



PCIe® Gen4 NVMe E1.S SSD

The Global Leader in Specialized Storage and Memory Solutions



KEY FEATURES

- Endurance: 1 DWPD (5 years Enterprise workload)
- Sustained Write Performance: Up to 3,000 MB/s
- Power Loss Protection: MCU-based* with data-at-rest and in-flight protection
- PLP Diag*(Self-Diagnosing Capacitor Check)
- AcuCurrent (Signal Optimization Technology)
- Security: Self-Encrypting Drive (SED) with AES 256-bit Encryption, TCG Opal 2.0*
- End-to-End Data Path Protection
- 9.5 mm symmetric enclosure

* May vary by product and project support

Built with 176-layer NAND and boasting an impressive 11,000+ program/erase (P/E) cycle endurance, ATP's E1.S SSDs are designed for optimal performance leveraging cutting-edge PCIe® interface and NVMe protocol technologies.

Engineered for 1U Edge servers, ATP's E1.S SSDs are designed for vertical placement in small-footprint systems, allowing up to 6 to 12 drives in a 1U chassis. They support hot swapping/hot plugging for easy serviceability and replacement of drives while the system is on.

High cross-temperature reliability translates to low bit errors and better transmission accuracy for higher data integrity.

Housed in a 9.5 mm symmetric enclosure, ATP's E1.S SSDs are a result of thermal management solutions.

The enclosure features customized hardware and sustained performance firmware tuning, making it an ideal solution to meet the demanding requirements of hyperscale architecture.

Specifications

| | |
|------------------------------------|--------------------------------------|
| Product Line | Superior |
| | N651Si |
| Interface | PCIe G4 x4 |
| Flash Type | 3D TLC |
| Form Factor | E1.S |
| Operating Temperature | -40°C to 85°C |
| Power Loss Protection Options | Hardware + Firmware Based |
| Optional SED Features | AES 256-bit Encryption, TCG Opal 2.0 |
| Capacity | 960 GB to 7.68 TB |
| | Performance |
| Sequential Read (MB/s) up to | 6,400 |
| Sequential Write (MB/s) up to | 6,100 |
| Random Reads IOPS up to | 1,000,000 |
| Random Writes IOPS up to | 1,200,000 |
| | Endurance and Reliability |
| Endurance (TBW) ¹ up to | 79,000 TB |
| Reliability MTBF @ 25°C | >3,000,000 hours |
| | Others |
| Dimensions (mm) | 118.75 x 33.75 x 9.5 |
| Certifications | RoHS/VCCI/CE/FCC/UKCA |
| Warranty | 5 years |

1. Under highest Sequential write value. May vary by density, configuration and applications.

| Technologies | S.M.A.R.T./ Life Monitor | PLP Diag | AcuCurrent | Industrial Temperature | Firmware-Based Power Loss Protection | Hardware-Based Power Loss Protection | Advanced Wear Leveling | AutoRefresh | Dynamic Data Refresh | Auto-Read Calibration | ETEDP | SED | Software Secure Erase | Hardware Secure Erase | Hardware Write Protect |
|--------------|-----------------------------|----------|------------|---------------------------|--|--|---------------------------|-------------|-------------------------|--------------------------|-------|-----|-----------------------------|-----------------------------|------------------------------|
| Superior | N651Si | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ▲ | ▲ |

▲: Customization option available on a project basis.



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Product spec and its related information are subject to change without advance notice.

Please refer to www.atpinc.com for latest information

v1.0 012025

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