

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.



Sales, Installation & Integration

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Modular Configurable Compatible

Features

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.

- 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

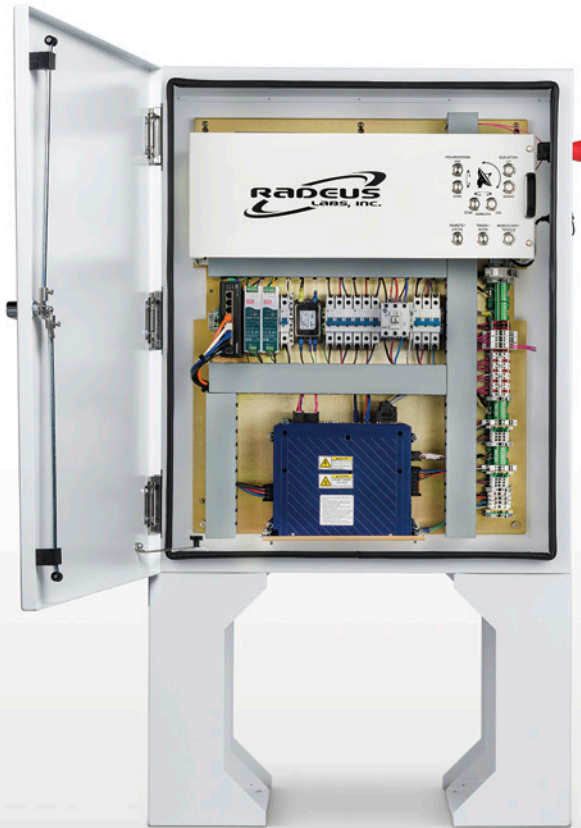
The Radeus Labs 2350 Drive Cabinet provides flexible motor support, reduces IFL cost and supports I/O for interlocks and stow pins.



Optional PMCU



SMC 2048



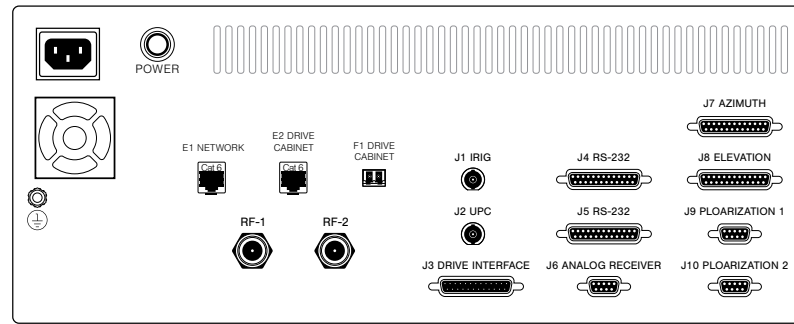
Model 2350



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: $\pm 20''$ or $\pm 0.005^\circ$

Warranty

Three-year warranty, parts and labor.

Contact Us

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www.RadeusLabs.com

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