



ATP Industrial Grade SD/SDHC/SDXC

Targeted Product Portfolio, Engineered Specifically for Your Mission Critical Applications



ATP Industrial Grade SD/SDHC/SDXC cards are designed for application in demanding industries, such as automotive, healthcare, and aviation, where critical data requires the highest level of reliability, durability, and data integrity. They are also suitable for removable application and small footprint mechanism devices.

ATP SD cards with read disturb protector-AutoRefresh technology and Autoscan features are best suited for read intensive applications. For instance in the automotive industry, ATP SD cards have been recognized by worldwide major tier 1 Auto Infotainment Suppliers and tier 2 telematics electronic vehicle system developers/service providers for their map system, IVI (in-vehicle-infotainment), and OS boot-up. On the other hand, ATP SD cards with SLC mode and Power cycling solution are ideal for write intensive applications. Such applications include data logging and storage of hospital medical devices and surveillance systems.

Moreover, with ATP's SiP (System-In-Packaging) manufacturing process, the operating/ storage temperature of ATP Industrial Grade SD cards is -40 to 85 degrees Celsius. All ATP Industrial Grade products go through multi data pattern burn in test. This is to screen for early fallout occasionally seen in any semiconductor technology.

Key Features

- SLC (Single-Level-Cell) NAND flash and MLC (Multi-Level Cell / 2-bit per Cell) NAND Flash
- Advanced Wear Leveling algorithm
- Bad Block Management
- Read Disturb Protector - AutoRefresh to ensure data integrity during read operation
- IP67 waterproof/Dustproof test (IEC 60529)
- Highly reliable and pass environmental test (Bend/Torque/Salt Spray/Solar radiation)
- ESD resistance
- Life Monitor (Note : The compatibility and support of Life Monitor may vary on different platform/operation system)

Applications

- Industrial PC
- Medical devices
- Automation
- Automotive IVI systems
- Test and Measurement
- Surveillance systems
- Drive recorders
- Navigations
- Network cameras
- Mobile/Handheld computers



Specifications

Product Name	SD/SDHC/SDXC			
Flash Type	SLC	iTemp MLC	MLC	aMLC
Density	512MB to 8GB	8GB to 32GB	8GB to 128GB	4GB to 8GB
Performance	Sequential Read up to 68.86 MB/s	Sequential Read up to 93.89 MB/s	Sequential Read up to 91.1 MB/s	Sequential Read up to 74.4 MB/s
	Sequential Write up to 38.14 MB/s	Sequential Write up to 37.75 MB/s	Sequential Write up to 58.9 MB/s	Sequential Write up to 27.3 MB/s
Interface	SD2.0 Class 6 (512MB~2GB) SD3.0 UHS-I (4GB~8GB)	SD4.2 UHS-I	SD3.0 UHS-I	SD3.0 UHS-I
Operation Temperature	-40°C to +85°C		-25°C to +85°C	
Reliability	<ul style="list-style-type: none"> Advanced Static Dynamic Wear-Leveling AutoRefresh 	<ul style="list-style-type: none"> Advanced Static Dynamic Wear-Leveling AutoRefresh Dynamic Data Refresh 	<ul style="list-style-type: none"> Advanced Static Dynamic Wear-Leveling AutoRefresh 	<ul style="list-style-type: none"> Advanced Static Dynamic Wear-Leveling
	TBW*(max.): 192 TB	TBW*(max.): 38.4 TB	TBW*(max.): 153 TB	TBW*(max.): 128 TB
	MTBF@25°C: >5,000,000 hours	MTBF@25°C: >2,000,000 hours		
	Number of Insertions: 10,000 minimum			
Dimensions: LxWxH (mm)	32.0 x 24.0 x 2.1			

* All TBW data listed are under highest sequential write value in each product line. The TBW data are subject to change by density, configuration and customers' applications.

Ordering Information

Density	SLC	iTemp MLC	MLC	aMLC
512MB	AF512SDI-ZADXM	-	-	-
1GB	AF1GSDI-ZADXM	-	-	-
2GB	AF2GSDI-ZAEXM	-	-	-
4GB	AF4GSDI-WADXM	-	-	AF4GSD3A-WAAXX
8GB	AF8GSDI-WADXM	AF8GSD3-WACIM	AF8GSD3-WACXM	AF8GSD3A-WAAXX
16GB	-	AF16GSD3-WACIM	AF16GSD3-WACXM	-
32GB	-	AF32GSD3-WABIM	AF32GSD3-WABXM	-
64GB	-	-	AF64GSD3-WACXM	-
128GB	-	-	AF128GSD3-WAAXM	-

ATP TAIWAN(HQ)

TEL: +886-2-2659-6368
FAX: +886-2-2659-4982
sales-apac@atpinc.com

ATP USA

TEL: +1-408-732-5000
FAX: +1-408-732-5055
sales@atpinc.com

ATP EUROPE

TEL: +49-89-374-9999-0
FAX: +49-89-374-9999-29
sales-europe@atpinc.com

ATP JAPAN

TEL: +81-3-6206-8097
FAX: +81-3-6206-8098
sales-japan@atpinc.com

ATP CHINA

TEL: +86-21-5080-2220
FAX: +86-21-9687-0000-026
sales@cn.atpinc.com