SKYware GLOBAL

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

Type approved for use on Intelsat satellite system

Intelsat

RoHS

1.8 m C-band Circular Polarized RxTx Class III Antenna System

TYPE 183

The Skyware Global 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.

- 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).

SPECIFICATIONS

Type 183 1.8 m C-band Circular Polarized RxTx Class III Antenna System

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 (±.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˚ < θ < 20˚	29 - 25 Log θ
	20˚ < θ < 26.3˚	-3.5
	26.3˚ < θ < 48˚	32 - 25 Log θ
	48˚ < θ < 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)

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
Feed Support		Rectangular Section with Alignment Legs
Mast Pipe Interface		114 mm (4.50 in) Diameter
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^2
Shock and Vibration		As Encountered During Shipping and Handling

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