

# 830A Antenna Control System

## Satcom & Antenna Technologies Division



### Overview

For over 50 years CPI Satcom & Antenna Technologies Inc. (CPI SAT) experienced engineering staff has been developing high-precision, economical satellite tracking and control systems. The Model 830A Antenna Control System provides precision satellite acquisition and tracking with most mobile, transportable, fixed and flyaway antennas. The Antenna Control Unit (ACU) is the operator interface point for the system and features operator-friendly function menus. The 2RU ACU contains all control components including the processor, M&C interface, motor controllers and tracking receiver.

### Tracking Receiver Option (with Spectrum Display)

The 830A has an optional internal L-Band receiver. L-Band operational frequency range is 950 - 2150 MHz and the minimum tracking C/No is 45 dB-Hz.

### Antenna Pointing Accuracy

Normally better than 0.07° RMS in winds of 30 mph gusting to 45 mph. This includes normal drive train errors, but excludes structural errors between the transducers and RF beam.

### Enhanced Memory Track

Typically better than 10% of the receive beamwidth with satellite inclinations up to 5°.

A variety of operational modes are available for quick target acquisition, pointing and tracking.

### FEATURES

- Designed for Transportable and Fixed Antennas
- Steptrack and Pointing Modes
- Dual Touch Screen Color
- Easy to Operate
- GPS, Flux Gate Compass, Inclinometer Interface
- Configurable to Multiple Antennas

### BENEFITS:

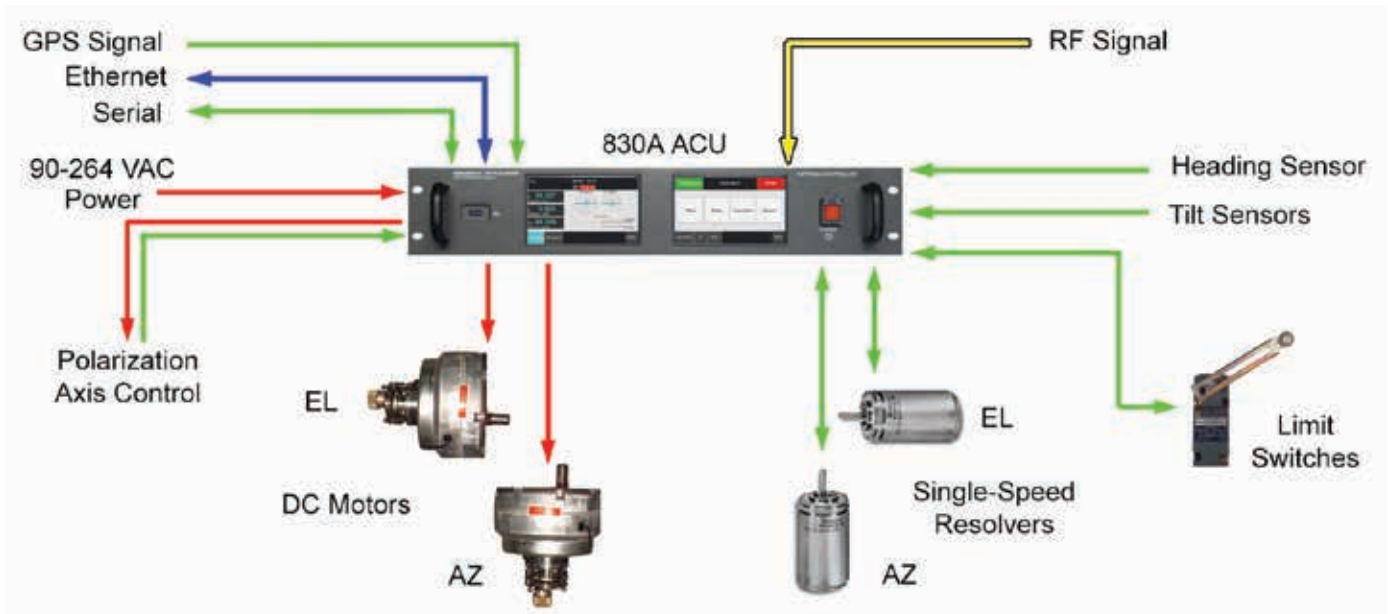
- Economical satellite tracking

### APPLICATIONS:

- Operator interface point for the system

| Operational Modes |  |             |                              |
|-------------------|--|-------------|------------------------------|
| Tracking          | Pointing                               | Acquisition | Other                        |
| Steptrack         | NORAD<br>Preset position<br>Manual Jog | Scan        | Deploy<br>Stow<br>Callibrate |

# CPI 830A Antenna Control System



| SPECIFICATIONS  |                      |   |   |
|---|----------------------|---|---|
| <ul style="list-style-type: none"> <li>• CE, FCC, WEEE</li> <li>• Auto Calibrate, Auto Deploy, Auto Stow</li> <li>• Recommended for antenna beamwidths &gt;0.3°</li> </ul>  |                      |   |   |
| ACU   | Size                 | Weight  | Power   |
| 2RU rack mount chassis with sides   | 3.5"H x 19"W x 17" D | 16 lbs<br>(7.5 kg)                            | Accepts 90 - 264 VAC, 50/60 Hz 600W Max,<br>application dependent |
| Antenna Interface   |                      |   |   |
| <ul style="list-style-type: none"> <li>• AZ/EL/POL DC Motor amplifiers available for 24V motors. Potentiometer or Resolver Position Feedback for az/el axes</li> <li>• EL velocity limit and AZ centered with inputs available</li> <li>• Antenna sizes supported depend on motor requirements</li> </ul> |                      |   |   |
| Environmental   | Temperature          | Humidity                                      |   |
| Operating   | 0 to 50°C            | 90% Non-Condensing at +30°C                   |   |
| Storage   | -40° to 70°C         | 95% Non-Condensing                            |   |
| Altitude  |                      | Vibration                                     |   |
| 3048m per MIL-STD-810G<br>M500.5-P2   |                      | MIL-STD-810G M514.6-P1-C4<br>and M514.6-P1-C7 |   |

Contact us at [CustomerCareSAT@cpii.com](mailto:CustomerCareSAT@cpii.com) or call us at +1 770-689-2040.

The data should be used for basic information only.

Formal, controlled specifications may be obtained from CPI for use in equipment design.



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For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.

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