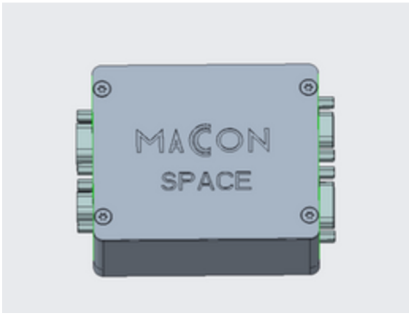


Motor Controller for Space Applications



Rad Hard Single Axis Motor-Controller

The **Single Axis Space Controller** is designed for precision drive control in space applications such as gimbals or reaction wheels. The high maximum PWM frequency of 100kHz enables smooth operation of motors with minimal torque ripple. The unit is housed in a rugged, vibration-resistant enclosure with contact cooling. Assembly is at MACCON facility in Munich, Germany.

Specifications

Motor Type	3-Phase BLDC (Standard), 2-String Stepper (Optional)
Supply Voltage	Main: 28VDC +/-25%, Aux: 12VDC +/-10%
Continuous Phase Current	5 Arms
PWM Frequency	100 kHz
Control Modes	Current, Velocity, Position
Host Interface	RS422, optional CAN
Feedback Interfaces	SSI, Hall, upon request BISS and Resolver
Digital I/O (Differential)	Enable Input / Status Output
Temperature Sensors	Drive Temperature + PT1000 Input
Operating Temperature Range	-40°C to +85°C
Radiation Tolerance (TID)	30 kRad
Single Event Latch-up (SEL)	40 MeV*cm ² /mg
Dimensions (L x W x H)	70 x 60 x 25 mm
Weight	195 g
Housing	Aluminum enclosure with contact cooling

Typical Applications

- Satellite Gimbal Systems
- Reaction Wheels for Attitude Control
- High-Precision Mechanisms in Space
- Any LEO positioning task with limited footprint and high reliability