Data Sheet
Fujitsu Server PRIMEQUEST 3800B2 Rack Server

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

Combining the power of Intel® Xeon® Processor Scalable Family, the standard specifications of Microsoft Windows and Linux operating systems and the wealth of market solutions with innovative RAS features for highest availability and business continuity, FUJITSU Server PRIMEQUEST systems provide new levels of operational efficiency for business and mission critical computing with truly open standards and deliver highest performance. FUJITSU Server PRIMEQUEST systems combine the efficiency of an x86-architecture with the reliability levels rivaling that of a UNIX/mainframe architecture. This makes it ideal for processing Big Data, In-memory solutions such as SAP HANA® and Business Intelligence applications, while preserving all the RAS qualities for maximum uptime.

PRIMEQUEST 3800B2

The FUJITSU Server PRIMEQUEST 3800B2 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 (8200) 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 memory capacity of up to 24TB (DDR4 only) or 36TB with Intel® Optane™ DC Persistent Memory, the system can support large amounts of data for in-memory databases such as SAP HANA® and real-time data analytics, thereby making it the right choice for the most complex business-critical workloads in big data processing environments. 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 compact 5U chassis design, the PRIMEQUEST 3800B2 system is light weight and offers superior performance in an economic, space-saving footprint. All these features when combined with the PRIMEQUEST 3800B2'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 with up to 224 cores. Huge memory capacity of 24TB (DDR4 only) or 36TB with Intel® Optane™ DC Persistent Memory. 16 PCIe 3.0 expansion options (Including PHP slots). Compact 5U chassis. Economic scaling from 2 to 8 sockets.	■ Superior performance and memory capacity for demanding corporate databases, in-memory solutions and business-critical applications. Cost-efficient 5U chassis packs superior performance in an economic, space-saving footprint.
Advanced RAS features for Business Critical Workloads	
■ 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.	■ Advanced RAS features in CPUs and memories have been built in to enable advanced actions for error circumvention, and increased system availability.
Smart architecture with high serviceability	
■ 'Glue-less' design, no external UPI cables.	■ 'Glue-less' design with no UPI cables ensures a high level of serviceability.
Cost efficiency for your data center	
■ Simplified server architecture with a compact 5U chassis. Simplified power management with different pre-defined power profiles. The iRMC S5 delivers optimal administration across the lifecycle.	■ Reduced data center hardware costs and electricity bills. Simplified and comprehensive power management that results with the high efficient power supplies in significant savings.

Technical details

PRIMEQUEST 3800B2	
Mainboard type	up to 4 x System boards
Chipset	Intel® C621
Processor quantity and type	up to 8 x Intel® Xeon® Platinum 8xxx processor
Intel® Xeon® Platinum Processor	Intel® Xeon® Platinum 8253 (16C, 2.20 GHz, TLC: 22 MB, Turbo: 2.50 GHz, 10.4 GT/s, 2,933 MHz, 125 W, AVX Base 1.70 GHz, AVX Turbo 2.00 GHz)
	Intel® Xeon® Platinum 8256 (4C, 3.80 GHz, TLC: 16.5 MB, Turbo: 3.90 GHz, 10.4 GT/s, 2,933 MHz, 105 W, AVX Base 3.30 GHz, AVX Turbo 3.80 GHz)
	Intel® Xeon® Platinum 8260 (24C, 2.40 GHz, TLC: 35.75 MB, Turbo: 3.10 GHz, 10.4 GT/s, 2,933 MHz, 165 W, AVX Base 1.90 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® Platinum 8260L (24C, 2.40 GHz, TLC: 35.75 MB, Turbo: 3.10 GHz, 10.4 GT/s, 2,933 MHz, 165 W, AVX Base 1.90 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® Platinum 8268 (24C, 2.90 GHz, TLC: 35.75 MB, Turbo: 3.50 GHz, 10.4 GT/s, 2,933 MHz, 205 W, AVX Base 2.40 GHz, AVX Turbo 3.00 GHz)
	Intel® Xeon® Platinum 8270 (26C, 2.70 GHz, TLC: 35.75 MB, Turbo: 3.40 GHz, 10.4 GT/s, 2,933 MHz, 205 W, AVX Base 2.20 GHz, AVX Turbo 2.90 GHz)
	Intel® Xeon® Platinum 8276 (28C, 2.20 GHz, TLC: 38.5 MB, Turbo: 3.00 GHz, 10.4 GT/s, 2,933 MHz, 165 W, AVX Base 1.70 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® Platinum 8276L (28C, 2.20 GHz, TLC: 38.5 MB, Turbo: 3.00 GHz, 10.4 GT/s, 2,933 MHz, 165 W, AVX Base 1.70 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® Platinum 8280 (28C, 2.70 GHz, TLC: 38.5 MB, Turbo: 3.30 GHz, 10.4 GT/s, 2,933 MHz, 205 W, AVX Base 2.20 GHz, AVX Turbo 2.90 GHz)
	Intel® Xeon® Platinum 8280L (28C, 2.70 GHz, TLC: 38.5 MB, Turbo: 3.30 GHz, 10.4 GT/s, 2,933 MHz, 205 W, AVX Base 2.20 GHz, AVX Turbo 2.90 GHz)
Memory slots	96 Max. 24 TB (DDR4 DIMM 2,933MHz only), Max. 36 TB with DCPMM (DDR-T 2,666MHz).
Memory slot type	DIMM (DDR4 / DDR-T for non-volatile memory modules)
Memory capacity (min. - max.)	64 GB - 36 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.
Standard memory modules	32 GB (2 module(s) 16 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 1Rx4
	64 GB (2 module(s) 32 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 2Rx4
	128 GB (2 module(s) 64 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, DIMM, 2Rx4
	128 GB (2 module(s) 64 GB) DDR4, registered, ECC, 2,933 MT/s, PC4-2933, LRDIMM, 4Rx4
	256 GB (2 module(s) 128 GB) DDR4 3DS, registered, ECC, 2,933 MT/s, PC4-2933, LRDIMM, 8Rx4
	512 GB (2 module(s) 256 GB) DDR4 3DS, registered, ECC, 2,933 MT/s, PC4-2933, LRDIMM, 8Rx4
Non-volatile memory modules	128 GB (1 module(s) 128 GB) DDR-T, registered, ECC, 2,666 MT/s, NVM, DCPMM, 1Rx4
Memory modules notes	DDR4 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

Onboard or integrated Controller (Base unit specific)	
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" 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 VMware vSphere™ 6.7 VMware vSphere™ 6.5 SUSE® Linux Enterprise Server 12 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	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.
Manageability link	http://docs.ts.fujitsu.com/dl.aspx?id=9e92297a-16fb-4c69-8559-e38e7b42fee6
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
Floor-stand (W x D x H)	

Height Unit Rack	5 U
Environment	
Operating ambient temperature	5 - 35 °C (5 - 40 °C with Advanced Thermal Design option)
Operating relative humidity	10 - 85 % (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)	8.0B
Electrical values	
Power supply configuration	Up to 4 hot-plug power supplies.
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.	16A
Rated current in basic configuration	12.6A
Active power (max. configuration)	4,810 W
Heat emission (max. configuration)	17316.0 kJ/h (16412.4 BTU/h)
Compliance	
Product	PRIMEQUEST 3800B2
Model	MCK3AxxxxB
Global	CB RoHS (Substance limitations in accordance with global RoHS regulations) WEEE (Waste electrical and electronical equipment)
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, 2.4 TB, 10,000 rpm, 512e, 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
PCIe SSD & SATA DOM SSD	PCIe-SSD SFF, 3.2 TB, Mixed-use, hot-plug, 2.5-inch, Flash drive, 3.0 DWPD
	PCIe-SSD SFF, 1.6 TB, Mixed-use, hot-plug, 2.5-inch, Flash drive, 3.0 DWPD

RAID Controller	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
	Fujitsu PRAID EP540e LP, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, 8 ports ext. RAID level: 0, 1, 10, 5, 50, 6, 60, 4 GB, Optional FBU based on LSI SAS3516
Communication, Network	Ethernet Ctrl. 2 x 10 Gbit/s / 25 Gbit/s PCIe 3.0 x8 SFP28 (Intel®)
	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 10 Gbit/s ; 1 Gbit/s PCIe 3.0 x8 RJ45 (Intel®)
	Ethernet Ctrl. 4 x 1 Gbit/s PCIe 2.1 x4 RJ45 (Intel®)
Fibre Channel controller	Fibre Channel Host Bus Adapter 1 x 16 Gbit/s PCIe 3.0 x8 LC-style (Emulex)
	Fibre Channel Host Bus Adapter 1 x 16 Gbit/s PCIe 3.0 x8 LC-style (Qlogic)
	Fibre Channel Host Bus Adapter 1 x 32 Gbit/s PCIe 3.0 x8 LC-style (Cavium)
	Fibre Channel Host Bus Adapter 1 x 32 Gbit/s PCIe 3.0 x8 LC-style (Emulex)
	Fibre Channel Host Bus Adapter 2 x 16 Gbit/s PCIe 3.0 x8 LC-style (Emulex)
	Fibre Channel Host Bus Adapter 2 x 16 Gbit/s PCIe 3.0 x8 LC-style (Qlogic)
	Fibre Channel Host Bus Adapter 2 x 32 Gbit/s PCIe 3.0 x8 LC-style (Cavium)
	Fibre Channel Host Bus Adapter 2 x 32 Gbit/s PCIe 3.0 x8 LC-style (Emulex)
Communication, Network	Omni Path 1 x 100 Gbit/s PCIe 3.0 x16 QSFP (Intel®)

Warranty	
Warranty period	3 years (depending on country)
Warranty type	Onsite Service
Warranty Terms & Conditions	http://support.ts.fujitsu.com/warranty/Index.asp?LNG=COM
Product Support - the perfect extension	
Service Lifecycle	at least 5 years after shipment, for details see https://support.ts.fujitsu.com/
Service Weblink	www.fujitsu.com/support

More information

Fujitsu products, solutions & services

In addition to Fujitsu Server PRIMEQUEST 3800B2, 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 Server PRIMEQUEST 3800B2, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://www.fujitsu.com/global/products/computing/servers/mission-critical/primequest-3800b2/

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/

Copyrights

Disclaimer

Technical data are subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

Contact
Fujitsu Limited
Website: www.fujitsu.com/products
2024-04-06 INT-EN

All rights reserved, including intellectual property rights. Designations may be trademarks and/or copyrights of the respective owner, the use of which by third parties for their own purposes may infringe the rights of such owner. For further information see https://www.fujitsu.com/global/about/resources/terms/
Copyright 2024 FUJITSU LIMITED