DATA SHEET

PRIMERGY TX200 S4

Issue: April 2009

Dual Socket Quad-Core Intel® Xeon® Server - Cost-efficient expansion options and failsafe operation

PRIMERGY TX industry standard tower servers: efficient, rock solid, record-breaking performance. PRIMERGY TX servers benefit from over 20 years pioneering work in the field of Green IT. That is how TX servers reach industry – leading performance per watt ratios, lowering the environmental impact and running costs. TX servers can easily be managed locally or remotely via the PRIMERGY ServerView Suite, saving IT admin costs. That's efficient performance. Our made-to-measure service packages take care of your system every step of the way. Rest assured, PRIMERGY TX servers are put through 5000 boot cycles - that's rock solid performance. PRIMERGY TX servers are flexible systems capable of using up to two processors and up to 20 hard disks. Tower to rack mounting kits are available to move to a consolidated rack infrastructure. TX servers have a tradition of setting record-breaking performance levels. So, whether you use them as tower or rack servers, for file, print or application purposes, you will benefit from record-breaking performance. PRIMERGY TX: a tower of strength.

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Flexible expansion options are the key to placing new or larger workloads on your server. This applies not only to physical capacity, such as the number of disk drives, advanced data protection schemes, or I/O connectivity; in particular consideration of the transition to 64-bit computing and virtualization is a must in today's technology purchase decisions.
The PRIMERGY TX200 S4 uses a completely new housing and is a perfect match for these requirements, providing you with a previously unreached cost-efficient standard. TX200 is a failsafe operation platform for your application stacks, with standards such as disk mirroring for SAS and SATA, hot-plug disks, SDDC and hot-spare memory and the "Cool-safe™" innovative air flow system design. Expandability is covering for heavy workload: up to 24 GB FBD667 memory, up to 8 (16) 2.5-inch SAS hard disk drives, and 7 (6) free PCI slots for heavy I/O requirements. Your business can rely on this solution!
In addition, further options – such as extended RAID functions, clustering options and redundancy for power su.pplies and fans – tailor these standards to your individual safety needs.

MAIN FEATURES	BENEFITS
ECC, built-in RAID 1 functionality and optional ibutton RAID 5 for SATA or modular RAID for SAS configurations	High security against physical loss of data
Hot-plug HDD infrastructure (standard), Hot-plug redundant PSU (optional) Redundant fans (optional), ServerView Local Service Panel (LSP) (optional)	Tailor made availability, offers the security level which is recommended by your individual application demands
Energy efficient Intel Quad-Core processor (5400 series), provides four execution cores (2x 6 MB Cache) in one physical processor with less power consumption	Allowing the platform to do more in less time, IT depart-ments can consolidate applications and more effectively employ the server with less power consumption
Up to 4x SATA or 4 (6)x SATA/SAS 3.5-inch, up to 8 (16)x 2.5-inch SAS hard disks, 7 PCI/PCIe slots, (6 with SAS), 1x Gbit LAN plus extra Service LAN for iRMC S2	Expandability options for further growth

Technical details

PRIMERGY TX200 S4

Housing type					Rack	Rack	Rack	Rack
Hard disk architecture	3.5” SAS/ SATA	3.5” SAS/ SATA	2.5” SAS	2.5” SAS	3.5” SAS/ SATA	3.5” SAS/ SATA	2.5” SAS	2.5” SAS
Power supply	Hotplug	Standard	Hotplug	Standard	Hotplug	Standard	Hotplug	Standard

Mainboard

Mainboard type	D 2509
Chipset	Intel® 5000Z
Processor quantity and type	1 - 2 x Intel® Xeon® processor 5200 / 5300 / 5400 series
Processor options	Intel® Xeon® E5205 (2C, 1.86 GHz, SLC: 6 MB , 1066 MHz, 65 W)
	Intel® Xeon® E5405 (4C, 2.00 GHz, SLC: 2 x 6 MB , 1333 MHz, 80 W)
	Intel® Xeon® E5420 (4C, 2.50 GHz, SLC: 2 x 6 MB , 1333 MHz, 80 W)
	Intel® Xeon® E5430 (4C, 2.66 GHz, SLC: 2 x 6 MB , 1333 MHz, 80 W)
	Intel® Xeon® L5410 (4C, 2.33 GHz, SLC: 2 x 6 MB , 1333 MHz, 50 W)
	Intel® Xeon® L5420 (4C, 2.50 GHz, SLC: 2 x 6 MB , 1333 MHz, 50 W)
Memory slots	6 (3 Banks with 2 slots each)
Memory slot type	PC2-5300F (Fully buffered DIMM DDR2 667 ECC)
Memory capacity (min. - max.)	1 GB - 24 GB
Memory Protection	Advanced ECC SDDC (Chipkill™) Memory Scrubbing Hot-spare memory support
Memory options	8 GB (2 module(s) with 4 GB) FB-DIMM (DDR2), 667 MHz, PC2-5300F, FullyBuffered DIMM
	4 GB (2 module(s) with 2 GB) FB-DIMM (DDR2), 667 MHz, PC2-5300F, FullyBuffered DIMM
	2 GB (2 module(s) with 1 GB) FB-DIMM (DDR2), 667 MHz, PC2-5300F, FullyBuffered DIMM
	1 GB (2 module(s) with 512 MB) FB-DIMM (DDR2), 667 MHz, PC2-5300F, FullyBuffered DIMM

Interfaces

USB ports	5 x USB 2.0 (1x front, 2x rear, 2x internal)
Graphics (15-pin)	1 x VGA
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
Parallel (25-pin)	1 x Centronics 25-pin EPP/ECP compatible (option)
Mouse / Keyboard (PS/2)	2
LAN / Ethernet (RJ-45)	1 x Gbit/s Ethernet
Service LAN (RJ45)	1 x dedicated service LAN port for iRMC S2 (10/100 Mbit/s) Service LAN traffic can be switched to shared onbord Gbit 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	6311ESB, 6-port SATA (4x internal HDDs in SATA base units with RAID 0/1/10 and 2x for accessible drives)
SATA Controller type notes	optional RAID 5 (iButton key) SATA SW RAID support for Windows and Linux OS only
LAN Controller	BCM 5708, 10/100/1000 Mbit/s Ethernet, TCP/IP acceleration, PXE-Boot via LAN from PXE server, iSCSI Boot (also diskless) via onboard LAN

Onboard or integrated Controller								
Remote Management Controller	Integrated Remote Management Controller (iRMC S2, 32 MB attached memory incl. graphics controller), IPMI 2.0 compatible							
Onboard Controller notes	For detailed information please refer to the coresponding system configurator.							
Slots								
PCI-Express x4 (mech. x8)	4 x (2 slots x8 with performace adapter option) 2 x long (1x for modular SAS RAID controller)							
PCI slots	1 x 32bit/ 33MHz, 5V							
PCI-X	2 x 64-bit / 100 MHz, 3.3 V, long (1 x with max. 133 MHz (IOOP™), if only 1 Slot is occupied)							
Slot Notes	in SAS configuration 1x PCI-Express occupied by modular RAID controller							
Drive bays								
Accessible drive bays	3 x 5.25/1.6-inch 1 x 3.5/1-inch for FDD							
Notes accessible drives	All possible options described in relevant system configurator 2x 3,5-inch HHD box only in SAS configuration							
Drive bays (Base unit specific)								
Hard disk bays	4 x 3.5-inch hot-plug SAS/SATA	4 x 3.5-inch hot-plug SAS/SATA	8 x 2.5-inch hot-plug SAS	8 x 2.5-inch hot-plug SAS	4 x 3.5-inch hot-plug SAS/SATA	4 x 3.5-inch hot-plug SAS/SATA	8 x 2.5-inch hot-plug SAS	8 x 2.5-inch hot-plug SAS
Optional hard disk bays	2 x 3.5-inch hot-plug HDD box	2 x 3.5-inch hot-plug HDD box	8 x 2.5-inch hot-plug HDD box	8 x 2.5-inch hot-plug HDD box	2 x 3.5-inch hot-plug HDD box	2 x 3.5-inch hot-plug HDD box	8 x 2.5-inch hot-plug HDD box	8 x 2.5-inch hot-plug HDD box
Fan Configuration								
Fan configuration	3 non hot-plug fans as standard, fan redundancy as option (3+1)							
General system information (Base unit specific)								
Fan configuration	redundant fans (non hot plug)	Standard fans	redundant fans (non hot plug)	Standard fans	redundant fans (non hot plug)	Standard fans	redundant fans (non hot plug)	Standard fans
Operating panel								
Operating buttons	On/off switch NMI button Reset button							
Status LEDs	System status (amber / yellow) Identification (blue) Hard disks access (green) Power (amber / green) At system rear side: System status (amber / yellow) Identification (blue) LAN connection (green) LAN speed (green / yellow)							
Service display	Optional: ServerView Local Service Panel (LSP)							
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								
Supported operating systems	Microsoft® Windows Server® 2008 Microsoft® Windows Server® 2003 Novell SUSE Linux Enterprise Server Red Hat Enterprise Linux VMware Infrastructure Note: Support of other Linux derivatives on demand							
Operating system release link	http://ts.fujitsu.com/software http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421							
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								
Dimension notes	Width 372 mm with tilt protection							
Weight	up to 35 kg							
Weight notes	Weight may vary depending on actual configuration							
Rack integration kit	Rack integration kit as option							
Dimensions / Weight (Base unit specific)								
Floor-stand (W x D x H)	215 x 699 x 447 mm	215 x 699 x 447 mm	215 x 699 x 447 mm	215 x 699 x 447 mm	-	-	-	-
Rack (W x D x H)	-	-	-	-	486 x 777 x 215 mm	486 x 777 x 215 mm	486 x 777 x 215 mm	486 x 777 x 215 mm
Mounting Depth Rack	-	-	-	-	742 mm	742 mm	742 mm	742 mm
Height Unit Rack					5 U	5 U	5 U	5 U
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 (LWAd; 1B = 10dB)	5.3 B idle (idle) / 5.4 B (operating)							
Noise notes / description	only with standard fans and standard PSU							
Operating ambient temperature	10 - 35°C							
Operating relative humidity	10 - 85 % (non condensing)							
Electrical values								
Power supply configuration	Base unit specific: 1x standard power supply or 2x hot-plug power supply (1 + 1 redundancy)							
Rated voltage range	100 - 127 V / 200 - 240 V							
Rated frequency range	50 - 60 Hz							
Rated current max.	9.0 A / 4.5 A (100 V / 240 V)							
Rated current in basic configuration	2.0 A / 0.86 A (100 V / 240 V)							
Active Power max. (per system unit)	512 W							
Apparent power max. (per system unit)	531 VA							
Heat emission	1843.2 kJ/h (1747.4 BTU)							
Electrical values (Base unit specific)								
Power supply configuration	2	1	2	1	2	1	2	1
Standard power supply output	-	635 W	-	635 W	-	635 W	-	635 W
Hot-plug power supply output	700 W	-	700 W	-	700 W	-	700 W	-
Hot-plug power supply redundancy	Yes	No	Yes	No	Yes	No	Yes	No
Compliance								
Germany	GS							

Compliance	
Europe	CE
USA/Canada	CSAc/us ULc/us FCC Class A
Global	CB RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronical equipment)
Japan	VCCI
Australia&New Zealand	C-Tick
Taiwan	BSMI
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	SATA, 3 Gb/s, 1000 GB, 7200 rpm, hot plug, 3.5-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, 160 GB, 7200 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, 10000 rpm, hot-plug, 2.5-inch
Hard disk notes	Mix of 3.5-inch SAS and SATA HDD requires separate HDD cages and RAID sets One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. Accessible capacity may vary, also depending on used software
Tape Drives	DDS Gen5, 36 GB , 3 MB/s, half height, SCSI U2W
	DDS Gen5, 36 GB , 3 MB/s, half height, USB 2.0
	DDS Gen5 OBDR, 36 GB , 3 MB/s, half height, SCSI U2W
	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 LC, 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
	Blu-ray combo drive, (6x BD-ROM; 16x DVD; 40x CD), half height, SATA I
	CD-RW / DVD Combo, (8x DVD; 24x CD/CD-R, 16x CD-RW), slimline, SATA I
	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, (8x DVD/DVD+RW, 6x DVD-RW, 5x DVD-RAM; 24x CD/CD-R, 16x CD-RW), 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)
	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, inclusive BBU (based on LSI 1078)
	Integrated SW RAID 5, SATA II 3 Gb, LSI Embedded MegaSR RAID5, RAID level: 0, 1, 10, no BBU support
	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 GT Desktop Adapter
	Ethernet Ctrl 1 x 1 Gb Intel® PRO/1000 MT Single Port Server 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 1 Gb Intel® PRO/1000 GT 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	Rackmount kit sliding drawer, full extraction, cable management

Warranty	
Standard Warranty	3 years
Service level	On-site Service
Maintenance and Support Services - the perfect extension	
Recommended Service	7x24, Onsite Response Time: 4h
Service Weblink	http://ts.fujitsu.com/Supportservice

Information about environmental care, policies, programs and our Environmental Guideline FSC 03230:
http://ts.fujitsu.com/aboutus
Take back and Recycling information:
http://ts.fujitsu.com/recycling

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