

# DATA SHEET

## PRIMERGY RX600 S4

Issue: September 2009

4 socket Multi-Core Xeon 7400 series rack server  
 - Performance, capacity, stability for your critical applications

The PRIMERGY RX Rack Server family is the perfect platform to form dynamic infrastructures for your business processes today and in the coming decade. You will thus benefit several times over from our recognized experience in optimized data center technology and our innovative strength in developing energy-efficient and cost/performance-optimized rack systems for universal use. PRIMERGY rack servers, built upon industry standards, focus from a functional viewpoint on core features: energy efficiency, reliability, optimized for virtualization, ease of operation and maintenance, flexibility for your future. And thus they notably meet your requirements for outstanding cost efficiency. Optimal operating costs and long-term usability comply with the IT quality required by your customers. Our responsibility goes way beyond the hardware as our tailor-made service packages mean that you can rely on the best support for your IT during its whole lifecycle.



### PRIMERGY RX600 S4

Very special criteria apply when selecting the hardware platform for those really critical corporate applications:

easy-to-scale performance, high capacity levels to use memory as required, I/O and local memory, as well as high reliability and operational consistency levels typical for data centers, all of which improve the IT production quality on a long-term basis. With up to 256 GB linearly addressable main memory capacity and state-of-the-art Intel Xeon multi-core processors, the 4-socket server RX600 S4 is the perfect platform to operate performance-hungry back-end services, such as large database systems, ERP and CRM applications, e-commerce systems or a corporate messaging platform. Its integrated redundancy functions mean high-availability and constant efficient IT production - the main feature of this server platform. The exceptional extendability of the RX600 enables even more consolidation of servers and applications with state-of-the-art virtualization solutions and an excellent "best-in-class" efficiency.

MAIN FEATURES	BENEFITS
In contrast to the 7300 series, the new Xeon MP 7400 series provides up to 56% increased performance. Up to 256 GB memory for top virtualization and consolidation.	With 64-bit Intel Xeon MP and virtualization technology, the processor offers an easy start into 64-bit computing. Virtualization is a method used to consolidate a large number of small servers onto one larger server, thus simplifying manageability and making more efficient use of system resources
Integrated high-availability as standard: SAS RAID controller with 512 MB RAID cache, opt. BBU, Hot spare memory support and memory mirroring, enhanced ECC and SDDC, Hot-plug redundant fans and power supplies as standard, Up to 8x hot-plug 2.5-inch SAS hard disks, Hot-plug PCIe slots, LocalView display and integrated Remote Management Controller (iRMC S2) IPMI 2.0 as standard	Enhanced server reliability without extra cost, business continuity, more value for money as well as secured data safety.



## Technical details

### PRIMERGY RX600 S4

Housing type	Rack
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#### Mainboard

Mainboard type	D 2244
Chipset	Intel® 7300
Processor quantity and type	1 - 4 x Intel® Xeon® processor 7200 / 7300 / 7400 series

#### Processor options

Intel® Xeon® E7220	2C, 2.93 GHz, SLC: 2 x 4 MB, TLC: -1066 MHz, 80 W)
Intel® Xeon® E7310	4C, 1.60 GHz, SLC: 2 x 4 MB, TLC: -1066 MHz, 80 W)
Intel® Xeon® E7430	4C, 2.13 GHz, SLC: 2 x 3 MB, TLC: 12 MB1066 MHz, 90 W)
Intel® Xeon® E7450	6C, 2.40 GHz, SLC: 2 x 3 MB, TLC: 12 MB1066 MHz, 90 W)
Intel® Xeon® L7445	4C, 2.13 GHz, SLC: 2 x 3 MB, TLC: 12 MB1066 MHz, 50 W)
Intel® Xeon® X7460	6C, 2.66 GHz, SLC: 3 x 3 MB, TLC: 16 MB (Turbo: No, 1066 MHz, 130 W)

Memory slots	32 (4 memory boards with 8 slots each, 2 memory boards preinstalled)
Memory slot type	PC2-5300F (Fully buffered DIMM DDR2 667 ECC)
Memory capacity (min. - max.)	2 GB - 256 GB
Memory protection	Advanced ECC Hot-spare memory support Memory Scrubbing SDDC (Chipkill™) Memory Mirroring support

Memory options	16 GB (2 module(s) with 8 GB) DDR2, fully buffered, ECC, 667 MHz, PC2-5300F 8 GB (2 module(s) with 4 GB) DDR2, fully buffered, ECC, 667 MHz, PC2-5300F 4 GB (2 module(s) with 2 GB) DDR2, fully buffered, ECC, 667 MHz, PC2-5300F
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#### Interfaces

USB ports	6 x USB 2.0 (3 x front, 2 x rear, 1 x internal)
Graphics (15-pin)	2 x VGA (1 x front, 1 x rear)
Serial connection	1 x serial RS-232-C (9-pin), usable for iRMC or system or shared
LAN / Ethernet (RJ-45)	4 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 5/6 Controller with 512 MB Cache and optional BBU
SATA Controller	ESB2-E
SATA Controller type notes	1x for DVD drive
LAN Controller	Intel® ESB2E/82575EB , 4 x 10/100/1000 Mbit/s Ethernet (I/O acceleration), VT-c (I/O acceleration und VMDq), PXE boot via LAN of 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
Trusted Platform Module (TPM)	FTMicro / 1.2

#### Slots

PCI-Express x8	4 x (1 x half length)
PCI-Express x4 (mech. x8)	4 x (1 x half length, one slot occupied with LSI 1078 RAID Controller)

#### Drive bays

Hard disk bays	8 x 2.5-inch hot-plug SAS
Accessible drive bays	1 x 5.25/0.5-inch for CD-RW/DVD 1 x 5.25/1.6-inch for backup devices

#### General system information

Number of fans	8
Fan configuration	hot plug

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## Operating panel

Operating buttons	On/off switch NMI button Reset button ID 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	ServerView Local Service Display (LSD)

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## 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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## Operating system

Supported operating systems	Microsoft® Windows Server® 2008 Microsoft® Windows Server® 2003 Novell SUSE Linux Enterprise Server Red Hat Enterprise Linux Citrix® XenServer™ VMware Infrastructure VMware vSphere 4.0 Note: Support of other Linux derivatives on demand
Operating system release link	<a href="http://ts.fujitsu.com/software">http://ts.fujitsu.com/software</a> <a href="http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421">http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421</a>

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## 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 the corresponding product data sheets.

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## Dimensions / Weight

Rack (W x D x H)	482.6 x 737 x 176 mm
Mounting Depth Rack	700 mm
Height Unit Rack	4 U
19" rackmount	Yes
Mounting Cable depth rack	100 mm (1000 mm Rack recommended)
Weight	up to 40 kg
Weight notes	Weight may vary depending on actual configuration
Rack integration kit	Rack integration kit as option

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Floor-stand (W x D x H)

Rack (W x D x H)

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## Environmental

Noise emission	Measured according to ISO 7779 and declared according to ISO 9296
Sound pressure (LpAm)	55 dB(A) (idle) / 55 dB(A) (operating)
Sound power (LWA; 1B = 10dB)	7.0 B (idle) / 7.0 B (operating)

## Environmental

Noise notes / description	at ambient temperature
Operating ambient temperature	10 - 35°C
Operating relative humidity	10 - 85 % (non condensing)
Air flow rate	max. 6.5 m <sup>3</sup> /min

## Electrical values

Power supply configuration	Redundant hot-plug power supplies as standard (1+1)
Max. output of power supply	1570 W
Hot-plug power supply redundancy	Yes
Rated voltage range	100 - 240 V
Rated frequency range	50 - 60 Hz
Rated current max.	5.44 A
Active power max. (per system unit)	1150 W
Apparent power max. (per system unit)	1305 VA
Heat emission	4140.0 kJ/h (3924.9 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	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	<a href="https://sp.ts.fujitsu.com/sites/certificates/default.aspx">https://sp.ts.fujitsu.com/sites/certificates/default.aspx</a>

## Components

### Hard disk drives

SAS, 3 Gb/s, 146 GB, 10000 rpm, hot-plug, 2.5-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, 300 GB, 10000 rpm, hot-plug, 2.5-inch  
SAS, 3 Gb/s, 146 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

### Tape Drives

DDS Gen6, 80 GB , 6 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

### Optical drives

Blu-ray combo drive, (2x BD-ROM; 8x DVD; 24x CD), 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 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 (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)

<b>Fibre Channel controller</b>	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

<b>LAN Controller</b>	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

<b>Rack infrastructure</b>	Cable Arm 2U for 3rd party racks
	Cable Management for 19-inch DataCenter / PRIMECENTER Racks
	Rackmount kit full extraction (760mm), tool less mounting

### Warranty

Standard Warranty	3 years
Service level	On-site Service
<b>Maintenance and Support Services - the perfect extension</b>	
Recommended Service	7x24, Onsite Response Time: 4h
Spare Parts availability	5 years
Service Weblink	<a href="http://ts.fujitsu.com/Supportservice">http://ts.fujitsu.com/Supportservice</a>

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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