Server SSD: DC-Series

DCN-200V: High Capacity PCIe Gen 5 Data Center Storage

Key Product Features

- Self-Encrypting Drive option
  - TCG Opal 2.0 Support
  - AES-XTS 256-bit Encryption
- End-to-End Data Path Protection
- Power Loss Protection (PLP)
- 128 Namespaces
- Single or Dual Port

Key Product Metrics	
Sequential Read	Up to 14,700 MB/s
Sequential Write	Up to 3,000 MB/s
Random Read	Up to 3,000K IOPS (4K)
Random Write	Up to 34K IOPS (16K)
Interface	PCIe Gen 5 NVMe 2.0
Capacity	Up to 61.44 TB
Form Factor	U.2, E3.S, and E3.L
Drive Write Per Day	0.3

DCN-200V

Form Factor U.2		
Capacity[2]	30.72TB	61.44TB
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)	3,000	3,000
4K Random Read (IOPS)	3,000K	3,000K
16K Random Write (IOPS)	34K	34K
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)	100.10	100.10
Width (mm)	69.85	69.85
Height (mm)	15.00	15.00
Weight (g)	TBD	TBD

(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.

RED DATA

Form Factor E3.S	
Capacity[2]	30.72TB
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)	3,000
4K Random Read (IOPS)	3,000K
16K Random Write (IOPS)	34K
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. (℃)	0 - 70
Non-Operating Temp. (℃)	-40 - 85
Physical Dimension	
Length (mm)	112.75
Width (mm)	76.00
Height (mm)	7.50
Weight (g)	TBD

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(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.

RED DATA

Form Factor E3.S	
Capacity[2]	61.44TB
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)	3,000
4K Random Read (IOPS)	3,000K
16K Random Write (IOPS)	34K
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

(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.

Product Configurations

For more information on available configurations, please contact us at: inquiries@rpics.com.

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