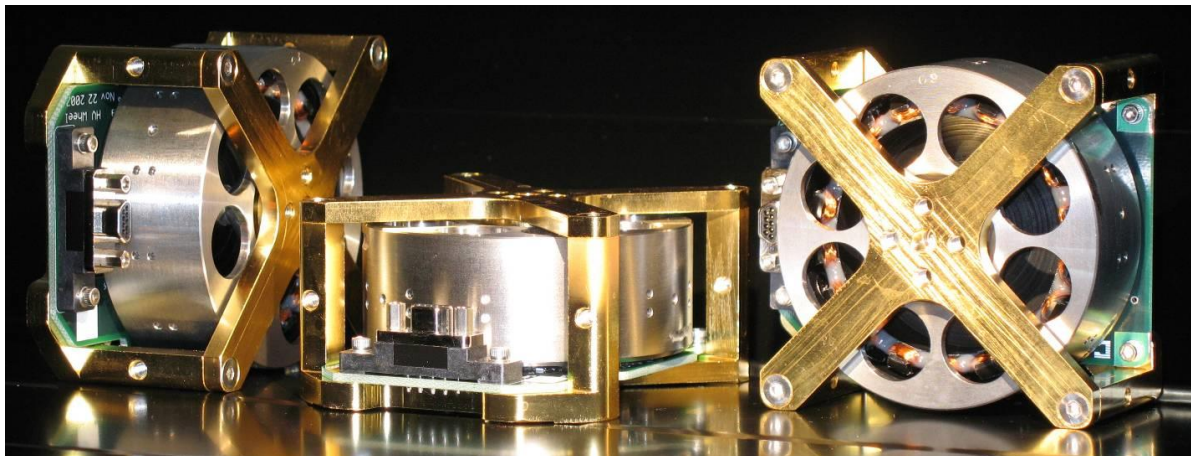


Microsatellite Reaction Wheels (RW3-0.060)



Momentum	Nominal: 0.06 Nms Peak: 0.18 Nms (at 28 V supply)	
Torque	± 20 mNm at 0.12 Nms (at 28 V supply)	
Control Mode	Speed, torque or current with built-in control CPU	
Command / Telemetry	Two RS-485, or one RS-485 and one CAN ± 36 V fault tolerant	
Mechanical	Dimensions: 77 mm x 65 mm x 38 mm Mass: 226 g	
Supply Voltage	Nominal: 7.5 V to 34 V Maximum: 50 V	Redundant pins, reverse polarity protected, shorted bus protected
Supply Power (in vacuum)	23.4 W @ 0.12 Nms, +10 mNm 0.9 W @ 0.12 Nms, steady state 0.5 W @ 0.06 Nms, steady state -4.6 W @ 0.10 Nms, -10 mNm regenerative braking	
Environment	Thermal: -40°C to $+70^{\circ}\text{C}$ (operating) Vibration: >23 g _{RMS} Radiation: >20 krad dose	
Reliability	Diamond coated hybrid ball bearings Redundant motor windings Radiation lot-screened parts on all flight models	
Heritage	16 Units total on-orbit on 4 satellites, first launched June 2014 Common design to RW-0.03, with >8 year on-orbit	
Price	US\$35,000 each	

