1.2M Ka-Band Antenna Receive Only

Series 3122

Technical Specifications

Electrical		Ka-Band Circular	Ka-Band Linear
Antenna Size		1.2 M	1.2 M
Operating Frequency (GHz)	Receive	19.20 - 20.20 GHz	18.20 - 21.20 GHz
Antenna Gain at Midband (± .2dB)	Receive	46.00 dBi	46.00 dBi
VSWR		1.3:1	1.5:1
Pattern Beamwidth (in degrees at midband)	-3 dB -15 dB	Rx: 0.90° Rx: 2.00°	Rx: 0.90° Rx: 2.00°
Sidelobe Envelope, Co-Pol (dBi) $100\lambda / D < \theta \leq 20°$ $20° < \theta \leq 26.3°$ $26.3° < \theta \leq 48°$ $\theta > 48°$		 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 5° Elevation 10° Elevation 20° Elevation 40° Elevation		 165 K 124 K 94 K 86 K	 168 K 127 K 97 K 79 K
Power Handling		N/A	N/A
Cross Polarization Isolation On Axis Within 1.0 dB Beamwidth		 17.70 dB 17.70 dB	 30.00 dB 26.00 dB
Output Waveguide Interface Flange		Rx: WR42	Rx: WR42

Mechanical	
Reflector Material	Glass Fiber Reinforced Polyester SMC, Ka-Band Formulation
Antenna Optics	1-piece Offset, Prime Focus
Mast Pipe Size	2.5" SCH 40 Pipe (2.88" OD) 73.2 mm
Elevation Adjustment Range	5°to 90°, Continuous Fine Adjustment
Azimuth Adjustment Range	± 10°Fine Adjustment, 360°Continuous
Shipping Specifications Approximate Net Weight Approximate Packaged Weight	 69 lbs. (31 kg.) 85 lbs. (39 kg.)

Environmental Performance		
Wind Loading	Operational Survival	50 mph (80 km/h) 125 mph (201 km/h)
Temperature (operational)		- 40°to 140°F (- 40°to 60°C)
Rain (operational)		½" / hr
Ice (operational)		----------
Atmospheric Conditions		Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
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

1000-054 Rev. 03/12