

## DATA SYSTEMS



# SPARTE 300 L/S/C

**Tracking Antennas**  
6ft (1.8m), 8ft (2.4m) & 10ft (3m)



## TELEMETRY GROUND SOLUTIONS

The SPARTE 300 series antenna is a field and time proven product delivered to customers for **mission-critical applications** where the telemetry reception is at stake. This robust antenna ensures to our customers **highly accurate operations**, as well as a long **lifetime and simple maintenance tasks**.

The SPARTE 300 series empowers users with a **variety of applications**, such as aircraft tracking, very high speed targets with high dynamics, or duplex datalinks with an Rx/Tx system. Additionally, the numerous and customizable I/Os provide users with the ability to operate the antenna in a **multi-site tracking** fashion, with **master-slave communications** between smaller and larger models.



**Launch Vehicle Telemetry**



**Missile Testing**



**Fixed & Rotary Wing**

### BEST-IN-CLASS SERVO CONTROLS

Direct Drives, User Selectable, Servo Algorithms

### HASSLE-FREE MAINTENANCE

Easily Accessible Electronics & Mechanics Above Az

### C-BAND FIELD UPGRADEABLE

Simple Add-On without any Structural Change

### SCM 1000 HZ SCAN RATE

Common Design for Main Feed & ACQ-AID Feed

### SHIPBORNE READY

IMU Add-On for Shipborne Operations

# SPARTE 300 L/S/C

## SYSTEM SPECIFICATIONS

### Pedestal

Azimuth Travel Range ..... Unlimited  
 Elevation Travel Range ..... -5° / + 185° option -15° / + 195°  
 Angular Velocity ..... ≥ 30 °/s on Each Axis  
 Angular Acceleration ..... ≥ 40 °/s<sup>2</sup> on Each Axis

### Reflector

Aluminum Alloy Reflector / Any Kind of Payload

### Servo-Control

Static Pointing Accuracy ..... ≤ 0.2° rms  
 Tracking Accuracy ..... ≤ 0.1° rms  
 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 Standard ..... 110 - 230 Vac 50-60Hz  
 Power Consumption ..... 2.5 kVA Peak and 4 kVA with Max Wind Load  
 Antenna Weight ..... 550 kg (1212 lbs)

## ENVIRONMENTAL SPECIFICATIONS

### Operating Temperature Range

Outdoor Equipment ..... -25 to +55°C / +13 to +122°F

### Operational Wind in 2.4 m

Mean ..... Up to 80 km/h  
 Gust ..... Up to 100 km/h  
 Survival Wind ..... Up to 200 km/h

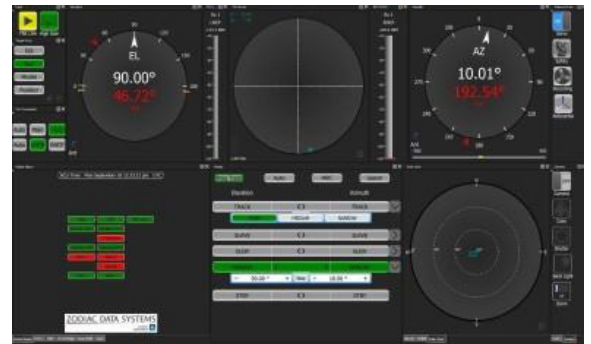
### Humidity

Outdoor ..... 95%  
 Indoor ..... 85% Non-Condensing

## OPTIONAL ITEMS

- ▶ Operator control desk
- ▶ Cable wrap (±360°)
- ▶ Video camera for visual target aiming
- ▶ SCM feed up to 1000Hz tracking rate
- ▶ Acquisition aid and omni antennas
- ▶ 3<sup>rd</sup> channel and embeded test dipole
- ▶ Low gain switching for short range
- ▶ Single / Dual / Tri-band feed
- ▶ 6ft, 8ft, 10ft reflectors available
- ▶ Shipborne version (Inertia Measurement Unit and -15° lower El limit)
- ▶ Trailer-mounted version
- ▶ GPS time / position / heading synchronization (single or differential)
- ▶ IR tracking capability
- ▶ Custom form factors available on demand

	1.8 M / 6 FT	2.4 M / 8 FT	3.0 M / 10 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	5°	3.8°	2.9°
G/T @2300 MHz, No Filter, 10° Elevation, 20°C Clear Sky	6.3 dB/K	8.8 dB/K	10.7 dB/K
Maximum Wind for Nominal / Degraded Performance	100 / 120 km/h	80 / 100 km/h	50 / 75 km/h



### GLOBAL SALES

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