NIMBUS DATA

Datasheet

FlashRack® Turbo

Highlights

- Ultra high-performance and secure all-flash array
- Up to 400 GbE, NDR InfiniBand, or 64G Fibre Channel
- Multiprotocol block, file, and object storage support
- Up to 1.5 PB 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 100 GBps and 10 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 0.5 watts per raw TB
- Dense: Ultra-compact 2U rackmount, only 21” deep
- Transport: Support up to 512 TB SSPs (solid state packs)

Ultra-fast All-Flash Network Storage System for the Most Demanding Workloads

When it comes to performance, versatility, and efficiency, nothing beats FlashRack Turbo from Nimbus Data. With connectivity up to 400 GbE, NDR InfiniBand, and 64 Gb Fibre Channel, FlashRack Turbo can achieve up to 100 GBps in a compact yet powerful 2U system. Powered by Nimbus Data’s HALO software, FlashRack Turbo supports 12 different block (SAN), file (NAS), and object (S3) protocols on one platform for unmatched versatility. Using Flexspaces, FlashRack Turbo can be optimized for enterprise, AI, technical computing, databases, digital media, and archival storage, all using software that tunes the data pipeline to best suit the workload. Thin provisioning, deduplication, compression, checksums, snapshots, and replication are included.

With its patented architecture, FlashRack Turbo delivers unmatched energy efficiency, speed, and density for modular storage. FlashRack Turbo offers up to 1.5 PB of encrypted raw capacity (or up to 5.0 PB with data reduction) using industry standard NVMe SSDs (up to 64 TB each) or Solid State Packs (up to 512 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 Turbo is backed by first-class 24x7x365 support, rapid parts replacement, a zero emissions pledge, and more.

FlashRack Turbo - Specifications

Performance	Throughput Latency IOps	Up to 100 GBps (1 MB block size) As low as 20 µsec (4 KB block size) Up to 10 million (4 KB block size)
Connectivity	Ethernet Fibre Channel InfiniBand	Up to 2 x OSFP or QSFP112 ports (400G Ethernet) Up to 4 x QSFP56 ports (200G Ethernet) Up to 6 x QSFP28 ports (100G/50G Ethernet) Up to 12 x SFP28 ports (25G/10G Ethernet) Up to 4 x 64G Fibre Channel ports Up to 8 x 32G Fibre Channel ports Up to 2 x OSFP ports (NDR/400G InfiniBand) Up to 4 x QSFP56 ports (HDR/200G InfiniBand) Up to 6 x QSFP28 ports (EDR/100G InfiniBand)
Storage	Protocol Support Max Capacity (raw / potential) Flash Type	NVMe-oF (TCP/RoCE), iSCSI, iSER, FCP, SRP, NFS, SMB, AFP, S3, WebDAV, FTP 1.5 PB / 5.0 PB Up to 24 x SSDs or 3 x SSPs (Solid State Packs)
System	Built-in Ports Storage Controllers Redundant Hot-swap Components	2 x SFP28 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
Platform Support	Operating System Support Virtualization Support	Windows Server, Linux, MacOS VMware vSphere, Citrix XenServer, RHEV, Microsoft Hyper-V, KVM
Dimensions	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
Power	Voltage Frequency Power Consumption	100 - 240 VAC 48 - 62 Hz 900 W typical (1100 W max)
Environmental	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
Shock & Vibration	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
Agency Approvals	CE Mark, EN55022/EN61000 Class A, FCC Class A, Canadian IECS-003, VCCI Class A, ISO 9002 manufacturing	
Warranty & Support	Tectonic program for up to 10 years, includes 24x7x365 support, rapid parts replacement, emissions offsets	

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