MEGA NVMe M.2 SSD
FASTRO MS200

Data Sheet - Rev1.0 (Sep 2021)

NVMe M.2 256GB

Specification	Description
Features	● NAND Flash Memory: 3D TLC NAND Flash ● Host Interface: PCIe Gen3 x 4 ● Controller: SM2262EN(NVMe1.3) ● Form Factor: M.2 2280, Double-Side ● Capacity: 256GB ● Supports HMB, TRIM, GC (Garbage Collection), S.M.A.R.T ● End to end data protection (Support) Real Time full drive encryption with AES, TCG Opal Protocol ● Dimension: 22mmx80mmx2.0mm 
Reliability Parameters	● Operating Temperature: - Standard Grade: 0°C ~ 70°C ● Storage Temperature (Non-Operating): -40°C~ +85°C ● Endurance: 150 (TBW)
System Performance	See table below

Capacity (SATA3)	Sequential Read (MB/s)	Sequential Write (MB/s)	Read IOPS (4K)	Write IOPS (4K)
256GB	3,400	2,600	670,000 IOPS	380,000 IOPS

*** Actual performance may vary depending on test system conditions and environment.

NVMe M.2 512GB

<table>
<tr><th>Specification</th><th>Description</th></tr>
<tr><td>Features</td><td>
● NAND Flash Memory: 3D TLC NAND Flash
● Host Interface: PCIe Gen3 x 4
● Controller: SM2262EN(NVMe1.3)
● Form Factor: M.2 2280, Double -Side
● Capacity: 512GB
● Supports HMB, TRIM, GC (Garbage Collection), S.M.A.R.T
● End to end data protection (Support)
Real Time full drive encryption with AES, TCG Opal Protocol
● Dimension: 22mmx80mmx2.0mm

</td></tr>
<tr><td>Reliability Parameters</td><td>
● Operating Temperature:
- Standard Grade: 0°C ~ 70°C
● Storage Temperature (Non-Operating): -40°C~ +85°C
● Endurance: 300 (TBW)
</td></tr>
<tr><td>System Performance</td><td>
<table>
<tr><th>Capacity (SATA3)</th><th>Sequential Read (MB/s)</th><th>Sequential Write (MB/s)</th><th>Read IOPS (4K)</th><th>Write IOPS (4K)</th></tr>
<tr><td>512GB</td><td>3,500</td><td>3,000</td><td>650,000 IOPS</td><td>530,000 IOPS</td></tr>
</table>
*** Actual performance may vary depending on test system conditions and environment.
</td></tr>
</table>

NVMe M.2 1TB

<table>
<tr><th>Specification</th><th>Description</th></tr>
<tr><td>Features</td><td>
● NAND Flash Memory: 3D TLC NAND Flash
● Host Interface: PCIe Gen3 x 4
● Controller: SM2262EN(NVMe1.3)
● Form Factor: M.2 2280, Double -Side
● Capacity: 1TB
● Supports HMB, TRIM, GC (Garbage Collection), S.M.A.R.T
● End to end data protection (Support)
Real Time full drive encryption with AES, TCG Opal Protocol
● Dimension: 22mmx80mmx2.0mm

</td></tr>
<tr><td>Reliability Parameters</td><td>
● Operating Temperature:
- Standard Grade: 0°C ~ 70°C
● Storage Temperature (Non-Operating): -40°C~ +85°C
● Endurance: 600 (TBW)
</td></tr>
<tr><td>System Performance</td><td>
<table>
<tr><th>Capacity (SATA3)</th><th>Sequential Read (MB/s)</th><th>Sequential Write (MB/s)</th><th>Read IOPS (4K)</th><th>Write IOPS (4K)</th></tr>
<tr><td>1TB</td><td>3,400</td><td>3,000</td><td>680,000 IOPS</td><td>560,000 IOPS</td></tr>
</table>
*** Actual performance may vary depending on test system conditions and environment.
</td></tr>
</table>

NVMe M.2 2TB

<table>
<tr><th>Specification</th><th>Description</th></tr>
<tr><td>Features</td><td>
● NAND Flash Memory: 3D TLC NAND Flash
● Host Interface: PCIe Gen3 x 4
● Controller: SM2262EN(NVMe1.3)
● Form Factor: M.2 2280, Double -Side
● Capacity: 2TB
● Supports HMB, TRIM, GC (Garbage Collection), S.M.A.R.T
● End to end data protection (Support)
Real Time full drive encryption with AES, TCG Opal Protocol
● Dimension: 22mmx80mmx2.0mm


</td></tr>
<tr><td>Reliability Parameters</td><td>
● Operating Temperature:
- Standard Grade: 0°C ~ 70°C
● Storage Temperature (Non-Operating): -40°C~ +85°C
● Endurance: 1,200 (TBW)
</td></tr>
<tr><td>System Performance</td><td>
<table>
<tr><th>Capacity (SATA3)</th><th>Sequential Read (MB/s)</th><th>Sequential Write (MB/s)</th><th>Read IOPS (4K)</th><th>Write IOPS (4K)</th></tr>
<tr><td>2TB</td><td>3,400</td><td>3,000</td><td>680,000 IOPS</td><td>520,000 IOPS</td></tr>
</table>
*** Actual performance may vary depending on test system conditions and environment.
</td></tr>
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