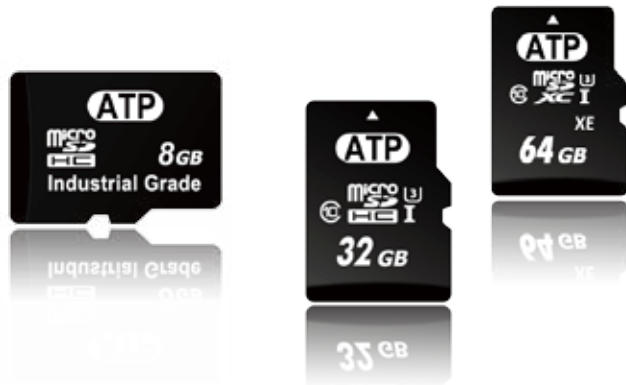


# ATP Industrial Grade microSD/microSDHC

Targeted Product Portfolio, Engineered Specifically for Your Mission Critical Applications



ATP Industrial microSD/microSDHC cards are designed for demanding applications, such as navigation system, digital camera, driving recorder, handheld devices, multi-media player and systems.

ATP microSD cards with read disturb protector- AutoRefresh technology and Autoscan features are best suited for read intensive applications. For instance ATP microSD cards have been tested and qualified by major handheld companies such as Motorola and Honeywell. On the other hand, ATP microSD 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 microSD 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
- IP57 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	microSD/microSDHC/microSDXC				
Flash Type	SLC	aMLC	iTemp aMLC	MLC	iTemp MLC
Density	512MB to 8GB	4GB to 32GB	4GB to 16GB	8GB to 128GB	8GB to 32GB
Performance	Sequential Read up to 82 MB/s	Sequential Read up to 96 MB/s	Sequential Read up to 88 MB/s	Sequential Read up to 96 MB/s	Sequential Read up to 79 MB/s
	Sequential Write up to 39 MB/s	Sequential Write up to 86 MB/s	Sequential Write up to 79.2 MB/s	Sequential Write up to 80.6 MB/s	Sequential Write up to 74.9 MB/s
Interface	<b>High Speed Mode</b> Class 6 (512MB to 2GB) Class 10 (4GB to 8GB) <b>Ultra High Speed Mode</b> UHS-I, U1 (4GB to 8GB)	<b>Ultra High Speed Mode</b> UHS-I, U3		<b>Ultra High Speed Mode</b> UHS-I, U1 (8GB to 16GB) UHS-I, U3 (32GB to 64GB)	
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	
Storage Temperature	-55°C to 90°C				
Reliability	Advanced Static/Dynamic Wear-Leveling/ AutoRefresh & Dynamic Data Refresh**				
	TBW*(max.) : 192 TB	TBW*(max.) : 256 TB		TBW*(max.) : 153 TB	TBW*(max.) : 38.4 TB
	MTBF@25C: >5,000,000 hours	MTBF@25C: >3,000,000 hours		MTBF@25C: >2,000,000 hours	
	Number of Insertions: 10,000 minimum				
Dimensions: LxWxH (mm)	15.0 x 11.0 x 1.0				

\* 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.

\*\*Available on a project basis.

## Ordering Information

Density	SLC	aMLC	iTemp aMLC	MLC	iTemp MLC
512MB	AF512UDI-ZADXM	-	-	-	-
1GB	AF1GUDI-ZADXM	-	-	-	-
2GB	AF2GUDI-ZAEXM	-	-	-	-
4GB	AF4GUDI-WACXM	AF4GUD3A-WABXM AF4GUD3A-WAAXX	AF4GUD3A-WABIM AF4GUD3A-WAAIM	-	-
8GB	AF8GUDI-WACXM	AF8GUD3A-WABXM AF8GUD3A-WAAXX	AF8GUD3A-WABIM AF8GUD3A-WAAIX	AF8GUD3-WAAXX AF8GUD3-WABXM	AF8GUD3-WABIM
16GB	-	AF16GUD3A-WABXM AF16GUD3A-WAAXX	AF16GUD3A-WABIM AF16GUD3A-WAAIX	AF16GUD3-WAAXX AF16GUD3-WABXM	AF16GUD3-WABIM
32GB	-	-	-	AF32GUD3-WAAXX AF32GUD3-WABXM	AF32GUD3-WABIM
64GB	-	-	-	AF64GUD3-WAAXM	-
128G	-	-	-	AF128GUD3-WAAXM	-

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[More product information >>>](#)

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