



ANTENNA EXPERTS

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Model # CM-100-500

100 – 500 MHz.

2.15 dBi Gain

VHF UHF BROADBAND VERTICAL CONICAL MONOPOLE ANTENNA

DESIGN FEATURES: The CM-100-500 conical monopole antenna is designed to propagate line of sight communications and is characterized by high angle stable radiation pattern with their long term reliability and stability of electrical characteristics. CM-100-500 is an excellent choice for omnidirectional VHF UHF communications for RCIED jamming application especially if the threat is coming from air/sky. Due to its large diameter to height ratio the VHF UHF vertical conical monopole has excellent VSWR and omni-directional radiation pattern performance over 100-500MHz frequency range. VHF UHF broadband vertical conical monopole antenna provides optimum performance over 100-500MHz band, eliminating the requirement of multiple antennas or an ATU, minimizing the cost and setup requirements. The antenna is supplied with removable radiating elements for easy of shipping and handling which can be assembled in the field with simple hand tools.

CONSTRUCTIONS: The antenna uses 6063T6 ultra corrosion resistant architectural anodized aluminum alloy, and does not require any field tuning or adjustments. The complete antenna is supplied with olive green colour powder coating finish to protect it further from severe environmental conditions. The antenna is supplied with mast mounting bracket at the base of antenna making it rigid to withstand tough MIL environmental condition. The N-Female termination of antenna is provided at the bottom of mounting flange. All insulators are made of Teflon and delrin. All nuts, bolts, split washers and fasteners are made of type 316 marine grade stainless steel. Particular attention has been paid to the matching of dissimilar metals to minimize electro-chemical corrosion as well as noise and inter-modulation components. The VHF UHF conical monopole antenna are supplied in kit form dismantle condition.



ELECTRICAL SPECIFICATIONS:

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|----------------------------|------------------|
| Frequency Range | 100-500 MHz. |
| Gain | 2.15 dBi |
| Bandwidth | 100-500 MHz. |
| Polarization | Vertical |
| Input Impedance | 50 Ohms. |
| Radiation Pattern | Omni-directional |
| VSWR – Better Than | 3 : 1 |
| RF Power Handling Capacity | 500 Watts |
| Input Termination | N-Female |

MECHANICAL SPECIFICATIONS:

| | |
|--------------------------------|------------------------------------|
| Gross Weight | 4.5 Kgs. |
| Overall Height of Antenna | 1250mm (When Assembled) |
| Overall Width of Antenna | 550mm (When Assembled) |
| Radiating Elements Materials | 6063T6 Aluminum Alloy |
| No. of Radiating Elements | 9 Nos. |
| Diameter of Radiating Elements | 12.7 mm |
| Mounting Type | Vertical Mast Mounting |
| Fastener Materials | Marine Grade Stainless Steel |
| Wind Pressure | 200 Km/Hr. |
| Antenna Finishing | Military Olive Green Powder Coated |
| Insulator Materials | Teflon & Delrin |
| Shipping Length | 850mm |

ENVIRONMENTAL SPECIFICATIONS:

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