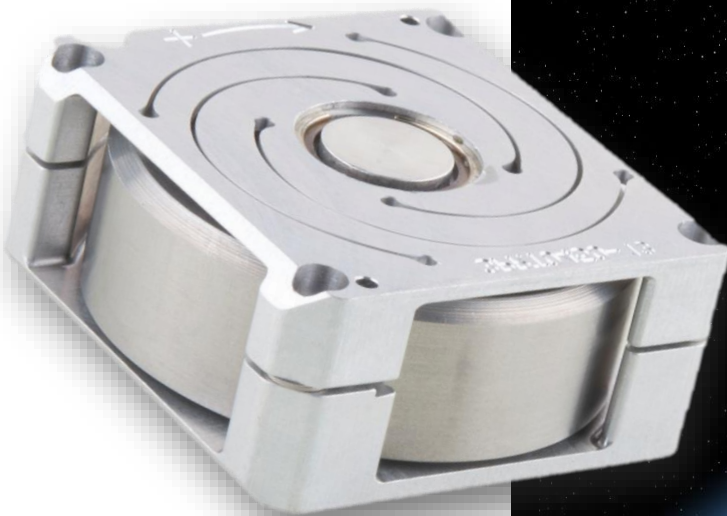




Micro Reaction Wheel TM

High-Performance Attitude Determination for CubeSats

Reaction Wheel for precise attitude control of Nanosats



Key Features

- ★ Micro volume packaging
- ★ Highly efficient design
- ★ Low jitter
- ★ Long life bearings
- ★ Patent Pending

Total Integrated Mission Solutions



The **BCT Micro Reaction Wheel** is a reliable CubeSat attitude sensor compatible with a variety of configurations and missions. It is designed with a revolutionary micro size, power, and mass. The BCT Micro Reaction Wheel is creating a new level of performance for Nano size spacecraft.



The BCT Micro Reaction Wheel uses a BCT-built motor and a long life hybrid bearing and lubrication system. The wheels undergo extensive testing to characterize their electrical and mechanical performance, including jitter and life test.



Micro Reaction Wheel Capability

Specification	Performance
Momentum	15 mN·m·s
Max Speed	6,500 RPM
Max Torque	6 mN·m
Torque @ 3000 RPM	3 mN·m
Lifetime	>5 Years
Mass	115 g
Volume	43 x 43 x 18 mm
Power @ 600 RPM	0.1 W
Power @ 3000 RPM	0.9 W
Power @ 6000 RPM	1.7 W
Power @ Max Torque	8.0 W
Operating voltage	+12V (variable down to +8V)
Data interface (optional drive electronics board available)	RS-422 (can support SPI)
Fine Dynamic Imbalance – Static	≤0.35 g·mm
Fine Dynamic Imbalance – Couple	≤4.55 g·mm ²
Waterfall plots available upon request	



Blue Canyon Technologies
2425 55th St. STE 200-A
Boulder, CO 80301
720.458.0703
www.bluecanyontech.com