



2.5" SSD

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*
- NSA-compliant Secure Erase*
- MIL-STD-810G standards*

* May vary by product and project support

ATP's shock/vibration-resistant industrial 2.5" SSDs are encased in durable enclosures for outstanding performance in challenging environments. The convenient 2.5" form factor and SATA III interface allow easy integration into SATA-based systems, while unique ATP technologies ensure extended endurance for long years of dependable use.

Power Loss Protection Design technology options combines hardware and/or firmware solutions to ensure that data is preserved and protected during a sudden power failure. The MCU design also protects the storage device from damage by allowing the power loss protection (PLP) to intelligently manage power challenges such as inrush current, input overvoltage, incorrect cache flushing and more.

ATP's 2.5" SSDs comply with US National Security Agency (NSA) and MIL-STD-810G standards. They support the S.M.A.R.T. ATA feature set and Advanced Wear Leveling algorithm for enhanced endurance.

Technologies & Add-On Services	S.M.A.R.T.	Hardware-based Power Loss Protection	Advanced Wear Leveling	AutoRefresh	Dynamic Data Refresh	Secure Erase	Industrial Temperature	Anti-Sulfur Resistors	Conformal Coating
Premium	•	•	•	•	•	•	•	Δ	Δ
Superior	•	•	•	•	•	•	Δ	Δ	Δ
Value	•		•	•	•				

Δ: Customization option available on a project basis.

Specifications

2.5" SSD				
Product Line	A800Pi	A700Pi	A600Si	A600Sc
Interface	SATA III 6 Gb/s			
Flash Type	SLC	Pseudo SLC	MLC	
Form Factor	2.5"			
Operating Temperature (Tcase) ¹	-40°C to 85°C		-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	8 GB to 256 GB	80 GB to 640 GB	64GB	
Performance				
Performance	Sequential Read (MB/s) up to	520	560	440
	Sequential Write (MB/s) up to	420	520	80
	Random Read IOPS (4K, QD32) up to	76,000	95,000	38,400
	Random Writes IOPS (4K, QD32) up to	74,000	86,000	19,900
Endurance and Reliability				
Endurance (TBW) ² up to	21,333 TB	25,600 TB	145.5 TB	174.6 TB
Reliability MTBF @ 25°C	>2,000,000 hours			
Data Retention @ 30°C ³	10 years (with 10% P/E cycle)	5 years (with 10% P/E cycle)	5 years (with 10% P/E cycle)	
Reliability Number of Insertions	10,000 minimum			
Others				
Power Consumption	5V Input Power			
Dimensions: L x W x H (mm)	100 x 69.9 x 9.2	100 x 69.9 x 7/9.2	100 x 69.9 x 9.2	
Certifications	CE, FCC	CE, FCC, BSMI, RoHS, REACH	CE, FCC	
Warranty	5 years			2 years

2.5" SSD			
Product Line	A600Si	A600Sc	A600Vc
Interface	SATA III 6 Gb/s		
Flash Type	3D TLC		
Form Factor	2.5"		
Operating Temperature (Tcase) ¹	-40°C to 85°C	0°C to 70°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		32 GB to 512 GB
Performance			
Performance	Sequential Read (MB/s) up to	560	560
	Sequential Write (MB/s) up to	500	440
	Random Read IOPS (4K, QD32) up to	100,000	72,000
	Random Writes IOPS (4K, QD32) up to	91,000	85,000
Endurance and Reliability			
Endurance (TBW) ² up to	5,585 TB		590.8 TB
Reliability MTBF @ 25°C	>2,000,000 hours		
Data Retention @ 30°C ³	5 years (with 10% P/E cycle)		
Reliability Number of Insertions	10,000 minimum		
Others			
Power Consumption	5V Input Power		
Dimensions: L x W x H (mm)	100 x 69.9 x 7/9.2		100 x 69.9 x 7
Certifications	CE, FCC, BSMI, RoHS, REACH		CE, FCC
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.

Hot Items Ordering Information

Product Line	Capacity ₁	Operating Temperature ₂	Power Loss Protection ₃	SED ₄	P/N
A800Pi	8GB	-40°C to 85°C	Hardware + Firmware Based	-	AF8GSSCJ-VACXP
A800Pi	16GB	-40°C to 85°C	Hardware + Firmware Based	-	AF16GSSCJ-VACXP
A800Pi	32GB	-40°C to 85°C	Hardware + Firmware Based	-	AF32GSSCJ-VACXP
A800Pi	64GB	-40°C to 85°C	Hardware + Firmware Based	-	AF64GSSCJ-VACXP
A800Pi	128GB	-40°C to 85°C	Hardware + Firmware Based	-	AF128GSSCJ-VACXP
A800Pi	256GB	-40°C to 85°C	Hardware + Firmware Based	-	AF256GSSCJ-VACXP
A600Si	120GB	-40°C to 85°C	Hardware + Firmware Based	-	AF120GSTCJ-7BAIP
A600Si	240GB	-40°C to 85°C	Hardware + Firmware Based	-	AF240GSTCJ-7BAIP
A600Si	480GB	-40°C to 85°C	Hardware + Firmware Based	-	AF480GSTCJ-7BAIP
A600Si	960GB	-40°C to 85°C	Hardware + Firmware Based	-	AF960GSTCJ-7BAIP
A600Si	1.92TB	-40°C to 85°C	Hardware + Firmware Based	-	AF1T92STCJ-7BAIP
A600Sc	120GB	0°C to 70°C	Hardware + Firmware Based	-	AF120GSTCJ-7BAXP
A600Sc	240GB	0°C to 70°C	Hardware + Firmware Based	-	AF240GSTCJ-7BAXP
A600Sc	480GB	0°C to 70°C	Hardware + Firmware Based	-	AF480GSTCJ-7BAXP
A600Sc	960GB	0°C to 70°C	Hardware + Firmware Based	-	AF960GSTCJ-7BAXP
A600Sc	1.92TB	0°C to 70°C	Hardware + Firmware Based	-	AF1T92STCJ-7BAXP
A600Vc	32GB	0°C to 70°C	Firmware Based	-	AF32GSTCJ-2BAXX
A600Vc	64GB	0°C to 70°C	Firmware Based	-	AF64GSTCJ-2BAXX
A600Vc	128GB	0°C to 70°C	Firmware Based	-	AF128GSTCJ-2BAXX
A600Vc	256GB	0°C to 70°C	Firmware Based	-	AF256GSTCJ-2BAXX
A600Vc	512GB	0°C to 70°C	Firmware Based	-	AF512GSTCJ-2BAXX

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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