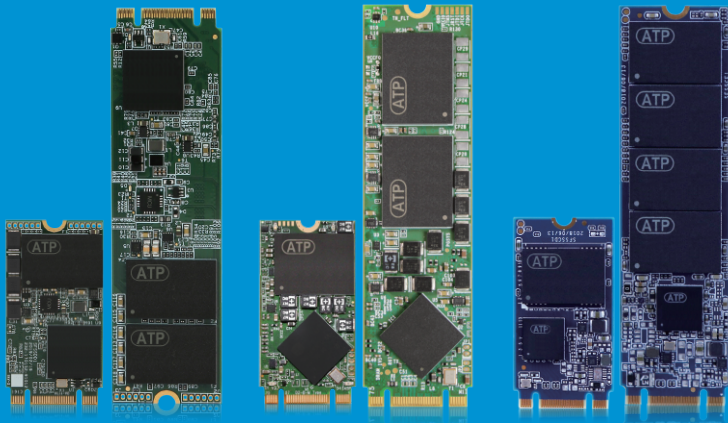




M.2 SATA

Targeted Product Portfolio, Engineered Specifically for Your Mission Critical Applications



Key Features

- MCU-based Power Loss Protection Design*
- LDPC & RAID Data Recovery
- End-to-End Data Protection
- TRIM / Global Wear Leveling support

* Customization available on a project basis

ATP's Industrial M.2 Serial ATA (SATA) solid state modules are available in types 2242 and 2280. These lean modules provide higher performance and capacity while minimizing the overall module footprint, making them perfect choices for small systems installed in limited spaces.

Available in both double- and single-sided configurations, M.2 SATA SSDs are packed with high densities and can withstand severe temperature shifts common in industrial environments, thanks to wide operating temperature ratings of -40°C to 85°C.

ATP M.2 modules are suitable for networking and thin storage systems, point-of-sale systems (POS), and industrial computer applications. Select M.2 SATA SSDs feature a microcontroller unit (MCU) design for enhanced power loss protection (PLP) in various temperatures, power glitches and charge states, thus safeguarding data and storage device for higher levels of integrity and reliability.

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

M.2 SATA							
Product Line	A800Pi	A700Pi	A600Si	A600Sc	A600Si	A600Sc	A600Vc
Interface	SATA III 6 Gb/s						
Flash Type	SLC	Pseudo SLC	MLC	MLC	3D TLC	3D TLC	3D TLC
Form Factor	2242 D2-B-M						
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	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 64 GB	16 GB to 160 GB	16 GB to 64 GB	16 GB to 64 GB	120 GB to 480 GB	120 GB to 480 GB	32 GB to 128 GB
Performance							
Performance	Sequential Read (MB/s) up to	530	560	440	440	560	560
	Sequential Write (MB/s) up to	400	520	80	80	440	420
	Random Read IOPS (4K, QD32) up to	76,000	84,500	38,400	38,400	100,000	68,000
	Random Writes IOPS (4K, QD32) up to	76,000	84,500	20,000	20,000	88,000	81,000
Endurance and Reliability							
Endurance (TBW) ² up to	5,333 TB	6,400 TB	145.5 TB	174.6 TB	1,396 TB	1,396 TB	147.7 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)				
Others							
Power Consumption	3.3V Input Power						
Dimensions: L x W x H (mm)	42 x 22 x 3.5						42 x 22 x 3.2
Certifications	CE, FCC	CE, FCC,BSMI, RoHS, REACH	CE, FCC	CE, FCC	CE, FCC,BSMI, RoHS, REACH	CE, FCC,BSMI, RoHS, REACH	CE, FCC
Warranty	5 years			2 years			

M.2 SATA				
Product Line	A700Pi	A600Si	A600Sc	A600Vc
Interface	SATA III 6 Gb/s			
Flash Type	Pseudo SLC	3D TLC	3D TLC	3D TLC
Form Factor	2280 D2-B-M			2280 S2-B-M
Operating Temperature (Tcase) ¹	-40 °C to 85 °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 256-bit Encryption, TCG Opal 2.0		-
Capacity	80 GB to 320 GB	120 GB to 960 GB	120 GB to 960 GB	32 GB to 512 GB
Performance				
Performance	Sequential Read (MB/s) up to	560	560	560
	Sequential Write (MB/s) up to	520	440	440
	Random Read IOPS (4K, QD32) up to	94,000	100,000	72,000
	Random Writes IOPS (4K, QD32) up to	86,000	88,000	85,000
Endurance and Reliability				
Endurance (TBW) ² up to	12,800 TB	2,792 TB	2,792 TB	590.8 TB
Reliability MTBF @ 25 °C	>2,000,000 hours			
Data Retention @ 30 °C ³	5 years (with 10% P/E cycle)			
Others				
Power Consumption	3.3V Input Power			
Dimensions: L x W x H (mm)	80 x 22 x 3.35			80 x 22 x 2.2
Certifications	CE, FCC,BSMI, RoHS, REACH			CE, FCC
Warranty	5 years	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.

M.2 2280 Hot Items Ordering Information

Product Line	Capacity ¹	Operating Temperature ²	Power Loss Protection ³	SED ⁴	P/N
A600Si	120GB	-40°C to 85°C	Hardware + Firmware Based	-	AF120GSTIC-7BAIP
A600Si	240GB	-40°C to 85°C	Hardware + Firmware Based	-	AF240GSTIC-7BAIP
A600Si	480GB	-40°C to 85°C	Hardware + Firmware Based	-	AF480GSTIC-7BAIP
A600Si	960GB	-40°C to 85°C	Hardware + Firmware Based	-	AF960GSTIC-7BAIP
A600Sc	120GB	0°C to 70°C	Hardware + Firmware Based	-	AF120GSTIC-7BAXP
A600Sc	240GB	0°C to 70°C	Hardware + Firmware Based	-	AF240GSTIC-7BAXP
A600Sc	480GB	0°C to 70°C	Hardware + Firmware Based	-	AF480GSTIC-7BAXP
A600Sc	960GB	0°C to 70°C	Hardware + Firmware Based	-	AF960GSTIC-7BAXP
A600Vc	32GB	0°C to 70°C	Firmware Based	-	AF32GSTIC-2BAXX
A600Vc	64GB	0°C to 70°C	Firmware Based	-	AF64GSTIC-2BAXX
A600Vc	128GB	0°C to 70°C	Firmware Based	-	AF128GSTIC-2BAXX
A600Vc	256GB	0°C to 70°C	Firmware Based	-	AF256GSTIC-2BAXX
A600Vc	512GB	0°C to 70°C	Firmware Based	-	AF512GSTIC-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

202106

ATP TAIWAN (HQ)

TEL: +886-2-2659-6368
sales-apac@atpinc.com

ATP USA

TEL: +1-408-732-5000
sales@atpinc.com

ATP EUROPE

TEL: +49-89-374-9999-0
sales-europe@atpinc.com

ATP JAPAN

TEL: +81-3-6260-0797
sales-japan@atpinc.com

ATP CHINA

TEL: +86-21-5080-2220
sales@cn.atpinc.com