# FUJITSU

# Data Sheet

# Fujitsu PRIMERGY RX100 S7p Mono socket 1 U rack server

Datasheet for Red Hat certification

## Small in size and low in cost – rich in optional features

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.

operational costs. Furthermore, the ServerView™ suite and remote management features (iRMC S3) simplify administration and enables centralized management for de-centralized installations.

### PRIMERGY RX100 S7p
The Fujitsu PRIMERGY RX100 S7 is an entry mono socket Intel® x86 rack server designed to provide a solution for small budgets, yet enabling a rich set of optional expansions to best meet individual demands. Its usage patterns cover infrastructure and communication applications by delivering up to 32GB RAM, up to 3 PCIe slots and up to 4 hard disk drives. Moreover, this 1U server enables individual configuration with a rich set of optional features, such as hot-plug 94% efficient power supply units, redundant fan, RAID controller and the choice of Intel® Xeon® E3, Intel® Core® and Intel® Celeron® processors. By delivering the highest energy efficiency of its class, the RX100 S7 also contributes to the lowest

# Features and Benefits

| Main Features | Benefits |
|---|---|
| **Small in costs** | |
| ■ Most energy efficient rack server of its class | ■ Clear reduction in energy costs |
| ■ Fujitsu ServerView™ suite and onboard remote management features (iRMC S3) enable centralized management | ■ Comprehensive and simplified management reduce time for standard administration tasks |
| **Cost-optimized foundation** | |
| ■ Onboard dual gigabit LAN | ■ Cost-optimized foundation for infrastructure and communication applications |
| ■ Up to 32GB RAM, up to 2 PCIe Gen2 and 1 PCIe Gen3 slots and up to 4 hard disk drives | ■ Flexible to meet the individual demand |
| ■ Free choice: 2x 3.5 SATA/ SAS HDDs or 4x 2.5 SATA/SAS/SSD HDDs | |
| **Rich set of optional features** | |
| ■ Choice of Intel® Xeon® E3, Core™ i3, Celeron® and Pentium® processors | ■ Perfectly meet the performance requirements with available budget |
| ■ Modular RAID controllers | ■ Match redundancy requirements with available budget |
| ■ Redundant fans | |
| ■ Hot-plug and redundant power supply (PSU) with platinum efficiency (94%) | |

# Technical details

| PRIMERGY RX100 S7p | | | | |
|---|---|---|---|---|
| Storage drive architecture | 3.5" SAS/SATA | 3.5" SAS/SATA | 2.5" SAS/SATA | 2.5" SAS/SATA |
| Power supply | Standard | Hot-plug | Standard | Hot-plug |

| Mainboard | |
|---|---|
| Mainboard type | D 3034 |
| Chipset | Intel® C202 |
| Processor quantity and type | 1 x Intel® Celeron® processor / Intel® Core™ i3 processor / Intel® Pentium® processor / Intel® Xeon® processor E3 series |
| Processor | Intel® Celeron® processor G530 (2C/2T, 2.40 GHz, TLC: 2 MB, Turbo: No, 1066 MHz, 65 W) |
| | Intel® Xeon® processor E3-1220Lv2 (2C/4T, 2.30 GHz, TLC: 3 MB, Turbo: Yes, 1600 MHz, 17 W) |
| | Intel® Xeon® processor E3-1220v2 (4C/4T, 3.10 GHz, TLC: 8 MB, Turbo: Yes, 1600 MHz, 69 W) |
| | Intel® Xeon® processor E3-1230v2 (4C/8T, 3.30 GHz, TLC: 8 MB, Turbo: Yes, 1600 MHz, 69 W) |
| | Intel® Xeon® processor E3-1240v2 (4C/8T, 3.40 GHz, TLC: 8 MB, Turbo: Yes, 1600 MHz, 69 W) |
| | Intel® Xeon® processor E3-1265Lv2 (4C/8T, 2.50 GHz, TLC: 8 MB, Turbo: Yes, 1600 MHz, 45 W) |
| | Intel® Xeon® processor E3-1270v2 (4C/8T, 3.50 GHz, TLC: 8 MB, Turbo: Yes, 1600 MHz, 69 W) |
| | Intel® Xeon® processor E3-1280v2 (4C/8T, 3.60 GHz, TLC: 8 MB, Turbo: Yes, 1600 MHz, 69 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 options | 2 GB (1 module(s) 2 GB) DDR3, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM |
| | 4 GB (1 module(s) 4 GB) DDR3, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM |
| | 8 GB (1 module(s) 8 GB) DDR3, unbuffered, ECC, 1600 MHz, PC3-12800, 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 management LAN port for iRMC S3  (10/100/1000 Mbit/s) Service LAN traffic can be switched to shared onboard Gbit LAN port |
| 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) |

## Onboard or integrated Controller

| | |
|---|---|
| RAID controller | Integrated RAID 0/1 or RAID 5/6 controller (option) <br> See under Components RAID controller |
| SATA Controller | Intel® C202, 1 port used for accessible drive <br> 4 port for internal SATA HDDs with RAID 0, 1, 10 for Windows and Linux; |
| LAN Controller | Intel® 82574L + Intel® 82579LM onboard, 2 x 10/100/1000 Mbit/s Ethernet (TCP/IP acceleration), iSCSI and PXE-Boot <br> 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 <br> compatible |
| Trusted Platform Module (TPM) | optional TPM |

## Onboard or integrated Controller (Base unit specific)

| | | |
|---|---|---|
| RAID controller | 4 port SATA with RAID 0/1/ 10 for HDDs | 4 port SATA with RAID 0/1/ 10 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 3.0 x16 | 1 x Low profile max. length 175mm |
| 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) |
| Slot Notes | In configurations with Intel® Core™ i3 or Intel® Pentium® processors slots are operated with PCI-Express 2.0. |
| Storage drive 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 <br> 1 x 3.5/0.5-inch for ServerView Local Service Panel or front VGA + front Service LAN |

## Drive bays (Base unit specific)

| | |
|---|---|
| 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 <br> redundancy. |

## Operating panel

| | |
|---|---|
| Operating buttons | On/off switch <br> NMI button |
| Status LEDs | System status (orange / yellow) <br> Identification (blue) <br> Hard disks access (green) <br> Power (amber / green) <br> At system rear side: <br> System status (orange / yellow) <br> Identification (blue) <br> LAN connection (green) <br> LAN speed (green / yellow) |
| Service display | Optional: <br> ServerView Local Service Panel (LSP) |

## BIOS

| | |
|---|---|
| BIOS features | ROM based setup utility <br> Recovery BIOS <br> BIOS settings save and restore <br> Local BIOS update from USB device <br> Online update tools for main Windows and Linux versions <br> Local and remote update via ServerView Update Manager <br> Remote PXE boot support <br> Remote iSCSI boot support |

## Operating Systems and Virtualization Software

| | |
|---|---|
| Operating system release link | http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421 |

## Operating Systems and Virtualization Software

| | |
|---|---|
| Operating system notes | VMware ESX hints:<br>- SATA RAID is not supported<br>- Storing virtual machines locally requires a SAS RAID Controller<br>- Onboard GbE is supported on one of the two ports<br>Support of other Linux derivatives on demand<br>Red Hat® certification starting with version 5.8 / 6.2 |

## Server Management

| | |
|---|---|
| **Standard** | |
| Option | ServerView Suite - Deploy<br>      SV Deployment Manager (full version)<br>ServerView Suite - Maintain<br>      iRMC Advanced Pack incl. Advanced Video Redirection (AVR) and Remote Storage<br>ServerView Suite - Dynamize<br>      SV Virtual-IO Manager (VIOM)<br>      SV Resource Orchestrator Virtual Edition (ROR VE)<br>      SV Resource Orchestrator Cloud Edition (ROR CE)<br>ServerView Suite - Integrate<br>      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) | 482.6 mm (Bezel) / 431mm (Body) x 572 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

| | |
|---|---|
| Operating ambient temperature | 15 - 35℃ |
| 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 |
| 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 |

## 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 * |

## Compliance

| | |
|---|---|
| **USA/Canada** | CSAc/us |
| | ULc/us |
| | FCC Class A |
| **Global** | CB |
| | RoHS (Restriction of hazardous substances) |
| | WEEE (Waste electrical and electronical equipment) |
| **Japan** | VCCI |
| **Russia** | GOST |
| **South Korea** | KC |
| **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.<br>* Warning:<br>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** | HDD SATA, 6 Gb/s, 500 GB, 7200 rpm, hot-plug, 3.5-inch, economic |
| | HDD SATA, 6 Gb/s, 500 GB, 7200 rpm, hot-plug, 3.5-inch, business critical |
| | 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, 3.5-inch, economic |
| | HDD SATA, 6 Gb/s, 250 GB, 7200 rpm, hot-plug, 2.5-inch, business critical |
| | HDD SATA, 6 Gb/s, 3 TB, 7200 rpm, hot-plug, 3.5-inch, business critical |
| | HDD SATA, 6 Gb/s, 2 TB, 7200 rpm, hot-plug, 3.5-inch, business critical |
| | HDD SATA, 6 Gb/s, 1 TB, 7200 rpm, hot-plug, 3.5-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, 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, 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** | 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 Gb 8 ports ext. PCIe Gen2 x8 |
| | SAS Ctrl. 3 Gb 4 ports int. / 4 ports ext. |

| RAID Controller | Integrated RAID 5/6 Ctrl., HDD SAS 6 Gb, Fujitsu , 8 ports int.<br>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.<br>RAID level: 0, 1, 10, No BBU support (based on LSI SAS2008) |
| | Integrated RAID 0/1 Ctrl., SAS/SATA 3 Gb, 4 ports int.<br>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. |
| --- | --- |
| Service Lifecycle | 5 years |
| Service Weblink | http://www.fujitsu.com/fts/services |

# More information

## Fujitsu platform solutions

In addition to Fujitsu PRIMERGY RX100 S7p, 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 S7p, 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 resolve issues of environmental energy efficiency through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

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