

# Type 123: 1.2m Rx/Tx Extended Ku-Band Class II Antenna System



- ISO 9001:2008 Certificate of Registration
- All materials comply with EU Directive No. 2002/95/EC (RoHS).
- Long focal length optics for low cross-pol performance.
- Fine azimuth and elevation adjustments.
- Available with Ku-band co-pol or cross-pol feeds.
- Galvanized 19 mm (.75") O.D. side feed support legs and 51 mm (2") O.D. lower feed support.
- Plated hardware for maximum corrosion resistance.
- Class II system designed for typical 2W and 4W Ku-band Block Up-Converters (BUCs).\*

\*3.6 kg or 8 lb max. weight for RF electronics (BUC and LNB)



The **Skyware Global 1.2m Rx/Tx Extended Ku-Band Class II Antenna** is a rugged commercial grade product suitable for the most demanding applications.

- The reflector is thermoset-molded for strength and surface accuracy. Molded into the rear of the reflector is a network of support ribs which strengthens the antenna and helps to sustain the necessary parabolic shape.
- The reflector optics feature a long focal length for excellent cross-pol performance.
- The heavy gauge steel Az/El mount secures the antenna to any 73-76 mm (2.88"-3.00") mast and prevents slippage in high winds.
- A special powder paint process offers excellent protection from weather-related corrosion.



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## • PRODUCT SPECIFICATIONS

### Type Approval Information

Antenna Model .....62-1236201  
Intelsat Standard.....Standard G (IESS 601)  
Approval Code.....IA077SA00  
(See Our Website for a Complete List of Type Approvals)

### RF Performance

Effective Aperture ..... 1.2m (48 in)

Operating Frequency  
TX.....12.75-14.50GHz  
RX.....10.70-11.70GHz

Polarization.....Linear, Orthogonal

Gain ( $\pm 0.2$  dB)  
TX.....43.3 dBi @ 14.3GHz  
RX.....41.8 dBi @ 12.0GHz

3 dB Beamwidth  
TX.....1.2° @ 14.3GHz  
RX.....1.5° @ 12.0GHz

Sidelobe Envelope (Tx, Co-Pol dBi)  
1.5° <  $\theta$  < 20°.....29-25 log  $\theta$  dBi  
20° <  $\theta$  < 26.3°.....-3.5dBi  
26.3° <  $\theta$  < 48°.....32-25 log  $\theta$  dBi  
48° <  $\theta$  < 180°.....-10

Antenna Cross-Polarization..... 30 db in 1 dB  
Contour

Antenna Noise Temperature  
10° EL.....45K  
20° EL.....31K  
30° EL.....24K

VSWR  
TX.....1.3:1  
RX.....1.5:1

Isolation (Port to Port)  
TX.....80db  
RX.....35db

Feed Interface  
TX.....WR75 Flat Flange  
RX.....WR75 Flat Flange

(All specifications typical)

## 1.2 m Rx/Tx Extended Ku-Band Class II Antenna

### Mechanical Performance

Reflector Material.....Glass Fiber Reinforced Polyester  
Antenna Optics.....One-Piece Offset Feed Prime Focus  
Mount Type.....Elevation over Azimuth  
Elevation Adjustment Range.....7°-84° Continuous  
Fine Adjustment

Azimuth Adjustment Range.....360° Continuous  
 $\pm 20^\circ$  Fine Adjustment

Mast Pipe Interface.....73-76 mm  
(2.88 in-3.00 in) Diameter

### Environmental Performance

Wind Loading  
Operational.....50 mph (80 km/h)

Functional Survival.....80 mph (128 km/h)

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

Operational Temperature.....-40°C to +60°C

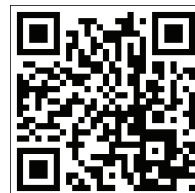
Survival Temperature.....-50°C to +80°C

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

Atmosphere.....Standard Hardware 500 Hrs  
SST Requirements (ASTM B-117)

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

Shock and Vibration.....As Encountered during  
Shipping and handling



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