ATP microSD/microSDHC/microSDXC Card Industrial Grade
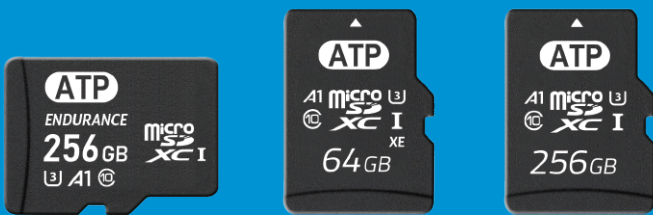
Targeted Product Portfolio, Engineered Specifically for Your Mission Critical Applications

Key Features

- SD Life Monitor
- Dynamic Data Refresh
- Power failure protection
- Industrial temperature
- 100% MP Level Test

These tiny yet feature-rich and reliable removable storage solutions are used extensively in data logging, navigation and surveillance systems, in-vehicle infotainment (IVI), drive recorders, and other demanding applications.

To ensure data integrity, ATP microSD cards feature AutoRefresh read disturb protection and Dynamic Data Refresh data retention management technologies to prevent errors in frequently read and seldom-accessed areas. The Sudden Power-Off Recovery (SPOR) mechanism recovers valid data during voltage fluctuations or power loss events.

ATP microSD cards in 3D triple level cell (TLC) NAND flash come in capacities up to 256 GB. They feature 4KB page management and SLC caching algorithm, which allows 1/2 random access time and low latency compared with traditional solutions. These cards meet Android A1 application performance (SDA spec) and consume less power, making them suitable for small handheld devices with limited battery life.

Technologies & Add-On Services	Life Monitor	Sudden Power-Off Recovery (SPOR)	AutoRefresh	Advanced Wear Leveling	Dynamic Data Refresh	Auto-Read Calibration	Secure Erase	Industrial Temperature	SiP	Complete Drive Test	Joint Validation
Premium	▲	○	○	○	▲	—	○	○	○	○	▲
Superior	▲	○	○	○	○	▲	○	▲	○	○	▲

▲: Customization option available on a project basis.

Specifications

microSD/microSDHC/microSDXC					
Product Line	Premium			Superior	
	S800Pi	S750Pi	S700Pi	S750Sc	S700Sc
Interface	512 MB to 2 GB, HS mode 4 GB to 8 GB, UHS-I	UHS-I		UHS-I	
Flash Type	SLC	3D Pseudo SLC		3D Pseudo SLC	
Form Factor	microSD Card				
Operating Temperature	-40°C to 85°C			-25°C to 85°C	
Power Loss Protection Options	Firmware Based				
Optional SED Features	-				
Capacity	512 MB to 8 GB	8 GB to 64 GB		8 GB to 64 GB	
Performance					
Sequential Read (MB/s) up to	80	99	95	99	95
Sequential Write (MB/s) up to	39	82	74	82	74
Endurance and Reliability					
Endurance (TBW)[1] up to	192 TB	3840 TB	512 TB	3840 TB	512 TB
Reliability MTBF @ 25°C	>5,000,000 hours	>2,000,000 hours	>3,000,000 hours	>2,000,000 hours	>3,000,000 hours
Reliability Number of Insertions	20,000 (SDA spec minimum 10,000)				
Others					
Dimensions: L x W x H (mm)	15.0 x 11.0 x 1.0				
Certifications	CE, FCC, UKCA, RoHS				
Warranty	5 years			2 years	

microSD/microSDHC/microSDXC						
Product Line	Superior					
	S650Si	S650Sc	S600Si	S600Sc	S600Sia	S600Sc
Interface	UHS-I					
Flash Type	3D TLC			MLC	3D TLC	
Form Factor	microSD Card					
Operating Temperature	-40°C to 85°C	-25°C to 85°C	-40°C to 85°C	-25°C to 85°C	-40°C to 85°C	-25°C to 85°C
Power Loss Protection Options	Firmware Based					
Optional SED Features	-					
Capacity	32 GB to 256 GB		32 GB to 256 GB	4 GB to 8 GB	32 GB to 256 GB	
Performance						
Sequential Read (MB/s) up to	96		96	68	96	
Sequential Write (MB/s) up to	65		70	24	70	
Endurance and Reliability						
Endurance (TBW)[1] up to	1280 TB		307 TB	10 TB	307 TB	
Reliability MTBF @ 25°C	>2,000,000 hours					
Reliability Number of Insertions	20,000 (SDA spec minimum 10,000)					
Others						
Dimensions: L x W x H (mm)	15.0 x 11.0 x 1.0					
Certifications	CE, FCC, UKCA, RoHS					
Warranty	3 years		2 years			

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

Hot Items Ordering Information				
Product Line	Flash Type	Capacity	Operating Temperature	P/N
S750Pi	3D pSLC	8 GB ~ 64 GB	-40°C~85°C	AF8GUD4A-EBAIM
				AF16GUD4A-EBAIM
				AF32GUD4A-EBAIM
				AF64GUD4A-EBAIM
S750Sc	3D pSLC	8 GB ~ 64 GB	-25°C~85°C	AF8GUD4A-EBAXM
				AF16GUD4A-EBAXM
				AF32GUD4A-EBAXM
				AF64GUD4A-EBAXM
S650Si	3D TLC	32 GB ~ 256 GB	-40°C~85°C	AF32GUD4-EBAIM
				AF64GUD4-EBAIM
				AF128GUD4-EBAIM
				AF256GUD4-EBAIM
S650Sc	3D TLC	32 GB ~ 256 GB	-25°C~85°C	AF32GUD4-EBAXM
				AF64GUD4-EBAXM
				AF128GUD4-EBAXM
				AF256GUD4-EBAXM

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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