

The Kathrein K523221 directional broadband panel antenna is intended for use in professional fixed-station applications in the 146–174 MHz band. It features:

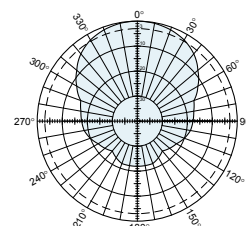
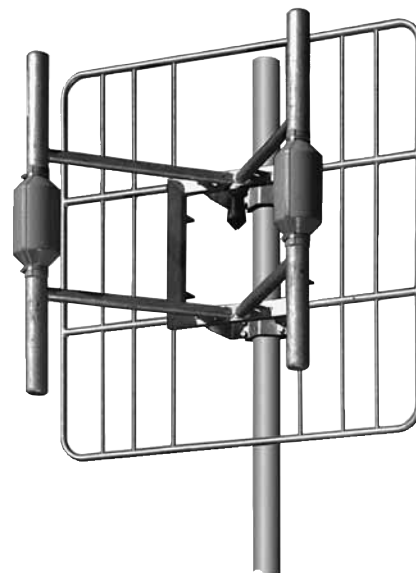
- Heavy-duty construction.
- Excellent bandwidth, VSWR of 1.15:1 across the band, with no field adjustment.
- Hot-dip galvanized steel panel assembly.
- Radiating elements protected with fiberglass radomes.
- Horizontal or vertical polarization.
- Multiple panels may be configured to meet a variety of radiation pattern requirements.
- Stainless steel hardware throughout.

Specifications:

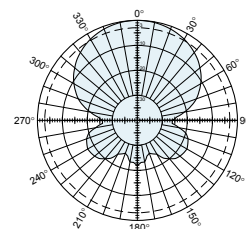
Frequency range	146–174 MHz (broadband)
Gain	10 dBi
Impedance	50 ohms
VSWR	<1.15:1
Polarization	Horizontal or vertical
Front-to-back ratio	>20 dB
Maximum input power	1100 watts (at 50°)
H-plane beamwidth	65 degrees (half-power)
E-plane beamwidth	58 degrees (half-power)
Connector	N female
Weight	55.1 lb (25 kg)
Dimensions	52 x 52 x 26.5 inches (1320 x 1320 x 510 mm)
Wind load	at 93 mph (150kph) 135 lbf / 600 N
Wind survival rating*	130 mph (220 kph)
Shipping dimensions	55.1 x 55.1 x 29.5 inches (1400 x 1400 x 750 mm)
Shipping weight	85 lb (38.6 kg)
Mounting	A mounting kit is available for masts of 2.375 to 4.5 inches (60 to 115 mm) OD.

See reverse for order information.

* Mechanical design is based on environmental conditions as stipulated in EIA-222-F (June 1996) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.



H-plane
Horizontal pattern – V-polarization
Vertical pattern – H-polarization

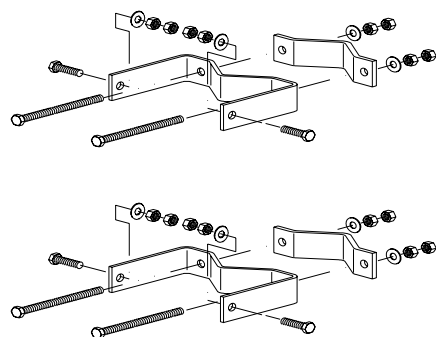


E-plane
Horizontal pattern – H-polarization
Vertical pattern – V-polarization



10228-D
936.058a

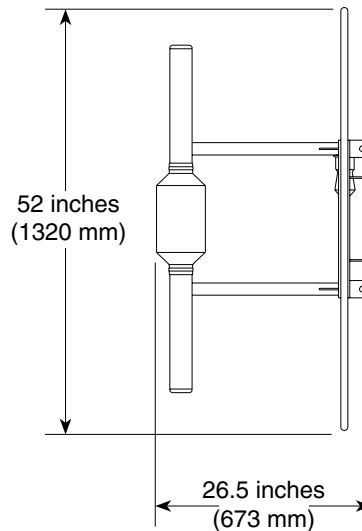
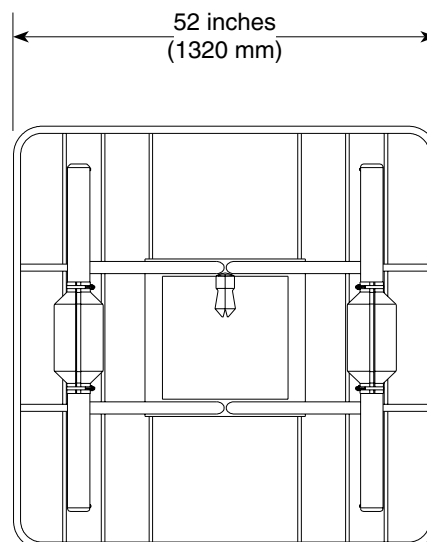




K61120 Mounting Kit

Mounting Options:

Model	Description
K61120	Mounting kit for 2.375 to 4.5 inch (60 to 115 mm) OD mast.



(Shown vertically polarized)

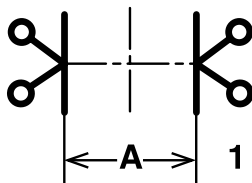
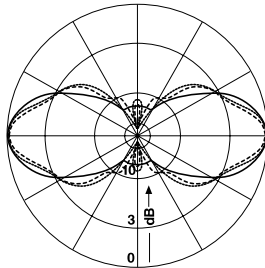
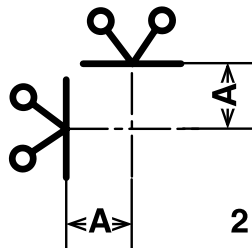
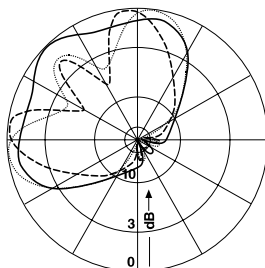
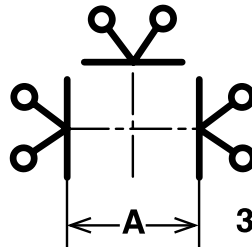
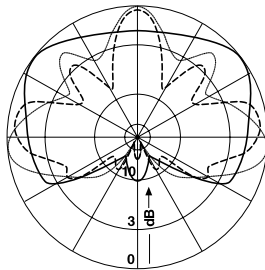
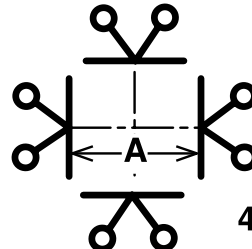
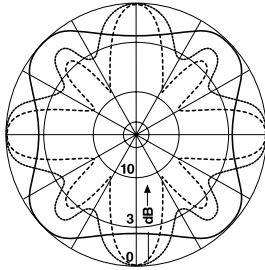
Order Information:

Model	Description
K523221	Panel antenna with N connector

All specifications are subject to change without notice. The latest specifications are available at www.kathrein-scala.com.

Kathrein Inc., Scala Division Post Office Box 4580 Medford, OR 97501 (USA) Phone: (541) 779-6500 Fax: (541) 779-3991
Email: communications@kathrein.com Internet: www.kathrein-scala.com

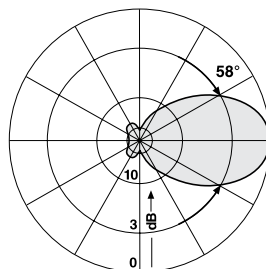
Examples for radiation patterns at 160 MHz

Arrangement	Horizontal T Radiation Pattern	Technical Data																	
		<table><tr><th>Spacing A</th><th colspan="2">100 % rel. field strength corresponds to a gain* of</th></tr><tr><td>———— 1.64 ft</td><td>1 bay</td><td>2 bays</td></tr><tr><td>..... 6.56 ft</td><td>5.4 dB</td><td>8.4 dB</td></tr><tr><td>----- 13.12 ft</td><td>5.2 dB</td><td>8.2 dB</td></tr><tr><td></td><td>5.4 dB</td><td>8.4 dB</td></tr></table>	Spacing A	100 % rel. field strength corresponds to a gain* of		———— 1.64 ft	1 bay	2 bays 6.56 ft	5.4 dB	8.4 dB	----- 13.12 ft	5.2 dB	8.2 dB		5.4 dB	8.4 dB	<p>Required components with conn. N female (without mounting kits): 2 antennas K523221, 2 junction cables, 1 power divider K625521</p>	
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		<table><tr><th>Spacing A</th><th colspan="2">100 % rel. field strength corresponds to a gain* of</th></tr><tr><td>———— 2.3 ft</td><td>1 bay</td><td>2 bays</td></tr><tr><td>..... 4.59 ft</td><td>4.8 dB</td><td>7.8 dB</td></tr><tr><td>----- 6.56 ft</td><td>5.5 dB</td><td>8.5 dB</td></tr><tr><td></td><td>6.1 dB</td><td>9.1 dB</td></tr></table>	Spacing A	100 % rel. field strength corresponds to a gain* of		———— 2.3 ft	1 bay	2 bays 4.59 ft	4.8 dB	7.8 dB	----- 6.56 ft	5.5 dB	8.5 dB		6.1 dB	9.1 dB	<p>Required components with conn. N female (without mounting kits): 2 antennas K523221, 2 junction cables, 1 power divider K625521</p>	
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	4.0 dB	7.0 dB																	

* ref. $\lambda/2$ dipole

**Vertical Radiation
Pattern of the
Arrangements 1,2,3
and 4**

1 Bay



**Vertical Radiation
Pattern of the
Arrangements 1,2,3
and 4**

**2 Bays
(Vertical spacing
 $0.96 \lambda = 1.8 \text{ m}$)**

