Satmission Model SMV 240FA flyaway antenna offers the most robust performance in its class.

This antenna features a 4 piece glass fiber reinforced segmented reflector designed to provide excellent gain characteristics. The custom-designed elevation-over-azimuth tripod pedestal provides high stiffness with minimal assembly time and offers a unique full motion azimuth design with a fine adjust mechanism.

The unique pedestal and leg design also offers 5 to 90 deg of elevation travel with a fully integrated feed boom. The antenna design is modular which reduces the number of pieces required for assembly and results in an improved packaging scheme requiring less time and effort to pack or unpack the antenna. Cases are included.

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

Multiple feed configurations are available.

- Intelsat Compliant
- Multi-Band C, X, Ku band Frequencies
- Multiple Integration Options
- Compact Packaging
- Superior Stability in Wind
- Excellent Reliability
- Minimal Maintenance
- Less than 20 min Assembly Time
- Captive Hardware
# Technical Specifications

## Electrical Specifications

<table>
<thead>
<tr>
<th></th>
<th>2 Port Cross-Pol C Band Linear Feed</th>
<th>2 Port Cross-Pol C Band Circular Feed</th>
<th>2 Port X Band Circular</th>
<th>2 Port Cross Pol Ku Band Linear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (GHz)</td>
<td>Rx 3.40 - 4.20 Tx 5.85 - 6.725</td>
<td>Rx 3.625 - 4.20 Tx 5.85 - 6.425</td>
<td>Rx 7.25 - 7.75 Tx 7.9 - 8.4</td>
<td>Rx 10.70 - 12.75 Tx 13.75 - 14.5</td>
</tr>
<tr>
<td>Gain (Midband, dBi)</td>
<td>38.0 Rx 38.0 Tx 42.0</td>
<td>38.0 Rx 42.2 Tx 43.7</td>
<td>44.3 Rx 47.6</td>
<td>49.2 Rx 13.75 - 14.5</td>
</tr>
<tr>
<td>Noise Temperature*(K)</td>
<td>10 deg El 41 20 deg El 37</td>
<td>10 deg El 51 20 deg El 53</td>
<td>57 58</td>
<td>55 58</td>
</tr>
<tr>
<td>Axial Ratio</td>
<td>3.0 dB Rx 2.3 dB Tx 1.5 dB</td>
<td>1.5 dB Rx 1.5 dB Tx 1.5 dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolation</td>
<td>Tx/Rx -60 dB 0 dBm input</td>
<td>Tx/Rx -60 dB 0 dBm input</td>
<td>-110 dB 0 dBm input</td>
<td>-110 dB 0 dBm input -35 dB</td>
</tr>
<tr>
<td>VSWR</td>
<td>1.50:1 ITU 580 / IESS 207</td>
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</tr>
<tr>
<td>Rx/Tx</td>
<td>0 dBm input 0 dBm input</td>
<td>0 dBm input 0 dBm input</td>
<td>-110 dB 0 dBm input</td>
<td>-110 dB 0 dBm input -35 dB</td>
</tr>
</tbody>
</table>

## Mechanical / Environmental Specifications

- **Reflector**: 2.4 meters Glass Fiber Reinforced Polyester
- **Reflector Configuration**: Parabolic Single Offset (4 piece)
- **Antenna Travel**
  - Azimuth: 360° with ± 15° fine adjustment
  - Elevation: 5 - 90° of reflector bore sight
  - Polarization: ± 90°
- **Antenna Packaging**
  - Cases 1 & 2 - Reflector Cases: 2 @ 142.2 x 127 cm x 50.8 cm / 88.6 kg ea.
  - Case 3 - Backbeam Lower: 1 @ 61 cm x 71.1 cm x 58.4 / 50 kg
  - Case 4 - Backbeam Upper: 1 @ 132 cm x 76.2 cm x 27.9 cm / 54.5 kg ea.
  - Case 5 - Pedestal Legs: 1 @ 157.5 cm x 68.6 cm x 55.9 cm / 66.8 kg
  - Case 6 - Kingpost Positioner: 1 @ 55.9 cm x 58.4 cm x 78.7 cm / 58.8 kg
  - Total Packaged Weight (less feed options): 405 kg
- **Temperature**
  - Operational: -40 to 60°C
  - Survival: -50 to 70°C
- **Pointing Loss (operational winds)**: 3.5 dB peak (Ku-band Rx)
- **Winds**
  - Operational: Up to 45 kph with no ballast or anchors
  - Survival: 40 kph Gusting to 72 kph with ballast or anchors
  - Survival: 96 kph with tie downs / any position
- **Feedboom Mounted Integration**: 38.6 kg
- **Rain**
  - Operational: 5 cm/h
  - Survival: 10 cm/h
- **Relative Humidity**: 0 - 100% (condensing)
- **Solar Radiation**: 1000 Kcal/h/m²
- **Radial Ice (survival)**: 12.7 mm
- **Corrosive Atmosphere**: As encountered in coastal and/or industrial areas

Note: Specifications subject to change without notice

* Feed packaged separately dependent on options ordered
** Performance dependent on proper installation and ballast/anchors
*** Dependent on position of weight. Consult Engineering for details