Data Sheet
Fujitsu PRIMERGY CX2550 M5 Multi-Node Server

High-performance computing optimized node for scale-out workloads

PRIMERGY CX2550 M5

The Fujitsu Server PRIMERGY CX2550 M5 is the cost-effective system within the modular multi-node server offering that keeps pace with your growth and provides the flexibility to adapt to various high-performance and technical computing workloads. This dual-socket server node is equipped with the new 2nd generation of the Intel® Xeon® Processor Scalable Family that delivers high performance (up to 205W TDP), three UPI links per socket as well as a high core count of up to 28 cores per CPU. It allows the use of high memory bandwidth of up to 2933MT/s ideal for memory intensive HPC workloads. Moreover, both standard DDR4 memory modules as well as the new revolutionary Intel® Optane™ DC Persistent Memory can be used. Unlike traditional DRAM, the new persistent memory modules will offer the unprecedented combination of high-capacity, affordability and persistence. Servers equipped with this new class of memory will be able to adapt and optimize their workloads by moving and maintaining larger amounts of data closer to the processor and minimizing the higher latency of fetching data from system storage. In order to best meet the needs of HPC environments, in particular the requirement for high density, the node can be used with air cooling. The PRIMERGY CX400 M4 enclosure, in which the CX2550 M5 node is used, allows the sharing of power and cooling to reduce costs. The CX400 M4 is a modular 2U shared infrastructure chassis for up to four nodes with all the traditional data center attributes such as standard 19" racks, cabling and rear-aisle serviceability access.

Features & Benefits

Main Features	Benefits
New efficiency for performance bottlenecks	
■ 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 and up to 56 threads enabling a notably higher performance and efficiency.	■ New SKUs of the 2nd generation Intel® Xeon® Scalable processors deliver additional customer value with increased performance and industry leading frequency (up to 3.9 GHz base and up to 44% more processor cache) for the most demanding workloads.
Increased DDR4 memory bandwidth	
■ Up to 2048 GB DDR4 memory with 16 DIMM slots. The Intel Xeon processors support 6 memory channels per socket (2 slots per channel) with faster memory support of max. 2.933 MT/s.	■ Enhanced DDR4 memories enables higher bandwidth and lower consumption. The right choice for any application.
Revolutionizing memory and storage	
■ Intel® Optane™ DC persistent memory is an innovative memory technology that delivers a unique combination of affordable large capacity and persistence (non-volatility).	■ Delivered with the next-generation Intel® Xeon® Scalable processor, the Intel® Optane™ DC persistent memory technology will transform critical data workloads – from cloud and databases, to in-memory analytics, and content delivery networks.
Comprehensive expansion options	
■ Two PCIe Gen3 x16 expansion slots for RAID, Ethernet Fibre Channel and Infiniband controllers, optional Trusted Platform Module (TPM) and a large selection of different operating systems to adapt to different needs.	■ Despite it's high density, the server node offers the widest variety of options in order to be able to optimally integrate with individual requirements and to adapt to changing conditions.

Technical details

PRIMERGY CX2550 M5	
Base unit	PRIMERGY CX2550 M5 air cooling
Housing types	Air-cooled node
Product Type	Dual Socket 1U Server Node
Mainboard	
Mainboard type	D 3853
Chipset	Intel® C621
Processor quantity and type	1 - 2 x Intel® Xeon® Gold 5xxx processor / Intel® Xeon® Gold 6xxx processor / Intel® Xeon® Platinum 8xxx processor
Intel® Xeon® Gold Processor	Intel® Xeon® Gold processor 5215 (10C, 2.50 GHz, up to 3.0 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 5217 (8C, 3.00 GHz, up to 3.4 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 5218R (20C, 2.10 GHz, up to 2.9 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 5220 (18C, 2.20 GHz, up to 2.7 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 5222 (4C, 3.80 GHz, up to 3.9 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6222V (20C, 1.80 GHz, up to 2.4 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6226 (12C, 2.70 GHz, up to 3.5 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6226R (16C, 2.90 GHz, up to 3.6 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6230 (20C, 2.10 GHz, up to 2.8 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6230R (26C, 2.10 GHz, up to 3.0 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6234 (8C, 3.30 GHz, up to 4.0 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6238 (22C, 2.10 GHz, up to 2.8 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6238R (28C, 2.20 GHz, up to 3.0 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6240R (24C, 2.40 GHz, up to 3.2 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6242 (16C, 2.80 GHz, up to 3.5 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6252 (24C, 2.10 GHz, up to 2.8 GHz, 10.4 GT/s)
Intel® Xeon® Platinum Processor	Intel® Xeon® Platinum 8260 (24C, 2.40 GHz, TLC: 35.75 MB, Turbo: 3.10 GHz, 10.4 GT/s, Mem bus: 2,933 MHz, 165 W, AVX Base 1.90 GHz, AVX Turbo 2.60 GHz)
Memory slots	16 (8 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 - 3.5 TB
Memory protection	Advanced ECC SDDC
Memory notes	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. 2 slots populated with DCPMM modules per CPU
128 GB (1 module(s) 128 GB) DDR-T, registered, ECC, 2,666 MT/s, NVM, DCPMM, 1Rx4	
256 GB (2 module(s) 128 GB) DDR-T, registered, ECC, 2,666 MT/s, NVM, DCPMM, 1Rx4	
96 GB (6 module(s) 16 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 1Rx4	
64 GB (4 module(s) 16 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 1Rx4	
192 GB (6 module(s) 32 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 2Rx4	
128 GB (4 module(s) 32 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 2Rx4	
768 GB (6 module(s) 128 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, LRDIMM, 4Rx4	
384 GB (6 module(s) 64 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, LRDIMM, 4Rx4	
256 GB (4 module(s) 64 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, LRDIMM, 4Rx4	

Standard memory modules	8 GB (1 module(s) 8 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 1Rx8
	16 GB (1 module(s) 16 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 1Rx4
	16 GB (1 module(s) 16 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 2Rx8
	32 GB (1 module(s) 32 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 2Rx4
	64 GB (1 module(s) 64 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 2Rx4
	64 GB (1 module(s) 64 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, LRDIMM, 4Rx4
	128 GB (1 module(s) 128 GB) DDR4 3DS, registered, ECC, 2,933 MT/s, PC4-2933, LRDIMM, 8Rx4
Notes	4x in PRIMERGY CX400 M4
Interfaces	
USB 3.x ports	2 x USB 3.0 (rear) with high density connector
Graphics (15-pin)	1 x VGA (1x rear) with high density connector
LAN / Ethernet (RJ-45)	2 / 1x Gbit/s Ethernet + 1x service LAN Onboard
Management LAN (RJ45)	Management LAN traffic can be switched to shared onboard Gbit LAN port
Onboard or integrated Controller	
RAID controller	8 Port RAID 0/1 or RAID 5/6 controller as option
SATA Controller	Intel® C621
LAN Controller	Intel® i210 onboard 10/100/1000 Mbit/s Ethernet
Remote management controller	IPMI 2.0 compatible Integrated Remote Management Controller (iRMC S5, 512 MB attached memory incl. graphics controller)
Trusted Platform Module (TPM)	optional TPM

Slots (Base unit specific)	
PCI-Express 3.0 x16	2 x low profile PCIe 3.0 x16 slots (via riser card)
Drive bays	
Storage drive bays	up to 2x 2.5-inch (in the PRIMERGY CX400 M4 chassis)
Storage drive bay configuration	up to 2x 2.5" HDD/SSD device can be installed in CX400 M4 and 2x M.2 device can be installed in CX2550 M5 node
General system information	
Fan configuration	Redundant and hot-plug fans part of CX400 M4 chassis
Operating panel	
Operating buttons	On/off switch ID button
Status LEDs	Power (green) System status (orange) LAN speed (green / yellow) LAN connection (green) Identification (blue)
BIOS	
BIOS features	UEFI compliant Legacy BIOS compatibility customer configuration option IPMI support BIOS settings save and restore Remote iSCSI boot support Remote PXE boot support

Operating Systems and Virtualization Software	
Certified or supported operating systems and virtualization software	Windows Server 2022 Datacenter
	Windows Server 2022 Standard
	Windows Server 2019 Datacenter
	Windows Server 2019 Standard
	Hyper-V Server 2016
	Windows Server 2016 Datacenter
	Windows Server 2016 Standard
	SUSE® Linux Enterprise Server 15
	SUSE® Linux Enterprise Server 12
	Red Hat® Enterprise Linux 8
	Red Hat® Enterprise Linux 7
Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfbf3230473
Operating system notes	

Infrastructure and Server Management

Dimensions	
Dimensions (W x D x H)	174.3 x 580 x 40.5 mm
Height Unit Rack	1 U
Weight	4.5 kg
Node size	1 U half wide

Environment	
Operating ambient temperature	5 - 35 °C
Operating relative humidity	10 - 85 % (non condensing)
Temperature and humidity notes	Air cooling can support up to 165W CPU
Maximum altitude	3,000 m
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

Compliance	
Global	CB RoHS (Substance limitations in accordance with global RoHS regulations) WEEE (Waste electrical and electronical equipment) IEC 60950
Europe	CE Class A * EN 60950 - 1 EN 50371 EN 55022 EN 61000-3-3 EN 55024
USA/Canada	UL/CSA ICES-003 / NMB-003 Class A
Japan	VCCI Class A
Taiwan	CNS 13436 CNS 13438 class A
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

Drives	SSD M.2 SATA, 6 Gb/s, 256 GB, non hot plug, enterprise, 0.13 DWPD (Drive Writes Per Day for 5 years)
	SSD M.2 SATA, 6 Gb/s, 128 GB, non hot plug, enterprise, 0.13 DWPD (Drive Writes Per Day for 5 years)
SSD SATA 2.5-inch	SSD SATA, 6 Gb/s, 960 GB, Read-Intensive, hot-plug, 2.5-inch, enterprise, 1.0 DWPD
	SSD SATA, 6 Gb/s, 960 GB, Read-Intensive, hot-plug, 2.5-inch, enterprise, 0.9 DWPD
	SSD SATA, 6 Gb/s, 960 GB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3.0 DWPD
	SSD SATA, 6 Gb/s, 960 GB, Mixed-use, hot-plug, 2.5-inch, enterprise, 0.9 DWPD
	SSD SATA, 6 Gb/s, 480 GB, Read-Intensive, hot-plug, 2.5-inch, enterprise, 1.0 DWPD
	SSD SATA, 6 Gb/s, 480 GB, Read-Intensive, hot-plug, 2.5-inch, enterprise, 0.9 DWPD
	SSD SATA, 6 Gb/s, 480 GB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3.0 DWPD
	SSD SATA, 6 Gb/s, 480 GB, Mixed-use, hot-plug, 2.5-inch, enterprise, 0.9 DWPD
	SSD SATA, 6 Gb/s, 240 GB, Read-Intensive, hot-plug, 2.5-inch, enterprise, 1.4 DWPD
	SSD SATA, 6 Gb/s, 240 GB, Read-Intensive, hot-plug, 2.5-inch, enterprise, 1.0 DWPD
	SSD SATA, 6 Gb/s, 240 GB, Mixed-use, hot-plug, 2.5-inch, enterprise, 1.4 DWPD
	SSD SATA, 6 Gb/s, 7.68 TB, Read-Intensive, hot-plug, 2.5-inch, enterprise, 1.0 DWPD
	SSD SATA, 6 Gb/s, 7.68 TB, Read-Intensive, hot-plug, 2.5-inch, enterprise, 0.5 DWPD
	SSD SATA, 6 Gb/s, 3.84 TB, Read-Intensive, hot-plug, 2.5-inch, enterprise, 1.0 DWPD
	SSD SATA, 6 Gb/s, 3.84 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3.0 DWPD
	SSD SATA, 6 Gb/s, 3.84 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3 DWPD
	SSD SATA, 6 Gb/s, 3.84 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 1.0 DWPD
	SSD SATA, 6 Gb/s, 1.92 TB, Read-Intensive, hot-plug, 2.5-inch, enterprise, 1.0 DWPD
	SSD SATA, 6 Gb/s, 1.92 TB, Read-Intensive, hot-plug, 2.5-inch, enterprise, 0.9 DWPD
	SSD SATA, 6 Gb/s, 1.92 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 3.0 DWPD
	SSD SATA, 6 Gb/s, 1.92 TB, Mixed-use, hot-plug, 2.5-inch, enterprise, 0.9 DWPD
HDD 2.5-inch	HDD SATA, 6 Gb/s, 2 TB, 7,200 rpm, 512e, hot-plug, 2.5-inch, business critical
	HDD SATA, 6 Gb/s, 1 TB, 7,200 rpm, 512n, hot-plug, 2.5-inch, business critical
	HDD SATA, 6 Gb/s, 1 TB, 7,200 rpm, 512e, hot-plug, 2.5-inch, business critical
SCSI / SAS Controller	Broadcom® PSAS CP500e LP SAS Ctrl. 12 Gbit/s 8 ports ext. PCIe 3.0 x8
RAID Controller	Fujitsu PRAID EP520i LP, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, NVMe-PCIe 8 Gbit/s, 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 2 GB, Optional FBU based on LSI SAS3516
	Broadcom® PRAID CP500i LP, RAID Ctrl., SAS/SATA 12 Gbit/s, 8 ports int. RAID level: 0, 1, 10, 5, 50, No FBU support
	InfiniBand HCA 1 x 100 Gbit/s PCIe 3.0 x16 QSFP for the US market max. one IB HCA 100Gb controller can be installed (Mellanox)
	InfiniBand HCA 2 x 100 Gbit/s PCIe 3.0 x16 QSFP for the US market max. one IB HCA 100Gb controller can be installed (Mellanox)

<STEPTABLE O="PMod_249892" OT="Product" TT="DS-Server-EU Warranty" VC="INT - eng" VO="stibo.10560277" W="Main" />

Warranty	
Warranty period	3 years
Warranty type Product Support - the perfect extension	Onsite warranty
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 CX2550 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 CX2550 M5, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://www.fujitsu.com/emeia/products/computing/servers/primergy/scale-out/cx2550m5/

Fujitsu green policy innovation

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