Solutions - X2 - Mixed Workload

U.2						
	Capacity[1]	1600GB	3200GB	6400GB	12800GB	25600GB
Performance[2,3]	Sequential Read	14,800 MB/s	14,800 MB/s	14,800 MB/s	14,800 MB/s	TBD
	Sequential Write	4,300 MB/s	8,600 MB/s	8,700 MB/s	8,350 MB/s	TBD
	4K Random Read	2,400K IOPS	3,000K IOPS	3,000K IOPS	3,000K IOPS	TBD
	4K Random Write	400K IOPS	800K IOPS	900K IOPS	900K IOPS	TBD
Power Consumption[4] (Est.)	Max	25 W	25 W	25 W	30 W	35 W
	Idle	5 W	5 W	5 W	5 W	5 W
Latency	4K Random Read	60 µs	60 µs	60 µs	60 µs	60 µs
	4K Random Write	10 µs	10 µs	10 µs	10 µs	10 µs
E3.S						
	Capacity[1]	1600GB	3200GB	6400GB	12800GB	-
Performance[2,3]	Sequential Read	14,800 MB/s	14,800 MB/s	14,800 MB/s	14,800 MB/s	-
	Sequential Write	4,300 MB/s	8,600 MB/s	8,700 MB/s	8,350 MB/s	-
	4K Random Read	2,400K IOPS	3,000K IOPS	3,000K IOPS	3,000K IOPS	-
	4K Random Write	400K IOPS	800K IOPS	900K IOPS	900K IOPS	-
Power Consumption[4] (Est.)	Max	25 W	25 W	25 W	30 W	-
	Idle	5 W	5 W	5 W	5 W	-
Latency	4K Random Read	60 µs	60 µs	60 µs	60 µs	-
	4K Random Write	10 µs	10 µs	10 µs	10 µs	-

Features	
Interface	PCIe 5.0 x 4
NAND Flash	3D TLC
DWPD[5]	3
UBER	1 in 10^{18}
Operating Temperature	0°C - 70°C
Non-Operating Temperature	-40°C - 85°C

Key Features

Dual Port	Namespaces: 256[6]
Power Loss Data Protection	MF-QoS

(1) 1 GB = 1,000,000,000 bytes.
(2) Sequential Performance is based on FIO on Linux, 128K, with QD=32, 1 worker , and test drive set as secondary.
(3) Random Performance is based on FIO on Linux, 4K data size, QD=32, 1 worker, 4K aligned for writes, QD=128, 8 workers, 4K aligned for reads.
(4) Power consumption is measured during the sequential read/write and random read/write operations performed by iometer with the conditions described in (2)(3).
(5) The results of DWPD are obtained in compliance with JESD219A Standards.
(6) Maximum namespaces supported by X2 controller.

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Solutions - X2 - Read Intensive

U.2						
	Capacity[1]	1920GB	3840GB	7680GB	15360GB	30720GB
Performance[2,3]	Sequential Read	14,800 MB/s	14,800 MB/s	14,800 MB/s	14,800 MB/s	TBD
	Sequential Write	4,300 MB/s	8,600 MB/s	8,700 MB/s	8,350 MB/s	TBD
	4K Random Read	2,400K IOPS	3,000K IOPS	3,000K IOPS	3,000K IOPS	TBD
	4K Random Write	170K IOPS	380K IOPS	500K IOPS	500K IOPS	TBD
Power Consumption[4] (Est.)	Max	25 W	25 W	25 W	30 W	35 W
	Idle	5 W	5 W	5 W	5 W	5 W
Latency	4K Random Read	60 µs	60 µs	60 µs	60 µs	60 µs
	4K Random Write	10 µs	10 µs	10 µs	10 µs	10 µs
E3.S						
	Capacity[1]	1920GB	3840GB	7680GB	15360GB	-
Performance[2,3]	Sequential Read	14,800 MB/s	14,800 MB/s	14,800 MB/s	14,800 MB/s	-
	Sequential Write	4,300 MB/s	8,600 MB/s	8,700 MB/s	8,350 MB/s	-
	4K Random Read	2,400K IOPS	3,000K IOPS	3,000K IOPS	3,000K IOPS	-
	4K Random Write	170K IOPS	380K IOPS	500K IOPS	500K IOPS	-
Power Consumption[4] (Est.)	Max	25 W	25 W	25 W	30 W	-
	Idle	5 W	5 W	5 W	5 W	-
Latency	4K Random Read	60 µs	60 µs	60 µs	60 µs	-
	4K Random Write	10 µs	10 µs	10 µs	10 µs	-

Features	
Interface	PCIe 5.0 x 4
NAND Flash	3D TLC
DWPD[5]	1
UBER	1 in 10^{18}
Operating Temperature	0°C - 70°C
Non-Operating Temperature	-40°C - 85°C

Key Features

- Dual Port
- Power Loss Data Protection
- Namespaces: 256[6]
- MF-QoS

(1) 1 GB = 1,000,000,000 bytes.
(2) Sequential Performance is based on FIO on Linux, 128K, with QD=32, 1 worker , and test drive set as secondary.
(3) Random Performance is based on FIO on Linux, 4K data size, QD=32, 1 worker, 4K aligned for writes, QD=128, 8 workers, 4K aligned for reads.
(4) Power consumption is measured during the sequential read/write and random read/write operations performed by iometer with the conditions described in (2)(3).
(5) The results of DWPD are obtained in compliance with JESD219A Standards.
(6) Maximum namespaces supported by X2 controller.

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