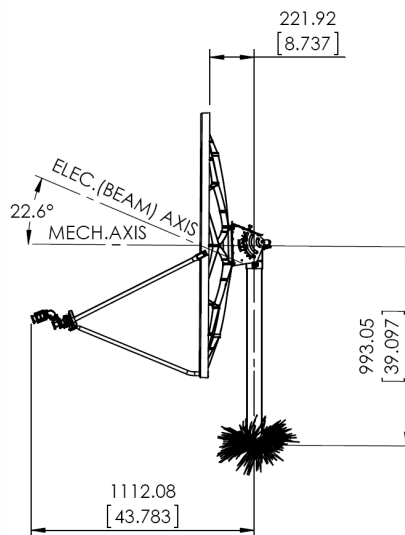


# Type 122: 1.2m Rx/Tx Extended Ku-Band SFL Class I Antenna



- ISO 9001:2008 Certificate of Registration
- One-piece precision SMC Reflector
- Precision Az/EI Mount
- Fine Azimuth and Elevation Adjustment Features
- All Materials Comply with EU Directive No. 2011/65/EC (RoHS)



- 720 Hour Salt Spray Hardware
- Standard Waveguide Flange Interface

The Skyware Global 1.2m Rx/Tx Extended Ku-Band SFL Class I Antenna 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 ensures 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 73-76mm [2 7/8" - 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.
- Meets or exceeds regulator agency requirements.
- 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

1.2m Rx/Tx Extended Ku-Band SFL Class I Antenna

**RF Performance**

Operating Frequency	
TX *	12.75-14.5GHz
RX	10.70-11.7GHz
Polarization	Linear Orthogonal (Co-Pol Optional)
Gain (±0.3 dB)	
TX	43.3 dBi @ 14.3GHz
RX	41.1dBi @ 11.2GHz
3 dB Beamwidth	
TX	1.2° @ 14.3GHz
RX	1.6° @ 11.2GHz
Sidelobe Envelope (Tx, Co-Pol dBi)	
Mainbeam < $\theta$ < 20°	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*	>30 dB within 1 dB Contour
Antenna Noise Temperature	
10° EL	.48K
20° EL	.35K
30° EL	.29K
VSWR	
TX	1.3:1 Max
RX	1.5:1 Max
Isolation**(Port to Port)	
TX	.90 dB
RX	40 dB
Feed Interface	
TX	.WR75 Flat Flange
RX	.WR75 Flat Flange

(All specifications typical)  
 (\*Eutelsat Approval and Cross-Polarization Specification apply to Tx band 14.0-14.5GHz only.)  
 (\*\* With Skyware Global OMT/Filter)

**Mechanical Performance**

Reflector Material	Glass Fiber Reinforced Composite
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 ± 5° Fine Adjustment
Mast Size	2 7/8" - 3" (73-76mm) Diameter
Approximate Weight	Approx 15.98Kg (Not Including Mast)

**Enviromental Performance**

Windloading	
Operational	72km/h (45 mph)
Functional Survival	128km/h (80 mph)
Ultimate Survival	200km/h (125 mph)
Operational Temperature	-50°C to +80°C
Humidity	0 to 100% (Condensing)
Atmosphere	Standard Hardware 720 Hrs SST Requirements (ASTM B-117)
Solar Radiation	.360 BTU/h/ft <sup>2</sup>
Shock and Vibration	As Encountered during Shipping and handling



REV 03/17-03  
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