Sparte 700
L/S/C

TRACKING ANTENNAS
18FT (5.5M) / 24FT (7.3M)

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

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

DUAL DRIVE
Uninterrupted Operations, No Backlash

Missile Testing

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

TRANSPORTABLE VERSION
Uninterrupted Operations, No Backlash

Fixed & Rotary Wing

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

ZODIAC DATA SYSTEMS
ZODIAC AEROSYSTEMS
Control Systems Division
SPARTE 700 L/S/C

SYSTEM SPECIFICATIONS

Pedestal
- Azimuth Travel Range: ± 360°
- Elevation Travel Range: 0° / + 90°
- Angular Velocity: 10 °/s Az, 10 °/s El
- Angular Acceleration: 20 °/s²
- Motors: 2 Motors/Axis (Dual Drive)
- Position Readouts: 17 bits Encoders

Reflector
- 12 Panel Segmented Aluminum Alloy Reflector

Servo-Control
- Pointing Accuracy: ≤ 0.1°
- 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
- 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)

<table>
<thead>
<tr>
<th></th>
<th>5.5 M / 18 FT</th>
<th>7.3 M / 24 FT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracking</td>
<td>8 Dipoles Monopulse</td>
<td></td>
</tr>
<tr>
<td>Receive Frequency range</td>
<td>1429 - 1545 MHz / 2200 - 2400 MHz / 4400 - 5250 MHz</td>
<td></td>
</tr>
<tr>
<td>Receive Polarization</td>
<td>RHCP and LHCP</td>
<td></td>
</tr>
<tr>
<td>Axial Ratio</td>
<td>≤ 1.5 dB on Axis</td>
<td></td>
</tr>
<tr>
<td>-3dB Beamwidth @ 2.3GHz</td>
<td>0.75°</td>
<td>0.55°</td>
</tr>
<tr>
<td>G/T @2300 MHz, Filter, 10° Elevation, 20°C Clear Sky</td>
<td>16.0 dB/K</td>
<td>18.5 dB/K</td>
</tr>
<tr>
<td>Maximum Wind for Nominal / Degraded Performance</td>
<td>100 / 120 km/h</td>
<td>80 / 100 km/h</td>
</tr>
</tbody>
</table>

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range
- Outdoor Equipment: -25 to +45°C
- Indoor Equipment: +10 to +35°C

Operational Wind
- Mean: ≤ 72 km/h
- Gust: ≤ 90 km/h
- Survival Wind: ≤ 200 km/h

Humidity
- Outdoor: 100 %
- Indoor: 85 % Non-Condensing

OPTIONAL ITEMS
- Operator control desk
- Reflector and feed de-icing system
- Rotary joint for unlimited azimuth travel
- Axial video camera for visual target aiming
- 3 rd 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

GLOBAL SALES
5, Avenue des Andes - CS 90101 - 91978 Courtaboeuf Cedex - FRANCE
Tel.: +33 1 69 82 78 00 – Email: sales.zds@zodiacaerospace.com

USA
11800, Amber Park Drive - Suite 140 - Alpharetta, GA 30009 - USA
Tel.: +1 770 753 4017 – Email: sales.zds@zdsus.com