

DATA SYSTEMS



SPARTE 700 L/S/C

Tracking Antennas
20ft (6.0m) / 24ft (7.3m)



TELEMETRY GROUND SOLUTIONS

The SPARTE 700 series antenna is a field and time proven product delivered to customers for **mission-critical applications** where the telemetry reception is at stake. Any flying target such as aircraft or space launching vehicles will be accurately tracked thanks to the high gain of this **large aperture antenna**.

The very robust and solid design of the SPARTE 700 series ensures the **best performance in any situation**: aluminum-alloy reflector for increased surface accuracy, SCM tracking feeds for reliable and accurate tracking, dual drive for motors redundancy and no-backlash...

And for the ever most demanding applications, the SPARTE 700 series also exists in **skid-mounted and trailer transportable and gyro-stabilized versions**.



Launch Vehicle Telemetry



Missile Testing



Fixed & Rotary Wing

BEST-IN-CLASS SERVO CONTROLS

User Selectable Servo Controls

SCM 1000 HZ SCAN RATE

Common SCM Design for Main & ACQ-AID Feed

MODULAR L, S OR C BAND

Simple Add-On upgrade without any Structural Change

DUAL DRIVE

Uninterrupted Operations, No Backlash

TRANSPORTABLE VERSION

Relocatable skid mounted or trailer version

SPARTE 700 L/S/C

> SYSTEM SPECIFICATIONS

Pedestal

Azimuth Travel Range ± 360°
 Elevation Travel Range -2.0° / + 92°
 Angular Velocity 20°/s Az, 20°/s El
 Angular Acceleration 20°/s²
 Motors 2 Motors/Axis (Dual Drive)

Reflector

12 Panel Segmented Aluminum Alloy Reflector for fixed antennas
 8 + 16 Panels composite for transportable antennas

Servo-Control

Pointing Accuracy ≤ 0.1° rms
 Tracking Accuracy ≤ 0.05°
 Acceleration Lag 0.2°/s²

Antenna Control Unit

Manual, Slew, Scan, Slave (2 x Inputs), RF Tracking, Program-Track, GPS Slaving Advanced Features..... Autotracking (Automatic ACU Modes Management), Auto Acquisition (with Adjustable Signal Thresholds), Multipath Clipping, Centralized Remote Control for Receivers, Recorders, ...
 Tracking Signal Inputs 4x Pairs of AM+AGC and tracking over IP
 Auto-Diversity..... LHCP/RHCP, Best Telemetry Channel
 Diagnostic Tool Continuous BIT, Servo-Control, Tracking, Y-Factor, Logbook, Parameters Recording

General Characteristics

Power 400 Vac 50-60Hz. 30kVA
 Antenna Weight 11,000 kg (24,250 lbs)

> ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range

Outdoor Equipment -20°C to +45°C (-4°F to 113°F)
 Indoor Equipment +10°C to +35°C (50°F to 95°F)

Humidity

Outdoor 100 %
 Indoor 85 % Non-Condensing

> OPTIONAL ITEMS

- ▶ Operator control desk
- ▶ Video camera for visual target aiming
- ▶ Single/Dual/Tri-band feed
- ▶ 6.00m/7.30m reflector
- ▶ SCM feed up to 1000 Hz tracking rate
- ▶ Acquisition aid feed
- ▶ Low gain switching for short range
- ▶ Unlimited Azimuth
- ▶ Skid or Trailer mounted version-5 to 185°
- ▶ GPS time / position / heading synchronization (single or differential)
- ▶ Shipborne version with Inertia Measurement Unit (IMU)
- ▶ Extended Elevation travel range -5 to 185°
- ▶ Range control with TM Maestro
- ▶ Extended temperature range

> OPTIONS ON REQUEST

- ▶ Long loop test capability
- ▶ Improved G/T
- ▶ Radome environment protection

	6.0m / 20 FT	7.3m / 24 FT
Tracking	8 Dipoles Monopulse	
Receive Frequency range	1435 - 1545 MHz / 1790 - 1850 MHz / 2200 - 2400 MHz / 4400 - 5250 MHz	
Receive Polarization	RHCP and LHCP	
-3dB Beamwidth @ 2.3GHz	1,5°	1,24°
G/T @2300 MHz, No Filter, 25° Elevation, 20°C Clear Sky	17.3 dB/K	19 dB/K
Maximum Wind for Nominal / Degraded Performance / Survival (for fixed installations)	100 / 120 / 200 km/h	90 / 110 / 200 km/h



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