2x 10 Gbit/s PXE-Boot via LAN from PXE server, iSCSI boot (also diskless)
Remote Management Controller	Integrated Remote Management Controller (iRMC S3, 32 MB attached memory incl. graphics controller), IPMI 2.0 compatible
GPU computing card	1-2 NVIDIA® Tesla™ C2075 computing processor
Trusted Platform Module (TPM)	Infineon / separate module; TCG V1.2 compliant (option)

Slots

PCI-Express 3.0 x4 (mech. x8)	2 x Full height (2nd processor required)
PCI-Express 3.0 x8	4 x Full height (1 is reserved for Modular RAID controller)
PCI-Express 3.0 x8 (mech. x16)	1 x Full height
PCI-Express 3.0 x16	2 x Full height (2nd processor required)
PCI-Express 2.0 x4 (mech. x8)	1 x Full height (2nd processor required)
Slot Notes	One PCIe Gen3 x8 slot may be occupied with a modular LAN controller if configured. One PCIe Gen3 x8 slot may be occupied with a modular RAID controller if configured. Important: 5 PCIe slots are supported with the first processor. 10 PCIe slots are supported with two processors.

Drive bays

Storage drive bays	4 x 3.5-inch hot-plug SAS/SATA	8 x 2.5-inch hot-plug SAS/SATA
Storage drive bay configuration	5.25/1.6-inch bay for 4x 3.5-inch hot-plug SAS/SATA	5.25/1.6-inch bay for 8x 2.5-inch hot-plug SAS/SATA
Optional accessible drives	3x 5.25/1.6-inch bay for accessible devices (HDD: 4x 3.5-inch hot-plug SAS/SATA or LTO drive)	3x 5.25/1.6-inch bay for accessible devices (HDD: 8x 2.5-inch hot-plug SAS/SATA and LTO drive)
Number of fans	6	
Fan notes	For system cooling: 4 fans as standard and additionally 2 extra fans for redundancy.	

Operating panel

Operating buttons	On/off switch Reset button NMI button ID button

Operating panel

Status LEDs	System status (orange / yellow) Identification (blue) Hard disks access (green) Power (amber / green) At system rear side: System status (orange / yellow) Identification (blue) LAN connection (green) LAN speed (green / yellow)
Service display	Optional: ServerView Local Service Display (LSD)

BIOS

BIOS features	ROM based setup utility Recovery BIOS BIOS settings save and restore Local BIOS update from USB device Online update tools for main Windows and Linux versions Local and remote update via ServerView Update Manager SMBIOS V2.4 Remote PXE boot support Remote iSCSI boot support

Operating Systems and Virtualization Software

Certified or supported operating systems and virtualization software	Microsoft® Hyper-V™ Server 2008 R2
	Microsoft® Windows Server® 2008 R2 Datacenter
	Microsoft® Windows Server® 2008 R2 Enterprise
	Microsoft® Windows Server® 2008 R2 Standard
	Microsoft® Windows® Web Server 2008 R2
	Microsoft® Windows HPC Server® 2008 R2 Suite
	Microsoft® Windows® Small Business Server 2011 Premium Add-On
	Microsoft® Windows® Small Business Server Standard 2011
	Microsoft® Windows® Server 2008 Datacenter
	Microsoft® Windows® Server 2008 Enterprise
	Microsoft® Windows® Server 2008 Standard
	VMware vSphere™ 5.0 Embedded
	VMware vSphere™ 5.0
	VMware vSphere™ 4.1
	VMware vSphere™ 4.1 Embedded
	VMware vSphere™ 4.1 Installable
	VMware vSphere™ 4.0
	VMware vSphere™ 4.0 Embedded
	VMware vSphere™ 4.0 Installable
	Novell® SUSE Linux Enterprise Server 11
	Novell® SUSE Linux Enterprise Server 10
	Novell® SUSE Linux Enterprise Server 10 with XEN
	Red Hat® Enterprise Linux 6
	Red Hat® Enterprise Linux 5
	Red Hat® Enterprise Linux 5 with XEN
	Citrix® XenServer®
Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421
Operating system notes	Support of other Linux derivatives on demand

Server Management

Standard	ServerView Remote Management (iRMC)

Server Management

Option	ServerView Suite - Deploy
	SV Deployment Manager (full version)
	ServerView Suite - Maintain
	iRMC Advanced Pack incl. Advanced Video Redirection (AVR) and Remote Storage
	ServerView Suite - Dynamize
	SV Virtual-IO Manager (VIOM)
	SV Resource Orchestrator Virtual Edition (ROR VE)
	SV Resource Orchestrator Cloud Edition (ROR CE)
	ServerView Suite - Integrate
	SV Integration pack for Fujitsu ManageNow® solution
Server Management notes	Regarding Operating System dependencies for ServerView Suite Software Products see dedicated Product Data sheets.

Dimensions / Weight

Floor-stand (W x D x H)	177 x 777 x 456 mm
Weight	up to 35 kg
Weight notes	Actual weight may vary depending on configuration
Rack integration kit	Rack integration kit as option

Environmental

Operating ambient temperature	10 - 35°C
Operating relative humidity	10 - 85 % (non condensing)
Operating environment	FTS 04230 – Guideline for Data Center (installation locations)
Operating environment Link	http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfbf3230473
Noise emission	Measured according to ISO 7779 and declared according to ISO 9296
Sound pressure (LpAm)	Low noise mode: Standard Fan Configuration: 32 dB(A) (idle) / 33 dB(A) (operating) Redundant Fan Configuration: 33 dB(A) (idle) / 34 dB(A) (operating)
Sound power (LWAd; 1B = 10dB)	Low noise mode: Standard Fan Configuration: 5.0 B (idle) / 5.0 B (operating) Redundant Fan Configuration: 5.1 B (idle) / 5.1 B (operating)

Electrical values

Power supply configuration	1-4x 450W/800W hot-plug power supply
Max. output of single power supply	450/800 W (94% efficiency)
Power supply efficiency	94% (at 50% PSU load, CSCI "platinum")
Hot-plug power supply output	450/800 W (94% efficiency)
Hot-plug power supply redundancy	Yes
Rated voltage range	100 V - 240 V
Rated frequency range	50 Hz - 60 Hz
Rated current in basic configuration	100 V - 240 V / TBD
Active power (max. configuration)	1070 W
Apparent power (max. configuration)	1080 VA
Heat emission	3852.0 kJ/h (3651.0 BTU/h)
Power Supply Notes	Power Safeguard adapts system performance in case the wattage exceeds supply limits.

http://ts.fujitsu.com/products/standard_servers/e_efficient.html

Compliance

Germany	GS
Europe	CE Class A *
USA/Canada	CSAc/us FCC Class A
Global	CB RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronical equipment)
Japan	VCCI
China	CCC (depending on configuration)

Compliance	
Australia/New Zealand	C-Tick
Taiwan	CNS 13438 class A
Compliance notes	There is general compliance with the safety requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request. * Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
Compliance link	http://sp.ts.fujitsu.com/sites/certificates/

Components

Storage disks	SSD SAS, 6 Gb/s, 400 GB, SLC, hot-plug, 2.5-inch, enterprise
	SSD SAS, 6 Gb/s, 200 GB, SLC, hot-plug, 2.5-inch, enterprise
	SSD SAS, 6 Gb/s, 100 GB, SLC, hot-plug, 2.5-inch, enterprise
	HDD SATA, 6 Gb/s, 500 GB, 7200 rpm, hot-plug, 3.5-inch, economic
	HDD SATA, 6 Gb/s, 500 GB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SATA, 6 Gb/s, 500 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 6 Gb/s, 250 GB, 7200 rpm, hot-plug, 3.5-inch, economic
	HDD SATA, 6 Gb/s, 250 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 6 Gb/s, 2 TB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SATA, 6 Gb/s, 1 TB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SATA, 6 Gb/s, 1 TB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 3 Gb/s, 2 TB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SAS, 6 Gb/s, 900 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 600 GB, 15000 rpm, hot-plug, 3.5-inch, enterprise
	HDD SAS, 6 Gb/s, 600 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 450 GB, 15000 rpm, hot-plug, 3.5-inch, enterprise
	HDD SAS, 6 Gb/s, 450 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 15000 rpm, hot-plug, 3.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 146 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 73 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
Backup Drives	DDS Gen5, 36 GB, 3 MB/s, half height, USB 2.0
	DDS Gen6, 80 GB, 6 MB/s, half height, USB 2.0
	LTO3HH Ultrium, 400 GB, 60 MB/s, half height, SAS 3Gb/s
	LTO4HH Ultrium, 800 GB, 120 MB/s, half height, SAS 6Gb/s
	LTO5HH Ultrium, 1500 GB, 140 MB/s, half height, SAS 6Gb/s
	RDX Drive, 160 GB, 320 GB, 500 GB, 1 TB , 25 MB/s, half height, USB 2.0
Optical drives	DVD-ROM, (16xDVD; 48xCD), half height, SATA I
	DVD Super Multi, (16xDVD, 8xDVD+RW 6xDVD-RW, 12xDVD-RAM; 48xCD, 32xCD-RW), half height, SATA I
	DVD Super Multi, (8xDVD/DVD+RW, 6xDVD-RW, 5xDVD-RAM; 24xCD/CD-R, 16xCD-RW), slimline, SATA I
RAID Controller	Integrated RAID 5/6 Ctrl., HDD SAS 6 Gb, Fujitsu , 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, Optional BBU (based on LSI SAS2108)
	Integrated RAID 0/1 Ctrl., SAS/SATA 6 Gb, Fujitsu , 8 ports int. RAID level: 0, 1, 10, No BBU support (based on LSI SAS2008)

Fibre Channel controller	Fibre Channel Host Bus Adapter 1 x 8 Gb Qlogic QLE2560 MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 8 Gb Qlogic QLE2562 MMF LC-style
	Fibre Channel Host Bus Adapter 1 x 8 Gb Emulex LPe1250 MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 8 Gb Emulex LPe12002 MMF LC-style
LAN Controller	Converged Network Adapter 2 x 10 Gb Emulex OCe10102
	Ethernet Ctrl. 1 x 1 Gb Intel® Gigabit CT Desktop Adapter
	Ethernet Ctrl. 1 x 1 Gb Intel® PRO/1000 PF Server Adapter
	Ethernet Ctrl. 2 x 10 Gb Fujitsu Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+
	Ethernet Ctrl. 2 x 10 Gb Fujitsu Shared 10Gb Management LAN configured
	Ethernet Ctrl. 2 x 10 Gb Fujitsu Upgrade-Kit to 2x Gbit and 2x 10Gbit on-board
	Ethernet Ctrl. 2 x 1 Gb Fujitsu LAN Adapter D2735-2
	Ethernet Ctrl. 2 x 1 Gb Fujitsu Upgrade-Kit to 4x Gbit on-board
	Ethernet Ctrl. 4 x 1 Gb Fujitsu Eth Ctrl 4x1Gbit PCIe x4 D2745 Cu
	Ethernet Ctrl. 4 x 1 Gb Fujitsu Upgrade-Kit to 6x Gbit on-board
	InfiniBand HCA 1 x 40 Gb Mellanox
	InfiniBand HCA 2 x 40 Gb Mellanox

Warranty

Standard Warranty	3 years
Service level	On-site Service (depending on country)

Maintenance and Support Services - the perfect extension

Recommended Service	7x24, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
Spare Parts availability	5 years
Service Lifecycle	
Service Weblink	http://www.fujitsu.com/fts/services

More information

Fujitsu platform solutions

In addition to Fujitsu PRIMERGY TX300 S7, 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/

Software

www.fujitsu.com/software/

More information

Learn more about Fujitsu PRIMERGY Server, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/primergy

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 http://www.fujitsu.com/global/about/environment/

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