3.8 Meter Rx/Tx Dual Axis C or Ku-Band VSAT Antennas

Series 1386

Technical Specifications

Electrical		C-Band Linear	C-Band Circular	Ku-Band
Antenna Size		3.8 M (12.5 ft.)	3.8 M (12.5 ft.)	3.8 M (12.5 ft.)
Operating Frequency (GHz)	Receive	3.625 - 4.20 GHz	3.625 - 4.20 GHz	10.70 - 12.75 GHz
	Transmit	5.85 - 6.425 GHz	5.85 - 6.425 GHz	13.75 - 14.50 GHz
Antenna Gain at Midband (± .2dB)	Receive	42.00 dBi	41.80 dBi	51.20 dBi
	Transmit	46.50 dBi	46.30 dBi	53.00 dBi
VSWR	Receive	1.3:1 max	1.3:1 max	1.5:1 max
	Transmit	1.3:1 max	1.3:1 max	1.3:1 max
Pattern Beamwidth	-3dB	Rx: 1.40° Tx: 0.90°	Rx: 1.40° Tx: 0.90°	Rx: 0.50° Tx: 1.00°
(in degrees at midband)	-15dB	Rx: 3.20° Tx: 2.00°	Rx: 1.40° Tx: 0.90°	Rx: 0.40° Tx: 0.90°
Sidelobe Envelope, Co-Pol (dBi)				
$100\lambda/D \leq \theta \leq 20°$		29 - 25 Log θ dBi	29 - 25 Log θdBi	29 - 25 Log θ dBi
$20° < \theta \leq 26.3°$		-3.5 dBi	-3.5 dBi	-3.5 dBi
$26.3° < \theta \leq 48°$		32 - 25 Log θ dBi	32 - 25 Log θdBi	32 - 25 Log θ dBi
$\theta < 48°$		-10 dBi (averaged).	-10 dBi (averaged)	-10 dBi (averaged)
Antenna Noise Temperature	5° Elevation	55 K	62 K	70 K
	10° Elevation	45 K	52 K	60 K
	20° Elevation	38 K	45 K	55 K
	40° Elevation	36 K	43 K	45 K
Power Handling		1 kW	1 kW	100 W
Cross Polarization Isolation				
On Axis		> 30 dB	Rx > 15.00 dB Tx > 17.70 dB	Rx > 30.00 dB Tx > 35.00 dB
Within 1.0 dB Beamwidth		> 27 dB	Rx > 15.00 dB Tx > 17.70 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		CPR 229	CPR 229	WR 75
Transmit		CPR 137 or Type N	CPR 137 or Type N	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
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	50 mph (80 km/h)
	Survival	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/ft^2

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For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.