Data Sheet
FUJITSU Server PRIMEQUEST 2400E2 Mission Critical

No Time for Downtime

Combining the power of Intel® Xeon® Processor E7 family, the standard specifications of Microsoft Windows and Linux operating systems and the wealth of market solutions with innovative fault immune system architecture for highest availability and business continuity, FUJITSU Server PRIMEQUEST systems provide a new operational efficiency for business and mission-critical computing with truly open standards and to 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.

PRIMEQUEST 2400E2 Mission Critical
FUJITSU Server PRIMEQUEST 2400E2 Mission Critical 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-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 v3 product family provided with up to 72 cores and 6TB DDR4 memory, the PRIMEQUEST 2400E2 provides unprecedented performance and memory capacity for demanding corporate databases, mission-critical applications and in-memory solutions. Mission critical features 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 logical and 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	■ Unity of x86 efficiency and flexibility with mission-critical availability
■ Eliminate costs related to the UNIX world	■ Lower license fees and software maintenance costs for Oracle databases
■ New levels of energy efficiency	
Mission critical uptime leads to highest availability values in the x86 industry standard	
■ Different partitioning available: From software partitioning to completely isolated physical partitioning	■ Flexible platform to best meet individual requirements
■ Up to two physical partitions (PPAR): Failures of one partition do not influence other partitions	■ Business continuity ensured even if there is a failure in one of the partitions
■ Active reserved system board for fast automatic recovery of services, in many cases without downtime	■ Its built-in error prevention/correction and self-healing capabilities result in outstanding platform reliability
■ Flexible I/O ensures availability of PCIe devices	■ 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
■ Almost everything is redundant	
■ Online maintenance	
Dynamic platform for demanding applications	
■ 4x Intel® Xeon® processor E7-8800 v3 family with up to 72 cores	■ Unprecedented performance and memory capacity for demanding corporate databases, in-memory solutions and mission-critical applications
■ 96 DIMM slots enable a configuration of up to 6TB memory	
■ ´Glue-less´ design, no external QPI cables	
■ Many I/O expansion options for up to 56 PCIe slots	■ I/O throughput ensured
■ Dynamic Reconfiguration enables changes in the configuration of resources and system boards without stopping the application	■ Efficient usage of available resources and simplified resource management without any need for restarts

Technical details

Mainboard type	up to 2 x Systemboard
Processor quantity and type	1 - 4 x Intel® Xeon® processor E7-8800 v3 product family
Processor	Intel® Xeon® processor E7-8860v3 (16C/32T, 2.20 GHz, TLC: 40 MB, Turbo: 2.60 GHz, 9.6 GT/s, Mem bus: 1,866 MHz, 140 W, AVX Base 1.90 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® processor E7-8867v3 (16C/32T, 2.50 GHz, TLC: 45 MB, Turbo: 2.70 GHz, 9.6 GT/s, Mem bus: 1,866 MHz, 165 W, AVX Base 2.20 GHz, AVX Turbo 2.70 GHz)
	Intel® Xeon® processor E7-8870v3 (18C/36T, 2.10 GHz, TLC: 45 MB, Turbo: 2.50 GHz, 9.6 GT/s, Mem bus: 1,866 MHz, 140 W, AVX Base 1.80 GHz, AVX Turbo 2.50 GHz)
	Intel® Xeon® processor E7-8880v3 (18C/36T, 2.30 GHz, TLC: 45 MB, Turbo: 2.70 GHz, 9.6 GT/s, Mem bus: 1,866 MHz, 150 W, AVX Base 1.90 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® processor E7-8890v3 (18C/36T, 2.50 GHz, TLC: 45 MB, Turbo: 2.90 GHz, 9.6 GT/s, Mem bus: 1,866 MHz, 165 W, AVX Base 2.10 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® processor E7-8891v3 (10C/20T, 2.80 GHz, TLC: 45 MB, Turbo: 3.20 GHz, 9.6 GT/s, Mem bus: 1,866 MHz, 165 W, AVX Base 2.40 GHz, AVX Turbo 3.20 GHz)
	Intel® Xeon® processor E7-8893v3 (4C/8T, 3.20 GHz, TLC: 45 MB, Turbo: 3.30 GHz, 9.6 GT/s, Mem bus: 1,866 MHz, 140 W, AVX Base 2.80 GHz, AVX Turbo 3.20 GHz)
Memory slots	96 Max. 6 TB
Memory slot type	DIMM (DDR4)
Memory capacity (min. - max.)	16 GB - 6 TB
Memory protection	ECC Memory Mirroring support Advanced ECC DDDC (Double Device Data Correction) SDDC
Memory notes	Up to 96 DIMM slots per server within 2SB, each equipped with 2 Memory Mezzanine cards. 6TB will be available.
Memory options	16 GB (2 module(s) 8 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133R, DIMM, 1Rx4
	32 GB (2 module(s) 16 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133R, DIMM, 2Rx4
	64 GB (2 module(s) 32 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133P, LRDIMM, 4Rx4
	128 GB (2 module(s) 64 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133P, LRDIMM, 4Rx4
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 controller are integrated in optional I/O units, details are described under I/O options
Remote management controller	PQ2000 Management Board (MMB)
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

Certified or supported operating systems and virtualization software	Microsoft® Hyper-V Server 2012 R2
	Microsoft® Windows Server® 2012 R2 Datacenter
	Microsoft® Windows Server® 2012 R2 Standard
	Microsoft® Hyper-V Server 2012
	Microsoft® Windows Server® 2012 Datacenter
	Microsoft® Windows Server® 2012 Standard
	VMware vSphere™ 6.0
	VMware vSphere™ 5.5
	SUSE® Linux Enterprise Server 12
	SUSE® Linux Enterprise Server 11
	Red Hat® Enterprise Linux 7
	Red Hat® Enterprise Linux 6
	Oracle® Linux 7
	Oracle® Linux 6
	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 refer to link below.

Server Management

Standard	ServerView Suite - Maintain
	Remote Management (iRMC in combination with Intel® Node Manager)
	Update Management (BIOS, Firmware, Windows Drives and SV Agents)
	Performance Measurement
	Asset Management
	Online Diagnostics
	ServerView Suite - Integrate
	Integration packs e.g. for Microsoft System Center, VMware vCenter, Nagios, HP SIM and others
	Deployment Solutions and others
	ServerView Suite - Deploy
	SV Installation Manager
	ServerView Suite - Control
	Operations Manager incl. PDA and ASR & R
	(Prefailure and Analysis; Automatic Server Recovery and Restart)
	Agents and CIM Providers
	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
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	12884.4 kJ/h (12212.0 BTU/h)

Compliance

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	
Compliance link	http://globalsp.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, 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
	HDD SAS, 12 Gb/s, 300 GB, 15,000 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
	HDD SAS, 6 Gb/s, 900 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 600 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 1.2 TB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
Solid-State-Drive	SSD SAS, 12 Gb/s, 800 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 400 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 200 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 1.6 TB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
	PCIe-SSD AIC, 800 GB, MLC, HHHL, Flash drive, 10 DWPD (drive writes per day)
	PCIe-SSD AIC, 2 TB, MLC, HHHL, Flash drive, 10 DWPD (drive writes per day)
	PCIe-SSD AIC, 1.6 TB, MLC, HHHL, Flash drive, 10 DWPD (drive writes per day)
SCSI / SAS Controller	SAS Ctrl. 12 Gbit/s 8 ports ext. PCIe 3.0 x8
	SAS Ctrl., SAS/SATA 12 Gbit/s, RAID level: ,
RAID Controller	RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, Fujitsu PRAID EP420i, 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 2 GB, Optional FBU based on LSI SAS3108
	RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, Fujitsu PRAID EP420e LP, 8 ports ext. RAID level: 0, 1, 10, 5, 50, 6, 60, 2 GB, Optional FBU based on LSI SAS3108
	RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, Fujitsu PRAID EP420e FH, 8 ports ext. RAID level: 0, 1, 10, 5, 50, 6, 60, 2 GB, Optional FBU based on LSI SAS3108
Fibre Channel controller	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 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

Communication, Network	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)
	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®)
	InfiniBand HCA 1 x 56 Gbit/s PCIe 3.0 x8 QSFP for the US market max. one IB HCA 56Gb controller can be installed (Mellanox)
	InfiniBand HCA 2 x 56 Gbit/s PCIe 3.0 x8 QSFP for the US market max. one IB HCA 56Gb controller can be installed (Mellanox)

Warranty	
Warranty period	3 years
Warrenty type	Onsite Service (depending on country)
Warranty Terms & Conditions	http://support.ts.fujitsu.com/warranty/Index.asp?LNG=COM
Product Support Services - the perfect extension	
Service Lifecycle	5 years after end of product life
Service Weblink	www.fujitsu.com/support

More information

Fujitsu OPTIMIZATION Services

In addition to Fujitsu PRIMEQUEST 2400E2 Mission Critical , 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 Fujitsu PRIMEQUEST 2400E2 Mission Critical , please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/fts

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