

Low Cost Space Grade MRAMs up to 8Gbit

virtually unlimited Endurance and Data Retention
PEMs Flow available

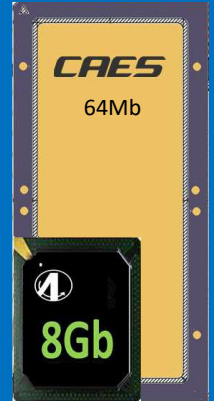
Radiation Levels and Screening Options

All Avalanche MRAMs available as 75krad TID versions in Plastic Packaging and PEMs flow.

If your Project requires higher Radiation Levels, Hermetic Packaging, QML-V Screening and Qualification. We are able to support your requirements through our partner Microcross - who will use the Avalanche Chip and do all the quals and packaging per customer requirements.

Most bits per mm², high magnetic immunity, up to 128x the density of legacy MRAMs and less power

Plastic Space Grade Parts available to Order today.



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Parallel Asynchronous MRAMs - 75krad

16 Mbit

1M x 16
3.3V, 45ns
Low Power 40nm

32 Mbit

2M x 16
3.3V, 45ns
Low Power 40nm

64 Mbit

4M x 16
3.3V, 45ns
Low Power 40nm

64 Mbit

2M x 32
3.3V, 45ns
Low Power 40nm

1 Gbit

32M x 32
3.3V, 45ns
Low Power 22nm

4 Gbit

128M x 32
3.3V, 45ns
Low Power 22nm



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Serial SPI MRAMs - 75krad

4 Mbit

SPI
1.8V
Low Power 40nm

8 Mbit

SPI
1.8V
Low Power 40nm

16 Mbit

Quad SPI
1.8V, 3.3V,
Low Power 40nm

32 Mbit

Quad SPI
1.8V, 3.3V,
Low Power 40nm

64 Mbit

SPI, QSPI or Octal SPI
108 MHz, 3.3V
Low Power 22nm

256 Mbit

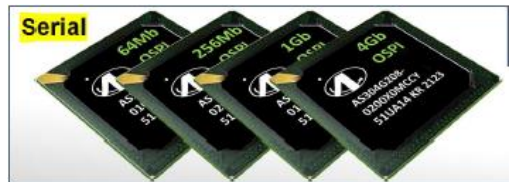
SPI, QSPI or Octal SPI
200MHz, 3.3V
Low Power 22nm

1Gbit

SPI, QSPI or Octal SPI
108MHz, 3.3V
Low Power 22nm

4 Gbit

SPI, QSPI or Octal SPI
200MHz, 3.3V
Low Power 22nm



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nvDDR3 - 75krad

4 Gbit

3.3V
Low Power 22nm

8 Gbit

3.3V
Low Power 22nm



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one source. one solution.®

Parallel and SPI MRAMs - 300krad and Hermetic Packaging acc to QML-V available soon



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Space Grade

Speed: 45ns
Temp: -40 to 125°C
Endurance: 10¹⁶
Retention: 10 years
Rated TID: <75KRad

Flow: Space Grade
Qual: JEDEC w/48Hr Burn-In
Qual+¹: NASA PEMS-INST-001
Product: Plastic (RoHS/Pb Balls)¹
ITAR: No
¹ - Through Falcon Electronics/Protec



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Rad-Hard

Speed: 45ns
Temp: -55 to 125°C
Endurance: 10¹⁶
Retention: 10 years
Rated TID: >300KRad

Flow: QML, Space, MIL Ind, Custom
Qual: QML Q,V,H,K,Y,P & Custom
Product: Hermetic, Die/Wafer, Plastic
ITAR: Yes
On-Shore Wafers: Banking in CA/FL