

Cost-Effective Memory Scale

The Liquid LQD3900 harnesses the performance and endurance of Intel® Optane™ Technology in a PCIe Add-in-Card (AIC) SSD formfactor, powered by Liquid's storage fabric technology. When coupled with MemVerge software Liquid can extend system memory transparently. MemVerge integrates the LQD3900 into the memory subsystem, making it appear as DRAM to the OS and applications, with zero changes required to either one, unlocking higher user capacity and application performance. Achieving DRAM memory-like speeds, the Liquid and Intel Optane solution suite is available in capacities of up to 1.50 TB.

This unique collaboration between Liquid and Intel® delivers ultra-thin, standard half-height half-length (HHHL) form factor devices that work seamlessly with systems with available PCIe slots. A Gen 3.0 x8 PCIe interface unlocks ultra-high throughput and low latency performance. The AIC outperforms legacy SSD design, delivering 1.6 M IOPS of random performance, over 7 GB/s of throughput and ultra-low transactional latency of <10 µs.

- > Ultra Fast PCIe Gen 3.0 x8 Interface
- > Performance of 1.6 M IOPS and 7 GB/s
- > Up to 1.50 TB
- > MemVerge for DRAM Emulation

Key Features

- High Performance Intel® Optane™ Technology
- Ultra Fast PCIe 3.0 x8 Interface
- NVMe 1.0 Protocol Supported
- High Capacity Design, up to 1.50TB
- Standard Form Factor SSD
- Low Profile HHHL Card
- Plug-n-Play Compatibility
- UEFI Boot Support
- Enterprise Grade Reliability
- Non-Volatile Storage Media
- Active Thermal Throttling
- Active Power Management
- Advanced ECC and Data Protection
- Advanced Error Recovery
- Active Telemetry Monitoring
- Low Overhead Architecture
- MemVerge Software Support for DRAM Emulation

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Specification

Model: Element LQD3900 PCIe AIC SSD

Raw Capacity	Up to 1.50 TB
Media Type	Intel® Optane™ Technology
Read Bandwidth (GB/s)	~7.0
Write Bandwidth (GB/s)	~7.0
Ran. Read IOPS (4k)	~1,600,000
Ran. Write IOPS (4k)	~1,600,000
Ran. Write IOPS (4k) (SS)	~1,600,000
Read Access Latency	~10 µs
Write Access Latency	~10 µs
Protocol	NVMe 1.0
Bus Interface	PCI Express 3.0 x8
Endurance	Up to 164 PBW*
Security	256 Bits AES Data Encryption
Weight	6-10 oz
Warranty	3 years, or maximum endurance used
Form Factor	Standard Form Factor HHHL Card
Temperature	Op: 0 to 55 deg C Non-Op: -40 to 75 deg C
Power	Active: ~30 W Typical Input: 12 V Only (optional aux power cable)
Air Flow	Min 400 LFM
Humidity	5% to 95% (non-condensing)
Altitude	0 ft to 10,000 ft
Operating Environments	Windows, Windows Server 2012, 2012 R2 RHEL; SLES; CentOS, Solaris, SUSE, VMware
Agency & Safety	UL, CB, CE, CCS, KCC, HF, BSMI, VCCI, FCC Class B and CISPR Class B, JEDEC

*PBW table per capacity/configuration available upon request

About Liqid

A leader in composable infrastructure, Liqid enables users to configure and manage physical, bare-metal server systems in seconds. Storage, compute, networking and graphics processing devices are interconnected over PCI-Express fabric to deliver dynamically configurable bare-metal servers perfectly sized with the exact physical resources required by the application being deployed.

Selections

Liquid and Intel® Optane™ SSD:

LQD-E1APNIA04P001T50

1.50TB, Intel® Optane™, NVMe PCIe Gen 3.0 x8 HHHL AIC SSD

LQD-E1APNIA04P800T00

800GB, Intel® Optane™, NVMe PCIe Gen 3.0 x8 HHHL AIC SSD

Liquid and Intel® Optane™ Persistent Memory:

LQD-E1APNIA04PM001T50

1.50TB, Intel® Optane™ Memory, NVMe PCIe Gen 3.0 x8 HHHL AIC SSD

LQD-E1APNIA04PM800G00

800GB, Intel® Optane™ Memory, NVMe PCIe Gen 3.0 x8 HHHL AIC SSD

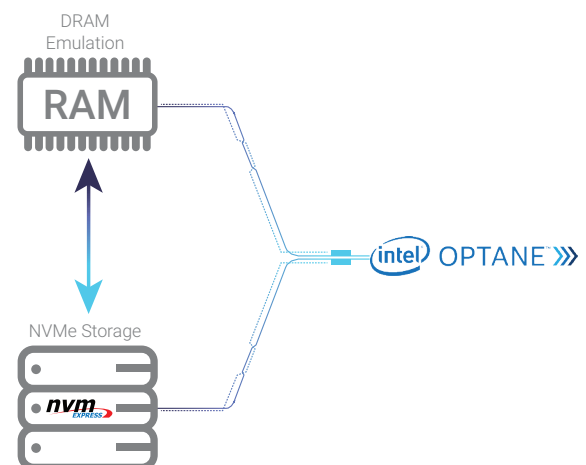
Please contact your sales rep for more information and to determine which configuration is best for use. Specification subject to change without notice.

Contact Information

Liquid, Inc.
329 Interlocken Pkwy., Ste 200
Broomfield, CO 80021
office: +1 303.500.1551
email: sales@liqid.com

Liquid and Intel® Optane™ Technology

MemVerge software enables the Liquid and Intel® Optane™ solutions to be fully integrated into the memory subsystem and presented transparently to the OS and applications layer as native DRAM. The technology also supports NVMe storage without DRAM emulation.



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