

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.

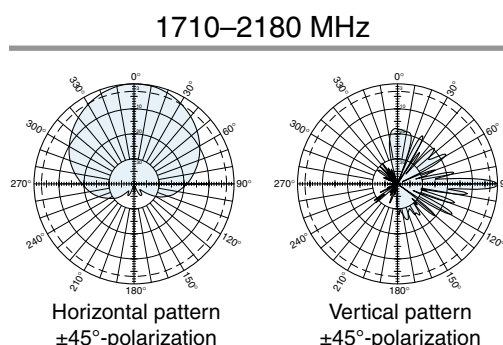
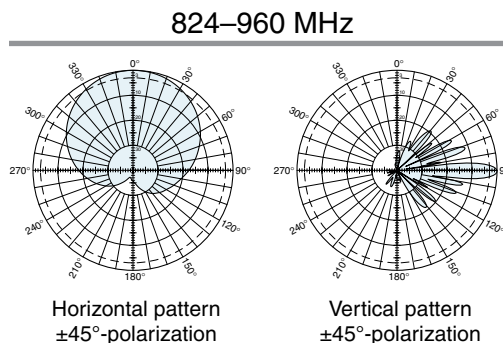
General specifications:

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 (long neck)
Isolation intrasystem	>30 dB
Weight	57.3 lb (26 kg)
Dimensions	99.1 x 10.3 x 5.5 inches (2516 x 262 x 139 mm)
Wind load	at 93 mph (150kph)
Front/Side/Rear	104 lbf / 86 lbf / 194 lbf (460 N / 380 N / 860 N)
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	111.3 x 11.1 x 6.8 inches (2826 x 282 x 172 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.

See reverse for order information.

Integrated combiner	The insertion loss is included in the given antenna gain values.
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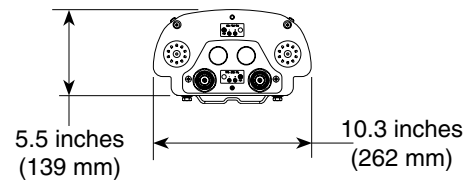
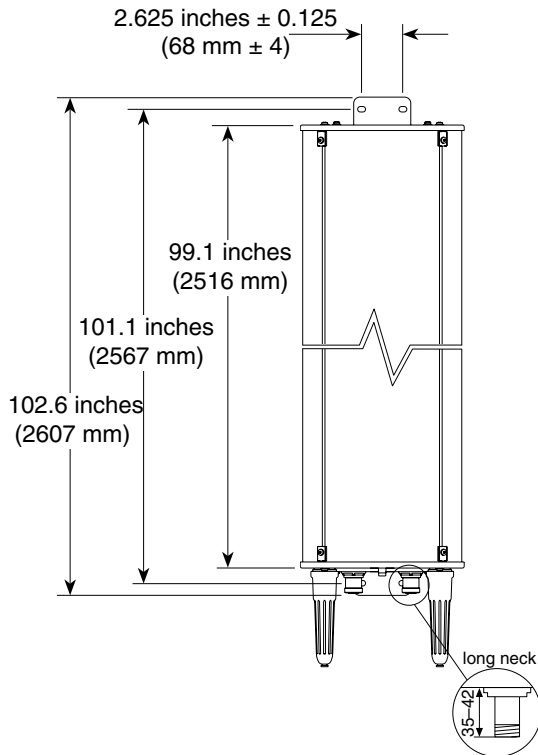
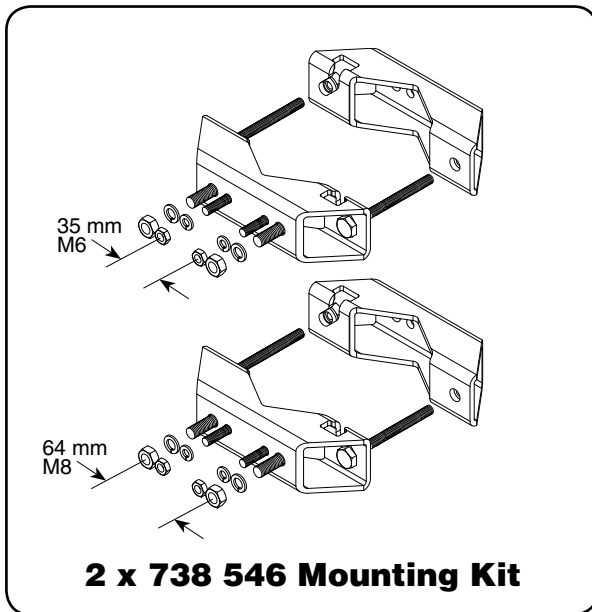
Specifications:	824–894 MHz	880–960 MHz	1710–1880 MHz	1850–1990 MHz	1900–2180 MHz
Gain	16.5 dBi	16.8 dBi	17.8 dBi	18.1 dBi	18.3 dBi
Front-to-back ratio	>28 dB (co-polar)	>28 dB (co-polar)	>25 dB (co-polar)	>25 dB (co-polar)	>25 dB (co-polar)
+45° and -45° polarization horizontal beamwidth	68° (half-power)	66° (half-power)	66° (half-power)	65° (half-power)	61° (half-power)
+45° and -45° polarization vertical beamwidth	7.5° (half-power)	7.2° (half-power)	5.1° (half-power)	4.9° (half-power)	4.6° (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 15 15 15 dB	0° 4° 7° T 17 17 16 dB	0° 3° 6° T 17 16 14 dB	0° 3° 6° T 17 16 15 dB	0° 3° 6° T 16 17 15 dB
Cross polar ratio					
Main direction 0°	20 dB (typical)	20 dB (typical)	16 dB (typical)	18 dB (typical)	19 dB (typical)
Sector ±60°	>10 dB	>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)				



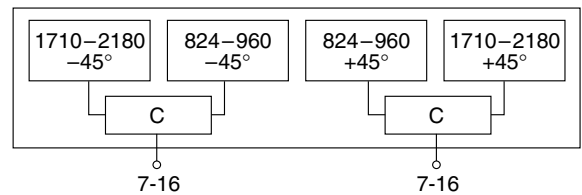
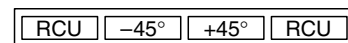
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* Mechanical design is based on environmental conditions as stipulated in TIA-222-G-2 (December 2009) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

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Profile PA2



Mounting Options:

Model	Description
2 x 738 546	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.

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