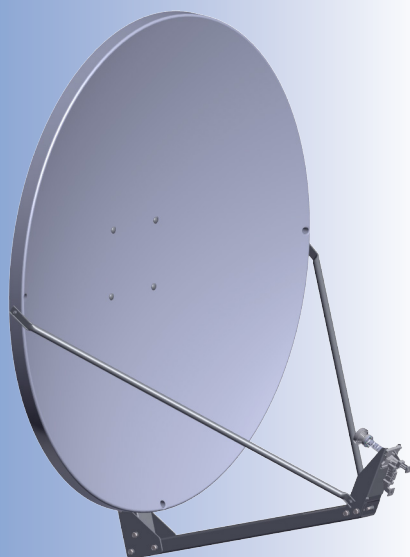


1.2m KA RxTx Antenna System



Type 121 Antenna Product Specification

- ISO 9001:2008
Certificate Of Registration



RF Performance

Effective Aperture	1.2m (47in)
Operating Frequency	Tx. 28.00-30.00 GHz Rx. 18.10-20.20 GHz
Polarization	Circular or Linear
Gain (± 0.3 dB)	Tx. 49.3 dBi @ 30.0 GHz Rx. 46.0 dBi @ 20.2 GHz
3dB Beamwidth	Tx. 0.6° @ 30.0 GHz Rx. 0.9° @ 20.2 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)	Mainbeam $< \Theta < 20^\circ$ 29 - 25 Log Θ dB 20° $< \Theta < 26.3^\circ$ -3.5 dB 26.3° $< \Theta < 48^\circ$ 32-25 Log Θ dB 48° $< \Theta < 180^\circ$ -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
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 72 km/h (45 mph) Survival (no repointing) 128 km/h (80 mph) Survival (repoint required) 201 km/h (125 mph) Survival (no breakaway) 257 km/h (160 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

*Heavier BUC can be placed underneath the boom arm.

REV 03/18 - 03

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