

# 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 Azimuth and Elevation  
Adjustments

RF tested C-band Linear  
Polarized feed assembly



This reflector is  
thermoset-molded for  
strength and surface  
accuracy

## 1.8m C-band Linear RxTx Class III Antenna System TYPE 183

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 strengthen 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 marinated version of this antenna is also available making it suitable for on-shore and offshore marine environments.

- All materials comply with EU directive No. 2002/95/EC (RoHS).
- One-piece precision offset thermoset-molded reflector.
- Heavy-duty galvanized Az/El mount. Marinated version includes 2 part epoxy paint finish.
- Fine Azimuth and elevation adjustments.
- HD Galvanized support arm and alignment struts. Marinated version has all galvanized steel components finished with 2 part epoxy paint.
- Factory pre-assembled mount.
- Plated hardware for maximum corrosion resistance. Optional marinated 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).



Satcom solutions for the long haul

REV 11/14-01  
Page 1 of 2

1315 Outlet Center Drive, Smithfield, NC 27577 T + 1 919 934 9711 F + 1 919 989 2274 Sales @ Skyware Global.com

All designs, specification and availabilities of products and services presented in this bulletin are subject to change without notice. ©2014 Skyware Global

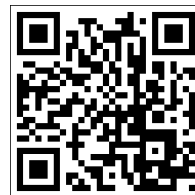
• PRODUCT SPECIFICATIONS

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 ( $\pm 0.3$ 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° < $\theta$ < 20° .....	29-25 log $\theta$
20° < $\theta$ < 26.3° .....	-3.5
26.3° < $\theta$ < 48° .....	32-25 log $\theta$
48° < $\theta$ < 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)

1.8 m C-band Linear RxTx Class III Antenna

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, $\pm 10^\circ$ Fine Adjustment
Mast Pipe Interface.....	114 mm (4.50in) 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) ..... Marinised Option has AISI 316 stainless steel hardware
Solar Radiation .....	360 BTU/h/ ft <sup>2</sup>
Shock and Vibration.....	As Encountered during Shipping and handling



Satcom solutions for the long haul

REV 11/14-01  
Page 2 of 2