SPACECRAFT SYSTEMS

Solid Cold-Gas Micropropulsion Module

The Solid Cold-Gas Micropropulsion Module is a new-generation propulsion system based on solid gas-generating propellant technology. It consists of a gas generator, storage chamber, control circuitry, and sensors. The solid gas generator produces the required cold gas, which is supplied to the thruster assembly to generate precise thrust and torque for micro- and nano-satellite attitude and orbit control.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	
Dimensions (mm)	96 × 96 × 98
Mass (g)	1200
Total Impulse	80 N·s
Mounting Material	TC4 (Titanium Alloy)
Operating Temperature (°C)	−15 to +55
Storage Temperature (°C)	−40 to +95
Communication Interface	RS-422 / CAN

Quick Overview

The Solid Cold-Gas Micropropulsion Module is a new-generation propulsion system based on solid gas-generating propellant technology. It consists of a gas generator, storage chamber, control circuitry, and sensors. The solid gas generator produces the required cold gas, which is supplied to the thruster assembly to generate precise thrust and torque for micro- and nano-satellite attitude and orbit control.

Key Specifications

Parameter	Value
Dimensions (mm)	96 × 96 × 98
Mass (g)	1200
Total Impulse	80 N·s
Mounting Material	TC4 (Titanium Alloy)
Operating Temperature (°C)	−15 to +55
Storage Temperature (°C)	−40 to +95
Communication Interface	RS-422 / CAN

Key Features

- No high-pressure components.
- Long storage life.
- Lightweight, compact, and low power consumption.
- Modular design with strong scalability.

Applications

- Used in **micro- and nano-satellite attitude and orbit control systems** for long-term storage and reliable cold-gas propulsion.

Documentation & Resources

- Technical Specifications
- Applications