PASCARI

ENTERPRISE D-SERIES

Ultra High Capacity PCIe Gen5 Data Center SSD to Reduce OPEX Costs

PASCARI D205V

Sequential Read

Up to 14,700 MB/s

Sequential Write

Up to 3,200 MB/s

Random Read

Up to 3,000K IOPS (4K)

Random Write

Up to 35K IOPS (16K)

Interface

PCIe 5.0 1x4 (Single port), 2x2 (Dual port)

Capacity

Up to 122.88TB

Form Factor

U.2, E3.S, E3.L

DWPD

0.3

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
- Metadata Protection
- SECDED
- Sanitize
- NVMe-MI (Management Interface)
- SMBus

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Solutions - D205V

Form Factor U.2	
Capacity[2]	122.88TB
Interface	PCIe 5.0 1x4, 2x2
NVMe	2.0
NAND Flash	3D QLC
Performance[3,4,5]	
Sequential Read (MB/s)	14,700
Sequential Write (MB/s)	3,200
4K Random Read (IOPS)	3,000K
16K Random Write (IOPS)	35K
Read Latency (Typ., µs)	110
Write Latency (Typ., µs)	12
Power Consumption [6]	
Active (W)	25
Idle (W)	5
Endurance/Reliability	
DWPD[7]	0.3
UBER	< 1 sector per 10^{18} bits read
MTBF (million hours)	2.5
Limited Warranty (years)	5
Temperature	
Operating Temp. (°C)	0 - 70
Non-Operating Temp. (°C)	-40 - 85
Physical Dimension	
Length (mm)	100.10
Width (mm)	69.85
Height (mm)	15.00
Weight (g)	TBD
Part Number	
Single Port ISE FW	DP20JK0D122TV32131T10
Single Port SED FW	DP20JK0D122TV22131T10
Dual Port ISE FW	DX20JK0D122TV32131T10
Dual Port SED FW	DX20JK0D122TV22131T10

(1) The product is still in the early development stage, all values provided are based on estimation.
(2) 1 TB = 10^{12} bytes.
(3) Sequential Performance is based on FIO on Linux, 128KB, with QD=32, 1 job.
(4) Random Performance is based on FIO on Linux, random read 4KB data size, random write 16KB data size, QD=128, 8 jobs.
(5) Latency is measured with random workloads based on FIO on Linux, 4KB data size, QD=1, 1 job.
(6) 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).
(7) The results of DWPD are obtained in compliance with JESD219A Standards.

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Solutions - D205V

Form Factor E3.S		
Capacity[2]	61.44TB	122.88TB
Interface	PCIe 5.0 1x4, 2x2	PCIe 5.0 1x4, 2x2
NVMe	2.0	2.0
NAND Flash	3D QLC	3D QLC
Performance[3,4,5]		
Sequential Read (MB/s)	14,700	14,700
Sequential Write (MB/s)	3,200	3,200
4K Random Read (IOPS)	3,000K	3,000K
16K Random Write (IOPS)	35K	35K
Read Latency (Typ., µs)	110	110
Write Latency (Typ., µs)	12	12
Power Consumption [6]		
Active (W)	25	25
Idle (W)	5	5
Endurance/Reliability		
DWPD[7]	0.3	0.3
UBER	< 1 sector per 10^{18} bits read	< 1 sector per 10^{18} bits read
MTBF (million hours)	2.5	2.5
Limited Warranty (years)	5	5
Temperature		
Operating Temp. (°C)	0 - 70	0 - 70
Non-Operating Temp. (°C)	-40 - 85	-40 - 85
Physical Dimension		
Length (mm)	112.75	112.75
Width (mm)	76.00	76.00
Height (mm)	7.50	7.50
Weight (g)	TBD	TBD
Part Number		
Single Port ISE FW	DP20KK0D61T4V3165T510	DP20KK0D122TV31131T10
Single Port SED FW	DP20KK0D61T4V2165T510	DP20KK0D122TV21131T10
Dual Port ISE FW	DX20KK0D61T4V3165T510	DX20KK0D122TV31131T10
Dual Port SED FW	DX20KK0D61T4V2165T510	DX20KK0D122TV21131T10

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(4) Random Performance is based on FIO on Linux, random read 4KB data size, random write 16KB data size, QD=128, 8 jobs.
(5) Latency is measured with random workloads based on FIO on Linux, 4KB data size, QD=1, 1 job.
(6) 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).
(7) The results of DWPD are obtained in compliance with JESD219A Standards.

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Solutions - D205V

Form Factor E3.L	
Capacity[2]	122.88TB
Interface	PCIe 5.0 1x4, 2x2
NVMe	2.0
NAND Flash	3D QLC
Performance[3,4,5]	
Sequential Read (MB/s)	14,700
Sequential Write (MB/s)	3,200
4K Random Read (IOPS)	3,000K
16K Random Write (IOPS)	35K
Read Latency (Typ., µs)	110
Write Latency (Typ., µs)	12
Power Consumption [6]	
Active (W)	25
Idle (W)	5
Endurance/Reliability	
DWPD[7]	0.3
UBER	< 1 sector per 10^{18} bits read
MTBF (million hours)	2.5
Limited Warranty (years)	5
Temperature	
Operating Temp. (°C)	0 - 70
Non-Operating Temp. (°C)	-40 - 85
Physical Dimension	
Length (mm)	142.20
Width (mm)	76.00
Height (mm)	7.50
Weight (g)	TBD
Part Number	
Single Port ISE FW	DP20LK0D122TV31131T10
Single Port SED FW	DP20LK0D122TV21131T10
Dual Port ISE FW	DX20LK0D122TV31131T10
Dual Port SED FW	DX20LK0D122TV21131T10

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