



SML 240DA

2.4 m Driveaway Antenna

Satmission SML 240DA antenna offers the most robust and light-weight antenna of its type and size available.

This antenna features a carbon fiber composite reflector and backbeam structure designed to provide exceptional performance in a lightweight package.

The custom-designed elevation-over-azimuth cable drive pedestal provides superior stiffness over existing products on the market.

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.

The antenna is available with multiple controller configurations that include manual jog control, autolocate with peaking options, and full tracking capabilities with beacon receiver

Multiple feed configurations are available.



- Intelsat and Eutelsat Compliant
- Multi-Band C, X, Ku or Ka band Frequencies
- Multiple Integration Options
- Integrated Controller with Tracking Options Available
- Carbon Fiber Reinforced Polymer Structure – Lightweight and Stiff
- Low Profile and Space-Optimizing Stow Position
- Cable Drive Positioning System
- Superior Stability in Wind
- Excellent Reliability
- Minimal Maintenance

Technical Specifications

Electrical Specifications	2 Port Cross-Pol C Band Extended Linear Feed		2 Port Cross-Pol C Band Std. Circular Feed		2 Port X Band Circular Polarization		2 Port Cross-Pol Ku Band Std Feed		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	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	10.70 - 12.75	13.75 - 14.5	10.95 - 12.75	13.75 - 14.5	20.2 - 21.2
Gain (midband, dBi)	37.6	41.8	38.1	42.0	43.5	43.6	47.3	49.3	47.3	49.3	52.2	55.2
Noise Temperature (K)												
10 deg EI	48		48		57		62		60		130.0	
20 deg EI	44		46		54		58		56		110.0	
Typical G/T (20 deg EI)												
35 deg LNA	18.4 db/K		18.5 db/K									
45 deg LNA					23.1 db/K							
55 deg LNA							25.9 db/K		25.8 db/K			
70 deg LNA												
120 deg LNA											28.3 db/K	
Cross Pol												
On Axis	-30 dB	-30 dB	-15.2 dB	-17.5 dB	-21.3 dB	-21.3 dB	-35 dB	-35 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
in 1 dB BW	-28 dB	-28 dB	-15.2 dB	-17.5 dB	-21.3 dB	-21.3 dB	-27 dB	-27 dB	-25 dB	-35 dB	-21.3 dB	-24.8 dB
Axial Ratio			3.0 dB	2.3 dB	1.5 dB	1.5 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		Meets ITU, FCC 25.209, Eutelsat		Meets DSCS	
VSWR	1.40:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1	1.35:1	1.30:1	1.25:1	1.30:1
Isolation												
Tx/Rx	-85 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	-45 dB	0 dBm input	-70 dB

Mechanical/Environmental Specifications

Reflector	2.4 meters - Carbon Fiber
Reflector Offset Angle (deg)	16
Antenna Travel	
Azimuth	± 200° continuous
Elevation	0 - 90° of reflector boresight
Polarization	± 90°
Antenna Drive Rate	
Azimuth	0.4°/sec
Elevation	0.8°/sec
Polarization	2°/sec
Temperature	
Operational	-30 to 60°C
Survival	-40 to 70°C
Pointing Loss (operational winds)	2dB peak (Ku-band Rx)
Winds ¹	
Operational	72 kph Gusting to 96 kph
Survival	128 kph any position 145 kph stowed
Antenna Stowed Dimensions	Length: 2773mm Width: 2431mm Height: 595 mm
Weight	250 kg - without feed/integration
Integration	
Feedboom Mounted	68 kg
Positioner Mounted	147 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

- * Using appropriate tracking controller ** Contact Factory
 1 Dependent on vehicle capabilities
 2 Dependent on mounting position relative to elevation axis
 3. For dual waveguide runs, standard travel is ±150°.

Satmission AB
 Bultenvägen 5
 S-95261 Kalix, Sweden
 Phone: +46 923 137 10
 E-mail: sales@satmission.com
 Web: www.satmission.com