

# 1500 Peloris SNG

## 1.5 Meter Vehicle-Mount Antenna



- High Performance SNG Applications
- Intelsat / Eutelsat Compliant with Appropriate Feed
- Sat-Lite Cirrus Controller
- Carbon Fiber Reflector
- Handcrank Included
- Low Stow Height and Space-Optimizing Stowed Configuration
- Designed for Boom Mounted Redundant RF Packages up to 100 lbs
- Multiple Feed Options for X, Ku, and Ka Bands

The Sat-Lite Technologies Model 1500 vehicle-mount antenna is a high performance light weight design for SNG (satellite news gathering) and military applications. Key features include a precision carbon fiber reflector combined with a light weight pedestal that provides the integrator with a low stow height, space saving profile. The elevation over azimuth pedestal provides excellent stiffness and low backlash characteristics for applications including Ka Band frequencies.

Locate

Stow

The antenna is also designed for mounting redundant RF packages of up to 100 lbs directly on the feedboom. A proprietary rack mount Sat-Lite Technologies Cirrus Antenna Controller offers autolocate features using GPS, compass, and DVB-S2 receiver to quickly identify the satellite. The standard product includes a keypad interface in the rack as well as an enhanced ethernet GUI for laptop or remote interface. The antenna is designed to meet international RF performance requirements for commercial and military applications including Intelsat, Eutelsat, and FCC specifications.



Automatic Manual Settings

**Antenna Location**

| Mode      | Latitude | Longitude | True Heading | Pitch | Roll |
|-----------|----------|-----------|--------------|-------|------|
| Automatic | *        | *         | *            | *     | *    |

**Target Satellite**

| Satellite Index | Name      | Longitude | Target Pol | Inclin | Band | Pol Offset |
|-----------------|-----------|-----------|------------|--------|------|------------|
| 1               | AMC 4     | 67.0 * W  | Horz       | 0 *    | CK   | 0.0 *      |
| 2               | GALAXY 28 | 89.0 * W  | None       | 0 *    | CK   | 0.0 *      |
| 3               | GALAXY 3C | 95.0 * W  | None       | 0 *    | CK   | 0.0 *      |
| 4               | GALAXY 23 | 121.0 * W | None       | 0 *    | CK   | 0.0 *      |
| 5               | GALAXY 14 | 125.0 * W | None       | 0 *    | C    | 0.0 *      |

**DVB Signpost List**

| Signpost Index | Longitude | Pol | Freq (MHz) | Symbol Rate (kS/sec) | FEC | Standard | Priority |
|----------------|-----------|-----|------------|----------------------|-----|----------|----------|
| 1              | 67.0 * W  | V   | 11800      | 28888                | 3/4 | S1       | Enabled  |
| 2              | 95.0 * W  | H   | 11780      | 20760                | 3/4 | S1       | Enabled  |
| 3              | 125.0 * W | V   | 12180      | 30000                | 3/4 | S2       | Enabled  |

Save Settings

| <i>Electrical Specifications</i> | 2 Port X Band Circular |                 | 2 Port Cross Pol Ku Band Linear / SNG Feed |                                | 2 Port Cross Pol Ku Band Mode Matched Linear / SNG Feed |   | 2 Port Cross Pol Ka Band Circular Polarization |                 |
|----------------------------------|------------------------|-----------------|--|--------------------------------|---|---|--|-----------------|
|                                  | Rx                     | Tx              | Rx   | Tx                             | Rx  | Tx                                      | Rx   | Tx              |
| Frequency (GHz)                  | 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)              | 38.7                   | 39.5            | 43.2                                       | 44.8                           | 43.2  | 44.8                                    | 47.5   | 51.0            |
| Noise Temperature (°K)           |                        |                 |  |                                |   |   |  |                 |
| 10 deg El                        | 79                     |                 | 55   |                                | 56  |   | 155  |                 |
| 20 deg El                        | 61                     |                 | 46   |                                | 48  |   | 120  |                 |
| Axial Ratio                      | 1.5 dB                 | 1.5 dB          |  |                                |   |   | 1.5 dB   | 1.0 dB          |
| Cross Pol                        |                        |                 |  |                                |   |   |  |                 |
| On Axis                          | -21.3 dB               | -21.3 dB        | -35 dB                                     | -35 dB                         | -35 dB  | -35 dB                                  | -21.3 dB                                       | -24.8 dB        |
| in 1 dB contour                  | -21.3 dB               | -21.3 dB        | -30 dB                                     | -30 dB                         | -25 dB  | -35 dB                                  | -21.3 dB                                       | -24.8 dB        |
| Sidelobe Compliances             |                        | DSCS / 188-164A |  | Meets ITU 580 / FCC / Intelsat |   | Meets ITU 580 / FCC Intelsat / Eutelsat |  | DSCS / 188-164A |
| VSWR                             | 1.30:1                 | 1.30:1          | 1.30:1                                     | 1.25:1                         | 1.4:1   | 1.30:1                                  | 1.35:1   | 1.30:1          |
| Isolation                        |                        |                 |  |                                |   |   |  |                 |
| Tx/Rx                            | -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            | -110 dB         | 0 dBm input                                | -35 dB                         | 0 dBm input   | -35 dB                                  | 0 dBm input                                    | -30 dB          |

| <i>Mechanical / Environmental Specifications</i> |   |
|--|---|
| Model  | 1500  |
| Reflector (Carbon Fiber)                         | 1.5 M (58 13/16 in)   |
| Reflector Configuration                          | Parabolic Single Offset, 0.8 F/D                                    |
| Antenna Travel                                   |   |
| Azimuth  | ± 200° continuous   |
| Elevation  | 0 - 90° of reflector bore sight                                     |
| Polarization                                     | ± 90°   |
| Antenna Drive Rate                               |   |
| Azimuth  | 3.0°/sec  |
| Elevation  | 2.5°/sec  |
| Polarization                                     | 3.0°/sec  |
| Temperature                                      |   |
| Operational                                      | -30 to 60°C ( -22 - 140°F)  |
| Survival   | -40 to 70°C (-40 - 158°F)   |
| Winds <sup>1</sup>                               |   |
| Operational                                      | 45 mph Gusting to 60 mph (72 G 96 kph)                              |
| Survival   | 80 mph (128 kph) deployed any position<br>100 mph ( 161 kph) stowed |
| Antenna Stow Height                              | 16 11/16 in (424 mm)  |
| Weight   | 155 lb (71 kg)  |
| Integration <sup>2</sup>                         |   |
| Feedboom Mounted <sup>3</sup>                    | 100 lbs (45 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/ft2 (1000 Kcal/h/m2)                                      |
| Radial Ice (survival)                            | 1 in (25.4 mm)  |
| Corrosive Atmosphere                             | As encountered in coastal and/or industrial areas                   |

1 Dependent on vehicle capabilities

2 Dependent on mounting position relative to elevation axis

3 Std weight shown, consult factory for special requirements

Note: Specifications subject to change without notice

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