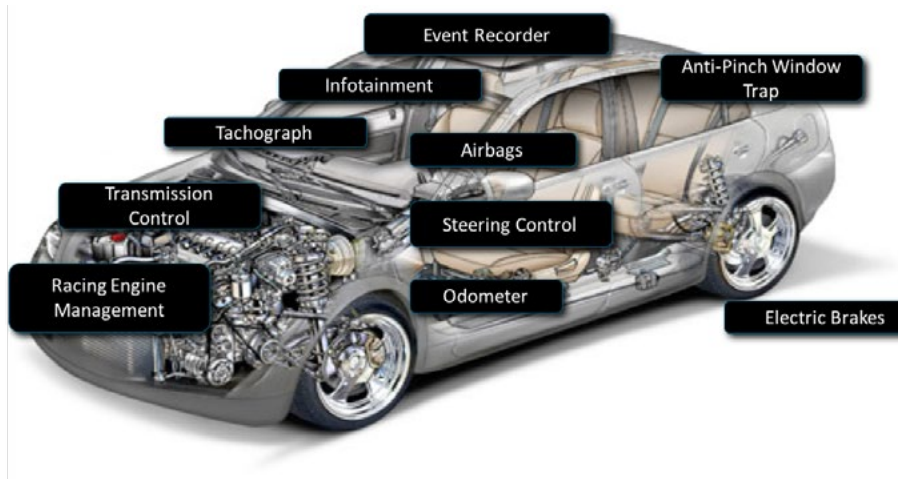


Performance and Reliability in Demanding Automotive Applications

BMW Motorsport RSM5 ECU with Everspin MRAM

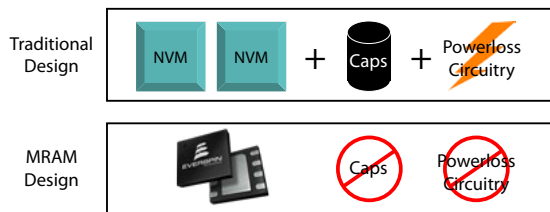


MRAM non-volatile memory improves performance and reduces cost in virtually any automotive system

- Saves data at the full bus speed
- Instantly restores status after an unexpected power loss
- AEC Q-100 Qualified Grade 1 (-40/125°C) and Grade 3 (-40/85°C) available

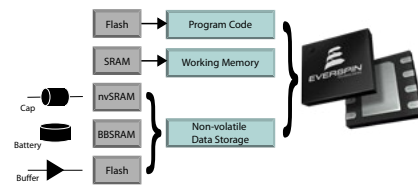
Protect Valuable Data and Reduce Costs

MRAM memory is the best solution to preserve valuable vehicle data, simplify design, and reduce BOM costs



The Best Solution to Protect Valuable Data

- Additional memory for wear leveling is not required
- Eliminates expensive capacitors
- Power loss sensing circuitry is no longer required
- Simplifies system firmware, always non-volatile

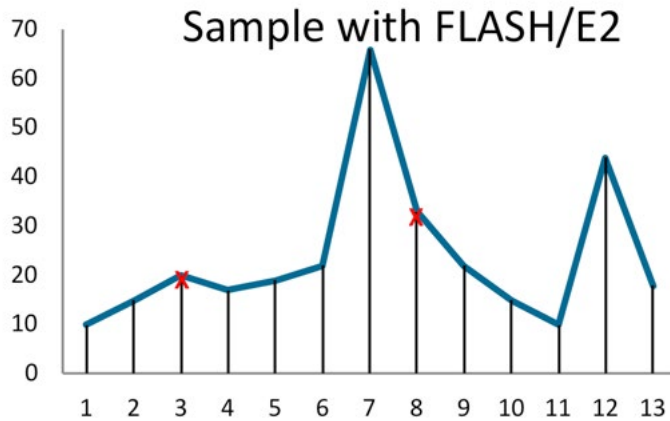


Simplifies and Reduces BOM Costs

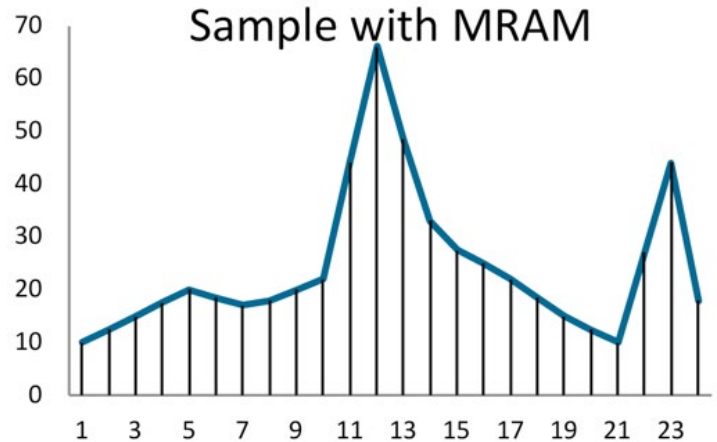
- Unlimited endurance, safe for program code
- Fast write - working memory at system bus speed
- Non-volatile, data retention > 20 Years at temperature
- No capacitors, batteries or buffering required

Maximize Data Access by Control Systems

MRAM maximizes data collection rate while maintaining non-volatility



Missed data due to longer read/write cycles, endurance limitations



No missed data, writes as fast as SRAM, non-volatile, no wear-out, no lost data during power glitches

MRAM is fast-write, like SRAM and also non-volatile like Flash, but does not require page erase or long write cycles. Event data can be saved to MRAM at the bus speed and remain persistent, even through unexpected power loss or power down.

Everspin AEC Qualified MRAM for Automotive Applications

Type	Density	Grade	Operating Temp	Package
SPI Serial Interface	128Kb	AEC-Q100 Grade 1	-40 to + 125°C	8-DFN
	128Kb	AEC-Q100 Grade 3	-40 to + 85°C	8-DFN
	256Kb	AEC-Q100 Grade 1	-40 to + 125°C	8-DFN
	256Kb	AEC-Q100 Grade 3	-40 to + 85°C	8-DFN
	1Mb	AEC-Q100 Grade 1	-40 to + 125°C	8-DFN
	4Mb	AEC-Q100 Grade 1	-40 to + 125°C	8-DFN
Parallel Interface	1Mb x 16	AEC-Q100 Grade 1	-40 to + 125°C	44-TSOP2
	4Mb x 8	AEC-Q100 Grade 1	-40 to + 125°C	44-TSOP2
	4Mb x 16	AEC-Q100 Grade 1	-40 to + 125°C	44-TSOP2

Learn more about Everspin MRAM products for automotive applications online:

[Case studies and MRAM Product Listing](#)

[Request for more information](#)



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