Data Sheet

Fujitsu PRIMERGY RX200 S7 Dual socket 1 U rack server

Maximum productivity in a 1U housing

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 RX200 S7
The Fujitsu 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 and 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" SAS/SATA	8x 2.5" SAS/SATA
Power supply	Hot-plug	Hot-plug
Mainboard		
Chipset	Intel® C600 (Intel® Patsburg A)	
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5-2600 product family	
Processor	Intel® Xeon® processor E5-2603 (4C/4T, 1.80 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1066 MHz, 80 W)	
	Intel® Xeon® processor E5-2609 (4C/4T, 2.40 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1066 MHz, 80 W)	
	Intel® Xeon® processor E5-2620 (6C/12T, 2.00 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s , Mem bus: 1333 MHz, 95 W)	
	Intel® Xeon® processor E5-2630 (6C/12T, 2.30 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s , Mem bus: 1333 MHz, 95 W)	
	Intel® Xeon® processor E5-2630L (6C/12T, 2.00 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s , Mem bus: 1333 MHz, 60 W)	
	Intel® Xeon® processor E5-2637 (2C/4T, 3.00 GHz, TLC: 5 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 80 W)	
	Intel® Xeon® processor E5-2640 (6C/12T, 2.50 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s , Mem bus: 1333 MHz, 95 W)	
	Intel® Xeon® processor E5-2643 (4C/8T, 3.30 GHz, TLC: 10 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 130 W)	
	Intel® Xeon® processor E5-2650 (8C/16T, 2.00 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 95 W)	
	Intel® Xeon® processor E5-2650L (8C/16T, 1.80 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 70 W)	
	Intel® Xeon® processor E5-2660 (8C/16T, 2.20 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 95 W)	
	Intel® Xeon® processor E5-2665 (8C/16T, 2.40 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 115 W)	
	Intel® Xeon® processor E5-2667 (6C/12T, 2.90 GHz, TLC: 15 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 130 W)	
	Intel® Xeon® processor E5-2670 (8C/16T, 2.60 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 115 W)	
	Intel® Xeon® processor E5-2680 (8C/16T, 2.70 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 130 W)	
	Intel® Xeon® processor E5-2690 (8C/16T, 2.90 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s , Mem bus: 1600 MHz, 135 W)	
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™) Hot-spare memory support 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, 1333 MHz, PC3-10600, DIMM
	4 GB (1 module(s) 4 GB) DDR3 LV, registered, ECC, 1600 MHz, PC3-12800, DIMM
	8 GB (1 module(s) 8 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	8 GB (1 module(s) 8 GB) DDR3 LV, registered, ECC, 1600 MHz, PC3-12800, DIMM
	16 GB (1 module(s) 16 GB) DDR3 LR LV, registered, ECC, 1333 MHz, PC3-10600, LRDIMM
	16 GB (1 module(s) 16 GB) DDR3 LV, registered, ECC, 1600 MHz, PC3-12800, DIMM
	32 GB (1 module(s) 32 GB) DDR3 LR LV, registered, ECC, 1333 MHz, PC3-10600, LRDIMM
Memory options	2 GB (1 module(s) 2 GB) DDR3 LV, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM
	4 GB (1 module(s) 4 GB) DDR3 LV, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM

Interfaces

USB ports	6 x USB 2.0 (2x front, 3x rear, 1x uSSD)
Graphics (15-pin)	2 x VGA (thereof 1x front optional)
LAN / Ethernet	2 x Gbit/s Ethernet (RJ45) plus 2x1 Gbit/s as default Modular integrated on-board LAN with upgrade options to 4x 1 Gbit/s (RJ45) or 2x 10 Gbit/s (SFP+)
Service LAN (RJ45)	1 x dedicated management LAN port for iRMC S3 (10/100/1000 Mbit/s) Service LAN traffic can be switched to shared onboard Gbit LAN port Shared 10Gbit/s (SPF+) Management LAN as option if Modular integrated on-board LAN 2x 10 Gbit/s is configured Front management LAN port as option

Onboard or integrated Controller

RAID controller	4 port for internal 3G SATA and SAS (as upgrade option "Patsburg B") for HDDs with RAID 0/1/10 (Intel C600) See 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), In addition 2x1 Gbit/s as default Modular integrated on-board LAN with upgrade options to 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
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
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

Operating panel

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 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™ 5.0 Embedded
	VMware vSphere™ 5.0
	VMware vSphere™ 4.1
	VMware vSphere™ 4.1 Embedded
	VMware vSphere™ 4.1 Installable
	Novell® SUSE Linux Enterprise Server 11
	Novell® SUSE Linux Enterprise Server 10
	Novell® 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=a9e600b9-e4cb-4f48-aa41-632f69058421
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
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 (1000 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°C
Operating relative humidity	10 - 85 % (non condensing)
Operating environment	FTS 04230 – Guideline for Data Center (installation locations)
Operating environment Link	http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfbf3230473
Noise emission	Measured according to ISO 7779 and declared according to ISO 9296
Sound pressure (LpAm)	Low noise mode: xx dB(A) (idle) / xx dB(A) (operating)
	Performance mode: 34 dB(A) min, 53 dB(A) max (idle) / 58 dB(A) min, 67 dB(A) max (operating)
Sound power (LWAd; 1B = 10dB)	Low noise mode: x.x B (idle) / x.x B (operating)
	Performance mode: 4.9 B min , 7.3 B max (idle) / 6.8 B min, 8.2 B max (operating)

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% (at 50% PSU load, CSCI "platinum")
Hot-plug power supply output	450/800 W (94% efficiency)
Hot-plug power supply redundancy	Yes

Electrical values

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
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

Germany	GS
Europe	CE Class A *
USA/Canada	CSAc/us ULc/us ICES-003 Class A FCC Class A
Global	CB RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronical equipment)
Japan	VCCI Class A + JIS 61000-3-2
China	CCC (depending on configuration)
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. * 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.
Compliance link	http://sp.ts.fujitsu.com/sites/certificates/

Components

Storage disks	SSD SATA, 3 Gb/s, 32 GB, SLC, 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, 200 GB, SLC, hot-plug, 2.5-inch, enterprise
	SSD SAS, 6 Gb/s, 100 GB, SLC, hot-plug, 2.5-inch, enterprise
	PCIe SSD, 640 GB, MLC, Flash drive
	PCIe SSD, 320 GB, MLC, Flash drive
	HDD SATA, 6 Gb/s, 500 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 6 Gb/s, 250 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 6 Gb/s, 1 TB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SAS, 6 Gb/s, 900 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 600 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 450 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 146 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 73 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
Optical drives	DVD Super Multi, (8xDVD/DVD+RW, 6xDVD-RW, 5xDVD-RAM; 24xCD/CD-R, 16xCD-RW), slimline, SATA I

RAID Controller	Integrated RAID 5/6 Ctrl., HDD SAS 6 Gb, Fujitsu , 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, Optional BBU (based on LSI SAS2108)
	Integrated RAID 0/1 Ctrl., SAS/SATA 6 Gb, Fujitsu , 8 ports int. RAID level: 0, 1, 10, No BBU support (based on LSI SAS2008)
Fibre Channel controller	Fibre Channel Host Bus Adapter 1 x 8 Gb Qlogic QLE2560 MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 8 Gb Qlogic QLE2562 MMF LC-style
	Fibre Channel Host Bus Adapter 1 x 8 Gb Emulex LPe1250 MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 8 Gb Emulex LPe12002 MMF LC-style
LAN Controller	Converged Network Adapter 2 x 10 Gb Emulex OCe10102
	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. 2 x 10 Gb Fujitsu Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+ lp
	Ethernet Ctrl. 2 x 10 Gb Fujitsu Shared 10Gb Management LAN configured
	Ethernet Ctrl. 2 x 1 Gb Fujitsu Eth Ctrl 2x1Gbit PCIe x4 D2735-2 Cu
	Ethernet Ctrl. 4 x 1 Gb Fujitsu Eth Ctrl 4x1Gbit PCIe x4 D2745 Cu
	InfiniBand HCA 1 x 40 Gb Mellanox
	InfiniBand HCA 1 x 56 Gb Mellanox
	InfiniBand HCA 2 x 40 Gb Mellanox
	InfiniBand HCA 2 x 56 Gb Mellanox
Graphics add on cards (optional)	NVIDIA® Quadro® NVS 300 LP, PCIe x1, 2x DVI/VGA
Rack infrastructure	Cable Management Arm 1U for PRIMECENTER- and 3rd-party racks

Warranty	
Standard Warranty	3 years
Service level	On-site Service (depending on country)
Maintenance and Support Services - the perfect extension	
Recommended Service	7x24, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
Service Lifecycle	5 years
Service Weblink	http://www.fujitsu.com/fts/services

More information

Fujitsu platform solutions

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.

Dynamic Infrastructures

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

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 resolve issues of environmental energy efficiency through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

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