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

Main Features	Benefits
Octo-socket scale-up performance ■ 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.	■ The result is a high performing in-memory database server, that sets a new performance reach achievable with x86 rack server technology.
New level of expansion options ■ 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	■ 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.
Linear internal Scalability ■ 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	■ Transition to SAP S/4HANA will find the perfect compute platform
Unleash extreme power and sustainability ■ The new PRIMERGY RX8770 M7 packs its scalability for 8 socket performance, 16 x PCIe slots, up to 128 memory slots on 8 CPU/ Memory boards, and 3+1 or 3+3 power supply redundancy features into a space saving 6U rack unit.	■ Demanding application like large in-memory databases will perform constantly on highest level due to easy internal expansion option to support all demands
Integrated High Availability as Standard ■ 4x Intel UPI links, DDR5 RDIMM support with 4800 MT/s, 10x hot-plug redundant fans, hot-plug power supplies (3+1 and 3+3 redundancy), up to 24 x 2.5 inch hot-plug SATA/ SAS /PCIe SSD storage devices and PCIe 5.0 slots enable reliable operation. Remote Management via iRMC S6 1024 MB attached memory incl graphics controller IPMI 2.0 compatible works with Fujitsu Integrated Management (ISM). New security features have been built in to the Intel Xeon scalable processor family to enable advanced actions for error circumvention, assisted by the enterprise x86 operating systems.	■ The result is an IT business platform that provides unprecedented operational continuity and more value for money in the high-end server range.

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

PCI-Express 5.0 x16	24 x Full height
Slot Notes	Twelve PCIe 5.0 x16 slots supported as default (An upgrade cable kit up to 24 PCIe 5.0 x16 slots.)
Drive bays (Base unit specific)	
Storage drive bays	24 x 2.5-inch hot-plug SAS/SATA/PCIe
Number of fans	10
Fan configuration	hot-plug
Fan notes	N+1 redundant
Operating buttons	On/off switch ID button
Status LEDs	At system front side: Power (green) Hard disks access (green) Fan status Identification (blue) System status (green / orange) LAN connection (green)
Certified or supported operating systems and virtualization software	Red Hat® Enterprise Linux 8
	VMware vSphere™ 8.0
	SUSE® Linux Enterprise Server 15
Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfbf3230473
Operating system notes	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.
DC Infrastructure Management	Infrastructure Manager (ISM) Essential Edition Advanced Edition
Server Management	ServerView ESXi CIM Provider ServerView Installation Manager (SVIM) ServerView Agentless Service (SVAS) ServerView Update Manager Express (UME)
Management notes	For further information regarding ISM see dedicated data sheets.
Manageability link	http://docs.ts.fujitsu.com/dl.aspx?id=9e92297a-16fb-4c69-8559-e38e7b42fee6
Floor-stand (W x D x H)	
Rack (W x D x H)	447.0 x 830.6 x 266.7 mm
Height Unit Rack	6 U
19" rackmount	Yes
Weight	approx. 105 kg
Weight notes	Actual weight may vary depending on configuration
Environmental compliance	
Operating ambient temperature	10 - 35 °C
Operating relative humidity	8 - 90 %
Temperature and humidity notes	There could be configurations that are not able to work within this normal operation class. Please use the Fujitsu WebArchitect (www.fujitsu.com/configurator/public) to get detailed information on the corresponding configurations
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)	91.8 dB
Sound power (LWAd; 1B = 10dB)	9.3 B
Environmental (Base unit specific)	
Operating ambient temperature	5 - 45 °C
Power supply configuration	hot-plug PSU, min. 4 / max. 6x per system

Hot-plug power supply redundancy	Optional
Active power (max. configuration)	8,298.2 W
Apparent power (max. configuration)	8393 VA
Heat emission (max. configuration)	29873.5 kJ/h (28314.6 BTU/h)
Rated current max.	15-12.5A
Power supply	2600W hot-plug, 96% (Titanium efficiency), 200-240V, 50/60Hz
Power supply notes	input nominal voltage (AC): 100V-240V, max: 90V-264V; input dropout 10ms/100% load, 47Hz-63Hz
Product	PRIMERGY RX8770 M7
Global	CB RoHS (Substance limitations in accordance with global RoHS regulations) WEEE (Waste electrical and electronical equipment)
Germany	GS
Europe	CE
Compliance link	https://sp.ts.fujitsu.com/sites/certificates

Components

Solid-State-Drive	SSD SATA, 6 Gb/s, 960 GB, Mixed-use, 2.5-inch, enterprise, 5.0 DWPD (Drive Writes Per Day for 5 years)
	SSD SATA, 6 Gb/s, 480 GB, Mixed-use, 2.5-inch, enterprise, 5.0 DWPD (Drive Writes Per Day for 5 years)
	SSD SATA, 6 Gb/s, 3.84 TB, Mixed-use, 2.5-inch, enterprise, 3.5 DWPD (Drive Writes Per Day for 5 years)
	SSD SATA, 6 Gb/s, 1.92 TB, Mixed-use, 2.5-inch, enterprise, 5.0 DWPD (Drive Writes Per Day for 5 years)
Solid-State-Drive	SSD SAS, 22.5Gb/s, 6.4 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD (Drive Writes Per Day for 5 years)
	SSD SAS, 22.5Gb/s, 3.2 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD (Drive Writes Per Day for 5 years)
	SSD SAS, 22.5Gb/s, 1.6 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD (Drive Writes Per Day for 5 years)
	SSD SAS, 12 Gb/s, 800 GB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD (Drive Writes Per Day for 5 years)
	SSD SAS, 12 Gb/s, 6.4 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD (Drive Writes Per Day for 5 years)
	SSD SAS, 12 Gb/s, 3.2 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD (Drive Writes Per Day for 5 years)
	SSD SAS, 12 Gb/s, 1.6 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD (Drive Writes Per Day for 5 years)
PCIe SSD & SATA DOM SSD	PCIe-SSD SFF, 12.8 TB, Mixed-use, hot-plug, 2.5-inch, Flash drive, 3.0 DWPD (Drive Writes Per Day for 5 years)
	PCIe-SSD SFF, 6.4 TB, Mixed-use, hot-plug, 2.5-inch, Flash drive, 3.0 DWPD (Drive Writes Per Day for 5 years)
	PCIe-SSD SFF, 3.2 TB, Mixed-use, hot-plug, 2.5-inch, Flash drive, 3.0 DWPD (Drive Writes Per Day for 5 years)
	PCIe-SSD SFF, 1.6 TB, Mixed-use, hot-plug, 2.5-inch, Flash drive, 3.0 DWPD (Drive Writes Per Day for 5 years)
SCSI / SAS Controller	Broadcom® PSAS 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
	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
Warranty	
Warranty period	3 years

Warranty	
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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