Datasheet
Fujitsu ETERNUS DX400 S2 series Disk Storage Systems

The Flexible Data Safe for Dynamic Infrastructures.

ETERNUS DX S2 DISK STORAGE SYSTEMS

Fujitsu's second generation of ETERNUS DX disk storage systems, ETERNUS DX S2, are The Flexible Data Safe for Dynamic Infrastructures. Enterprise-proven capabilities protect data assets across all types of IT infrastructure. Redundant components, RAID protection and build-in data protection provide the highest system reliability to ensure business continuity is maintained.

ETERNUS DX S2 models are comprehensive disk storage platforms with superior scalability to address the demands of intensive data growth and highest performance. Free choice of modular disk storage and state-of-the-art connectivity across the entire model range delivers maximum configuration flexibility allowing choice in performance and TCO. Data-in-place upgrade options are also available throughout the system's lifecycle to ensure maximum investment protection.

The unified ETERNUS SF storage management software enables single point administration, easy data protection and efficient operation across the entire ETERNUS DX range. In virtualized IT environments in particular, ETERNUS SF perfectly integrates the powerful ETERNUS DX disk storage with minimal administration effort.

ETERNUS DX400 S2 series

ETERNUS DX400 S2 series with Intel® Xeon® processors is purpose built for data centers and virtualized environments. ETERNUS DX410 S2 scales flexibly from 2 to 480 disk drives, ETERNUS DX440 S2 scales to 960 disk drives. Different 2.5 inch, 3.5 inch, SAS, Nearline SAS, SSD, drive types are supported even in mixed configurations to enable efficient tiered storage environments. Non-disruptive capacity upgrades are supported just by adding disks or complete enclosures.

ETERNUS DX400 S2 series provides a rich set of connectivity and interoperability choices. Customers can choose from FC, FCoE or iSCSI host interfaces which can be flexibly changed during the lifecycle. The new FCoE 10Gbit/s interface enables future-proof infrastructure and network convergence to ever larger storage structures. For simultaneous connection to different network types, all interfaces can operate in mixed configuration. Remote copy to a second storage device (ETERNUS DX90 S2 / DX400 S2 series / DX8000) protects valuable data assets against site outages.

Backed by the feature rich and easy to handle ETERNUS SF storage management software suite ETERNUS DX400 S2 series is perfectly architected for the needs of midrange and larger enterprises.

www.fujitsu.com/eternus/

Features and benefits

Main features	Benefits
The Flexible Data Safe for Dynamic Infrastructures	■ Enterprise proven capabilities to protect all data assets ■ Redundant components and RAID protection provide highest reliability ■ Built-in data protection ensures business continuity
Comprehensive ETERNUS DX S2 Disk Storage Platforms	■ Superior scalability captures intensive data growth and highest performance demands ■ Free choice of modular disk storage and state of the art connectivity across the entire model range ■ Investment protection with upgrade options during the whole lifecycle
Innovative ETERNUS SF Storage Management	■ Unified storage management across the entire ETERNUS DX range ■ Single point administration, easy data protection and efficient operation ■ Powerful disk storage united with minimal administration efforts in virtualized environments

Technical details

General Specification		DX410 S2	DX440 S2
RAID Levels		0, 1, 1+0, 5, 5+0, 6	
Host Interfaces		Fibre Channel (8/4/2 Gbit/s) FCoE (10 Gbit/s) iSCSI (10 Gbit/s) or iSCSI (1 Gbit/s)	
Number of controllers		2	
Number of host interfaces		4 - 16	4 – 32
Number of hosts		Max. 1024	
Cache memory capacity		8 GB / 16 GB	24 GB / 48 GB / 72 GB / 96 GB
Number of drive enclosures		Max. 20 (3.5", 2.5")	Max. 40 (3.5", 2.5")
Number of drives		Max. 480 (2.5") / Max. 240 (3.5")	Max. 960 (2.5") / Max. 480 (3.5")
Storage capacity	Physical capacity	Max. 720.0 TB	Max. 1440.0 TB
	Logical capacity	Max. 512.6 TB	Max. 1,025.3 TB
Drives 3.5-inch	SAS disk drives	600 GB/450 GB/300 GB (15,000 rpm)	
	Nearline SAS disk drives	3 TB/2 TB/1 TB (7,200 rpm)	
	SSD (Solid State Drives)	200 GB/100 GB	
- Notes		3.5" drives are available only for 3.5" drive enclosures	
2.5-inch	SAS disk drives	900 GB/600 GB/450 GB/300 GB (10,000 rpm)	
	SSD (Solid State Drives)	200 GB/100 GB	
- Notes		2.5" drives are available only for 2.5" drive enclosures	
Drive interface		Serial Attached SCSI (6 Gbit/s)	
Back-End Disk Connectivity		2 pairs of four-lane x 6 Gbit/s SAS buses (SAS 2.0 Wide)	4 pairs of four-lane x 6 Gbit/s SAS buses (SAS 2.0 Wide)
Redundancies	RAID Controller	Yes	
	Fan	Yes	
	Power Supply	Yes	
Number of LUN		Max. 16,384	
LUN capacity		Max. 128 TB	
Number of Snapshots		8,192	
Number of copy generations		256	
Remote Copy feature		Yes	
- Notes		Remote Copy Licenses must be purchased for each system	

Installation Specification			
Dimensions (W x D x H)	Controller enclosure (CE)	482 × 700 × 132 mm (19 x 27.6 x 5.2 inch) (3U)	
	2.5" Drive enclosure (DE)	482 × 540 × 88 mm (19 x 21.3 x 3.5 inch) (2U)	
	3.5" Drive enclosure (DE)	482 × 555 × 88 mm (19 x 21.9 x 3.5 inch) (2U)	
Service Area	Front	800 mm (31.5 inch) or more	
	Rear	800 mm (31.5 inch) or more	
Maximum Weight	Controller enclosure	54 kg (118.8 lb)	
	2.5" Drive enclosure	35 kg (77 lb)	
	3.5" Drive enclosure	35 kg (77 lb)	
Power	Voltage	AC 200 – 240 V	
	Phase	Single	
	Frequency	50 Hz / 60 Hz	

Installation Specification (Continued)		DX410 S2	DX440 S2
Maximum Power Consumption	CE	470 W (480 VA)	720 W (730 VA)
	2.5" DE	570 W (580 VA)	
	3.5" DE	550 W (560 VA)	
	Max configuration	11,870 W (12,080 VA) (CE+DEx20)	23,520 W (23,930 VA) (CE+DEx40)
Maximum Heat Generation		43,700 kJ/h (41,419 BTU/h)	86,600 kJ/h (82,081 BTU/h)
Environmental Conditions	Temperature	10 – 40°C (Operating)	
		50 – 104°F (Operating)	
	Humidity	20 – 80% RH (Operating)	
Altitude		3,000 m	
		10,000 ft.	
Operating environment		FTS 04230 Guideline for Data Center (installation locations)	
Operating environment link		http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe	

Supported RAID Levels	
RAID 0	Data striping on several disk drives, not recommended
RAID 1	Mirrored disk drives
RAID 1+0	Data mirroring, then striping of the data over several disk drives
RAID 5	Striping with distributed parity
RAID 5+0	RAID 5 arrays, striped again over several drives
RAID 6	Striping with distributed double parity

Management	
Interfaces	Ethernet (1000 Base-T / 100 Base-TX / 10 Base-T)
Supported protocols	SNMP (version1, 2C, 3), SMI-S 1.4
Administration	Web-Environment, CLI (Command Line Interface)

Noise Emission	DX410 S2	DX440 S2
Sound Power Level (LWAd)	7.0 B	
Sound Pressure Level (LpAm)	53 dB(A)	
- Notes	measured with single enclosure according to ISO7779 and declared according to ISO9296	

Warranty	
Global Factory Warranty	3 years

Maintenance and Support Services

The perfect extension of the product specific base warranty for optimized operation.
Recommended Service: 24 x 7 Fujitsu support for enterprise class services.
Please check your specific service level with your FUJITSU sales organization or partner.

Supported configurations

A wide range of host operating systems, servers as well as applications is supported.
For a detailed support matrix check:
http://www.fujitsu.com/global/services/computing/storage/eternus/products/diskstorage/dx-mid/supported-device/

Compliance With Standards

Product safety	UL60950-1, CSA-C22.2 No. 60950-1, EN60950-1, IEC60950-1, GOST-R
Electromagnetic Compatibility	CNS13438(C6357) Class A, FCC CFR47 part 15 Class A, ICES-003 Class A,
	EN55022 Class A, VCCI Class A, AS/NZS CISPR22 Class A
Electromagnetic Immunity	EN55024
CE certification	Electromagnetic Compatibility Directive 2004/108/EC
	Low Voltage Directive 2006/95/EC
Environmental compliance	RoHS-compliant (Restriction of hazardous substances)
	WEEE-compliant (Waste electrical and electronic equipment)
- 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.

More information

Fujitsu platform solutions

In addition to Fujitsu ETERNUS DX, 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/services/computing/
- PRIMERGY: Industry standard server
- SPARC Enterprise: UNIX server
- PRIMEQUEST: Mission-critical IA server
- ETERNUS: Storage system
Software
www.fujitsu.com/software/
- Interstage: Application infrastructure software
- Systemwalker: System management software

More information

Learn more about Fujitsu ETERNUS DX400 S2, please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website.
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 resolve issues of environmental energy efficiency through IT. Please find further information at:
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