

Unrivalled NVMe performance and endurance for the most demanding data center workloads.

Solution Overview

The ScaleFlux 3000 series of NVMe-based SSDs combine industry leading performance with innovative computational storage capabilities to deliver value unmatched by ordinary NVMe drives. The NSD 3000 offers a pure NVMe experience with built-in transparent compression and encryption. The CSD 3000 opens the door to extended drive capacities and custom designed computational functionality to extract the most value from your data-intensive applications.



Key Specifications & Performance

Form Factors	2.5" U.3 (15mm), E1.x (15mm, 25mm), HHHL AIC
Default Capacities	3.84TB, 7.68TB, 15.26TB
Host Interface	PCIe® Gen4 x4 with Dual Port Support (2x2)
Virtualization	SR-IOV with 15 Virtual Functions
Security	TCG Opal 2.1 with HW Security Acceleration
Management	NVMe-MI 1.2 over SMBus
Power	<20W Typical, <5W Idle
Reliability	End-to-End Datapath Protection, Power Loss Protection, LDPC Error Correction, NAND Die RAID

Sequential Read	7.0 GB/s
Sequential Write	5.4 GB/s
Random Read (4kB)	1500 kIOPS
Random Write (4kB)	200 kIOPS
Random Write Performance Boost with Compressible Data (2:1)	900 kIOPS (4.5X)

7.68TB Capacity in Steady State

Introducing the ScaleFlux Storage Processor
The 3000 series is powered by the ScaleFlux SFX 3000 Storage Processor. A custom SoC powerhouse with ARM® processors and dedicated hardware acceleration to power the future of computational storage.



	NSD 3000	CSD 3000
Transparent Compression & Decompression	✓	✓
Leading IO Performance & Low Latency	✓	✓
Enhanced Endurance	✓	✓
Available with TLC & QLC Flash	✓	✓
NVMe Compliant	✓	✓
Data-at-Rest Encryption with TCG Opal	✓	✓
Extendable Capacity		✓
Programmable ARM® Cores		✓
Hardware Acceleration Engines		✓