

Data Sheet

FUJITSU Server PRIMERGY CX2570 M1 Dual Socket Server Node

HPC optimized server node for PRIMERGY CX400 M1 multi-node server system

PRIMERGY CX2570 M1

The PRIMERGY CX2570 M1 is a compact server node enabling high computing density with two independent servers in 2U. It is ideal for ambitious high performance computing, analytics and visualization solutions. Two server nodes can be embedded in the PRIMERGY CX400 M1 enclosure, only using 2U height in conventional standard datacenter racks. The PRIMERGY CX2570 M1 combines high-end computational and graphics performance with high energy efficiency. Each half-wide server node with Intel® Xeon® processor E5-2600 v3 product family CPUs and 16 DDR4 memory DIMMs, features up to two optional NVIDIA® GPGPU or Intel® Xeon Phi™ co-processor cards, enabling a performance boost in supported applications.



Features & Benefits

Main Features	Benefits
<p>Compact form factor</p> <ul style="list-style-type: none"> Two PRIMERGY CX2570 M1 server nodes, each with two processors, 16 DDR4 memory DIMMs, support for two NVIDIA® or Intel® GPGPU or co-processor cards, and up to six local storage drives, are smartly packaged into a condensed 2U rack enclosure. 	<ul style="list-style-type: none"> 50% less rack space used as compared to equivalent standard rack servers. Higher server density results in more performance per rack unit. Boost your general computing performance by up to 38% compared to the previous generation. The new DDR4 memory technology provides higher performance with lower power requirements. Each additional degree in the data center means approximately 5-6 percent less energy costs for air-conditioning High performance GPGPUs or co-processors from NVIDIA or Intel make them ideal for seismic processing, biochemistry simulations, weather and climate modeling, signal processing, computational finance, CAE, CFD, data analytics and other high performance computing areas. Decreased energy consumption, lower investment, yet still redundant operation. Lower energy budgets for a comparable performance as with standard rack servers. Each single server can be serviced without affecting the other nodes in the chassis. Redundancy for shared components provides uniform higher availability. Helps to reduce data center cooling costs by over 50% and leads to less power draw of servers Allows for 2.5-5x higher data center density to realise even ambitious projects
<p>Latest technology</p> <ul style="list-style-type: none"> Up to two Intel® Xeon® processor E5-2600 v3 product family with up to 18 cores and 45 MB cache, advanced Turbo Boost 2.0 technology, Hyper Threading, two accelerated QPI links and internal Memory Management Unit. 16 DIMMs per server node with up to 1,024 GB DDR4 memory and up to 2,133 MHz DRAM bandwidth. Cool-safe® Advanced Thermal Design enables operation in a higher ambient temperature. 	
<p>High-end GPGPU and co-processors for scale-out HPC computing</p> <ul style="list-style-type: none"> 2 optional GPGPU or co-processor compute cards per CX2570 M1 server node, selected from the market leading NVIDIA® Tesla™ or the Intel® Xeon Phi™ product family 	
<p>Shared infrastructure & easy serviceability</p> <ul style="list-style-type: none"> Server nodes share central cooling fans and hot plug power supplies in the 2U PRIMERGY CX400 M1 chassis. Hot-plug for server nodes, power supplies and disk drives enable enhanced availability and easy serviceability. 	
<p>Optional liquid cooling solution</p> <ul style="list-style-type: none"> The optional direct-to-chip hot water (40 °C / 105 °F) based Cool-Central® Liquid Cooling captures between 60-80% of the servers heat Removes heat directly from CPUs and memory modules within the server, eliminating the need to cool these components 	

Technical details

PRIMERGY CX2570 M1

Mainboard

Mainboard type	D 3343
Chipset	Intel® C610
Processor quantity and type	2 x Intel® Xeon® processor E5-2600 v3 product family
Memory slots	16 / 4 channels per CPU with 8 DIMMs per CPU = 16 DIMMs in total
Memory capacity (min. - max.)	16 GB - 1024 GB
Memory protection	Advanced ECC SDDC
Memory notes	Supports R-DIMM, LR-DIMM
Upgrade notes	2x in CX400 M1

Interfaces

USB 3.0 ports	2 x USB 3.0 (rear)
Graphics (15-pin)	1 x VGA (1x rear)
LAN / Ethernet (RJ-45)	3 / 2x 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	RAID 0/1 for internal drives
SATA Controller	Intel® C610, for up to 6x 2.5inch SATA HDD or SSD Raid 0/1
LAN Controller	Intel® Ethernet Controller I350 2 x 10/100/1000 Mbit/s Ethernet (TCP/IP acceleration)
Remote management controller	Integrated Remote Management Controller (iRMC S4, 256 MB attached memory incl. graphics controller) IPMI 2.0 compatible

Slots

PCI-Express 3.0 x16	4 x (2x for low profile and 2x special riser w/ PCIe Gen3 for GPGPU only)
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Drive bays

Storage drive bays	6x 2.5-inch
Storage drive bay configuration	depending on hardware configuration

General system information

Number of fans	0
Fan configuration	Centralized non-hot plug fans part of CX400 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 Secure boot support ROM based setup utility GPT support for boot drives larger than 2.2 TB 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
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Operating Systems and Virtualization Software**Operating system notes**

Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfbf3230473
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Dimensions

Dimensions (W x D x H)	175.5 x 520 x 84 mm
Weight	8 kg
Node size	2 U half wide (W175.5 x D520 x H84 mm)

Environment

Operating ambient temperature	5 - 40 °C (41 - 104 °F)
Operating relative humidity	10 - 85 % (non condensing)
Temperature and humidity notes	Cool-safe® Advanced Thermal Design (above 35 °C or below 10 °C) depending on configuration. For detailed information see relevant system configurator.
Maximum altitude	3000 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

Warranty

Warranty type Onsite warranty

Product Support Services - the perfect extension

Recommended Service 24x7, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.

Service Weblink <http://ts.fujitsu.com/Supportservice>

More information

Fujitsu platform solutions

In addition to Fujitsu PRIMERGY CX2570 M1, 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 CX2570 M1, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
<http://www.fujitsu.com/PRIMERGY>

Fujitsu green policy innovation

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