

ENTERPRISE D-SERIES

Cloud-Scale Capacity Meets Gen5 Speed

PASCARI D201P

Sequential Read**Up to 14,800 MB/s****Sequential Write****Up to 11,000 MB/s****Random Read****Up to 3,300 KIOPS****Random Write****Up to 580K IOPS****Interface****PCIe Gen5 x4****Capacity****Up to 15360GB****Form Factor****E1.S****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 – D201P (E1.S 15 mm)

Form Factor E1.S 15 mm				
Capacity ¹	1920GB	3840GB	7680GB	15360GB
Interface	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC
Performance ²³⁴				
Sequential Read (MB/s)	14800	14800	14800	14800
Sequential Write (MB/s)	2300	4600	9200	11000
4K Random Read (IOPS)	1400K	2700K	3300K	3250K
4K Random Write (IOPS)	75K	220K	480K	580K
Read Latency (Typ., µs)	65	65	65	65
Write Latency (Typ., µs)	450	150	80	65
Power Consumption ⁵				
Active (W)	<17	<18	<20	<20
Idle (W)	<5	<5	<5	<5
Endurance/Reliability				
DWPD ⁶	1	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	< 1 sector per 10 ¹⁸ bits read
MTBF (million hours)	2.5	2.5	2.5	2.5
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)	118.75	118.75	118.75	118.75
Width (mm)	33.75	33.75	33.75	33.75
Height (mm)	15.00	15.00	15.00	15.00
Weight (g)	<100	<100	<100	<100
Part Number				
Single Port – ISE	DP20BH081T92P312T0410	DP20BH083T84P314T0910	DP20BH087T68P318T1910	DP20BH0815T3P3116T310
Single Port – SED	DP20BH081T92P212T0410	DP20BH083T84P214T0910	DP20BH087T68P218T1910	DP20BH0815T3P2116T310
Single Port – Non-SED	DP20BH081T92P012T0410	DP20BH083T84P014T0910	DP20BH087T68P018T1910	DP20BH0815T3P0116T310
Single Port – FIPS	DP20BH081T92PF12T0410	DP20BH083T84PF14T0910	DP20BH087T68PF18T1910	DP20BH0815T3PF116T310
Dual Port – ISE	DX20BH081T92P312T0410	DX20BH083T84P314T0910	DX20BH087T68P318T1910	DX20BH0815T3P3116T310
Dual Port – SED	DX20BH081T92P212T0410	DX20BH083T84P214T0910	DX20BH087T68P218T1910	DX20BH0815T3P2116T310
Dual Port – Non-SED	DX20BH081T92P012T0410	DX20BH083T84P014T0910	DX20BH087T68P018T1910	DX20BH0815T3P0116T310
Dual Port – FIPS	DX20BH081T92PF12T0410	DX20BH083T84PF14T0910	DX20BH087T68PF18T1910	DX20BH0815T3PF116T310

(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 – D201P (E1.S 9.5 mm)

Form Factor E1.S 9.5 mm			
Capacity ¹	1920GB	3840GB	7680GB
Interface	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4
NAND Flash	3D TLC	3D TLC	3D TLC
Performance ²³⁴			
Sequential Read (MB/s)	14800	14800	14800
Sequential Write (MB/s)	2300	4600	9200
4K Random Read (IOPS)	1400K	2700K	3300K
4K Random Write (IOPS)	75K	220K	480K
Read Latency (Typ., µs)	65	65	65
Write Latency (Typ., µs)	450	150	80
Power Consumption ⁵			
Active (W)	<17	<18	<20
Idle (W)	<5	<5	<5
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)	15.00	15.00	15.00
Weight (g)	<100	<100	<100
Part Number			
Single Port – ISE	DP20AH081T92P312T0410	DP20AH083T84P314T0910	DP20AH087T68P318T1910
Single Port – SED	DP20AH081T92P212T0410	DP20AH083T84P214T0910	DP20AH087T68P218T1910
Single Port – Non-SED	DP20AH081T92P012T0410	DP20AH083T84P014T0910	DP20AH087T68P018T1910
Single Port – FIPS	DP20AH081T92PF12T0410	DP20AH083T84PF14T0910	DP20AH087T68PF18T1910
Dual Port – ISE	DX20AH081T92P312T0410	DX20AH083T84P314T0910	DX20AH087T68P318T1910
Dual Port – SED	DX20AH081T92P212T0410	DX20AH083T84P214T0910	DX20AH087T68P218T1910
Dual Port – Non-SED	DX20AH081T92P012T0410	DX20AH083T84P014T0910	DX20AH087T68P018T1910
Dual Port – FIPS	DX20AH081T92PF12T0410	DX20AH083T84PF14T0910	DX20AH087T68PF18T1910

(1) 1 GB = 10⁹ bytes.

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(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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ENTERPRISE D-SERIES

Cloud-Scale Capacity Meets Gen5 Speed

PASCARI D201E

Sequential Read**Up to 14,800 MB/s****Sequential Write****Up to 11,000 MB/s****Random Read****Up to 3,300 KIOPS****Random Write****Up to 1050K IOPS****Interface****PCIe Gen5 x4****Capacity****Up to 12800GB****Form Factor****E1.S****DWPD****3****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 – D201E (E1.S 15 mm)

Form Factor E1.S 15 mm				
Capacity ¹	1600GB	3200GB	6400GB	12800GB
Interface	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC
Performance ²³⁴				
Sequential Read (MB/s)	14800	14800	14800	14800
Sequential Write (MB/s)	2300	4600	9200	11000
4K Random Read (IOPS)	1400K	2700K	3300K	3250K
4K Random Write (IOPS)	220K	480K	980K	1050K
Read Latency (Typ., µs)	65	65	65	65
Write Latency (Typ., µs)	180	80	80	40
Power Consumption ⁵				
Active (W)	<17	<18	<20	<20
Idle (W)	<5	<5	<5	<5
Endurance/Reliability				
DWPD ⁶	3	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	< 1 sector per 10 ¹⁸ bits read
MTBF (million hours)	2.5	2.5	2.5	2.5
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)	118.75	118.75	118.75	118.75
Width (mm)	33.75	33.75	33.75	33.75
Height (mm)	15.00	15.00	15.00	15.00
Weight (g)	<100	<100	<100	<100
Part Number				
Single Port – ISE	DP20BH081T60E312T0410	DP20BH083T20E314T0910	DP20BH086T40E318T1910	DP20BH0812T8E3116T310
Single Port – SED	DP20BH081T60E212T0410	DP20BH083T20E214T0910	DP20BH086T40E218T1910	DP20BH0812T8E2116T310
Single Port – Non-SED	DP20BH081T60E012T0410	DP20BH083T20E014T0910	DP20BH086T40E018T1910	DP20BH0812T8E0116T310
Single Port – FIPS	DP20BH081T60EF12T0410	DP20BH083T20EF14T0910	DP20BH086T40EF18T1910	DP20BH0812T8EF116T310
Dual Port – ISE	DX20BH081T60E312T0410	DX20BH083T20E314T0910	DX20BH086T40E318T1910	DX20BH0812T8E3116T310
Dual Port – SED	DX20BH081T60E212T0410	DX20BH083T20E214T0910	DX20BH086T40E218T1910	DX20BH0812T8E2116T310
Dual Port – Non-SED	DX20BH081T60E012T0410	DX20BH083T20E014T0910	DX20BH086T40E018T1910	DX20BH0812T8E0116T310
Dual Port – FIPS	DX20BH081T60EF12T0410	DX20BH083T20EF14T0910	DX20BH086T40EF18T1910	DX20BH0812T8EF116T310

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Solutions – D201E (E1.S 9.5 mm)

Form Factor E1.S 9.5 mm			
Capacity ¹	1600GB	3200GB	6400GB
Interface	PCIe Gen5 x4	PCIe Gen5 x4	PCIe Gen5 x4
NAND Flash	3D TLC	3D TLC	3D TLC
Performance ²³⁴			
Sequential Read (MB/s)	14800	14800	14800
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4K Random Read (IOPS)	1400K	2700K	3300K
4K Random Write (IOPS)	220K	480K	980K
Read Latency (Typ., µs)	65	65	65
Write Latency (Typ., µs)	180	80	80
Power Consumption ⁵			
Active (W)	<17	<18	<20
Idle (W)	<5	<5	<5
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)	15.00	15.00	15.00
Weight (g)	<100	<100	<100
Part Number			
Single Port – ISE	DP20AH081T60E312T0410	DP20AH083T20E314T0910	DP20AH086T40E318T1910
Single Port – SED	DP20AH081T60E212T0410	DP20AH083T20E214T0910	DP20AH086T40E218T1910
Single Port – Non-SED	DP20AH081T60E012T0410	DP20AH083T20E014T0910	DP20AH086T40E018T1910
Single Port – FIPS	DP20AH081T60EF12T0410	DP20AH083T20EF14T0910	DP20AH086T40EF18T1910
Dual Port – ISE	DX20AH081T60E312T0410	DX20AH083T20E314T0910	DX20AH086T40E318T1910
Dual Port – SED	DX20AH081T60E212T0410	DX20AH083T20E214T0910	DX20AH086T40E218T1910
Dual Port – Non-SED	DX20AH081T60E012T0410	DX20AH083T20E014T0910	DX20AH086T40E018T1910
Dual Port – FIPS	DX20AH081T60EF12T0410	DX20AH083T20EF14T0910	DX20AH086T40EF18T1910

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