mSATA

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*

- LDPC & RAID Data Recovery
- End-to-End Data Path Protection
- TRIM / Global Wear Leveling support

* Customization available on a project basis

Just roughly the size of a business card, ATP's mSATA SSDs offer up to 1 TB capacity and the same speed and efficiency of SATA. They are designed to fit in systems with space constraints and high-performance requirements such as embedded and networking applications.

Two mounting holes keep the mSATA module securely installed, protecting it from shock and vibration. ATP mSATA SSDs are available in industrial temperature ratings for trustworthy performance in sub-freezing or extremely hot settings. Available on select mSATA SSDs, ATP's advanced power loss protection (PLP) technology, which combines hardware and/or software solutions to prevent data corruption and storage device damage when power glitches, losses and failures occur.

Specifications

	SATA III mSATA 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	MO-300A							
Operating Temperature	-40°C to 85°C	-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	0°C to 70°C
Power Loss Protection Options	Hardware + Firmware Based							Firmware Based
Optional SED Features	AES 128/256-bit Encryption	AES 256-bit Encryption, TCG Opal 2.0						-
Capacity	8 GB to 128 GB	40 GB to 160 GB		240 GB to 960 GB		120 GB to 480 GB		32 GB to 1 TB
Performance								
Sequential Read (MB/s) up to	530	560		560		560		560
Sequential Write (MB/s) up to	430	520		525		510		525
Random Reads IOPS up to	76,000	90,000	94,000	104,000		100,000		72,000
Random Writes IOPS up to	-	88,000	85,000	90,000		88,000		85,000
Endurance and Reliability								
Endurance (TBW)[1] up to	10,667 TB	9,600 TB	6,400 TB	4,655 TB		1,396 TB		2,792 TB
Reliability MTBF @ 25°C	>2,000,000 hours							
Others								
Dimensions (mm)	50.8 x 29.85 x 3.5							
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	Joint Validation
Premium	○	○	○	○	○	○	○	▲	○	○	▲	▲	▲
Superior	○	○	○	○	○	○	○	▲	○	▲	▲	▲	▲
Value	○	○	—	○	○	○	—	—	—	—	—	—	—

1 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	-	FS8G00MSAP5VAPI
A800Pi	16GB	-40°C to 85°C	Hardware + Firmware Based	-	FS16G0MSAP5VAPI
A800Pi	32GB	-40°C to 85°C	Hardware + Firmware Based	-	FS32G0MSAP5VAPI
A800Pi	64GB	-40°C to 85°C	Hardware + Firmware Based	-	FS64G0MSAP6VAPI
A800Pi	128GB	-40°C to 85°C	Hardware + Firmware Based	-	FS128GMSAP7VAPI
A650Si	240GB	-40°C to 85°C	Hardware + Firmware Based	-	FT240GMSAAPQBPI
A650Si	480GB	-40°C to 85°C	Hardware + Firmware Based	-	FT480GMSAAPQBPI
A650Si	960GB	-40°C to 85°C	Hardware + Firmware Based	-	FT960GMSAAPQBPI
A650Si	240GB	-40°C to 85°C	Hardware + Firmware Based	√	FT240GMSAAPQBSI
A650Si	480GB	-40°C to 85°C	Hardware + Firmware Based	√	FT480GMSAAPQBSI
A650Si	960GB	-40°C to 85°C	Hardware + Firmware Based	√	FT960GMSAAPQBSI
A650Sc	240GB	0°C to 70°C	Hardware + Firmware Based	-	FT240GMSAAPQBPC
A650Sc	480GB	0°C to 70°C	Hardware + Firmware Based	-	FT480GMSAAPQBPC
A650Sc	960GB	0°C to 70°C	Hardware + Firmware Based	-	FT960GMSAAPQBPC
A650Sc	240GB	0°C to 70°C	Hardware + Firmware Based	√	FT240GMSAAPQBSC
A650Sc	480GB	0°C to 70°C	Hardware + Firmware Based	√	FT480GMSAAPQBSC
A650Sc	960GB	0°C to 70°C	Hardware + Firmware Based	√	FT960GMSAAPQBSC
A600Vc	32GB	0°C to 70°C	Firmware Based	-	FT32G0MSAAH2BFC
A600Vc	64GB	0°C to 70°C	Firmware Based	-	FT64G0MSAAH2BFC
A600Vc	128GB	0°C to 70°C	Firmware Based	-	FT128GMSAAH2BFC
A600Vc	256GB	0°C to 70°C	Firmware Based	-	FT256GMSAAH2BFC
A600Vc	512GB	0°C to 70°C	Firmware Based	-	FT512GMSAAH2BFC
A600Vc	128GB	0°C to 70°C	Firmware Based	-	FT128GMSAAN2BFC
A600Vc	256GB	0°C to 70°C	Firmware Based	-	FT256GMSAAN2BFC
A600Vc	512GB	0°C to 70°C	Firmware Based	-	FT512GMSAAN2BFC
A600Vc	1TB	0°C to 70°C	Firmware Based	-	FT1T00MSAAN2BFC

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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