

**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.

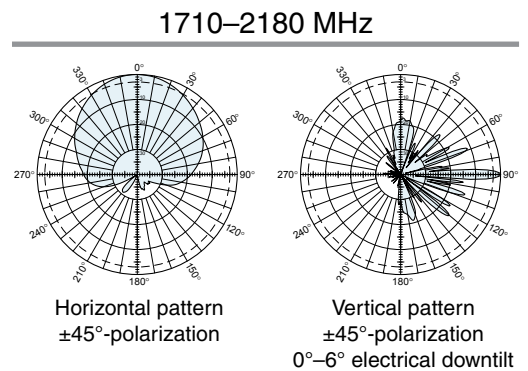
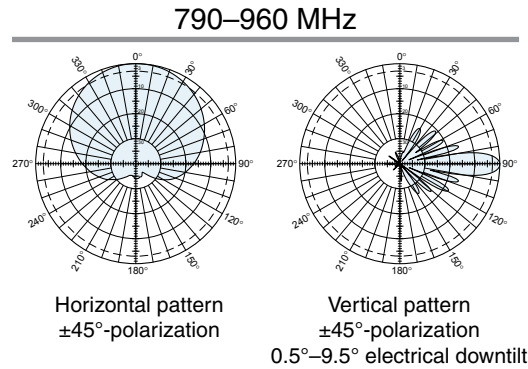
General specifications:

Frequency range	790–960 MHz 1710–2180 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	44.1 lb (20 kg) 48.1 lb (21.8 kg) clamps included
Dimensions	76.1 x 10.3 x 5.7 inches (1933 x 261 x 146 mm)
Wind load Front/Side/Rear	at 93 mph (150kph) 192 lbf / 86 lbf / 205 lbf (850 N) / (380 N) / (910 N)
Mounting category	M (Medium)
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	88.8 x 11.1 x 7.2 inches (2256 x 282 x 182 mm)
Shipping weight	56.9 lb (25.8 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.

Integrated combiner The insertion loss is included in the given antenna gain values.

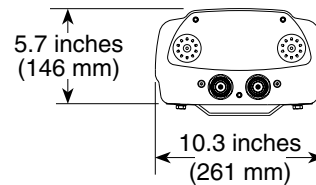
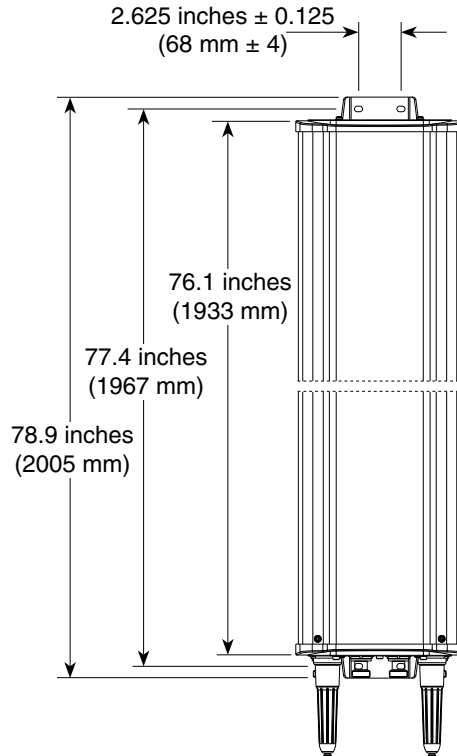
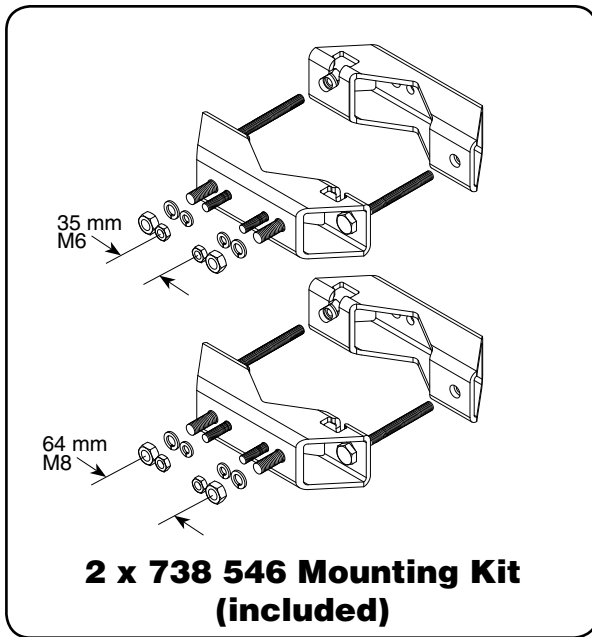
Specifications:	790–862 MHz			880–960 MHz			1710–1880 MHz			1850–1990 MHz			1900–2180 MHz		
Gain	0.5°	5°	9.5° T	0.5°	5°	9.5° T	0°	3°	6° T	0°	3°	6° T	0°	3°	6° T
	15.6	15.5	15.3 dBi	16.1	16	15.6 dBi	18.2	18.5	18.3 dBi	18.5	18.7	18.3 dBi	18.5	18.7	18.3 dBi
Front-to-back ratio	>27 dB (co-polar)			>28 dB (co-polar)			>30 dB (co-polar)			>30 dB (co-polar)			>30 dB (co-polar)		
+45° and -45° polarization horizontal beamwidth	68° (half-power)			65° (half-power)			65° (half-power)			65° (half-power)			61° (half-power)		
+45° and -45° polarization vertical beamwidth	10.9° (half-power)			10° (half-power)			5° (half-power)			4.8° (half-power)			4.6° (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 avg	0.5°	5°	9.5° T	0.5°	5°	9.5° T	0°	3°	6° T	0°	3°	6° T	0°	3°	6° T
	≥15	16	17 dB	≥15	18	19 dB	≥18	17	15 dB	≥18	18	16 dB	≥18	18	16 dB
Cross polar ratio Main direction	0°	25 dB (typical)		25 dB (typical)		25 dB (typical)		25 dB (typical)		25 dB (typical)		25 dB (typical)		25 dB (typical)	
Sector	±60°	>10 dB		>10 dB		>10 dB		>10 dB		>10 dB		>10 dB		>10 dB	
Maximum input power (at 50°C) per input	250 watts (790–960 MHz)			200 watts (1710–2180 MHz)			200 watts (1710–2180 MHz)			200 watts (1710–2180 MHz)			200 watts (1710–2180 MHz)		
combined input	450 watts (790–960 MHz and 1710–2180 MHz)			450 watts (790–960 MHz and 1710–2180 MHz)			450 watts (790–960 MHz and 1710–2180 MHz)			450 watts (790–960 MHz and 1710–2180 MHz)			450 watts (790–960 MHz and 1710–2180 MHz)		
Tracking, average	1.5 dB			1.5 dB			1.5 dB			0.5 dB			0.5 dB		
Squint	±2.5°			±2.5°			±2.5°			±2.5°			±2.5°		



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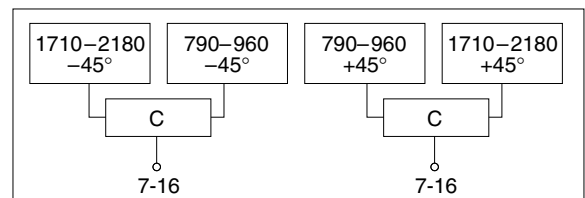
* Mechanical design is based on environmental conditions as stipulated in TIA-222-G-2 (December 2009) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

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Mounting Options:

Model	Description
2 x 738 546 (included)	Mounting Kit for 2 to 4.6 inch (50 to 115 mm) OD mast. 4 lb (1.8 kg)
850 10013	Tilt Mount Kit 0–11 degrees downtilt angle. 7.4 lb (3.7 kg)



Order Information:

Model	Description
742 224V02	Antenna with 7-16 DIN connectors

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