



AS-49030 CAVITY-BACKED ANTENNA

The AS-49030 Antenna was designed for flush mounting on aerospace vehicles. It will survive heat pulses of 3,000 degrees Fahrenheit and can operate for 5 minutes in a 1,000 degrees Fahrenheit environment. It consists of a cavity-backed helix that is inherently circularly polarized. The input connector is a standard TNC female connector with an internal modification consisting of an expansion joint in the Teflon dielectric so that the Teflon does not extrude during exposure to high temperatures. The body of the antenna is a quartz (fused silicon dioxide) core in a stainless-steel body. The mounting flange can be modified to meet the mounting requirements of a specific vehicle. The antenna mount can accommodate skin and/or ablative thickness up to 1/2 inch. The pattern shape is dependent on the size and shape of the vehicle it is mounted on, as well as the number of antennas used.

ELECTRICAL	
Frequency range	5.4 to 5.9 GHz
VSWR	1.5:1 max
Gain	7 dBi nom
Polarized	Right-hand circular
Beamwidth 3 dB	70° nom
Power handling	10 W average, 1 kW peak
MECHANICAL	
Connector	TNC female
Weight	3 oz (85 gm)
ENVIRONMENTAL	
Temperature	1,000° F (+538° C) for 5 minutes 3,000° F (+1649° C) for heat puls
Altitude	10-5 Torr
Vibration	MIL-STD-810D method 514.3 category 5
Salt spray	MIL-STD-810D method 509.1 procedure I
Humidity	MIL-STD-810D method 507.2 procedure I
Shock	MIL-STD-810D method 516.3 procedure I, 20 g



KEY FEATURES

- > High-temperature cavity-backed spiral
- > Rugged construction
- > Circular polarization
- > Ideal for extreme environment telemetry, tracking and command applications

For further details and specifications, contact the factory at antenna.info@L3Harris.com

AS-49030 Cavity-Backed Antenna

© 2021 L3Harris Technologies, Inc. | 12/2021 | 61629 | EL

Nonexport-controlled Information

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

