



SMP 150MFA

1.5 m Motorised Flyaway Antenna

Satmission Model SMP150MFA motorised carbon fiber flyaway antenna is highly portable, compact, light-weight, and can be assembled by one person in less than 15 minutes.

The antenna features a 4 piece segmented carbon fiber composite reflector designed to provide exceptional performance in a lightweight package.

The motorized elevation-over-azimuth pedestal provides excellent stiffness characteristics and convenience for the user when pointing and peaking on a satellite.

The antenna and controller pack in 3 ruggedized shipping cases.

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

Multiple feed configurations and paint schemes are readily available.



- Intelsat and Eutelsat Compliant
- Multi-Band C, X, Ku or Ka band Capable
- 4 Piece Segmented Carbon Fiber Reflector
- Embedded 3 Axis Controller for Autolocate and Tracking Options
- Compact Pedestal featuring easy point and peak control
- Ships in 3 Ruggedized Cases
- High Gain / Low Cross Pol Design
- Superior Stability in Wind
- Multiple Integration Options
- Excellent Reliability
- Minimal Maintenance

Technical Specifications

Electrical Specifications	2 Port C Band Linear Feed		2 Port C Band Circular Feed		2 Port X Band Circular (Low Axial Ratio)		2 Port Cross-Pol Ku Band Linear / Std Feed		2 Port Cross-Pol Ku Band Lin / Mode Matched Feed		2 Port Cross Pol Ka Band Circular	
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx
Frequency (GHz)	3.625 - 4.2	5.85 - 6.425	3.625 - 4.2	5.85 - 6.425	7.25 - 7.75	7.9 - 8.4	10.70 - 12.75	13.75 - 14.5	10.95 - 12.75	13.75 - 14.5	20.2 - 21.2	30.0 - 31.0
Gain (Midband, dBi)	33.4	37.2	33.3	37.1	38.9	39.5	43.4	45.0	43.4	45.2	47.8	51.1
Noise Temperature (°K)												
10 deg EI	45		54		84		70		65		155	
20 deg EI	40		47		66		60		58		106	
Cross Pol												
On Axis	-30 dB	-30 dB	-15.3 dB	-17.5 dB	-30 dB	-30 dB	-35 dB	-35 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
in 1 dB BW	-26 dB	-26 dB	-15.3 dB	-17.7 dB	-30 dB	-30 dB	-27 dB	-27 dB	-25 dB	-35 dB	-21.3 dB	-24.8 dB
Axial Ratio			3 dB	2.3 dB	0.5 dB	0.5 dB					1.5 dB	1.0 dB
Sidelobe Compliances	IESS 601 Std G		IESS 601 Std G		Meets DSCS		Meets ITU 580 FCC		Meets ITU 580 FCC Eutelsat		Meets DSCS	
VSWR	1.35:1	1.30:1	1.35:1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1	1.40:1	1.30:1	1.35:1	1.35:1
Isolation												
Tx/Rx	-70 dB	0 dBm input	-70 dB	0 dBm input	-110 dB	0 dBm input	-85 dB	0 dBm input	-85 dB	0 dBm input	-85 dB	0 dBm input
Rx/Tx	0 dBm input	-30 dB	0 dBm input	-30 dB	0 dBm input	-110 dB	0 dBm input	-30 dB	0 dBm input	-30 dB	0 dBm input	-50 dB

Mechanical / Environmental Specifications

Reflector	1.5 meters Carbon Fiber Reinforced Polymer
Reflector Configuration	4 Piece Segmented Carbon Fiber Single Offset
Antenna Travel	
Azimuth	+/- 180° continuous
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Packaging (3 Cases)	
Positioner /Actuator Case	95.25 cm x 69.85cm x 36,8 cm (38.5 kg)
Legs / Backbeam Case	114 cm x 64.3 cm x 41.9 cm (40.8 kg)
Reflector Case	106.7 cm x 33 cm x 87.6 cm (36.3 kg ea.)
Temperature	
Operational	-30 to 60°C
Survival	-40 to 70°C
Winds	
Operational	48 kph Gusting 72 kph
Feedboom Mounted Integration*	15.9 kg
Rain	
Operational	10 cm/h
Survival	15 cm/h
Relative Humidity	0 - 100% (condensing)
Solar Radiation	1000 Kcal/h/m
Radial Ice (survival)	25.4 mm
Corrosive Atmosphere	As encountered in coastal and/or industrial areas

Note: Specifications subject to change without notice

* Dependent on mounting position relative to elevation axis.

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