FUJITSU

Data Sheet
Fujitsu PRIMERGY RX100 S7 Mono socket 1 U rack server

Datasheet for Red Hat certification

Rack virtualization starts here!

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 RX100 S7
PRIMERGY RX100 S7: for SMEs and data centers, looking for high availability, scalability and low TCO - in a 1U chassis. SME customers will find the RX100 S7 to be a highly versatile tool, which can be used as a web, file or print server.
Data center customers can build on the RX100 S7 as a scalable entry-level virtualization platform, which offers up to Intel® Xeon® processor performance, optional redundant fan and hot-plug power supplies (with up to 94% efficiency!) and onboard dual gigabit LAN. The optional front service LAN will make the lives of data center staff easier too. PRIMERGY RX100 S7: Rack virtualization starts here!

Features and Benefits

Main Features	Benefits
■ Redundancy: onboard dual gigabit LAN plus optional redundant fans and optional hot-plug and redundant power supply (PSU)	■ Useable as virtualization platform due to high availability with redundant components
■ Top performance and energy efficiency: the Intel® Xeon® processor E3 family-based platform and new optional hot-plug power supply with platinum efficiency (94%)	■ Get the best performance but save energy and protect the environment
■ Flexibility: 2x 3.5 SATA or SAS HDDs or 4x 2.5 SATA/SAS/SSD HDDs, all hot-plug with modular RAID controllers	■ Highly modular platform for all purposes that can be tailored exactly to customer requirements
■ Manageability/Serviceability: Onboard gigabit remote management controller (iRMC S3) and optional front service LAN	■ High manageability, easy accessibility and serviceability - saves time

Technical details

PRIMERGY RX100 S7				
Hard disk architecture	3.5" SAS/SATA	3.5" SAS/SATA	2.5" SAS/SATA	2.5" SAS/SATA
Power supply	Standard	Hotplug	Standard	Hotplug

Mainboard	
Mainboard type	D 3034
Chipset	Intel® C202
Processor quantity and type	1 x Intel® Core™ i3 processor / Intel® Pentium® processor / Intel® Xeon® processor E3 series

Processor	Intel® Core™ i3-2100 processor
	  (2C/4T, 3.10 GHz, TLC: 3 MB, Turbo: No, 1333 MHz, 65 W)
	Intel® Core™ i3-2120 processor
	  (2C/4T, 3.30 GHz, TLC: 3 MB, Turbo: No, 1333 MHz, 65 W)
	Intel® Pentium® processor G620
	  (2C/2T, 2.60 GHz, TLC: 3 MB, Turbo: No, 1066 MHz, 65 W)
	Intel® Xeon® processor E3-1220
	  (4C/4T, 3.10 GHz, TLC: 8 MB, Turbo: 3.40 GHz, 1333 MHz, 80 W)
	Intel® Xeon® processor E3-1220L
	  (2C/4T, 2.20 GHz, TLC: 3 MB, Turbo: 3.40 GHz, 1333 MHz, 20 W)
	Intel® Xeon® processor E3-1230
	  (4C/8T, 3.20 GHz, TLC: 8 MB, Turbo: 3.60 GHz, 1333 MHz, 80 W)
	Intel® Xeon® processor E3-1240
	  (4C/8T, 3.30 GHz, TLC: 8 MB, Turbo: 3.70 GHz, 1333 MHz, 80 W)
	Intel® Xeon® processor E3-1260L
	  (4C/8T, 2.40 GHz, TLC: 8 MB, Turbo: 3.30 GHz, 1333 MHz, 45 W)
	Intel® Xeon® processor E3-1270
	  (4C/8T, 3.40 GHz, TLC: 8 MB, Turbo: 3.80 GHz, 1333 MHz, 80 W)
	Intel® Xeon® processor E3-1280
	  (4C/8T, 3.50 GHz, TLC: 8 MB, Turbo: 3.90 GHz, 1333 MHz, 95 W)

Memory slots	4 (2 banks with 2 DIMMs each)
Memory slot type	DIMM (DDR3) UDIMM
Memory capacity (min. - max.)	2 GB - 32 GB
Memory protection	ECC
Memory notes	Dual channel support. For dual channel performance, a minimum of 2 memory modules have to be ordered. Capacity per channel has to be the same.
Memory modules	2 GB (1 module(s) 2 GB) DDR3, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM 4 GB (1 module(s) 4 GB) DDR3, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM 8 GB (1 module(s) 8 GB) DDR3, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM

Interfaces	
USB ports	7 x (2x front, 4x back, 1x internal for UFM)
Graphics (15-pin)	1 x VGA (15-pin)
Serial connection	1 x serial RS-232-C, usable for iRMC or system or shared
LAN / Ethernet (RJ-45)	2 x Gbit/s Ethernet
Service LAN (RJ45)	1 x dedicated Service LAN port for iRMC S3 (10/100/1000 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 (option) See under Components RAID controller
SATA Controller	Intel® C202, 1 port used for accessible drive 4 port for internal SATA HDDs with RAID 0, 1, 10 for Windows and Linux;

Onboard or integrated Controller

LAN Controller	Intel® 82574L + Intel® 82579LM onboard, 2 x 10/100/1000 Mbit/s Ethernet (TCP/IP acceleration), iSCSI and PXE-Boot via LAN planned to be supported on both LoMs, WoL for Intel® 82574L only
Remote Management Controller	Integrated Remote Management Controller (iRMC S3, 32 MB attached memory incl. graphics controller), IPMI 2.0 compatible
Trusted Platform Module (TPM)	optional TPM

Onboard or integrated Controller (Base unit specific)

RAID Controller	4 port SATA with RAID 0/1 for HDDs	4 port SATA with RAID 0/1 for HDDs
SATA Controller	4-port SATA 3GB with RAID 0, 1	4-port SATA 3Gb with RAID 0, 1
SATA Controller type notes	for hot-plug SATA hard disks	for hot-plug SATA hard disks

Slots

PCI Express 2.0 x1 (mech. x4)	1 x Low profile max. length 170mm
PCI-Express 2.0 x4 (mech. x8)	1 x Low profile (for Modular RAID only)
PCI-Express 2.0 x16	1 x Low profile max. length 175mm

Drive bays

Hard disk bays	4x 2.5-inch hot-plug SAS/SATA or 2x 3.5-inch hot-plug SAS/SATA
Accessible drive bays	1 x 5.25/0.5-inch for CD-RW/DVD 1 x 3.5/0.5-inch for ServerView Local Service Panel or front VGA + front Service LAN
Number of fans	4
Fan notes	4 fans in combination with standard power supply or 5 fans in combination with hot-plug PSU base unit for 1+4 redundancy.

Operating panel

Operating buttons	On/off switch NMI 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 Panel (LSP)

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 Remote PXE boot support Remote iSCSI boot support
Certified or supported operating systems and virtualization software	Microsoft® Windows Server® 2008 R2 (containing Hyper-V) Microsoft® Windows Server® 2008 Novell SUSE Linux Enterprise Server Red Hat Enterprise Linux VMware vSphere 4.1
Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421

Operating system notes	VMware ESX hints: - SATA RAID is not supported - Storing virtual machines locally requires a SAS RAID Controller - Onboard GbE is supported on one of the two ports Support of other Linux derivatives on demand

Server Management

Standard	ASR&R Automatic Server Recovery and Restart PDA Prefailure Detection and Anaylsis 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) ServerView Deployment Manager (fully functional 30-day trial version)
Option	iRMC S3 Advanced Pack ServerView Integration for Tivoli TEC®, Tivoli NetView, HP NNM and HP Operations Manager
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)	482.6 mm (incl. quick release lever) / 431mm (Body) x 557 x 42.5 mm
Mounting Depth Rack	557 mm
Height Unit Rack	1 U
Mounting Cable depth rack	200 mm cable depth
Weight	up to 14 kg
Weight notes	Actual weight may vary depending on configuration
Rack integration kit	Rack integration kit as option

Environmental

Sound pressure (LpAm)	24/30 dB(A) (min / max idle), 28.5 / 53.5 db(A) (min / max operating)
Sound power (LWAd; 1B = 10dB)	3.7/4.3 B (min / max idle), 4.2 / 6.8 B (min / max operating)
Noise notes / description	May vary according to configuration
Operating ambient temperature	15 - 35C
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=e4813edf-4a27-461a-8184-983092c12dbe

Electrical values

Power supply configuration	1x standard power supply or1x hot-plug power supply or 2x hot plug power supplies for redundancy
Standard power supply output	300 W (90% efficiency)
Hot-plug power supply output	450W (94% efficiency)
Hot-plug power supply redundancy	Yes
Rated voltage range	100 V - 127 V / 200 V - 240 V
Rated frequency range	47 Hz - 63 Hz
Rated current max.	6A
Rated current in basic configuration	1.8 A / 0.8 A (100V / 240V)
Active power (max. configuration)	193 W
Apparent power (max. configuration)	195 VA
Heat emission	694.8 kJ/h (658.5 BTU/h)

Compliance

Germany	GS
Europe	CE Class A *
USA/Canada	CSAc/us ULc/us FCC Class A
Global	CB RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronical equipment)

Compliance	
Japan	VCCI
Russia	GOST
China	CCC
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. * 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	https://sp.ts.fujitsu.com/sites/certificates/default.aspx

Components

Hard disk drives	
	SSD SATA, 3 Gb/s, 64 GB, SLC, hot-plug, 2.5-inch, enterprise
	SSD SATA, 3 Gb/s, 32 GB, SLC, hot-plug, 2.5-inch, enterprise
	HDD SATA, 3 Gb/s, 500 GB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SATA, 3 Gb/s, 500 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 3 Gb/s, 250 GB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SATA, 3 Gb/s, 160 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 3 Gb/s, 2 TB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SATA, 3 Gb/s, 1 TB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SAS, 6 Gb/s, 600 GB, 15000 rpm, hot-plug, 3.5-inch, enterprise
	HDD SAS, 6 Gb/s, 600 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 450 GB, 15000 rpm, hot-plug, 3.5-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, 3.5-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, 146 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 73 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 3 Gb/s, 146 GB, 15000 rpm, hot-plug, 3.5-inch, enterprise
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. No mix of SAS and 'Eco' SATA HDDs possible
Optical drives	Blu-ray Disc™ Combo Drive, (2x 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	SCSI Ctrl. 320 MB 1x int /1x ext
	SAS Ctrl. 6 Gb 8 ports ext. PCIe Gen2 x8
	SAS Ctrl. 3 Gb 4 ports int. / 4 ports ext.

RAID Controller	RAID 5/6 Ctrl., HDD SAS 6 Gb, LSI , 8 ports ext.
	RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, optional BBU (based on LSI SAS2108)
	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)
	Integrated RAID 0/1 Ctrl., SAS/SATA 3 Gb, 4 ports int.
	RAID level: 0, 1, 1E, no BBU support (based on LSI 1064e)
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
	Ethernet Ctrl. 2 x 10 Gb Fujitsu Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+ lp
	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
Rack infrastructure	Cable Arm 1U for PRIMECENTER- and 3rd-party racks

Warranty	
Standard Warranty	1 year
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.
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

More information

Fujitsu platform solutions

In addition to Fujitsu PRIMERGY RX100 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 RX100 S7, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://ts.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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