Data Sheet

FUJITSU Server PRIMERGY RX200 S7 Dual socket 1U rack server

Maximum productivity in a 1U housing

The Fujitsu Server 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 RX200 S7
The Fujitsu Server PRIMERGY RX200 S7 is a rack server that provides high performance, expandability and energy efficiency in 1U space saving housing. Thus, the PRIMERGY RX200 S7 is ideal for virtualization and cloud, small databases as well as for high performance computing thanks to the top performance of the new Intel® Xeon® E5 product family. Moreover, the RX200 S7 delivers a great expandability, by supporting up to 768 GB of memory, eight hard disk drives and cost-saving Modular LAN options to ensure future requirements are met and budgets are saved. Thanks to the highly efficient power supply units with an efficiency rate of 94% and the new power management this will result in lower operational costs.

Features & 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	■ Increased performance of up to 80% compared to the previous generation ■ Optimized for business applications, cloud and virtualization
Lifecycle investment protection ■ Expanded scalability of up to 24 DIMMs with 768 GB memory, up to 8 hard disk drives and 4 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 and CPU available	■ Maximum productivity and scalability in space saving 1U housing 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
Cost efficient operations ■ Simplified power management with profiles for 'minimum power' and 'low-noise' ■ 2 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 RX200 S7

Housing types	Rack	Rack
Storage drive architecture	4x 2.5-inch SAS/SATA	8x 2.5-inch SAS/SATA
Power supply	Hot-plug	Hot-plug

Mainboard

Mainboard type	D3032
Chipset	Intel® C600 (Intel® Patsburg A)
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5-2600 product family
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™) Rank sparing memory support Memory Mirroring support (as soon as released)
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).
Memory options	4 GB (1 module(s) 4 GB) DDR3 LV, registered, ECC, 1,333 MHz, PC3-10600, DIMM
	4 GB (1 module(s) 4 GB) DDR3 LV, registered, ECC, 1,600 MHz, PC3-12800, DIMM
	8 GB (1 module(s) 8 GB) DDR3 LV, registered, ECC, 1,333 MHz, PC3-10600, DIMM
	8 GB (1 module(s) 8 GB) DDR3 LV, registered, ECC, 1,600 MHz, PC3-12800, DIMM
	16 GB (1 module(s) 16 GB) DDR3 LR LV, registered, ECC, 1,333 MHz, PC3-10600, LRDIMM
	16 GB (1 module(s) 16 GB) DDR3 LV, registered, ECC, 1,600 MHz, PC3-12800, DIMM
	32 GB (1 module(s) 32 GB) DDR3 LR LV, registered, ECC, 1,333 MHz, PC3-10600, LRDIMM
Memory options	4 GB (1 module(s) 4 GB) DDR3 LV, unbuffered, ECC, 1,600 MHz, PC3-12800, DIMM

Interfaces

USB 2.0 ports	6
Graphics (15-pin)	2 x VGA (thereof 1x front optional)
LAN / Ethernet	2 x Gbit/s Ethernet (RJ45) with upgrade options for additional 2x1 Gbit/s (RJ45), 4x 1 Gbit/s (RJ45) or 2x 10 Gbit/s (SFP+)
Management LAN (RJ45)	1 x dedicated management LAN port for iRMC S3 (10/100/1000 Mbit/s) Management LAN traffic can be switched to shared onboard Gbit LAN port or optional Modular LAN 2x10 Gbit controller Front Service LAN port as option

Onboard or integrated Controller

RAID controller	4 port for internal 3G SATA and SAS (as upgrade option with SAS enabling key) for HDDs with RAID 0/1/10 (Intel C600) additional RAID controller options are described under Components RAID controller
SATA Controller	Intel® C600, 1 x SATA channel for ODD
LAN Controller	Intel® Ethernet Controller I350, 2 x 10/100/1000 Mbit/s Ethernet (I/O acceleration), Modular integrated on-board LAN offers upgrade options for additional 2x1 Gbit/s , 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
Trusted Platform Module (TPM)	Infineon / separate module; TCG V1.2 compliant (option)

Slots

PCI-Express 3.0 x8	3 x Low profile
PCI-Express 3.0 x16	1 x Low profile

Slots	
Slot Notes	One PCIe Gen3 x8 slot may be occupied with a Modular integrated on-board LAN controller if configured. One PCIe Gen3 x8 slot may be occupied with a Modular RAID controller if configured

Drive bays (Base unit specific)	
Storage drive bays	4 x 2.5-inch base unit or 8 x 2.5-inch base unit
Accessible drive bays	1 x 5.25/0.5-inch for DVD-RW/Blu-ray (only for base unit 4x 2.5-inch HDD)
Notes accessible drives	All possible options described in relevant system configurator.

Drive bays (Base unit specific)		
Storage drive bays	4 x 2.5-inch hot-plug SAS/SATA	8 x 2.5-inch hot-plug SAS/SATA

General system information	
Number of fans	6
Fan configuration	redundant / hot-plug
Fan notes	4 + 2 double-fans for 2 CPU configuration

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

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 2012
	Microsoft® Windows Server® 2012 Datacenter
	Microsoft® Windows Server® 2012 Standard
	Microsoft® Windows Server® 2012 Essentials
	Microsoft® Windows Storage Server 2012 Standard
	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
	Microsoft® Windows® Web Server 2008
	VMware vSphere™ 5.5 Embedded
	VMware vSphere™ 5.5
	VMware vSphere™ 5.0 Embedded
	VMware vSphere™ 5.0
	VMware vSphere™ 4.1
	VMware vSphere™ 4.1 Embedded
	VMware vSphere™ 4.1 Installable
	SUSE® Linux Enterprise Server 11
	SUSE® Linux Enterprise Server 10
	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=d4ebd846-aa0c-478b-8f58-4cfbf3230473
Operating system notes	Support of other Linux derivatives on demand

Server Management

Standard	ServerView Suite - Deploy
	SV Installation Manager
	SV Scripting Toolkit
	SV Deployment Manager (30-day trial version)
	ServerView Suite - Control
	SV Operations Manager incl. PDA and ASR & R
	(Prefailure and Analysis; Automatic Server Recovery and Restart)
	SV Performance Management
	SV Power Management
	SV RAID Manager
	ServerView Suite - Maintain
	SV Remote Management (iRMC)
	SV Update Management (BIOS, Firmware, Windows Drives and SV Agents)
	SV Asset Management
	SV Online Diagnostics
	ServerView Suite - Integrate
	SV Integration packs e.g. for Microsoft System Center, Nagios, HP, SIM, HP NNM, IBM Tivoli, Altiris
	Deployment Solutions and others

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

Rack (W x D x H)	482 mm (Bezel) / 431mm (Body) x 762 mm x 43 mm
Mounting Depth Rack	718 mm
Height Unit Rack	1 U
19" rackmount	Yes
Mounting Cable depth rack	200 mm (1,000 mm Rack recommended)
Weight	up to 18 kg
Weight notes	Actual weight may vary depending on configuration
Rack integration kit	Rack integration kit as option

Environmental

Operating ambient temperature	10 - 35 ℃
Operating relative humidity	10 - 85 % (non condensing)
Operating environment	FTS 04230 – Guideline for Data Center (installation specification)
Operating environment Link	http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe
Noise emission	Measured according to ISO 7779 and declared according to ISO 9296
Sound pressure (LpAm)	Performance mode: 34 dB(A) min, 50 dB(A) max (idle) / 35 dB(A) min, 60 dB(A) max (operating)
Sound power (LWAd; 1B = 10dB)	Performance mode: 5.1 B min , 6.7 B max (idle) / 5.1 B min, 7.6 B max (operating)
Noise notes	Noise emissions and operation modes depend on system configuration.

Electrical values

Power supply configuration	1-2x 450W/800W hot-plug power supply
Max. output of single power supply	450/800 W (94% efficiency)
Power supply efficiency	94 % (80 PLUS 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	47 Hz - 63 Hz
Rated current max.	8.0 A (100 V) / 4.0 A (240 V)
Rated current in basic configuration	1.5 A (100 V) / 0.6 A (240 V)
Active power (max. configuration)	627 W
Active power note	To estimate the power consumption of different configurations use the Power Calculator of the System Architect: http://configurator.ts.fujitsu.com/public/
Apparent power (max. configuration)	646 VA
Heat emission	2257.2 kJ/h (2139.4 BTU/h)
Power Supply Notes	Power Safeguard adapts system performance in case the wattage exceeds supply limits.

Compliance

Global	CB
	RoHS (Restriction of hazardous substances)
	WEEE (Waste electrical and electronical equipment)
Germany	GS
Europe	CE Class A *

Compliance	
USA/Canada	CSAc/us
	ULc/us
	ICES-003 Class A
	FCC Class A
Japan	VCCI Class A + JIS 61000-3-2
China	CCC (depending on configuration)
Taiwan	CNS 13438 class A
Compliance link	http://globalsp.ts.fujitsu.com/sites/certificates
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.

Components

Storage drives	SSD SATA, 6 Gb/s, 400 GB, MLC, hot-plug, 2.5-inch, enterprise
	SSD SATA, 6 Gb/s, 100 GB, MLC, hot-plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 800 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 400 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 200 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 1.6 TB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
	SSD SAS, 6 Gb/s, 400 GB, SLC, hot-plug, 2.5-inch, enterprise
	SSD SAS, 6 Gb/s, 400 GB, MLC, hot-plug, 2.5-inch, enterprise
	SSD SAS, 6 Gb/s, 200 GB, MLC, hot-plug, 2.5-inch, enterprise
	PCIe-SSD, 785 GB, MLC, Flash drive, 7.7 DWPD (drive writes per day)
	PCIe-SSD, 365 GB, MLC, Flash drive, 6 DWPD (drive writes per day)
	PCIe-SSD, 1.2 TB, MLC, Flash drive, 7.7 DWPD (drive writes per day)
	HDD SATA, 6 Gb/s, 500 GB, 7,200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 6 Gb/s, 250 GB, 7,200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 6 Gb/s, 1 TB, 7,200 rpm, hot-plug, 2.5-inch, business critical
	HDD SAS, 6 Gb/s, 900 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 600 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 500 GB, 7,200 rpm, hot-plug, 2.5-inch, business critical
	HDD SAS, 6 Gb/s, 450 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 15,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 146 GB, 15,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 1.2 TB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 1 TB, 7,200 rpm, hot-plug, 2.5-inch, business critical

Optical drives	Blu-ray Disc™ Triple Writer, (6x BD-ROM; 8x DVD; 24x CD), slimline, SATA I
	DVD Super Multi, (8xDVD/DVD+RW, 6xDVD-RW, 5xDVD-RAM; 24xCD/CD-R, 16xCD-RW), slimline, SATA I

SCSI / SAS Controller	SAS Ctrl. 6 Gbit/s 8 ports ext. PCIe Gen2 x8

RAID Controller	RAID 5/6 Ctrl., SAS/SATA 6 Gbit/s, LSI RAID Ctrl SAS 6G 1GB LSI, 8 ports ext.
	RAID level: 0, 1, 10, 5, 50, 6, 60, 1 GB, Optional FBU (based on LSI SAS2208)
	RAID 5/6 Ctrl., SAS/SATA 6 Gbit/s, LSI LSI MegaRAID SAS 9286CV-8e,
	RAID level: 0, 1, 10, 5, 50, 6, 60, 1 GB, Optional FBU (based on LSI SAS2208)
	RAID 5/6 Ctrl., SAS/SATA 6 Gbit/s, Fujitsu RAID Ctrl SAS 6G 5/6 512MB (D2616), 8 ports int.
	RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, Optional BBU (based on LSI SAS2108)
	RAID 5/6 Ctrl., SAS/SATA 6 Gbit/s, Fujitsu RAID Ctrl SAS 6G 1GB (D3116C), 8 ports int.
	RAID level: 0, 1, 10, 5, 50, 6, 60, 1 GB, Optional FBU (based on LSI SAS2208)
	RAID 5/6 Ctrl., SAS/SATA 6 Gbit/s, Fujitsu RAID Ctrl SAS 6G 1GB (D3116), 8 ports int.
	RAID level: 0, 1, 10, 5, 50, 6, 60, 1 GB, Optional FBU (based on LSI SAS2208)
	RAID 0/1 Ctrl., SAS/SATA 6 Gbit/s, Fujitsu RAID Ctrl SAS 6G 0/1 (D2607), 8 ports int.
	RAID level: 0, 1, 10, No BBU support
Fibre Channel controller	Fibre Channel Host Bus Adapter 1 x 8 Gbit/s Qlogic QLE2560 MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 8 Gbit/s Qlogic QLE2562 MMF LC-style
	Fibre Channel Host Bus Adapter 1 x 8 Gbit/s Emulex LPe1250 MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 8 Gbit/s Emulex LPe12002 MMF LC-style
	Fibre Channel Host Bus Adapter 1 x 4 Gbit/s#8 Gbit/s#16 Gbit/s Emulex LPe16000B LC-style
	Fibre Channel Host Bus Adapter 2 x 4 Gbit/s#8 Gbit/s#16 Gbit/s Emulex LPe16002B LC-style
Communication, Network	Converged Network Adapter 2 x 10 Gbit/s PCIe Gen2 x8 (Emulex)
	Ethernet Ctrl. 1 x 10 MBit/s#100 MBit/s#1 Gbit/s PCIe Gen1.1 x1 (Intel®)
	Ethernet Ctrl. 1 x 1 Gbit/s PCIe x4 (Intel®)
	Ethernet Ctrl. 2 x 10 Gbit/s#1 Gbit/s#100 MBit/s PCIe Gen2.1 x8 (Intel®)
	Ethernet Ctrl. 2 x 10 Gbit/s PCIe Gen2 x8 (Fujitsu)
	Ethernet Ctrl. 2 x 1 Gbit/s#100 MBit/s#10 MBit/s PCIe Gen2.1 x4 (Intel®)
	Ethernet Ctrl. 2 x 1 Gbit/s PCIe x4 (Fujitsu)
	Ethernet Ctrl. 4 x 1 Gbit/s#100 MBit/s#10 MBit/s PCIe Gen2.1 x4 (Intel®)
	Ethernet Ctrl. 4 x 1 Gbit/s PCIe x4 (Fujitsu)
	InfiniBand HCA 1 x 40 Gbit/s PCIe Gen2 x8 (Intel®)
	InfiniBand HCA 1 x 40 Gbit/s PCIe Gen2 x8 (Mellanox)
	InfiniBand HCA 1 x 40 Gbit/s PCIe Gen3 x8 (Mellanox)
	InfiniBand HCA 1 x 56 Gbit/s PCIe Gen3 x8 (Mellanox)
	InfiniBand HCA 2 x 40 Gbit/s PCIe Gen2 x8 (Intel®)
	InfiniBand HCA 2 x 40 Gbit/s PCIe Gen3 x8 (Mellanox)
	InfiniBand HCA 2 x 56 Gbit/s PCIe Gen3 x8 (Mellanox)
Graphics	NVIDIA® Quadro® NVS 300 LP, PCIe x1, 2x DVI/VGA
Rack infrastructure	Rackmount kit full extraction (820mm), tool less mounting, length variable 559-914mm
	Cable Management 1U for PRIMECENTER- and 3rd-party racks

Warranty	
Standard Warranty	3 years
Service level	Onsite Service (depending on country)
Warranty Terms & Conditions	http://support.ts.fujitsu.com/warranty/Index.asp?LNG=COM
Maintenance and Support Services - the perfect extension	
Support Pack Options	Globally available in major business areas:
	9x5, Next Business Day Onsite Response Time
	9x5, 4h Onsite Response Time
	24x7, 4h Onsite Response Time
Recommended Service	24x7, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
Service Lifecycle	5 years after end of product life
Service Weblink	http://www.fujitsu.com/fts/services/support

More information

Fujitsu OPTIMIZATION Services

In addition to Fujitsu PRIMERGY RX200 S7, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio

Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

Computing Products

www.fujitsu.com/global/services/computing/

Software

www.fujitsu.com/software/

More information

Learn more about Fujitsu PRIMERGY RX200 S7, please contact your Fujitsu sales representative or Fujitsu
Business partner, or visit our website.
http://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 contribute to the creation of a sustainable environment for future generations through IT. Please find further information at http://www.fujitsu.com/global/about/environment

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