# Server SSD: DC-Series

## DCN-205V: Ultra High Capacity PCIe Gen5 Data Center SSD for Reduced OPEX

### 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 3,200 MB/s |
| *Random Read* | Up to 3,000K IOPS (4K) |
| *Random Write* | Up to 35K IOPS (16K) |
| *Interface* | PCIe Gen 5 NVMe 2.0 |
| *Capacity* | Up to 122 TB |
| *Form Factor* | U.2, E3.S, and E3.L |
| *Drive Write Per Day* | 0.3 |

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# DCN-205V

| 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 |

(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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| 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 |

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(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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| 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 |

(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.
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## Product Configurations

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



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