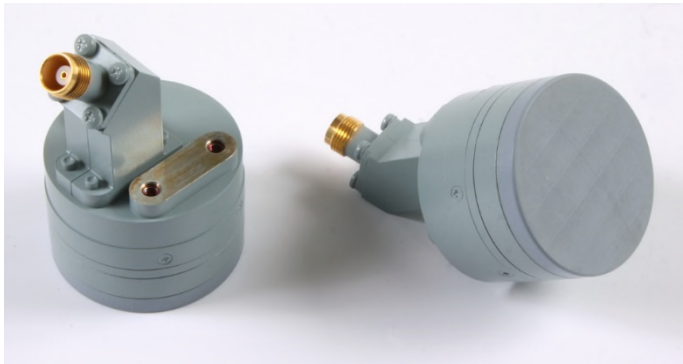


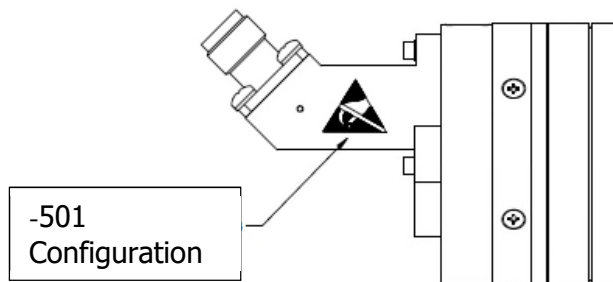
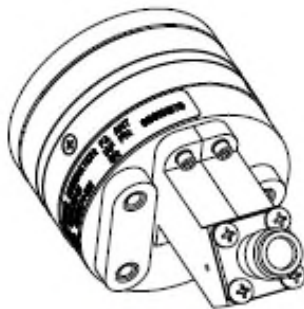
# Model 8506674-501 Microwave-Band Sinuous Antenna

CAES family of E/J-Band Sinuous antennas provide for high sensitivity, reception of all possible signal polarizations, and are available with various connector configurations, both with and without internal Hybrid assemblies, and RF switches. The 8506674 configuration includes an integrated, solid-state, RF switch, and quadrature coupler assembly, with a single RF output that provides either Right-Hand circular polarization or Left-Hand circular polarization. The integrated quadrature coupler properly sums the antennas inherently linear outputs to create a circularly polarized antenna. Polarization selection is determined by a DC -Bias on the RF center conductor, which is coupled to the internal RF switch, and provides for high speed, polarization switching. The -501 configuration is designed for installation in the airstream but can also be installed behind a protective fairing. CAES' family of Sinuous antennas have been designed for the military airborne environment including supersonic flight and are available with a wide range of radomes and protective fairings.



**APPLICATIONS:**

- Aircraft Self-Protection Systems
- Polarization-Diverse Receiver Systems
- Wideband Signal Interception



# Model 8506674-501 Microwave-Band Sinuous Antenna

KEY FEATURES:

- Wideband frequency performance
- Semi-constant beamwidth over 9:1 Band
- Integrated quadrature coupler provides circular polarization
- Integrated, solid-state, RF switch, for polarization selection
- Rated and qualified for supersonic flight

Frequency	2 to 18 GHz
Impedance	50 Ohms Nominal
Gain	0dBil (typical)
VSWR	2.5:1 typical, 3.0:1 maximum
Polarization	Dual Circular (Left- and Right-Hand)
Power Handling	+20dBm CW
Beamwidth	70° (nominal)
Beam Squint	+/- 5° (typical)
Axial Ratio, Boresight	3dB (typical)
DC Bias and Switching Speed	+/- 12 VDC @10mA, 1nS (maximum)
Connector	TNC
Dimensions	2" diameter
Weight	12 oz. (maximum)
Operating Environment	MIL-STD-810G Airborne (rated for supersonic flight)

