

3.8M Offset Tx-Rx Multi-Band

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



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Antenna Characteristics	Ka Circular	
	Receive	Transmit
Frequency (GHz)	17.7 - 20.2	27.5 - 30.0
Antenna Gain (dBi \pm 0.2)(GHz)	53.75	57.12
Antenna Noise Temperature ($^{\circ}$ K) @ mid band		
10 $^{\circ}$ Elevation	101	-
20 $^{\circ}$ Elevation	76	-
40 $^{\circ}$ Elevation	66	-
Cross Polarization Isolation (dB)		
On Axis	35	35
VSWR	1.3:1	1.3:1
Port to Port Isolation (dB)	18	18
Sidelobe Performance	Compliant with 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 \pm 0.2)(GHz)	51.2 @ 11.725	53.2 @ 14.125
Antenna Noise Temperature ($^{\circ}$ K) @ 11.725 GHz		
10 $^{\circ}$ Elevation	62	-
20 $^{\circ}$ Elevation	52	-
30 $^{\circ}$ 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 \pm 0.2)(GHz)	42.0 @ 3.9125	46.1 @ 6.1375
Antenna Noise Temperature ($^{\circ}$ K) @ 3.9125 GHz		
10 $^{\circ}$ Elevation	54	-
20 $^{\circ}$ Elevation	46	-
30 $^{\circ}$ 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 \pm 0.2)(GHz)	42.0 @ 3.9125	46.1 @ 6.1375
Antenna Noise Temperature ($^{\circ}$ K) @ 3.9125 GHz		
10 $^{\circ}$ Elevation	54	-
20 $^{\circ}$ Elevation	46	-
30 $^{\circ}$ 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 with ITU-R S.580	
Port Configuration	2 Port Cross Pol	

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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		
	Non-Motorized	Motorized
Azimuth	± 82°	± 75° / -85° Max
Elevation	0° to 90°	5° to 90°
Pol	360° Continuous	± 270° from 0°
High Wind Adjustment Range		
	Non-Motorized	
Azimuth	± 55°	
Elevation	0° to 90°	
Shipping Container 1	192 x 51 x 32" (487.7 x 129.5 x 81.3)	194 x 52 x 45" (493 x 132 x 114.3)
Packaged Weight	1918 lbs. (870)	1896 lbs. (860)
Shipping Container 2	(Any Non-Motorized) 86 x 36 x 64" (218.4 x 91.4 x 162.6)	(Any Motorized) 119 x 49 x 80" (302.3 x 125 x 203.2)
Packaged Weight	1230 lbs. (558)	1948 lbs. (883.6)
Note: (cm, kg in parathensis)		

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)