

SOLUTIONS

S12DC - Mixed Workload

| 2.5" | | | | | | | |
|----------------------------------|------------------|--|----------|----------|----------|----------|----------|
| Capacity ⁽¹⁾ | | 240GB | 480GB | 960GB | 1920GB | 3840GB | 7680GB |
| Performance ^(2,3) | Sequential Read | 530 MB/s | 530 MB/s | 530 MB/s | 530 MB/s | 530 MB/s | 530 MB/s |
| | Sequential Write | 450 MB/s | 500 MB/s | 500 MB/s | 500 MB/s | 500 MB/s | 500 MB/s |
| | 4K Random Read | 96K IOPS | 98K IOPS | 95K IOPS | 98K IOPS | 98K IOPS | 98K IOPS |
| | 4K Random Write | 75K IOPS | 85K IOPS | 80K IOPS | 80K IOPS | 80K IOPS | 60K IOPS |
| Power Consumption ⁽⁴⁾ | Max | 2.9 W | 3.5 W | 3.8 W | 4.4 W | 5.1 W | 5.4 W |
| | Idle | 1.3 W | 1.3 W | 1.4 W | 1.5 W | 1.8 W | 1.9 W |
| Latency | 4K Random Read | 120 us | 110 us | 130 us | 130 us | 130 us | 140 us |
| | 4K Random Write | 35 us | 25 us | 25 us | 25 us | 25 us | 25 us |
| Features | | | | | | | |
| Interface | | SATA III | | | | | |
| NAND Flash | | 3D TLC | | | | | |
| DWPD ⁽⁵⁾ | | 3 | | | | | |
| UBER | | 1 in 10 ¹⁷ | | | | | |
| Operating Temperature | | 0°C - 70°C | | | | | |
| Non-Operating Temperature | | -40°C - 85°C | | | | | |
| Key Features | | <ul style="list-style-type: none"> • LDPC • Power Loss Data Protection • End-to-End Data Protection | | | | | |

(1) 1 GB = 1,000,000,000 bytes.

(2) Sequential Performance is based on FIO on Linux, 128K, with QD=32, 1 worker, and test drive set as secondary.

(3) Random Performance is based on FIO on Linux, 4K data size, QD=32, 1 worker, 4K aligned.

(4) Power consumption is measured during the sequential read/write and random read/write operations performed by iometer with the conditions described in (2)(3).

(5) The results of DWPD are obtained in compliance with JESD219A Standards.



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SOLUTIONS

S12DC - Read Intensive

| 2.5" | | | | | | |
|----------------------------------|------------------|--|----------|----------|----------|----------|
| Capacity ⁽¹⁾ | | 480GB | 960GB | 1920GB | 3840GB | 7680GB |
| Performance ^(2,3) | Sequential Read | 530 MB/s | 530 MB/s | 530 MB/s | 530 MB/s | 530 MB/s |
| | Sequential Write | 430 MB/s | 500 MB/s | 500 MB/s | 500 MB/s | 500 MB/s |
| | 4K Random Read | 96K IOPS | 98K IOPS | 98K IOPS | 98K IOPS | 97K IOPS |
| | 4K Random Write | 36K IOPS | 42K IOPS | 50K IOPS | 37K IOPS | 42K IOPS |
| Power Consumption ⁽⁴⁾ | Max | 2.9 W | 3.2 W | 3.3 W | 3.4 W | 3.8 W |
| | Idle | 1.3 W | 1.3 W | 1.4 W | 1.5 W | 1.6 W |
| Latency | 4K Random Read | 115 us | 115 us | 115 us | 120 us | 145 us |
| | 4K Random Write | 25 us | 25 us | 25 us | 25 us | 25 us |
| Features | | | | | | |
| Interface | | SATA III | | | | |
| NAND Flash | | 3D TLC | | | | |
| DWPD ⁽⁵⁾ | | 1 | | | | |
| UBER | | 1 in 10 ¹⁷ | | | | |
| Operating Temperature | | 0°C - 70°C | | | | |
| Non-Operating Temperature | | -40°C - 85°C | | | | |
| Key Features | | <ul style="list-style-type: none"> • LDPC • Power Loss Data Protection • End-to-End Data Protection | | | | |

(1) 1 GB = 1,000,000,000 bytes.

(2) Sequential Performance is based on FIO on Linux, 128K, with QD=32, 1 worker, and test drive set as secondary.

(3) Random Performance is based on FIO on Linux, 4K data size, QD=32, 1 worker, 4K aligned.

(4) Power consumption is measured during the sequential read/write and random read/write operations performed by iometer with the conditions described in (2)(3).

(5) The results of DWPD are obtained in compliance with JESD219A Standards.



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SOLUTIONS

S12DC - High Capacity

| 2.5" | | | | | |
|----------------------------------|------------------|--|----------|----------|----------|
| Capacity ⁽¹⁾ | | 1920GB | 3840GB | 7680GB | 15360GB |
| Performance ^(2,3) | Sequential Read | 530 MB/s | 530 MB/s | 530 MB/s | 530 MB/s |
| | Sequential Write | 500 MB/s | 500 MB/s | 500 MB/s | 500 MB/s |
| | 4K Random Read | 94K IOPS | 97K IOPS | 97K IOPS | 94K IOPS |
| | 4K Random Write | 13K IOPS | 20K IOPS | 14K IOPS | 10K IOPS |
| Power Consumption ⁽⁴⁾ | Max | 3.8 W | 4.4 W | 5.1 W | 5.4 W |
| | Idle | 1.4 W | 1.5 W | 1.8 W | 1.9 W |
| Latency | 4K Random Read | 135 us | 130 us | 140 us | 165 us |
| | 4K Random Write | 55 us | 40 us | 55 us | 65 us |
| Features | | | | | |
| Interface | | SATA III | | | |
| NAND Flash | | 3D TLC | | | |
| DWPD ⁽⁵⁾ | | >0.4 | | | |
| UBER | | 1 in 10 ¹⁷ | | | |
| Operating Temperature | | 0°C - 70°C | | | |
| Non-Operating Temperature | | -40°C - 85°C | | | |
| Key Features | | <ul style="list-style-type: none"> LDPC Power Loss Data Protection End-to-End Data Protection | | | |

(1) 1 GB = 1,000,000,000 bytes.

(2) Sequential Performance is based on FIO on Linux, 128K, with QD=32, 1 worker, and test drive set as secondary.

(3) Random Performance is based on FIO on Linux, 4K data size, QD=32, 1 worker, 4K aligned.

(4) Power consumption is measured during the sequential read/write and random read/write operations performed by iometer with the conditions described in (2)(3).

(5) The results of DWPD are obtained in compliance with JESD219A Standards.



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