

SPACECRAFT SYSTEMS

The Core Components of the Micro-Satellite Controller

A series of highly integrated and miniaturized electronic system chips have been developed for micro- and nanosatellite control applications. These include the SoC2008 32-bit onboard application system chip, which has already been widely adopted in satellite electronic systems, and the SoC2012 32-bit onboard application system chip, designed for general onboard computing and attitude control with radiation tolerance up to 300 krad and a processing performance of 300 MIPS @ 100 MHz. The series also includes SoC2016 (LEON4 + DSP), SiP2113 general-purpose onboard computer module, and SiP2214 general-purpose onboard computing module with integrated data management functions. The SiP2115 general-purpose onboard computing module incorporates the A1013Q chip and serves as a typical onboard computer module for micro- and nanosatellites.

Quick Overview

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Key Specifications

Parameter	Value
Specification	Details
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Status	Space-qualified

Key Features

- Low-cost design for high reliability
- Optoelectronic integrated architecture with high integration density
- Compact structure with low power consumption
- Strong adaptability to space environments

Applications

- Satellite systems

Documentation & Resources

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