



# 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	MLC
Density	512MB to 32GB	8GB to 128GB
Performance	Sequential Read up to 20MB/s	Sequential Read up to 87.2MB/s
	Sequential Write up to 18MB/s	Sequential Write up to 58.9MB/s
Interface	SD2.0	SD3.0 UHS Mode
Operation Temperature	-40°C to +85°C	-25°C to +85°C
Reliability	Advanced Static/Dynamic Wear-Leveling	
	TBW**(max.): 384TB	TBW**(max.): 38.4TB
	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 random write value in each product line. The TBW data are subject to change by density, configuration and customers' applications.

## Ordering Information

Density	SD / SDHC (SLC)	SDHC / SDXC (MLC)
512MB	AF512SDI-5ACXX	-
1GB	AF1GSDI-5ACXX	-
2GB	AF2GSDI-5ADXX	-
4GB	AF4GSDI-5ACXX	-
8GB	AF8GSDI-5ACXX	AF8GSD3-WABXX
16GB	AF16GSDI-5ABXX	AF16GSD3-WABXX AF16GSD3-WACXX*
32GB	AF32GSDI-5AAXX	AF32GSD3-WABXX
64GB	-	AF64GSD3-WACXX*
128GB	-	AF128GSD3-WAAXX*

\* New product, contact ATP sales

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