

NanoProp CGP3



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Flightproven propulsion system for 3U satellites:

- For both thrust and torque actuation
- Extremely fine thrust control and direct feedback
- Fits seamlessly into COTS 3U structures

Highlighted Technical Features

Configuration:

- 4 Individual thrusters
- Closed-loop thrust control
- Real time thrust measurement
- Propellant: Butane

Specification:

- Thrust: 1mN
- Thrust resolution: 10 μ N
- Specific impulse: 60-110 sec
- Total impulse 40 Ns
- Power consumption < 2W (average)
- Mass 300/350 gram (dry/wet)
- Operating pressure: 2-5 bar
- Temperature range 0° to 50°C

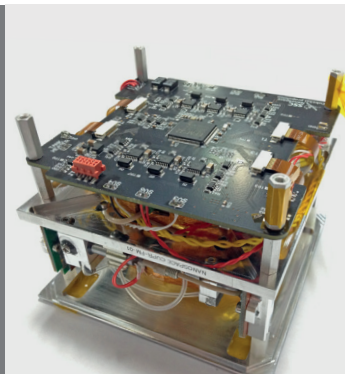
Interfaces:

- Communication: CAN, I2C
- Supply voltage: 5 VDC and 12 VDC
- Electrical interface: Flying leads

Mechanical Features:

- Size 100 x 100 x 50 mm (including electronics board)
- Interface: 4xM3 (PC/104 spec)

Mature & miniaturised cold-gas propulsion system for easy integration into cubesat (require 0.5U volume). The product was successfully flight proven in 2015.



The system can provide both translational thrust and torque action. The thrust control is extremely accurate and direct feedback is provided on the flow. Ideal for applications involving formation flying, rendezvous & docking maneuvers – and for deep space attitude control.



The unique fine thrust control capability is based on NanoSpace's proprietary MEMS (Micro-Electrically-Mechanical-Systems) technology for realising key components within the system.

