

2011 PELORIS

2.0 Meter Motorized Vehicle-Mount SNG Antenna



- ***Intelsat and Eutelsat Compliant (Using Appropriate Feed)***
- ***Multi-Band C, X, Ku or Ka band Frequencies***
- ***Multiple Integration Options***
- ***Integrated Controller with Tracking Options Available***
- ***Carbon Fiber Reflector with Precision Aluminum Backbeam Structure***
- ***Low Profile and Space-Optimizing Stow Position***
- ***Superior Stability in Wind***
- ***Excellent Reliability***
- ***Minimal Maintenance***
- ***Ideal for C Band with Minimum Width***

The Sat-Lite Technologies Model 2011 vehicle-mount antenna is a robust and light-weight precision antenna designed for the most demanding high power broadband applications. This antenna features a carbon fiber composite reflector and aluminum backbeam structure designed to provide exceptional performance in a lightweight package. The custom-designed elevation-over-azimuth cable drive pedestal provides superior stiffness with minimal backlash and maintenance.

In addition, the antenna has a long focal length geometry (0.8 F/D) designed to meet international performance specifications for commercial or military applications and is available in C, X, Ku and/or Ka band frequencies. Multiple feed configurations are also available for 2 port, 3 port, and 4 port applications. A host of amplifier mounting packages or waveguide installations are also standard product offerings.



| <i>Electrical Specifications</i> | 2 Port Cross-Pol C Band Extended Linear Feed | | 2 Port Cross-Pol C Band Std. Linear Feed | | 2 Port Cross-Pol C Band Circular Feed | | 2 Port X Band Circular Polarization | | 2 Port Cross-Pol Ku Band Linear / Mode Matched Feed | |
|----------------------------------|--|--------------|--|--------------|---------------------------------------|--------------|-------------------------------------|-------------|---|--------------|
| | Rx | Tx | Rx | Tx | Rx | Tx | Rx | Tx | Rx | Tx |
| Frequency (GHz) | 3.40 - 4.20 | 5.85 - 6.725 | 3.625 - 4.2 | 5.85 - 6.425 | 3.625 - 4.2 | 5.85 - 6.425 | 7.25 - 7.75 | 7.9 - 8.4 | 10.95 - 12.75 | 13.75 - 14.5 |
| Gain (Midband, dBi) | 36.6 | 40.5 | 36.6 | 40.6 | 36.5 | 40.6 | 42.1 | 42.7 | 46.0 | 47.8 |
| Noise Temperature (°K) | | | | | | | | | | |
| 10 deg El | 51 | | 45 | | 55 | | 68 | | 53 | |
| 20 deg El | 45 | | 40 | | 50 | | 64 | | 48 | |
| Cross Pol | | | | | | | | | | |
| On Axis | -30 dB | -30 dB | -30 dB | -30 dB | -20 dB | -27 dB | -30 dB | -30 dB | -35 dB | -35 dB |
| in 1 dB BW | -26 dB | -26 dB | -26 dB | -26 dB | -20 dB | -27 dB | -30 dB | -30 dB | -25 dB | -35 dB |
| Axial Ratio | | | | | 1.6 dB | 0.75 dB | 0.5 dB | 0.5 dB | | |
| Sidlobe Compliances | Meets ITU 580 Beyond Mainbeam | | Meets ITU 580 Beyond Mainbeam | | Meets ITU 580 Beyond Mainbeam | | Mi-Std 188-164A | | ITU, FCC Eutelsat | |
| VSWR | 1.40:1 | 1.30:1 | 1.30:1 | 1.30:1 | 1.35:1 | 1.30:1 | 1.30:1 | 1.30:1 | 1.35:1 | 1.30:1 |
| Isolation | | | | | | | | | | |
| Tx/Rx | -85 dB | 0 dBm input | -85 dB | 0 dBm input | -85 dB | 0 dBm input | -120 dB | 0 dBm input | -85 dB | 0 dBm input |
| Rx/Tx | 0 dBm input | -35 dB | 0 dBm input | -35 dB | 0 dBm input | -35 dB | 0 dBm input | -120 dB | 0 dBm input | -30 dB |

Mechanical/Environmental Specifications

| | |
|------------------------------------|---|
| Reflector | 2.0 meters (78.75 in) - Carbon Fiber |
| Reflector Offset Angle (deg) | 17.8 |
| Antenna Travel | |
| Azimuth | ± 200° continuous |
| Elevation | 0 - 90° of reflector boresight |
| Polarization | ±- 90° |
| Antenna Drive Rate | |
| Azimuth | 1.5°/sec |
| Elevation | 1.5°/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)* | 3dB peak (Ku-band Rx) |
| Winds ¹ | |
| Operational | 45 mph Gusting to 60 mph (72 kph G 96 kph) |
| Survival | 70 mph (112 kph) any position 90 mph (145 kph) stowed |
| Antenna Stowed Dimensions | Length: 103 5/8" (2632mm) Width: 78 3/4" (2000 mm) Height: 18 1/8 in (461 mm) |
| Weight | 290 lb (132 kg) - without integration |
| Integration ² | |
| Feedboom Mounted | 100 lbs (45 kg) |
| Positioner Mounted | 250lbs (113 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

Note: Specifications subject to change without notice

850-0040-E

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