

ENTERPRISE D-SERIES

PCIe Gen4 Data Center High-Speed SSD

PASCARI D100P

Sequential Read**Up to 6800 MB/s****Sequential Write****Up to 2000 MB/s****Random Read****Up to 900K IOPS****Random Write****Up to 60K IOPS****Interface****PCIe Gen4 x4****Capacity****Up to 3840GB****Form Factor****M.2 2280, M.2 22110, E1.S, U.2****DWPD****1****Product Features**

- Power Loss Protection (PLP)
- TCG Opal 2.0 Support
- AES-XTS 256-bit Encryption
- End-to-End Data Path Protection
- Multiple Namespaces

Solutions – D100P (M.2 2280)

Form Factor M.2 2280			
Capacity ¹	480GB	960GB	1920GB
Interface	PCIe Gen4 x4	PCIe Gen4 x4	PCIe Gen4 x4
NAND Flash	3D TLC	3D TLC	3D TLC
Performance ²³⁴			
Sequential Read (MB/s)	6000	6000	6000
Sequential Write (MB/s)	700	1400	1800
4K Random Read (IOPS)	450K	750K	800K
4K Random Write (IOPS)	25K	50K	60K
Read Latency (Typ., µs)	75	75	75
Write Latency (Typ., µs)	40	35	35
Power Consumption ⁵			
Active (W)	8	9.3	8.5
Idle (W)	3.5	3.5	3.5
Endurance/Reliability			
DWPD ⁶	1	1	1
UBER	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read
MTBF (million hours)	2.0	2.0	2.0
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)	80.00	80.00	80.00
Width (mm)	22.00	22.00	22.00
Height (mm)	4.00	4.00	4.00
Weight (g)	11	12	12
Part Number			
Single Port – SED	D1802K02480GP21512G00	D1802K02960GP211T0200	D1802K021T92P212T0400
Single Port – Non-SED	D1802K02480GP01512G00	D1802K02960GP011T0200	D1802K021T92P012T0400

(1) 1 GB = 10⁹ bytes.

(2) Sequential Performance is based on FIO on Linux, 128KB data size, with QD=32, 1 job.

(3) Random Performance is based on FIO on Linux, 4KB data size, QD=32.

(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 sequential and random read/write operations.

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



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Solutions – D100P (M.2 22110)

Form Factor M.2 22110				
Capacity ¹	480GB	960GB	1920GB	3840GB
Interface	PCIe Gen4 x4	PCIe Gen4 x4	PCIe Gen4 x4	PCIe Gen4 x4
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC
Performance ²³⁴				
Sequential Read (MB/s)	6000	6000	6000	3700
Sequential Write (MB/s)	700	1400	1800	1700
4K Random Read (IOPS)	450K	750K	800K	400K
4K Random Write (IOPS)	25K	50K	60K	40K
Read Latency (Typ., µs)	75	75	75	80
Write Latency (Typ., µs)	40	35	35	25
Power Consumption ⁵				
Active (W)	8.1	8.9	7.9	7.2
Idle (W)	4	4	4.2	4.2
Endurance/Reliability				
DWPD ⁶	1	1	1	1
UBER	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read
MTBF (million hours)	2.0	2.0	2.0	2.0
Limited Warranty (years)	5	5	5	5
Temperature				
Operating Temp. (°C)	0 - 70	0 - 70	0 - 70	0 - 70
Non-Operating Temp. (°C)	-40 - 85	-40 - 85	-40 - 85	-40 - 85
Physical Dimension				
Length (mm)	110.00	110.00	110.00	110.00
Width (mm)	22.00	22.00	22.00	22.00
Height (mm)	4.00	4.00	4.00	4.00
Weight (g)	12.3	12.4	12.4	15
Part Number				
Single Port – SED	D1803K02480GP21512G00	D1803K02960GP211T0200	D1803K021T92P212T0400	D1803K023T84P214T0900
Single Port – Non-SED	D1803K02480GP01512G00	D1803K02960GP011T0200	D1803K021T92P012T0400	D1803K023T84P014T0900

(1) 1 GB = 10⁹ bytes.

(2) Sequential Performance is based on FIO on Linux, 128KB data size, with QD=32, 1 job.

(3) Random Performance is based on FIO on Linux, 4KB data size, QD=32.

(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 sequential and random read/write operations.

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Solutions – D100P (E1.S)

Form Factor E1.S				
Capacity ¹	480GB	960GB	1920GB	3840GB
Interface	PCIe Gen4 x4	PCIe Gen4 x4	PCIe Gen4 x4	PCIe Gen4 x4
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC
Performance ²³⁴				
Sequential Read (MB/s)	6500	6800	6800	6800
Sequential Write (MB/s)	700	1400	2000	1700
4K Random Read (IOPS)	450K	800K	900K	650K
4K Random Write (IOPS)	25K	50K	60K	70K
Read Latency (Typ., µs)	75	75	75	80
Write Latency (Typ., µs)	40	30	25	25
Power Consumption ⁵				
Active (W)	8.4	8.1	10.9	11.8
Idle (W)	4	4	4.2	4.2
Endurance/Reliability				
DWPD ⁶	1	1	1	1
UBER	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read
MTBF (million hours)	2.0	2.0	2.0	2.0
Limited Warranty (years)	5	5	5	5
Temperature				
Operating Temp. (°C)	0 - 70	0 - 70	0 - 70	0 - 70
Non-Operating Temp. (°C)	-40 - 85	-40 - 85	-40 - 85	-40 - 85
Physical Dimension				
Length (mm)	111.49	111.49	111.49	111.49
Width (mm)	31.50	31.50	31.50	31.50
Height (mm)	1.57	1.57	1.57	1.57
Weight (g)	28	28	33	33
Part Number				
Single Port – SED	D180AK02480GP21512G00	D180AK02960GP211T0200	D180AK021T92P212T0400	D180AK023T84P214T0900
Single Port – Non-SED	D180AK02480GP01512G00	D180AK02960GP011T0200	D180AK021T92P012T0400	D180AK023T84P014T0900

(1) 1 GB = 10⁹ bytes.

(2) Sequential Performance is based on FIO on Linux, 128KB data size, with QD=32, 1 job.

(3) Random Performance is based on FIO on Linux, 4KB data size, QD=32.

(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 sequential and random read/write operations.

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Solutions – D100P (U.2)

Form Factor U.2			
Capacity ¹	480GB	960GB	1920GB
Interface	PCIe Gen4 x4	PCIe Gen4 x4	PCIe Gen4 x4
NAND Flash	3D TLC	3D TLC	3D TLC
Performance ²³⁴			
Sequential Read (MB/s)	6500	6800	6800
Sequential Write (MB/s)	700	1400	2000
4K Random Read (IOPS)	450K	800K	900K
4K Random Write (IOPS)	25K	50K	60K
Read Latency (Typ., µs)	75	75	75
Write Latency (Typ., µs)	35	20	20
Power Consumption ⁵			
Active (W)	8.4	9.0	10.2
Idle (W)	4.0	4.0	4.2
Endurance/Reliability			
DWPD ⁶	1	1	1
UBER	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read	< 1 sector per 10 ¹⁷ bits read
MTBF (million hours)	2.0	2.0	2.0
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)	100.10	100.10	100.10
Width (mm)	69.85	69.85	69.85
Height (mm)	14.65	14.65	14.65
Weight (g)	197	197	198
Part Number			
Single Port – SED	D1808K02480GP22512G00	D1808K02960GP221T0200	D1808K021T92P222T0400
Single Port – Non-SED	D1808K02480GP02512G00	D1808K02960GP021T0200	D1808K021T92P022T0400

(1) 1 GB = 10⁹ bytes.

(2) Sequential Performance is based on FIO on Linux, 128KB data size, with QD=32, 1 job.

(3) Random Performance is based on FIO on Linux, 4KB data size, QD=32.

(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 sequential and random read/write operations.

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