

Manual Adjustment / Dual Axis Motorized Multi-Band / Ku Linear, C Circular, X Circular, Ka Circular

### **Description**

The 3.8m antenna provides a level of surface accuracy, rugged stiffness, and precision not often found in similar products. Every Az/El fixed Kingpost antenna is fully upgradable in the field to a Dual-Axis Motorized Antenna with 180° Horizon to Horizon Mount.

#### **Features**

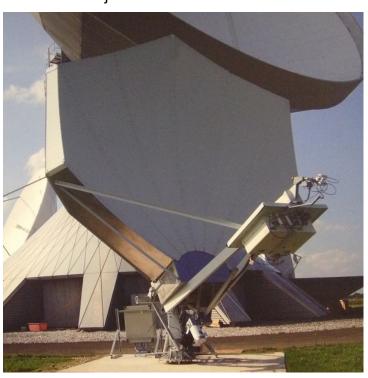
- Ka Circular
- Feeds for Ku Linear, C Linear, C Circular and X Circular available
- Easy to ship—Installation without crane
- Extra support ribs for added rigidity—High Wind Option (Ka)
- Long focal length for excellent sidelobe rejection

#### **Dual-Axis Motorization**

Includes the same basic features as manual adjustment antenna.

### **Unique Features**

- Motorized Az/El Mount
- Easy Setup with Control Cable
- Limited Motion Mount
- Motorized Feed Assembly for Pol Adjustment
- Auto Locate Option Available
- Actuator Control



Alpha Satcom, Inc.

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Antenna Characteristics	Ka Cir	Ka Circular	
	Receive	Transmit	
Frequency (GHz)	17.7 - 20.2	27.5 - 30.0	
Antenna Gain (dBi ± 0.2)(GHz)	53.75	57.12	
Antenna Noise Temperature (°K) @ mid band			
10° Elevation	101	-	
20° Elevation	76	-	
40° Elevation	66	-	
Cross Polarization Isolation (dB)			
On Axis	35	35	
VSWR	1.3:1	1.3:1	
Port to Port Isolation (dB)	18	18	
Cidalaha Barfarana	Compliant with		
Sidelobe Performance	ITU-R S.580		
Port Configuration	2 Port Cross Pol		

Antenna Characteristics	Ku Linear		
	Receive	Transmit	
Frequency (GHz)	10.7 - 12.75	13.75 - 14.5	
Antenna Gain (dBi ± 0.2)(GHz)	51.2 @ 11.725	53.2 @ 14.125	
Antenna Noise Temperature (°K) @ 11.725 GHz			
10° Elevation	62	-	
20° Elevation	52	-	
30° Elevation	48	-	
Cross Polarization Isolation (dB)			
On Axis	> 30	> 30	
Within 1dB beamwidth	> 22	> 26	
VSWR	< 1.5:1	< 1.2:1	
Port to Port Isolation (dB)	> 45	> 80	
Sidelobe Performance	Compliant with ITU-R S.580		
Port Configuration	2 Port Cross Pol		



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Antenna Characteristics	C Circular	
	Receive	Transmit
Frequency (GHz)	3.625—4.2	5.85—6.425
Antenna Gain (dBi ± 0.2)(GHz)	42.0 @ 3.9125	46.1 @ 6.1375
Antenna Noise Temperature (°K) @ 3.9125 GHz		
10° Elevation	54	-
20° Elevation	46	-
30° Elevation	42	-
Axial Ratio	< 3.0	< 2.3
Cross Polarization Isolation (dB)		
On Axis	> 15	> 18
Within 1 dB beamwidth	> 15	> 18
VSWR	1.5:1	1.3:1
Port to Port Isolation (dB)	> 60	> 85
Sidelobe Performance	Compliant with ITU-R S.580	
Port Configuration	2 Port Cross Pol	

Antenna Characteristics	C Linear		
	Receive	Transmit	
Frequency (GHz)	3.625 –4.2	5.85-6.425	
Antenna Gain (dBi ± 0.2)(GHz)	42.0 @ 3.9125	46.1 @ 6.1375	
Antenna Noise Temperature (°K) @ 3.9125 GHz			
10° Elevation	54	-	
20° Elevation	46	-	
30° Elevation	42	-	
Cross Polarization Isolation (dB)			
On Axis	> 30	> 30	
Within 1dB beamwidth	> 22	> 26	
VSWR	< 1.5:1	< 1.3:!	
Port to Port Isolation (dB)	> 60	> 85	
Sidelobe Performance Compliant wit		TU-R S.580	
Port Configuration 2 Port Cross Pol			



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N	Mechanical Specifications	
Antenna Size	3.8 Meter	
Optics	Single Offset	
Reflector Construction	Stretch Formed Reinforced Panels	
Mount Type	El over Az Kingpost	
Standard Adjustment Range	2	
	Non-Motorized	Motorized
Azimuth	± 82°	± 75° / -85° Max
Elevation	0° to 90°	5° to 90°
Pol	360° Continuous	± 270° from 0°
High Wind Adjustment Rang	ge	
	Non-Motorized	
Azimuth	± 55°	
Elevation	0° to 90°	
Shipping Container 1	192 x 51 x 32"	194 x 52 x 45"
	(487.7 x 129.5 x 81.3)	(493 x 132 x 114.3)
Packaged Weight	1918 lbs. (870)	1896 lbs. (860)
Shipping Container 2	(Any Non-Motorized)	(Any Motorized)
	86 x 36 x 64"	119 x 49 x 80"
	(218.4 x 91.4 x 162.6)	(302.3 x 125 x 203.2)
Packaged Weight	1230 lbs. (558)	1948 lbs. (883.6)

Environmental Performance		
Wind Loading		
Operational		
Standard	45 mph (72.4 km/h)	
High Wind	90 mph (144.8 km/h)	
Survival (Stowed)		
Standard	100 mph (160.9 km/h)	
High Wind	150 mph (241.4 km/h)	
Temperature		
Operational	-28.9°C to 51.7°C (-20°F to 125°F)	

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