



PRIMERGY TX300 S5

Dual-Processor Tower Server

The PRIMERGY® TX300 S5 tower server is a full-featured workgroup server with excellent performance and high availability features—perfect as a powerful application server running business critical applications.

The features of this server speak for themselves:

Powerful Intel® Dual- and Quad-Core Xeon® 5500 series processors

Memory high availability with hot spare memory or mirroring support

Up to 144 GB of DDR3-RAM

Choice of integrated SAS RAID controllers with as much as 512 MB cache

Highly expandable with 7 PCI Express slots

Up to 20x hard drives and support for up to 10 TB storage

Integrated Remote Management Controller (iRMC) providing advanced management features

Maximum Scalability

PRIMERGY TX300 S5 servers combine advanced processor and storage technology with a wealth of features to enhance uptime. They are an ideal platform for customers who demand the highest performance combined with excellent reliability. Offering Quad-Core Intel® Xeon® 5500 series processors, up to 144 GB of RAM, up to 20 Serial Attached SCSI (SAS) hard disk drives, dual Gigabit Ethernet ports, and seven PCI Express slots, the PRIMERGY TX300 S5 server offers maximum scalability to support demanding applications such as database warehousing, messaging/collaboration, and ERP solutions. Distributed environments with limited IT resources will appreciate this server's ease of remote management features, reliability, and expandability.

Anytime Availability

For the utmost in server availability, the PRIMERGY TX300 S5 server provides hot-plug and redundant capabilities for critical components, such as power supply units and system fans. A choice of integrated RAID controllers allows you to choose the level of performance and availability to match your needs. Extensive memory protection features like spare or mirrored memory configurations proactively prevent system crashes by moving data away from failing memory modules before a catastrophic memory failure occurs. The PRIMERGY TX300 S5 server's advanced Cool-Safe design optimizes airflow to keep critical components cool and minimize power spent on cooling. This maximizes server reliability and power efficiency.

Full Lifecycle Management

For a quick ramp up of your new server, the ServerStart Suite of tools from Fujitsu allows you to install and configure an OS load quickly and easily. Once the server is up, our ServerView software agents deliver fail-safe operation by providing inband management, monitoring, and control of PRIMERGY TX300 S5 hardware. A powerful integrated Remote Management Controller chip is integrated into the PRIMERGY TX300 S5 server and provides complete out-of-band monitoring, test, diagnosis, and alarm management. With PRIMERGY remote management solutions, you are always in control of your servers.

Quality and Reliability

The close integration between Fujitsu design, manufacturing, and service engineers creates some of the highest quality products offered in the server market. In a time when most servers are assembled by third-party vendors, Fujitsu takes pride in its own world-class design and manufacturing capabilities.



TX300 S5 SPECIFICATIONS

Main Features	Benefits
<p>Dual, Quad and Turbo Quad-Core Intel Xeon 5500 series and up to 8 MB TLC</p> <p>Up to 144 GB state-of-the-art DDR3 main memory</p> <p>7 PCIe Gen2 double I/O throughput</p> <p>2 x Gb/s Ethernet LAN with TCP/IP accelerator</p> <p>Patented IOOP on certain pairs of PCIe slots (auto-accumulated 2x x4 PCIe to 1x x8 PCIe slot)</p>	<p>New processor instructions enable VMs to run more efficiently and with better security.</p> <p>More virtual machines and applications can be consolidated on one server.</p> <p>Doubled I/O bandwidth so that the combined SAN and network accesses achieve optimal throughput.</p> <p>Flexible PCIe design gives the user choice between a large number of slots, or a smaller number of high performance slots for demanding devices.</p>
<p>Memory sparing and memory mirroring option</p> <p>Cool-safe system design with high air throughput</p> <p>Integrated iRMC S2 Advanced Pack, integrated Remote Management Controller</p>	<p>Enables particularly high levels of availability and reliability needed for larger memory configurations.</p> <p>Better cooling results in increased component lifespan and optimized performance.</p> <p>Easy, fast, remote access from a web browser reduces costs by increasing troubleshooting and management efficiency.</p>
<p>Highly efficient power supply units</p> <p>Sensor-controlled fan management</p> <p>Large, slow-rotation cooling fans</p> <p>Power limiting and power budgeting</p>	<p>Optimized energy-efficiency: reduce stress on the data center cooling system and your budget</p> <p>Pre-set energy levels that prevent consumption levels being exceeded</p>
<p>ServerView Local Service Panel (LSP) or display (LSD)</p> <p>New standardized design with illuminated green touch-points for servicing hot-plug components</p>	<p>Easy and accurate diagnosis of problems to minimize downtime – enables quick hardware troubleshooting by remote users and lowered service costs.</p> <p>Easy-to-use for quick servicing of PRIMERGY systems</p>
<p>ServerView Suite - Proven tools for the efficient management of physical and virtual resources throughout the entire lifecycle:</p> <ul style="list-style-type: none"> - Perfect installation - Stable operations - Secure updates - Exact (remote) maintenance - Easy integration in specific corporate management solutions 	<p>Reduced operational and service costs: greater reliability, lower downtimes and improved service quality.</p>

Technical Details

Mainboard	Specification
Mainboard Type	D 2619
Chipset	Intel® 5520
Processor Quantity and Type	1 - 2 x Intel® Xeon® processor 5500 series
Processor Options	Intel® Xeon® E5502 (2C, 1.86 GHz, SLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W) Intel® Xeon® E5504 (4C, 2.00 GHz, SLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W) Intel® Xeon® E5506 (4C, 2.13 GHz, SLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W) Intel® Xeon® E5520 (4C, 2.26 GHz, SLC: 8 MB, Turbo: Yes, 5.86 GT/s, Mem bus: 1066 MHz, 80 W) Intel® Xeon® E5540 (4C, 2.53 GHz, SLC: 8 MB, Turbo: Yes, 5.86 GT/s, Mem bus: 1066 MHz, 80 W) Intel® Xeon® L5506 (4C, 2.13 GHz, SLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 60 W) Intel® Xeon® L5520 (4C, 2.26 GHz, SLC: 8 MB, Turbo: Yes, 5.86 GT/s, Mem bus: 1066 MHz, 60 W) Intel® Xeon® X5550 (4C, 2.67 GHz, SLC: 8 MB, Turbo: Yes, 6.4 GT/s, Mem bus: 1333 MHz, 95 W) Intel® Xeon® X5570 (4C, 2.93 GHz, SLC: 8 MB, Turbo: Yes, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)
Memory Slots	18 (9 DIMMs per CPU, 3 channels with 3 slots per channel)
Memory Slot Type	DIMM (DDR3) registered
Memory Capacity (Min. - Max.)	2 GB - 144 GB
Memory Protection	Advanced ECC Memory Scrubbing SDDC (Chipkill™) Hot-spare memory support Memory Mirroring support
Memory Notes	max. 144 GB registered,; min. 2 GB registered; Memory Mirroring with 2 identical modules, Hot-spare Memory with three identical modules per channel
Memory Modules Independent Mode	2 GB (1 module(s) with 2 GB), DDR3-SDRAM, registered, ECC, 1066 MHz, PC3-8500 2 GB (1 module(s) with 2 GB), DDR3-SDRAM, registered, ECC, 1333 MHz, PC3-10600 4 GB (1 module(s) with 4 GB), DDR3-SDRAM, registered, ECC, 1066 MHz, PC3-8500 4 GB (1 module(s) with 4 GB), DDR3-SDRAM, registered, ECC, 1333 MHz, PC3-10600 8 GB (1 module(s) with 8 GB), DDR3-SDRAM, registered, ECC, 1066 MHz, PC3-8500 8 GB (1 module(s) with 8 GB), DDR3-SDRAM, registered, ECC, 1333 MHz, PC3-10600

	Memory Modules Mirrored Mode (Two Identical Modules per Bank)	4 GB (2 module(s) with 2 GB), DDR3-SDRAM, registered, ECC, 1066 MHz, PC3-8500 4 GB (2 module(s) with 2 GB), DDR3-SDRAM, registered, ECC, 1333 MHz, PC3-10600 8 GB (2 module(s) with 4 GB), DDR3-SDRAM, registered, ECC, 1066 MHz, PC3-8500 8 GB (2 module(s) with 4 GB), DDR3-SDRAM, registered, ECC, 1333 MHz, PC3-10600 16 GB (2 module(s) with 8 GB), DDR3-SDRAM, registered, ECC, 1066 MHz, PC3-8500 16 GB (2 module(s) with 8 GB), DDR3-SDRAM, registered, ECC, 1333 MHz, PC3-10600	
	Memory Modules Spare-Performance Mode (Three Identical Modules per Bank)	6 GB (3 module(s) with 2 GB), DDR3-SDRAM, registered, ECC, 1066 MHz, PC3-8500 6 GB (3 module(s) with 2 GB), DDR3-SDRAM, registered, ECC, 1333 MHz, PC3-10600 12 GB (3 module(s) with 4 GB), DDR3-SDRAM, registered, ECC, 1066 MHz, PC3-8500 12 GB (3 module(s) with 4 GB), DDR3-SDRAM, registered, ECC, 1333 MHz, PC3-10600 24 GB (3 module(s) with 8 GB), DDR3-SDRAM, registered, ECC, 1066 MHz, PC3-8500 24 GB (3 module(s) with 8 GB), DDR3-SDRAM, registered, ECC, 1333 MHz, PC3-10600	
Interfaces	USB Ports	10 x USB 2.0 (3x front, 4x rear, 2x internal for backup devices plus 1x USB stick)	
	Graphics (15-pin)	2 x VGA (thereof 1x front optional)	
	Serial 1 (9-pin)	1 x serial RS-232-C, usable for iRMC S2 or system or shared	
	Serial 2 (9-pin)	1 x serial RS-232-C	
	LAN / Ethernet (RJ-45)	2 x Gb/s Ethernet	
	Service LAN (RJ45)	1 x dedicated service LAN port for iRMC S2 (10/100 Mb/s) Service LAN traffic can be switched to shared onboard Gb LAN port	
Onboard or Integrated Controller	RAID Controller	Integrated RAID 0/1 or RAID 5/6 controller for SAS base units (occupies one PCIe slot). See under Components RAID controller	
	SATA Controller	ICH10B, 2 x SATA channel for DVD	
	LAN Controller	Intel® Zoar, 2 x 10/100/1000 Mb/s Ethernet (TCP/IP acceleration), PXE-Boot via LAN from PXE server, iSCSI boot (also diskless) via onboard LAN	
	Remote Management Controller	Integrated Remote Management Controller (iRMC S2, 32 MB attached memory incl. graphics controller), IPMI 2.0 compatible	
	TPM (Trusted Platform Module)	Infineon / separate module; TCG V1.2 compliant (option)	
Slots	PCI-Express Gen2 x4	5 x full height	
	PCI-Express Gen2 x8	2 x full height	
	Slot Notes	slot 5 and 7 are notched at the right side and thus also usable for x16 cards (operating x8, slot 5 only if neighboring slot is empty)	
Drive Bays	Hard Disk Bay Configuration	6x 3.5-inch, for SAS / SATA or 12x 2.5-inch for SAS/SATA optional	
	Accessible Drive Bays	3 x 5.25/1.6-inch	
	Notes Accessible Drives	All possible options described in relevant system configurator.	
	Optional Hard Disk Bays	2 x 3.5-inch hot-plug SAS/SATA or 8x 2.5-inch hot-plug SAS in HDD box (occupies 2x5.25-inch bays)	
Operating Panel	Operating Buttons	On/off switch NMI button Reset button	
	Operating Panel	Status LEDs	System status (amber / yellow) Identification (blue) Hard disk access (green) Power (amber / green) On system rear side: System status (amber / yellow) Identification (blue) LAN connection (green) LAN speed (green / yellow)
		Service Display	Optional: ServerView Local Service Panel (LSP) 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	
		Supported Operating Systems	Microsoft® Windows Server® 2008 Microsoft® Windows Server® 2003 Novell SUSE Linux Enterprise Server
Supported Operating Systems	Operating System Release Link	http://solutions.us.fujitsu.com/www/content/support/osrel.xls	



Server Management	Standard	ASR&R PDA
	Option	ServerView Deployment Manager (fully functional unlimited version) ServerView Remote Management ServerView Integration for Tivoli TEC®, Tivoli NetView, HP OpenView NNM and HP OpenView iRMC S2 Advanced Pack
	Server Management Notes	Regarding Operating System dependencies and product details for ServerView Suite Software Products see dedicated Product Data sheets.
Dimensions/Weight	Floor-Stand (W X D X H)	11.26 x 29.33 x 18.35 inches
	Rack (W x D x H)	19.02 x 29.45 x 6.97 inches
	Mounting Depth Rack	27.95 inches
	Weight	up to 88.18 lbs
	Weight Notes	Weight may vary depending on actual configuration
	Rack Integration Kit	Rack integration kit as an option
Environmental		
Noise Emission		Measured according to ISO 7779 and declared according to ISO 9296
	Sound Pressure (LpAm)	35 dB(A) (idle) / 37 dB(A) (operating)
	Sound Power (LWA; 1B = 10dB)	5.2 B (idle) / 5.5 B (operating)
	Operating Ambient Temperature	50 - 95°F
	Operating Relative Humidity	10 - 85 % (non condensing)
Electrical Values		
Power Supply Configuration		1x 800 W hot-plug power supply plus three 4.72 inch standard fans or 2x 800W hot-plug power supply plus three hot-plug and redundant double fans
	Max. Output Of Power Supply	800 W
	Rated Voltage Range	100 - 240 V
	Rated Frequency Range	50 - 60 Hz
Electrical Values	Rated Current Max.	100 V - 240 V / 9.0 A – 5.0 A
	Rated Current in Basic Configuration	100 V - 240 V / 4.4 A – 1.5 A
	Active Power Max. (per System Unit)	560 W
	Apparent Power Max. (per System Unit)	570 VA
	Heat Emission	2016.0 kJ/h (1911.3 BTU)
Compliance		
	Germany	TÜV GS
	Europe	CE
	USA/Canada	CSAc/us
	FCC Class A	
	Global	CB RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment)
	Japan	VCCI class A
	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.
	Compliance Link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx

Components

Hard Disk Drives	SSD SATA, 1.5 Gb/s 50 GB hot plug, 2.5-inch SATA, 3 Gb/s 750 GB, 7200 rpm, hot plug, 3.5-inch SATA, 3 Gb/s 500 GB, 7200 rpm, hot plug, 3.5-inch SATA, 3 Gb/s 250 GB, 7200 rpm, hot plug, 3.5-inch SATA, 3 Gb/s 1 TB , 7200 rpm, hot plug, 3.5-inch SATA, 120 GB, 5400 rpm, hot plug, 2.5-inch SAS, 3 Gb/s 450 GB, 15000 rpm, hot plug, 3.5-inch SAS, 3 Gb/s 300 GB, 15000 rpm, hot plug, 3.5-inch SAS, 3 Gb/s 146 GB, 15000 rpm, hot plug, 3.5-inch SAS, 3 Gb/s 146 GB, 10000 rpm, hot plug, 2.5-inch SAS, 3 Gb/s 73 GB, 15000 rpm, hot plug, 3.5-inch SAS, 3 Gb/s 73 GB, 15000 rpm, hot plug, 2.5-inch SAS, 3 Gb/s 73 GB, 10000 rpm, hot plug, 2.5-inch SAS, 3 Gb/s 36 GB, 15000 rpm, hot plug, 2.5-inch
Hard Disk Notes	Mix of 3.5-inch SAS and SATA HDD is possible but requires separate RAID sets. One Gigabyte (GB) equals one billion bytes, when referring to hard disk drive capacity. Accessible capacity may vary, also depending on software used.
Tape Drives	DDS Gen5, 36 GB , 3 MB/s, half height, USB 2.0 DDS Gen6, 80 GB , 6 MB/s, half height, SCSI U160 DDS Gen6, 80 GB , 6 MB/s, half height, USB 2.0 LTO2HH Ultrium, 200 GB , 24 MB/s, half height, SCSI U160 LTO3HH Ultrium, 400 GB , 60 MB/s, half height, SCSI U320 LTO4HH Ultrium, 800 GB , 120 MB/s, half height, SAS 3Gb/s RDX Drive, 80 GB, 160 GB, 320 GB , 25 MB/s, half height, USB 2.0
Optical Drives	Blu-ray combo drive, (2x BD-ROM; 8x DVD; 24x CD), slimline, SATA I DVD-ROM, (16xDVD; 48xCD), half height, SATA I DVD Super Multi, (8xDVD/DVD+RW, 6xDVD-RW, 5xDVD-RAM; 24xCD/CD-R, 16xCDRW), slimline, SATA I
SCSI/SAS Controller	SCSI Ctrl 320 MB 1ch int/ext PCIe x1 SAS Ctrl 3 Gb 4 ports int. / 4 ports ext. PCIe x4
RAID Controller	RAID 5/6 Ctrl, SAS/SATA 3 Gb, LSI MegaRAID SAS8880E, 8 ports ext. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, no BBU support (based on LSI 1078) Integrated RAID 5/6 Ctrl, SAS/SATA 3 Gb, , 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, optional BBU (based on LSI 1078) Integrated RAID 5/6 Ctrl, SAS/SATA 3 Gb, 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 256 MB Cache, optional BBU (based on LSI 1078) Integrated RAID 0/1 Ctrl, SAS/SATA 3 Gb, 8 ports int. RAID level: 0, 1, 1E, , no BBU support (based on LSI 1068e) Integrated RAID 0/1 Ctrl, SAS/SATA 3 Gb, 4 port int. RAID level: 0, 1, 1E, , no BBU support , for internal SAS tapes (based on LSI 1064e)
Fibre Channel Controller	Fibre Channel Ctrl 1 x 4 Gb Emulex LPe1150 MMF LC Fibre Channel Ctrl 2 x 4 Gb Emulex LPe11002 MMF LC Fibre Channel Ctrl 1 x 4 Gb Qlogic QLE2460 MMF LC Fibre Channel Ctrl 2 x 4 Gb Qlogic QLE2462 MMF LC Fibre Channel Ctrl 2 x 8 Gb Emulex LPe12002 MMF LC Fibre Channel Ctrl 1 x 8 Gb Emulex LPe1250 MMF LC
LAN Controller	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 1 x 1 Gb Intel® PRO/1000 PT Server Adapter Ethernet Ctrl 2 x 10 Gb Intel® 10 Gigabit XF SR Dual Port Server Adapter Ethernet Ctrl 2 x 1 Gb Intel® PRO/1000 PT Dual Port Server Adapter Ethernet Ctrl 4 x 1 Gb Intel® PRO/1000 PT Quad Port Server Adapter
Rack Infrastructure	Cable Arm 2U for 3rd party racks Rackmount kit full extraction (32.28 inches), tool less mounting Cable Management for 19-inch Data Center / PRIMECENTER Racks

Warranty

Standard Warranty		3 years
	Service Level	Maintenance And Support Services - the Perfect Extension
	Recommended Service	7x24, Onsite Response Time: 4h
	Service Weblink	http://www.fujitsu.com/us/support/index.html

Information about environmental care, policies, programs and our Environmental Guideline FSC 03230:

<http://solutions.us.fujitsu.com/www/content/aboutus/environmental/environment.php>

Take back and recycling information:

http://solutions.us.fujitsu.com/www/content/products/trade-in_program/



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