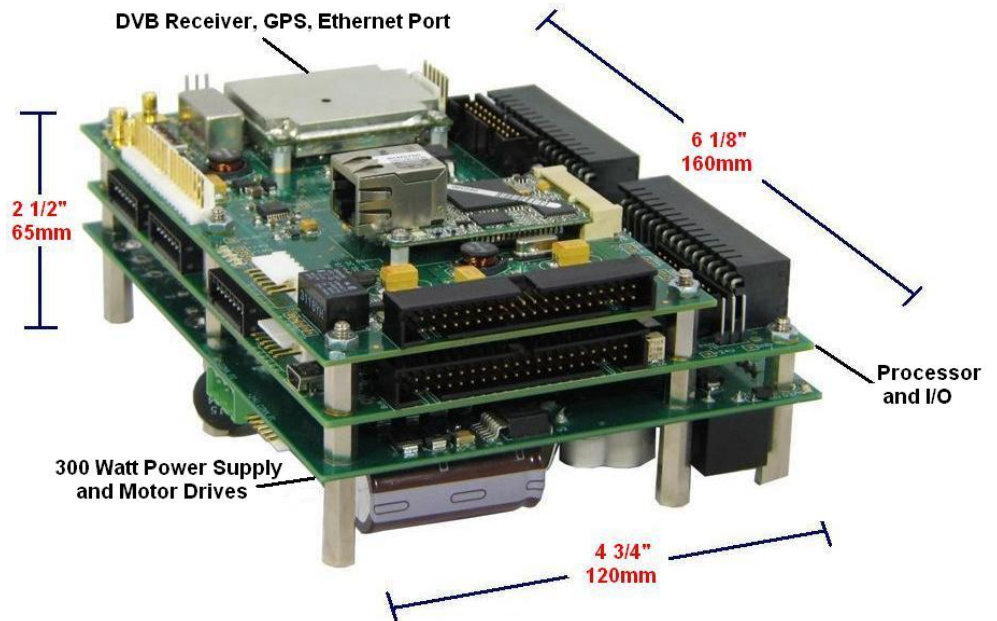




RC4000

Next Generation Antenna Control Unit



Utilizing the experience gained from integrating the RC3000 ACU with nearly 200 different antennas from dozens of mount manufacturers worldwide, RCI introduces its next generation Antenna Control Unit architecture. The RC4000 architecture consists of stackable cards allowing for flexible and compact ACU packaging. This hardware set allows for all the functionality and options (navigation sensors, inclined orbit tracking, remote control, integrated receivers, etc.) currently available with the RC3000. The RC4000 is designed for an operating temperature range of -40°C to $+60^{\circ}\text{C}$.

COMPUTING / MOUNT INTERFACE BOARD

The heart of the RC4000 architecture is the Computing/Interface board.

- ARM9 microcontroller (10x the computing speed and 3x memory capacity of the RC3000)
- Replaces the RC3000's digital and analog boards in 20% of the area
- NO MORE EPROMS! - FLASH memory programmed via USB and Ethernet
- High Resolution A/D converter eliminates mount-specific board tuning
- Flexible interface scheme allows for multiple external connector configurations

POWER / MOTOR DRIVE BOARD

The compact, integrated drive board powers the RC4000 architecture.

- 24 VDC, 10 amp continuous drive capability
- NO MORE POTS! - Drive parameters (Speed, IR compensation, current limits, etc.) programmed/stored via software
- Designed for simultaneous axis movement
- Overtemp, Overcurrent, Undervoltage protection
- Designed to conduct system heat to chassis
- Includes 300W 24 VDC power supply, accepts 85-265 VAC 50/60 Hz input voltage (optional 24VDC input)

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ACU OPTIONS BOARD

The Options board allows an RC4000-based ACU to be easily customized with the desired set of optional features.

- **GPS: either external integrated GPS receiver/antenna or internal receiver with small external GPS antenna**
- **COMPASS: multiple heading sensing options (Fluxgate, Single Axis Compass, GPS Heading, etc.)**
- **L-Band power detector**
- **DVB receiver**
- **Ethernet interface (webpage host or remote commands via UDP packet)**
- **Provides: LNB power
One L Band input
Multiple L Band outputs**

EXPANDABILITY BUILT IN

The RC4000 has been designed with extensive I/O capability in order to accommodate unique requirements.

- **Can operate with High Performance embedded Beacon Receiver**
- **Can be embedded in a reflector or antenna mount**
- **Support for Size 11 resolvers via an expansion card**
- **Can support inclined orbit satellite tracking to DSCS standards**
- **Serial Interface support for external satellite Modems and Receivers**
- **Circuit boards can be conformally coated for operation in harsh environments**
- **Can operate over extremely wide temperature ranges with internal heating and cooling control**
- **Supports inclined orbit satellite tracking from NORAD Two Line Element data**
- **Multiple User Interfaces (Ethernet, Serial Remote, Red/Green Buttons, RC3000 LCD/Keypad)**

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