

# 0.67M Ka-Band Antenna Receive Only

## Series 3672

### Technical Specifications

Electrical		Ka-Band Circular	Ka-Band Linear
Antenna Size		0.67 M	0.67 M
Operating Frequency (GHz)	Receive	19.40 - 21.20 GHz	18.70 - 21.20 GHz
Antenna Gain at Midband ( $\pm$ .2dB)	Receive	41.00 dBi	41.00 dBi
VSWR		1.3:1 max	1.5:1 max
Pattern Beamwidth (in degrees at midband)	-3 dB -15 dB	1.60° 3.60°	1.60° 3.60°
Sidelobe Envelope, Co-Pol (dBi)			
$100\lambda / D < \theta \leq 20^\circ$		29 - 25 Log $\theta$ dBi	29 - 25 Log $\theta$ dBi
$20^\circ < \theta \leq 26.3^\circ$		-3.5 dBi	-3.5 dBi
$26.3^\circ < \theta \leq 48^\circ$		32 - 25 Log $\theta$ dBi	32 - 25 Log $\theta$ dBi
$\theta > 48^\circ$		-10 dBi (averaged)	-10 dBi (averaged)
Antenna Noise Temperature			
5° Elevation		180 K	183 K
10° Elevation		130 K	133 K
20° Elevation		94 K	97 K
40° Elevation		72 K	75 K
Power Handling		N/A	N/A
Cross Polarization Isolation			
On Axis		17.70 dB	30.00 dB
Within 1.0 dB Beamwidth		17.70 dB	26.00 dB
Output Waveguide Interface Flange		WR42	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	360° Continuous Coarse Adjustment, 10° Fine Adjustment
Shipping Specifications	Approx. Net Weight: 46 lbs. (21 kg.)    Approx. Packaged Weight: 56 lbs. (25 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
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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