Satmission Model SMP180MFA motorised carbon fiber flyaway antenna offers superior performance in a lightweight, portable package.

This antenna features a 7 piece carbon fiber segmented reflector designed to provide high gain and low cross pol characteristics. The motorization package includes a ruggedized outdoor mounted controller with preconnectorized cables allowing for quick assembly and disassembly.

The custom-designed elevation-over-azimuth tripod pedestal provides high stiffness with minimal weight. The antenna components are modular in design which also reduces assembly time and provides an improved packaging scheme requiring less time and effort to pack or unpack the antenna. The molded cases are included.

The antenna is designed to meet international performance specifications for commercial or off-the-shelf military applications and is readily available in C, X, Ku and Ka band frequencies.

Multiple feed and integration configurations are available.

- Intelsat & Eutelsat Compliant
- Multi-Band C, X, Ku and Ka Band Frequencies
- Integrated Feedboom Assembly Option
- Compact Packaging
- Superior Stability in Wind
- Excellent Reliability
- Minimal Maintenance
- Less than 15 min Assembly Time
### Technical Specifications

#### Electrical Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>2 Port Cross-Pol C Band Std. Linear Feed</th>
<th>2 Port Cross-Pol C Band Circular Feed</th>
<th>2 Port X Band Linear / Std Feed</th>
<th>2 Port Cross-Pol Ku Band Linear / Mode Matched Feed</th>
<th>2 Port Cross-Pol Ku Band Circular Polarization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (GHz)</td>
<td>3.625 - 4.2</td>
<td>5.85 - 6.425</td>
<td>7.25 - 7.75</td>
<td>10.70 - 12.75</td>
<td>20.2 - 21.2</td>
</tr>
<tr>
<td>Gain (Midband, dB)</td>
<td>35.6</td>
<td>39.8</td>
<td>43.1</td>
<td>45.1</td>
<td>49.6</td>
</tr>
<tr>
<td>Noise Temperature (°K)</td>
<td>10 deg Ei</td>
<td>45</td>
<td>56</td>
<td>56</td>
<td>57</td>
</tr>
</tbody>
</table>

#### Mechanical / Environmental Specifications

- **Reflector**: 1.8 meters Carbon Fiber
- **Reflector Configuration**: Parabolic Single Offset, 0.8 F/D (7 pieces)
- **Antenna Travel**
  - Azimuth: +/- 180° continuous
  - Elevation: 5 - 90° of reflector bore sight
- **Polarization**: ± 90°
- **Motorized Antenna Packaging (Tri-Band Configuration**)**
  - Case 1 - Pedestal Legs / Backbeam: 114 cm x 64 cm x 42 cm (45 kg)
  - Case 2 - Az Hub / Foot Pads / El Actuator / CTLR: 95 cm x 70 cm x 37 cm (54 kg)
  - Case 3 & 4 - (7 piece reflector): 107 cm x 33 cm x 88 cm (35 kg ea.)
  - Integrated Feedboom Case with BUC (Per Band): (Depending on Feed)
  - Total Weight (less feed options): 169 kg
- **Temperature**
  - Operational: -20 to 60°C
  - Survival: -40 to 70°C
- **Pointing Loss (operational winds)***: 2dB peak (Ku-band Rx)
- **Winds**
  - Operational: 40 kph Gusting 72 kph with ballast or anchors
  - Survival: 96 kph with tie downs / any position
- **Feedboom Mounted Integration****: 27.2 kg
- **Rain**
  - Operational: 5 cm/h
  - Survival: 10 cm/h
- **Relative Humidity**: 0 - 100% (condensing)
- **Solar Radiation**: 1000 Kcal/h/m
- **Radial Ice (survival)**: 12.7 mm
- **Corrosive Atmosphere**: As encountered in coastal and/or industrial areas

Note: Specifications subject to change without notice

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* Lower Axial Ratio Feeds Available.  
** For Ka Band applications, pedestal configuration and packaging not shown.  
*** Performance dependent on proper installation and ballast/anchors  
**** Dependent on position of weight. Consult Engineering for details

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