



Application-Optimized SATA Solution

Ever-increasing quantities of data are overwhelming traditional data center solutions. Micron's 5100 Series SATA SSD, with industry-leading capacity (up to 8TB) and steady state random writes (up to 74,000 IOPS)¹, is perfectly tailored to meet the needs of this data deluge, enabling a holistic storage solution that helps lower latency and boost performance. And by leveraging Micron's breakthrough triple-level cell (TLC) 3D NAND technology, the 5100 SSD family offers a unique cost-optimized platform that's a better value compared to existing HDD solutions — disrupting the economics of storage as we know it today.

With our 5100 SSD family, you get the consistent performance, robust reliability and low TCO you've come to expect from Micron SSDs — along with rich feature sets that provide market-leading security and endurance, flexibility, and simplification through a common platform. And our new FlexPro™ architecture enables tunable performance to match different applications and workloads, providing the flexibility required to thrive in modern data centers.

Three 5100 models (ECO, PRO and MAX) are designed to satisfy varying degrees of customer workloads — from read-intensive video streaming, to latency-sensitive transactional databases, to write-intensive logging applications — and come in capacities up to 8TB in 2.5-inch form factors and 2TB in M.2 form factors.

Key Benefits

High Capacity

Consolidate storage platforms and smooth migration from legacy storage. The 5100's ability to offer up to 8TB of storage in a 2.5-inch form factor and 2TB in an M.2 provides a wide range of solutions.

Consistent High Performance

Meet the demands of your data center. The 5100 comes in three models optimized for varying workloads with consistent, steady state random writes at 74, 000 IOPS.

Comprehensive Security

Alleviate enterprise security concerns with built-in AES-256-bit encryption and TCG Enterprise protection with available FIPS 140-2 validation.

Ultimate Flexibility

Actively tune capacity to optimize drive performance and endurance with Micron's FlexPro™ firmware architecture.

Outstanding Reliability

Reduce downtime and latency with 99.999% quality of service (QoS)² that is unmatched compared to spinning media.

1. For SATA products in a 7mm form factor.

2. Micron 5100 MAX 960GB SSD was measured against a competing SAS 12 Gb/s 15K 600GB HDDs. Performed on Intel® Core i7-4790K @ 4.0GHz, Asus® Maximus VII GENE motherboard, CentOS® 6.5 64-bit, FIO® 2.2.6, Workload - 4KB Block Size, 100% read, 100% random, queue depth 32, 99.999% Quality of Service. *Other names and brands may be claimed as property of others.

Which Applications Are the Best Fit?



BIG DATA



CONTENT DELIVERY



DATABASE MANAGEMENT



VIRTUALIZED ENVIRONMENTS



OPEN COMPUTE



5100 Series SSDs with FlexPro architecture deliver high capacity, high performance to your data center.

★ GOOD

★★ BETTER

★★★ BEST



Key Specifications			
SSD Type	5100 ECO ¹	5100 PRO ¹	5100 MAX ^{1,2}
Capacity/form factor	2.5in (7mm): 480GB, 960GB, 1920GB, 3840GB, 7680GB M.2 (22x80): 480GB, 960GB, 1920GB	2.5in (7mm): 240GB, 480GB, 960GB, 1920GB, 3840GB M.2 (22x80): 240GB, 480GB, 960GB, 1920GB	2.5in (7mm): 240GB, 480GB, 960GB, 1920GB
Interface	SATA 6 Gb/s		
Endurance class (DWPD)	<1	1-3	5
Endurance – total bytes written	0.45-8.4PB	0.65-17.6PB	2.2-17.6PB
Sequential read performance (128K)	540 MB/s	540 MB/s	540 MB/s
Sequential write performance (128K)	380-520 MB/s	250-520 MB/s	310-520 MB/s
Random read performance (4K)	93,000 IOPS	78,000-93,000 IOPS	93,000 IOPS
Random write performance (4K)	9000-31,000 IOPS	26,000-43,000 IOPS	48,000-74,000 IOPS
Reliability (MTTF)	2 million device hours		
Flash type	Micron 3D eTLC		

1. All drives available with AES 256-bit encryption and TCG Enterprise protection.

2. FIPS 140-2 available on the 5100 MAX.

Why Micron for SSDs?

Worldwide NAND Flash Leadership

Micron SSD customers have the assurance of working with the world's leader in NAND Flash design. Our expertise in NAND technology sets us apart as a vertically integrated supplier with the unique abilities to ensure end-to-end quality and to optimize our SSDs for our NAND components.

Extensive Testing

Our rigorous product testing translates to predictably reliable, high-quality drives.

Proven Start-To-Finish Quality

From component design to fabrication to the finished package device, our stringent quality requirements, significant investments in SSD test equipment, and advanced NAND management algorithms mean that reliability is literally built into every drive

Base Part Numbers			
SATA Family	Part	Capacity	Form Factor
5100 ECO	MTFDDAKxxxTBY	240GB, 480GB, 960GB, 1920GB, 3840GB	2.5in (7mm)
	MTFDDAVxxxTBY	240GB, 480GB, 960GB, 1920GB	M.2 (22x80)
5100 PRO	MTFDDAKxxxTCB	240GB, 480GB, 960GB, 1920GB, 3840GB	2.5in (7mm)
	MTFDDAVxxxTCB	240GB, 480GB, 960GB, 1920GB	M.2 (22x80)
5100 MAX	MTFDDAKxxxTCC	240GB, 480GB, 960GB, 1920GB	2.5in (7mm)

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