



ENTERPRISE D-SERIES

Ultra High Capacity PCIe Gen5 Enterprise Storage Solutions

MiPhi's newest large capacity enterprise SSD MP-D200V is a read-intensive data center SSD which achieves an impressive 122TB per drive, making it the best alternative to traditional cold storage solutions HDDs. It only takes one D200V SSD to store the data that would require ten HDDs. Built with PCIe Gen5 interface and paired with the industry's latest 3D NAND technology, the D200V delivers performance up to 14,000 MB/s (sequential read) and 3,000K IOPS (random read). In an era of exponential data growth, the D200V will help drive the trend of efficient data storage with improved space utilization and reduced power consumption.

Product Features

- PCIe 5.0 1x4 / PCIe 5.0 2x2 (Dual port)
- NVMe 2.0
- Capacity up to 122TB
- Form Factor: U.2 / E3.S / E3.L
- 128 Namespaces
- Power Loss Protection (PLP)
- ISE, TCG Opal 2.0 Support
- AES-XTS 256-bit Encryption
- End-to-End Data Path Protection
- Metadata Protection
- SECDED
- Sanitize
- NVMe-MI (Management Interface)
- SMBus

Sequential Performance

Read 14,000 MB/s

Random Performance

Read 3,000K IOPS

Solutions MP-D200V

Form Factor	U.2		
Capacity ⁽²⁾	30.72TB	61.44TB	122.88TB
Interface	PCIe 5.0 1x4, 2x2	PCIe 5.0 1x4,2x2	PCIe 5.0 1x4, 2x2
NVMe	2.0	2.0	2.0
NAND Flash	3D QLC	3D QLC	3D QLC
Performance ^(3,4,5)			
Sequential Read(MB/s)	14,000	14,000	14,000
Sequential Write(MB/s)	2,100	2,100	2,100
4K Random Read(IOPS)	3,000K	3,000K	3,000K
16K Random Write(IOPS)	15.6K	15.6K	15.6K
Read Latency (Typ., μs)	110	110	110
Write Latency (Typ., μs)	12	12	12
Power Consumption ⁽⁶⁾			
Active (W)	25	25	25
Endurance/Reliability			
DWPD ⁽⁵⁾	0.3	0.3	0.3
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)	100.10	100.10	100.10
Width (mm)	69.85	69.85	69.85
Height (mm)	15.00	15.00	15.00

(1) The product is still in the early development stage, all values provided are based on estimation.

(2) 1 TB = 1012 bytes.

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

(4) Random Performance is based on FIO on Linux, 4KB data size, QD=32, 16 workers.

(5) Latency is measured with random workloads based on FIO on Linux, 4KB data size, QD=1, 1 worker.

(6) Power consumption (Maximum 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 MP-D200V

Form Factor		E3.S		
Capacity ⁽²⁾	30.72TB	61.44TB PCIe 5.0	122.88TB	
Interface	PCIe 5.0 1x4, 2x2	1x4, 2x2	PCIe 5.0 1x4,	
NVMe	2.0	2.0	2x2 2.0	
NAND Flash	3D QLC	3D QLC	3D QLC	
Performance ^(3,4,5)				
Sequential Read(MB/s)	14,000	14,000	14,000	
Sequential Write(MB/s)	2,100	2,100	2,100	
4K Random Read(IOPS)	3,000K	3,000K	3,000K	
16K Random Write(IOPS)	15.6K	15.6K	15.6K	
Read Latency (Typ., μs)	110	110	110	
Write Latency (Typ., μs)	12	12	12	
Power Consumption ⁽⁶⁾				
Active (W)	25	25	25	
Endurance/Reliability				
DWPD ⁽⁷⁾	0.3	0.3	0.3	
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)	112.75	112.75	TBD	
Width (mm)	76.00	76.00	TBD	
Height (mm)	7.50	7.50	TBD	

(1) The product is still in the early development stage, all values provided are based on estimation.

(2) 1 TB = 1012 bytes.

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(4) Random Performance is based on FIO on Linux, 4KB data size, QD=32, 16 workers.

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