The Skyware Global 1.2m Standard Ka Band Antenna SFL RxTx is a rugged, commercial quality product suitable for the most demanding applications.

- The reflector is constructed from glass fiber reinforced polyester (SMC) for strength and accuracy. A proprietary process developed by Skyware Global insures high RF reflectivity as needed for Ka Band operation.
- The precision Az/El mount is made of galvanized steel for excellent corrosion resistance. This mount includes special features to increase pointing accuracy with low backlash and lockdown error.
- This Az/El allows the antenna to be installed on standard 89mm [3.5"] OD installation mounts.
- All hardware is plated to 720 hour salt spray standards under ASTM B-117.
- Designed for use with the Skyware Global line of Ka-band feed assemblies.
- Tx Cross-Polarization Isolation of 25dB (within 1dB b/w) or better.
- Excellent Tx Port to Port Isolation of 90dB or better.
- Meets or exceeds regulator agency requirements.
- System designed for typical Ka-band RF Electronics.
**RF Performance**

Operating Frequency
- **TX**: 29.50 - 30.00 GHz
- **RX**: 19.20 - 20.20 GHz

Polarization
- **TX**: Circular, RH or LH
- **RX**: Circular, LH or RH

**Gain**
- **TX**: 49.3 dBi @ 30.0 GHz
- **RX**: 46.0 dBi @ 20.2 GHz

**3 dB Beamwidth**
- **TX**: 0.6° @ 30 GHz
- **RX**: 0.9° @ 20 GHz

**Sidelobe Envelope (Tx, Co-Pol dBi)**
- 100 ≤ θ ≤ 20°: 29-25 log θ dBi
- 20° < θ < 26.3°: -3.5 dBi
- 26.3° < θ < 48°: 32-25 log θ dBi
- 48° < θ < 180°: -10 dBi (Typical)

**Antenna Cross-Polarization (within 1dB b/w)**
- **TX**: 25dB
- **RX**: 22dB

**Antenna Noise Temperature**
- @ 30° EL 57°K Max

**VSWR**
- 1.2:1 Max

**Isolation**
- **TX**: 90dB
- **RX**: 75dB

**Mechanical Performance**

**Reflector Material**: Glass Fiber Reinforced Polyester (SMC)

**Antenna Optics**: One-Piece Offset Feed Prime Focus

**Mount Type**: Elevation Over Azimuth

**Elevation Adjustment Range**: 5° - 90° Continuous Fine Adjustment

**Azimuth Adjustment Range**: 360° Continuous; ± 3° Fine Adjustment

**Mast Size**: (3.5") (89mm) Diameter

**Antenna Weight**: Approx 15.98Kg (Not Including Mast)

**Environmental Performance**

**Operational Wind Speed**: 65km/h (40 mph)

**Functional Survival**: 128km/h (80 mph)

**Ultimate Survival**: 200km/h (125 mph)

**Survival Temperature**: -50°C to +80°C

**Operational Temperature**: -40°C to +55°C

**Humidity**: 0 to 100% (Condensing)

**Corrosion Protection**: Hot Dip Galvanized Structural Components, Hardware meets 720 hour Salt Spray Test (ASTM B-117)

**Solar Radiation**: 360 BTU/h/ ft²

**Shock and Vibration**: As Encountered during Shipping and handling

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1. Gain and Noise Temperature at Feed Horn Flange
   (All specifications typical)

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**Satcom Solutions for the long haul**

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