

74cm RxTx Antenna System

RF Performance



Product Specification

- Precision pressed steel reflector
- Fine azimuth and elevation adjustment features
- ISO 9001:2008 Certificate of Registration
- Meets or exceeds regulatory agency requirements

	Ka-Band	Ku-Band
Effective Aperture74cm (29.1 in)	
Operating Frequency	Tx 28.00-30.00 GHz13.75-14.50 GHz
	Rx 18.10-20.20 GHz10.95-12.75 GHz
Polarization	Circular RH or LH Linear, Orthogonal	
Gain (0.3 dBi).	Tx 45.2 dBi@30.00 GHz	39.1 dBi@14.30 GHz
	Rx 42.2 dBi@20.20 GHz	39.8 dBi@12.00 GHz
3dB Beamwidth.	Tx 0.96° @ 29.75 GHz	1.4°@14.30 GHz
	Rx 1.38° @ 19.70 GHz	1.7°@12.00 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)	100 λ /D < Θ < 20° 29 - 25 Log Θ dBi	
	20° < Θ < 26.3° -3.5 dBi	
	26.3° < Θ < 48° 32-25 Log Θ dBi	
	48° < Θ < 180° -10 dBi (averaged)	
Antenna Cross-Polarization (within 1 dB B/W)	Tx 25 dB	30 dB
	Rx 22 dB	30 dB
Antenna Noise Temperature*	30° El. 54K 50 K	
	VSWR 1.3:1 Max 1.3:1 Max	
Isolation (Port to Port)	Tx 90dB	80dB
	Rx 80dB	30dB
Feed Interface	Tx WR28	WR75
	Rx WR42	WR75

Mechanical Performance

Reflector Material	Steel
Antenna Optics	One-Piece Offset Feed Prime Focus
Mount Type	Elevation over Azimuth
Elevation Adjustment Range	5° - 90° Continuous Fine Adjustment
Azimuth Adjustment Range	360° Continuous, \pm 10° Fine
Mast Pipe Interface	73.2 mm (2.88 in) Diameter O.D.
Wind Loading	Operational 80 km/h (50 mph)
	Survival 201 km/h (125 mph)
Temperature	-40°C to 60°C
Humidity	0 to 100% (Condensing)
Rain	1/2" / hr
Atmosphere	Standard Hardware Meets 720 Hour
	Salt Spray Test Requirements (ASTM B-117)
Solar Radiation	360 BTU/h/ft2
Shock and VibrationAs Encountered During Shipping and Handling
Shipping Specifications	
Approx. Net Weight	45lbs (20kg)
Approx. Packaged Weight	55lbs (25kg)



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