

Data Sheet

FUJITSU Server PRIMEQUEST 2800E3

Critical workload processing revolutionized

PRIMEQUEST 2800E3

FUJITSU Server PRIMEQUEST 2800E3 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 running SAP, financial institutions or big data applications will thus continuously benefit from a radically optimized cost effectiveness compared to UNIX/Mainfram-based enterprise platforms, while preserving all the RAS qualities so that the system always remains active. Featuring eight of the Intel® Xeon® processor E7-8800 v4 product family provided with for up to 192 cores and 24TB DDR4 memory, the PRIMEQUEST 2800E3 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 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
<p>Operational efficiency</p> <ul style="list-style-type: none"> ■ Combines x86 industry standard with mission-critical features ■ Eliminate costs related to the UNIX world ■ New levels of energy efficiency <p>Mission critical uptime leads to highest availability values in the x86 industry standard</p> <ul style="list-style-type: none"> ■ Different partitioning available: From software partitioning to completely isolated physical partitioning (PPAR) ■ Up to four 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 <p>Dynamic platform for demanding applications</p> <ul style="list-style-type: none"> ■ 8x Intel® Xeon® processor E7-8800 v4 product family with up to 192 cores ■ 192 DIMM slots enable a configuration of up to super fast 24TB 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 	<ul style="list-style-type: none"> ■ Unity of x86 efficiency and flexibility with mission-critical availability ■ Lower license fees and software maintenance costs for Oracle databases <ul style="list-style-type: none"> ■ 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 <ul style="list-style-type: none"> ■ Unprecedented performance and memory capacity for demanding corporate databases, in-memory solutions and mission-critical applications ■ Fast I/O throughput ensured ■ Efficient usage of available resources and simplified resource management without any need for restarts

Technical details

PRIMEQUEST 2800E3

Mainboard type	up to 4 x Systemboard
Processor quantity and type	1 - 8 x Intel® Xeon® processor E7-8800 v4 product family
Memory slots	192 Max. 24 TB
Memory slot type	DIMM (DDR4)
Memory capacity (min. - max.)	16 GB - 24 TB
Memory protection	ECC Advanced ECC Memory Mirroring support Address Range Memory Mirroring support DDDC (Double Device Data Correction)

Memory notes Up to 192 DIMM slots per server within 4 system boards, each equipped with 2 Memory Mezzanine cards. 24TB on special release.

Memory modules notes Memory modules will be delivered in set's of 2 DIMMs per order code

Interfaces

USB 2.x ports	4
Graphics (15-pin)	1 x VGA per partition
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
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Drive bays

Storage drive bays	2.5-inch hot-plug SAS
Storage drive bay configuration	Max. 24 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 150 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, 74dB(80 Plus Platinum)
Sound power (LWAd; 1B = 10dB)	7.8B, 9.2B(80 Plus Platinum)
Electrical values	
Power supply configuration	Up to 6 hot plug power supplies. Base unit equipped with 0 power supplies, redundancy as option.
Max. input of single power supply	3200 W (240 V)
Power supply efficiency	94 % (80 PLUS platinum) 89 %
Hot-plug power supply redundancy	Yes
Rated voltage range	200 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)	5,354 W
Heat emission (max. configuration)	19274.4 kJ/h (18268.6 BTU/h)

Compliance

Product	PRIMEQUEST
Model	2800E3
Global	CB RoHS (Substance limitations in accordance with global RoHS regulations) WEEE (Waste electrical and electronic 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

More information

In addition to Fujitsu PRIMEQUEST 2800E3, 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 2800E3, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
<http://ts.fujitsu.com>

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