

1.2m Ku RxTx Class I Antenna System XRZ Model# 12139

RF Performance



Model 12139 Antenna Product Specification

- Fine azimuth and elevation adjustment features
- ISO 9001:2015 Certificate of Registration
- Meets or exceeds regulatory agency requirements

Effective Aperture.	1.2m (48 in)
Operating Frequency.	Tx. 13.75 - 14.50 GHz
	Rx 10.70 - 12.75 GHz
Polarization	Linear
Gain (± 0.3 dB)	Tx. 43.3 dBi @ 14.3 GHz
	Rx 41.8 dBi @ 12.0 GHz
3dB Beamwidth.	Tx. 1.2° @ 14.3 GHz
	Rx 1.5° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)	100 $\lambda/D < \Theta < 20^\circ$ 29 - 25 Log Θ dBi
	20° < $\Theta < 26.3^\circ$ -3.5 dBi
	26.3° < $\Theta < 48^\circ$ 32-25 Log Θ dBi
	48° < $\Theta < 180^\circ$ -10 dBi
Antenna Cross-Polarization	30 dB in 1 dB contour
Antenna Noise Temperature*	10° El. 48°K
	20° El. 35°K
	30° El. 29°K
VSWR	Tx. 1.3:1 Max
	Rx 1.5:1 Max
Isolation (Port to Port)	Tx. 90dB
	Rx 40dB

Mechanical Performance

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, $\pm 5^\circ$ Fine
Mast Pipe Interface.	73.2 mm (2.88 in) or 76 mm (3.00 in) Diameter O.D.
Wind Loading.	Operational 56 km/h (35 mph)
	Survival 201 km/h (125 mph)
Temperature	-50°C to 80°C
Humidity	0 to 100% (Condensing)
Atmosphere	Standard Hardware Meets 720 Hour
	Salt Spray Test Requirements (ASTM B-117)
Solar Radiation.360 BTU/h/ft ²
Shock and Vibration	As Encountered During Shipping and Handling

*Gain and Noise Temperature at Feed Horn Flange
(All Specifications Typical)



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