

Kathrein's 840 21000 panel antennas have been designed to provide exceptional performance in the 700/800 MHz bands for use with LTE and existing protocols. They are designed for long life using high strength UV resistant fiberglass and aluminum back planes, and are DC grounded for impulse suppression.

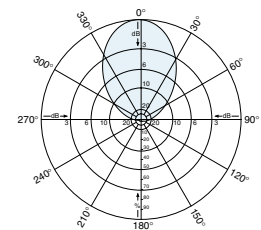
- Superb intermodulation performance.
- 2° fixed downtilt increments
- MIMO ready for LTE applications
- Broadband vector dipoles

**Specifications:**

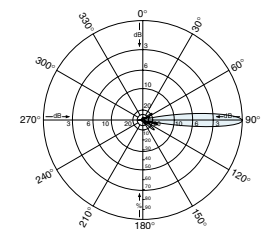
Frequency range	698–894 MHz		
Impedance	50 ohms		
VSWR <sup>1</sup> / Return loss	< 1.35:1 / >16.5 dB @ primary test frequencies (< 1.43:1 / >15 dB @ secondary test frequencies)		
PIM <sup>1</sup> (2x20w)	IM3	IM5	IM7-9
	≤-150 dBc	≤-160 dBc	≤-170 dBc
Polarized	+45° and -45°		
Front-to-back ratio	>30 dB (worst case, within ± 20 Degree cone)		
Power handling	500 watts (at 50°C)		
Electrical downtilt range	0–10 degrees (2° increments)		
Isolation	>30 dB		
Normalized radiation pattern envelope at 80° azimuth	-15 dB		
Normalized radiation pattern envelope at 90° azimuth	-20 dB		
Normalized radiation pattern envelope at 100° azimuth	-23 dB		
Crosspolar discrimination azimuth < 30°	>20 dB		
Crosspolar discrimination 30° < azimuth < 60°	>10 dB		
Primary test frequencies	752 MHz, 782 MHz		
Secondary test frequencies	704 MHz, 734 MHz 835 MHz, 880 MHz		
Lightning protection	Chassis ground		
Connector	2 x 7-16 DIN female (sealable long neck) (backmounted)		
Dimensions L x W x D	80 x 14.7 x 4.1 inches (1980 x 374 x 103 mm)		
Weight	29.8 lb (13.5 kg)		
Equivalent flat plate area	7.68 ft <sup>2</sup> (0.714 m <sup>2</sup> )		
Radome	UV-resistant fiberglass		
Wind survival <sup>2</sup>	150 mph (240 kph)		
Mounting bracket	3-point hot-dip galvanized with stainless steel hardware for 2 to 4.5 inch (50 to 115 mm) OD masts.		
Downtilt brackets	Hot-dip galvanized with stainless steel hardware for 0–10 degrees downtilt angle		

See reverse for order information.

Specifications:	698–806 MHz	806–894 MHz
Gain	13.5 dBd	14.3 dBd
Horizontal beamwidth @ 3 dB points	63°	60°
Vertical beamwidth @ 3 dB points	10.7°	9.5°



Horizontal pattern  
±45° - polarization



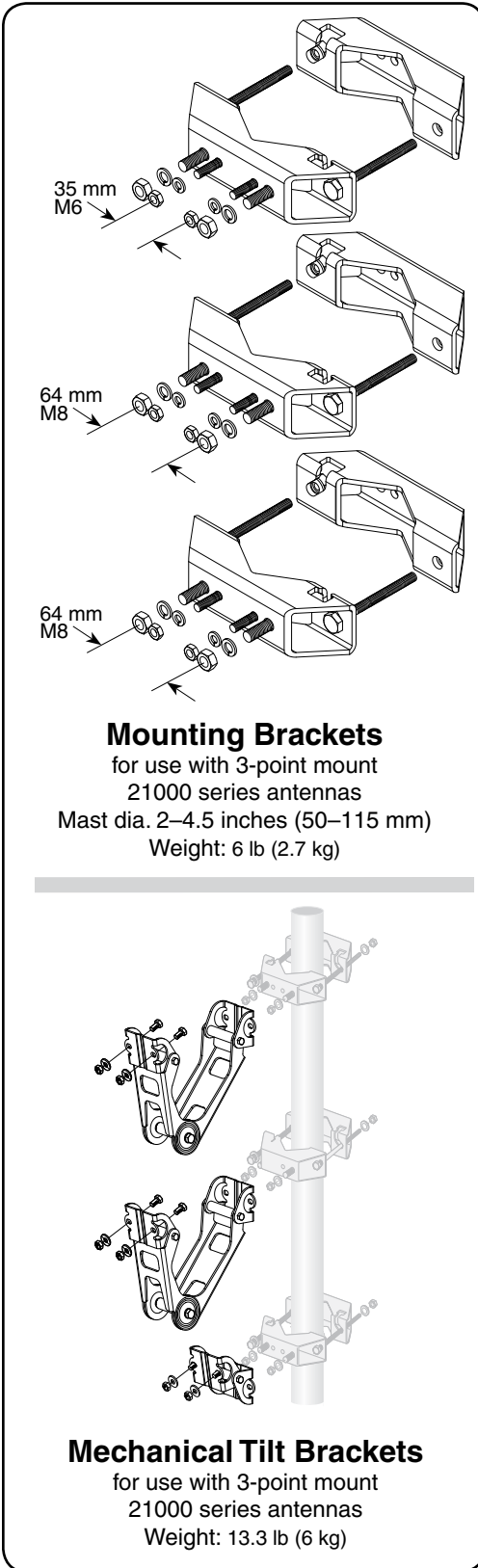
Vertical pattern  
±45° - polarization

<sup>1</sup> Every antenna is 100% PIM and VSWR tested to exceed specifications.

<sup>2</sup> 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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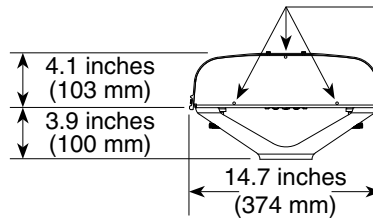
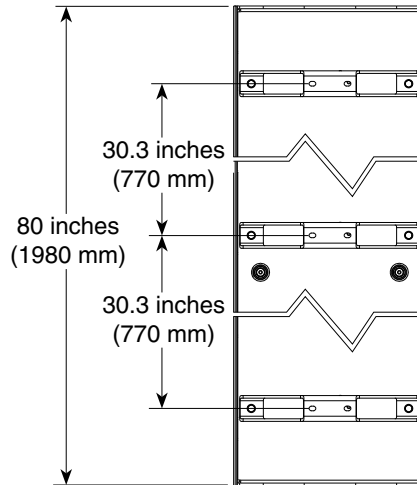


**Mounting Brackets**

for use with 3-point mount  
21000 series antennas  
Mast dia. 2–4.5 inches (50–115 mm)  
Weight: 6 lb (2.7 kg)

**Mechanical Tilt Brackets**

for use with 3-point mount  
21000 series antennas  
Weight: 13.3 lb (6 kg)



Note: Antenna must be mounted with the drain holes at the bottom.

**Order Information:**

Model	Description
840 21240-00	Antenna with 0° electrical downtilt
840 21240-02	Antenna with 2° electrical downtilt
840 21240-04	Antenna with 4° electrical downtilt
840 21240-06	Antenna with 6° electrical downtilt
840 21240-08	Antenna with 8° electrical downtilt
840 21240-10	Antenna with 10° electrical downtilt