

# TYPE 243: 2.4m C-Band Circular Polarized RX/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 Circular  
Polarized feed assembly



Type approved for use  
on Intelsat satellite system



The Skyware Global Type 243 2.4 m Class III RxTx 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 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.
- Plated hardware for maximum corrosion resistance.
- Includes C-band Circular Polarized RxTx Feed Assembly.
- Heavy-duty Class III mount for 11 kg (25 lb) RF electronics (LNB & BUC).

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## • PRODUCT SPECIFICATIONS

### Type Approval Information

|                   |  |
|-------------------|--|
| Antenna Model     | 62 - 24303411L Type N<br>62 - 2433911L (WR137) |
| Intelsat Standard | Standard G & H-2 (IESS 601)                    |
| Approval Code     | IA051A00                                       |

(See Our Website for a Complete List of Type Approvals)

### RF Performance

|                                    |  |
|------------------------------------|--|
| Effective Aperture                 | 2.4 m (96 in)  |
| Operating Frequency                | Tx ..... 5.850 - 6.425 GHz<br>Rx ..... 3.625 - 4.200 GHz                           |
| Polarization                       | Circular; Tx LH, Rx RH; or<br>Tx RH, Rx LH   |
| Gain ( $\pm 4$ dBi)                | Tx ..... 42.2 dBi @ 6.1 GHz<br>Rx ..... 38.0 dBi @ 3.9 GHz                         |
| 3 dB Beamwidth                     | Tx ..... 1.3° @ 6.1 GHz<br>Rx ..... 2.1° @ 3.9 GHz                                 |
| Sidelobe Envelope (Tx, Co-Pol dBi) | 2° < $\theta$ < 48° ..... .32 - 25 Log $\theta$<br>48° < $\theta$ < 180° ..... -10 |
| Axial Ratio                        | Tx ..... 1.3 VAR (2.3 dB)<br>Rx ..... 1.4 VAR (3.0 dB)                             |
| Antenna Noise Temperature          | 10° El ..... .40° K<br>20° El ..... .35° K<br>30° El ..... .32° K                  |
| VSWR                               | Tx ..... 1.3:1<br>Rx ..... 1.5:1   |
| Isolation (Port to Port)           | Tx ..... 80 dB<br>Rx ..... 70 dB   |
| Feed Interface                     | Tx ..... Type N or CPR-137<br>Rx ..... CPR-229                                     |

(All specifications typical)

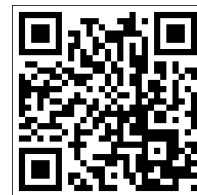
## 2.4 m C-band Circular Polarized Rx/Tx Class III

### Mechanical Performance

|                            |   |
|----------------------------|---|
| Reflector Material         | Glass Fiber Reinforced Polyester                  |
| Antenna Optics             | One-Piece Offset Feed Prime Focus                 |
| Mount Type                 | Elevation over Azimuth                            |
| Elevation Adjustment Range | 10° - 90° Continuous<br>Fine Adjustment           |
| Azimuth Adjustment Range   | 360° Continuous $\pm 12^\circ$<br>Fine Adjustment |
| Feed Support               | Rectangular Section with Alignment Legs           |
| Mast Pipe Interface        | 114 mm (4.50 in)<br>Diameter                      |

### Environmental Performance

|                     |  |
|---------------------|--|
| Wind Loading        | Operational ..... 80 km/h (50 mph)<br>Survival ..... 200 km/h (125 mph)          |
| Temperature         | -50°C to 80°C  |
| Humidity            | 0 to 100% (Condensing)   |
| Atmosphere          | Standard Hardware Meets 500 Hour<br>Salt Spray Test Requirements<br>(ASTM B-117) |
| Solar Radiation     | 360 BTU/h/ft <sup>2</sup>  |
| Shock and Vibration | As Encountered During<br>Shipping and Handling                                   |



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