



Optimized for Read-Heavy, Write-Light Workloads

The read-heavy demands of data center appliances, content delivery networks, virtual desktop infrastructures, and databases using business intelligence and decision support systems (BI/DSS) are the target markets for Micron's M510DC SATA enterprise SSD.

The M510DC's robust features, extended endurance, and competitive price point are ideal for sequential workloads with large block transfer sizes. The M510DC's optional TCG Enterprise-level data encryption also provides superior data security without sacrificing performance.

Get the solid performance you need from an SSD specifically designed for demanding 24/7 enterprise workloads, along with the world-class support and proven quality and reliability that can only be offered by a truly vertically integrated SSD supplier.

KEY BENEFITS

Balanced Total Cost of Ownership

Provides best alignment of features for cost-conscious data center customers who value performance, power efficiency, and reliability.

Optimized Performance

Addresses the growing needs of read-centric, high-capacity platforms while maintaining high levels of random write performance and endurance.

High Reliability, Quality and TCG Enterprise Encryption

Protects mission-critical data with hardware-based encryption, implemented on drive that has been purpose-built by a trusted NAND manufacturer and validated by key OEMs.

Best-in-Class Endurance

Offers class-leading write endurance for superior drive life in mixed-workload and virtualized environments.

Increased Power Efficiency

Combines low average power consumption and optimized performance to provide the high level of power efficiency that data center customers require.

XPERT Firmware Features

Provides architectural enhancements, including data path protection, encryption, adaptive thermal monitoring and power loss protection, that are designed to greatly improve SSD performance, drive life and reliability.

WHICH APPLICATIONS ARE THE BEST FIT?



BIG DATA

★★



CONTENT DELIVERY

★★★



DATABASE MANAGEMENT

★★



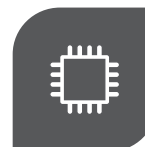
VIRTUALIZED ENVIRONMENTS

★★★



HIGH-PERFORMANCE COMPUTING

★



EMBEDDED

★★



WORKSTATION

★

Feature-rich M510DC SSD with enhanced performance and reliability delivers more value to your enterprise applications.

★ GOOD ★★ BETTER ★★★ BEST

M510DC

Performance you can trust



ADVANTAGES OF TCG ENTERPRISE HARDWARE ENCRYPTION

Data Security

A superior level of protection is possible because data encryption and user authentication are performed on the drive itself, independent of the operating system, memory, and BIOS.

Data Breach Protection

The threat of massive data breaches, theft, and loss can be virtually eliminated from data centers.

Performance

Maximum system performance is achieved because the CPU and memory overhead aren't impacted.

Ease of Use

The seamless and transparent implementation doesn't interfere with the user's workflow.

Cost Savings

Performing key management in hardware is less costly to implement and maintain than software encryption.

Compliance

Conforming to industry standards and government data security regulations ensures a high level of protection.



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Key Specifications	
2.5-Inch	
Capacity ¹	120GB, 240GB, 480GB, 800GB, 960GB
Interface	SATA 6 Gb/s
Sequential read/write performance ²	120GB: 420/170 MB/s 240GB: 420/290 MB/s 480GB: 420/380 MB/s 800GB: 420/380 MB/s 960GB: 420/380 MB/s
Random read/write performance ³	120GB: 63,000/12,000 IOPS 240GB: 63,000/18,000 IOPS 480GB: 63,000/23,000 IOPS 800GB: 65,000/30,000 IOPS 960GB: 65,000/10,500 IOPS
Endurance ⁴	Up to 2 drive fills/day (1 drive fill/day 960GB)
READ/WRITE latency	0.5ms/3.0ms
Active power consumption (MAX)	120GB, 240GB, 480GB: <6.0W (TYP) 800GB, 960GB: <6.3W (TYP)
Active power consumption (AVG)	1.5W
Idle/standby/sleep power consumption	1.2W
Operating temp	0°C to 70°C
Dimensions	69.85 x 100.45 x 7mm
Extended Features	eXtended Performance and Enhanced Reliability Technology (XPERT) suite of enterprise performance and advanced data protection algorithms

1. Unformatted. 1GB = 1 billion bytes. Formatted capacity is less.
2. 128KB transfer size, steady state.
3. 4KB transfer size, steady state.
4. Random access workload.

Part Numbers		
Standard Part	Capacity	Form Factor
MTFDDAK120MBP-1AN1ZABYY	120GB	2.5-inch
MTFDDAK240MBP-1AN1ZABYY	240GB	2.5-inch
MTFDDAK480MBP-1AN1ZABYY	480GB	2.5-inch
MTFDDAK800MBP-1AN1ZABYY	800GB	2.5-inch
MTFDDAK960MBP-1AN1ZABYY	960GB	2.5-inch
TCG Enterprise Part	Capacity	Form Factor
MTFDDAK120MBP-1AN16ABYY	120GB	2.5-inch
MTFDDAK240MBP-1AN16ABYY	240GB	2.5-inch
MTFDDAK480MBP-1AN16ABYY	480GB	2.5-inch
MTFDDAK800MBP-1AN16ABYY	800GB	2.5-inch
MTFDDAK960MBP-1AN16ABYY	960GB	2.5-inch