

2.4m KA RxTx Antenna System



Type 2415 Antenna Product Specification

- ISO 9001:2008
Certificate Of Registration



RF Performance

Model#		24156 Ka Band
Effective Aperture.		2.4m (96in)
Operating Frequency	Tx.	28.00-30.00 GHz
	Rx.	18.10-20.20 GHz
Polarization.		Circular or Linear
Gain (±0.2 dB)	Tx.	54.5 dBi @ 30.0 GHz
	Rx.	51.6 dBi @ 20.2 GHz
3dB Beamwidth	Tx.0.28° @ 30.0 GHz
	Rx.0.40° @ 20.2 GHz
Sidelobe Envelope (Tx, Co-Pol dB)	Mainbeam < Θ < 20°	29 - 25 Log Θ dB
	20° < Θ 26.3°	-3.5 dB
	26.3° < Θ < 48°	32-25 Log Θ dB
	48° < Θ < 180°	-10 dB
Antenna Cross-Polarization (within 1 dB b/w)	Tx.	25 dB
	Rx.	22 dB
Antenna Noise Temperature	30° Elev.	57° K
VSWR		1.2:1
Isolation (Port to Port)	Tx.	90 dB
	Rx.	75 dB
Feed Interface	Tx.	WR28 Flat Flange
	Rx.	WR42 Flat Flange

Mechanical Performance

Reflector Material	Glass Fiber Reinforced Polyester	
Antenna Optics	One-Piece Offset Feed Prime Focus	
Mount Type	Elevation over Azimuth	
Maximum Radio Weight	.5 lbs at feed & up to 25lbs on Boom Arm	
Elevation Adjustment Range	10° - 90° Continuous Fine Adjustment	
Azimuth Adjustment Range	360° Continuous, ±3° Fine Adjustment	
Mast Pipe Size	5" or 5.56" (127mm or 141mm) diam.	
Wind Loading	Operational	.72 km/h (45 mph)
	Survival	241 km/h (150 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	

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