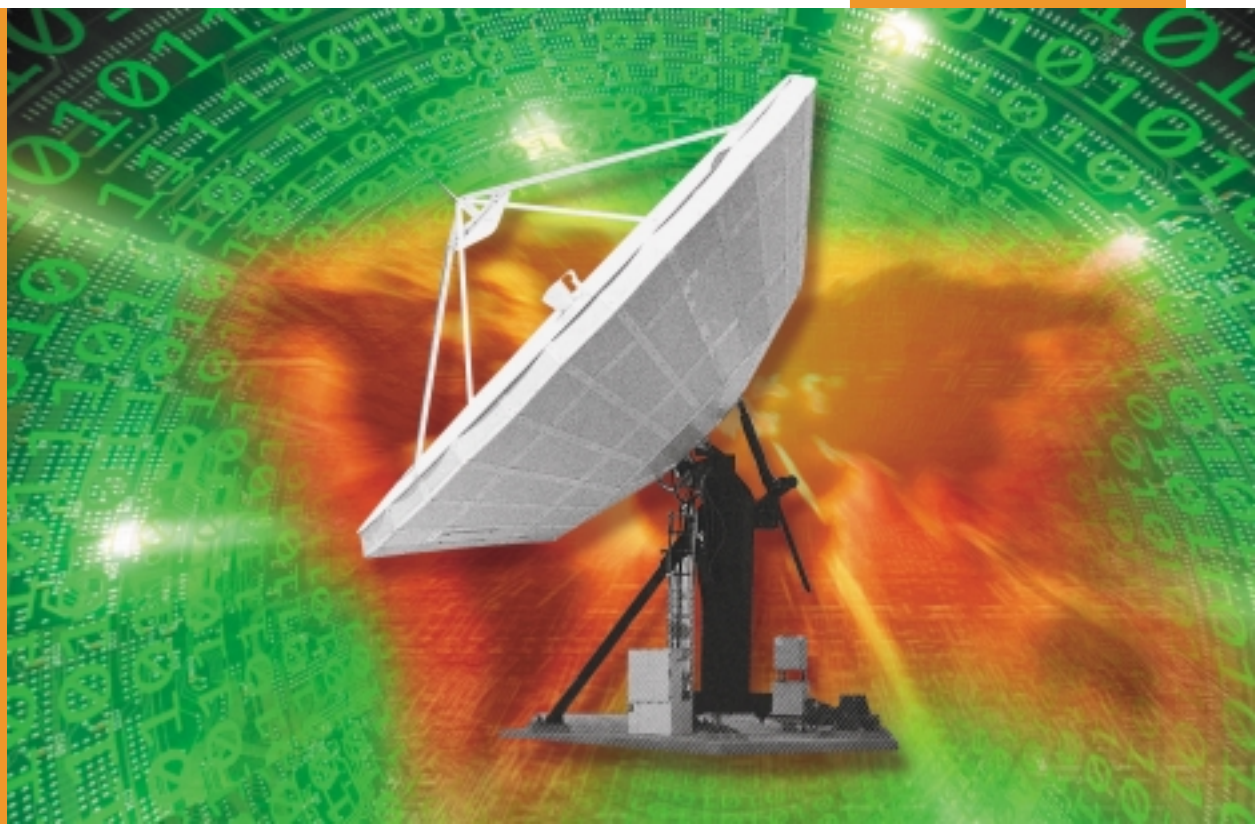
Vertex RSI™
A TriPoint Global Company

Antenna Products

MODEL 9-METER KPC & KPK C & KU-BAND KINGPOST



The VertexRSI 9-Meter C-band and Ku-band antennas offer superior performance for receive-only and transmit-receive worldwide applications.

Model 9 KPC (C-band) and 9 KPK (Ku-band) antennas incorporate stretch-formed, doubly contoured panels with matched radials and hub assemblies for ease of field alignment. The reflectors and elevation/azimuth kingpost pedestals provide the stiffness and pointing accuracy required for C-band and Ku-band operation. These antennas are designed for full orbital arc coverage and are readily adaptable to ground or rooftop installations.

The antennas meet FCC Regulation 25.209, EUTELSAT requirements for antenna pattern and polarization discrimination, and INTELSAT requirements as specified in associated IESS documents.

Key Features

- Two-port, three-port, four-port Rx/Tx linear and circular polarized feeds.
- Optional Reflector and feed de-icing systems with manual or automatic controls
- Manual or motorized azimuth, elevation and polarization drive systems with controls and readouts available
- Optional Steptrack control system with readouts
- Turnkey installations or installation assistance
- Extended Travel Pedestal Available

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Mechanical

Azimuth Travel	120° continuous (standard) 200° 2-Positions (extended travel option)
Azimuth Travel Rate (average)	0.35°/second C-Band; 0.2°/second Ku-Band *
ElevationTravel	5° to 90° Continuous (standard) 0° to 90° (extended travel option)
Elevation Travel Rate (average)	0.35°/second C-Band; 0.2°/second Ku-Band *
PolarizationTravel	±95° (2 port) / ±50° (4 port)
Polarization Travel Rate	1.5°/second
Weight - Reflector	4,200 pounds (1,905 kg)
Weight - Pedestal	3,200 pounds (1,450 kg)
Shipping Weight (Typical)	12,000 pounds (5,443 kg)
Shipping Volume	2,180 cubic feet (63 m^3)
Reflector Structure	Aluminum
Pedestal Structure	Steel
Finishes	
Reflector Surface	Aluminum panels with heat-diffusing white paint
Pedestal	Hot-dip galvanized
Surface Accuracy	0.020 inch (0.5 mm) (static)
Foundation Size	22 ft x 22 ft x 1.5 ft (6.7m x 6.7m x .046 m)
Concrete Volume	27 cubic yards (20.7 m^3)
Reinforcing Steel	3,360 pounds (1,524 kg)
Soil Bearing Pressure	2,000 PSF (10,000 kg/m^2)

Environmental

Operational Winds	45 mph (72 km/h); Gusts to 60 mph (97 km/h)
Survival Winds	125 mph (200 km/h) @ 58° F (15°C)
Ambient Temperature	Operational: +5° to 122° F (-15° to 50° C) Survival: -22° to 140° F (-30° to 60° C) Low temperature kits available
Rain (Operational and Survival)	Up to 4 in/h (10 cm/h)
Relative Humidity (Operational and Survival)	0% to 100% with condensation
Solar Radiation	360 BTU/h/ft^2 (1000 Kcal/h/m^2)
Radial Ice (Survival)	1 inch (2.5 cm) on all surfaces, or 1/2 inch (1.3 cm) on all surfaces with 80 mph (130 km/h) wind gusts
Shock and Vibration	As encountered during shipment by commercial air, sea, or land
Corrosive Atmosphere	As encountered in coastal regions and / or heavily industrialized areas
Seismic (Survival)	0.3 G's horizontal 0.1 G's vertical

* Optional Rates Available

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Electrical	C-Band 4-Port Circular Polarized Receive	Transmit	C-Band 4-Port Linear Polarized Receive	Transmit	Ku-Band 4-Port Linear Polarized Receive	Transmit
Frequency (GHz)	3.625-4.200	5.850-6.425	3.625-4.200	5.850-6.425	10.95-12.75	14.00-14.50
Antenna Gain at midband, dBi	49.9	53.7	49.9	53.7	58.6	60.1
Antenna Noise Temperature						
5° Elevation	52° K		50° K		86° K	
10° Elevation	43° K		40° K		72° K	
20° Elevation	37° K		35° K		63° K	
40° Elevation	35° K		33° K		60° K	
Typical G/T at midband, 20° Elevation, Clear Horizon						
C-band 35° K LNA	31.0 dB/ K		31.1dB/K			
K-band 70° K LNA					37.4 dB/K	
Pattern Beamwidth in Degrees at midband						
-3 dB	0.54	0.35	0.54	0.35	0.18	0.16
-15 dB	1.13	0.74	1.13	0.74	0.38	0.34
Sidelobe Performance	Meets FCC regulation 25.209 or ITU-RS 580 Specification		Meets FCC regulation 25.209 or or ITU-RS 580 Specification		Meets FCC regulation 25.209, ITU-RS 580 or EUTELSAT	
Cross Polarization Isolation						
On Axis	30.7 dB	30.7 dB	35.0 dB	35.0 dB	35.0 dB	35.0 dB
Within 1 dB Beamwidth	30.7 dB	30.7 dB	30.0 dB	30.0 dB	35.0 dB	35.0 dB
VSWR	1.25:1	1.25:1	1.25:1	1.25:1	1.30:1	1.30:1
Axial Ratio	0.50 dB	0.50 dB				
Port to Port Isolation						
Rx/Tx (Rx Freq)	0 dB	-30 dB	0 dB (input)	-30 dB	0 dB (Input)	-50 dB
Tx/Rx (Tx Freq)	-30 dB	0 dB	-30 dB	0 dB	-85 dB	0 dB
Rx/Rx, Tx/Tx (Same band)	21 dB	23 dB	30 dB	30 dB	35 dB	35 dB
Feed Insertion Loss	0.25 dB	0.20 dB	0.25 dB	0.20 dB	0.65 dB	0.50 dB
Waveguide Interface Flange	CPR-229G	CPR-159G	CPR-229G	CPR-159G	WR-75 Flat	WR-75 Flat
Total Power Handling Capability		10 kW CW		10 kW CW		2 kW CW
RF Specification	975-1642		975-1717		975-1157	

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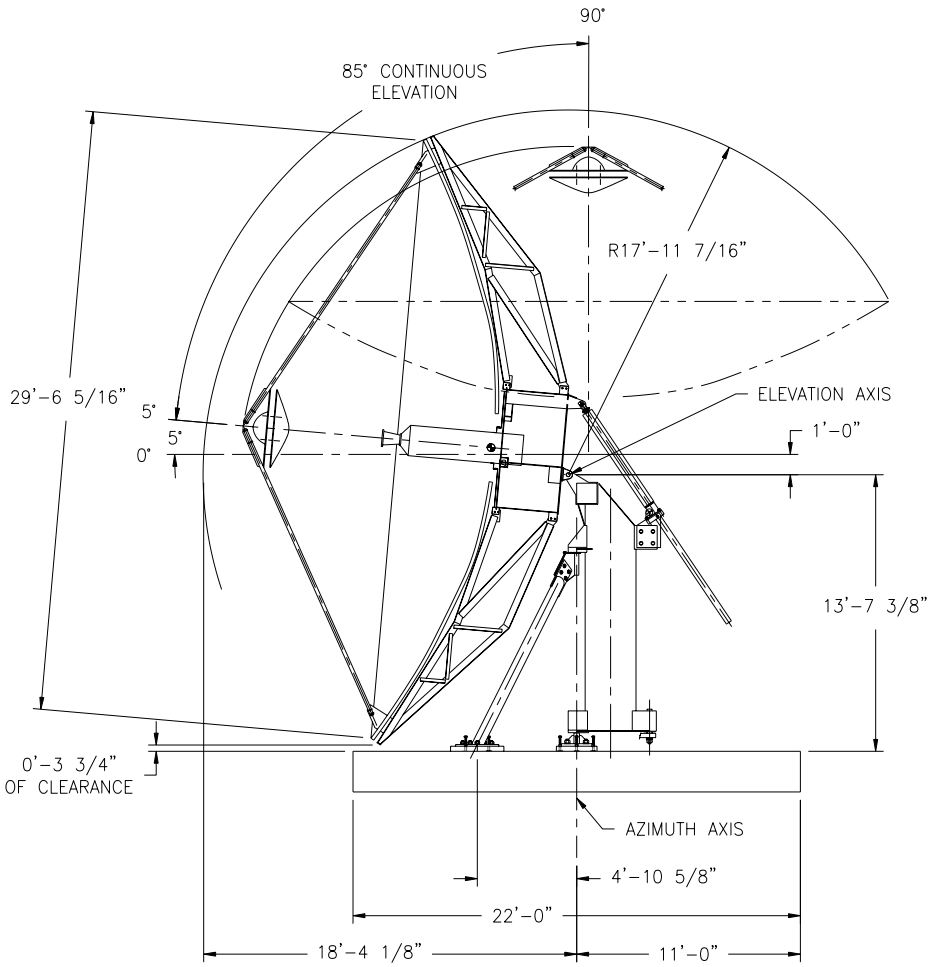

ANTENNA ASSEMBLY – SIDE VIEW

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