

MODEL

11-METER

KPC / KPK

C & KU-BAND

KINGPOST



The VertexRSI 11-Meter C-band and Ku-band antennas offer superior performance for a variety of applications such as broadcast uplinks, private networks, domestic satellite telephony/video networks and international INTELSAT Standard "B" Earth Stations.

Model 11 KPC (C-band) and 11 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.

Key Features

- Two port, three port, four port Rx/Tx linear and circular polarized feeds
- CP/LP switchable feeds
- Extended C-band feeds
- Full reflector and feed deicing systems with manual or automatic controls
- Monopulse, steptrack control and beacon receiver systems
- Turnkey installations or installation assistance

Mechanical

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Azimuth Travel	120° continuous (standard) 200° in two 110° segments (optional)
Azimuth Travel Rate	0.2° /second*
Elevation Travel	5° to 90° continuous (standard) 0° to 90° with 200° azimuth travel (optional)
Elevation Travel Rate	0.08° /second*
Polarization Travel	± 95° (Two ports) ± 50° (Four ports)
Polarization Travel Rate	1.0° /second
Weight - Reflector	14,100 pounds (6,396 kg)
Weight - Pedestal	8,000 pounds (3,629 kg)
Shipping Weight (Typical)	29,300 pounds (13,290 kg)
Shipping Volume	4,520 cubic feet (128m ³)
Reflector Structure	Steel
Pedestal Structure	Steel
Finishes	
Reflector Surface	Aluminum panels with heat-diffusing white paint
Pedestal & Reflector Backup Structure	Hot-dipped galvanized steel
Surface Accuracy	0.025 inch (0.64 mm) Static
Foundation Size	24 ft x 24 ft x 2 ft (7.3 m x 7.3 m x 0.6 m)
Concrete Volume	43 cubic yards (32.9m ³)
Reinforcing Steel	6,000 pounds (2,721 kg)
Soil Bearing Pressure	3,000 PSF (15,000 kg/m ²)
Environmental	
Operational Winds	45 mph (72 km/h); gusts to 60 mph (97 km/h)
Survival Winds	125 mph (200km/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 (10cm/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 truck
Corrosive Atmosphere	As encountered in coastal regions and / or heavily industrialized areas
Seismic (Survival)	0.3 G's horizontal 0.1 G's vertical

Antenna Products

Electrical	C-Band 4-Port		C-Band 4-Port		Ku_Band4-Port	
	Circular Receive	Polarized Transmit	Linear Receive	Polarized Transmit	Linear Receive	Polarized Transmit
Frequency in (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	51.8	55.5	51.8	55.7	60.5	61.9
Antenna Noise Temperature						
5° Elevation	55° K		53°K		87° K	
10° Elevation	46° K		44° K		74° K	
20° Elevation	40° K		38° K		65°K	
40° Elevation	38° K		36° K		61° K	
Typical G/T at midband, 20° Elevation, Clear Horizon						
C-Band 35 K LNA	32.7° dB/K		32.8°dB/K			
Ku-Band 70 K LNA					39.2 dB/ K	
Pattern Beamwidth in Degrees at midband						
-3 dB	0.44	0.28	0.44	0.28		
-15 dB	0.92	0.59	0.92	0.59	0.15	0.12
Sidelobes						
First sidelobe level	-15 ± 2dB		-15 ± 2dB		-14 ± 2dB	
Meets FCC 25.209, Asiasat or ITU-RS 580 specs.						
Cross Polarization Isolation						
On Axis	30.7dB	30.7dB	35 dB	35 dB	35 dB	35 dB
within 1 dB Beamwidth	30.7 dB	30.7dB	30 dB	30 dB	35 dB	35 dB
VSWR	1.25:1	1.25:1	1.25:1	1.25:1	1.30:1	1.30:1
Feed Insertion or Ohmic Loss	0.30 dB	0.25 dB	0.30dB	0.25dB	0.70dB	0.70 dB
Port to Port Isolation						
Rx/Tx (Rx Freq)	0 dB	-30.0 dB	0 dB	-30.0 dB	0 dB	-50.0 dB
Tx/Rx (Tx Freq)	-30.0 dB	0 dB	-30.0 dB	0 dB	-85.0 dB	0 dB
Rx/Rx, Tx/Tx (Same Band)	21 dB	23 dB	30.0 dB	30.0 dB	30.0 dB	30 dB
Axial Ratio (Voltage Axial Ratio)	0.50dB (1.06)	0.50dB (1.06)				
Feed Interfaces	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	975-1058		975-1276		975-1163	

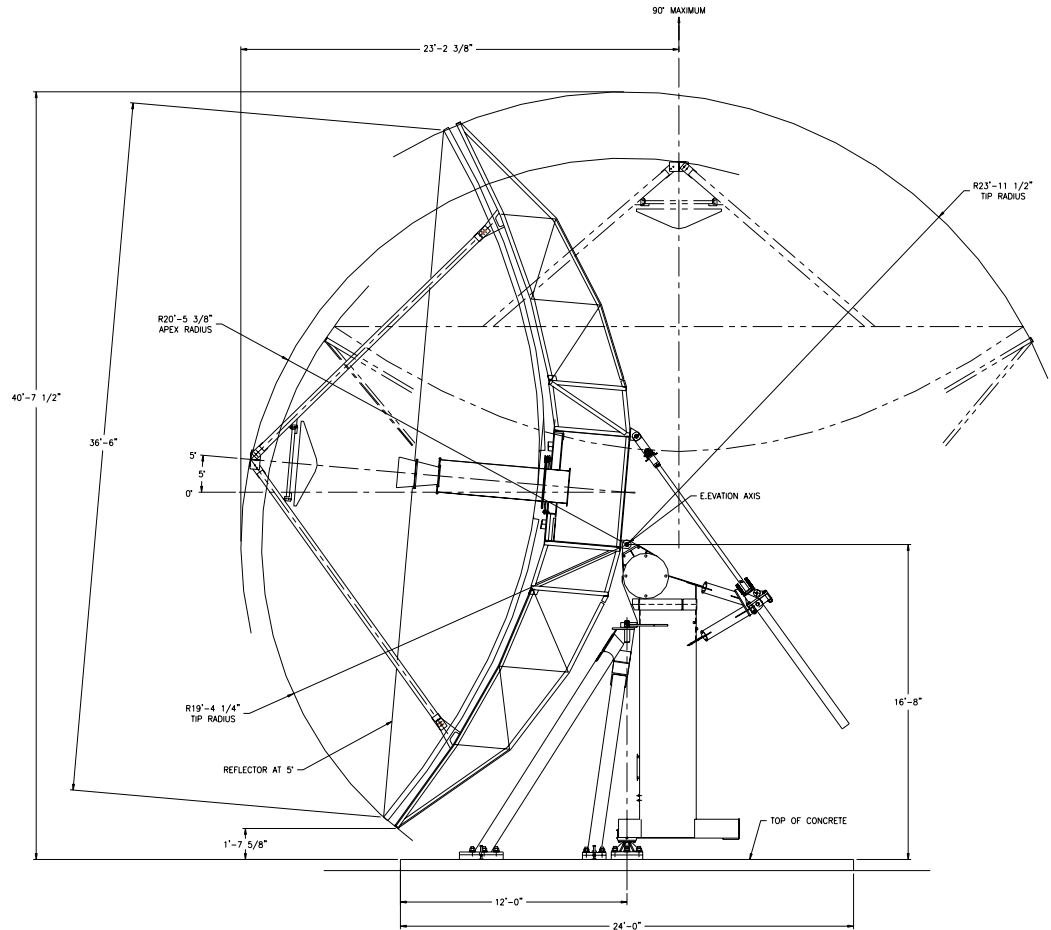
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SIDE ELEVATION



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