2.4M Rx/Tx High Wind Antenna

Series 2244

Technical Specifications

Electrical		C-Band Linear	C-Band Circular	Ku-Band
Antenna Size		2.4 M (96.00 in.)	2.4 M (8 ft.)	2.4 M (96.00 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
Antenna Gain at Midband, dBi (± .2dB)	Receive Transmit	38.20 dBi 42.20 dBi	38.20 dBi 42.20 dBi	47.40 dBi 49.20 dBi
VSWR		1.3:1 Max	1.3:1 Max	Tx: 1.3:1 Max Rx: 1.5:1 Max
Pattern Beamwidth (in degrees at midband) -3 dB -15 dB		 2.20° Rx 1.40° Tx 4.90° Rx 3.10° Tx	 2.20° Rx 1.40° Tx 4.90° Rx 3.10° Tx	 0.70° Rx 0.60° Tx 1.60° Rx 1.40° Tx
Sidelobe Envelope, $100\lambda/D \le \theta \le 20°$ $7° < \theta \le 9.2°$ $9.2° < \theta \le 48°$ $48° < \theta$		 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)
Antenna Noise Temperature 5° Elevation 10° Elevation 20° Elevation 40° Elevation		 55 K 47 K 43 K 43 K	 61 K 53 K 49 K 49 K	 85 K 78 K 73 K 70 K
Cross Polarization Isolation On Axis With 1.0 dB Beamwidth`		 > 30 dB > 27 db	 Rx > 15 dB Tx > 17.7 dB Rx > 15 dB Tx > 17.7 dB	 Rx > 30 dB Tx > 35 dB Rx > 25 dB Tx > 26 dB
Output Waveguide Interface		Rx CPR 229 Tx CPR 137 or Type N	Rx CPR 229 Tx CPR 137 or Type N	Rx WR75 Tx WR75

Mechanical			
Reflector Material	Glass Fiber Reinforced Polyester SMC		
Antenna Optics	Four Piece Offset, Prime Focus		
Mast Pipe Size	6" SCH 80 Pipe (6.62" OD) 16.80 cm.		
Elevation Adjustment Range	5° - 90° Continuous Fine Adjust		
Azimuth Adjustment Range	+/- 45° Fine Adjustment, 360° Continuous		
Mount Type	Elevation over Azimuth		
Shipping Specifications (Approximate Net Weight):	930 lbs.	950 lbs.	920 lbs.

Environmental Performance		
Wind Loading	Operational	65 MPH (104 km/h) with 0.5dB loss @ 14.25GHz 75 MPH (120 km/h) with 1.0dB loss @ 14.25GHz, 0.5dB loss @ 6.14GHz 90 MPH (145 km/h) with 1.0dB loss @ 6.14GHz
	Survival	150 MPH (240 km/h)
Temperature	Operational Survival	-40° to 140° F (-40° to 60° C) -50° to 160° F (-46° to 71° C)
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

1500 Prodelin Drive • Newton, NC 28658 USA • Telephone: +1-828-464-4141 • Fax: +1-828-464-4147
Email: vsat@gdsatcom.com • Web Site: www.gdsatcom.com

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