

# FlashRack® Ultra

## Highlights

- High-performance, fully redundant and secure all-flash array
- Up to 100 GbE, EDR InfiniBand, or 32G Fibre Channel
- Multiprotocol block, file, and object storage support
- Up to 768 TB raw capacity with full data encryption
- High availability with full redundancy and hot-swap
- Powerful data protection and management software
- Quick installation, easy support, and open architecture



## Advantages

- Record-setting: Up to 50 GBps and 5 million IOPs
- Open: No vendor lock-in to ensure the best value
- Secure: Data encryption and no single-point-of-failure
- Versatile: Unrivaled multiprotocol and QoS features
- Reliable: Non-stop availability and easy servicability
- Efficient: Consumes as little as 0.8 watts per raw TB
- Dense: Ultra-compact 2U rackmount, only 21" deep
- Transport: Support up to 256 TB SSPs (solid state packs)



## Secure Flash Array for Enterprise Infrastructure, Digital Content, and Managed Services Providers

FlashRack Ultra offers a high-performance, fully-redundant, and ultra-secure data storage platform for a broad range of data-intensive applications. With connectivity up to 100 GbE, EDR InfiniBand, and 32 Gb Fibre Channel, FlashUltra offers performance and versatility to take on your most critical block storage, file storage, and object storage requirements. Powered by Nimbus Data’s HALO software, FlashRack Ultra supports 12 different block (SAN), file (NAS), and object (S3) protocols on one platform for unmatched versatility. Using Flexspaces, FlashRack Ultra can be optimized for enterprise, digital content, databases, managed services, and archival storage, all using software that tunes the system to best suit the workload.

With its patented architecture, FlashRack Ultra delivers unmatched energy efficiency, speed, and density for modular storage. FlashRack Ultra offers up to 768 TB of encrypted raw capacity (or up to 2.5 PB with data reduction) using industry standard NVMe SSDs (up to 32 TB each) or Solid State Packs (up to 256 TB each). With Nimbus Data’s revolutionary open architecture and flat rate pricing, you also gain freedom – freedom from excessive capacity costs, freedom from vendor lock-in, and freedom from unfair support fees. FlashRack Ultra is backed by first-class 24x7x365 support, rapid parts replacement, a zero emissions pledge, and more.

## FlashRack Ultra - Specifications

<b>Performance</b>	Throughput Latency IOps	Up to 50 GBps (1 MB block size) As low as 20 µsec (4 KB block size) Up to 5 million (4 KB block size)
<b>Connectivity</b>	<b>Ethernet</b>  <b>Fibre Channel</b>  <b>InfiniBand</b>	Up to 6 x QSFP28 ports (100G/50G Ethernet) Up to 12 x SFP28 ports (25G/10G Ethernet)  Up to 8 x 32G Fibre Channel ports  Up to 6 x QSFP28 ports (EDR/100G InfiniBand)
<b>Storage</b>	Protocol Support Max Capacity (raw / potential) Flash Type	NVMe-oF (TCP/RoCE), iSCSI, iSER, FCP, SRP, NFS, SMB, AFP, S3, WebDAV, FTP 768 TB / 2.5 PB Up to 24 x SSDs or 3 x SSPs (Solid State Packs)
<b>System</b>	Built-in Ports Storage Controllers Redundant Hot-swap Components	4 x 10G SFP+ ports, 2 x GbE RJ-45 ports, 2 x console ports, 2 x USB ports Stateless massively-parallel write-through architecture (US Patent 9,268,501) Controllers, SSDs, power supplies, fans, and optical transceivers
<b>Platform Support</b>	Operating System Support Virtualization Support	Windows Server, Linux, MacOS VMware vSphere, Citrix XenServer, RHEV, Microsoft Hyper-V, KVM
<b>Dimensions</b>	Height Width Depth Weight (maximum)	2U (3.5 in or 89 mm) 17.6 in or 447 mm 21.0 in in or 533 mm 68.0 lbs or 30.8 kg
<b>Power</b>	Voltage Frequency Power Consumption	100 - 240 VAC 48 - 62 Hz 700 W typical (1100 W max)
<b>Environmental</b>	Ambient Temperature Relative Humidity Altitude	Operating: 10 to 50 °C, Non-operating: 0 to 70 °C Operating: 10% to 80%, Non-operating: 5% to 95% (non-condensing) Operating: -50 to 3000 m, Non-operating: -100 to 12,192 m
<b>Shock &amp; Vibration</b>	Operational Shock Operational Vibration Non-operational Shock Non-operational Vibration	5G for 11ms, 1/2 sine wave pulse 0.15G at 5-500 Hz 10G for 11ms, 1/2 sine wave pulse 0.5G for 5-500 Hz
<b>Agency Approvals</b>	CE Mark, EN55022/EN61000 Class A, FCC Class A, Canadian IECES-003, VCCI Class A, ISO 9002 manufacturing	
<b>Warranty &amp; Support</b>	Tectonic program for up to 10 years, includes 24x7x365 support, rapid parts replacement, emissions offsets	

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