

1.8M C & Ku-Band Rx/Tx Antenna

Series 1194

Technical Specifications

Electrical		Series 1194 C-Band	Series 1194 Ku-Band
Antenna Size		1.8 M (71 in.)	1.8 M (71 in.)
Operating Frequency (GHz)	Receive	3.625 - 4.20 GHz	10.95 - 12.75 GHz
	Transmit	5.85 - 6.425 GHz	13.75 - 14.50 GHz
Midband Gain (+/- .2 dB)	Receive	35.50 dBi	45.20 dBi
	Transmit	39.50 dBi	46.70 dBi
Antenna Noise Temperature		Linear	Circular
20° Elevation		49 K	23 K
30° Elevation		37 K	21 K
Sidelobe Envelope, Co-Pol (dBi)			
100λ / D < θ ≤ 20°		29 - 25 Logθ dBi	29 - 25 Logθ dBi
20° < θ ≤ 26.3°		-3.5 dBi	-3.5 dBi
26.3° < θ ≤ 48°		32 - 25 Logθ dBi	32 - 25 Logθ dBi
θ > 48°		-10 dBi (averaged)	-10 dBi (averaged)
Cross-Pol Isolation	Within B.P.E.	-26 dB Max.	-30 dB Max.
	Any Angle off Axis	-23 dB Max.	-25 dB Max.
VSWR		1.3:1 Max.	1.3:1 Max. Tx, 1.5:1 Max. Rx
Axial Ratio (circular)	Receive	1.4 VAR (2.95 dB)	
	Transmit	1.3 VAR (2.28 dB)	
Feed Interface	Receive	CPR 229 F	Available in a variety of designs
	Transmit	CPR 137 or Type N	Available in a variety of designs

Mechanical	
Reflector Material	Glass Fiber Reinforced Polyester SMC
Antenna Optics	Prime Focus, Offset Feed
Mast Pipe Size	5" SCH 40 Pipe (5.56" OD) 141 mm.
Elevation Adjustment Range	5° to 90°, Continuous Fine Adjustment
Azimuth Adjustment Range	+/- 45° Fine, 360° Continuous
Shipping Specifications	C-Band: 245 lbs. (111 kg.) Ku-Band: 235 lbs. (106.5 kg.)

Environmental Performance		
Wind Loading	Operational	50 mph (80 km/h)
	Survival	125 mph (201 km/h)
Temperature	Operational	-40° to 140° F (-40° to 60° C)
	Survival	-50° to 160° F (-46° to 71° C)
Rain	Operational	1/2"/hr
	Survival	2"/hr
Ice	Operational	-----
	Survival	1/2" radial
Atmospheric Conditions		Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
Solar Radiation		360 BTU/h/ft2

GENERAL DYNAMICS SATCOM Technologies

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