Data Sheet
Fujitsu PRIMEQUEST 3800B

Superior performance and reliability for business-critical workloads with optimized economics





PRIMEQUEST 3800B

The FUJITSU Server PRIMEQUEST 3800B is the prime system for business-critical computing that offers superior performance and reliability with optimized economics. This 8-socket rack server combines the flexibility and economic benefits of x86 industry standard systems with business-critical uptime features. Featuring the latest Intel® Xeon® Processor Scalable Family with up to 28 cores per processor for a total of 224 cores, this server delivers superior compute performance leading to efficient business results. With high capacity 12TB DDR4 memory at 2,666 MHz, populated over 96 DIMM slots, the system can support large amounts of data for in-memory databases such as SAP HANA® and real-time data analytics. The large memory capacity also leaves enough headroom for high-density, high-capability virtualization. The superior compute and memory performance in combination with 16 PCIe 3.0 expansion options (Including PHP slots.) offers performance and scalability with no compromise for the most demanding workloads. With a newly designed compact 5U chassis versus the 10U chassis of the previous generation, the PRIMEQUEST 3800B system is light weight and offers superior performance in an economic, space-saving footprint. All these features when combined with the PRIMEQUEST 3800B's advanced RAS features that prevent errors in advance, makes this 8-socket 5U rack server the right choice for demanding corporate databases, in-memory solutions and business-critical applications found in SAP environments or big data processing.

Features & Benefits

Main Features	Benefits
Scalable platform for transaction demanding workloads and consolidation	
■ 8x Intel® Xeon® Platinum processors(8200) with up to 224 cores ■ Huge memory capacity of 12TB (DDR4, 2,993 MHz) over 96 DIMMs ■ 16 PCIe 3.0 expansion options (Including PHP slots) ■ Compact 5U chassis ■ Economic scaling from 2 to 8 sockets	■ Unprecedented performance and memory capacity for demanding corporate databases, in-memory solutions and business-critical applications ■ Fast memory and I/O throughput ensured ■ Cost-efficient 5U chassis packs superior performance in an economic, space-saving footprint ■ This system is designed to enable simple scale-up as required components are "inside" the system thanks to the "glue-less" system design
Smart architecture with advanced RAS for Business Critical Workloads	
■ Glue-less' design, no external UPI cables ■ Dual power feed option for two redundant phases ■ CPU detects data errors and replay execution of instructions ■ Advanced memory protection, intra-socket mirroring and address range mirroring ■ System health check and failure prevention (MCA Gen.2) ■ Online firmware update helps reduce downtime for system maintenance	■ No external UltraPath Interconnect (UPI) cables ensure a high level of serviceability ■ Improved system resilience, system can continue its operations even if two PSUs fail ■ Advanced RAS features in CPUs and memories have been built in to enable advanced actions for error circumvention, assisted by the enterprise x86 operating systems to increase the system availability ■ No need to stop the system even during a system update
Cost efficiency for your data center	
■ Simplified server architecture with a newly designed compact chassis ■ Simplified power management with different pre-defined power profiles ■ Fujitsu ServerView Suite offers tools for installation and deployment, permanent status monitoring and control. A wide range of integration packs allow a seamless and easy integration in widely used enterprise management systems	■ Reduced data center hardware costs and electricity bills ■ Simplified and comprehensive power management that results with the high efficient power supplies in significant savings ■ Fujitsu ServerView Suite provides all the functions for fail-safe, flexible and automated 24x7 server operations and improves end-user productivity via intelligent and innovative system management solutions

Technical details

PRIMEQUEST 3800B	
Mainboard type	up to 4 x Systemboards
Chipset	Intel® C621
Processor quantity and type	2, 4, 6, 8 x Intel® Xeon® Processor Scalable Family
Memory slots	96
Memory slot type	DIMM (DDR4)
Memory capacity (min. - max.)	32 GB - 12 TB
Memory protection	ECC Advanced ECC Memory Mirroring support Address Range Memory Mirroring support Rank sparing memory support Memory Scrubbing SDDC+1 ADDDC-MR
Memory notes	Up to 96 DIMM slots per server within 4 system boards.
Memory modules notes	Memory modules will be delivered in sets of 2 DIMMs per order code
Interfaces	
USB 3.x ports	4
Graphics (15-pin)	1 x VGA
Management LAN (RJ45)	Management LAN traffic can be switched to shared onboard LAN port
Onboard or integrated Controller (Base unit specific)	
LAN Controller	Intel® i210 onboard#10/100/1000 Mbit/s Ethernet TCP/IP acceleration, PXE boot via LAN from PXE server, iSCSI boot (also diskless) via onboard LAN
Remote management controller	Integrated Remote Management Controller (iRMC S5, 512 MB attached memory incl. graphics controller)
Slots	
PCI-Express 3.0 x8	8 x Low profile
PCI-Express 3.0 x16	8 x Low profile (PCI hot-plug is available in 4 out of 8 slots)
Drive bays	
Storage drive bays	8 x 2.5-inch hot-plug
Storage drive bay configuration	8x 2.5" SAS HDD/SSD´s
General system information	
Number of fans	6
Fan configuration	hot-plug
Operating panel	
Status LEDs	Power (green) System status (orange) Identification (blue)
RAS Features	
Standard	SDDC+1, ECC, redundant fans and power supply
Advanced	Intra-socket memory mirroring, MCA, ADDDC-MR

Operating Systems and Virtualization Software	
Certified or supported operating systems and virtualization software	Windows Server 2019 Datacenter
	Windows Server 2019 Standard
	Hyper-V Server 2016
	Windows Server 2016 Datacenter
	Windows Server 2016 Standard
	Hyper-V Server 2012 R2
	Windows Server 2012 R2 Datacenter
	Windows Server 2012 R2 Standard
	VMware vSphere™ 6.7
	VMware vSphere™ 6.5
	SUSE® Linux Enterprise Server 12
	Red Hat® Enterprise Linux 8
	Red Hat® Enterprise Linux 7
	Oracle® Linux 7
	Oracle® VM 3
Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfbf3230473
Operating system notes	Not all OSes, OS versions and server functions will be released at server release. For details, please refer to the link.

Infrastructure and Server Management	
DC Infrastructure Management	ServerView Suite - Maintain Remote Management (iRMC S5) Update Management (BIOS, Firmware, Windows Drives and SV Agents) Performance Measurement Asset Management Online Diagnostics ServerView Suite - Integrate Integration packs for Microsoft System Center, VMware vCenter, VMware vRealize, Nagios, and HP SIM Deployment tools and others ServerView Suite - Deploy SV Installation Manager ServerView Suite - Control Operations Manager incl. PDA and ASR & R Agents and CIM Providers / Agentless Service System Monitor RAID Manager Capacity Management Power Management Storage Support
Server Management	ServerView embedded Lifecycle Management (eLCM) Lifecycle management Infrastructure Manager (ISM) Automate device configuration Mass OS installation Node Management Health status Monitoring and Control Capacity/Threshold Management Power Management Converged Management Auto Discovery Virtual-IO Management Network topology Management Remote Management Update Management Logging and Auditing Integrate in to Enterprise Management Vendor specific Management Monitor 3rd party platforms

Dimensions / Weight	
Rack (W x D x H)	482 x 820 x 219 mm
Height Unit Rack	5 U
19" rackmount	Yes
Weight	Up to 80 kg
Weight notes	Fully assembled Actual weight may vary depending on configuration

Environment	
Operating ambient temperature	5 - 35 °C (5 - 40 °C with Advanced Thermal Design option)
Operating relative humidity	10 - 80 %
Temperature and humidity notes	Non condensing
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
Noise emission	Measured according to ISO 7779 and declared according to ISO 9296
Sound pressure (LpAm)	61dB
Sound power (LWAd; 1B = 10dB)	7.0B

Electrical values	
Power supply configuration	Up to 4 hot-plug power supplies. Base unit equipped with 2 power supplies, redundancy as option.
Power supply efficiency	94 % (80 PLUS platinum)
Hot-plug power supply redundancy	Yes
Rated voltage range	200 V - 240 V
Rated frequency range	50 Hz - 60 Hz
Rated current max.	12.6A (200V)
Rated current in basic configuration	10A
Active power (max. configuration)	4,167 W
Heat emission (max. configuration)	15001.2 kJ/h (14218.4 BTU/h)

Compliance	
Product	PRIMEQUEST 3800B
Model	MCJ3ACXXXB
Global	CB RoHS (Substance limitations in accordance with global RoHS regulations) WEEE (Waste electrical and electronical equipment) - planned
Europe	CE Class A *
Japan	VCCI
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

Hard disk drives	HDD SAS, 12 Gb/s, 900 GB, 15,000 rpm, 512n, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 900 GB, 10,000 rpm, 512n, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 600 GB, 15,000 rpm, 512n, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 600 GB, 10,000 rpm, 512n, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 300 GB, 15,000 rpm, 512n, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 300 GB, 10,000 rpm, 512n, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 1.8 TB, 10,000 rpm, 512e, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 1.2 TB, 10,000 rpm, 512n, hot-plug, 2.5-inch, enterprise
RAID Controller	RAID Ctrl FBU option with 25cm cable,
	Fujitsu PRAID EP580i LP, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, NVMe-PCIe 8 Gbit/s 16 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 8 GB, Optional FBU based on LSI SAS3516
	Fujitsu PRAID EP540i LP, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, NVMe-PCIe 8 Gbit/s 16 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 4 GB, Optional FBU based on LSI SAS3516
Fibre Channel controller	Fibre Channel Host Bus Adapter 1 x 16 Gbit/s Emulex LPe31000-M6-F MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 16 Gbit/s Emulex LPe31002-M6-F MMF LC-style
	Fibre Channel Host Bus Adapter 1 x 32 Gbit/s Cavium QLE2740 MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 32 Gbit/s Cavium QLE2742 MMF LC-style
	Fibre Channel Host Bus Adapter 1 x 32 Gbit/s Emulex LPe32000-M6-F MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 32 Gbit/s Emulex LPe32002-M6-F MMF LC-style
	Fibre Channel Host Bus Adapter 1 x 16 Gbit/s Qlogic QLE2690 LC-style
	Fibre Channel Host Bus Adapter 2 x 16 Gbit/s Qlogic QLE2692 LC-style
Communication, Network	Ethernet Ctrl. 2 x 10 Gbit/s / 25 Gbit/s PCIe 3.0 x8 SFP28 (Mellanox)
	Ethernet Ctrl. 2 x 10 Gbit/s PCIe 3.0 x8 RJ45 (Intel®)
	Ethernet Ctrl. 2 x 10 Gbit/s PCIe 3.0 x8 SFP+ (Intel®)
	Ethernet Ctrl. 4 x 1 Gbit/s PCIe 2.1 x4 RJ45 (Intel®)
	Omni Path 1 x 100 Gbit/s PCIe 3.0 x16 QSFP (Intel®)

Warranty
Product Support - the perfect extension

More information

In addition to Fujitsu PRIMEQUEST 3800B, 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 PRIMEQUEST 3800B, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://www.fujitsu.com/fts/products/computing/servers/mission-critical/primequest-3800b/

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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2024-03-06 CE-EN

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