

MODEL

8.1-METER

KPC / KPK

C & KU-BAND

ANTENNA



The VertexRSI 8.1-Meter C-Band and Ku-Band antennas offer superior performance for receive only and transmit-receive worldwide applications. The standard pedestal configuration provides a cost-effective solution, meeting the travel range for most requirements. These antennas meet FCC Regulation 25.209, IESS (Intelsat), or ITU-RS Recommendation 580 sidelobe specification.

Model 8.1 KPC, for C-Band operation, and Model 8.1 KPK, for Ku-Band operation, incorporate stretch-formed, doubly contoured panels with matched radials and hub assemblies for ease of field assembly. The reflectors and Elevation/Azimuth kingpost pedestals provide the stiffness and pointing accuracy required for both C-Band and Ku-Band operation. These antennas are designed for full orbital arc coverage and are readily adaptable to ground or rooftop installations.

## Key Features

- All-Aluminum Reflector System
- High RF Performance
- Limited Motion Machine-Screw Jack Drive System
- Elevation over Azimuth Pedestal
- Galvanized Steel Finish
- Standard designs for many feed configurations and frequencies.

# Antenna Products

MODEL	Electrical	C-Band 4 Port Circular Polarized Feed		Ku-Band 4 Port Linear Polarized Feed	
		Receive	Transmit	Receive	Transmit
8.1-METER	Frequency (GHz)	3.625 - 4.200	5.850 - 6.425	10.95 - 12.75	14.00 - 14.50
	Antenna Gain at midband, dBi	49.2	53.1	58.2	59.8
KPC / KPK	VSWR	1.25:1	1.25:1	1.30:1	1.30:1
	Beamwidth (Typical)				
C & KU-BAND	-3 dB	0.59°	0.37°	0.19°	0.16°
	-15dB	1.24°	0.78°	0.40°	0.34°
ANTENNA	First Sidelobe Level (Typical)	-14 ±2 dB	-14 ±2 dB	-14 ±2 dB	-14 ±2 dB
	Sidelobe Performance	Meets ITU-RS 580 or FCC 25.209		Meets Eutelsat, ITU-RS 580 or FCC 25.209	
	Antenna Noise Temperature				
	5° Elevation	52° K		86° K	
	10° Elevation	43° K		71° K	
	20° Elevation	38° K		63° K	
	Axial Ratio	0.50 dB	0.50 dB		
	Power Handling (Total)		10 KW		2KW
	Cross Polarization (Min)				
	On Axis	30.7 dB	30.7 dB	35 dB	35 dB
	Within 1 dB BW	30.7 dB	30.7 dB	35 dB	35 dB
	Feed Port Isolation (Min)				
	Rx/Tx (Rx Freq)	0 dB	-30 dB	0 dB	-50 dB
	Tx/Rx (Tx Freq)	-30 dB	0 dB	-85 dB	0 dB
	Rx/Rx , Tx/Tx (Same Band)	21 dB	23 dB	30 dB	30 dB
	RF Specification	975-1045		975-1151	

## Options:

- Two or four port Tx/Rx, linear and circular polarized feeds
- Reflector and feed deicing, full reflector systems with manual or automatic controls
- Manual or motorized azimuth, elevation, and polarized drive systems with controls and readouts
- Extended Travel Pedestal (2-position, 200 degrees)

Mechanical		Environmental
Antenna Diameter	8.1 Meters (26.5 ft.)	Wind Loading @ 58° F
Antenna Type	Cassegrain	Operational 45 mph (72 km/h) gusting to 60 mph (97 km/h)
Reflector Construction	16 Panels, Stretch-Formed Aluminum Backup Structure	Survival 125 mph (200Kmh) @ 58° F (15° C)
Mount Type	Elevation over Azimuth	Temperature Range +5° F to +122° F (-15° C to +50° C)
Antenna Travel	Standard Extended	-22° F to +140° F (-30° C to +60° C)
Elevation	5°- 90° Continuous 0°- 90° Continuous	* Rain Up to 4 in. (10 cm) per hour
Azimuth	120° Continuous 200° in two 120° Segments	* Relative Humidity 0 to 100% with condensation
Shipping Volume	2,011 cu. ft. (57 m <sup>3</sup> )	* Solar Radiation 360 BTU/hr/ft <sup>2</sup> (1000 Kcal/h/m <sup>2</sup> )
Shipping Weight	10,880 lbs. (4,935 kg)	* Ice, Survival 1 in. (2.5 cm) radial
		* Shock and Vibration tolerant to conditions encountered during shipment by commercial air, sea, and land. Atmospheric tolerant to conditions encountered in coastal regions and/or heavily industrialized areas.

Visit <http://www.tripointglobal.com> for online information

\*Specifications subject to change without notice



2600 N. Longview Street • Kilgore, TX 75662 USA  
Tel: (903) 984-0555 • Fax: (903) 984-1826  
[www.tripointglobal.com](http://www.tripointglobal.com)

© Copyright 2000 VertexRSI, a TriPoint Global Company.  
All product specifications subject to change without notice.  
The VertexRSI logo is a trademark of TriPoint Global.

A (DS) 323  
06/00