



# SMV 240MFA

## 2.4 m Motorised Flyaway Antenna

Satmission Model SMV 240MFA motorised transportable flyaway antenna offers excellent performance in a high value package.

This antenna features a 4 piece segmented reflector and custom design fully motorized elevation-over-azimuth tripod pedestal that can be assembled in approximately 15 minutes.

The azimuth and elevation drives provide a full range of motion to make use of the auto-locate features of the controller without repositioning or reconfiguring the pedestal or reflector once fully assembled. The modular design also allows for existing manual drive antennas to be upgraded to a motorized configuration.

Integrated feedbooms are readily available for C, X, and Ku bands that included BUC mounting and waveguide connections for rapid assembly and easy packing.

The antenna control system includes a pre-wired outdoor mounted controller for fast assembly. GPS, Compass, Modem interface, and DVB receiver options are readily available for true auto acquire and peak features.

Tracking options include software and an integrated L- Band beacon receiver if necessary.

The antenna is designed to meet international performance specifications for commercial or military applications.

Available in C, X, and Ku band frequencies.



- Intelsat Compliant
- Multi-Band C, X, Ku band Frequencies
- Multiple Integration Options
- 2 Axis Motorized Pedestal Configuration
- Motorized Polarization For Linear Feeds
- Full range of motion for Azimuth. Makes full use of auto-locate control options.
- Excellent Reliability
- Minimal Maintenance
- Less than 20 min Assembly Time
- Captive Hardware
- Feedboom Mounted Integration with heavy payload

# 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>	
	<b>Rx</b>	<b>Tx</b>	<b>Rx</b>	<b>Tx</b>	<b>Rx</b>	<b>Tx</b>	<b>Rx</b>	<b>Tx</b>
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	13.75 - 14.5
Gain (Midband, dBi)	38.0	42.0	38.0	42.2	43.7	44.3	47.6	49.0
Noise Temperature(K)								
10 deg EI	39		42		56		58	
20 deg EI	34		36		52		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	-35 dB	-35 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	1.35:1	1.30:1
Isolation								
Tx/Rx	-60 dB	0 dBm input	-60 dB	0 dBm input	-110 dB	0 dBm input	-85 dB	0 dBm input
Rx/Tx	0 dBm input	-60 dB	0 dBm input	-60 dB	0 dBm input	-110 dB	0 dBm input	-30 dB

<b>Mechanical / Environmental Specifications</b>	
Reflector	2.4 meters Glass Fiber Reinforced Polyester
Reflector Configuration	Parabolic Single Offset (4 piece)
Antenna Travel	
Azimuth (Full Motion)	+/- 200°
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Antenna Packaging	
Cases 1 & 2 - Reflector Cases	2 @ 142 cm x 127 cm x 51 cm / 88.6 kg ea.
Case 3 - Backbeam Lower / Controller	1 @ 61 cm x 71 cm x 59 cm / 54.5 kg
Case 4 - Backbeam Upper / EI Actuator	1 @ 132 cm x 76 cm x 28 cm / 80 kg ea.
Case 5 - Pedestal Legs	1 @ 157,5 cm x 69,6 cm x 56 cm / 66.8 kg
Case 6 - Kingpost Positioner	1 @ 56 cm x 58,4 cm x 79 cm / 70 kg
Total Packaged Weight (less feed options)	449 kg
Temperature	
Operational	-20 to 60°C
Survival	-40 to 70°C
Pointing Loss (operational winds)**	3.5 dB peak (Ku-band Rx)
Winds	
Operational	48 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

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