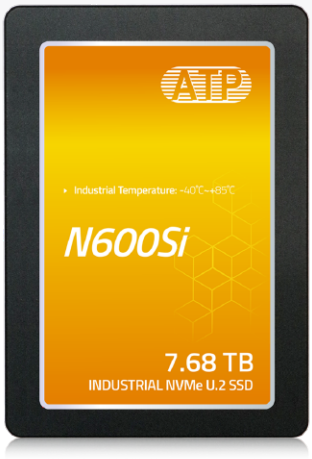
PCIe® Gen3 NVMe U.2 SSD

The Global Leader in Specialized Storage and Memory Solutions



Key Features

- Thermal Management Solutions*
- High-Capacity NVMe Drive
- LDPC & RAID Data Recovery
- End-to-End Data Path Protection
- S.M.A.R.T / TRIM / Global Wear Leveling
- Hot-swappable

* Customization available on a project basis

ATP U.2 NVMe solid state drives (SSDs) support the NVMe™ protocol on the high-speed PCI Express® (PCIe®) Gen3 x4 interface, with maximum capacity reaching 7.68 TB. The massive storage space is encased in a very lean footprint, making U.2 SSDs ideal for space-restricted systems, such as embedded industrial PCs, point-of-sale (POS), and networking systems.

When installed in enclosures with little or no airflow and constantly subjected to intense workloads under harsh conditions, these SSDs face overheating challenges. Multiple die stacking per integrated circuit (IC) and intensive components in the limited printed circuit board (PCB) space, especially for double-sided designs, also contribute to the overheating issue.

Available with ATP's Customizable Thermal Management Solution, these high-density thermal U.2 NVMe drives adopt both advanced firmware and hardware options, which include a thermal pad on the controller to effectively transfer heat from the device to the U.2 aluminum housing. This keeps the device cool and ensures sustained performance

Specifications

PCIe® Gen3 NVMe U.2 SSD	
Product Line	Superior N600Si
Interface	PCIe G3 x4
Flash Type	3D TLC
Form Factor	2.5"
Operating Temperature (Tcase)[1]	-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	3,100
Sequential Write (MB/s) up to	1,400
Random Reads IOPS up to	190,000
Random Writes IOPS up to	168,000
Endurance and Reliability	
Endurance (TBW)[2] up to	21,000 TB
Reliability MTBF @ 25°C	>2,000,000 hours
Others	
Dimensions (mm)	100.0 x 69.85 x 7.0
Certifications	RoHS, VCCI, CE, FCC
Warranty	2 years

Technologies & Add-On Services	S.M.A.R.T.	Firmware-based Power Loss Protection	Hardware-based Power Loss Protection	AutoRefresh	Advanced Wear Leveling	Dynamic Data Refresh	End-to-End Data Path Protection	Auto-Read Calibration	Secure Erase	TCG Opal 2.0	Dynamic Thermal Throttling	Industrial Temperature	Conformal Coating	Joint Validation
Superior	○	○	○	○	○	○	○	○	○	○	○	○	▲	▲

1 Case Temperature, the composite temperature as indicated by SMART temperature attributes.
2 Under highest Sequential write value. May vary by density, configuration and applications.
▲: Customization option available on a project basis.

Product spec and its related information are subject to change without advance notice.
Please refer to www.atpinc.com for latest information

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