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

ROHS compliant

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	13.75-14.50 GHz
	Rx	3.400 - 4.200 GHz	10.70-12.75 GHz
Polarization		Linear, Orthogonal	Linear, Orthogonal
Gain (+-.2 dBi)	Tx	39.3 dBi @ 6.1GHz	46.8 dBi @ 14.3 GHz
	Rx	35.4 dBi @ 3.9 GHz	45.3 dBi @ 12.0 GHz
3dB Beamwidth	Tx	2.0° @ 6.1 GHz	0.8°@ 14.3 GHz
	Rx	3.0° @ 3.9GHz	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° El		33°K	23°K
VSWR	Tx	1.3:1	1.3:1
	Rx	1.4:1	1.5:1
Isolation (Port to Port)	Tx	60 dB	80 dB
	Rx	60 dB	35 dB
Feed Interface	Tx	CPR-137 or Type N	WR75 Flat Flange
	Rx	CPR-229	WR75 Flat Flange

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