



# 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

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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) <sup>1</sup> 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	CE, FCC, BSMI, UKCA, RoHS, REACH	
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 Data-At-Rest Power Loss Protection	Hardware-Based In-Flight-Data Power Loss Protection	Advanced Wear Leveling	AutoRefresh	Dynamic Data Refresh	Auto-Read Calibration	ETEDP	SED	Software Secure Erase
Superior   N651Si	○	○	○	○	○	○	○	○	○	○	○	○	○

▲: Customization option available on a project basis.



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**WE BUILD WITH YOU**

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

Please refer to [www.atpinc.com](http://www.atpinc.com) for latest information

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