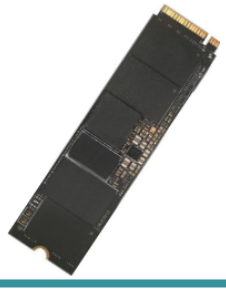
Data Sheet



QSAN NVMe SSD

MD4 Series

Enterprise M.2 SSD

Features

- •NVMe 2.0 compliant controller, PCIe 4.0
- •3D TLC NAND
- •1 DWPD
- •Performance up to 4,600 MB/s
- MTBF rating of 3M hours
- 3-year limited warranty[1]

Applications

- File Sharing
- Database
- Virtualization
- Software Acceleration

High Performance NVMe SSDs Power Up Enterprise Workloads

QSAN MD4 NVMe SSD delivers all the advantages of flash drive technology which supports the standard M.2 2280 form factor. Based on the latest 3D NAND technology, its performance can reach up to 4,600 MB/s for sequential read. Moreover, the power consumption of MD4 SSD is lower and makes it the best embedded solution for storage platforms.

High Performance NVMe SSDs Accelerate Operations

The adoption of NVMe in the enterprise continues to grow as modern applications and workloads demand higher performance. The M.2 2280 enterprise SSDs are suitable for accelerated unified storage. They require low data latency and high data availability for fulfill enterprise workloads. These applications include file sharing, database, virtualization, and more. QSAN MD4 delivers low latency to accelerate these complex operations. Use QSAN MD4 to build a cache pool to accelerate business efficiency.

Flash Management Technology Makes SSDs Last Longer

We know that flash cells degrade with use, which can lead to SSD failures affecting enterprise data. Sophisticated flash management can extend SSD life. In SSD, it has wear leveling to evenly distribute write and erase cycles, bad block management to improve data reliability, TRIM function to reclaim unused blocks, S.M.A.R.T. to monitor SSD health, over-provisioning to reduce write amplification, and thermal throttling to prevent any components over-heating. The ever-changing SSD technology is nothing more than improving the shortcomings of flash and extending its service life.

[1] The warranty for the product is subject to the conditions stated herein for the shorter of :
(a) the expiration of time period associated with the product.
or
(b) the period ending on the date when the SSD has exceeded its TBW (Total Bytes Written) threshold as may be indicated by SSD's firmware

QSAN

Specification

Model Name	MD4T2541-00	MD4T5141-00	MD41T041-00	MD42T041-00
Capacity	256 GB	512 GB	1 TB	2 TB
Endurance	1 DWPD			
Encryption	Non-SED			
TBW (Total Bytes Written)	365 TB	730 TB	1,455 TB	2,915 TB
Configuration				
Form Factor	M.2 2280			
NAND Flash Type	3D TLC			
Performance				
Sequential Read	4,400 MB/s	4,400 MB/s	4,600 MB/s	4,600 MB/s
Sequential Write	3,000 MB/s	3,100 MB/s	4,200 MB/s	4,300 MB/s
Reliability				
MTBF (Mean Time Between Failure)	3M hours			
Limited Warranty	3 years or 365 TBW	3 years or 730 TBW	3 years or 1,455 TBW	3 years or 2,915 TBW
Power				
Requirement (DC)	3.3 V +/- 5 %			
Active Read	1.9 W	1.9 W	1.9 W	2.1 W
Active Write	2.5 W	2.6 W	2.6 W	2.9 W
Idle	0.8 W	0.8 W	0.8 W	0.8 W
Physical Size				
Dimension (W x L x H) (mm)	22 mm x 80 mm x 3.5 mm			
Environmental				
Operating Temperature	-40 °C ~ 85°C			
Non-Operating Temperature	-55 °C ~ 95 °C			

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