2U24 Flash Storage Platform

Features

- Flash storage platform with up to 24 Ultrastar® 2.5" SAS SSD modules or 24 Ultrastar DC SA620 SATA SSD modules
- Available SSD capacities include 7.68TB, 3.84TB, 1.92TB, and 960GB
- Start with as little as 12 SSDs; upgrade one additional module at a time
- 2 rack units
- Up to six 12Gb/s SAS3 connections to host
- Up to 4.7M IOPS, 23 GB/s; <1ms latency
- Easy maintenance of SSD modules. Front accessible and hot swappable.
- 5-year limited warranty

Flash Storage Platform for Software-Defined Storage

The 2U24 Flash Storage Platform is a key element of next generation software-defined storage (SDS) systems. The Platform balances performance with capacity, delivering high IOPS, low latency at up to 184TB capacity. It also offers flexibility to improve compute-to-capacity ratio by decoupling available storage from CPU resources.

Designed for Enterprise and the Cloud

2U24 Flash Storage Platform addresses the demanding storage needs of large enterprises and cloud service providers who require dense, shared flash storage. The Platform offers distinct features designed for today's data centers, such as:

- Enterprise-class high availability: hot swappable components including SSDs, I/O Modules, PSUs (integrated fans)
- Fully upgradeable: upgradeable firmware enables drive technology and capacity updates without impacting applications
- Support enterprise workloads including database, virtualization and scale-out configurations
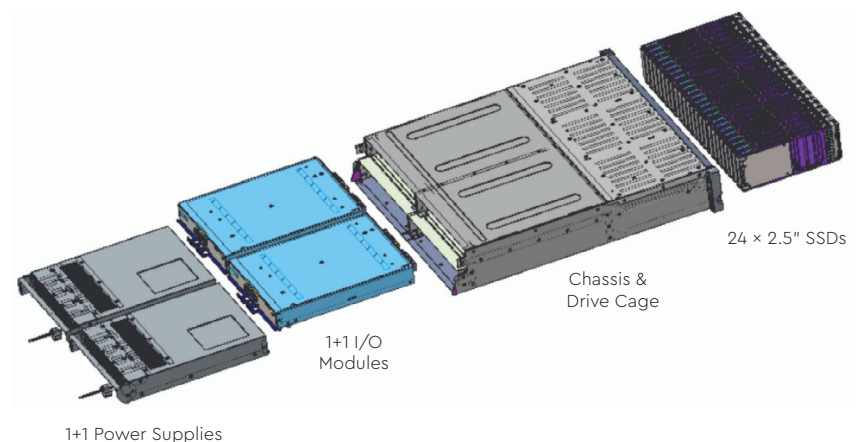

24 × 2.5" SSDs

Chassis & Drive Cage

1+1 I/O Modules

1+1 Power Supplies

Figure 1. Platform Layout

One MB is equal to one million bytes, one GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to storage capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drives, the operating system and other factors.

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Platform Models, Capacity and Performance

Model Number	1ES0243	1ES0241	1ES0242	1ES0240	1ES0107	1ES0110	1ES0108	1ES0111
SSD Type	SATA, 960GB		SATA, 1.92TB		SAS, 3.84TB		SAS, 7.68TB	
Endurance	Read-Intensive, 0.6DW/D				Read-Intensive, 1DW/D			
# of Drives	12	24	12	24	12	24	12	24
Capacity (TB)	11.52	23.04	23.04	46.08	46.08	92.16	92.16	183.32
4KB Random Read IOPS	735,000				3,000,000	4,700,000	3,000,000	4,700,00
4KB Random Write IOPS	312,000				336,000	672,000	264,000	528,000
Seq Read BW (MB/s)	5,700				21,350	23,000	17,800	23,000
Seq Write BW (MB/s)	4,600				12,350	23,000	12,100	23,000

Based on internal testing results or projections. Results and performance may vary according to system adoption, configuration and broader system architecture.

Specifications

Max. Drives	• 24 × 2.5" SSDs
Drive Interface	• 12Gb/s SAS or 6Gb/s SATA
Available SSD Capacities	• SAS (1DW/D): 3.84TB, 7.68TB • SATA (0.6DW/D): 960GB, 1.92TB
Host Interface	• 1+1 I/O Modules (IOM) (SAS: 2 IOM, SATA: 1 IOM), 3 Mini-SAS HD ports per IOM
Management	• SCSI Enclosure Services
LED Indicators	• Front/Rear: Power, ID, Fault
	• Drive: Activity, Fault
Physical Dimensions Height: Width: Depth:	• 87.4mm (3.44") • 446mm (17.56") • 536mm (21.1")
Weight	• Product without SSDs: 18.3kg (40.3lbs) • Product with 24 SSDs: 23.7kg (52.3lbs)
Power	• 1+1 600W, 80+ Gold • 90–264V AC input, auto ranging, 47–63Hz
Cooling	• 3 fan modules per power supply, front-to-rear system cooling • Fan speed turning via system management interface
Environmental Operating Temperature: Non-op Temperature: Humidity: Operating Altitude: Sound Power:	• 5 to 40°C • -40 to 60°C • 5 to 85% relative humidity • 40°C @ 3,000ft • < 7.2Bels @ 23±2°C
Serviceability	• Hot-swappable IOM, power supply and SSDs

Western Digital.