

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

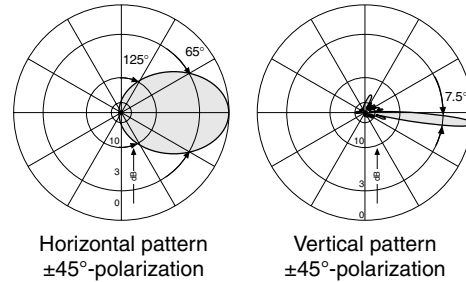
Kathrein's dual band antennas are ready for 3G applications, covering all existing wireless bands as well as all spectrum under consideration for future systems, AMPS, PCS and 3G/UMTS. These cross-polarized antennas offer diversity operation in the same space as a conventional 800 MHz antenna, and are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

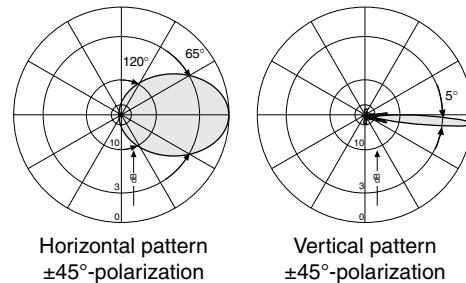
**General specifications:**

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	57.3 lb (26 kg)
Dimensions	99.1 x 10.3 x 7.5 inches (2516 x 262 x 192 mm)
Equivalent flat plate area	8.27 ft <sup>2</sup> (0.7.68 m <sup>2</sup> )
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	111.3 x 11.9 x 7.6 inches (2826 x 302 x 192 mm)
Shipping weight	68.3 lb (31 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**



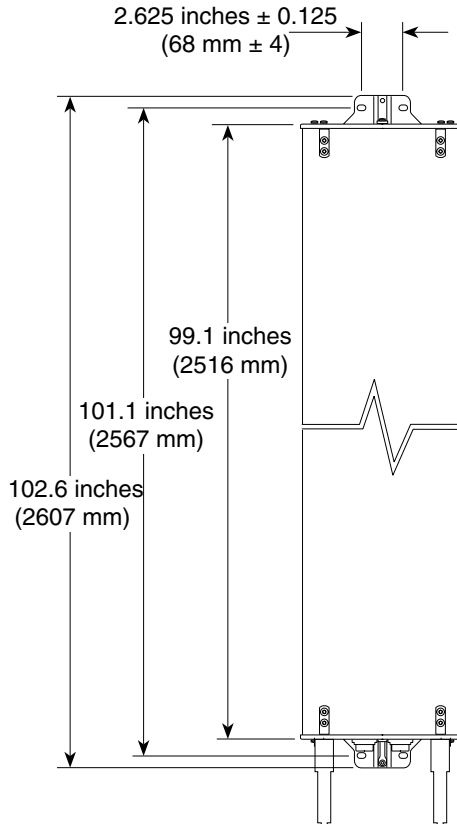
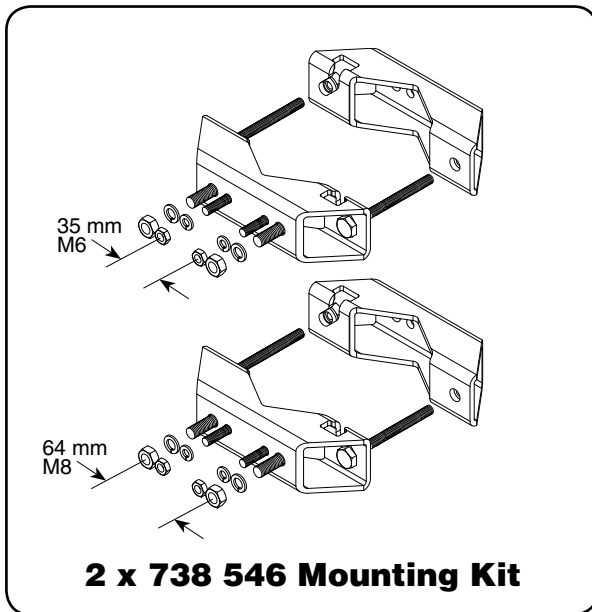
Specifications:	824–894 MHz	880–960 MHz	1710–1880 MHz	1850–1990 MHz	1900–2180 MHz
Gain	16.5 dBi	17 dBi	17.8 dBi	18.2 dBi	18.5 dBi
Front-to-back ratio	>28 dB (co-polar)	>28 dB (co-polar)	>25 dB (co-polar)	>25 dB (co-polar)	>25 dB (co-polar)
+45° and -45° polarization horizontal beamwidth	68° (half-power)	65° (half-power)	66° (half-power)	65° (half-power)	63° (half-power)
+45° and -45° polarization vertical beamwidth	8.1° (half-power)	7.5° (half-power)	5.2° (half-power)	5.0° (half-power)	4.7° (half-power)
Electrical downtilt continuously adjustable	0.5°–7° (manual or optional remote control)	0.5°–7°	0°–6°	0°–6°	0°–6°
Sidelobe suppression for first sidelobe above main beam	0° 4° 7° T 16 16 14 dB	0° 4° 7° T 16 16 14 dB	0° 3° 6° T 15 16 16 dB	0° 3° 6° T 16 16 15 dB	0° 3° 6° T 16 16 15 dB
Cross polar ratio					
Main direction	0°	20 dB (typical)	16 dB (typical)	18 dB (typical)	20 dB (typical)
Sector	±60°	>10 dB	>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)				



\* 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.

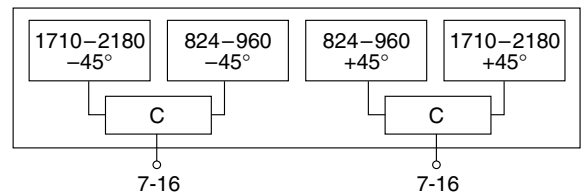
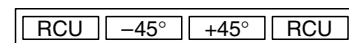
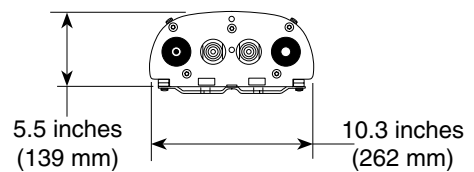
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**Mounting Options:**

Model	Description
2 x 738 546	Mounting Kit for 2 to 4.6 inch (50 to 115 mm) OD mast.
850 10007	Tilt Mount Kit 0–8 degrees downtilt angle.



**Order Information:**

Model	Description
742 225	Antenna with 7/16 DIN connectors

All specifications are subject to change without notice. The latest specifications are available at [www.kathrein-scala.com](http://www.kathrein-scala.com).