3.8M Tx/Rx VSAT Antenna

Series 1385

Technical Specifications

Electrical		C-Band Linear	C-Band Circular	Ku-Band Linear	X-Band Circular
Antenna Size		3.8 M	3.8 M	3.8 M	3.8 M
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	7.25 - 7.75 GHz 7.90 - 8.40 GHz
Midband Gain (+/- .5dB)	Receive Transmit	42.00 dBi 46.20 dBi	41.80 dBi 46.30 dBi	51.20 dBi 53.00 dBi	47.80 dBi 48.40 dBi
VSWR	Receive Transmit	1.3:1 Max.(<-17.70 dB) 1.3:1 Max.(<-17.70 dB)	1.3:1 Max.(<-17.70 dB) 1.3:1 Max.(<-17.70 dB)	1.5:1 Max.(<-14.00 dB) 1.3:1 Max.(<-17.70 dB)	1.3:1 Max.(<-17.70 dB) 1.3:1 Max.(<-17.70 dB)
Pattern Beamwidth (in degrees at midband)	-3 dB -15 dB	Rx 1.40 deg Tx 0.90 deg Rx 3.20 deg Tx 2.00 deg	Rx 1.40 deg Tx 0.90 deg Rx 3.20 deg Tx 2.00 deg	Rx 0.50 deg Tx 0.40 deg Rx 1.00 deg Tx 0.90 deg	Rx 0.80 deg Tx 0.70 deg Rx 1.60 deg Tx 1.50 deg
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)	 29 - 25 Logθ dBi -3.5 dBi 32 - 25 Logθ dBi -10 dBi (averaged)
Note: In receive portion of C-band only, sidelobe envelope specified from $100\lambda/D$ rather than 1°					
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	 60 K 51 K 47 K 47 K
Power Handling		1 kW	1 kW	100 W	2 kW
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	 Rx > 23.20 dB Tx > 18.80 dB Rx > 23.20 dB Tx > 18.80 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 feedavailable 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 F CPR 137 or Type N	CPR 229 F CPR 137 or Type N	WR 75 WR 75	WR 112 WR 112

Mechanical		
Reflector Material		Glass Fiber Reinforced Polyester SMC
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
Shipping Specifications	Approx. Net Weight Approx. Packaged Weight	Weight (nominal) 1125 lbs. (511 Kg.) Weight (nominal) 1882 lbs., (855 Kg.)

Environmental Performance		
Wind Loading	Operational Survival	50 mph (80 km/h) 125 mph (201 km/h)
Temperature Range (operational)		-40° to 140° F (-40° to 60° C)
Rain (operational)		½" (13mm) per hour
Ice (operational)		----------
Atmospheric Conditions		Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
Relative Humidity		0 to 100% Condensing
Solar Radiation		360 BTU/h/ft2