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# SMV 240FA

## 2.4 m Flyaway Antenna

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

<b>Electrical Specifications</b>	<b>2 Port Cross-Pol C Band Linear Feed</b>		<b>2 Port Cross-Pol C Band Circular Feed</b>		<b>2 Port X Band Circular</b>		<b>2 Port Cross Pol Ku Band Linear</b>	
	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)	38.0	42.0	38.0	42.2	43.7	44.3	47.6	49.2
Noise Temperature°(K)								
10 deg EI	41		51		57		58	
20 deg EI	37		46		53		55	
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
Sidelobe Compliances	ITU 580 / IESS 207		ITU 580 / IESS 207		Meets DSCS		IESS 208	
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

<b>Mechanical / Environmental Specifications</b>	
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 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/m <sup>2</sup>
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

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