

RW60

Reaction Wheels 60 for Nanosatellites

The latest Reaction Wheel generation, plug-&-play, radiation proof, with a long life time, safeguarded electronics, and a very compact design.



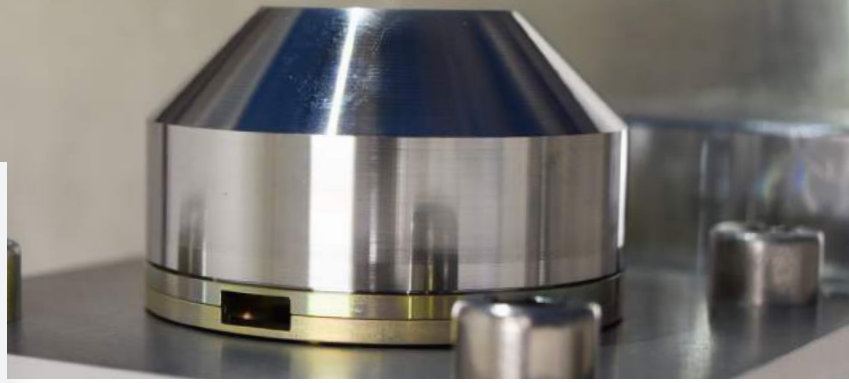
Detumbling



Attitude control

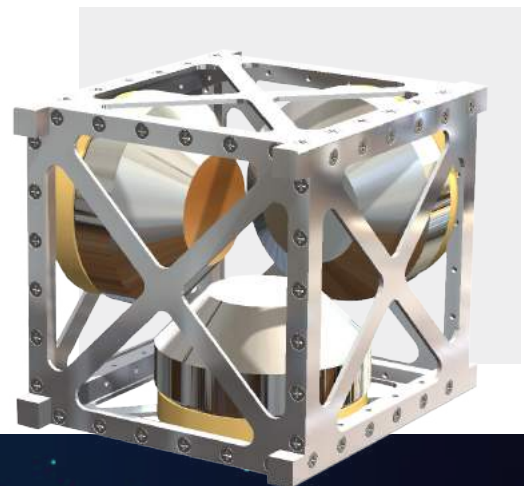


Torque or angular rate control



Main benefits

- ✓ Plug & play concept
- ✓ Embedded electronic
- ✓ Robust technology (stainless steel bearings)
- ✓ High torque design (brushless motor)
- ✓ High performance control loop



Key features

Torque 8 mNm mean	Mechanical interface Size: 1 RW = $\varnothing 72 \times 40.5$ mm, ie 3 RW \subset 1 U ($10 \times 10 \times 10$ cm ³) Mass: 1 RW = 300 g (electronic and radiation protection included)	Mechanical environment QSL: 25 g Random: 20 grms Shock: 1,000 g/1,000 Hz
Kinetic moment 60 mN.ms 80 mN.ms peak	Life time More than 32,000 zero crossing tests 3 years of operation	Radiation <10 Krad
Accuracy Down to 1 rpm	Thermal environment -25 °C / +45 °C	Protocol NSP communication Protocol
Supply Voltage 14 V [12 V; 16 V]		Acceptance Test μ vib Vibration Thermal cycling Performance
Data Interface RS 485		



REACTION WHEELS

Satellite control

