PRODUCT BRIEF

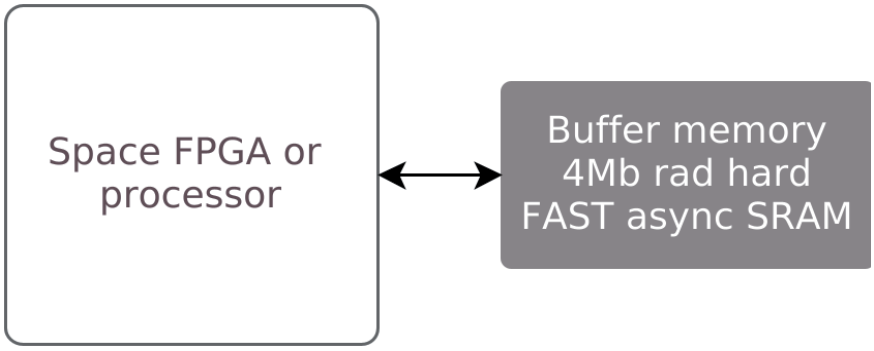
4 Mb rad hard FAST async SRAM

Infineon's HiRel FAST async SRAMs with RADSTOP™ for extreme environments

Infineon's FAST 4-Mbit asynchronous Static RAMs designed with Infineon's patented RADSTOP™ technology is well suited for space as well as other harsh environment applications. The 4-Mbit FAST SRAM is a high-performance, low power SRAM organized as 512 Kwords by 8-bits. The ECC logic can detect and correct single-bit error in any read data word during the read cycles. Easy memory expansion is provided by utilizing OE, CE and tri-stated output drivers.

Infineon's state-of-the art RADSTOP™ technology is radiation hardened through propriety design and process hardening techniques. Our asynchronous Static RAM devices are the fastest QML-V qualified devices operating up to 100 MHz at maximum datasheet temperature of 125°C. They meet all radiation requirements and are well suited for applications for payload processing buffer memory, sensors and switch applications for extreme environments.

Infineon's radiation-hardened memories are QML-V certified, meeting the reliability and lifecycle demands of extreme environments. Our RADSTOP™ memory solutions enhance overall system computing limits while providing Size, Weight, and Power (SWaP) benefits and greater design flexibility.



Key benefits

Certified reliability
- DLAM QML-V
- QCI, datapacks
- RHA, WLAT

Ultimate radiation
- >300 Krad TID
- >120 LET SEL immunity
- <5e^{-8} Err/bit.day

Product features
- 4-Mbit (512-Kbit x8)
- 12ns access times
- MIL-PRF-38535
- Automatic power-down when deselected
- TTL compatible inputs and outputs

Key applications
- Payload processing
- Sensors
- Switches

Differentiated memory portfolio
- Performance
- Density
- Reliability
- Longevity

www.infineon.com/hirelmemory

Commercial aviation | Space | Defense technology

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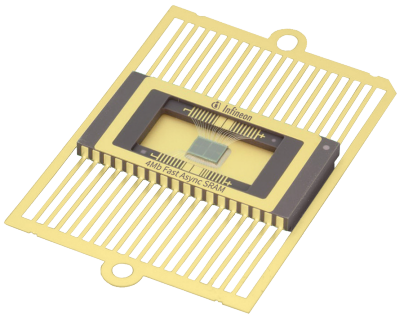
Key features

- 512-Kbit x8 bus-width configuration
- 12 ns (125°C) access times
- 3.3 V operating voltage
- 55°C to +125°C military temperature grade
- Bit-interleaving to eliminate multi-bit errors
- Low active power
- Low CMOS standby power
- 2.0 V data retention
- Automatic power-down when deselected
- Transistor-Transistor Logic (TTL) compatible inputs and outputs
- Easy memory expansion with CE and OE features
- 36-pin Ceramic Flat Pack (CFP)
- MIL-PRF 38535 compliant
- QML-V qualified



Technical support

Infineon datasheet
4 Mb FAST SRAM with RADSTOP™

DLAM datasheet
5962-11235, 4 Mb FAST SRAM with RADSTOP™

Product table

Density	Description	Infineon P/N	Operating temperature	Qual level	TID[1]	SEL[2]	SEU[3]	SEFI[4]	PD[5]
4-Mbit	FAST Async SRAM	CYRS1049DV33-12FZMB	-55 to +125°C	QML-V	300	>120	<5.0e^{-8}	Immune 120 LET	<2e^{9}
		5962F1123501VXC	-55 to +125°C	DLAM QML-V	300	>120	<5.0e^{-8}	Immune 120 LET	<2e^{9}
		CYPT1049DV33-12FZMB	-55 to +125°C	PROTOTYPE	–	–	–	–	–
	FAST Async SRAM QML-V die	CYRS1049DV33-1X18M	-55 to +125°C	DLAM QML-V	300	>120	<5.0e^{-8}	Immune 120 LET	<2e^{9}
	FAST Async SRAM proto die	CYPT1049DV33-1X18M	-55 to +125°C	PROTOTYPE	–	–	–	–	–

1) Total Ionizing Dose [Krad (Si)]
2) Single Event Latchup [LET] @ 95°C
3) Single Event Upset [err/bit.dy] Geo sync-solar min
4) Single Event Functional Interrupt [err/dev.dy] geo sync-solar min
5) Prompt Dose [rad (Si)/s]

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