



# ANTENNA EXPERTS

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Model # AC9-420 410 – 430 MHz. 9 dBi. Gain

## FIBER GLASS OMNI-DIRECTIONAL TETRA BAND COLLINEAR ANTENNA

**DESIGN FEATURES:** AC9-420 Fiberglass Omni-directional TETRA Band Collinear Antenna is rugged all weather model 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 radome to ensure survivability in the worst environments. The compact size of fiber glass collinear antenna allows easy handling and shipping.

**CONSTRUCTIONS:** The AC9-420 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 9dBi gain over the entire 410-430 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	410 -430 MHz.
Gain	9 dBi.
Bandwidth	20 MHz.
Polarization	Vertical
Input Impedance	50 Ohms.
Radiation Pattern	Omni Directional
Vertical Beam-width –Half Power Points	18 Degrees
VSWR	1:1.5
RF Power Handling Capacity	250 Watts.
Input Termination	N-Female

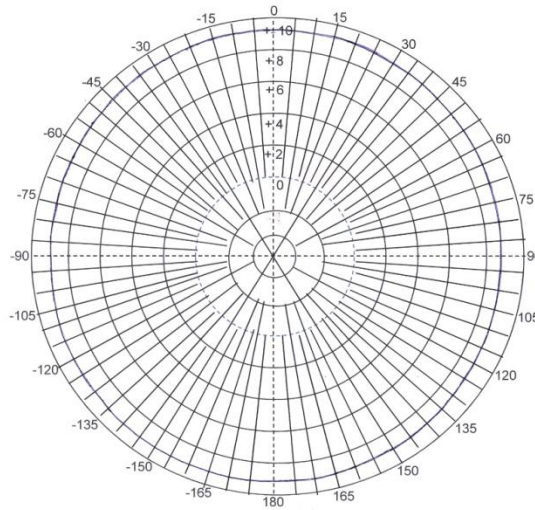
### MECHANICAL SPECIFICATIONS:

Mounting Hardware	Marine Grade Stainless Steel
Gross Weight	5 Kgs.
Wind Rating	200 Km/Hr.
Overall Length	2.9 Meters
Shipping Length	3.0 Meters
Support Pipe Outer Diameter	51 mm
Support Pipe Materials	6063T6 Aluminum
Maximum Mount Pipe Diameter	51 mm (2 Inches)
Enclosure Materials	Fiberglass
Enclosure Outer Diameter	45 mm
Enclosure Length	2680 mm

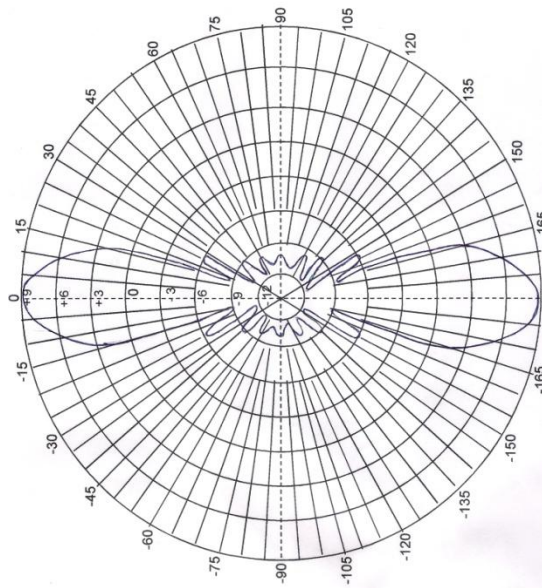
### ENVIRONMENTAL SPECIFICATIONS:

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

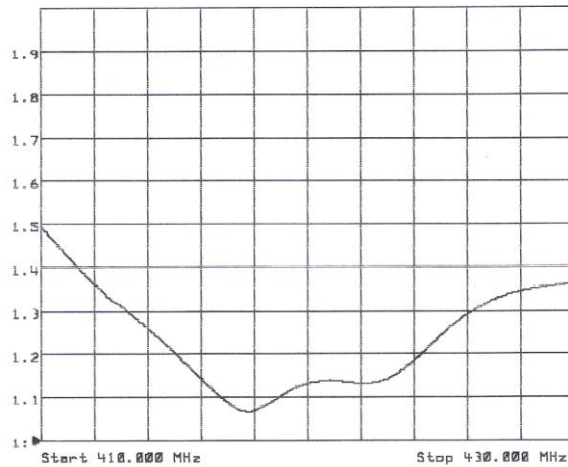
Radiation Patterns TETRA Band Omni-Directional Fiberglass Collinear Antenna  
Model # AC9-420



AZIMUTH RADIATION PATTERN



ELEVATION RADIATION PATTERN



FREQUENCY vs VSWR CHART

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