

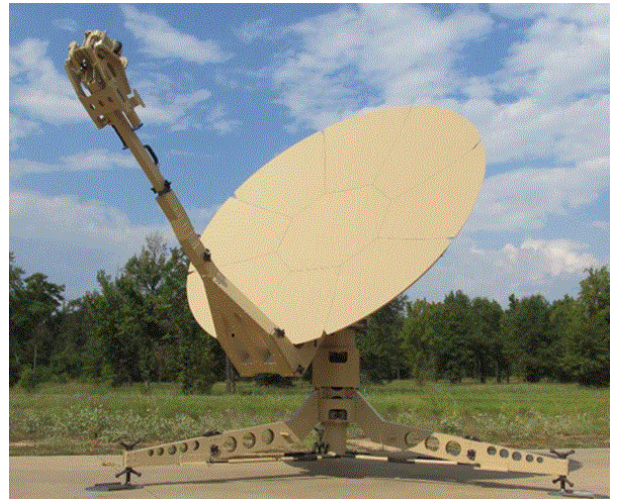


SML 240FA

2.4 m Flyaway Antenna

Satmission Model SML 240FA carbon fiber flyaway antenna offers superior performance in a lightweight, portable package. This antenna features a 9 piece carbon fiber segmented reflector designed to provide high gain and low cross pol characteristics. The custom-designed elevation-over-azimuth tripod pedestal provides high stiffness with minimal weight. The antenna components are modular in design which provides options for motorization and tracking requirements. High performance all-weather molded cases are included.

The antenna is designed to meet international performance specifications for commercial or off-the-shelf military applications. Multiple feed and integration packages are available with a quick change / quick pack configuration. The integrated boom assembly with BUC and LNB packs in a single case for quick installation. Integrated feedbooms can be supplied which will allow a quick change from one frequency band to another.



Available in C, X, Ku, and Ka band frequencies.

- Intelsat / Eutelsat Compliant (with Appropriate Feed)
- Multi-Band C, X, Ku, and Ka band Frequencies
- Integrated Feedboom
- Compact Packaging
- Superior Stability in Wind
- Excellent Reliability
- Minimal Maintenance
- Less than 20 min Assembly Time
- Captive Hardware

Technical Specifications

Electrical Specifications	2 Port Cross-Pol C Band Extended Linear Feed		2 Port Cross-Pol C Band Low Axial Ratio Circular		2 Port X Band Low Axial Ratio Circular		2 Port Cross-Pol Ku Band Linear / Mode Matched Feed		2 Port Ka Band Circular Polarization	
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx
	Frequency (GHz)	3.4 - 4.2	5.85 - 6.725	3.625 - 4.2	5.85 - 6.425	7.25-7.75	7.9-8.4	10.95 - 12.75	13.75 - 14.5	20.2 - 21.2
Gain (midband, dBi)	37.6	41.8	37.9	42.0	43.2	43.8	47.1	49.1	51.7	54.9
Noise Temperature (°K)										
10 deg El	48		53		78		64		130	
20 deg El	44		50		74		60		110	
40 deg El	33		47		69		56		99	
Typical G/T (20 deg El)	35 deg LNA 18.4 db°K 55 deg LNA 70 deg LNA 120 deg LNA		18.2 db°K		22.1 db°K		25.8 db°K		28.3 db°K	
Cross Pol										
On Axis	-30 dB	-30 dB	-20 dB	-27 dB	-30 dB	-30 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
in 1 dB BW	-28 dB	-28 dB	-20 dB	-27 dB	-30 dB	-30 dB	-25 dB	-35 dB	-21.3 dB	-24.8 dB
Axial Ratio			1.6 dB	0.75 dB	0.5 dB	0.5 dB			< 1.5 dB	< 1.0 dB
Sidelobe Compliances	Meets ITU 580 Beyond Mainbeam		Meets ITU 580 Beyond Mainbeam		Meets DSCS		Meets ITU, FCC 25.209, Eutelsat		Meets DSCS	
VSWR	1.40:1	1.30:1	1.35:1	1.30:1	1.30:1	1.30:1	1.4:1	1.30:1	1.30:1	1.30:1
Isolation										
Tx/Rx	-85 dB	0 dBm input	-85 dB	0 dBm input	-110 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	-35 dB	0 dBm input	-70 dB
Max Power Handling (Continuous)	1.0 kW		1.0 kW		1.0 kW		1.0 kW		200 W	
WG Interface	CPR-229	CPRG-137	CPR-229	CPRG-137	WR112 UBR84	WR112 UBR84	WR75-Cover	WR75-Cover	WR42	WR28

Mechanical / Environmental Specifications

Reflector	2.4 meters Carbon Fiber
Reflector Configuration	Parabolic Single Offset, 0.8 F/D (9 piece)
Antenna Travel	
Azimuth	360° with fine adjustment
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Antenna Packaging (6 Cases)	
Pedestal Cases (3), With Wheels / Handles	64 Kg Typical Per Case
Reflector Cases (3), With Wheels / Handles	36 Kg Typical Per Case
Integrated Feed and Boom Packages with Amps	Per Band or Per Feed
Temperature	
Operational	-30 to 60°C
Survival	-40 to 70°C
Pointing Loss (operational winds)	2 dB peak (Ku-band Rx)
Winds	
Operational	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 ²
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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