

# AvL TECHNOLOGIES

## AvL AAQ

### Premium Embedded Antenna Controller

AvL Technologies Auto-Acquisition (AAQ) Premium Embedded Antenna Controller (EAC) provides simple, robust operation with industry leading flexibility and features. This powerful state-of-the-art controller exhibits the smallest form factor in the industry with lightweight packaging and minimal cabling and connectors. A straightforward GUI implemented on a PC or handheld computing device provides an intuitive interface that can be easily tailored per customer preference. Modular software architecture using a single kernel provides tremendous flexibility enabling integration with any combination of motors, encoders, sensors (digital and analog) and communication with any Ethernet device. Whether your antenna application is a flyaway, fixed position or quick deploy vehicle-mount, the AAQ EAC will deliver superior performance and the flexibility to accommodate ongoing advances in satellite antenna technology.



## Standard Features

- Compact modular embedded environmental enclosures (ACU, AXIS RIOM, NAV RIOM)
- Distributed I/O utilizes multiple embedded micro-processors communicating over Ethernet
- 8 GB micro-SD, 2 GB RAM, 4 GB NAND Flash w/battery backup
- One button AUTO-ACQUISITION, one button STOW
- Stow, Home, Manual, Acquire, Peak
- 3 axis simultaneous servo control (up to 12A)
- PID Closed Loop motion control on all axes
- 3 Axis tilt compensated Magnetic Compass
- GPS integrated Antenna and Receiver (GLONASS compatible)
- Integrated broadband RF power meter with variable attenuator (optional dual)
- Integrated Ethernet Switch
- Multiple client interface options including XML protocol, low level AAQ API, .NET AAQ API, AvL GUI (shown), WEB browser GUI
- Closed Form Static Tilt Compensation using 2 axis digital inclinometer
- Versatile Data Logger for diagnostics and performance metrics
- Automatic Feed Type Sensing
- Proprietary heading measurement algorithm ( SATTANT™)
- RS232 and Ethernet interfaces for external devices



## Optional Features

- 1 RU 250W Power Supply with display, keypad, Ethernet router (28 VDC output, 115/230 VAC 50/60 Hz input) and cables to antenna. Specify length. Keypad enables basic setup and operation and can be setup as a Jog controller or an auto-acquisition controller. The latter may be locked in limited STOW/ACQUIRE mode. Full access requires PC and GUI.
- 1 RU Power Supply options: 500 W version for larger apertures, Handheld control Unit, Web Relay remote power cycle function
- Upgrade to Rugged IP67 Handheld Control Unit
- Inclined Orbit Acquisition and Step Track
- TLE Inclined Orbit Track
- Wind Compensation
- On Axis Position Feedback
- DvB Receiver
- Beacon Receiver (Novella, ASC)
- Spectrum Monitor Interface (SED Decimator D3)
- Modem Interfaces (iDirect, Surfbeam 2/TooWay, Linkway S2, Gilat, Comtech, Hughes HX/HN)
- Expansion IP Switch enables many options such as Camera Interfaces, flaring drives, waveguide switch control etc.



## Specifications

- Environmental embedded ACU and RIOM enclosures: IP65
- Dimensions: ACU (4.75X5.50X1.95), AXIS RIOM (4.00X1.66X1.50) in
- Weight: 4 lb (ACU, 3 AXIS RIOMs)
- Operating temperature: -40°C to +60°C
- Storage temperature: -40°C to +80°C
- Input voltage: 28 VDC nominal. Output voltage on RF power meter coaxial center conductor: Software settable 0/13/18 VDC, 22 KHz