

**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

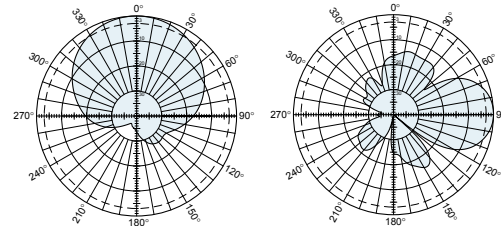
- Wide band operation.
- Exceptional intermodulation characteristics.
- Various gain, beamwidth and downtilt ranges.
- High strength pultruded fiberglass radome.
- Integrated combiner reduces RF feedline requirements from 4 to 2.

**General specifications:**

Frequency range	790–960 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	16.5 lb (7.5 kg) 20.9 lb (9.5 kg) clamps included
Dimensions	22.8 x 10.3 x 5.5 inches (579 x 262 x 139 mm)
Wind load Front/Side/Rear	at 93 mph (150kph) 45 lbf / 21 lbf / 57 lbf (200 N) / (90 N) / (250 N)
Mounting category	M (Medium)
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	29.8 x 11.1 x 6.8 inches (756 x 282 x 172 mm)
Shipping weight	24.3 lb (11 kg)
Mounting	Fixed mounts for 2 to 4.6 inch (50 to 115 mm). OD masts are included and tilt options are available.

*See reverse for order information.*

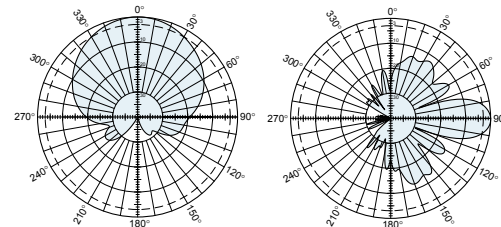
**790–960 MHz**



Horizontal pattern  
±45°-polarization

Vertical pattern  
±45°-polarization

**1710–2170 MHz**



Horizontal pattern  
±45°-polarization

Vertical pattern  
±45°-polarization



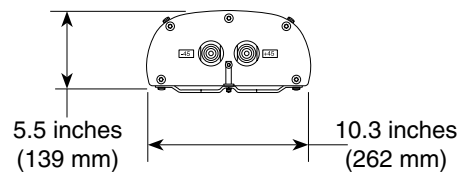
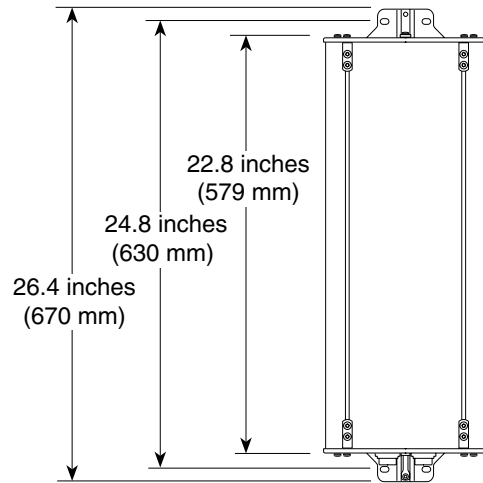
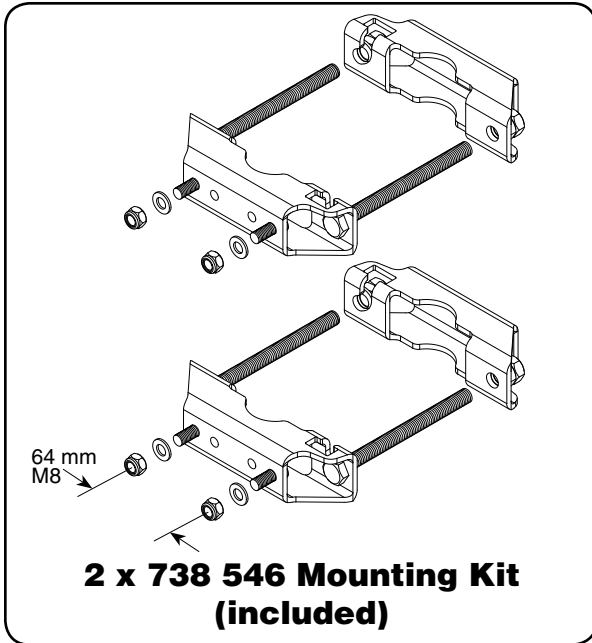
Specifications:	790–862 MHz	824–894 MHz	880–960 MHz	1710–1880 MHz	1850–1990 MHz	1920–2170 MHz
Gain*	11.1 dBi	11.4 dBi	11.8 dBi	12.5 dBi	13.3 dBi	13.6 dBi
Front-to-back ratio (180° ± 30°)	>23 dB (co-polar) >20 dB (total power)	>23 dB (co-polar) >20 dB (total power)	>25 dB (co-polar) >22 dB (total power)	>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	68° (half-power)	67° (half-power)	65° (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°	25 dB (typical)	25 dB (typical)	18 dB (typical)	18 dB (typical)	20 dB (typical)
Sector	±60°	>10 dB	>10 dB	>10 dB	>10 dB	>10 dB
Integrated combiner	*The insertion loss is included in the given antenna gain values					

\* Mechanical design is based on environmental conditions as stipulated in TIA-222-G-2 (December 2009) 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.

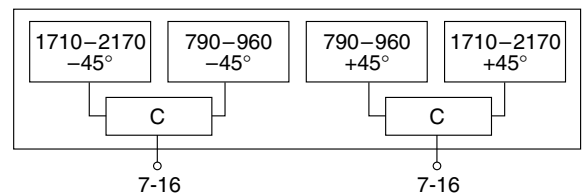


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Profile PA2



**Mounting Options:**

Model	Description
2 x 738 546 (included)	Mounting Kit for 2 to 4.6 inch (50 to 115 mm) OD mast. 4.4 lb (2 kg)
850 10013	Tilt Mount Kit 0-34 degrees downtilt angle.

**Order Information:**

Model	Description
742 222V01	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).

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