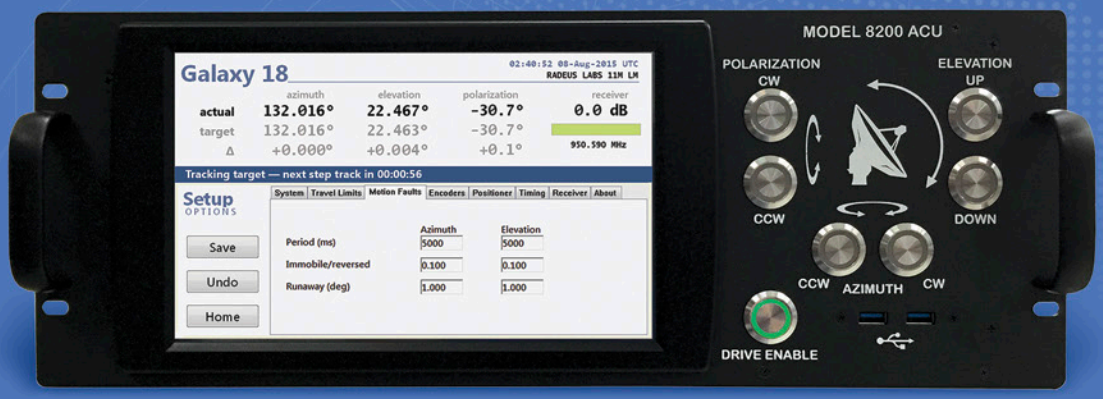
MODEL 8200™

ANTENNA CONTROL SYSTEM



The Next Generation in Antenna Control

Performance – Flexible tracking modes, intuitive menu layouts and a compact parameter set keep your limited motion antenna applications on point.

Availability – We understand the need for quick delivery. Lean manufacturing methods allow us to ship most systems within 60 days of an accepted order!

World-Class Support – You are never on your own with a Radeus Labs product. The experts at Radeus Labs are standing by if you need help.

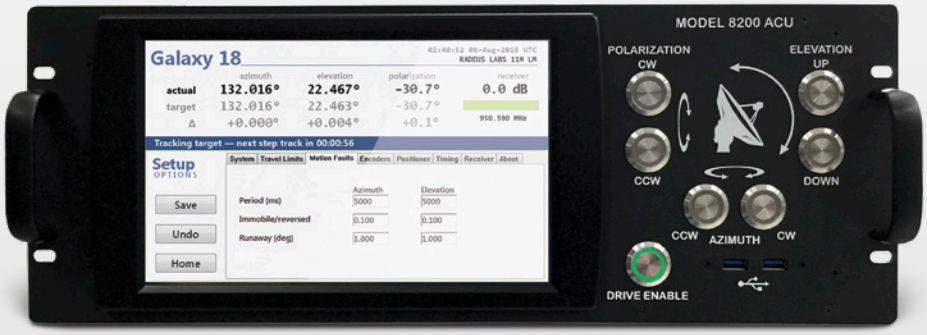
RADEUS LABS, INC.

Modular Configurable Low Power

This antenna control system meets the requirements of retrofits and new installations. As a retrofit option, the 8200 ACU is compatible with industry standard drive-cabinet interfaces and legacy position-feedback devices such as absolute rotary optical encoders and standard single-speed brushless size 11 resolvers.

Features

- Touchscreen controls for all operations
- Energy efficient ACU (<50 Watts)
- Built-in manual jog controls
- Data and parameters secured in nonvolatile storage
- Innovative setup wizard eases installation
- Extensive time-stamped status logging for diagnostics
- SNMP-V3 for remote monitor and control
- Simple configuration back-ups and uploads using web-based GUI application



Modes of Operation

Manual — Front-panel buttons for two-speed, manual jog control.

Move to Longitude — Position to AZ and EL angles determined from the longitudinal orbital slot.

Move to Look Angles — Position to user-provided AZ, EL, and POL angles.

Step Track — Periodic algorithm to perform an AZ-EL scan pattern to peak up signal strength.

Predictive Track — Point the satellite dish using an orbital model created from previous peak AZ and EL step-track data points.

TLE (Two-Line Element) — Track automated positioning based on NORAD two-line element sets.

TLE with Steptrack — Steptrack incorporated with TLE to provide closed loop correction and superior pointing accuracy.

Intelsat-11 — Automated tracking to AZ and EL coordinate sets derived from IESS-412 parameters.

Intelsat-11 with Steptrack — Steptrack incorporated with IESS-412 to provide closed loop correction and superior pointing accuracy.

Celestial Bodies — Includes tracking models for Sun, Moon and 3 radio stars

Drive Cabinet Model 8250

The Radeus Labs 8250 drive cabinet reduces IFL costs. It also requires fewer connections between the control center and the antenna.

Optional PMCU

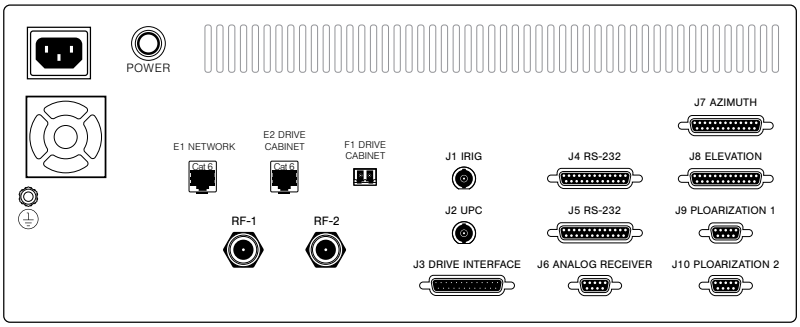
Model 8250

Optional Jog Panel with Display

Features

- Remote system control over Ethernet via SNMP.
- A single cable (Ethernet or fiber optic) links the drive cabinet and ACU.
- Remote system control via a secure TeamViewer connection to the ACU.
- Dedicated jog button-indicators — like those on the ACU — show when motors are engaged, whether from drive cabinet or ACU.
- Options enable users to monitor and control brakes, interlocks, feed status, and provide flexible maintenance control with the PMCU.

Rear Panel



Tracking Accuracy

Better than 10% receive 3dB beamwidth RMS in step track.
Nominally, 5% receive 3dB beamwidth RMS with predictive track.

Specifications may be subject to change. Please contact our sales staff for details.

Environment

ACU
Temperature: 0 to 50°C
Humidity: 95% non-condensing

Drive Cabinet
Temperature: -10°C to +50°C standard, -55°C to +50°C with low temp option
Humidity: 100% condensing

Power

ACU
100–240 VAC, 47–63 Hz; 35W typical, 50W max with internal receiver

Drive Cabinet
200 and 400 Volt Class, 50-60 Hz, 5-wire WYE
Current requirements are determined by motor horsepower.

Mechanical

ACU
7"H x 19"W x 19"D (4-rack units)
Weight: 20 lbs.

Drive Cabinet
36"H x 30"W x 10"D (legs: 18"H)
Weight: 100 lbs.
Motor drives: 1–5 HP standard. Larger sizes available.

Interfaces

Remote: Ethernet, SNMP , Serial
Serial: USB, RS-232 (x2 each)
Alarm: Summary output

Receiver:
- Optional integrated receiver
- 0-10V Analog Receiver Input (2)
- 0-10V Analog UPC Output
  (When integrated tracking receiver option is selected.)

Drive Cabinet:
- Standard drive interface, or
- Ethernet or fiber interface

Position Feedback

This EnDAT encoder provides position feedback for azimuth, elevation, and polarization. At 25 bits of resolution, this allows a display resolution of 0.001°.
Accuracy: ±20" or ±0.005°

Warranty

Three-year warranty, parts and labor.

Contact Us

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