

SPACECRAFT SYSTEMS

5 N·m·s Variable-Speed Control Moment Gyroscope (VSCMG)

The 5 N·m·s variable-speed control moment gyroscope (VSCMG) adopts an integrated miniaturized design that combines compact structure, low mass, and high efficiency.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	
Model	C-CMG-5/5-A
Rated Momentum	0.5 N·m·s
Flight Heritage	First flight in 2012
Application	Micro/Nanosatellite
Weight (kg)	< 10
Operating Temperature (°C)	0 to +45
Storage Temperature (°C)	-10 to +55
Communication Interface	CAN / RS-422
Design Life	5 years

Quick Overview

The 5 N·m·s variable-speed control moment gyroscope (VSCMG) adopts an integrated miniaturized design that combines compact structure, low mass, and high efficiency.

Key Specifications

Parameter	Value
Model	C-CMG-5/5-A
Rated Momentum	0.5 N·m·s
Flight Heritage	First flight in 2012
Application	Micro/Nanosatellite
Weight (kg)	< 10
Operating Temperature (°C)	0 to +45
Storage Temperature (°C)	-10 to +55
Communication Interface	CAN / RS-422
Design Life	5 years

Key Features

- Compact integrated VSCMG design.
- High-integration SiP control chip with fully digital control.
- Lightweight, small size, and low power consumption.
- Excellent adaptability to space environments.

Applications

- Used for agile attitude maneuvering, stabilization, and control in micro and nanosatellite platforms requiring variable-speed CMG configurations.

Documentation & Resources

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