

3.1 / 3.8 / 4.5m Prime Focus Antenna System



Features

- Multi-Feed Systems Available (up to 4)
- Available in Dual Axis Motorized, King Post, and Az-El Fixed Pipe Head mounts
- 125 Mph Wind Survival
- King Post Pedestal Mount for Superior Steering and Stability
- High Accuracy Antenna, Low Transportation Cost

Description

The Patriot prime focus antenna is manufactured in the United States and is the symbol of quality in the antenna industry. It features a variety of mounting options and a dual sided galvanized reflector which is powder coated for superior protection against the elements. Stainless steel hardware is also available.

The contoured petals with matched radial beams and hub assembly ensure easy installation without field alignment. This antenna is competitively priced for the broadcast and cable industry as well as the educational market. Complete turnkey systems are available.

3.1 / 3.8 / 4.5m Prime Focus Antenna System

© Copyright 2004
All product specifications
subject to change without notice.

3.1m Prime Focus Antenna

RF Specifications	C-Band	Ku-Band
Receive Frequency Range (other bands available)	3.625 - 4.2 GHz	10.95 - 12.75 GHz
Midband Gain	39.9 dBi	48.7 dBi
Noise Temperature	58 K typ @ 10°	55 K @ 10°
Ports / Polarization		
Polarization Rotation	360° Continuous	
Polarization Isolation	30 dB LP	30 dB LP
VSWR	Rx 1.4:1	Rx 1.4:1
Feed Flanges	Rx CPR 229G	Rx WR75

Mechanical Specifications

F/D Ratio		0.336
Focal Distance	41.0°	
Azimuth Travel	120° Arc (Polar/Na)	360° Continuous (Az-EI)
	0° to 90°(Az/EI)	10°-60° (Polar)
	10° to 70°	0° to 90°(Az/EI)
Elevation Travel/Site Latitude	(Navigator)	10° to 70° (Navigator)
Polarization Travel	± 90°	
Antenna System Weight	379 Lbs. (Polar/Az)	500 Lbs. (Navigator)
Boxed Dimensions	68x48x18" (Polar/A)	68x48x30" (Navigator)
Units per 40ft. Container	96 units (Polar/Az-I)	72 units (Navigator)

Environmental Specifications

Wind Loading	Operational 60 mph, Survival 120 mph	100 kph 193 kph
Temperature	Operational -40° to 140° F Survival -60° to 180°	(-40° to 60°C) (-51° to 82°C)
Rain	Operational 1.5 in/hr Survival 3 in/ her	(1.3 cm/h) (7.6 cm/h)
Ice	Survival 2.5 cm (1 inch) radial or 1.3 (.5 inch) radial + 100 kph (60 mph)	

3.8m Prime Focus Antenna

RF Specifications	C-Band	Ku-Band
Receive Frequency Range (other bands available)	3.625 - 4.2 GHz	10.95 - 12.75 GHz
Midband Gain	41.5 dBi	50.3 dBi
Noise Temperature	50 K @ 10°	55 K @ 10°
Ports / Polarization	1 or 2 port circular / 1 or 2 port linear	
Motorized feed system also available	1 or 2 port linear	
Polarization Rotation	360° Continuous	
Polarization Isolation	30 dB LP	30 dB LP
VSWR	Rx 1.4:1	Rx 1.4:1
Feed Flanges	Rx CPR 229G	Rx WR75

Mechanical Specifications

	Az-EI Head	Kingpost	Navigator
F/D Ratio	0.413	0.413	0.413
Focal Distance	61.8 in.	61.8 in.	61.8 in.
Azimuth Travel	360° Continuous	132° Arc, 120° Mot.	132° Arc
Elevation Travel	10° to 90°	10° to 90°	10° to 90°
Polarization Travel	± 90°	± 90°	± 90°
Total Weight	705 Lbs.	612 / 725 Lbs.	610 / 210 Lbs.
Crate Dimensions	87x36x30 in.	87x36x30 in.	87x36x30 in.
		48x48x94 in.	68x48x12 in.
Units per 40 ft. Container	39 units	21 units	36 units

Environmental Specifications

Wind Loading	Operational 60 mph, Survival 120 mph	100 kph, 193 kph
Temperature	Operational -40° to 140° F Survival -60° to 180°F	(-40° to 60°C) (-51° to 82°C)
Rain	Operational 1.5 in/hr Survival 3 in/ hr	(1.3 cm/h) (7.6 cm/h)
Ice	Survival 2.5 cm (1 inch) radial or 1.3 (.5 inch) radial + 100 kph (60 mph)	
Shock & Vibration	As occurred during one shipment of air, truck, or rail	

4.5m Prime Focus Antenna

Typical RF Specifications	C-band	Ku-Band
Receive Frequency Range (other bands available)	3.625 - 4.2 GHz	10.95 - 12.75 GHz
Midband Gain	42.7 dBi	51.9 dBi
Noise Temperature	50 K @ 10°	55 K @ 10°
Ports / Polarization	1 or 2 port circular	1 or 2 port linear
Motorized feed system also available	1 or 2 port linear	
Polarization Rotation	360° Continuous	
Polarization Isolation	30 dB LP	30 dB LP
VSWR	Rx 1.4:1	Rx 1.4:1
Feed Flanges	Rx CPR 229G	Rx WR75

Mechanical Specifications

	Az-EI Head	Kingpost
F/D Ratio	0.35	0.35
Focal Distance	62.0 in	62.0 in
Azimuth Travel	360° Continuous	132° Arc
Elevation Travel	15° to 90°	15° to 90°
Polarization Travel	± 90°	± 90°
Total Weight	964 Lbs.	875 / 725 Lbs.
Crate Dimensions	112 x 46 x 42 in.	112 x 46 x 42 / 48 x 48 x 94 in.
Units Per 40ft Container	20 units	14 units

Environmental Specifications

Wind Loading	Operational 60 mph Survival 120 mph	100 kph 193 kph
Temperature	Operational -40° to 140° F Survival -60° to 180°F	(-40° to 60°C) (-51° to 82°C)
Rain	Operational 1.5 in/hr Survival 3 in/ hr	(3.8 cm/h) (7.6 cm/h)
Ice	Survival 2.5 cm (1 inch) radial or + 100 kph (60 mph)	
Shock & Vibration	As occurred during one shipment of air, truck, or rail	



ATRIOT Antenna Systems
704 North Clark St. • Albion, MI 49224 USA
517.629.5990 • 800.470.3510 toll free
517.629.6690 fax • info@sepatriot.com
www.sepatriot.com