

RF-3070-AT242**SOLDIER WORN****ACTIVE L1/L2 GPS****ANTENNA**

The RF-3070-AT242 is a portable, active L1/L2 GPS antenna with an integrated pendant coaxial cable and magnetic mount. The 3-foot long RG-174 coaxial cable terminates in a right angle SMB connector for direct connection to the AN/PRC-117G(V)1(C) and RF-7800M-MP Falcon III® manpack transceivers. The magnetic mount has a retaining force of approximately 18 lbs.

This 2-inch square antenna incorporates band-pass filtering that allows it to achieve greater than 40 dB of rejection at ± 50 MHz. It also incorporates a limiter that protects the antenna from damage from electrostatic discharge and co-located in-band interference. Furthermore, the GPS antenna contains a 33 dB low noise amplifier (LNA) that helps to both minimize the noise figure and optimize the sensitivity of the antenna.

The size of the antenna is convenient for stowing in either the soldier's rucksack or any spare pocket located within 3 feet of the radio connector. For optimal satellite reception, the antenna should remain upright with the magnets facing the ground.



Electrical

- **Frequency Range**
L1: 1575.42 MHz \pm 15 MHz
L2: 1227.6 MHz \pm 15 MHz
- **DC Power Requirement**
2.7 V–6 V; 35mA
- **RF Power Capacity**
1W CW
- **Input Impedance**
50 ohms (nominal)
- **Radiation Pattern**
Hemispherical
- **Polarization**
Right hand circularly polarized
- **VSWR**
< 2.0:1; relative to 50 ohms
- **Gain**
(@ 90 degree elevation)
L1 Band: 4 dBic at 1575.42 MHz
L2 Band: 4 dBic at 1227.6 MHz

Environmental

- **Meets MIL-STD-810F**

Mechanical

- **RF Connector**
Right-angle SMB
- **Deployed Dimensions**
2-inch X 2-inch X 0.75-inch
(50 mm X 50 mm X 19 mm)
3-foot pendant cable (914 mm)
- **Stowed Size**
< 3 cubic inches (47.5 cm³)
- **Weight**
3.7 oz. (104 g)
- **Color**
Black, matte finish

Features

- **33 dB LNA**
- **Band-pass filtering**
- **Limiting**
- **Small size**
- **3-foot pendant cable**

Specifications are subject to change without notice.