



# ANTENNA EXPERTS

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Model # AC9-840

Frequency 806 – 870 MHz.

9 dBd. Gain

## Omni-directional TETRA Band High Gain Fiberglass Collinear Antenna

**DESIGN FEATURES:** AC9-840 Fiberglass Omni-directional TETRA Band Collinear Antenna is rugged all weather model uses 6063T6 ultra corrosion resistant architectural aluminum, high class brass alloy and does not require any field tuning or adjustments. All junctions are fully welded to prevent RF inter-modulation and antenna is completely protected within a high-tech ruggedized fiberglass radome to ensure survivability in the worst environments. The fibre glass enclosure has excellent transparency for RF signals and enough strength to withstand specified wind loads. The compact size of collinear antenna allows easy handling and shipping. The antenna is supplied with olive green military colour. Other customized color can also be supplied on request.

**CONSTRUCTIONS:** The AC9-840 is a center fed design which eliminates the distortion of the radiation pattern and ensures a true omni-directional horizontal pattern. The special stub matching is used for smooth VSWR and constant 9dBd gain over the entire 806-870 MHz TETRA band. The collinear antenna consist of large diameter brass radiating elements stacked vertically, fed in phase and enclosed in fiber glass tube. The antenna termination is enclosed at bottom of the antenna for complete weather protection. The mounting hardware is made of type 316 marine grade stainless steel and supplied with the antenna.



### ELECTRICAL SPECIFICATIONS:

|  |                  |
|--|------------------|
| Frequency Range                        | 806 -870 MHz.    |
| Gain                                   | 9 dBd. (11dBi.)  |
| Bandwidth                              | Entire Band      |
| Polarization                           | Vertical         |
| Input Impedance                        | 50 Ohms.         |
| Radiation Pattern                      | Omni Directional |
| Vertical Beam-width –Half Power Points | 11 Degrees       |
| VSWR – Less Than                       | 1:1.5            |
| RF Power Handling Capacity             | 150 Watts.       |
| Input Termination                      | N-Female         |

### MECHANICAL SPECIFICATIONS:

|                             |                              |
|-----------------------------|------------------------------|
| Mounting Hardware           | Marine Grade Stainless Steel |
| Gross Weight                | 5.0 Kgs.                     |
| Wind Rating                 | 200 Km/Hr.                   |
| Overall Length              | 2.9 Meters                   |
| Shipping Length             | 3.0 Meters                   |
| Support Pipe O.D.           | 51 mm                        |
| Support Pipe Materials      | 6063T6 Aluminum Alloy        |
| Maximum Mount Pipe Diameter | 51 mm (2 Inches)             |
| Enclosure Materials         | Fiberglass                   |
| Enclosure Outer Diameter    | 44 mm                        |

### ENVIRONMENTAL SPECIFICATIONS:

|                       |                               |
|-----------------------|-------------------------------|
| Operating Temperature | (-) 30 to +70 Degrees Celsius |
| Storage Temperature   | (-) 40 to +80 Degrees Celsius |
| Humidity              | 0 to 95% RH                   |

Please contact us for further information like Azimuth & Elevation radiation patterns & frequency Vs VSWR of antenna.

Note: All information contained in the datasheet is subject to change without any prior notice.