

# 1.2m Ku RxTx Class IIH Antenna System



## Type 122H38 Antenna Product Specification

- ISO 9001:2015  
Certificate Of Registration



### RF Performance

Effective Aperture . . . . .		1.2m (47in)
Operating Frequency	Tx. . . . .	13.75-14.50 GHz
	Rx. . . . .	10.70-12.75 GHz
Polarization . . . . .		Linear, Orthogonal
Gain ( $\pm 0.3$ 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)	Mainbeam $< \Theta < 20^\circ$ . . . . .	29 - 25 Log $\Theta$ dBi
	$20^\circ < \Theta < 26.3^\circ$ . . . . .	-3.5 dBi
	$26.3^\circ < \Theta < 48^\circ$ . . . . .	32-25 Log $\Theta$ dBi
	$48^\circ < \Theta < 180^\circ$ . . . . .	-10 dBi (averaged)
	Antenna Cross-Polarization	
On Axis . . . . .	Tx. . . . .	35 dB
	Rx. . . . .	28 dB
within 1 dB B/W. . . . .	Tx. . . . .	35 dB
	Rx. . . . .	28 dB
Antenna Noise Temperature	10° Elev. . . . .	45K
	20° Elev. . . . .	31K
	30° Elev. . . . .	24K
VSWR . . . . .		1.3:1
Isolation (Port to Port)	Tx. . . . .	80 dB
	Rx. . . . .	35 dB
Feed Interface	Tx. . . . .	WR75 Flat Flange
	Rx. . . . .	WR75 Flat Flange

### Mechanical Performance

Reflector Material . . . . .		Glass Fiber Reinforced Polyester
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, $\pm 3^\circ$ Fine Adjustment
Mast Pipe Size . . . . .		3.5"(89mm) diam.
Wind Loading. . . . .	Operational . . . . .	96 km/h (60 mph)
	Survival . . . . .	241 km/h (150 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 <sup>2</sup>
Shock and Vibration . . . . .		As Encountered During Shipping and Handling

\*Heavier BUC can be placed underneath the boom arm.

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