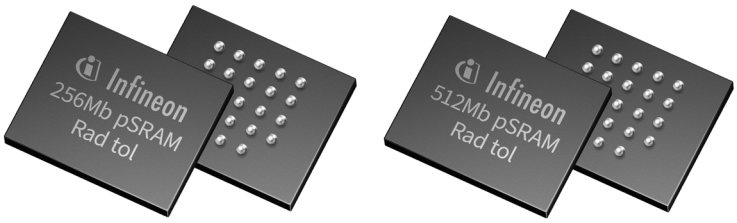
PRODUCT BRIEF

256 and 512 Mbit radiation tolerant pSRAM

Infineon's NewSpace memories are optimized for performance in low Earth orbit

Infineon's NewSpace Pseudostatic RAM (pSRAM) devices are radiation tolerant, low-power memories designed for low Earth orbit (LEO) applications. These volatile memories are offered in 256 Mbit and 512 Mbit densities, with both HYPERBUS and Octal SPI interface options. Our pSRAM memories externally act like a serial SRAM with reliable DRAM memory as a backend storage element.

Our rad tol pSRAMs are an optimal expansion memory choice for LEO missions and constellations. Featuring a hybrid sleep mode and partial-array-refresh, the memories help to conserve energy. A throughput of up to 3.2 GBps enhances system performance, enabling a high read/write bandwidth. Additionally, the memories' low pin-count simplifies system design and reduces overall cost.



Key features

Product features

- 256 and 512 Mbit densities
- Octal SPI and HYPERBUS™ interface options
- 200 MHz per channel
- 24-pin FBGA plastic package
- Operating temp -40°C to +125°C

Radiation Performance

- TID: 100Krad (Si)
- SEU: 1.3 x 10-14 err/bit-day
- SEL: >58 MeV.cm2/mg [LET] @ 125^{0}C
- SEFI: 6.9 x 10-5 err/dev-day

NewSpace Portfolio Benefits

- Single Lot Date Code (SLDC)
- 100% electrical test
- Certificate of Conformance (CoC)
- Radiation Lot Acceptance (RLAT) for TID

Key Applications

- Buffer memory
- Real-time processing

New space

www.infineon.com/hirelmemory

PRODUCT BRIEF

Infineon's radiation tolerant NewSpace memory portfolio features solutions designed for Low Earth Orbit (LEO) space applications and constellations. Our rad tol memories provide the right balance between performance and reliability based on size, weight, power, and cost (SWaP-C) considerations.

Infineon NewSpace memories provide:
- Single Lot Date Code (SLDC)
- 100% guaranteed electrical testing
- Certificate of Conformance (CoC)
- Radiation Lot Acceptance (RLAT) for TID

Product Features
- 256 Mbit and 512 Mbit densities
- Octal SPI and HYPERBUS™ interface options
- < 24 pins to operate DRAM
- 200 MHz per channel
- Single chip select
- 24-pin FBGA (8 x 6 mm)
- Lead finish Pb-free(Sn/Ag/Cu)
- Operating temp - 40°C to +125°C

Parts list

Density	Interface	Part Number	Description	Package	Temp. range	TID
256 Mbit	HYPERBUS™	CYEL18V2562-200BKXE	256Mb, HB, rad tol pSRAM	24-pin FBGA	-40°C to 125°C	100 Krad
512 Mbit	HYPERBUS™	CYEL18V5122-200BKXE	512Mb, HB, rad tol pSRAM	24-pin FBGA	-40°C to 125°C	100 Krad
256 Mbit	xSPI (x8)	CYEL18V2563-200BKXE	256Mb, xSPI, rad tol pSRAM	24-pin FBGA	-40°C to 125°C	100 Krad
512 Mbit	xSPI (x8)	CYEL18V5123-200BKXE	512Mb, xSPI, rad tol pSRAM	24-pin FBGA	-40°C to 125°C	100 Krad

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