

SPACECRAFT SYSTEMS

A1013Q Universal Four-Port Chip

The A1013Q is a four-channel serial port controller chip supporting various word lengths from 5 to 8 bits, with selectable parity check modes and 1/1.5/2 stop-bit configurations. It is compatible with multiple aerospace-grade processor interfaces (such as 80C32E, DSP6701, and SoC2008). The chip provides 16 programmable baud rate settings and features transmit and receive FIFOs of 256 bytes each, meeting the requirements of aerospace-level applications.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	
Process Technology	0.13 μm
Dimensions (mm)	28 × 28 × 7
Weight (g)	12
Operating Temperature (°C)	-55 to +125
Storage Temperature (°C)	-65 to +150
Communication Interface	RS-422
Package Type	CPGA84
Quality Grade	CAST C

Quick Overview

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Key Features

- Multiple channels — integrates four serial communication ports.
- Comprehensive interface compatibility — supports various aerospace-grade processor interfaces.
- Large FIFO — 256-byte transmit and receive FIFO buffers.

- Fully independent and domestically developed design.

Applications

- Used in microsatellites and embedded electronic systems, first flight in 2016.

Documentation & Resources

- [Technical Specifications](#)
- [Applications](#)