



ENTERPRISE D-SERIES

PCIe Gen5 Data Center Storage Solution in E1.S Form Factor

PASCARI D200

Sequential Read

Up to 14,000 MB/s

Sequential Write

Up to 8,500 MB/s

Random Read

Up to 3,300K IOPS

Random Write

Up to 880K IOPS

Interface

PCIe 5.0 x4

Capacity

Up to 7.68TB

Form Factor

E1.S

DWPD

1,3



Product Features

- NVMe 2.0
- 128 Namespaces
- Power Loss Protection (PLP)
- ISE, TCG Opal 2.0 support
- AES-XTS 256-bit Encryption
- Data Integrity and Protection
- End-to-End Data Path Protection
- SECDED
- Sanitize
- NVMe-MI (Management Interface)
- SMBus

PHISON

Solution - D200E

Form Factor E1.S			
Capacity ⁽¹⁾	1.6TB	3.2TB	6.4TB
Interface	PCIe 5.0 x4	PCIe 5.0 x4	PCIe 5.0 x4
NVMe	2.0	2.0	2.0
NAND Flash	3D TLC	3D TLC	3D TLC
Performance ^(2,3,4)			
Sequential Read (MB/s)	14,000	14,000	14,000
Sequential Write (MB/s)	4,200	8,400	8,500
4K Random Read (IOPS)	2,350K	3,300K	3,200K
4K Random Write (IOPS)	390K	670K	880K
Read Latency (Typ., µs)	60	60	60
Write Latency (Typ., µs)	9	9	9
Power Consumption ⁽⁵⁾			
Active (W)	17	20	22
Idle (W)	4.9	4.9	4.9
Endurance/Reliability			
DWPD ⁽⁶⁾	3	3	3
UBER	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read
MTBF (million hours)	2.5	2.5	2.5
Limited Warranty (years)	5	5	5
Temperature			
Operating Temp. (°C)	0 - 70	0 - 70	0 - 70
Non-Operating Temp. (°C)	-40 - 85	-40 - 85	-40 - 85
Physical Dimension			
Length (mm)	118.75	118.75	118.75
Width (mm)	33.75	33.75	33.75
Height (mm)	9.5	9.5	15
Weight (g)	<80	<80	<100
Part Number			
ISE FW	DP20AH021T60E312 T0410	DP20AH023T20E314 T0910	DP20BH026T40E318 T1910
SED FW	DP20AH021T60E212 T0410	DP20AH023T20E214 T0910	DP20BH026T40E218 T1910

(1) 1 TB = 10¹² bytes.

(2) Sequential Performance is based on FIO on Linux, 512K, with QD=32, 1 job.

(3) Random Performance is based on FIO on Linux, 4K data size, QD=128, 8 jobs.

(4) Latency is measured with random workloads based on FIO on Linux, 4KB data size, QD=1, 1 job.

(5) Power consumption (Average RMS) is measured during the sequential read/write and random read/write operations performed by iometer with the conditions described in (2)/(3).

(6) The results of DWPD are obtained in compliance with JESD219A Standards.



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 © 2025 Phison Electronics. All rights reserved.

Solution - D200P

Form Factor E1.S			
Capacity ⁽¹⁾	1.92TB	3.84TB	7.68TB
Interface	PCIe 5.0 x4	PCIe 5.0 x4	PCIe 5.0 x4
NVMe	2.0	2.0	2.0
NAND Flash	3D TLC	3D TLC	3D TLC
Performance ^(2,3,4)			
Sequential Read (MB/s)	14,000	14,000	14,000
Sequential Write (MB/s)	4,200	8,400	8,500
4K Random Read (IOPS)	2,350K	3,300K	3,200K
4K Random Write (IOPS)	140K	220K	420K
Read Latency (Typ., µs)	60	60	60
Write Latency (Typ., µs)	9	9	9
Power Consumption ⁽⁵⁾			
Active (W)	16	19	23
Idle (W)	4.9	4.9	4.9
Endurance/Reliability			
DWPD ⁽⁶⁾	1	1	1
UBER	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read	< 1 sector per 10 ¹⁸ bits read
MTBF (million hours)	2.5	2.5	2.5
Limited Warranty (years)	5	5	5
Temperature			
Operating Temp. (°C)	0 - 70	0 - 70	0 - 70
Non-Operating Temp. (°C)	-40 - 85	-40 - 85	-40 - 85
Physical Dimension			
Length (mm)	118.75	118.75	118.75
Width (mm)	33.75	33.75	33.75
Height (mm)	9.5	9.5	15
Weight (g)	<80	<80	<100
Part Number			
ISE FW	DP20AH021T92P312 T0410	DP20AH023T84P314 T0910	DP20BH027T68E318 T1910
SED FW	DP20AH021T92P212 T0410	DP20AH023T84P214 T0910	DP20BH027T68E218 T1910

(1) 1 TB = 10¹² bytes.

(2) Sequential Performance is based on FIO on Linux, 512K, with QD=32, 1 job.

(3) Random Performance is based on FIO on Linux, 4K data size, QD=128, 8 jobs.

(4) Latency is measured with random workloads based on FIO on Linux, 4KB data size, QD=1, 1 job.

(5) Power consumption (Average RMS) is measured during the sequential read/write and random read/write operations performed by iometer with the conditions described in (2)(3).

(6) The results of DWPD are obtained in compliance with JESD219A Standards.



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 © 2025 Phison Electronics. All rights reserved.