3.8M Rx/Tx Dual Axis C or Ku-Band VSAT Antenna

Series 1386

Technical Specifications

Electrical		C-Band Linear	C-Band Circular	Ku-Band Linear
Antenna Size		3.8M (150 in.)	3.8M (150 in.)	3.8M (150 in.)
Operating Frequency (GHz)	Receive Transmit	3.625 - 4.20 GHz 5.845 - 6.425 GHz	3.625 - 4.20 GHz 5.845 - 6.425 GHz	10.95 - 12.75 GHz 13.75 - 14.50 GHz
Antenna Gain at Midband (± .2dB)	Receive Transmit	42.00 dBi 46.50 dBi	41.80 dBi 46.30 dBi	51.20 dBi 53.00 dBi
VSWR	Receive Transmit	1.3:1 max 1.3:1 max	1.3:1 max 1.3:1 max	1.5:1 max 1.3:1 max
Pattern Beamwidth (in degrees at midband)	-3 dB -15 dB	Rx: 1.40° Tx: 0.90° Rx: 3.20° Tx: 2.00°	Rx: 1.40° Tx: 0.90° Rx: 1.40° Tx: 0.90°	Rx: 0.50° Tx: 1.00° Rx: 0.40° Tx: 0.90°
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)	 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	55 K 45 K 38 K 36 K	62 K 52 K 45 K 43 K	70 K 60 K 55 K 45 K
Power Handling		1 kW	1 kW	100 W
Cross Polarization Isolation	On Axis Within 1.0 dB Beamwidth	> 30 dB > 27 dB	Rx > 15.00 dB Tx > 17.70 dB Rx > 15.00 dB Tx > 17.70 dB	Rx > 30.00 dB Tx > 35.00 dB Rx > 25.00 dB Tx > 26.00 dB
Note: Standard C-Band Circular polarization in Tx-Band provides an axial ratio of 1.3 (XPD equivalence of 17.7 dB). Optional F-1 station feed available with axial ratio of 1.09 (XPD equivalence >27.3 dB) in Tx -Band. Call factory when specifying this option. X-Band filters available upon request.				
Output Waveguide Interface Flange	Receive Transmit	CPR 229 CPR 137 or Type N	CPR 229 CPR 137 or Type N	WR 75 WR 75

Mechanical	
Reflector Material	Glass Fiber Reinforced SMC
Mount Type	Dual Axis Motorized, Elevation over Azimuth, Galvanized Steel Construction
Actuators	Recirculating Ballscrews
Antenna Optics	Easy-to-assemble, 4 Pc., Offset Fed Prime Focus Design with 0.6 F/D optics
Mast Pipe Size	10" SCH 40 Pipe (10.75" OD) 27.3 cm
Elevation Adjustment Range	12° to 90° or 0° to 15° for Polar Latitudes
Azimuth Adjustment Range	360° Continuous with +/- 35° Fine Adjustment
Angular Tracking Travel	Elevation +/- 10°; Azimuth +/- 10° (within adjustment range)
Interface	Electrically to ACU
Tracking Accuracy	0.05°
Shipping Specifications	Approximate Net Weight: Weight (nominal) 1125 lbs. (511 Kg) Approximate Packaged Weight: Weight (nominal) 1882 lbs. (855 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
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/ft2

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