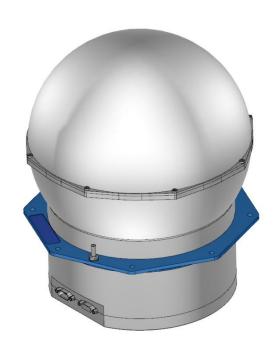
Space Technology AOCS-Components





Phone: +49- 30- 6392 1000 Fax: +49- 30- 6392 1002 Internet: www.astrofein.com





Micro CMG for Small Satellites

μCMG is an ACS actuator for small satellites with the task of fast attitude change

- 14 Nm @ 5820 rpm flywheel speed
- Integrated Wheel Drive Electronics (WDE)
- PI controller for speed and acceleration
- Two different standard data interfaces available (CAN / RS485)
- Low level emitted vibrations, due to the mechanical design and the high level of alignments and balancing
- low energy consumption

Parameters	Data [Remark]
------------	---------------

Angular momentum 8 Nms [@ nominal rotation speed]

Nominal rotation speed 5820 rpm [flywheel]

Gimbal rate 1.75 rad/s

Max. output torque 14 Nm [gyroscopic torque]

Mechanical interface

Mass ≤ 8 kg

Dimension 188 mm x 188 mm x 240 mm

Electrical interface

Supply voltage $(28^{+10}_{-6}) \text{ V}$

Power consumption

Max. ≤ 40 W

Steady state (no gimbal activities) ≤ 20 W

Standby ≤ 4 W

Data interface CAN, RS485

Operation temperature range -20°C ... +50°C

Design lifetime

In-orbit 11 years

On-ground 5 years [including 1,000 h operation]

All rights reserved. Subject to changes without prior notice.