

# Data Sheet

## FUJITSU Storage ETERNUS DX200F All-Flash-Array

Superior performance at reasonable cost



### ETERNUS DX - Business-centric Storage

Combining leading performance architecture with automated quality of service management the Fujitsu Storage ETERNUS DX series aligns storage resources with business priorities, thus enabling higher system utilization and delivering increased system consolidation capabilities and a faster ROI. Unified scalable entry-level and midrange systems, a seamless family concept enabling system upgrades and ETERNUS SF, the unified management suite across the product line, reduce operational and migration costs. ETERNUS SF provides enterprise-class functionalities in the entry and midrange class and allows flexible disaster recovery and business continuity concepts for the different model sizes, thus decreasing investment costs

### ETERNUS DX200F

The ETERNUS DX200F is the ideal choice for application scenarios with demanding data and performance requirements. Unlike purpose-built expensive all-flash arrays based on special architectures, it features the standard high-performance architecture of the ETERNUS DX series. The system delivers impressive IOPS performance with lowest latency even at full load. Thus it offers a solution that resolves all performance issues in critical applications – such as real-time business analytics or VDI environments – without requiring any complicated tuning. Flexible and scalable ready-to-run configurations, priced substantially lower than customized flash systems, makes both acquisition and installation affordable, quick and easy.



# Features & Benefits

Main Features	Benefits
<p><b>Based on ETERNUS DX standard architecture</b></p>	<ul style="list-style-type: none"> <li>■ Performance optimized design</li> <li>■ Proven and mature technology</li> <li>■ Substantially less expensive than purpose-built flash storage systems</li> <li>■ Can be managed together with all other ETERNUS DX systems via central management console</li> </ul>
<p><b>Flexible SSD-based system</b></p>	<ul style="list-style-type: none"> <li>■ Immediately solves the performance problems of business critical applications</li> <li>■ No complicated tuning measures required</li> <li>■ Scalable in capacity and connectivity</li> </ul>
<p><b>Quality-of-Service and Thin Provisioning</b></p>	<ul style="list-style-type: none"> <li>■ Control of applications priorities according to business needs.</li> <li>■ Capacity optimization consisting of over-provisioning and the new space reclamation feature returning deleted capacity back to the disk pool.</li> </ul>
<p><b>Storage Cluster Option/Transparent failover</b></p>	<ul style="list-style-type: none"> <li>■ Avoid planned or unplanned downtimes</li> <li>■ Business continuity without any investment in additional storage virtualization layers</li> </ul>
<p><b>Convincing access performance and latency</b></p> <ul style="list-style-type: none"> <li>■ Random access performance: Up to 760,000 IOPS (4 KB Blocks)</li> <li>■ Sequential access performance: Max. 1.2 GB/s (128 KB Blocks)</li> <li>■ Latency: Less than 0.1 ms (4 KB Blocks)</li> </ul>	<ul style="list-style-type: none"> <li>■ Sufficient performance for all applications requiring high data rates and low response times</li> </ul>

# Technical details

## General system information

No. of controllers	2
No. of host interfaces	8 ports
Maximum Cache Capacity	16 GB
Maximum Disk Drives	24
Redundancy	RAID Controller Power supply Fan
Supported RAID levels	0, 1, 1+0, 5, 5+0, 6
Host Interfaces	Fibre Channel (16 Gbit/s) iSCSI (10 Gbit/s)
Max. no. of hosts	1,024
Maximum Storage Capacity	38.4 TB
Drive Type	2.5-inch, SSD (1.6 TB / 800 GB)
Drive interface	Serial Attached SCSI (12 Gbit/s)
Back-end disk connectivity	1 pair of four-lane x 12 Gbit/s Serial Attached SCSI buses (SAS 3.0 wide)
Max. no. of LUNs	1,536
Thin Provisioning	Yes
Quality of Service	Yes

## Performance

Latency	Write 88 µs, Read 180 µs
Sequential access performance	760,000 IOPS (100 % Read, 4 KB Blocks)
Random access performance	430,000 IOPS (100 % Read, 4 KB Blocks)

## Business Continuity Features

No. of snapshots - max.	1,536
Max. no. of copy generations	512
Remote Copy functionality	Synchronous and asynchronous
Data protection features	Cache Protection, Data Block Guard, Data Encryption, Dedicated Hot Spare, Disk Drive Patrol, Global Hot Spare
Security features	HTTPS (SSL), One Time Password, RADIUS, SSH

## Options

Reporting function	Yes
Note	Options can be activated via ETERNUS SF Software

## Dynamic configuration

Non-disruptive firmware upgrade	Yes
RAID migration	Yes
LUN online expansion w/o interruption	Yes
Wide striping	Yes
Hot part replacement/ expansion	Yes

## Management

Interfaces	Ethernet (1000 Base-T / 100 Base-TX / 10 Base-T)
Supported protocols	SNMP (version1, 2C, 3), SMI-S 1.6
Administration	Web-based graphical user interface, CLI (Command Line Interface), ETERNUS SF
Remote Support	Event notification (E-mail / SNMP / Syslog), Remote maintenance

**Supported OS for ETERNUS SF Express**

<b>Operation Management Server</b>	Windows Server® 2012 R2 Datacenter Windows Server® 2012 R2 Standard Windows Server® 2012 Datacenter Windows Server® 2012 Standard Windows Server® 2008 R2 Datacenter Windows Server® 2008 R2 Enterprise Windows Server® 2008 R2 Standard Windows Server® 2008 Datacenter Windows Server® 2008 Enterprise
<b>Operation Management Client</b>	Windows 7 Home Premium Windows 7 Professional Windows 7 Ultimate Windows Vista® Home Basic Windows Vista® Home Premium Windows Vista® Business Windows Vista® Enterprise Windows Vista® Ultimate Windows® XP Home Edition Windows® XP Professional Windows Server® 2008 Standard Windows Server® 2008 Enterprise Windows Server® 2008 Datacenter Windows Server® 2012 Standard Windows Server® 2012 Datacenter Windows Server® 2012 R2 Standard Windows Server® 2012 R2 Datacenter
<b>Note</b>	See the ETERNUS SF datasheet for further options

<b>Supported configurations</b>	<b>All major host operating systems, servers and business applications</b> Detailed support matrix: <a href="http://www.fujitsu.com/global/services/computing/storage/eternus/products/diskstorage/dx200/#Tab0-4">http://www.fujitsu.com/global/services/computing/storage/eternus/products/diskstorage/dx200/#Tab0-4</a>
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**Installation specification**

<b>19" rackmount</b>	Yes
<b>Service Area</b>	Front: 850 mm (33.5 inch) or more Rear: 850 mm (33.5 inch) or more
<b>Power voltage</b>	AC 100 - 120 V / AC 200 - 240 V
<b>Power frequency</b>	50 / 60 Hz
<b>Power supply efficiency</b>	92 % (80 PLUS gold)
<b>Maximum Power Consumption</b>	AC 100 - 120 V: 790 W (800 VA)
<b>Maximum Power Consumption</b>	AC 200 - 240 V: 790 W (800 VA)
<b>Power phase</b>	Single
<b>Dimensions (W x D x H)</b>	482 x 645 x 88 mm 19 x 25.4 x 3.5 inch 2 U
<b>Weight</b>	35 kg (77 lb)

**Environment**

<b>Maximum Heat Generation</b>	AC 100 - 120 V: 2,900: kJ/h AC 200 - 240 V: 2,900: kJ/h
<b>Temperature (operating)</b>	10 - 40 °C
<b>Temperature (not operating)</b>	0 - 50 °C
<b>Humidity (operating)</b>	20 - 80 % (relative humidity, non-condensing)
<b>Humidity (not operating)</b>	8 - 80 % (relative humidity, non-condensing)
<b>Altitude</b>	3,000 m (10,000 ft.)
<b>Sound pressure (LpAm)</b>	47dB(A)
<b>Sound power (LWAd; 1B = 10dB)</b>	6.5B
<b>Noise notes</b>	Measured with single enclosure according to ISO 7779 and declared according to ISO 9296
<b>Operating environment</b>	FTS 04230 – Guideline for Data Center (installation specification)

**Environment**

Operating environment link	<a href="http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe">http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe</a>
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**Compliance**

Product safety	UL 60950-1, CSA-C22.2 No. 60950-1, EN 60950-1, IEC 60950-1, GOST-R
Electromagnetic Compatibility	CNS 13438, FCC CFR 47 class A, ICES 003 Class A, EN 55022 Class A, VCCI Class A, AS/NZS CISPR 22 Class A
Electromagnetic Immunity	EN 55024
CE certification	2004/108/EC, 2006/95/EC, 2011/65/EC
Approvals	CB, CE, C-Tick, FCC, EAC, GS, VCCI
Environmental compliance	RoHS compliant, WEEE compliant
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.
Compliance link	<a href="http://globalsp.ts.fujitsu.com/sites/certificates">http://globalsp.ts.fujitsu.com/sites/certificates</a>

**Warranty**

Warranty period	3 years
Warrenty type	Onsite warranty
Warranty Terms & Conditions	<a href="http://support.ts.fujitsu.com/warranty/">http://support.ts.fujitsu.com/warranty/</a>

**Product Support Services - the perfect extension**

Support Pack Options	Globally available in major business areas: 9x5, Next Business Day Onsite Response Time 9x5, 4h Onsite Response Time 24x7, 4h Onsite Response Time
Recommended Service	24x7, Onsite Response Time: 4h
Service Lifecycle	5 years after end of product life
Service Weblink	<a href="http://www.fujitsu.com/support">http://www.fujitsu.com/support</a>

### Fujitsu OPTIMIZATION Services

In addition to Fujitsu ETERNUS DX200F, 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/](http://www.fujitsu.com/global/products/computing/)

### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

### More information

Learn more about Fujitsu ETERNUS DX200F, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. [www.fujitsu.com/eternus](http://www.fujitsu.com/eternus)

### 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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