

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 |
| | Compass ± 2° |
| | 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) |
| | 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 / Inside Vehicle |
| Axis Transition | Twist-Flex Waveguide |
| Waveguide | WR75 Cover Flange Interface |
| Coaxial | RG6U from Feedhorn to Base |
| Feed | 2 port Xpol |

Warranty

| | |
|----------|---------|
| Standard | 2 years |
|----------|---------|

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 ² (1000 Kcal/h/m ²) |
| Radial Ice (survival) | 1 in (25.4 mm) |
| Corrosive Atmosphere | As encountered in coastal and/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° sectors |
| Elevation | 0 - 75° |
| Polarization | ±90° |
| Elevation Deploy Speed | Variable 2°/sec typ |
| Azimuth Deploy Speed | Variable 15°/sec max, 10°/sec typ |
| Peaking Speed | 0.2°/sec |

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Specifications are subject to change

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2 Port C Band (Linear)

| | Receive | Transmit |
|--------------------------|----------------|-------------|
| Standard Frequency (GHz) | 3.4-4.2 | 5.850-6.725 |
| 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 C Band (Circular)

| | Receive | Transmit |
|---------------------------------|---------------|-------------------|
| Standard Frequency (GHz) | 3.625-4.200 | 5.850-6.425 |
| Gain (Midband, dBi) | 35.4 | 39.5 |
| Noise Temperature (°K) | | |
| 10 deg El | 41 | |
| 20 deg El | 36 | |
| Sidelobe Envelope, Co-Pol (dBi) | | |
| 2.8° < Ø < 20° | 29 - 25 Log Ø | |
| 20° < Ø < 26.3° | -3.5 | |
| 26.3° < Ø < 48° | 32-25 Log Ø | |
| 48° < Ø < 180° | -10 | |
| VSWR | 1.50:1 | 1.30:1 |
| Feed Interface | CPR-229 | Type N or CPR-137 |
| Isolation (Port to Port) | -60dB | -60dB |

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