



# SATA III 2.5" SSD

The Global Leader in Specialized Storage and Memory Solutions



## KEY FEATURES

- Power Loss Protection: MCU-based\* with data-at-rest and in-flight protection
- PLP Diag\* (Self-Diagnosing Capacitor Check)
- EcoFlush\* (Flush Cache Optimization Technology)
- Data Retention: Up to 10 years at 55°C (pSLC)\*
- Security: Self-Encrypting Drive (SED) with AES 256-bit encryption, TCG Opal 2.0\*
- LDPC & RAID Data Recovery
- End-to-End Data Path Protection

\* 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

Product Line	Premium		Superior	Value	Momentum
	A800Pi	A750Pi	A650Si / A650Sc	A600Vi / A600Vc	A400Mw
Interface	SATA III 6 Gb/s				
Flash Type	SLC	3D TLC (pSLC mode)	3D TLC		
Form Factor	2.5"				
Operating Temperature	-40°C to 85°C		-40°C to 85°C / 0°C to 70°C		-20°C to 75°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	240 GB to 1.92 TB	128 GB to 1 TB	
Performance					
Sequential Read (MB/s) up to	520	560			550
Sequential Write (MB/s) up to	420	510	525	525	500
Random Reads IOPS up to	76,000	92,000	103,000	70,500	72,000
Random Writes IOPS up to	74,000	85,000	90,000	92,500	86,000
Endurance and Reliability					
Endurance (TBW) <sup>1</sup> up to	21,333 TB	59,250 TB	21,990 TB	1,530 TB	765 TB
Reliability MTBF @ 25°C	>2,000,000 hours	>3,000,000 hours		>2,000,000 hours	>3,000,000 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		

1. Under highest Sequential write value. May vary by density, configuration and applications.

Technologies		S.M.A.R.T/ Life Monitor	PLP Diag	AcuCurrent	EcoFlush	Industrial Temperature	Firmware-Based Power Loss Protection	Hardware-Based Power Loss Protection	Advanced Wear Leveling	AutoRefresh	Dynamic Data Refresh	Auto-Read Calibration	ETEDP	SED	Software Secure Erase	Hardware Secure Erase	Hardware Write Protect
Premium	A800Pi	○				○	○	○	○	○	○			○	○		
Premium	A750Pi	○	○	▲	○	○	○	○	○	○	○	○	○	○	○	▲	▲
Superior	A650Si / A650Sc	○	○	▲	○	○	○	○	○	○	○	○	○	○	○	▲	▲
Value	A600Vi / A600Vc	○				○	○		○	○	○	○					
Momentum	A400Mw	○				▲	○		○	○	○	○					

▲: Customization option available on a project basis.

Hot Items Ordering Information					
Product Line	Capacity <sub>1</sub>	Operating Temperature <sub>2</sub>	Power Loss Protection <sub>3</sub>	SED <sub>4</sub>	P/N
A800Pi	8GB	-40°C to 85°C	Hardware + Firmware Based	-	FS8G0025SP5VAPI
A800Pi	16GB	-40°C to 85°C	Hardware + Firmware Based	-	FS16G025SP5VAPI
A800Pi	32GB	-40°C to 85°C	Hardware + Firmware Based	-	FS32G025SP5VAPI
A800Pi	64GB	-40°C to 85°C	Hardware + Firmware Based	-	FS64G025SP5VAPI
A800Pi	128GB	-40°C to 85°C	Hardware + Firmware Based	-	FS128G25SP5VAPI
A800Pi	256GB	-40°C to 85°C	Hardware + Firmware Based	-	FS256G25SP7VAPI
A650Si	240GB	-40°C to 85°C	Hardware + Firmware Based	-	FT240G25SAPQBPI
A650Si	480GB	-40°C to 85°C	Hardware + Firmware Based	-	FT480G25SAPQBPI
A650Si	960GB	-40°C to 85°C	Hardware + Firmware Based	-	FT960G25SAPQBPI
A650Si	1.92TB	-40°C to 85°C	Hardware + Firmware Based	-	FT1T9225SAPQBPI
A650Si	240GB	-40°C to 85°C	Hardware + Firmware Based	✓	FT240G25SAPQBSI
A650Si	480GB	-40°C to 85°C	Hardware + Firmware Based	✓	FT480G25SAPQBSI
A650Si	960GB	-40°C to 85°C	Hardware + Firmware Based	✓	FT960G25SAPQBSI
A650Si	1.92TB	-40°C to 85°C	Hardware + Firmware Based	✓	FT1T9225SAPQBSI
A650Sc	240GB	0°C to 70°C	Hardware + Firmware Based	-	FT240G25SAPQBPC
A650Sc	480GB	0°C to 70°C	Hardware + Firmware Based	-	FT480G25SAPQBPC
A650Sc	960GB	0°C to 70°C	Hardware + Firmware Based	-	FT960G25SAPQBPC
A650Sc	1.92TB	0°C to 70°C	Hardware + Firmware Based	-	FT1T9225SAPQBPC
A650Sc	240GB	0°C to 70°C	Hardware + Firmware Based	✓	FT240G25SAPQBSC
A650Sc	480GB	0°C to 70°C	Hardware + Firmware Based	✓	FT480G25SAPQBSC
A650Sc	960GB	0°C to 70°C	Hardware + Firmware Based	✓	FT960G25SAPQBSC
A650Sc	1.92TB	0°C to 70°C	Hardware + Firmware Based	✓	FT1T9225SAPQBSC
A600Vc	32GB	0°C to 70°C	Firmware Based	-	FT32G025SAH2BFC
A600Vc	64GB	0°C to 70°C	Firmware Based	-	FT64G025SAH2BFC
A600Vc	128GB	0°C to 70°C	Firmware Based	-	FT128G25SAH2BFC
A600Vc	256GB	0°C to 70°C	Firmware Based	-	FT256G25SAH2BFC
A600Vc	512GB	0°C to 70°C	Firmware Based	-	FT512G25SAH2BFC
A600Vc	128GB	0°C to 70°C	Firmware Based	-	FT128G25SAN2BFC
A600Vc	256GB	0°C to 70°C	Firmware Based	-	FT256G25SAN2BFC
A600Vc	512GB	0°C to 70°C	Firmware Based	-	FT512G25SAN2BFC
A600Vc	1TB	0°C to 70°C	Firmware Based	-	FT1T0025SAN2BFC

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.



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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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