

SPACECRAFT SYSTEMS

NASSAT Computer

The NASSAT Computer is a central control computer developed for micro- and nanosatellite applications, integrating SiP and SoC technologies. It offers advantages in performance, compact size, lightweight construction, and low power consumption, while maintaining high reliability and cost efficiency. The system has been successfully applied in multiple commercial satellites.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	
Model	C-GNCC-S-1
Technology	SiP / SoC
Flight Record	First flight in 2015
Dimensions (mm)	100 × 100 × 80
Weight (kg)	0.6 ± 0.06
Service Life (years)	3–5
Operating Temperature (°C)	–35 to +70
Storage Temperature (°C)	–45 to +80
Communication Interface	CAN / RS422 / I²C
Power Supply	+5 V, +12 V / –12 V

Quick Overview

The NASSAT Computer is a central control computer developed for micro- and nanosatellite applications, integrating SiP and SoC technologies. It offers advantages in performance, compact size, lightweight construction, and low power consumption, while maintaining high reliability and cost efficiency. The system has been successfully applied in multiple commercial satellites.

Key Specifications

Parameter	Value
Model	C-GNCC-S-1
Technology	SiP / SoC
Flight Record	First flight in 2015
Dimensions (mm)	100 × 100 × 80
Weight (kg)	0.6 ± 0.06
Service Life (years)	3–5
Operating Temperature (°C)	–35 to +70
Storage Temperature (°C)	–45 to +80
Communication Interface	CAN / RS422 / I²C
Power Supply	+5 V, +12 V / –12 V

Key Features

- High performance — equipped with the high-performance SoC2008 processor.
- Compact size — designed with the SiP2115 onboard computer module, forming one of the smallest satellite control units domestically.
- Lightweight — total weight approximately 600 g.
- Low power consumption — power dissipation below 2.5 W @ 80 MHz.

Applications

- Used as a central control unit in micro- and nanosatellite platforms.

Documentation & Resources

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