

# 1500 Carbon Fibre



## TECHNICAL SPECIFICATIONS



### Electrical

|                |                                    |
|----------------|------------------------------------|
| Tx & Rx cables | 2 RG6 cables (10m each)            |
| Control Cables |                                    |
| Standard       | 10m Ext. Cable with MIL Connectors |
| Optional       | upto 75m available                 |

### Mechanical

|                         |   |
|-------------------------|---|
| Reflector               | 1.5 m Carbon Fibre Reinforced Polymer             |
| Reflector Configuration | Parabolic Single Offset, 0.78 F/D (16.9° offset)  |
| Mount Geometry          | Elevation over Azimuth                            |
| Deployment Sensors      | GPS antenna<br>Compass ± 2°<br>Tilt sensor ± 0.2° |

### Physical

|                           |  |
|---------------------------|--|
| Mounting Plate            | L: 52" (1321mm) W: 22" (559mm)                           |
| Stowed Dish Ext. Dims     | L: 74.5" (1892mm) W: 60.5" (1537mm)<br>H: 19.25" (488mm) |
| Deployed Height           | 71" (1803 mm) Max.                                       |
| Reflector Weight          | 16 lbs (7.3 kg)  |
| Total Weight w/ Reflector | 183 lbs (83.2 kg)  |

### RF Interface

|                 |   |
|-----------------|---|
| Radio Mounting  | Feed Arm / Rear of Base /<br>Inside Vehicle |
| Axis Transition | Twist-Flex Waveguide                        |
| Waveguide       | WR75 Cover Flange Interface                 |
| Coaxial         | RG6U from Feedhorn to Base                  |
| Feed            | 2 port Xpol                                 |

### Environmental Survival

|                       |   |
|-----------------------|---|
| Wind Deployed         | 70 mph (112 km/h)                                       |
| Wind Stowed           | 140 mph (225 km/h)                                      |
| Temperature           | -40°F to 150°F (-40°C to 65°C)                          |
| 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 <sup>2</sup> (1000 Kcal/h/m <sup>2</sup> ) |
| Radial Ice (survival) | 1 in (25.4 mm)  |
| Corrosive Atmosphere  | As encountered in coastal and/<br>or industrial areas   |

### Operational

|             |                                |
|-------------|--------------------------------|
| Wind        | 45 mph (72 km/h)               |
| Temperature | -22°F to 130°F (-30°C to 55°C) |

### Motors

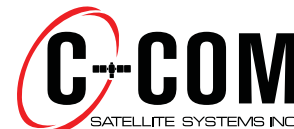
|                      |                 |
|----------------------|-----------------|
| Electrical Interface | 12V DC 15A max. |
|----------------------|-----------------|

### Maximum Mount Rotation

|                        |  |
|------------------------|--|
| Azimuth                | Full 360° in overlapping 200°<br>sectors |
| Elevation              | 0 - 75°                                  |
| Polarization           | ±90°                                     |
| Elevation Deploy Speed | Variable 2°/sec typ                      |
| Azimuth Deploy Speed   | Variable 15°/sec max,<br>10°/sec typ     |
| Peaking Speed          | 0.2°/sec                                 |

Standard warranty: 2 years

[www.servsat.com](http://www.servsat.com)  
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Specifications are subject to change

Mar. 2011

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### 2 Port C Band (Linear)

|                          | Receive        | Transmit    |
|--------------------------|----------------|-------------|
| Standard Frequency (GHz) | 3.625-4.2      | 5.85-6.425  |
| INSAT Frequency (GHz)    | 4.5-4.8        | 6.725-7.025 |
| Gain (Midband, dBi)      | 33.4           | 37.2        |
| Noise Temperature (°K)   |                |             |
| 10 deg El                | 45             |             |
| 20 deg El                | 40             |             |
| Cross Pol                |                |             |
| On Axis (Std)            | -30 dB         | -30 dB      |
| On Axis (INSAT)          | -35 dB         | -35 dB      |
| in 1 dB BW               | -26 dB         | -26 dB      |
| Sidelobe Compliances     | IESS 601 Std G |             |
| VSWR                     | 1.50:1         | 1.30:1      |
| Isolation                |                |             |
| Tx / Rx (Std)            | -60dB          | 0 dBm input |
| Tx / Rx (INSAT)          | -70 dB         |             |
| Rx / Tx                  | 0 dBm input    | -35 dB      |

### 2 Port Cross Pol (Ku Band)

|                          | Receive                 | Transmit    |
|--------------------------|-------------------------|-------------|
| Standard Frequency (GHz) | 10.70-12.75             | 13.75-14.5  |
| Gain (Midband, dBi)      | 43.6                    | 44.9        |
| Noise Temperature (°K)   |                         |             |
| 10 deg El                | 65                      |             |
| 20 deg El                | 58                      |             |
| Cross Pol                |                         |             |
| On Axis                  | -35 dB                  | -35 dB      |
| in 1 dB BW               | -28 dB                  | -28 dB      |
| Sidelobe Compliances     | Meets ITU 580, INTELSAT |             |
| VSWR                     | 1.50:1                  | 1.30:1      |
| Isolation                |                         |             |
| Tx / Rx                  | -85 dB                  | 0 dBm input |
| Rx / Tx                  | 0 dB input              | -35 dB      |

Note:

C band Linear & INSAT specifications are the same except where stated separately

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