

Liqid LQD4500 IO Accelerator Elevate Data Performance



In data-driven environments, unlocking the full potential of data performance is paramount. Introducing the Liqid Element LQD4500 IO Accelerator — an advanced storage solution engineered to shatter performance barriers and redefine what's possible. Designed to deliver uncompromised data IO performance and responsiveness, the LQD4500 empowers you to accelerate results.

With the capability to deliver an astounding 4 million IOPS of random read performance, coupled with over 26 GB/s of read throughput, it surpasses conventional SSDs, providing the robust foundation your data-intensive applications demand. The ultralow transactional latency of just 10 microseconds ensures that every data interaction occurs at the speed of now.

Storage demands are experiencing exponential growth, and with capacities reaching up to a remarkable 32 terabytes, the LQD4500 equips you to handle vast datasets without compromise. Whether you're navigating complex simulations, conducting expansive analytics, or managing rich multimedia content, the LQD4500 offers substantial headroom.

- > Ultra Fast PCIe Gen 4.0 x16 Interface
- > Performance of 4 M IOPS and 26 GB/s
- > High-capacity NVMe SSD, up to 32 TB
- > Enterprise-class Power Failure Protection

Key Features

- Ultra-High Performance
- PCIe 4.0 x16 Interface
- NVMe 1.3 Protocol
- High Capacity, up to 32 TB
- Single Width FHFL
- Plug-n-Play Compatibility
- UEFI Boot Support
- Enterprise Grade Reliability
- Power Loss Data Protection
- Active Thermal Throttling

- Active Power Management
- Advanced ECC and Data Protection
- Advanced Error Recovery
- Active Telemetry Monitoring
- Low Overhead Architecture
- No Host CPU or DRAM Off Load
- Software or OS RAID Supported Data Protection



Technical Specifications

Raw Capacity Up to 32TB NAND Type TLC 3D NAND Read Bandwidth Up to 13GB/s Throughput Write Bandwidth Up to 13GB/s Throughput Up to 4M IOPS Random 4K Read IOPS Up to 900K IOPS Min Read Latency 70µs Min Write Latency Protocol NVMe 1.3 Bus Interface PCI Express 4.0 x16 Endurance Up to 61.53 PBW / 2 DWPD* Security 256-bit AES Data Encryption Weight 20 oz Warranty 3 years or maximum endurance used Form Factor FHFL Single Width Operating Temperature Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C Power Active: 12VDC / ~75W Airflow Min 400 LFM Humidity 5% to 95% (non-condensing) Altitude Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware Agency & Safety UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a Class A device	rechinical Specifications	
Read Bandwidth Write Bandwidth Up to 26GB/s Throughput Write Bandwidth Up to 13GB/s Throughput Random 4K Read IOPS Up to 4M IOPS Random 4K Write IOPS Up to 900K IOPS Min Read Latency 70µs Min Write Latency 10µs Protocol NVMe 1.3 Bus Interface PCI Express 4.0 x16 Endurance Up to 61.53 PBW / 2 DWPD* Security 256-bit AES Data Encryption Weight 20 oz Warranty 3 years or maximum endurance used Form Factor FHFL Single Width Operating Temperature Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C Power Active: 12VDC / ~75W Airflow Humidity 5% to 95% (non-condensing) Altitude Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Model	Liqid LQD4500 IO Accelerator
Read Bandwidth Up to 13GB/s Throughput Write Bandwidth Up to 13GB/s Throughput Random 4K Read IOPS Up to 900K IOPS Min Read Latency 70μs Min Write Latency 10μs Protocol NVMe 1.3 Bus Interface PCI Express 4.0 x16 Endurance Up to 61.53 PBW / 2 DWPD* Security 256-bit AES Data Encryption Weight 20 oz Warranty 3 years or maximum endurance used Form Factor FHFL Single Width Operating Temperature Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C Power Active: 12VDC / ~75W Airflow Humidity Altitude Oft to 10,000 ft Up to 61,58, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Raw Capacity	Up to 32TB
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Random 4K Read IOPS Up to 4M IOPS Random 4K Write IOPS Up to 900K IOPS Min Read Latency 70µs Min Write Latency Protocol NVMe 1.3 Bus Interface PCI Express 4.0 x16 Endurance Up to 61.53 PBW / 2 DWPD* Security 256-bit AES Data Encryption Weight 20 oz Warranty 3 years or maximum endurance used Form Factor FHFL Single Width Operating Temperature Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C Power Active: 12VDC / ~75W Airflow Min 400 LFM Humidity 5% to 95% (non-condensing) Altitude O ft to 10,000 ft Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware Agency & Safety UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Read Bandwidth	Up to 26GB/s Throughput
Random 4K Write IOPS Up to 900K IOPS Min Read Latency 70μs Min Write Latency 10μs Protocol NVMe 1.3 Bus Interface PCI Express 4.0 x16 Endurance Up to 61.53 PBW / 2 DWPD* Security 256-bit AES Data Encryption Weight 20 oz Warranty 3 years or maximum endurance used Form Factor FHFL Single Width Operating Temperature Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C Power Active: 12VDC / ~75W Airflow Min 400 LFM Humidity 5% to 95% (non-condensing) Altitude 0 ft to 10,000 ft Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware Agency & Safety UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Write Bandwidth	Up to 13GB/s Throughput
Min Read Latency70μsMin Write Latency10μsProtocolNVMe 1.3Bus InterfacePCI Express 4.0 x16EnduranceUp to 61.53 PBW / 2 DWPD*Security256-bit AES Data EncryptionWeight20 ozWarranty3 years or maximum endurance usedForm FactorFHFL Single WidthOperating TemperatureOp: 0 to 55 deg C / Non-Op: -40 to 75 deg CPowerActive: 12VDC / ~75WAirflowMin 400 LFMHumidity5% to 95% (non-condensing)Altitude0 ft to 10,000 ftOperating SystemsWindows, RHEL, SLES, CentOS, Solaris, SUSE, VMwareAgency & SafetyUL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Random 4K Read IOPS	Up to 4M IOPS
Min Write Latency Protocol NVMe 1.3 Bus Interface PCI Express 4.0 x16 Endurance Up to 61.53 PBW / 2 DWPD* Security 256-bit AES Data Encryption Weight 20 oz Warranty 3 years or maximum endurance used Form Factor FHFL Single Width Operating Temperature Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C Power Active: 12VDC / ~75W Airflow Min 400 LFM Humidity 5% to 95% (non-condensing) Altitude Of to 10,000 ft Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Random 4K Write IOPS	Up to 900K IOPS
Protocol NVMe 1.3 Bus Interface PCI Express 4.0 x16 Endurance Up to 61.53 PBW / 2 DWPD* Security 256-bit AES Data Encryption Weight 20 oz Warranty 3 years or maximum endurance used Form Factor FHFL Single Width Operating Temperature Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C Power Active: 12VDC / ~75W Airflow Min 400 LFM Humidity 5% to 95% (non-condensing) Altitude Oft to 10,000 ft Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware Agency & Safety UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Min Read Latency	70µs
Bus Interface PCI Express 4.0 x16 Endurance Up to 61.53 PBW / 2 DWPD* Security 256-bit AES Data Encryption Weight 20 oz Warranty 3 years or maximum endurance used Form Factor FHFL Single Width Operating Temperature Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C Power Active: 12VDC / ~75W Airflow Min 400 LFM Humidity 5% to 95% (non-condensing) Altitude 0 ft to 10,000 ft Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware Agency & Safety UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Min Write Latency	10µs
Endurance Up to 61.53 PBW / 2 DWPD* Security 256-bit AES Data Encryption Weight 20 oz Warranty 3 years or maximum endurance used Form Factor FHFL Single Width Operating Temperature Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C Power Active: 12VDC / ~75W Airflow Min 400 LFM Humidity 5% to 95% (non-condensing) Altitude Of to 10,000 ft Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Protocol	NVMe 1.3
Security256-bit AES Data EncryptionWeight20 ozWarranty3 years or maximum endurance usedForm FactorFHFL Single WidthOperating TemperatureOp: 0 to 55 deg C / Non-Op: -40 to 75 deg CPowerActive: 12VDC / ~75WAirflowMin 400 LFMHumidity5% to 95% (non-condensing)Altitude0 ft to 10,000 ftOperating SystemsWindows, RHEL, SLES, CentOS, Solaris, SUSE, VMwareAgency & SafetyUL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Bus Interface	PCI Express 4.0 x16
Weight 20 oz Warranty 3 years or maximum endurance used Form Factor FHFL Single Width Operating Temperature Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C Power Active: 12VDC / ~75W Airflow Min 400 LFM Humidity 5% to 95% (non-condensing) Altitude 0 ft to 10,000 ft Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Endurance	Up to 61.53 PBW / 2 DWPD*
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Form Factor FHFL Single Width Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C Power Active: 12VDC / ~75W Airflow Min 400 LFM Humidity 5% to 95% (non-condensing) Altitude Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Weight	20 oz
Operating TemperatureOp: 0 to 55 deg C / Non-Op: -40 to 75 deg CPowerActive: 12VDC / ~75WAirflowMin 400 LFMHumidity5% to 95% (non-condensing)Altitude0 ft to 10,000 ftOperating SystemsWindows, RHEL, SLES, CentOS, Solaris, SUSE, VMwareAgency & SafetyUL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Warranty	3 years or maximum endurance used
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Airflow Min 400 LFM 5% to 95% (non-condensing) Altitude Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Operating Temperature	Op: 0 to 55 deg C / Non-Op: -40 to 75 deg C
Humidity 5% to 95% (non-condensing) Altitude 0 ft to 10,000 ft Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Power	Active: 12VDC / ~75W
Altitude 0 ft to 10,000 ft Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Airflow	Min 400 LFM
Operating Systems Windows, RHEL, SLES, CentOS, Solaris, SUSE, VMware UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Humidity	5% to 95% (non-condensing)
VMware UL, CB, CE, CCS, KCC, HF, JEDEC, CNS, VCCI, FCC Part 15, Subpart B, and CISPR 32 for a	Altitude	0 ft to 10,000 ft
Agency & Safety FCC Part 15, Subpart B, and CISPR 32 for a	Operating Systems	
	Agency & Safety	FCC Part 15, Subpart B, and CISPR 32 for a

Data Center Series

7.68TB: L4500-007T68-040 15.36TB: L4500-015T36-040 30.72TB: L4500-030T72-040

Enterprise Series

6.4TB: L4500-006T40-040 12.8TB: L4500-012T80-040 25.6TB: L4500-025T60-040

Please contact your sales rep for more information and to determine which configuration is best to accomplish your company's specific goals. Specification subject to change without notice.

Contact Information

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 $[\]verb|*PBW/DWPD| table per capacity/configuration available upon request$