



VERTEX 7.2-METER

MODEL 7.2 KXC & KXK (Kingpost Pedestal)

C - B A N D & K U - B A N D



EARTH STATION ANTENNAS

Vertex developed the 7.2-Meter C-band and Ku-band antennas to offer superior performance for receive-only and transmit/receive worldwide applications.

Model 7.2 KXC (C-band) and 7.2 KXK (Ku-band) antennas incorporate stretch formed, doubly contoured panels with matched radials and hub assemblies for ease of field assembly. The reflectors and azimuth/elevation 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.

Options:

- Two port, three port, and 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 polarization drive systems with controls and readouts
- Step track control systems with readouts
- Turnkey installations or installation assistance
- Extended Azimuth Travel Pedestal System 200°-2 positions

VERTEX ANTENNA DIVISION

2600 LONGVIEW ST. • P.O. BOX 1277 • KILGORE, TX 75663 • TEL 903-984-0555 • FAX 903-984-1826 • EMAIL: vertexvadmktg@kilgore.net

7.2-METER KXC/KXK MECHANICAL SPECIFICATIONS	
Azimuth Travel	120° continuous (standard) 200° 2-positions (optional)
Azimuth Travel Rate	.45°/sec.*
Elevation Travel	0° to 90° continuous
Elevation Travel Rate	.45°/sec.*
Polarization Travel	±95° (Two ports) ±50° (Four ports)
Polarization Travel Rate	1.5°/second
Weight - Reflector	2,200 pounds (1000 kg)
Weight - Pedestal	2,000 pounds (907 kg)
Shipping Weight (Typical)	8,721 pounds (3,956 kg)
Shipping Volume	1,369 cubic feet (38.8 m ³)
Reflector Structure	Aluminum
Pedestal Structure	Steel
Finishes Reflector Surface Pedestal	Aluminum panels with heat-diffusing white paint Hot-dip galvanized
Surface Accuracy	0.020 inch (.5 mm) Static
Foundation Size	16.5 ft x 16.5 ft x 2.0 ft (5.0 m x 5.0 m x 0.61 m)
Concrete Volume	20.2 cubic yards (15.5 m ³)
Reinforcing Steel	1,980 pounds (900 kg)
Soil Bearing Pressure	2,000 PSF (10,000 kg/m ²)

* Optional Rates Available

7.2-METER KXC/KXK ENVIRONMENTAL SPECIFICATIONS	
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 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

NOTE: This document gives a description of only the prominent features of the product(s). Vertex reserves the right to change the specifications without notice.

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7.2-METER KXC/KXK CASSEGRAIN R.F. SPECIFICATIONS	C-BAND 4-PORT CIRCULARLY POL FEED		KU-BAND 2-PORT LINEARLY POL FEED	
	RECEIVE	TRANSMIT	RECEIVE	TRANSMIT
Frequency in GHz*	3.625-4.200	5.850-6.425	10.95-12.75	14.00-14.50
Antenna Gain 3.625/5.850 GHz 3.912/6.138 GHz 4.200/6.425 GHz 10.950/14.000 GHz 11.850/14.250 GHz 12.750/14.500 GHz	47.1 dB 47.7 dB 48.3 dB	51.1 dB 51.4 dB 51.7 dB	56.3 dB 57.0 dB 57.5 dB	58.3 dB 58.4 dB 58.5 dB
Antenna Noise Temperature 5° Elevation 10° Elevation 20° Elevation 40° Elevation	52°K 41°K 34°K 30°K		69°K 52°K 42°K 37°K	
Typical G/T at 20° Elevation, 3.912 GHz, Clear Horizon with 35°K LNA with 50°K LNA	28.9 dB/K 28.2 dB/K			
Typical G/T at 20° Elevation, 11.850 GHz, Clear Horizon with 90°K LNA with 120°K LNA			35.5 dB/K 34.6 dB/K	
Pattern Beamwidth in Degrees at 3.912/6.138 GHz - 3 dB - 15 dB	<0.71 <1.49	<0.45 <0.95		
Pattern Beamwidth in Degrees at 11.850/14.250 GHz - 3 dB - 15 dB			<0.23 <0.49	<0.19 <0.41
Sidelobes First Sidelobe Level across the Band Beyond First Sidelobe Meets FCC Regulation 25.209, IESS (Intelsat) or CCIR Recommendation 580 Sidelobe Specification	-14±2 dB			
Cross Polarization Isolation on Axis within 1 dB Beamwidth	30.7 dB 30.7 dB	30.7 dB 30.7 dB	35.0 dB 35.0 dB	35.0 dB 35.0 dB
VSWR	1.25:1	1.25:1	1.25:1	1.25:1
Feed Insertion or Ohmic Loss	0.15 dB	0.20 dB	0.30 dB	0.30 dB
Receive-to-Receive Port Isolation	21.0 dB			
Transmit-to-Transmit Port Isolation		23.0 dB		
Transmit-to-Receive Isolation	30.0 dB	30.0 dB	30.0 dB	30.0 dB
Axial Ratio (Voltage Axial Ratio)	0.50dB (1.06)	0.50dB (1.06)		
Feed Interfaces	CPR-229G	CPR-159G	WR-75 Flat	WR-75 Flat
Total Power Handling Capability**		10 kW CW		2 kW CW

* Other Operational Frequencies Available

** Power handling capability is based on and limited by the physical characteristics in the feed components.
Microwave power at these levels may contribute to radiation hazard or exceed certain off-axis e.i.r.p. specifications.

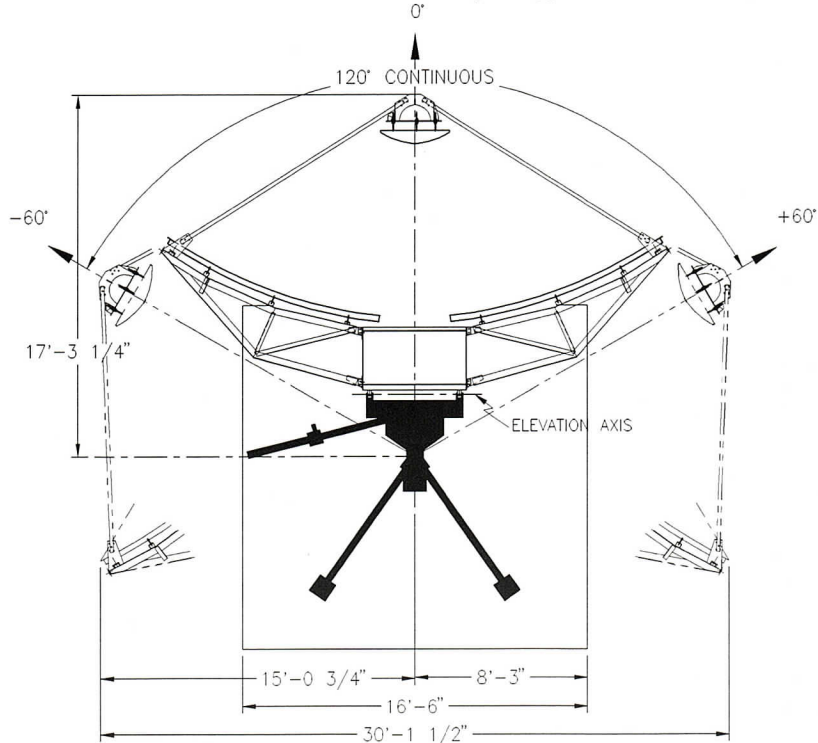
NOTE: All values are at the rear feed output flange.

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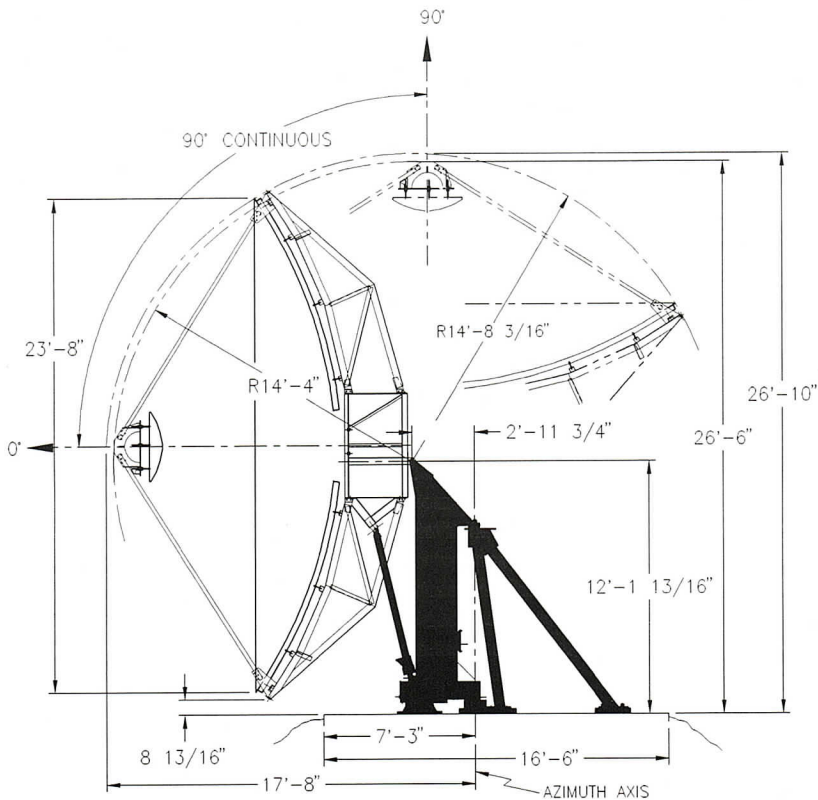
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VERTEX 7.2-METER

MODEL 7.2 KXC & KXX (Kingpost Pedestal)



PLAN VIEW



SIDE ELEVATION

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