

# Data Sheet

## FUJITSU Storage ETERNUS DX500 S5 Disk System

Leading storage performance, automated quality of service



### ETERNUS DX - Business-centric Storage

FUJITSU Storage ETERNUS DX series are the ideal hybrid storage for on-premise storage of business-critical data in data centers, branch offices and self-operated IT of SMBs, something every business can afford, with integrated and powerful features for business growth, efficiency and continuity. Latest capacity and performance optimization capabilities contribute to overall business efficiency, outstanding data-safe technologies and all-inclusive encryption guarantee uncompromised business continuity.

### ETERNUS DX500 S5

The scalable and unified Fujitsu Storage ETERNUS DX500 S5 system delivers leading storage performance and automated quality of service management, enabling maximum system utilization and contributing to a fast ROI. It is the perfect solution when consolidating data in large-scale databases, business-critical applications and business analytics / big data – all into one system. It provides ample headroom for demanding server/desktop virtualization environments and enterprise file services. The ETERNUS DX family architecture lets customers benefit from software options, such as thin provisioning, automatic storage tiering, transparent failover, quality of service management, and ensures smart operation and business continuity. The selective use of deduplication and compression completes the set of features with data efficiency options. All this makes ETERNUS DX500 S5 an ideal storage system for business-critical data.



# Features & Benefits

Main Features	Benefits
Maximum utilization and consolidation	<ul style="list-style-type: none"><li>■ Comprehensive scalability ready for future needs</li><li>■ Outstanding benchmark results with ultra-low latency</li><li>■ Unified SAN and NAS access drive system utilization improving ROI</li><li>■ Flexible combination of flash and disk media for a broader scope of deployments</li><li>■ ETERNUS SF management suite</li></ul>
Business Continuity around the clock	<ul style="list-style-type: none"><li>■ Replication and Storage Cluster to avoid planned or unplanned downtimes</li><li>■ Transparent failover for 100% data insurance and non-stop operations</li><li>■ Intelligent snapshot functionality for backup</li><li>■ System availability of 99.9999%</li></ul>
Automated Quality-of-Service	<ul style="list-style-type: none"><li>■ Control of applications priorities according to business needs.</li><li>■ Automation of monitoring and adjustment</li><li>■ Minimization of admin efforts</li><li>■ Guaranteed service levels</li></ul>
Selective use of deduplication / compression	<ul style="list-style-type: none"><li>■ Decide on application label which option fits best</li><li>■ Don't compromise applications with performance SLA's</li><li>■ Capacity savings in hybrid configurations</li></ul>

# Technical details

## General system information

ETERNUS DX500 S5	
No. of controllers	2
No. of host interfaces	4-16 ports [FC(32Gbit/s,16Gbit/s), Ethernet(1Gbit/s)], 4/8 ports [iSCSI(10Gbit/s,1Gbit/s), Ethernet(10Gbit/s)]
Maximum System Memory	512 GB
Extreme Cache	25.6 TB
Maximum Disk Drives	576
Max. no. of drive enclosures	23
Note	23 with 2.5" or 3.5" DE, 8 with HD-DE or mixture of DEs up to Max. no. Drives
Supported RAID levels	0, 1, 1+0, 5, 5+0, 6
Host Interfaces	Fibre Channel (16 Gbit/s, 32Gbit/s) iSCSI (10Gbit/s [10GBASE-SR, 10GBASE-CR]) iSCSI (1 Gbit/s) Ethernet (10 Gbit/s, 1 Gbit/s)
Mixed host interfaces	Yes
Max. no. of hosts	4,096
Supported NAS protocols	CIFS (SMB 3.0), CIFS (SMB 2.0), NFSv4, NFSv3, NFS, FTP, FXP
Maximum Storage Capacity HDD	7,786 TB
Maximum Storage Capacity SSD	17,695 TB
Drive Type	2.5-inch, SAS, 15,000 rpm (900 GB / 600 GB / 300 GB) 2.5-inch, SAS, 10,000 rpm (2.4TB / 1.8TB / 1.2TB / 600GB) 2.5-inch, SAS (FIPS), 10,000rpm (1.2TB) 2.5-inch, SSD (30.72TB / 15.36TB / 7.68TB / 3.84TB / 1.92TB / 960GB) 2.5-inch, SSD (FIPS) (7.68TB / 3.84TB / 1.92TB) 3.5-inch, Nearline SAS, 7,200 rpm (14TB / 12TB/ 10TB / 8TB / 6TB / 4TB) 3.5-inch, Nearline SAS (FIPS), 7,200 rpm (12TB / 8TB / 4TB) HDDE, Nearline SAS, 7,200 rpm (14TB / 12TB / 8TB / 4TB) HDDE, Nearline SAS (FIPS), 7,200 rpm (12TB / 8 TB / 4TB)
Max. no. of SSDs	unlimited
Mixed 2.5 inch/ 3.5 inch drive enclosures	Yes
Drive interface	Serial Attached SCSI (12 Gbit/s)
Back-end disk connectivity	4 pairs of four-lane x 12 Gbit/s Serial Attached SCSI buses (SAS 3.0 wide)
Max. no. of RAID groups per system	264
Max. no. of LUNs per RAID group	128
Max. no. of LUNs	16,384
Max. LUN capacity	128 TB
Max. no. of copy generations	512
Deduplication	for block
Compression	for block

## Performance

Latency	140μsec (Read), 60μsec (Write)
Sequential access performance	20,000 MB/s (128KB Read) 9,000 MB/s (128KB Write)
Random access performance	580,000 IOPS (8KB Read) 290,000 IOPS (8KB Write)

## Performance management

Automated Storage Tiering	Yes
Quality of Service	Yes
Note	Automation options can be activated via ETERNUS SF Software

**Continuity management**

Storage Cluster	Yes
Remote Copy functionality	Synchronous and asynchronous

**Information security management**

Data confidentiality	HTTPS (SSL), SSH, CHAP, Bidirectional CHAP
Data integrity	Data Block Guard, Data Encryption, Cache Protection, Disk Drive Patrol, Global Hot Spare, Dedicated Hot Spare, Copy back less, Drive shield, Fast Recovery

**Availability management**

Non-disruptive firmware upgrade	Yes
Hot part replacement	Yes

**Capacity management**

Thin Provisioning	Yes
RAID migration	Yes
Reporting function	Yes
Hot part expansion	Yes

**Management**

Administration	Web-based graphical user interface, CLI (Command Line Interface), ETERNUS SF
----------------	--

**Supported OS for ETERNUS SF**

Operation Management Server	Microsoft® Windows Server® 2019 Microsoft® Windows Server® 2016 Microsoft Windows Server 2012 Hyper-V, 2012 R2 Hyper-V Solaris® 11 (11/11 or later) Solaris® 10 (except ETERNUS SF Express) Red Hat Enterprise Linux 8 Red Hat® Enterprise Linux® 7 Red Hat® Enterprise Linux® 6 Oracle Linux 6 VMware® vSphere® 6.0, 6.5, 6.7 Microsoft Windows Server 2019 Hyper-V Microsoft Windows Server 2016 Hyper-V Microsoft Windows Server 2012 Hyper-V, 2012 R2 Hyper-V
Operation Management Client	Microsoft Internet Explorer 10, 11 Firefox ESR 60, ESR 68 Microsoft Edge 25, 42, 44 Google Chrome 60, 75 Chrome® 47, 50 (Android®) Safari 8, 9 (iOS)
Note	See the ETERNUS SF datasheet for further options

**Supported configurations**

**All major host operating systems, servers and business applications**  
Detailed support matrix:  
[www.fujitsu.com/global/support/products/computing/storage/disk/supported-configurations](http://www.fujitsu.com/global/support/products/computing/storage/disk/supported-configurations)

**Installation specification**

19" rackmount	Yes
Power voltage	AC 100 - 120 V / AC 200 - 240 V
Power frequency	50 / 60 Hz
Maximum Power Consumption	AC 100 - 120 V: 13,330W (13,580VA)
Maximum Power Consumption	AC 200 - 240 V: 13,760W (14,020VA)
Power phase	Single

	ETERNUS DX500 S5	2.5-inch Drive Enclosure	3.5-inch Drive Enclosure	High-Density Drive Enclosure
Dimensions (W x D x H)	482 x 788 x 133 mm 19 x 31 x 5.2 inch 3 U	482 x 540 x 88 mm 19 x 21.3 x 3.5 inch 2 U	482 x 580 x 88 mm 19 x 22.8 x 3.5 inch 2 U	482 x 980 x 176 mm 19 x 38.6 x 6.9 inch 4 U
Weight	58 kg (128 lb)	35 kg (77 lb)	35 kg (77 lb)	100 kg (220 lb)

**Environment**

<b>Maximum Heat Generation</b>	AC 100 - 120 V: 48,870: kJ/h AC 200 - 240 V: 50,420: kJ/h
<b>Humidity (operating)</b>	20 - 80 %
<b>Operating environment</b>	FTS 04230 – Guideline for Data Center (installation specification)
<b>Operating environment link</b>	<a href="http://docs.ts.fujitsu.com/dl.aspx?id=589915e9-1bf8-40f7-8ba4-7cac9371f2f0">http://docs.ts.fujitsu.com/dl.aspx?id=589915e9-1bf8-40f7-8ba4-7cac9371f2f0</a>

**Compliance**

<b>Product safety</b>	UL 60950-1, CSA 60950-1, EN 60950-1, IEC 60950-1, TP TC 004/2011, CNS14336
<b>Electromagnetic Compatibility</b>	FCC Part-15 Class A, ICES-003 Class A, EN 55022 (2010), +AI, VCCI Class A, AS/NZS CISPR 22 Class A, CNS13438 (C6357) Class A, KN22
<b>Electromagnetic Immunity</b>	EN 55024
<b>Environmental compliance</b>	RoHS compliant, WEEE compliant
<b>Compliance notes</b>	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.
<b>Compliance link</b>	<a href="https://sp.ts.fujitsu.com/sites/certificates">https://sp.ts.fujitsu.com/sites/certificates</a>

**Warranty**

<b>Warranty period</b>	3 years
<b>Warranty type</b>	Onsite warranty
<b>Warranty Terms &amp; Conditions</b>	<a href="http://www.fujitsu.com/warranty">www.fujitsu.com/warranty</a>

**Product Support Services - the perfect extension**

<b>Support Pack Options</b>	Available in major business areas: 9x5, Next Business Day Onsite Response Time 9x5, 4h Onsite Response Time (depending on country) 24x7, 4h Onsite Response Time (depending on country)
<b>Recommended Service</b>	24x7, Onsite Response Time: 4h
<b>Service Lifecycle</b>	5 years after end of product life
<b>Service Weblink</b>	<a href="http://www.fujitsu.com/services/product-services">www.fujitsu.com/services/product-services</a>

### Fujitsu products, solutions & services

In addition to FUJITSU ETERNUS DX500 S5, 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/](http://www.fujitsu.com/global/products/computing/)

#### Software

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

### More information

Learn more about Fujitsu ETERNUS DX500 S5, 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>



### Copyrights

All rights reserved, including intellectual property rights. Designations may be trademarks and/or copyrights of the respective owner, the use of which by third parties for their own purposes may infringe the rights of such owner. For further information see <http://www.fujitsu.com/emeia/resources/navigation/terms-of-use.html>  
Copyright 2019 FUJITSU LIMITED

### Disclaimer

Technical data is subject to modification and 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 owner, the use of which by third parties for their own purposes may infringe the rights of such owner.

#### Contact

FUJITSU LIMITED  
Website: [www.fujitsu.com/eternus](http://www.fujitsu.com/eternus)  
2019-12-03 WW-EN