# **Omni-directional TETRA Band Collinear Antenna**

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Model # AC-642001 Frequency 410 – 430 MHz. 6.8dBi Gain

#### **OMNI-DIRECTIONAL HIGH GAIN TETRA BAND ANTENNA**

**DESIGN FEATURES:** AC6-420 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 ABS radome to ensure survivability in the worst environments. The UV resistant ABS 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.

**CONSTRUCTIONS:** The AC6-420 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 6.8dBi gain over the entire 410-430MHz TETRA frequency band. The collinear antenna consist of large diameter brass radiating elements stacked vertically, fed in phase

and enclosed in ABS 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                        | 410-430 MHz.     |
|--|------------------|
| Gain                                   | 6.8 dBi.         |
| Bandwidth                              | 20 MHz.          |
| Polarization                           | Vertical         |
| Input Impedance                        | 50 Ohms.         |
| Radiation Pattern                      | Omni Directional |
| Vertical Beam-width –Half Power Points | 26 Degrees       |
| VSWR – Less Than                       | 1:1.5            |
| RF Power Handling Capacity             | 250 Watts.       |
| Input Termination                      | N-Female         |

### **MECHANICAL SPECIFICATIONS:**

| Mounting Hardware           | Marine Grade Stainless Steel |
|-----------------------------|------------------------------|
| Gross Weight                | 2.5 Kgs.                     |
| Wind Rating                 | 200 Km/Hr.                   |
| Overall Length              | 1.7 Meters                   |
| Shipping Length             | 1.8 Meters                   |
| Support Pipe O.D.           | 51 mm                        |
| Support Pipe Materials      | 6063T6 Aluminum              |
| Maximum Mount Pipe Diameter | 51 mm (2 Inches)             |
| Enclosure Materials         | UV Resistant ABS             |
| Enclosure Outer Diameter    | 45 mm                        |
| Enclosure Length            | 1450 mm                      |
|                             |                              |

## **ENVIRONMENTAL SPECIFICATIONS:**

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

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