

3.8m Motorized Dual-axis Antenna System



Your Trusted Source for Satellite Equipment

- Dual Axis Motorized Az/EI Navigator Mount
- Extended Azimuth and Elevation Travel
- Inclined Orbit Tracking Capable
- Heavy Duty Jackscrews and Motors
- Mounts Over a Standard Mast

ELECTRICAL SPECIFICATIONS					
Electrical		C-Band Linear	Insat Linear	C-Band Circular	Ku-Band Linear
Antenna Size		3.8 M	3.8m	3.8 M	3.8 M
Operating Frequency (GHz)	Receive Transmit	3.625 - 4.20 GHz 5.845 - 6.425 GHz	4.50 - 4.80 GHz 6.725 - 7.025 GHz	3.625 - 4.20 GHz 5.845 - 6.425 GHz	10.70 - 12.75 GHz 13.75 - 14.50 GHz
Midband Gain (+/- .5dB)	Receive Transmit	42.00 dBi 46.20 dBi	43.40 dBi 47.20 dBi	41.80 dBi 46.30 dBi	51.20 dBi 53.00 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)	1.3:1 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)
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 1.20 deg Tx 0.80 deg Rx 2.70 deg Tx 1.80 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
Sidelobe Envelope, Co-Pol (dBi)					
100λD° ≤ θ ≤ 20°		29 – 25 Log θ dBi	29 – 25 Log θ dBi	29 – 25 Log θ dBi	29 – 25 Log θ dBi
20° < θ ≤ 26.3°		-3.5 dBi	-3.5 dBi	-3.5 dBi	-3.5 dBi
26.3° < θ ≤ 48°		32 – 25 Log θ dBi	32 – 25 Log θ dBi	32 – 25 Log θ dBi	32 – 25 Log θ dBi
θ > 48°		-10 dBi (averaged)	-10 dBi (averaged)	-10 dBi (averaged)	-10 dBi (averaged)
Note: In receive portion of C-band only, sidelobe envelope specified from 100λD rather than 1°					
Antenna Noise Temperature					
5° Elevation		55 K	57 K	62 K	70 K
10° Elevation		45 K	47 K	52 K	60 K
20° Elevation		38 K	40 K	45 K	55 K
40° Elevation		36 K	34 K	43 K	45 K
Power Handling		1 kW	1 kW	1 kW	100 W
Cross Polarization Isolation					
On Axis		> 30 dB	> 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	> 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 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	Receive Transmit	CPR 229 F CPR 137 or Type N	CPR 229 F CPR 137 or Type N	CPR 229 F CPR 137 or Type N	WR 75 WR 75
Flange					
MECHANICAL SPECIFICATIONS			ENVIRONMENTAL PERFORMANCE		
Reflector Material	Glass Fiber Reinforced Polyester SMC		Wind Loading	Operational Survival	50 mph (80 km/h) 125 mph (201 km/h)
Antenna Optics	Easy-to-assemble, 4 Pc., Offset Prime Focus Design with 0.6 F/D optics.		Temperature Range (operational)		-40° to 140° F (-40° to 60° C)
Elevation Travel					
Regular	50° - 90°				
Inverted	8° - 85°				
Azimuth Travel	120°				
Mast Pipe Size	10" SCH 40 Pipe (10.75" OD)				

NAV_380_001_REV006

Specifications are subject to change without notice

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