

1.8m RxTx Class II Antenna System



Type 182 Antenna Product Specification

- One piece thermoset-molded offset reflector
- Plated hardware for maximum corrosion resistance
- Pre-galvanized Construction
- 500 hour salt spray hardware



Mechanical Performance

Reflector Material	Glass Fiber Reinforced Polyester
Antenna Optics	One-Piece Offset Feed Prime Focus
Mount Type	Elevation over Azimuth
Maximum Radio Weight	3.6kg or 8lb for RF Electronics
Elevation Adjustment Range	10° - 90° Continuous Fine Adjustment
Azimuth Adjustment Range	360° Continuous, ±10° Fine
Mast Pipe Interface	114 mm (4.50 in) Diameter or 101 mm (4.00 in) Diameter
Wind Loading	Operational 80km/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/ft2
Shock and Vibration	As Encountered During Shipping and Handling

RF Performance

	C-Band	Ku-Band
Effective Aperture	1.8m (71 in)	1.8m (71in)
Operating Frequency	Tx . . . 5.850 - 6.725GHz Rx . . . 3.400 - 4.200 GHz	13.75-14.50 GHz 10.70-12.75 GHz
Polarization	Linear, Orthogonal	Linear, Orthogonal
Gain (+.2 dBi)	Tx . . . 39.3 dBi @ 6.1GHz Rx . . . 35.4 dBi @ 3.9 GHz	46.8 dBi @ 14.3 GHz 45.3 dBi @ 12.0 GHz
3dB Beamwidth	Tx . . . 2.0° @ 6.1 GHz Rx . . . 3.0° @ 3.9GHz	0.8° @ 14.3 GHz 1.0° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)		
Mainbeam < Θ < 20°	29 - 25 Log Θ	29 - 25 Log Θ
20° < Θ < 26.3°	-3.5	-3.5
26.3° < Θ < 48°	32-25 Log Θ	32-25 Log Θ
48° < Θ < 180°	-10	-10
Antenna Cross-Polarization	30 dB on Axis	30 dB on Axis
Antenna Noise Temperature		
30° EI	33°K	23°K
VSWR	Tx . . . 1.3:1 Rx . . . 1.4:1	1.3:1 1.5:1
Isolation (Port to Port)	Tx . . . 60 dB Rx . . . 60 dB	80 dB 35 dB
Feed Interface	Tx . . . CPR-137 or Type N Rx . . . CPR-229	WR75 Flat Flange WR75 Flat Flange

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