

Technical Specifications

Electrical	C-Band Linear	C-Band Circular	Ku-Band Linear	X-Band Circular
Antenna Size	3.8 M	3.8 M	3.8 M	3.8 M
Operating Frequency (GHz) Receive Transmit	3.625 - 4.20 GHz 5.845 - 6.425 GHz	3.625 - 4.20 GHz 5.845 - 6.425 GHz	10.95 - 12.75 GHz 13.75 - 14.50 GHz	7.25 - 7.75 GHz 7.9 - 8.4 GHz
Midband Gain (+/- .5dB) Receive Transmit	42.00 dBi 46.20 dBi	41.80 dBi 46.30 dBi	51.20 dBi 53.00 dBi	47.80 dBi 48.40 dBi
VSWR Receive Transmit	1.3:1 Max.(<-17.70 dB) 1.3:1 Max.(<-17.70 dB)	1.3:1 Max.(<-17.70 dB) 1.3:1 Max.(<-17.70 dB)	1.5:1 Max.(<-14.00 dB) 1.3:1 Max.(<-17.70 dB)	1.3:1 Max.(<-17.70 dB) 1.3:1 Max.(<-17.70 dB)
Pattern Beamwidth -3 dB (in degrees at midband) -15 dB	Rx 1.40 deg Tx 0.90 deg Rx 3.20 deg Tx 2.00 deg	Rx 1.40 deg Tx 0.90 deg Rx 3.20 deg Tx 2.00 deg.	Rx 0.50 deg Tx 0.40 deg Rx 1.00 deg Tx 0.90 deg	Rx 0.80 deg Tx 0.70 deg Rx 1.60 deg Tx 1.50 deg
Sidelobe Envelope, Co-Pol (dBi) 100λ/D ≤ θ ≤ 20° 20° < θ ≤ 26.3° 26.3° < θ ≤ 48° θ < 48°	29 - 25 Logq dBi -3.5 dBi 32 - 25 Logq dBi -10 dBi (averaged)	29 - 25 Logq dBi -3.5 dBi 32 - 25 Logq dBi -10 dBi (averaged)	29 - 25 Logq dBi -3.5 dBi 32 - 25 Logq dBi -10 dBi (averaged)	29 - 25 Logq dBi -3.5 dBi 32 - 25 Logq dBi -10 dBi (averaged)
Note: In receive portion of C-band only, sidelobe envelope specified from 100λ/D rather than 1°				
Antenna Noise Temperature 5° Elevation 10° Elevation 20° Elevation 40° Elevation	55 K 45 K 38 K 36 K	62 K 52 K 45 K 43 K	70 K 60 K 55 K 45 K	60 K 51 K 47 K 47 K
Power Handling	1 kW	1 kW	100 kW	2 kW
Cross Polarization Isolation On Axis Within 1.0 dB Beamwidth	> 30 dB > 27 dB	Rx > 15.00 dB – Tx > 17.70 dB Rx > 15.00 dB – Tx > 17.70 dB	Rx > 30.00 dB – Tx > 35.00 dB Rx > 25.00 dB – Tx > 26.00 dB	Rx > 23.20 dB – Tx > 18.80 dB Rx > 23.20 dB – Tx > 18.80 dB
Note: Standard C-band Circular polarization in Tx-Band provides an axial ratio of 1.3 (XPD equivalence of 17.7 dB). Optional F-1 station feed available with axial ratio of 1.09 (XPD equivalence > 27.3 dB) in Tx band. Call factory when specifying this option. X Band filters available upon request.				
Output Waveguide Interface Flange Receive Transmit	CPR 229 F CPR 137 or Type N	CPR 229 F CPR 137 or Type N	WR 75 WR 75	WR 112 WR 112

Mechanical	
Reflector Material	Glass Fiber Reinforced Polyester SMC
Antenna Optics	Easy-to-assemble, 4 Pc., Offset Fed Prime Focus Design with 0.6 F/D optics.
Mast Pipe Size	10" SCH 40 Pipe (10.75" OD) 27.3 cm.
Elevation Adjustment Range	12° to 90° or 0° to 15° for Polar Latitudes
Azimuth Adjustment Range	360° Continuous with +/- 35° Fine Adjustment
Shipping Specifications	Approx. Net Weight Approx. Packaged Weight
	Weight (nominal) 1125 lbs. (511 Kg.) Weight (nominal) 1882 lbs., (855 Kg.)

Environmental Performance	
Wind Loading	Operational Survival 50 mph (80 km/h) 125 mph (201 km/h)
Temperature	Operational -40° to 140° F (-40° to 60° C)
Rain	Operational ½" (13mm) per hour
Ice	Operational -----
Atmospheric Conditions	Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
Relative Humidity	0 to 100% Condensing
Solar Radiation	360 BTU/h/ft2

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