Data Sheet
FUJITSU Server PRIMEQUEST 2800E2 Mission Critical

Critical workload processing revolutionized

Combining the power of Intel® Xeon® Processor E7 product 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 2800E2 Mission Critical
FUJITSU Server PRIMEQUEST 2800E2 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 eight of the Intel® Xeon® processor E7-8800 v3 product family provided with up to 144 cores and 12TB DDR4 memory, the PRIMEQUEST 2800E2 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

<table>
<thead>
<tr>
<th>Main Features</th>
<th>Benefits</th>
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<tbody>
<tr>
<td><strong>Operational efficiency</strong></td>
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<tr>
<td>Combines x86 industry standard with mission-critical features</td>
<td>Unity of x86 efficiency and flexibility with mission-critical availability</td>
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<tr>
<td>Eliminate costs related to the UNIX world</td>
<td>Lower license fees and software maintenance costs for Oracle databases</td>
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<tr>
<td>New levels of energy efficiency</td>
<td></td>
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<tr>
<td><strong>Mission critical uptime leads to highest availability values in the x86 industry standard</strong></td>
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<tr>
<td>Different partitioning available: From software partitioning to completely isolated physical partitioning (PPAR)</td>
<td>Flexible platform to best meet individual requirements</td>
</tr>
<tr>
<td>Up to four physical partitions (PPAR): Failures of one partition do not influence other partitions</td>
<td>Business continuity ensured even if there is a failure in one of the partitions</td>
</tr>
<tr>
<td>Active reserved system board for fast automatic recovery of services, in many cases without downtime</td>
<td>Its built-in error prevention/correction and self-healing capabilities result in outstanding platform reliability</td>
</tr>
<tr>
<td>Flexible I/O ensures availability of PCIe devices</td>
<td>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</td>
</tr>
<tr>
<td>Almost everything is redundant</td>
<td></td>
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<tr>
<td>Online maintenance</td>
<td></td>
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<tr>
<td><strong>Dynamic platform for demanding applications</strong></td>
<td></td>
</tr>
<tr>
<td>8x Intel® Xeon® processor E7-8800 v3 product family with up to 144 cores</td>
<td>Unprecedented performance and memory capacity for demanding corporate databases, in-memory solutions and mission-critical applications</td>
</tr>
<tr>
<td>192 DIMM slots enable a configuration of up to super fast 12TB memory</td>
<td>Fast I/O throughput ensured</td>
</tr>
<tr>
<td>'Glue-less' design, no external QPI cables</td>
<td>Efficient usage of available resources and simplified resource management without any need for restarts</td>
</tr>
<tr>
<td>Many I/O expansion options for up to 56 PCIe slots</td>
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<tr>
<td>Dynamic Reconfiguration enables changes in the configuration of resources and system boards without stopping the application</td>
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Technical details

Mainboard type  
up to 4 x Systemboard

Processor quantity and type  
1 - 8 x Intel® Xeon® processor E7-8800 v3 product family

Memory slots  
192 Max. 12 TB

Memory slot type  
DIMM (DDR4)

Memory capacity (min. - max.)  
16 GB - 12 TB

Memory protection  
ECC
Memory Mirroring support
Advanced ECC
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. 12TB will be available.

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

Interfaces  

USB 2.0 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

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  
I/O Unit 10GbE full-height
I/O Unit 1GbE low-profile

LAN ports  
2 x 100/1000 Mbit/s / 10 Gbit/s Ethernet (RJ45)
2 x 10/100/1000 Mbit/s Ethernet

based on  
Intel® X540-AT2
Intel® I350-AM2

number of PCIe slots  
2x PCIe Gen3 full height / 1x PCIe Gen3 low profile
4x PCIe Gen3 low profile

Max. number  
4

Drive bays  
2.5-inch hot-plug SAS

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**

<table>
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<tr>
<th>Level</th>
<th>Features</th>
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<tbody>
<tr>
<td>Standard</td>
<td>SDDC, ECC, redundant fans and power supply</td>
</tr>
<tr>
<td>Advanced</td>
<td>Intra-socket memory mirroring, MCA, DDDC</td>
</tr>
<tr>
<td>Mission-Critical</td>
<td>Reserved SB, flex IO, Dynamic Reconfiguration, red. MMB, hot-plug PCIe</td>
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</table>

**Operating Systems and Virtualization Software**

- **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” rack mount**: 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)


- **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
- **Rated frequency range**: 47 Hz - 63 Hz
- **Rated current max.**: 65A / 29A (100 V / 240 V)
- **Rated current in basic configuration**: 7,2A
**Components**

- **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)**
- LSI PSAS CP400e SAS Ctrl. 12 Gbit/s 8 ports ext. PCIe 3.0 x8
- SAS Ctrl., SAS/SATA 12 Gbit/s, RAID level:
  - **RAID Controller**
    - RAID Ctrl FBU option with 25cm cable, RAID level:
    - Fujitsu PRAID EP420e LP, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, 8 ports ext. RAID level: 0, 1, 10, 5, 50, 60, 2 GB, Optional FBU based on LSI SAS3108
    - Fujitsu PRAID EP420e FH, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, 8 ports ext. RAID level: 0, 1, 10, 5, 50, 60, 2 GB, Optional FBU based on LSI SAS3108
    - LSI PSAS CP400e SAS Ctrl. 12 Gbit/s 8 ports ext. PCIe 3.0 x8
  - **Fibre Channel Host Bus Adapter**
    - 1 x 8 Gbit/s Emulex LPe1250 MMF LC-style
    - 2 x 8 Gbit/s Emulex LPe12002 MMF LC-style
    - 1 x 16 Gbit/s Emulex LPe16000B LC-style
    - 2 x 16 Gbit/s Emulex LPe16002B LC-style
    - 1 x 16 Gbit/s Qlogic QLE2670 LC-style
    - 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)
    - 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)
  - **Communication, Network**
    - 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 (depending on country)
- **Warranty type**: Onsite Service
Warranty

|-----------------------------|----------------------------------------------------------|

Product Support Services - the perfect extension

<table>
<thead>
<tr>
<th>Service Lifecycle</th>
<th>5 years after end of product life</th>
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<tbody>
<tr>
<td>Spare Parts availability</td>
<td>5 years</td>
</tr>
<tr>
<td>Service Weblink</td>
<td><a href="http://www.fujitsu.com/support">www.fujitsu.com/support</a></td>
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</table>
More information

Fujitsu products, solutions & services
In addition to FUJITSU Server PRIMEQUEST 2800E2 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
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 2800E2 Mission Critical, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.

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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