

Solutions - E18DC - Read Intensive

M.2 2280					
	Capacity ⁽¹⁾	480GB	960GB	1920GB	-
Performance ^(2,3)	Sequential Read	6000 MB/s	6000 MB/s	6000 MB/s	-
	Sequential Write	700 MB/s	1400 MB/s	2000 MB/s	-
	4K Random Read	450K IOPS	750K IOPS	800K IOPS	-
	4K Random Write	25K IOPS	50K IOPS	60K IOPS	-
Power Consumption ⁽⁴⁾	Max	10.5 W	11.55 W	11.55 W	-
	Idle	4 W	4 W	4.2 W	-
Latency	4K Random Read	75 us	75 us	75 us	-
	4K Random Write	40 us	35 us	35 us	-
M.2 22110					
	Capacity ⁽¹⁾	480GB	960GB	1920GB	3840GB
Performance ^(2,3)	Sequential Read	6000 MB/s	6000 MB/s	6000 MB/s	4500 MB/s
	Sequential Write	700 MB/s	1400 MB/s	2000 MB/s	1700 MB/s
	4K Random Read	450K IOPS	750K IOPS	800K IOPS	400K IOPS
	4K Random Write	25K IOPS	50K IOPS	60K IOPS	50K IOPS
Power Consumption ⁽⁴⁾	Max	10.5 W	11.55 W	11.55 W	11.55 W
	Idle	4 W	4 W	4.2 W	4.2 W
Latency	4K Random Read	75 us	75 us	75 us	80 us
	4K Random Write	40 us	35 us	35 us	15 us
E1.S					
	Capacity ⁽¹⁾	480GB	960GB	1920GB	3840GB
Performance ^(2,3)	Sequential Read	5500 MB/s	5500 MB/s	5500 MB/s	5500 MB/s
	Sequential Write	700 MB/s	1400 MB/s	2000 MB/s	2000 MB/s
	4K Random Read	400K IOPS	600K IOPS	800K IOPS	800K IOPS
	4K Random Write	17K IOPS	34K IOPS	58K IOPS	58K IOPS
Power Consumption ⁽⁴⁾	Max	10.5 W	11.55 W	11.55 W	11.55 W
	Idle	4 W	4 W	4.2 W	4.2 W
Latency	4K Random Read	75 us	75 us	75 us	75 us
	4K Random Write	40 us	30 us	30 us	30 us
Features					
	Interface	PCIe 4.0 x4			
	NAND Flash	3D TLC			
	DWPD ⁽⁵⁾	1			
	UBER	1 in 10 ¹⁷			
	Operating Temperature	0°C - 70°C			
	Non-Operating Temperature	-40°C - 85°C			
Key Features					
	<ul style="list-style-type: none"> LDPC NVMe 1.4 End-to-End Data Protection 		<ul style="list-style-type: none"> TCG Opal 2.0⁽⁶⁾ Sanitize⁽⁶⁾ NVME-MI⁽⁶⁾ 		

(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.

(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) Supported by a separate firmware setting. Further information available upon request.



The data within this specification is subject to change by Phison without notice. Performance numbers may vary based on system configuration and testing conditions. Copyright © 2024 Phison Electronics. All rights reserved.