



# SML 150FA

## 1.5 m Flyaway Antenna

Satmission Model SML 150FA 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 elevation-over-azimuth pedestal provides excellent stiffness characteristics and convenience for the user when pointing and peaking on a satellite. The antenna packs in 2 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
- Compact Pedestal featuring easy point and peak control
- Ships in 2 Ruggedized Cases
- High Gain / Low Cross Pol Design
- Superior Stability in Wind
- Multiple Integration Options
- Excellent Reliability
- Minimal Maintenance

# Technical Specifications

<b>Electrical Specifications</b>	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 / Standard Feed		2 Port Cross Pol Ku Band Linear / 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 - 4.20	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	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	
Axial Ratio			3.0 dB	2.3 dB	0.5 dB	0.5 dB					1.5 dB	1.0 dB
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 <sup>1</sup>	-26 dB	-26 dB	-15.3 dB	-17.5 dB	-30 dB	-30 dB	-27 dB	-27 dB	-25 dB	-35 dB	-21.3 dB	-24.8 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 with fine adjust
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Packaging (2 Cases)	
Pedestal Case	114 cm x 64,3 cm x 41,9 cm (45,4 Kg)
Reflector Case	106,7 cm x 33 cm x 87,6 cm (36,3 Kg)
Temperature	
Operational	-22 - 140°F
Survival	-40 to 70°C
Winds	
Operational	48 kph Gusting to 72 kph
Integration	
Feedboom Mounted	15.9 Kg
Rain	
Operational	10 cm/h
Survival	15 cm/h
Relative Humidity	0 - 100%
Solar Radiation	1000 Kcal/h/m <sup>2</sup>
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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