MODEL 2200 / 2300™

ANTENNA CONTROL SYSTEM

The Next Generation in Antenna Control

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

Availability – We understand the need for quick delivery. Lean manufacturing methods allow us to ship most systems within 30 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 Compatible

This antenna control system meets the requirements of retrofits and new installations. The 2200/2300 Antenna Control System provides a flexible approach for the higher speed, full motion antenna systems normally used in LEO/MEO applications. The 2200 with the SMC 2048, gives more of an OEM option with smart motors and a power source provided by the OEM or end customer. The 2300/2350 ACS offers a more traditional drive cabinet approach for use with DC or AC motors on full motion antenna systems.

Features

- Touchscreen controls for all operations
- Efficient, intuitive graphical user interface
- Hardware jog buttons with LED indicators
- Data and parameters secured in nonvolatile storage
- Innovative setup wizard eases installation
- Secure TeamViewer integration for remote and shared ACU operation
- Motion warning output

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 Intelsat 11 parameters.

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

Optional Modes

Computer Track — Automated positioning using commanded angles supplied from an external computer.

Sun and Moon Track — Automated positioning to AZ and EL locations of the sun and the moon.

Star Track — Automated positioning to AZ and EL locations of radio stars.

Drive Cabinet Model 2350

The Radeus Labs 2350 Drive Cabinet provides flexible motor support, reduces IFL cost and supports I/O for interlocks and stow pins.

Optional PMCU

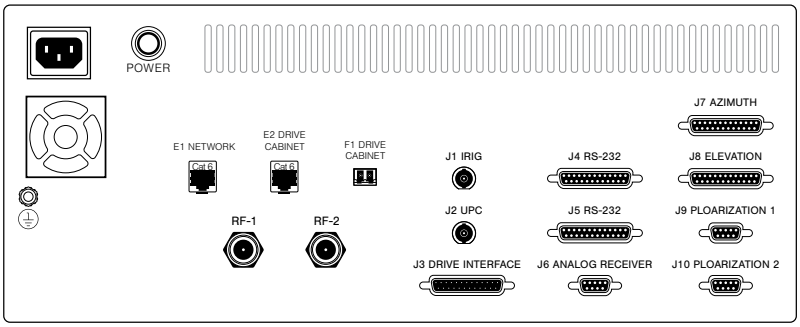
SMC 2048

Model 2350

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

SMC 2048:
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; 100 W typical

SMC 2048:
5 VDC @ 20 Watts

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.

SMC 2048:
4"H x 8"W x 16"L
Weight: 5 lbs.

Drive Cabinet:
36"H x 30"W x 10"D (legs: 18"H)
Weight: 100 lbs.

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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