



HONEYBEE ROBOTICS
Motion Control

High-Reliability Motor Controller

Description

Honeybee's Universal Electronic Control Unit is a flexible design configurable to accommodate a range of motors common to spaceflight mechanisms.

- FPGA-based design
- Closed loop current, position, rate control
- Flexible command interface, serial RS-422 or discrete step/direction/enable
- EEE-INST-002 Level 2 components (Level 1 available)
- 3 phase (wye/delta) motors
- Hall Sensor, Optical Encoder, Potentiometer feedback



Specification	Data
Input Voltage	22-34 VDC
Communication	RS-422, Step/Dir/Enable
Standby Power	<3.0 W
Peak Motor Current	2.0 A
Radiation Tolerance	55 krad
EMC/EMI	MIL-STD-461F
EEE-INST-002	Level 2 (Level 1 compatible)
Temperature Range	Qualified to -35 to +70 °C Op
Vibe	Qualified to 8.8 gRMS
Size	172 x 127 x 51 mm
Mass (incl Chassis)	1.1 kg
Features	
Configurability	3 Phase Stepper, BLDC
Stepper Modes	Voltage, Current Control Microstepping
BLDC	Trapezoidal Commutation Space Vector Modulation
Feedback Sensors	Hall Sensor, Optical Encoder, Potentiometer (Resolver in development)
Temp Sensing	On-Board and Motor Sense

Contact

Honeybee is ISO9001:2000 and AS9100 certified.

Honeybee Robotics
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