



MODEL

4.8-METER

KPC, KPX, KPK

C, X, KU-BAND

KINGPOST



The VertexRSI 4.8-Meter C, X, and Ku-band antenna delivers exceptional performance for receive-only and for transmit/ receive applications world-wide. Model 4.8 KPC/KPX/KPK Compact Cassegrain antennas feature all metal reflectors which incorporate doubly-contoured, formed panels with matched radials and hub assemblies for easy bolt-together installation with no field alignment required.

The extra large center hub provides spacious accommodation for equipment mounting. The reflectors, coupled with elevation/azimuth kingpost pedestals, provide the stiffness and pointing accuracy required for X-band and Ku-band operation.

The antennas are designed for full orbital arc coverage and are readily adaptable to ground or rooftop installations.

Key Features

- · "Bolt-Together" Configuration
- Meets FCC Regulation 25.209 (Ku-band)
- INTELSAT, ASIASAT, Sing Tel Type Approved
- Two/three/four/six-port feed options
- Anti-icing options available



Mechanical

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Azimuth Travel 120° Continuous Travel Azimuth Travel Rate 1*/sec. C/Ku-Band Elevation Travel Rate 0.9° sec. C/Ku-Band Polarization Travel Rate 0.9° sec. C/Ku-Band Polarization Travel Rate 1.5° / second Reflector Aluminum Pedestal Steel Finishes Reflector Surface Reflector Surface Aluminum Panels with heat-diffusing white paint Pedestal Hot-dip galvanized Weight Reflector Reflector 750 lbs. (340 kgs) Pedestal 800 lbs. (363 kgs) Shipping 2.800 lbs. (1,270 kg) Shipping Volume 445 cubic feet (12.6 m²) Surface Accuracy 0.020 inch (5 mm) Static Foundation Size 12.5 ftx 1.2.5 ftx 1.2.5 ft (3.81 m x 3.81 m x .38 m) Concrete Volume 7.25 cubic yards (5.5 m²) Reinforcing Steel 500 pounds (227 kg) Soil Bearing Pressure 2.000 PSF (10.000 kg/m²) Environmental Cperational Winds 45 mpl (72 km/h) Gusts to 60 mph (97 km/h) Survival Winds Any Position - 122" F (-15" to +50" C)		
ElevationTravel 0°-90° ElevationTravel Rate 0.9°/sec. C/Ku-Band PolarizationTravel ±95° (for 2-port feed) ±50° (for 4-port feed) Polarization Travel Rate 1.5° / second Reflector	Azimuth Travel	120° Continuous Travel
ElevationTravel Rate	Azimuth Travel Rate	1°/sec. C/Ku-Band
PolarizationTravel	ElevationTravel	0°-90°
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Relative Humidity 0% to 100% with Condensation		Survival: -22° to 140° F (-30° to +60° C)
,	Rain (Operational and Survival)	Up to 4 in/h (10cm/h)
Solar Radiation 360 BTU/h/ft² (1000 Kcal/h/m²)	Relative Humidity	0% to 100% with Condensation
	Solar Radiation	360 BTU/h/ft² (1000 Kcal/h/m²)
Radial Ice (Survival) 1 inch (2.5 cm) on all surfaces, 1/2 inch (1.3 cm) on all surfaces with 80 mph (130 km/h) wind gusts	Radial Ice (Survival)	
Shock and Vibration As encountered during shipment by commercial air, sea or truck	Shock and Vibration	As encountered during shipment by commercial air, sea or truck
Seismic (Survival) Mercalli X / 0.3 G's horizontal, 0.1 G's vertical	Seismic (Survival)	Mercalli X / 0.3 G's horizontal, 0.1 G's vertical

Antenna Products

Electrical	C-Band 2-Port Circular Polarized		Ku-Band 2-Po	Ku-Band 2-Port Linear Polarized		Ku-Band 4-Port Linear Polarized	
	Receive	Transmit	Receive	Transmit	Receive	Transmit	
Frequency (GHz)	3.625-	5.850-	10.95-	13.75-	10.95-	13.75-	
	4.200	6.425	12.75	14.50	12.75	14.50	
Antenna Gain at midband, dBi	44.0	48.1	53.4	54.9	53.5	55.2	
Antenna Noise Temperature							
5° Elevation	60° K		72 °K		80° K		
10° Elevation	57° K		50° K		67° K		
20° Elevation	47° K		37° K		58° K		
40° Elevation	43° K		28 °K		53° K		
Typical G/T at midband							
C-Band 35° K LNA	25.2 dB/K						
Ku-Band 70° K LNA			32.7 dB/K		32.4 dB/K		
Pattern Beamwidth							
-3 dB	1.14°	0.68°	0.34°	0.29°	0.34°	0.28°	
-15 dB	2.39°	1.43°	0.71°	0.61°	0.72°	0.59°	
Sidelobe Performance	Meets ITU-RS	Meets ITU-RS-580 Specifications		Meets FCC 25.209, Eutelsat		Meets Eutelsat or	
			or ITU-RS-580	or ITU-RS-580 Specifications		ITU-RS-580 Specifications	
Cross POL Isolation (within 1 dB)	19.7 dB	27.3 dB	35 dB	35 dB	35 dB	35 dB	
VSWR (max)	1.55:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	
Axial Ratio	1. 81 dB	0.75 dB					
Port to Port Isolation							
Rx/Tx (Rx Freq)	0 .0 dB	-60 dB	0 dB	-30 dB	0 dB	-50 dB	
Tx/Rx (Tx Freq)	-100 dB	0 dB	-30 dB	0 dB	-85 dB	0 dB	
Rx/Rx, Tx/Tx (Same Band)					30 dB	30 dB	
Feed Insertion Loss	0.40 dB	0.25 dB	0.45 dB	0.45 dB	0.55 dB	.40 dB	
Waveguide Interface Flange	CPR-229G	CPR-137G	WR-75 Flat	WR-75 Flat	WR-75 Flat	WR-75 Flat	
Total Power Handling Capability		2 KW		2 KW		2 KW	
RF Specification	975-2635B		975-2	975-2019E		975-2114	
Type Approval	INTE	INTELSAT		INTELSAT, ASIASAT, Sing Tel			

Antenna Products

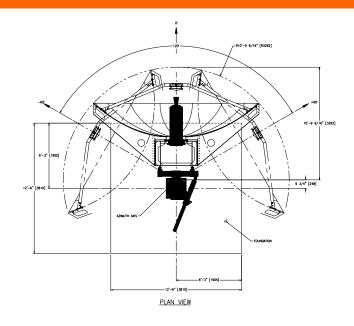
MODEL

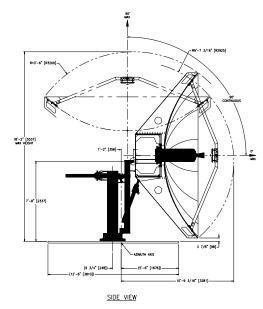
4.8-METER

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