Model 8508584
Cavity Backed Spiral Antenna

CAES model 8508584-501 (LHCP) and -502 (RHCP) are high-efficiency, planar, cavity-backed, spiral antennas, and have been designed and qualified for installation on military aircraft. Designed to provide the wideband performance and semi-constant beamwidth typically associated with Spiral antennas, but with the benefit of increased efficiency, the 8508584- antennas provide greater than 0dBiL boresight gain performance across the entire operating band within a 3” diameter housing. This increased in efficiency is particularly evident at the low-end of the operating band, where the 8508584- antennas provide 2dB more gain than a typical, absorber-loaded, cavity-backed spiral antenna.

PHYSICAL CONFIGURATION
Model 8508584  
Cavity-Backed Spiral Antenna

**FEATURES:**
- Wideband with stable phase center
- Semi-Constant Beamwidth
- Low-loss/High-Efficiency
- Qualified for Military Airborne Environment

**FREQUENCY RANGE:**
- 1.7 - 6.0 GHz

**VSWR:**
- 2.5 : 1

**GAIN ON BORESIGHT:**
- 0 dBiL (min)

**BEAMWIDTH, EL, 3dB:**
- 75 degrees (typical)

**BEAMWIDTH, AZ, 3dB:**
- 75 degrees (typical)

**POLARIZATION:**
- LH or RHCP

**AXIAL RATIO:**
- 4 dB max (boresight)

**FINISH - HOUSING:**
- MIL-DTL-5541, type 1

**CONNECTOR:**
- SMA (F)

**WEIGHT:**
- 12 oz. max.

**DIMENSIONS:**
- 3.0” dia. x 4.0” depth

**ENVIRONMENTAL:**
- MIL-STD-810