FUJITSU

Data Sheet
FUJITSU Server PRIMEQUEST 2400E3

No Time for Downtime

PRIMEQUEST 2400E3

FUJITSU Server PRIMEQUEST 2400E3 is the prime system for economic mission-critical computing. It unifies the economic and flexibility benefits of x86 industry standard systems with mission-critical uptime features. Customers 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. Featuring four of the Intel® Xeon® processor E7-8800 v4 product family provided with up to 96 cores and 12TB DDR4 memory, the PRIMEQUEST 2400E3 provides unprecedented performance and memory capacity for demanding corporate databases, mission-critical applications and in-memory database solutions. Mission critical features also enable outstanding platform reliability with innovative error prevention and self-healing capabilities, such as a reserved system board, flexible hot-plug I/O as well as physical hardware partitioning (PPAR). Moreover, unique features, such as Dynamic Reconfiguration enable the efficient use of available resources while simplifying resource management without any need for a reboot of the system.

Features & Benefits

Main Features	Benefits
Operational efficiency ■ Combines x86 industry standard with mission-critical features ■ Eliminate costs related to the UNIX world ■ New levels of energy efficiency	■ Unity of x86 efficiency and flexibility with mission-critical availability ■ Lower license fees and software maintenance costs for Oracle databases
Mission critical uptime leads to highest availability values in the x86 industry standard ■ Different partitioning available: From software partitioning to completely isolated physical partitioning ■ 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 many cases without downtime ■ Flexible I/O ensures availability of PCIe devices ■ Almost everything is redundant ■ Online maintenance	■ 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. Moreover, Dynamic Reconfiguration enables online maintenance without the need for restarts or planned downtimes
Dynamic platform for demanding applications ■ 4x Intel® Xeon® processor E7-8800 v4 family with up to 96 cores ■ 96 DIMM slots enable a configuration of up to 12TB memory ■ ´Glue-less' design, no external QPI cables ■ Many I/O expansion options for up to 56 PCIe slots ■ Dynamic Reconfiguration enables changes in the configuration of resources and system boards without stopping the application	■ Unprecedented performance and memory capacity for demanding corporate databases, in-memory solutions and mission-critical applications ■ I/O throughput ensured ■ Efficient usage of available resources and simplified resource management without any need for restarts

Technical details

PRIMEQUEST 2400E3

Mainboard type	up to 2 x Systemboard
Processor quantity and type	1 - 4 x Intel® Xeon® processor E7-8800 v4 product family
Memory slots	96 Max. 12 TB
Memory slot type	DIMM (DDR4)
Memory capacity (min. - max.)	16 GB - 12 TB
Memory protection	ECC Advanced ECC Memory Mirroring support Address Range Memory Mirroring support DDDC (Double Device Data Correction)
Memory notes	Up to 96 DIMM slots per server within 2 system boards, each equipped with 2 Memory Mezzanine cards. 12TB on special release.
Memory modules notes	Memory modules will be delivered in set´s of 2 DIMMs per order code

Interfaces

Graphics (15-pin)	2 x VGA (1x per SB)
Management LAN (RJ45)	Dedicated Service LAN port for MMB (10/100 Mbit/s)

Onboard or integrated Controller

RAID controller	RAID 0/1 or RAID 5/6 controller integrated in System board and/or Disk Unit (option) Options are described under Components RAID controller
LAN Controller	LAN controllers are integrated in optional I/O units, details are described under I/O options TCP/IP acceleration, PXE boot via LAN from PXE server, iSCSI boot (also diskless) via onboard LAN
Remote management controller	PQ2000 Management Board (MMB)

Fast IDE/Ultra DMA-100

LAN Controller	Intel® I350-AM2	Intel® X540-AT2

Service Processor

General	Management Board (MMB), located on the rear side of the system. 2nd MMB as option
Interfaces	For Maintenance: - Local: 10/100M RJ45 for local maintenance. - Remote: 10/100M RJ45 for REMCS, AIS-Connect, ACA and ServiceLink connection (Remote monitoring service). For Management - 0/1 10M/100M/1G RJ45
Redundancy	Up to two MMB unit can be installed in one chassis. 2nd MMB for redundancy is optional. 2nd MMB is not supported at Business model (2800B).

I/O options

Type	LAN ports	based on	number of PCIe slots	Max. number
I/O Unit 10GbE full-hight	2 x 100/1000 Mbit/s / 10 Gbit/s Ethernet (RJ45)	Intel® X540-AT2	2x PCIe Gen3 full hight / 1x PCIe Gen3 low profile	4
I/O Unit 1GbE low-profile	2 x 10/100/1000 Mbit/s Ethernet	Intel® I350-AM2	4x PCIe Gen3 low profile	4

Drive bays

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

General system information

Number of fans	6
Fan configuration	hot plug
Fan notes	PSU cooling fan will be used as chassis cooling facility

Operating panel

Status LEDs	System status (orange / yellow)
	Power (amber / green)
	Identification (blue)

RAS Features

Standard	SDDC, ECC, redundant fans and power supply
Advanced	Intra-socket memory mirroring, MCA, DDDC
Mission-Critical	Reserved SB, flex IO, Dynamic Reconfiguration, red. MMB, hot-plug PCIe

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.

Server Management

DC Infrastructure Management	ServerView Suite - Maintain
	Remote Management (iRMC in combination with Intel® Node Manager)
	Update Management (BIOS, Firmware, Windows Drivers, Agents and CIM Providers)
	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

Dimensions / Weight

Rack (W x D x H)	445 x 782 x 438 mm
Height Unit Rack	10 U
19" rackmount	Yes
Weight	Up to 128 kg
Weight notes	Fully assembled
	Actual weight may vary depending on configuration

Environment

Operating ambient temperature	5 - 35 °C
Operating relative humidity	20 - 80 %
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)	60db, 69dB(80 Plus Platinum)
Sound power (LWAd; 1B = 10dB)	7.8B, 8.7B(80 Plus Platinum)

Electrical values

Power supply configuration	Up to 4 hot plug power supplies.
	Base unit equipped with 0 power supplies, redundancy as option.
Max. input of single power supply	3200 W / 1600W (240 V / 100V)
Power supply efficiency	94 % (80 PLUS platinum)
	89 %
Hot-plug power supply redundancy	Yes
Rated voltage range	100 V - 240 V

Electrical values	
Rated frequency range	47 Hz - 63 Hz
Rated current max.	65A / 29A (100 V / 240 V)
Rated current in basic configuration	7,2A
Active power (max. configuration)	3,579 W
Heat emission (max. configuration)	12884.4 kJ/h (12212.0 BTU/h)

Compliance	
Product	PRIMEQUEST
Model	2400E3
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

	HDD SAS, 12 Gb/s, 900 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 600 GB, 15,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 600 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
Hard disk drives	HDD SAS, 12 Gb/s, 300 GB, 15,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 300 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 1.8 TB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 12 Gb/s, 1.2 TB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 800 GB, Write-Intensive, hot-plug, 2.5-inch, enterprise, 10 DWPD (5y)
	SSD SAS, 12 Gb/s, 400 GB, Write-Intensive, hot-plug, 2.5-inch, enterprise, 10 DWPD (5y)
	SSD SAS, 12 Gb/s, 1.6 TB, Write-Intensive, hot-plug, 2.5-inch, enterprise, 10 DWPD (5y)
	PCIe-SSD AIC, 4 TB, Mixed-use, HHHL, Flash drive, 3.1 DWPD (Drive Writes Per Day for 5 years)
	PCIe-SSD AIC, 2 TB, Mixed-use, HHHL, Flash drive, 3.0 DWPD (Drive Writes Per Day for 5 years)
	SAS Ctrl., SAS/SATA 12 Gbit/s, RAID level: ,
RAID Controller	Fujitsu PRAID EP420i, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 2 GB, Optional FBU based on LSI SAS3108
	Fujitsu PRAID EP420e LP, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, 8 ports ext. RAID level: 0, 1, 10, 5, 50, 6, 60, 2 GB, Optional FBU based on LSI SAS3108
	Fibre Channel Host Bus Adapter 1 x 8 Gbit/s Emulex LPe1250 MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 8 Gbit/s Emulex LPe12002 MMF LC-style
Fibre Channel controller	Fibre Channel Host Bus Adapter 1 x 16 Gbit/s Emulex LPe16000B LC-style
	Fibre Channel Host Bus Adapter 2 x 16 Gbit/s Emulex LPe16002B LC-style
	Fibre Channel Host Bus Adapter 1 x 16 Gbit/s Qlogic QLE2670 LC-style
	Fibre Channel Host Bus Adapter 2 x 16 Gbit/s Qlogic QLE2672 LC-style
	Converged Network Adapter 2 x 10 Gbit/s PCIe 3.0 x8 SFP+ (Emulex)
	Ethernet Ctrl. 2 x 10 Gbit/s PCIe 2.0 x8 SFP+ (Fujitsu)
Communication, Network	Ethernet Ctrl. 2 x 10 Gbit/s PCIe 2.1 x8 RJ45 (Intel®)

	Ethernet Ctrl. 2 x 10 Gbit/s PCIe 2.1 x8 RJ45 (Intel®)
	Ethernet Ctrl. 2 x 1 Gbit/s PCIe 2.1 x4 RJ45 (Intel®)
	Ethernet Ctrl. 4 x 1 Gbit/s PCIe 2.1 x4 RJ45 (Intel®)

Warranty
Product Support Services - the perfect extension

Spare Parts availability	5 years

More information

In addition to Fujitsu PRIMEQUEST 2400E3, 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 2400E3, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. http://ts.fujitsu.com	All rights reserved, including intellectual property rights. Changes to technical data reserved. 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. For further information see http://ts.fujitsu.com/terms_of_use.html Copyright © Fujitsu Technology Solutions

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