

## 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 transportable and 3-axis gyro-stabilized versions**.



**Launch Vehicle Telemetry**



**Missile Testing**



**Fixed & Rotary Wing**

**BEST-IN-CLASS SERVO CONTROLS**  
Direct Drives, Precise Reducers

**SCM 1000 HZ SCAN RATE**  
Common SCM Design for Main & ACQ-AID Feed

**C-BAND FIELD UPGRADE-ABLE**  
Simple Add-On without any Structural Change

**DUAL DRIVE**  
Uninterrupted Operations, No Backlash

**TRANSPORTABLE VERSION**  
Relocatable skid mounted version

# SPARTE 700 L/S/C

## SYSTEM SPECIFICATIONS

### Pedestal

Azimuth Travel Range ..... ± 270°  
 Elevation Travel Range ..... 0° / + 90°  
 Angular Velocity ..... 10°/s Az, 10°/s El  
 Angular Acceleration ..... 10°/s<sup>2</sup>  
 Motors ..... 2 Motors/Axis (Dual Drive)  
 Position Readouts ..... 17 bits Encoders

### Reflector

12 Panel Segmented Aluminum Alloy Reflector

### Servo-Control

Pointing Accuracy ..... ≤ 0.08° rms  
 Tracking Accuracy ..... ≤ 0.05°  
 Acceleration Lag ..... 0.2°/s<sup>2</sup>

### 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  
 Auto-Diversity ..... LHCP/RHCP, Best Telemetry Channel  
 Diagnostic Tool .... Continuous BIT, Servo-Control, Tracking, Y-Factor, Logbook, Parameters Recording

### General Characteristics

Power ..... 230 or 400 Vac 50-60Hz. 30kVA  
 Antenna Weight ..... 11,000 kg (24,250 lbs)

## ENVIRONMENTAL SPECIFICATIONS

### Operating Temperature Range

Outdoor Equipment ..... -13°F to 122°F (-25°C to +50°C)  
 Indoor Equipment ..... 50°F to 95°F (+10°C to +35°C)

### Operational Wind

Mean ..... ≤ 90 km/h  
 Gust ..... ≤ 110 km/h  
 Survival Wind ..... ≤ 200 km/h

### Humidity

Outdoor ..... 100 %  
 Indoor ..... 85 % Non-Condensing

## OPTIONAL ITEMS

- ▶ INET
- ▶ Operator control desk
- ▶ Reflector and feed de-icing system
- ▶ Rotary joint for unlimited azimuth travel
- ▶ Axial video camera for visual target aiming
- ▶ 3<sup>rd</sup> channel and embedded test dipole
- ▶ Low gain switching for short range
- ▶ Single / Dual / Tri-band feed
- ▶ 100W and 1000W S-Band Tx (+Rx) feed
- ▶ 3-axis pedestal version for shipborne operations
- ▶ Skid-mounted relocatable version
- ▶ Radome environment protection
- ▶ Extended Elevation travel range -5+92°
- ▶ Extended temperature -40°C

	6.0 M / 24 FT	7.3 M / 24 FT
Tracking	8 Dipoles Monopulse	
Receive Frequency range	1429 - 1545 MHz / 2200 - 2400 MHz / 4400 - 5250 MHz	
Receive Polarization	RHCP and LHCP	
Axial Ratio	≤ 1.5 dB on Axis	
-3dB Beamwidth @ 2.3GHz	1,5°	1,24°
G/T @2300 MHz, No Filter, 10° Elevation, 20°C Clear Sky	16.3 dB/K	18 dB/K
Maximum Wind for Nominal / Degraded Performance	100 / 120 km/h	90 / 110 km/h



### GLOBAL SALES

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