

# Type 183: 1.8M C-band Circular Polarized Rx/Tx Class III Antenna System



## PRODUCT SPECIFICATIONS

Detail Photos  
(on right from top to bottom)  
Heavy-duty galvanized Az/El Mount  
Fine azimuth and elevation adjustments  
RF tested C-band Circular Polarized feed assembly



## 1.8m C-band Circular Polarized Rx/Tx Class III Antenna System

### TYPE 183

The Skyware Global Type 183 1.8m 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.

- All materials comply with EU directive No. 2002/95/EC (RoHS).
- One-piece precision offset thermoset-molded reflector.
- Heavy-duty galvanized Az/El mount.
- Fine Azimuth and elevation adjustments.
- Galvanized support arm and alignment struts.
- Factory pre-assembled mount.
- Plated hardware for maximum corrosion resistance.
- RF tested feed assembly
- Heavy-duty Class III mount for 11 kg (25 lb) RF electronics (LNB & BUC).

Type approved for use on Intelsat satellite system



## • PRODUCT SPECIFICATIONS

### Type Approval Information

Antenna Model	62 - 1833411L/R Type N 62 - 1833911L/R (WR137)
Intelsat Standard	Standard G & H-2 (IESS 601)
Approval Code	IA050A00

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

### RF Performance

Effective Aperture	1.8 m (71 in)
Operating Frequency	Tx ..... 5.850 - 6.425 GHz Rx ..... 3.625 - 4.200 GHz
Polarization	Circular; Tx LH, Rx RH; or Tx RH, Rx LH
Gain ( $\pm 4$ dBi)	Tx ..... 39.5 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)	2.8° < q < 20° ..... 29 - 25 Log q 20° < q < 26.3° ..... -3.5 26.3° < q < 48° ..... 32 - 25 Log q 48° < q < 180° ..... -10
Axial Ratio	Tx ..... 1.3 VAR (2.3 dB) Rx ..... 1.4 VAR (3.0 dB)
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 ..... 60 dB Rx ..... 60 dB
Feed Interface	Tx ..... Type N or CPR-137 Rx ..... CPR-229

(All specifications typical)



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### 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
Feed Support	Rectangular Section with Alignment Legs
Mast Pipe Interface	168 mm (6.63 in) Diameter

### Environmental Performance

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



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