

1.2m Ka RxTx Antenna System w/ XRF Transceiver



Ka Band
12358

RF Performance

Effective Aperture		1.2m (47in)
Operating Frequency	Tx.	28.00-30.00 GHz
	Rx.	17.70-20.20 GHz
Polarization		Circular or Linear
Gain (± 0.3 dB)	Tx.	49.6 dBi @ 30.0 GHz
	Rx.	46.1 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
	$20^\circ < \theta < 26.3^\circ$	-3.5 dB
	$26.3^\circ < \theta < 48^\circ$	32-25 Log θ dB
	$48^\circ < \theta < 180^\circ$	-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

Type 1235815 Antenna Product Specification

- ISO 9001:2015
Certificate Of Registration



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	2.88" (73mm) or 3.5" (88.9mm) 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.

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