2.4M C & Ku-Band Antenna

Series 1251

Technical Specifications

Electrical		C-Band Linear	C-Band Circular	Ku-Band
Antenna Size		2.4 M (96 in.)	2.4 M (96 in.)	2.4 M (96 in.)
Operating Frequency (GHz)	Receive Transmit	3.625 - 4.20 GHz 5.850 - 6.425 GHz	3.625 - 4.20 GHz 5.850 - 6.425 GHz	10.95 - 12.75 GHz 13.75 - 14.50 GHz
Midband Gain (+/- .2 dB)	Receive Transmit	38.00 dBi 42.00 dBi	38.00 dBi 42.00 dBi	47.60 dBi 49.20 dBi
Antenna Noise Temperature 10° Elevation 20° Elevation 30° Elevation 40° Elevation		 52 K 46 K 45 K 44 K	 30 K 23 K 20 K 19 K	 42 K 32 K 28 K 27 K
Sidelobe Envelope, Co-Pol (dBi) $100\lambda / D \leq \theta \leq 20°$ $20° < \theta \leq 26.3°$ $26.3° < \theta \leq 48°$ $48° < \theta$		 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)
Cross-Pol Isolation (Linear)		>30 dB on axis	N/A	>30 dB on axis
Axial Ratio (Circular)	Receive Transmit	N/A N/A	1.4 VAR (2.95 dB) 1.3 VAR (2.28 dB)	N/A N/A
VSWR		1.3:1 Max.	1.3:1 Max.	1.3:1 Max. Tx, 1.5:1 Max. Rx
Feed Interface	Receive Transmit	CPR 229 F CPR 137 or Type N	CPR 229 F CPR 137 or Type N	WR 75 WR 75 or Direct Radio Mounting

Mechanical	
Reflector Material	Glass Fiber Reinforced Polyester SMC
Antenna Optics	Prime Focus, Offset Feed, Two-Piece Divided Along Major Axis
Mast Pipe Size	6" SCH 40 Pipe (6.63" OD) 16.83 cm.
Elevation Adjustment Range	5° to 90°, Continuous Fine Adjustment
Azimuth Adjustment Range	+/- 45° Fine Adjustment, 360° Continuous
Mount Type	Elevation over Azimuth
Shipping Specifications	Net Weight: 545 lbs. (248 kg.) Packaged Weight: 885 lbs. (402 kg.)

Environmental Performance		
Wind Loading	Operational Survival	50 mph (80 km/h) 125 mph (201 km/h)
Temperature	Operational Survival	-40° to 140° F (-40° to 60° C) -50° to 160° F (-46° to 71° C)
Rain	Operational Survival	1/2"/hr 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
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