

nvNITRO™ Accelerator Card (MRAM NVMe PCIe SSD)

MRAM NVMe PCIe SSD

The nvNITRO Accelerator Card is a revolutionary MRAM based SSD that has the high speed and high endurance of DRAMs combined with the non-volatility of Flash, all without the need for power backup.

Powered by Everspin, nvNITRO, this product can be used for metadata caching to dramatically accelerate write performance without the need for battery backup. SMART's new nvNITRO Accelerator Card is the first in an emerging lineup of MRAM-based persistent memory products. SMART Modular Technologies is a member of NVM Express.

Specifications

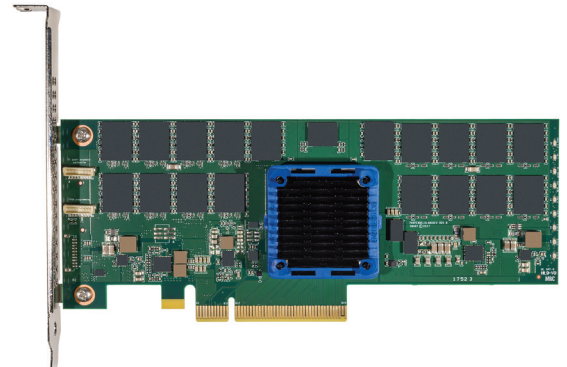
Form Factor	PCIe HHHL (Half Height Half Length)
Interface	PCIe Gen3 x8
Capacity	1GB
NVMe 1.2.1 (MMIO Block Mode) Protocol/Access Modes	Block Mode (NVMe), Direct Access Mode (MMIO)
Performance IOPs (R/W) (4K random R/W)	1.5M/1.5M (x8 PCIe)
Latency (R/W) QD = 1	6µs (Read)/<7µs (Write)
Customer Defined Features	Customers may optionally program onboard FPGA with their own RTL to extend features/functions
Endurance	Unlimited uniform endurance

MRAM Ordering Information

nvNITRO Storage Accelerator	
SMART Part Number	Density
SSPE8N1LXLAM36BEV	1GB

Features & Benefits

- Amazingly fast performance - 1.5 Million+ IOPS (4K Random Read/Write)
- Consistent, ultra-low latency with a short tail (as low as 2µS, end to end)
- Two access modes - NVMe SSD and Direct Access (MMIO)
- Persistent, non-volatile, no need for batteries or supercapacitors



Applications

- Storage arrays
- File systems
- Tiering and OLTP log cache
- Remote, shared persistent memory

Contact information

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