

DATA SHEET

PRIMERGY RX200 S4

Issue: January 2009

Dual Socket Quad-Core Intel® Xeon® based 1 U Rack Server - Reliable and efficient workhorse for server farms

PRIMERGY RX servers offer the perfect solution to downsize data center infrastructure costs efficiently. Basis for it is an IT strategy for more transparency of structure- and administrative expenses as well as maximum use of investments. Our broad portfolio of innovative virtualization, server and solution offerings for TCO reductions of 60% or more provides best prerequisites. Optimized air flow cooling technology assures a long life, highest possible performance/watt as well as by far best in class efficiency -proven by numerous benchmark records. Benefit from our renowned experience in datacenter technology. These allow it, to transfer the availability rates of high end UNIX servers to RX rack servers, PRIMECENTER rack enclosures and infrastructure products. PRIMERGY ServerView Suite with remote management functions provides comprehensive management from anywhere at any time. Our flexible custom supply model and our build-to-order process means that only fully built and pre-tested rack solutions are shipped to the customer. Last but not least Fujitsu Technology Solutions proven commitment to green IT offers clear competitive advantages to our customers.



PRIMERGY RX200 S4

Consolidation strategies for corporate applications in data center server farms with central deployment and control face a number of requirements. Even more important than the best performance per unit of height is ease of management for ongoing cost optimization and operational efficiency in the data center. And since the best things to manage are those that hardly ever fail. Therefore the new dual Xeon RX200 with its integrated fail-safe standards such as modular RAID, up to 4x hot-plug 2.5-inch SAS or 2x 3.5-inch SATA/SAS disks, mirrored or hot-spare memory support, all packed into a space-saving 1 U workhorse, provides you with enhanced quality of service for the management of your business applications.

In addition, you can relax as regards your decision on when and how to use the option of 64-bit computing or virtualization: RX200 S4 comes with the latest Dual- or Quad-Core Intel Xeon processor 5200/5400 series and up to 48 GB PC2-5300F fully buffered memory.

MAIN FEATURES	BENEFITS
Dual- or Quad-Core Intel Xeon 5200/5400 series and 6/2x 6 MB SLC offer outstanding Dual- or Quad-Core performance and balanced architecture that incorporates latest memory and I/O technologies	High overall productivity through outstanding Dual-/Quad-Core performance with fast FSB, large L2 cache and extended 64-bit address space and therefore more directly useable memory and performance
SAS/SATA HD, 48 GB memory, storage integration Fibre channel add on, 1 U	Computing power on compact space
Failsafe standards – 2x 3.5-inch or 4 x 2.5-inch hot-plug hard disks, modular RAID, memory mirroring and hot-spare memory support, redundant fans, LEDs, integrated Remote Management Controller; hot-plug redundant power supply, integrated iRMC Advanced Pack, ServerView Local Service Panel (LSP) oder Local Status Display (LSD) (options)	Minimum management overhead for reliable operation
2 x Gbit/s Ethernet LAN with TCP/IP accelerator plus switchable Service LAN (dedicated or shared)	Top-speed communications link via LAN as standard will assure continuity in failover mode



Technical details

PRIMERGY RX200 S4

Mainboard

Mainboard type	D 2671
Chipset	Intel® 5000P
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® E5440 (4C, 2.83 GHz, SLC: 2 x 6 MB, 1333 MHz, 80 W)
Intel® Xeon® E5450 (4C, 3.00 GHz, SLC: 2 x 6 MB, 1333 MHz, 80 W)
Intel® Xeon® L5240 (2C, 3.00 GHz, SLC: 6 MB, 1333 MHz, 40 W)
Intel® Xeon® L5310 (4C, 1.60 GHz, SLC: 2 x 4 MB, 1066 MHz, 50 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)
Intel® Xeon® L5430 (4C, 2.66 GHz, SLC: 2 x 6 MB, 1333 MHz, 50 W)
Intel® Xeon® X5260 (2C, 3.33 GHz, SLC: 6 MB, 1333 MHz, 80 W)
Intel® Xeon® X5270 (2C, 3.50 GHz, SLC: 6 MB, 1333 MHz, 80 W)
Intel® Xeon® X5460 (4C, 3.16 GHz, SLC: 2 x 6 MB, 1333 MHz, 120 W)
Intel® Xeon® X5470 (4C, 3.33 GHz, SLC: 2 x 6 MB, 1333 MHz, 120 W)

Memory slots	12
Memory slot type	PC2-5300F (Fully buffered DIMM DDR2 667 ECC)
Memory capacity (min. - max.)	1 GB - 48 GB
Memory Protection	Advanced ECC Memory Scrubbing SDDC (Chipkill™) Hot-spare memory support Memory Mirroring support
Memory notes	12 slots divided into 2 branches with 2 channels each and 3 slots per channel; memory upgrade only possible per branch with module pairs.

Memory options

8 GB (2 module(s) with 4 GB), FB-DIMM (DDR2), 667 MHz, PC2-5300F
4 GB (2 module(s) with 2 GB), FB-DIMM (DDR2), 667 MHz, PC2-5300F
2 GB (2 module(s) with 1 GB), FB-DIMM (DDR2), 667 MHz, PC2-5300F
1 GB (2 module(s) with 512 MB), FB-DIMM (DDR2), 667 MHz, PC2-5300F

Upgrade notes	A BIOS update can be necessary for a memory and processor upgrade.
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Interfaces

USB ports	5 x USB 2.0 (2x front, 2x rear, 1x internal)
Graphics (15-pin)	1 x VGA
Serial connection	1 x serial RS-232-C, usable for iRMC or system or shared
Mouse / Keyboard (PS/2)	2
LAN / Ethernet (RJ-45)	2 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 onboard 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	ESB2-T, 2-port for RAID 0,1 (for 2x 3.5-inch HDD's only) , 1 x SATA channel for DVD
LAN Controller	BCM 5708, 2 x 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
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Slots

PCI-Express x8	2 x (170 mm length, 1x full height or low profile, 1x low profile)
PCI-Express x4 (mech. x8)	1 x for modular RAID controller only

Drive bays

Accessible drive bays	1 x 3.5/0.5-inch for ServerView Local Service Panel or Local Service Display 1 x 5.25/0.5-inch for CD-RW/DVD
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Drive bays (Base unit specific)

Hard disk bays	
Hard disk bay configuration	2 x 3,5-inch for hot-plug SATA/SAS or 4 x 2,5-inch for hot-plug SAS option

General system information

Number of fans	12
Fan configuration	hot-plug redundant fans (2x 5+1 redundancy)

Operating panel

Operating buttons	On/off switch Reset button NMI 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) 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
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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	ServerView Suite: SV Installation Manager SV Operation Manager SV RAID Manager SV Update Manager SV Agents Online update packages for BIOS, firmware drivers and ServerView Agents ServerView Integration solutions for Microsoft SMS, MOM, SCOM, SCCM and Altiris Deployment Solution ServerView Deployment Manager (fully functional 30-day trial version)
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Server Management

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

Rack (W x D x H)	430 x 770 x 44 mm
Mounting Depth Rack	745 mm
Height Unit Rack	1 U
19" rackmount	Yes
Mounting Cable depth rack	100 mm (900 mm Rack recommended)
Weight	up to 16 kg
Weight notes	Weight may vary depending on actual configuration
Rack integration kit	Rack integration kit as option

Environmental

Noise emission	Measured according to ISO 7779 and declared according to ISO 9296
Sound pressure (LpAm)	50 dB(A) (idle) / 58 dB(A) (operating)
Sound power (LWAd; 1B = 10dB)	6.7 B (idle) / 7.5 B (operating)
Operating ambient temperature	10 - 35°C
Operating relative humidity	10 - 85 % (non condensing)

Electrical values

Power supply configuration	hot-plug power supply as standard, redundancy as option (1 + 1 redundancy)
Max. output of power supply	650 W
Hot-plug power supply redundancy	Yes
Rated voltage range	100 - 127 V / 200 - 240 V
Rated frequency range	50 - 60 Hz
Rated current max.	8.0 A / 4.0 A (100 V / 240 V)
Rated current in basic configuration	5 A / 2.5 A (100 V / 240 V)
Active Power max. (per system unit)	530 W
Apparent power max. (per system unit)	540 VA
Heat emission	1908.0 kJ/h (1808.9 BTU)

Compliance

Germany	GS
Europe	CE
USA/Canada	CSAc/us ULc/us FCC Class A
Global	CB RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment)
Japan	CNS VCCI 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	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, 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	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. Accessible capacity may vary, also depending on used software
Optical drives	Blu-ray combo drive, (2x BD-ROM; 8x DVD; 24x CD), slimline, SATA I CD-RW / DVD Combo, (8x DVD; 24x CD/CD-R, 16x CD-RW), slimline, 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 1x int /1x ext SAS Ctrl 3 Gb 4 ports int. / 4 ports ext.
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, optional BBU (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 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, 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 2 x 4 Gb Emulex LPe11002 MMF LC Fibre Channel Ctrl 1 x 4 Gb Emulex LPe1150 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 low profile Ethernet Ctrl 1 x 1 Gb Intel® PRO/1000 PT Server Adapter low profile Ethernet Ctrl 2 x 1 Gb Intel® PRO/1000 PT Dual Port Server Adapter low profile Ethernet Ctrl 4 x 1 Gb Intel® PRO/1000 PT Quad Port Server Adapter low profile
Rack infrastructure	Cable Arm 1U for PRIMECENTER- and 3rd-party racks Rackmount kit full extraction (760mm), tool less mounting Rackmount kit partly extraction (524mm), tool less mounting
Warranty	
Standard Warranty	3 years
Service level	On-site Service
Maintenance and Support Services - the perfect extension	
Recommended Service	7x24, Onsite Response Time: 4h
Spare Parts availability	5 years
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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