

4.5m Prime Focus Antenna System

Ku-Band and C-Band Options

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 Challenger 4.5 Meter Prime Focus antenna is manufactured in the United States and is the symbol of quality in the antenna industry.

This antenna features an aluminum reflector which is powder coated for superior protection against the elements. Challenger offers a variety of mounting options and stainless steel hardware is standard.

The contoured petals with matched radial beams and hub assembly ensure easy installation without field alignment.

Complete turnkey systems are available.

RF Specifications	Ku-Band	C-Band
Receive Frequency (GHz)	10.95 - 12.75	3.625 - 4.2
Midband Gain	51.9 dBi	42.7 dBi
Noise Temperature	55K @ 10°	50K @ 10°
Ports/Polarization	1 or 2 Port Linear	1 or 2 Port Circular/1 or 2 Port Linear
Polarization Rotation		360° Continuous
Polarization Isolation	30 dB LP	30 dB LP
VSWR	Rx 1.3:1	Rx 1.4:1
Feed Flanges	Rx WR75	Rx CPR 229G

Mechanical Data	Az-El Head	King Post (Fixed & Motorized)
F/D Ratio	0.35	0.35
Focal Distance	61.9 in.	61.9 in.
Azimuth Travel	360° Continuous	132° Arc
Elevation Travel	15° to 90°	15° to 90°
Polarization Travel	±90°	±90°
Total Weight	875 lbs.	875/725 lbs.
Crate Dimensions	112 x 46 x 42 in.	48 x 48 x 94 in.
Units/40 ft Container	16 units	10 units

Environmental Data		
Wind Loading	Operational:	60 mph (100 km/h)
	Survival:	120 mph (193 km/h)
Temperature	Operational:	-40° to 140° F (-40° to 60° C)
	Survival:	-60° to 180° F (-51° to 82° C)
Rain	Operational:	1.5 in./hr (1.25 cm/hr)
	Survival:	3 in./hr (7.6 cm/hr)
Ice	Survival:	1 in. (2.5 cm) radial
		1.5 in. (1.25 cm) radial + 60 mph (100 km/h)

The 4.5m Prime Focus reflector consists of 16 draw die formed petals and achieves a .020 in. RMS surface accuracy. Radial beams are constructed of aluminum. The contoured petals and outboard skirts are powder coated for superior protection against the elements. Stainless steel hardware is included.



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