



ATP Electronics, Inc.

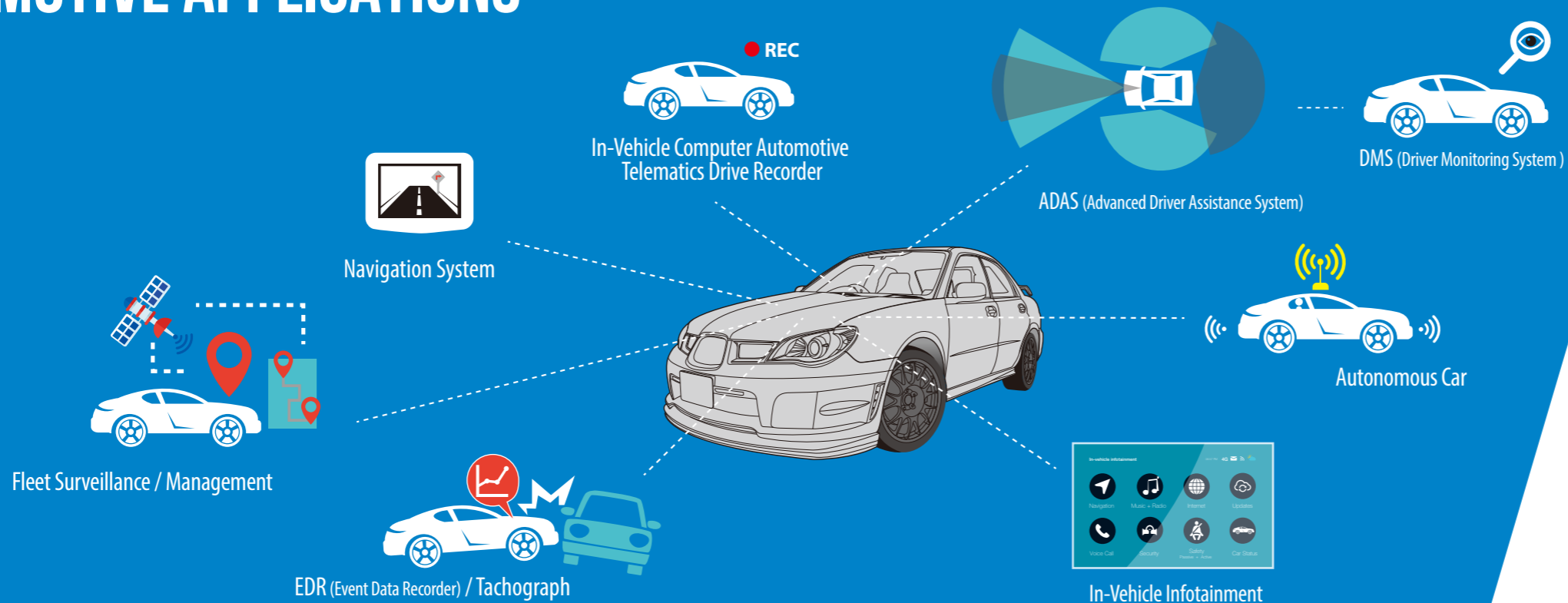


Industry Leading NAND Flash Storage for Automotive Solutions

Advocating Quality and Innovation

- ✓ Certifications : ISO9001, ISO14001, ISO/TS16949
- ✓ ATP IVI Test Plan : Selected AEC-Q100 test items & conditions
- ✓ PPAP : Prdoduction Part Approval Process
- ✓ 8D reports and failure analysis
- ✓ 100% Production Level Burn-In Test
- ✓ IMDS : International Material Data System
- ✓ APQP : Advanced Product Quality Planning

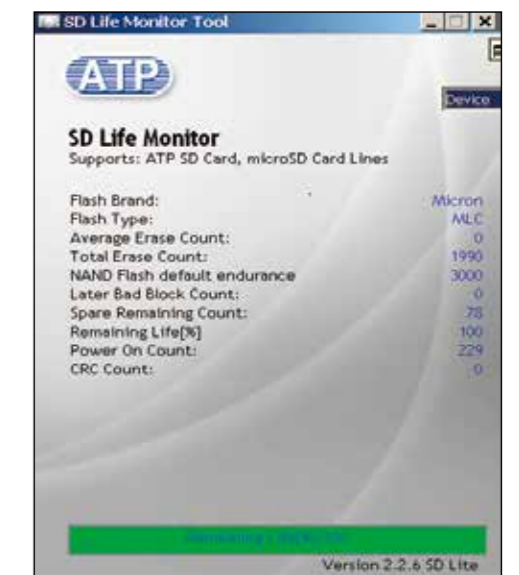
AUTOMOTIVE APPLICATIONS



SD Life Monitor

A health status monitoring tool

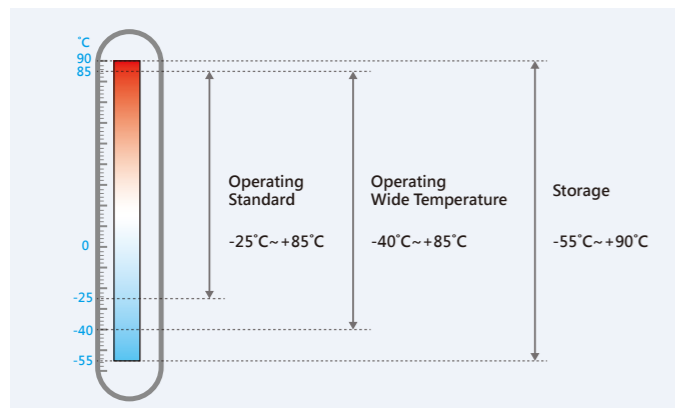
- Activates real-time health check and provides storage identification information at a glance
- Supports a wide array of customers' operating systems/software integration
- Executes Product life simulation for an early warning to prevent wear out/spare block exhaustion



Features of ATP Products for Automotive Solutions

Industrial Temperature

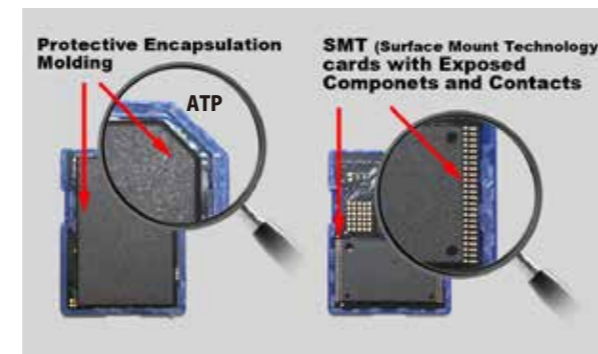
Operating Standard / Operating Wide Temperature / Storage



Robustness and Reliability

System-in-Package (SiP)

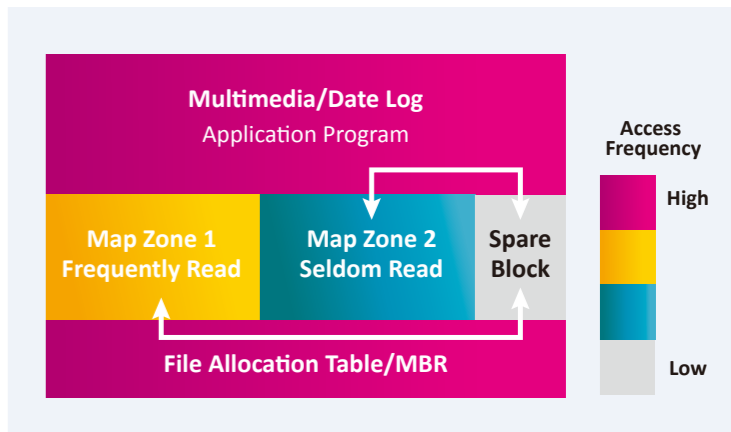
- Waterproof (IPX7)
- Dustproof (IP5X, IP6X)
- ESD Resistant: AEC-Q100-002/003/011
- Shock Resistant: AEC-Q100 JESD22-B104



Data Integrity

AutoRefresh and Dynamic Data Refresh

- Checks not only error bits but also read counts in both frequent and seldom read areas.
- Once reaching the error bit or read count threshold, the data will be moved to another healthy blocks and prevent data corruption.
- Without affecting read/write operation Dynamic Data Refresh running automatically in the background and sequentially scan the user area with flag record.



Extreme Durability

Number of Insertions: 20,000

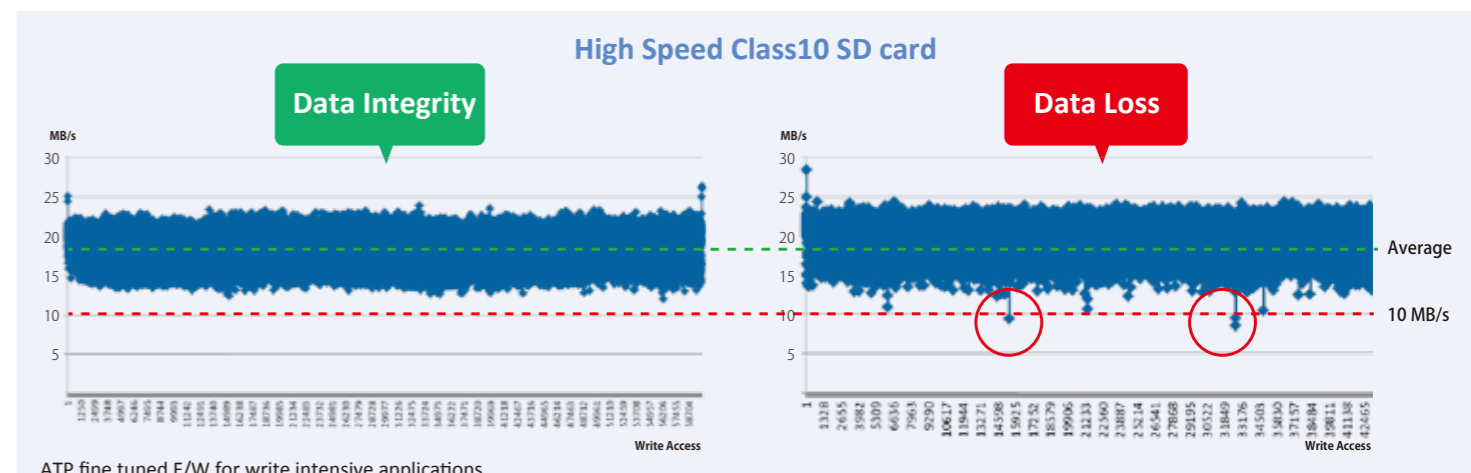


ATP Developed Tester

Reliability Demonstration Test(RDT) Equipment
ATP NAND Flash IC Level Test



Consistent performance



ATP fine tuned F/W for write intensive applications.



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Complete MLC Flash Product Line

ATP UHS-I SD/microSDHC memory cards are recommended for intensive read operations such as, automotive IVI and navigation systems. They are also ideal for intensive write operations such as surveillance systems and drive recorders.

Product Name	SDHC/SDXC	microSDHC
Density	8GB to 128GB	8GB to 32GB
Interface	SD3.0 UHS-I Mode	
Speed Class	High Speed Class 10 / UHS speed Class 1	
Performance	Sequential Read up to 91MB/s (SDR104) Sequential Write up to 58MB/s (SDR104)	Sequential Read up to 68 MB/s (SDR104) Sequential Write up to 24 MB/s (SDR104)
Operating Temperature	-25°C to 85°C, -40°C to 85°C (by project)	
Storage Temperature	-55°C to 90°C	
Reliability	MTBF@25°C: > 2,000,000 hours Number of Insertions: 20,000	
Dimensions: LxWxH(mm)	32.0 x 24.0 x 2.1	15.0 x 11.0 x 1.0

*Please contact ATP sales window for product selection and further information.

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