

# Type 743: 74cm Rx/Tx Ku-Band Antenna



- ISO 9001:2008 Certificate of Registration
- One-piece Steel 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
- Designed for Skyware Global Ku Band Feed Components
- Designed for Tier I OEM Transceiver

**Skyware Global 74cm Rx/Tx Ku-Band Antenna** is a rugged, commercial quality product suitable for the most demanding applications.

- The stamped steel reflector is designed for strength and accuracy 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 (60mm) [2 3/8"] OD installation mounts.
- All hardware is plated to 720 hour salt spray standards tested in accordance with ASTM B-117.
- Designed for use with the Skyware Global line of Ku-band Feed assemblies.
- Tx Cross-Polarization Isolation of 30dB or better for Linear Application.
- Excellent Tx Port to Port Isolation of 80dB or better.
- Meets or exceeds regulatory agency requirements.
- System designed for typical Ku-band RF Electronics.



• **PRODUCT SPECIFICATIONS**

**RF Performance**

Operating Frequency	
RX .....	10.95-12.75GHz
TX .....	13.75-14.50GHz
Polarization .....	Linear, Orthogonal
Gain ( $\pm 0.2$ dB)	
RX .....	37.6 dB @ 12.0GHz
TX .....	39.1 dB @ 14.3GHz
3 dB Beamwidth	
RX .....	1.7° @ 12.0GHz
TX .....	1.4° @ 14.3GHz
Sidelobe Envelope (Tx, Co-Pol dBi)	
1.5° < $\theta$ < 7° .....	29-25 log $\theta$ dB
7° < $\theta$ < 9.2° .....	+8 dB
9.2° < $\theta$ < 48° .....	32-25 log $\theta$ dB
48° < $\theta$ < 180° .....	-10 dB
Antenna Noise Temperature	
62° EL .....	50K
VSWR	
RX .....	1.4:1
TX .....	1.3:1
Isolation (Port to Port)	
RX .....	30dB
TX .....	80dB
Feed Interface	
RX .....	WR75
TX .....	WR75

(All specifications typical)

74cm Rx/Tx Ku-Band Antenna

**Mechanical Performance**

Reflector Material .....	Steel
Antenna Optics .....	One-Piece Offset Feed Prime Focus
Mast Pipe Size .....	2.5" SCH 40 Pipe (2 3/8" OD) (60mm) Diameter
Elevation Adjustment Range .....	5°-90° Continuous Fine Adjustment
Azimuth Adjustment Range .....	360° Continuous Course Adjustment $\pm 10^\circ$ Fine Adjustment
Shipping Specifications .....	Approx. Net Weight: 45lbs (20Kg) Approx. Packaged Weight: 55lbs (25Kg)

**Enviromental Performance**

Wind Loading	
Operational .....	50 mph (80 km/h)
Survival .....	125 mph (201 km/h)
Temperature (operational) .....	-40° to 140°F (-40° to 60°C)
Rain (operational) .....	1/2" / hr
Atmospheric Conditions .....	Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
Relative Humidity .....	0 to 100% with Condensation
Solar Radiation .....	360 BTU/h/ ft <sup>2</sup>



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