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 polarised 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 enviroments.

- All materials comply with EU directive No. 2002/95/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

2.4m Ku-Band RxTx Class III Antenna

Type Approval Information

Antenna Model 62-2435611

Intelsat Standard..... Standard G & K-3 (IESS 601)

Approval Code.....IA057B00

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

RF Performance

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

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

Polarization .....Linear, Orthogonal

Gain (±0.2 dB)
TX .....48.9 dBi @ 14.3 GHz
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°< θ <20° ..... 29-25 log θ
20° < θ< 26.3° .....-3.5
26.3°< θ <48° ..... 32-25 log θ
48°< θ <180° ....-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)

Mechanical Performance

Reflector Material..... Glass Fiber Reinforced Composite

Antenna Optics ..... 2-Piece Offset Feed Prime Focus

Mount Type ..... Elevation Over Azimuth

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

Azimuth Adjustment Range ..... 360° Continuous; ± 12°
Fine Adjustment

Feed Support .....Regular Section with Alignment Legs

Mast Size .....6.63" (168mm) Diameter

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

Enviromental 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/ ft^2

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

SKYWARE GLOBAL

Satcom solutions for the long haul