

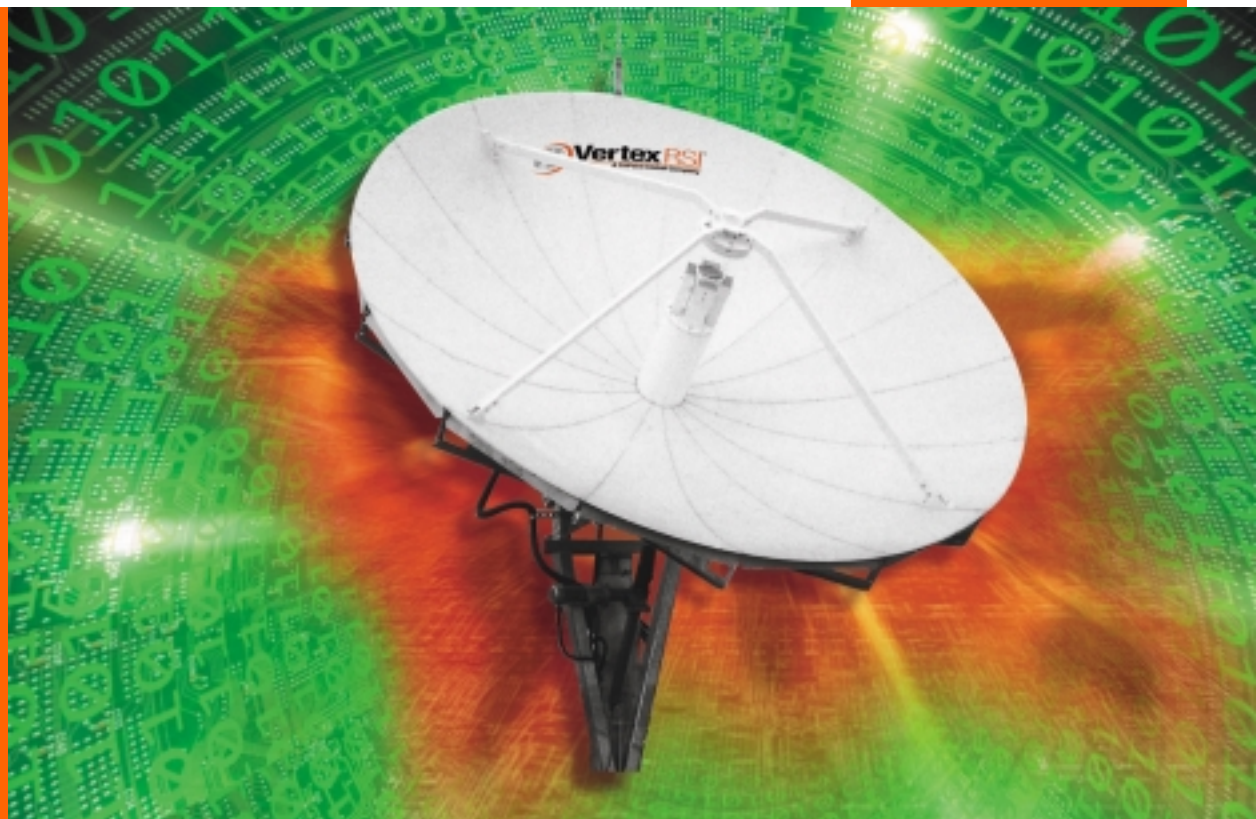
MODEL

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	0°- 90°
Elevation Travel Rate	0.9°/sec. C/Ku-Band
Polarization Travel	±95° (for 2-port feed) ±50° (for 4-port feed)
Polarization Travel Rate	1.5° / second
Reflector	Aluminum
Pedestal	Steel
Finishes	
Reflector Surface	Aluminum Panels with heat-diffusing white paint
Pedestal	Hot-dip galvanized
Weight	
Reflector	750 lbs. (340 kgs)
Pedestal	800 lbs. (363 kgs)
Shipping	2,800 lbs. (1,270 kg)
Shipping Volume	445 cubic feet (12.6 m ³)
Surface Accuracy	0.020 inch (.5 mm) Static
Foundation Size	12.5 ft x 12.5 ft x 1.25 ft (3.81 m x 3.81 m x .38 m)
Concrete Volume	7.25 cubic yards (5.5 m ³)
Reinforcing Steel	500 pounds (227 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	Any Position - 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)
Rain (Operational and Survival)	Up to 4 in/h (10cm/h)
Relative Humidity	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, 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 truck
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-Port Linear Polarized		Ku-Band 4-Port Linear Polarized	
	Receive	Transmit	Receive	Transmit	Receive	Transmit
Frequency (GHz)	3.625- 4.200	5.850- 6.425	10.95- 12.75	13.75- 14.50	10.95- 12.75	13.75- 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-580 Specifications		Meets FCC 25.209, Eutelsat or ITU-RS-580 Specifications		Meets Eutelsat or 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		975-2019E		975-2114	
Type Approval	INTELSAT		INTELSAT, ASIASAT, Sing Tel			

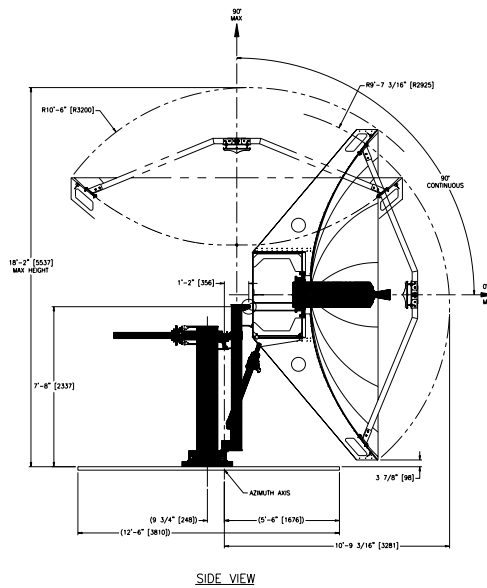
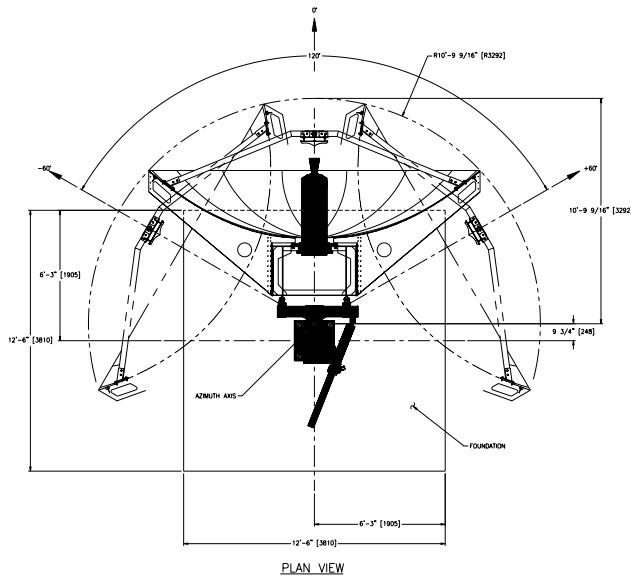
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