



SMV 180FA

1.8 m Flyaway Antenna

Satmission Model SMV 180FA flyaway antenna offers excellent performance in a lightweight, high value and portable package.

This antenna features a 2 or 4 piece segmented reflector designed to provide excellent gain characteristics. The custom-designed elevation-over-azimuth tripod pedestal provides high stiffness with minimal assembly time.

The antenna design is modular which reduces the number of pieces required for assembly.

This also 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
- Motorization Kits Available
- Excellent Reliability
- Minimal Maintenance
- Less than 15 min Assembly Time
- Captive Hardware
- Integrated Feed Boom Options

Technical Specifications

Electrical Specifications	2 Port Cross-Pol C Band Linear Feed		2 Port Cross-Pol C Band Circular Feed		2 Port X Band Circular		2 Port Cross Pol Ku Band Linear	
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx
	Frequency (GHz)	3.40 - 4.20	5.85 - 6.725	3.625 - 4.20	5.85 - 6.425	7.25 - 7.75	7.9 - 8.4	10.70 - 12.75
Gain (Midband, dBi)	35.4	39.3	35.4	39.5	41.3	42.0	45.3	46.6
Noise Temperature°(K)								
10 deg EI	41		41		60		55	
20 deg EI	36		36		56		50	
Axial Ratio			3.0 dB	2.3 dB	1.5 dB	1.5 dB		
Cross Pol								
On Axis	-30 dB	-30 dB	-15.3 dB	-17.5 dB	-21.3 dB	-21.3 dB	-30 dB	-30 dB
in 1 dB BW	-23 dB	-23 dB	-15.3 dB	-17.5 dB	-21.3 dB	-21.3 dB	-23 dB	-23 dB
Sidelobe Compliances	IESS 207		IESS 207		Meets DSCS		Meets ITU 580	
VSWR	1.50:1	1.30:1	1.50:1	1.30:1	1.30:1	1.30:1	1.50:1	1.30:1
Isolation								
Tx/Rx	-60 dB	0 dBm input	-60 dB	0 dBm input	-110 dB	0 dBm input	-110 dB	0 dBm input
Rx/Tx	0 dBm input	-60 dB	0 dBm input	-60 dB	0 dBm input	-110 dB	0 dBm input	-35 dB

Mechanical / Environmental Specifications	
Reflector	1,8 meters Glass Fiber Reinforced Polyester
Reflector Configuration	Parabolic Single Offset, 0.6 F/D (2 piece or 4 piece option)
Antenna Travel	
Azimuth	± 35° continuous fine adjustment (360° coarse)
Elevation	0 - 90° of reflector bore sight
Polarization	± 90°
Antenna Packaging	
Case 1 - Pedestal / Backbeam Case	1 @ 86,4 cm x 73,7 cm x 45,1 cm / 37,7 kg
Case 2 - Boom / Legs Case	1 @ 124,6 cm x 55,9 cm x 29,2 cm / 39 kg
Case 3 (2 piece reflector)	1 @ 111,8 cm x 203,2 cm x 45,7 cm / 91 kg
Case 3 & 4 - (4 piece reflector) <i>Optional</i>	2 @ 39" x 41" x 13 1/2" / 46,4 kg ea.
Total Weight (less feed options) - 4 PC Refl Config	169 kg
Total Antenna Weight (less feed options)*	80,5 kg
Temperature	
Operational	-40 to 60°C
Survival	-50 to 70°C
Pointing Loss (operational winds)**	3dB 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 96 kph with tie downs / any position
Feedboom Mounted Integration***	11,4 kg
Rain	
Operational	5 cm/h
Survival	10 cm/h
Relative Humidity	0 - 100% (condensing)
Solar Radiation	1000 Kcal/h/m ²
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

Satmission AB
 Bultenvägen 5
 S-95261 Kalix, Sweden
 Phone: +46 923 137 10
 E-mail: sales@satmission.com
 Web: www.satmission.com