1.8M C-band RxTx Class III Antenna System

PRODUCT SPECIFICATIONS

Detail Photos
(on right from top to bottom)

Heavy-duty Az/El Mount

Fine Azimuith and Elevation Adjustments

RF tested C-band Linear Polarized feed assembly

1.8m C-band Linear RxTx Class III Antenna System

TYPE 183

This reflector is thermoset-molded for strength and surface accuracy

The Skyware Global Type 183 1.8 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/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 114 mm (4.50") 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 this 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).
- One-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).

1.8 m C-band Linear RxTx Class III Antenna

RF Performance — C-band Linear

Effective Aperture ..... 1.8m (71 in)

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

Polarization ..... Linear, Orthogonal

Gain (±0.3 dB)
TX ..... 39.3 dBi @ 6.1 GHz
RX ..... 35.4 dBi @ 3.9 GHz

3 dB Beamwidth
TX ..... 2.0° @ 6.1 GHz
RX ....3.0° @ 3.9 GHz

Sidelobe Envelope (Tx, Co-Pol dBi)
2.5°< θ< 20° ..... 29-25 log θ
20° < θ< 26.3° ..... -3.5
26.3° <θ< 48° ..... 32-25 log θ
48° < θ < 180° .....-10

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

Antenna Noise Temperature
10° EL. ..... 41°K
20° EL. ..... 36°K
30° EL. ..... 33°K

VSWR
Tx. 1.3:1
Rx 1.5:1

Isolation (Port to Port)
Tx. 60db
Rx 60db

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

All specifications typical)

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 Fine Adjustment

Azimuth Adjustment Range .....360° Continuous, ± 10° Fine Adjustment

Mast Pipe Interface. ..... 114 mm (4.50in) Diameter

Enviromental 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) ..... Marinised Option has AISI 316 stainless steel hardware

Solar Radiation .....360 BTU/h/ ft²

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

Satcom solutions for the long haul

SKYWARE GLOBAL