SPACECRAFT SYSTEMS

XY8R512K40/1M40 20M/40Mb Anti-Radiation SRAM

The XY8R512K40/1M40 is a high-reliability, high-speed, asynchronous, low-power, radiation-hardened static random-access memory (SRAM) chip. Fabricated with 0.13 μm CMOS technology, it provides capacities of 20 Mb (512 K × 40 bit) and 40 Mb (1 M × 40 bit). The device serves as a general-purpose data storage chip suitable for aerospace computing control and data processing systems.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	
Process Technology	0.13 μm
Dimensions (mm)	29 × 29 × 3
Capacity	512 K / 1 M × 40 bit
Access Time	22 ns
Operating Temperature (°C)	−55 to +125
Package Type	CQFP132 / CFP84
Quality Grade	CAST C

Quick Overview

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Key Features

- High reliability, high speed, and asynchronous operation.
- Capacity of 512 K / 1 M × 40 bit.
- Access time of 22 ns with stable performance under radiation exposure.
- Designed for aerospace-grade data storage applications.

Applications

- Used in aerospace embedded electronic systems, first verified in orbit in 2019.

Documentation & Resources

- Technical Specifications
- Applications