Data Sheet
Fujitsu PRIMERGY RX8770 M7 Rack Server

Perfect platform for your SAP S/4HANA solution

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 RX8770 M7

PRIMERGY RX8770 M7 is the new High-end of Fujitsu x86 PRIMERGY portfolio. A powerful 8-socket rack server, especially designed for back-end in memory application databases like SAP S/4HANA. To scale-up corporate workloads and high-performance database and In-memory database processing. The server constitutes a highly scalable, 4th generation Intel Xeon Scalable Family processor-based server that significantly extends the economic advantages of x86 industry standard scale-up solutions. It scales the usage patterns for in-memory solutions like SAP S/4HANA to highest performance levels, far beyond the 4-socket x86 server class. PRIMERGY RX8770 M7 provides extreme scalability as regards the 8-socket processing performance of the Platinum processor level 84xxH (480 cores), memory expandability with 128 DIMM slots (max. 32 TB DDR5 RDIMM) with up to 4800 MT/s, 24 x PCIe 5.0 slots and up to 24x 2.5-inch SATA/SAS/PCIe SSD storage devices. It scales up linearly with I/O, memory, and CPUs inside the 6U rack system unit without the need for infrastructure changes. Very large corporate databases and heavy load transactional processing applications, where response time and throughput is paramount, will benefit best from the platform’s efficient scalability and high I/O bandwidth. Likewise, corporate SAP S/4HANA, Decision Support services and Business Intelligence solutions, where performance for time-to-results constitutes the business-critical value, will profit from its enormous processing power. The PRIMERGY RX8770 M7 provides all the business-critical attributes for a constantly reliable IT operation at latest high-performance levels.
## Features & Benefits

<table>
<thead>
<tr>
<th>Main Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octo-socket scale-up performance</td>
<td>The result is a high performing in-memory database server, that sets a new performance reach achievable with x86 rack server technology.</td>
</tr>
<tr>
<td>With PRIMERGY RX8770 M7, 4x Intel Ultra Path Interconnect (UPI) the highspeed link architecture is used to enable seamless 8-socket scalability using the 4th generation of Intel® Xeon® Platinum 84xx processor family with up to 60 cores per socket.</td>
<td>This comprehensive portfolio expansion will give you the opportunity to benefit from extreme scale-up performance and reliability of PRIMERGY industry standard servers in your datacenter backend for SAP S/4HANA in-memory databases.</td>
</tr>
<tr>
<td>New level of expansion options</td>
<td>Transition to SAP S/4HANA will find the perfect compute platform</td>
</tr>
<tr>
<td>Compared to predecessor generation Intel Xeon servers, the new PRIMERGY RX8770 M7 with Intel Xeon Platinum 84xx H processors scales up to 480 cores per server, combined with the massive memory capacity using up to 128 DIMM sockets with a maximum of 32 TB memory, the RX8770 M7 truly constitutes the high-end x86 performance class</td>
<td>Demanding application like large in-memory databases will perform constantly on highest level due to easy internal expansion option to support all demands</td>
</tr>
<tr>
<td>Linear internal Scalability</td>
<td>The result is an IT business platform that provides unprecedented operational continuity and more value for money in the high-end server range.</td>
</tr>
<tr>
<td>RX8770 M7 provides linear scalability by simultaneously expanding I/O capacity, memory capacity and CPU performance. Not only will CPU performance convince, but in line with additional 16 DDR5 DIMM slots (8 channel with 2 slots each) per socket a total of 128 slots for 32 TB memory per system is possible. With 4x Intel UPI link technology, a fully populated 8 CPU system will provide highest performance and throughput</td>
<td></td>
</tr>
</tbody>
</table>
Technical details

PRIMERGY RX8770 M7

Base unit PRIMERGY RX8770 M7
Housing types Rack
Storage drive architecture 24x 2.5-inch SAS/SATA/PCIe
Power supply Hot-plug
Product Type Octo Socket Rack Server
Mainboard type D4029
Chipset Intel® C741
Processor quantity and type 8 x Intel® Xeon® Platinum 84xxH processors
Mainboard type
Processor quantity and type up to 8

Intel® Xeon® Platinum Processor
- Intel® Xeon® Platinum 8444H (16C, 2.9 GHz, TLC: 45 MB, Turbo: 3.20 GHz, Mem bus: 4,800MHz, 270 W)
- Intel® Xeon® Platinum 8450H (28C, 2.0 GHz, TLC: 75 MB, Turbo: 2.60 GHz, Mem bus: 4,800MHz, 250 W)
- Intel® Xeon® Platinum 8454H (32 C, 2.1 GHz, TLC: 82.5 MB, Turbo: 2.70 GHz, Mem bus: 4,800MHz, 270 W)
- Intel® Xeon® Platinum 8460H (40C, 2.2 GHz, TLC: 105 MB, Turbo: 3.10 GHz, Mem bus: 4,800MHz, 330 W)
- Intel® Xeon® Platinum 8468H (48C, 2.1 GHz, TLC: 105 MB, Turbo: 3.00 GHz, Mem bus: 4,800MHz, 330 W)
- Intel® Xeon® Platinum 8490H (60C, 1.9 GHz, TLC: 112.5 MB, Turbo: 2.90 GHz, Mem bus: 4,800MHz, 350 W)

Processor notes no mix of different processor types

Memory slots 128 (16 DIMMs per CPU, 8 channels with 2 slots per channel)
Memory slot type DIMM (DDR5)
Memory capacity (min. - max.) 128 GB - 32 TB
Memory protection ECC
Memory Mirroring support
Memory Scrubbing
SDDC
ADDDC (Adaptive Double DRAM Device Correction)

Standard memory modules
- 16 GB (1 module(s) 16 GB) DDR5, registered, ECC, 4,800 MT/s, PC5-4800, DIMM, 1Rx8
- 32 GB (1 module(s) 32 GB) DDR5, registered, ECC, 4,800 MT/s, PC5-4800, DIMM, 1Rx4
- 32 GB (1 module(s) 32 GB) DDR5, registered, ECC, 4,800 MT/s, PC5-4800, DIMM, 2Rx8
- 64 GB (1 module(s) 64 GB) DDR5, registered, ECC, 4,800 MT/s, PC5-4800, DIMM, 2Rx4
- 128 GB (1 module(s) 128 GB) DDR5, registered, ECC, 4,800 MT/s, PC5-4800, DIMM, 4Rx4
- 256 GB (1 module(s) 256 GB) DDR5, registered, ECC, 4,800 MT/s, PC5-4800, DIMM, 8Rx4

Memory modules notes Max capacity maybe changed.

USB 3.x ports 2 USB 3.1 (2x rear)
Graphics (15-pin) 2 (1x rear display port), (1x front VGA)
LAN / Ethernet 2
Management LAN (RJ45) 1 x dedicated management LAN port for iRMC S6 (10/100/1000 Mbit/s)

Interface notes Management LAN traffic can be switched to shared onboard LAN controller port, speed and connector is related to installed interface card.

Fast IDE/Ultra DMA-100
RAID controller All hardware storage controller options are described under Components
SATA Controller Intel® C741, 2x SATA ports are used for M.2 modules
LAN Controller Intel® i210 onboard#10/100/1000 Mbit/s Ethernet
All LAN controllers (for PCIe slots) are described under Components. For details, please refer to the relevant system configuration guide.

Remote management controller Integrated Remote Management Controller (iRMC S6, 1024 MB attached memory incl. graphics controller)

Trusted Platform Module (TPM) TPM 2.0 module
PCI-Express 5.0 x8
<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PCI-Express 5.0 x16</strong></td>
<td>24 x Full height</td>
</tr>
<tr>
<td><strong>Slot Notes</strong></td>
<td>Twelve PCIe 5.0 x16 slots supported as default (An upgrade cable kit up to 24 PCIe 5.0 x16 slots.)</td>
</tr>
<tr>
<td><strong>Drive bays (Base unit specific)</strong></td>
<td></td>
</tr>
<tr>
<td>Storage drive bays</td>
<td>24 x 2.5-inch hot-plug SAS/SATA/PCIe</td>
</tr>
<tr>
<td>Number of fans</td>
<td>10</td>
</tr>
<tr>
<td>Fan configuration</td>
<td>hot-plug</td>
</tr>
<tr>
<td>Fan notes</td>
<td>N+1 redundant</td>
</tr>
<tr>
<td><strong>Operating buttons</strong></td>
<td>On/off switch, ID button</td>
</tr>
<tr>
<td><strong>Status LEDs</strong></td>
<td>At system front side:</td>
</tr>
<tr>
<td></td>
<td>- Power (green)</td>
</tr>
<tr>
<td></td>
<td>- Hard disks access (green)</td>
</tr>
<tr>
<td></td>
<td>- Fan status</td>
</tr>
<tr>
<td></td>
<td>- Identification (blue)</td>
</tr>
<tr>
<td></td>
<td>- System status (green / orange)</td>
</tr>
<tr>
<td></td>
<td>- LAN connection (green)</td>
</tr>
<tr>
<td><strong>Certified or supported operating systems and virtualization software</strong></td>
<td>Red Hat® Enterprise Linux 8, VMware vSphere™ 8.0, SUSE® Linux Enterprise Server 15</td>
</tr>
<tr>
<td><strong>Operating system release link</strong></td>
<td><a href="http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfb3230473">http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfb3230473</a></td>
</tr>
<tr>
<td><strong>Operating system notes</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>DC Infrastructure Management</strong></td>
<td>Infrastructure Manager (ISM)</td>
</tr>
<tr>
<td></td>
<td>- Essential Edition</td>
</tr>
<tr>
<td></td>
<td>- Advanced Edition</td>
</tr>
<tr>
<td><strong>Server Management</strong></td>
<td>ServerView ESXi CIM Provider, ServerView Installation Manager (SVIM), ServerView Agentless Service (SVAS), ServerView Update Manager Express (UME)</td>
</tr>
<tr>
<td><strong>Management notes</strong></td>
<td>For further information regarding ISM see dedicated data sheets.</td>
</tr>
<tr>
<td><strong>Manageability link</strong></td>
<td><a href="http://docs.ts.fujitsu.com/dl.aspx?id=9e92297a-16fb-4c69-8559-e38e7b42fee6">http://docs.ts.fujitsu.com/dl.aspx?id=9e92297a-16fb-4c69-8559-e38e7b42fee6</a></td>
</tr>
<tr>
<td><strong>Floor-stand (W x D x H)</strong></td>
<td>447.0 x 830.6 x 266.7 mm</td>
</tr>
<tr>
<td><strong>Height Unit Rack</strong></td>
<td>6 U</td>
</tr>
<tr>
<td><strong>19” rackmount</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>approx. 105 kg</td>
</tr>
<tr>
<td><strong>Weight notes</strong></td>
<td>Actual weight may vary depending on configuration</td>
</tr>
<tr>
<td><strong>Environmental compliance</strong></td>
<td></td>
</tr>
<tr>
<td>Operating ambient temperature</td>
<td>10 - 35 °C</td>
</tr>
<tr>
<td>Operating relative humidity</td>
<td>8 - 90 %</td>
</tr>
<tr>
<td>Temperature and humidity notes</td>
<td>There could be configurations that are not able to work within this normal operation class. Please use the Fujitsu WebArchitect (<a href="http://www.fujitsu.com/configurator/public">www.fujitsu.com/configurator/public</a>) to get detailed information on the corresponding configurations</td>
</tr>
<tr>
<td><strong>Operating environment</strong></td>
<td>FTS 04230 – Guideline for Data Center (installation specification)</td>
</tr>
<tr>
<td><strong>Operating environment link</strong></td>
<td><a href="http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe">http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe</a></td>
</tr>
<tr>
<td><strong>Noise emission</strong></td>
<td>Measured according to ISO 7779 and declared according to ISO 9296</td>
</tr>
<tr>
<td><strong>Sound pressure (LpAm)</strong></td>
<td>91.8 dB</td>
</tr>
<tr>
<td><strong>Sound power (LWAd; 1B = 10dB)</strong></td>
<td>9.3 B</td>
</tr>
</tbody>
</table>

**Environmental (Base unit specific)**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating ambient temperature</td>
<td>5 - 45 °C</td>
</tr>
<tr>
<td>Power supply configuration</td>
<td>hot-plug PSU, min. 4 / max. 6x per system</td>
</tr>
</tbody>
</table>
## Components

### SSD SAS 2.5-inch
- SSD SAS, 22.5Gb/s, 6.4 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD
- SSD SAS, 22.5Gb/s, 3.2 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD
- SSD SAS, 22.5Gb/s, 1.6 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD
- SSD SAS, 12 Gb/s, 800 GB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD
- SSD SAS, 12 Gb/s, 6.4 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD
- SSD SAS, 12 Gb/s, 3.2 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD
- SSD SAS, 12 Gb/s, 1.6 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD

### SSD SATA 2.5-inch
- SSD SATA, 6 Gb/s, 960 GB, Mixed-use, 2.5-inch, enterprise, 5.0 DWPD
- SSD SATA, 6 Gb/s, 480 GB, Mixed-use, 2.5-inch, enterprise, 5.0 DWPD
- SSD SATA, 6 Gb/s, 3.84 TB, Mixed-use, 2.5-inch, enterprise, 3.5 DWPD
- SSD SATA, 6 Gb/s, 1.92 TB, Mixed-use, 2.5-inch, enterprise, 5.0 DWPD

### PCIe SSD & SATA DOM SSD
- PCIe-SSD SFF, 12.8 TB, Mixed-use, hot-plug, 2.5-inch, Flash drive, 3.0 DWPD
- PCIe-SSD SFF, 6.4 TB, Mixed-use, hot-plug, 2.5-inch, Flash drive, 3.0 DWPD
- PCIe-SSD SFF, 1.6 TB, Mixed-use, hot-plug, 2.5-inch, Flash drive, 3.0 DWPD

### SCSI / SAS Controller
- Broadcom® SAS CP600e FH SAS Ctrl. 12 Gbit/s PCIe 3.0 x8

### RAID Controller
- Fujitsu PRAID EP680i LP, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, NVMe-Pcie 16 GT/s, 16 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 8 GB, Optional FBU based on LSI SAS3916
- Fujitsu PRAID EP680e FH, RAID 5/6 Ctrl., SAS 12 Gbit/s, 8 ports ext. RAID level: 0, 1, 10, 5, 50, 6, 60, 8 GB, Optional FBU based on LSI SAS3516
- Fujitsu PRAID EP640i LP, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 4 GB, Optional FBU based on LSI SAS3908
- Broadcom® PRAID CP600i LP, RAID Ctrl., SAS/SATA 12 Gbit/s, 8 ports int. RAID level: 0, 1, 10, No FBU support

### Fibre Channel controller
- Fibre Channel Host Bus Adapter 1 x Qlogic QLE2770-FJ-BK LC-style
- Fibre Channel Host Bus Adapter 2 x Qlogic QLE2772-FJ-BK LC-style
- Fibre Channel Host Bus Adapter 1 x 32 Gbit/s Emulex LPE35000-M2-F MMF LC-style
- Fibre Channel Host Bus Adapter 2 x 32 Gbit/s Emulex LPE35002-M2-F MMF LC-style
- Fibre Channel Host Bus Adapter 1 x Qlogic QLE2870-FJ-BK MMF LC-style
- Fibre Channel Host Bus Adapter 2 x Qlogic QLE2872-FJ-BK MMF LC-style
- Fibre Channel Host Bus Adapter 1 x Emulex LPE36000-M64-F MMF LC-style
- Fibre Channel Host Bus Adapter 2 x Emulex LPE36000-M64-F MMF LC-style
Notes

**Compatibility**
If and to the extent a list of components or certain compatibilities are specified in the product data sheet, these component lists and compatibility specifications are exhaustive. Using deviating or other system components and applications together with the product may but does not necessarily have to lead to compatibility problems. A final statement and/or commitment on the compatibility of such deviating or other system components and applications can only be provided after a corresponding verification through a dedicated compatibility testing.

**Continuity management**
The product may in connection with and depending on the specific configuration include elements to support time- and performance-critical applications, however high availability (e.g., 99.9999%) and failsafe performance is not a standalone product feature. If and to the extent the product is to be used in such business-critical environments, it is within the sole responsibility of the user to set up the specific additional technical features (e.g., Storage Cluster), redundancies, and operational conditions as required to ensure such high availability or failsafe performance.

**Security**
The properties of the product provide a baseline for product security and therefore end-customer IT security. However, these properties are not sufficient on their own to protect the product from all existing threats, such as intrusion attempts, data exfiltration and other forms of cyberattacks. To customize security settings, please use the configuration options as available for the respective product. During operation, the IT security of this product is within the responsibility of the respective administrator/end-user of the product. Please note, that Fujitsu as a manufacturer does not make any policy prescriptions or advocacy statements regarding IT security best practices and/or general product operation.

Warranty

**Warranty period** 3 years
**Warranty type** Onsite warranty
**Warranty Terms & Conditions** https://support.ts.fujitsu.com/IndexWarranty.asp?lng=COM
**Product Support - the perfect extension**
**Recommended Service** 24x7 Onsite Service with 4h Onsite Response Time
**Service Lifecycle** at least 5 years after shipment, for details see https://support.ts.fujitsu.com/
**Service Weblink** http://www.fujitsu.com/emeia/products/product-support-services/
More information

Fujitsu products, solutions & services

In addition to Fujitsu PRIMERGY RX8770 M7, 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 RX8770 M7, 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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