FUJITSU

Data Sheet
PRIMEQUEST 4400E

Redefining mission-critical server architecture

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 PRIMEQUEST server systems provide new levels of operational efficiency for business and mission critical computing with truly open standards and deliver highest performance. Fujitsu PRIMEQUEST server 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 and Business Intelligence applications, while preserving all the RAS qualities for maximum uptime.

PRIMEQUEST 4400E
The PRIMEQUEST 4400E server is purpose-built to optimize efficiency while maximizing performance and uptime in the most demanding mission-critical environments. It unifies the economic and flexibility benefits of x86 industry standard systems with mission-critical uptime features. The PRIMEQUEST 4400E dramatically simplifies server architecture for mission-critical computing and comes in an all-new compact 5U form factor. This 4-socket server features the latest Intel® Xeon® Platinum processors with up to 60 cores per processor for a total of 240 cores and delivers superior compute performance leading to efficient business results. With huge memory capacity of up to 16TB with DDR5 memory, the system can support large amounts of data for in-memory databases includngreal-time data analytics. The PRIMEQUEST 4400E provides enhanced performance in a significantly smaller form factor, resulting in lower power consumption and helps reduce the environmental footprint in a data center leading to significant cost savings. Moreover, the advanced reliability, availability and serviceability (RAS) features makes

this server a robust and cost-effective solution for mission-critical environments. Customers running financial or big data applications will thus continuously benefit from a radically optimized cost effectiveness compared to UNIX®/Mainframe-based enterprise platforms, while preserving all the RAS qualities so that the system always remains active. The PRIMEQUST 4400E is an ideal choice for high-volume, high-value workloads such as online transaction processing (OLTP), batch processing, and database applications. Mission-critical features of the 4400E also enable outstanding platform reliability with innovative error prevention and self-healing capabilities, such as a Reserved System Board, flexible I/O as well as physical hardware partitioning (PPAR). With Reserved System Board, recovery from System Board failures happens in a matter of minutes. Therefore, the PRIMEQUEST 4400E is an ideal target platform for mission critical workload migrations that require inherent robustness built in to the system.

Features & Benefits

Main Features	Benefits
Dynamic, scalable platform for the most demanding mission-critical environments ■ 4x Intel® Xeon® Platinum/Gold processors with up to 240 cores ■ Huge memory capacity of up to 16TB with DDR5 memory ■ Many I/O expansion options for up to 34 PCIe slots ■ Compact 5U form-factor ■ 'Glue-less' design, no external UPI cables ■ Economic scaling from 1 to 4 sockets	■ Unprecedented performance and memory capacity for high-volume, high-value workloads such as online transaction processing (OLTP), batch processing, and database applications ■ Fast memory and I/O throughput ensured ■ Cost-efficient 5U chassis packs superior performance in an economic, space-saving footprint ■ No external UltraPath Interconnect (UPI) cables ensure a high level of serviceability ■ This system is designed to enable simple scale-up as required components are "inside" the system thanks to the "glue-less" system design
Mission critical uptime leads to highest availability values in the x86 industry standard ■ Different partitioning available: From software partitioning to completely isolated physical partitioning (PPAR) ■ Up to two physical partitions (PPAR): Failures of one partition do not influence other partitions ■ Active reserved system board for fast automatic recovery of services, in ideal cases without downtime ■ Flexible I/O ensures availability of PCIe devices ■ Almost everything is redundant ■ Online maintenance Cost efficiency for your data center ■ Combines x86 industry standard with mission-critical features ■ Compact 5U form-factor	■ Flexible platform to best meet individual requirements ■ Business continuity ensured even if there is a failure in one of the partitions ■ Its built-in error prevention/correction and self-healing capabilities result in outstanding platform reliability ■ All serviceable system modules can be accessed from the front or rear of the system without any cabling hassle. ■ Unity of x86 efficiency and flexibility with mission-critical availability; Eliminate costs related to the UNIX world ■ Enhanced performance in a significantly smaller form factor; Lower power consumption and helps reduce the environmental footprint in a data center leading to significant cost savings

Technical details

PRIMEQUEST 4400E

Mainboard type	up to 2 x System boards
Chipset	Intel® C741
Processor quantity and type	1 - 4 x Intel® Xeon® Platinum 84xx processor / Intel® Xeon® Gold 64xx processor
Memory slots	64 Max. 16TB with DDR5 only.
Memory slot type	DIMM (DDR5)
Memory capacity (min. - max.)	32 GB - 16 TB
Memory protection	ECC Memory Mirroring support Address Range Memory Mirroring support Memory Scrubbing SDDC ADDDC-MR
Memory notes	Up to 64 DIMM slots per server within 2 system boards.

Interfaces

USB 3.x ports	4 x USB per Partition
Graphics (15-pin)	1 x VGA per partition
Management LAN (RJ45)	1 x dedicated management LAN port for iRMC S6 (10/100/1000 Mbit/s)

Onboard or integrated Controller

Remote management controller	Integrated Remote Management Controller (iRMC S6, 1024 MB attached memory incl. graphics controller)

Slots

PCI-Express 5.0 x8	8 x Low profile
PCI-Express 5.0 x16	6 x Low profile
Slot Notes	Max. qty of PCI-Express 5.0 x8: 8 (4slots / IOU, Max. 2 IOUs / Chassis) Max. qty of PCI-Express 5.0 x16: 6 (3slots / IOU, Max. 2 IOUs / Chassis)

Drive bays

Storage drive bays	2.5-inch hot-plug SAS/SATA/PCIe
Storage drive bay configuration	Max. 16 x 2.5-inch

General system information

Number of fans	6
Fan configuration	hot-plug

Operating panel

Status LEDs	Power (DC-On: green / AC-On: white) Global error (orange) Identification (blue)

RAS Features

Standard	SDDC, ECC, redundant fans and power supply
Advanced	Intra-socket memory mirroring, MCA, ADDDC-MR

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	Not all OSes, OS versions and server functions will be released at server release. For details refer to link below.

Infrastructure and Server Management

DC Infrastructure Management	Infrastructure Manager (ISM)
	    Essential Edition
	    Advanced Edition

Infrastructure and Server Management

Server Management	Infrastructure Manager (ISM)
	    Essential Edition
	    Advanced Edition
	ServerView Suite

Management notes	For further information regarding ISM 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)	445 x 810 x 217.9 mm
Height Unit Rack	5 U
19" rackmount	Yes
Weight	Up to 82.44 kg
Weight notes	Fully assembled Actual weight may vary depending on configuration

Environment

Operating ambient temperature	5 - 35 °C (5 - 40 °C with ATD option)
Operating relative humidity	8 - 85% (non condensin), maximum dew point 21°C (non condensing)
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)	44.5 dB
Sound power (LWAd; 1B = 10dB)	6.3 B

Electrical values

Power supply configuration	Up to 4 hot-plug power supplies 2x hot-plag power supply 3x and 4x hot-plag power suplly for redundancy
Power supply efficiency	94 % (80 PLUS platinum)
Hot-plug power supply redundancy	Yes
Rated voltage range	100 V - 127 V / 200 V - 240 V
Rated frequency range	47 Hz - 63 Hz
Rated current max.	15.5A
Rated current in basic configuration	10A
Active power (max. configuration)	5,393 W
Heat emission (max. configuration)	19414.8 kJ/h (18401.7 BTU/h)

Compliance

Product	PRIMEQUEST
Model	4400E
Global	CB RoHS (Substance limitations in accordance with global RoHS regulations) WEEE (Waste electrical and electronical equipment) - planned
Japan	VCCI
South Korea	KC
Australia/New Zealand	RCM
Taiwan	BSMI
Compliance link	https://sp.ts.fujitsu.com/sites/certificates
Compliance notes	* 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	
Manufacturer 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 PRIMEQUEST 4400E, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio
Build 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 offering. This allows customers to leverage 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 PRIMEQUEST 4400E, 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-4400e/

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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