



DATA SHEET

Integrated. Efficient. Intelligent.

Exos X 2U24 Advanced Storage Array



Seagate® Exos® X advanced storage array is a petabyte-scale, rack-mounted block storage enclosure with self-healing technology, advanced data protection, and software value delivering super efficient mass-capacity storage for conventional data centres and cloud infrastructure.



Product Highlights

- Self-healing storage technology, ADAPT and ADR
- Deliver unfettered data access with dual redundant controllers capable of achieving superior sequential read and write performance
- Expand a data centre seamlessly with flexible SSD, HDD, and hybrid configuration options
- Efficiently manage hot and cold data with real-time data tiering
- Opt for replication and snapshot features to meet critical enterprise requirements
- Save space and maximise capacity by stacking 10 Enclosures for 240 drives of data storage

Key Advantages

Reliable and Self-healing. Exos X features self-healing storage technology, Advanced Distributed Autonomic Protection Technology (ADAPT), and Autonomous Drive Regeneration (ADR). Field-proven design with five nines (99.999%) availability. Seagate ADAPT erasure code data protection software dramatically reduces array rebuild overhead. Unique Seagate ADR reduces human intervention and e-waste by automatically renewing hard drives "in situ" and on the fly.

Built for speed and resilience. Up to 2 times the performance of the previous generation with redundant active-active controllers powered by the ASIC-based VelosCT controller architecture. Streamline your overhead, with improved throughput, management and recovery.

Easy to Set Up, Maintain, and Expand. All system components — the enclosure, the controller, the firmware, and the drives — are developed and optimised by our engineers to work together seamlessly. The modular architecture makes components interchangeable between systems, and upgrades are simple due to common FRUs, PCMs, controllers and software.

Optimised Architecture. The Exos X 2U24 is perfect for businesses with demanding environments that require high read and write throughput while still needing considerable storage space. Built to ensure space is used to its maximum potential, application access to data is virtually instantaneous, ensuring IT and end-users can work more efficiently. Connect up to ten 2U24 enclosures together for a total of 240 drive slots.

Build In Security at the Foundation of the Data Life Cycle. Protect the most valuable business assets with Seagate Secure™ cybersecurity features and intelligent firmware — such as SFTP, SED support, and administrator access controls — that provide built-in security measures for reliable and safe file access, transfer, and management.

Improve Hardware and Administrative Efficiency and Reduce Cost. Meet stringent worldwide requirements for recycling and environmental friendliness with a nimble system that minimises environmental impact and maximises cost savings through high performance.



Specifications	
Controller Performance	Up to 12 GB/s read throughput, 10 GB/s write throughput, 725K IOPS (Random Read)
Advanced Software Features	Auto-tiering, Snapshots, Asynchronous replication
Base Array Software Features	Virtual pools, Thin provisioning, ADAPT, SSD read cache, Encryption
High-Availability Features	Redundant hot-swap controllers, Redundant hot-swap drives, fans, power, Dual power cords, Hot standby spare, Automatic failover, Multi-path support
Device (Drive) Support	SAS HDD, NL-SAS HDD, SAS SSD (2.5 or 3.5 Form Factors)
Data Protection	Seagate ADAPT and RAID levels supported: 0, 1, 5, 6, 10
Self Healing Technology	Autonomous Drive Regeneration (ADR)
System Maximum Expansion	2U12 Arrays, Up to 12 drives per enclosure, 10 enclosures maximum including the master, totalling 120 Drives 2U24 Arrays, Up to 24 drives per enclosure, 10 enclosures maximum including the master, totalling 240 Drives 5U84 Arrays, Up to 84 drives per enclosure, 4 enclosures maximum including the master, totalling 336 Drives
Physical	2U: Height: 87.9 mm / 3.46 in, Width: 443 mm / 17.44 in, Depth: 630 mm / 24.8 in, Width w/ear mounts: 483 mm / 19.01 in, Weight: 17 kg / 38 lb, Weight (with drives): 30 kg / 66 lb
Hosts	
External Ports	4 per Controller, 8 per System
Fibre Channel Models	Host speed: 32/16 Gb/s Fibre Channel, Interface type: SFP+/SFP28
iSCSI Models	Host speed: 10 Gb/s, 25 Gb/s iSCSI, Interface type: SFP+/SFP28
Ethernet	10GBASE-T (auto-negotiation to 1Gb)
SAS Models	Host speed: 12 Gb/s, 6 Gb/s SAS, Interface type: HD Mini-SAS
System Configuration	
System Memory	48 GB per system
Volumes per System	1,024
Cache	Mirrored cache, Supercapacitor cache backup, Cache backup to flash – non-volatile
Management	
Interface Types	10/100/1000 Ethernet, Micro USB
Protocols Supported	SNMP, SSL, SSH, SMTP, HTTP(S), REDFISH
Management Consoles	Web GUI, CLI
Management Software	Seagate Systems storage management console, Remote diagnostics, Non-disruptive updates, Volume expansion
Power Requirements — AC Input	
Input Power Requirements	100VAC-240VAC, 50Hz/60Hz
Max Power Output per PSU	580W
Environmental/Temperature Ranges	
Operating/Non-operating Temperature	ASHRAE A2, 5 °C to 35 °C (41 °F to 95 °F), derate 1 °C/300m above 900m, 20 °C/hr max rate of change / -40°C to 70°C (-40°F to 158°F)
Operating/Non-operating Humidity	-12°C DP and 10% RH to 21°C DP and 80% RH, max DP 21°C/5% to 100% non-condensing
Operating/Non-operating Shock	5 Gs, 11ms, half sine pulses/15 Gs, 7ms, half sine pulses
Operating/Non-operating Vibration	0.18 Gs rms 6 Hz to 500 Hz random/0.5 (Z-axis) and 0.25 (X&Y-axis) Gs rms 6 Hz to 200 Hz random