



Modern | Reliable | Always Connected

TRACKER 100

Antenna Tracker Unit

S-PLANE's TRACKER 100 is a stand-alone GPS-based antenna tracker with integrated primary and secondary mesh network radios and directional and omni-directional antennas. This proven and rugged product sees daily service in harsh environments. Its modular design facilitates deployment at a new site within 20 minutes and allows integration with various radios and antennas. The TRACKER 100 boasts a backlash free synchronous harmonic gear drive system combining high torque and speed in a super-compact and affordable package. It is ideal for reliable communication between ground stations and moving targets (e.g. aircraft) and for linking remote mobile mesh networks.



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Technical Specifications

PERFORMANCE			
Actuator Accuracy	<1.5 arcmin	Max Cont Pan Torque	45 N.m. Drive
Max Pan Rate	20 deg/s	Max Cont Tilt Torque	45 N.m. Drive
Max Tilt Rate	15 deg/s	Max Momentary Torque	65 N.m. Holding
Pan Rotation*	-275 deg to +275 deg	Max Power	200W Nominal; 265W Peak
Tilt Rotation	-25 deg to +110 deg	Normal Operating Voltage	20 to 30 VDC (protected: over-VDC & rev.)
Max Ops Wind Speed	60 km/h (Antenna dependent)	Input Voltage Range (no links)	18 to 36 VDC (protected: over-VDC & rev.)
ENVIRONMENTAL (RF LINK DEPENDANT)			
Operating Temperature	-20 to +65 °C (excl. LOSCOM-1)	Transportation	MIL-STD-810G Procedure III Category 6
Min Ingress Protection	IP66 (Transport), IP55 (Operational)	Storage Temperature	-40 to +85°C
Qualification Method	MIL-STD-810G	Humidity	5 to 95% RH
Operating Life	100 000 hours @ 80% rated torque		
TYPE AND CONSTRUCTION			
Drive System	3-phase synchronous with harmonic gearing	Control Port	Ethernet/RS422/RS232
Structure	6061-T6 Al	Loom	Single 25 m (Power, Comms, Camera & Ctrl)
Harnessing Standard	IPC/WHMA-A-620	Mass (Incl. Rugged Tripod)	55 kg
RADIOS & ANTENNAS			
Primary Link	2W L/S/C-band MIMO Mesh	Secondary Link	UHF Mesh (900 or 400 MHz band)
Comms Range to 3dB Omni	150 km @ 2W @ S-band @ 2-4 Mbps	Comms Range to 3dB Omni	100 km @ 1W @ UHF @ 57600 baud
Primary Antenna	21 dBi 600 mm Parabolic	Primary Antenna	12 dBi Yagi-Uda
Omni Antenna	5 dBi Colinear Dipole	Omni Antenna	3 dBi Colinear Dipole
Max Data Rate	80 Mbps	Max Data Rate	500 kbps
Alternative Radios & Ant.	Please Enquire	Available Power Amplifiers	Please Inquire
STANDARD FEATURES & EQUIPMENT			
Computer	Rugged Intel Atom with Network Switch	Bore-sight Camera	720p Mechanical zoom to 2 deg
RF Switches	3 of high power DC-12 GHz SPDT	Positioner	Heavy Duty 2-axis Pan & Tilt
RF Cabling	Ultra-low-loss Co-axial	Tripod	Moog Heavy Duty
Sensors	Multi-GNSS, 3-axis IMU & Magnetometer	Calibration	Automatic, with Optical Assistance

Specifications are dependent on the specific links and antennas used.
 * Auto cable management / de-rotation and optional slip rings to allow unlimited pan rotation.



Contact Details

9B Cyclonite Road, The Interchange, Somerset West, South Africa, 7130
 Phone: +27 21 851 9282, Fax: +27 86 298 4587
 Email: info@s-plane.com, Web: www.s-plane.com