SATA III 2.5" SSD

The Global Leader in Specialized Storage and Memory Solutions

Key Features

- MCU-based Power Loss Protection Design
  with Level 4 (data-in-flight) protection*
- Self-Encrypting 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.

Specifications

	SATA III 2.5" SSD							
Product Line	Premium			Superior				Value
	A800Pi	A750Pi	A700Pi	A650Si	A650Sc	A600Si	A600Sc	A600Vc
Interface	SATA III 6 Gb/s							
Flash Type	SLC	3D TLC (pSLC mode)		3D TLC				
Form Factor	2.5"							
Operating Temperature (Tcase)[1]	-40°C to 85°C			-40°C to 85°C	0°C to 70°C	-40°C to 85°C	0°C to 70°C	
Power Loss Protection Options	Hardware + Firmware Based							Firmware Based
Optional SED Features	-	AES 256-bit Encryption, TCG Opal 2.0						-
Capacity	8 GB to 256 GB	80 GB to 640 GB		120 GB to 1,920 GB				32 GB to 1 TB
Performance								
Sequential Read (MB/s) up to	520	560		560				560
Sequential Write (MB/s) up to	420	520		520				525
Random Reads IOPS up to	76,000	90,000		100,000				72,000
Random Writes IOPS up to	74,000	88,000		91,000				85,000
Endurance and Reliability								
Endurance (TBW)[2] up to	21,333 TB	38,400 TB	25,600 TB	9,310 TB		5,585 TB		1,530 TB
Reliability MTBF @ 25°C	>2,000,000 hours							
Reliability Number of Insertions	10,000 minimum							
Others								
Dimensions (mm)	100 x 69.85 x 9.2			100 x 69.85 x 7/9.2				100 x 69.85 x 7
Certifications	CE, FCC, UKCA, RoHS, REACH			CE, FCC, BSMI, UKCA, RoHS, REACH				
Warranty	5 years			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	Auto-Read Calibration	Secure Erase	TCG Opal 2.0	Industrial Temperature	Anti-Sulfur Resistors	Conformal Coating
Premium	○	○	○	○	○	○	○	▲	○	○	▲	▲
Superior	○	○	○	○	○	○	○	▲	○	▲	▲	▲
Value	○	○	—	○	○	○	○	—	—	—	—	—

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.

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
A650Si	120GB	-40°C to 85°C	Hardware + Firmware Based	-	AF120GSTCJ-7BCIP
A650Si	240GB	-40°C to 85°C	Hardware + Firmware Based	-	AF240GSTCJ-7BCIP
A650Si	480GB	-40°C to 85°C	Hardware + Firmware Based	-	AF480GSTCJ-7BCIP
A650Si	960GB	-40°C to 85°C	Hardware + Firmware Based	-	AF960GSTCJ-7BCIP
A650Si	1.92TB	-40°C to 85°C	Hardware + Firmware Based	-	AF1T92STCJ-7BCIP
A650Sc	120GB	0°C to 70°C	Hardware + Firmware Based	-	AF120GSTCJ-7BCXP
A650Sc	240GB	0°C to 70°C	Hardware + Firmware Based	-	AF240GSTCJ-7BCXP
A650Sc	480GB	0°C to 70°C	Hardware + Firmware Based	-	AF480GSTCJ-7BCXP
A650Sc	960GB	0°C to 70°C	Hardware + Firmware Based	-	AF960GSTCJ-7BCXP
A650Sc	1.92TB	0°C to 70°C	Hardware + Firmware Based	-	AF1T92STCJ-7BCXP
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
A600Vc	128GB	0°C to 70°C	Firmware Based	-	AF128GSTCJ-2BBXX
A600Vc	256GB	0°C to 70°C	Firmware Based	-	AF256GSTCJ-2BBXX
A600Vc	512GB	0°C to 70°C	Firmware Based	-	AF512GSTCJ-2BBXX
A600Vc	1TB	0°C to 70°C	Firmware Based	-	AF1TSTCJ-2BBXX

1 Amount of actual usable storage that can be utilized.
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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