

Data Sheet

FUJITSU Server PRIMERGY RX2520 M1 Dual socket 2 U rack server

Datasheet for Red Hat certification

Scalable rackserver for essential business apps

FUJITSU Server PRIMERGY systems provide the most powerful and flexible data center solutions for companies of all sizes, across all industries and for any type of workload. This includes expandable PRIMERGY tower servers for remote and branch offices, versatile rack-mount servers, compact and scalable blade systems, as well as density-optimized scale-out servers. They convince by business proven quality with a wide range of innovations, highest efficiency cutting operational cost and complexity, and provide more agility in daily operations in order to turn IT faster into a business advantage.

FUJITSU Server PRIMERGY RX rack systems are versatile rack-optimized servers providing best-in-class performance and energy efficiency, and thus form the "standard" in each datacenter. PRIMERGY RX servers deliver approximately 20 years of development and production know-how resulting in extremely low failure rates below market average, and leading to continuous operations and outstanding hardware availability.

PRIMERGY RX2520 M1

The Fujitsu PRIMERGY RX2520 M1 is an efficient and scalable platform for essential business applications. As a dual socket rack server it features the latest Intel® Xeon® processor E5-2400 v2 product family with up to 192 GB RAM. The PRIMERGY RX2520 delivers an especially well balanced price / performance ratio. Its compact PRIMERGY 2U modular chassis provides storage demanding applications and services a powerful environment of up to twelve 3.5-inch or sixteen 2.5-inch storage drives. Furthermore, the RX2520 is prepared for future demands by offering further modular options and upgrade kits for LAN,

RAID and storage. Power supply units with 96 % efficiency and the enhanced iRMC S4 management will result in lower operational costs.



Features & Benefits

Main Features	Benefits
<p>Well-balanced price / performance ratio</p> <ul style="list-style-type: none">■ Intel® Xeon® E5-2400 v2 product family with up to 10 cores■ Up to 192 GB RAM (12 DIMM slots) and up to 6 PCIe slots, 768 GB RAM on special release <p>Flexible and scalable platform</p> <ul style="list-style-type: none">■ Huge number of storage drives of up to twelve 3.5-inch or sixteen 2.5-inch storage drives, prepared for 12Gits / SAS 3■ 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 backup devices (3.5-inch and 5.25-inch) <p>Cost efficient operations</p> <ul style="list-style-type: none">■ Simplified power management with different pre-defined power profiles■ 2 hot-plug PSU with 96% efficiency (80Plus titanium)■ 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 widelyused enterprise management systems	<ul style="list-style-type: none">■ Provides a well-balanced price / performance ratio for essential business applications or small virtualization environments <ul style="list-style-type: none">■ Scalable platform to best meet future demand■ High storage capacity for storage demanding applications and scale-out scenarios■ Individual and cost-saving configuration of the server according to the need of today with upgrade options 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 <ul style="list-style-type: none">■ Simplified and comprehensive power management 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 RX2520 M1

Base unit	PRIMERGY RX2520 M1 LFF	PRIMERGY RX2520 M1 SFF
Housing types	Rack	Rack
Storage drive architecture	max. 8x 3.5-inch SAS/SATA	max. 16x 2.5-inch SAS/SATA
Power supply	Hot-plug	Hot-plug

Mainboard

Mainboard type	D3169
Chipset	Intel® C600 (Intel® Patsburg A)
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5-2400 v2 product family

Processor

Intel® Xeon® processor E5-2403v2 (4C/4T, 1.80 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,333 MHz, 80 W)
Intel® Xeon® processor E5-2407v2 (4C/4T, 2.40 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,333 MHz, 80 W)
Intel® Xeon® processor E5-2420v2 (6C/12T, 2.20 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,600 MHz, 80 W)
Intel® Xeon® processor E5-2430Lv2 (6C/12T, 2.40 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,600 MHz, 60 W)
Intel® Xeon® processor E5-2430v2 (6C/12T, 2.50 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,600 MHz, 80 W)
Intel® Xeon® processor E5-2440v2 (8 Cores / 16 Threads, 1.90 GHz, TLC: 20 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,600 MHz, 95 W)
Intel® Xeon® processor E5-2450Lv2 (10C/20T, 1.70 GHz, TLC: 25 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 60 W)
Intel® Xeon® processor E5-2450v2 (8C/16T, 2.50 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 95 W)
Intel® Xeon® processor E5-2470v2 (10C/20T, 2.40 GHz, TLC: 25 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 95 W)

Memory slots	12 (6 DIMMs per CPU, 3 channels with 2 slots per channel)
Memory slot type	DIMM (DDR3)
Memory capacity (min. - max.)	2 GB - 192 GB
Memory protection	Advanced ECC Memory Scrubbing SDDC (Chipkill™)

Memory notes	Supports DDR3 800 / 1066 / 1333 / 1600 RDIMM max. 6 memory modules/CPU with single or dual-rank RDIMM or single, dual-rank or quad-rank Load-Reduced (LR) DIMM. Performance Mode with identical modules in all three channels (2 modules per bank). Support of 32GB and 64GB LR-DIMMs on special release.
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Memory options	4 GB (1 module(s) 4 GB) DDR3 LV, registered, ECC, 1,600 MHz, PC3-12800, DIMM, single rank 8 GB (1 module(s) 8 GB) DDR3 LV, registered, ECC, 1,600 MHz, PC3-12800, DIMM, single rank 16 GB (1 module(s) 16 GB) DDR3 LV, registered, ECC, 1,600 MHz, PC3-12800, DIMM, dual rank
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Interfaces

USB 2.0 ports	9 x USB 2.0 (2x front for 2.5" and 1x front for 3.5" chassis, 4x rear, 2x internal for backup devices, 1x UFM)
Graphics (15-pin)	2 x VGA (thereof 1x front optional)
Serial 1 (9-pin)	1 x serial RS-232-C, usable for iRMC or system or shared
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 S4 (10/100/1000 Mbit/s) Management LAN traffic can be switched to shared onboard Gbit LAN port

Onboard or integrated Controller

RAID controller	4 port for internal 3 Gbit/s SATA and 3 Gbit/s 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 I210, 2 x 1Gbit/s Ethernet Controller (10/100/1000 Mbit/s), PXE-Boot via LAN from PXE server, iSCSI boot (also diskless)
Remote Management Controller	IPMI 2.0 compatible Integrated Remote Management Controller (iRMC S4, 256 MB attached memory incl. graphics controller)
Trusted Platform Module (TPM)	Infineon / separate module; TCG V1.2 compliant (option)

Slots

PCI-Express 3.0 x8	6 x Low profile
PCI-Express 2.0 x4 (mech. x8)	1 x Low profile
Slot Notes	Important: The number of PCIe slots depends on the number of CPUs: 5x PCIe x8 Gen 3 (2x CPU1; 3x CPU2; mechanical x8) 1x PCIe x4 Gen 2 (PCH; mechanical x8) Internal Slots: 1x PCIe x8 Gen 3 (CPU1; mechanical x8)

Drive bays

Storage drive bays	2.5-inch base unit (max. 16 x 2.5) or 3.5-inch base unit (max. 12 x 3.5)
Accessible drive bays	1 x 5.25/0.5-inch for ODD 1 x 5.25/0.5-inch for Local Service Display 1 x 3.5/1.6-inch for backup devices 1 x 5.25/1.6-inch for backup devices
Notes accessible drives	All possible options described in relevant system configurator.

Drive bays (Base unit specific)

Storage drive bays	Max 8 x 3.5-inch	Max 16 x 2.5-inch
Optional accessible drives	ODD 5.25" possible	LTO 5.25" or DAT/RDX 3.5" possible

General system information

Number of fans	2
Fan configuration	hot-plug / optional redundant
Fan notes	2 + 1 redundant option, additional fan for 2nd CPU

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)
Service display	Optional: 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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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 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® 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 SUSE® Linux Enterprise Server 11 Red Hat® Enterprise Linux 7 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	<ul style="list-style-type: none"> ServerView Suite - Deploy <ul style="list-style-type: none"> SV Installation Manager SV Scripting Toolkit ServerView Suite - Control <ul style="list-style-type: none"> Operations Manager incl. PDA and ASR & R (Prefailure and Analysis; Automatic Server Recovery and Restart) Agents and CIM Providers System Monitor RAID Manager Capacity Management Power Management Storage Support ServerView Suite - Maintain <ul style="list-style-type: none"> Remote Management (iRMC) Update Management (BIOS, Firmware, Windows Drives and SV Agents) Performance Measurement Asset Management Online Diagnostics ServerView Suite - Integrate <ul style="list-style-type: none"> Integration packs e.g. for Microsoft System Center, VMware vCenter, Nagios, HP SIM and others
Option	<ul style="list-style-type: none"> ServerView Suite - Maintain <ul style="list-style-type: none"> iRMC Advanced Pack incl. Advanced Video Redirection (AVR), video capturing and Virtual Media ServerView Suite - Dynamize <ul style="list-style-type: none"> Virtual-IO Manager (VIOM) Resource Orchestrator Virtual Edition (ROR VE) Resource Orchestrator Cloud Edition (ROR CE) ServerView Suite - Integrate <ul style="list-style-type: none"> Integration pack for Fujitsu ManageNow® solution

Dimensions / Weight

Rack (W x D x H)	482.6 mm (Bezel) / 445mm (Body) x 770 x 86.9 mm
Mounting Depth Rack	735 mm
Height Unit Rack	2 U
19" rackmount	Yes
Weight	up to 25 kg
Weight notes	Actual weight may vary depending on configuration
Rack integration kit	Rack integration kit as option

Environmental

Operating ambient temperature	5 - 40 °C
Operating temperature note	Cool-Safe© Advanced Thermal Design (above 35 °C or below 10 °C) depending on configuration. For detailed information see relevant system configurator.
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)	Minimum noise : 34 dB(A) (idle) / 34 dB(A) (operating) Typical noise : 36 dB(A) (idle) / 36 dB(A) (operating)
Sound power (LWAd; 1B = 10dB)	Minimum noise : 5.76 B (idle) / 5.76 B (operating) Typical noise : 6.1 B (idle) / 6.1 B (operating)
Noise notes	Noise emissions and operation modes depend on system configuration. Availability of the low noise mode depends on system configuration. To order an eligible system use the checkbox "Enabling low noise mode" in System Architect.

Electrical values

Power supply configuration	1-2x 450W/800W hot-plug power supply
Max. output of single power supply	450/800 W (94% or 96% efficiency)

Electrical values

Power supply efficiency	94 % (80 PLUS platinum) 96 % (80 PLUS titanium)
Hot-plug power supply output	450/800 W (94 % or 96% efficiency)
Hot-plug power supply redundancy	Yes
Rated voltage range	100 V - 240 V
Rated frequency range	47 Hz - 63 Hz
Rated current max.	5.5 A (100 V) / 2.5 A (240 V)
Rated current in basic configuration	1.5 A (100 V) / 0.6 A (240 V)
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)	600 VA
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 electronic equipment)
Germany	GS
Europe	CE Class A *
USA/Canada	CSAc/us FCC Class A
Japan	VCCI
China	CCC (planned) CCC (depending on configuration)
Australia/New Zealand	C-Tick
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, 800 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
SSD SATA, 6 Gb/s, 400 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
SSD SATA, 6 Gb/s, 200 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
SSD SATA, 6 Gb/s, 100 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
HDD SATA, 6 Gb/s, 500 GB, 7,200 rpm, hot-plug, 3.5-inch, business critical
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, 4 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical
HDD SATA, 6 Gb/s, 3 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical
HDD SATA, 6 Gb/s, 2 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical
HDD SATA, 6 Gb/s, 1 TB, 7,200 rpm, hot-plug, 3.5-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, 15,000 rpm, hot-plug, 3.5-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, 15,000 rpm, hot-plug, 3.5-inch, enterprise
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, 3.5-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, 4 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical
HDD SAS, 6 Gb/s, 3 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical
HDD SAS, 6 Gb/s, 2 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical
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, 3.5-inch, business critical
HDD SAS, 6 Gb/s, 1 TB, 7,200 rpm, hot-plug, 2.5-inch, business critical

Backup Drives

LTO4HH Ultrium, 800 GB, 120 MB/s, half height, SAS 6Gb/s
LTO5HH Ultrium, 1,500 GB, 140 MB/s, half height, SAS 6Gb/s
LTO6HH Ultrium, 2,500 GB, 160 MB/s, half height, SAS 6Gb/s
RDX Drive, 320 GB, 500 GB, 1 TB, 25 MB/s, half height, USB 3.0

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 2.0 x8

RAID Controller

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 for selected systems (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 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

Communication, Network	Ethernet Ctrl. 2 x 10 Gbit/s PCIe 2.0 x8 (Fujitsu) Ethernet Ctrl. 2 x 10 Gbit/s PCIe 2.1 x8 (Intel®) Ethernet Ctrl. 2 x 1 Gbit/s PCIe 2.1 x4 (Intel®) Ethernet Ctrl. 4 x 1 Gbit/s PCIe 2.1 x4 (Intel®)
Rack infrastructure	Rackmount kit full extraction (820mm), tool less mounting, length variable 559-914mm Cable Management for 19-inch DataCenter / PRIMECENTER Racks Cable Arm 2U for PRIMECENTER- and 3rd-party racks
Warranty	
Standard Warranty	3 years
Service level	Onsite Service
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 RX2520 M1, 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 RX2520 M1, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/fts

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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