

2" E/J BAND SPIRAL ANTENNA

- ◆ 2-18 GHz Frequency Operation
- ◆ Reduced Height
- ◆ Right or Left Circular Polarization
- ◆ Designed for RWR Application
- ◆ Designed for Military Airborne Environments

To meet the expanding applications of communications, electronic warfare, telemetry and many other defense and communications requirements, Randtron Antenna Systems has developed a series of planar spiral antennas used for detection of broadband signals having various polarizations.

The 2" model 53411 antenna is a rugged, two-arm Archimedean cavity-backed spiral. Our extensive work on the absorber-loaded cavity has produced a proprietary moisture-resistant absorber configuration which reduces cavity depth and improves low frequency performance. A Marchand balun is used to connect the spiral aperture card to the output connector.

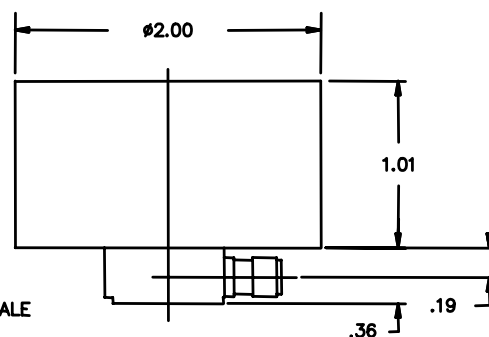
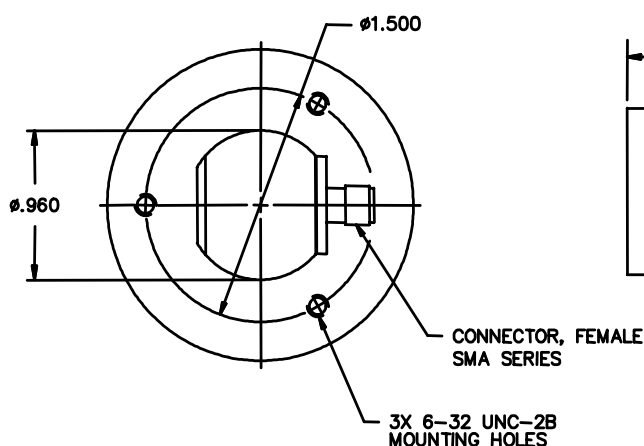
Designed for RWR Direction Finding applications, the characteristics of this



P/N 53411

antenna also make it an ideal choice for a phase-tracking interferometer element, SIGINT antenna and any application requiring frequency independent performance.

The VSWR is typically less than 2:1 over the majority of the band. Power handling is typically 7-Watts CW. Actual performance depends on installation and environmental conditions. The antenna can be provided with or without an aperture environmental radome cover.

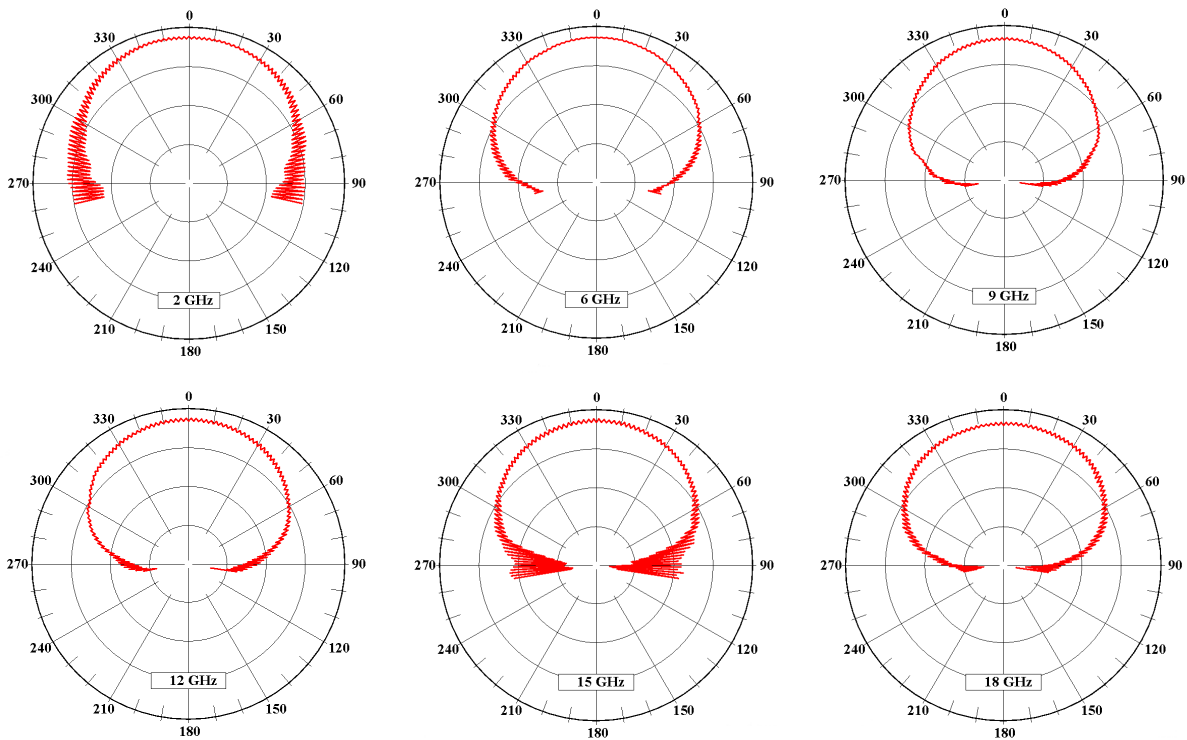


Weight: 1.8 Oz.

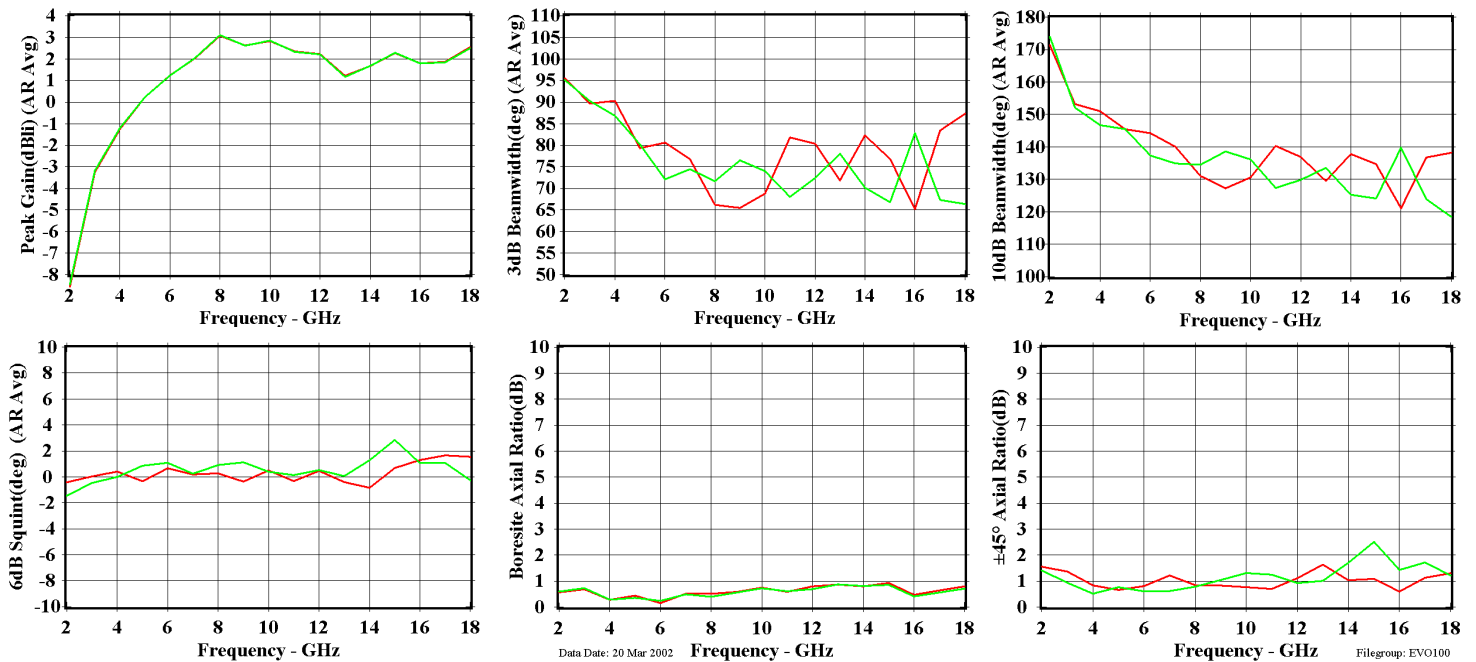
PHYSICAL DIMENSIONS (TYPICAL UNIT)

TYPICAL MEASURED PERFORMANCE

Performance varies with radome design, manufacturing tolerances, installation, and environmental conditions. Data shown is typical for the antenna without radome.



Azimuth Radiation Pattern Response to Rotating Linear Polarization (10 dB Rings)



■ Azimuth

■ Elevation

Antenna Performance Summary

07-S-1146

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