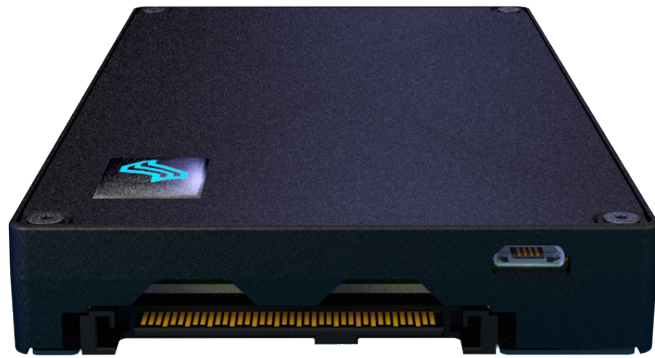




Element LQD3925x and LQD3925xd  
PCIe U.2 Extended SSD Specifications



## Taking aim at DRAM

Liquid and Intel® Optane™ Technology U.2 solid state drive (SSD) solutions combine the unparalleled high-throughput, low-latency, quality of service (QoS) and endurance of Intel Optane SSDs with Liquid's industry-leading PCIe fabrics to deliver 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 for high-value workloads.

The U.2 form factor offers a hot pluggable Gen 3.0 PCIe interface with single- and dual-port configurations, which enables high throughput and high availability. It utilizes the latest NVMe protocol in order to deliver increased performance and efficiency from a single device. The U.2 outperforms legacy architectures by delivering up to 3.60 GB/s throughput and 850 K IOPS of random performance and ultra-low transactional latency of <10 µs.

The Liquid solutions also supports Intel® Memory Drive Technology software that extends system memory transparently. Intel® Memory Drive Technology integrates the SSD into the memory subsystem and makes it appear like DRAM to the OS and applications. As a fully transparent memory solution, no changes are required to the OS or applications.

- > NVMe PCIe Gen 3.0 x4 Interface
- > x4 Single-Port or x2 x2 Dual-Port
- > High-capacity Intel® Optane™ SSSD up to 1.50 TB
- > Intel® Memory Drive Technology Software for DRAM Emulation

### Key Features

- |  |  |
|--|--|
| - High Performance Intel® Optane™ Technology | - Hot Plug   |
| - NVMe 1.0 Protocol Supported                | - Active Thermal Throttling  |
| - High Capacity Design, up to 1.50 TB        | - Active Power Management  |
| - Standard Form Factor SSD                   | - Advanced ECC and Data Protection                                   |
| - 2.5" U.2 Form Factor Extended              | - Advanced Error Recovery  |
| - Plug-n-Play Compatibility                  | - Active Telemetry Monitoring  |
| - UEFI Boot Support                          | - Low Overhead Architecture  |
| - Enterprise Grade Reliability               | - No Host CPU or DRAM Off Load                                       |
| - Power Loss Data Protection                 | - RAID on Card Supported   |
| - Dual Port (x2 x2 Active/Active)            | - Intel® Memory Drive Technology Software Support for DRAM Emulation |
| - Single-Port (x4)                           |  |

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**Specification**

**Model: Element LQD3925x SSD**

Raw Capacity	Up to 1.50 TB
Media Type	Intel® Optane™ Technology
Read Bandwidth (GB/s)	~3.60
Write Bandwidth (GB/s)	~3.60
Ran. Read IOPS (4k)	~850,000
Ran. Write IOPS (4k)	~850,000
Ran. Write IOPS (4k) (SS)	~850,000
Read Access Latency	~10 µs
Write Access Latency	~10 µs
Protocol	NVMe 1.0
Bus Interface	PCI Express 3.0 x4 or x2 x2
Endurance*	Up to 164 PBW*
Security	256 Bits AES Data Encryption
Redundancy	x2 x2 Dual Port (Active/Active)
Warranty	3 years, or maximum endurance used
Form Factor	2.5" U.2 Form Factor (130mm) Extended Length
Temperature	Op: 0 to 55 deg C Non-Op: -40 to 75 deg C
Power	Active: ~25 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 Liquid

A leader in composable infrastructure, Liquid 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**

LQD3925x (Single-Port):

LQD-E1TPNIA04P001T50-S104-N1

1.50TB, Intel® Optane™, NVMe PCIe Gen 3.0 x4 single-port 1x4 U.2x SSD

LQD-E1TPNIA04P800G00-S104-N1

800GB, Intel® Optane™, NVMe PCIe Gen 3.0 x4 single-port 1x4 U.2x SSD

LQD3925xd (Dual-Port):

LQD-E1TPNIA04P001T50-M202-N1

1.50TB, Intel® Optane™, NVMe PCIe Gen 3.0 x4 dual-port 2x2 U.2x SSD

LQD-E1TPNIA04P800G00-M202-N1

800GB, Intel® Optane™, NVMe PCIe Gen 3.0 x4 dual-port 2x2 U.2x SSD

**Liquid and Intel® Optane™ Persistent Memory**

LQD-E1TPNIA04PM001T50-N1

1.50TB, Intel® Optane™ Memory, NVMe PCIe Gen 3.0 x4 U.2x SSD

LQD-E1TPNIA04PM800G00-N1

800GB, Intel® Optane™ Memory, NVMe PCIe Gen 3.0 x4 U.2x SSD

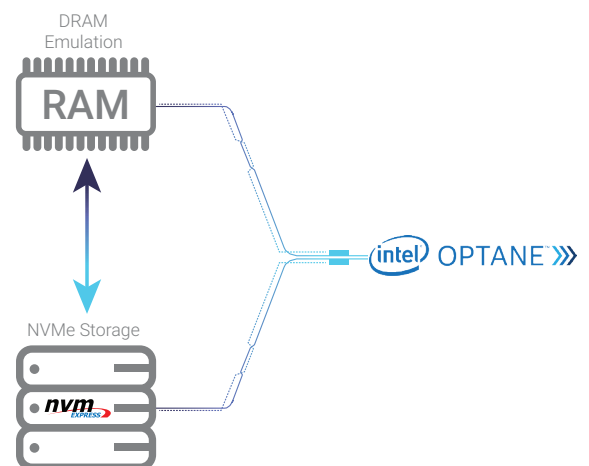
Please contact your sales rep for more information and to determine which configuration is best for use. Specification subject to change without notice.

**Contact Information**

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**Liquid and Intel® Optane™ Technology**

Intel® Memory Drive Technology (IMDT) 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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