



SMV 120MFA

1.2 m Motorised Flyaway Antenna

Satmission Model SMV 120MFA motorised antenna is highly portable, compact, light-weight, and can be assembled by one person in less than 15 minutes.

The antenna features a 2 or 4 piece segmented glass fiber reinforced reflector with compact pedestal and is designed to be value priced while providing exceptional performance in a lightweight package. The elevation-over-azimuth pedestal provides excellent stiffness characteristics and convenience for the user when pointing and peaking on a satellite.

The antenna packs in 3 ruggedized shipping cases as standard configuration, other options are available.

In addition, the antenna is designed to meet International performance specifications for commercial or military applications. The control system is integrated within the unit. The full travel azimuth and elevation ranges allow the control system to provide true autolocate and peak options for the end user with simple 1 button operation.

Multiple feed configurations and paint schemes are readily available.



- Intelsat Compliant
- Multi-Band Capable
- Multiple Integration Options
- Compact Packaging
- Superior Stability
- Excellent Reliability
- Minimal Maintenance
- Less than 15 min Assembly Time
- Captive Hardware
- High Performance Motorization Package
- Integrated Control System for 1 Button Auto Acquire

Technical Specifications

Electrical Specifications	2 Port C Band Linear Feed		2 Port C Band Circular Feed		2 Port X Band Circular		2 Port Cross Pol Ku Band Linear / Standard Feed		
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx	
Frequency (GHz)	3.625 - 4.20	5.85 - 6.425	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)	31.9	35.9	31.9	35.9	37.2	37.8	41.7	43.2	
Noise Temperature (K)									
	10 deg EI	45		54		79		45	
	20 deg EI	40		47		61		31	
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 contour	-26 dB	-26 dB	-15.3 dB	-17.5 dB	-21.3 dB	-21.3 dB	-30 dB	-30 dB
Sidelobe Compliances	IESS 601 Std G		IESS 601 Std G		Meets ITU 580		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	-50 dB	0 dBm input	-50 dB	0 dBm input	-110 dB	0 dBm input	-35 dB	

Mechanical / Environmental Specifications	
Reflector	1,2 meters Glass Fiber Reinforced Polyester
Reflector Configuration	2 or 4 Piece Segmented Single Offset
Antenna Travel	
Azimuth	+/- 180° continuous
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Packaging (3 Cases)	
Backbeam & Pedestal Base (Compression Molded Case)	77,5 cm x 52,1 cm x 39,9 cm (34 kg)
Legs / Feed / Controller (Compression Molded Case)	77,5 cm x 52,1 cm x 39,9 cm (34 kg)
Reflector Case	76,2 cm x 68,6 cm x 43,2 cm (38,6 kg) - 4 Piece Option 129,6 cm x 80 cm x 34,3 cm (43 kg) - 2 Piece Option
Temperature	
Operational	-30 to 60°C
Survival	-40 to 70°C
Winds	
Operational	48 kph Gusting to 72 kph
Integration	
Feedboom Mounted	13,6 kg
Rain	
Operational	10 cm/h
Survival	15 cm/h
Relative Humidity	0 - 100%
Solar Radiation	1000 Kcal/h/m ²
Radial Ice (survival)	25,4 mm
Corrosive Atmosphere	As encountered in coastal and/or industrial areas

Note: Specifications subject to change without notice

1 Dependent on mounting position relative to elevation axis

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