

65° Dualband Directional Antenna

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.
- Remote control ready.
- Various gain, beamwidth and downtilt ranges.
- AISG compatible.
- High strength pultruded fiberglass radome.

General specifications:

Frequency range	824–960 MHz 1710–2180 MHz
VSWR	<1.5:1
Impedance	50 ohms
Intermodulation (2x20w)	IM3: <-150dBc
Polarization	+45° and -45°
Connector	4 x 7-16 DIN female (long neck)
Isolation	intrasystem >30 dB intersystem >50 dB (824–960 // 1710–2180 MHz)
Weight	59.5 lb (27 kg)
Dimensions	99.1 x 10.3 x 5.5 inches (2516 x 262 x 139 mm)
Equivalent flat plate area	8.27 ft ² (0.768 m ²)
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	110.8 x 11.9 x 7.8 inches (2815 x 302 x 192 mm)
Shipping weight	75 lb (34 kg)
Mounting	Fixed and tilt mount options are available for 2 to 4.6 inch (50 to 115 mm) OD masts.

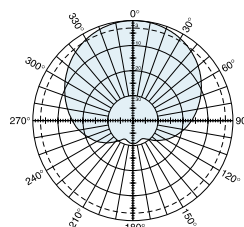
See reverse for order information.

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	18.3 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)
Maximum input power per input	500 watts (at 50°C)	500 watts (at 50°C)	250 watts (at 50°C)	250 watts (at 50°C)	250 watts (at 50°C)
total power	1000 watts (at 50°C)			500 watts (at 50°C)	
+45° and -45° polarization horizontal beamwidth	68° (half-power)	65° (half-power)	67° (half-power)	65° (half-power)	62° (half-power)
+45° and -45° polarization vertical beamwidth	7.3° (half-power)	7° (half-power)	5.2° (half-power)	5° (half-power)	4.7° (half-power)
Electrical downtilt continuously adjustable	0.5°–7°	0.5°–7°	0°–6°	0°–6°	0°–6°
Sidelobe suppression for first sidelobe above horizon	0.5° 4° 7° T 14 14 14 dB	0.5° 4° 7° T 16 16 16 dB	0° 3° 6° T 13 13 13 dB	0° 3° 6° T 16 15 14 dB	0° 3° 6° T 15 15 15 dB
Cross polar ratio					
Main direction	0°	20 dB (typical)	17 dB (typical)	18 dB (typical)	18 dB (typical)
Sector	±60°	>10 dB	>10 dB	>10 dB	>10 dB

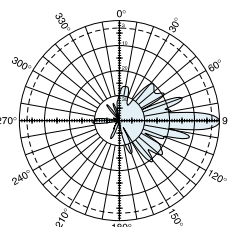
*Mechanical design is based on environmental conditions as stipulated in EIA-222-F (June 1996) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.



824–960 MHz

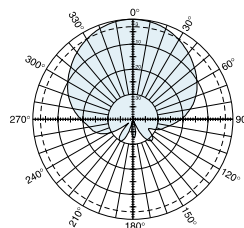


Horizontal pattern
±45° polarization

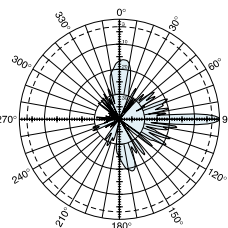


Vertical pattern
±45° polarization
0.5°–7° electrical downtilt

1710–2180 MHz



Horizontal pattern
±45° polarization

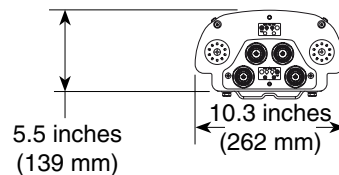
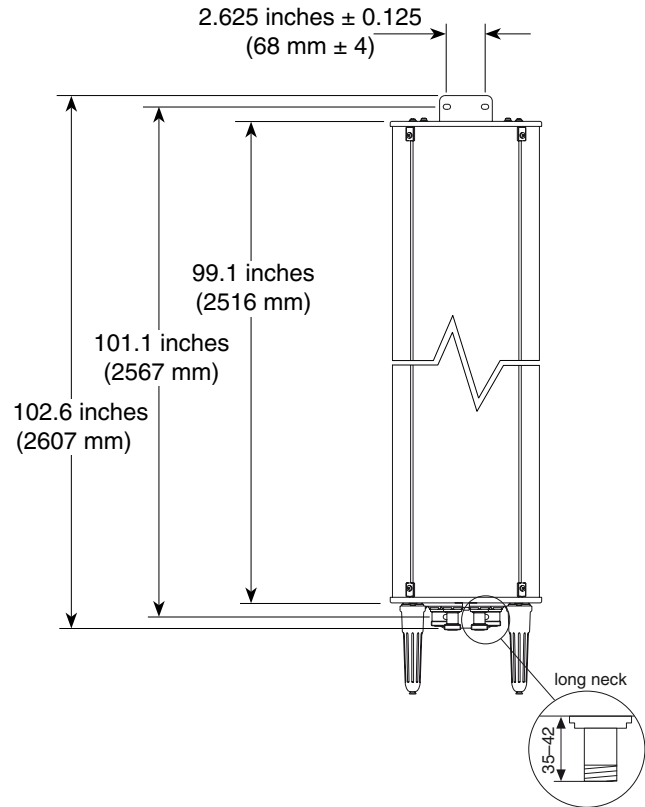
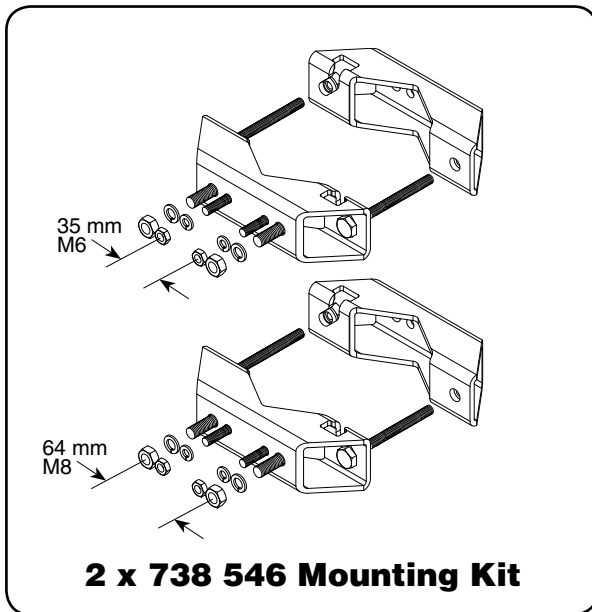


Vertical pattern
±45° polarization
0°–6° electrical downtilt



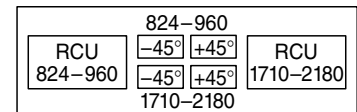
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Mounting Options:

Model	Description
2 x 738 546	Mounting Kit for 2 to 4.6 inch (50 to 115 mm) OD mast.
742 033	Three-panel Sector Mounting Kit (120 deg. ea.) for 4.5 inch (114.3 mm) OD steel mast.
742 034	Three-panel Sector Mounting Kit (120 deg. ea.) for 5.5 inch (139.7 mm) OD steel mast.
850 10007	Tilt Mount Kit 0–8 Degrees downtilt angle.



Layout of interface

Order Information:

Model	Description
742 266	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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