The 11m antenna model of Zodiac Data Systems 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 satellite launch vehicles will be accurately tracked thanks to the high gain of this large aperture antenna.

The antenna control unit with its embedded 4x (AM + AGC) tracking receiver can distribute its tracking position to other computers on TCP-IP, as well as receive a slaving external information. The additional advanced algorithms also allow trajectory interpolation (memory tracking) and automatic search-scan patterns.

The very robust and solid design of the system ensures the best performance for mission-critical applications: aluminum-alloy reflector for increased surface accuracy, SCM tracking feeds for reliable and accurate tracking, dual drive for motors redundancy and no-backlash...

Zodiac Data Systems also extends the antenna offer to turnkey ground stations thanks to the complementary Cortex series and RF product lines for both air-ground and space-ground applications.

FOR TODAY AND TOMORROW AND THE LONGTERM - MAKE ZODIAC DATA SYSTEMS YOUR TECHNOLOGY PARTNER OF CHOICE
### System Specifications

#### Pedestal
- **Azimuth travel range**: ±360°
- **Elevation travel range**: −5° / +95°
- **Angular velocity**: 15 °/s Az, 15 °/s El
- **Angular acceleration**: 20 °/s²
- **Motors**: 2 motors/axis
- **Gear boxes**: 2 planetary gears/axis
- **Position readouts**: 18 bits encoders

#### Reflector
- 24 panel segmented aluminum alloy reflector

#### Servo-control
- **Pointing accuracy**: ≤0.1°
- **Tracking accuracy**: ≤0.05°
- **Acceleration lag**: 0.2°/°/s²

#### Antenna Control Unit modes
- Manual, slew, scan, slave (2 x inputs), autotracking, program-track[TLE], sun and moon track, tracking memory
- Auto acquisition with adjustable signal threshold: adjustable anti-multipath elevation limit
- **Signal inputs**: 4x (AM + AGC)
- **Auto-diversity**: LHCP/RHCP

#### General characteristics
- **Power**: 208 or 400 Vac 50-60Hz. 50kVA
- **Antenna weight**: 30 tons

### Environmental Specifications

- **Operating Temperature Range**:
  - Outdoor equipment: −30 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 % non-condensing
  - Indoor: 85 %

### Optional items
- L/S/C Tri-band feed
- Test channel into the feed
- Acquisition aid and omni antennas
- Rotary joint for unlimited azimuth travel
- Operator control desk for airborne targets tracking
- Axial video camera for visual target aiming
- Reflector and feed de-icing system
- Radome environment protection

### Tracking

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracking</td>
<td>8 dipoles monopulse</td>
</tr>
<tr>
<td>Receive frequency range</td>
<td>2200 - 2400MHz</td>
</tr>
<tr>
<td>Receive polarization</td>
<td>RHCP and LHCP</td>
</tr>
<tr>
<td>-3dB beamwidth @ 2.3GHz</td>
<td>± 0.40°</td>
</tr>
<tr>
<td>Axial ratio</td>
<td>≤ 1.5 dB on axis</td>
</tr>
<tr>
<td>G/T @20°C clear sky, 5° elevation 2300MHz</td>
<td>23 dB/K</td>
</tr>
</tbody>
</table>

---

**ZODIAC DATA SYSTEMS**

5 avenue des Andes
91978 Courtabœuf - FRANCE
Tel. +33 (0)1 69 82 78 00
contact_zds-fr@zodiacaerospace.com

**ZODIAC AIRCRAFT SYSTEMS**

www.zodiacaerospace.com

**North America office**

11800 Amber Park Drive, Suite 140
Alpharetta, GA 30009
Tel. +1 770 753 4017 Fax: +1 770 753 4022
zds.info@zdsus.com