

**65° Dualband Directional Antenna
with Integrated Combiner**

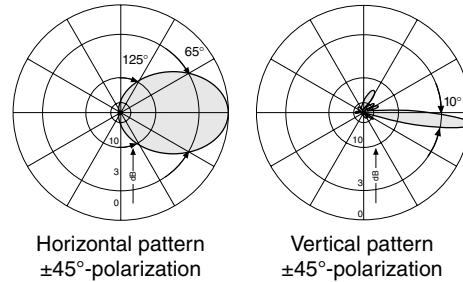
Kathrein's dual band antennas are ready for 3G applications, covering all existing wireless bands as well as all spectrum under consideration for future systems, AMPS, PCS and 3G/UMTS. These cross-polarized antennas offer diversity operation in the same space as a conventional 800 MHz antenna, and are mountable on our compact sector brackets

- Wide band operation.
- Exceptional intermodulation characteristics.
- Various gain, beamwidth and downtilt ranges.
- High strength pultruded fiberglass radome.
- Integrated combiner reduces RF feedline requirements from 4 to 2.

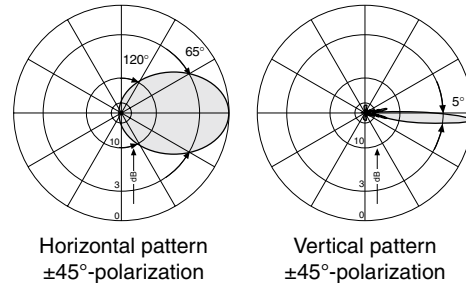
General specifications:

Frequency range	824–960 MHz 1710–2180 MHz
Impedance	50 ohms
VSWR	<1.5:1
Intermodulation (2x20w)	IM3: <-150 dBc
Polarization	+45° and -45°
Connector	2 x 7/16 DIN female
Isolation intrasystem	>30 dB
Weight	50.7 lb (23 kg)
Dimensions	99.1 x 10.3 x 7.5 inches (1916 x 262 x 192 mm)
Equivalent flat plate area	6.16 ft ² (0.572 m ²)
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	87.7 x 11.9 x 7.6 inches (2227 x 302 x 192 mm)
Shipping weight	61.7 lb (28 kg)
Mounting	Fixed and tilt mount options are available for 2 to 4.6 inch (50 to 115 mm) OD masts.
<i>See reverse for order information.</i>	
Integrated combiner	The insertion loss is included in the given antenna gain values.

824–960 MHz



1710–2180 MHz



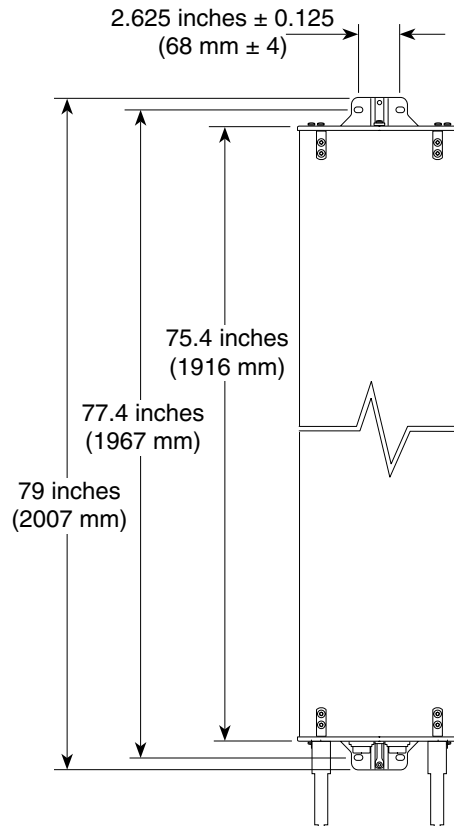
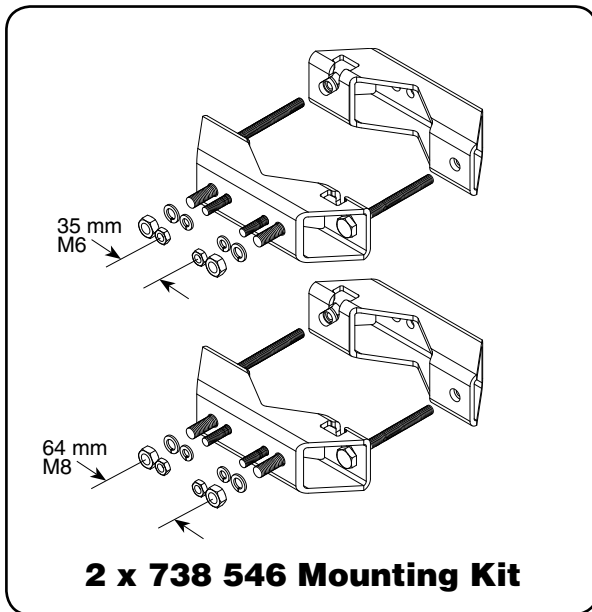
Specifications:	824–894 MHz	880–960 MHz	1710–1880 MHz	1850–1990 MHz	1900–2180 MHz
Gain	15.5 dBi	16 dBi	17.8 dBi	18.2 dBi	18.3 dBi
Front-to-back ratio	>27 dB (co-polar)	>25 dB (co-polar)	>25 dB (co-polar)	>25 dB (co-polar)	>25 dB (co-polar)
+45° and -45° polarization horizontal beamwidth	68° (half-power)	65° (half-power)	66° (half-power)	65° (half-power)	63° (half-power)
+45° and -45° polarization vertical beamwidth	10.5° (half-power)	10° (half-power)	5.2° (half-power)	5° (half-power)	4.7° (half-power)
Electrical downtilt continuously adjustable	0.5°–9.5° (manual or optional remote control)	0.5°–9.5°	0°–6°	0°–6°	0°–6°
Sidelobe suppression for first sidelobe above main beam	0° 5° 10° T 16 16 17 dB	0° 5° 10° T 18 18 18 dB	0° 3° 6° T 15 15 15 dB	0° 3° 6° T 15 15 15 dB	0° 3° 6° T 16 16 15 dB
Cross polar ratio					
Main direction	0°	0°	16 dB (typical)	18 dB (typical)	20 dB (typical)
Sector	±60°	±60°	>10 dB	>10 dB	>10 dB
Maximum input power (at 50°C) per input	250 watts (824–960 MHz)		200 watts (1710–2180 MHz)		
combined input	450 watts (824–960 MHz and 1710–2180 MHz)				



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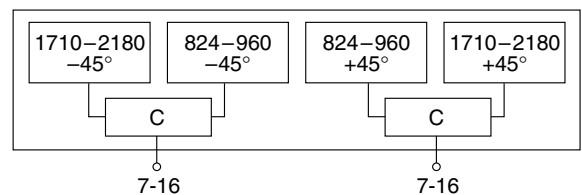
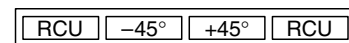
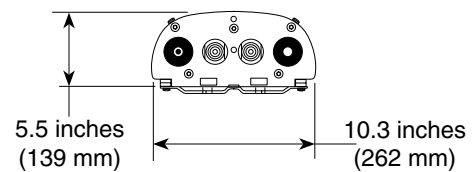
* Mechanical design is based on environmental conditions as stipulated in EIA-222-F (June 1996) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

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Mounting Options:

Model	Description
2 x 738 546	Mounting Kit for 2 to 4.6 inch (50 to 115 mm) OD mast.
737 978	Tilt Mount Kit 0–11 degrees downtilt angle.



Order Information:

Model	Description
742 224	Antenna with 7/16 DIN connectors

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

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