Data Sheet
Fujitsu PRIMERGY RX2530 M5 Server

Maximum productivity in a 1U housing

PRIMERGY RX2530 M5

The Fujitsu Server PRIMERGY RX2530 M5 is a rack server that provides high performance, expandability and energy efficiency in a 1U space-saving housing. The PRIMERGY RX2530 M5 is ideal for virtualization, scale-out scenarios, and small databases as well as for high performance computing thanks to the high performance of the Intel® Xeon® Processor Scalable Family CPUs with up to 28 cores and the latest DDR4 memory technology. The system can also be equipped with the new 2nd generation processors of the Intel® Xeon® Scalable Family (CLX-R) delivering industry-leading frequencies. Moreover, the RX2530 M5 delivers a great expandability by supporting up to 3,072 GB of main memory and the capability to use up to 12x Intel® Optane™ DC Persistent Memory NV-DIMM modules. It is future-proof with M.2 device support and the latest iRMC S5 for server management of the next generation. Up to 10 hard disk drives or optionally high-speed PCIe SSDs offer a flexible storage configuration option. A variety of onboard DynamicLoM options, plus its dual-port embedded LAN meet future requirements, cost-optimized. The limited space of a 1U chassis offers highly efficient power supply units and their redundancy on demand. The optional Cool-safe® Advanced Thermal Design this will result in lower operational costs.

Features & Benefits

Main Features	Benefits
INNOVATION MEETS PERFORMANCE	
■ Wide choice of different types of Intel® Xeon® Scalable processors as well as new 2nd generation Intel® Xeon® Scalable processors. Each processor offers up to 28 cores, up to 56 threads, 12 memory channels enabling a significantly higher performance and efficiency. They rely on Intel® UltraPath Interconnect for an increased data rate between the CPUs. Intel® Optane™ DC persistent memory is an innovative memory technology that delivers a unique combination of affordable large capacity and persistence (non-volatility). It revolutionizes the data center memory-storage hierarchy of the past and brings massive data sets closer to the CPU for faster time to insight. In total, up to 7,680 GB main memory in a mixed mode (non-volatile memory + DDR4 @ 2,933 MT/s) are available.	■ Ready for data growth scenarios with the performance of the 2nd generation Intel® Xeon® Scalable processors deliver additional customer value and industry leading frequency (up to 3.9 GHz base and up to 44% more processor cache) for the most demanding workloads.
ENHANCED FEATURES FOR ENHANCED COMPUTING	
■ The RX2530 M5 comes with onboard LAN for basic LAN, DynamicLoM via OCP slot for extended requirements. A mix&match storage drive bay configuration offers the choice of either up to 8x 2.5-inch HDD/SSD + 1x ODD or up to 10x 2.5-inch, thereof optionally max. 10x PCIe 2.5-inch SSD SFF, complemented by internal M.2 devices for hypervisor installations. Our power supply units with up to 96% energy efficiency and Fujitsu's Cool-safe® Advanced Thermal Design for higher ambient temperatures in the data center are available for this server.	■ The right Ethernet connection for all: Basic via onboard LAN, extended with DynamicLoM via OCP guarantees the highest flexibility to integrate the server into existing infrastructures – now and in future without overhauling the existing infrastructure. Flexible expandability and diverse options for storage devices permits for the integration of existing and new SSD and HDD as needed.
REVOLUTIONIZING MEMORY AND STORAGE	
■ Intel® Optane™ persistent memory modules are DDR4 socket compatible and can co-exist with conventional DDR4 DRAM DIMMs on the same platform. They are available in capacities of 128 GB, 256 GB and 512 GB.	■ Optimize, store, and move larger, more complicated data sets with Intel® Optane™ technology. This revolutionary innovation bridges critical gaps in the storage and memory hierarchy delivering persistent memory, large memory pools, fast caching and fast storage.
INFRASTRUCTURE MANAGEMENT	
■ 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.	■ 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.
PROTECT YOUR COMPANY WITH SECURE SERVERS	
■ 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, …).	■ 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.

Technical details

PRIMERGY RX2530 M5	
Mainboard	
Memory slots	24 (12 DIMMs per CPU, 6 channels with 2 slots per channel)
Memory slot type	DIMM (DDR4 / DDR-T for non-volatile memory modules)
Memory capacity (min. - max.)	8 GB - 8 TB
Memory protection	Advanced ECC Memory Scrubbing SDDC Rank sparing memory support Memory Mirroring support
Memory notes	Max. 6 slots populated with DCPMM modules per CPU, please see relevant system configurator for details. 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.
Interfaces	
USB 3.x ports	5 x USB 3.0 (2x front, 2x rear, 1x internal) - for base unit with 10x 2.5" drives 1x USB 2.0 front only
Graphics (15-pin)	2 x VGA (thereof 1x front optional - not for base unit with 10x 2.5" drives)
Serial 1 (9-pin)	1 x optional (occupies PCIe slot)
Management LAN (RJ45)	1 x dedicated management LAN port for iRMC S5 (10/100/1000 Mbit/s) Management LAN traffic can be switched to shared onboard LAN controller port, speed and connector is related to installed interface card.
Onboard or integrated Controller	
RAID controller	All hardware storage controller options are described under Components
SATA Controller	Intel® C624, 1 x SATA channel for ODD
LAN Controller	Intel® C624 2 x 1 Gbit/s onboard Optional DynamicLoM OCP adaptors: 4 x 1 Gbit/s Ethernet (RJ45) 2 x 10 Gbit/s Ethernet (RJ45) 2 x 10 Gbit/s SFP+ 4 x 10 Gbit/s SFP+ 2 x 25 Gbit/s SFP28 (only for 10x HDD/SSD base unit) All supported features are described in relevant system configurator. Wake-on-LAN supported on onboard Port 1 and 2. Extra LAN controller(PCIe Cards) are listed below. (i210 LAN card via project release possible)
Remote management controller	Integrated Remote Management Controller (iRMC S5, 512 MB attached memory incl. graphics controller) IPMI 2.0 compatible
Onboard controller notes	Onboard 8x S-ATA 6Gbit/s RAID Controller (RAID 0,1) for up to 8x S-ATA drives available.
Trusted Platform Module (TPM)	Infineon / TPM 1.2 or TPM 2.0 module; TCG compliant (option)
Slots	
PCI-Express 3.0 x8	1 x Low profile (2nd processor required for slot 4)
PCI-Express 3.0 x16	3 x Low profile (2nd processor required for slot 4); 1x16 if fh slot selected
Slot Notes	Slot 1 (internal): PCIe Gen3 x8 @CPU1 is dedicated for the modular RAID Controller. Slot 2: PCIe Gen3 x16 @CPU1 for low profile cards with up to 167mm length Slot 3: PCIe Gen3 x16 @CPU1 for low profile cards with up to 167mm length Slot 4 standard: PCIe Gen3 x16 @CPU2 for low profile cards with up to 167mm length Slot 4 option: PCIe Gen3 x16 @CPU2 for full height cards with up to 167mm length (in this case, slot 3 is not available) Slot availability and population depending on selected base unit. Please see relevant configurator for details.
Drive bays (Base unit specific)	
Storage drive bays	up to 8 x 2.5-inch, 10 x 2.5-inch or 4 x 3.5-inch baseunit
Accessible drive bays	1 x 5.25/0.4-inch for CD-RW/DVD
Notes accessible drives	Not for 10 x 2.5-inch base unit. All possible options described in relevant system configurator.

General system information	
Number of fans	8
Fan configuration	redundant / hot-plug
Fan notes	3+1 fan modules for 1 CPU configuration; 7+1 fan modules for 2 CPU 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	UEFI compliant Legacy BIOS compatibility customer configuration option Secure boot support ROM based setup utility GPT support for boot drives larger than 2.2 TB Memory Redundancy support (Mirroring, Sparing) IPMI support 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 IPv4/IPv6 remote PXE & iSCSI boot support Cryptographically Signed BIOS Firmware Update HTTP and HTTPS Boot PCIe Bifurcation configurable

Operating Systems and Virtualization Software	
Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfbf3230473
Operating system notes	Support of other Linux derivatives on demand

Infrastructure and Server Management	
DC Infrastructure Management	Infrastructure Manager (ISM) Essential Edition Advanced Edition
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.

Dimensions / Weight	
Rack (W x D x H)	483 mm (Bezel) / 435mm (Body) x 770.7 x 43 mm
Mounting Depth Rack	748.2 mm
Height Unit Rack	1 U
19" rackmount	Yes
Mounting Cable depth rack	200 mm (1,000 mm Rack recommended)
Weight	up to 16 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)
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)	Noise typical configuration: 24 dB(A) (idle) / 39 dB(A) (operating)
Sound power (LWAd; 1B = 10dB)	Noise minimum configuration: 4.1 B (idle) / 5.6 B (operating) Noise typical configuration: 5.4 B (idle) / 6.2 B (operating)
Noise notes	Noise emissions depends on operation modes, system configuration and ambient temperature. Typical hardware configuration which is the base for measurement according to ISO 7779: 2x PSU 450W. 2x CPU Xeon 85W, 4x RAM 16GB, 2x HDD 500GB SATA, 6x LAN 1 Gbit/s

Electrical values	
Power supply configuration	1 x hot-plug power supply or 2 x hot-plug power supply for redundancy
Hot-plug power supply redundancy	Optional
Active power (max. configuration)	883 W
Apparent power (max. configuration)	892 VA
Heat emission (max. configuration)	3178.8 kJ/h (3012.9 BTU/h)
Rated current max.	10.5 A (100 V) / 5.0 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, 96% (Titanium efficiency), 200-240V, 50 / 60Hz 1200W hot-plug, 94% (Platinum efficiency), 100-240V, 50 / 60Hz; 110V range: 1000W, less than 110V: 900W 800W hot-plug, 92% (equivalent to Gold efficiency) –48V DC 1300W hot plug, 94% (equivalent to Platinum efficiency) 380V DC
Power supply notes	Power Safeguard adapts system performance in case the power requirements exceeds supply limits. 96% Titanium Power supply unit is only released for 200-240V

Compliance	
Product	PRIMERGY RX2530 M5
Model	PR200A
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
Japan	VCCI:V3 Class A + JIS 61000-3-2
Russia	EAC
South Korea	KC
China	CCC (planned)
Australia/New Zealand	RCM
Taiwan	BSMI (planned)
India	BIS R41004006 (planned)
Compliance link	https://sp.ts.fujitsu.com/sites/certificates
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.

Components

<STEPTABLE O="PMod_250351" OT="Product" TT="DS-Server-EU Warranty" VC="INT - eng" VO="stibo.10560277" W="Main" />

Warranty	
Manufacturer warranty period	3 years
Warranty type	Onsite warranty
Warranty Terms & Conditions	http://support.ts.fujitsu.com/warranty/Index.asp?LNG=COM
Product Support - the perfect extension	
Support Pack Options	Globally available in major metropolitan areas: 9x5, Next Business Day Onsite Response Time 9x5, 4h Onsite Response Time (depending on country) 24x7, 4h Onsite Response Time (depending on country)
Recommended Service	24x7, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
Service Lifecycle	at least 5 years after shipment, for details see https://support.ts.fujitsu.com/
Service Weblink	http://ts.fujitsu.com/Supportservice

More information

Fujitsu platform solutions

In addition to Fujitsu PRIMERGY RX2530 M5, 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/products/computing/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu PRIMERGY RX2530 M5, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://www.fujitsu.com/global/products/computing/servers/primergy/rack/rx2530m5/

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