2.4M C & Ku-Band Rx/Tx Antenna

Series 1240

Technical Specifications

Electrical		C-Band Linear	C-Band Circular	Ku-Band
Antenna Size		2.4M (96 in.)	2.4M (96 in.)	2.4M (96 in.)
Operating Frequency (GHz)	Receive	3.625 - 4.20 GHz	3.625 - 4.20 GHz	10.70 - 12.75 GHz
	Transmit	5.85 - 6.425 GHz	5.85 - 6.425 GHz	13.75 - 14.50 GHz
Antenna Gain at Midband, dBi (± .2dB)	Receive	38.20 dBi	38.20 dBi	47.40 dBi
	Transmit	42.20 dBi	42.20 dBi	49.20 dBi
VSWR		1.3:1 Max	1.3:1 Max	Rx: 1.5:1 Max Tx: 1.3:1 Max
Pattern Beamwidth (in degrees at midband)	-3 dB	Rx: 2.20° Tx: 1.40°	Rx: 2.20° Tx: 1.40°	Rx: 0.70° Tx: 0.60°
	-15 dB	Rx: 4.90° Tx: 3.10°	Rx: 4.90° Tx: 3.10°	Rx: 1.60° Tx: 1.40°
Sidelobe Envelope, Co-Pol (dBi) $100\lambda / D < \theta \le 20^{\circ}$ $20^{\circ} < \theta \le 26.3^{\circ}$ $26.3^{\circ} < \theta \le 48^{\circ}$ $\theta > 48^{\circ}$		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		52 K 46 K 45 K 44 K	57 K 49 K 45 K 45 K	56 K 51 K 48 K 41 K
Cross Polarization Isolation (Linear)	Receive	>30 dB	N/A	>30 dB
On Axis	Transmit	>30 dB	N/A	>35 dB
Axial Ratio (Circular)	Receive	N/A	1.4 VAR (2.95 dB)	N/A
	Transmit	N/A	1.3 VAR (2.28 dB)	N/A
Feed Interface	Receive	CPR 229F	CPR 229F	WR 75 or Direct Radio
	Transmit	CPR 137 or Type N	CPR 137 or Type N	Mounting
Maximum Radio Weight (Optional Feed Stabilizer available for higher radio weight)		20 Lbs. (9 Kg.)	20 Lbs. (9 Kg.)	12 Lbs. (5.5 Kg.)

Mechanical		
Reflector Material	Glass Fiber Reinforced Polyester SMC	
Antenna Optics	Prime Focus, Offset Feed, Four-piece	
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	360°Continuous, +/- 5°Fine Adjustment	
Mount Type	Elevation over Azimuth	
Shipping Specifications Shipping Weight (Total): Install (Net) Weight:	525 lbs. (237 kg.) 345 lbs. (157 kg.)	

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