

# TYPE 243: 2.4m C-Band Linear RT/TX Class III Antenna System



## PRODUCT SPECIFICATIONS

Detail Photos  
(on right from top to bottom)  
Heavy-duty galvanized Az/EI  
Mount  
Fine azimuth and elevation  
adjustments  
RF tested C-band Linear  
Polarized feed assembly



The two-piece reflector is thermoset-molded for strength and surface accuracy.



The Skyware Global Type 243 2.4 m Class III Rx/Tx Antenna is a rugged commercial grade product suitable for the most demanding applications. The two-piece reflector is thermoset-molded for strength and surface accuracy. Molded into the rear of each reflector half is a network of support ribs which not only strengthens the antenna, but also helps to sustain the critical parabolic shape necessary for transmit performance.

The Az/EI mount is constructed from heavy-gauge steel to provide a rigid support to the reflector and feed support arm. Heavy-duty lockdown bolts secure the mount to any 168 mm (6.63") O.D. mast and prevent slippage in high winds.

Hot-dip galvanizing is standard on this model for maximum environmental protection.

- All materials comply with EU directive No. 2002/95/EC (RoHS).
- Two-piece precision offset thermoset-molded reflector.
- Heavy-duty galvanized Az/EI mount.
- Fine Azimuth and elevation adjustments.
- Galvanized support arm and alignment struts.
- Factory pre-assembled mount.
- RF tested feed assembly.
- Heavy-duty Class III mount for 11 kg (25 lb) RF electronics (LNB & BUC)



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## • PRODUCT SPECIFICATIONS

### RF Performance

Effective Aperture ..... 2.4m (96 in)

### Operating Frequency

TX ..... 5.850 - 6.725 GHz  
RX ..... 3.400 - 4.200 GHz

Polarization ..... Linear, Orthogonal

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

TX ..... 42.0 dBi @ 6.1GHz  
RX ..... 38.0 dBi @ 3.9GHz

### 3 dB Beamwidth

TX ..... 1.3° @ 6.1 GHz  
RX ..... 2.1° @ 3.9 GHz

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

2.5° <  $\theta$  < 20° ..... 29-25 log  $\theta$   
20° <  $\theta$  < 26.3° ..... -3.5  
26.3° <  $\theta$  < 48° ..... 32-25 log  $\theta$   
48° <  $\theta$  < 180° ..... -3.5

Antenna Cross-Polarization ..... 30 db (On Axis)

### Antenna Noise Temperature

10° EL ..... 40K°  
20° EL ..... 35K°  
30° EL ..... 32K°

### VSWR

Tx ..... 1.3:1  
Rx ..... 1.5:1

### Isolation (Port to Port)

Tx ..... 60 dB  
Rx ..... 60 dB

### Feed Interface

Tx ..... Type N or CPR-137  
Rx ..... CPR-229

(All specifications typical)

## 2.4 m C-band Linear Rx/Tx Class III Antenna System

### Mechanical Performance

Reflector Material ..... Glass Fiber Reinforced Polyester

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

Mount Type ..... Elevation Over Azimuth

Elevation Adjustment Range ..... 10° - 90° Continuous  
Fine Adjustment

Azimuth Adjustment Range ..... 360° Continuous;  $\pm 12^\circ$   
Fine Adjustment

Mast Pipe Interface ..... 6.63 in (168 mm) Diameter

### Environmental Performance

#### Wind Loading

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

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

Temperature ..... -50°C to +80°C

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

Atmosphere ..... Standard Hardware Meets 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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