

## How much NAND flash storage do you actually need?



Do you think having big storage is always necessary? Not all applications require high-capacity SSDs. Determining what's right for your business or industry's application needs will save you so much and optimize your total cost of ownership (TCO) in the long run.

ATP offers a wide range of SSDs that fit your budget and diverse usage requirements. Some of these come with low capacities for applications that do not require frequent writing of huge amounts of data. Some you will need as boot drives or to store operating systems, and these require minimal writing but frequent reading (read-intensive). Other times, you may need write-intensive SSDs with lower usable capacity, as a bigger portion may be reserved for controller functions to ensure longer endurance and reliability.

### ATP Solutions: Cost-effective Configurations

- Extensive portfolio using diverse NAND technologies to fit your budget and application/usage needs:
  - Single level cell (SLC) flash drives
  - Pseudo SLC (pSLC)-configured multi-level cell (MLC) or triple level cell (TLC) flash drives

- TLC flash drives
- Custom-configurable overprovisioning settings to find the optimal balance between cost and the application's required endurance
- Low-capacity drives are especially suitable as boot drives that store the OS, where there is minimal write (e.g., log files only) and frequent reads (read-intensive)
- Besides the more popular M.2 2280 and 2.5" drives, ATP also offers small form factor drives available as mSATA, SATA M.2 2242, and M.2 2230

For more information on ATP's low-density SSDs, please click [here](#).

## Feature Highlights



### Industrial Temp. Operable

ATP SSDs with industrial operating temperature rating deliver stable performance even in extreme temperatures ranging from -40°C to 85°C.



### Self-encrypting Drive (SED)

#### Functionality

ATP SSDs with SED functionality automatically encrypt data as it is written onto the drive and automatically decrypts it as it is read from the drive. SEDs do not require user input or a separate software to perform the encryption/decryption process.



### Hardware-based Power Loss Protection

This provides the SSD with sufficient backup power to safely store data in transit and protect data at rest whenever a power loss even occurs. By

drawing power from the onboard tantalum capacitors, the SSD has enough time to conclude the last write command to make sure there is no data loss or corruption.

Select SSDs also feature a microcontroller unit (MCU)-based PLP mechanism, which provides an extra layer of reliability. It improves device protection and data integrity by combining hardware and firmware solutions to protect both data and storage device, such as power-up inrush current suppression and input over-voltage protection. For better data integrity, the input power noise de-glitch prevents incorrect cache flushing caused by false triggers such as noisy or unstable host input voltage.

### ATP SSD solutions

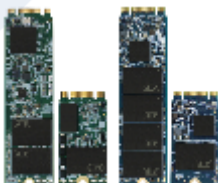


#### PCIe® Gen3 NVMe M.2 SSD

- MCU-based Power Loss Protection Design with Level 4 (data-in-flight) protection\*
- Self Encrypting Drive (SED) with AES 256-bit Encryption, TCG OPAL 2.0\*
- Thermal Heatsink Solutions\*\*
- End-to-End Data Path Protection
- TRIM function support

\*May vary by product and project support

\*\*Customization available on a project basis



#### SATA III M.2 SSD

- MCU-based Power Loss Protection Design with Level 4 (data-in-flight) protection\*
- Self-Encrypting Drive (SED) with AES 256-bit encryption, TCG Opal 2.0\*\*
- LDPC & RAID Data Recovery
- End-to-End Data Path Protection
- TRIM / Global Wear Leveling support

\* May vary by product and project support

\*\* Customization available on a project basis



### SATA III 2.5" SSD

- MCU-based Power Loss Protection Design with Level 4 (data-in-flight) protection\*
- Self Encryption Drive SED with AES 256-bit Encryption, TCG OPAL 2.0\*
- NSA-compliant Secure Erase\*
- MIL-STD-810G standards\*

\*May vary by product and project support



### SATA III mSATA SSD

- MCU-based Power Loss Protection Design with Level 4 (data-in-flight) protection\*

- Self Encryption Drive (SED) with AES 256-bit encryption, TCG OPAL 2.0\*
- LDPC & RAID Data Recovery
- End-to-End Data Path Protection
- TRIM / Global Wear Leveling support

\* May vary by product and project support