

Portable Antenna Positioner

AP-2000

Tellumat



The Tellumat AP-2000 Antenna Positioner is a rugged, two-axis automatic tracking system.

The AP-2000 provides a high precision tracking capability, in a small and lightweight form factor. The positioner uses a signal-strength search pattern to acquire the remote signal and then uses GPS telemetry data from the tracked vehicle to position the antenna. An option to achieve accurate azimuth tracking without GPS is also available, for situations where GPS is not available or is actively jammed.

The AP-2000 includes a tilt zero function to assist accurate installation of the positioner. The Antenna Positioner is designed to interface directly with a Clarke mast, with adaptors to other mast manufacturers available on request.

The Positioner has a flexible antenna mounting capability allowing for different or even multiple antennas to be fitted.

Typical use of the AP-2000 is to track and optimize the high capacity live video and data link used on Unmanned Aerial Vehicles. In this application, a high gain parabolic antenna is used on the antenna positioner and accurately pointed at the tracked vehicle allowing reliable video and data communications at line of sight distances in excess of 150km.

FEATURES

2 Axis tracking

Compact form factor and low overall mass

High torque worm gear motor drive

Integrated tilt sensing

BENEFITS

Near to far range tracking with high-gain parabolic antennas

Easy field deployment, allows for mobile installations

Up to 20kg of payload mass with high wind loading

Simplifies antenna mast deployment

PERFORMANCE	
Azimuth range	-180 ° to +180 °
Elevation range	-5 ° to +45 °
Max azimuth rate	15 deg / s
Max elevation rate	5 deg / s
Peak torque	30 Nm
Angular accuracy	Better than 0.5° (zero to peak)
FEATURES	
Non slip-ring design	
Integrated tilt sensor	
RS422 Control interface	
LED Status interface	
PHYSICAL CHARACTERISTICS	
Mass	22 kg
Dimensions	340 mm x 275 mm x 281 mm
Mounting interface	Clarke 8 x M8
Antenna mounting interface	Up to 3 antennas can be mounted
GENERAL	
Supply	28 VDC, MIL-STD-704F compliant
Power consumption	200 W Peak
ENVIRONMENTAL	
Operating temperature	-20 °C to +60 °C
Rainfall	Up to 50mm / hr
Operational wind speed	60 km/h (Grid antenna fitted)
Survival wind speed	150 km/h (Grid antenna fitted)
Salt fog	5 % solution for 48 hrs



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