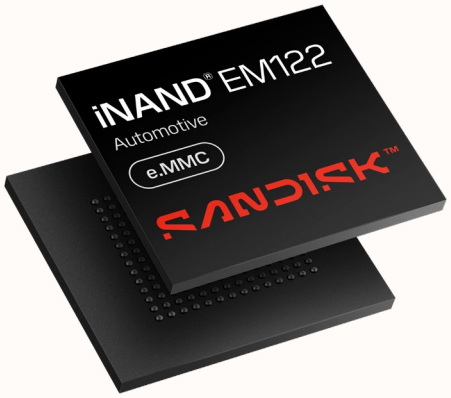

(→) SANDISK® iNAND® AT EM122

Automotive Embedded Storage Solutions

Reliable Edge Storage in A Connected World

The automotive industry is on the cusp of a disruptive technology phase –cars are not simply mechanical engines but are computers on wheels driving a next generation of hardware and software requirements. As cars become connected and autonomous, massive amounts of data are being created and consumed. Reliable, high capacity managed NAND is the ideal solution for this data to be stored and analyzed. Sandisk offers a proven portfolio of automotive grade products designed for the evolving requirements of the connected automotive market.

Vertically integrated, Sandisk owns all critical steps of the design and production process-ensuring industry leading quality and reliability. Managed NAND solutions from Sandisk leverage close to 30 years of flash storage innovation. Sandisk's automotive flash storage solutions and support provide reliability, performance and peace of mind that enable next generation advanced automotive applications.

The Sandisk Advantage

Sandisk has close to 30 years of expertise in NAND flash development and system design. With a vertically integrated business model, Sandisk products come with world-class technical and design support, as well as BOM control with PCN support.

Key Features and Benefits

- Automotive grade storage solutions
- e.MMC 5.1 HS400 standard
- Capacities: 8GB - 64GB[1]
- Automotive Grade 3 and 2 temp ranges: -40°C to 85°C/-40°C to 105°C
- Core voltage: 2.7V to 3.6V
- Host voltage of 1.7-1.95V or 2.7-3.6V
- High reliability design: enhanced MLC, advanced error correction
- Advanced memory management firmware features including ECC, wear leveling, bad block management
- Automotive specific feature set including advanced health status monitor, enhanced power failure protection, manual and automatic refresh, fast boot, flexible EUDA, OEM configurable boot and RPMB partitions
- Optimized for a wide variety of read and write intensive use cases

Product Quality and Reliability

- AEC-Q100 qualification
- Production Part Approval Process (PPAP) documentation
- Extended PCN/EOL notices
- Low DPPM manufacturing flow with zero defect strategy, special manufacturing process and enhanced controls, adhering to ISO26262 design guidelines for NVM based products
- Close to 30 years of expertise in NAND flash development and system design
- Full vertical integration of design, manufacturing, assembly, test, reliability analysis and monitoring-supporting the entire product life-cycle

Serving Multiple Automotive Applications

Ideal on board storage solution for various automotive applications

- Navigation/Infotainment systems
- Advanced Driver Assist Systems (ADAS)
- HD mapping
- V2V/V2I communication
- Digital cluster
- Event/Drive recorders
- Autonomous drive
- Telematics and Over-The-Air update

Ordering Information and Specifications

Automotive e.MMC Cards

Part No	Capacity[1]	Package (mm)	Seq R/W[2]	Random R/W[2]	Data Retention	Op temp Range	Availability
SDINBDG4-8G-XA3	8GB	11.5×13×0.8	300/30 MB/s	10K/7K IOPS	15yr@55°C Fresh	-40°C to 85°C	In Production
SDINBDG4-16G-XA3	16GB	11.5×13×0.8	300/55 MB/s	22K/12K IOPS	15yr@55°C Fresh	-40°C to 85°C	In Production
SDINBDG4-32G-XA3	32GB	11.5×13×1.0	300/125 MB/s	22K/12K IOPS	15yr@55°C Fresh	-40°C to 85°C	In Production
SDINBDG4-64G-XA3	64GB	11.5×13×1.2	300/125 MB/s	22K/12K IOPS	15yr@55°C Fresh	-40°C to 85°C	In Production
SDINBDG4-8G-ZA3	8GB	11.5×13×0.8	300/30 MB/s	10K/7K IOPS	15yr@55°C Fresh	-40°C to 105°C	In Production
SDINBDG4-16G-ZA3	16GB	11.5×13×0.8	300/55 MB/s	22K/12K IOPS	15yr@55°C Fresh	-40°C to 105°C	In Production
SDINBDG4-32G-ZA3	32GB	11.5×13×1.0	300/125 MB/s	22K/12K IOPS	15yr@55°C Fresh	-40°C to 105°C	In Production
SDINBDG4-64G-ZA3	64GB	11.5×13×1.2	300/125 MB/s	22K/12K IOPS	15yr@55°C Fresh	-40°C to 105°C	In Production

1. 1GB=1,000,000,000 bytes. Actual user storage less.
2. Based on internal testing; performance may vary depending upon drive capacity, file attributes, host device, OS and application.

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