

The Model 501-00070 Rev A is a Dual Axis Drive PCBA designed to control a stepper motor OR a servo motor on each axis. It can drive the stepper motor using Pulse/Direction signals and the servo motor using PWM signals as well as Analog outputs. Communication options include Serial, Ethernet, and USB.

Applications

- Dual Axis Motion Control
- Multi Axis Motion Control
- Industrial Robotics
- Special purpose machines
- Test and measurement units

Supported Motor Types

- Brushless DC motor
- DC brush motor
- Stepper motor

Profile Modes

- S-curve point-to-point
- Trapezoidal point-to-point
- Velocity contouring
- Torque control

Position Loop

- PID control with velocity and acceleration feedforward
- Dual bi-quads

Feedback

- Incremental encoder: Quadrature A, B, and Z
- Absolute Encoder

Digital I/Os

- 16 Digital Outputs
- 14 Digital Inputs

Communication Interfaces

- RS232
- Ethernet
- CAN
- USB

Analog I/Os

- 4 Analog Outputs
- 8 Analog Inputs single ended
- 2 Analog inputs differential ended

Safe Torque Off (STO)

STEP/DIR AND PWM outputs will be inactive when STO is enabled.

Dimensions (L x W x H)

127 mm x 131mm x 65 mm

Power

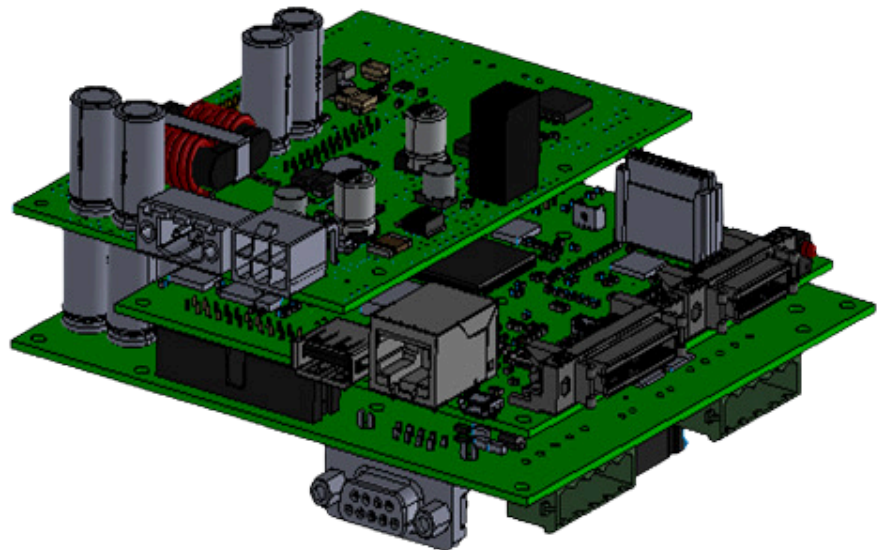
24 V, 48 V, 56 V and 200 V

Application Specific Add On Card (ASAC) Bay

- 2 UARTs, 2 PWMs, 1 SPI, 8 IOs, 2 pulse capture, 3 Macro input
- Adding custom functionality to the drive to achieve a complete product functionality has never been easier
- Custom application specific cards can be developed and plugged into the drive Add-On Card Bay with dedicated I/O and communication to the drive controller
- ASAC bay infrastructure includes 1xSPI, 1xUART, 4xDI, 4xDO, 2xPWM, 2xPulse Capture
- Applications such as Line Camera interface, LED Lighting Control, profile measurement, Conveyor Sensor Interface & Control, etc.

Master-Slave Mode for Multi-Axis Coordination

- RAAD Sync Port that allows up to 8 dual-axis drives to be daisy chained for coordination and synchronization
- Macro-level coordination as well as cycle to cycle synchronization possible (estimated Sync lag is typically around 50 nano seconds per drive in the chain)
- Distributed Macro computing allows individual axis to be profiled on the controller to which it is driven by, while the master drive coordinates the sequence and hand-out of profile parameter values to slave drives.



Model Number Reference for Dual Axis			
Model	VDC	Ic	Ip
R2X- 24V - 4 - 8	12V - 24V	4	8
R2X - 56V -10 - 20	14V - 56V	10	20

Model Number Reference for Dual Axis with Daisy chain			
Model	VDC	Ic	Ip
R2XD* - 24V - 4 - 8	12V - 24V	4	8
R2XD* - 56V -10 - 20	14V - 56V	10	20

*Contact RAAD Sales Support to discuss your specific requirements and to obtain the latest model list.

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