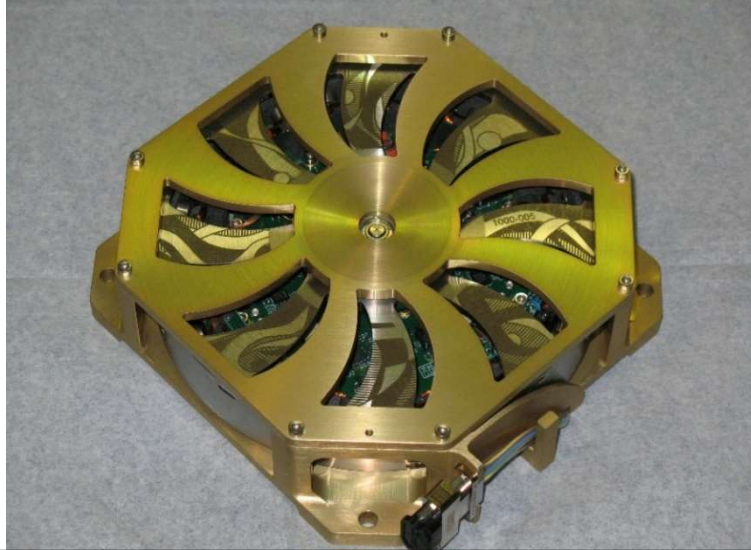
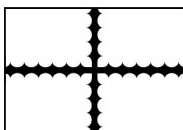


Microsatellite Reaction Wheels (RW3-1.0)



Momentum	Nominal: 1.0 Nms
Torque	±50 mNm at 1 Nms (at 28 V supply)
Control Mode	Speed, torque or current with built-in control CPU
Command / Telemetry	Two RS-485 plus one CAN, or one RS-485 plus two CAN ±36 V fault tolerant
Mechanical	Dimensions: 150 mm x 140 mm x 42 mm Mass: 970 g
Supply Voltage	Nominal: 24 V to 34 V Redundant input buses, reverse polarity protected, shorted bus protected Maximum: 50 V
Supply Power (in vacuum)	46.7 W @ 1.0 Nms, +40 mNm 15.1 W @ 1.0 Nms, steady state 2.4 W @ 0.2 Nms, steady state -29.1 W @ 1.0 Nms, -100 mNm regenerative braking
Environment	Thermal: -40°C to +70°C (operating) Vibration: >14 g _{RMS} , Radiation: >20 krad dose
Reliability	Diamond coated hybrid ball bearings Redundant motor windings Radiation lot-screened parts on all flight models
Heritage	52 Units on-orbit. First launch June 2016. Demonstrated stability for 1 m GSD Earth-observing spacecraft
Price	US\$60,000 each



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