

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

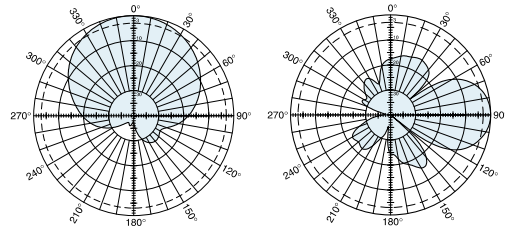
- Wide band operation.
- Exceptional intermodulation characteristics.
- Various gain, beamwidth and downtilt ranges.
- High strength pultruded fiberglass radome.
- Integrated combiner reduces RF feedline requirements from 4 to 2.

General specifications:

Frequency range	806–960 MHz 1710–2170 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	15.9 lb (7.2 kg)
Dimensions	22.8 x 10.3 x 5.5 inches (579 x 262 x 139 mm)
Equivalent flat plate area	1.93 ft ² (0.179 m ²)
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	29 x 11.9 x 7.6 inches (736 x 302 x 192 mm)
Shipping weight	19.2 lb (8.7 kg)
Mounting	Fixed and tilt mount options are available for 2 to 4.6 inch (50 to 115 mm) OD masts.

See reverse for order information.

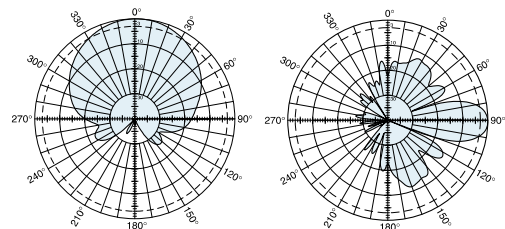
806–960 MHz



Horizontal pattern
±45°-polarization

Vertical pattern
±45°-polarization

1710–2170 MHz



Horizontal pattern
±45°-polarization

Vertical pattern
±45°-polarization



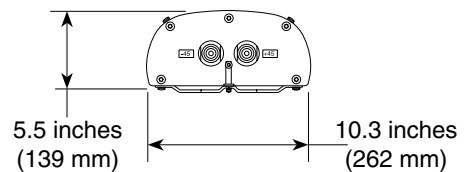
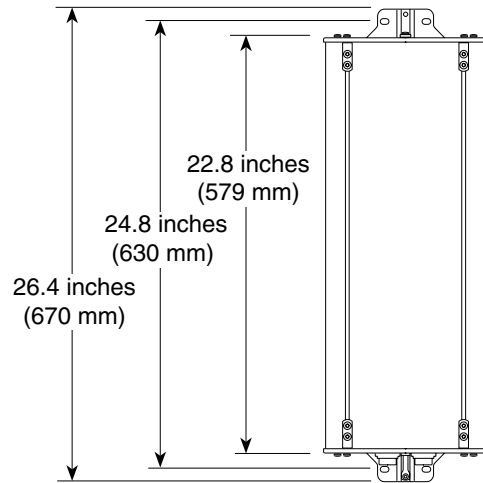
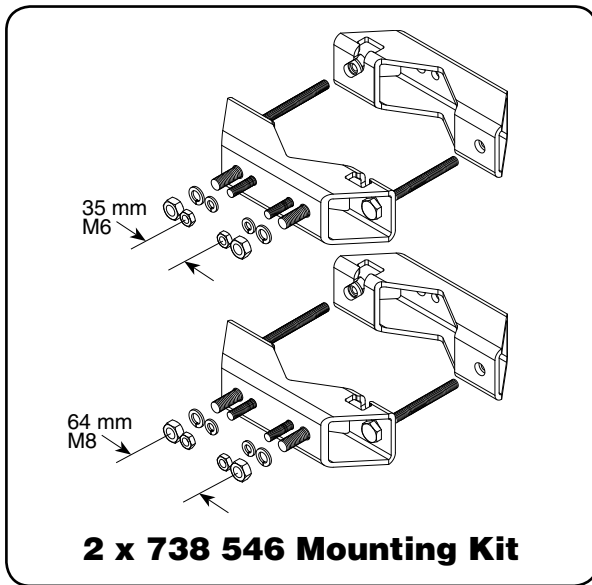
Specifications:	806–866 MHz	824–894 MHz	880–960 MHz	1710–1880 MHz	1850–1990 MHz	1920–2170 MHz
Gain*	11.1 dBi	11.4 dBi	11.8 dBi	12.5 dBi	13.3 dBi	13.6 dBi
Front-to-back ratio (180° ± 30°)	>23 dB (co-polar) >20 dB (total power)	>23 dB (co-polar) >20 dB (total power)	>25 dB (co-polar) >22 dB (total power)	>25 dB (co-polar) >22 dB (total power)	>25 dB (co-polar) >22 dB (total power)	>25 dB (co-polar) >22 dB (total power)
Maximum input power	250 watts (at 50°C)	250 watts (at 50°C)	250 watts (at 50°C)	200 watts (at 50°C)	200 watts (at 50°C)	200 watts (at 50°C)
Maximum combined power	450 watts per input (at 50°C)					
+45° and -45° polarization horizontal beamwidth	67° (half-power)	66° (half-power)	64° (half-power)	66° (half-power)	60° (half-power)	60° (half-power)
+45° and -45° polarization vertical beamwidth	34° (half-power)	33° (half-power)	30° (half-power)	20° (half-power)	18° (half-power)	17.5° (half-power)
Cross polar ratio						
Main direction	0°	0°	0°	0°	0°	0°
Sector	±60°	±60°	±60°	±60°	±60°	±60°
Integrated combiner	*The insertion loss is included in the given antenna gain values					

* 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.



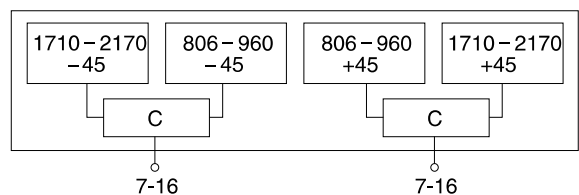
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with Integrated Combiner**



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 Kit for use with the 2 x 738 546 mounting kit 0–34 degrees downtilt angle.



Order Information:

Model	Description
742 222	Antenna with 7/16 DIN connectors

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