

2411 PELORIS

2.4 Meter Motorized Vehicle-Mount Antenna



- ***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***

The Sat-Lite Technologies Model 2411 vehicle-mount 2.4 M 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. Multiple feed configurations are available.



TECHNICAL SPECIFICATIONS



<i>Electrical Specifications</i>	2 Port Cross-Pol C Band		2 Port X Band		2 Port Cross-Pol Ku Band		2 Port Cross-Pol Ku Band		2 Port Ka Band	
	Std. Linear Feed		Circular Polarization		Linear / Standard Feed		Linear / Mode Matched Feed		Circular Polarization	
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx
Frequency (GHz)	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)	38.2	42.0	43.5	43.6	47.3	49.2	47.3	49.4	52.3	55.2
Noise Temperature (°K)										
	10 deg El	38	59		66		62		130	
	20 deg El	33	55		60		56		110	
Cross Pol										
On Axis	-35 dB	-35 dB	-21.3 dB	-21.3 dB	-35 dB	-35 dB	-35 dB	-35 dB	-24.8 dB	-24.8 dB
in 1 dB BW	-28 dB	-28 dB	-21.3 dB	-21.3 dB	-27 dB	-27 dB	-25 dB	-35 dB	-24.8 dB	-24.8 dB
Axial Ratio			1.5 dB	1.5 dB					1.5 dB	1 dB
Sidelobe Compliances	Meets ITU 580 Beyond Mainbeam		Meets DSCS		Meets ITU, FCC 25.209		Meets ITU, FCC 25.209, Eutelsat		Meets DSCS	
VSWR	1.30:1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1	1.35:1	1.30:1	1.35:1	1.30:1
Isolation										
Tx/Rx	-85 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	-110 dB	0 dBm input	-30 dB	0 dBm input	-30 dB	0 dBm input	-30 dB

<i>Mechanical/Environmental Specifications</i>	
Reflector	2.4 meters (94.48in) - Carbon Fiber, 3 Piece Segment Reflector (Optional)
Reflector Offset Angle (deg)	16
Antenna Travel	
Azimuth	± 200° continuous ³
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 (-22 - 140°F)
Survival	-40 to 70°C (-40 - 158°F)
Tracking Loss (operational winds)	2dB peak (Ka-band Rx) [*]
Winds ¹	
Operational	45 mph Gusting to 60 mph (72 kph G 96 kph)
Survival	75 mph (128 kph) any position 90 mph (145 kph) stowed
Antenna Stowed Dimensions	Length: 109 3/16" (2773 mm) Width: 95 3/4" (2431mm) Height: 23 7/16 in (595 mm)
Weight	510 lb (232 kg) - without feed/integration
Integration	
Feedboom Mounted	150 lbs (68 kg)
Positioner Mounted	325lbs (148 kg)
Rain	
Operational	4 in/h (10 cm/h)
Survival	6 in/h (15 cm/h)
Relative Humidity	0 - 100%
Solar Radiation	360 btu/h/ft ² (1000 Kcal/h/m ²)
Radial Ice (survival)	1 in (25.4 mm)
Corrosive Atmosphere	As encountered in coastal and/or industrial areas

* 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, travel is ±150°.

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