

Type243: 2.4m Ku Band RxTx Class III Antenna



PRODUCT SPECIFICATIONS

Detail Photos
(on right from top to bottom)
Heavy-duty galvanised Az/El
Mount

Fine azimuth and elevation
adjustments

RF tested Ku-band linear polar-
ised feed Assembly



Type approval for use on
Intelsat satellite system



2.4 m Ku-band RxTx Class III Antenna System TYPE 243

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 maintain its critical parabolic shape necessary for transmit performance.

The Az/El 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. A marinised version of the antenna is also available making it suitable for on-shore and offshore marine environments.

- All materials comply with EU directive No. 2011/65/EC (RoHS).
- Two-piece precision offset thermoset-molded reflector.
- Heavy-duty galvanized Az/El mount. marinised version includes 2 part epoxy paint finish.
- Fine Azimuth and elevation adjustments.
- HD Galvanised support arm and alignment struts. Marinised version has all galvanized steel components finished with 2 part epoxy paint.
- Factory pre-assembled mount.
- Plated hardware for maximum corrosion resistance. optional marinised version uses marine grade AISI 316 stainless steel hardware throughout.
- Includes Ku-band linear cross-polarized RxTx feed assembly.
- Heavy-duty Class III mount for 11 kg (25 lb) RF electronics (LNB & BUC).



• PRODUCT SPECIFICATIONS

Type Approval Information

Antenna Model62-2435611
 Intelsat Standard..... Standard G & K-3 (IESS 601)
 Approval Code..... IA057B00

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

RF Performance

Effective Aperture 2.4m (96 in)

Operating Frequency
 TX.....13.75 - 14.50 GHz
 RX.....10.70 - 12.75 GHz

PolarizationLinear, Orthogonal

Gain (± 0.2 dB)
 TX.....48.9 dBi @ 14.3GHz
 RX.....47.4 dBi @ 12.0GHz

3 dB Beamwidth
 TX.....0.59° @ 14.3 GHz
 RX.....0.71° @ 12.0 GHz

Sidelobe Envelope (Tx, Co-Pol dBi)
 $1^\circ < \theta < 20^\circ$ 29-25 log θ
 $20^\circ < \theta < 26.3^\circ$ -3.5
 $26.3^\circ < \theta < 48^\circ$ 32-25 log θ
 $48^\circ < \theta < 180^\circ$ -3.5

Antenna Cross-Polarization..... 30 db (On Axis)
 26 db in .5 dB Contour

Antenna Noise Temperature
 10° EL.....55K°
 20° EL.....46K°
 30° EL.....45K°

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

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

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

(All specifications typical)

2.4m Ku-Band RxTx Class III Antenna

Mechanical Performance

Reflector Material.....Glass Fiber Reinforced Composite

Antenna Optics 2-Piece Offset Feed Prime Focus

Mount Type.....Elevation Over Azimuth

Elevation Adjustment Range10° - 90° Continuous
 Fine Adjustment

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

Feed Support Regular Section with Alignment Legs

Mast Size6.63" (168mm) Diameter

Antenna Weight.....Approx 110.65Kg
 (Not Including Mast)

Environmental Performance

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

Functional 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)
 Marinised Option has AISI 316
 Stainless Steel Hardware & 2-Part Epoxy paint
 on all Galvanised Steel Components

Solar Radiation 360 BTU/h/ ft²

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



Satcom solutions for the long haul



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