

# 0.95M Ku-Band Rx/Tx & Receive Only

## Series 1951 & 1950

### Technical Specifications

Electrical		Rx/O Series 1950	Rx/Tx Series 1951
Antenna Size		95 CM (38 in.)	95 CM (38 in.)
Reflector Dimensions		53.0" x 26.5" Ellipse	53.0" x 26.5" Ellipse
Operating Frequency (GHz)	Receive Transmit	10.95 - 12.75 GHz N/A	10.95 - 12.75 GHz 13.75 - 14.50 GHz
Midband Gain ( +/- .2 dB)	Receive Transmit	39.70 dBi N/A	39.70 dBi 41.20 dBi
First Sidelobe (typical)		- 23 dB	- 23 dB
Antenna Noise Temperature			
20° Elevation		43 K	43 K
30° Elevation		41 K	41 K
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)
Cross-Pol Isolation (Linear)		>30 dB on axis	>30 dB on axis
VSWR		1.3:1 Max.	1.3:1 Max.
Feed Interface		Rectangular WR75	Available in a variety of designs

Mechanical		
Reflector Material		One Pc. Glass Fiber Reinforced Polyester SMC
Antenna Optics		Prime Focus, Offset Feed Elliptical
Mast Pipe Size		1.5" SCH 40 Pipe (1.90" OD) 4.83 cm      2.5" SCH 40 Pipe (2.88" OD) 7.32 cm
Elevation Adjustment Range		5° to 80°, Continuous Fine Adjustment      20° to 60° latitude any 80 hour angle segment
Azimuth Adjustment Range		360° Continuous      360° Continuous
Mount Type		Elevation over azimuth w/ incremental reflector polarization      X-Y (Polar) Mount
Shipping Specifications		45 lbs. (20 kg.)      62 lbs. (28 kg.)

Environmental Performance			
Wind Loading	Operational Survival	45 mph (72 km/h) 125 mph (201 km/h)	50 mph (80 km/h) 125 mph (201 km/h)
Temperature	Operational Survival	-40° to 140° F (-40° to 60° C) -50° to 160° F (-46° to 71° C)	
Rain	Operational Survival	1/2"/hr 2"/hr	
Ice	Operational Survival	----- 1/2" radial	
Atmospheric Conditions		Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas	
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

1000-038 Rev. 02/12