The Micron 5300 Self-Encrypting Drive: Solid and Secure

The Micron© 5300 SSD is available in models that include Micron's solid, secure firmware features plus 256-bit hardware encryption that follows the Trusted Computing Group's Security Subsystem Class (SSC) Enterprise specification for storage devices for servers, data centers and enterprise applications.

The Micron 5300 self-encrypting drive, or "SED," supports three modes of encryption protection, each operating with the drive's on-board AES-256 encryption engine:

- TCG Enterprise[1]: Provides a higher level of security and manageability than ATA Security. It supports the industry standard from TCG, with the capability to manage multiple passwords and encryption keys for each drive.

- TCG Opal[1]: Supports pre-boot authentication (OS-range unlocking for boot-up) and other TCG Opal-specific features.

- ATA Security: Provides basic protection by locking access to the drive using the ATA password, most frequently set and managed by the host system BIOS or UEFI.

Micron 5300 SEDs meet industry standards set by TCG. Encryption is implemented in XTS mode, improving upon previously deployed Cipher Block Chaining (CBC) modes.

Key Benefits

Secure Firmware
Incorporates secure digital signatures and boot-time attestation, which help to protect storage devices against low-level attacks.

Advanced Encryption
Advanced Encryption Standard (AES) 256-bit hardware encryption engine (XTS mode) allows encryption of data at rest with no loss of performance.

Standards-Based Security
TCG Security Subsystem Class (SSC) Enterprise and TCG Opal compliance for SSDs in the enterprise and data center.

Instant Scramble Erase
A complete sanitization of data on the SSD, capable of completion in under two seconds, simplifying device retirement or redeployment.

Micron 5300 Self-Encrypting Drives: Features and Functions

TCG Enterprise

Micron 5300 SSDs with TCG Enterprise encryption: These SEDs implement hardware encryption for your data drives while delivering the performance and endurance modern data centers require.

TCG Opal

Micron 5300 SSD with TCG Opal encryption: These SEDs are well suited for server and storage platform boot-up. A TCG Opal drive provides pre-boot authentication (PBA) for secure server password entry before the OS boot process starts.

ATA Security

ATA security is a basic security mode providing protection by locking access to the drive using the ATA password, most frequently set and managed by the host system BIOS or UEFI. Only one password is supported, which is used to "wrap" the encryption key.

Micron 5300 SED Part Numbers[2]

Product	Capacity[3]	Micron 5300 TCG-E Part Number	Micron 5300 TCG Opal Part Number
2.5-Inch PRO	240GB	MTFDDAK240TDS-1AW16ABYY	MTFDDAV240TDU-1AW15ABYY
	480GB	MTFDDAK480TDS-1AW16ABYY	MTFDDAK480TDS-1AW15ABYY
	960GB	MTFDDAK960TDS-1AW16ABYY	MTFDDAK960TDS-1AW15ABYY
	1920GB	MTFDDAK1T9TDS-1AW16ABYY	MTFDDAK1T9TDS-1AW15ABYY
	3840GB	MTFDDAK3T8TDS-1AW16ABYY	MTFDDAK3T8TDS-1AW15ABYY
	7680GB	MTFDDAK7T6TDS-1AW16ABYY	MTFDDAK7T6TDS-1AW15ABYY
2.5-Inch MAX	240GB	MTFDDAK240TDT-1AW16ABYY	MTFDDAK240TDT-1AW15ABYY
	480GB	MTFDDAK480TDT-1AW16ABYY	MTFDDAK480TDT-1AW15ABYY
	960GB	MTFDDAK960TDT-1AW16ABYY	MTFDDAK960TDT-1AW15ABYY
	1920GB	MTFDDAK1T9TDT-1AW16ABYY	MTFDDAK1T9TDT-1AW15ABYY
	3840GB	MTFDDAK3T8TDT-1AW16ABYY	MTFDDAK3T8TDT-1AW15ABYY
M.2 PRO	240GB	MTFDDAV240TDS-1AW16ABYY	MTFDDAV240TDS-1AW15ABYY
	480GB	MTFDDAV480TDS-1AW16ABYY	MTFDDAV480TDS-1AW15ABYY
	960GB	MTFDDAV960TDS-1AW16ABYY	MTFDDAV960TDS-1AW15ABYY
	1920GB	MTFDDAV1T9TDS-1AW16ABYY	MTFDDAV1T9TDS-1AW15ABYY
M.2 Boot	240GB	MTFDDAV240TDU-1AW16ABYY	MTFDDAV240TDU-1AW15ABYY

Learn More

Micron is a world leader in innovative memory solutions that transform how the world uses information. For over 40 years, our company has been instrumental to the world's most significant technology advancements, delivering optimal memory and storage systems for a broad range of applications.

Visit micron.com/5300 to learn more about the Micron 5300 SSD.

1. For additional details about the Trusted Computing Group, visit www.trustedcomputinggroup.org.
2. ATA Security does not require a specific 5300 part number.
3. Unformatted. 1GB = 1 billion bytes. Formatted capacity is less.

Micron®