

Kathrein's 840 21000 panel antennas have been designed to provide exceptional performance in the 700/800 MHz and 1710-2200 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
- Optimized for Upper C Block
- Integrated dual band combiner

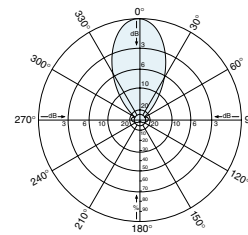
Specifications:

Frequency range	698–894 MHz // 1710–2170 MHz		
Impedance	50 ohms		
VSWR ¹ / Return loss	< 1.35:1 / >16.5 dB @ primary test frequencies (< 1.43:1 / >15 dB @ secondary test frequencies)		
PIM ¹ (2x20w)	IM3 ≤-150 dBc	IM5 ≤-160 dBc	IM7-9 ≤-170 dBc
Polarized	+45° and -45°		
Front-to-back ratio	>25 dB // >30 dB (worst case, within ± 20 Degree cone)		
Power handling per connector	500 watts (at 50°C) // 250 watts (at 50°C)		
Isolation	>30 dB		
Normalized radiation pattern envelope at 80° azimuth	-15 dB // -15 dB		
Normalized radiation pattern envelope at 90° azimuth	-23 dB // -23 dB		
Normalized radiation pattern envelope at 100° azimuth	-25 dB // -25 dB		
Crosspolar discrimination azimuth < 30°	>20 dB // >20 dB		
Crosspolar discrimination 30° < azimuth < 60°	>10 dB // >10 dB		
Primary test frequencies	752 MHz, 782 MHz // 1880 MHz, 1960 MHz		
Secondary test frequencies	704 MHz, 734 MHz // 1750 MHz, 2150 MHz 835 MHz, 880 MHz		
Electrical downtilt range	0–8 degrees (2° increments) // 0–4 degrees (2° increments)		
Lightning protection	Chassis ground		
Connector	2 x 7-16 DIN female (sealable long neck) (backmounted)		
Dimensions L x W x D	103.8 x 14.7 x 4.1 inches (2637 x 374 x 103 mm)		
Weight	42.6 lb (19.3 kg)		
Wind load Front/Side/Rear	at 93 mph (150kph) 237 lbf / 105 lbf / 291 lbf (1053 N) / (467 N) / (1294 N)		
Radome	UV-resistant fiberglass		
Wind survival ²	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 0–7 degrees downtilt angle		

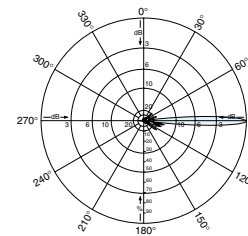
See reverse for order information.

Specifications:	698–806 MHz	806–894 MHz	1710–1880 MHz	1850–1990 MHz	1920–2170 MHz
Gain	15.8 dBd	16.6 dBd	18.2 dBd	18.5 dBd	18.8 dBd
Horizontal beamwidth @ 3 dB points	49°	45°	42°	40°	38°
Vertical beamwidth @ 3 dB points	7.8°	6.8°	4°	3.7°	3.4°

698–894 MHz

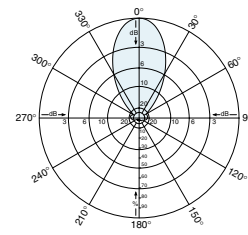


Horizontal pattern
±45° - polarization

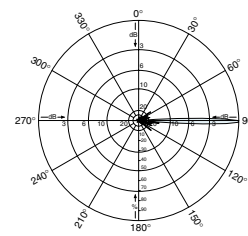


Vertical pattern
±45° - polarization

1710–2170 MHz



Horizontal pattern
±45° - polarization



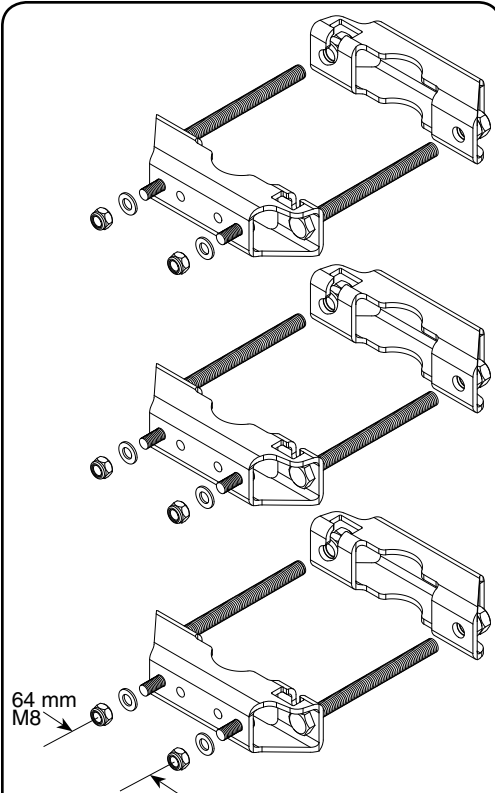
Vertical pattern
±45° - polarization



11175-FRO/g

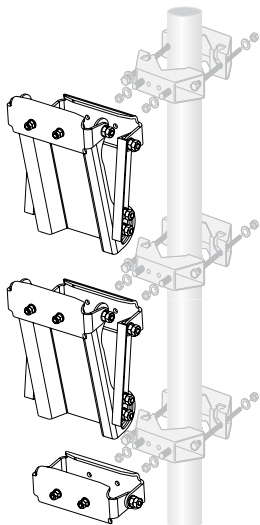
¹ Every antenna is 100% PIM and VSWR tested to exceed specifications.

² 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.



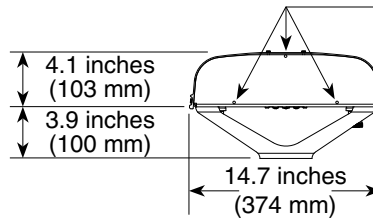
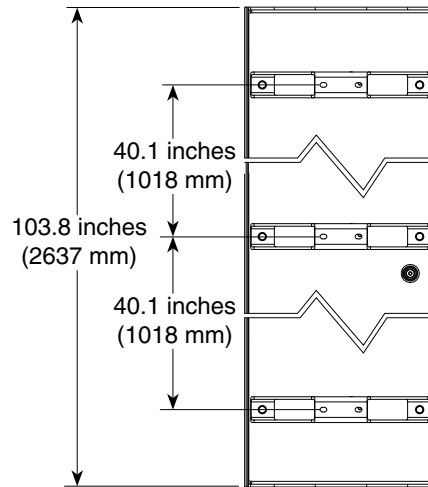
Mounting Brackets

for use with 3-point mount
21000 series antennas
Mast dia. 2–4.5 inches (50–115 mm)
Weight: 6.6 lb (3 kg)

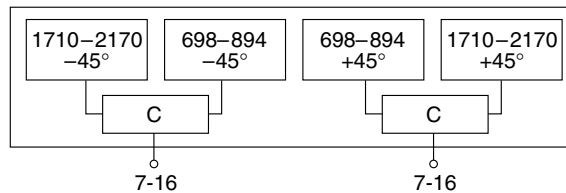


Mechanical Tilt Brackets

for use with 3-point mount
21000 series antennas
Weight: 24 lb (10.9 kg)



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



Order Information:

Model	Description	Lowband Tilt (-xx)	Highband Tilt (-yy)	
840 21860-xx-yy	Dualband antenna with	00°	00°	electrical downtilt
		02°	02°	
		04°	04°	
		06°		
		08°		

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