

# 1.2M Extended Ku-Band Rx/Tx Antenna

## Series 1132

### Technical Specifications

Electrical		Ku-Band
Antenna Size		1.2 m (47 in.)
Frequency (GHz)	Receive Transmit	10.70 - 11.70 GHz 12.75 - 14.50 GHz
Antenna Gain at Midband, dBi ( $\pm .2$ dB)	Receive Transmit	41.00 dBi 43.00 dBi
VSWR	Receive Transmit	1.5:1 max 1.3:1 max
Pattern Beamwidth (in degrees at midband)	-3 dB -15 dB	1.50° Rx 1.20° Tx 3.40° Rx 2.80° Tx
Sidelobe Envelope, Co-Pol (dBi)		
	100 $\lambda$ /D $\leq \theta \leq 20^\circ$	29 - 25 Log $\theta$ dBi
	20° < $\theta \leq 26.3^\circ$	-3.5 dBi
	26.3° < $\theta \leq 48^\circ$	32 - 25 Log $\theta$ dBi
	48° < $\theta$	-10 dBi (averaged)
Antenna Noise Temperature	20° Elevation 30° Elevation	57 K 56 K
Power Handling		100 W
Cross Polarization Isolation (Linear)	On Axis Within 1.0 dB Beamwidth	30 dB Rx 35 dB Tx 25 dB Rx 27 dB Tx
Output Waveguide Interface Flange		WR 75

Mechanical	
Reflector Material	Glass Fiber Reinforced Polyester SMC
Antenna Optics	Prime Focus, Offset Feed
Mast Pipe Size	2.5" SCH 40 Pipe (2.88" OD) 73 mm.
Elevation Adjustment Range	5° to 90° Continuous Fine Adjustment
Azimuth Adjustment Range	$\pm 20^\circ$ Fine, 360° Continuous
Shipping Specifications	48 pounds (22 kgs.)

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	1/2" (13mm) / hr
Ice	Operational	-----
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

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