Zodiac Data Systems offers the best match for performance, flexibility and price with its patented miniaturized tri-band feed. Common L/S/C radiating front end fitted with a modular set of active RF modules allow simultaneous reception and tracking in any frequency band, whereas a small and light-weight enclosure makes the feed mountable on any dishes from 6 feet (1.8 m).

Proposed in any single, dual or tri-band configuration, the feed offers the best value for money and flexibility to customers willing to meet current requirements while keeping future in mind. Field upgradable to any missing band with simple RF modules addition ensures your capacities are scalable and your costs under control.

**Launch Vehicle Telemetry**
- **LTE/4G MITIGATION**
  - LTE/4G, WCS & Customized Rejection Filters

**Missile Testing**
- **SCM 1000 HZ SCAN RATE**
  - Highest Accuracy of Tracking

**Fixed & Rotary Wing**
- **C-BAND IN-THE-FIELD UPGRADE**
  - Simple Add-On without any Structural Change

**SEAMLESS PRIME FOCUS INTEGRATION**
- Tri-Band even with Dishes as Small as 6’/1.8m

**NO RF-BAND COMPROMISE**
- Concentric 3-Band Feed, Without Need of Dichroic Filter
8 radiating elements used for the tracking provide a perfect axial symmetry for the Delta channel (equivalent to TE21) leading to the utmost tracking performance.

On top of that, the feed embeds additional capabilities such as LNA bypass for very short range tracking as well as tracking LNA muting for long range reception.

### SYSTEM SPECIFICATIONS

#### Frequency Bandwidth
- **Lower L-Band**: 1429 - 1545 MHz
- **Upper L-Band**: 1780 - 1850 MHz
- **S-Band**: 2200 - 2400 MHz
- **C-Band (Full)**: 4000 - 5250 MHz

#### Design
- **Polarizations**: RHCP & LHCP
- **Scanning Frequency**: Internal Frequency 50Hz / 500Hz
- **F/D Range**: 0.38 - 0.42

#### Signal Amplification (for each band)
- **Design**: 2 Cascaded LNAs per Channel
- **High Gain Mode**: 35 dB (All LNAs On)
- **Low Gain Mode (Very Short Range)**: 15 dB (1 LNA Bypassed)
- **Long Range Tracking**: Tracking LNAs Off

#### Reflector Pairing
- **Prime Focus Mounting**: Tri-Band Radiating
- **F/D Range**: 0.38 - 0.42
- **L-Band 1/2 Power Beamwidth**: 8° 5.8° 4.6°
- **S-Band 1/2 Power Beamwidth**: 5° 3.8° 2.9°
- **C-Band 1/2 Power Beamwidth**: 2.1° 1.6° 1.3°
- **Tracking Beamwidth**: 1.5 x HPBW

#### Miscellaneous
- **Length**: 18.9” (480 mm)
- **Diameter**: 11.8” (300 mm)
- **Weight**: < 40 lb (18 kg)
- **Environment**: -13°F to +122°F (-25°C to +50°C)

#### ASSOCIATED PRODUCTS
- Zodiac Data Systems’ Antennas 6 - 36 ft (1.8 - 11 m)
- Cortex RTR and RX-1 with Multi-Band Inputs
- L/S/C Acquisition Aid Antenna in a Single Enclosure

### MAIN FIGURES OF MERITS

#### Performance for Σ + Δ Channels without Filters

<table>
<thead>
<tr>
<th></th>
<th>L-Band @ 1500 MHz</th>
<th>S-Band @ 2300 MHz</th>
<th>C-Band @ 5150 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 ft</td>
<td>4.3 dB</td>
<td>6.3 dB</td>
<td>10.4 dB</td>
</tr>
<tr>
<td>8 ft</td>
<td>5.8 dB</td>
<td>8.8 dB</td>
<td>14.9 dB</td>
</tr>
<tr>
<td>10 ft</td>
<td>7.6 dB</td>
<td>10.7 dB</td>
<td>18.8 dB</td>
</tr>
<tr>
<td>18 ft</td>
<td>14.0 dB</td>
<td>16.0 dB</td>
<td>22.1 dB</td>
</tr>
<tr>
<td>24 ft</td>
<td>16.4 dB</td>
<td>18.5 dB</td>
<td>24.6 dB</td>
</tr>
</tbody>
</table>

(1) Up to +0.7 dB in all performances when tracking LNAs are muted for very long range