

# 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 . . . . .	.028° @ 30.0 GHz
	Rx . . . . .	.040° @ 20.2 GHz
Sidelobe Envelope (Tx, Co-Pol dB)	Mainbeam < $\Theta$ < 20° . . . . .	29 - 25 Log $\Theta$ dB
	20° < $\Theta$ < 26.3° . . . . .	-3.5 dB
	26.3° < $\Theta$ < 48° . . . . .	32-25 Log $\Theta$ dB
	48° < $\Theta$ < 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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