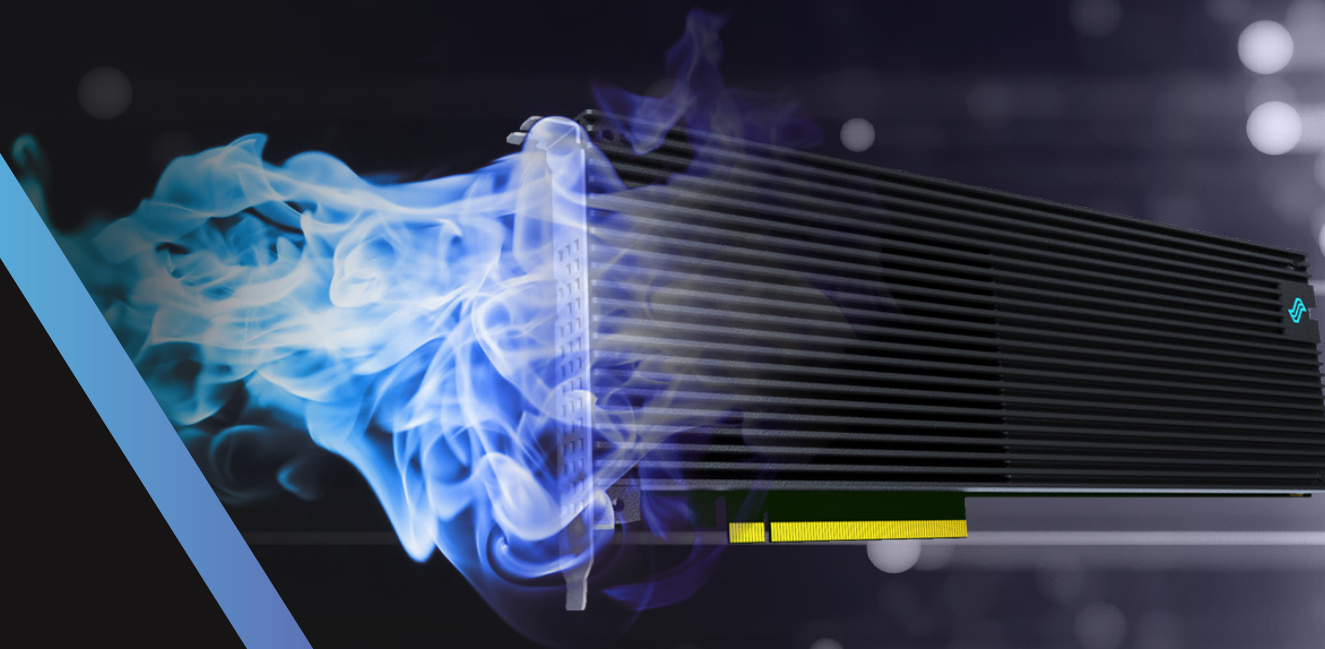




LQD4500 IO ACCELERATOR

Performance Test Report

6.4TB Capacity



LQD4500 IO ACCELERATOR

PERFORMANCE TEST REPORT – LQD4500 IO ACCELERATOR - 6.4TB

OVERVIEW

The report contains test results and performance measurements for the Liquid LQD4500 Gen4x16 NVMe IO Accelerator. The performance test reports include Sequential, Random, and Latency measurements. The following data was generated in a Linux OS environment, per SNIA enterprise performance test specification standards, and represent steady state activity after sufficient device preconditioning.

HEADQUARTERS

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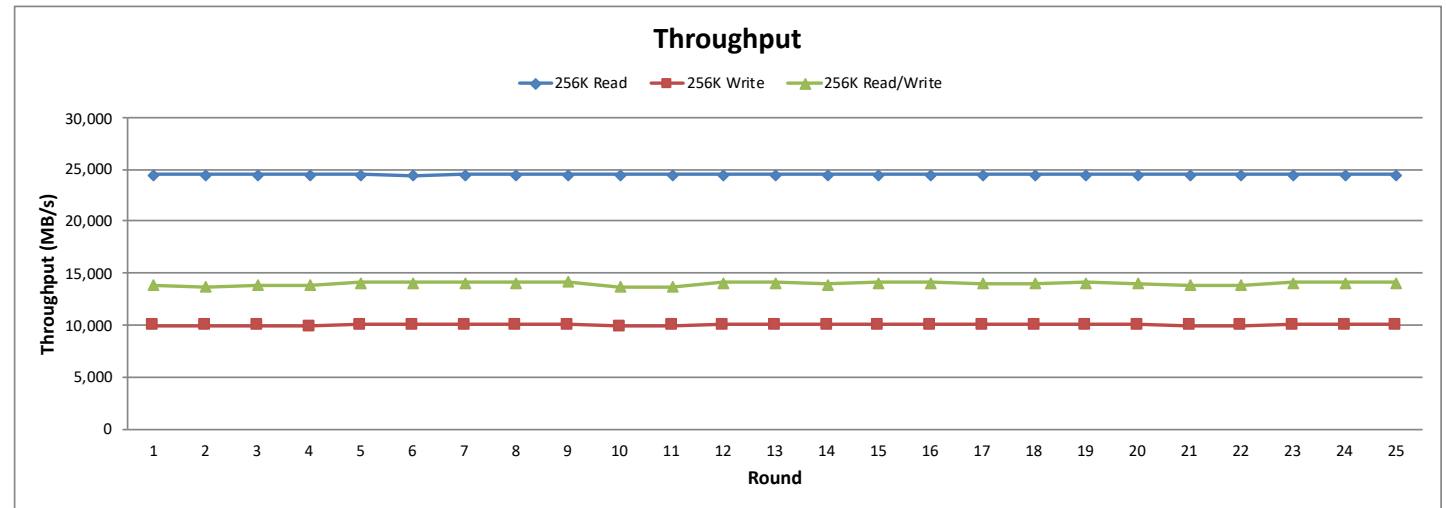
+ 1 303.500.1551



SEQUENTIAL BANDWIDTH

Throughput (MB/s)

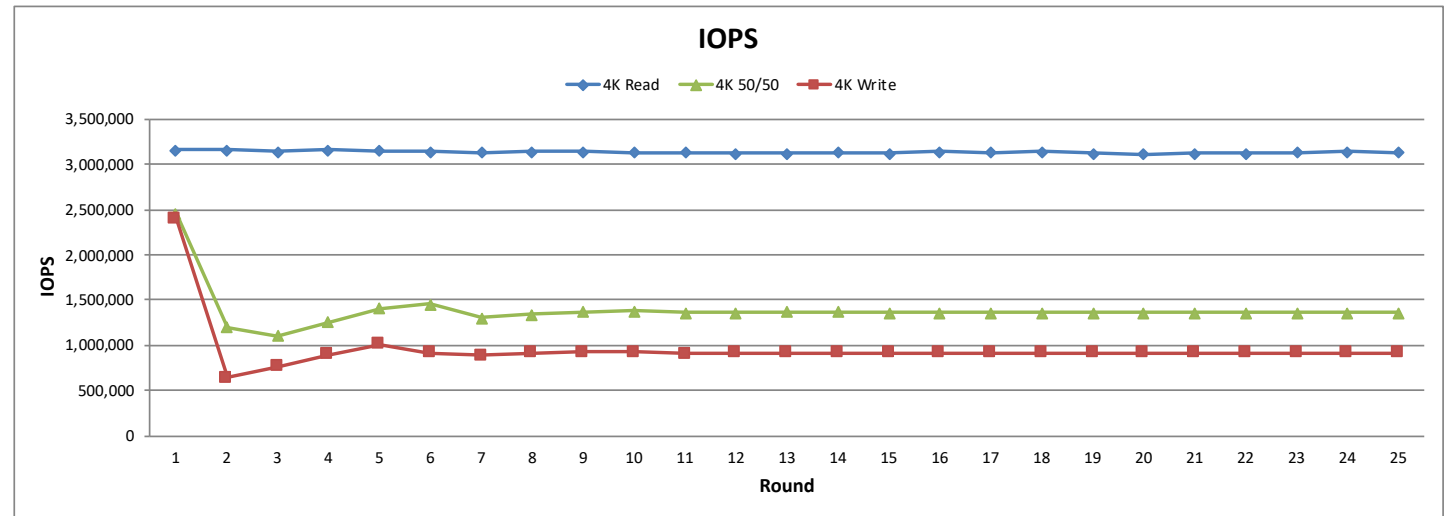
Block Size	Read / Write Mix%		
	100/0	50/50	0/100
128K	24,471 MB/s	13,834 MB/s	10,052 MB/s
256K	24,481 MB/s	14,002 MB/s	10,028 MB/s





RANDOM IOPS

IOPS			
Block Size	Read / Write Mix%		
	100/0	50/50	0/100
4K	3,138,001 IOPS	1,390,460 IOPS	961,663 IOPS
8K	1,794,673 IOPS	730,052 IOPS	479,889 IOPS





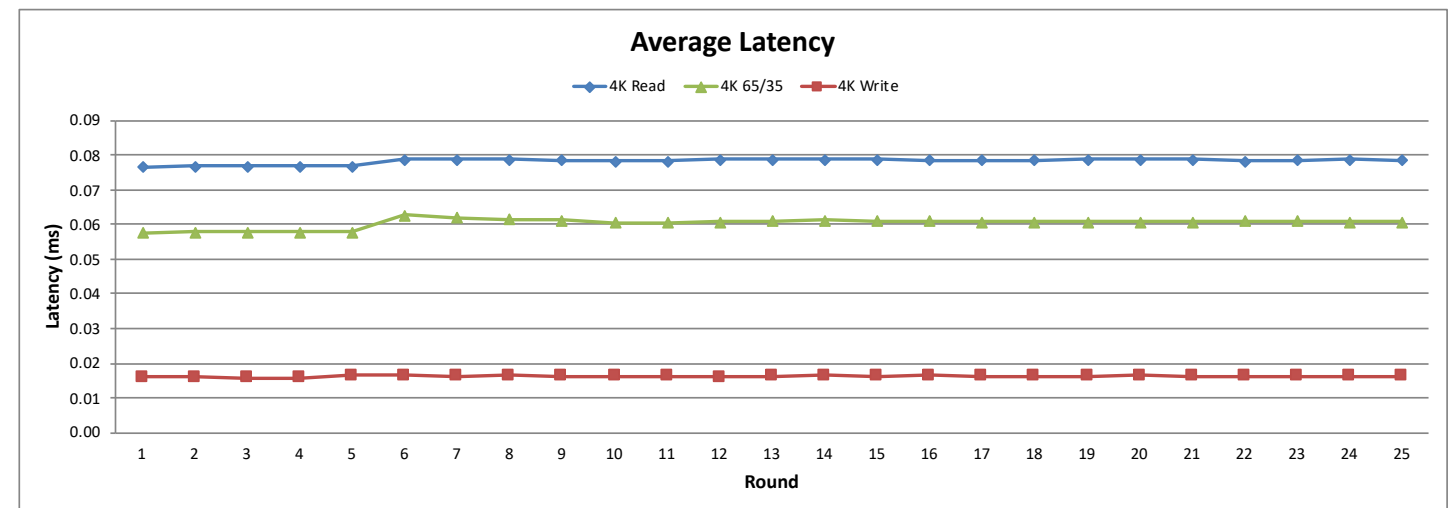
LATENCY

Average Latency (ms)

Block Size	Read / Write Mix%		
	100/0	65/35	0/100
0.5K	0.08 ms	0.06 ms	0.02 ms
4K	0.08 ms	0.06 ms	0.02 ms
8K	0.08 ms	0.07 ms	0.02 ms

Maximum Latency (ms)

Block Size	Read / Write Mix%		
	100/0	65/35	0/100
0.5K	47.66 ms	48.53 ms	41.51 ms
4K	43.72 ms	44.13 ms	40.49 ms
8K	47.66 ms	43.67 ms	46.01 ms





LQD4500 IO ACCELERATOR

PERFORMANCE TEST REPORT – LQD4500 IO ACCELERATOR - 6.4TB

THROUGHPUT

Device Information		Test Parameters		Details	
Model Number	Liquid_pHB_Samsung_960G	Active Range	100%	Purge	NVMe Format
Serial Number	19-45a-012	Thread Count	1	Precondition	2x 128K Seq Write
Firmware	EDA7202Q	Queue Depth	128	Test Tool	fio-3.1
Capacity	6.4 TB	Data Pattern	25% Compressible	Linux Kernel	5.0.0-37-generic
OP	28%	I/O Pattern	Sequential	System	NA

IOPS

Device Information		Test Parameters		Details	
Model Number	Liquid_pHB_Samsung_960G	Active Range	100%	Purge	NVMe Format
Serial Number	19-45a-012	Thread Count	8	Precondition	2x 128K Seq Write
Firmware	EDA7202Q	Queue Depth	64	Test Tool	fio-3.1
Capacity	6.4 TB	Data Pattern	25% Compressible	Linux Kernel	5.0.0-37-generic
OP	28%	I/O Pattern	Random	System	NA

LATENCY

Device Information		Test Parameters		Details	
Model Number	Liquid_pHB_Samsung_960G	Active Range	100%	Purge	NVMe Format
Serial Number	19-45a-012	Thread Count	1	Precondition	2x 128K Seq Write
Firmware	EDA7202Q	Queue Depth	1	Test Tool	fio-3.1
Capacity	6.4 TB	Data Pattern	25% Compressible	Linux Kernel	5.0.0-37-generic
OP	28%	I/O Pattern	Random	System	NA



LQD4500 IO ACCELERATOR

PERFORMANCE TEST REPORT – LQD4500 IO ACCELERATOR - 6.4TB

SUMMARY

This test report provides baseline performance results for the Liquid LQD4500 IO Accelerator. These test results can be correlated with test scripts provided by Liquid to customers on request to ensure consistent performance results.

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