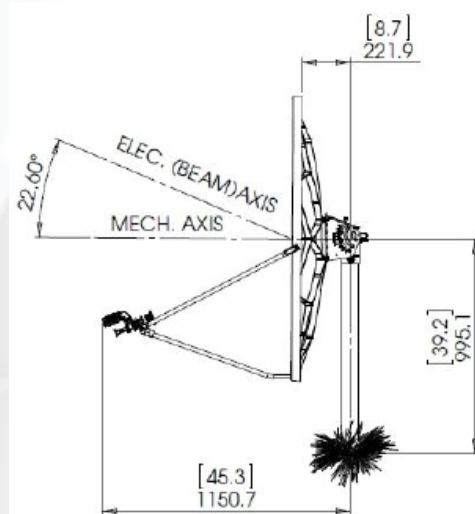
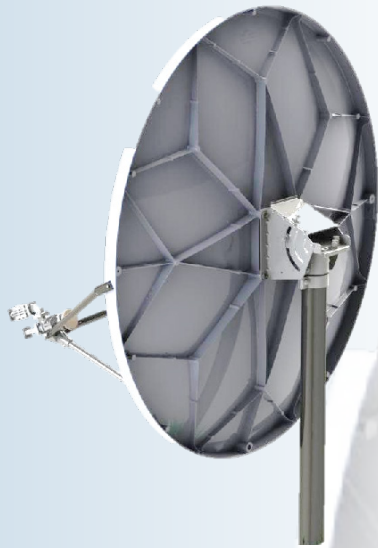


# Type122: 1.2m BSS Band Antenna

## SFL RxTx Class I



- One-piece precision SMC Reflector
- Precision Az/EI Mount
- Fine Azimuth and Elevation Adjustment Features
- All Materials Comply with EU Directive No. 2002/95/EC (RoHS)



- 720 Hour Salt Spray Hardware
- Standard Waveguide Flange Interface

### The Skyware Global 1.2m BSS Band Antenna SFL RxTx

Class I 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 Ku Band operation.
- The precision Az/EI 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/EI allows the antenna to be installed on standard (73-73MM) 27/8 or 3" OD installation mounts.
- All hardware is plated to 720 hour salt spray standards under ASTM B-117.
- Cross-Polarization Isolation of 30dB on axis
- Excellent Tx Port-to-Port Isolation of 90dB or better
- Class I system designed for typical lightweight Ku-band RF Electronics.\*

\* 2.0 kg or 4.5 lb max. weight (For BUC and LNB) 2.2 kg or 4.8 lb max. weight (For Transceiver)



## • PRODUCT SPECIFICATIONS

### RF Performance

#### Operating Frequency

TX \*.....17.3 -18.1 GHz

RX..... 10.95 -12.75 GHz

#### Polarization

Tx.....Linear V-Pol or H-Pol

Rx.....Linear H-Pol or V-Pol

#### Gain ( $\pm 0.3$ dB)

TX..... 44.7 dBi @ 17.7 GHz

RX..... 41.8 dBi @ 12.0 GHz

#### 3 dB Beamwidth

TX.....1.0° @ 17.7 GHz

RX..... 1.4° @ 12.0 GHz

#### Sidelobe Envelope (Tx, Co-Pol dBi)

100  $\lambda/D < \theta < 20^\circ$ ..... 29-25 log  $\theta$  dBi

20° <  $\theta$  < 26.3° ..... -3.5 dBi

26.3° <  $\theta$  < 48° ..... 32-25 log  $\theta$  dBi

48° <  $\theta$  < 180° ..... -10 dBi (Typical)

#### Antenna Cross-Polarization (Within 1 dB)

TX..... >30 dB

RX..... >23 dB

#### Antenna Noise Temperature

.....29K° @ 30° Elevation @ 12.0 GHz

#### VSWR

Tx.....1.3:1 Max

Rx..... 1.5:1 Max

#### Isolation

Tx..... 90 dB

Rx..... 45 dB

#### Feed Interface

Tx..... WR62 Flat Flange

Rx..... WR75 Flat Flange

## 1.2m BSS Band Antenna SFL

### RxTx Class I

#### Mechanical Performance

Reflector Material.....Glass Fiber Reinforced Polyester (SMC) with Aluminium Screen

Antenna Optics..... One-Piece Offset Feed Prime Focus

Mount Type..... Elevation Over Azimuth

Elevation Adjustment Range..... 5° - 90° Continuous Fine Adjustment

Coarse Azimuth Adjustment Range..... 360° Continuous;

Fine Azimuth Adjustment Range.....  $\pm 5^\circ$

Mast Size..... 2 $\frac{7}{8}$ " - 3" (73-76mm) Diameter

Antenna Weight..... Approx 15.96Kg (Not Including Mast)

#### Environmental Performance

Operational Wind Speed..... 72km/h (45 mph)

Survival Wind Speed..... 128km/h (80 mph)

Ultimate Survival Wind Speed..... 200km/h (125 mph)

Atmosphere..... Standard Hardware 720 Hrs SST Requirements (ASTM B-117)

Marinized Version..... Also Possible

Operational Temperature..... -40°C to +55°C

Survival Temperature Range..... -50°C to +80°C

Humidity..... 0 to 100% (Condensing)

Solar Radiation..... 360 BTU/h/ ft<sup>2</sup>

Rain Operational..... 0.5" Per Hour



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