Technical Specifications

Mx10 Series Storage Disk Arrays

At a Glance

- High performance from larger cache, Intel® Xeon® processors, and 12 Gbps disk interface.

- Feature-rich software standard on all Mx10 Series storage.

- Flexible high capacity NL-SAS HDD, high-speed flash (SSD) and hybrid options for optimal price-performance.

- Excellent scalability protects storage investment long-term.

- High availability through redundancy and advanced security functions.

- Easy-to-use management dashboard for efficient hassle-free operations.

Overview

The NEC Mx10 Series SAN storage delivers up to 400% higher performance than the previous generation due to larger cache, Intel® Xeon® processors, and a 12 Gbps disk interface supporting more hard disk drives (HDD) and delivering significant improvement in input/output operations (IOPS) and throughput (GB/sec). More server connections are supported through an enhanced Fibre Channel (FC) and iSCSI front-end interface further increasing bandwidth.

Mx10 Series storage offers high-capacity and low-cost nearline SAS (NL-SAS) HDD, 2.5-inch SAS HDD for high performance disk, and high-speed flash (SSD), or a hybrid flash/HDD solution optimized for the best price-performance ratio to meet business needs. Increased hybrid storage capabilities with 1.6 TB flash drives enable features like data tiering, SSD data volumes and cache management for larger data environments.

Designed to support consolidated and virtualized environments, the Mx10 Series offers high availability and data protection through redundant components and software functions, as well as advanced security capabilities. Thin provisioning capabilities optimize storage capacity in virtual environments eliminating inefficient utilization of storage capacity. The ability to control multiple systems and power optimization from a single-pane-of-glass makes the Mx10 Series one of the easiest high-performance storage solutions to operate.

Eco-Friendly Saves Money

In addition to advanced energy-saving technologies to significantly lower power consumption, low-power processors and NEC's StoragePowerConserver spins down inactive drives for further improved energy efficiency. Certified high-efficiency power supplies – 80PLUS PLATINUM for the M510 and M710; and 80PLUS GOLD1 for the M110 and M310 – function in 40° C (104° F) environments, which require less cooling than comparable systems for even lower electricity costs.

The NEC M110 array earned the ENERGY STAR® certification for data center storage. ENERGY STAR products are third-party certified by an EPA-recognized Certification Body to save energy without sacrificing features or functionality. Saving energy prevents greenhouse gas emissions and climate change.

Hardware Specification

		M110	M310	M510	M710
Host Interface	FC	8Gb/16Gb: 4 or 8 port	8Gb/16Gb: 8 port	8Gb/16Gb: 8 to 32 port	8Gb/16Gb: 8 to 48 port
	iSCSI	1Gb/10Gb (copper): 4 or 8 port / 10Gb (optical): 4 or 8 port	1Gb/10Gb (copper): 8 port / 10Gb (optical): 8 port	1Gb/10Gb (copper): 4 to 16 port / 10Gb (optical): 16 port	1Gb/10Gb (copper): 4 to 24 port / 10Gb (optical): 24 port
	SAS	12Gb: 8 port	n/a	n/a	n/a
	I/F mix	FC: 4 port + iSCSI (copper/optical): 4 port	FC: 4 port + iSCSI (copper/optical): 4 port	FC: 2 to 24 port + iSCSI (optical): 4 to 12 port **or** FC: 2 to 24 port + iSCSI (copper): 4 to 12 port	FC: 2 to 40 port + iSCSI (optical): 4 to 20 port **or** FC: 2 to 40 port + iSCSI (copper): 4 to 20 port[2]
Cache Size		16GB	24GB / 48GB	48GB / 96GB	96GB / 192GB
Supported OS		Windows®, Linux®, VMware®	Windows, Linux, VMware (FC/iSCSI) HP-UX, Solaris, AIX (FC)		
Max. Number of Drives	3.5"	3 to 120 (SSD max. 12)	3 to 240 (SSD max. 240)	3 to 768 (SSD max. 768)	3 to 960 (SSD max. 960)
	2.5"	3 to 120 (SSD max. 12)	3 to 480 (SSD max. 480)	3 to 768 (SSD max. 768)	3 to 960 (SSD max. 960)
Max. TB Capacity (SAS / NL-SAS / SSD)	3.5"	556.4	1,132.8	3,625.1	4,531.4
	2.5"	170.0	680.2	1,088.4	1,360.5
Disk Drive Specifications	3.5" SAS (15K)	n/a			
	3.5" NL-SAS (7.2K)	2TB, 4TB, 6TB, 4TB (encryption)			
	3.5" SSD (eMLC)	200GB, 400GB, 1.6TB			
	2.5" SAS (15K)	300GB, 600GB, 600GB (encryption)			
	2.5" SAS (10K)	600GB, 1.2TB, 1.8TB, 600GB (encryption)			
	2.5" NL-SAS (7.2K)	n/a			
	2.5" SSD (eMLC)	200GB, 400GB, 1.6TB			
RAID Type	SAS, NL-SAS HDD	RAID-0,1,5,6,10,50,60,TM			
	SSD	RAID-1,5(4+P),6,10,50(4+P),60			
Dimensions (WxDxH mm)	Disk Array	482 x 566 x 87.4 - 2U		482 x 633.8 x 175.4 – 4U	
	Disk Enclosure	482 x 548.5 x 87.4 - 2U			
Power Supply		AC: 100 - 240 V, DC: 48 V			
Weight	Disk Array	33kg or less		48kg or less	
	Disk Enclosure	29kg or less			
Max Power Consumption (W)	DAC	520W	565W	965W	1190W
	DE SAS 15K, SAS 10K	350W			
	DE NL-SAS 7.2K	295W			
Temperature / Humidity		Operating 5 – 40°C, 10-80% Non-operating -10 to +60°C, 5-80%			

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