# X-BAND CONICAL SPIRAL ANTENNA

## MODEL 889X

SUPPLYING HIGH PERFORMANCE FLIGHT INSTRUMENTATION, RF/MICROWAVE ASSEMBLIES, POWER AMPLIFIERS, IFF AND DATA ACQUISITION SYSTEMS FOR SEVERE ENVIRONMENTS.

### DESCRIPTION

The Model 889X Conical Spiral Antenna was originally developed for sub-sonic airborne applications where circularly polarized hemispherical coverage was required in minimum space. The radiating element is protected and supported by a foam-filled radome. This antenna is especially attractive for its small size, weight and rugged construction.

Mounting of the antenna is accomplished via a "D" hole and then secured by means of a lock washer and nut. This antenna is available with right-hand circular polarization (standard) or with left-hand circular polarization (889X-1). Other frequencies can be obtained through minor alterations to this basic design.

### FEATURES

- Developed for sub-sonic airborne applications
- Radiating element is protected and supported by a foam-filled radome
- Small in size and weight with rugged construction
- Simplified mounting
- Right-hand circular polarization or with left-hand circular polarization
- Other frequencies can be obtained with by minor alterations to the basic design

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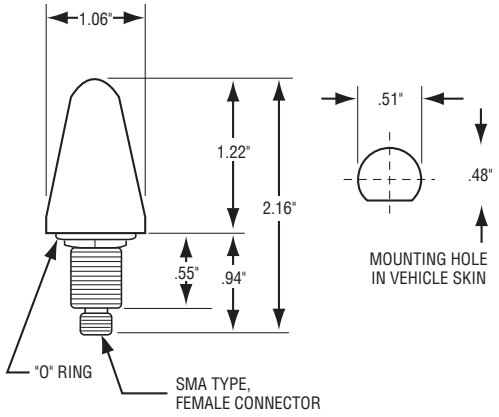



## ELECTRICAL

- Frequency Range: 8.5 to 10.5 GHz
- Impedance: 50 ohms
- VSWR: 2.0:1 maximum
- Polarization: Right-hand circular
- Power: 1 Watt CW
- Axial Ratio on Axis (nominal): 3.0 dB
- Half Power Beamwidth (nominal): 160°
- Connector: SMA (female)
- Gain (on axis): 0 dBi

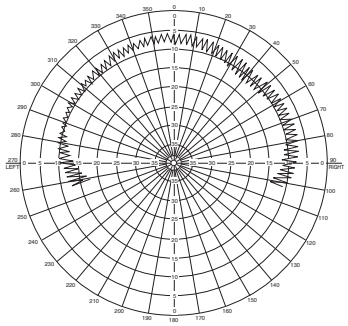
## PHYSICAL

- Size: 2.16" height (5.49 cm) 1.06" diameter (2.69 cm)
- Weight: 1.5 oz. (42.5 gms)

## PRODUCT NUMBERS

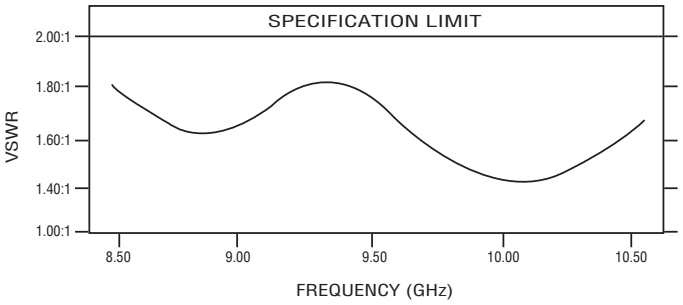
- *P/N 303506-1* - Standard unit with right-hand circular polarization
- *P/N 303789-1* - 889X-1 version with left-hand circular polarization
- *P/N 304571-1* - 889X-2 High temperature version of standard unit
- *P/N 304572-1* - 889X-3 High temperature version of X-1
- *P/N 405905-1* - 889X-7 8.5 to 10.6 GHz

## TYPICAL RADIATION PATTERN



FREE SPACE

TYPICAL VSWR VS FREQUENCY

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