micron

Simplified solutions

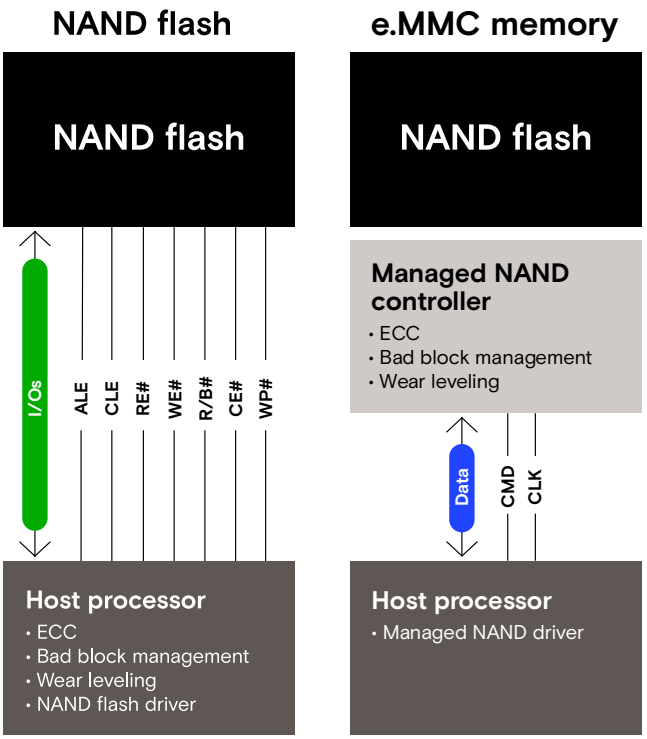
e.MMC for automotive, industrial and consumer

Micron® e.MMC memory

Micron e.MMC memory provides advanced technology for automotive, industrial and consumer applications, emphasizing performance, reliability and cost-effectiveness.

- **Comprehensive:** Combines leading-edge NAND flash with a JEDEC-compliant controller in a BGA package, simplifying system development.
- **Versatile, high-performance:** A wide range of e.MMC v5.1 densities and grades that support dual voltage, have high endurance and are backwards compatible.
- **Automotive and industrial applications:** Features in-house firmware, high-temperature tolerance, and compliance with ISO 9001/IATF 16949 quality standards.
- **Consumer market adaptability:** Cost-effective solutions to meet the demands of consumer applications, tested for a wide range uses.

For designs necessitating mass storage, Micron e.MMC helps developers address the ECC implementation and data management complexities of MLC and TLC NAND flash devices, enabling efficient system integration across automotive, industrial and consumer applications. Additionally, Micron e.MMC manages operations like wear leveling, bad block management and device mapping internally, as well as error management, enabling efficient system integration and optimizing overall performance.



Five ways e.MMC can benefit your design

Broad portfolio

Automotive-, industrial- and consumer-grade e.MMC solutions to meet your specific needs

Dual voltage support

Flexibility to configure per specific application requirement

Superior endurance

Ultra endurance of up to 150k PEC for longevity

Flexibility

- Industry-standard 153-ball BGA
- JEDEC-compliant 100-ball BGA; for easier routing, lower board cost and better signal integrity

Automotive qualification

Get the best quality and product longevity with our automotive-qualified e.MMC memory

Micron e.MMC memory for embedded

Automotive applications

- Advance driver assistance systems
- Cluster/dashboard
- Infotainment
- Gateway
- Drive data recorder

Industrial applications

- Factory/building automation
- Point of sales
- Energy
- Transportation
- Aerospace and defense
- Surveillance
- Internet of Things (IOT)
- Medical equipment

Consumer applications

- Digital TVs (DTV)
- Set-top boxes (STB)
- Home automation
- Digital video cameras (DVC)
- Digital still cameras (DSC)
- Augmented reality/virtual reality (AR/VR)
- Wearables

Micron e.MMC memory performance summary

Specs	e.MMC v5.1
Density	8GB up to 256GB
Ballout and package	Industry-standard 153-ball BGA JEDEC standard 100-ball BGA for easy routing
Sequential write	Up to 90/240 MB/s
Sequential read	Up to 270/330 MB/s
Random write	Up to 5000/15,000 IOPS
Random read	Up to 5000/15,000 IOPS
Temperature (T_{CASE})	Industrial: -40C to 95C; Automotive -40C to 115C

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