

Kathrein's X-polarized adjustable electrical downtilt antennas offer the wireless carrier the ability to tailor polarization diversity sites for optimum performance. Using variable downtilt, only a few models need be procured to accommodate the needs of widely varying conditions. Remotely controlled downtilt is available as a retrofitable option.

- 0-10° downtilt range.
- UV resistant pulltruded fiberglass radome.
- DC Grounded metallic parts for impulse suppression.
- No moving electrical connections.
- Wideband vector dipole technology.
- Optional remote downtilt Control.
- Will accommodate future 3G / UMTS applications.

**General specifications:**

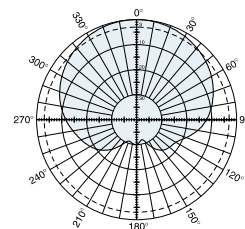
|                            |  |
|----------------------------|--|
| Frequency range            | 1710–2170 MHz  |
| VSWR                       | <1.5:1   |
| Impedance                  | 50 ohms  |
| Intermodulation (2x20w)    | IM3: -150 dBc  |
| Polarization               | +45° and -45°  |
| Front-to-back ratio        | >25 dB (co-polar)<br>>25 dB (total power)  |
| Connector                  | 2 x 7/16 DIN female  |
| Isolation                  | >30 dB   |
| Maximum input power        | 300 watts (at 50°C) per input  |
| Weight                     | 9.3 lb (4.2 kg)  |
| Dimensions                 | 26.1 x 6.1 x 2.7 inches<br>(662 x 155 x 69 mm)   |
| Equivalent flat plate area | 1.54 ft <sup>2</sup> (0.143 m <sup>2</sup> )   |
| Wind survival rating*      | 120 mph (200 kph)  |
| Shipping dimensions        | 36.8 x 6.8 x 3.6 inches<br>(935 x 172 x 92 mm)   |
| Shipping weight            | 12 lb (5.5 kg)   |
| Mounting                   | Fixed and tilt mount options are available for<br>1.2 to 5.3 inch (30 to 135 mm) OD masts. |

*See reverse for order information.*

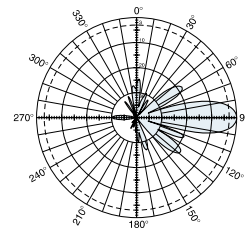
| Specifications:                                       | 1710–1880 MHz                                 | 1850–1990 MHz                    | 1920–2170 MHz                    |
|---|---|----------------------------------|----------------------------------|
| Gain  | 13.7 dBi                                      | 14 dBi                           | 14.1 dBi                         |
| Horizontal beamwidth                                  | 88° (half-power)                              | 88° (half-power)                 | 88° (half-power)                 |
| Vertical beamwidth                                    | 14.7° (half-power)                            | 14° (half-power)                 | 13° (half-power)                 |
| Electrical downtilt continuously adjustable           | 0°–10°<br>(manual or optional remote control) | 0°–10°                           | 0°–10°                           |
| Sidelobe suppression for first sidelobe above horizon | 0° 4° 8° 10° T<br>18 18 18 18 dB              | 0° 4° 8° 10° T<br>18 18 18 18 dB | 0° 4° 8° 10° T<br>18 18 18 18 dB |
| Cross polar ratio                                     |   |                                  |                                  |
| Main direction  | 0°  | 20 dB (typical)                  | 20 dB (typical)                  |
| Sector  | ±60°  | >10 dB                           | >10 dB                           |



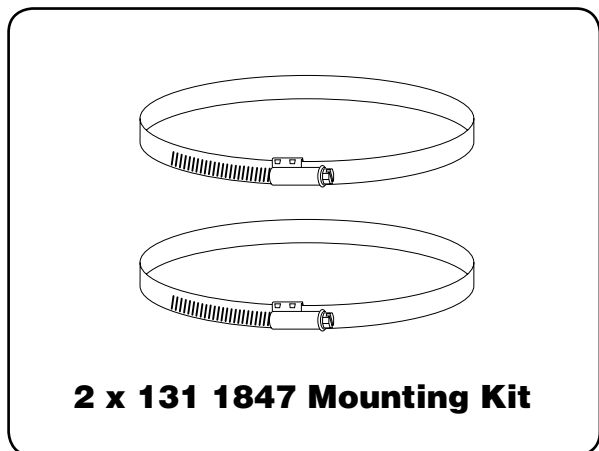
\*Mechanical design is based on environmental conditions as stipulated in EIA-222-F (June 1996) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.



Horizontal pattern  
±45° polarization

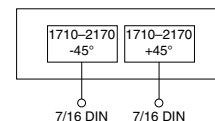
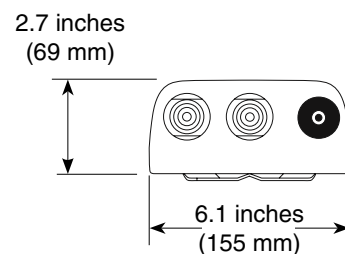
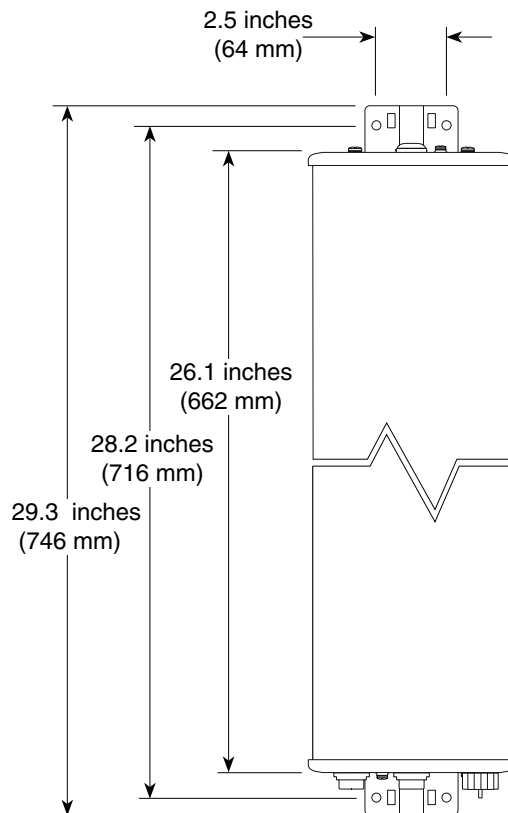


Vertical pattern  
±45° polarization



**Mounting Options:**

| Model                | Description   |
|----------------------|---|
| 2 x 131 1847 (shown) | Mounting Kit for 2 to 5.7 inch (50 to 145 mm) OD mast.                        |
| 742 263              | Three-panel Sector Mounting Kit (120 deg. ea.) for 3.5 inch (89 mm) OD mast.  |
| 732 327              | Tilt Kit for use with mounting kit listed below, 0–20 degrees downtilt angle. |



**Order Information:**

| Model   | Description   |
|---------|---|
| 741 988 | Antenna with 7/16 DIN connectors<br>0°–10° adjustable electrical downtilt |

All specifications are subject to change without notice. The latest specifications are available at [www.kathrein-scala.com](http://www.kathrein-scala.com).