

1.8M C & Ku-Band Antennas

Series 1182 - With Fine Adjustment

Technical Specifications

Electrical		C-Band Linear	C-Band Circular	Ku-Band Linear	Ku-Band Linear
Antenna Size		1.8M (71 in.)	1.8M (71 in.)	1.8M (71 in.)	1.8M (71 in.)
Operating Frequency (GHz)	Receive Transmit	3.625 - 4.20 GHz 5.85 - 6.425 GHz	3.625 - 4.20 GHz 5.85 - 6.425 GHz	10.70 - 12.75 GHz 13.75 - 14.50 GHz	10.70 - 11.45 GHz 12.75 - 14.50 GHz This frequency requires a special TRF
Midband Gain (+/- .2dB)	Receive Transmit	35.50 dBi 39.50 dBi	35.30 dBi 39.30 dBi	44.80 dBi 46.80 dBi	44.60 dBi 46.50 dBi
VSWR		1.3:1 max	1.3:1 max	Rx: 1.5:1 max Tx: 1.3:1 max	Rx: 1.5:1 max Tx: 1.3:1 max
Pattern Beamwidth (in degrees at mid-band)	-3 dB -15 dB	Rx: 3.00° Tx: 1.90° Rx: 6.70° Tx: 4.30°	Rx: 3.00° Tx: 1.90° Rx: 6.70° Tx: 4.30°	Rx: 1.00° Tx: 0.80° Rx: 2.20° Tx: 1.80°	Rx: 1.00° Tx: 0.80° Rx: 2.20° Tx: 1.80°
Sidelobe Envelope, Co-Pol (dBi)	100λ/D ≤ θ ≤ 20° 20° < θ ≤ 26.3° 26.3° < θ ≤ 48° 48° < θ	29 - 25 Logθ dBi -3.5 dBi 32 - 25 Logθ dBi -10 dBi (averaged)	29 - 25 Logθ dBi -3.5 dBi 32 - 25 Logθ dBi -10 dBi (averaged)	29 - 25 Logθ dBi -3.5 dBi 32 - 25 Logθ dBi -10 dBi (averaged)	29 - 25 Logθ dBi -3.5 dBi 32 - 25 Logθ dBi -10 dBi (averaged)
Antenna Noise Temperature	10° Elevation 20° Elevation 30° Elevation 40° Elevation	45 K 41 K 41 K 40 K	45 K 41 K 41 K 40 K	69 K 64 K 63 K 62 K	69 K 64 K 63 K 62 K
Power Handling		1 kW	1 kW	100 W	100 W
Cross Polarization Isolation	On Axis Within 1.0 dB Beamwidth	30.00 dB 26.00 dB	Rx: 15.50 dB Tx: 17.70 dB Rx: 15.50 dB Tx: 17.70 dB	30.00 dB 26.00 dB	30.00 dB 26.00 dB
Output Waveguide Interface Flange		Rx: WR229 Tx: WR137 or N	Rx: WR229 Tx: WR137 or N	WR75	WR75

Mechanical				
Reflector Material	Glass Fiber Reinforced SMC			
Antenna Optics	Prime Focus, One-Piece, Offset Feed			
Mast Pipe Size	3.5" SCH 40 Pipe (4.0" OD) 10.16 cm.			
Elevation Adjustment Range	10° to 80° Continuous Fine Adjustment			
Azimuth Adjustment Range	+/- 10° Fine Adjustment, 360° Continuous			
Mount Type	Elevation over Azimuth			
Shipping Specs. (Approx. Net Wt.)	185 lbs. (84 kg.)	190 lbs. (87 kg.)	175 lbs. (80 kg.)	175 lbs. (80 kg.)

Environmental Performance		
Wind Loading	Operational Survival	45 mph (72 km/h) 125 mph (201 km/h)
Temperature (operational)	- 40° to 140°F (- 40° to 60°C)	
Rain (operational)	½" (13mm) / hr	
Atmospheric Conditions	Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas	
Relative Humidity	0 to 100% with Condensation	
Solar Radiation	360 BTU/h/ft2	

GENERAL DYNAMICS SATCOM Technologies

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