

# Patriot 1.2m Flyaway Antenna Systems

# COBHAM

Manual Adjustment / Dual Axis Motorized / Auto Locate  
C-Band Option

2009 Date Sheet

The most important thing we build is trust

## Manual Adjustment

### Basic Features

Pre-assembled Tripod Base Mount w/Pull Pins  
All Aluminum Cases for Easy Transportation  
Patented Two Piece Dual Skin Metal Reflector  
C-Band Feed System  
Sturdy Boom Accommodates Outdoor Units  
Self Leveling Feet for Uneven Surfaces

### Unique Features

Azimuth and Elevation Hand Crank  
5 Minute Setup

## Dual Axis Motorized w/ Smart Jog Controller

Includes the same basic features of the manual adjustment antenna.

### Unique Features

Motorized Az/EI Mount for Jog Control  
Easy 15 Minute Setup w/Control Cable  
Limited Motion Mount  
Motorized Feed Assembly for Polarized Adjustment  
Actuator Control  
Manual Jog or Tracking Motions Available  
RCI-3050 Controller and 2 or 3 Axis Motorization

## Auto Locate

Includes the same basic features of the Dual Axis Motorized antenna.

### Unique Features

RCI-3000A Controller  
Automatically Locates Satellite w/out Manually Adjusting

RF Specifications	Linear		Circular	
	Receive	Transmit	Receive	Transmit
Frequency in GHz	3.4 - 4.2	5.7 - 6.725	3.625 - 4.2	5.85 - 6.425
Feed - 2 - Port Xpol				
Return Loss	17.7 dB typ	20 dB typ	17.7 dB typ	20 dB typ
Insertion Loss	0.3 dB typ	0.1 dB typ	0.5 dB typ	0.3 dB typ
Tx/Rx Isolation	40 dB	70 dB	40 dB	60 dB
Feed Interface	WR229	WR137 or N	WR229	WR137 or N

Antenna Specifications	Linear		Circular	
	Receive	Transmit	Receive	Transmit
Efficiency	72%	72%	68%	68%
Cross Polarization On Axis	30 dB	30 dB	17.7 dB	17.7 dB
within 1 dB Beamwidth	22 dB	25 dB	17.7 dB	17.7 dB
Tx/Rx Sidelobe Level	32 - 25 log $\theta$	100 $\lambda$ /D < $\theta$ < 20°	-	-
	-10	48° < $\theta$	-	-
Midband Gain	32.4 dBi	36.4 dBi	32.2 dBi	36.1 dBi
Noise Temperature	55K @ 10° EL	-	65K @ 10	-
	50K @ 30° EL	-	55K @ 30	-

## Mechanical & Environmental Data

f/D Ratio	0.635	
Focal Length	30 in / 76.2 cm	
Offset Angle	22°	
Antenna Optics	Single Offset	
Mount Type	Elevation over Azimuth Tripod	
Elevation Adjustment	0° to 90° Continuous Fine Adjustment	
Azimuth Adjustment	+ 30° Fine, 360° Continuous	
Wind Loading	Standard	Metric
Operational (No Ballast/Anchors)	25 mph	40kmh
Operation (w/Ballast/Anchors)	45 mph	72 kmh
Survival (w/Ballast/Anchors)	90 mph	145 kmh
Temperature	-40° to 140°F	-40° to 60°C
Rain		1.3 cm/h
Solar Radiation	360 BTU/h/ft <sup>2</sup>	1000 Kcal/h/m <sup>2</sup>
Reflector Case	81.5 lbs.	30.4 kg
	48 1/8 x 19 5/8 x 18 in.	123.3 x 49 x 45.7 cm
Mount Case	88.5 lbs	33 kg
	52 1/2 x 13 5/8 x 32 in.	133.4 x 34.6 x 81.3 cm



1.2m Flyaway Antenna System

## Other Available Bands:

Ku-Band & Ka-Band