

SPACECRAFT SYSTEMS

SpaceOS Embedded Real-Time Operating System

The SpaceOS series is a fully proprietary embedded real-time operating system developed for high-reliability aerospace applications. It is optimized for time-critical, high-performance embedded systems in space environments. Characterized by low resource consumption, high real-time responsiveness, and strong reliability, SpaceOS provides a stable foundation for aerospace missions requiring precise and deterministic operation.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	
Scheduling Algorithm	Priority-based fixed preemptive scheduling with time-slice round-robin support for tasks of the same priority
Supported CPU Architectures	SPARC and ARM
Supported Number of Tasks	Unlimited
Priority Levels	0-63
Signal Management	Supports binary signals, semaphore signals, and counting signals
Message Queues	Supported
Memory Management	Supports dynamic memory allocation
Time Management	Supported

Quick Overview

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Key Specifications

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Key Features

- Low software resource utilization.
- Excellent real-time performance.

- High software reliability.

Applications

- Used in microsatellite onboard systems; first flight in 2006.

Documentation & Resources

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