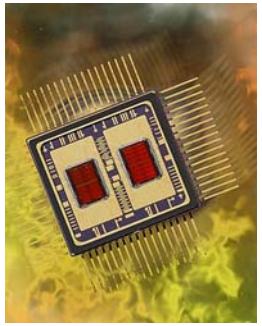
Aeroflex 4M SRAM Industry Comparison



	0.18µm CMOS Aeroflex	0.25µm Bulk CMOS	0.35µm CMOS SOI	0.25µm CMOS
Feature				
Process Technology	0.18µm	0.25µm	0.35µm	0.25µm
Operating Speed	66 MHz @ 15ns	28MHz @ 30 ns	40 MHz @20ns	66MHz @ 15ns
Organization	512K x 8	512K x 8	512K x 8	512 x 8
Access Time	15 ns (-55° to 125°C)	30ns(-55^0 to 125^{0}C)	< 20 ns (-55^0 to 125^{0}C)	15ns (-55^0 to 125^{0}C)
Data Setup	512K x 8 - 7 ns	20ns	15 ns	7 ns
Data Hold	512K x 8 - 2 ns	6ns	1 ns	0 ns
tGLQV	512K x 8 - 7 ns	11ns	5 ns	7 ns
Power Supply	Dual Core-1.8V (1.7V - 1.9V) I/O - 3.0V (3.0V - 3.6V)	Single 3.3V	Single 3.3V (3.0V - 3.6V)	Single 3.3V (3.0 – 3.6V)
Power Consumption				
Active	Core = 22 mW @ 1 MHz I/O = 1 mW @ 1 MHz Total = 23 mW @ 1 MHz worst case	23 mW @ 1 MHz typical	32.4 mW @ 1 MHz worst case	36 mW (max) @ 1MHz
Active	Core = 57 mW @ 66 MHz I/O = 14mW @ 66 MHz Total = 71mW @ 66 MHz worst case	1.1W @ 28MHz worst case	936 mW @ 40 MHz worst case	680mW@66MHz worst case
Standby	Core = 20.9 mW I/O = 0.36 mW Total = 21 mW worst case	15 mW worst case	36 mW typical	7.2mW worst case
Packages	36 Lead Ceramic Flat Pack	40 - Lead Flat Pack,	36 - Lead Flat Pack	36 – Lead Flat Pack
Standard Microcircuit Drawing (SMD)	5962-03235 (512K x 8)	5962-07210	5962-06203	562-05205
QML Qualified	Q and V	Q and V	Q and V	Q and V
Radiation Specifications				
Total Dose	3 x 10^5 rad(Si)	5 x 10^6 rad(Si)	> 3 x 10^5 rad(Si)	> 3 x 10^5 rad(Si)
SEL	> 100 MeV – cm2/Mg	>120 MeV – cm2/Mg	> 1 x 10^6 rad(Si) (25ns ONLY)	
SEU	< 8x10-10 Upsets/Bit-Day	< 1x10-10 Upsets/Bit-Day	< 1x10-10 Upsets/Bit-Day	< 1x10-9 Upsets/Bit-Day

Note: We also offer a 128K x 32 RadHard 4M SRAM — check with factory for specifications.