

EXPRESSvault3 (EV3) PCIe 3.0

Cache Data Protection

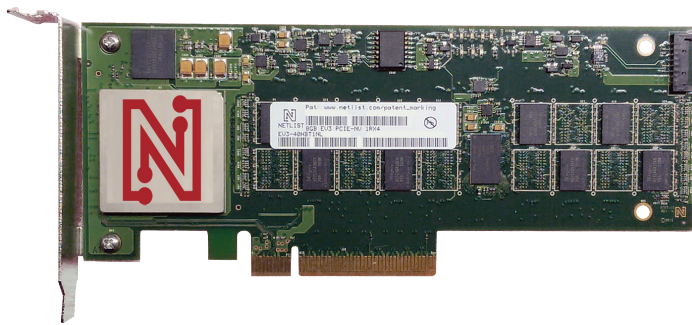
Product Brief



NETLIST

Netlist EXPRESSvault3 (EV3)

EXPRESSvault is a plug 'n play PCI Express cache data protection card that protects mission critical data during system failure and provides near instantaneous data recovery.



Overview

In the event of a system failure, subsystems with battery backed units (BBUs) require IT managers and technicians to respond quickly to recover the vital data upon a power fail condition – often within 24 to 72 hours – otherwise the data is lost and unrecoverable.

EXPRESSvault addresses these challenges with an architecture that ensures data in memory is immediately and reliably backed up without the use of expensive, inefficient UPS or battery technologies.

Applications

Server / Datacenter

- High Performance All-Flash-Arrays
- Scale-Out Storage Systems
- In-Memory Databases
- SQL, NOSQL Databases
- Distributed File System
- Online Transaction Processing (OLTP)
- Server-Side Caching

Storage

- De-dup
- Indexing
- Compression
- Encryption
- Mapping

EXPRESSvault

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Product Brief

Features

- NVDIMM Densities: 4 GB, 8 GB, 16 GB
- PCI Express Generation 3 (x8 lane)
- Low Profile Form Factor: 167.65 x 68.9 mm (L x H)
- Recharge time < 3 minutes
- Tethered supercapacitor for backup power
- Unlimited writes and endurance
- DRAM performance, NAND persistence
- Multi-card support

Benefits

- Multiple capacity options for different applications
- Industry standard interface, agnostic to hardware
- Small form factor for 1U rack solutions
- Fast recovery to mitigate brown-outs
- Maintenance-free back-up in case of power failure
- Targeted at hot data and meta data
- Commit of data in microseconds, fast cache rebuild
- Scalable performance

EXPRESSvault3 (EV3)	
NVRAM Capacity	4 GB, 8 GB, 16 GB
Protocol	PCI Express (PCIe) 3.0 (x8)
Application Interface	IOCTL, DMA
Operating System Support	32 / 64-bit Ubuntu / CentOS / Red Hat
Open Source Drive	Proprietary / Open - Kernel 3.18
Device Support	Block and Character
Supercapacitor	Off-DIMM
Form-Factor	Half-Height, Half-Length
Random R/W Performance	250K IOPs / 4 KB
Bandwidth	6.5 GB/s
Latency	10 us to 15 us
Energy	Supercapacitor, Recharge Time: < 3 minutes (8GB NVRAM)
Enterprise Class Features	Health Monitoring, Firmware Update, Configuration, Data Protection
Availability	March 2015
Warranty	3-year limited warranty, advanced replacement option

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