

# 2.4M C & Ku-Band Rx/Tx Antenna

## Series 1241

### 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 ( $\pm .2$ dB)	Receive	38.20 dBi	38.00 dBi	47.40 dBi
	Transmit	42.20 dBi	42.00 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 < $\theta$ $\leq$ 20°		29 - 25 Log $\theta$ dBi	29 - 25 Log $\theta$ dBi	29 - 25 Log $\theta$ dBi
20° < $\theta$ $\leq$ 26.3°		-3.5 dBi	-3.5 dBi	-3.5 dBi
26.3° < $\theta$ $\leq$ 48°		32 - 25 Log $\theta$ dBi	32 - 25 Log $\theta$ dBi	32 - 25 Log $\theta$ dBi
$\theta >$ 48°		-10 dBi (averaged)	-10 dBi (averaged)	-10 dBi (averaged)
Antenna Noise Temperature				
10° Elevation		52 K	57 K	56 K
20° Elevation		46 K	49 K	51 K
30° Elevation		45 K	45 K	48 K
40° Elevation		44 K	45 K	41 K
Cross Polarization Isolation (Linear) On Axis	Receive	>30 dB	N/A	>30 dB
	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		CPR 229F CPR 137 or Type N	CPR 229F CPR 137 or Type N	WR 75 or Direct Radio 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, +/- 10° Fine Adjustment
Mount Type	Elevation over Azimuth
Shipping Specifications	
Shipping Weight (Total):	545 lbs. (248 kg.)
Install (Net) Weight:	365 lbs. (166 kg.)

Environmental Performance		
Wind Loading	Operational	50 mph (80 km/h)
	Survival	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/ft <sup>2</sup>

## 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

1000-063 Rev. 6/14

© 2012 General Dynamics. All rights reserved. General Dynamics reserves the right to make changes in its products and specifications at anytime and without notice. All trademarks indicated as such herein are trademarks of General Dynamics. All other product and service names are the property of their respective owners. © Reg. U.S. Pat. and Tm. Off.



### Planet Communications Asia PLC.

157 Soi Ramindra 34, Ramindra Rd., Tarang, Bangkok, Bangkok 10230

Tel: +66 2 792 2400 | Fax: +66 2 792 2499, +66 2 943 5771 | E-mail: sales@planetcomm.com



PlanetComm: