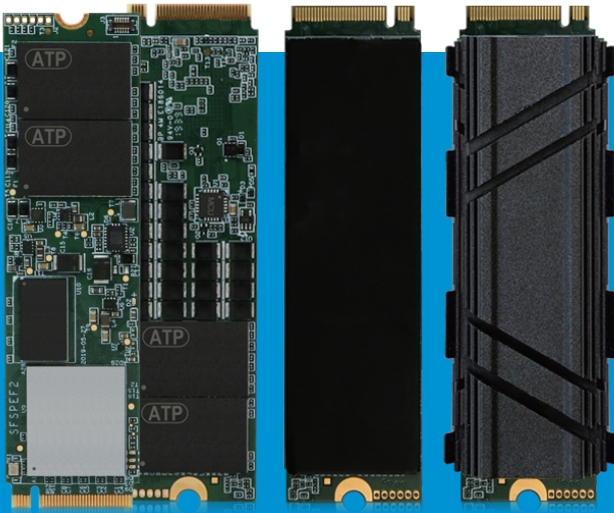




M.2 NVMe

Targeted Product Portfolio, Engineered Specifically for Your Mission Critical Applications



Key Features

- 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*
- Thermal Heatsink Solutions**
- End-to-End Data protection
- TRIM function support

* May vary by product and project support

** Customization available on a project basis.

M.2 solid state modules based on the NVMe™ protocol leverage the blazing-fast PCI Express® (PCIe®) interface to deliver dramatic improvements in speed and performance to fulfill the increasing demand for responsiveness in enterprise storage systems and to support the growing data-hungry needs of today's enterprise. Delivering 32 Gb/s bandwidth on a PCIe 3.1 x4 slot (8 Gb/s per lane), ATP NVMe SSDs outperform Serial ATA 6 Gb/s SSDs with 4-6X faster access, over 3X lower latency, and higher Input/Output per Second (IOPS). ATP NVMe SSDs with industrial operating temperature rating deliver stable performance even in extreme temperatures ranging from -40°C to 85°C, while Dynamic Thermal Throttling automatically adjusts the speed to maintain cooler operation under intense and heavy workloads.

Adopting NVMe 1.3 specifications and integrating 3D NAND TLC technology, ATP's M.2 2280 NVMe modules offer up to 1.92TB of storage capacity and deliver boosted performance with sequential read up to 3,420 MB/s, sequential write up to 3,050 MB/s, and random read/write IOPS up to 225,200/179,200.

Designed to move past the limitations of mechanical drives, NVMe was specifically built from the ground up for faster, more efficient access to storage devices with non-volatile memory such as current NAND flash solutions and future non-volatile memory technologies. These SSDs can deliver fast, reliable and durable performance for any demanding application.












Specifications

M.2 NVMe		
Product Line	N600Si	N600Sc
Interface	PCIe G3 x4	
Flash Type	3D TLC	
Form Factor	M.2 2280-D2-M	
Operating Temperature (Tcase) ¹	-40°C to 85°C	0°C to 70°C
Power Loss Protection Options	Hardware + Firmware Based or Firmware Based	
Optional SED Features	AES 256-bit Encryption, TCG OPAL 2.0	
Capacity	120 GB to 1920 GB	
Performance		
Performance	Sequential Read (MB/s) up to	3,420
	Sequential Write (MB/s) up to	3,050
	Random Read IOPS (4K, QD32) up to	225,200
	Random Writes IOPS (4K, QD32) up to	179,200
Endurance and Reliability		
Endurance (TBW) ² up to	5,585 TB	
Reliability MTBF @ 25°C	>2,000,000 hours	
Data Retention @ 30°C ³	5 Years (with 10% P/E Cycles)	
Others		
Power Consumption	3.3V Input Power	
Dimensions: L x W x H (mm)	80.0 x 22.0 x 3.5	
Certifications	CE, FCC,BSMI,UKCA, RoHS, REACH	
Warranty	2 years	

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.

³ Data retention value may vary across different temperature ranges. It is based on experimental results and should be used only for reference.

Technologies & Add-On Services	 S.M.A.R.T.	 TCG Opal 2.0	 Advanced Wear Leveling	 AutoRefresh	 Dynamic Data Refresh	 Secure Erase	 Industrial Temperature	 Anti-Sulfur Resistors	 Conformal Coating	 End-to-End Data Protection	 Hardware-based Power Loss Protection
Superior	●	Δ	●	●	●	Δ	●	Δ	Δ	●	●

Δ: Customization option available on a project basis.

Hot Items Ordering Information

Product Line	Capacity ₁	Operating Temperature ₂	Power Loss Protection ₃	SED ₄	P/N
N600Si	120GB	-40°C to 85°C	Hardware + Firmware Based	-	AF120GSTJA-8BAIP
N600Si	240GB	-40°C to 85°C	Hardware + Firmware Based	-	AF240GSTJA-8BAIP
N600Si	480GB	-40°C to 85°C	Hardware + Firmware Based	-	AF480GSTJA-8BAIP
N600Si	960GB	-40°C to 85°C	Hardware + Firmware Based	-	AF960GSTJA-8BAIP
N600Si	1920GB	-40°C to 85°C	Hardware + Firmware Based	-	AF1T92STJA-8BAIP
N600Si	120GB	-40°C to 85°C	Firmware Based	-	AF120GSTJA-8BAIX
N600Si	240GB	-40°C to 85°C	Firmware Based	-	AF240GSTJA-8BAIX
N600Si	480GB	-40°C to 85°C	Firmware Based	-	AF480GSTJA-8BAIX
N600Si	960GB	-40°C to 85°C	Firmware Based	-	AF960GSTJA-8BAIX
N600Si	1920GB	-40°C to 85°C	Firmware Based	-	AF1T92STJA-8BAIX
N600Sc	120GB	0°C to 70°C	Hardware + Firmware Based	-	AF120GSTJA-8BAXP
N600Sc	240GB	0°C to 70°C	Hardware + Firmware Based	-	AF240GSTJA-8BAXP
N600Sc	480GB	0°C to 70°C	Hardware + Firmware Based	-	AF480GSTJA-8BAXP
N600Sc	960GB	0°C to 70°C	Hardware + Firmware Based	-	AF960GSTJA-8BAXP
N600Sc	1920GB	0°C to 70°C	Hardware + Firmware Based	-	AF1T92STJA-8BAXP
N600Sc	120GB	0°C to 70°C	Firmware Based	-	AF120GSTJA-8BAXX
N600Sc	240GB	0°C to 70°C	Firmware Based	-	AF240GSTJA-8BAXX
N600Sc	480GB	0°C to 70°C	Firmware Based	-	AF480GSTJA-8BAXX
N600Sc	960GB	0°C to 70°C	Firmware Based	-	AF960GSTJA-8BAXX
N600Sc	1920GB	0°C to 70°C	Firmware Based	-	AF1T92STJA-8BAXX

¹ Amount of actual usable storage that can be utilize.

² Refers to Case Temperature range during device operation, as indicated by SMART temperature attributes.

³ Hardware + Firmware based power loss protection design with Level 4 (data-in-flight) protection; Firmware based power loss protection design with Level 1 (data-at-rest) protection.

⁴ Allows data written to and read from the SSD to be constantly and automatically encrypted and decrypted. Conforms to TCG Opal 2.0 and uses AES 256-bit HW encryption.

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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