Scalable rack server for essential business apps

Fujitsu offers a fantastic blend of systems, solutions and expertise to guarantee maximum productivity, efficiency and flexibility, delivering confidence and reliability. Fujitsu PRIMERGY servers deliver workload-optimized x86 industry standard systems for any workload and business demand. Since there is no single server solution to meet all these needs, Fujitsu offers a broad server portfolio consisting of expandable tower servers, versatile rack-mount servers, density-optimized multi-node servers as well as GPU servers purpose-built for the demands of AI and VDI. While all these systems are designed to handle multiple workloads, each server is optimized for specific use cases. Whatever the size of your business – large enterprise with multiple sites, or a small or medium-sized company with limited space and budget – with the right choice of server, your IT can become the business enabler you have always wanted it to be.

PRIMERGY RX2520 M5
The Fujitsu PRIMERGY RX2520 M5 is an efficient and scalable platform for essential business applications. As a dual-socket rack server it features the latest Intel® Xeon® Scalable Family processors with max. 20 cores fueled by up to 768 GB RAM. The system can also be equipped with the new 2nd generation processors of the Intel® Xeon® Scalable Family (CLX-R) delivering industry-leading frequencies. The PRIMERGY RX2520 delivers an especially well balanced price/performance ratio making it ideal for baseline datacenter workloads i.e. for collaboration platforms or storage-hungry applications. Its compact PRIMERGY 2U modular chassis provides storage demanding applications and services a powerful environment of up to twelve 3.5-inch or up to twenty-four 2.5-inch storage drives. Furthermore, the RX2520 M5 is prepared for individual future demands by offering further various modular options and upgrade kits for LAN, RAID and storage. Power supply units with 96% efficiency and the enhanced iRMC S5 remote management will result in lower operational costs.
Features & Benefits

<table>
<thead>
<tr>
<th>Main Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW 2ND GEN INTEL® XEON® SCALABLE PROCESSORS</td>
<td>These new platforms leverage high-performance compute cores, built-in acceleration, advanced security and the Intel hardware and software portfolio to propel network, cloud and enterprise customers into the data-centric future.</td>
</tr>
<tr>
<td>FLEXIBLE AND SCALABLE PLATFORM</td>
<td>The server is a scalable platform to best meet increasing individual demand optimized to suit serverized storage scenarios or storage demanding applications. Due to upgrade kits and the modular platform, just grow over time within the same system and utilize to the best over the entire lifecycle.</td>
</tr>
<tr>
<td>PROTECT YOUR COMPANY WITH SECURE SERVERS</td>
<td>PRIMERGY servers come with a wide variety of such robust security features and combine these capabilities with the best quality and efficiency, and more agility in daily operations helps to turn IT into a business advantage faster.</td>
</tr>
<tr>
<td>INFRASTRUCTURE MANAGEMENT</td>
<td>Converged data center management that provides organizations centralized control over the entire infrastructure that includes servers, storage, networking, cloud management software as well as power and cooling using a single user interface.</td>
</tr>
</tbody>
</table>

- New Intel Xeon Scalable processor SKUs deliver additional customer value with increased performance and industry leading frequency (up to 3.9 GHz base and up to 44% more processor cache).
- Huge numbers of storage drives in various base units with up to 12x 3.5-inch or 24x 2.5-inch storage drives are available. M.2 device support, the modular concept for the base unit as well as a choice for optional LAN controller, RAID controller and power supplies as well as built-in backup devices such as LTO drives are configurable for this server.
- PRIMERGY servers are equipped with beneficial features to protect against, detect and recover from security breaches (UEFI Secure Boot, TPM 2.0, signed firmware updates, agent-free device management, secure authorization and authentication, alerting and logging, secure Out of Band Management with iRMC S5, …).
- ISM is available with two licensing options: (1) ISM Advanced is the fully featured licensed version of ISM that provides comprehensive infrastructure management capabilities across datacenter. (2) ISM Essential provides a quick start to infrastructure management with essential monitoring and update functions.
## Technical details

### PRIMERGY RX2520 M5

<table>
<thead>
<tr>
<th>Base unit</th>
<th>PRIMERGY RX2520 M5 SFF</th>
<th>PRIMERGY RX2520 M5 SFF</th>
<th>PRIMERGY RX2520 M5 SFF</th>
<th>PRIMERGY RX2520 M5 LFF</th>
<th>PRIMERGY RX2520 M5 LFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing types</td>
<td>Rack</td>
<td>Rack</td>
<td>Rack</td>
<td>Rack</td>
<td>Rack</td>
</tr>
<tr>
<td>Storage drive architecture</td>
<td>8x 2.5-inch SAS/SATA/PCIe</td>
<td>16x 2.5-inch SAS/SATA/PCIe</td>
<td>24x 2.5-inch SAS/SATA/PCIe</td>
<td>4x 3.5-inch SAS/SATA</td>
<td>12x 3.5-inch SAS/SATA</td>
</tr>
<tr>
<td>Power supply</td>
<td>Hot-plug</td>
<td>Hot-plug</td>
<td>Hot-plug</td>
<td>Hot-plug</td>
<td>Hot-plug</td>
</tr>
<tr>
<td>Product Type</td>
<td>Dual Socket Rack Server</td>
<td>Dual Socket Rack Server</td>
<td>Dual Socket Rack Server</td>
<td>Dual Socket Rack Server</td>
<td>Dual Socket Rack Server</td>
</tr>
</tbody>
</table>

### Mainboard

<table>
<thead>
<tr>
<th>Mainboard type</th>
<th>D3386-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chipset</td>
<td>Intel® C624</td>
</tr>
<tr>
<td>Processor quantity and type</td>
<td>1 - 2 x Intel® Xeon® Bronze 3xxx processor / Intel® Xeon® Silver 4xxx processor / Intel® Xeon® Gold 5xxx processor</td>
</tr>
<tr>
<td>Mainboard type</td>
<td>1 - 2</td>
</tr>
<tr>
<td>Processor notes</td>
<td>configurable with up to max. 105W and 14 cores</td>
</tr>
<tr>
<td>Memory slots</td>
<td>12 (6 DIMMs per CPU, 6 channels with 1 DIMM per channel)</td>
</tr>
<tr>
<td>Memory slot type</td>
<td>DIMM (DDR4)</td>
</tr>
<tr>
<td>Memory capacity (min. - max.)</td>
<td>8 GB - 768 GB</td>
</tr>
<tr>
<td>Memory protection</td>
<td>Advanced ECC Memory Scrubbing SDDC</td>
</tr>
<tr>
<td>Memory notes</td>
<td>Memory Mirroring Mode with identical modules in both channel pairs of a bank (4 or 6 modules per bank) per CPU. Rank Sparing Mode with minimum of 2 modules single ranked (1R) or dual ranked (2R) or 1 module quad ranked (4R) per CPU.</td>
</tr>
</tbody>
</table>

### Interfaces

<table>
<thead>
<tr>
<th>USB 2.x ports</th>
<th>1 x USB 2.0 internal for backup devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB 3.x ports</td>
<td>7 x USB 3.0 (2x front, 4x rear, 1x internal type A)</td>
</tr>
<tr>
<td>Graphics (15-pin)</td>
<td>1 x VGA rear</td>
</tr>
<tr>
<td>Serial (9-pin)</td>
<td>1 x serial RS-232-C, optional</td>
</tr>
<tr>
<td>LAN / Ethernet</td>
<td>2 x Gbit/s Ethernet (RJ45 based on Intel® X722)</td>
</tr>
<tr>
<td>Management LAN (RJ45)</td>
<td>1 x dedicated management LAN port for iRMC S5 (10/100/1000 Mbit/s)</td>
</tr>
<tr>
<td></td>
<td>Management LAN traffic can be switched to shared onboard Gbit LAN port</td>
</tr>
</tbody>
</table>

### RAID controller

All hardware storage controller options are described under Components

### SATA Controller

Intel® C624, 1 x SATA channel for ODD

### LAN Controller

2 x 1 Gbit/s onboard PXE-Boot via LAN from PXE server, iSCSI boot (also diskless)

### Remote management controller

IPMI 2.0 compatible
Integrated Remote Management Controller (iRMC S5, 512 MB attached memory incl. graphics controller)

### Trusted Platform Module (TPM)

Infineon / TPM 1.2 or TPM 2.0 module; TCG compliant (option)

### Slots

<table>
<thead>
<tr>
<th>PCI-Express 4.0 x16</th>
<th>1 x (190 mm) low profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCI-Express 3.0 x8</td>
<td>3 x Low profile</td>
</tr>
<tr>
<td>PCI-Express 3.0 x16</td>
<td>3 x Low profile</td>
</tr>
</tbody>
</table>

### Slot Notes

Important: The number of PCIe slots depends on the number of CPUs:
3x PCIe x8 Gen 3 with CPU1
1x PCIe x16 Gen 3 with CPU1
2x PCIe x16 Gen 3 with CPU2
**Drive bays**

- **Storage drive bays**: 2.5-inch base units (max. 24 x 2.5) or 3.5-inch base units (max. 12 x 3.5)
- **Accessible drive bays**:
  - 1 x 5.25/0.5-inch for ODD
  - 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)**

<table>
<thead>
<tr>
<th>Storage drive bays</th>
<th>12 x 2.5-inch hot-plug SAS/SATA</th>
<th>16 x 2.5-inch hot-plug SAS/SATA</th>
<th>24 x 2.5-inch hot-plug SAS/SATA</th>
<th>4 x 2.5-inch hot-plug SAS/SATA</th>
<th>12 x 3.5-inch hot-plug SAS/SATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage drive bay configuration</td>
<td>SAS expander not required with PRAID EP5xxi</td>
<td>not expandable, incl. SAS expander</td>
<td>optionally expandable to 8x 3.5” with SAS expander</td>
<td>not expandable, incl. SAS expander</td>
<td></td>
</tr>
</tbody>
</table>

- **Accessible drive bays**:
  - 1 x 5.25/1.6-inch for 1 x backup drive or 1 x ODD
  - 1 x 5.25/1.6-inch for 1 x backup drive or 1 x ODD
  - 1 x 5.25/1.6-inch for 1 x ODD

- **Optional accessible drives**:
  - 1x optical drive, 1x backup drive
  - 1x optical drive, 1x backup drive
  - 1x optical disk drive

**Fan Configuration**

- **Number of fans**: 4
- **Fan configuration**: redundant, non-hot-plug
- **Fan notes**: expandable with up to 3 double-fan modules; depending on 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 Linux versions
  - Local and remote update via ServerView Update Manager
  - SMBIOS V2.4
  - Remote PXE boot support
  - Remote iSCSI boot support
  - Cryptographically Signed BIOS Firmware Update
  - HTTP and HTTPS Boot
  - PCIe Bifurcation configurable

**Operating Systems and Virtualization Software**

- **Operating system notes**: Support of other Linux derivatives on demand
  - Use of certified or supported operating systems and virtualization software is subject to proactive acceptance of the respective License Agreements/ EULAs/ Subscription and support terms of the Software manufacturer as applicable for the relevant Software whether preinstalled or optional. The software may only be available bundled with a software support subscription which – depending on the Software - may be subject to separate remuneration.

**Infrastructure and Server Management**

- **DC Infrastructure Management**:
  - Infrastructure Manager (ISM)
    - Essential Edition
    - Advanced Edition
Infrastructure and Server Management

Server Management
- Infrastructure Manager (ISM)
  - Essential Edition
  - Advanced Edition
- ServerView Suite

Management notes
For further information regarding ISM and ServerView Suite see dedicated data sheets.

Manageability link
http://docs.ts.fujitsu.com/dl.aspx?id=9e92297a-16fb-4c69-8559-e38e7b42fee6

Dimensions / Weight

- Rack (W x D x H): 482.6 mm (Bezel) / 444.8 mm (Body) x 750 x 86.6 mm
- Mounting Depth Rack: 725.6 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

Environment

- Operating ambient temperature: 5 - 45 °C (41 - 113 °F)

- Operating temperature note: Cool-safe® Advanced Thermal Design (above 35 °C or below 10 °C) depending on configuration. Please use the Fujitsu WebArchitect (www.fujitsu.com/configurator/public) to get detailed information on the corresponding configurations.

- Operating relative humidity: 10 - 85 % (non condensing)
- Operating environment: FTS 04230 – Guideline for Data Center (installation specification)

- 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 depends on operation modes, system configuration and ambient temperature.

Electrical values

- Power supply configuration: 1x non hot-plug power supply or 2x hot-plug power supply for redundancy
- Hot-plug power supply redundancy: Optional
- Active power (max. configuration): 643 W
- Apparent power (max. configuration): 600 VA
- Heat emission (max. configuration): 2314.8 kJ/h (2194.0 BTU/h)
- Rated current max.: 5.5 A (100 V) / 2.5 A (240 V)
- Active power note: To estimate the power consumption of different configurations use the Fujitsu Product Configurator: www.fujitsu.com/configurator/public

Power supply

- 450W hot-plug, 94% (Platinum efficiency), 100-240V, 50 / 60Hz
- 800W hot-plug, 94% (Platinum efficiency), 100-240V, 50 / 60Hz
- 800W hot-plug, 92% (equivalent to Gold efficiency) –48V DC
- 800W hot-plug, 96% (Titanium efficiency), 200-240V, 50 / 60Hz

- Power supply notes: Power Safeguard adapts system performance in case the power requirements exceeds supply limits. 196% Titanium Power supply unit is only released for 200-240V

Compliance

- Product: PRIMERGY RX2520 M5
- Model: PR300D
- Global: CB
  - RoHS (Substance limitations in accordance with global RoHS regulations)
  - WEEE (Waste electrical and electronical equipment)
- Germany: GS
- Europe: CE
- USA/Canada: CSAc/us
  - FCC Class A
  - ICES-003 / NMB-003 Class A
Compliance

<table>
<thead>
<tr>
<th>Country</th>
<th>Compliance Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>VCCI V3 Class A + JIS 61000-3-2</td>
</tr>
<tr>
<td>Russia</td>
<td>EAC</td>
</tr>
<tr>
<td>South Korea</td>
<td>KC</td>
</tr>
<tr>
<td>China</td>
<td>CCC (planned)</td>
</tr>
<tr>
<td>Australia/New Zealand</td>
<td>RCM</td>
</tr>
<tr>
<td>Taiwan</td>
<td>BSMI</td>
</tr>
<tr>
<td>Compliance link</td>
<td><a href="https://sp.ts.fujitsu.com/sites/certificates">https://sp.ts.fujitsu.com/sites/certificates</a></td>
</tr>
<tr>
<td>Compliance notes</td>
<td>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.</td>
</tr>
</tbody>
</table>

Components

Warranty

<table>
<thead>
<tr>
<th>Warranty Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warranty period</td>
</tr>
<tr>
<td>Warranty type</td>
</tr>
<tr>
<td>Warranty Terms &amp; Conditions</td>
</tr>
<tr>
<td>Product Support - the perfect extension</td>
</tr>
<tr>
<td>Support Pack Options</td>
</tr>
<tr>
<td>Recommended Service</td>
</tr>
<tr>
<td>Service Lifecycle</td>
</tr>
</tbody>
</table>
Fujitsu products, solutions & services
In addition to Fujitsu PRIMERGY RX2520 M5, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.
Fujitsu Portfolio
Built 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 offerings. This allows customers to select 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/products/computing/

Software
www.fujitsu.com/software/

More information
Learn more about Fujitsu PRIMERGY RX2520 M5, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. 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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More information
Learn more about Fujitsu PRIMERGY RX2520 M5, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. 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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