The RF-9070 is a militarized, vertically-polarized, omnidirectional transportable antenna designed for ground-to-air communication between 100 and 400 MHz. It is particularly useful for frequency-hopping systems due to its instantaneous broadband response and low VSWR. The RF-9070 also operates in the frequency bands used by a large number of commercial services, such as air traffic control, fire, police, utilities, and emergency services.

The RF-9070 is supplied as a kit that includes the center hub assembly, 24 elements with threaded ends, 24 lock nuts, and a 10 foot coaxial cable. For corrosion resistance and durability the center hub and elements are made from lightweight aluminum alloy with E512 finish per MIL-F-14072. The center hub is constructed with two machined aluminum hubs that surround a center insulator machined from Delron 570. Within the hub assembly is a passive LC network that provides exceptional VSWR performance across the band.

Electrical connection is provided by a type N female connector on the center hub. The coaxial cable allows connection to a radio up to 10 feet away.

The RF-9070 antenna’s center hub provides a threaded 1.3-inch (3.3-cm) diameter hole for a mast. The optional RF-9071 is a mast pipe specifically designed to mount the RF-9070 antenna.
Specifications for the RF-9070

**Electrical**
- **Frequency Range**
  100 to 400 MHz (usable 90 to 470 MHz)
- **RF Power Capacity**
  400 watts
- **Input Impedance**
  50 ohm, nominal
- **Radiation Pattern**
  Omnidirectional
- **Polarization**
  Vertical
- **VSWR**
  ≤2.1 typical, 2.5:1 maximum
- **Gain**
  >2 dBi

**Environmental**
- **Temperature**
  Operating: −40˚ to +55˚ C (−40˚ to +131˚ F) Storage: −60˚ to +70˚ C (−76˚ to +158˚ F)
- **Relative Humidity**
  0 to 100%

**Mechanical**
- **RF Connector**
  Female, Type N
- **Deployed Dimensions**
  76H x 60D in (193H x 152D cm)
- **Finish**
  E512 per MIL-F-14072
- **Weight**
  20 lb (9.1 kg)
- **Mounting Interface**
  1.3 inch (3.3cm) threaded hole in center hub
- **Installation time**
  10 minutes, 2 people

**Options**
- **RF-9071 Mounting Mast** — A 6.5-foot (2-m) length of 1.3-inch (3.3-cm) diameter mast complete with mounting clamps. The mast is threaded at one end with an 11-1/2 NPT thread to match the antenna hub.

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Radiation Patterns Over Average Ground

<table>
<thead>
<tr>
<th>Frequency</th>
<th>120 MHz</th>
<th>300 MHz</th>
<th>180 MHz</th>
<th>400 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>dBm</td>
<td><img src="image1" alt="Chart" /></td>
<td><img src="image2" alt="Chart" /></td>
<td><img src="image3" alt="Chart" /></td>
<td><img src="image4" alt="Chart" /></td>
</tr>
</tbody>
</table>

Specifications are subject to change without notice.