



ANTENNA EXPERTS

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Model # AC5-127

118 – 137 MHz.

5 dBi Gain

VHF High Gain Aviation Band Omni-Directional Antenna

DESIGN FEATURES: AC5-127 Omni-directional VHF aviation band antenna is rugged all weather model, radiator enclosed in a fiberglass radome, uses high class brass and 6063T6 ultra corrosion resistant architectural aluminum alloy and does not require any field tuning or adjustments. The compact size of omni-directional high gain VHF aviation band antenna allows easy handling, shipping and highly suitable for ATC sites for ground-to-ground and ground-to-air communication without having the requirement of multiple antennas. Antenna termination and feed cable lie enclosed inside the mounting pipe for complete weather protection. Cylindrical enclosure is used for low wind loading and for minimal effect of ice formation on the VHF aviation antenna operation as well as providing an aesthetically pleasing appearance.

CONSTRUCTIONS: The VHF high gain aviation band antenna is consisting of large diameter radiating elements stacked vertically and enclosed in fiber glass tube. The ATC antenna uses 8 numbers of small ground plane elements which are removable for ease of shipping and transportation. These ground plane elements can be assembled in the field with simple hand tools. The ground elements of ATC base station antenna are attached via stainless steel stud systems at points along the antenna skirt hub. The special “Choke and Spark Gap” technique is used for smooth VSWR and constant 5+dBi. gain over the entire 117.975-137 MHz. frequency band. The fiberglass enclosure has excellent transparency for RF signals and enough strength to withstand specified wind loads. The marine grade stainless steel mounting brackets are supplied with the high gain aviation antenna.



ELECTRICAL SPECIFICATIONS:

| | |
|-----------------------------------------|--------------------|
| Frequency Range | 117.975 - 137 MHz. |
| Gain | 5.15 dBi. (3 dBd) |
| Bandwidth | Entire Band |
| Polarization | Vertical |
| Input Impedance | 50 Ohms |
| Radiation Pattern | Omni-directional |
| Vertical Beam-width –Half Power Points. | 40 Degrees |
| VSWR – Better than | 2:1 |
| RF Power Handling Capacity | 500 Watts. |
| Input Termination | N-Female |

MECHANICAL SPECIFICATIONS:

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|------------------------------|------------------------------|
| Materials | Brass & 6063T6 Aluminum |
| Mounting Hardware -Materials | Marine Grade Stainless Steel |
| Wind Rating | 180 Km/Hr. |
| Overall Length | 3.10 Meters |
| Shipping Length | 3.15 Meters |
| Maximum Mount Pipe Diameter | 52 mm (2 Inches) |
| Enclosure Materials | Fiberglass Tube |
| Gross Weight | 14 Kgs. |

ENVIRONMENTAL SPECIFICATIONS:

| | |
|-----------------------|------------------------------|
| Operating Temperature | (-)30 to +70 Degrees Celsius |
| Storage Temperature | (-)40 to +80 Degrees Celsius |
| Humidity | 0 to 100% RH |

Please contact us for further information like Azimuth & Elevation radiation patterns, Image and frequency Vs VSWR graph.

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